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Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

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VOL. I

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No. 293—Communication dated May 22, 1918, from Wm. Coyne to C. L. Petze	1502	3786
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No. 295—Letter dated July 2, 1920, from du Pont Fabrikoid Company to J. A. Haskell (GMC)	1505	3789
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No. 693—Letter dated August 12, 1925, from E. W. Webb (Ethyl Gasoline Corporation) to Alfred P. Sloan, Jr.	2207	4491
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No. 704—Letter dated February 8, 1926, initialled APSJr to Irenee du Pont	2225	4505
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No. 706—Agreement dated March 31, 1926, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2232	4512
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No. 720—Letter dated January 11, 1927, from E. W. Webb to Alfred P. Sloan, Jr.	2269	4549
No. 721—Letter dated January 11, 1927, initialled ES to Frank A. Howard	2270	4550
No. 722—Letter dated December 22, 1926, from I. G. Farbenindustrie Aktiengesellschaft to Frank A. Howard (Standard Development Company)	2271	4551
No. 723—Agreement dated January 10, 1927, between I. G. Farbenindustrie Aktiengesellschaft and Ethyl Gasoline Corporation	2276	4556
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No. 748—Letter dated March 28, 1930, from Alfred P. Sloan, Jr. to Earle W. Webb (Ethyl Gasoline Corporation)	2297	4577
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No. 754—Memorandum of Agreement dated August 18, 1933, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2322	4602
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No. 756—Agreement dated May 29, 1930, between E. I. du Pont de Nemours & Company and Ethyl Ethyl Gasoline Corporation	2335	4615
No. 757—Agreement dated August 24, 1934, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2341	4621
No. 758—Agreement dated December 20, 1935, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2349	4629
No. 759—Agreement dated July 1, 1936, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2356	4636
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No. 764—Letter dated July 28, 1931, from Alfred P. Sloan, Jr. to Lammot du Pont	2367	4647
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No. 767—Letter dated February 27, 1932, initialled APSJr to Lammot du Pont	2371	4651
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No. 770—Letter dated September 19, 1933, from A. E. Mittnacht (Ethyl Gasoline Corporation) to E. G. Robinson (du Pont)	2380	4659
No. 773—"Origins and Early History of the Tetraethyl Lead Business" from N. P. Wescott to F. Sparre, Director, dated June 9, 1936	2384	4663
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No. 780—Letter dated February 27, 1936, from E. W. Webb (Ethyl Gasoline Corporation) to Lammot du Pont	2490	4769
No. 781—Letter dated March 6, 1936, from Lammot du Pont to E. W. Webb (Ethyl Gasoline Corporation)	2492	4771
No. 782—Letter dated March 18, 1936, from E. W. Webb (Ethyl Gasoline Corporation) to Donaldson Brown (GMC)	2495	4774
No. 783—Letter dated March 12, 1936, from E. W. Webb (Ethyl Gasoline Corporation) to Donaldson Brown, et al.	2500	4779
No. 785—Memorandum of Agreement between Ethyl Gasoline Corporation, E. I. du Pont de Nemours & Company, and Standard Oil Development Company dated July 31, 1936	2509	4788
No. 786—Memorandum dated November 24, 1936, by E. W. Webb	2512	4791
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No. 798—Lease dated January 1, 1938, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2551	4830
No. 799—Manufacturing Service Agreement dated January 1, 1938, between Ethyl Gasoline Corporation and E. I. du Pont de Nemours & Company	2559	4838
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No. 804—Financing Agreement dated January 6, 1938, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2620	4900
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No. 826—Communication dated May 28, 1947, from Special Committee—Ethyl Study—to Board of Directors	2652	4932
No. 830—Letter dated December 5, 1947, from F. G. Donner (GMC) to E. I. du Pont de Nemours & Company	2673	4953
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No. 846—Memorandum from H. M. Williams dated June 28, 1930	2709	4989
No. 847—Letter dated July 25, 1930, from E. G. Biechler (Frigidaire Corporation) to John L. Pratt (GMC)	2710	4990
No. 849—Advice of Action dated August 12, 1930, to J. L. Pratt on "Manufacture of Fluorine Gas"	2711	4991
No. 850—Agreement dated August 27, 1930, between General Motors Corporation and E. I. du Pont de Nemours & Company	2712	4992
No. 851—Letter dated February 9, 1932, from John T. Smith (GMC) to E. I. du Pont de Nemours & Company	2728	5008
No. 852—Letter dated October 10, 1931, from "Vice President" to W. F. Harrington (du Pont)	2729	5009
No. 853—Letter dated September 8, 1938, from Kinetic Chemicals Inc. to E. G. Robinson	2731	5011
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No. 855—Letter dated September 21, 1938, from E. R. Breech to E. G. Robinson (Kinetic Chemicals Inc.)	2737	5017
No. 856—Letter dated September 15, 1938, from E. G. Robinson (Kinetic Chemicals Inc.) to E. G. Biechler (Frigidaire Corporation)	2738	5018
No. 857—Letter dated September 26, 1938, from E. G. Robinson (Kinetic Chemicals Inc.) to E. R. Breech (General Motors Corporation)	2740	5020
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No. 860—Letter dated October 14, 1938, from Alfred P. Sloan, Jr. to Lammot du Pont	2743	5024
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No. 864—Letter dated June 13, 1939, from E. G. Robinson (Kinetic Chemicals Inc.) to E. R. Breech (GMC)	3749	5030
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No. 866—Letter dated June 29, 1939, from E. G. Robinson (Kinetic Chemicals Inc.) to E. R. Breech (GMC)	2753	5033
No. 867—Communication dated September 21, 1939, from E. R. Breech (GMC) to John Thomas Smith (GMC)	2754	5035
No. 868—Letter dated April 3, 1942, from W. W. Rhodes (Kinetic to E. G. Biechler (GMC-Frigidaire)	2755	5036
No. 869—Letter dated March 8, 1943, from E. G. Robinson (Kinetic Chemicals Inc.) to E. F. Johnson (GMC)	2756	5037
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No. 871—Letter dated March 24, 1948, from E. G. Biechler to E. G. Robinson (Kinetic Chemicals Inc.)	2760	5041
No. 872—Letter dated April 8, 1943, from E. G. Robinson (Kinetic Chemicals Inc.) to E. G. Biechler (GMC-Frigidaire)	2761	5042
No. 873—Letter dated February 21, 1944, from Divisional Comptroller, Frigidaire Division, to C. D. Porch (Kinetic Chemicals Inc.)	2762	5043
No. 874—Letter dated March 10, 1944, from C. D. Porch (Kinetic Chemicals Inc.) to E. F. Johnson (GMC)	2763	5044
No. 875—Letter dated February 24, 1924, from "Vice President" (GMC) to Kinetic Chemicals Inc.	2765	5046
No. 876—Leter dated March 4, 1944, from W. W. Rhodes (Kinetic Chemicals Inc.) to C. D. Porch (Kinetic Chemicals Inc.)	2767	5048
No. 878—Communication dated March 6, 1944, from C. D. Porch to E. G. Robinson transmitting "History of the Development and Exploitation of 'Freon-114'"	2768	5049
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No. 881—Letter dated June 22, 1944, from W. F. Harrington (du Pont) to E. F. Johnson (GMC)	2779	5060

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No. 118B—Letter dated March 20, 1924, from "Secretary to the President" to W. P. Allen (Du Pont)	4712	6914
No. 119—Letter dated March 21, 1924, from Wm. P. Allen to Alfred P. Sloan	4713	6915
No. 120—Letter dated April 18, 1924, from H. H. Bassett (Buick Motor Company) to C. S. Mott, General Motors	4715	6917
No. 120A—Memorandum dated May 2, 1924, from R. C. Williams (du Pont) to E. M. Flaherty	4717	6919
No. 121—Memorandum, dated August 31, 1923, from C. S. Mott (G.M.C.) to Messrs. H. H. Rice and A. B. C. Hardy	4726	6928

General Motors Exhibits:

	Original	Print
No. 122—Letter dated October 29, 1923, from F. O. Clements to A. P. Sloan, Jr.	4728	6930
No. 125—Excerpts from minutes General Purchasing Committee meeting April 18, 1924, re Production Schedule Forecasts	4731	6933
No. 128—Letter dated January 18, 1926, from Alfred P. Sloan, Jr. to C. F. Kettering	4734	6936
No. 129—Letter dated March 11, 1926, from G. A. Lovett (Patent Section) to Alfred P. Sloan, Jr.	4735	6937
No. 130—Letter dated March 15, 1926, from Alfred P. Sloan, Jr. to James McEvoy (GMC)	4742	6944
No. 131—Letter dated December 3, 1927, from James McEvoy to John L. Pratt	4743	6945
No. 132—Letter dated March 8, 1927, from Alfred P. Sloan, Jr. to Thomas Midgley, Jr.	4744	6946
No. 133—Monthly Average Cotton and Rubber Wholesale Prices, 1923 through 1932	4745	6947
No. 134—Letter dated April 27, 1928, from James McEvoy to Alfred P. Sloan, Jr.	4746	6948
No. 135—Letter dated April 5, 1928, from Thomas Midgley, Jr. to Alfred P. Sloan, Jr.	4749	6951
No. 136—Letter dated August 30, 1928, from James McEvoy to J. L. Pratt	4750	6952
No. 137—Letter dated September 5, 1928, from Thomas Midgley, Jr. to A. P. Sloan, Jr.	4752	6954
No. 139—Letter dated October 30, 1919, unsigned, to W. S. Carpenter	4753	6955
No. 140—Telegram dated December 31, 1919, from "Carpenter" to James Lynah	4754	6956
No. 141—Telegram dated December 31, from "Lynah" to W. S. Carpenter	4755	6957
No. 142—Letter dated January 6, 1919, from James Lynah to W. S. Carpenter, Jr.	4756	6958
No. 143—Letter dated January 7, 1920, from W. S. Carpenter to James Lynah	4757	6959
No. 144—Letter dated February 2, 1920, from James Lynah to W. S. Carpenter	4760	6962
No. 145—Letter dated February 4, 1920, from W. S. Carpenter to James Lynah	4762	6964
No. 146—Letter dated September 5, 1922, from Alfred P. Sloan, Jr. to H. H. Main (GMC)	4764	6966
No. 147—Letter dated September 8, 1922, from James Lynah to Alfred P. Sloan, Jr.	4765	6967
No. 148—Letter dated September 11, 1922, from Alfred P. Sloan, Jr. to James Lynah	4766	6968
No. 149—Coordination of Purchases, revised to September 1, 1923	4767	6969
No. 150—Excerpt from Minutes of General Purchasing Committee, August 2, 1923	4783	6985

General Motors Exhibits:

	Original	Print
No. 151—Letter dated February 6, 1923, from James Lynah to Alfred P. Sloan, Jr.	4784	6986
No. 152—Excerpts from General Purchasing Committee Memorandum re Importance of Standardization, Policies and Procedures	4786	6988
No. 153—Excerpts from General Purchasing Committee Memorandum re Illustrations of Standardization	4791	6993
No. 154—Summary of Contracts Approved by General Purchasing Committee (GMC)	4821	7023
No. 155—Summary of Products Rejected by General Purchasing Committee (GMC)	4875	7077
No. 156—Excerpts from General Purchasing Committee Memorandum re Illustrations of Contracts Producing Savings	4897	7099
No. 157—Excerpts from General Purchasing Committee Minutes of Meeting July 2, 1924	4901	7103
No. 158—Excerpts General Purchasing Committee Memorandum re Two-Source-of-Supply question	4904	7106
No. 159—Excerpts from General Purchasing Committee Minutes of Meeting January 4, 1923	4906	7108
No. 160—Excerpts from General Purchasing Committee Memorandum re The Problem of Secrecy, Keeping Prices Confidential	4910	7112
No. 161—Excerpts from General Purchasing Committee Minutes of Meeting October 29, 1924	4915	7117
No. 162—Excerpts from General Purchasing Committee Minutes of Meeting July 2, 1924	4918	7120
No. 163—Excerpts from General Purchasing Committee Minutes of Meeting November 9, 1925	4941	7143
No. 164—Excerpts from General Purchasing Committee Minutes of Meeting July 23, 1926	4945	7147
No. 165—Special Discounts on Purchases from du Pont showing Amount of Discount per Vehicle Sold	4953	7155
No. 166—Excerpts from Minutes of General Purchasing Committee October 25, 1923	4954	7156
No. 167—Agreement dated January 2, 1925, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors CorCorporation	4957	7159
No. 168—Memorandum dated July 19, 1924, from James Lynah to H. G. Mougey (General Motors Research)	4960	7162
No. 169—Letter dated July 25, 1924, from H. C. Mougey to James Lynah	4961	7163
No. 170—Letter dated August 4, 1924, from James Lynah to Sherwin-Williams Company	4962	7164
No. 171—Letter dated August 4, 1924, from James Lynah to Valentine Varnish Company	4963	7165

General Motors Exhibits:

	Original	Print
No. 172—Memorandum dated January 22, 1925, from James Lynah to G. G. Allen, et al.	4964	7166
No. 173—Letter dated February 10, 1925, from James Lynah to F. J. Clements (GM. Research)	4966	7168
No. 174—Letter dated March 13, 1925, from H. C. Mougey to L. B. Valentine	4967	7169
No. 175—Memorandum dated May 20, 1925, from James Lynah to H. G. Mougey	4968	7170
No. 176—Letter dated May 23, 1925, from H. C. Mougey to James Lynah	4969	7171
No. 177—"Test Panels Submitted to Mr. Lynah"	4975	7177
No. 178—Letter dated May 26, 1925, from "Director of Research" to "Paint and Enamel Committee"	4978	7180
No. 179—Agreement dated July 1, 1925, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	4979	7181
No. 180—Letter dated August 27, 1925, from "Chairman Paint and Enamel Committee" to H. C. Weckler (Buick Motor Company)	4984	7186
No. 181—Letter dated August 27, 1925, from "Chairman, Paint and Enamel Committee" to John M. Scott (Olds Motor Works)	4985	7187
No. 182—Letter dated August 27, 1925, from "Chairman, Paint and Enamel Committee" to S. Houser (Fisher-Body Corporation)	4986	7188
No. 183—Letter dated August 27, 1925, from "Chairman, Paint and Enamel Committee" to John MacQuaid (Chevrolet Motor Car Co.)	4987	7189
No. 184—Letter dated January 5, 1926, from "Manager, Automotive Sales" to James Lynah	4988	7190
No. 185—Agreement dated January 1, 1926, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	4998	7200
No. 186—Agreement dated January 1, 1927, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	5005	7207
No. 187—Agreement dated January 1, 1928, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	5010	7212
No. 188—Agreement dated January 1, 1929, between E. I. du Pont de Nemours & Company and General Motors Corporation	5015	7217
No. 189—Agreement dated January 1, 1930, between E. I. du Pont de Nemours & Company and General Motors Corporation	5018	7220

General Motors Exhibits	Original	Print
No. 190—Agreement dated January 1, 1931, between E. I. du Pont de Nemours & Company and General Motors Corporation	5022	7224
No. 191—Letter dated June 27, 1928, from James Lynah to William Richter (du Pont)	5026	7228
No. 192—"Performance of Quantity Discount Contracts" as of October 31, 1927	5027	7229
No. 193—Letter dated May 16, 1928, from O. H. Briggs to James Lynah	5029	7231
No. 194—Letter dated May 18, 1928, from James Lynah to O. H. Briggs	5030	7232
No. 195—Memorandum dated February 18, 1919, from R. R. M. Carpenter to P. S. du Pont	5031	7233
No. 195A—Excerpt from The New York Times, Sunday, March 21, 1920	5033	7235
No. 195B—Excerpt from The New York Times, Tuesday, March 23, 1920	5034	7236
No. 196—Excerpts from Memorandum re Meeting between President and Plant Managers, December 1, 1920 (GMC)	5035	7237
No. 199—Excerpt from Minutes of General Purchasing Committee meeting September 30, 1926	5042	7244
No. 200—Memorandum dated January 20, 1928, from Alfred P. Sloan to J. L. Pratt	5043	7245
No. 201—Memorandum dated January 21, 1928, from J. L. Pratt to Alfred P. Sloan, Jr.	5044	7246
No. 202—Letter dated October 23, 1922, from F. S. MacGregor to J. L. Pratt	5048	7250
No. 203—Letter dated November 1, 1922, from "General Manager, Accessory Divisions" to H. J. Forsythe (Hyatt Bearings Division)	5049	7251
No. 204—Letter dated January 9, 1926, from Jim Elms to J. L. Pratt	5050	7252
No. 205—Letter dated January 27, 1926, from E. G. Biechler (Delco Light) to J. L. Pratt	5053	7255
No. 206—Letter dated July 16, 1926, from "Vice President" to J. J. Moosman	5054	7256
No. 207—Letter dated Juy 23, 1926, from J. J. Moosman to John L. Pratt	5055	7257
No. 208—Letter dated July 29, 1926, from J. J. Moosman to John L. Pratt	5057	7259
No. 209—Letter dated August 17, 1926, from J. J. Moosmann to John L. Pratt	5058	7260
No. 210—Letter dated August 20, 1926, from "Vice President" to J. J. Moosmann	5060	7262
No. 211—Letter dated January 31, 1929, from "Vice President" to Ed J. Fisher	5061	7263
No. 212—Letter dated February 8, 1929, from E. F. Fisher to J. L. Pratt	5062	7264

General Motors Exhibits

	Original	Print
No. 213—Letter dated September 28, 1931, from Mason V. Hanger Company (signature illegible) to John L. Pratt	5064	7266
No. 214—Letter dated September 30, 1931, initialled JLP to Silas B. Mason	5065	7267
No. 215—Letter dated September 30, 1931, initialled JLP to Edward F. Fisher	5066	7268
No. 216—Letter dated October 16, 1931, from E. F. Fisher to J. L. Pratt	5067	7269
No. 217—Letter dated May 27, 1926, from Pierre S. du Pont to John L. Pratt	5068	7270
No. 218—Letter dated June 8, 1926, initialled JLP to P. S. du Pont	5069	7271
No. 219—Letter dated September 16, 1926, initialled LduP to Alfred P. Sloan, Jr.	5070	7272
No. 220—Letter dated September 20, 1926, from Alfred P. Sloan, Jr. to Lammot du Pont	5071	7273
No. 221—Letter dated September 28, 1926, from J. L. Pratt to Lammot du Pont	5072	7274
No. 222—Letter dated September 30, 1926, initialled LduP to John Pratt	5074	7276
No. 223—Letter dated October 1, 1926, from J. L. Pratt to Lammot du Pont	5075	7277
No. 224—Letter dated September 22, 1926, from Lammot du Pont to John Pratt	5077	7279
No. 225—Letter dated October 2, 1926, initialled JLP to Lammot du Pont	5079	7281
No. 226—Letter dated October 25, 1926, initialled JLP to Lammot du Pont	5081	7283
No. 227—Letter dated January 29, 1931, from "Chairman of the Board" initialled LduP to John Pratt	5082	7284
No. 228—Letter dated February 6, 1931, from J. L. Pratt to Lammot du Pont	5084	7286
No. 229—Extract from Minutes of Executive Committee Meeting (GMC) January 21, 1932	5087	7289
No. 230—Letter dated August 12, 1926, from W. F. Harrington to John L. Pratt	5089	7291
No. 231—Letter dated August 13, 1926, initialled JLP to W. F. Harrington	5091	7293
No. 232—Letter dated December 29, 1925, initialled JLP to W. B. Foster (du Pont)	5092	7294
No. 233—Letter dated July 31, 1929, from E. G. Biechler to J. L. Pratt	5093	7295
No. 234—Letter dated August 2, 1929, initialled JLP to E. G. Biechler	5094	7296
No. 235—Letter dated September 28, 1931, from E. G. Biechler to J. L. Pratt	5095	7297
No. 236—Letter dated October 6, 1931, from W. F. Harrington to John L. Pratt	5097	7299

General Motors Exhibits

	Original	Print
No. 237—Extract from minutes of the meeting of the Executive Committee (GMC) August 8, 1930	5098	7300
No. 238—Extract from minutes of meeting of the Finance Committee (GMC) September 8, 1930	5099	7301
No. 239—Letter dated August 25, 1931, from E. G. Robinson (Kinetic Chemicals, Inc.) to J. L. Pratt	5102	7304
No. 240—Letter dated August 28, 1931, initialled JLP to E. G. Robinson	5105	7307
No. 241—Excerpts from an address by C. F. Kettering	5106	7308
No. 242—Letter dated April 16, 1919, from Frank A. Howard to E. M. Clark	5111	7313
No. 243—Letter dated August 15, 1919, unsigned, to John Marshall (du Pont)	5115	7317
No. 244—Letter dated December 23, 1919, from E. H. Kelly (GMC) to W. C. Durant	5120	7322
No. 245—Letter dated April 8, 1920, from F. O. Clements to C. F. Kettering	5123	7325
No. 246—Letter dated November 19, 1921, from L. du Pont to C. F. Kettering	5126	7328
No. 246a—United States Letters Patent No. 1,787,419	5128	7330
No. 247—Telegram dated August 23, 1922, from "Midgley" to Doctor E. H. Bolton (du Pont)	5130	7332
No. 248—Telegram dated August 24, 1922, from W. S. Harrington to Midgley	5131	7333
No. 249—Telegram dated August 25, 1922, from W. F. Harrington to Midgley	5132	7334
No. 250—Letter dated November 13, 1922, from Norman Roberts to Thomas Midgley, Jr.	5133	7335
No. 251—Letter dated November 18, 1922, initialled TM to Dr. Norman Roberts	5136	7338
No. 252—Memorandum dated November 20, 1922, from Thomas Midgley to C. F. Kettering	5137	7339
No. 253—Letter dated December 18, 1922, from Walter G. Whitman (Massachusetts Institute of Technology) to Thos. Midgley, Jr.	5140	7342
No. 254—Letter dated Nov. 30, 1922, from E. Krause (Institute of Technology—Berlin) to "Esteemed Herr Professor"	5141	7343
No. 255—Memorandum dated February 2, 1923, from T. Midgley, Jr. to C. F. Kettering	5143	7345
No. 256—Memorandum dated April 9, 1923, by Thomas Midgley, Jr. re Atlantic Refining Company	5144	7346
No. 256A—United States Letters Patent No. 1,697,245	5149	7351
No. 257—Memorandum dated November 26, 1923, from J. H. Senior, et al. to E. M. Clark, et al	5151	7353
No. 258—Memoradum dated June 18, 1924, (unsigned)	5154	7356
No. 259—Memorandum dated June 18, 1924, initialled EMC	5157	7358

General Motors Exhibits

	Original	Print
No. 261—"Proceedings of a Conference to Determine Whether or Not There is a Public Health Question in the Manufacture, Distribution, or Use of Tetraethyl Lead Gasoline" by the Surgeon General, U. S. Public Health Service	5158	7360
No. 262—"The Use of Tetraethyl Lead Gasoline in its Relation to Public Health" by the Surgeon General, ~~U. S.~~ Public Health Service	5176	7376
No. 263—Diagram illustrating "Savings Equal to Gasoline Consumed by All Vehicles in 25 States"	5201	7400
No. 266—Diagram illustrating "Percent Increase or Decrease from 1925"—Trends in Passenger Car Engine Design	5202	7401
No. 267—Memorandum dated June 19, 1922, from H. C. Mougey to "Mr. Clements"	5203	7402
No. 267A—Extract from Minutes of Meeting of General Motors Board of Directors September 25, 1919	5206	7405
No. 268—Letter dated June 15, 1926, from E. W. Webb to J. N. Huff (American Research Laboratories, Inc.)	5210	7409
No. 269—Unsigned letter dated June 15, 1926 to Gilbert A. Currie (Dow Chemical Company)	5211	7410
No. 270—Unsigned letter dated June 30, 1926, to T. B. Huff (American Research Laboratories, Inc.)	5213	7412
No. 271—Letter dated July 9, 1926, from T. B. Huff to E. W. Webb	5216	7415
No. 272—Letter dated August 26, 1926, from "President" to T. B. Huff	5217	7416
No. 273—Letter dated October 7, 1926, from "President" to Harold H. Healy	5219	7418
No. 274—Letter dated April 21, 1927, from Frank A. Howard to William Benham (Department of Justice)	5222	7421
No. 277—Letter dated July 2, 1936, from Cesare Protto (du Pont) to E. W. Webb	5235	7434
No. 278—Letter dated February 8, 1938, from "Edward" to E. I. du Pont de Nemours & Company	5237	7436
No. 279—The Dow Chemical Company Research Report on Lead Tetraethyl Process	5238	7437
No. 280—The Dow Chemical Company Research Report on Tentative Process for Tetra Ethyl Lead	5256	7455
No. 281—United States Letters Patent No. 1,805,756	5265	7464
No. 282—Dow Chemical Company Report dated April 18, 1931	5271	7470
No. 283—Unsigned, undated "Memorandum"	5272	7471
No. 284—Memorandum re "Reasons why we should not manufacture lead tetra ethyl and reasons why we should manufacture tetraethyl lead"		

General Motors Exhibits

	Original	Print
No. 285—C. E. Wilson Employment History with General Motors Corporation	5277	7476
No. 286—Excerpt from Minutes of Joint Meeting of Operations and Executive Committees (GMC) July 17, 1930	5279	7478
No. 287—Memorandum dated August 25, 1930, from C. E. Wilson to J. L. Pratt	5281	7480
No. 288—Excerpt from Minutes of Finance Committee Meeting (GMC) September 8, 1930	5283	7482
No. 289—Excerpt from Minutes of Joint Meeting of Operations and Executive Committees (GMC) March 12, 1931	5285	7484
No. 290—Excerpt from minutes of Finance Committee Meeting (GMC) March 23, 1931	5289	7488
No. 291—Excerpt from Minutes of Executive Meeting (GMC) April 9, 1931	5291	7490
No. 292—Memorandum dated June 11, 1931, from C. E. Wilson to Operations Committee	5293	7492
No. 293—Excerpt from Minutes of Executive Committee Meeting (GMC) October 29, 1931	5296	7495
No. 294—Undated Memorandum from W. F. Armstrong to J. L. Pratt, et al	5299	7498
No. 295—Memorandum dated December 17, 1931, from C. E. Wilson to Operations Committee	5301	7500
No. 296—Excerpt from Minutes of Finance Committee Meeting (GMC) September 12, 1932	5303	7502
No. 299—Letter dated December 13, 1948, from Melville C. Williams (Department of Justice, Chicago) to Ferris E. Hurd	5305	7504
No. 300—Letter dated December 17, 1948, from Willis L. Hotchkiss (Department of Justice, Chicago) to Ferris E. Hurd	5309	7508
No. 301—Letter dated December 20, 1948, initialled FEH to Melville C. Williams (Department of Justice, Chicago)	5312	7511

[fol. 1]

IN UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

SCHEDULE A

Amended List of Defendants

Amended

1. Irene du Pont, Granogue, Delaware.

* * * * * * *

2. IRENE SOPHIE DU PONT MAY, Granogue, Delaware.
3. Ernest Nugent May, Granogue, Delaware.
4. Ernest Nugent May, Jr., Granogue, Delaware.
5. Irenee du Pont May, Granogue, Delaware.

D 6. Thomas Henry May, a minor, Granogue, Delaware.
D 7. John Eric May, a minor, Granogue, Delaware.

* * * * * * *

8. MARGARETTA DU PONT GREENEWALT, Greenville, Delaware.
9. Crawford Hallock Greenewalt, Greenville, Delaware.
10. Nancy Greenewalt Frederick, Greenville, Delaware.
11. David Greenewalt, Greenville, Delaware.

D 12. Crawford Hallock Greenewalt, Jr., a minor, Greenville, Delaware.

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13. CONSTANCE DU PONT DARDEN, Charlottesville, Virginia.
14. Colgate Whitehead Darden, Jr., Charlottesville, Virginia.
15. Colgate Whitehead Darden, III, Charlottesville, Virginia.

D 16. Pierre Samuel du Pont Darden, a minor, Charlottesville, Virginia.
D 17. Irene Sophie du Pont Darden, a minor, Charlottesville, Virginia.

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[fol. 2]

18. Eleanor du Pont Rust, Thomasville, Georgia.
D 19. Philip Goodenow Rust, Jr., a minor, Thomasville, Georgia.
D 20. Francis Gurney du Pont Rust, a minor, Thomasville, Georgia.
D 21. Henry Rust, a minor, Thomasville, Georgia.
D 22. Richard Cutts Rust, a minor, Thomasville, Georgia.

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23. Mariana du Pont Silliman, Montchanin, Delaware.
24. Henry Harper Silliman, Montchanin, Delaware.
25. Henry Harper Silliman, Jr., a minor, Montchanin, Delaware.
26. Doris du Pont Silliman, a minor, Montchanin, Delaware.
27. Eleanor Howland Silliman, a minor, Montchanin, Delaware.
28. Mariana du Pont Silliman, a minor, Montchanin, Delaware.
29. Robert Morris Silliman, a minor, Montchanin, Delaware.

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30. Octavia Mary du Pont Bredin, Greenville, Delaware.
31. John Bruce Bredin, Greenville, Delaware.
D 32. Stephanie Sophie du Pont Bredin, a minor, Greenville, Delaware.
D 33. Margaretta Starrett Bredin, a minor, Greenville, Delaware.

[fol. 3]

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34. Lucile du Pont Flint, Greenville, Delaware.
35. Robert Barnett Flint, Greenville, Delaware.
D 36. Robert Barnett Flint, Jr., a minor, Greenville, Delaware.
D 37. Peter Hubbard Flint, a minor, Greenville, Delaware.
D 38. Alice Lucile Flint, a minor, Greenville, Delaware.
D 39. Henry Alexis Flint, a minor, Greenville, Delaware.

D 40. Constance Evelina Flint, a minor, Greenville, Delaware.

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41. Irenee du Pont, Jr., 5 Fern Road, Charleston, West Virginia.

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42. Natalie du Pont Edmonds, Wilmington, Delaware.
43. George Phippen Edmonds, Wilmington, Delaware.
44. George Phippen Edmonds, Jr., a minor Wilmington, Delaware.
45. Andrew Wilson Edmonds, a minor, Wilmington, Delaware.

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46. Mary du Pont Faulkner, 255 Goddard Avenue, Brookline, Mass.
47. Herbert Kimball Faulkner, 255 Goddard Avenue, Brookline, Mass.
D 48. Elise du Pont Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass.
D 49. Emily Morison Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass.

[fol. 4]

D 50. Charles Stearns Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass.
D 51. Rosemary Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass.
D 52. Henry Belin Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass.
D 53. Andrew Gray Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass.

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54. Esther du Pont Weir, Rockland, Delaware.

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55. Lammot du Pont, Jr., Wilmington, Delaware.
D 56. Lammot du Pont, III, a minor, Wilmington, Delaware.

D 57. William Foster du Pont, a minor, Wilmington, Delaware.

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58. **Pierre Samuel du Pont**, III, Rockland, Delaware.
D 59. Pierre Samuel du Pont, IV, a minor, Rockland, Delaware.
D 60. Jane de Doliete du Pont, a minor, Rockland, Delaware.
D 61. Michele Wainwright du Pont, a minor, Rockland, Delaware.

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62. **Edith du Pont Riegel**, Montchanin, Delaware.
D 63. Edith du Pont Riegel (Jr.), a minor, Montchanin, Delaware.
D 64. Richard Eveland Riegel, Jr., a minor, Montchanin, Delaware.
D 65. John Ely Riegel, a minor, Montehanin, Delaware.
D 66. Natalie Margaret Riegel, a minor, Montchanin, Delaware.

[fol. 5]

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67. **Alexandrine du Pont Perkins Collier**, Wilmington, Delaware.

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68. **Reynolds du Pont**, Wilmington, Delaware.
69. Katharine Lewars du Pont, Wilmington, Delaware.
D 70. Katharine du Pont, a minor, Wilmington, Delaware.
D 71. Reynolds du Pont, Jr., a minor, Wilmington, Delaware.
D 72. Thomas Lewars du Pont, a minor, Wilmington, Delaware.

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73. **David Flett du Pont**, a minor, Wilmington, Delaware.

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74. Willis Harrington du Pont, a minor, Wilmington, Delaware.

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75. S. Hallock du Pont, Wilmington, Delaware.
76. Virginia Simmons du Pont, Wilmington, Delaware.
77. Eve du Pont Remer, Whitemarsh, Pennsylvania.
D 78. S. Hallock du Pont, Jr., a minor, Wilmington, Delaware.
D 79. William Kemble du Pont, a minor, Wilmington, Delaware.
D 80. Richard Simmons du Pont, a minor, Wilmington, Delaware.

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81. Paulina du Pont Dean, Montchanin, Delaware.
82. Junius Simpson Dean, Montchanin, Delaware.

[fol. 6]

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83. Wilhelmina du Pont Ross, Montchanin, Delaware.
84. Donald Peabody Ross, Montchanin, Delaware.

* * *

85. Henry Belin du Pont, Wilmington, Delaware.
86. Margaret du Pont Smith, Snuff Mill Road, Kennett Square, Pennsylvania.
87. Henry Belin du Pont, III, a minor, Wilmington, Delaware.
88. Edward Bradford du Pont, a minor, Wilmington, Delaware.

* * *

89. Margaretta du Pont Carpenter, Montchanin, Delaware.

* * *

90. Louisa Carpenter Jenney, Wilmington, Delaware.

* * *

91. Irene Carpenter Kitchell Morgan, Montchanin, Delaware.

92. Renee Kitchell Lickle, Montchanin, Delaware or Wilmington, Delaware.

D 93. Margaretta Lammot Kitchell, a minor, Montchanin, Delaware.

D 94. Nancy Gardiner Kitchell, a minor, Montchanin, Delaware.

D 95. Carol Victoria Kitchell, a minor, Montchanin, Delaware.

D 96. Leslie Halsey Kitchell, a minor, Montchanin, Delaware.

* * * * * * *

97. Robert Ruliph Morgan Carpenter, Jr., Montchanin, Delaware.

D 98. Robert Ruliph Morgan Carpenter, III, a minor, Montchanin, Delaware.

[fol. 7]

D 99. Mary Kaye Carpenter, a minor, Montchanin, Delaware.

D 100. William Kemble Carpenter, a minor, Montchanin, Delaware.

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101. William Kemble Carpenter, Montchanin Delaware.

D 102. Belle Morgan Carpenter, a minor, Montchanin, Delaware.

103. Lammot du Pont Copeland, Greenville, Delaware.

104. Pamela Cunningham Copeland, Greenville, Delaware.

D 105. Lammot du Pont Copeland, Jr., a minor, Greenville, Delaware.

D 106. Louisa d'Andelot du Pont Copeland, a minor, Greenville, Delaware.

D 107. Gerret Van Sweringen Copeland, a minor, Greenville, Delaware.

* * * * * * *

108. Mary Belin Laird Downs, Wilmington, Delaware.

109. William Winder Laird, Jr., Wilmington, Delaware.

* * * * * * *

110. Aleetta Laird Downs, Wilmington, Delaware.

* * * * * * *

111. Wilhelmina Laird Craven, Wilmington, Delaware.

* * * * * * *

112. Rosa Laird Hayward, Wilmington, Delaware.

* * * * * * *

113. Hugh Rodney Sharp, Wilmington, Delaware.

* * * * * * *

[fol. 8]

114. Hugh Rodney Sharp, Jr., Greenville, Delaware.

* * * * * * *

115. Bayard Sharp, Centerville, Delaware.

* * * * * * *

116. Wilmington Trust Company, Du Pont Building, Wilmington, Delaware.

APPEARANCES

D

ANDREW J. DALLSTREAM
Guardian ad litem for
the following minor defts.:
Thomas Henry May
John Eric May
Crawford Hallock Greenewalt, Jr.,
Pierre Samuel du Pont Darden
Irene Sophie duPont Darden
Philip Goodenow Rust, Jr.,
Frances Gurney du Pont Rust
Henry Rust
Richard Cutts Rust
Henry Harper Silliman, Jr.,
Doris duPont Silliman
Eleanor Howland Silliman
Mariana du Pont Silliman
Robert Morris Silliman
Stephanie Sophie duPont Bredin
Margaretta Starrett Bredin
Robert Barnett Flint, Jr.,
Peter Hubbard Flint
Alice Lucile Flint
Henry Alexis Flint
Constance Eveline Flint

HOWARD ELLIS & A. LESLIE HODSON,
Guardian ad litem for following minor defts.
George Phippen Edmonds, Jr.,
Andrew Wilson Edmonds
Elise du Pont Faulkner
Emily Morison Faulkner
Charles Stearns Faulkner
Rosemary Faulkner
Henry Belin Faulkner
Andrew Gray Faulkner
Lammot du Pont, III
William Foster duPont
Pierre Samuel duPont, IV
Jane de doliete du Pont
Michele Wainwright duPont
Edith duPont Riegel (Jr)
Richard Eveland Riegel, Jr.,
John Ely Riegel
Natalie Margaret Riegel
Katherine duPont
Reynolds du Pont, Jr.,
Thomas Lewars du Pont
David Flett du Pont
Willis Harrington duPont

CLAUDE A. ROTH,
Guardian ad litem for the following minor defts
S. Hallock duPont, Jr.,
William Kemble du Pont
Richard Simmons du Pont
Henry Belin du Pont, III
(Above list continued on
other side of page)

(Winston, Strawn, Black & Towner,
(Guy A. Gladson, for
(38 South Dearborn St.

ATTORNEYS

FOR PLAINTIFF

Willis L. Hotchkiss,
~~208 S. LaSalle St.,~~ 500 U.S. Court
~~Suite 826~~ House
Ce 6-6886
E. Houston Harsha
Ewart Harris
Earl A. Jinkinson

FOR DEFENDANT

Snyder, Chadwell & Fagerburg,
135 S. LaSalle St.,
(Atty for U.S. Rubber Co.)

Pope & Ballard,
120 S. LaSalle St.,
Ran 6-6680
(Atty for General Motors Co.)
~~Howard Neltnert~~
11 S. ~~LaSalle St.~~,
~~Sta 2-5400~~

~~Morris, Olson & Drexler &~~
Mark M. Grayton,
~~135 S. LaSalle St.~~
~~(Atty for Individual Class Defts.) &~~
~~(The Class Defendants)~~

Root, Ballantine, ~~Harlan~~, Bushby
& Palmer
Richard Layton & Finger
DuPont Building,
Wilmington 41, Delaware

Frederick W. Wood &
Arthur, Dry & Dole,
1230 Sixth Ave., 20,
New York,

Berl Potter & Anderson,
Wilmington, Delaware
(Atty for Wm. Winder Laird, Jr.
et al
William Poole
948 Delaware Trust Bldg.,
Wilmington, Delaware,
Attys for certain individual
Class Defendants

Morris, Steel, Nichols & Arsht
Alexander L. Nichols (see above for
3018 DuPont Building, local counsel
Wilmington, Delaware
Attys for remaining Class Defts

Robert H. Richards
4072 DuPont Bldg.,
Wilmington, Delaware
Atty for Wilmington Trust Co. OVER

ATTORNEYS

[illegible] ton, III

[illegible]

Claude A. Roth
Gottlieb & Schwartz,
231 S. LaSalle St.,
(Guardian ad litem for certain
of the class defendant minors-

Andrew J. Dallstream,
Dallstream, Schiff, Stern & Hardin
231 S. LaSalle St.,
(Guardian ad litem for certain of
the class defendant minors

Howard Ellis
A. Leslie Hodson
Kirkland, Fleming, Green, Martin & Ellis
33 N. LaSalle St.,
(Attys for Guardian ad litem for
certain of the class defendts minors

HOWARD NEITZERT
Sidley, Austin, Burgess & Smith
11 S. LaSalle St.,
(attys for Pierre S. duPont - Irenee
duPont- Lammot duPont- Christian
Securities Co., Delaware Realty &
Investment Corp. & E. I. duPont de
Nemours & Co.

~~Moore, Olson & Trexler~~ ~~-(Withdrawn)~~
~~135 S. LaSalle St.,~~
(~~Attys for Morris, Steel, Nichols &~~
~~Arsht, 3018 duPont Bldg., Wilmington,~~Del

? ~~S. R. Barton~~
~~Palmer House - Room 1699 W~~

Mark H. Clayton
Moore, Prangley & Clayton
105 W. Adams St. (3)
Ra 6-7060
(Attys. for The Adult Beneficiary
defts. Pierre S. Du Pont III, Colgate
Whitehead Darden, Jr., Lammot du
Pont Copeland, George P. Edmonds
and Harry B. duPont)

(For Henry Belin du Pont 111)
Claude A. Roth Atty-of Counsel
Harry E. Smoot
231 S. LaSalle St (4)
And 3-1188

DOCKET ENTRIES

JUDGE LABUY
CALENDAR

D. C. Form No. 106 A

49C 1071

DOCKET

49C1071

TITLE OF CASE

UNITED STATES OF AMERICA
Plaintiff

vs.

E. I. du Pont de Nemours and Company;
General Motor Corporation;
United States Rubber Company;
Christiana Securities Company;
Delaware Realty & Investment Corporation;
Pierro S. duPont;
Lammot du Pont;
Irenee du Pont
Defendants

* SEE PREVIOUS PAGE FOR AMENDED LIST OF DEFTS

Basis of action: Vio. of Secs. 1 and 2 of the Sherman Act and Sec. 7 of the Clayton Act.

Jury trial claimed by

on , 19

ATTORNEYS

For Plaintiff:
~~Melville C. Williams--~~
Willis L. Hotchkiss
Suite 826, 208 S.LaSalle St.,
CE. 6-6886
[illegible]

For Defendants:
SNYDER, CHADWELL & FAGERBURG
135 S. LaSalle St.,
Pope & Ballard
120 S. La Salle St. Ran 6-6680
~~HOWARD [illegible]~~
~~11 S. LaSalle St., Sta 2-5400~~
Root, Ballantine, Harlan, Bushby & Palmer
Richards, Layton & Finger
DuPont Bldg.
Wilmington 41, Delaware
Frederick W. Wood, & Arthur, Dry & Dole, 1230 Sixth Ave., N. Y. 20

DATE	PLAINTIFF'S ACCOUNT	RECEIVED	DISBURSED	DATE	DEFENDANT'S ACCOUNT	RECEIVED	DISBURSED
				3-21-50	P & B appeal bd.	5 00	
				APR 20 1950	MARCH REPORT		5 00
				4-21-50	P. & B. Trans. of appeal	27 35	
				JUL 20 1950	JUNE REPORT		27 35

ABSTRACT OF COSTS	
TO WHOM DUE	AMOUNT

RECEIPTS, REMARKS, ETC.

Opinion of 12/3/54 reported at
126 - Fed Supp. 235
adv. Sheet 1-31-55 #26 - 2 P 235

49C1071

DATE	FILINGS PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
6-30-49	Filed complaint and ( ) copies (65)(JS-5)	15.00		
7-1-49	Filed Motion. (2)			
" " "	Enter order for issuance of summones to non-resident defts-DRAFT, - LaBuy, J. (2) Mld. notice to attys. 7-12-49 (U.S.Marshal Delaware jb			
7-11-49	Issued (3) summons and copies with copies of complaint			
7-11-49	Issued (5) summons & copies with copies of complaint mailed/			
7-14-49	Filed summons ret'd. served as to United States Rubber Co./ E. I. Du Pont DeNemours and Co., General Motors Corp. 3 services $6.12			
7-21-49	Filed summons ret'd. served as to Lammot De Pont. 1 serv. $2.06			
" " "	Filed summons ret'd. served as to Christiana Securities Co. $2.06			
" " "	Filed summons ret'd. served as to Delaware Realty & Investment Corp. 1 serv. $2.06			
" " "	Filed summons ret'd. served as to Irenee De Pont. 1 serv. $2.06			
" " "	Filed summons ret'd. served as to Pierre S. De Pont 1 serv. $2.06 P			
7-29-49	Filed Stip. (2)			
" " "	By stip. time of defts. to file answer or motions extd. to Oct. 1, 1949 - DRAFT - LaBuy, J. (1) Mld. notice to attys. 8-1-49 jb			
9-30-49	Filed Notice and Motion to Transfer Action to District of Delaware and Supporting Affidavits. (3)(30) jb			
" " "	Filed Brief in Support of Motion to Transfer. (19) jb			
10-11-49	Filed Stip. (2)			
" " "	By stip., time in which pltf. may file brief in opposition to defts'. motion to transfer extd. to 10-20-49 and defts. to file their reply brief on or before 10-31-49-DRAFT-LaBuy, J. (1)			
10-20-49	Mld. notice to attys. 10-14-49 jb			
10-20-49	Filed Notice and Proof of Service. (3)			
" " "	Filed Brief of Pltf. in Opposition to Defts'. motion to Transfer Action (40)			
" " "	Filed Affidavits of Willis L. Hotchkiss, et al in Opposition to Mo. to Transfer. (28) jb			
10-21-49	Filed Notice re: substitutions to plft's. brief. (1)			
" " "	Filed Proof of Service of substitutions. (2) P			
10-[illegible]-49	Filed Stip. (1)			
" " "	Ord. on stip. time of defts. to file reply br. in support of motion to transfer extended to Nov. 15, 1949-DRAFT-La Buy, J. (1) Mld. notice to attys. 10-27-49 P			
11-15-49	Filed Notice re: Reply memo. (3) P			
[illegible]	Ord. [illegible] defts. to transfer cause to Dist.Ct. of Delaware, etc., set for argt. Dec. 2, 1949, at 9 A.M.-LaBuy, J. Mld. notc. to attys., 11-23-49. r			
11-28-49	By agrmt. hrg. on motion to transfer reset from Dec. 2, 1949 to Dec. 9, 1949 at 9:00 a.m. - LaBuy, J. Mld. notice to attys. 11-30-49 jb			
12-9-49	Cause called for hrg. On motion of Atty. Ferris Hurd, Gerhard A. Gesell of Washington, D. C. and John M. Harlan admitted to practice in this Court for purposes of this cause. Arguments hrd. and concld. and advmt. on deft's. mo. to transfer cause to Delaware-La Buy, J. Mld. notice to attys. 12-13-49 P			12

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
[illegible]	Fld. Note. (1)			
" " "	Ord. lv. [illegible] fl. instantr. [illegible] affdvt. of Pierre S. du Pont, et al-DRAFT-LaBuy, J. (1) Mld. notice to attys., 12-[illegible]. r			
" " "	Fld. Affdvt. of Pierre S. du Pont, et al. (2) r			
1-26-50	Filed Memo. of Judge LaBuy. (8)			
" " "	Mo. of defts. to transfer cause to District of Delaware overruled - LaBuy, J. Mld. notice to attys. 1-27-50 jb			
1-27-50	Fld. Trans. Proceedings had Dec. 9, 1949. (47) r			
2-1-50	Filed Notice of Motion. (1)			
" " "	Arguments hrd. on motion for an order to fix date for filing of defts' answers to complt. and lv. is granted to defts. to fl. motions to complt. within 45 days and answers to complt. within 90 days of this date-La Buy, J. Mld. notice to attys. 2-2-50 P			
3-13-50	Filed Notice & Cumulative and Alternative Motions of Defendant General Motors Corporation to Strike Complaint or Portions Thereof, and to Require Plaintiff to File a More Definite Statement. (1)(6) r			
3-21-50	Filed Petition for appeal and assignment of errors. (2)		5 00	pd
" " "	Order allowing appeal to U. S. Supreme Court and fixing appeal bond in the sum of $250.00-DRAFT-LaBuy, J. (2) Appeal bond in sum of $250.00 approved-LaBuy, J. Mld. notice to attys. 3-21-50			
" " "	Filed Bond for costs on appeal. (2)			
" " "	Filed statement as to Jurisdiction and memo of Jan. 26, 1950 attached. (20)			
" " "	Filed statement directing attention to Rule 12. (1)P			
[illegible]-50	Filed br. of General Motors Corp. in support of its motions to strike complt. (7)			
[illegible]-50	Filed Notice re: br. of General Motors. (1)P			
[illegible]-50	Filed Citation ret'd. served as to U. S. A. (2)			
" "	Filed Proof of Service. (1)			
[illegible]-50	Filed Praecipe for Transcript of Record. (4)P			
[illegible]-50	Filed Stip. re: substitution of pages in br. (1)P			
[illegible]-50	Filed Stip. (1)	MAR [illegible] 1950		5 00
" " "	By stip. time within which pltf. may file its brief in opposition to cumulative and alternative motion of General Motors to strike complt. extd. to Apr. 28,1950 - DRAFT-LaBuy, J. (1) Mld. notice to attys. 4-4-50 jb			
	[illegible] Opposing Jurisdiction and Motion to [illegible]. (11)r			
	[illegible] (2) L			
	[illegible] Stip. making correction in appellee's statement [illegible] Jurisdiction and Motion to Dismiss or Affirm - [illegible] LaBuy, J. (1) L Mld. notice to attys. 4-[illegible]-50			
	Fld. Stip. (1) L			
	On stip. extd. the date for answer of United States Rubber Co. to and including May 15, 1950 -DRAFT-LaBuy, J. (1)L Mld. notice to attys. 4-21-50. L			

DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
4-21-50	Mailed Transcript of Record on Appeal to U. S. S. C. P		27 35 pd	
4-26-50	Filed Answer of Defendants Christiana Securities Co. Delaware Realty & Investment Corp. et al (29)(book form)			
4-26-50	Filed Answer of E. I. duPont de Nemours & Co. (39) K			
4-26-50	Filed Proof of Service of answers (1) k.			
4-27-50	Filed Notice & Proof of Service (2)			
4-27-50	Filed Plaintiff's more definite statement under Rule 12 (e) with respect to par. 18 of the Complaint (2) K			
4-27-50	Filed Plaintiff's Brief in opposition to the Defendant General Motors Cumulative etc motions (23)			
5-1-50	Filed Stipulation (1)			
5-1-50	Order on stipulation extending time for filing Reply Brief on motion to strike etc to and including May 26, 1950 - DRAFT- LaBUY, J. (1) Mailed notice to attorneys 5-3-50 K.			
5-15-50	Filed Notice. (1)			
" " "	Order on motion of deft., United States Rubber Company, for an extension of time to June 14, 1950 for filing of its answer to the Complaint-DRAFT-LaBuy, J. (1) Mld. notice to attys. 5-22-50 P			
5-26-50	Filed Notice. (1)			
" " "	Filed Reply br. of General Motors Corp. in support of its cumulative and alternative motions to strike complt. (28)			
6-14-50	Filed Answer of United States Rubber Co. (11) K.			
6-16-50	Filed Appearance of United States Rubber Co. by its attorneys Snyder, Chadwell & Fagerburg k			
	JUN 30 1950			27 35
7-21-50	Fld. Mandate U.S.S.C. It is ordered that the Appeal herein be dismissed. L			
8-9-50	Issued C. C. of Mandate of U.S.S.C. fld. 7-21-50 to Antitrust Div., Dept., of Justice. L	1 00	US	
~~10-3-50~~	~~On the court's motion cause removed from the trial call of Oct. 6, 1950, and placed on the list of cases ready and awaiting trial - Campbell, J.~~ ~~Mld. notice to attys. 10-4-50~~ ERROR SEE 49 C 1017			
3-14-51	Filed Memorandum of Judge LaBuy. (2)			
" " "	Motion of deft. General Motors Corp. to strike complt. overld. Motion of said deft. to strike portions of complt. sustained in part and overruled in part and motion of said deft. for more definite statement overld-LaBuy, J. Mld. notice to attys. 3-16-51. P			
[illegible]-2-51	Filed Stip. (1)			
" " "	On stip. time to answer extd. to and including April 16, 1951-LaBuy, J. Mld. notice to attys. 3-23-51. P			
[illegible]-51	Filed Appearance of Howard Neitzert as attorney for certain Defendants -Pierre S. duPont, Lammby DuPont et al (1)k.			
[illegible]-51	Filed Notice. (2)			
"	Filed Answer of deft. General Motors Corp. (26)P			
[illegible]-10-51	Filed Deposition from Court Reporter, Wilmington, Del. (One large carton placed in Room 780) K.			
[illegible]-51	Filed Stip. re: deposition of Irenee Du Pont. (2)P			

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
10-16-51	Filed Notice. (2)			
" " "	Filed Interrogatories propounded by pltf. (4)			
10-19-51	Filed Notice of filing deposition of Pierre S. Du Pont (3)B			
10-24-51	Filed Notice & Proof of service (2)			
10-24-51	Filed Interrogatories propounded by Plaintiff (5) K.			
10-29-51	Filed Depositions of Dr. Edgar Clay Britton and Earl W. Bennett K.			
11-5-51	Filed Notice. (2)			
" " "	Filed Interrogatories propounded by pltf. to E. I. du Pont de Nemours and Co. (6)P			
11-8-51	Filed Answer of Pierre S. DuPont to Interrogatories (6)			
11-8-51	Filed Answer of Lammot Du Pont to Interrogatories (10)			
11-8-51	Filed Answer of Irenee DuPont to Interrogatories (13)			
11-8-51	Filed Answer of Pierre S. DuPont, Irenee DuPont and Lammot DuPont to Interrogatories (2 & Exhibits attached) K			
12-5-51	Filed Notice of Motion of discovery etc (3) k.			
12-7-51	Filed Notice & Proof of service. (2)			
12-7-51	Filed Interrogatories propounded by plaintiff to General Motors Corp. (5)			
12-10-51	Filed Proof of Service (1) K.			
12-17-51	Filed Objections to Interrogs. & Affdvt. in Support (11)			
12-18-51	Filed Notice (1)			
" " "	Filed Notice of Motion for Discovery and Production, etc. (2)			
" " "	By agrmt. pltf's. motion for discovery and production of documents under Rule 34 by General Motors Corp. allowed-La Buy, J.			
" " "	Cause set for tr. Nov. 18, 1952-DRAFT-LaBuy, J. (1) Mld. notice to attys. 12-26-51			
12-19-51	Filed Notice of Motion to Each of Defts. (2) Jb			
12-26-51	Filed Brief in support of Objections to Interrogatories propounded by pltf. to General Motors Corporation . (27)			
12-27-51	Filed Answer of deft. Delaware Realty and Investment Corp. to interrogatories. (Exhibits attached) (9)			
" " "	Filed Answer of deft. Christiana Securities Co. to Interrogatories and Exhibits attached. (9)			
1-3-52	Filed Stip. re: time to answer interrogs. (2)			
1-7-52	Filed Notice re: filing of pltf's. brief in opposition to objections made to interrogs. (2) P			
1-7-52	Filed Pltf's. brief in opposition to Objections made by deft. Genl. Motors Corp. to the Interrogs. propounded by the pltf. (18) P			
1-14-52	Filed Reply Brief of General Motors Corp. in support of Objections to Interrogatories. (10)P			
1-15-52	Fld. Notice of filing Reply Brf. of Gen.Motors.Corp. (1)P			
1-15-52	Filed Answers of E. I. Du Pont De Nemours and Co. to Interrogs. (12)			
" " "	Filed Stip. re: Production of Documents. (6) P			
2-1-52	Filed Notice. (1)			
" " "	Filed Answer of General Motors Corp. to Interrogatories propounded by pltf. (3) Schedules attached.			

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
2-18-52	Filed Notice & Proof of service (2) K.			
2-25-52	Filed Stipulation (2) K			
2-28-52	Filed Notice (2)			
2-28-52	Filed Affidavit of Pierre S. duPont in opposition to Plaintiff's petition for issuance of order to show cause (4)			
3-4-52	Fld. Petition for Order to Show Cause, with Affdvt., by U.S.			
" " "	Argts. hd. on petn for issuance of ord to show cause directed to members of deft. class & advsmt. Lv. to plf. to fl.brf. in 15 ds. & lv. to defts. to fl. reply within 10 ds.thereafter - LaBuy,J. Mld. notc. to attys., 3-5-52. r			
3-7-52	Filed Answers of E. I. Du Pont De Nemours and Co. to Interrogatories. (17) P			
3-13-52	Filed Notice to take Depositions upon oral Examination and Proof of Service (4)			
3-13-52	Issued 5 Certified copies of notice to take Dep. to Antitrust Division, Dept. of Justice k	2.00 US		
3-21-52	Filed Notice & Proof of Service (2)			
3-21-52	Filed Plaintiff's Brief in support of petition for issuance of show cause orders (39) K.			
3-31-52	Filed Notice (1)			
3-31-52	Filed Reply Memorandum On behalf of defts Pierre S.duPont Lammot du Pont and Irenee du Pont in opposition to pltf's petn for issuance of orders to Show Cause d			
4-4-52	Fld Notice of Motion For Issuance Of Trial Subpoena To LaMont DuPont ,Affidavit In Support Of Motion & Proof Of Service and Affidavits (1) (7) d			
[illegible]	Filed Deposition of Irenee DuPont. (797)			
" "	Filed Defendants Exhibits.			
" "	Filed Deposition of Irenee DuPont and Government's Exhibits [illegible] 240 inclusive. (in 3 volumes) P			
4-14-52	Filed Notice Of Filing Of Deposition Of Irenee DuPont (3) d			
4-16-52	Filed Notice, Motion for issuance of trial subpoenas as to certain defts. and Affidavit in support of Motion and Proof of Service. (9) P			
4-22-52	Filed Signed copy of Letter dated April 10,1952 from Mr. John M. Harlan to Mr. Willis E. Hotchkiss (2)			
4-22-52	Order Motion for an order that trial subpoena be issued to Eleanor du Pont Rust & Paulina du Pont Dean entered & continued to May 20, 1952 by agreement - LaBuy,J.			
4-22-52	Order that trial subpoena be issued to Lammot du Pont- DRAFT- LA BUY,J. (1) Mailed notice to attys 4-24-52 K.			
[illegible]	Issues C.C. of ord. entd. Apr. 22, 1952, directing that subpoena be issued for Lammot de Pont to Anti Trust Div., Dept. of Justice.	.10US.		
[illegible]	Filed Depositions for Pltf. Jb			
5-20-52	Arguments heard on mo pltff that trial subpoena issue to Eleanor DuPont Rust and Paulina DuPont Dean and said mo. allowed Draft -Ent. ord. with respect to documents etc. to be produced pursuant to subpoenas duces tecum Draft LaBuy, J Mld ntc to attys 5-21-52			

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D. C. 110A

DATE	FILINGS—PROCEEDINGS		
8-20-52	Filed Summons returned served as to following:		
	Irene duPont	2.10	
	Paulina duPont Dean	2.10	
	Junius Simpson Dean	2.10	
	Margaretta duPont Carpenter	2.10	
	Robert Ruliph Morgan carpenter,Jr.,	2.10	
	Louisa Carpenter Jenney	2.10	
	Irene Carpenter Kitchell Morgan	2.10	
	William Kemble Carpenter	2.10	
	Hugh Rodney Sharp,Jr.,	2.10	
	Wilhelmina duPont Ross	2.10	
	Donald Peabody Ross	2.10	
	George Phippen Edmonds,Jr.,	4.20	
	Andrew Wilson Edmonds	2.00	
	Lammot DuPont,III	2.00	K.
8-21-52	Filed Deposition of Alfred P. Sloan,Jr.		K.
		(2)	
8-25-52	Filed Stipulation		
8-25-52	Order on stipulation that time of defendants, joined as additional parties defendant pursuant to order of Court dated July 28, 1952 to answer, plead or otherwise move be extended to Sept. 20, 1952 - IGNATZ LA BUY,J.	(1)	K
8-27-52	Mailed notice to attys 8-26-52		
8-27-52	Filed Summons returned served as to following:		
	Philip G. Rust, a minor	2.00	
	Eleanor DuPont Rust	2.00	
	Richard Cutts Rust	17.00	
	Henry Rust, a minor	2.00	
	Francis G. duPont Rust	2.00	
	David Flett duPont	2.60	
	Willis Harrington duPont	2.00	
	William Frederick Jr., and		
	Margaretta duPont Greenewalt	4.70	
	Crawford Hallock Greenewalt	2.00	
	Nancy Greenewalt Frederick	2.00	
	David Greenewalt	2.00	
	Crawford Hallock Greenewalt,Jr.	2.00	
	Belle Morgan Carpenter	2.00	
	Irene Sophie duPont May	3.10	
	Ernest Dupont May	2.00	
	Thomas Henry May	2.00	
	John Eric May	2.00	
	[illegible],Jr.,	2.00	
	John Ely Riegel	2.00	
	Natalie Margaret Riegel	2.00	
	Henry Belin duPont	3.50	
	Henry Belin duPont III	2.00	
	Edward Bradford duPont	2.00	
	Pierre Samuel duPont IV	2.80	
	Jane de Doliete duPont	2.00	
	Michele Wainwright duPont	2.00	
	Eve duPont Remer	2.10	
	Ernest Nugent May,Jr.	3.40	
	Irenee duPont May	3.80	
	Richard Eveland Riegel, Jr.	2.00	
8-27-52	Filed Summons returned not found as to Margaret duPont [illegible]	6.00	K.

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	 DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
8-27-52	Filed Notice of filing of Deposition of Alfred P. Sloan, Jr. (3) K			
8-29-52	Filed Notice (1)			
8-29-52	Filed Brief of Defendant General Motors Corp. in reply to plaintiffs brief in support of its obj. to interrogatories of General Motors Corp. (31) K			
9-10-52	Filed notice and Proof of Service of pltf' reply Brief (1) (1) sb			
9-10-52	Filed Plaintiff's Reply Brief In Support Of Its Objections To Interrogatories Og General Motors Corporation -LaBuy, J			
9-12-52	Filed Summons returned served on (5) d			
	S. Hallock DuPont 2.60			
	Virginia Ammons duPont 2.00			
	S. Hallock duPont, Jr., 2.00			
	William Kemble duPont 2.00			
	Richard Simmons duPont 2.00			
	Mariana duPont Silliman 2.00			
	Henry Harper Silliman 2.00			
	Henry Harper Silliman, Jr., 2.00			
	Doris duPont Silliman 2.00			
	Eleanor Howland Silliman 2.00			
	Marian duPont Silliman, a minor 2.00			
	Robert Morris Silliman 2.00			
	Lucile duPont Flint 3.40			
	Robert Barnett Flint 2.00			
	Robert Barnett Flint, Jr., 2.00			
	Peter Hubbard Flint 2.00			
	Alice Lucile Flint 2.00			
	Henry Alexis Flint 2.00			
	Constance Eveline Flint 2.00			
	Margaret duPont Smith 2.10			
	Lammot duPont Copeland, Jr., 3.40			
	Louisa D'Andelot duPont Copeland 2.00			
	Gerret Van Sweringen Copeland 2.00			
	Octavia Mary duPont Bredin 3.20			
	John Bruce Bredin 2.00			
	Stephanie Sophie duPont Bredin 2.00			
	Hugh Rodney Sharp 2.10			
	Margaretta Starrett Bredin 2.00 K			
9-15-52	Filed Notice, Amended Answer of defts Christiana Secutires Co. Delaware Realy & Invest Copr., Pierre S. Du Pont & Irenee Du Pont. Amended Answer of E.I. Du Pont De Nemours and Company (2) (3) (2)			
[illegible]	Filed Notice and Mot. of Mo for Discovery & Productionof Documents under Rule 34 (2) (9)			
9-15-52	Filed notide and Interrogatoires propounded by pltf to the deft Wilmington Trust Co. (2) (9) sb			
9-17-52	Filed Interrogatories propounded by Plaintiff to General Motors Corp. (set two) (3 Exhibit attached)			
[illegible]	Filed Notice and Proof of Service (2) K.			
[illegible]	Filed Answer of Henry Harper Silliman to amended complt. (5) Answer of Martha duPont Sillimanto amende complt (5) Ans. of Pamela Cunningham Copeland to amended complt. (5) Ans. of Lammot duPont Copeland to amended complt. (10) K			

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
5-23-52	Issued 2 C. C. of order on Pltf's. motion that subpoenas duces tecum issue to class defts., etc. to Willis L. Hotchkiss, etc. P	.20	US	
5-29-52	Filed Memorandum of Judge LaBuy. (4)			
" " "	Petition and motion of Govt. for issuance of Rule to Show Cause denied-LaBuy, J. Mld. notice to attys. 6-2-52. P			
6-6-52	Filed Memorandum of Judge LaBuy (1$5) d			
6-10-52	Filed witness subpoena retd served on Lamont DuPont -$.90 d			
6-16-52	Mld. Photostatic copy of Memorandum to Attorney General.	1.00	US	
6-18-52	Filed Notice & Proof of Service (1) K.			
6-18-52	Filed Motion for Pre trial Conference etc (7)			
6-19-52	Filed Interrogatories propounded by Defendant General Motors Corp. (5)			
6-19-52	Filed Notice (2) K.			
6-23-52	Objections of defendant General Motors to certain interrogs sustained in part and overruled in part, etc - DRAFT-(2) LA BUY,J. Mailed notice to attys 6-24-52 K.			
6-24-52	Filed Motion for Pre trial Conference & Agenda for consideration at pre trial conference (7)			
6-24-52	Order pre trial conference held - LaBUY,J. Mailed notice to attys 6-25-52 K.			
30-52	Copy of Memorandum sent to Atty General	1.50US		
7-3-52	Filed Notice and Proof Of Service			
7-3-52	Filed Plaintiff's Motion For Leave To Amend The Complaint (Copy Of Amendment attached) (2) d			
7-22-52	Filed Plaintiff's motion to appoint Guardian Ad Litem(4)			
7-22-52	Filed Notice & Proof of service (2) K.			
7-28-52	Filed Motion for issuance of summons to non resident Defts.(9)			
7-28-52	Filed Memorandum in opposition to Plaintiffs Motion for leave to amend the Complaint (10)			
7-28-52	Order to issue summons to defendants residing outside of the State - DRAFT- LA BUY,J. (1)			
7-28-52	Motion to appoint guardians Ad Litem for defendant minors entered and continued generally on motion of Plaintiff - LaBuy,J.			
7-28-52	Order granting Plaintiff leave to file an amendment to Complaint - DRAFT- LaBUY,J.(1 and Amendment to Complaint attached to draft order). Mailed notice to attys 7-30-52 K.			
-1-52	Filed Notice to take depositions upon oral examination and Proof of service (2)			
-1-52	Filed Notice (1)			
-1-52	Filed Answer of General Motors Corporation to interrogatories propounded by Plaintiff (9) K			
[illegible]	Filed Notice and Proof of service (2)			
-52	Filed Interrogatories propounded by Plaintiff to United States Rubber Co. (9)			
[illegible]	Issued 2 certified copies of Notice etc to Antitrust Div.K	[illegible]US		
-52	Filed Summons returned served on Irene DuPont 6.40 K			
-8-52	Filed Objections to interrogatories etc			
-8-52	Filed Notice and Proof of service (2) K			

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
8-8-52	Filed Pltf's Brief in support of the objections to Interrogatoires of the deft Gen'l Mtrs Corp. (5) SB			
8-15-52	Filed 3rd party summons returned served as to Colgate Whitehead Darden, Jr., 2.00			
8-15-52	Filed 3rd party summons returned served re Constance du Point Dasdeh 2.00			
8-15-52	Filed 3rd party summons returned served re: Emily M. Faulkner 2.00			
8-15-52	Filed Summons returned served-Elsie DuPont Faulkner 2.00			
8-15-52	Filed 3rd party summons returned served re: Irene du Pont Darden , a minor. 16.20			
8-15-52	Filed 3rd party summons returned served Colgate Whitehead Darden III 2.00			
8-15-52	Filed Summons returned served on Mary du Pont Faulkner 2.00			
8-15-52	Filed 3rd Party summons returned served on Pierre Samuel du Pont Darden, a minor 2.00			
8-15-52	Filed summons returned served on Charles Stearns Faulkner 2.00			
8-15-52	Filed Summons returned served Rosemary Faulkner 2.00			
8-15-52	Filed Summons returned served on Andrew Gray Faulkner 2.00			
8-15-52	Filed Summons returned served on Herbert Kimball Faulkner 2.20			
8-15-52	Filed Summons returned served on Henry Belin Faulkner, a minor. 2.00 K.			
8-20-52	Filed Summons returned served Re: Thomas Leward duPont 2.00			
	Reynolds du Pont, Jr., 2.00			
	Katherine duPont 2.00			
	William Foster duPont 2.00			
	Renee Kitchell Lickle 2.00			
	Margaretta Lammot Kitchell 2.00			
	Carol Victoria Kitchell 2.00			
	Leslie Halsey Kitchell 2.00			
	Nancy Jardiner Kitchell 2.00			
	Robert Ruliph Morgan Carpenter III. 2.00			
	Mary Kaye Carpenter 2.00			
	William Kemble Carpenter 2.00			
	Mary B. Laird Downs 2.20			
	William Winder Laird, Jr., 2.10			
	Aleetta Laird Downs 2.10			
	Wilhelmina Laird Craven 2.10			
	Rosa Laird Hayward 2.10			
	Lammont duPont Copeland 2.10			
	Pamela Cunningham Copeland 2.10			
	Natalie du Pont Edmonds 2.10			
	George Phippen Edmonds 2.10			
	Lammot duPont Jr., 2.10			
	Pierre Samuel duPont,III, 2.10			
	Edith duPont Riegel 2.10			
	Alexandrine duPont Perkins Collier 2.10			
	Reynolds duPont 2.10			
	Katherine Lewars du Pont 2.10			
	Bayard Sharp 2.10			
	Esther duPont Weir 2.10			
	Wilmington Trust Co. 2.10 K.			20

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
9-19-52	Filed Ans. of Wilhelmina Laird Craven to amended complt. (5)			
	Ans of Mary Belin Laird Downs to amended complt. (5)			
	Ans. of Rosa Laird Hayward to amended complt. (5)			
	Ans. of Alletta Laird Downs to amended complt. (5)			
	Proof of Service of all above answers attached to			
	answers as listed above also Answer of William			
9-19-52	Laird Jr. to amended Complt. (5) (1) K.			
9-19-52	Filed Ans of Wilmington Trust Co. to amended Complt. (8)			
9-19-52	Filed Notice and Proof of service of Atty Gen. (2)			
9-19-52	Filed Petition for appointment of Guardians as Litem (4)	K		
9-19-52	Filed Appearance of The individual Class Defts - K.			
9-19-52	Filed appearance of The Class Defendants K.			
9-19-52	Order for discovery and Production of Documents under Rule 34- DRAFT- LA BUY, J. (1 with Schedule attached) Mailed notice to attys 9-24-52 K.			
9-23-52	Fld. Notice, and Answers of United States Rubber Company to Interrogs. Propounded by Plaintiff. (2)(12)			
" " "	Fld. Memorandum of the Court. (5) r			
9-24-52	Fld. Appearance of Wilmington Trust Company. Deft., & Guy A. Gladson, Winston, Strawn, Black & Towners as addl. attys. r			
[illegible]	Filed Notice & Proof of Service (2)			
[illegible]	Order appointing Guardians pursuant to Court's memorandum opinion of September 25, 1952- DRAFT- LA BUY, J. (2) Mailed notice to attys 9-30-52 K.			
10-13-52	Filed Amendment To Answer Of United States Rubber Co. (2)			
10-13-52	Filed Affidavit Of Service Of Mailing (2) d			
10-15-52	Filed Answer of Wilmington Trust Co. to interrogatories (6 and Exhibit A to E inc. 37 pages) k.			
10-16-52	Mld. Photostatic copy of Memorandum filed 9-23-52 to the Attorney General, Wash., D. C. P	1 25	US	
10-16-52	Filed Notice to Defense Counsel and Guardians Ad Litem. (4)			
"	Filed Plaintiff's Pre-trial Brief. (171) P			
10-20-52	Filed Answer of Bayard Sharp to amended Complaint (5)			
	Filed Answer to amended complaint as follows:			
	Of Irene Dupont (5)			
	Irene Sophie Du Pont May (5)			
	Ernest Nugent May (6)			
	Ernest Hugent May, Jr., (5)			
	Irenee DuPont May (5)			
	Margaretta DuPont Greenewalt (5)			
	Crawford Hallock Greenewalt (7)			
	Nancy Greenewalt Frederick (5)			
	David Greenewalt (5)			
	Constance DuPont Darden (5)			
	Colgate Whitehead Darden, Jr., (5)			
	Colgate Whitehead Darden, III (5)			
	Eleanor Du Pont Rust (5)			
	Octavia Mary DuPont Bredin (5)			
	John Druce Bredin (5)			
	Lucile DuPont Flint (5)			
	Robert Barnett Flint (5)			
	Irenee Du Pont, Jr., (5)			
	Natalie DuPont Edmonds (5)			
	George Phippen Edmonds (5) K.			

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
10-20-52	Filed Answer to Amended Complaint by followings: Mary DuPont Faulkner (5) Herbert Kimball Faulkner (5) Esther DuPont Weir (5) Lamont DuPont, Jr., (5) Pierre Samuel DuPont, III (7) Edith DuPont Riegel (5) Alexandrine DuPont Perkins Collier (5) Reynolds DuPont (5) Katherine Lewars Du Pont (5) S. Hallock DuPont (6) Virginia Simmons DuPont (5) Eve Du Pont Remer (5) Paulina DuPont Dean (5) Junius Simpson Dean (5) Wilhelmina Du Pont Ross (5) Donald Peabody Ross (5) Henry Belin Du Pont (14) Margaret Du Pont Smith (5) Margaretta Du Pont Carpenter (5) Louisa Carpenter as Louisa Carpenter Jenney (5) Irene Carpenter Kitchell Morgan (5) Renee Kitchell Lickle (5) Robert Ruliph Morgan Carpenter, Jr., (6) William Kemble Carpenter (6) Hugh Rodney Sharp (5) Hugh Rodney Sharp, Jr., (6) K.			
10-20-52	Filed Proof of Service (2) K			
10-21-52	Issued 6 Alias Summons and copies to following: Elise du Pont Faulkner, Emily Morrison Faulkner Charles Sterns Faulkner Rosemary Faulkner, Henry Belin Faulkner and Andrew Gray Faulkner K.			
10-23-52	Filed Clerks copy of transcript of proceedings before Judge LaBuy on April 22, 1952 by official court reporter (11)			
10-23-52	Filed Clerks copy of trancript of proccedings before Judge LaBuy on May 20, 1952 by offical court reporter (17)			
10-23-52	Filed Clerks copy of trancript of proceedings before Judge LaBuy on June 25, 1952 by official court reporter (49)			
10-23-52	Filed Clerks copy of transcript of proceedings before Judge LaBuy on July 28, 1952 by official court reporter (29) sb			
10-24-52	Filed Notice Of Motion For Issuance Of Trial Subpoenas And Proof Of Service			
10-24-52	Order that a trial subpoena issue to two individuals as listed who reside at a distance greater than 100 miles from place of trial Draft- LaBuy, J Mld ntc to attys 10-27-52 d			
10-24-52	Issued 4 ~~Alias~~ Summons and copies to following: Philip Goodenow Rust, Jr., Francis Gurney du Pont Rust, Henry Rust and Richard Cutte Rust K.			

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DATE	FILINGS—PROCEEDINGS	
10-29-52	Filed summons retnd served on (5) Henry Belin Faulkner, a minor $2.00 Emily Morison Faulkner, a minor 3.40 Andrew Gray Faulkner, a minor 2.00 Elise du Pont Faulkner, a minor 2.00 Rosemary Faulkner, a minor 2.00 Charles Stearns Faulkner, a minor 2.00 All 5 summons's served by Marshal in the city of Brookline Massachusetts sb	
10-31-52	Filed summons retd served on Richard Cutts Rust at Thomasville Ga 1 serv $6.00	
11-3-52	Filed Deposition of Lucius Douglas Tompkins B	
10-31-52	Issued summons & copy on Henry Rust, minor mg	
10-31-52	Issued CC of complt and also order & amendment to complt entered & filed 7-28-52 by Anti-Trust Div. Dept of Justice	6.80 US
11-3-52	Filed notice (3)	
11-3-52	Filed Ans of Gen'l Motors to interrogs propounded by pltf (Set Two) (38) sb	
11-5-52	Filed witness subpoena retd served on Eleanor DuPont Rust 1 serv 1.70	
11-6-52	Filed Witness Subpoena ret'd. served as to Pauline duPont Dean. 1 serv. $1.30 P	
11-10-52	Filed Witness subpoena ret'd servd as to Lawrence P. Fisher $2.50 sb	
11-12-52	Filed Witness Subpoena ret'd. served as to F. B. Davis, Jr.	
" " "	Filed Notice. (3)	
" " "	Filed Motion for leave to file amended returns of service. (3)	
" " "	Enter order granting leave to file amended returns of service on certain minor defts- DRAFT-LaBuy, J. (1) Mld. notice to attys. 11-14-52. P	
11-14-52	Filed 48 summons as to minor defendants with amended return endorsed thereon ret'd. served. $115.20 P	
11-13-52	Trial Brf for defendants filed (103) sb	
11-14-52	Filed Notice (3)	
11-14-52	Filed Trial Brief Of United States Rubber Company (34)	
11-14-52	Filed Notice of Motion (1)	
11-14-52	Order confirming prior appointment of Guardians Ad Litem for 48 Minor defts and reappointing Guardians Ad Litem for 10 minor defts Draft- LaBuy, J	
11-17-52	Filed notc of documentary material to be used during trl of action and proof of service (15)	
11-17-52	Filed notc of documentrary material to be use during trl of action and proof of service (15) sb	
11-17-52	Filed ans of Andrew J. Dallstream Guardian ad litem for ~~certain minor defts~~ (2)	

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
11-17-52	Filed appearance of Andrew J. Dallstream (1)			
" " "	" Notc fo defense counsel & guardian ad litem & Proof of service. (3)			
11-17-52	Filed notice, appearance & ans of certain minor defts (6)			
" " "	Filed notice (3)			
" " "	" appearance & ans of certain minor defts (1) (2)			
11-17-52	Filed Notc (2)			
" " "	" Apperance of Claude A. Roth (1)			
" " "	" Ans for certain minor defts (2)			
11-17-52	Filed notice (2)			
" " "	" Pre-trl brf of Gen'l Mtrs Corp(original) (48) sb			
11-17-52	Govt's objections to interrogatories sustd in part and overruled in part - LaBuy, J Mld ntc to attys 11-19-52 d			
11-18-52	Cause called for trial Opening statements hd in part and trial adjourned to Nov 19, 1952 - LaBuy, J Mld ntc to attys 11-19-52 d			
11-17-52	Letter of Judge LaBuy dated November 17, 1952 to attys of record d			
11-19-52	Further opening statement hd & trl adjourned to Nov. 20, 1952 at 10 a m.-LaBuy Mld. notice to attys.			
11-20-52	Further opening statements hrd. and tr. adjourned to Nov. 21, 1952-LaBuy, J. Mld. notice to attys. 11-21-52. P			
11-21-52	Filed Summons ret'd. Not Found as to Henry Rust.			
" " "	Filed Notice of Filing Depositions. (3)			
" " "	Filed Notice of Motion for Issuance of Trial Subpoenas. (5)			
" " "	Enter order on Pltfs. motion order that Writs of Subpoena issue to 31 persons as listed in Appendix A, all of whom reside at a distance in excess of 100 miles from place of trial-DRAFT-LaBuy, J. (1) & Appendix			
" " "	Further opening statements hrd. and trial adjourned to Nov. 24, 1952-LaBuy, J. Mld. notice to attys. 11-24-52. P			
11-24-52	Further opening statements hd and trial adjourned to Nov. 25, 1952 - LaBuy, J Mld ntc to attys 11-25-52 d			
11-25-52	Opening statement concld & tr adjounred to Dec. 1, 1952- LaBuy, J Notice mld to attys 11-16-52 sb			
12-1-52	Filed Motion of Jos.P.Savaxe for lv to enter appearance(2)			
12-1-52	Arguments heard on motion of J.P.Savage for leave to appear, pro se, as a party in interest, taken under advsmt. and lv to file brfs in 10, 10 and 10 days. DRAFT On motion of pltf trial adjourned to 1-5-53. - LaBuy, J. Mailed notice to attys 12-2-52 H			
12-1-52	Filed Notice of Motion (2)			
12-8-52	Filed Stipulation (1)			
12-8-52	Order per stipulation requiring pltf answer General Motors Interrogatories before January 2, 1953, except interrog No. 2, (c) Draft - LaBuy, J Mld ntc to attys 12-9-52 d			24

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
12-11-52	Filed notice (2)			
12-11-52	Filed objns of Gen'l Mtrs corp to motion of Joseph P. Savage for lv to intervene ( )			
12-11-52	Filed objns of Defts to motion of Joseph P. Savage for lv to intervene, and brf in support of objns & proof of service (10) sb			
12-11-52	Filed Pltfs objn to motion filed by Joseph P. Savage, pro-se (1)			
12-11-52	Filed notice and proof of service (4) sb			
12-11-52	Filed pltfs brf in support of its objn to motion filed by Joseph P. Savage, Pro Se (8) sb			
12-22-52	Filed Reply Of Joseph P. Savage To Objections Filed By Plaintiff And Two Defendants To H,s Motion For Leave To File Appearance (8)			
12-22-52	Filed Proof Of Service Of Reply Of Joseph Savage (2) d			
12-31-52	Filed Subpoena Duces Tecum retnd servd sb			
1-2-53	Filed Proof of Service of Reply Brf (3) sb			
1-2-53	Filed notice (2)			
1-2-53	Filed Reply of General Mtrs Corp to reply of Joseph P. Savage to the objns to his motion for lv to file appearance (15)			
1-5-53	Filed Notice (4) sb			
1-5-53	Filed Answers by Pltf. (8)			
"	Pltfs evidence heard in part & trial adjourned to 1-6-53. LaBuy, J. Mailed notice to attys 1-5-53 H			
1-6-53	Further evid. heard for pltf & trial adjourned to 1-7-53. - LaBuy, J. Mailed notice to attys 1-7-53 H			
1-6-53	Filed Notice & Proof of Service (4)			
1-7-53	Pltffs motion to dismiss certain defts without prejudice argued and advisement and parties to file briefs. Further evidence hrd for Pltff and trial adjourned to Jan 8, 1953 LaBuy, J Ml ntc to attys 1-8-53 d			
[illegible]	Further evid hrd for pltf & trl adjourned to 1-9-53-LaBuy, J Notc ml to attys 1-9-53 sb			
[illegible]	Further evid hrd for pltf & trl adjourned to Jan. 12, 1953-LaBuy, J Notc mld to attys 1-12-53 sb			
[illegible]	Furth evid hrd for pltf & trl adjourned to Jan 13, 1953-LaBuy Notc mld to attys 1-13-53 sb			
1-13-53	Further evidence heard for pltf & trial adjourned to 1-14-53. - LaBuy, J. Mailed notice to attys 1-14-53 H			
1-14-53	Further evidence heard for pltf & trial adjourned to 1-15-53. - LaBuy, J. Mailed notice to attys 1-15-53 H			

DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
~~1-16-53~~	~~Filed Proof Of Service (2)~~			
1-1[illegible]-53	Further evid. heard for pltff and trial adjourned to Jan 1[illegible], 1953 - LaBuy, J Mld ntc to attys [illegible]-53 d			
1-16-53	Filed Motion (to dismiss Complaint without prejudice as to Irenee duPont Jr) (1)			
1-16-53	Filed Amended Complaint and Corrected Galley Proof Of Amended Complaint			
1-16-53	Filed Suggestion Of Death Of Lammont DuPont (1)			
1-16-53	Enter consent order dismissing 48 minor defts with prejudice (Draft) Lv to Pltff to file Galley proof of amended complaint etc Draft Leave to file amended complaint instanter Draft Lv to file suggestion of death of deft Lammott duPont instanter. Further evidence heard for pltff and trial adjourned to Jan 19, 1953 at 10: A.M. LaBuy, J Mld ntc to attys 1-19-53 d			
1-19-53	Further evid hd for pltf & trl adjourned to 1-20-53-LaBuy, J Ntc mld to attys 1-20-53 st			
1-20-53	Filed Notice (First List Of General Motors Defendants' Proposed Trial Exhibits attached) (2) (2)			
1-20-53	Further evid hd for pltff. Lv to defts to answer amended complt on or before Feb 5, 1953. Lv to adult beneficiary defts et al to file motions under Rule 41b of F.R.C.P. and supporting brief on or before Feb 2, 1953. Lv to pltff to file answering brief on or before Feb 9, 1953 and cause set to Feb 11, 1953 for argts on said motions. Pltff rests. Defts motion to dismiss taken under advisement and ruling reserved and trial adjourned to Feb 16, 1953-LaBuy, J Mld ntc to attys 1-21-53 d			
[illegible]	Filed memorandum by Judge LaBuy			
[illegible]	Enter pre-trial order Draft - LaBuy, J			
[illegible]-53	Motion of Joseph P. Savage for lv to intervene, denied LaBuy, J Mld ntc to attys 1-22-53 d			
	Filed Notice re First List Of DuPont Defts Proposed [illegible] (11)			
	[illegible] of Francis B. Davis Jr 210.02 d			
	Filed Notice and Proof Of Service (1)			
	Notice To Defense Counsel And Guardians ad litem & [illegible] (3)			
	Answer Of [illegible] J. Dallstream Guardian ad litem For the [illegible] Minor Defts To The Complaint Herein As Amended To Jan 1[illegible], 1953 (2) d			
	[illegible] of Suggestion of Death of Lammot Du Pont to [illegible] Division.	.10 US		
	[illegible] of order dismissing 48 minor defts. to [illegible] Division.	.20 US		

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURN
	Filed Notice and Proof of Service re: Answer of E. I. Du Pont De Nemours & Co. (3)			
	Filed Answer of E. I. Du Pont De Nemours & Co. to Amended Complt. (3)			
	Filed Notice and Proof of Service. (3)			
	Filed Answer of Christiana Securities Co., Delaware Realty & Investment Co., Pierre S. and Irenee Du Pont to amended Paragraphs of complt. (3)			
	Filed Answer of Wilmington Trust Co. to amended complt. (5)			
	Filed Answer of Wilmington Trust Co. as Trustee of certain trusts to Amended complt. (2)			
	Filed Notice. (1)			
	Filed Motion of deft. U. S. Rubber Co. to dismiss. (1)			
	Filed Notice, Proof of Service and Answer for certain minor defts. to the complt. herein as amended. (5)			
1-[illegible]-53	Filed Notice. (2)			
"	Enter order that General Motors Corp's answer filed on April [illegible], 1951 may stand as its answer to the amended complt. DRAFT- LaBuy, J. (1) Mld. notice to attys. 1-30-53. P			
1-[illegible]-53	Filed Amended Complaint (83) H			
1-[illegible]-53	Filed Notice (1)			
"	Filed Answer for certain Defts (2) H			
2-[illegible]-53	Filed Two motions of Wilmington Tr. Co. (2)(4)			
"	Filed Memo. in support of Mo. of Wilm.Tr.Co. (13)			
"	Filed Notice (1)			
"	Filed Motion for dismissal on behalf of 26 "Beneficiary Defendants " (2)			
"	Filed Brief on behalf of 26 "Benf.Defts" (5)			
"	Filed Notice (3)			
"	Filed Motion of 36 adult defts for dismissal (1)			
"	Filed Memo. for 36 adult defts in support of motion for dismissal (3)			
"	Filed Notice (3)			
"	Filed Amendment to Ans. of U.S.Rubber Co. (2) H			
2-5-53	Filed Answer Of LaMont DuPont Copeland To Amended Complaint filed on 1/16/53 (5)			
2-5-53	Filed Answer of Mariana DuPont Silliman to Amended Complt filed on 1/16/53 (5)			
2-5-53	Filed Stipulation (3)			
2-5-53	Order on stip to extend time for certain defts to answer Amended Complaint to Feb 9, 1953 - LaBuy, J Mld ntc to attys 2-9-53 d			
2-9-53	Filed Answer To Amended Complaint Filed 1/16/1953 by Lucille DuPont Flint, (3) Natalie DuPont Edmonds (3) Mary DuPont Faulkner, (3) Octavia Mary DuPont Dredin, (3) Colgate Whitehead Darden, Jr., (3) Pierre Samuel DuPont, III (3) Henry Belin DuPont, (3) George Phippen Edmonds Irene Sophie DuPont May, (3) Reynolds duPont (3)			

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
[illegible]-53	Margarette DuPont Greenewalt, (3)			
	Constance duPont Darden, (3)			
	Eleanor duPont Rust, (3)			
	Esther duPont Weir, (3)			
	Lammot duPont, Jr., (3)			
	Edith duPont Riegel, (3)			
	Alexandrine duPont Perkins Collier, (3)			
	Margaret DuPont Smith (3)			
2-[illegible]-53	Filed Proof Of Service (2) d			
2-10-53	Filed Notice Re Pltf's brf in reply to brf in behalf of 26 Beneficiary Defts etc & Proof of Service			
2-10-53	Filed Notice & Proof Of Service Re Pltf's reply memo to Memo of Wilmington Trust Co (1) (3)			
2-10-53	Filed Notice & Proof Of Service Re Pltf's reply memo to the memo of 36 adult defts etc (1) (3)			
2-10-53	Filed Memorandum by Judge LaBuy			
2-10-53	Government's motion to dismiss certain defts without prejudice sustained - LaBuy, J			
	Mld ntc to attys 2-13-53 d			
2-11-53	Filed (2) Notices (3) (3) d			
2-13-53	Filed Notice and Proof Of Service Re to dismiss certain defts (4) d			
2-16-53	Enter order leave to withdraw motion under Rule 41(b) to dismiss as to 36 defendants. - LaBuy, J.			
"	Enter order dismissing certain named defts without prejudice. DRAFT. Enter order overruling certain motions of defts to dismiss amended complaint. DRAFT. -LaBuy, J.			
"	~~Defts~~ evidence heard in part and trial adjourned to 2-17-53 at 10:30 A. M. - LaBuy, J.			
	Mailed notice to attys 2-18-53 H			
2-17-53	Further evidence heard for defts and trial adjourned to 2-18-53 at 10:30 A.M.			
	Mailed notice to attys 2-18-53 H			
2-18-53	Further Evidence heard for defts & trial adjourned to 2-19-53 at 10:30 A.M. - LaBuy, J.			
	Mailed notice to attys 2-20-53 H			
2-19-53	Further evidence heard for defts and trial adjourned to 2-20-53 at 10:30 A. M. - LaBuy, J.			
	Mailed notice to attys 2-20-53 H			
2-20-53	Filed Notice and List of General Motors Exhibits. (2)			
2-20-53	Further evid. hrd. for defts. and trial adjourned to Feb. 24, 1953 at 10:30 a.m.-LaBuy, J.			
	Mld. notice to attys. 2-24-53. P			
2-24-53	Filed (2) Notices (3) (3)			
2-24-53	Further evidence heard for defts and trial adjourned to Feb. 25, 1953 at 10:30 A.M. - LaBuy, J			
	Mld ntcs to attys 2-25-53 d			
2-25-53	Further evidence heard for defts and trial adjourned to 2-26-53 at 10:30 A. M. - LaBuy, J.			
	Mailed notice to attys 2-26-53 H			
2-27-53	Mld. Copy of Memorandum of 2-10-53 to Attorney General, Wash. D.C.	3 00 US		

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
2-26-53	Further evidence hrd for defts and trial adjourned to Feb 27, 1953 at 10:30 A.M. - LaBuy, J Mld ntc to attys 2-27-53 d			
2-27-53	Filed Notice. (2)			
" " "	Further evid. hrd. for defts. and trial adjourned to March 2, 1953 at 10:30 a.m.-LaBuy, J. Mld. notice to attys. 3-2-53. P			
3-2-53	Filed Stipulation (5)			
"	Further evidence heard for defts and trial adjourned to 3-3-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 3-3-53			
3-2-53	Order on stip. for return of documents to Mark H. Clayton representing defts, former defts and deposition witnesses. LaBuy, J. Mailed notice to attys 3-3-53 H			
3-3-53	Further evidence heard for defts and trial adjourned to 3-9-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 3-5-53 H			
3-9-53	Further evid.hrd for defts and trial adjourned to Mar. 10, 1953 at 10:30 a.m. -LaBuy, J Mld ntc to attys 3-10-53 d			
1-5-53	Filed Plaintiff's Motion To Amend The Complaint and Proposed Amendment To Complaint (4) (7)			
1-5-53	Enter order amending orders appointing guardians ad litem Draft - LaBuy, J Received and posted Jan 9,, 1953 Mld ntc to attys 3-10-53 d			
3-10-53	Further evid. heard for defts & trial adjourned to March 11, 1953 at 10:30 A.M. LaBuy-J Notice mld to attys. 3-11-53 tb			
3-11-53	Further evid. heard for defts & trial adjourned to Mch 12, 1953 at 10:30			
3-12-53	Further evid. hrd. for defts. and tr. adjourned to March 13, 1953 at 10:30 a.m.-LaBuy, J. Mld. notice to attys. 3-13-53. P			
3-13-53	Further evid.hrd.for defts.and tr. adjourned to March 16, 1953 at 10:30 a.,. LaBuy, J Mld.ntc to attys 3-16-53 d			
[illegible]	Filed Notice. (2)			
" "	Further evid. hrd. for defts. and tr. adjourned to March 17, 1953 at 10:30 a.m.-LaBuy, J. Mld. notice to attys. 3-17-53. P			
3-17-53	Further evid hd. for deft. & trial adjournmd to March 18, 1953 at 10:30 A.M. LaBuy, J Mld. ntc. to attys. 3-18-53 d			
3-18-53	Further evid. hd for defts andtrial adjourned to 3-19-53 at 10:30 a.m. LaBuy, J Mld, ntc. to attys. 3-19-53 d			
3-19-53	Further evid. hd.for defts and trial adjourned to Mar. 20, 1953 at 10:30 a.m. LaBuy, J Mld. ntc to attys 3-20-53 d			

DATE	FILINGS—PROCEEDINGS	CLERK'S FEES		AMOUNT REPORTED IN EMOLUMENT RETURNS
		PLAINTIFF	DEFENDANT	
3-20-53	Further evidence heard for defts & trial adjourned to March 23, 1953 at 10:30 A.M. LaBuy-J Notices mld to attys. 3-23-53 tb			
3-23-53	Further evidence heard for defts and trial adjourned to Mch 24, 1953 at 10:30 a.m. LaBuy, J d Mld. ntc. to attys 3-24-53			
3-24-53	Further evidence hd for defts. and trial adjourned to March 25, 1953 at 10:30 a.m. LaBuy, J d Mld ntc to attys 3-25-53			
3-24-53	Filed Notice re "Further List Of General Motors Defts' Proposed Trial Exhibits " (2) d			
3-25-53	Further evid. hrd for defts and trial adjourned to Mch 26, 1953 at 10:30 a.m. LaBuy, J d Mld ntc to attys 3-27-53			
3-26-53	Further evid hd for defts and trial adjourned to Mar. 27 1953 at 10:30 a.m. Labuy, J Mld ntc to attys 3-27-53			
3-26-53	Filed Deposition of Charles E. MacShane d			
3-27-53	Further evidence heard for defts and trial adjourned to 3-30-53 at 10:30 A. M. LaBuy, J. Mailed notice to attys 3-30-53 H			
3-30-53	Further evidence heard for defts and trial adjourned to March 31, 1953 at 10:30 A.M. LABUY, J. Mailed notice to attys. 3-31-53 tb			
3-31-53	Further evidence heard for defts and trial adjourned to April 7, 1953 at 10:30 A.M. LaBuy-J Notice mld to attys. 4-1-53 tb			
4-1-53	Filed Notice Re Further List Of General Motors Defts' proposed trial exhibits d			
4-3-53	Filed witness subpoena retd not found as to Francis B. Davis Jr d			
4-7-53	Filed Motion of Pltf.			
"	Enter order that Clerk issue a subpoena duces tecum to a witness residing out of district and more than 100 miles from place of trial - DRAFT - LaBuy, J. Mailed notice to attys 4-10-53 H			
4-7-53	Further evidence heard for defts and trial adjourned to 4-8-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 4-10-53			
4-8-53	Further evidence heard for defts and trial adjourned to 4-9-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 4-10-53			
4-9-53	Further evidence heard for defts and trial adjourned to 4-10-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 4-10-53 H			
4-10-53	Filed Notice and Proof Of Service re "Third List Of Du Pont Defts Proposed Trial Exhibits "			
4-10-53	Filed Notice and Proof Of Service re "Fourth List Of Du Pont Dfets Proposed Trial Exhibits "			
4-10-53	Further evidence hd for defts and trial adjourned to Apr 13, 1953 at 10:00 A.M. - LaBuy, J d Mld ntc to attys 4-13-53			
4-13-53	Further evidence hrd for defts & trial adjourned to April 14, 1953 at 10:30 A.M. LaBuy, J. Notice mld to attys 4-15-53 tb			

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DATE	PROCEEDINGS	
4-14-53	Further evid hrd for defts & trial adjourned to Apr 15, 1953 at 10:30 A.M. LaBuy-J Notice mld to attys. 4-15-53	tb
4-15-53	Filed Notice, Proof of Service and Fifth List of Du Pont defts' proposed trial exhibits (4)	
"	Further evidence heard for defts and trial adjourned to 4-16-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 4-20-53	
4-15-53	Filed Notice, Proof of Service and Sixth List of De Pont defts' Proposed Trial Exhibits (6)	
4-16-53	Filed Notice, Proof of Service and Supplemental to Sixth List of DuPont defts' proposed Trial Exhibits (4)	
"	Further evidence heard for defts and trial adjourned to 4-17-53 at 10:30 A. M. - LaBuy, J.	
4-17-53	Further evidence heard for defts and trial adjourned to 4-20-53 at 10:30 A. M. - LaBuy, J. Mailed notices to attys 4-20-53	H
[illegible]	[illegible] heard for defts and trial adjourned to Apr 21, 1953 [illegible] LaBuy, J	
[illegible]	[illegible] for defts and trial adjourned to Apr 22, 1953 [illegible] LaBuy, J [illegible]	d
4-22-53	Further evidence heard for defts and trial adjourned to 4-23-53-LaBuy, J. Mailed notice to attys 4-24-53	
4-23-53	Filed Notice and Seventh list of De Pont Defts' proposed trial exhibits (3)	
"	Further evid heard for defts and trial adjourned to 4-27-53 at 10:30 A.M. - LaBuy, J. Mailed notice to attys 4-24-53	H
4-27-53	Filed Notice and Eighth list of Du Pont Defts' Proposed Trial Exbts(5) Further evidence heard for defts and trial adjourned to 4-28-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 4-28-53	H
4-28-53	Further evidence heard for defts and trial adjourned to 4-29-53 at 10:30 A. M. - LaBuy, J. Mailed notice to attys 4-29-53	H
5-1-53	Filed Appearance of The Adult Beneficiary defts., Pierre S. du Pont III, Colgate Whitehead, Darden, Jr., Lammot du Pont Copeland, George P. Edmands and Harry B. du Pont as defts. and Mark H. Clayton of Moore, Prangley and Clayton as attys.	P
4-29-53	Further evid heard for defts & trial adjourned to Apr. 30, 1953 at 10:30 A.M. LaBuy-J Notice mld to attys. 5-1-53	tb
4-30-53	Further evid hrd for defts. and trial adjourned to May 1, 1953 at 10:30 A.M. LaBuy, J Mld ntc to attys 5-1-53	d
5-1-53	Further evidence heard for defts & trial adjourned to May 4, 1953 at 10:30 A.M. LaBuy-J Mld notice to attys. 5-4-53	tb
5-4-53	Further evidence heard for defts & trial adjourned to May 5, 1953. LaBuy-J Notice mld to attys. 5-5-53	tb
5-5-53	Further evidence hrd for defts & trial adjourned to May 6, 1953. LaBuy-J	
5-6-53	Further evidence hrd for defts & trial adjourned to May 7, 1953. LaBuy-J Notices mld to attys. 5-7-53	tb

CAUSE NO. 49 C 1071 RE:

DATE	PROCEEDINGS	
5-7-53	Further evidence for defts & trial adjourned to May 8, 1953 at 10:30 A.M. LaBuy-J Notices mld to attys. 5-8-53	tb
5-7-53	Filed subpoena duces tecum ret'd served as to J. P. Morgan & Co. in New York	.70 tb
5-8-53	Further evid. hrd for defts & trial adjourned to May 18, 1953 at 10:30 A.M. LaBuy-J Notice mld to attys. 5-12-53	tb
5-18-53	Arguments heard on objections of Defts to government's petition for subpoena duces tecum - Leave to parties to file briefs and advisement. Further evidence heard for Defts and trial adjourned to May 19. 1953 at 10:30 AM - LaBuy, J. Mld ntc to attys 5-19-53	L
5-19-53	Filed Application s As Guaradian Ad Litem For Allowance Of Compensation for services rendered, Claude A. Roth, Andrew J. Dallstream Howard Ellis and A.L.Hodson (3)	
5-19-53	Enter orders allowing fees to Guardians ad Litem Howard Ellis, A.L.Hodson, Claude A Roth and Andrew J. Dallstream and discharging said persons as Guardians ad Litem for certain named minor defts 3 Drafts - LaBuy, J	
5-19-53	Further evidence hrd for defts and trial adjourned to May 20, 1953 at 10:30 A.M. LaBuy, J Mld ntc to attys 5-20-53	d
5-20-53	Filed Notice	(2) L
"	Filed Memorandum of General Motors Corporation in Opposition to Motions for Issuance of Subpoenas Duces Tecum	(25)
"	Memorandum on Behalf of the Du Pont Defendants in Opposition to Motion for Issuance of Subpoenas Duces Tecum to E. I. Du Pont De Nemours and Company, General Motors Corporation, and Twenty-One Suppliers of General Motors	(24) (4) L
"	Further evidence heard for defts. and trial adjourned to May 22, 1953 - LaBuy, J. Mld ntc to atty 5-21-53	L
5-22-53	Further evidence heard for deft & trial adjourned to May 27, 1953 at 10:30 A.M. LaBuy-J Mld notice to attys. 5-25-53	tb
5-27-53	Further evidence hrd for defts & trial adjourned to May 28, 1953 at 10:30 A.M. LaBuy-J	
5-28-53	Further evidence hrd for defts & trial adjourned to June 1, 1953 at 10:30 A.M. Govt's motion for subpoenas duces tecum allowed in part & denied in part (adv - brfs) LaBuy-J Notices mld to attys. 6-1-53	tb
5-27-53	Filed Notice & exhibits of defts	(3)
5-28-53	Filed Notice & exhibits	(2)
" " "	Filed Notice & exhibits	(3)
" " "	Filed Memorandum	(6) tb
5-7-53	Filed Motion of pltff	(4)
5-18-53	Filed Amended Motion of pltff (Above motions received & docketed this date 6/2/53)	(4)
6-1-53	Further evidence heard for defts & trial adjourned to 6-2, 1953 at 10:30 A.M. LaBuy-J Mld notice to attys. 6-2-53	tb
6-2-53	Filed Subpoena Duces Tecum returned served as to E.I.duPont de Nemours Company	.50
"	Enter order requiring issuance of subpoena duces tecum to E.I.du Pont de Nemours & Co. etc. DRAFT	

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
	Further evidence heard for defts and trial adjourned to 6-3-53 at 10:30 A. M. - LaBuy, J.			
	Mailed notice to attys 6-5-53			
6-3-53	Further evidence heard for defts and trial adjourned to 6-4-53 at 10:30 A. M. - LaBuy, J.			
	Mailed notice to attys 6-5-53			
6-4-53	Further evidence heard for defts and trial adjourned to 6-5-53 at 10:30 A. M. - LaBuy, J. H			
	Mailed notice to attys 6-5-53			
6-5-53	Filed Notice (1)			
"	Filed Motion for issuance of trial subpoena (2)			
"	Enter order requiring Clerk to issue subpoena directed to Charles E. Wilson, etc. DRAFT			
	Further evidence heard for defts and trial adjourned to 6-8-53 at 10:30 A. M. - LaBuy, J.			
	Mailed notice to attys 6-10-53			
6-8-53	Filed Notice (3)			
"	Further evidence heard for defts and trial adjourned to 6-9-53 at 10:30 A. M. - LaBuy, J. H			
	Mailed notice to attys 6-10-53			
6-9-53	Further evidence heard for defts and trial adjourned to 6-10-53 at 10:30 A.M. - LaBuy, J. H			
	Mailed notice to attys 6-10-53			
6-10-53	Filed Notice			
"	Claude A. Roth discharged as guardian ad litem etc. and leave to enter his appearance for Henry Belin de Pont III and answer to stand. DRAFT			
	Further evidence heard for defts and trial adjourned to 6-11-53 at 10:30 A.M. - LaBuy, J.			
	Mailed notice to attys 6-11-53			
-10-53	Filed Notice re first list of proposed "United States Rubber Company Trial Exhibits" - Exibits attached (3)(7)			
"	Filed Notice re second list etc. " " (3)(9)			
"	Filed Notice re third list " " " (3)(2)			
"	Filed Notice re fourth list " " " (3)(1)			
"	Filed Notice re fifth list " " " (3)(1) H			
	Further evid. hrd. for defts. and defts. rest. By agreement trial adjourned to June 24, 1953 at 10:30 a.m. - LaBuy, J. P			
	Mld. notice to attys. 6-15-53.			
	Filed appearance of Claude A. Roth atty for deft Henry Belin du Pont 111, and Harry E. Smoot ofcounsel (1) d			
	Filed Motion of pltf re: issuance of subpoenas H			
	Enter order on motion directing Clerk of Court to issue subpoenas ad testificandum for certain non-resident defts. DRAFT - Barnes, J. H			
	Mailed notice to attys 6-22-53.			
	Filed Subpoena ret'd. served on Edwin W. Farmer .50			
	Filed Subpoena ret'd. served on Frank C. Anderson .50			
"	Filed Subpoena ret'd. served on Harold Mohr. $1.70			
"	Filed Subpoena ret'd. served on George Maines $15.30			
	Rebuttal evid. hrd. in part and tr. adjourned to June 25, 1953 at 10:30 a.m. - LaBuy, J. P			
	Mld. notice to attys. 6-26-53.			

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DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
6-24-53	Filed Subpoena ret'd. served on George Maines. P			
[illegible]	Further rebuttal evid. [illegible] tr. [illegible] 26, 1953 at 10:30 [illegible] LaBuy, J. Mld. notice to attys. [illegible]			
[illegible]-53	Filed Subpoena ret'd. served on Louis F. Weyand $1.10 P			
6-[illegible]-53	Witness card of Frank C. Anderson pd 43.76			
" "	Witness card of George Maines pd 134.38			
" "	Witness card of Harold Mohr pd 45.16			
" "	Witness card of Louis F. Weyand pd 59.44			
" "	Witness card of Edwin W. Farmer pd 43.76			
6-26-53	Further rebuttal evid hrd-pltff rests-trial adjourned to June 29, 1953 at 10:30 A.M. LaBuy-J			
6-29-53	Surrebuttal evid hrd-parties rest & advsmt-lv to pltff to fl post trial brf & proposed findgs of fact & concls of law on or before Oct. 1, 1953-lv to defts to fl post-trial brf & proposed findgs of fact & concls of law on or before Nov. 16, 1953-lv to pltff to fl replication on or before Dec. 2, 1953 & cs cont'd for final arg. to Dec. 7, 1953 at 10:30 A.M. LaBuy-J Notice mld to attys. 6-30-53 tb			
6-30-53	Clerk's File Copy of Transcript of Proceedings, volumes 1-24 inc., pp. 1-13,314 I Volume of Transcript of proceedings of Dec. 1, 1952 Motion for Intervention, 27 pages t			
8-[illegible]-53	Filed Post-Trial Stipulation. (28) P			
10-1-53	Filed Notice and Proof Of Service re: admissiabilty of certain exhibits (3)			
"	Filed Notice and Proof Of Service (3)			
"	On motion pltff and by agreement order extdg the time for filing of briefs and findings of fact Draft - LaBuy, J Mld ntcs 10-2-53 d			
10-2-53	Filed Post-Trial Brief For The United States (355)			
10-12-53	Filed Post-Trial Brief For The United States (777) d			
11-[illegible]-53	Filed Two Notices re: Briefs of Government. (2) (2) P			
11-2[illegible]-53	Filed Brief on behalf of Wilmington Tr Co. (9) H			
11-30-53	Filed Notice			
11-30-53	Filed Two Notices (3) (3)			
11-30-53	Filed Post Trial Brief for defts. Lammot DuPont Copeland, Colgate W. Darden, Jr., Henry B. DuPont, Pierre S. DuPont, III and George P. Edmonds. (9)			
[illegible]-53	Filed Post Trial Brief for Adult Beneficiary defts. (Complaint, Paragraph 11) (3) P			
[illegible]	Filed Notice re post trl brf of minor defts & Henry Belin du Pont III (2) d			
[illegible]	Filed Notices Re Post trial Brief of U.S.Rubber Co and General Motors Corp. (2) (2)			
[illegible]-53	Filed Post-Trial Brief For General Motors Corporation (173) d			

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DATE	FILINGS—PROCEEDINGS
12-4-53	Filed Notice. (2) P
12-7-53	Final arguments heard in part & trial adjourned to Dec.8,1953 at 10:30 A.M. - LaBuy, J. H Mailed notices 12-8-53
12-8-53	Further Arguments heard and trial adjourned to Dec.9,1953 LaBuy,J. Mailed notices 12-9-53 H
12-9-53	Further arguments heard & trial adjourned to Dec. 10,1953- tb Notices mld 12-10-53
12-10-53	Further arguments heard and trial adjourned to Dec. 11, 1953-LaBuy, J. Mld. notices 12-11-53. P
12-11-53	Further arguments hrd. and trial adjounred to Dec. 14, 1953- LaBuy, J. Mld. notices 12-14-53. P
12-14-53	Further argmts hrd and trial adjourned to Dec.15,1953 - LaBuy,J. Mailed notices 12-15-53
12-15-53	Further argmts hrd and trial adjourned to Dec.16,1953 - LaBuy, J. Mailed notices 12-16-53 H
12-16-53	Further arguments heard & tr. adjourned to Dec. 17,1953- LaBuy-J
12-17-53	Further argts hrd & tr. adjourned to Dec. 18, 1953.LaBuy-J
12-18-53	Further Arguments heard & tr. adjourned to Dec. 21,1953- LaBuy-J Notices mld 12-18-53 tb
12-21-53	Further arguments hrd. and concld. and advisement-LaBuy, J. Mld. notices 12-22-53. P
12-23-53	Order to extend time for filing proposed findings of fact and conclusions of law, pltf's reply brief and defts' supplemental briefs - DRAFT - LaBuy, J. Mailed notices 12-24-53 H
1-22-54	Clerk's File Copy of Transcript of Proceedings had before Judge LaBuy on Dec 7, 8, and 9, 1953 volumes 145 to 149 Inclusive, Dec. 10 and 11, 1953 ,volumes 150 to 153 inc. Dec. 14, and 15, 1953 volumes 154 to 157 inclusive Dec. 16 and 17th 1953, volumes 158 to 161 inc.and Dec. 18,and 21, 1953 volumes 162 to 165 inclusive, filed by official Court Reporter d
1-29-54	Filed Notice re Find.of Fact & Con.of Law H
1-29-54	Filed Pltf's proposed Findings of Fact and Conclusions of Law (151) H
2-5-54	Filed Notice
"	Filed Defts' proposed Findings of Fact and Conclusion of Law (412). H
2-26-54	Filed Notice re supplemental brief for defts (3)
"	Filed Notice re reply brief for the govmt (3) H
3-5-54	Files Stipulation
"	Pursuant to stip signed by the attys for all parties of record, it is ordered that Root,Ballantine,Busby & Palmer

49 C 1071

16—42756-1

DATE	FILINGS—PROCEEDINGS	CLERK'S FEES PLAINTIFF	CLERK'S FEES DEFENDANT	AMOUNT REPORTED IN EMOLUMENT RETURNS
	be substituted in place of Root, Ballantine, Harlan, Busby & Palmer as attys for the defts Christiana Securities Co. Delaware Realty & Invest. Co., Pierre S. du Pont and Irenee de Pont - LaBuy, J. Mailed notices 3-8-54 H			
4-2-54	Filed Subpoena Ad Testificandum And Duces Tecum for Depositions returned served. 2 serv. $18.02 hh			
5-6-54	Filed Suggestion of Death of Pierre S.du Pont, & copy H			
11-16-54	Filed Memorandum by Judge LaBuy (30)			
11-16-54	Defts objections to pltff's offer of certain exhibits overruled in part and sustained in part. Pltff's objections to defts' offer of certain exhibits overruled. LaBuy, J Mld ntcs 11-18-54 d			
12-3-54	Filed Opinion of Judge Walter J. LaBuy (220) P			
12-8-54	Filed Notice re: Judgment order (2) P			
12-9-54	Enter order of final judgment dismissing amended complt and cause - DRAFT - LaBuy, J. (JS6) Mld ntcs 12-10-54 H			
1-31-55	Filed Application of Andrew J. Dallstream (8)			
"	Filed Application of Howard Ellis & A.L.Hodson (8)			
"	Filed Application of Claud A. Roth (9)			
"	Enter order allowing fees to guardians ad litem - 3 DRAFTS - LaBuy, J. Mld ntcs 2-1-55 H			
2-4-55	Filed Notice of Appeal to the Supreme Court of the United States, by United States of America, including the Designation of Record, Schedules and Proof of Service (9) P	5 00	US	
2-18-55	Filed Notice (1)			
"	Filed Motion (3)			
"	Enter order enlarge time for filing cross designation to April 25, 1955 - DRAFT - LaBuy, J. Mld ntcs 2-23-55 H			
3-23-55	Filed Notice & Proof of Service (2)			
3-23-55	Filed mo. for order of Court enlarging the time within which Clerk may prepare for transmission the record of appeal & pltff may docket case with Supreme Court (2)			
3-23-55	Filed Notice & Proof of Service (2)			
3-23-55	Filed motion for an order to instruct Clerk of Court to prepare for transmission certain records pur. to pltff's Notice of Appeal (3) d			
3-25-55	Order instructing the Clerk of this Court to prepare for transmission certain records pursuant to plaintiff's notice of appeal -DRAFT-Campbell,J. (2)			
"	Order enlarging time within which Clerk of This Court may prepare for transmission the record of appeal and plaintiff may docket the case with Supreme Court to May 25, 1955-DRAFT, Campbell,J. (1) Mailed Notice to Attys. 3-25-55 B			

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DATE	FILINGS—PROCEEDINGS
3-31-55	Clerk's File Copy of Transcript of Proceedings had before H Judge LaBuy on Dec. 3, 1954 filed by official court reporter(15130 to 15154)
4-25-55	Filed Designation of additional portions of the record desired to be included by the defendants, with schedules A thru D Attached and Proof of Service (2,12 & 1) B

[fols. 38-41] [Caption omitted]

[fol. 42] UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

Civil Action No. ———

Equitable Relief Sought

UNITED STATES OF AMERICA, Plaintiff,

v.

E. I. DU PONT DE NEMOURS AND COMPANY; GENERAL MOTORS CORPORATION; UNITED STATES RUBBER COMPANY; CHRISTIANA SECURITIES COMPANY; DELAWARE REALTY & INVESTMENT CORPORATION; PIERRE S. DU PONT; LAMOT DU PONT; IRENEE DU PONT; Defendants

COMPLAINT—Filed June 30, 1949

The United States of America, by its attorneys, acting under the direction of the Attorney General, brings this complaint against the defendants named herein, and upon information and belief alleges as follows:

I

JURISDICTION AND VENUE

1. This complaint is filed and these proceedings are instituted under Section 4 of the Act of Congress of July 2, 1890, c. 647, 26 Stat. 209, as amended, entitled "An Act to Protect Trade and Commerce Against Unlawful Restraints and Monopolies," said act being commonly known as the Sherman Act, and under Section 15 of the Act of Congress [fol. 43] of October 15, 1914, c. 323, 38 Stat. 730, as amended, entitled "An Act to Supplement Existing Laws Against Unlawful Restraints and Monopolies and for Other Purposes," commonly known as the Clayton Act, in order to prevent and restrain violations by the defendant individually, jointly and severally, as hereinafter alleged, of Sections 1 and 2 of the Sherman Act and Section 7 of the Clayton Act.

2. The defendants E. I. du Pont de Nemours and Company, General Motors Corporation, and United States Rubber Company transact business within the Eastern Division of the Northern District of Illinois and are found therein.

II

DEFEFNDANTS

3. The following corporations and persons are named as defendants herein:

(a) E. I. du Pont de Nemours and Company (du Pont Company), a Delaware corporation with principal offices at Wilmington, Delaware. Its immediate predecessor corporation was E. I. du Pone de Nemours Powder Company.

(b) General Motors Corporation (General Motors), a Delaware corporation with principal offices at 3044 West Grand Boulevard, Detroit, Michigan. Its immediate predecessor corporation was General Motors Company.

(c) United States Rubber Company (U. S. Rubber), a New Jersey corporation, with principal offices at 1230 Avenue of the Americas, New York, New York.

(d) Christiana Securities Company (Christiana), a Delaware corporation, with principal offices at the du Pont [fol. 44] Building, Wilmington, Delaware. The name of the defendant was originally du Pont Securities Company.

(e) Delaware Realty & Investment Corporation (Delaware), a Delaware corporation, with principal offices at the du Pont Building, Wilmington, Delaware.

(f) Pierre S. du Pont, of Wilmington, Delaware. In du Pont he has been a director from 1915 to date; was President from 1915 to 1919; a member of the Finance Committee of the Board of Directors from 1915 to date; and Chairman of the Board of Directors from 1919 to 1940. In General Motors he was a Director from 1917 to 1944; President from 1920 to 1923; a member of and Chairman of the Executive Committee of the Board of Directors from 1918 to 1921; a member of the Finance Committee from 1917 to 1921; and Chairman of the Board of Directors from 1917 to 1929.

(g) Lammot du Pont, of Wilmington, Delaware. In du Pont he has been a Director from 1915 to date; was a member of the Finance Committee of the Board of Directors from 1918 to 1945; a member of the Executive Committee from 1915 to 1940; Vice-President from 1916 to 1926; President from 1926 to 1940; and Chairman of the Board of Directors from 1940 to 1948. In General Motors he was a Director from 1918 to 1946; a member of the Executive Committee of the Board of Directors from 1921 to 1929, and Chairman of that Committee from 1921 to 1923; a member of the Finance Committee from 1917 to 1937; and Chairman of the Board of Directors from 1929 to 1937.

(h) Irenée du Pont, of Wilmington, Delaware. In du Pont he has been a Director from 1915 to date; was a mem- [fol. 45] ber of the Finance Committee of the Board of Directors from 1915 to 1946; a member of the Executive Committee from 1915 to 1919 and from 1921 to 1926; Vice-President from 1915 to 1919; President from 1919 to 1926; Vice-Chairman of the Board of Directors from 1926 to 1940. In General Motors he was a Director from 1918 to 1938; a member of the Executive Committee of the Board of Directors from 1930 to 1934; a member of the Finance Committee of the Board of Directors from 1918 to 1937, and of the Policy Committee from 1937 to 1946.

4. Where the term "defendant manufacturers" is used herein, it applies to the defendants du Pont Company, General Motors, and United States Rubber, and the predecessors and subsidiaries of each.

5. Where the term "defendant individuals" is used herein, it applies to defendants Pierre S. du Pont, Lammot du Pont, and Irenee du Pont.

6. Where reference is made herein to any corporate defendant, such reference shall be deemed to include the predecessors and subsidiaries of such defendant; and for purposes of the relief prayed for, reference to any corporate defendant shall be deemed to apply to the subsidiaries, successors, assignees of such corporation and their officers, directors, agents, employees, and other representatives.

7. The term "members of the du Pont family," when used herein, applies to those persons who are lineal descendants of Pierre Samuel du Pont de Nemours, the senior member of the family, who emigrated to the United States from France, and the wives and husbands of such lineal descendants.

[fol. 46] 8. Each of the defendant individuals is a member of the du Pont family.

9. Each of the members of the class of persons hereinafter defined is named as a defendant. The individual defendants are fairly and adequately representatives of such class of persons, who are so numerous as to make it impractical to bring all of them before the Court on the charges herein alleged. The charges herein involve all of the members of the class, and common relief is sought against all. The members of the class of persons made defendants herein have the following things in common:

(a) All are members of the du Pont family and are related by blood or marriage to the defendants Pierre Lammot, and Irenee du Pont;

(b) All hold, either directly, or indirectly through personal holding companies, or have a beneficial interest in, through trusts established in their favor or otherwise, shares of voting stock of one or more of the following defendant corporations: Christiana, Delaware, and U. S. Rubber.

10. Most of the members of the class made defendants herein are members of the immediate families (wives, husbands, children, grandchildren, etc.) of the individual defendants Pierre, Lammot, or Irenee du Pont, or of the persons listed below. Said individual defendants are brothers. Each of the persons listed below has the relationship to said individual defendants shown following his name:

[fol. 47]

Family Head	Relationship to Individual Defendants
William K. du Pont (deceased)	Brother.
R. R. M. Carpenter (deceased)	Brother-in-law
Charles Copeland	Brother-in-law
A. Felix du Pont (deceased)	Second cousin
Harry B. du Pont	Nephew
William Winder Laird	Nephew

11. The members of the class made defendants herein number in excess of 100. They will sometimes hereinafter be referred to as the "class defendants,"

III

NATURE OF TRADE AND COMMERCE INVOLVED

12. The du Pont Company is the largest producer in the United States of explosives, powder and chemicals. Its principal manufacturing operations are conducted through ten departments. The names of these departments and the principal products which each produce are as follows: *Ammonia Department:* ammonia, urea, urea fertilizer compounds, methanol, higher alcohols, glycol, organic acids, hydrogenate products, anti-freezes, and food chemicals; *Electric Chemicals Department:* Electro and industrial chemicals including solvents, formaldehyde, cyanide, sodium, peroxide, ceramic colors, refrigerants; Vinyl products, and fumigants; *Explosive Department* commercial explosives, blasting accessories, nitroglycerin, military and sporting powders, and commercial nitrocellulose; *Fabrics and Finishes Department:* pyroxylin and other coated fabrics and adhesives, various finishes for industrial, transportation, marine, and household purposes, including lacquers, enamels, paints, varnishes, plastics, waxes and pol- [fol. 48] ishes, plasticizers, and pyroxylin solutions; *Grasselli Chemicals Department:* inorganic and organic acids and heavy chemicals, zinc and zinc products, fungicides, insecticides, and wood preservatives; *Organic Chemicals Department:* dyestuffs, tetraethyl lead, neoprene, ethyl alcohol, camphor, and other organic chemicals; *Photo Products Department:* motion picture, X-ray, portrait, lithographic and micro films, fluorescent screens, photographic printing papers and processing chemicals; *Pigments Department:* titanium dioxide, extended titanium pigments, lithophone, dry colors and copperas; *Plastics Department:* various types of plastics, molding powders, and fabricated articles; *Rayon Department:* rayon yarn of various types and for various uses, cellophane and nylon yarn.

13. The du Pont Company also has a large number of either wholly or partially-owned subsidiaries in this and other nations. It has a 50 per cent interest in The Old Hickory Chemical Co. which produces carbon bisulphide. It holds 51 per cent, and General Motors 49 per cent, of the voting stock of Kinetic Chemicals, Inc., a manufacturer of refrigerants. Du Pont Company owns 66.7 per cent of

the voting stock of International Freighting Corporation, Inc., which operates a steamship and general chartering business between the Atlantic Coast, Gulf Coast, and South American ports. The balance of the voting stock is held by General Motors.

14. General Motors is the largest manufacturing company in the United States. Its principal business consists of the manufacture of passenger cars and trucks, including various parts and accessories. It produces the Chevrolet, Buick, Oldsmobile, Pontiac, and Cadillac passenger cars and the [fol. 49] Chevrolet and GMC trucks. It is the largest producer of passenger cars and trucks in the United States. In 1947, it sold 1,931,000 passenger cars and trucks to dealers in the United States and Canada and for shipment overseas, which was 38 per cent of the industry total produced in the United States. In the 1937-1941 period, its average annual sales of passenger cars and trucks were 1,832,466 units or 43 per cent of the industry total produced in the United States. It is the largest producer of automobile parts and accessories. It manufactures parts and accessories for use in its own cars as well as for sale and use in cars and trucks produced by other automobile and truck manufacturers.

15. General Motors is also the largest manufacturer of railroad Diesel locomotives in the United States. It produces Diesel engines for use in these locomotives as well as for other purposes. It manufactures numerous other products, including ball bearings, roller bearings, and a wide range of household appliances, such as electric refrigerators and heating equipment. Many of the General Motors production operations are conducted through operating divisions which include the following:

Car, Truck and Body Divisions: Buick Motor, Cadillac Motor Car, Chevrolet Motor GMC Truck & Coach, Pontiac Motor, Buick-Oldsmobile-Pontiac Assembly, Fisher Body, and Oldsmobile; *Accessory and Parts Divisions*: AC Spark Plug, Aeroproducts, Brown-Lipe-Chapin, Central Foundry, Delco Products, Delco Radio, Delco-Remy, Detroit Transmission, Guide Lamp, Harrison Radiator, Hyatt Bearings, Inland Mfg., Moraine Products, New Departure, Packard Electric, Rochester Products, and Saginaw Steering Gear; [fol. 50] *Household Appliance Divisions*: Delco Appliance and Frigidaire; *Engine Divisions*: Allison, Diesel Equipment, Cleveland Diesel Engine, Electro-Motive, and Detroit Diesel Engine.

16. General Motors also has a large number of subsidiaries, mostly wholly-owned, through which other operations of the company are conducted. It holds 50 per cent of the common stock of Ethyl Corporation which, prior to 1948, was the sole producer of Ethyl fluid made from tetraethyl lead and used as an anti-knock in gasoline. The other 50 per cent of the stock of that company was owned by Standard Oil Company of New Jersey. General Motors also holds substantial interests in Kinetic Chemicals, Inc. and International Freighting Corporation, Inc., as hereinbefore alleged.

17. U. S. Rubber is the largest manufacturer in the United States of rubber tires and tubes, as well as of numerous other products made in whole or in part from rubber. Most of the defendant U. S. Rubber's manufacturing operations are conducted through the following divisions of the company: Tire Division, Mechanical Goods Division, Footwear, Naugatuck Chemical and Synthetic Rubber, and Textile. Defendant U. S. Rubber also has a large number of wholly-owned and a small number of partially-owned subsidiaries through which other operations of the company are conducted.

18. Du Pont Company, General Motors and U. S. Rubber together constitute the largest combination of manufacturing enterprises in the United States. For the year 1947, the assets, sales volume and net income after taxes of the defendant manufacturers were as follows:

[fol. 51]

	Assets	Sales (Round Nos.)	Net Income After Taxes (Round Nos.)
du Pont	$1,438,000,000	$ 783,000,000	$120,000,000
General Motors	2,473,000,000	3,815,000,000	288,000,000
U. S. Rubber	348,000,000	581,000,000	21,000,000
Total	4,259,000,000	5,189,000,000	429,000,000

19. The defendant manufacturers maintain production and distribution facilities throughout the United States. Products produced by the defendant manufacturers are by them sold and shipped in commerce among the several States of the United States.

20. The du Pont Company produces many products which

are used in the operations of other defendant manufacturers. General Motors and U. S. Rubber constitute a substantial market for many of such products produced by du Pont Company. Du Pont sell to General Motors large quantities of lacquers, paints, varnishes, thinners, anti-freeze preparations, coated fabrics, and artificial leather. It sells to U. S. Rubber large quantities of rayon and organic chemicals. It has sold to Ethyl Corporation, a General Motors subsidiary organized in furtherance of the hereinafter alleged conspiracy, large quantities of tetraethyl lead, alcohol, and ethyl chloride. Du Pont Company sells large quantities of many products other than those mentioned above to General Motors and United States Rubber, while additional quantities of products produced by du Pont Company are sold to these two companies through companies and persons other than du Pont Company. Du Pont Company's sales (not including sales of du Pont-made products sold through companies other than du Pont) for the years 1938 to 1947, inclusive, to defendant General Motors totaled approximately $134,000,000, to defendant U. S. [fol. 52] Rubber approximately $72,000,000, and to Ethyl Corporation approximately $57,000,000, a total of $263,000,000.

21. United States Rubber sells to General Motors large quantities of tires and tubes for use as original equipment in General Motors cars and trucks, as well as quantities of other products. It is General Motors' principal supplier of tires and tubes for use as original equipment in the cars, trucks, and busses produced and sold by General Motors and its subsidiaries. U. S. Rubber's direct sales of tires and tubes to General Motors for original equipment totaled, for the period 1934 to 1947, inclusive, approximately $500,000,000.

22. General Motors sells a large number of passenger cars and trucks either directly or through dealers to each of the other defendant manufacturers.

23. The products sold by each defendant manufacturer to the other defendant manufacturers are shipped in interstate trade and commerce from the factories or warehouses of the selling defendant to the factories or warehouses of the purchasing defendants located in other States.

24. There are numerous manufacturers, other than the defendant manufacturers, located in various parts of the

United States, which manufacture and sell products of substantially the same type, kind, and quality as the products manufactured and sold by the defendant manufacturers, and but for the combination and conspiracy alleged hereinafter these other manufacturers would be able to offer their products competitively to the manufacturing defendants having need for them. In addition, the potential market in which these other manufacturing companies may com-[fol. 53] pete generally has been restricted substantially by the nature and magnitude of the growth of the defendant manufacturers, and the ability of said other manufacturing companies to compete effectively, has been substantially impaired by the illegal means hereinafter alleged.

IV

Origin and Development of du Pont Company to 1915

25. The du Pont Company was founded in 1802 by Eleuthere Irenee du Pont, who, with his father and members of their families, had *im*migrated to the United States from France, and set up a company to engage in the manufacture of black powder. The company's first plant was located on the Brandywine River in Delaware, where the headquarters of the company has remained. Prior to 1899, the company operated as a partnership, with members of the du Pont family and their close associates holding the partnership shares. In 1899, the company became a corporation, with control remaining in the hands of members of the du Pont family. Until the latter part of the 19th century, the company's principal business consisted of the production of black powder and it was the leading company in the United States in that field. It then expanded into the manufacture of smokeless powder and high explosives, and in these fields also shortly became the principal producer in the United States.

26. In 1902, a major change occurred in the administration of the company. The then president of the company, Eugene du Pont, died, and the remaining senior members of the du Pont family wished to dispose of their holdings in the company. Three of the younger members of the family, Alfred I. du Pont, Pierre S. du Pont, and T. Cole-[fol. 54] man du Pont, purchased the company, and formed a new company, the E. I. du Pont de Nemours Powder Com-

pany (a New Jersey corporation), which took over the assets of the acquired company. Approximately 89,000 shares of the 119,970 shares of common stock issued by the new company were acquired by T. Coleman du Pont, Alfred I. du Pont, and Pierre S. du Pont, with T. Coleman du Pont acquiring the principal block. This stock gave these three members of the du Pont family control of the company. The new company acquired not only the powder and explosives business of the old company, but also the shares of stock which its predecessor, as a holding company, held in numerous other powder and explosives companies. The new company immediately embarked, both directly and through subsidiary and holding companies, on a program of acquiring control of additional powder and explosive companies.

27. In 1907, a suit in equity was filed by the United States against the du Pont Company (the powder company of 1902) charging it and other companies with combining and conspiring to restrain and monopolize interstate trade and commerce in the field of powder and explosives. In 1911, the Court held the combination to be illegal and in 1912 a final judgment was entered providing for the splitting of the business of the du Pont Company among three companies: du Pont Company; Atlas Powder Company, and Hercules Powder Company.

28. In 1910 (prior to the dissolution referred to above), the total annual sales of the du Pont Company amounted to approximately $34,000,000. Its only holding at that time outside the powder and explosives field, was a part interest in a company which made artificial leather (Fabrikoid Company). Du Pont subsequently acquired full stock [fol. 55] interest in that company, dissolved it, and merged its operations into those of the du Pont Company as part of what subsequently became known as the Fabrics and Finishes Department. In 1915, du Pont acquired the Arlington Company, makers of celluloid, a product then used in substantial quantities in the making of automobile side curtains.

V

Offenses Charged

29. Beginning in or about 1915 and continuing thereafter up to and including the date of the filing of this com-

plaint, the defendants have been and are now engaged in a continuing combination and conspiracy to restrain unreasonably the aforesaid interstate trade and commerce in the development, production, manufacture, distribution and sale of the products which are or may be produced by each of the defendant manufacturers and have conspired and combined to monopolize a substantial part of such interstate trade and commerce, in violation of Sections 1 and 2 of the Sherman Act, and defendant du Pont has acquired a controlling interest in the stock or other share capital of defendant General Motors, while both of said corporations were engaged in interstate commerce, the effect of which acquisition has been to substantially lessen competition between the two companies and to tend to create a monopoly in particular lines of commerce in violation of Section 7 of the Clayton Act. Defendants threaten to continue such offenses and will continue them unless the relief hereinafter prayed for in this Complaint is granted.

30. The aforesaid combination and conspiracy to restrain interstate trade and commerce and to monopolize a substantial part thereof, has consisted of a continuing agreement and concert of action among the defendants, the substantial terms of which have been that the defendants:

[fol. 56] (a) Agree to acquire, hold and perpetuate control by the defendant individuals and class defendants of the directors, executives, and corporate policy of each of the corporate defendants:

(1) By establishing Christiana and Delaware as personal holding companies, a majority of the outstanding voting stock of which would be held by the defendant individuals and class defendants and their families in perpetuity and voted by them;

(2) By utilizing Christiana and Delaware to acquire sufficient of the common stock of du Pont Company to control it, and to hold such stock in perpetuity, and to vote it;

(3) By causing du Pont Company to acquire sufficient of the common stock of General Motors to control it, to hold such stock in perpetuity, and to vote it;

(4) By causing the defendant individuals and certain of the class defendants to acquire sufficient of the common stock of United States Rubber to control

it, to hold such stock in perpetuity for themselves and their families, and to vote it;

(b) Agree to utilize control of the defendant manufacturers to enhance the size, power, and market control of each of them at the expense of its competitors:

(1) By causing each defendant manufacturer which uses products produced by one or more of the other defendant manufacturers to purchase substantially [fol. 57] all of its requirements of such products from such other defendant manufacturers, and to exclude competitors of such other defendant manufacturers from the opportunity of competing freely for such business;

(2) By causing du Pont Company to expand its production facilities, through acquisitions and otherwise, so as to enable it to produce the types and quantities of products in the chemical and related fields which are used in substantial quantities by the other defendant manufacturers;

(3) By causing General Motors and United States Rubber to expand in their respective existing fields, and into new fields, through acquisitions and otherwise, so as to enlarge the closed and noncompetitive market available to du Pont Company for products sold by it to General Motors and United States Rubber, and to increase the profits available to du Pont Company from its ownership of General Motors stocks;

4. By subsidizing the expansion of du Pont Company by using for such purpose the profits derived by it from the sale of its products on a closed market basis to General Motors and United States Rubber, as well as the profits derived by du Pont Company from its ownership of General Motors stock;

(5) By subsidizing the expansion of General Motors by causing du Pont Company and United States Rubber to grant General Motors systematic secret rebates [fol. 58] and preferential prices on certain of the products sold to General Motors on a closed market basis by du Pont Company and United States Rubber, and selling such products at higher prices to customers of

du Pont and United States Rubber other than General Motors;

(6) By subsidizing the expansion of United States Rubber by using for such purpose the profits derived by it from the sale of its products on a closed market basis to General Motors and du Pont Company;

(7) By inducing suppliers of each defendant manufacturer to purchase products on a basis of reciprocity from one or more of the other defendant manufacturers, and to refrain from purchasing such products from competitors of such other defendant manufacturers;

(8) By causing each defendant manufacturer to make patents, technical data, and trade information obtained by any one defendant manufacturer available to the other defendant manufacturers on an exclusive or preferential basis;

(c) Agree to utilize control of the defendant manufacturers to eliminate competition among themselves:

(1) By causing General Motors to refrain from entering into chemical manufacturing fields, including the manufacture of paints, varnishes, and related products, and to grant du Pont Company exclusive production rights in chemical discoveries made by General Motors;

(2) By causing General Motors to refrain from manufacturing tires and tubes;

[fol. 59] (3) By causing United States Rubber to refrain from expanding its operations into chemical and related fields in which du Pont Company operates, or into fields in which General Motors operates.

31. During the period of time covered by this complaint and for the purpose of forming and effectuating the aforesaid combination and conspiracy, the defendants by agreement and concerted action have done the things which, as hereinbefore alleged, they conspired to do, and more particularly, have done, among others, the following acts and things.

A. *The Organization of Christiana and Delaware to Perpetuate du Pont Family Control over du Pont Company*

32. In 1915, the defendants Pierre S., Irenee and Lammot du Pont, together with A. Felix du Pont, and R. R. M. Carpenter, who were members of the du Pont family, and John J. Raskob, Treasurer of du Pont Company, formed a syndicate to acquire the large block of stock in du Pont Company (Powder Company) then held by its largest stockholder, T. Coleman du Pont. The stock was acquired and the members of the syndicate organized the du Pont Securities Company (predecessor of defendant Christiana and hereinafter referred to as defendant Christiana) as a personal holding company to which the T. Coleman du Pont holdings were transferred, along with certain shares of du Pont Company common stock owned by members of the syndicate. Christiana then held a controlling portion of the du Pont Company common stock.

33. At the outset, all of Christiana's outstanding common stock (75,000 shares) was held by its incorporators in [fol. 60] the following amounts: defendant Pierre S. du Pont, 37,500 shares; defendant Irenee du Pont, 12,000 shares; defendant Lammot du Pont, 12,000 shares; A. Felix du Pont, 6,000 shares, R. R. M. Carpenter 4,500 shares, and John J. Raskob, 3,000 shares. All except John J. Raskob were members of the du Pont family. These stockholders then allocated certain of their shares of Christiana stock to officers of the du Pont Company. When this redistribution had been completed, the original incorporators held approximately 68,250 shares of the 75,000 outstanding shares of Christiana stock. Thereafter most of the common stock which the defendant individuals and class defendants held in du Pont Company, was turned over to Christiana in exchange for its stock to prevent dispersal of such du Pont Company stock, and to insure the perpetuation by such individual and class defendants of their control over du Pont Company.

34. It was understood and agreed among the individual defendants and class defendants who held Christiana stock that they would continue to hold it, would keep it within their families and would not dispose of it to outsiders, so that, either directly or through their families, such defendants would maintain control of a majority of the stock of

Christiana and, through such stockholdings, maintain control of the du Pont Company. This understanding and agreement has been adhered to, and throughout the period covered by this Complaint, the individual defendants and the class defendants have, pursuant to said understanding and agreement, held control of Christiana, and, through it, of du Pont Company. The du Pont Company common stock held by Christiana has been voted as a block at the stockholders' meetings of the du Pont Company. The directors of Christiana have customarily been directors and officers of the du Pont Company.

[fol. 61] 35. The largest single block of stock in Christiana (approximately 49,000 shares, or 32 per cent) is held by defendant Delaware. Delaware, in turn, is a personal holding company for a small number of the members of the du Pont family and their close associates. It was used by defendant Pierre S. du Pont, who had no children, as a means of passing control of his stock holdings to his closest relatives. To accomplish this, he turned the bulk of his holdings in Christiana, in which he was the largest stockholder, together with his common stock in du Pont Company and other companies, over to Delaware in consideration of the payment by it to him of an annuity of approximately $900,000 a year. The common stock of Delaware was then distributed among his close relatives. The majority of Delaware's 800,000 shares of outstanding common stock is held by the defendants Irenee and Lammot du Pont, a brother-in-law, and two of their nephews, and the members of their respective families. It was understood and agreed among the defendant individuals and class defendants who held Delaware stock that they would hold it for themselves and the members of their families, so that control of defendant Delaware would remain in perpetuity in the hands of the defendant individuals and certain of the class defendants. This understanding and agreement has been adhered to, and, throughout the period of Delaware's existence, said defendants have, pursuant to said understanding and agreement, retained control of Delaware, and have caused the common stock of du Pont Company which is held by Delaware to be voted in stockholders' meetings of du Pont Company in the same manner as the common stock in du Pont Company held by Christiana. The defendant individuals have at all times occupied the dominant position in deter-[fol. 62] mining what the policies of Christiana, Delaware and du Pont Company should be. The class defendants have at all times accommodated themselves to the decisions of the defendant individuals, and such class defendants have voted their stock in Christiana, Delaware and du Pont Company, and have done other acts in furtherance of this combination and conspiracy, pursuant to agreement and understanding had among themselves and the defendant individuals.

36. Christiana now holds approximately 3,049,800 shares (or 26 per cent) and Delaware holds approximately 304,480 shares (or 3 per cent) of the outstanding shares (11,158,340) of the common stock of du Pont Company. Defendant individuals and class defendants who are either officers or directors of the du Pont Company own a further block of approximately 5.3 per cent of the stock of that company, while other members of the du Pont family, including the class defendants, who are not officers or directors of the du Pont Company, own directly a further 2.2 per cent of the stock in du Pont. The combined holdings of Christiana and Delaware in du Pont Company, together with the direct holdings of members of the du Pont family in that company, total at the present time approximately 36 per cent of the outstanding common stock of du Pont Company.

37. The remaining approximately 64 per cent of the capital stock of the du Pont Company is diffused among approximately 73,000 stockholders whose average holdings amount to slightly over 100 shares apiece. The concentrated holdings of Christiana and Delaware alone, as contrasted to the wide distribution of the remaining shares of the stock among 73,000 stockholders scattered throughout the world, are sufficient to, and do, enable these personal holding companies to control the defendant du Pont Company and its policies.

[fol. 63] B. *Acquisition and Exercise of Control by du Pont Company over General Motors*

38. During World War I, du Pont Company plant facilities, sales, and profits in the powder and explosives fields expanded enormously as a result of the wartime demand for these products on the part, first of Great Britain,

France, and the other allied powers, and later of the United States. Its net profits on this war business during the period 1915 to 1918, inclusive, totalled approximately $232,000,000.

39. During 1917, the du Pont Company, anticipating the end of World War I and the cessation of orders for vast quantities of powder and explosives which the company had enjoyed, determined to utilize part of its war profits to expand into fields other than gunpowder and explosives, and to acquire for itself protected markets for these new products and for products such as artificial leather and transparent celluloid, which were being produced by companies in which du Pont had already acquired an interest, and thus to counterbalance the anticipated shrinkage in the powder and explosives business which would inevitably follow the close of hostilities.

1. *Acquisition of Stock*

40. The defendant Pierre S. du Pont, then president of du Pont Company, and others associated with him in the company, had been investing in the common stock of General Motors Company and Chevrolet Company (which then held a majority of the stock of General Motors), and had become acquainted with the potentialities of the motor car industry and with the opportunities it held as a protected market for products which du Pont Company produced or might produce through an expansion of its enterprises.

41. On December 21, 1917, the executives and Finance [fol. 64] Committees of the du Pont Company, which included defendants Pierre S. du Pont, Lammot du Pont, and Irenee du Pont in their membership, in a joint meeting, formally approved the acquisition by du Pont Company of a substantial interest in General Motors Company and Chevrolet Company, and authorized the purchase of $25,000,000 worth of the common stock of these companies. A new company, General Industries, Inc., all of whose stock was held by du Pont Company, was set up with an authorized capital of $25,000,000 to accomplish the actual purchase of General Motors and Chevrolet stock. The acquisition was made on the understanding that du Pont Company and the then existing William Durant management of Chev-

rolet and General Motors would have joint control of those two companies, that the du Pont Company would immediately assume charge and be responsible for the financial operation of General Motors and Chevrolet, and that General Motors and Chevrolet would purchase from du Pont Company all of their requirements of Fabricoid (artificial leather), Pyralin (transparent celluloid), paint, varnish, and related products then produced or thereafter to be produced by du Pont Company, or by companies to be acquired by du Pont Company.

42. Pursuant to the foregoing understanding, General Industries, Inc., had by March 8, 1918, purchased common stock of General Motors and Chevrolet in an amount equivalent to approximately a 23 per cent interest in the two companies.

43. Shortly thereafter the name of this stock purchasing instrumentality was changed from General Industries, Inc., to du Pont American Industries, Inc., its capitalization was substantially increased, and it continued to purchase stock in General Motors and Chevrolet. The du Pont Company also approved the acquisition by General Motors of the assets of Chevrolet, which was thereafter accomplished, with [fol. 65] Chevrolet thereafter being operated as a division of General Motors. By October 1919, du Pont American Industries owned almost 30 per cent of the then outstanding stock of General Motors.

44. In 1920, William Durant, the organizer of General Motors, was in financial difficulty and the du Pont Company undertook to acquire his stock holdings in General Motors so as to eliminate him from participation in the control of General Motors, concentrate the control in the hands of du Pont Company, and prevent interests unsympathetic to du Pont Company from acquiring an interest in and a voice in the control of General Motors. To accomplish this, the du Pont Securities Company was organized as a subsidiary of du Pont American Industries and purchased William Durant's General Motors stock. The du Pont Company's stock purchasing subsidiaries, du Pont American Industries, Inc., and du Pont Securities Company, were later dissolved and their General Motors stock holdings taken over by du Pont Company. It thereafter from time to time

acquired additional blocks of General Motors stock to prevent them from falling into hands which might embarrass du Pont Company's control of General Motors.

45. du Pont Company utilized J. P. Morgan & Company to aid in the financing of du Pont's acquisition of Durant's stock, as well as in financing the capital needs of General Motors, and during the financial stringency of 1920 induced affiliated companies, such as Canadian Industries, Ltd. (a Canadian firm jointly controlled by du Pont Company and the Nobel interests (explosives) of Great Britain) both severally and in partnership with du Pont, to subscribe heavily for General Motors capital stock. Such acquisitions were in large part taken over by du Pont at a later date.

46. du Pont Company, in return for the assistance given it and General Motors by J. P. Morgan & Company, desig- [fol. 66] nated two of the Morgan representatives for membership on the General Motors Board of Directors, such membership being held by the Morgan representatives until approximately 1942, when one of the Morgan men died.

47. Defendant du Pont Company has for many years past owned 10,000,000 shares (approximately 23 per cent) out of the approximately 44,000,000 outstanding shares of General Motors common stock. The remaining shares of General Motors stock were, in 1947, held by over 436,000 stockholders located in the various States of the United States and in foreign countries. Ninety-two per cent of these stockholders owned no more than 100 shares. Sixty per cent owned no more than 25 shares. The concentrated block of 10,000,000 shares held by du Pont Company as contrasted to the wide distribution of the remaining 34,000,000 shares among hundreds of thousands of small shareholders, has enabled defendants to control the selection of the directors of General Motors and to control the administration and policies of that corporation.

2. Control over Officers and Directors

48. In the du Pont Company, the Finance and the Executive Committees of the Board of Directors are the bodies which control the basic policies of the company. Likewise, in defendant General Motors, the Finance Committee (other-

wise known as the Policy Committee and later as the Financial Policy Committee) and the Executive Committee are the bodies which control the basic policies of that company.

49. When the du Pont Company decision was made in 1917 to acquire a substantial stock interest in General Motors, du Pont Company, pursuant to the understanding reached with the hitherto dominant William Durant management interests in General Motors, began taking over control of the Finance Committee of that company.

50. Starting in the latter part of 1917, and continuing into [fol. 67] 1918, the du Pont Company placed the following representatives on the Finance Committee of the Board of Directors of General Motors:

Position with du Pont

Pierre S. du Pont, President, Director and member of Finance Committee.

Lammot du Pont, Vice-President, Director, and member of Executive Committee.

Irenee du Pont, Vice-President, Director, and member of Finance Committee.

Henry F. du Pont, Director, Member of Finance Committee.

J. A. Haskell, Vice-President, Director, member of Executive Committee.

J. J. Raskob, Treasurer (later Vice-President), Director, member of Finance and Executive Committees.

The seventh member of the General Motors Finance Committee was William Durant.

51. Since 1917 key officers and directors of the du Pont Company, including the individual defendants named herein, have been assigned by du Pont Company to serve as officers and directors of General Motors and on its principal committees. The du Pont Company has also determined what other persons should hold office as members of the Board of Directors of General Motors, and no person has been chosen for membership on such board contrary to the wishes of du Pont Company.

52. The principal official positions which the individual

defendants have held with du Pont Company and General Motors are as follows:

du Pont Company		General Motors	
	Pierre S. du Pont		
Director	1915–date	Director	191 -1944
President	1915–1919	President	1920–1923
Chairman of Board	1919–1940	Chairman of Board	1917–1929
Finance Committee	1915–date	Finance Committee	1917–1937
		Executive Committee	1921–1929
[fol. 68]			
	Lammot du Pont		
Director	1915–date	Director	1918–1946
Vice President	1916–1926	Chairman of Board	1929–1937
President	1926–1940	Finance Committee	1917–1937
Chairman of Board	1940–1948	Executive Committee	1921–1929
Finance Committee	1918–1945		
Executive Committee	1915–1940		
	Irenee du Pont		
Director	1915–date	Director	1918–1938
Vice President	1915–1919	Finance Committee and Successor Committee	1918–1946
President	1919–1926	Executive Committee	1930–1934
Vice Chairman of Board	1926–1940		

53. In 1923, General Motors and du Pont Company worked out a plan to provide special financial incentives to the executives of General Motors in a form which would make them more directly responsive to the influence and desires of du Pont Company. Under this plan, General Motors organized a corporation known as Managers Securities Company and obligated itself to pay the company a minimum of $2,000,000 annually (thereafter changed to a percentage of General Motors' net profits). du Pont Company transferred to the new company the right to receive dividends from approximately 2,250,000 shares of the General Motors common stock owned by du Pont Company. General Motors, through its Finance Committee, then allocated Class A and B stock of Managers Securities Company to General Motors executives in amounts determined by the Finance Committee of General Motors. One of these classes of Managers Securities Company stock so allocated to the General Motors executives, carried with it the right to participate in the special payments [fol. 69] which General Motors had obligated itself to make annually to Managers Securities Company. The other class of Managers Securities Company stock, also allocated to General Motors executives, received the balance

of the income which Managers Securities had, such income consisting, in the main, of dividends from the 2,250,000 shares of General Motors common stock allocated to Managers Securities by du Pont Company. Although various changes were made thereafter in the detailed operation of the bonus system, the basic elements of the plan have continued to the date of the filing of this complaint.

54. Under the bonus plan those General Motor executives who have been permitted to participate have been enabled, through the payment of small sums, to reap tremendous returns. The $1,000,000 worth of Managers Securities stock to which the dividends from General Motors stock was allocated, as issued to General Motors executives starting about 1923, was worth over $500,000,000 on the basis of the highest market price prevailing in 1929 for General Motors common, and nearly $350,000,000 on the basis of the median price in that year.

55. Throughout the period of time that the bonus plan has been in operation, the allocation of benefits under the plan to General Motors executives and the determination of the amount of each such allocation has been made either by the Finance Committee of General Motors, or by a special Bonus and Salary Committee of the Board of Directors of General Motors. Throughout this period of time, either defendant individuals, or associates of defendant individuals who were officers or directors of du Pont Company, including certain class defendants, have dominated said Finance Committee or Bonus and Salary Committee and have determined who among the General Motors executives should receive bonus allocations and the amount each should receive. The executive personnel of General Motors have [fol. 70] known throughout the existence of the bonus plan, that the recipients of cash and stock bonuses and the amounts each received was determined by a committee the majority of which has at all times been composed of du Pont Company directors, officials and employees. As an inevitable, and intended, consequence of the operation of the bonus plan, General Motors executives have responded readily to the influence and desires of the du Pont Company.

3. *Agreements Relating to Intercompany Sales.*

56. Beginning in 1917, it was understood and agreed between General Motors and du Pont Company that, because of the latter's acquisition of control over General Motors, General Motors would give preference to du Pont Company in buying products for use in its operations. It was agreed that General Motors would purchase from du Pont all or substantially all of its requirements of products manufactured by du Pont, and would refrain, in whole or in large part, from purchasing such products from competitors of du Pont Company. It was further understood and agreed that du Pont Company in buying cars or trucks or other products produced by General Motors would buy all or substantially all of such goods from General Motors, and refrain, in whole or in large part, from purchasing such products from General Motors' competition.

57. In 1917, du Pont Company was producing principally powder and explosives. It manufactured few items which could be used in the production of automobiles. Among the few items required by General Motors which were produced by du Pont Company or its subsidiaries in 1917 was celluloid which, in transparent form, was used in making side curtains for automobiles, and artificial leather which was used extensively in automobile seats and upholstery. Beginning in or about 1917, General Motors has purchased all or substantially all of its requirements of these items [fol. 71] from du Pont Company.

58. The du Pont Company, from in or about 1917, has purchased all or substantially all of its requirements of cars and trucks and other items produced by General Motors from that company or its dealers.

59. In 1917, the du Pont Company was engaged to but a limited extent in the production of paints and varnishes and related products. In reliance upon the understanding that it would be the primary supplier for General Motors of products which were manufactured by du Pont, and knowing that General Motors would constitute a large market for paints, varnishes, lacquers, thinners, enamels, and the like, du Pont Company embarked, starting in 1917, upon a program of acquiring numerous independent companies engaged in the production of such products. Among the

companies so acquired were Bridgeport Wood Finishing Company; Cauley, Clark & Company; Harrison Brothers & Company, Inc.; Flint Varnish & Chemical Works; New England Oil Paint & Varnish Company; Chicago Varnish Company; Mountain Varnish & Color Works. At the time it was acquired by du Pont Company, the Flint Varnish & Chemical Works specialized in automobile finishes, and General Motors acquired and held a minority interest in the common stock of that company. After acquiring the majority stock interest in Flint Varnish, du Pont Company purchased from General Motors its minority interest pursuant to an understanding and agreement between General Motors and du Pont Company that General Motors would not engage in the production of paints and varnish and allied products so long as du Pont Company was engaged in such business and retained its control over General Motors.

60. The paint and varnish companies which were acquired by du Pont Company were thereafter dissolved and their assets taken over by du Pont Company and incorporated in [fol. 72] its Fabrics and Finishes Department. The Fabrics Division of this department produces artificial leather and other coated fabrics while the Finishes Division of such department produces paints, enamels, varnishes, lacquers, thinners and related products. Beginning in or about 1917, General Motors has purchased all or substantially all of its requirements of items in this fabrics and finishes field from du Pont Company. The bulk of the purchases made by General Motors from du Pont Company are from the Fabrics and Finishes Department. General Motors is not only the largest customer of this department but its purchases constitute a large percentage of the department's total volume of business. This department is one of, if not the largest, profit producer of the many departments of du Pont Company.

61. At the time du Pont Company first acquired a substantial stock interest in General Motors that company operated through somewhat autonomous operating divisions, each of which had its own purchasing department which purchased for their own division with but limited supervision from the central office of General Motors. In order to secure more effective liaison among these divisional purchasing agents and to insure that du Pont

Company wishes would be promptly communicated to them and fully complied with, a central purchasing committee for General Motors was established in or about 1922. The membership of this committee was made up of the purchasing agents of the operating divisions and the committees met approximately monthly. The chairman of the committee was at all times one of the high executives of General Motors who was either a former executive of du Pont Company or one who possessed the complete confidence of the du Pont Company. This central purchasing committee was an effective instrumentality in carrying out the du Pont-General Motors inter-company sales arrangements hereinbefore and hereinafter described.

[fol. 73] 62. The original policy of requiring General Motors to purchase exclusively from du Pont the products du Pont was able to supply was subsequently modified so as to permit General Motors to purchase from 20 to 25 per cent of its requirements of the products du Pont manufactured which General Motors used from companies other than du Pont, leaving du Pont with 75 to 80 per cent of the General Motors business. This modification was made because of the fear of both du Pont and General Motors that their business relations with other concerns might be jeopardized if it became generally known that General Motors was required to buy exclusively from du Pont.

63. General Motors, as a protected market for du Pont Company, from which its competitors have been substantially excluded, has provided du Pont Company a substantial and highly profitable outlet for its products, du Pont Company's direct sales to General Motors and Ethyl (excluding sales of du Pont products made to General Motors by others than du Pont Company) have exceeded $191,000,000 for the period 1938 to 1947, inclusive.

4. *Agreements Relating to Division of Fields*

64. du Pont Company, following its acquisition of control over General Motors in or about 1917, not only extended its operations into the manufacture of paints and varnishes and related products, but also began expanding into other areas in the chemical field. In connection with this expansion, du Pont Company entered into an agreement with General Motors to the effect that the latter

would refrain from the manufacture of chemicals, including paints and varnishes and similar products, leaving this field, as between the two companies, exclusively to du Pont Company. It was further agreed between the two companies that when General Motors made discoveries in [fol. 74] the chemical field, it would inform du Pont Company of the findings and grant to du Pont Company exclusive development, production, and exploitation rights with respect to such discoveries. 'It was also understood that if any of said General Motors' discoveries were useable in General Motors operations, du Pont Company would, after their development, make them available to General Motors Company for use upon an exclusive or preferential basis. It was further understood that if du Pont Company made discoveries in the chemical field which might be of use in the production of automobiles, du Pont Company would promptly inform General Motors of its findings and grant to General Motors preferential rights with respect to such discoveries, and General Motors would aid in the experimental work on such discoveries.

65. Two illustrations of the results of the agreements to divide fields are set out below.

(a) *Tetraethyl Lead*

66. Starting in or about 1918, General Motors engaged in an extensive investigation into the nature and causes of "knocking" in internal combustion engines. The chemical research involved in this investigation revealed that the use of tetraethyl lead blended with gasoline in proper proportions constituted an effective "anti-knock." When General Motors made this discovery, tetraethyl lead was a scarce and expensive product, production of which was highly hazardous. General Motors, therefore, continued its researches in an attempt to discover a cheaper and safer method of producing tetraethyl lead on a commercial basis. It was successful in its endeavor and discovered that tetraethyl lead could be produced commercially from ethyl bromide. It secured patents on both the use of tetraethyl lead in gasoline as an "anti-knock" and on the method of producing it. The du Pont Company was kept fully advised by General Motors as to these de- [fol. 75] velopments. When General Motors had completed

the basic research and development work, the project was surrendered to du Pont Company on an exclusive basis pursuant to the agreements set out above. du Pont Company understook to develop the "anti-knock" commercially, and also to negotiate with companies in foreign countries such agreements as might be desirable to insure that tetraethyl lead as an "anti-knock" could be produced and sold in the United States free from competition arising from such foreign sources.

67. In or about 1922, General Motors and du Pont Company were ready to exploit commercially the use of tetraethyl lead in gasoline as an "anti-knock." The two companies then entered into agreements under which the du Pont Company was given the exclusive right to manufacture tetraethyl lead under the General Motors patents. The contract was a continuing one, giving the du Pont Company this exclusive right in perpetuity, but allowing it to cancel the contract on one year's notice. By supplementary contracts, du Pont was enabled to construct plants to produce tetraethyl lead upon a basis which involved no financial risk for du Pont Company and which imposed all such risks on General Motors.

68. The tetraethyl lead, which was manufactured by du Pont Company pursuant to the terms of the foregoing agreements, was distributed by a General Motors subsidiary which was organized to handle the marketing of the tetraethyl lead to oil companies. This General Motors subsidiary entered into an agreement, in or about 1924, with the Standard Oil Company of New Jersey (Standard Oil), giving that company the exclusive right to distribute tetraethyl lead for use as an "anti-knock" in gasoline for a period of 18 months. During the period of this exclusive distributorship, Standard Oil discovered a new and improved method of producing tetraethyl lead. The new method was both cheaper and safer than the method [fol. 76] which had been discovered by General Motors. It permitted the production of the tetraethyl lead from ethyl chloride, which was in plentiful supply, instead of from ethyl bromide, which was in very short supply. In the meantime, du Pont Company had built a sizable plant at Deepwater, New Jersey, and was producing substantial amounts of tetraethyl lead under the bromide process. Oil

companies that were using the tetraethyl lead in their gasoline were enthusiastic about the "anti-knock" results achieved, and du Pont Company anticipated a great expansion in demand and production.

69. Standard Oil, relying on its exclusive distributorship rights to tetraethyl lead and on the potentialities of its new method of producing the product, demanded of General Motors and du Pont the right itself to produce tetraethyl lead and thereby share production privileges and profits with du Pont Company. du Pont Company objected even though its production of tetraethyl lead was at the time being severely limited by shortages in the supply of bromide. General Motors supported du Pont Company in resisting Standard Oil's attempt to enter into the business of producing tetraethyl lead.

70. The conflict was resolved by an agreement under which a new corporation, Ethyl Gasoline Corporation (later changed to Ethyl Corporation, and referred to herein as "Ethyl") was organized in or about 1924, to take over the physical assets and contract obligations of the General Motors subsidiary which had been handling the marketing of the tetraethyl lead produced by du Pont Company. Both Standard Oil and General Motors assigned to the new company their patents and patent applications relating to the use of tetraethyl lead as an "anti-knock" and to the methods of producing the substance. The voting stock in the new corporation was divided equally between General Motors and Standard Oil. It was agreed among du Pont Company, General Motors, and Standard Oil that [fol. 77] the latter, in consideration for receiving a 50 per cent stock interest in Ethyl, and thereby securing a right to one-half of the profits involved in the distribution of the Ethyl fluid, would withdraw its demand to share with du Pont Company in the manufacture of tetraethyl lead. The three companies agreed that du Pont Company would have the exclusive right to produce tetraethyl lead for Ethyl and to blend the tetraethyl lead into what was known as Ethyl fluid, and would be permitted to produce and supply total requirements of the principal products needed in the production of tetraethyl lead.

71. In the years following the organization of Ethyl, du Pont Company and General Motors entered into nu-

merous contracts, agreements, and understandings which (a) gave to and insured to du Pont Company the exclusive right to produce tetraethyl lead, to blend the lead into the "Ethyl fluid" which Ethyl distributed to oil companies for blending in gasoline, and to supply exclusively the basic ingredients, such as ethyl alcohol, caustic soda, sodium, and other products which entered into the production of tetraethyl lead; and (b) provided that du Pont Company should erect the necessary plants to produce the tetraethyl lead and certain of the products entering into its production, but upon terms involving no financial risk to du Pont Company and imposing the greater part of the expense of construction upon Ethyl.

72. The term of the last basic ethyl patent expired about December 31, 1947. Beginning in the early 1930's, du Pont Company and General Motors gave much attention to devising means for the protection of du Pont Company's monopoly in the production of tetraethyl lead and the blending of Ethyl fluid upon the expiration of the applicable patents. To achieve this purpose, General Motors and du Pont agreed that their arrangements with Ethyl would be modified from time to time prior to the expiration [fol. 78] of the patents in such a way that when the patent protection ended, du Pont Company would be in a position not only to continue manufacturing the tetraethyl lead, but also to take over from Ethyl the distribution of the Ethyl fluid. In furtherance of this agreement, a series of contracts were entered into between du Pont Company and Ethyl, the first ones being entered into in 1938, under which du Pont Company was "employed" by Ethyl to make tetraethyl lead, with du Pont Company to be compensated on the basis of an elaborate formula which was worked out among the parties, under du Pont Company's domination.

73. In or about January 1, 1948, the ethyl patent monopoly having expired, du Pont Company ceased manufacturing tetraethyl lead for the account of Ethyl and for distribution by Ethyl. du Pont Company instead, as contemplated by the agreement reached between it and General Motors and referred to hereinbefore, manufactured tetraethyl lead and blended Ethyl fluid for its own account,

and distributed the Ethyl fluid through its own organization.

74. The exclusive rights which du Pont Company secured in the tetraethyl lead development as a result of du Pont Company's control over General Motors established du Pont Company in a new and lucrative line of business and provided it with a protected market for tetraethyl lead, Ethyl fluid and the products used in making them, from which all competitors were rigidly excluded. Finally du Pont company was enabled to enter the business of distributing as well as manufacturing Ethyl fluid, was a substantial advantage over potential competitors when the Ethyl patent monopoly ended.

75. During the period prior to 1938, du Pont Company's profits on the manufacture and sale of tetraethyl lead in this protected market approximated $34,000,000. [fol. 79] From 1938 to 1947, Ethyl paid du Pont Company an additional $47,000,000 in payment for its services in the manufacture of tetraethyl lead. These sums received by du Pont Company do not include profits which it realized in the production of the basic ingredients utilized in the manufacture of tetraethyl lead and Ethyl fluid.

(b) *Refrigerants*

76. During the latter part of the 1920's General Motor's research department made discoveries of and secured patent applications on certain fluorine compounds (refrigerant) which would be of great use in connection with electric refrigeration. These discoveries were of particular significance to General Motors, because, through its Frigidaire Division, it was engaged in the manufacture and sale of electric refrigerators whose successful operation depended in large part on the type of refrigerant used in the mechanism. The newly discovered refrigerant was a material improvement over those then on the market.

77. General Motors, pursuant to the understanding it had with du Pont Company, promptly advised du Pont Company of the discovery of the new refrigerant. du Pont Company thereupon advised General Motors that as the discovery was in the chemical field, it should be handled by du Pont Company rather than by General Motors. The latter company acceded to du Pont Company's demands.

78. In or about 1930, General Motors and du Pont Company entered into an agreement to set up a third corporation, Kinetic Chemicals, Inc. to handle both the manufacture and the sale of the new refrigerant and to further developments in the field. The new company was organized with du Pont Company securing 51 per cent of its common stock and General Motors being allocated the minority share of 49 per cent. General Motors gave the new company an exclusive license under the patents which General [fol. 80] Motors had secured.

79. Since the organization of Kinetic Chemicals, Inc. it has been operated by du Pont Company as a division of its Organic Chemicals Department and has been wholly under the control and direction of du Pont Company. The Frigidaire Division of General Motors has, pursuant to the terms of the hereinbefore described understanding and agreement between General Motors and du Pont Company, purchased its requirements of refrigerants exclusively from Kinetic.

80. During a part of the time covered by this conspiracy, Kinetic sold its patented refrigerants exclusively to the Frigidaire Division of General Motors, and pursuant to agreement with that company refused to sell such refrigerants to other manufacturers of electric refrigerators. Thereafter, Kinetic sold certain forms of its patented refrigerants to companies other than General Motors but reserved other and preferred forms of such refrigerants exclusively for use by and sale to the Frigidaire Division of General Motors. Substantially all of the refrigerants used by General Motors have been purchased by it from Kinetic or from persons through whom Kinetic sells.

5. *Agreements Relating to Reciprocity*

81. The expansion in size, power and market control of du Pont Company at the expense of competitors has been aided through its use of the weapons of reciprocity demands and pressure against suppliers of General Motors.

[fol. 81] 82. Shortly after du Pont Company acquired control of General Motors, the two companies entered into an understanding under which General Motors provided du Pont Company with detailed information as to the companies which were suppliers of General Motors and the amounts and the volume of goods which such suppliers sold General Motors. General Motors supplied this information to du Pont knowing that such company intended to use this information to induce suppliers of General Motors to reciprocate by purchasing from du Pont Company the products which it produced. Later this general arrangement between du Pont and General Motors was formalized under an agreement between the two companies which provided that whenever a high executive of du Pont desired information concerning suppliers of General Motors the request for such information should be directed to a designated high executive of General Motors who would secure the specific information and furnish it to du Pont Company.

83. The du Pont Company made it known to suppliers in various ways that if they desired to continue to do business with General Motors, it would be advisable for such suppliers to buy from du Pont Company those materials manufactured by du Pont Company which were needed in connection with the manufacture of the products which the suppliers produced.

[fol. 82] 6. *Expansion of du Pont Through Its Control of General Motors*

84. du Pont Company's present investment in General Motors stock, which at current market prices is worth in excess of $500,000,000, was acquired by it at a cost of approximately $47,000,000. du Pont Company has received approximately $676,000,000 in dividends from its General Motors stock during the period from 1918 to 1947, inclusive. In addition, as hereinbefore alleged, du Pont Company has realized both substantial competitive advantage and great profit from the exclusion of competitors from the opportunity of competing for General Motors' business and from the substantial monopolization of said business by du Pont Company. Illustrative of the many competitive advantages, in addition to enhanced profits and other income, which accrued to du Pont from its control over General Motors, was the assured availability of a substantial and noncompetitive market for any product useable by General Motors which du Pont might contemplate manufacturing, and du Pont Company's exclusive access to the results of

General Motors research and experimentation in numerous fields of potential du Pont expansion.

85. du Pont Company has utilized the dividends from General Motors' stock, the profits derived from its sales in the closed General Motors market, and the many competitive advantages arising from its control over General Motors, to expand its operations in its existing fields of production, and into fields new to it. This expansion has been in large measure accomplished by the acquisition of independent companies, as well as by the organization of new companies in partnership with other interests. The following are illustrative of these du Pont Company acquisitions and expansions during the period of the conspiracy herein:

[fol. 83] 86. In 1917 du Pont acquired Beckton Chemical Company, Bridgeport Wood Finishing Company, Cauley Clark & Co., and Harrison Brothers & Co., Inc., all in the paint and varnish industry.

87. In 1918 du Pont acquired the Flint Varnish and Color Works (General Motors held a minority interest in this company which du Pont bought out in 1923) and the New England Oil Paint & Varnish Co., these companies also being in the paint and varnish field. The Flint and Color Works specialized in the production of finishes for automobiles.

88. In 1919, du Pont acquired a 43.8 per cent stock interest in Canadian Explosives, Ltd. (whose name was changed in 1927 to Canadian Industries, Ltd.), with the bulk of the remaining stock in that company being acquired by the Nobel interests of Great Britain, who occupied a position in the field of powder and explosives in Great Britain similar to that occupied by du Pont Company in the United States.

89. In 1920, du Pont acquired full control of the du Pont Fabricoid Company (maker of artificial leather) in which it had acquired a part interest in 1915. In 1920 du Pont also, with certain French interests, formed the du Pont Fiber Silk Company (60 per cent owned by du Pont) to manufacture rayon. Later, the name of this company was changed to the du Pont Rayon Company, with du Pont Company acquiring full control in 1929.

90. In 1923, the du Pont Company and French interests

organized the du Pont Cellophane Company, with du Pont acquiring 52 per cent of the capital stock.

91. In 1924, du Pont acquired the business and assets of General Explosives Company. In the same year, du Pont [fol. 84] Company acquired 63 per cent of the capital stock of Lazote, Inc., which was formed to manufacture synthetic ammonia under patents owned by French interests. Later (1926), du Pont Company's stock interest in Lazote, Inc. was merged into a new company, du Pont National Ammonia Company (in which du Pont acquired a majority of the stock), with the latter acquiring a 100 per cent stock ownership in National Ammonia Company, Inc., a leading distributor of anhydrous ammonia to the refrigeration trade, and a 79 per cent stock interest in Pacific Nitrogen Company. In 1928 du Pont Company acquired the minority interest in du Pont National Ammonia Company and acquired additional stock in Lozote, Inc., bringing its interest in that firm up to 89 per cent and thereupon dissolved the du Pont Ammonia Company. Through ownership of National Ammonia Company, du Pont Company had a 74 per cent interest in Michigan Ammonia Works and a majority interest in Pacific Ammonia and Chemical Co., and in 1929 accrued full control of Lazote with all of the assets of the ammonia business being thereafter consolidated under the du Pont Ammonia Corporation. The assets of these ammonia companies were later taken over by the parent company.

92. In 1924, du Pont formed the du Pont Pathe Film Manufacturing Corporation (name changed in 1931 to du Pont Film Manufacturing Corporation), with French interests, with du Pont Company acquiring all of the preferred stock and 51 per cent of the common. In 1928 it acquired full control of the company.

93. In 1925, du Pont formed the du Pont Viscoloid Company, which took over the celluloid plants of the du Pont Company and a plant of the Viscoloid Company, with du Pont Company receiving 83 per cent of the common stock [fol. 85] of du Pont Viscoloid Company and acquiring full control in 1928.

94. In 1925, du Pont acquired a 50 per cent stock interest in Eastern Alcohol Corporation, which was formed jointly with Kentucky Alcohol Corporation to construct an alcohol

plant at Deepwater Point, New Jersey. In 1931, du Pont acquired full control of Eastern Alcohol Corporation.

95. In 1927, du Pont acquired the assets and business of Excelsior Powder Company.

96. In 1928, du Pont acquired a 50 per cent stock interest in Bayer-Semesan Co., Inc., which was formed jointly with Winthrop Chemical Company.

97. In 1928, du Pont acquired, through a subsidiary, du Pont Viscoloid Company.

98. In 1928, du Pont acquired a 50 per cent interest in the Old Hickory Chemical Company, which was organized in conjunction with other interests to manufacture carbon bisulphide at Old Hickory, Tennessee.

99. In 1928, du Pont acquired the Grasselli Chemical Company, which operated 23 plants in the production of acids and heavy chemicals, lithopone, and other pigments, zinc and zinc products, and other products. The acquired company's Canadian plant and business were transferred to Canadian Industries, Inc., its acid and heavy chemicals business were turned over to a newly formed company, the Grasselli Company, and the explosives plants and business of the acquired company were combined with the corresponding department of du Pont.

100. In 1929, du Pont acquired Krebs Pigment and Chemical Company, a leading manufacturer of lithapone. Later, [fol. 86] Krebs Pigment and Color Corporation was formed to consolidate Krebs Pigment and Chemical Company, the pigment and dry color operations of Grasselli Company and the titanium pigment business of Commercial Pigments Corporation, which was owned by Commercial Solvents Company. The Grasselli Chemical Company owned 70 per cent of the stock of the new company and Commercial Solvents 30 per cent, with the latter interest being acquired by du Pont Company in 1934.

101. In 1930, du Pont acquired the assets and business of the Roessler and Hasslacher Chemical Company of New York, manufacturers of a large number of important chemicals. (In the same year, du Pont acquired a 51 per cent interest in Kinetic Chemicals, which was formed jointly with General Motors Corporation.)

102. In 1931, du Pont acquired the dyestuffs and organic chemical properties and business of the Newport Company

and through this acquisition, acquired a 72 per cent common stock interest in Acetol Products, Inc., manufactures of Cel-O-Glass. The latter company was subsequently dissolved and its assets taken over by du Pont.

103. In 1932, du Pont acquired a 55 per cent interest in Gardinol Corporation, which was formed jointly with Proctor & Gamble Company to exploit cleaning materials in the textile industry.

104. In 1933, du Pont acquired 94 per cent of the preferred stock and 51 per cent of the common stock of Remington Arms Company, Inc., in which du Pont's voting stock interest was later increased to approximately 60 per cent.

105. As a result of du Pont Company's subsidized and protected expansion program, it became, during the period [fol. 87] of the conspiracy herein, the largest producer of explosives and chemicals in the United States. Indicative of the extent of du Pont Company's growth by the illegal means herein alleged is the fact that its annual sales increased 2300 per cent from 1910 to 1947, rising from approximately $34,000,000 in 1910 to approximately $783,000,000 in 1947.

7. *Expansion of General Motors Through Favored Treatment by du Pont*

106. Since the date when du Pont Company purchased a controlling interest in General Motors the latter company has expanded its operations into many fields other than the manufacture and sale of passenger cars and trucks. In each of these new fields, as well as in the original field of passenger cars and trucks, General Motors has acquired a dominating position.

107. Each expansion by General Motors into a new field was first approved by the du Pont Company. In many instances du Pont initiated the entry of General Motors into the new field. In order to place General Motors in a position of competitive advantage in each of the fields in which it was engaged, and to assure General Motors a rapid expansion, du Pont, for many years from and after 1926, gave General Motors a secret rebate on all purchases made by General Motors from du Pont over and above the volume which General Motors had theretofore normally purchased from du Pont.

108. Under the 1926 rebate agreement, du Pont agreed to give General Motors a rebate of 7½ per cent on the first million dollars of purchases made by General Motors from du Pont in excess of $8,000,000; an additional 10 per cent rebate on the next million dollars of purchases; a rebate of 12½ per cent on the next million dollars of purchases; [fol. 88] and a rebate of 15 per cent on all additional purchases. These discounts were over and above the normal discounts ordinarily allowed by du Pont to its customers for quantity purchases.

109. du Pont Company financed its rebate arrangements with General Motors by raising the prices which it charged to customers other than General Motors. Because disclosure of the arrangement would require du Pont to reduce its prices on sales to customers other than General Motors and discontinue its rebates to General Motors, du Pont Company made it clear to General Motors that it was imperative that the rebate arrangement and all its details be kept strictly secret and confidential.

110. This rebate plan was approved by the Executive Committee of du Pont Company, although the plan was not made a matter of record in the official minutes of such committee. Under the plan, du Pont Company for many years paid rebates to General Motors. Such rebates were distributed to the various operating divisions of General Motors on the basis of volume of purchases made from du Pont. Said discriminatory and preferential secret rebates paid to General Motors by du Pont contributed in substantial part to General Motors' expansion in the automotive field, and in fields new to it.

111. The expansion of General Motors, approved and initiated by du Pont Company, substantially enlarged the protected and noncompetitive market available to du Pont and du Pont's profits therefrom, and substantially increased the income accruing to du Pont Company as dividends from General Motors' stock. As alleged in the preceding subsections hereof, said profits and income were utilized to subsidize the expansion of du Pont Company.

[fol. 89] C. *Acquisition and Exercise of Control by du Pont Family over United States Rubber*

1. *Acquisition of Stock*

112. In or about 1927, the defendants Pierre, Lammot, and Irenee du Pont, together with Henry B. du Pont, Lammot du Pont Copeland, and certain of the other members of the du Pont family and their close business associates who controlled du Pont Company, formed a syndicate for the purpose of purchasing sufficient of the capital stock of United States Rubber Company to give the members of the syndicate control over that company.

113. At the time the syndicate was organized, its members knew that United States Rubber Company, although one of the largest manufacturers of rubber products in the United States, was in financial difficulties. United States Rubber had an excessive inventory of rubber and had been unable to sell any substantial number of tires and tubes to General Motors or other automobile manufacturers for original equipment use, one of the most important outlets for rubber products.

114. The syndicate commenced its buying operations in June 1927, and by December of 1927, had purchased approximately 150,000 shares of United States Rubber common stock. By agreement among the members of the syndicate these shares were held by trustees, including defendants Lammot and Irenee du Pont, and by these trustees voted as a block at meetings of the stockholders of United States Rubber.

115. In December 1929, the members of the syndicate, organized the Rubber Securities Company as a personal holding company for the purpose of consolidating their ex- [fol. 90] isting holdings of United States Rubber stock and of increasing these holdings. Members of the syndicate became stockholders in Rubber Securities Company, which purchased the United States Rubber holdings of the members of the syndicate, together with additional shares of United States Rubber Company common stock which were purchased through brokers. By the end of December 1929, Rubber Securities held approximately 314,000 shares of United States Rubber Company common stock and 46,000 shares of preferred stock, acquired at a cost of approxi-

mately $8,277,000 and $2,306,000 respectively, a total of $10,583,000.

116. The Rubber Securities Company held these shares of stock intact until November 1937. At that time the stockholders of Rubber Securities began exchanging their stock in that company for the United States Rubber common and preferred stock which it held. The exchange was completed by December 1, 1938, and on that date Rubber Securities was dissolved. Since December 1, 1938, the shares of United States Rubber common and preferred stock which had been held by Rubber Securities Company have been held individually by the persons who were stockholders in Rubber Securities Company, or their successors in interest, and such holdings have been maintained substantially intact by defendant individuals and class defendants. The persons now holding the United States Rubber stock, which was distributed as a result of the dissolution of Rubber Securities Company, are, in the main, the same persons who hold a controlling interest in the stock of Delaware Realty and Christiana Securities Company.

2. *Control over United States Rubber*

117. The stock acquisitions which the syndicate had made [fol. 91] by the end of 1927 were sufficient to give the syndicate control over United States Rubber. This control was utilized to make drastic changes in the Board of Directors of United States Rubber. Of the fourteen persons who were on the Board of Directors of that company immediately prior to the beginning of the syndicate's stock purchase operations, four were replaced by joint action of the members of the syndicate in 1928, and another six were replaced in the following year, leaving only four of the original directors remaining on the Board. These four were thereafter replaced. In 1928, the members of the syndicate agreed upon and secured the appointment of Francis B. Davis, Jr. as President of United States Rubber and as a member of its Board of Directors. For many years prior thereto, Francis B. Davis, Sr. had been one of the top executives of du Pont Company and had also served for a number of years in a high executive capacity with the defendant General Motors Company by designation of

the du Pont Company. The members of the syndicate also instituted a bonus plan for United States Rubber executives which was similar in nature and designed to achieve the same results as the hereinbefore described bonus plan for General Motors executives. Throughout the period of time that the bonus plan for United States Rubber executives has been in operation, the allocation of benefits and the determination of the amount of such allocation has been made by a committee dominated by persons selected by defendant individuals and class defendants. As an inevitable and intended consequence of the operation of the plan, United States Rubber executives have responded readily to the influence and desires of du Pont Company.

118. Since in or about 1928 the defendant individuals and [fol. 92] the class defendants who hold United States Rubber stock have, by agreement and understanding among themselves, controlled the selection of the members of the Board of Directors of United States Rubber, and no person has been elected to membership on that Board without the approval of the said individual defendants and those class defendants who held United States Rubber common stock.

119. The defendant individuals and class defendants have for many years past held, either directly or through personal holding companies and trusts, approximately 300,000 (or 17 per cent) of the 1,761,092 shares of outstanding common stock of United States Rubber.

120. The common stock of United States Rubber, other than that held by defendant individuals and class defendants, is distributed among approximately 14,000 other stockholders who are located all over the United States, as well as in foreign counties. The concentrated stockholdings in United States Rubber of defendant individuals and the class defendants, as contrasted to the dispersed and small holdings of approximately 14,000 other stockholders, enables the defendant individuals and those class defendants who own United States Rubber stock to control the selection of members of the board of directors, the administration and the policies of United States Rubber.

3. *Reciprocal Preferences Between du Pont Company and United States Rubber*

121. Beginning in or about 1928, after the syndicate had taken over control of United States Rubber, that company instituted, by agreement and understanding with defendant individuals, the class defendants and du Pont Company, the policy of giving preference to du Pont Company over [fol. 93] its competitors in making purchases of products which were produced by the du Pont Company. It was agreed that United States Rubber would purchase from du Pont Company all or substantially all of its requirements of products produced by du Pont Company, and would refrain in whole or in major part from purchasing such products from competitors of du Pont Company. It was further understood and agreed that du Pont Company, when it purchased products of the kind produced by United States Rubber, would purchase all or substantially all of such products from United States Rubber. The policy originally established by such agreements was modified to permit each of these companies to purchase limited amounts from competitors of the other. This was done in order to prevent their respective business relations with other firms from being jeopardized by adhering too rigidly to a policy of total exclusion of competitors from the opportunity of securing some of the business of each of these defendant companies.

4. *Reciprocal Relations Between United States Rubber and General Motors*

122. Prior to 1929, United States Rubber had sold practically no tires and tubes to General Motors for use as original equipment on General Motors' cars and trucks, although General Motors was one of the largest of such buyers in the United States. This type of business was regarded by tire and tube manufacturers as being highly desirable because purchasers of motor vehicles tended to purchase replacement tires and tubes of the same make as those which came as original equipment with the car.

123. In 1929 General Motors, because of the stock acquisition by the members of the du Pont family as alleged, [fol. 94] began giving United States Rubber a substantial

portion of the General Motors business for original equipment tires and tubes. In that year, General Motors arbitrarily granted United States Rubber a minimum of 30 per cent of the tire business of Pontiac Division and a minimum of 15 per cent of the tire business of the Oakland Division, as well as certain other tire business with the other automotive divisions of General Motors. The grant of this business was made by General Motors in the face of opposition from the sales department of certain of the Divisions and from their dealer organizations.

124. Prior to 1929, the General Motors subsidiary in Canada had, on direct orders of its parent company, been purchasing all of its requirements of tires and tubes from a tire company in which Canadian Industries, Inc., had an interest. (du Pont Company had approximately 44 per cent interest in the voting stock of Canadian Industries, Inc.) In 1929, on orders from the parent company, the Canadian subsidiary began buying approximately 50 per cent of its requirements of tires and tubes for original equipment from the Canadian subsidiary of United States Rubber.

125. During 1930, by agreement among the defendants, General Motors and its subsidiaries continued to purchase an increasingly large number of tires and tubes from United States Rubber for use on original equipment. On January 1, 1931, General Motors and United States Rubber entered into a long term contract under the terms of which General Motors agreed on behalf of itself and its subsidiaries and affiliates, including its Canadian subsidiary, to purchase at least 50 per cent of its requirements of original equipment tires and tubes, including spare tires, from United States Rubber. General Motors agreed that it would discourage [fol. 95] its dealers and distributors from removing such tires from General Motors cars and trucks and substituting tires manufactured by companies other than United States Rubber. A supplementary agreement entered into between the two companies shortly after the primary agreement was executed increased General Motors percentage of purchases from United States Rubber by providing for the purchase from United States Rubber of 100 per cent of the tire requirements of the Oldsmobile, Oakland, Pontiac, and GMC

truck divisions, and 65 per cent of the requirements of the Cadillac and La Salle divisions of General Motors.

126. The foregoing agreements provided that General Motors would carry the risk and responsibility of purchasing the rubber and cotton to be used in the manufacture of the tires which it was to purchase from United States Rubber. The agreements also provided that United States Rubber would actually make the purchases as "agent" for General Motors, and that General Motors would then resell to United States Rubber at cost plus not to exceed 12½ per cent. the rubber and cotton which United States Rubber had itself purchased on General Motors' account. By this means, the agreements provided for the payment to General Motors of a rebate on the price which it paid to United States Rubber for tires and tubes, in an amount equal to 12½ per cent of the cost of the rubber and cotton used therein.

127. In addition to the substantial rebate to be paid to General Motors as profit on fictitious sales of cotton and rubber, the General Motors—United States Rubber contract of 1931 provided for substantially lower prices to General [fol. 96] Motors than were to be made available to other purchasers of tires and tubes from United States Rubber. Provision was made within the contract to conceal its terms not only from other United States Rubber customers, but from General Motors employees as well. The contract provided that tires and tubes delivered under the contract were to be billed by United States Rubber to the several car and truck divisions of General Motors at fictitious prices which were substantially higher than the true prices. General Motors agreed that its divisions would pay United States Rubber the fictitious prices so billed, and that thereafter United States Rubber would rebate to General Motors the difference between the true price and the fictitious price. This arrangement was carried into effect.

128. An agreement supplementary to the primary agreement of January 1, 1931, provided for special prices on spare tires purchased by General Motors for use as original equipment in addition to the running tires. This agreement provided that the first spare tire was to be sold by United States Rubber to General Motors at prices materially below the price of the running tires while "second spare" tires

were to be provided free of any charge for cars which were to be exported and for cars manufactured by those divisions of General Motors which purchased their entire requirements of tires from United States Rubber.

129. Although varied in detail from time to time, the agreements of 1931 remained in effect until 1933. In that year a new long term purchase agreement was entered into between United States Rubber and General Motors, guaranteeing United States Rubber substantially the same proportion of General Motors' original equipment tire business as had been allocated to United States Rubber in the earlier [fol. 97] agreement; but making minor modifications in the pricing formulas. Under the 1933 agreement the prices to be charged by United States Rubber to General Motors were not to be in excess of the lowest prices being charged by United States Rubber and its three principal competitors to General Motors or to any other original equipment purchaser. But in a separate letter agreement, United States Rubber agreed to give General Motors the following discounts:

Volume of Sales	*Discount*
$10,000,000	$ 825,000
11,000,000	940,000
12,000,000	1,050,000
13,000,000	1,200,000
14,000,000	1,350,000
15,000,000	1,500,000
and up	10 per cent

130. Thereafter, a disagreement arose between General Motors and United States Rubber as to the amount of rebate which the latter could pay to General Motors and still leave United States Rubber sufficient return to cover its costs. On December 17, 1934, the differences were resolved by a further agreement providing that United States Rubber would guarantee to General Motors a firm discount, to be paid whether or not the net prices paid by General Motors were sufficient to cover United States Rubber's cost of production, and further providing that United States Rubber would rebate to General Motors one-half of any profits in excess of 10 per cent which it realized on sales to General Motors over and above $15,000,000 annually.

[fol. 98] 131. From time to time thereafter the amount of the guaranteed discount to be paid to General Motors by United States Rubber was revised and slight changes made with respect to the percentage of the requirements of the various divisions of General Motors which United States Rubber would supply. In August 1936, the 1933 agreement was further modified to provide that General Motors would buy from United States Rubber 75 per cent of original equipment tires for all divisions except Chevrolet and GMT, and 55 per cent of the requirements of Chevrolet and 66-⅔ per cent of the requirements of GMT. United States Rubber agreed to charge General Motors the lowest price available to any purchaser of tires and tubes as original equipment for automobiles from any manufacturer, and in addition agreed to grant General Motors discounts ranging from 1½ per cent on sales of $3,000,000 to 3½ per cent on sales of $21,000,000 and over. A supplemental agreement provided that General Motors' Canadian subsidiary would purchase at least 50 per cent of its requirements from United States Rubber's Canadian subsidiary. These agreements were in effect to January 31, 1942, when they were discontinued because of the wartime emergency. At the conclusion of the war, General Motors resumed its purchases of tires and tubes from United States Rubber on substantially the same basis as had prevailed before the war.

132. Availability of the guaranteed noncompetitive General Motors' market for a tremendous quantity of tires and tubes has enabled United States Rubber to advance from a position of financial distress to one of profit and power. United States Rubber's direct sales to General Motors during the period 1934 to 1943, approximated $402,000,000. [fol. 99] Use of United States Rubber's products as original equipment on General Motors cars also resulted in a proportionate rise in sales of United States Rubber tires and tubes for replacement use.

133. The preferential prices and secret rebates granted to General Motors by United States Rubber, which were unavailable to General Motors' competitors, contributed substantially to the enhancement of the size, power, and market control of General Motors. In addition, as a result of the activities in the acquisition and exercise of control over United States Rubber herein alleged, du Pont Company's

expansion has been directly subsidized by profits from closed market sales to United States Rubber (amounting to over $72,000,000 during the period 1938 to 1947) and indirectly subsidized through the hereinbefore alleged advantages accruing directly to General Motors.

VI. *Effects of the Conspiracy*

134. The aforesaid agreements and concerted action by the defendants pursuant to and in furtherance of the combination and conspiracy alleged in this Complaint, have had the effects, as intended by the defendants, of permitting the individual and class defendants to acquire control of du Pont Company in perpetuity through their family holding companies, defendants Christiana and Delaware; of acquiring control of General Motors by du Pont Company; of acquiring control of United States Rubber Company by the individual and class defendants; of requiring each defend- [fol. 100] ant manufacturer to purchase its requirements of the products of each of the other defendant manufacturers in a substantially closed market, thus depriving outside suppliers of an opportunity to compete freely for such business; of increasing the size of such closed market by using the reciprocal benefits of interlocking control, and closed market buying; of increasing the size and competitive position of each of the defendant manufacturers by inter-company subsidization made possible by such interlocking control and reciprocal buying and selling arrangements; of expanding still further the market of each defendant manufacturer by requiring that the outside supplier of one or more of such defendant manufacturers purchase products from the other defendant manufacturers on the basis of reciprocity, thus depriving such suppliers of an opportunity to purchase their requirements in a free market; of eliminating competition among defendant manufacturers by dividing manufacturing fields between them on an exclusive basis; of enhancing the competitive position of each defendant manufacturer by selling among themselves products manufactured by one and used by the others at discriminatory and preferential prices, and selling to outsiders at higher prices, all of which practices have had the effect of unreasonably restraining and monopolizing the trade and commerce in which each manufacturing defendant is en-

gaged, in violation of Sections 1 and 2 of the Sherman Act and of Section 7 of the Clayton Act.

[fol. 101] **PRAYER**

WHEREFORE, the Plaintiff prays:

1. That pursuant to Section 5 of the Sherman Act, a summons issue to each of the defendants commanding such defendant to appear and answer the allegations contained in this complaint and to abide by and perform such orders and decrees as the Court may make in the premises.

2. That the aforesaid combination and conspiracy, contracts, agreements, arrangements, and understandings in unreasonable restraint of trade and commerce, and conspiracy to monopolize, be adjudged and decreed to be unlawful and in violation of Sections 1 and 2 of the Sherman Act, and of Section 7 of the Clayton Act; and that the Court adjudge and decree that the defendants and each of them have combined and conspired to restrain and to monopolize interestate trade and commerce in violation of Sections 1 and 2 of the Sherman Act and Section 7 of the Clayton Act, as charged.

3. That the defendant du Pont Company be enjoined from paying to its stockholders in the form of stock dividends or otherwise the General Motors stock which du Pont Company holds, and be required promptly to dispose by sale of all of its holdings of such stock in General Motors, and promptly thereafter to pay to its stockholders in cash dividends the entire proceeds of such sale.

4. That pending the aforesaid sale of such stock by defendant du Pont Company, it be enjoined from exercising any voting rights under such stock.

5. That the defendants Christiana and Delaware be en-[fol. 102] joined from paying to their stockholders in the form of stock dividends or otherwise any of the voting stock which they hold in General Motors, and be required promptly to dispose by sale of their holdings of such stock, and promptly thereafter pay to their stockholders in cash dividends the entire proceeds of such sales.

6. That pending the aforesaid sale by Christiana and Delaware of such stock, they be enjoined from exercising any voting rights under it.

7. That the defendant General Motors be given the option, for a period of one year, to purchase all or any part of the voting stock of General Motors held by du Pont Company, Christiana and Delaware, the defendant individuals and the class defendants.

8. That the defendants Christiana, Delaware, the individual defendants, and the class defendants be enjoined from purchasing or otherwise acquiring any of the voting stock of General Motors which is disposed of by du Pont Company, Christiana and Delaware, and be enjoined from establishing, aiding in the establishment, designating, appointing, nominating or instructing any subsidiaries, holding companies, trustees, designees or others to acquire such stock on behalf of said defendants, either directly or indirectly:

9. That the defendants Christiana, Delaware, the individual defendants, and the class defendants be enjoined from in any way aiding or assisting, whether by loans, gifts, or otherwise, any member of the du Pont family not included in this proceeding as an individual defendant or class defendant in the acquisition of any of the aforesaid stock which du Pont Company, Christiana and Delaware are required as aforesaid to dispose of.

[fol. 103] 10. That the individual defendants and the class defendants be required to sell or otherwise dispose of all of their voting stock in General Motors and United States Rubber, however it may be held; be enjoined from establishing, aiding in the establishment, designating, appointing or nominating other companies or persons to acquire such stock and hold it beneficially for any one or more of such individual defendants or class defendants or any other member of the du Pont family; and be enjoined from disposing of any of such stock, whether by gift, devise, trust agreement, or otherwise, to or for the benefit of any member of the du Pont family.

11. Pending the sale or other disposition by the individual defendants and class defendants of their voting stock in General Motors and United States Rubber, that such individual defendants and class defendants, and any persons or corporations holding such stock for the beneficial interest of any individual defendant or class defendant, be enjoined from exercising voting rights under it.

12. That the defendant United States Rubber be given the option for a period of one year, to purchase all or any part of the voting stock of United States Rubber held or beneficially held by any defendant individual or class defendants.

13. That defenda~~nts d~~u Pont Company, Christiana, Delaware, the individual defendants, and the class defendants be perpetually enjoined from acquiring any capital stock in General Motors or United States Rubber Company, or any company in which either of such companies has a stock or financial interest.

14. That the individual defendants and the class de- [fol. 104] fendants be enjoined from in any way aiding or assisting, whether by loans, gifts, or otherwise, any member of the du Pont family not included in this proceeding as a party, in the acquisition of capital stock in General Motors, United States Rubber, or any company in which such companies have any financial interest.

15. That the defendant du Pont Company be required to divest itself of its business of making tetraethyl lead, ethyl fluid, ethyl chloride, and be perpetually enjoined from re-entering such business.

16. That the defendant General Motors be required to divest itself of all interest in the Ethyl Corporation, but in so doing be enjoined from disposing of such interest as it has to du Pont Company, or any of the other defendants or class defendants.

17. That the defendants du Pont Company and General Motors each be required to divest themselves of their respective interests in Kinetic Corporation.

18. That the individual defendants and class defendants be perpetually enjoined from acquiring any stock or other financial interest, either directly or indirectly, through personal holding companies or otherwise, in any of the foregoing enterprises which are required to be divested by any of the defendants, and that they further be enjoined from aiding any other member of the du Pont family by loans, gifts, or otherwise, to acquire any stock or other financial interest in any of such enterprises.

19. That defendants General Motors and United States Rubber each be enjoined from allowing any person to be a member of its Board of Directors, who, at any time dur-

[fol. 105] ing the period from January 1, 1915 to the date of the entry of the final judgment in this cause, was a director, officer, or an employee of du Pont Company.

20. That General Motors, United States Rubber, and du Pont Company each be enjoined from permitting any person, who during the period from 1915 to the date of the entry of the final judgment in this cause was or had been an officer, director, or an employee of any one of the others of such defendant companies, from serving as an officer or director of the company subject to the injunc ion.

21. That du Pont Company, General Motors, and United States Rubber, their subsidiaries, successors, and assigns each be perpetually enjoined from acquiring or holding capital stock in any one of the others, or in any company in which such other defendant has a stock or financial interest.

22. That each and every contract between du Pont, General Motors, United States Rubber, or any of them, relating to the sale of goods, the grant of licenses or agreements to license under patents or applications for patents, or agreements providing for the exchange of know-how and information, be cancelled.

23. That the plaintiff have such further, general, and different relief as the nature of the case many require and the Court may deem proper in the premises.

24. That the Plaintiff have the costs of this suit.

[fols. 106-108] Melville C. Williams, Willis L. Hotchkiss, Special Assistants to the Attorney General. Suite 826, 208 S. LaSalle St., Chicago 4, Illinois, PH: CEntral 6-6886.

Tom C. Clark, Attorney General. Herbert A. Bergson, Assistant Attorney General. Holmes Baldridge, James R. Browning, Special Assistants to the Attorney General. Otto Kerner, Jr., United States Attorney.

[fol. 109] UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

[Title omitted]

ANSWER OF DEFENDANTS CHRISTIANA SECURITIES COMPANY, DELAWARE REALTY & INVESTMENT CORPORATION, PIERRE S. DU PONT, LAMMOT DU PONT and IRÉNÉE DU PONT—Filed April 26, 1950

Defendants Christiana Securities Company (described in the complaint and hereinafter as "Christiana"), Delaware Realty & Investment Corporation (described in the complaint and hereinafter as "Delaware") and Pierre S. du Pont, Lammot du Pont and Irénée du Pont (described in the complaint and hereinafter as "defendant individuals"); sometimes hereinafter referred to collectively as "Defendants", by their attorneys, answer the complaint as follows: *

[fol. 110] 1. Defendants are advised that it is unnecessary to answer paragraph 1 of the complaint, but they deny that any of them has violated or intends to violate the Sherman Act or the Clayton Act.

2. Defendants admit the allegations contained in paragraph 2 of the complaint.

3. Except as admitted below Defendants deny the allegations contained in paragraph 3 of the complaint:

(a), (b), (c), (d), (e). Defendants admit that the corporations referred to in subparagraphs (a), (b), (c), (d) and (e) of paragraph 3 of the complaint are named as defendants and are properly described in the complaint.

(f). Defendants admit that Pierre S. du Pont, of Wilmington, Delaware, is named as a defendant; that since 1915 he has held the positions in E. I. du Pont de Nemours and Company (described with its predecessors in the complaint and hereinafter as "du Pont Company") referred to for the periods of time named in paragraph 3(f) of the complaint; and that he held the positions in General Motors Corporation (described with its predecessor company in the

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* The numbering of paragraphs in this answer follows the numbering in the complaint.

complaint and hereinafter as "General Motors") referred to for the periods of time named, except that he was a member of the Board of Directors from 1915 to 1944, Chairman of the Board of Directors from 1915 to 1929, a member of the Finance Committee from 1915 to 1937, and a member of the Executive Committee from 1921 to 1929, being Chairman of that Committee from 1921 to 1923.

(g). Defendants admit that Lammot du Pont, of Wilmington, Delaware, is named as a defendant; that since 1915 [fol. 111] he has held the positions in du Pont Company referred to for the periods of time named in paragraph 3(g) of the complaint; and that he held the positions in General Motors referred to for the periods of time named, except that he was a member of the Executive Committee from 1930 to 1934 and was at no time Chairman of that Committee, and that he was a member of the Finance Committee from 1918 to 1937.

(h). Defendants admit that Irénée du Pont, of Wilmington, Delaware, is named as a defendant; that since 1915 he has held the positions in du Pont Company referred to for the periods of time named in paragraph 3(h) of the complaint; and that he held the positions in General Motors referred to for the periods of time named, except that they deny that he was at any time a member of the Executive Committee or Policy Committee of the Board of Directors of General Motors.

4-7. Defendants are advised that it is unnecessary to answer paragraphs 4-7 of the complaint.

8. Defendants admit that each of the defendant individuals is a member of the du Pont family as defined in paragraph 7 of the complaint.

9. Defendants deny the allegations contained in paragraph 9 of the complaint, except that they admit that said paragraph purports to describe a class of persons against whom common relief is sought and that each of the persons described is named as a defendant.

10-11. Defendants admit the allegations contained in paragraphs 10-11 of the complaint, except that they deny that the persons referred to are members of a class.

[fol. 112] 12. Defendants alleges that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 12 of the complaint, except that they admit that du Pont Company is a substantial producer of explosives, powder and chemicals and that its principal manufacturing operations are conducted through departments.

13. Defendants deny the allegations contained in paragraph 1 of the complaint, except that they admit that du Pont Company owns a 50% interest in Old Hickory Chemical Co., which produces carbon bisulphide, and 66.7% of the voting stock of International Freighting Corporation, Inc. in which General Motors owns the remaining 33.3%; allege that du Pont Company owns 100% of the capital stock of Kinetic Chemicals, Inc., a manufacturer of refrigerants, and that the du Pont Company owns 100% of the stock of certain other companies and 50% or more of the stock of certain other companies in this and other countries; and allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations relating to the operations of International Freighting Corporation, Inc.

14. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 14 of the complaint, except that they admit that the principal business of General Motors is the manufacture of passenger cars and trucks, including various parts and accessories; that it produces cars and trucks under the brand names referred to; and that it manufactures parts and accessories for use in its own cars as well as for sale and use in cars and [fol. 113] trucks produced by other automobile and truck manufacturers.

15. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 15 of the complaint, except that they admit that General Motors manufactures railroad diesel locomotives, diesel engines for use in these locomotives and for other purposes, and other products, including ball bearings, roller bearings, electric refrigerators and heating equipment; and that many of the General Motors production operations are conducted through operating divisions.

16. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of

the allegations contained in paragraph 16 of the complaint, except that they admit that General Motors holds 50% of the common stock of Ethyl Corporation; that the other 50% of the stock of that company is owned by Standard Oil Company (New Jersey); and that General Motors holds an interest in International Freighting Corporation, Inc.; and they deny that General Motors holds any interest in Kinetic Chemicals, Inc.

17. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 17 of the complaint.

18. Defendants deny the allegations contained in paragraph 18 of the complaint, except that they admit that the assets at December 31, 1947 and the sales and net income [fol. 114] after taxes for the year 1947 of du Pont Company, as reported in its annual report to stockholders for the year 1947, were as follows:

Assets	$1,438,114,642
Sales	783,405,434
Net income after taxes	120,009,760;

that the assets at December 31, 1947 and the sales and net income after taxes for the year 1947 of General Motors, as reported in its annual report to stockholders for the year 1947, were as follows:

Assets	$2,472,969,238
Sales	3,815,159,163
Net income after taxes	287,991,373;

and that the assets at December 31, 1947 and the sales and net income after taxes for the year 1947 of U. S. Rubber Company, as reported in its annual report to stockholders for the year 1947, were as follows:

Assets	$348,381,181
Sales	580,968,091
Net income after taxes	21,753,317.

19. Defendants admit the allegations contained in paragraph 19 of the complaint.

20. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of

the allegations contained in paragraph 20 of the complaint, except that they admit that some of the products produced by du Pont Company are used in the operations of other defendant manufacturers; that du Pont Company sells lacquers, paints, varnishes, thinners, anti-freeze preparations, coated fabrics and processed plastic sheetings and [fol. 115] some other products to General Motors, and rayon, organic chemicals and some other products to U. S. Rubber; and that du Pont Company has sold tetraethyl lead, alcohol and ethyl chloride to Ethyl Corporation; and they deny that Ethyl Corporation was organized in furtherance of any conspiracy.

21. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 21 of the complaint, except that they admit that U. S. Rubber has sold tires and tubes and other products to General Motors.

22. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 22 of the complaint, except that they admit that du Pont Company has purchased from General Motors trucks manufactured by General Motors and has purchased from dealers passenger cars and trucks manufactured by General Motors.

23. Defendants admit the allegations contained in paragraph 23 of the complaint.

24. Defendants deny the allegations contained in paragraph 24 of the complaint, except that they admit that there are numerous manufacturers in the United States which manufacture and sell products, some of which are of substantially the same type, kind and quality as the products manufactured and sold by du Pont Company, General Motors and U. S. Rubber.

25. Defendants admit the allegations contained in paragraph 25 of the complaint, except that they allege that they [fol. 116] are without knowledge or information sufficient to form a belief as to the truth of the allegation that control of the corporation formed in 1899 remained in the du Pont family, and allege that in 1899 the entire capital stock of such corporation was held by persons who were members of the du Pont family (as defined in paragraph 7 of the complaint).

26. Defendants admit the allegations contained in paragraph 26 of the complaint, except that they allege that the company formed in 1902 was E. I. du Pont de Nemours and Company, a Delaware corporation; and that the outstanding capital stock of such corporation on March 1, 1902 consisted of 120,000 shares of which 43,200 shares were held by T. Coleman du Pont, 24,600 shares by Alfred I. du Pont, and 21,600 shares by Pierre S. du Pont; and they deny that the stock acquired by these three individuals gave them control of the company.

27. Defendants admit the allegations contained in paragraph 27 of the complaint, except that they allege that the 1907 suit was filed against E. I. du Pont de Nemours Powder Company, a New Jersey corporation organized in 1903.

28. Defendants deny the allegations contained in paragraph 28 of the complaint, except that they admit that the total sales of du Pont Company in 1910, as reported in its annual report to stockholders, were approximately as stated in such paragraph 28; admit that du Pont Company acquired the capital stock of Arlington Company, makers of celluloid, in 1915; allege that due Pont Company in 1910 acquired the entire capital stock of Fabrikoid Company [fol. 117] which was dissolved in that year and its operations merged with those of du Pont Company; and allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegation that celluloid was used in substantial quantities in 1915 in the making of automobile side-curtains.

29-31. Defendants deny the allegations contained in paragraphs 29-31 of the complaint.

32. Defendants deny the allegations contained in paragraph 32 of the complaint, except that they admit that Pierre S. du Pont, Irénée du Pont, Lammot du Pont, A. Felix du Pont and R. R. M. Carpenter, who were members of the du Pont family (as defined in paragraph 7 of the complaint), and John J. Raskob, who was then treasurer of E. I. du Pont de Nemours Powder Company, formed a syndicate in 1915 to acquire the block of stock in du Pont Powder Company then held by its largest stockholder, T. Coleman du Pont; and that such shares of stock, together with certain other shares of du Pont Powder Company

common stock held by members of the syndicate were transferred to du Pont Securities Company (name later changed to Christiana Securities Company), which was organized by the members of the syndicate.

33. Defendants deny the allegations contained in paragraph 33 of the complaint, except that they admit that all of Christiana's original outstanding common stock (75,000 shares) was issued to its incorporators (the persons named in such paragraph, all of whom were members of the du Pont family as defined in paragraph 7, except John J. Raskob) in the respective amounts stated in such paragraph of the complaint, and allege that such in- [fol. 118] corporators assigned 11,750 shares to Christiana which reissued such shares, subject to certain conditions, to certain officers of du Pont Company, including 5,000 shares in the aggregate to certain of the incorporators of Christiana, whereupon the incorporators held in the aggregate 68,250 shares.

34. Defendants deny the allegations contained in paragraph 34 of the complaint, except that they admit that the common stock of du Pont Company held by Christiana has been voted as a block at the stockholders' meetings of du Pont Company, and that the directors of Christiana have in most instances been directors, and either present or past officers, of du Pont Company.

35. Defendants deny the allegations contained in paragraph 35 of the complaint, except that they admit that Delaware holds the largest single block of stock in Christiana (49,000 shares of common stock, or 32%, and 43,500 shares of non-voting preferred stock); that Pierre S. du Pont sold the bulk of his holdings in Christiana, in which he was the largest stockholder, together with common stock in du Pont Company and other companies, to Delaware in consideration of an annuity of $900,000; that the stockholders of Delaware at that time were close relatives of Pierre S. du Pont; that, as advised by counsel, Delaware is a personal holding company within the meaning of Section 500 of the Internal Revenue Code; and that the common stock of Delaware owned beneficially by members of the respective families of Irénée du Pont, Lammot du Pont, a brother-in-law, and two of their nephews, aggregates more than 50% of the outstanding common stock.

[fol. 119] 36. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 36 of the complaint, except that they allege that as of December 31, 1949 Christiana held 12,199,200 shares (27.2%) and Delaware held 1,217,920 shares (2.7%.) of the 44,833,628 shares of du Pont Company common stock then outstanding; and admits that each of the defendant individuals holds common stock of du Pont Company.

37. Defendants deny the allegations contained in paragraph 37 of the complaint, except that they allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations concerning the total number of stockholders in du Pont Company and the average size of their holdings.

38. Defendants deny the allegations contained in paragraph 38 of the complaint, except that they admit that during World War I the du Pont Company plant facilities, sales and profits in the powder and explosives fields expanded as a result of the wartime demand for these products on the part, first of Great Britain, France and the other allied powers, and later of the United States, and that the aggregate net profits on all business for the years 1915-1918 was approximately $232,000,000 as reported in annual reports to stockholders.

39. Defendants deny the allegations contained in paragraph 39 of the complaint, except that they admit that du Pont Company anticipated the end of World War I and the cessation of orders for large quantities of powder and explosives and was developing plans for entering fields other than gun powder and explosives.

[fol. 120] 40. Defendants deny the allegations contained in paragraph 40 of the complaint, except that they admit that Pierre S. du Pont, President of du Pont Company from 1915 to 1919, and other officers of the company had prior to 1917 invested as individuals in the common stocks of General Motors and Chevrolet Motor Company (which by 1917 held a majority of the stock of General Motors) and had become acquainted to some extent with the fact that the motor car industry had been and was an expanding industry.

41. Defendants deny the allegations contained in para-

graph 41 of the complaint, except that they admit that the du Pont Company Executive Committee (of which Irénée and Lammot du Pont were members) and Finance Committee (of which Pierre S. and Irénée du Pont were members) met jointly on December 21, 1917, and authorized the investment of $25,000,000 in the common stocks of General Motors and Chevrolet Motor Company; and that a new company, General Industries, Inc., all of whose stock was held by du Pont Company, was established with an authorized capital of $25,000,000, to accomplish the actual purchase of General Motors and Chevrolet stock.

42. Defendants deny the allegations contained in paragraph 42 of the complaint, except that they admit that General Industries, Inc. had, by March 8, 1918, purchased common stocks of General Motors and Chevrolet Motor Company in amounts equivalent to approximately 12.5% and 20.9%, respectively, of the outstanding common stocks of the two companies.

43. Defendants admit the allegations contained in paragraph 43 of the complaint, except that they deny that [fol. 121] du Pont Company approved the acquisition by General Motors of the assets of Chevrolet Motor Company and allege that General Motors acquired all assets of Chevrolet other than its stock in General Motors; and deny that du Pont American Industries, Inc. in October, 1919, owned almost 30% of the General Motors stock, and allege that such company held approximately 15.1% of the outstanding General Motors common stock and approximately 37.8% of the outstanding Chevrolet common stock.

44. Defendants deny the allegations contained in paragraph 44 of the complaint, except that they admit that William Durant, the organizer of General Motors, was in financial difficulties in November, 1920; that du Pont Securities Company (not the company whose name had been changed to Christiana but a new company), in which du Pont American Industries, Inc., held a stock interest, purchased a substantial portion of the stock in General Motors held by William Durant; that du Pont Securities Company was later dissolved, that the name of du Pont American Industries, Inc. was later changed to General Motors Securities Company and that upon its dissolution a large part of its General Motors holdings was taken over directly by

du Pont Company; that subsequent to the dissolution of du Pont Securities Company du Pont Company has acquired and sold shares of General Motors stock either directly or indirectly.

45. Defendants deny the allegations contained in paragraph 45 of the complaint, except that they admit that J. P. Morgan & Company aided in the financing of the acquisition of Durant's stock in General Motors and aided in financing the capital needs of General Motors; that [fol. 122] Canadian Industries, Ltd. (then Canadian Explosives, Ltd.), in which du Pont Company and the Nobel interests of Great Britain held stock interests, subscribed for and purchased stock of General Motors in 1920; and that du Pont Company subsequently purchased a portion of such stock from Canadian Industries, Ltd., directly or indirectly.

46. Defendants allege that individuals who were partners or officers of J. P. Morgan & Company have been from time to time since 1920 elected to the Board of Directors of General Motors and, except as so alleged, deny the allegations contained in paragraph 46 of the complaint.

47. Defendants deny the allegations contained in paragraph 47 of the complaint, except that they admit that du Pont Company has for many years owned 10,000,000 shares (approximately 23%) out of the approximately 44,000,000 outstanding shares of General Motors common stock, and allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations concerning other General Motors stockholders.

48. Defendants deny the allegations contained in paragraph 48 of the complaint, except that they admit that the Finance Committee and Executive Committee of du Pont Company and the Financial Policy Committee of General Motors perform the functions specified in their respective by-laws and Defendants refer to such by-laws for a true statement thereof.

49. Defendants deny the allegations contained in paragraph 49 of the complaint, except that they admit that in 1918 a majority of the members of the General Motors [fol. 123] Finance Committee, elected by the Board of Directors of General Motors, were persons who were also officers or directors du Pont Company.

50. Defendants deny the allegations contained in paragraph 50 of the complaint, except that they admit that the persons named in such paragraph were members of the General Motors Finance Committee in 1918 and that six of such persons held positions with du Pont Company as therein alleged.

51. Defendants deny the allegations contained in paragraph 51 of the complaint, except that they admit that since 1915 certain individuals who were officers and directors of du Pont Company, including the individual defendants, have been elected from time to time as directors of General Motors and that certain individuals who were officers and directors of du Pont Company, including the individual defendants, have been designated from time to time by the General Motors Board to serve as officers or members of Board committees of General Motors.

52. Defendants refer to paragraph 3 (f), (g) and (h) above for a true statement of the positions held by the individual defendants with du Pont Company and General Motors, and, except as there admitted or alleged, deny the allegations contained in paragraph 52 of the complaint.

53. Defendants deny the allegations contained in paragraph 53 of the complaint, except that they admit that Managers Securities Company was organized by General Motors in 1923; allege that General Motors obligated itself to pay to that company, for a period of eight years, 5% [fol. 124] of its net earnings (after deducting 7% on the capital invested), with an annual minimum of $2,000,000 (any amount paid under the minimum provision to be a loan at 6% interest); allege that there was sold to the new company for $33,750,000 30% of the common stock of General Motors Securities Company, which held 7,500,000 shares of General Motors common stock, so that the new company acquired an indirect interest in 2,250,000 shares of General Motors common stock; allege that General Motors sold Class A and Class B stock of Managers Securities Company to certain General Motors executives; and allege that payments pursuant to the above-mentioned contract with General Motors were credited on the books of Managers Securities Company to the Class A surplus account for the benefit of the Class A stock and that substantially all other net income of Managers Securities

Company was credited on the books of Managers Securities Company to the general surplus account for the benefit of the Class B stock.

54. Defendants deny the allegations contained in paragraph 54 of the complaint, except that they allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations relating to the worth of Managers Securities Company stock.

55. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 55 of the complaint, except that they admit that throughout the period that the General Motors bonus plans have been in operation bonus awards have been determined by the Finance Committee of General Motors or a Bonus and Salary Committee of the Board of Directors of General Motors, which have included [fol. 125] from time to time certain of the defendant individuals and other persons (including certain "class defendants") who were officers or directors of du Pont Company; and they deny that the defendant individuals or other officers or directors of du Pont Company have dominated such committees or determined who should receive bonus allocations and the amount each should receive, and deny that General Motors executives have responded to any influence or desires of du Pont Company, either as an inevitable and intended consequence of the operation of the bonus plans or otherwise.

56. Defendants deny the allegations contained in paragraph 56 of the complaint.

57. Defendants admit the allegations contained in paragraph 57 of the complaint, except that they allege that the purchases by General Motors of celluloid and artificial leather from du Pont Company commenced prior to 1917, and deny that beginning in or about 1917 General Motors has purchased all or substantially all of its requirements of celluloid and artificial leather from du Pont Company and allege that they are without knowledge or information sufficient to form a belief as to whether artificial leather was used extensively in automobile seats and upholstery.

58. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 58 of the complaint,

except that they admit that du Pont Company has purchased from General Motors trucks and other items produced by General Motors and has purchased from dealers [fol. 126] cars and trucks and other items produced by General Motors.

59. Defendants deny the allegations contained in paragraph 59 of the complaint, except that they admit that in 1917 and subsequent years du Pont Company acquired capital stocks or assets of the companies named in such paragraph; that Flint Varnish & Color Works produced automobile finishes; and that General Motors acquired a minority interest in the stock of such company which minority interest was subsequently acquired by du Pont Company.

60. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 60 of the complaint, except that they admit that such paint and varnish companies as were acquired by du Pont Company were subsequently dissolved and their assets taken over by du Pont Company and for the most part incorporated into its Fabrics and Finishes Department; and that the Fabrics and Finishes Department produces the products listed in this paragraph; and they deny that beginning in or about 1917 General Motors has purchased all or substantially all of its requirements of items in the fabrics and finishes field from du Pont Company.

61. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 61 of the complaint, except that they admit that a central purchasing committee for General Motors was established in or about 1922; and deny that the central purchasing committee was created to [fol. 127] insure that du Pont Company wishes would be communicated to the divisional purchasing agents and complied with and that it was an instrumentality in carrying out a du Pont-General Motors inter-company sales arrangement.

62. Defendants deny the allegations contained in paragraph 62 of the complaint.

63. Defendants deny the allegations contained in paragraph 63 of the complaint, except that they allege that they

are without knowledge or information sufficient to form a belief as to the truth of the allegation concerning the volume of du Pont Company's direct sales to General Motors and Ethyl Corporation.

64. Defendants deny the allegations contained in paragraph 64 of the complaint, except that they admit that du Pont Company after 1917 continued its expansion in the chemical field, including paints and varnishes and related products.

65. Defendants deny the allegations contained in paragraph 65 of the complaint.

66. Defendants deny the allegations contained in paragraph 66 of the complaint, except that they admit that General Motors engaged in an extensive investigation into the nature and causes of "knocking", and allege that they are without knowledge or information sufficient to form a belief as to when such investigation was started; that such investigation revealed that the use of tetraethyl lead blended with gasoline in proper proportions constituted an effective anti-knock; that tetraethyl lead was at the time [fol. 128] of its discovery and subsequent thereto a scarce and expensive product and that its production was then and subsequently highly hazardous; that General Motors discovered that tetraethyl lead could be produced commercially from ethyl bromide; that General Motors secured patents on both the use of tetraethyl lead in gasoline as an "anti-knock" and the method of producing it; and that du Pont Company undertook the manufacture of tetraethyl lead on a commercial basis.

67. Defendants deny the allegations contained in paragraph 67 of the complaint, except that they admit that General Motors and du Pont Company entered into an agreement in 1922 whereby du Pont manufactured tetraethyl lead under the General Motors patents and allege that they are without knowledge or information sufficient to form a belief as to the precise terms of the agreement.

68. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 68 of the complaint, except that they admit that the tetraethyl lead, which was manufactured by du Pont Company under contract with General Motors, was distributed by a General Motors sub-

sidiary which was organized to handle the marketing of the tetraethyl lead to oil companies; that this General Motors subsidiary entered into a contract in or about 1924 with Standard Oil Company of New Jersey relative to the distribution of tetraethyl lead for use as an "anti-knock"; that Standard Oil developed a method of producing tetraethyl lead from ethyl chloride which could be produced more readily than ethyl bromide; and that du Pont Company [fol. 129] had built a plant at Deepwater, New Jersey, and was producing tetraethyl lead under the bromide process.

69. Defendants deny the allegations contained in paragraph 69 of the complaint.

70. Defendants deny the allegations contained in paragraph 70 of the complaint, except that they admit that Ethyl Gasoline Corporation (later changed to Ethyl Corporation) was organized in 1924 and took over the marketing of tetraethyl lead; that Standard Oil and General Motors granted to the new company exclusive licenses for their patents and patent applications relating to the use and production of tetraethyl lead; and that the voting stock in the new corporation was divided equally between General Motors and Standard Oil; and they allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegation that the new company was organized to take over the physical assets and contract obligations of the General Motors subsidiary.

71. Defendants deny the allegations contained in paragraph 71 of the complaint.

72. Defendants deny the allegations contained in paragraph 72 of the complaint, except that they admit that certain of the basic ethyl patents expired about December 31, 1947 and that a contract was entered into in respect of a period commencing in 1938, whereby du Pont Company manufactured tetraethyl lead for the account of Ethyl Corporation.

73. Defendants deny the allegations contained in paragraph 73 of the complaint, except that they admit that on [fol. 130] or about January 1, 1948, du Pont Company ceased manufacturing tetraethyl lead for the account of Ethyl and since that time has been manufacturing tetraethyl

lead and blending tetraethyl lead compounds and distributing such compounds through its own organization.

74. Defendants deny the allegations contained in paragraph 74 of the complaint, except that they admit that the du Pont Company entered the business of distributing ethyl fluid in 1948.

75. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 75 of the complaint.

76. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 76 of the complaint, except that they admit that during the latter part of the 1920's Frigidaire Corporation developed certain fluorine compounds for use as refrigerants in connection with electric refrigeration and secured certain patents in respect to fluorine compounds.

77. Defendants deny the allegations contained in paragraph 77 of the complaint.

78. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 78 of the complaint, except that they admit that in 1930 General Motors and du Pont Company entered into an agreement which provided for the formation of Kinetic Chemicals, Inc., to en- [fol. 131] gage in the manufacture and sale of certain described products and for the subscription by du Pont Company to 51% of the total authorized capital stock and by General Motors to 49% of said stock; and that Frigidaire Corporation and Kinetic Chemicals, Inc. entered into a license agreement in respect to certain patents and patent applications of Frigidaire Corporation.

79. Defendants deny the allegations contained in paragraph 79 of the complaint, except that they admit that Kinetic Chemicals, Inc. has been operated under the management of du Pont Company and in conjunction with its Organic Chemicals Department.

80. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 80 of the complaint.

81. Defendants deny the allegations contained in paragraph 81 of the complaint.

82. Defendants deny the allegations contained in paragraph 82 of the complaint, except that they admit that on occasions and for various reasons employees of du Pont Company have requested and obtained information from General Motors as to its suppliers.

83. Defendants deny the allegations contained in paragraph 83 of the complaint.

84. Defendants deny the allegations contained in paragraph 84 of the complaint, except that they allege that they [fol. 132] are without knowledge or information sufficient to form a belief as to the truth of the allegations concerning cost, market prices and dividends of the stock in General Motors held by du Pont Company.

85. Defendants deny the allegations contained in paragraph 85 of the complaint, except that they admit that du Pont Company has expanded the scope of its operations; that such expansion has been in part accomplished by the acquisition of companies as well as by the organization of new companies in conjunction with other interests.

86-104. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraphs 86-104 of the complaint, except that they admit that du Pont Company from time to time acquired capital stocks or assets of the companies named in such paragraphs.

105. Defendants deny the allegations contained in paragraph 105 of the complaint, except that they admit that du Pont Company is a substantial producer of explosives and chemicals and that the sales of du Pont Company for 1910 and 1947, respectively, as reported in its annual reports to stockholders, were approximately as stated in such paragraph; and allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegation that du Pont Company is the largest producer of explosives and chemicals in the United States.

106. Defendants deny the allegations contained in paragraph 106 of the complaint, except that they admit that General Motors has expanded its operations since 1917 into [fol. 133] fields other than the manufacture and sale of passenger cars and trucks.

107. Defendants deny the allegations contained in paragraph 107 of the complaint, except that they admit that

beginning with 1927 and for limited time thereafter General Motors received a volume discount from du Pont Company and allege that they are without knowledge or information sufficient to form a belief as to the precise terms thereof.

108. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 108 of the complaint.

109. Defendants deny the allegations contained in paragraph 109 of the complaint, except that they admit that certain employees of du Pont Company urged certain employees of General Motors to keep the details of the discount plan secret and confidential.

110. Defendants deny the allegations contained in paragraph 110 of the complaint, except that they admit that members of the Executive Committee of du Pont Company were informed of the general terms of the rebate plan; and that rebates were paid to General Motors; and allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations concerning the distribution of rebates among General Motors Divisions.

111. Defendants deny the allegations contained in paragraph 111 of the complaint.

[fol. 134] 112. Defendants deny the allegations contained in paragraph 112 of the complaint, except that they admit that the individuals named and certain others formed syndicates in 1927 for the purchase of U. S. Rubber capital stock.

113. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 13 of the complaint, except that they admit that certain members of the syndicate thought that the financial condition of U. S. Rubber could be strengthened by a reduction in inventories.

114. Defendants admit the allegations contained in paragraph 114 of the complaint.

115. Defendants deny the allegations contained in paragraph 115 of the complaint, except that they admit that Rubber Securities Company was organized in 1929; that the original stockholders of Rubber Securities Company included members of the syndicate; that Rubber Securities Company purchased shares of stock of U. S. Rubber from

members of the syndicate and on the open market; that Rubber Securities Company on December 31, 1929, held approximately 314,000 shares of common stock and 46,000 shares of preferred stock of U. S. Rubber; and that such stocks were acquired by Rubber Securities Company at a cost of approximately $8,277,000 for the common stock and $2,306,000 for the preferred stock, a total of approximately $10,583,000.

116. Defendants deny the allegations contained in paragraph 116 of the complaint, except that they admit that Rubber Securities Company continued to hold 314,000 [fol. 135] shares of common stock and 46,000 shares of preferred stock of U. S. Rubber until November, 1937; that Rubber Securities Company commenced in 1937 exchanging its stock for the U. S. Rubber common and preferred stock which it held; that Rubber Securities Company was dissolved on December 1, 1938; and allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegation that holdings of U. S. Rubber stock have been held substantially intact by "class defendants."

117. Defendants deny the allegations contained in paragraph 117 of the complaint, except that they admit that Francis B. Davis, Jr. was elected President and a Director of U. S. Rubber in 1929; that the members of the syndicate were in agreement with the election of Mr. Davis; that Mr. Davis had at different times formerly been an employee of du Pont Company and of General Motors; and that a bonus plan was instituted for the executives of U. S. Rubber.

118. Defendants deny the allegations contained in paragraph 118 of the complaint.

119. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 119 of the complaint, except that they admit that the beneficial ownership of U. S. Rubber common stock by the defendant individuals aggregates 68,816 shares.

120. Defendants deny the allegations contained in paragraph 120 of the complaint, except that they allege that [fol. 136] they are without knowledge or information sufficient to form a belief as to the truth of the allegations concerning the number of stockholders in U. S. Rubber.

121. Defendants deny the allegations contained in paragraph 121 of the complaint.

122-131. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraphs 122-131 of the complaint, except that they admit that General Motors since at least 1929 has purchased tires and tubes and other products from U. S. Rubber, and that the two companies have from time to time entered into contracts; and they deny that any of them caused or influenced General Motors to purchase from U. S. Rubber, and that any of them were parties to any agreement in 1930 as alleged in paragraph 125.

132. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 132 of the complaint, except that they deny that a guaranteed noncompetitive General Motors' market has been available to U. S. Rubber.

133. Defendants deny the allegations contained in paragraph 133 of the complaint, except that they allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegation concerning the amount of du Pont Company sales to U. S. Rubber.

134. Defendants deny the allegations contained in paragraph 134 of the complaint.

[fols. 137-139] WHEREFORE, Defendants deny that the plaintiff is entitled to the relief requested in the complaint or to any other relief, and pray that the complaint be dismissed.

John M. Harlan, Aaron Finger, Philip C. Scott, Ferris E. Hurd, *Attorneys for defendants Christiana Securities Company, Delaware Realty & Investment Corporation, Pierre S. du Pont, Lammot S. du Pont and Irénée du Pont.*

Root, Ballantine, Harlan, Bushby & Palmer, 31 Nassau Street, New York 5, N. Y. REctor 2-2260.

Richards, Layton & Finger, DuPont Building, Wilmington 41, Del. WIlmington 6-8308.

Pope & Ballard, 120 S. LaSalle Street, Chicago 3, Ill. RAndolph 6-6680.

[fol. 140] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

(Title omitted)

ANSWER OF E. I. DU PONT DE NEMOURS AND COMPANY—Filed April 26, 1950

The defendant E. I. du Pont de Nemours and Company (hereinafter referred to as du Pont) by its attorneys answers the Complaint herein as follows (the succeeding paragraphs being numbered to correspond with the numbering of the Complaint):

I

Jurisdiction and Venue

1. Du Pont admits that the Complaint is filed and this action is instituted under Section 4 of the Sherman Act [fol. 141] and under Section 15 of the Clayton Act. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

2. Du Pont admits that it, General Motors Corporation (hereinafter referred to as General Motors), and the United States Rubber Company (hereinafter referred to as U. S. Rubber), all transact business within the Eastern Division of the Northern District of Illinois and are found therein.

II

Defendants

3. Du Pont admits and avers that:

(a) It is named as a defendant herein and is a corporation organized and existing under the laws of the State of Delaware with principal offices at Wilmington, Delaware, and that in 1915 it acquired the assets of the E. I. du Pont de Nemours Powder Company.

(b) General Motors is named as a defendant herein and is a corporation organized and existing under the laws of the State of Delaware with principal offices at 3044 West Grand Boulevard, Detroit, Michigan, and that in 1917 it acquired the assets of the General Motors Company which was at that time dissolved.

(c) U. S. Rubber is named as a defendant herein and is a corporation organized and existing under the laws of the State of New Jersey with its principal offices at 1230 Avenue of the Americas, New York, New York.

[fol. 142] (d) Christiana Securities Company (hereinafter referred to as Christiana) is named as a defendant herein and is a corporation organized and existing under the laws of the State of Delaware with principal offices at the du Pont Building, Wilmington, Delaware, and that it was originally known as the du Pont Securities Company.

(e) Delaware Realty & Investment Corporation (hereinafter referred to as Delaware) is named as a defendant herein and is a corporation organized and existing under the laws of the State of Delaware with principal offices at the du Pont Building, Wilmington, Delaware.

(f) Pierre S. du Pont, of Wilmington, Delaware is named as a defendant herein and since 1915 has held the positions in the du Pont Company set forth in paragraph 3(f) of the Complaint, and that he has held the following positions in General Motors and General Motors Company: Director from 1915 to 1944; President from 1920 to 1923; Chairman of the Executive Committee of the Board of Directors from 1921 to 1923; a member of the Executive Committee from 1921 to 1929; a member of the Finance Committee from 1915 to 1937; and Chairman of the Board of Directors from 1915 to 1929. Except as specifically admitted, du Pont denies the averments in this paragraph.

(g) Lammot du Pont, of Wilmington, Delaware, is named as a defendant herein and since 1915 has held positions in the du Pont Company as described in paragraph 3(g) of the Complaint and that he has held the following positions in General Motors: Director from 1918 to 1946; a member of the Executive Committee of the Board of Directors from 1930 to 1934; a member of the Finance Committee from 1918 to 1937; a member of the Policy [fol. 143] Committee from 1937 to 1946; and Chairman of the Board of Directors from 1929 to 1937. Except as specifically admitted, du Pont denies the averments in this paragraph.

(h) Irénée du Pont, of Wilmington, Delaware, is named as a defendant herein and since 1915 has held positions in the du Pont Company as described in paragraph 3(h) of the Complaint and that he has held the following positions in General Motors: Director from 1918 to 1938; and a member of the Finance Committee of the Board of Directors from 1918 to 1937. Except as specifically admitted, du Pont denies the averments in this paragraph.

4-8. Du Pont admits the averments in these paragraphs except that it denies that as used in this answer the terms defined in Paragraphs 4 to 7 have the meanings ascribed to them in those paragraphs of the Complaint.

9. Du Pont admits that each of the members of the class of persons defined is named as a defendant herein, and is without knowledge or information sufficient to form a belief as to the truth of the other averments in this paragraph.

10-11. Du Pont admits that the individual defendants are brothers, and is without knowledge or information sufficient to form a belief as to the truth of the other averments in these paragraphs.

III

Nature of Trade and Commerce Involved

12. Du Pont admits and avers that it is a substantial producer of explosives, powder and chemicals but is without [fol. 144] knowledge or information sufficient to form a belief as to the truth of the averment that it is the largest producer of such products located in the United States. Du Pont further admits and avers that its principal manufacturing operations are conducted through ten Departments, and that the names of these Departments and the principal products which each produces are: *Electrochemicals:* Electro and industrial chemicals, including sodium, cyanides, peroxides, chlorinated solvents (for metal cleaning, dry cleaning, and extraction), refrigerants, formaldehyde, polyvinyl alcohol and acetate, ceramic decorations, and furfural products; *Explosives:* Commercial explosives, blasting accessories, miscellaneous chemicals, liquid and solidified nitroglycerin, oil and gas well torpedo service; military and sporting powders, and commercial nitrocellulose; *Fabrics & Finishes:* Pyroxylin, synthetic resin, neoprene and rubber coated fabrics, and processed plastic sheeting, window shade fabrics, rug underlay, and synthetic rubberized tubing; protective and decorative

finishes for all industrial, automotive, marine, transportation, and household purposes, wire enamels, automotive maintenance specialties, adhesives, plasticizers, and pyroxylin solutions; *Film:* Cellophane, cellulose bands, cellulose sponges and sponge yarn, cellulose acetate film, and polythene film; *Grasselli:* Inorganic and organic acids and heavy chemicals, zinc and zinc products, fungicides, seed disinfectants, household sprays and dusts, insecticides, animal remedies, weed killers, adhesives, wood preservatives, and chemicals for the textile, water purification, paper, leather, steel, and food industries; *Organic Chemicals:* Dyestuffs, tetraethyl lead, neoprene, ethyl alcohol, camphor, and other organic chemicals for the rubber, petroleum, textile, paper, perfumery, and other industries; *Photo Products:* Motion picture, X-ray, portrait, [fol. 145] lithographic, and micro films; intensifying and fluoroscopic screens, photographic printing papers, processing chemicals, and television phosphors; *Pigments:* Titanium dioxide, extended titanium pigments, lithopone, dry colors, copperas, titanium metal and "Erifon" flame retardant; *Polychemicals:* Ammonia, urea, urea fertilizer compounds, methanol, higher alcohols, solvents, organic acids, hydrogenated products, antifreezes, food chemicals, acrylic plastics, polyvinyl butyral, polythene, cellulose nitrate and cellulose acetate plastics, nylon molding powder and monofilaments, polytetrafluoroethylene, and fabricated articles; *Rayon:* Viscose rayon yarn, staple, and tire yarn; acetate rayon yarn and staple cellulose acetate flake, and vinyl acetate; nylon yarn, staple, and flake.

Except as to the averments specifically admitted du Pont denies the averments in this paragraph.

13. Du Pont admits and avers that it has some wholly owned subsidiaries in this and other countries and also that it owns over 50 per cent of the voting stock in some companies in this and othere countries; that it owns a 50 per cent interest in Old Hickory Chemical Co. which produces carbon bisulphide; that it owns 100 per cent of Kinetic Chemicals, Inc., a manufacturer of refrigerants; that it owns 66.67 per cent of the voting stock of International Freighting Corporation, Inc., which operates vessels coastwise (Atlantic and Gulf), service between Eastern Canadian, U. S., Atlantic and East Coast South American ports

and a general chartering business; and that the balance of th voting stock in International Freighting Corporation, Inc., is held by General Motors. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

[fol. 146] 14. Du Pont admits and avers that the principal business of General Motors consists of the manufacture of passenger cars and trucks including various parts and accessories; that General Motors produces the Chevrolet, Buick, Oldsmobile, Pontiac and Cadillac passenger cars and the Chevrolet and GMC tucks; that it manufactures parts and accessories for use in its own cars as well as for sale and use in cars and trucks produced for other automobile and truck manufacturers. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the other averments in this paragraph.

15. Du Pont admits and avers that General Motors manufactures railroad diesel locomotives in the United States and produces diesel engines for use in these locomotives as well as for other purposes. Du Pont further admits and avers that General Motors manufactures other products including ball bearings, roller bearings, electric refrigerators and heating equipment and that many of its production operations are conducted through the operating divisions named in this paragraph. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the other averments in this paragraph.

16. Du Pont admits and avers that General Motors holds 50 per cent of the common stock of Ethyl Corporation; that the other 50 per cent of the stock of Ethyl Corporation is owned by Standard Oil Company (New Jersey); that General Motors holds a 33.3 per cent interest in International Freighting Corporation, Inc. Du Pont denies that Ethyl Corporation was the sole producer of ethyl fluid throughout the period prior to 1948 and that General Motors owns any interest in Kinetic Chemicals, Inc., and is without [fol. 147] knowledge or information sufficient to form a belief as to the truth of the other averments in this paragraph.

17. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph.

18. Du Pont admits and avers that for the year 1947 its sales volume and net income after taxes, and its assets at the end of the year, as shown and explained in its Annual Report to the stockholders were as follows:

Assets	Sales	Net Income After Taxes
$1,438,114,642	$783,405,434	$120,009,760

and that for the year 1947 the sales volume and net income after taxes of General Motors, and its assets at the end of the year, as shown and explained in its Annual Report to the stockholders were as follows:

Assets	Sales	Net Income After Taxes
$2,472,969,238	$3,815,159,163	$287,991,373

Du Pont is without knowldege or information sufficient to form a belief as to the truth of the averments with respect to the eassets, salese volume and net income after taxes of U. S. Rubber in 1947. Except as to the averments specifically admitted, and those as to which it has stated it is without knowledge or information sufficient to form a belief, du Pont denies the averments in this paragraph.

19. Du Pont admits and avers that it, General Motors and U. S. Rubber each maintain separate production and distribution facilities at various locations in the United [fol. 148] States, and that the products produced by each of them are sold and shipped in commerce among the several states of the United States.

20. Du Pont denies the averments in this paragraph except that it admits and avers that certain of the products it produces are used by General Motors and U. S. Rubber; that it sells to General Motors, lacquers, paints, varnishes, thinners, antifreeze preparations, coated fabrics and processed plastic sheetings; that it sells to U. S. Rubber rayon and certain organic chemical products; that it has sold to Ethyl Corporation tetraethyl lead, alcohol and ethyl chloride; that it sells other products to both General Motors and U. S. Rubber; that additional quantities of products produced by du Pont are sold to these two companies through companies and persons other than du Pont and that sales (not including sales of du Pont-made products

sold through companies other than du Pont) to General Motors for the period 1938 through 1947 totaled approximately $118,634,000; that its sales to U. S. Rubber for the period 1938 through 1947 totaled approximately $65,691,000; that its sales to Ethyl Corporation during the period 1938 through 1947 totaled approximately $57,164,000.

21. Du Pont is without knowledge or information sufficient to from a belief as to the truth of the averments in this paragraph.

22. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph, except that it admits and avers that it has purchased from General Motors trucks manufactured by [fol. 149] General Motors and has purchased from dealers passenger cars and trucks manufactured by General Motors.

23. Du Pont admits the averments in this paragraph.

24. Du Pont denies the averments in this paragraph except that it admits that there are numerous manufacturers in the United States which manufacture and sell products some of which are of substantially the same type, kind and quality as the products manufactured and sold by du Pont, General Motors, and U. S. Rubber.

IV

Origin and Development of Du Pont Company to 1915

25. Du Pont admits the averments in this paragraph except that it is without knowledge or information sufficient to form a belief as to the truth of the averment that when the company became a corporation in 1899, control remained in the hands of members of the du Pont family; and further avers that in 1899 the entire capital stock of such corporation was owned by members of the du Pont family (as defined in paragraph 7 of the Complaint).

26. Du Pont admits the averments in this paragraph except that it avers that the company formed in 1902 was E. I. du Pont de Nemours and Company, a Delaware corporation, the capital stock of which on March 1, 1902 consisted of 120,000 shares of which 43,200 were held by T. Coleman du Pont, 24,600 by Alfred I. du Pont, and 21,600 by Pierre S. du Pont; and it is without knowledge [fol. 150] or information sufficient to form a belief as to

whether T. Coleman du Pont, Alfred I. du Pont and Pierre S. du Pont controlled this company; du Pont further avers that in 1903 the E. I. du Pont de Nemours Powder Co. (a New Jersey corporation) was founded and took over substantially all the assets of the 1902 company.

27. Du Pont admits the averments in this paragraph except that it avers that the suit in 1907 was filed against E. I. du Pont de Nemours Powder Company, a New Jersey corporation.

28. Du Pont admits and avers that in 1910 its total annual sales amounted to approximately $33,200,000; that in 1910 the E. I. du Pont de Nemours Powder Company acquired the entire stock interest in the Fabrikoid Company which made artificial leather and was du Pont's principal holding at that time outside the powder and explosives field; that in 1910 the Fabrikoid Company was dissolved and later its operations were merged into those of du Pont as part of what subsequently became known as the Fabrics and Finishes Department; that in 1915 it acquired all of the outstanding stock of the Arlington Company, makers of celluloid used in the making of automobile side curtains and other products. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

V

Offenses Charged

29-31. Du Pont denies the averments in these paragraphs. [fol. 151] 32. Du Pont admits and avers that in 1915 Pierre S. du Pont, Irénée du Pont, Lammot du Pont, A. Felix du Pont, R. R. M. Carpenter and J. J. Raskob, Treasurer of du Pont, formed a syndicate to acquire the block of stock in the E. I. du Pont de Nemours Powder Company then held by its largest stockholder, T. Coleman du Pont. Du Pont further admits and avers that the stock so acquired by this syndicate as well as certain shares of the du Pont Powder Company common stock owned by members of the syndicate were transferred to the du Pont Securities Company (predecessor fo Christiana), which was organized by the members of the syndicate. Du Pont denies that Christiana then held a controlling portion of du Pont stock and is without knowledge or information sufficient to form a belief as to the truth of the other averments in this paragraph.

33. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph.

34. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph except that it admits and avers that the du Pont common stock held by Christiana has been voted as a block at the stockholders meetings of du Pont; that directors of Christiana have in most instances served as directors or officers of du Pont; and denies that Christiana has at any time held a controlling portion of du Pont stock.

35. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph except that it denies that the defendant [fol. 152] individuals have at all times occupied the dominant position in determining what the policies of du Pont should be and avers that the policies of du Pont have at all times been determined in accordance with its charter and by-laws, by its stockholders, directors and officers among whom are included Christiana, Delaware and the individual defendants herein.

36. Du Pont admits and avers that as of December 31, 1949 Christiana held 12,199,200 shares (or 27.2 per cent) and Delaware held 1,217,920 shares (or 2.7 per cent) of the outstanding shares (44,833,628) of the common stock of du Pont. Du Pont further admits and avers that all of the lineal descendants of Pierre Samuel du Pont de Nemours who were officers or directors of du Pont on August 23, 1948, held on that date common stock of du Pont which totaled approximately 5.3 per cent of the du Pont outstanding common stock including all shares held by each of them individually, as trustee or as co-trustee as well as shares beneficially owned or subject to the control of any member of the family of such officer or director. Du Pont further admits and avers that as of August 23, 1948, the lineal descendants of Pierre Samuel du Pont de Nemours who were not officers or directors of du Pont and their wives or husbands held individually shares of du Pont common stock which totaled approximately 2.2 per cent of the outstanding common stock of du Pont. Except as to the aver-

ments specifically admitted, du Pont denies the averments in this paragraph.

37. Du Pont admits and avers that as of the time when this complaint was filed its capital stock was held by approximately 100,000 shareholders including 82,000 holders [fol. 153] of common stock, and that its policies are determined in accordance with its charter and by-laws by its stockholders, officers and directors, and that among its stockholders are Christiana and Delaware. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

38. Du Pont admits and avers that during World War I its plant facilities, sales and profits in the powder and explosives field expanded as the result of the wartime demand for these products on the part, first of Great Britain, France and the other allied powers, and later of the United States; and that its net profits on all business during the period 1915 to 1918 inclusive as reported to stockholders totaled approximately $232,000,000. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

39. Du Pont denies the averments in this paragraph except that it admits and avers that; anticipating the end of World War I and the cessation of orders for powder and explosives, it determined to find sources for the investment of its excess capital and for the utilization of such capital for expansion into fields other than gunpowder and explosives.

40. Du Pont admits and avers that Pierre S. du Pont, president of du Pont from 1915 to 1919, and other officers of the company had been investing as individuals in the common stock of General Motors Company and Chevrolet Motor Company (which by 1917 held a majority of the stock in General Motors Company); and is without knowledge or [fol. 154] information sufficient to form a belief as to the truth of the other averments in this paragraph.

41. Du Pont denies the averments in this paragraph except that it admits and avers that on December 21, 1917 its Executive and Finance Committees, the former of which included in its membership the defendants, Lammot du Pont and Irénée du Pont, and the latter of which included in its membership Pierre S. du Pont and Irénée du Pont, in a

joint meeting formally approved the investment by du Pont of $25,000,000 in the common stock of General Motors and Chevrolet Motor Company and that a new company, all of whose stock was held by du Pont, was organized with an authorized capital of $25,000,000 (later called General Industries, Inc.) to accomplish the actual purchase of General Motors and Chevrolet stock.

42. Du Pont denies the averments in this paragraph except that it admits and avers that by March 8, 1918, it had purchased through General Industries, Inc. 97,875 shares of common stock of General Motors and 133,690 shares of the common stock of Chevrolet Motor Company which at that time represented 12.5 per cent and 20.9 per cent of the outstanding common stock of the two companies respectively.

43. Du Pont admits and avers that the name of General Industries, Inc., was changed to du Pont American Industries, Inc.; that its capitalization was increased to $50,000,000 and that it continued to purchase stock in General Motors and Chevrolet Motor Company; that General Motors acquired the physical assets of Chevrolet and that there- [fol. 155] after Chevrolet was operated as a division of General Motors. Du Pont further admits and avers that by the end of 1919 du Pont American Industries, Inc., owned 238,504 shares of General Motors common stock and 159,115 shares of Chevrolet common stock which represented 15.5 per cent and 37.8 per cent of the outstanding common stock of the two companies respectively. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

44. Du Pont denies the averments in this paragraph except that it admits and avers that in 1920 William Durant, the organizer of General Motors, was in financial difficulty and that du Pont acquired a substantial portion of his stockholdings in General Motors; that this acquisition was accomplished in part through the du Pont Securities Company, a company in which du Pont American Industries, Inc. had an interest; that du Pont Securities Company was later dissolved and the name of du Pont American Industries, Inc. was later changed to General Motors Securities Company and that upon its dissolution a

large part of its General Motors stockholdings was taken over by du Pont directly; that subsequent to the dissolution of du Pont Securities Company and the change in 1923 in the name of du Pont American Industries, Inc. to General Motors Securities Company du Pont has acquired and sold shares of General Motors stock, either directly or indirectly.

45. Du Pont admits and avers that the services of J. P. Morgan & Company were utilized by it in the acquisition of General Motors stock from Durant in 1920 and by General Motors in financing the capital needs of General Motors in [fol. 156] 1920 and that in that year Canadian Explosives Limited (a Canadian firm later known as Canadian Industries, Ltd., in which du Pont and Explosives Trades Limited of Great Britain were substantial stockholders) subscribed for and purchased General Motors stock, a portion of which was subsequently purchased from Canadian Explosives Limited by the du Pont-Nobel Company. Du Pont further admits and avers that at a later date it purchased shares of General Motors stock from Canadian Explosives Limited. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

46. Du Pont denies the averments in this paragraph except that it admits and avers that persons who were partners or officers of J. P. Morgan & Company have served as directors of General Motors.

47. Du Pont denies the averments in this paragraph except that it admits and avers that it has for many years past owned 10,000,000 shares (approximately 23 per cent) out of the approximately 44,000,000 outstanding shares of General Motors common stock; and is without knowledge or information sufficient to form a belief as to the averment that the remaining shares of General Motors stock were, in 1947, held by over 436,000 stockholders located in the various States of the United States and in foreign countries and that 92 per cent of these stockholders owned no more than 100 shares and that 60 per cent owned no more than 25 shares.

48. Du Pont admits and avers that the Finance and Executive Committees of its Board of Directors perform the following functions as specified in its By-Laws:

[fol. 157] Finance Committee

The Finance Committee shall consist of nine members.

The Finance Committee shall have special and general charge and control of all financial affairs of the Company and such other matters as may be assigned to it from time to time by the Board of Directors. The Secretary and Treasurer and their respective divisions shall be under the direct control and supervision of the Finance Committee.

The Finance Committee shall appoint a Custodian of Securities who shall act as custodian of the stocks, bonds, and other securities of the Company except such stocks, bonds and other securities as may be deposited for safekeeping in custody accounts established from time to time with banks and other depositories by authority of the Finance Committee. The Custodian of Securities shall give a bond in such amount as the Finance Committee may require.

During the intervals between the meetings of the Board of Directors, the Finance Committee shall possess and may exercise all the powers of the Board of Directors in the management of the financial affairs of the Company, and such other matters as may be assigned to it from time to time by the Board of Directors, in such manner as said Committee shall deem to be best for the interests of the Company, in all cases in which specific directions shall not have been given by the Board of Directors.

During the intervals between the meetings of the Finance Committee, the Chairman thereof shall possess and may exercise such of the powers vested in the Finance Committee as from time to time may be conferred upon him by resolution of the Board of Directors or of the Finance Committee. (By-Laws, Article III, Section 3.)

[fol. 158] Executive Committee

The Executive Committee shall consist of nine members.

During the intervals between the meetings of the Board of Directors, the Executive Committee shall possess and may exercise all the powers of the Board of Directors in the management and direction of all the business and affairs of the Company (except the matters hereinafter assigned to the Finance Committee, to the Committee on Audit or to the Bonus and Salary Committee), in such manner as the Executive Committee shall deem best for the interests of the Company in all cases in which specific directions shall not have been given by the Board of Directors.

During the intervals between the meetings of the Executive Committee, the Chairman thereof shall possess and may exercise such of the powers vested in the Executive Committee as from time to time may be conferred upon him by resolution of the Board of Directors or of the Executive Committee. (By-Laws, Article III, Section 2.);

that the General Motors Board of Directors has no Executive Committee, and the Financial Policy Committee of the General Motors Board of Directors performs the following functions as set forth in the By-Laws:

Financial Policy Committee

The financial policy committee shall consist of nine members. The board of directors shall select the members of the financial policy committee from among the directors and shall designate the chairman of the committee, all of whom shall serve during the pleasure of the board of directors. During the intervals between meetings of the [fol. 159] board of directors, the financial policy committee shall have and may exercise the powers of the board of directors except the powers hereinafter assigned to the audit committee and the bonus and salary committee, in the determination of the financial policies of the corporation and in the management of the financial affairs of the corporation, including all accounting policies and procedures, and shall have power to authorize the seal of the corporation to be affixed to all papers which may require it. All capital expenditures of the corporation shall be approved by the financial policy committee, except that the financial policy committee may authorize the operations policy committee to approve capital expenditures to such extent and up to such amounts as the financial policy committee may establish. The financial and accounting officers of the corporation, the general counsel of the corporation, the secretary of the corporation and the transfer agent of the corporation, and their respective staffs, shall be under the supervision of the financial policy committee. During the intervals between meetings of the financial policy committee, the ~~chairman thereof shall have and may exercise~~ the powers of the financial policy committee. All action taken by the chairman during the intervals between meetings of the financial policy committee in the exercise of such authority shall be reported to the financial policy committee. All action by the financial policy committee and its chairman shall be reported to the board of directors and shall be subject to revision by the board of directors, provided that no acts or rights of third parties shall be affected thereby. (By-Laws, Paragraph 37.)

Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

49. Du Pont admits and avers that in February, 1918 a majority of the members of the General Motors Finance [fol. 160] Committee elected by the General Motors Board of Directors were persons who were also officers or directors of du Pont. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

50. Du Pont admits and avers that the persons named in this paragraph of the Complaint occupied in the du Pont Company the positions listed opposite their names and were elected to the Finance Committee of the Board of Directors of General Motors at various times in 1917 and 1918 and that in 1918 William Durant was the seventh member of the General Motors Finance Committee. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

51. Du Pont admits and avers that both before and since 1917 certain individuals who were officers and directors of du Pont, including the individual defendants, have been elected directors of General Motors from time to time, and that certain individuals who were officers and directors of du Pont, including the individual defendants, have been designated from time to time by the General Motors Board of Directors to serve as officers or members of Board committees of General Motors. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

52. Du Pont refers to paragraph 3 (f) (g) and (h)

above for a true statement of the positions held by the individual defendants with du Pont and General Motors, and except as there admitted or averred denies the averments in this paragraph.

[fol. 161] 53. Du Pont denies the averments in this paragraph, except that it admits and avers that in 1923 General Motors organized a corporation known as Managers Securities Company and obligated itself to pay the company over an eight year period 5 per cent of General Motors' annual net earnings (after deducting 7 per cent on capital investment) with a minimum annual payment of $2,000,000, provided that any amount by which such minimum payments exceeded the amounts due from General Motors earnings would be deemed to be a loan by General Motors to Managers Securities Company. Du Pont further admits and avers that in 1923 there was transferred to Managers Securites Company a 30 per cent interest in the common stock of General Motors Securities Company, which interest represented 2,250,000 shares of General Motors common stock in return for which General Motors Securities Company received $33,750,000, of which $4,950,000 was paid in cash and the balance in 7 per cent cumulative preferred stock of Managers Securities Company. Du Pont further admits and avers that General Motors then sold Class A and Class B stock of Managers Securities Company "to certain General Motors executives; that payments pursuant to the earnings contract with General Motors were credited on the books of Managers Securities Company to the Class A surplus account for the benefit of the Class A stock and that substantially all other net income of Managers Securities Company was credited on the books of Managers Securities Company to the general surplus account for the benefit of the Class B stock."

54. Du Pont denies the averments in this paragraph, except that it is without the knowledge or information suffi- [fol. 162] cient to form a belief as to the worth of Managers Securities stock in 1929.

55. Du Pont admits and avers that throughout the period that the General Motors bonus plan has been in operation bonus awards have been determined by the Finance Committee of General Motors and thereafter by the Bonus and Salary Committee of General Motors, and at various times

during this period various of the individual defendants and some individuals who were officers and directors of du Pont have served on the Finance Committee and the Bonus and Salary Committee of General Motors. Du Pont denies that such persons have dominated these committees or determined who among the General Motors executives should receive bonus allocations and the amount each should receive, and further denies that General Motors executives have responded readily to any influence or desires of du Pont either as an inevitable and intended consequence of the operation of a bonus plan or otherwise. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the remaining averments in this paragraph.

56. Du Pont denies the averments in this paragraph.

57. Du Pont admits the averments in this paragraph, except that it denies that beginning in or about 1917 General Motors has purchased all or substantially all of its requirements of celluloid or artificial leather from du Pont, and is without knowledge or information sufficient to form a belief as to whether artificial leather was used extensively in automobile seats and upholstery in 1917.

[fol. 163] Du Pont admits and avers that since 1917 it has regularly purchased from General Motors trucks manufactured by General Motors and has purchased from dealers passenger cars and trucks manufactured by General Motors; that it has purchased cars and trucks produced by other companies; and that it has from time to time purchased other items produced by General Motors from that company or its dealers. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

59. Du Pont denies the averments in this paragraph, except that it admits and avers that in 1917 it was engaged in the production of paints and varnishes and related products; that during the course of that year it acquired all of the assets of Harrison Bros. & Company, Beckton Chemical Company, Cawley Clark & Company, and certain of the assets of the Bridgeport Wood Finishing Company; that during 1918 du Pont purchased through a subsidiary a majority of the common and preferred stock of Flint Varnish and Color Works; that General Motors in 1918

acquired a small minority interest in Flint Varnish and Color Works; that thereafter du Pont purchased the minority shares of the Flint Varnish and Color Works, including those owned by General Motors, and dissolved the Flint Company in October, 1924; that in 1918 the Flint Company manufactured products primarily used in finishing railroad equipment and automobiles; that in 1918 du Pont purchased certain assets only of New England Oil Paint and Varnish Company; that in 1920 it acquired certain assets of the Chicago Varnish Company; and that in 1934 it acquired the assets of the Mountain Varnish and Color Works.

[fol. 164] 60. Du Pont denies the averments in this paragraph except that it admits and avers that such paint and varnish companies as were acquired by it were subsequently dissolved and their assets taken over by du Pont and for the most part incorporated into its Fabrics and Finishes Department; that the Fabrics Division of this department produces coated fabrics and other sheetings and that the Finishes Division of this department produces the products listed in this paragraph as well as those set forth in answer to paragraph 12 of the Complaint; that General Motors is the largest single customer of the Fabrics and Finishes Department; that its purchases from this department exceed in volume its purchases from any other individual department of du Pont and have usually exceeded in volume General Motors' total purchases from all other departments of du Pont and that sales of all products to General Motors constitute a significant percentage of the total volume of business done by the Fabrics and Finishes Department.

61. Du Pont denies that the establishment of a Central Purchasing Committee in General Motors was in any way intended to insure that du Pont wishes would be communicated to the divisional purchasing agents or complied with by them, and du Pont further denies that the Central Purchasing Committee was an instrumentality in carrying out any du Pont-General Motors inter-company sales arrangements. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the remaining averments in this paragraph.

62. Du Pont denies the averments in this paragraph.

[fol. 165] 63. Du Pont denies the averments in this paragraph, except that it admits and avers that its gross direct sales to General Motors and Ethyl Corporation combined for the period of 1938 through 1947, inclusive, totaled approximately $176,000,000.

64. Du Pont denies the averments in this paragraph, except that it admits and avers that both prior to its investment in General Motors in 1917 and since then it has extended its operations into the manufacture of paints and varnishes and related products and also other chemical and allied products.

65. Du Pont denies the averments in this paragraph.

66. Du Pont denies the averments in this paragraph except that it admits and avers that General Motors engaged in an investigation (as to the date on which such investigation started du Pont is without knowledge or information sufficient to form a belief) into the nature and causes of "knocking" in internal combustion engines which revealed that tetraethyl lead blended with gasoline in proper proportions constituted an effective "anti-knock"; that both at the time of General Motors' discovery and subsequent thereto tetraethyl lead was a scarce and expensive product, production of which was highly hazardous; that General Motors discovered that tetraethyl lead could be produced commercially from ethyl bromide and secured patents both on the euse of tetraethyl lead in gasoline as an "anti-knock" and on a method of producing it from ethyl bromide, and that du Pont undertook to produce tetraethyl lead on a commercial scale.

[fol. 166] 67. Du Pont denies the averments in this paragraph, except that it admits that in 1922 General Motors and du Pont entered into an agreement under which du Pont manufactured tetraethyl lead. For the terms and conditions of the agreement du Pont refers to the original of the contract which will be produced upon the trial of this cause.

68. Du Pont admits and avers that the tetraethyl lead which it manufactured was initially distributed by a General Motors subsidiary which was organized by General Motors to handle the marketing of tetraethyl lead, but is without knowledge or information sufficient to form a belief as to the terms of any agreement entered into between General Motors subsidiary and the Standard Oil Company (New

Jersey). Du Pont further admits and avers that Standard Oil (New Jersey) developed or acquired rights to a method for producing tetraethyl lead from ethyl chloride, which could be produced more readily than ethyl bromide. Du Pont further admits and avers that it had constructed a plant at Deepwater, New Jersey, which by the end of 1924 was producing tetraethyl by the ethyl bromide process at the rate of approximately 7,580 pounds a day. Du Pont avers further that it is without knowledge or information sufficient to form a belief as to the truth of the averment that the oil companies that were using tetraethyl lead in their gasoline were enthusiastic about the anti-knock results achieved and the averment that at that time it anticipated a great expansion in demand and production. Except as to the averments specifically admitted and those as to which it has stated it is without knowledge or information sufficient to form a belief, du Pont denies the averments in this paragraph.

[fol. 167] 69. Du Pont denies the averments in this paragraph.

70. Du Pont denies the averments in this paragraph, except that it admits and avers that in 1924 Ethyl Gasoline Corporation (later changed to Ethyl Corporation) was organized by General Motors and Standard Oil (New Jersey and took over the handling and marketing of tetraethyl lead then being produced under contract by du Pont; that Standard Oil (New Jersey) and General Motors granted licenses to Ethyl Gasoline Corporation under their patents and patent applications relating to the use of tetraethyl lead as an anti-knock and to the methods of producing the substance; that the voting stock in Ethyl Gasoline Corporation was equally divided between General Motors and Standard Oil (New Jersey); and is without knowledge or information sufficient to form a belief as to whether Ethyl was organized to take over the physical assets and contract obligations of General Motors subsidiary.

71. Du Pont denies the averments in this paragraph.

72. Du Pont denies the averments in this paragraph except that it admits and avers that the term of certain of the basic ethyl patents expired about December 31, 1947; and that prior to December 31, 1947 and with respect to a period beginning in 1938, it entered into an agreement with

Ethyl Corporation pursuant to which du Pont manufactured tetraethyl lead for the account of Ethyl Corporation and was compensated for such production pursuant to the terms of its agreement with Ethyl Corporation and supplements thereto.

73. Du Pont admits and avers that on December 31, 1947 it ceased manufacturing tetraethyl lead for the ac- [fol. 168] count of Ethyl Corporation and for distribution by Ethyl Corporation and since then has manufactured tetraethyl lead and blended tetraethyl lead compounds for its own account and distributed such compounds through its own organization in competition with Ethyl Corporation. Except as to the averments specially admitted, du Pont denies the averments in this paragraph.

74. Du Pont denies the averments in this paragraph except that it admits that since August, 1947 it has manufactured tetraethyl lead for its own account and that since January 1, 1948 has blended tetraethyl lead compounds for its own account and distributed such compounds through its own organization.

75. Du Pont admits and avers that during the period prior to 1938 its profits on the manufacture and sale of tetraethyl had approximated $34,000,000; that from 1938 to 1947 Ethyl paid du Pont approximately $47,000,000 in payment for services rendered Ethyl pursuant to the Manufacturing Service Agreement between the two companies; that these sums received by du Pont do not include profits which it may have realized in the production of the basic ingredients utilized in the manufacture of tetraethyl lead and ethyl fluid. Except as to averments specifically admitted, du Pont denies the averments in this paragraph.

76. Du Pont admits and avers that, during the latter part of the 1920's, Frigidaire Corporation developed certain fluorine compounds for use as refrigerants in connection with electric refrigeration; that such fluorine compounds were an improvement over those then on the market; that Frigidaire Corporation, as a manufacturer of electric re- [fol. 169] frigerators, was interested in the possibility of using such fluorine compounds as refrigerants; and that, thereafter, Frigidaire Corporation secured certain patents in respect to such fluorine compounds. Except as to the

averments specifically admitted to, du Pont denies the averments in this paragraph.

77. Du Pont denies the averments in this paragraph.

78. Du Pont admits and avers that in 1930 General Motors and du Pont entered into an agreement, which provided for the formation of Kinetic Chemicals, Inc. to engage in the manufacture and sale of certain described products and for the subscription by du Pont to 51 per cent of the total authorized capital stock and by General Motors to 49 per cent of said stock, and that Frigidaire Corporation and Kinetic Chemicals, Inc. entered into a license agreement in respect to certain patents and patent applications of Frigidaire Corporation. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

79. Du Pont admits and avers that since its organization Kinetic Chemicals, Inc. has been operated in conjunction with du Pont's Organic Chemicals Department and has been managed by du Pont subject to the wishes of Kinetic's stockholders and directors under the charter and by-laws of Kinetic Chemicals, Inc. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

80. Du Pont denies the averments in this paragraph, except that it admits and avers that for a period of time im- [fol. 170] mediately after Kinetic Chemicals, Inc. was organized and until its production increased sufficiently to supply other refrigerator manufacturers Kinetic sold its patented refrigerants only to the Frigidaire Division of General Motors, and that for a period of time one type of Kinetic's patented refrigerants was sold only to General Motors.

81. Du Pont denies the averments in this paragraph.

82. Du Pont denies the averments in this paragraph, except that it admits and avers that on occasions and for various purposes its employees have requested and obtained information from General Motors as to its suppliers.

83. Du Pont denies the averments in this paragraph.

84. Du Pont denies the averments in this paragraph except that it admits and avers that its present investment in General Motors stock was acquired at a net cost of $57,621,758; that it is carried on du Pont's Balance Sheet

as of December 31, 1949 at $343,500,000; that between 1918 and 1947, inclusive, du Pont has received dividends from General Motors totaling approximately $656,000,000; and that du Pont is without knowledge or information sufficient to form a belief as to the worth of its General Motors investment if presently offered for sale.

85. Du Pont denies the averments in this paragraph, except that it admits and avers that it has expanded the scope of its operations, among other means, by the acquisition of companies and by the organization of new companies in conjunction with other interests.

[fol. 171] 86-104. Du Pont denies that the acquisitions and expansions described in these paragraphs in any way illustrate the averments in paragraph 85, which it denies.

86. Du Pont admits the averments in this paragraph, except that it admits and avers that it acquired only certain of the assets of the Bridgeport Wood Finishing Company. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

87. Du Pont admits and avers that in 1918 it acquired only certain of the assets of the New England Oil, Paint and Varnish Company; and that in that same year it purchased through a subsidiary a majority of the common and preferred stock of Flint Varnish and Color Works; that subsequently it purchased the minority shares in Flint including those owned by General Motors in 1923; and that Flint manufactured products primarily used in finishing railroad equipment and automobiles. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

88. Du Pont admits and avers that in 1911 E. I. du Pont de Nemours Powder Company acquired 40.5 per cent interest in the then newly formed Canadian Explosives Limited (whose name was changed to Canadian Industries, Limited June 16, 1927); a large part of the remaining interest in Canadian Explosives Limited was acquired by Nobel Explosives Company, Ltd., which was engaged in the power and explosives business; that the E. I. du Pont de Nemours Powder Company interest has, after a series of transactions involving minor acquisition, sales and trans- [fol. 172] fers among wholly-owned subsidiaries of du Pont, devolved upon du Pont, and now amounts to a 41.6 per cent

interest. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

89. Du Pont admits the averments in this paragraph except that it avers that it acquired a part interest in Du Pont Fabrikoid in 1913, and the company acquired in 1920 was the Du Pont Fabrikoid Company and the company formed in 1920 the Du Pont Fibersilk Company. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

90. Du Pont admits the averments in this paragraph.

91. Du Pont admits the averments in this paragraph except that it avers that Du Pont National Ammonia Company acquired a 100 per cent common stock ownership in National Ammonia Company Inc. and an 80 per cent stock interest in Pacific Nitrogen Company; that in 1928 du Pont Company acquired the minority interest in Du Pont National Ammonia Company and acquired additional stock in Lazote, Inc., bringing its interest in that firm up to 89 per cent and thereupon dissolved the Du Pont National Ammonia Company; that through ownership of National Ammonia Company, Inc. du Pont Company had a 75 per cent interest in Michigan Ammonia Works and a majority interest in Pacific Ammonia & Chemical Company. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

92. Du Pont admits the averments in this paragraph, except that it denies that it acquired full and final control [fol. 173] of the Du Pont Pathé Film Manufacturing Corporation in 1928 and avers that it acquired all of the common stock of the Du Pont Film Manufacturing Corporation in 1941. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

93-96. Du Pont admits the averments in these paragraphs.

97. Du Pont admits and avers that in 1928 it acquired directly the minority interest in Du Pont Viscoloid Company that had been formed in 1925. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

98. Du Pont admits the averments of this paragraph except that in the original organization in 1928 it together with Du Pont Rayon Company and other interests, formed

the Old Hickory Chemical Company to manufacture carbon bisulphide at Old Hickory, Tennessee; and du Pont admits and avers that at that time the aggregate holdings of itself and Du Pont Rayon Company amounted to 50 per cent of the issued stock of Old Hickory Chemical Company. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

99. DuPont admits and avers that in 1928 it acquired the properties and business of The Grasselli Chemical Company (Ohio), which included 23 plants for the production of acids and heavy chemicals, lithopone and other pigments, zinc and zinc products, and other products; that among the properties thus purchased was all the stock of a Canadian corporation which was sold shortly thereafter to Canadian [fol. 174] Industries Limited; that The Grasselli Chemical Company (a Delaware corporation) was organized to carry on the acids and heavy chemicals business thus acquired and also the pigments and heavy chemicals business of du Pont; and that the explosives business thus purchased became a part of what is now the Explosives Department of du Pont. Except as to the facts specifically admitted, du Pont denies the averments in this paragraph.

100-101. Du Pont admits the averments in these paragraphs.

102. Du Pont admits the averments in this paragraph except that in 1931 du Pont acquired the dyestuffs and organic chemical properties and business of the Newport Company and through this acquisition acquired a 63 per cent voting stock interest in Acetol Products, Inc., manufacturers of "Cel-O-Glass" and that the assets of the latter company were subsequently acquired by du Pont and the company was dissolved. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

103-104. Du Pont admits the averments in these paragraphs.

105. Du Pont denies the averments in this paragraph, except that it admits and avers that it is a substantial producer of explosives and chemicals and that in 1910 its sales were approximately $33,200,000 and in 1947, $783,000,000, and it is without knowledge or information sufficient to form a belief as to the truth of the averment that it is the

largest producer of explosives and chemicals located in the United States.

[fol. 175] 106. Du Pont denies the averments in this paragraph, except that it admits and avers that General Motors has during the period in which du Pont has owned stock therein expanded its operations into fields other than the manufacture and sales of passenger cars and trucks.

107. Du Pont denies the averments in this paragraph, except that it admits and avers that for a limited number of years beginning in 1927 General Motors received a volume discount on purchases over and above the approximate volume of purchases by it from du Pont during the 12 month period ending June 30, 1926.

108. Du Pont denies the averments in this paragraph except that it admits and avers that it substantially describes the terms of the discount which became applicable to purchases by General Motors from du Pont effective October 1, 1926, except that the period initially covered was for nine months only, ending June 30, 1927, instead of a year and the base figure for that period was $6,000,000; and that the discount was in effect for only a limited period.

109. Du Pont denies the averments in this paragraph, except that it admits and avers that certain of its employees urged General Motors' employees to keep the details of the discount secret and confidential.

110. Du Pont denies the averments in this paragraph, except that it admits that the amounts due General Motors under the volume discount were distributed to the operating divisions of General Motors on the basis of the volume of purchases made by each from du Pont and avers that Execu-[fol. 176] tive Committee approval of the volume discount was neither requested nor given.

111. Du Pont denies the averments in this paragraph.

112. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph, except that it denies that it is controlled by any person or group of persons other than its stockholders and duly elected directors and officers in accordance with its charter and by-laws.

113-116. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in these paragraphs.

117. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph, except that it admits and avers that prior to 1928 Francis B. Davis, Jr. was employed by du Pont and had served, among other positions, as General Manager of du Pont's Pyralin Department and that Francis B. Davis, Jr. had served also as an employee of General Motors, but du Pont denies that such latter service was by its designation and du Pont further denies that U. S. Rubber executives have respondent to du Pont's influence and desires either as an inevitable and intended consequence of any plan or otherwise.

118-120. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in these paragraphs.

121. Du Pont denies the averments in this paragraph. [fol. 177] 122-123. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in these paragraphs.

124. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph, except that it admits and avers that in 1929 it held approximately 46 per cent interest in the voting stock of Canadian Industries Limited.

125-132. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in these paragraphs except that it denies that it was a party to any agreement in 1930 as alleged in paragraph 125.

133. Du Pont denies the averments in this paragraph with respect to it, except that it admits and avers that its gross sales to U. S. Rubber during the period 1938 through 1947, inclusive, amounted to approximately $66,000,000, and is without knowledge or information sufficient to form a belief as to the truth of the averments with respect to General Motors and U. S. Rubber.

VI

Effects of the Conspiracy

134. Du Pont denies the averments in this paragraph.

Prayer

WHEREFORE, du Pont denies that the plaintiff is entitled to the relief prayed for in the Complaint or any part thereof [fols. 178-179] or to any other relief against du Pont and prays for judgment dismissing the Complaint.

Gerhard A. Gesell, Daniel M. Gribbon, Ferris E. Hurd, Attorneys for E. I. du Pont de Nemours and Company.

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Pope & Ballard, 120 S. LaSalle St., Chicago 3, Ill., RAndolph 6-6680.

[fol. 180] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

PLAINTIFF'S MORE DEFINITE STATEMENT UNDER RULE 12(e) WITH RESPECT TO PARAGRAPH 18 OF THE COMPLAINT—Filed April 27, 1950

The defendant General Motors Corporation, as part of its cumulative and alternative motions filed March 13, 1950, moved under Rule 12(e) of the Federal Rules of Civil Procedure for a more definite statement with respect to the following first sentence of paragraph 18 which appears in the section of the complaint entitled "Nature of Trade and Commerce Involved":

> 18. Du Pont Company, General Motors and U. S. Rubber together constitute the largest combination of manufacturing enterprises in the United States.

The defendant General Motors, by its motion, contends that the foregoing sentence and particularly the word "combination" therein is ambiguous in that the defendants have no way of knowing whether plaintiff intends to allege that, taken together, their manufacturing enterprises are larger than any other three manufacturing enterprises, or whether the plaintiff intends to allege that there has been a "combination" between the three in the sense that this term is used in the Sherman Act and that this is the largest illegal "combination" in the United States.

The plaintiff, for its more definite statement as to the manner in which it intends the word "combination" to be used in the foregoing sentence in paragraph 18 of the complaint, states as follows:

[fols. 181-183] The plaintiff uses the term "combination" in such paragraph in the sense of referring to an aggregation of industrial and manufacturing enterprises ostensibly consisting of separate, independent, and competing corporate units, but which are in fact linked together by means of a common control. The size and character of the said "combination" or aggregation and the nature and source of the control exercised with reference to said "combination" was described as follows by John J. Raskob [1] in a letter dated March 20, 1934 to R. R. M. Carpenter [1]:

> . . . You . . . . are in a position to talk directly with a group that controls a larger share of industry through common-stock holdings than any other group in the United States. When I say this, I mean that I believe *there is no group, including the Rockefellers, the Morgans, the Mellons, or anyone else that begins to control*

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[1] John J. Raskob was a member of the Board of Directors of the defendant General Motors from 1917 to 1946, Vice-President from 1918 to 1929, a member of its Executive Committee from 1921 to 1928, a member of its Finance Committee from 1917 to 1928 and 1929 to 1931, and the Chairman of such Committee from 1918 to 1928. He was also a member of the Board of Directors of the defendant du Pont Company from 1915 to 1946, Treasurer from 1915 to 1918, Vice-President from 1918 to 1946, a member of its Finance Committee from 1915 to 1944, and a member of its Executive Committee from 1915 to 1918. R. R. M. Carpenter, the recipient of the letter referred to above, was a member of the Board of Directors of defendant du Pont from 1915 to 1948, a Vice-President from 1916 to 1946, a member of its Executive Committee from 1915 to 1919 and from 1925 to 1931 and a member of its Finance Committee from 1919 to 1921.

and be responsible for as much industrially as is the du Pont Company. [Emphasis supplied]

Willis L. Hotchkiss, Attorney for the United States,
Suite 820, 208 South LaSalle St., Chicago 4, Illinois, Central 6-6886.

Dated: April 26, 1950.

[fol. 184] IN THE UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

ANSWER OF DEFENDANT GENERAL MOTORS CORPORATION—Filed April 26, 1951

Now comes General Motors Corporation, defendant in the above titled cause, and in answer to the complaint herein states:

1. Answering paragraph 1 of said complaint, this defendant states that it is advised that it is unnecessary to answer the same, but this defendant denies that it has violated individually or with others sections 1 or 2 of the Sherman Act or section 7 of the Clayton Act.

2. Answering paragraph 2 of said complaint, this defendant admits the allegations thereof.

[fol. 185] 3. Answering paragraph 3 of said complaint, this defendant admits that the corporations and persons therein mentioned are named as defendants and have their principal offices or residences at the places stated in said paragraph 3; and this defendant states that General Motors Corporation is a Delaware corporation with principal offices at 3044 West Grand Boulevard, Detroit, Michigan; that in 1917 it acquired the assets of General Motors Company; that Pierre S. du Pont was a director of General Motors Corporation from 1917 to 1944; that he was President from 1920 to 1923; and that he was Chairman of the Board of Directors from 1917 to 1929; but denies that he was a member of or Chairman of the Executive Committee of the Board of Directors from 1918 to 1921 and avers that he was a member of the Executive Committee from 1921 to 1929 and Chairman of the Executive Committee from 1921 to 1923; admits that he was a member of the Finance Committee from 1917 to 1921 and further avers that he was a member of the Finance Committee from 1921 to 1937; admits that Lammot du Pont was a director of General Motors Corporation from 1918 to 1946 and that he was Chairman of the Board of Directors from 1929 to 1937; denies that Lammot du Pont was ever Chairman of the Executive Committee of the Board of Directors; denies that he was a member of the Executive Committee from 1921 to 1929, but avers that he was a member of the Executive Committee from 1930 to 1934; denies that he was a member of the Finance Committee in 1917, but admits that he was a member from 1918 to 1937; admits that Irenee du Pont was a director of General Motors Corporation from 1918 to 1938 and that he was a member of the Finance Committee of the Board of Directors from 1918 to 1937, but denies that Irenee du Pont was ever a member of the Executive Committee or of the Policy Committee of General Motors Corporation; and this defendant further states that it is with-[fol. 186] out knowledge or information sufficient to form a belief as to the truth of the other allegations of said paragraph 3.

4. Answering paragraph 4 of said complaint, this defendant states that it is advised that it is unnecessary to answer the same.

5. Answering paragraph 5 of said complaint, this defendant states that it is advised that it is unnecessary to answer the same.

6. Answering paragraph 6 of said complaint, this defendant states that it is advised that it is unnecessary to answer the same.

7. Answering paragraph 7 of said complaint, this defendant states that it is advised that it is unnecessary to answer the same.

8. Answering paragraph 8 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations thereof.

9. Answering paragraph 9 of said complaint, this defendant states that it is without knowledge or informa-

tion sufficient to form a belief as to the truth of the allegations thereof.

10. Answering paragraph 10 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations thereof.

11. Answering paragraph 11 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations thereof.

12. Answering paragraph 12 of said complaint, this defendant states that it is without knowledge or information [fol. 187] sufficient to form a belief as to the truth of the allegations thereof.

13. Answering paragraph 13 of said complaint, this defendant denies that it owns any voting stock of Kinetic Chemicals, Inc., and states that on December 30, 1949, it sold all of its stock in Kinetic Chemicals, Inc., to the du Pont Company and since that date has had no financial interest therein. Further answering said paragraph 13, this defendant admits that it owns approximately one-third of the voting stock of International Freighting Corporation, Inc., a corporation which operates a steamship and general chartering business between the Atlantic coast, Gulf coast, and South American ports, and that the balance of said stock is owned by the du Pont Company. This defendant is without knowledge or information sufficient to form a belief as to the truth of the other allegations of said paragraph 13.

14. Answering paragraph 14 of said complaint, this defendant admits that its principal business consists of the manufacture of passenger cars and trucks, including various parts and accessories; that it produces the Chevrolet, Buick, Oldsmobile, Pontiac and Cadillac passenger cars and Chevrolet and GMC trucks; that in 1947 it sold approximately 1,931,000 passenger cars and trucks in the United States and Canada and for shipment overseas; and that it manufactures parts and accessories for use in its own cars as well as for sale and use in cars and trucks produced by other automobile and truck manufacturers. This defendant denies that in the period of 1937 to 1941 its average annual sales of passenger cars and trucks were 1,832,466

units and states that they were approximately 1,7[illegible]0,000 units. This defendant is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations contained in said paragraph 14.

15. Answering paragraph 15 of said complaint, this de- [fol. 188] fendant admits the allegations thereof except that it states that it is without knowledge or information sufficient to form a belief as to the truth of the allegation that it is the largest manufacturer of railroad Diesel locomotives in the United States.

16. Answering paragraph 16 of said complaint, this defendant admits the allegations thereof except that it denies that it has any interest in Kinetic Chemicals, Inc., and denies that at all times prior to 1948, Ethyl Corporation was the sole producer of ethyl fluid, and states that ethyl fluid is not wholly made from tetraethyl lead but that it contains tetraethyl lead; and further states that a number of the subsidiaries of this defendant are non-operating corporations.

17. Answering paragraph 17 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations thereof.

18. Answering paragraph 18 of said complaint, this defendant admits that for the year 1947 its assets, sales volume and net income after taxes were substantially as therein alleged. This defendant is without knowledge or information sufficient to form a belief as to the truth of the other allegations contained in said paragraph 18 except that this defendant denies that it is a member of any combination of manufacturers.

19. Answering paragraph 19 of said complaint, this defendant denies the allegations thereof but states that General Motors, U. S. Rubber and du Pont Company each maintain production and distribution facilities in several states of the United States and that products produced by them are sold and shipped in commerce among several states of the United States.

20. Answering paragraph 20 of said complaint, this defendant admits that du Pont Company produces products [fol. 189] which are used in the operations of General Motors, that du Pont Company has sold to General Motors

lacquers; paints, varnishes, thinners, antifreeze preparations, coated fabrics and artificial leather, that du Pont Company also sells other products to General Motors, and that du Pont Company has sold tetraethyl lead, alcohol and ethyl chloride to Ethyl Corporation. This defendant denies that Ethyl Corporation is a General Motors subsidiary and denies that it was organized in furtherance of any conspiracy. As to the remaining allegations contained in said paragraph 20, this defendant is without knowledge or information sufficient to form a belief as to the truth thereof.

21. Answering paragraph 21 of said complaint, this defendant admits that U. S. Rubber sells to General Motors tires and tubes for use as original equipment on General Motors cars and trucks as well as some other products and admits that U. S. Rubber is its principal supplier of tires and tubes for use as original equipment on the cars and trucks produced and sold by General Motors and its subsidiaries. This defendant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in said paragraph 21 with respect to the dollar value of sales of tires and tubes to General Motors. Except as herein admitted and averred, this defendant denies the allegations of said paragraph 21.

22. Answering paragraph 22 of said complaint, this defendant denies the same except that it admits that it has sold some trucks to U. S. Rubber and du Pont Company.

23. Answering paragraph 23 of said complaint, this defendant admits the allegations therein contained except that this defendant has no knowledge or information as to products sold by the other defendant manufacturers to each other.

[fol. 190] 24. Answering paragraph 24 of said complaint, this defendant denies the same.

25. Answering paragraph 25 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

26 Answering paragraph 26 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

27. This defendant is advised that it need not answer paragraph 27 of said complaint since the same has been stricken by court order.

28. Answering paragraph 28 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

29. Answering paragraph 29 of said complaint, this defendant denies each and every allegation therein contained.

30. Answering paragraph 30 of said complaint, this defendant denies each and every allegations therein contained.

31. Answering paragraph 31 of said complaint, this defendant denies each and every allegation therein contained.

32. Answering paragraph 32 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

33. Answering paragraph 33 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

34. Answering paragraph 34 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

[fol. 191] 35. Answering paragraph 35 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

36. Answering paragraph 36 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

37. Answering paragraph 37 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

38. Answering paragraph 38 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

39. Answering paragraph 39 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof.

40. Answering paragraph 40 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth thereof except that this defendant admits that in 1917 Pierre S. du Pont was a stockholder in General Motors Company and in Chevrolet Motor Company and that Chevrolet Motor Company then held a majority of the stock of General Motors Company.

41. Answering paragraph 41 of said complaint, this defendant denies the same except that this defendant states that it is without knowledge or information sufficient to

form a belief as to the truth of the allegation that on December 21, 1917, the Executive and Finance Committees of the du Pont Company approved the acquisition by du Pont Company of an interest in General Motors Company and Chevrolet Motor Company, and the allegation that a new company, General Industries, Inc., all of whose stock was held by du Pont Company, was set up with an authorized [fol. 192] capital of $25,000,000 to accomplish the actual purchase of General Motors and Chevrolet stock.

42. Answering paragraph 42 of said complaint, this defendant denies the same except that it states that it is without knowledge or information sufficient to form a belief as to the amount of stock in General Motors and Chevrolet Motor Company held by General Industries, Inc., on March 8, 1918.

43. Answering paragraph 43 of said complaint, this defendant admits that after March 8, 1918, du Pont American Industries, Inc., purchased stock in General Motors and Chevrolet Motor Company, but states that it is without knowledge or information sufficient to form a belief as to the stock holdings of du Pont American Industries, Inc., in General Motors Corporation. This defendant admits that General Motors acquired the physical assets of Chevrolet Motor Company and that Chevrolet is a division of General Motors.

44. Answering paragraph 44 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that this defendant admits that William Durant was an organizer of General Motors Corporation and that du Pont Company after 1920 acquired some stock in General Motors Corporation.

45. Answering paragraph 45 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that this defendant admits that Canadian Industries, Ltd., acquired stock in General Motors and that J. P. Morgan & Company has sometimes aided in financing the capital needs of General Motors.

46. Answering paragraph 46 of said complaint, this defendant denies the allegations therein contained except that [fol. 193] this defendant states that individuals who were partners or officers of J. P. Morgan & Company have been

from time to time since 1920 elected to the Board of Directors of General Motors.

47. Answering paragraph 47 of said complaint, this defendant denies the allegations thereof except that it admits that for several years prior to 1950, du Pont Company was the owner of record of 10,000,000 shares of General Motors stock, or approximately 23% of the approximately 44,000,000 outstanding shares of General Motors common stock; that in 1950 the common shares of General Motors were split 2 for 1 and since that time du Pont Company has been the owner of record of 20,000,000 shares of the approximately 88,000,000 outstanding shares of General Motors common stock; and that this defendant admits that in 1947 it had 436,510 stockholders located in the various states of the United States and foreign countries and that 92% of these stockholders owned no more than 100 shares each and that 60% owned no more than 25 shares each.

48. Answering paragraph 48 of said complaint, this defendant denies the allegations therein contained except that it admits that the Financial Policy Committee (formerly known as Finance Committee) of General Motors performs the functions specified in the bylaws of General Motors and this defendant refers to such bylaws for a true statement thereof; and that as to the allegations regarding the Finance and Executive Committees in the du Pont Company this defendant has no knowledge or information sufficient to form a belief as to the truth thereof.

49. Answering paragraph 49 of said complaint, this defendant denies the allegations therein contained.

50. Answering paragraph 50 of said complaint, this defendant denies the allegations therein contained except that [fol. 194] it admits that the persons named in said paragraph were members of the Finance Committee of the Board of Directors of General Motors in 1918 and that it states that it is without knowledge or information sufficient to form a belief as to the positions of said persons with the du Pont Company as therein alleged.

51. Answering paragraph 51 of said complaint, this defendant denies each and every of the allegations therein contained.

52. Answering paragraph 52 of said complaint, this defendant states that it has no knowledge or information

sufficient to form a belief as to the truth of the allegations regarding the positions which the individual defendants have held with the du Pont Company; that it admits that Pierre S. du Pont held the positions therein stated in General Motors; that Lammot du Pont was a director and Chairman of the Board of General Motors during the period set forth in said paragraph, but that he was a member of the Finance Committee of General Motors only during the period from 1918 to 1937 and a member of the Executive Committee of General Motors only during the period from 1930 to 1934; and admits that Irenee du Pont was a director of General Motors as alleged in said paragraph but denies that he was ever a member of any successor committee to the Finance Committee and states that he was a member ~~of~~ the Finance Committee of General Motors only from 1918 to 1937 and that he was never a member of the Executive Committee of General Motors.

53. Answering paragraph 53 of said complaint, this defendant states that in 1923 it caused Managers Securities Company to be organized and that it paid to said company a specified percentage of the net earnings of General Motors annually from 1923 to 1929 inclusive; that General Motors Securities Company sold to Managers Securities Company 30% of the common stock of General Motors Securities [fol. 195] Company, that being the equivalent of 2,250,000 shares of the then common stock of General Motors; that it purchased the entire Class A and Class B stock of Managers Securities Company and sold such Class A and Class B stock to certain General Motors executives; that payments of the specified percentage of General Motors' earnings to Managers Securities Company were credited on the books of Managers Securities Company to the Class A surplus account for the benefit of the Class A stock; that substantially all other net income of Managers Securities Company was credited on the books of Managers Securities Company to the general surplus account for the benefit of the Class B stock. Except as otherwise herein stated, this defendant denies the allegations of paragraph 53.

54. Answering paragraph 54 of said complaint, this defendant denies the allegations therein contained except that it states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations

relating to the worth of the stock of Managers Securities Company.

55. Answering paragraph 55 of said complaint, this defendant denies the allegations therein contained except that it admits that throughout the period that the General Motors Bonus Plan has been in operation, awards of bonus have been determined under the supervision of its Finance Committee or its Bonus and Salary Committee; that throughout such period individuals who were officers or directors of du Pont Company have served on the Finance Committee or the Bonus and Salary Committee of General Motors; and that throughout such period the executive personnel of General Motors have known of the existence of the General Motors Bonus Plan.

56. Answering paragraph 56 of said complaint, this de-[fol. 196] fendant denies each and every of the allegations therein contained.

57. Answering paragraph 57 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that it admits that in 1917 celluloid in transparent form was used in making side curtains for automobiles and that artificial leather was used in automobile seats and upholstery and that it denies that beginning in or about 1917, or that at any other time, General Motors has purchased all or substantially all of its requirements of celluloid or artificial leather from du Pont Company.

58. Answering paragraph 58 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

59. Answering paragraph 59 of said complaint, this defendant denies the allegations therein contained except that it states that it is without knowledge or information sufficient to form a belief as to the extent to which du Pont was engaged in the production of paints and varnishes and related products in 1917 or as to the knowledge of du Pont Company regarding the market that General Motors would constitute for paints, varnishes, lacquers, thinners, enamels and the like, or as to any program of du Pont for the acquisition of independent companies engaged in the production of such products, or as to any companies so acquired by

du Pont, and further states that the products of Flint Varnish & Color Works were primarily used in finishing raiload equipment and automobiles at the time it was acquired by du Pont Company and that at or about said time General Motors acquired and held a minority interest in the common stock of said Flint Varnish & Color Works which it subsequently sold to du Pont Company.

[fol. 197] 60. Answering paragraph 60 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that it states that prior to and at various times during and subsequent to 1917 this defendant has purchased from time to time fabrics and finishes from du Pont Company, but denies that it has purchased all or substantially all of its requirements of such items from du Pont Company.

61. Answering paragraph 61 of said complaint, this defendant states that at the time du Pont Company first acquired a substantial stock interest in General Motors and at all times subsequent thereto this defendant has operated through somewhat autonomous operating divisions, each of which has its own purchasing departments, which have made substantial purchases for their respective divisions with but limited supervision from the Central Office of General Motors. Further answering said paragraph 61, this defendant states that a General Purchasing Committee was established in or about 1922; that at times said Committee met approximately monthly; that the membership of said Committee was made up in part by the purchasing agents of certain of the operating divisions, and that the chairman of said Committee was at all times during its existence one of the high executives of General Motors. Except as otherwise herein stated, this defendant denies each and every of the allegations contained in said paragraph 61.

62. Answering paragraph 62 of said complaint, this defendant denies each and every of the allegations therein contained.

63. Answering paragraph 63 of said complaint, this defendant denies the allegations therein contained except that it states that it is without knowledge or information sufficient to form a belief as to the truth of the allegation con-

[fol. 198] cerning the volume of the direct sales by du Pont Company to General Motors and Ethyl Corporation.

64. Answering paragraph 64 of said complaint, this defendant denies the allegations therein contained except that it states that it is without knowledge or information sufficient to form a belief as to the truth of the allegation as to the expansion of du Pont Company.

65. Answering paragraph 65 of said complaint, this defendant denies the allegations therein contained.

66. Answering paragraph 66 of said complaint, this defendant denies the allegations therein contained except that it states that in 1919 it was engaged in research into the nature and causes of "knocking" in internal combustion engines; that this research eventually resulted in the discovery of tetraethyl lead as a knock suppressor when added to gasoline; that it discovered the ethyl bromide process for manufacturing tetraethyl lead; and that it secured patents on the use of tetraethyl lead in gasoline as an antiknock and on the ethyl bromide process of manufacture.

67. Answering paragraph 67 of said complaint, this defendant denies the allegations therein contained except that it states that in 1922 it entered into a contract with du Pont Company for the manufacture by the latter of tetraethyl lead, for the terms of which contract this defendant refers to the original thereof.

68. Answering paragraph 68 of said complaint, this defendant states that the tetraethyl lead which was manufactured by du Pont Company pursuant to the terms of the agreement referred to in paragraph 67 of this answer was for a time distributed by a General Motors subsidiary which was organized to handle the marketing of tetraethyl lead to oil companies. Further answering said paragraph 68, this defendant states that said General Motors subsidiary entered into an agreement in or about 1924 with Standard Oil Company of New Jersey (Standard Oil) giving that [fol. 199] company certain rights. For a correct statement of the terms of said agreement, this defendant refers to the original thereof. Further answering said paragraph 68, this defendant states that prior to the execution of said agreement with Standard Oil, the latter developed a method of producing tetraethyl lead from ethyl chloride which was cheaper than the ethyl bromide method. Further answer-

ing said paragraph 68, this defendant states that in 1923 du Pont Company constructed a plant at Deep Water, New Jersey, at which it produced tetraethyl lead under the bromide process. Further answering said paragraph 68, this defendant states that with respect to the allegations thereof as to the enthusiasm of oil companies and the anticipations of du Pont Company, this defendant has no knowledge or information sufficient to form a belief as to the truth thereof. Except as otherwise herein stated, this defendant denies the allegations of said paragraph 68.

69. Answering paragraph 69 of said complaint, this defendant denies each and every allegation thereof.

70. Answering paragraph 70 of said complaint; this defendant denies the allegations therein contained except that it states that in 1924 Ethyl Gasoline Corporation was organized; that its name was later changed to Ethyl Corporation; and that the voting stock in Ethyl Gasoline Corportion at the time of its organization was held equally by General Motors and Standard Oil Company of New Jersey.

71. Answering paragraph 71 of said complaint, this defendant denies each and every of the allegations thereof.

72. Answering paragraph 72 of said complaint, this defendant denies the allegations therein contained except that it states that certain ethyl patents expired about December, 1947, and that in 1938 and thereafter du Pont Company and Ethyl Corporation entered into certain agreements relating to the manufacture of tetraethyl lead, for the terms of [fol. 200] which agreements this defendant refers to the originals thereof.

73. Answering paragraph 73 of said complaint, this defendant denies the allegations therein contained except that it states that on or about January 1, 1948, du Pont Company ceased the manufacture of tetraethyl lead for the account of Ethyl Corporation and since that time has been manufacturing tetraethyl lead and blending tetra*the*yl compounds and distributing such compounds through its own organizations.

74. Answering paragraph 74 of this complaint, this defendant denies each and every of the allegations therein contained.

75. Answering paragraph 75 of said complaint, this defendant states that it is without knowledge or information

sufficient to form a belief as to the truth of the allegations therein contained.

76. Answering paragraph 76 of said complaint, this defendant denies the allegations therein contained except that it states that during the latter part of the 1920's Frigidaire Corporation developed certain fluorine compounds for use as refrigerants in connection with electric refrigeration; that such fluorine compounds had certain desirable characteristics as refrigerants; that Frigidaire Corporation, as a manufacturer of electric refrigerators, was interested in the possibility of using such fluorine compounds as refrigerants and that thereafter Frigidaire Corporation secured certain patents in respect to such fluorine compounds.

77. Answering paragraph 77 of said complaint, this defendant denies each and every of the allegations therein contained.

78. Answering paragraph 78 of said complaint, this defendant denies the allegations therein contained except that [fol. 201] it states that as of August 27, 1930, this defendant and du Pont Company entered into a written agreement for the formation of Kinetic Chemicals, Inc., for the terms of which agreement this defendant refers to the original thereof. That said Kinetic Chemicals, Inc., was organized, that du Pont Company purchased 51% of its common stock and this defendant purchased 49% of its common stock, and that Frigidaire Corporation and Kinetic Chemicals, Inc., entered into a license agreement in respect to certain patents and patent applications.

79. Answering paragraph 79 of said complaint, this defendant denies each and every of the allegations therein contained.

80. Answering paragraph 80 of said complaint, this defendant denies the allegations therein contained except that it states that Frigidaire Corporation was the first customer of Kinetic Chemicals, Inc.; that Kinetic Chemicals, Inc., sold its refrigerants to companies other than General Motors, and that during a period of time Kinetic Chemicals, Inc., sold one form of its patented refrigerants only to Frigidaire Division of General Motors.

81. Answering paragraph 81 of said complaint, this de-

fendant denies each and every of the allegations therein contained.

82. Answering paragraph 82 of said complaint, this defendant denies each and every of the allegations therein contained.

83. Answering paragraph 83 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

84. Answering paragraph 84 of said complaint, this defendant denies the allegations therein contained except that it states that it is without knowledge or information suffi- [fol. 202] cient to form a belief as to the present value of du Pont Company's stock holdings in General Motors and as to the cost of acquisition of such stock holdings.

85. Answering paragraph 85 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that it denies that it was a closed market for du Pont Company and that du Pont Company had control over, or competitive advantages as to, this defendant.

86. Answering paragraph 86 of said complaint, this defendant states that it is without knowledg or information sufficient to form a belief as to the truth of the allegations therein contained.

87. Answering paragraph 87 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that it states that in 1923 it sold 500 shares of stock of Flint Varnish & Color Works to du Pont Company and that Flint Varnish & Color Works specialized in the production of finishes for railroad equipment and automobiles.

88. Answering paragraph 88 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

89. Answering paragraph 89 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

90. Answering paragraph 90 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

[fol. 203] 91. Answering paragraph 91 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

92. Answering paragraph 92 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

93. Answering paragraph 93 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

94. Answering paragraph 94 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

95. Answering paragraph 95 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

96. Answering paragraph 96 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

97. Answering paragraph 97 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

98. Answering paragraph 98 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

99. Answering paragraph 99 of said complaint, this defendant states that it is without knowledge or information [fol. 204] sufficient to form a belief as to the truth of the allegations therein contained.

100. Answering paragraph 100 of said complaint, this defendant states that it is without knowledge or informa-

tion sufficient to form a belief as to the truth of the allegations therein contained.

101. Answering paragraph 101 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that it states that in 1930 it formed Kinetic Chemicals, Inc., jointly with the du Pont Company, which at that time acquired 51% of the capital stock of said Kinetic Chemicals, Inc.

102. Answering paragraph 102 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

103. Answering paragraph 103 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

104. Answering paragraph 104 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

105. Answering paragraph 105 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

106. Answering paragraph 106 of said complaint, this defendant denies the allegations therein contained except that it states that it has further expanded its operations since 1917 into fields other than the manufacture and sale of passenger cars and trucks.

[fol. 205] 107. Answering paragraph 107 of said complaint, this defendant denies the allegations therein contained except that it states that beginning with 1927 and for a limited time thereafter it received a volume discount from du Pont Company on its purchases from that company.

108. Answering paragraph 108 of said complaint, this defendant denies the allegations therein contained except that it states that said paragraph substantially describes the terms of the discount which became payable on purchases by General Motors from du Pont Company effective October 1, 1926; that the period initially covered was for

nine months only, ending June 30, 1927, instead of a year; that the base figure for that period was $6,000,000; and that the discount was in effect for only a limited period.

109. Answering paragraph 109 of said complaint, this defendant denies the allegations therein contained except that it states that certain employees of du Pont Company urged certain employees of this defendant to keep the details of the discount plan secret and confidential, and further states that it has no knowledge or information sufficient to form a belief as to the truth of the allegation in said paragraph 109 regarding the financing of any rebate arrangement by du Pont Company.

110. Answering paragraph 110 of said complaint, this defendant denies the allegations therein contained except that it states that the amounts paid to General Motors under the volume discount were distributed to the operating divisions of General Motors on the basis of the volume of purchases made by each from du Pont Company, and further states that it has no knowledge or information sufficient to form a belief as to the truth of the allegations in said paragraph 110 regarding approval by the Executive Committee of du Pont Company and the making of any plan, a matter of record.

[fol. 206] 111. Answering paragraph 111 of said complaint, this defendant denies the allegations therein contained.

112. Answering paragraph 112 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

113. Answering paragraph 113 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

114. Answering paragraph 114 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

115. Answering paragraph 115 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

116. Answering paragraph 116 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

117. Answering paragraph 117 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained, except that it denies that Francis B. Davis, Sr., ever served in a high executive capacity with this defendant.

118. Answering paragraph 118 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

119. Answering paragraph 119 of said complaint, this [fol. 207] defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

120. Answering paragraph 120 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

121. Answering paragraph 121 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained.

122. Answering paragraph 122 of said complaint, this defendant denies the allegations therein contained except that it states that prior to 1929 it was one of the largest buyers in the United States of tires and tubes for use as original equipment on cars and trucks, and further states that it is without knowledge or information sufficient to form a belief as to the regard that manufacturers of tires and tubes had for original equipment business.

123. Answering paragraph 123 of said complaint, this defendant denies each and every allegation thereof.

124. Answering paragraph 124 of said complaint, this defendant denies each and every allegation thereof.

125. Answering paragraph 125 of said complaint, this defendant denies the allegations therein contained except that it states that on January 1, 1931, it entered into a contract with United States Rubber Company, and shortly

thereafter a supplementary agreement, for the terms of which said agreements this defendant refers to the originals thereof.

126. Answering paragraph 126 of said complaint, this defendant denies the allegations therein contained and refers to the originals of the agreements mentioned in [fol. 208] paragraph 125 of this answer for a correct statement of the terms thereof.

127. Answering paragraph 127 of said complaint, this defendant denies the allegations therein contained and refers to the originals of the agreements mentioned in paragraph 125 of this answer for a correct statement of the terms thereof.

128. Answering paragraph 128 of said complaint, this defendant denies the allegations therein contained except that it states that it entered into an agreement with United States Rubber supplementary to the agreement of January 1, 1931, which supplementary agreement related to spare tires, to the original of which agreement this defendant refers for a corrected statement of its terms.

129. Answering paragraph 129 of said complaint, this defendant denies the allegations therein contained except that it states that from time to time in 1932 and 1933 it entered into agreements with United States Rubber, to the originals of which agreements it refers for a correct statement of the terms thereof.

130. Answering paragraph 130 of said complaint, this defendant denies the allegations therein contained except that it states that on December 17, 1934, it entered into a written agreement with United States Rubber; to the original of which agreement it refers for a correct statement of the terms thereof.

131. Answering paragraph 131 of said complaint, this defendant denies the allegations thereof except that it states that in August of 1936 it entered into agreements with United States Rubber Products, Inc., for the manufacture of tires and tubes, to the originals of which agreements this defendant refers for a correct statement of the terms thereof; that these agreements were cancelled by letter agreement dated May 8, 1942, to the original of which this [fols. 209-210] defendant refers for a correct statement of the terms thereof; and that subsequent to the war, General

Motors has purchased tires and tubes from United States Rubber.

132. Answering paragraph 132 of said complaint, this defendant states that it is without knowledge or information sufficient to form a belief as to the truth of the allegations therein contained except that it denies that it was a guaranteed non-competitive market for tires and tubes manufactured by United States Rubber.

133. Answering paragraph 133 of said complaint, this defendant denies each and every of the allegations therein contained.

134. Answering paragraph 134 of said complaint, this defendant denies each and every of the allegations therein contained.

WHEREFORE, defendant denies that the plaintiff is entitled to the relief prayed for in the complaint or to any other relief, and prays that the complaint be dismissed.

Henry M. Hogan, 3044 West Grand Boulevard, Detroit 2, Michigan, Ferris E. Hurd, 120 South La Salle Street, Chicago 3, Illinois, Attorneys for Defendant, General Motors Corporation.

April 16, 1951.

[fol. 211] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

PLAINTIFF'S MOTION TO AMEND THE COMPLAINT—Filed July 3, 1952

Plaintiff, by its attorneys, moves, pursuant to the provisions of Rules 15(a) and 21 of the Federal Rules of Civil Procedure, for leave to amend the complaint in this cause of action in the manner set forth in the amendment attached hereto and made a part hereof.

Grounds of Motion

The plaintiff seeks, in order to obtain effective relief in this cause and to dissipate the effects of the combination and conspiracy alleged in the complaint, to name as defendants, certain persons against whom the plaintiff originally sought to proceed by means of a class or representative suit under Rule 23(a) of the Federal Rules of Civil Procedure. This Court has held that a judgment rendered by it in this cause of action would not be binding on the members of the class proceeded against by representation under Rule 23(a), and that such a representative suit may, therefore, not lie in this action. The plaintiff accordingly seeks to continue the cause of action against certain persons who were identified as members of the defendant class in plaintiff's petition for issuance of show cause orders, in order that the relief prayed for in the complaint may be asserted against such persons in their capacity as individually named defendants.

[fol. 212] Plaintiff further seeks to add the Wilmington Trust Company of Wilmington, Delaware as a defendant in this cause of action, in order that complete and effective relief may be obtained in this cause of action.

Willis L. Hotchkiss, Paul V. Ford, Dorothy M. Hunt, Attorneys for the United States, Suite 820, 208 South LaSalle Street, Chicago 4, Illinois, Central 6-6886.

[fol. 213] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

AMENDMENT TO COMPLAINT

The complaint heretofore filed in this cause of action on June 30, 1949, is amended in the following respects:

1. Paragraphs 9 to 11, inclusive, are stricken.
2. The following paragraphs, numbered as designated, are substituted for those stricken:

9. Each of the following persons, who collectively will be referred to hereinafter as "class defendants," is named as a defendant herein. Each is a member of the du Pont family and more particularly is a member of the family of one of the eight brothers and sisters of the defendant Pierre S. du Pont. Such class de-

fendants are hereinafter listed according to such family groups, with the family relationship to the head of the family group and the address of the defendant being stated, and the minors being identified as such:

[fol. 214] (a) The Family of Defendant Irenee du Pont

1. Irene du Pont, Granogue, Delaware, Wife of defendant Irenee du Pont.

* * * * * * *

2. Irene Sophie du Pont May, Granogue, Delaware, Daughter of Irenee du Pont.
3. Ernest Nugent May, Granogue, Delaware, Husband of foregoing.
4. Ernest Nugent May, Jr., Granogue, Delaware, Grandchild of Irenee du Pont.
5. Irenee du Pont May, Granogue, Delaware, Grandchild of Irenee du Pont.
6. Thomas Henry May, a minor, Granogue, Delaware, Grandchild of Irenee du Pont.
7. John Eric May, a minor, Granogue, Delaware, Grandchild of Irenee du Pont.

* * * * * * *

8. Margaretta du Pont Greenewalt, Greenville, Delaware, Daughter of Irenee du Pont.
9. Crawford Hallock Grenewalt, Greenville, Delaware, Husband of foregoing.
10. Nancy Grennewalt Frederick, Greenville, Delaware, Grandchild of Irenee du Pont.
11. David Grenewalt, Greenville, Delaware, Grandchild of Irenee du Pont.
12. Crawford Hallock Greenewalt, Jr., a minor, Greenville, Delaware, Grandchild of Irenee du Pont.

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13. Constance du Pont Darden, Charlottesville, Virginia, Daughter of Irenee du Pont.
14. Colgate Whitehead Darden, Jr., Charlottesville, Virginia, Husband of foregoing.
15. Colgate Whitehead Darden, III, Charlottesville, Virginia, Grandchild of Irenee du Pont.

16. Pierre Samuel du Pont Darden, a minor, Charlottesville, Virginia, Grandchild of Irenee du Pont.
17. Irene Sophie du Pont Darden, a minor, Charlottesville, Virginia, Grandchild of Irenee du Pont.

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[fol. 215] 18. **Eleanor du Pont Rust**, Thomasville, Georgia, Daughter of Irenee du Pont.
19. Philip Goodenow Rust, Jr., a minor, Thomasville, Georgia, Grandchild of Irenee du Pont.
20. Francis Gurney du Pont Rust, a minor, Thomasville, Georgia, Grandchild of Irenee du Pont.
21. Henry Rust, a minor, Thomasville, Georgia, Grandchild of Irenee du Pont.
22. Richard Cutts Rust, a minor, Thomasville, Georgia, Grandchild of Irenee du Pont.

* * * * * * *

23. **Mariana du Pont Silliman**, Montchanin, Delaware, Daughter of Irenee du Pont.
24. Henry Harper Silliman, Montchanin, Delaware, Husband of foregoing.
25. Henry Harper Silliman, Jr., a minor, Montchanin, Delaware, Grandchild of Irenee du Pont.
26. Doris du Pont Silliman, a minor, Montchanin, Delaware, Grandchild of Irenee du Pont.
27. Eleanor Howland Silliman, a minor, Montchanin, Delaware, Grandchild of Irenee du Pont.
28. Mariana du Pont Silliman, a minor, Montchanin, Delaware, Grandchild of Irenee du Pont.
29. Robert Morris Silliman, a minor, Montchanin, Delaware, Grandchild of Irenee du Pont.

* * * * * * *

30. **Octavia Mary du Pont Bredin**, Greenville, Delaware, Daughter of Irenee du Pont.
31. John Bruce Bredin, Wilmington, Delaware or Greenville, Delaware, Husband of foregoing.
32. Stephanie Sophie du Pont Bredin, a minor, Wilmington, Delaware or Greenville, Delaware, Grandchild of Irenee du Pont.

33. Margaretta Starett Bredin, a minor, Wilmington, Delaware or Greenville, Delaware, Grandchild of Irenee du Pont.

* * * * * * *

[fol. 216] 34. LUCILE DU PONT FLINT, Greenville, Delaware, Daughter of Irenee du Pont.

35. Robert Barnett Flint, Greenville, Delaware, Husband of foregoing.

36. Robert Barnett Flint, Jr., a minor, Greenville, Delaware, Grandchild of Irenee du Pont.

37. Peter Hubbard Flint, a minor, Greenville, Delaware, Grandchild of Irenee du Pont.

38. Alice Lucile Flint, a minor, Greenville, Delaware, Grandchild of Irenee du Pont.

39. Henry Alexis Flint, a minor, Greenville, Delaware, Grandchild of Irenee du Pont.

40. Constance Evelina Flint, a minor, Greenville, Delaware, Grandchild of Irenee du Pont.

* * * * * * *

41. IRENEE DU PONT, JR., 5 Fern Road, Charleston, West Virginia, Son of Irenee du Pont.

(b') The Family of Defendant Lammot du Pont

42. NATALIE DU PONT EDMONDS, Wilmington, Delaware, Daughter of Lammot du Pont.

43. George Phippen Edmonds, Wilmington, Delaware, Husband of foregoing.

44. George Phippen Edmonds, Jr., a minor, Wilmington, Delaware, Grandchild of Lammot du Pont.

45. Andrew Wilson Edmonds, a minor, Wilmington, Delaware, Grandchild of Lammot du Pont.

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46. MARY DU PONT FAULKNER, 255 Goddard Avenue, Brookline, Mass., Daughter of Lammot du Pont.

47. Herbert Kimball Faulkner, 255 Goddard Avenue, Brookline, Mass., Grandchild of Lammot du Pont.

48. Elise du Pont Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass., Grandchild of Lammot du Pont.

49. Emily Morison Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass., Grandchild of Lammot du Pont.

[fol. 217] 50. Charles Stearns Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass., Grandchild of Lammot du Pont.

51. Rosemary Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass., Grandchild of Lammot du Pont.

52. Henry Belin Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass., Grandchild of Lannnot du Pont.

53. Andrew Gray Faulkner, a minor, 255 Goddard Avenue, Brookline, Mass., Grandchild of Lammot du Pont.

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54. ESTHER DU PONT WEIR, Rockland, Delaware, Daughter of Lammot du Pont.

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55. LAMMOT DU PONT, JR., Wilmington, Delaware, Son of Lammot du Pont.

56. Lammot du Pont, III, a minor, Wilmington, Delaware, Grandchild of Lammot du Pont.

57. William Foster du Pont, a minor, Wilmington, Delaware, Grandchild of Lammot du Pont.

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58. PIERRE SAMUEL DU PONT, III, Rockland, Delaware, Son of Lammot du Pont.

59. Pierre Samuel du Pont, IV, a minor, Rockland, Delaware, Grandchild of Lammot du Pont.

60. Jane de Doliete du Pont, a minor, Rockland, Delaware, Grandchild of Lammot du Pont.

61. Michele Wainwright du Pont, a minor, Rockland, Delaware, Grandchild of Lammot du Pont.

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62. EDITH DU PONT RIEGEL, Montchanin, Delaware, Daughter of Lammot du Pont.

63. Edith du Pont Riegel (Jr.), a minor, Montchanin, Delaware, Grandchild of Lammot du Pont.

64. Richard Eveland Riegel, Jr., a minor, Montchanin, Delaware, Grandchild of Lammot du Pont.

[fol. 218] 65. John Ely Riegel, a minor, Montchanin, Delaware, Grandchild of Lammot du Pont.

66. Natalie Margaret Riegel, a minor, Montchanin, Delaware, Grandchild of Lammot du Pont.

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67. Alexandrine du Pont Perkins Collier, Wilmington, Delaware, Daughter of Lammot du Pont.

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68. Reynolds du Pont, Wilmington, Delaware, Son of Lammot du Pont.
69. Katharine Lewars du Pont, Wilmington, Delaware, Wife of foregoing.
70. Katharine du Pont, a minor, Wilmington, Delaware, Grandchild of Lammot du Pont.
71. Reynolds du Pont, Jr., a minor, Wilmington, Delaware, Grandchild of Lammot du Pont.
72. Thomas Lewars du Pont, a minor, Wilmington, Delaware, Grandchild of Lammot du Pont.

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73. David Flett du Pont, a minor, Wilmington, Delaware, Son of Lammot du Pont.

* * * * * * *

74. Willis Harrington du Pont, a minor, Wilmington, Delaware, Son of Lammot du Pont.

(c) The Family of William Kemble du Pont (Deceased)

75. S. Hallock du Pont, Wilmington, Delaware, Son of William Kemble du Pont (Deceased).
76. Virginia Simmons du Pont, Wilmington, Delaware, Wife of foregoing.
77. Eve du Pont Remer, Whitemarsh, Pennsylvania, Grandchild of William Kemble du Pont (Deceased).
78. S. Hallock du Pont, Jr., a minor, Wilmington, Delaware, Grandchild of William Kemble du Pont (Deceased).
79. William Kemble du Pont, a minor, Wilmington, Delaware; Grandchild of William Kemble du Pont (Deceased).
80. Richard Simmons du Pont, a minor, Wilmington, Delaware, Grandchild of William Kemble du Pont (Deceased).

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[fol. 219] 81. PAULINA DU PONT DEAN, Montchanin, Delaware, daughter of William Kemble du Pont (Deceased).

82. Junius Simpson Dean, Montchanin, Delaware, husband of foregoing.

* * * * * * *

83. WILHELMINA DU PONT ROSS, Montchanin, Delaware, daughter of William Kemble du Pont (deceased).

84. Donald Peabody Ross, Montchanin, Delaware, husband of foregoing.

(d) THE FAMILY OF HENRY BELIN DU PONT (Deceased).

85. HENRY BELIN DU PONT, Wilmington, Delaware, son of Henry Belin du Pont (deceased).

86. Margaret du Pont Smith, Snuff Mill Road, Kennett Square, Pennsylvania, grandchild of Henry Belin du Pont (deceased).

87. Henry Belin du Pont, III, a minor, Wilmington, Delaware; grandchild of Henry Belin du Pont (deceased).

88. Edward Bradford du Pont, a minor, Wilmington, Delaware, grandchild of Henry Belin du Pont (deceased).

(e) THE FAMILY OF MARGARETTA DU PONT CARPENTER

89. Margaretta du Pont Carpenter, Montchanin, Delaware, sister of Pierre, Irenee and Lammot du Pont and "head" of Carpenter family.

* * * * * * *

90. LOUISA CARPENTER JENNEY, Wilmington, Delaware, daughter of Margaretta du Pont Carpenter.

* * * * * * *

91. IRENE CARPENTER KITCHELL MORGAN, Montchanin, Delaware, daughter of Margaretta du Pont Carpenter.

92. Renee Kitchell Lickle, Montchanin, Delaware or Wilmington, Delaware, grandchild of Margaretta du Pont Carpenter.

93. Margaretta Lammot Kitchell, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

[fol. 220] 94. Nancy Gardiner Kitchell, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

95. Carol Victoria Kitchell, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

96. Leslie Halsey Kitchell, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

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97. Robert Ruliph Morgan Carpenter, Jr., Montchanin, Delaware, son of Margaretta du Pont Carpenter.

98. Robert Ruliph Morgan Carpenter, III, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

99. Mary Kaye Carpenter, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

100. William Kemble Carpenter, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

* * * * * * *

101. William Kemble Carpenter, Montchanin, Delaware, son of Margaretta du Pont Carpenter.

102. Belle Morgan Carpenter, a minor, Montchanin, Delaware, grandchild of Margaretta du Pont Carpenter.

(f) The Family of Louisa du Pont Copeland (Deceased)

103. Lammot du Pont Copeland, Greenville, Delaware, son of Louisa du Pont Copeland (deceased).

104. Pamela Cunningham Copeland, Greenville, Delaware, wife of foregoing.

105. Lammot du Pont Copeland, Jr., a minor, Greenville, Delaware, grandchild of Louisa du Pont Copeland (deceased).

106. Louisa d'Andelot du Pont Copeland, a minor, Greenville, Delaware, grandchild of Louisa du Pont Copeland (deceased).

107. Gerret Van Sweringen Copeland, a minor, Greenville, Delaware, grandchild of Louisa du Pont Copeland (deceased).

[fol. 221] (g) The Family of Mary du Pont Laird (Deceased)

108. Mary Belin Laird Downs, Wilmington, Delaware, daughter of Mary du Pont Laird (deceased).

* * * * * * *

109. Wɪʟʟɪᴀᴍ Wɪɴᴅᴇʀ Lᴀɪʀᴅ, Jʀ., Wilmington, Delaware, son of Mary du Pont Laird (deceased).

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110. Aʟᴇᴇᴛᴛᴀ Lᴀɪʀᴅ Dᴏᴡɴs, Wilmington, Delaware, daughter of Mary du Pont Laird (deceased).

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111. Wɪʟʜᴇʟᴍɪɴᴀ Lᴀɪʀᴅ Cʀᴀᴠᴇɴ, Wilmington, Delaware, daughter of Mary du Pont Laird (deceased).

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112. Rᴏsᴀ Lᴀɪʀᴅ Hᴀʏᴡᴀʀᴅ, Wilmington, Delaware, daughter of Mary du Pont Laird (deceased).

(h) Tʜᴇ Fᴀᴍɪʟʏ ᴏғ Isᴀʙᴇʟʟᴀ ᴅᴜ Pᴏɴᴛ Sʜᴀʀᴘ, (Deceased)

113. Hugh Rodney Sharp, Wilmington, Delaware, husband of Isabella du Pont Sharp (deceased).

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114. Hᴜɢʜ Rᴏᴅɴᴇʏ Sʜᴀʀᴘ, Jʀ., Greenville, Delaware, son of Isabella du Pont Sharp (deceased).

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115. Bᴀʏᴀʀᴅ Sʜᴀʀᴘ, Centerville, Delaware, son of Isabella du Pont Sharp (deceased).

[fol. 222] 10. The foregoing class defendants and individual defendants hold approximately 100 per cent of the voting stock of the defendant Delaware, approximately 70 per cent of the voting stock of the defendant Christiana (including the stock held through the defendant Delaware), approximately 17 per cent of the voting stock of the defendant United States Rubber, and substantial amounts of the voting stock of the defendant General Motors. Each of the class and individual defendants has holdings of the voting stock of one or more of such companies, which is held in a variety of ways. In some instances, part or all of such stock is held directly in the name of the defendant. In other instances the stock is held indirectly through personal holding companies controlled by individual or class defendants, or in street or fictitious names. Much of the stock is beneficially held through trusts which have been established for the benefit of one or more of the class defendants. The minors who are named as defendants have extensive holdings of such stock, most of which is held by them beneficially through trusts established for their benefit, with much of the stock being held for them, usually by a parent, in a street name, or in a fictitious name. The stock held by the individual and class defendants, including the minors, has been received by them and is held by them or for them through fiduciaries in furtherance of the combination and conspiracy hereinafter alleged.

11. The defendant Wilmington Trust Company, du Pont Building, Wilmington, Delaware, a Delaware corporation, is named as a defendant herein. The majority of the voting stock of the said defendant Wilmington is closely held, either directly, indirectly or beneficially, by individual and class defendants and by Christiana. The defendant Wilmington is extensively used by the individual and class [fols. 223-224] defendants as a corporate trustee to hold voting stock of the defendants Delaware, Christiana, United States Rubber, and General Motors, in trust under wills and trust agreements in which class defendants are designated as beneficiaries. It holds close to 300,000 shares of the common stock of the defendant Delaware, as trustee for the benefit of various class defendants, with much of such stock being held by Wilmington Trust for the benefit of minors who are named herein as class defendants. It likewise holds as trustee for class defendants, including minors, approximately 150,000 share of U. S. Rubber common stock, as well as many shares of Christiana common stock. The defendant Wilmington Trust holds, administers, and votes such trusteed stock in furtherance of the hereinafter alleged conspiracy. Where the term class defendants is hereinafter used, it will include reference to the defendant Wilmington in its fiduciary capacity as holder of voting stock of the defendants Christiana, Delaware, United States Rubber, and General Motors for the benefit of class defendants.

[fols. 225-237] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

ORDER GRANTING LEAVE TO AMEND COMPLAINT—July 28, 1952

This matter having come before the Court on plaintiff's motion for leave to amend the complaint in this cause pursuant to Rules 15(a) and 21 of the Federal Rules of Civil Procedure, and the Court being advised in the premises,

IT IS ORDERED that the motion for leave to amend be and the same hereby is granted; and that the complaint be and hereby is amended in the manner set forth in the amendment attached hereto and made a part hereof.

Walter J. La Buy, United States District Judge.

Dated: July 28, 1952

[fol. 238] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

AMENDED ANSWER OF E. I. DU PONT DE NEMOURS AND COMPANY—Filed September 15, 1952

The defendant E. I. du Pont de Nemours and Company (hereinafter referred to as du Pont) by its attorneys answers the amended paragraphs of the Complaint herein as follows:

9. Du Pont admits that each of the persons listed is named as a defendant and is without knowledge or information sufficient to form a belief as to the truth of the remaining averments in this paragraph.

10. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments in this paragraph.

[fols. 239-240] 11. Du Pont admits that the Wilmington Trust Company, Du Pont Building, Wilmington, Delaware, is named as a defendant and is without knowledge or information as to the truth of the remaining averments in this paragraph.

Hugh B. Cox, Howard Neitzert, Attorneys for E. I. du Pont de Nemours and Company.

Covington & Burling, 701 Union Trust Building, Washington 5, D. C. REpublic 5900
Sidley, Austin, Burgess & Smith, 11 South La Salle Street, Chicago 3, Illinois. STate 2-5400

[fol. 241] IN THE UNITED STATES DISTRICT COURT, FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

AMENDED ANSWER OF DEFENDANTS CHRISTIANA SECURITIES COMPANY, DELAWARE REALTY AND INVESTMENT CORP., PIERRE S. DU PONT AND IRENEE DU PONT—Filed September 15, 1952.

Defendants Christiana Securities Company (described in the Complaint and hereinafter as "Christiana"), Delaware Realty and Investment Corporation (described in the Complaint and hereinafter as "Delaware") and Pierre S. du Pont and Irénée du Pont (described in the Complaint and hereinafter as "defendant individuals", the defendant Lammot du Pont having died on July 24, 1952, prior to the service of the amended Complaint herein), sometimes hereinafter referred to collectively as "defendants", by their attorneys, answer the amended paragraphs of the Complaint as follows:

9. Defendants admit the allegations of amended paragraph 9 subject to correction, however, as to individual [fol. 242] names, addresses and status as to minority or otherwise.

10. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations of amended paragraph 10 except that defendant Delaware admits that shares of its stock are registered in the name of many of the individuals named in amended paragraph 9 and that in the aggregate the total shares so reg-

istered constitute a substantial portion of its outstanding stock; the defendant Christiana admits that shares of its voting stock are registered in the name of many of the individuals named in amended paragraph 9 and that the aggregate of shares so registered constitute a substantial portion of its total voting stock; the individual defendants, Pierre and Irenée du Pont, admit that they respectively own voting stock in Christiana, United States Rubber and General Motors and deny that any of the stock so owned has been received by them and is held by them or for them through fiduciaries in furtherance of the combination and conspiracy alleged.

11. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the [fols. 243-244] allegations contained in amended paragraph 11, except that they deny that they participated in a conspiracy as therein alleged.

John M. Harlan, Howard Neitzert, Attorneys for defendants Christiana Securities Company, Delaware Realty & Investment Corporation, Pierre S. du Pont, and Irenee du Pont

Root, Ballantine, Harlan, Bushby & Palmer, 31 Nassau Street, New York 5, N. Y. Rector 2-7000.

Sidley, Austin, Burgess & Smith, 11 South LaSalle Street, Chicago 3, Illinois. STate 2-5400.

[fol. 245] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

PRE-TRIAL ORDER—January 5, 1953

The following matters discussed at pre-trial conferences of all parties with the Court on June 25, 1952 and December 16, 1952 are hereby embodied in the following pre-trial order, in paragraphs numbered according to the paragraph numbering of the Agenda submitted by plaintiff at the said conferences.

The Court being fully advised in the premises and upon stipulation of the parties, by their respective counsel, IT IS ORDERED THAT:

3. *Pre-Trial Disclosure of Documents Which the Parties Anticipate Using at the Time of Trial*

A. *Disclosure by the Government as to documents, charts and statistical tabulations before resumption of trial.*

The Government shall disclose to the defendants before the resumption of the trial herein the documents, charts and statistical tabulations which it expects to offer at the trial. The Government shall supply the defendants with a copy of each such document, chart or table, or shall identify the document with sufficient specificity to enable the defendants to locate the document from their files.

[fol. 246] B. *Disclosure by the Government as to additional documents, charts and statistical tabulations during trial.*

The Government shall give to the defendants reasonable notice, which shall not be less than five trial days, unless otherwise ordered by the Court, of documents, charts and statistical tabulations which it intends to offer in evidence, but which had not been previously disclosed. The Government shall supply all counsel with a copy of each such document, chart or table, or shall identify the document with sufficient specificity to enable the defendants to locate the document from their files.

C. *Disclosure by the Defendants.*

(a) The defendants shall provide the Government on or before January 19, 1953 with a first list of documents which they intend to offer in evidence on the trial, identified with sufficient specificity to enable the Government to locate the documents to the extent that such documents have heretofore been marked on depositions, and shall also provide the Government with copies of the other documents listed;

(b) The defendants shall give to the Government a further list of documents not previously disclosed, including any charts or statistical tabulations they intend to offer on the trial and copies of documents, charts or tables that have not already been marked on depositions, within a reasonable time before the opening of defendants' case;

(c) During the course of the defendants' case, the defendants shall give to the Government reasonable notice, which shall not be less than five trial days, unless [fol. 247] otherwise ordered by the Court, of documents, charts or statistical tabulations which they intend to offer in evidence, but which had not been previously disclosed. The defendants shall suppply the Government with a copy of each such document, chart or table which had not been marked on depositions.

5. *Authentication of Documents*

A. *Documents offered by the Government*

As to all documents which are tendered in evidence by the Government and which come from the files of any of the defendants or from the files of Ethyl Corporation:

(1) All such documents shall be presumed to be authentic and genuine;

(2) As to letters, telegrams, memoranda, and other communications which indicate on their face that they were prepared to be sent to a person whose name or identify is shown on the face of the communication, it shall be presumed that the communication was received by the person indicated;

(3) If a carbon or other copy of a communication shows the initials of the dictator, or if initials are not shown, and the name of the author of the communication can reasonably be determined by reference to the internal evidence of the document or external circumstances, then the offering party may indicate the full name of such person, which may be placed on the face of the document in brackets, and it then will be presumed that the person so indicated was the writer of the document;

[fol. 248] (4) Where the face of a document discloses that copies were to go to persons other than the addressee, it shall be presumed that such copies did go to the persons indicated and that they were received by such persons;

(5) Any of the foregoing presumptions are subject to rebuttal, with both sides having full opportunity to tender corrections;

(6) The defendants retain the right to object to the admission in evidence of any document on such substantive grounds as immateriality, irrelevancy, and incompetence;

(7) Any document offered by the Government and admitted in evidence shall be admitted subject to motions to strike, which may be made by any defendant upon any ground at any time prior to the final judgment in this cause, provided that this shall not prevent any defendant from objecting to any document on any ground when it is offered; and further provided that this shall not be deemed to waive any rule of law with respect to the admissibility of the declarations of coconspirators.

B. *Documents offered by the defendants*

The Government shall not require the defendants to offer proof regarding the genuineness or authenticity of any document tendered by them in evidence, if counsel offering the document in question repesents it to be authentic and genuine. The presumptions and exceptions listed above with reference to documents offered by the Government will apply with equal force and effect to those tendered by the defendants.

C. *Statistical tabulations and charts*

Statistical tables and charts offered by each side will be tendered and received as accurate, subject to cor- [fol. 249] rections and to substantive objections, such objections to be disclosed to the opposing counsel within a reasonable time after the exhibition of such tables and charts to opposing counsel.

6. *Tender of Documents in Evidence*

The formula of offering documents shall, in the absence of special circumstances, be as follows: "Government (or defendant, naming it) offers Trial Exhibit No. ."

7. *Stipulations as to Admissions in Pleadings*

Admissions of fact made by any one of the defendants in its answer to the complaint shall be considered an admission of that fact by all the defendants, except the minor defendants.

8. *Use of Printed Copy of Depositions*

Where depositions taken on oral examination have been printed, such printed copies may be used by the parties with the same force and effect as the reporters' typewritten transcript.

9. *Printed, Photostated, or Other Forms of Copies*

Printed, photostated, or other forms of copies of the original documents herein presumed under paragraphs 5A and 5B to be authentic, may be tendered in evidence and used and have the same force and effect as the original document.

10. *Use of Excerpts*

A. The Government or any defendant during their case in chief shall have the privilege of offering part of a document by way of excerpt, and the offer may include a reading of the excerpt offered. If any party shall object to the offer upon the ground that all of the document, or more than the said excerpt, should be offered, the offeror, without debate, shall offer the entire document or such additional excerpt as may be specified in the objection, but shall not be required to read any more than it has already read in its original offer.

[fol. 250] B. Where any party offers an excerpt in lieu of the entire document, such excerpt shall be clearly marked or designated and, if received in evidence, may be read. If any of the other parties desires to read an additional excerpt offered as provided in paragraph 10A, it may be read by them at the time of the offering of the first excerpt or thereafter. Any excerpt not read by any party shall not be copied by the reporter into the transcript.

C. Where the Government or any defendant offers all of a document, the offeror shall have the privilege of reading all of it, part of it, or none of it at the time it is admitted in evidence and any opposing party, subject to the approval of the Court, may read additional parts of such document at that time and may thereafter read any part or all of such document as a part of its case.

D. If any party offers a document in its entirety, but desires to read only a portion thereof, not as an excerpt, such portion so read shall be reported and transcribed in the transcript. If a party desires to read all of a document which is received in evidence, the reporter shall report and transcribe no part of such reading, unless specifically instructed so to do.

11. *Witnesses*

Each party shall give to the other reasonable notice, of not less than five trial days, of the names and addresses of witnesses it intends to call, and whose names have not already been announced.

12. *Motions and Objections on the Trial*

Each defendant in this cause (to the extent and in the respects that it desires to do so) shall be entitled to rely upon and take advantage of each motion and each objection made by any other defendant, and all [fols. 251-252] grounds given in support of each motion and each objection, in the same manner and to the same extent as though each such motion or objection had been made and the grounds therefor stated by all of the defendants herein.

13. *Transcript of Proceedings*

The corrected printed transcript of the proceedings shall be taken as the official and authentic transcript, both for the purposes of the trial and upon appeal, if any appeal be taken. In the interval between the delivery of the typewritten transcript and the corrected print thereof, the typewritten transcript shall be taken as the official and authentic record of the proceedings.

11. *Infants and Guardians ad Litem*

Paragraphs 5A, 5B, 5C, 7 and 9 shall not be applicable to the minor defendants or their guardians *ad litem.* The minor defendants and their guardians *ad litem* may reserve their objections to the introduction of all evidence adduced by plaintiff, whether in the form of depositions, admissions, documents, answers to interrogatories, compilations, charts, or otherwise, until shortly before plaintiff closes its case, provided, however, that the guardians *ad litem* shall seasonably make such objections going to the use of copies in lieu of originals and to the form of questions as they deem proper. The guardians *ad litem* shall be deemed to have made and shall have the advantage of any and all objections made by any defendant to the introduction of any evidence on behalf of plaintiff.

Enter:

Walter J. La Buy.

January 5, 1953.

[fol. 235] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

(Title omitted)

PLAINTIFF'S MOTION TO AMEND THE COMPLAINT—Filed January 5, 1953

Plaintiff, by its attorneys, pursuant to the provisions of Rules 15(a), 20(a) and 21 of the Federal Rules of Civil Procedure, moves (a) for leave to amend the complaint in this cause of action in the manner set forth in the amendment attached hereto and made a part hereof; and (b) that the Complaint be dismissed without prejudice as to each of the following persons made defendants herein on July 28, 1952:

Irene du Pont.
Ernest Nugent May.
Ernest Nugent May, Jr.

Irenee du Pont May.
Thomas Henry May, a minor.
John Eric May, a minor.
Crawford Hallock Greenewalt.
Nancy Greenewalt Frederick.
David Greenewalt.
Crawford Hallock Greenewalt, Jr., a minor.
Colgate Whitehead Darden, III.
Pierre Samuel du Pont Darden, a minor.
Irene Sophie du Pont Darden, a minor.
Philip Goodenow Rust, Jr., a minor.
Francis Gurney du Pont Rust, a minor.
Henry Rust, a minor.
Richard Cutts Rust, a minor.
Henry Harper Silliman.
John Bruce Bredin.
Stephanie Sophie du Pont Bredin, a minor.
Margaretta Starrett Bredin, a minor.
Robert Barnett Flint, Jr., a minor.
Robert Barnett Flint, Jr., a minor.
Peter Hubbard Flint, a minor.
Alice Lucile Flint, a minor.
Henry Alexis Flint, a minor.
Constance Evelina Flint, a minor.
[fol. 254] Herbert Kimball Faulkner.
Elise du Pont Falkner, a minor.
Emily Morison Faulkner, a minor.
Charles Stearns Faulkner, a minor.
Rosemary Faulkner, a minor.
Henry Belin Faulkner, a minor.
Andrew Gray Faulkner, a minor.
Lammot du Pont, III, a minor.
William Foster du Pont, a minor.
Pierre Samuel du Pont, IV, a minor.
Jane de Doliete du Pont, a minor.
Michele Wainwright du Pont, a minor.
Edith du Pont Riegel (Jr.), a minor.
Richard Eveland Riegel, Jr., a minor.
John Ely Riegel, a minor.
Natalie Margaret Riegel, a minor.
Katharine Lewars du Pont.
Katharine du Pont, a minor.
Reynolds du Pont, Jr., a minor.

Thomas Lewars du Pont, a minor.
S. Hallock du Pont.
Virginia Simmons du Pont.
Eve du Pont Remer.
S. Hallock du Pont, Jr., a minor.
William Kemble du Pont, a minor.
Richard Simmons du Pont, a minor.
Paulina du Pont Dean.
Junius Simpson Dean.
Wilhelmina du Pont Ross.
Donald Peabody Ross.
Margaretta du Pont Carpenter.
Louisa Carpenter Jenney.
Irene Carpenter Kitchell Morgan.
Rene Kitchell Lickle.
Margaretta Lammot Kitchell, a minor.
Nancy Gardiner Kitchell, a minor.
Carol Victoria Kitchell, a minor.
Leslie Halsey Kitchell, a minor.
Robert Ruliph Morgan Carpenter, Jr.
Robert Ruliph Morgan Carpenter, III, a minor.
Mary Kaye Carpenter, a minor.
William Kemble Carpenter, a minor.
William Kemble Carpenter.
Belle Morgan Carpenter, a minor.
Pamela Cunningham Copeland.
Lammot du Pont Copeland, Jr., a minor.
Louisa D'Andelot du Pont Copeland, a minor.
Gerret Van Sweringen Copeland, a minor.
Mary Belin Laird Downs.
William Winder Laird, Jr.
Alletta Laird Downs.
Wilhelmina Laird Craven.
Rosa Laird Hayward.
Hugh Rodney Sharp.
Hugh Rodney Sharp, Jr.
Bayard Sharp.

Grounds of Motion

Plaintiff seeks leave to amend the Complaint and to dismiss without prejujdice 83 defendants from the case because it has been concluded that the retention of these defendants is not necessary to obtain effective relief from [fol. 255] the illegal activities alleged in the complaint, and because the evidence of participation by these defendants is not sufficiently strong to justify their retention in view of the substantial practical trial difficulties presented by the large number of defendants added to the case on July 28, 1952. If plaintiff's motion is granted the length of the trial will be materially shortened.

The effect of the proposed amendments, if allowed, will be, in substance, as follows:

First—As to the proposed new Paragraphs 7 and 8.

New or clarifying definitions of the terms "members of the du Pont family", "defendants" and "beneficiary defendants" will be made.

Second—As to the proposed new Paragraph 9.

Five of the individuals named as defendants in the amendment of July 28, 1952 will remain in the case as defendants and alleged conspirators. As the proposed new Paragraph 9 alleges, each of these five now is or has been a director of one or more of the defendant corporations and is a holder of U. S. Rubber stock.

Third—As to the proposed new Paragraph 10.

The proposed new Paragraph 10 continues Wilmington Trust Company as a defendant.

Fourth—As to the proposed new Paragraph 11.

As the proposed new Paragraph 11 of the Complaint lleges, 27 of the persons named defendants on July 28, 1952 and alleged to be conspirators are beneficiaries of trusts of which the defendant Wilmington Trust Company is trustee Each such trust contains voting stock of U. S. Rubber. Since the Prayer of the Complaint includes a request for an order directing sale of the U. S. Rubber stock in each of these trusts, the interests of these 27 persons, 11 of whom are minors, may be directly and substantially affected by any action that this Court would take. If the proposed amendment to Paragraph 11 is allowed, [fol. 256] said persons would not be named as conspirators, but would be continued as defendants. Authorization for this amendment, we believe, is provided by the second sentence of Rule 20(a) of the Federal Rules of Civil Procedure, as well as by Rules 15(a) and 21.

Fifth—

The Complaint would be dismissed as to the remaining 83 persons named as defendants and alleged to have been co-conspirators in the amendment of July 28, 1952.

Sixth—Amendments to Paragraphs 30, 33, 34, 35, 36, 55, 116, 117, 118, 119, 120, 121 and 134.

The charge of combination and conspiracy would be narrowed so as to exclude from participation therein all the former class defendants except the five continued as defendants in Paragraph 9, as it is proposed to be amended.

Seventh—Amendments to Prayer for Relief.

Corresponding amendments to the paragraphs of the Prayer for Relief, in order to conform them to the narrowing of the charges as described above, are proposed.

Respectfully submitted,

E. Houston Harsha, Ewart Harris, Paul V. Ford, Dorothy M. Hunt, Charles W. Houchins, Francis Hoyt, Attorneys for the United States.

Newell A. Clapp, Acting Assistant Attorney General.
Victor H. Kramer, Trial Attorney.
January 5, 1953.

[fol. 257] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

AMENDMENT TO COMPLAINT

The Complaint heretofore filed on July 30, 1949, as amended on July 28, 1952, is further amended in the following respects:

Paragraph Number of Complaint

Paragraphs 7, 8, 9, 10 and 11 are striken, and the following paragraphs are substituted therefor:

7

7. The term "members of the du Pont family," when used herein shall apply, in addition to the defendant individuals named in Paragraph 5 of this Complaint, to those persons who are members, by blood or marriage, of any of the families of the eight brothers and sisters of the defendant Pierre S. du Pont, and who hold shares of voting stock of one or more of the following defendant corporations: Christiana, Delaware, U. S. Rubber; either directly or indirectly through personal holding companies, or who have a beneficial interest in any of such shares in or through trusts established in their favor, or otherwise. The term "members of the du Pont family" shall include, unless specifically excepted, the defendants named in Paragraph 9 of this Complaint as amended.

8

8(a). The term "defendants," when used herein without qualifying words, shall include only "defendant manu- [fol. 258] facturers," defined in Paragraph 4; "defendant individuals," defined in Paragraph 5; the corporate defendants Christiana, Delaware, and Wilmington Trust Company; and the individual defendants who are also members of the du Pont family named in Paragraph 9 of this Complaint as amended.

8(b). The term "beneficiary defendants," when used herein, shall apply only to the defendants named in Paragraph 11 of this Complaint, as amended herein, who are made parties defendant because their beneficial interest in trusts held by defendant Wilmington Trust Company may be affected by any relief granted herein against defendant Wilmington Trust Company as trustee.

9

9. Each of the following persons, whose address is shown opposite his name, is made a defendant herein:

Name	*Address*
Lammot du Pont Copeland,	Greenville, Delaware
Colgate W. Darden, Jr.,	Charlottesville, Virginia
Henry Belin du Pont,	Wilmington, Delaware
Pierre S. du Pont, III,	Rockland, Delaware
George P. Edmonds,	Wilmington, Delaware

Each of these persons now is or has been a director of one or more of the defendant corporations and has authorized, ordered or done, one or more of the acts alleged hereinafter to constitute the offenses charged. Each of these persons is a member of the du Pont family and holds directly, or indirectly as beneficiary of a trust, substantial amounts of voting stock of defendant U. S. Rubber. Such stock is held by each of these defendants in furtherance of the combination and conspiracy hereinafter alleged.

10

10. Wilmington Trust Company (Wilmington), du Pont Building, Wilmington, Delaware, a Delaware corporation, is named a defendant herein, individually and as trustee. A [fol. 259] large amount of the voting stock of the said defendant Wilmington is closely held, either directly, indirectly, or beneficially, by other defendants named in this Complaint. Defendant Wilmington is extensively used by other defendants as a corporate trustee to hold voting stock of the defendants Delaware, Christiana, U. S. Rubber, and General Motors, in trust under wills and trust agreements. It holds as trustee for the individuals named defendants in Paragraphs 9 and 11 approximately 160,000 shares of U. S. Rubber common stock. In addition, it holds approximately 47,000 shares of U. S. Rubber common stock in its own name. The defendant Wilmington holds, administers, and votes all

such stock in U. S. Rubber in furtherance of the combination and conspiracy hereinafter alleged.

11

11. Each of the following persons, whose address is shown opposite his or her name, is named a defendant herein, as a party in interest but not a conspirator. Each is a beneficiary of one or more trusts of which defendant Wilmington is trustee and the assets of which include voting stock of defendant U. S. Rubber. Said stock is held by Wilmington as said trustee and is administered and voted in furtherance of the combination and conspiracy hereinafter alleged:

Irene Sophie du Pont May, Granogue, Delaware.
Margaretta du Pont Greenewalt, Greenville, Delaware.
Constance du Pont Darden, Charlottesville, Virginia.
Eleanor du Pont Rust, Thomasville, Georgia.
Mariana du Pont Silliman, Montchanin, Delaware.
Henry Harper Silliman, Jr., a minor, Montchanin, Delaware.
Doris du Pont Silliman, a minor, Montchanin, Delaware.
Eleanor Howland Silliman, a minor, Montchanin, Delaware.
[fol. 260] Mariana du Pont Silliman, a minor, Montchanin, Delaware.
Robert Morris Silliman, a minor, Montchanin, Delaware.
Octavia Mary du Pont Bredin, Greenville, Delaware.
Lucile du Pont Flint, Greenville, Delaware.
Irenee du Pont, Jr., 5 Fern Road, Charleston, W. Va.
Natalie du Pont Edmonds, Wilmington, Delaware.
George Phippen Edmonds, Jr., a minor, Wilmington, Delaware.
Andrew Wilson Edmonds, a minor, Wilmington, Delaware.
Mary du Pont Faulkner, 255 Goddard Avenue, Brookline, Mass.
Esther du Pont Weir, Rockland, Delaware.
Lammot du Pont, Jr., Wilmington, Delaware.
Edith du Pont Riegel, Montchanin, Delaware.
Alexandrine du Pont, Perkins Collier, Wilmington, Delaware.
Reynolds du Pont, Wilmington, Delaware.
David Flett du Pont, a minor, Wilmington, Delaware.

Willis Harrington du Pont, a minor, Wilmington, Delaware.

Margaret du Pont Smith, Snuff Mill Road, Kennett Square, Pennsylvania.

Henry Belin du Pont, III, a minor, Wilmington, Delaware.

Edward Bradford du Pont, a minor, Wilmington, Delaware.

30(a)

Subparagraph 30(a) is stricken and the following subparagraph substituted therefor:

30(a). Pierre S. du Pont, Lammot du Pont, and Irenee du Pont and the corporate defendants Christiana, Delaware, and Wilmington agree to acquire, hold and perpetuate control of the directors, executives and corporate policy of each of the corporate defendants, directly and through the [fol. 261] influence or control by the defendant individuals named in Paragraph 5 of the Complaint over the members of the du Pont family.

30(a)(1). The words "class defendants and their families" are stricken and in lieu thereof the words "members of the du Pont family" inserted.

30(a)(4). The words "class defendants" are stricken and in lieu thereof, the words "members of the du Pont family" inserted.

32. The words "who were members of the du Pont family," are stricken.

33. The words "class defendants" are stricken wherever they appear and in lieu thereof the words "members of the du Pont family" are inserted. After the word "individual," the word "defendants" is inserted. The following sentence is stricken: "All except John J. Raskob were members of the du Pont family."

34. The words "class defendants" are stricken wherever they appear and in lieu thereof the words "members of the du Pont family" are inserted.

35. The words "class defendants" are stricken wherever they appear and in lieu thereof the words "members of the du Pont family" are inserted.

36. The words "and class defendants" is stricken and in lieu thereof the words "and certain members of the du Pont family" are inserted. The phrase "including the class defendants" is stricken.

55. The phrase "including certain class defendants," is stricken.

116. The words "class defendants" are stricken and in lieu thereof the words "members of the du Pont family" are inserted.

117. The words "class defendants" are stricken and in lieu thereof the words "members of the du Pont family" are inserted.

118. The words "class defendants" wherever they appear are stricken and in lieu thereof the words "members of the du Pont family" are inserted.

[fol. 262] 119. The words "class defendants" are stricken and in lieu thereof the words "members of the du Pont family" are inserted.

120. The words "class defendants" are stricken wherever they appear and in lieu thereof the words "members of the du Pont family" are inserted.

121. The words "the class defendants" are stricken and in lieu thereof the words "certain members of the du Pont family" are inserted.

134. The words "and class defendants" are stricken wherever they appear and in lieu thereof the words "defendants and members of the du Pont family" are inserted.

2

After the phrase "each of them," insert the clause "except the beneficiary defendants named in Paragraph 11 of the Complaint as amended."

7. The words "the class defendants" are stricken and in lieu thereof the words "Wilmington Trust Company and the members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended" are inserted.

8. The words "the class defendants" are stricken and in lieu thereof the words "Wilmington Trust Company and the members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended" are inserted.

9. The words "the individual defendants, and the class defendants" are stricken and in lieu thereof the words "and the defendant individuals named in Paragraphs 5 and 9 of this Complaint" are inserfed. The words "any member of the du Pont family not included in this proceeding, as an individual defendant or class defendant" are stricken

and in lieu thereof the words "any other member of the du Pont family" are inserted.

[fols. 263-264] 10. The words "class defendants" are stricken and in lieu thereof the words "Wilmington Trust Company and the members of the du Pont family named defendants in Paragraph 9 of the Complaint as amended" are inserted. The phrase "individual defendants or class defendants" is stricken and in lieu thereof the word "defendants" is inserted.

11. The words "class defendants" and "class defendant" wherever they appear are stricken and in lieu thereof the words "Wilmington Trust Company and those members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended" are inserted.

12. The words "class defendants" are stricken and in lieu thereof the words "Wilmington Trust Company or any member of the du Pont family named as a defendant in Paragraph 9 of the Complaint as amended" are inserted.

13. The words "class defendants" are stricken and in lieu thereof the words "Wilmington Trust Company and those members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended" are inserted.

14. Paragraph 14 is stricken.

16. The words "class defendants" are stricken and in lieu thereof the words "any member of the du Pont family" are inserted.

18. The words "class defendants" are stricken and in lieu thereof the words "Wilmington Trust Company and the members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended" are inserted. The clause "and that they further be enjoined from aiding any other member of the du Pont family by loans, gifts, or otherwise, to acquire any stock or other financial interest in any of such enterprises" is stricken.

[fols. 265-266] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

ORDER GRANTING LEAVE TO AMEND COMPLAINT—January 16, 1953

[Title omitted]

This matter having come before the Court on plaintiff's motion pursuant to Rules 15(a), 20(a), 21 and 41(a)(2) of the Federal Rules of Civil Procedure, for leave to amend the Complaint in this cause, and the Court having heard argument of counsel on the motion and being fully advised:

IT IS ORDERED that the motion for leave to amend be and the same hereby is granted; and plaintiff is hereby given leave to file an amended complaint in accordance with such motion, instanter.

Enter:

Walter J. La Buy, United States District Judge.

Date: Jan. 16, 1953

[fols. 267-268] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

SUGGESTION OF THE DEATH OF LAMMOT DU PONT—Filed January 14, 1953

[Title omitted]

Plaintiff suggests the death of the defendant Lammot du Pont upon the record.

E. Houston Harsha, Ewart Harris, Paul V. Ford, Attorneys for the United States, Room 400, United States Court House, Chicago 4, Illinois, HArrison 7-4700

January 16, 1953.

[fol. 269] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

ORDER DISMISSING COMPLAINT, WITH PREJUDICE, AS TO CERTAIN DEFENDANTS—January 16, 1953

[Title omitted]

This matter having come before the Court on plaintiff's motion pursuant to Rules 15(a), 20(a), 21 and 41(a)(2) of the Federal Rules of Civil Procedure for leave to (1) amend the Complaint in this cause and (2) dismiss the Complaint without prejudice as to the defendants named in said motion; and the guardians *ad litem* heretofore appointed for the minor defendants herein having objected to said motion insofar as it pertains to the minor defendants included in said motion on the ground that the dismissal as to such minor defendants should be allowed, if at all, only as a dismissal "with prejudice"; and the Court having heard arguments by said guardians *ad litem* against the allowance of plaintiff's said motion and in support of the dismissal of the action as to each of said minor defendants "with prejudice" and having also heard arguments by counsel for the plaintiff; and at the conclusion of such argument and prior to amending the complaint as now requested and the plaintiff having in open court offered to consent to an order dismissing the said minor defendants "with prejudice", and the Court being fully advised in the premises;

[fols. 270-271] IT IS HEREBY ORDERED that this action and the Complaint herein, as heretofore amended, and prior to the consideration of the amendments now requested, be and the same are hereby *dismissed with prejudice* as to each of the following named minor defendants:

Thomas Henry May.
John Eric May.
Crawford Hallock Greenewalt, Jr.
Pierre Samuel du Pont Darden.
Irene Sophie du Pont Darden.
Philip Goodenow Rust, Jr.
Francis Gurney du Pont Rust.

Henry Rust.
Richard Cutts Rust.
Stephanie Sophie du Pont Bredin.
Margaretta Starrett Bredin.
Robert Barnett Flint, Jr.
Peter Hubbard Flint.
Alice Lucile Flint.
Henry Alexis Flint.
Constance Evalina Flint.
Elise du Pont Faulkner.
Emily Morison Faulkner.
Charles Stearns Faulkner.
Rosemary Faulkner.
Henry Belin Faulkner.
Andrew Gray Faulkner.
Lammot du Pont, III.
William Foster du Pont.
Pierre Samuel du Pont, IV.
Jane de Doliete du Pont.
Michele Wainwright du Pont.
Edith du Pont Riegal (Jr.).
Richard Eveland Riegel, Jr.
John Ely Riegel.
Natalie Margaret Riegel.
Katharine du Pont.
Reynolds du Pont, Jr.
Thomas Lewars du Pont.
S. Hallock du Pont, Jr.
William Kemble du Pont.
Richard Simmons du Pont.
Margaretta Lammot Kitchell.
Nancy Gardiner Kitchell.
Carol Victoria Kitchell.
Leslie Halsey Kitchell.
Robert Ruliph Morgan Carpenter, III.
Mary Kaye Carpenter.
Kemble du Pont Carpenter (Listed as William Kemble Carpenter in amendment to the Complaint).
Belle Morgan Carpenter.
Lamont du Pont Copeland, Jr.

Louisa D'Andelot du Pont Copeland.
Gerret Van Swearingen Copeland.

Enter:

Walter J. La Buy, United States District Judge.

Dated: Jan. 16, 1953.

The plaintiff herein hereby consents to the entry of the above and foregoing Order.

E. Houston Harsha, Ewart Harris, Paul V. Ford,
Attorneys for Plaintiff.

[fols. 272-273] UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

AMENDED COMPLAINT—Filed June 30, 1949. Amended July 28, 1952 and January 16, 1953

[Title omitted]

[fol. 274] EXPLANATORY NOTE

This copy of the complaint has been prepared to show all amendments. The text in roman type is the original complaint as filed on June 30, 1949. Text in italics (except that in paragraphs 12 and 15) has been added by amendment. Text which is lined through, whether in roman or italics, has been stricken by amendment.

Paragraph 27 was stricken by order of the Court on March 14, 1951.

Paragraphs 9, 10 and 11 were stricken and new paragraphs substituted therefor by order of the Court on July 28, 1952.

Paragraphs 9, 10 and 11, as amended, and 7, 8 and 30(a) are stricken and new paragraphs substituted therefor by this amended complaint, pursuant to order of the Court on January 16, 1953. In this amended complaint, paragraphs 30(a)(1), 30(a)(4), 32, 33, 34, 35, 36, 55, 116, 117, 118, 119, 120, 121 and 134 and paragraphs 2, 7, 8, 9, 10, 11, 12, 13, 16 and 18 of the Prayer are also amended, and paragraph 14 of the Prayer is stricken.

[fol. 275]

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[fol. 276] UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

[Title omitted]

AMENDED COMPLAINT

Equitable Relief Sought

The United States of America, by its attorneys, acting under the direction of the Attorney General, brings this complaint against the defendants named herein, and upon information and belief alleges as follows:

I

Jurisdiction and Venue

1. This complaint is filed and these proceedings are instituted under Section 4 of the Act of Congress of July 2, 1890, c. 647, 26 Stat. 209, as amended, entitled "An Act to Protect Trade and Commerce Against Unlawful Restraints and Monopolies," said act being commonly known as the Sherman Act, and under Section 15 of the [fol. 277] Act of Congress of October 15, 1914, c. 323, 38 Stat. 730, as amended, entitled "An Act to Supplement Existing Laws Against Unlawful Restraints and Monopolies and for Other Purposes," commonly known as the Clayton Act, in order to prevent and restrain violations by the defendants individually, jointly and severally, as hereinafter alleged, of Sections 1 and 2 of the Sherman Act and Section 7 of the Clayton Act.

2. The defendants E. I. du Pont de Nemours and Company, General Motors Corporation, and United States Rubber Company transact business within the Eastern Division of the Northern District of Illinois and are found therein.

II

Defendants

3. The following corporations and persons are named as defendants herein:

(a) E. I. du Pont de Nemours and Company (du Pont Company), a Delaware corporation with principal offices at Wilmington, Delaware. Its immediate predecessor corporation was E. I. du Pont de Nemours Powder Company.

(b) General Motors Corporation (General Motors), a Delaware corporation, with principal offices at 3044 West Grand Boulevard, Detroit, Michigan. Its immediate predecessor corporation was General Motors Company.

(c) United States Rubber Company (U. S. Rubber), a New Jersey corporation, with principal offices at 1230 Avenue of the Americas, New York, New York.

(d) Christiana Securities Company (Christiana), a Delaware corporation, with principal offices at the du Pont Building, Wilmington, Delaware. The name of the defendant was originally du Pont Securities Company.

[fol. 278] (e) Delaware Realty & Investment Corporation (Delaware), a Delaware corporation, with principal offices at the du Pont Building, Wilmington, Delaware.

(f) Pierre S. du Pont, of Wilmington, Delaware. In du Pont he has been a director from 1915 to date; was President from 1915 to 1919; a member of the Finance Committee of the Board of Directors from 1915 to date; and Chairman of the Board of Directors from 1919 to 1940. In General Motors he was a Director from 1917 to 1944; President from 1920 to 1923; a member of and Chairman of the Executive Committee of the Board of Directors from 1918 to 1921; a member of the Finance Committee from 1917 to 1921; and Chairman of the Board of Directors from 1917 to 1929.

(g) Lammot du Pont, of Wilmington, Delaware. In du Pont he has been a Director from 1915 to date; was a member of the Finance Committee of the Board of Directors from 1918 to 1945; a member of the Executive Committee from 1915 to 1940; Vice President from 1916 to 1926; President from 1926 to 1940; and Chairman of the Board of Directors from 1940 to 1948. In General

Motors he was a Director from 1918 to 1946; a member of the Executive Committee of the Board of Directors from 1921 to 1929, and Chairman of that Committee from 1921 to 1923; a member of the Finance Committee from 1917 to 1937; and Chairman of the Board of Directors from 1929 to 1937.

(h) Irenee du Pont, of Wilmington, Delaware. In du Pont he has been a Director from 1915 to date; was a member of the Finance Committee of the Board of Directors from 1915 to 1946; a member of the Executive Committee from 1915 to 1919 and from 1921 to 1926; Vice President from 1915 to 1919; President from 1919 to 1926; Vice Chairman of the Board of Directors from 1926 to 1940. In General Motors he was a Director from 1918 to 1938; a member of the Executive Committee of the Board of Directors from 1930 to 1934; a member of the Finance Committee of the Board of Directors from 1918 to 1937, and of the Policy Committee from 1937 to 1946.

4. Where the term "defendant manufacturers" is used herein, it applies to the defendants du Pont Company, General Motors, and United States Rubber, and the predecessors and subsidiaries of each.

5. Where the term "defendant individuals" is used herein, it applies to defendants Pierre S. du Pont, Lammot du Pont, and Irenee du Pont.

6. Where reference is made herein to any corporate defendant, such reference shall be deemed to include the predecessors and subsidiaries of such defendant; and for purposes of the relief prayed for, reference to any corporate defendant shall be deemed to apply to the subsidiaries, successors, assignees of such corporation and their officers, directors, agents, employees, and other representatives.

~~7. The term "members of the du Pont family," when used herein, applies to those persons who are lineal descendants of Pierre Samuel du Pont de Nemours, the senior member of the family, who emigrated to the United States from France, and the wives and husbands of such lineal descendants.~~

~~8. Each of the defendant individuals is a member of the du Pont family.~~

~~9. Each of the members of the class of persons hereinafter defined is named as a defendant. The individual~~

~~defendants are fairly and adequately representative of such class of persons, who are so numerous as to make it impractical to bring all of them before the Court on the charges herein alleged. The charges herein involve all of the members of the class, and common relief is sought against all. The members of the class of persons made defendants herein have the following things in common:~~

~~(a) All are members of the du Pont family and are related by blood or marriage to the defendants Pierre, Lammot, and Irenee du Pont;~~

~~(b) All hold, either directly, or indirectly through personal holding companies, or have a beneficial interest in, through trusts established in their favor or otherwise, shares of voting stock of one or more of the following defendant corporations: Christiana, Delaware, and U. S. Rubber.~~

~~10. Most of the members of the class made defendants herein are members of the immediate families (wives, husbands, children, grandchildren, etc.) of the individual defendants Pierre, Lammot, or Irenee du Pont, or of the persons listed below. Said individual defendants are brothers. Each of the persons listed below has the relationship to said individual defendants shown following his name:~~

~~Family Head~~	~~Relationship to Individual Defendants~~
~~William K. du Pont (deceased)~~	~~Brother~~
~~R. R. M. Carpenter (deceased)~~	~~Brother-in-law~~
~~Charles Copeland~~	~~Brother-in-law~~
~~A. Felix du Pont (deceased)~~	~~Second cousin~~
~~Harry R. du Pont~~	~~Nephew~~
~~William Winder Laird~~	~~Nephew~~

~~11. The members of the class made defendants herein number in excess of 100. They will sometimes hereinafter be referred to as the "class defendants".~~

~~July 28, 1952~~ ~~9. *Each of the following persons, who collectively will be referred to hereinafter as "class defendants," is named as a defendant herein. Each is a member of the du Pont family and more particularly is a member of the family of one of the eight brothers and sisters of the defendant Pierre S. du Pont. Such class defendants are hereinafter listed according to such family groups, with the family relationship to the head of the family group and the address of the defendant being stated, and the minors being identified as such:*~~

~~(a) THE FAMILY OF DEFENDANT IRENEE DU PONT~~

~~1. *Irene du Pont*~~ ~~*Granogue, Delaware*~~	~~*Wife of defendant*~~ ~~*Irenee du Pont*~~

* * *

~~2. IRENE SOPHIE DU PONT MAY~~ ~~*Granogue, Delaware*~~	~~*Daughter of*~~ ~~*Irenee du Pont*~~
~~3. *Ernest Nugent May*~~ ~~*Granogue, Delaware*~~	~~*Husband of foregoing*~~
~~4. *Ernest Nugent May, Jr.*~~ ~~*Granogue, Delaware*~~	~~*Grandchild of*~~ ~~*Irenee du Pont*~~
~~5. *Irenee du Pont May*~~ ~~*Granogue, Delaware*~~	~~*Grandchild of*~~ ~~*Irenee du Pont*~~
~~6. *Thomas Henry May, a minor*~~ ~~*Granogue, Delaware*~~	~~*Grandchild of*~~ ~~*Irenee du Pont*~~
~~7. *John Eric May, a minor*~~ ~~*Granogue, Delaware*~~	~~*Grandchild of*~~ ~~*Irenee du Pont*~~

* * *

~~(a) THE FAMILY OF DEFENDANT IRENEE DU PONT — continued~~

~~8. MARGARETTA DU PONT GREENEWALT~~ ~~Greenville, Delaware~~	~~Daughter of Irenee du Pont~~
~~9. Crawford Hallock Greenewalt~~ ~~Greenville, Delaware~~	~~Husband of foregoing~~
~~10. Nancy Greenewalt Frederick~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~
~~11. David Greenewalt~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~
~~12. Crawford Hallock Greenewalt, Jr., a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~

* * *

~~13. CONSTANCE DU PONT DARDEN~~ ~~Charlottesville, Virginia~~	~~Daughter of Irenee du Pont~~
~~14. Colgate Whitehead Darden, Jr.~~ ~~Charlottesville, Virginia~~	~~Husband of foregoing~~
~~15. Colgate Whitehead Darden, III~~ ~~Charlottesville, Virginia~~	~~Grandchild of Irenee du Pont~~
~~16. Pierre Samuel du Pont Darden, a minor~~ ~~Charlottesville, Virginia~~	~~Grandchild of Irenee du Pont~~
~~17. Irene Sophie du Pont Darden, a minor~~ ~~Charlottesville, Virginia~~	~~Grandchild of Irenee du Pont~~

* * *

~~18. ELEANOR DU PONT RUST~~ ~~Thomasville, Georgia~~	~~Daughter of Irenee du Pont~~

~~(a) THE FAMILY OF DEFENDANT IRENEE DU PONT — continued~~

~~19.~~	~~Philip Goodenow Rust, Jr., a minor~~ ~~Thomasville, Georgia~~	~~Grandchild of Irenee du Pont~~
~~20.~~	~~Francis Gurney du Pont Rust, a minor~~ ~~Thomasville, Georgia~~	~~Grandchild of Irenee du Pont~~
~~21.~~	~~Henry Rust, a minor~~ ~~Thomasville, Georgia~~	~~Grandchild of Irenee du Pont~~
~~22.~~	~~Richard Cutts Rust, a minor~~ ~~Thomasville, Georgia~~	~~Grandchild of Irenee du Pont~~

• • •

~~23.~~	~~MARIANA DU PONT SILLIMAN~~ ~~Montchanin, Delaware~~	~~Daughter of Irenee du Pont~~
~~24.~~	~~Henry Harper Silliman~~ ~~Montchanin, Delaware~~	~~Husband of foregoing~~
~~25.~~	~~Henry Harper Silliman, Jr., a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Irenee du Pont~~
~~26.~~	~~Doris du Pont Silliman, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Irenee du Pont~~
~~27.~~	~~Eleanor Howland Silliman, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Irenee du Pont~~
~~28.~~	~~Mariana du Pont Silliman, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Irenee du Pont~~
~~29.~~	~~Robert Morris Silliman, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Irenee du Pont~~

• • •

~~(a) THE FAMILY OF DEFENDANT IRENEE DU PONT — continued~~

~~30. OCTAVIA MARY DU PONT BREDIN~~ ~~Greenville, Delaware~~	~~Daughter of Irenee du Pont~~
~~31. John Bruce Bredin~~ ~~Wilmington, Delaware or Greenville, Delaware~~	~~Husband of foregoing~~
~~32. Stephanie Sophie du Pont Bredin, a minor~~ ~~Wilmington, Delaware or Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~
~~33. Margaretta Starrett Bredin, a minor~~ ~~Wilmington, Delaware or Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~

• • •

~~34. LUCILE DU PONT FLINT~~ ~~Greenville, Delaware~~	~~Daughter of Irenee du Pont~~
~~35. Robert Barnett Flint~~ ~~Greenville, Delaware~~	~~Husband of foregoing~~
~~36. Robert Barnett Flint, Jr., a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~
~~37. Peter Hubbard Flint, a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~
~~38. Alice Lucile Flint, a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~
~~39. Henry Alexis Flint, a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~
~~40. Constance Evelina Flint, a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Irenee du Pont~~

• • •

~~(a) THE FAMILY OF DEFENDANT IRENEE DU PONT — continued~~

~~11. IRENEE DU PONT, JR.~~ ~~5 Fern Road~~ ~~Charleston, West Virginia~~	~~Son of Irenee du Pont~~

• • •

~~(b) THE FAMILY OF DEFENDANT LAMMOT DU PONT~~

~~12. NATALIE DU PONT EDMONDS~~ ~~Wilmington, Delaware~~	~~Daughter of Lammot du Pont~~
~~13. George Phippen Edmonds~~ ~~Wilmington, Delaware~~	~~Husband of foregoing~~
~~14. George Phippen Edmonds, Jr., a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Lammot du Pont~~
~~15. Andrew Wilson Edmonds, a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Lammot du Pont~~

• • •

~~16. MARY DU PONT FAULKNER~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Daughter of Lammot du Pont~~
~~17. Herbert Kimball Faulkner~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Grandchild of Lammot du Pont~~
~~18. Elise du Pont Faulkner, a minor~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Grandchild of Lammot du Pont~~
~~19. Emily Morison Faulkner, a minor~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Grandchild of Lammot du Pont~~

~~(b) THE FAMILY OF DEFENDANT LAMMOT DU PONT — continued~~

~~50. Charles Stearns Faulkner, a minor~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Grandchild of Lammot du Pont~~
~~51. Rosemary Faulkner, a minor~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Grandchild of Lammot du Pont~~
~~52. Henry Belin Faulkner, a minor~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Grandchild of Lammot du Pont~~
~~53. Andrew Gray Faulkner, a minor~~ ~~255 Goddard Avenue~~ ~~Brookline, Mass.~~	~~Grandchild of Lammot du Pont~~

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~~54. ESTHER DU PONT WEIR~~ ~~Rockland, Delaware~~	~~Daughter of Lammot du Pont~~

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~~55. LAMMOT DU PONT, JR.~~ ~~Wilmington, Delaware~~	~~Son of Lammot du Pont~~
~~56. Lammot du Pont, III, a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Lammot du Pont~~
~~57. William Foster du Pont, a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Lammot du Pont~~

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~~58. PIERRE SAMUEL DU PONT, III~~ ~~Rockland, Delaware~~	~~Son of Lammot du Pont~~

~~(b) THE FAMILY OF DEFENDANT LAMMOT DU PONT — continued~~

~~59. Pierre Samuel du Pont, IV,~~ ~~a minor,~~ ~~Rockland, Delaware~~	~~Grandchild of~~ ~~Lammot du Pont~~
~~60. Jane de Doliete du Pont,~~ ~~a minor~~ ~~Rockland, Delaware~~	~~Grandchild of~~ ~~Lammot du Pont~~
~~61. Michele Wainwright du Pont,~~ ~~a minor~~ ~~Rockland, Delaware~~	~~Grandchild of~~ ~~Lammot du Pont~~

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~~62. EDITH DU PONT RIEGEL~~ ~~Montchanin, Delaware~~	~~Daughter of~~ ~~Lammot du Pont~~
~~63. Edith du Pont Riegel (Jr.),~~ ~~a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of~~ ~~Lammot du Pont~~
~~64. Richard Eveland Riegel, Jr.,~~ ~~a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of~~ ~~Lammot du Pont~~
~~65. John Ely Riegel, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of~~ ~~Lammot du Pont~~
~~66. Natalie Margaret Riegel,~~ ~~a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of~~ ~~Lammot du Pont~~

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~~67. ALEXANDRINE DU PONT PERKINS COLLIER~~ ~~Wilmington, Delaware~~	~~Daughter of~~ ~~Lammot du Pont~~

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~~68. REYNOLDS DU PONT~~ ~~Wilmington, Delaware~~	~~Son of Lammot~~ ~~du Pont~~

~~(b) THE FAMILY OF DEFENDANT LAMMOT DU PONT — continued~~

~~69. Katherine Lewars du Pont~~ ~~Wilmington, Delaware~~	~~Wife of foregoing~~
~~70. Katharine du Pont, a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Lammot du Pont~~
~~71. Reynolds du Pont, Jr., a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Lammot du Pont~~
~~72. Thomas Lewars du Pont, a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Lammot du Pont~~

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~~73. DAVID FLETT DU PONT, a minor~~ ~~Wilmington, Delaware~~	~~Son of Lammot du Pont~~

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~~74. WILLIS HARRINGTON DU PONT, a minor~~ ~~Wilmington, Delaware~~	~~Son of Lammot du Pont~~

~~(c) THE FAMILY OF WILLIAM KEMBLE DU PONT (Deceased)~~

~~75. S. HALLOCK DU PONT~~ ~~Wilmington, Delaware~~	~~Son of William Kemble du Pont (Deceased)~~
~~76. Virginia Simmons du Pont~~ ~~Wilmington, Delaware~~	~~Wife of foregoing~~
~~77. Eve du Pont Remer~~ ~~Whitemarsh, Pennsylvania~~	~~Grandchild of William Kemble du Pont (Deceased)~~
~~78. S. Hallock du Pont, Jr., a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of William Kemble du Pont (Deceased)~~

~~(c) THE FAMILY OF WILLIAM KEMBLE DU PONT (Deceased) — cont'd.~~

~~79. William Kemble du Pont,~~ ~~a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of William Kemble du Pont (Deceased)~~
~~80. Richard Simmons du Pont,~~ ~~a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of William Kemble du Pont (Deceased)~~

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~~81. PAULINA DU PONT DEAN~~ ~~Montchanin, Delaware~~	~~Daughter of William Kemble du Pont (Deceased)~~
~~82. Junius Simpson Dean~~ ~~Montchanin, Delaware~~	~~Husband of foregoing~~

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~~83. WILHELMINA DU PONT ROSS~~ ~~Montchanin, Delaware~~	~~Daughter of William Kemble du Pont (Deceased)~~
~~84. Donald Peabody Ross~~ ~~Montchanin, Delaware~~	~~Husband of foregoing~~

~~(d) THE FAMILY OF HENRY BELIN DU PONT (Deceased)~~

~~85. HENRY BELIN DU PONT~~ ~~Wilmington, Delaware~~	~~Son of Henry Belin du Pont (Deceased)~~
~~86. Margaret du Pont Smith~~ ~~Snuff Mill Road~~ ~~Kennett Square, Pennsylvania~~	~~Grandchild of Henry Belin du Pont (Deceased)~~
~~87. Henry Belin du Pont, III~~ ~~a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Henry Belin du Pont (Deceased)~~
~~88. Edward Bradford du Pont,~~ ~~a minor~~ ~~Wilmington, Delaware~~	~~Grandchild of Henry Belin du Pont (Deceased)~~

~~(c) THE FAMILY OF MARGARETTA DU PONT CARPENTER~~

~~89. Margaretta du Pont Carpenter~~ ~~Montchanin, Delaware~~	~~Sister of Pierre, Irenee and Lammot du Pont and "head" of Carpenter family~~

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~~90. LOUISA CARPENTER JENNEY~~ ~~Wilmington, Delaware~~	~~Daughter of Margaretta du Pont Carpenter~~

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~~91. IRENE CARPENTER KITCHELL MORGAN~~ ~~Montchanin, Delaware~~	~~Daughter of Margaretta du Pont Carpenter~~
~~92. Renee Kitchell Lickle~~ ~~Montchanin, Delaware or Wilmington, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~
~~93. Margaretta Lammot Kitchell, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~
~~94. Nancy Gardiner Kitchell, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~
~~95. Carol Victoria Kitchell, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~
~~96. Leslie Halsey Kitchell, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~

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~~97. ROBERT RULIPH MORGAN CARPENTER, JR.~~ ~~Montchanin, Delaware~~	~~Son of Margaretta du Pont Carpenter~~

~~(e) THE FAMILY OF MARGARETTA DU PONT CARPENTER — continued~~

~~98. Robert Ruliph Morgan Carpenter, III, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~
~~99. Mary Kaye Carpenter, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~
~~100. William Kemble Carpenter, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~

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~~101. WILLIAM KEMBLE CARPENTER~~ ~~Montchanin, Delaware~~	~~Son of Margaretta du Pont Carpenter~~
~~102. Belle Morgan Carpenter, a minor~~ ~~Montchanin, Delaware~~	~~Grandchild of Margaretta du Pont Carpenter~~

~~(f) THE FAMILY OF LOUISA DU PONT COPELAND (Deceased)~~

~~103. LAMMOT DU PONT COPELAND~~ ~~Greenville, Delaware~~	~~Son of Louisa du Pont Copeland (Deceased)~~
~~104. Pamela Cunningham Copeland~~ ~~Greenville, Delaware~~	~~Wife of foregoing~~
~~105. Lammot du Pont Copeland, Jr. a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Louisa du Pont Copeland (Deceased)~~
~~106. Louisa d'Andelot du Pont Copeland, a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Louisa du Pont Copeland (Deceased)~~
~~107. Gerret Van Sweringen Copeland, a minor~~ ~~Greenville, Delaware~~	~~Grandchild of Louisa du Pont Copeland (Deceased)~~

~~(g) THE FAMILY OF MARY DU PONT LAIRD (Deceased)~~

~~108. MARY BELIN LAIRD DOWNS~~
~~Wilmington, Delaware~~
~~Daughter of Mary du Pont Laird (Deceased)~~

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~~109. WILLIAM WINDER LAIRD, JR.~~
~~Wilmington, Delaware~~
~~Son of Mary du Pont Laird (Deceased)~~

• • •

~~110. ALLETTA LAIRD DOWNS~~
~~Wilmington, Delaware~~
~~Daughter of Mary du Pont Laird (Deceased)~~

• • •

~~111. WILHELMINA LAIRD CRAVEN~~
~~Wilmington, Delaware~~
~~Daughter of Mary du Pont Laird (Deceased)~~

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~~112. ROSA LAIRD HAYWARD~~
~~Wilmington, Delaware~~
~~Daughter of Mary du Pont Laird (Deceased)~~

~~(h) THE FAMILY OF ISABELLA DU PONT SHARP (Deceased)~~

~~113. Hugh Rodney Sharp~~
~~Wilmington, Delaware~~
~~Husband of Isabella du Pont Sharp (Deceased)~~

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~~114. HUGH RODNEY SHARP JR.~~
~~Greenville, Delaware~~
~~Son of Isabella du Pont Sharp (Deceased)~~

• • •

~~115. BAYARD SHARP~~
~~Centerville, Delaware~~
~~Son of Isabella du Pont Sharp (Deceased)~~

~~July 28, 1952~~ ~~10. The foregoing class defendants and individual defendants hold approximately 100 per cent of the voting stock of the defendant Delaware, approximately~~ 70 ~~per cent of the voting stock of the defendant Christiana (including the stock held through the defendant Delaware), approximately 17 per cent of the voting stock of defendant United States Rubber, and substantial amounts of the voting stock of the defendant General Motors. Each of the class and individual defendants has holdings of the voting stock of one or more of such companies, which is held in a variety of ways. In some instances, part or all of such stock is held directly in the name of the defendant. In other instances the stock is held indirectly through personal holding companies controlled by individual or class defendants, or in street or fictitious names. Much of the stock is beneficially held through trusts which have been established for the benefit of one or more of the class defendants. The minors who are named as defendants have extensive holdings of such stock, most of which is held by them beneficially through trusts established for their benefit, with much of the stock being held for them, usually by a parent, in a street name, or in a fictitious name. The stock held by the individual and class defendants, including the minors, has been received by them and is held by them or for them through fiduciaries in furtherance of the combination and conspiracy hereinafter alleged.~~

~~July 28, 1952~~ ~~11. The defendant Wilmington Trust Company, du Pont Building, Wilmington, Delaware, a Delaware corporation, is named as a defendant herein. The majority of the voting stock of the said defendant Wilmington is closely held, either directly, indirectly or beneficially, by individual and class defendants~~

~~*and by Christiana. The defendant Wilmington is extensively used by the individual and class defendants as a corporate trustee to hold voting stock of the defendants Delaware, Christiana, United States Rubber, and General Motors, in trust under wills and trust agreements in which class defendants are designated as beneficiaries. It holds close to 200,000 shares of the common stock of the defendant Delaware, as trustee for the benefit of various class defendants, with much of such stock being held by Wilmington Trust for the benefit of minors who are named herein as class defendants. It likewise holds as trustee for class defendants, including minors, approximately 150,000 shares of U. S. Rubber common stock, as well as many shares of Christiana common stock. The defendant Wilmington Trust holds, administers, and votes such trusteed stock in furtherance of the hereinafter alleged conspiracy. Where the term class defendants is hereinafter used, it will include reference to the defendant Wilmington in its fiduciary capacity as holder of voting stock of the defendants Christiana, Delaware, United States Rubber, and General Motors for the benefit of class defendants.*~~

7. The term "members of the du Pont family", when used herein, shall apply, in addition to the defendant individuals named in Paragraph 5 of this Complaint, to those persons who are members, by blood or marriage, of any of the families of the eight brothers and sisters of the defendant Pierre S. du Pont, and who hold shares of voting stock of one or more of the following defendant corporations: Christiana, Delaware, U. S. Rubber; either directly or indirectly through personal holding companies or who have a beneficial interest in any of such shares in or through trusts established in their favor, or otherwise. The term "members of the du Pont family" shall [fol. 295] *include, unless specifically excepted, the defendants named in Paragraph 9 of this Complaint as amended.*

8 (a). The term "defendants", when used herein without qualifying words, shall include only "defendant manufacturers", defined in Paragraph 4; "defendant individuals", defined in Paragraph 5; the corporate defendants, Christiana, Delaware and Wilmington Trust Company; and, the individual defendants who are also members of the du Pont family named in Paragraph 9 of this Complaint as amended.

8 (b). The term "beneficiary defendants", when used herein, shall apply only to the defendants named in Paragraph 11 of this Complaint, as amended, who are made parties defendant because their beneficial interest in trusts held by defendant Wilmington Trust Company may be affected by any relief granted herein against defendant Wilmington Trust Company as trustee under the trusts mentioned in Appendix A.

9. Each of the following persons, whose address is shown opposite his name, is made a defendant herein:

Name	*Address*
Lammot du Pont Copeland	*Greenville, Delaware*
Colgate W. Darden, Jr.	*Charlottesville, Virginia*
Henry Belin du Pont	*Wilmington, Delaware*
Pierre S. du Pont, III	*Rockland, Delaware*
George P. Edmonds	*Wilmington, Delaware*

Each of these persons now is or has been a director of one or more of the defendant corporations and has authorized, ordered or done one or more of the acts alleged hereinafter to constitute the offenses charged. Each of these persons is a member of the du Pont family and holds [fol. 296] *substantial amounts of voting stock of defendant U. S. Rubber. Such stock is held by each of these defendants in furtherance of the combination and conspiracy hereinafter alleged.*

10. Wilmington Trust Company (Wilmington), du Pont Building, Wilmington, Delaware, a Delaware corporation, is named a defendant herein, individually and as trustee under the trusts mentioned in Appendix A. A large amount of the voting stock of the said defendant Wilmington is *closely held, either directly, indirectly or beneficially, by other defendants named in this Complaint. Defendant Wilmington is extensively used by other defendants as a corporate trustee to hold voting stock of the defendants Delaware, Christiana, U. S. Rubber, and General Motors, in trust under wills and trust agreements. It holds as trustee for the individuals named defendants in Paragraphs 9 and 11 approximately 160,000 shares of U. S. Rubber common stock. In addition, it holds approximately 47,000 shares of U. S. Rubber common stock in its own name. The defendant Wilmington holds, administers, and votes all such stock in U. S. Rubber in furtherance of the combination and conspiracy hereinafter alleged.*

11. Each of the following persons, whose address is shown opposite his or her name, is named a defendant herein, as a party in interest but not a conspirator. Each is a beneficiary of one or more trusts of which defendant Wilmington is trustee and the assets of which include voting stock of defendant U. S. Rubber. Said stock is held by Wilmington as said trustee and is administered and voted in furtherance of the combination and conspiracy hereinafter alleged:

[fol. 297] *Name*	*Address*
Irene Sophie du Pont May	*Granogue, Delaware*
Margaretta du Pont Greenewalt	*Greenville, Delaware*
Constance du Pont Darden	*Charlottesville, Virginia*
Eleanor du Pont Rust	*Thomasville, Georgia*
Mariana du Pont Silliman	*Montchanin, Delaware*
Henry Harper Silliman, Jr., a minor	*Montchanin, Delaware*
Doris du Pont Silliman, a minor	*Montchanin, Delaware*
Eleanor Howland Silliman, a minor	*Montchanin, Delaware*
Mariana du Pont Silliman, a minor	*Montchanin, Delaware*
Robert Morris Silliman, a minor	*Montchanin, Delaware*
Octavia Mary du Pont Bredin	*Greenville, Delaware*
Lucile du Pont Flint	*Greenville, Delaware*

Name	*Address*
Natalie du Pont Edmonds	*Wilmington, Delaware*
George Phippen Edmonds, Jr., a minor	*Wilmington, Delaware*
Andrew Wilson Edmonds, a minor	*Wilmington, Delaware*
Mary du Pont Faulkner	*255 Goddard Avenue, Brookline, Mass.*
Esther du Pont Weir	*Rockland, Delaware*
Lammot du Pont, Jr.	*Wilmington, Delaware*
Edith du Pont Riegel	*Montchanin, Delaware*
Alexandrine du Pont Perkins Collier	*Wilmington, Delaware*
Reynolds du Pont	*Wilmington, Delaware*
David Flett du Pont, a minor	*Wilmington, Delaware*
[fol. 298] *Willis Harrington du Pont, a minor*	*Wilmington, Delaware*
Margaret du Pont Smith	*Snuff Mill Road Kennett Square, Pennsylvania*
Henry Belin du Pont, III, a minor	*Wilmington, Delaware*
Edward Bradford du Pont, a minor	*Wilmington, Delaware*

III

Nature of Trade and Commerce Involved

12. The du Pont Company is the largest producer in the United States of explosives, power and chemicals. Its principal manufacturing operations are conducted through ten departments. The names of these departments and the principal products which each produces are as follows: *Ammonia Department:* ammonia, urea, urea fertilizer compounds, methanol, higher alcohols, glycol, organic acids, hydrogenate products, anti-freezes, and food chemicals; *Electric Chemicals Department:* Electro and industrial chemicals including solvents, formaldehyde, cyanide, sodium, peroxide, ceramic colors, refrigerants, Vinyl products, and fumigants; *Explosives Department:* commercial explosives, blasting accessories, nitroglycerin, military and sporting powders, and commercial nitrocellulose; *Fabrics and Fin-*

ishes Department: pyroxylin and other coated fabrics and adhesives, various finishes for industrial, transportation, marine, and household purposes, including lacquers, enamels, paints, varnishes, plastics, waxes and polishes, plasticizers, and proxylin solutions; *Grasselli Chemicals Department:* inorganic and organic acids and heavy chemicals, zinc and zinc products, fungicides, insecticides, and wood preservatives; *Organic Chemicals Department:* dyestuffs, [fol. 299] tetraethyl lead, neoprene, ethyl alcohol, camphor, and other organic chemicals; *Photo Products Department:* motion picture, X-ray, portrait, lithographic and micro films, fluorescent screens, photographic printing papers and processing chemicals; *Pigments Department:* titanium dioxide, extended titanium pigments, lithopone, dry colors, and copperas; *Plastics Department:* various types of plastics, molding powders, and fabricated articles; *Rayon Department:* rayon yarn of various types and for various uses, cellophane and nylon yarn.

13. The du Pont Company also has a large number of either wholly or partially-owned subsidiaries in this and other nations. It has a 50 per cent interest in The Old Hickory Chemical Co. which produces carbon bisulphide. It holds 51 per cent, and General Motors 49 per cent, of the voting stock of Kinetic Chemicals, Inc., a manufacturer of refrigerants. Du Pont Company owns 66.7 per cent of the voting stock of International Freighting Corporation, Inc., which operates a steamship and general chartering business between the Atlantic Coast, Gulf Coast, and South American ports. The balance of the voting stock is held by General Motors.

14. General Motors is the largest manufacturing company in the United States. Its principal business consists of the manufacture of passenger cars and trucks, including various parts and accessories. It produces the Chevrolet, Buick, Oldsmobile, Pontiac and Cadillac passenger cars and the Chevrolet and GMC trucks. It is the largest producer of passenger cars and trucks in the United States. In 1947, it sold 1,931,000 passenger cars and trucks to dealers in the United States and Canada and for shipment overseas, which was 38 per cent of the industry [fol. 300] total produced in United States. In the 1937-41 period, its average annual sales of passenger cars and

trucks were 1,832,466 units or 43 per cent of the industry total produced in the United States. It is the largest producer of automobile parts and accessories. It manufactures parts and accessories for use in its own cars as well as for sale and use in cars and trucks produced by other automobile and truck manufacturers.

15. General Motors is also the largest manufacturer of railroad Diesel locomotives in the United States. It produces Diesel engines for use in these locomotives as well as for other purposes. It manufactures numerous other products, including ball bearings, roller bearings, and a wide range of household appliances, such as electric refrigerators and heating equipment. Many of the General Motors production operations are conducted through operating divisions which include the following:

Car, Truck and Body Divisions: Buick Motor, Cadillac Motor Car, Chevrolet Motor, GMC Truck & Coach, Pontiac Motor, Buick-Oldsmobile-Pontiac Assembly, Fisher Body, and Oldsmobile; *Accessory and Parts Divisions:* AC Spark Plug, Aeroproducts, Brown-Lipe-Chapin, Central Foundry, Delco Products, Delco Radio, Delco-Remy, Detroit Transmission, Guide Lamp, Harrison Radiator, Hyatt Bearings, Inland Mfg., Moraine Products, New Departure, Packard Electric, Rochester Products, and Saginaw Steering Gear; *Household Appliance Divisions:* Delco Appliance and Frigidaire; *Engine Divisions:* Allison, Diesel Equipment, Cleveland Diesel Engine, Electro-Motive, and Detroit Diesel Engine.

16. General Motors also has a large number of subsidiaries, mostly wholly-owned, through which other operations of the company are conducted. It holds 50 per cent of the common stock of Ethyl Corporation which, [fol. 301] prior to 1948, was the sole producer of Ethyl fluid made from tetraethyl lead and used as an anti-knock in gasoline. The other 50 percent of the stock of that company was owned by Standard Oil Company of New Jersey. General Motors also holds substantial interests in Kinetic Chemicals, Inc. and International Freighting Corporation, Inc., as hereinbefore alleged.

17. U. S. Rubber is the largest manufacturer in the United States of rubber tires and tubes, as well as of numerous other products made in whole or in part from rubber. Most of the defendant U. S. Rubber's manufac-

turing operations are conducted through the following divisions of the company: Tire Division, Mechanical Goods Division, Footwear, Naugatuck Chemical and Synthetic Rubber, and Textile. Defendant U. S. Rubber also has a large number of wholly-owned and a small number of partially-owned subsidiaries through which other operations of the company are conducted.

18. Du Pont Company, General Motors and U. S. Rubber together constitute the largest combination of manufacturing enterprises in the United States. For the year 1947, the assets, sales volume and net income after taxes of the defendant manufacturers were as follows:

[fol. 301]

	Assets	Sales (round Nos.)	Net income after taxes (round Nos.)
Du Pont	$1,438,000,000	$ 783,000,000	$120,000,000
General Motors	2,473,000,000	3,815,000,000	288,000,000
U. S. Rubber	348,000,000	581,000,000	21,000,000
Total	$4,259,000,000	$5,189,000,000	$429,000,000

19. The defendant manufacturers maintain production and distribution facilities throughout the United States. Products produced by the defendant manufacturers are by them sold and shipped in commerce among the several States of the United States.

[fol. 302] 20. The du Pont Company produces many products which are used in the operations of other defendant manufacturers. General Motors and U. S. Rubber constitute a substantial market for many of such products produced by du Pont Company. Du Pont sells to General Motors large quantities of lacquers, paints, varnishes, thinners, anti-freeze preparations, coated fabrics, and artificial leather. It sells to U. S. Rubber large quantities of rayon and organic chemicals. It has sold to Ethyl Corporation, a General Motors subsidiary organized in furtherance of the hereinafter alleged conspiracy, large quantities of tetraethyl lead, alcohol, and ethyl chloride. Du Pont Company sells large quantities of many products other than those mentioned above to General Motors and United States Rubber, while additional quantities of products produced by du Pont Company are sold to these two companies through companies and persons other than du Pont Company. Du Pont Company's sales (not including sales of du Pont-made products sold through companies other than du Pont) for the years 1938 to 1947, inclusive, to defendant General Motors totaled approximately $134,000,000, to defendant U. S. Rubber approximately $72,000,000, and to Ethyl Corporation approximately $57,000,000, a total of $263,000,000.

21. United States Rubber sells to General Motors large quantities of tires and tubes for use as original equipment in General Motors cars and trucks, as well as quantities of other products. It is General Motors' principal supplier of tires and tubes for use as original equipment in the cars, trucks, and busses produced and sold by General Motors and its subsidiaries. U. S. Rubber's direct sales of tires and tubes to General Motors for original equipment totaled, for the period 1934 to 1947, inclusive, approximately $500,000,000.

[fol. 303] 22. General Motors sells a large number of passenger cars and trucks either directly or through dealers to each of the other defendant manufacturers.

23. The products sold by each defendant manufacturer to the other defendant manufacturers are shipped in interstate trade and commerce from the factories or warehouses of the selling defendant to the factories or warehouses of the purchasing defendants located in other States.

24. There are numerous manufacturers, other than the defendant manufacturers, located in various parts of the United States, which manufacture and sell products of substantially the same type, kind, and quality as the products manufactured and sold by the defendant manufacturers, and but for the combination and conspiracy alleged hereinafter these other manufacturers would be able to offer their products competitively to the manufacturing defendants having need for them. In addition, the potential market in which these other manufacturing companies may compete generally has been restricted substantially by the nature and magnitude of the growth of the defendant manufacturers, and the ability of said other manufacturing companies to compete effectively, has been substantially impaired by the illegal means hereinafter alleged.

IV

Origin and Development of du Pont Company to 1915

25. The du Pont Company was founded in 1802 by Eleuthere Irénée du Pont, who, with his father and members of their families, had immigrated to the United States from France, and set up a company to engage in the manufacture of black powder. The company's first plant was located on the Brandywine River in Delaware, where the headquarters of the company has remained. [fol. 304] Prior to 1899, the company operated as a partnership, with members of the du Pont family and their close associates holding the partnership shares. In 1899, the company became a corporation, with control remaining in the hands of members of the du Pont family. Until the latter part of the 19th century, the company's principal business consisted of the production of black powder and it was the leading company in the United States in that field. It then expanded into the manufacture of smokeless powder and high explosives, and in these fields also shortly became the principal producer in the United States.

26. In 1902, a major change occurred in the administration of the company. The then president of the company, Eugene du Pont, died, and the remaining senior members of the du Pont family wished to dispose of their holdings in the company. Three of the younger members of the family, Alfred I. du Pont, Pierre S. du Pont, and T. Coleman du Pont, purchased the company, and formed a new company, the E. I. du Pont de Nemours Powder Company (a New Jersey corporation), which took over the assets of the acquired company. Approximately 89,000 shares of the 119,970 shares of common stock issued by the new company, were acquired by T. Coleman du Pont, Alfred I. du Pont, and Pierre S. du Pont, with T. Coleman du Pont acquiring the principal block. This stock gave these three members of the du Pont family control of the company. The new company acquired not only the powder and explosives business of the old company, but also the shares of stock which its predecessor, as a holding company, held in numerous other powder and explosive companies. The new company immediately embarked, both directly and through subsidiary and holding companies,

on a program of acquiring control of additional powder and explosives companies.

[fol. 305] ~~27. In 1907, a suit in equity was filed by the United States against the du Pont Company (the powder company of 1902) charging it and other companies with combining and conspiring to restrain and monopolize interstate trade and commerce in the field of powder and explosives. In 1911, the Court held the combination to be illegal and in 1912 a final judgment was entered providing for the splitting of the business of the du Pont Company among three companies: du Pont Company, Atlas Powder Company, and Hercules Powder Company.~~

28. In 1910 (prior to the dissolution referred to above), the total annual sales of the du Pont Company amounted to approximately $34,000,000. Its only holding at that time outside the powder and explosives field, was a part interest in a company which made artificial leather (Fabrikoid Company). Du Pont subsequently acquired full stock interest in that company, dissolved it, and merged its operations into those of the du Pont Company as part of what subsequently became known as the Fabrics and Finishes Department. In 1915 du Pont acquired the Arlington Company, makers of celluloid, a product then used in substantial quantities in the making of automobile side curtains.

V

Offenses Charged

29. Beginning in or about 1915 and continuing thereafter up to and including the date of the filing of this complaint, the defendants have been and are now engaged in a continuing combination and conspiracy to restrain unreasonably the aforesaid interstate trade and commerce in the development, production, manufacture, distribution and sale of the products which are or may be produced by each of the defendant manufacturers and have conspired and [fol. 306] combined to monopolize a substantial part of such interstate trade and commerce, in violation of Sections 1 and 2 of the Sherman Act, and defendant du Pont has acquired a controlling interest in the stock or other share capital of defendant General Motors, while both of said corporations were engaged in interstate commerce, the

effect of which acquisition has been to substantially lessen competition between the two companies and to tend to create a monopoly in particular lines of commerce in violation of Section 7 of the Clayton Act. Defendants threaten to continue such offenses and will continue them unless the relief hereinafter prayed for in this Complaint is granted.

30. The aforesaid combination and conspiracy to restrain interstate trade and commerce and to monopolize a substantial part thereof, has consisted of a continuing agreement and concert of action among the defendants, the substantial terms of which have been that the defendants:

(a) *Pierre S. du Pont, Lammot du Pont, and Irenee du Pont and the corporate defendants Christiana, Delaware, and Wilmington* agree to acquire, hold and perpetuate control ~~by the defendant individuals and class defendants~~ of the directors, executives and corporate policy of each of the corporate defendants, *directly and through the influence or control by the defendant individuals named in Paragraph 5 of the Complaint over the members of the du Pont family.*

(1) By establishing Christiana and Delaware as personal holding companies, a majority of the outstanding voting stock of which would be held by the defendant individuals and ~~class defendants and their families~~ *members of the du Pont family* in perpetuity and voted by them;

[fol. 307] (2) By utilizing Christiana and Delaware to acquire sufficient of the common stock of du Pont Company to control it, and to hold such stock in perpetuity, and to vote it;

(3) By causing du Pont Company to acquire sufficient of the common stock of General Motors to control it, to hold such stock in perpetuity, and to vote it;

(4) By causing the defendant individuals and certain of the ~~class defendants~~ *members of the du Pont family* to acquire sufficient of the common stock of United States Rubber to control it, to hold such stock in perpetuity for themselves and their families, and to vote it;

(b) Agree to utilize control of the defendant manufacturers to enhance the size, power, and market control of each of them at the expense of its competitors:

(1) By causing each defendant manufacturer which uses products produced by one or more of the other defendant manufacturers to purchase substantially all of its requirements of such products from such other defendant manufacturers, and to exclude competitors of such other defendant manufacturers from the opportunity of competing freely for such business;

(2) By causing du Pont Company to expand its production facilities, through acquisitions and otherwise, so as to enable it to produce the types and quantities of products in the chemical and related fields which are used in substantial quantities by the other defendant manufacturers;

(3) By causing General Motors and United States Rubber to expand in their respective existing fields, and into new fields, through acquisitions and otherwise, so as to enlarge the closed and noncompetitive market available to [fol. 308] du Pont Company for products sold by it to General Motors and United States Rubber, and to increase the profits available to du Pont Company from its ownership of General Motors stock;

(4) By subsidizing the expansion of du Pont Company by using for such purpose the profits derived by it from the sale of its products on a closed market basis to General Motors and United States Rubber, as well as the profits derived by du Pont Company from its ownership of General Motors stock;

(5) By subsidizing the expansion of General Motors by causing du Pont Company and United States Rubber to grant General Motors systematic secret rebates and preferential prices on certain of the products sold to General Motors on a closed market basis by du Pont Company and United States Rubber, and selling such products at higher prices to customers of du Pont and United States Rubber other than General Motors;

(6) By subsidizing the expansion of United States Rubber by using for such purpose the profits derived by it from the sale of its products on a closed market basis to General Motors and du Pont Company;

(7) By inducing suppliers of each defendant manufacturer to purchase products on a basis of reciprocity from one or more of the other defendant manufacturers, and

to refrain from purchasing such products from competitors of such other defendant manufacturers;

(8) By causing each defendant manufacturer to make patents, technical data, and trade information obtained by any one defendant manufacturer available to the other defendant manufacturers on an exclusive or preferential basis;

[fol. 309] (c) Agree to utilize control of the defendant manufacturers to eliminate competition among themselves:

(1) By causing General Motors to refrain from entering into chemical manufacturing fields, including the manufacture of paints, varnishes, and related products, and to grant du Pont Company exclusive production rights in chemical discoveries made by General Motors;

(2) By causing General Motors to refrain from manufacturing tires and tubes;

(3) By causing United States Rubber to refrain from expanding its operations into chemical and related fields in which du Pont Company operates, or into fields in which General Motors operates.

31. During the period of time covered by this complaint and for the purpose of forming and effectuating the aforesaid combination and conspiracy, the defendants by agreement and concerted action have done the things which, as hereinbefore alleged, they conspired to do, and more particularly, have done, among others, the following acts and things.

A. The organization of Christiana and Delaware to perpetuate du Pont family control over du Pont Company

32. In 1915, the defendants Pierre S., Irenee and Lammot du Pont, together with A. Felix du Pont and R. R. M. Carpenter, ~~who were members of the du Pont family,~~ and John J. Raskob, Treasurer of the du Pont Company, formed a syndicate to acquire the large block of stock in du Pont Company (Powder Company) then held by its largest stockholder, T. Coleman du Pont. The stock was acquired and the members of the syndicate organized the du Pont Securities Company (predecessor of defendant [fol. 310] Christiana and hereinafter referred to as de-

fendant Christiana) as a personal holding company to which the T. Coleman du Pont holdings were transferred, along with certain shares of du Pont Company common stock owned by members of the syndicate. Christiana then held a controlling portion of the du Pont Company common stock.

33. At the outset, all of Christiana's outstanding common stock (75,000 shares) was held by its incorporators in the following amounts: defendant Pierre S. du Pont, 37,500 shares; defendant Irenee du Pont, 12,000 shares; defendant Lammot du Pont, 12,000 shares; A. Felix du Pont, 6,000 shares; R. R. M. Carpenter, 4,500 shares, and John J. Raskob, 3,000 shares. ~~All except John J. Raskob were members of the du Pont family.~~ These stockholders then allocated certain of their shares of Christiana stock to officers of the du Pont Company. When this redistribution had been completed, the original incorporators held approximately 68,250 shares of the 75,000 outstanding shares of Christiana stock. Thereafter most of the common stock which the defendant individuals and ~~class defendants~~ *members of the du Pont family* held in du Pont Company was turned over to Christiana in exchange for its stock to prevent dispersal of such du Pont Company stock, and to insure the perpetuation by such individual ~~and class~~ defendants *and members of the du Pont family* of their control over du Pont Company.

34. It was understood and agreed among the individual defendants and ~~class defendants~~ *members of the du Pont family* who held Christiana stock that they would continue to hold it, would keep it within their families and would not dispose of it to outsiders, so that, either directly or through their families, such defendants would maintain control of a majority of the stock of Christiana and, [fol. 311] through such stockholdings, maintain control of the du Pont Company. This understanding and agreement has been adhered to, and throughout the period covered by this Complaint, the individual defendants and the ~~class defendants~~ *members of the du Pont family* have, pursuant to said understanding and agreement, held control of Christiana, and, through it, of du Pont Company. The du Pont Company common stock held by Christiana has been voted as a block at the stockholders' meetings of the du

Pont Company. The directors of Christiana have customarily been directors and officers of the du Pont Company.

35. The largest single block of stock in Christiana (approximately 49,000 shares, or 32 per cent) is held by defendant Delaware. Delaware, in turn, is a personal holding company for a small number of the members of the du Pont family and their close associates. It was used by defendant Pierre S. du Pont, who had no children, as a means of passing control of his stockholdings to his closest relatives. To accomplish this, he turned the bulk of his holdings in Christiana, in which he was the largest stockholder, together with his common stock in du Pont Company and other companies, over to Delaware in consideration of the payment by it to him of an annuity of approximately $900,000 a year. The common stock of Delaware was then distributed among his close relatives. The majority of Delaware's 800,000 shares of outstanding common stock is held by the defendants Irenee and Lammot du Pont, a brother-in-law, and two of their nephews, and the members of their respective families. It was understood and agreed among the defendant individuals and ~~class defendants~~, *members of the du Pont family* who held Delaware stock that they would hold it for themselves and the members of their families, so that control of defendant Delaware would remain in perpetuity in the hands [fol. 312] of the defendant individuals and certain of the ~~class defendants~~, *members of the du Pont family.* This understanding and agreement has been adhered to, and, throughout the period of Delaware's existence, said defendants have, pursuant to said understanding and agreement, retained control of Delaware, and have caused the common stock of du Pont Company which is held by Delaware to be voted in stockholders' meetings of du Pont Company in the same manner as the common stock in du Pont Company held by Christiana. The defendant individuals have at all times occupied the dominant position in determining what the policies of Christiana, Delaware, and du Pont Company should be. The ~~class defendants~~ *members of the du Pont family* have at all times accommodated themselves to the decisions of the defendant individuals, and such ~~class defendants~~ *members of the du Pont family* have voted their stock in Christiana, Delaware, and du Pont Company, and have done other acts in furtherance of this combination

and conspiracy, pursuant to agreement and understanding had among themselves and the defendant individuals.

36. Christiana now holds approximately 3,049,800 shares (or 26 percent) and Delaware holds approximately 304,480 shares (or 3 percent) of the outstanding shares (11,158,340) of the common stock of du Pont Company. Defendant individuals and ~~class defendants~~ *certain members of the du Pont family* who are either officers or directors of the du Pont Company own a further block of approximately 5.3 percent of the stock of that company, while other members of the du Pont family, ~~including the class defendants~~, who are not officers or directors of the du Pont Company, own directly a further 2.2 percent of the stock in du Pont. The combined holdings of Christiana and Delaware in du Pont Company, together with [fol. 313] the direct holdings of members of the du Pont family in that company, total at the present time approximately 36 percent of the outstanding common stock of du Pont Company.

37. The remaining approximately 64 percent of the capital stock of the du Pont Company is diffused among approximately 73,000 stockholders whose average holdings amount to slightly over 100 shares apiece. The concentrated holdings of Christiana and Delaware alone, as contrasted to the wide distribution of the remaining shares of the stock among 73,000 stockholders scattered throughout the world, are sufficient to, and do, enable these personal holding companies to control the defendant du Pont Company and its policies.

B. Acquisition and exercise of control by du Pont Company over General Motors

38. During World War I, du Pont Company plant facilities, sales and profits in the powder and explosives fields expanded enormously as a result of the wartime demand for these products on the part, first of Great Britain, France, and the other allied powers, and later of the United States. Its net profits on this war business during the period 1915 to 1918, inclusive, totalled approximately $232,000,000.

39. During 1917, the du Pont Company, anticipating the end of World War I and the cessation of orders for

vast quantities of powder and explosives which the company had enjoyed, determined to utilize part of its war profits to expand into fields other than gunpowder and explosives, and to acquire for itself protected markets for these new products and for products such as artificial leather and transparent celluloid, which were being pro- [fol. 314] duced by companies in which du Pont had already acquired an interest, and thus to counter-balance the anticipated shrinkage in the powder and explosives business which would inevitably follow the close of hostilities.

1. Acquisition of stock

40. The defendant Pierre S. du Pont, then president of du Pont Company, and others associated with him in the company, had been investing in the common stock of General Motors Company and Chevrolet Company (which then held a majority of the stock of General Motors), and had become acquainted with the potentialities of the motor car industry and with the opportunities it held as a protected market for products which du Pont Company produced or might produce through an expansion of its enterprises.

41. On December 21, 1917, the Executive and Finance Committees of the du Pont Company, which included defendants Pierre S. du Pont, Lammot du Pont, and Irenee du Pont in their membership, in a joint meeting, formally approved the acquisition by du Pont Company of a substantial interest in General Motors Company and Chevrolet Company, and authorized the purchase of $25,000,000 worth of the common stock of these companies. A new company, General Industries, Inc., all of whose stock was held by du Pont Company, was set up with an authorized capital of $25,000,000 to accomplish the actual purchase of General Motors and Chevrolet stock. The acquisition was made on the understanding that du Pont Company and the then existing William Durant management of Chevrolet and General Motors would have joint control of those two companies, that the du Pont Company would immediately assume charge and be responsible for the financial operation of General Motors and Chevrolet, and that General [fol. 315] Motors and Chevrolet would purchase from du Pont Company all of their requirements of Fabrikoid

(artificial leather), Pyralin (transparent celluloid), paint, varnish, and related products then produced or thereafter to be produced by du Pont Company, or by companies to be acquired by du Pont Company.

42. Pursuant to the foregoing understanding, General Industries, Inc., had by March 8, 1918, purchased common stock of General Motors and Chevrolet in an amount equivalent to approximately a 23 per cent interest in the two companies.

43. Shortly thereafter the name of this stock purchasing instrumentality was changed from General Industries, Inc., to du Pont American Industries, Inc., its capitalization was substantially increased, and it continued to purchase stock in General Motors and Chevrolet. The du Pont Company also approved the acquisition by General Motors of the assets of Chevrolet, which was thereafter accomplished, with Chevrolet thereafter being operated as a division of General Motors. By October 1919, du Pont American Industries owned almost 30 per cent of the then outstanding stock of General Motors.

44. In 1920, William Durant, the organizer of General Motors, was in financial difficulty and the du Pont Company undertook to acquire his stockholdings in General Motors so as to eliminate him from participation in the control of General Motors, concentrate the control in the hands of du Pont Company, and prevent interests unsympathetic to du Pont Company from acquiring an interest in and a voice in the control of General Motors. To accomplish this, the du Pont Securities Company was organized as a subsidiary of du Pont American Industries and purchased William Durant's General Motors stock. [fol. 316] The du Pont Company's stock purchasing subsidiaries, du Pont American Industries, Inc., and du Pont Securities Company, were later dissolved and their General Motors stockholdings taken over by du Pont Company. It thereafter from time to time acquired additional blocks of General Motors stock to prevent them from falling into hands which might embarrass du Pont Company's control of General Motors.

45. Du Pont Company utilized J. P. Morgan & Company to aid in the financing of du Pont's acquisition of Durant's stock, as well as in financing the capital needs

of General Motors, and during the financial stringency of 1920 induced affiliated companies, such as Canadian Industries, Ltd. (a Canadian firm jointly controlled by du Pont Company and the Nobel interests (explosives) of Great Britain) both severally and in partnership with du Pont, to subscribe heavily for General Motors capital stock. Such acquisitions were in large part taken over by du Pont at a later date.

46. Du Pont Company, in return for the assistance given it and General Motors by J. P. Morgan & Company, designated two of the Morgan representatives for membership on the General Motors Board of Directors, such membership being held by the Morgan representatives until approximately 1942, when one of the Morgan men died.

47. Defendant du Pont Company has for many years past owned 10,000,000 shares (approximately 23 per cent) of the approximately 44,000,000 outstanding shares of General Motors common stock. The remaining shares of General Motors stock were, in 1947, held by over 436,000 stockholders located in the various States of the United States and in foreign countries. Ninety-two per cent of these stockholders owned no more than 100 shares. Sixty per cent owned no more than 25 shares. The concentrated [fol. 317] block of 10,000,000 shares held by du Pont Company as contrasted to the wide distribution of the remaining 34,000,000 shares among hundreds of thousands of small shareholders, has enable defendants to control the selection of the directors of General Motors and to control the administration and policies of that corporation.

2. Control over officers and directors

48. In the du Pont Company, the Finance and the Executive Committees of the Board of Directors are the bodies which control the basic policies of the company. Likewise, in defendant General Motors, the Finance Committee (otherwise known as the Policy Committee and later as the Financial Policy Committee) and the Executive Committee are the bodies which control the basic policies of that company.

49. When the du Pont Company decision was made in 1917 to acquire a substantial stock interest in General Motors, du Pont Company, pursuant to the understanding

reached with the hitherto dominant William Durant management interests in General Motors, began taking over control of the Finance Committee of that company.

50. Starting in the latter part of 1917, and continuing into 1918, the du Pont Company placed the following representatives on the Finance Committee of the Board of Directors of General Motors:

Position with du Pont

Pierre S. du Pont, President, Director, and member of Finance Committee.

Lammot du Pont, Vice President, Director, and member of Executive Committee.

Irenee du Pont, Vice President, Director, and member of Finance Committee.

Henry F. du Pont, Director, member of Finance Committee.

J. A. Haskell, Vice President, Director, member of Executive Committee.

J. J. Raskob, Treasurer (later Vice President), Director, member of Finance and Executive Committees.

[fol. 318] The seventh member of the General Motors Finance Committee was William Durant.

51. Since 1917 key officers and directors of the du Pont Company, including the individual defendants named herein, have been assigned by du Pont Company to serve as officers and directors of General Motors and on its principal committees. The du Pont Company has also determined what other persons should hold office as members of the Board of Directors of General Motors, and no person has been chosen for membership on such board contrary to the wishes of du Pont Company.

52. The principal official positions which the individual defendants have held with du Pont Company and General Motors are as follows:

du Pont Company		General Motors	
Pierre S. du Pont			
Director	1915–date	Director	1917–44
President	1915–19	President	1920–23
Chairman of Board	1919–40	Chairman of Board	1917–29
Finance Committee	1915–date	Finance Committee	1917–37
		Executive Committee	1921–29

Lammot du Pont

Director	1915–date	Director	1918–46
Vice President	1916–26	Chairman of Board	1929–37
President	1926–40	Finance Committee	1917–37
Chairman of Board	1940–48	Executive Committee	1921–29
Finance Committee	1918–45		
Executive Committee	1915–40		

Irenee du Pont

Director	1915–date	Director	1918–38
Vice President	1915–19	Finance Committee and Successor Committee	1918–46
President	1919–26	Executive Committee	1930–34
Vice Chairman of Board	1926–40		

53. In 1923, General Motors and du Pont Company worked out a plan to provide special financial incentives to the executives of General Motors in a form which would make them more directly responsive to the influence and desires of du Pont Company. Under this plan, General Motors organized a corporation known as Managers Securities [fol. 319] Company and obligated itself to pay the company a minimum of $2,000,000 annually (thereafter changed to a percentage of General Motors' net profits). Du Pont Company transferred to the new company the right to receive dividends from approximately 2,250,000 shares of the General Motors common stock owned by du Pont Company. General Motors, through its Finance Committee, then allocated Class A and B stock of Managers Securities Company to General Motors executives in amounts determined by the Finance Committee of General Motors. One of these classes of Managers Securities Company stock so allocated to the General Motors executives, carried with it the right to participate in the special payments which General Motors had obligated itself to make annually to Managers Securities Company. The other class of Managers Securities Company stock, also allocated to General Motors executives, received the balance of the income which Managers Securities had, such income consisting, in the main, of dividends from the 2,250,000 shares of General Motors common stock allocated to Managers Securities by du Pont Company. Although various changes were made thereafter in the detailed operation of the bonus system, the basic elements of the plan have continued to the date of the filing of this complaint.

54. Under the bonus plan those General Motors executives who have been permitted to participate have been

enabled, through the payment of small sums, to reap tremendous returns. The $1,000,000 worth of Managers Securities stock to which the dividends from General Motors stock was allocated, as issued to General Motors executives starting about 1923, was worth over $500,000,000 on the basis of the highest market price prevailing in 1929 for General Motors common, and nearly $350,000,000 on the basis of the median price in that year.

[fol. 320] 55. Throughout the period of time that the bonus plan has been in operation, the allocation of benefits under the plan to General Motors executives and the determination of the amount of each such allocation has been made either by the Finance Committee of General Motors, or by a special Bonus and Salary Committee of the Board of Directors of General Motors. Throughout this period of time, either defendant individuals, or associates of defendant individuals who were officers or directors of du Pont Company, ~~including certain class defendants,~~ have dominated said Finance Committee or Bonus and Salary Committee and have determined who among the General Motors executives should receive bonus allocations and the amount each should receive. The executive personnel of General Motors have known throughout the existence of the bonus plan, that the recipients of cash and stock bonuses and the amount each received was determined by a committee the majority of which has at all times been composed of du Pont Company directors, officials and employees. As an inevitable, and intended, consequence of the operation of the bonus plan, General Motors executives have responded readily to the influence and desires of the du Pont Company.

3. Agreements relating to intercompany sales

56. Beginning in 1917, it was understood and agreed between General Motors and du Pont Company that, because of the latter's acquisition of control over General Motors, General Motors would give preference to du Pont Company in buying products for use in its operations. It was agreed that General Motors would purchase from du Pont all or substantially all of its requirements of products manufactured by du Pont, and would refrain, in whole or in large part, from purchasing such products from com-

petitors of du Pont Company. It was further understood [fol. 321] and agreed that du Pont Company in buying cars or trucks or other products produced by General Motors would buy all or substantially all of such goods from General Motors, and refrain, in whole or in large part, from purchasing such products from General Motors' competitors.

57. In 1917, du Pont Company was producing principally powder and explosives. It manufactured new items which could be used in the production of automobiles. Among the few items required by General Motors which were produced by du Pont Company or its subsidiaries in 1917 was celluloid which, in transparent form, was used in making side curtains for automobiles, and artificial leather which was used extensively in automobile seats and upholstery. Beginning in or about 1917, General Motors has purchased all or substantially all of its requirements of these items from du Pont Company.

58. The du Pont Company, from in or about 1917, has purchased all or substantially all of its requirements of cars and trucks and other items produced by General Motors from that company or its dealers.

59. In 1917, the du Pont Company was engaged to but a limited extent in the production of paints and varnishes and related products. In reliance upon the understanding that it would be the primary supplier for General Motors of products which were manufactured by du Pont, and knowing that General Motors would constitute a large market for paints, varnishes, lacquers, thinners, enamels, and the like, du Pont Company embarked, starting in 1917, upon a program of acquiring numerous independent companies engaged in the production of such products. Among the companies so acquired were Bridgeport Wood Finishing Company; Cauley, Clark & Company; Harrison Brothers & Company, Inc.; Flint Varnish [fol. 322] & Chemical Works; New England Oil Paint & Varnish Company; Chicago Varnish Company; Mountain Varnish & Color Works. At the time it was acquired by du Pont Company, the Flint Varnish & Chemical Works specialized in automobile finishes, and General Motors acquired and held a minority interest in the common stock of that company. After acquiring the majority stock in-

terest in Flint Varnish, du Pont Company purchased from General Motors its minority interest pursuant to an understanding and agreement between General Motors and du Pont Company that General Motors would not engage in the production of paints and varnish and allied products so long as du Pont Company was engaged in such business and retained its control over General Motors.

60. The paint and varnish companies which were acquired by du Pont Company were thereafter dissolved and their assets taken over by du Pont Company and incorporated in its Fabrics and Finishes Department. The Fabrics Division of this department produces artificial leather and other coated fabrics while the Finishes Division of such department produces paints, enamels, varnishes, lacquers, thinners, and related products. Beginning in or about 1917, General Motors has purchased all or substantially all of its requirements of items in this fabrics and finishes field from du Pont Company. The bulk of the purchases made by General Motors from du Pont Company are from the Fabrics and Finishes Department. General Motors is not only the largest customer of this department but its purchases constitute a large percentage of the department's total volume of business. This department is one of, if not the largest, profit producer of the many departments of du Pont Company.

[fol. 323] 61. At the time du Pont Company first acquired a substantial stock interest in General Motors, that company operated through somewhat autonomous operating divisions, each of which had its own purchasing departments which purchased for their own division with but limited supervision from the central office of General Motors. In order to secure more effective liaison among these divisional purchasing agents and to insure that du Pont Company wishes would be promptly communicated to them and fully complied with, a central purchasing committee for General Motors was established in or about 1922. The membership of this committee was made up of the purchasing agents of the operating divisions and the committee met approximately monthly. The chairman of the committee was at all times one of the high executives of General Motors who was either a former executive of du Pont Company or one who possessed the complete confidence of du Pont Company. This central purchasing committee was an effective instrumentality in carrying out the du Pont-General Motors intercompany sales arrangements hereinbefore and hereinafter described.

62. The original policy of requiring General Motors to purchase exclusively from du Pont the products du Pont was able to supply was subsequently modified so as to permit General Motors to purchase from 20 to 25 per cent of its requirements of the products du Pont manufactured which General Motors used from companies other than du Pont, leaving du Pont with 75 to 80 per cent of the General Motors business. This modification was made because of the fear of both du Pont and General Motors that their business relations with other concerns might be jeopardized if it became generally known that General Motors was required to buy exclusively from du Pont.

[fol. 324] 63. General Motors, as a protected market for du Pont Company, from which its competitors have been substantially excluded, has provided du Pont Company a substantial and highly profitable outlet for its products. Du Pont Company's direct sales to General Motors and Ethyl (excluding sales of du Pont products made to General Motors by others than du Pont Company) have exceeded $191,000,000 for the period 1938 to 1947, inclusive.

4. Agreements relating to division of fields

64. Du Pont Company, following its acquisition of control over General Motors in or about 1917, not only extended its operations into the manufacture of paints and varnishes and related products, but also began expanding into other areas in the chemical field. In connection with this expansion, du Pont Company entered into an agreement with General Motors to the effect that the latter would refrain from the manufacture of chemicals, including paints and varnishes and similar products, leaving this field, as between the two companies, exclusively to du Pont Company. It was further agreed between the two companies that when General Motors made discoveries in the chemical field, it would inform du Pont Company of the findings and grant to du Pont Company exclusive development, production, and exploitation rights with respect to such discoveries. It was also understood that if any of

said General Motors' discoveries were usable in General Motors operations, du Pont Company would, after their development, make them available to General Motors Company for use upon an exclusive or preferential basis. It was further understood that if du Pont Company made discoveries in the chemical field which might be of use in the production of automobiles, du Pont Company would promptly inform General Motors of its findings and grant to General Motors preferential rights with respect to such [fol. 325] discoveries, and General Motors would aid in the experimental work on such discoveries.

65. Two illustrations of the results of the agreements to divide fields are set out below.

(a) Tetraethyl lead

66. Starting in or about 1918, General Motors engaged in an extensive investigation into the nature and causes of "knocking" in internal combustion engines. The chemical research involved in this investigation revealed that the use of tetraethyl lead blended with gasoline in proper proportions constituted an effective "antiknock." When General Motors made this discovery, tetraethyl lead was a scarce and expensive product, production of which was highly hazardous. General Motors, therefore, continued its researches in an attempt to discover a cheaper and safer method of producing tetraethyl lead on a commercial basis. It was successful in its endeavor and discovered that tetraethyl lead could be produced commercially from ethyl bromide. It secured patents on both the use of tetraethyl lead in gasoline as an "antiknock" and on the method of producing it. The du Pont Company was kept fully advised by General Motors as to these developments. When General Motors had completed the basic research and development work, the project was surrendered to du Pont Company on an exclusive basis pursuant to the agreements set out above. Du Pont Company undertook to develop the "antiknock" commercially, and also to negotiate with companies in foreign countries such agreements as might be desirable to insure that tetraethyl lead as an "antiknock" could be produced and sold in the United States free from competition arising from such foreign sources.

[fol. 326] 67. In or about 1922, General Motors and du Pont Company were ready to exploit commercially the use of tetraethyl lead in gasoline as an "antiknock." The two companies then entered into agreements under which the du Pont Company was given the exclusive right to manufacture tetraethyl lead under the General Motors patents. The contract was a continuing one, giving the du Pont Company this exclusive right in perpetuity, but allowing it to cancel the contract on one year's notice. By supplementary contracts, du Pont was enabled to construct plants to produce tetraethyl lead upon a basis which involved no financial risk for du Pont Company and which imposed all such risks on General Motors.

68. The tetraethyl lead, which was manufactured by du Pont Company pursuant to the terms of the foregoing agreements, was distributed by a General Motors subsidiary which was organized to handle the marketing of the tetraethyl lead to oil companies. This General Motors subsidiary entered into an agreement, in or about 1924, with the Standard Oil Company of New Jersey (Standard Oil), giving that company the exclusive right to distribute tetraethyl lead for use as an "antiknock" in gasoline for a period of 18 months. During the period of this exclusive distributorship, Standard Oil discovered a new and improved method of producing tetraethyl lead. The new method was both cheaper and safer than the method which had been discovered by General Motors. It permitted the production of the tetraethyl lead from ethyl chloride, which was in plentiful supply, instead of from ethyl bromide, which was in very short supply. In the meantime, du Pont Company had built a sizable plant at Deepwater, New Jersey, and was producing substantial amounts of tetraethyl lead under the bromide process. Oil companies that were using the tetraethyl lead in their gasoline were [fol. 327] enthusiastic about the "antiknock" results achieved, and du Pont Company anticipated a great expansion in demand and production.

69. Standard Oil, relying on its exclusive distributorship rights to tetraethyl lead and on the potentialities of its new method of producing the product, demanded of General Motors and du Pont the right itself to produce tetraethyl lead and thereby share production privileges

and profits with du Pont Company. Du Pont Company objected even though its production of tetraethyl lead was at the time being severely limited by shortages in the supply of bromide. General Motors supported du Pont Company in resisting Standard Oil's attempt to enter into the business of producing tetraethyl lead.

70. The conflict was resolved by an agreement under which a new corporation, Ethyl Gasoline Corporation (later changed to Ethyl Corporation, and referred to herein as "Ethyl") was organized in or about 1924, to take over the physical assets and contract obligations of the General Motors subsidiary which had been handling the marketing of the tetraethyl lead produced by du Pont Company. Both Standard Oil and General Motors assigned to the new company their patents and patent applications relating to the use of tetraethyl lead as an "antiknock" and to the methods of producing the substance. The voting stock in the new corporation was divided equally between General Motors and Standard Oil. It was agreed among du Pont Company, General Motors, and Standard Oil that the latter, in consideration for receiving a 50 per cent stock interest in Ethyl, and thereby securing a right to one-half of the profits involved in the distribution of the Ethyl fluid, would withdraw its demand to share with du Pont Company in the manufacture of tetraethyl lead. The three companies agreed that du Pont Company would [fol. 328] have the exclusive right to produce tetraethyl lead for Ethyl and to blend the tetraethyl lead into what was known as Ethyl fluid, and would be permitted to produce and supply ~~total~~ requirements of the principal products needed in the production of tetraethyl lead.

71. In the years following the organization of Ethyl, du Pont Company and General Motors entered into numerous contracts, agreements, and understandings which (a) gave to and insured to du Pont Company the exclusive right to produce tetraethyl lead, to blend the lead into the "Ethyl fluid" which Ethyl distributed to oil companies for blending in gasoline, and to supply exclusively the basic ingredients, such as ethyl alcohol, caustic soda, sodium, and other products which entered into the production of tetraethyl lead; and (b) provided that du Pont Company should erect the necessary plants to produce the tetraethyl lead and

certain of the products entering into its production, but upon terms involving no financial risk to du Pont Company and imposing the greater part of the expense of construction upon Ethyl.

72. The term of the last basic ethyl patent expired about December 31, 1947. Beginning in the early 1930's, du Pont Company and General Motors gave much attention to devising means for the protection of du Pont Company's monopoly in the production of tetraethyl lead and the blending of Ethyl fluid upon the expiration of the applicable patents. To achieve this purpose, General Motors and du Pont agreed that their arrangements with Ethyl would be modified from time to time prior to the expiration of the patents in such a way that when the patent protection ended, du Pont Company would be in a position not only to continue manufacturing the tetraethyl lead, but also to take over from Ethyl the distribution of the Ethyl fluid. [fol. 329] In furtherance of this agreement, a series of contracts were entered into between du Pont Company and Ethyl, the first ones being entered into in 1938, under which du Pont Company was "employed" by Ethyl to make tetraethyl lead, with du Pont Company to be compensated on the basis of an elaborate formula which was worked out among the parties, under du Pont Company's domination.

73. In or about January 1, 1948, the ethyl patent monopoly having expired, du Pont Company ceased manufacturing tetraethyl lead for the account of Ethyl and for distribution by Ethyl. Du Pont Company instead, as contemplated by the agreement reached between it and General Motors and referred to hereinbefore, manufactured tetraethyl lead and blended Ethyl fluid for its own account, and distributed the Ethyl fluid through its own organization.

74. The exclusive rights which du Pont Company secured in the tetraethyl lead development as a result of du Pont Company's control over General Motors established du Pont Company in a new and lucrative line of business and provided it with a protected market for tetraethyl lead, Ethyl fluid and the products used in making them, from which all competitors were rigidly excluded. Finally du Pont Company was enabled to enter the business for dis-

tributing as well as manufacturing Ethyl fluid, with a substantial advantage over potential competitors when the Ethyl patent monopoly ended.

75. During the period prior to 1938, du Pont Company's profits on the manufacture and sale of tetraethyl lead in this protected market approximated $34,000,000. From 1938 to 1947, Ethyl paid du Pont Company an additional $47,000,000 in payment for its services in the manufacture of tetraethyl lead. These sums received by du Pont Com- [fol. 330] pany do not include profits which it realized in the production of the basic ingredients utilized in the manufacture of tetraethyl lead and Ethyl fluid.

(b) Refrigerants

76. During the latter part of the 1920's General Motors' research department made discoveries of and secured patent applications on certain fluorine compounds (refrigerant) which would be of great use in connection with electric refrigeration. These discoveries were of particular significance to General Motors because, through its Frigidaire Division, it was engaged in the manufacture and sale of electric refrigerators whose successful operation depended in large part on the type of refrigerant used in the mechanism. The newly discovered refrigerant was a material improvement over those then on the market.

77. General Motors, pursuant to the understanding it had with du Pont Company, promptly advised du Pont Company of the discovery of the new refrigerant. Du Pont Company thereupon advised General Motors that as the discovery was in the chemical field, it should be handled by du Pont Company rather than by General Motors. The latter company acceded to du Pont Company's demands.

78. In or about 1930, General Motors and du Pont Company entered into an agreement to set up a third corporation, Kinetic Chemicals, Inc., to handle both the manufacture and the sale of the new refrigerant and to further developments in the field. The new company was organized with du Pont Company securing 51 per cent of its common stock and General Motors being allocated the minority share of 49 per cent. General Motors gave

the new company an exclusive license under the patents which General Motors had secured.

[fol. 331] 79. Since the organization of Kinetic Chemicals, Inc. it has been operated by du Pont Company as a division of its Organic Chemicals Department and has been wholly under the control and direction of du Pont Company. The Frigidaire Division of General Motors has, pursuant to the terms of the hereinbefore described understanding and agreement between General Motors and du Pont Company, purchased its requirements of refrigerants exclusively from Kinetic.

80. During a part of the time covered by this conspiracy, Kinetic sold its patented refrigerants exclusively to the Frigidaire Division of General Motors, and pursuant to agreement with that company refused to sell such refrigerants to other manufacturers of electric refrigerators. Thereafter, Kinetic sold certain forms of its patented refrigerants to companies other than General Motors but reserved other and preferred forms of such refrigerants exclusively for use by and sale to the Frigidaire Division of General Motors. Substantially all of the refrigerants used by General Motors have been purchased by it from Kinetic or from persons through whom Kinetic sells.

5. Agreements relating to reciprocity

81. The expansion in size, power and market control of du Pont Company at the expense of competitors has been aided through its use of the weapon of reciprocity demands and pressure against suppliers of General Motors.

82. Shortly after du Pont Company acquired control of General Motors, the two companies entered into an understanding under which General Motors provided du Pont Company with detailed information as to the companies which were suppliers of General Motors and the [fol. 332] amounts and the volume of goods which such suppliers sold General Motors. General Motors supplied this information to du Pont knowing that such company intended to use this information to induce suppliers of General Motors to reciprocate by purchasing from du Pont Company the products which it produced. Later this general arrangement between du Pont and General Motors was

formalized under an agreement between the two companies which provided that whenever a high executive of du Pont desired information concerning suppliers of General Motors the request for such information should be directed to a designated high executive of General Motors who would secure the specific information and furnish it to du Pont Company.

83. The du Pont Company made it known to suppliers in various ways that if they desired to continue to do business with General Motors, it would be advisable for such suppliers to buy from du Pont Company those materials manufactured by du Pont Company which were needed in connection with the manufacture of the products which the suppliers produced.

6. Expansion of du Pont through its control of General Motors

84. Du Pont Company's present investment in General Motors stock, which at current market prices is worth in excess of $500,000,000, was acquired by it at a cost of approximately $47,000,000. Du Pont Company has received approximately $676,000,000 in dividends from its General Motors stock during the period from 1918 to 1947, inclusive. In addition, as hereinbefore alleged, du Pont Company has realized both substantial competitive advantage and great profit from the exclusion of competitors from the opportunity of competing for General Motors' business and from the substantial monopolization of said [fol. 333] business by du Pont Company. Illustrative of the many competitive advantages, in addition to enhanced profits and other income, which accrued to du Pont from its control over General Motors, was the assured availability of a substantial and noncompetitive market for any product usable by General Motors which du Pont might contemplate manufacturing, and du Pont Company's exclusive access to the results of General Motors research and experimentation in numerous fields of potential du Pont expansion.

85. Du Pont Company has utilized the dividends from General Motors' stock, the profits derived from its sales in the closed General Motors market, and the many competitive advantages arising from its control over General

Motors, to expand its operations in its existing fields of production, and into fields new to it. This expansion has been in large measure accomplished by the acquisition of independent companies, as well as by the organization of new companies in partnership with other interests. The following are illustrative of these du Pont Company acquisitions and expansions during the period of the conspiracy herein:

86. In 1917 du Pont acquired Beckton Chemical Company; Bridgeport Wood Finishing Company; Cauley, Clark & Co.; and Harrison Brothers & Co., Inc., all in the paint and varnish industry.

87. In 1918 du Pont acquired the Flint Varnish and Color Works (General Motors held a minority interest in this company which du Pont bought out in 1923) and the New England Oil Paint & Varnish Co., these companies also being in the paint and varnish field. The Flint Varnish and Color Works specialized in the production of finishes for automobiles.

[fol. 334] 88. In 1919. du Pont acquired a 43.8 per cent stock interest in Canadian Explosives, Ltd. (whose name was changed in 1927 to Canadian Industries, Ltd.), with the bulk of the remaining stock in that company being acquired by the Nobel interests of Great Britain, who occupied a position in the field of powder and explosives in Great Britain similar to that occupied by du Pont Company in the United States.

89. In 1920, du Pont acquired full control of the du Pont Fabrikoid Company (maker of artificial leather) in which it had acquired a part interest in 1915. In 1920 du Pont also, with certain French interests, formed the du Pont Fiber Silk Company (60 per cent owned by du Pont) to manufacture rayon. Later, the name of this company was changed to the du Pont Rayon Company, with du Pont Company acquiring full control in 1929.

90. In 1923, the du Pont Company and French interests organized the du Pont Cellophane Company, with du Pont acquiring 52 per cent of the capital stock.

91. In 1924, du Pont acquired the business and assets of General Explosives Company. In the same year, du Pont Company acquired 63 per cent of the capital stock of Lazote, Inc., which was formed to manufacture syn-

thetic ammonia under patents owned by French interests. Later (1926), du Pont Company's stock interest in Lazote, Inc. was merged into a new company, du Pont National Ammonia Company (in which du Pont acquired a majority of the stock), with the latter acquiring a 100 per cent stock ownership in National Ammonia Company, Inc., a leading distributor of anhydrous ammonia to the refrigeration trade, and a 79 per cent stock interest in Pacific Nitrogen Company. In 1928 du Pont Company acquired the minority interest in du Pont National Ammonia Company and acquired additional stock in Lazote, Inc., bring- [fol. 335] ing its interest in that firm up to 89 per cent and thereupon dissolved the du Pont Ammonia Company. Through ownership of National Ammonia Company, du Pont Company had a 74 per cent interest in Michigan Ammonia Works and a majority interest in Pacific Ammonia and Chemical Co., and in 1929 secured full control of Lazote with all of the assets of the ammonia business being thereafter consolidated under the du Pont Ammonia Corporation. The assets of these ammonia companies were later taken over by the parent company.

92. In 1924, du Pont formed the du Pont Pathe Film Manufacturing Corporation (name changed in 1931 to du Pont Film Manufacturing Corporation), with French interests, with du Pont Company acquiring all of the preferred stock and 51 per cent of the common. In 1928 it acquired full control of the company.

93. In 1925, du Pont formed the du Pont Viscoloid Company, which took over the celluloid plants of the du Pont Company and a plant of the Viscoloid Company, with du Pont Company receiving 83 per cent of the common stock of du Pont Viscoloid Company and acquiring full control in 1928.

94. In 1925, du Pont acquired a 50 per cent stock interest in Eastern Alcohol Corporation, which was formed jointly with Kentucky Alcohol Corporation to construct an alcohol plant at Deepwater Point, New Jersey. In 1931, du Pont acquired full control of Eastern Alcohol Corporation.

95. In 1927, du Pont acquired the assets and business of Excelsior Powder Company.

96. In 1928, du Pont acquired a 50 per cent stock in-

terest in Bayer-Semesan Co., Inc., which was formed jointly with Winthrop Chemical Company.

[fol. 336] 97. In 1928, du Pont acquired, through a subsidiary, du Pont Viscoloid Company.

98. In 1928, du Pont acquired a 50 per cent interest in the Old Hickory Chemical Company, which was organized in conjunction with other interests to manufacture carbon bisulphide at Old Hickory, Tennessee.

99. In 1928, du Pont acquired the Grasselli Chemical Company, which operated 23 plants in the production of acids and heavy chemicals, lithopone, and other pigments, zinc and zinc products, and other products. The acquired company's Canadian plant and business were transferred to Canadian Industries, Inc., its acid and heavy chemicals business were turned over to a newly formed company, the Grasselli Company, and the explosives plants and business of the acquired company were combined with the corresponding department of du Pont.

100. In 1929, du Pont acquired Krebs Pigment and Chemical Company, a leading manufacturer of lithopone. Later, Krebs Pigment and Color Corporation was formed to consolidate Krebs Pigment and Chemical Company, the pigment and dry color operations of Grasselli Company and the titanium pigment business of Commercial Pigments Corporation, which was owned by Commercial Solvents Company. The Grasselli Chemical Company owned 70 per cent of the stock of the new company and Commercial Solvents 30 per cent, with the latter interest being acquired by du Pont Company in 1934.

101. In 1930, du Pont acquired the assets and business of the Roessler and Hasslacher Chemical Company of New York, manufacturers of a large number of important chemicals. (In the same year, du Pont acquired a 51 per cent interest in Kinetic Chemicals, which was formed jointly with General Motors Corporation.)

[fol. 337] 102. In 1931, du Pont acquired the dyestuffs and organic chemical properties and business of the Newport Company and through this acquisition, acquired a 72 per cent common stock interest in Acetol Products, Inc., manufacturers of Cel-O-Glass. The latter company was subsequently dissolved and its assets taken over by du Pont.

103. In 1932, du Pont acquired a 55 per cent interest

in Gardinol Corporation, which was formed jointly with Procter & Gamble Company to exploit cleaning materials in the textile industry.

104. In 1933, du Pont acquired 94 per cent of the preferred stock and 51 per cent of the common stock of Remington Arms Company, Inc., in which du Pont's voting stock interest was later increased to approximately 60 per cent.

105. As a result of du Pont Company's subsidized and protected expansion program, it became, during the period of the conspiracy herein, the largest producer of explosives and chemicals in the United States. Indicative of the extent of du Pont Company's growth by the illegal means herein alleged is the fact that its annual sales increased 2,300 per cent from 1910 to 1947, rising from approximately $34,000,000 in 1910 to approximately $783,000,000 in 1947.

7. Expansion of General Motors through favored treatment by du Pont

106. Since the date when du Pont Company purchased a controlling interest in General Motors the latter company has expanded its operations into many fields other than the manufacture and sale of passenger cars and trucks. In each of these new fields, as well as in the original field of passenger cars and trucks, General Motors has acquired a dominating position.

[fol. 338] 107. Each expansion by General Motors into a new field was first approved by the du Pont Company. In many instances du Pont initiated the entry of General Motors into the new field. In order to place General Motors in a position of competitive advantage in each of the fields in which it was engaged, and to assure General Motors a rapid expansion, du Pont, for many years from and after 1926, gave General Motors a secret rebate on all purchases made by General Motors from du Pont over and above the volume which General Motors had theretofore normally purchased from du Pont.

108. Under the 1926 rebate agreement, du Pont agreed to give General Motors a rebate of 7½ per cent on the first million dollars of purchases made by General Motors from du Pont in excess of $8,000,000; an additional 10

per cent rebate on the next million dollars of purchases; a rebate of 12½ per cent on the next million dollars of purchases; and a rebate of 15 per cent on all additional purchases. These discounts were over and above the normal discounts ordinarily allowed by du Pont to its customers for quantity purchases.

109. Du Pont Company financed its rebate arrangements with General Motors by raising the prices which it charged to customers other than General Motors. Because disclosure of the arrangement would require du Pont to reduce its prices on sales to customers other than General Motors and discontinue its rebates to General Motors, du Pont Company made it clear to General Motors that it was imperative that the rebate arrangement and all its details be kept strictly secret and confidential.

110. This rebate plan was approved by the Executive Committee of du Pont Company; although the plan was not made a matter of record in the official minutes of such [fol. 339] committee. Under the plan, du Pont Company for many years paid rebates to General Motors. Such rebates were distributed to the various operating divisions of General Motors on the basis of volume of purchases made from du Pont. Said discriminatory and preferential secret rebates paid to General Motors by du Pont contributed in substantial part to General Motors' expansion in the automotive field, and in fields new to it.

111. The expansion of General Motors, approved and initiated by du Pont Company, substantially enlarged the protected and noncompetitive market available to du Pont and du Pont's profits therefrom, and substantially increased the income accruing to du Pont Company as dividends from General Motors' stock. As alleged in the preceding subsections hereof, said profits and income were utilized to subsidize the expansion of du Pont Company.

C. Acquisition and exercise of control by du Pont family over United States Rubber

1. Acquisition of stock

112. In or about 1927, the defendants Pierre, Lammot, and Irenee du Pont, together with Henry B. du Pont, Lammot du Pont Copeland, and certain of the other members of the du Pont family and their close business asso-

ciates who controlled du Pont Company, formed a syndicate for the purpose of purchasing sufficient of the capital stock of United States Rubber Company to give the members of the syndicate control over that company.

113. At the time the syndicate was organized, its members knew that United States Rubber Company, although one of the largest manufacturers of rubber products in the United States, was in financial difficulties. United States Rubber had an excessive inventory of rubber and [fol. 340] had been unable to sell any substantial number of tires and tubes to General Motors or other automobile manufacturers for original equipment use, one of the most important outlets for rubber products.

114. The syndicate commenced its buying operations in June 1927, and by December of 1927, had purchased approximately 150,000 shares of United States Rubber common stock. By agreement among the members of the syndicate these shares were held by trustees, including defendants Lammot and Irenee du Pont, and by these trustees voted as a block at meetings of the stockholders of United States Rubber.

115. In December 1929, the members of the syndicate organized the Rubber Securities Company as a personal holding company for the purpose of consolidating their existing holdings of United States Rubber stock and of increasing these holdings. Members of the syndicate became stockholders in Rubber Securities Company, which purchased the United States Rubber holdings of the members of the syndicate, together with additional shares of United States Rubber Company common stock which were purchased through brokers. By the end of December 1929, Rubber Securities held approximately 314,000 shares of United States Rubber Company common stock and 46,000 shares of preferred stock, acquired at a cost of approximately $8,277,000 and $2,306,000, respectively, a total of $10,583,000.

116. The Rubber Securities Company held these shares of stock intact until November 1937. At that time the stockholders of Rubber Securities began exchanging their stock in that Company for the United States Rubber common and preferred stock which it held. The exchange was completed by December 1, 1938, and on that date Rubber

[fol. 341] Securities was dissolved. Since December 1, 1938, the shares of United States Rubber common and preferred stock which had been held by Rubber Securities Company have been held individually by the persons who were stockholders in Rubber Securities Company, or their successors in interest, and such holdings have been maintained substantially intact by defendant individuals and ~~class defendants~~ *members of the du Pont family.* The persons now holding the United States Rubber stock, which was distributed as a result of the dissolution of Rubber Securities Company, are, in the main, the same persons who hold a controlling interest in the stock of Delaware Realty and Christiana Securities Company.

2. Control over United States Rubber

117. The stock acquisitions which the syndicate had made by the end of 1927 were sufficient to give the syndicate control over United States Rubber. This control was utilized to make drastic changes in the Board of Directors of United States Rubber. Of the fourteen persons who were on the Board of Directors of that company immediately prior to the beginning of the syndicate's stock purchase operations, four were replaced by joint action of the members of the syndicate in 1928, and another six were replaced in the following year, leaving only four of the original directors remaining on the Board. These four were thereafter replaced. In 1928, the members of the syndicate agreed upon and secured the appointment of Francis B. Davis, Jr., as President of United States Rubber and as a member of its Board of Directors. For many years prior thereto, Francis B. Davis, ~~Sr.~~ *Jr.*, had been one of the top executives of du Pont Company and had also served for a number of years in a high executive capacity with the defendant General Motors Company by desig- [fol. 342] nation of the du Pont Company. The members of the syndicate also instituted a bonus plan for United States Rubber executives which was similar in nature and designed to achieve the same results as the hereinbefore described bonus plan for General Motors executives. Throughout the period of time that the bonus plan for United States Rubber executives has been in operation, the allocation of benefits and the determination of the

amount of such allocation has been made by a committee dominated by persons selected by defendant individuals and ~~class defendants~~ *members of the du Pont family.* As an inevitable and intended consequence of the operation of the plan, United States Rubber executives have responded readily to the influence and desires of du Pont Company.

118. Since in or about 1928 the defendant individuals and the ~~class defendants~~ *members of the du Pont family* who hold United States Rubber stock have, by agreement and understanding among themselves, controlled the selection of the members of the Board of Directors of United States Rubber, and no person has been elected to membership on that Board without the approval of the said individual defendants and those ~~class defendants~~ *members of the du Pont family* who held United States Rubber common stock.

119. The defendant individuals and ~~class defendants~~ *members of the du Pont family* have for many years past held, either directly or through personal holding companies and trusts, approximately 300,000 (or 17 per cent) of the 1,761,092 shares of outstanding common stock of United States Rubber.

120. The common stock of United States Rubber, other than that held by defendant individuals and ~~class defendants~~ *members of the du Pont family,* is distributed among [fol. 343] approximately 14,000 other stockholders who are located all over the United States, as well as in foreign countries. The concentrated stockholdings in United States Rubber of defendant individuals and the ~~class defendants~~ *members of the du Pont family,* as contrasted to the dispersed and small holdings of approximately 14,000 other stockholders, enable the defendant individuals and those ~~class defendants~~ *members of the du Pont family* who own United States Rubber stock to control the selection of members of the Board of Directors, the administration and the policies of United States Rubber.

3. Reciprocal preferences between du Pont Company and United States Rubber

121. Beginning in or about 1928, after the syndicate had taken over control of United States Rubber, that company instituted, by agreement and understanding with

defendant individuals, ~~the class defendants~~ *certain members of the du Pont family* and du Pont Company, the policy of giving preference to du Pont Company over its competitors in making purchases of products which were produced by the du Pont Company. It was agreed that United States Rubber would purchase from du Pont Company all or substantially all of its requirements of products produced by du Pont Company, and would refrain in whole or in major part from purchasing such products from competitors of du Pont Company. It was further understood and agreed that du Pont Company, when it purchased products of the kind produced by United States Rubber, would purchase all or substantially all of such products from United States Rubber. The policy originally established by such agreements was modified to permit each of these companies to purchase limited amounts from competitors of the other. This was done in order to prevent their respective business relations with other firms [fol. 344] from being jeopardized by adhering too rigidly to a policy of total exclusion of competitors from the opportunity of securing some of the business of each of these defendant companies.

4. Reciprocal relations between United States Rubber and General Motors

122. Prior to 1929, United States Rubber had sold practically no tires and tubes to General Motors for use as original equipment on General Motors' cars and trucks, although General Motors was one of the largest of such buyers in the United States. This type of business was regarded by tire and tube manufacturers as being highly desirable because purchasers of motor vehicles tended to purchase replacement tires and tubes of the same make as those which came as original equipment with the car.

123. In 1929 General Motors, because of the stock acquisition by the members of the du Pont family as alleged, began giving United States Rubber a substantial portion of the General Motors business for original equipment tires and tubes. In that year, General Motors arbitrarily granted United States Rubber a minimum of 30 per cent of the tire business of Pontiac Division and a minimum of 15 per cent of the tire business of the Oakland Division, as well as

certain other tire business with the other automotive divisions of General Motors. The grant of this business was made by General Motors in the face of opposition from the sales department of certain of the Divisions and from their dealer organizations.

124. Prior to 1929, the General Motors subsidiary in Canada had, on direct orders of its parent company, been purchasing all of its requirements of tires and tubes from a tire company in which Canadian Industries, Inc., had an interest. (Du Pont Company had approximately 44 per cent interest in the voting stock of Canadian Industries, [fol. 345] Inc.) In 1929, on orders from the parent company, the Canadian subsidiary began buying approximately 50 per cent of its requirements of tires and tubes for original equipment from the Canadian subsidiary of United States Rubber.

125. During 1930, by agreement among the defendants, General Motors and its subsidiaries continued to purchase an increasingly large number of tires and tubes from United States Rubber for use on original equipment. On January 1, 1931, General Motors and United States Rubber entered into a long term contract under the terms of which General Motors agreed on behalf of itself and its subsidiaries and affiliates, including its Canadian subsidiary, to purchase at least 50 per cent of its requirements of original equipment tires and tubes, including spare tires, from United States Rubber. General Motors agreed that it would discourage its dealers and distributors from removing such tires from General Motors cars and trucks and substituting tires manufactured by companies other than United States Rubber. A supplementary agreement entered into between the two companies shortly after the primary agreement was executed increased General Motors' percentage of purchases from United States Rubber by providing for the purchase from United States Rubber of 100 per cent of the tire requirements of the Oldsmobile, Oakland, Pontiac, and GMC truck divisions, and 65 per cent of the requirements of the Cadillac and La Salle Divisions of General Motors.

126. The foregoing agreements provided that General Motors would carry the risk and responsibility of purchasing the rubber and cotton to be used in the manufac-

ture of the tires which it was to purchase from United States Rubber. The agreements also provided that United States Rubber would actually make the purchases as [fol. 346] "agent" for General Motors, and that General Motors would then resell to United States Rubber at cost plus not to exceed 12½ per cent, the rubber and cotton which United States Rubber had itself purchased on General Motors' account. By this means, the agreements provided for the payment to General Motors of a rebate on the price which it paid to United States Rubber for tires and tubes, in an amount equal to 12½ per cent of the cost of the rubber and cotton used therein.

127. In addition to the substantial rebate to be paid to General Motors as profit on fictitious sales of cotton and rubber, the General Motors—United States Rubber contract of 1931 provided for substantially lower prices to General Motors than were to be made available to other purchasers of tires and tubes from United States Rubber. Provision was made within the contract to conceal its terms not only from other United States Rubber customers, but from General Motors employees as well. The contract provided that tires and tubes delivered under the contract were to be built by United States Rubber to the several car and truck divisions of General Motors at fictitious prices which were substantially higher than the true prices. General Motors agreed that its divisions would pay United States Rubber the fictitious prices so billed, and that thereafter United States Rubber would rebate to General Motors the difference between the true price and the fictitious price. This arrangement was carried into effect.

128. An agreement supplementary to the primary agreement of January 1, 1931, provided for special prices on spare tires purchased by General Motors for use as original equipment in addition to the running tires. This agreement provided that the first spare tire was to be sold by United States Rubber to General Motors at prices materially below the price of the running tires while [fol. 347] "second spare" tires were to be provided free of any charge for cars which were to be exported and for cars manufactured by those divisions of General Motors which purchased their entire requirements of tires from United States Rubber.

129. Although varied in detail from time to time, the agreements of 1931 remained in effect until 1933. In that year a new long term purchase agreement was entered into between United States Rubber and General Motors, guaranteeing United States Rubber substantially the same proportion of General Motors' original equipment tire business as had been allocated to United States Rubber in the earlier agreement, but making minor modifications in the pricing formulas. Under the 1933 agreement the prices to be charged by United States Rubber to General Motors were not to be in excess of the lowest prices being charged by United States Rubber and its three principal competitors to General Motors or to any other original equipment purchaser. But in a separate letter agreement, United States Rubber agreed to give General Motors the following discounts:

Volume of sales	Discount
$10,000,000	$ 825,000
$11,000,000	940,000
$12,000,000	1,050,000
$13,000,000	1,200,000
$14,000,000	1,350,000
$15,000,000	1,500,000
And up	10 per cent

130. Thereafter, a disagreement arose between General Motors and United States Rubber as to the amount of rebate which the latter could pay to General Motors and still leave United States Rubber sufficient return to cover its costs. On December 17, 1934, the differences were resolved by a further agreement providing that United States Rubber would guarantee to General Motors a firm discount, to be paid whether or not the net prices paid by [fol. 348] General Motors were sufficient to cover United States Rubber's cost of production, and further providing that United States Rubber would rebate to General Motors one-half of any profits in excess of 10 per cent which it realized on sales to General Motors over and above $15,000,000 annually.

131. From time to time thereafter the amount of the guaranteed discount to be paid to General Motors by United States Rubber was revised and slight changes

made with respect to the percentage of the requirements of the various divisions of General Motors which United States Rubber would supply. In August 1936, the 1933 agreement was further modified to provide that General Motors would buy from United States Rubber 75 per cent of original equipment tires for all divisions except Chevrolet and GMT, and 55 per cent of the requirements of Chevrolet and 66⅔ per cent of the requirements of GMT. United States Rubber agreed to charge General Motors the lowest price available to any purchaser of tires and tubes as original equipment for automobiles from any manufacturer, and in addition agreed to grant General Motors discounts ranging from 1½ per cent on sales of $3,000,000 to 3½ per cent on sales of $21,000,000 and over. A supplemental agreement provided that General Motors' Canadian subsidiary would purchase at least 50 per cent of its requirements from United States Rubber's Canadian subsidiary. These agreements were in effect to January 31, 1942, when they were discontinued because of the wartime emergency. At the conclusion of the war, General Motors resumed its purchases of tires and tubes from United States Rubber on substantially the same basis as had prevailed before the war.

132. Availability of the guaranteed noncompetitive General Motors' market for a tremendous quantity of tires and tubes has enabled United States Rubber to advance [fol. 349] from a position of financial distress to one of profit and power. United States Rubber's direct sales to General Motors during the period 1934 to 1943, approximated $402,000,000. Use of United States Rubber's products as original equipment on General Motors cars also resulted in a proportionate rise in sales of United States Rubber tires and tubes for replacement use.

133. The preferential prices and secret rebates granted to General Motors by United States Rubber, which were unavailable to General Motors' competitors, contributed substantially to the enhancement of the size, power, and market control of General Motors. In addition, as a result of the activities in the acquisition and exercise of control over United States Rubber herein alleged, du Pont Company's expansion has been directly subsidized by profits from closed market sales to United States Rubber

(amounting to over $72,000,000 during the period 1938 to 1947) and indirectly subsidized through the hereinbefore alleged advantages accruing directly to General Motors.

VI

Effects of the Conspiracy

134. The aforesaid agreements and concerted action by the defendants pursuant to and in furtherance of the combination and conspiracy alleged in this Complaint, have had the effects, as intended by the defendants, of permitting the individual defendants and ~~class defendants~~ *members of the du Pont family* to acquire control of du Pont Company in perpetuity through their family holding companies, defendants Christiana and Delaware; of acquiring control of General Motors by du Pont Company; of acquiring control of United States Rubber Company by the individual and ~~class defendants~~ *and members of the du Pont family;* of requiring each defendant manufacturer to purchase its requirements of the products of each [fol. 350] of the other defendant manufacturers in a substantially closed market, thus depriving outside suppliers of an opportunity to compete freely for such business; of increasing the size of such closed market by using the reciprocal benefits of interlocking control, and closed market buying; of increasing the size and competitive position of each of the defendant manufacturers by intercompany subsidization made possible by such interlocking control and reciprocal buying and selling arrangements; of expanding still further the market of each defendant manufacturer by requiring that the outside suppliers of one or more of such defendant manufacturers purchase products from the other defendant manufacturers on the basis of reciprocity, thus depriving such suppliers of an opportunity to purchase their requirements in a free market; of eliminating competition among defendant manufacturers by dividing manufacturing fields between them on an exclusive basis; of enhancing the competitive position of each defendant manufacturer by selling among themselves products manufactured by one and used by the others at discriminatory and preferential prices, and selling to outsiders at higher prices, all of which practices have had the effect

of unreasonably restraining and monopolizing the trade and commerce in which each manufacturing defendant is engaged, in violation of Sections 1 and 2 of the Sherman Act and of Section 7 of the Clayton Act.

Prayer

Wherefore, the Plaintiff prays:

1. That pursuant to Section 5 of the Sherman Act, a summons issue to each of the defendants commanding such defendant to appear and answer the allegations contained in this complaint and to abide by and perform such orders and decrees as the Court may make in the premises.

[fol. 351] 2. That the aforesaid combination and conspiracy, contracts, agreements, arrangements, and understandings in unreasonable restraint of trade and commerce, and conspiracy to monopolize, be adjudged and decreed to be unlawful and in violation of Sections 1 and 2 of the Sherman Act, and of Section 7 of the Clayton Act; and that the Court adjudge and decree that the defendants and each of them *except the beneficiary defendants named in Paragraph 11 of the Complaint as amended*, have combinded and conspired to restrain and to monopolize interstate trade and commerce in violation of Sections 1 and 2 of the Sherman Act and Section 7 of the Clayton Act, as charged.

3. That the defendant du Pont Company be enjoined from paying to its stockholders in the form of stock dividends or otherwise the General Motors stock which du Pont Company holds, and be required promptly to dispose by sale of all of its holdings of such stock in General Motors, and promptly thereafter to pay to its stockholders in cash dividends the entire proceeds of such sale.

4. That pending the aforesaid sale of such stock by defendant du Pont Company, it be enjoined from exercising any voting rights under such stock.

5. That the defendants Christiana and Delaware be enjoined from paying to their stockholders in the form of stock dividends or otherwise any of the voting stock which they hold in General Motors, and be required promptly to dispose by sale of their holdings of such stock,

and promptly thereafter pay to their stockholders in cash dividends the entire proceeds of such sales.

6. That pending the aforesaid sale by Christiana and Delaware of such stock, they be enjoined from exercising any voting rights under it.

[fol. 352] 7. That the defendant General Motors be given the option, for a period of one year, to purchase all or any part of the voting stock of General Motors held by du Pont Company, Christiana and Delaware, the defendant individuals and ~~the class defendants~~ *Wilmington Trust Company and the members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended.*

8. That the defendants Christiana, Delaware, the individual defendants, and ~~the class defendants~~ *Wilmington Trust Company and the members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended*, be enjoined from purchasing or otherwise acquiring any of the voting stock of General Motors which is disposed of by du Pont Company, Christiana and Delaware, and be enjoined from establishing, aiding in the establishment, designating, appointing, nominating, or instructing any subsidiaries, holding companies, trustees, designees or others to acquire such stock on behalf of said defendants, either directly or indirectly.

9. That the defendants Christiana, Delaware, ~~the individual defendants, and the class defendants~~ *and the defendant individuals named in Paragraphs 5 and 9 of this Complaint* be enjoined from in any way aiding or assisting, whether by loans, gifts, or otherwise, any *other* member of the du Pont family ~~not included in this proceeding, as an individual defendant or class defendant~~ in the acquisition of any of the aforesaid stock which du Pont Company, Christiana and Delaware are required as aforesaid to dispose of.

10. That the individual defendants and ~~the class defendants~~ *Wilmington Trust Company and the members of the du Pont family named defendants, in Paragraph 9 of the Complaint as amended* be required to sell or otherwise dispose of all of their voting stock in General Motors and [fol. 353] United States Rubber, however it may be held; be enjoined from establishing, aiding in the establishment, designating, appointing or nominating other companies or

persons to acquire such stock and hold it beneficially for any one or more of such ~~individual~~ defendants ~~or class defendants~~ or any other member of the du Pont family; and be enjoined from disposing of any of such stock, whether by gift, devise, trust agreement, or otherwise, to or for the benefit of any member of the du Pont family.

11. Pending the sale or other disposition by the individual defendants and ~~class defendants~~ *Wilmington Trust Company and those members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended* of their voting stock in General Motors and United States Rubber, that such individual defendants and ~~class defendants~~ *Wilmington Trust Company and those members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended*, and any persons or corporations holding such stock for the beneficial interest of any individual defendant or ~~class defendants~~ *Wilmington Trust Company and those members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended*, be enjoined from exercising voting rights under it.

12. That the defendant United States Rubber be given the option for a period of one year, to purchase all or any part of the voting stock of United States Rubber held or beneficially held by any defendant individual or ~~class defendants~~, *Wilmington Trust Company or any member of the du Pont family named as a defendant in Paragraph 9 of the Complaint as amended.*

13. That defendants du Pont Company, Christiana, Delaware, the individual defendants, and the ~~class defendants~~ *Wilmington Trust Company and those members of the du Pont family named as defendants in Paragraph 9 of the* [fol. 354] *Complaint as amended* be perpetually enjoined from acquiring any capital stock in General Motors or United States Rubber Company, or any company in which either of such companies has a stock or financial interest.

~~14. That the individual defendants and the class defendants be enjoined from in any way aiding or assisting, whether by loans, gifts, or otherwise, any member of the du Pont family not included in this proceeding as a party, in the acquisition of capital stock in General Motors, United States Rubber, or any company in which such companies have any financial interest.~~

15. That the defendant du Pont Company be required to divest itself of its business of making tetraethyl lead, ethyl fluid, ethyl chloride, and be perpetually enjoined from reentering such business.

16. That the defendant General Motors be required to divest itself of all interest in the Ethyl Corporation, but in so doing be enjoined from disposing of such interest as it has to du Pont Company, or any of the other defendants or class defendants *any member of the du Pont family.*

17. That the defendants du Pont Company and General Motors each be required to divest themselves of their respective interests in Kinetic Corporation.

18. That the individual defendants and ~~class defendants~~ *Wilmington Trust Company and the members of the du Pont family named as defendants in Paragraph 9 of the Complaint as amended* be perpetually enjoined from acquiring any stock or other financial interest, either directly or indirectly, through personal holding companies or otherwise, in any of the foregoing enterprises which are required to be divested by any of the defendants, ~~and that~~ [fol. 355] ~~they further be enjoined from aiding any other member of the du Pont family by loans, gifts, or otherwise, to acquire any stock or other financial interest in any of such enterprises.~~

19. That defendants General Motors and United States Rubber each be enjoined from allowing any person to be a member of its Board of Directors, who, at any time during the period from January 1, 1915 to the date of the entry of the final judgment in this cause, was a director, officer, or an employee of du Pont Company.

20. That General Motors, United States Rubber, and du Pont Company each be enjoined from permitting any person, who during the period from 1915 to the date of the entry of the final judgment in this cause was or had been an officer, director, or an employee of any one of the others of such defendant companies, from serving as an officer or director of the company subject to the injunction.

21. That du Pont Company, General Motors, and United States Rubber, their subsidiaries, successors, and assigns each be perpetually enjoined from acquiring or holding

capital stock in any one of the others, or in any company in which such other defendant has a stock or financial interest.

22. That each and every contract between du Pont, General Motors, United States Rubber, or any of them, relating to the sale of goods, the grant of licenses or agreements to license under patents or applications for patents, or agreements providing for the exchange of know-how and information, be canceled.

23. That the plaintiff have such further, general, and different relief as the nature of the case may require and the Court may deem proper in the premises.

[fol. 356] 24. That the plaintiff have the costs of this suit.

~~Melville C. Williams,~~
~~Willis L. Hotchkiss,~~
~~*Special Assistants to the Attorney General.*~~

~~Tom C. Clark,~~
~~*Attorney General.*~~
~~Herbert A. Bergson,~~
~~*Assistant Attorney General.*~~
~~Holmes Baldridge,~~
~~James A. Browning,~~
~~*Special Assistants to the Attorney General.*~~
~~Otto Kerner, Jr.,~~
~~*United States Attorney.*~~

E. Houston Harsha, Ewart Harris, Paul V. Ford, Dorothy M. Hunt, Charles W. Houchins, Francis C. Hoyt, Walter A. Bolinger, Robert L. Eisen, Raymond P. Hernacki, Attorneys for the United States.

James P. McGranery, Attorney General, Newell A. Clapp, Acting Assistant Attorney General, Victor H. Kramer, Trial Attorney, Otto Kerner, Jr., United States Attorney.

[fol. 357] APPENDIX A

Wilmington Trust Company, Trustee under Agreement dated January 30, 1920 for Sophie du Pont May, Margaretta du Pont Greenewalt, Constance du Pont Darden, Eleanor du Pont Rust, Mariana du Pont Silliman, Lucile du Pont Flint and Octavia du Pont Bredin (Trust No. 1114).

Wilmington Trust Company, Trustee under Agreement dated December 27, 1933 for Edward B. du Pont (Trust No. 2031).

Wilmington Trust Company, Trustee under Agreement dated December 26, 1933 for Henry B. du Pont, III (Trust No. 2032).

Wilmington Trust Company, Trustee under Agreement dated December 23, 1933 for Margaret du Pont Smith (Trust No. 2033).

Wilmington Trust Company, Trustee under Agreement dated December 15, 1934 for David Flett du Pont (Trust No. 2085).

Wilmington Trust Company, Trustee under Agreement dated December 15, 1934 for Willis H. du Pont (Trust No. 2086).

Wilmington Trust Company, Trustee under Agreement dated December 22, 1934 for Reynolds du Pont (Trust No. 2098).

Wilmington Trust Company, Trustee under Agreement dated December 22, 1934 for David Flett du Pont (Trust No. 2099).

Wilmington Trust Company, Trustee under Agreement dated August 21, 1935 for George P. Edmonds, Jr. and Andrew W. Edmonds (Trust No. 2243).

Wilmington Trust Company, Trustee under Agreement dated February 26, 1941 for George P. Edmonds, Jr. (Trust No. 3076).

[fols. 358-359] Wilmington Trust Company, Trustee under Agreement dated February 26, 1941 for Andrew W. Edmonds (Trust No. 3077).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Natalie du Pont Edmonds (Trust No. 3103).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Mary du Pont Faulkner (Trust No. 3104).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Esther du Pont Weir (Trust No. 3105).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Lammot du Pont, Jr. (Trust No. 3106).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Pierre S. du Pont, III (Trust No. 3107).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Edith du Pont Riegel (Trust No. 3108).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Alexandrine du Pont Collier (Trust No. 3109).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Reynolds du Pont (Trust No. 3110).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for David Flett du Pont (Trust No. 3111).

Wilmington Trust Company, Trustee under Agreement dated July 18, 1941 for Willis H. du Pont (Trust No. 3112).

[fol. 360] In the United States District Court for the Northern District of Illinois, Eastern Division

[Title omitted]

Answer of E. I. Du Pont de Nemours and Company to Amendment to Complaint—Filed January 26, 1953

The defendant E. I. du Pont de Nemours and Company (hereinafter referred to as du Pont) by its attorneys answers the amended paragraphs of the Complaint herein as follows:

7. Du Pont admits the averments in this paragraph except that it denies that as used in this Answer the terms

defined in Paragraph 7 have the meanings ascribed to them in the Complaint.

8. Du Pont admits the averments of this paragraph to the extent that such averments define terms used in the Complaint. Du Pont denies that as used in this Answer the terms so defined have the meanings ascribed to them in the Complaint. Except as specifically admitted, du Pont denies the averments in this paragraph.

9. Du Pont admits that each of the persons identified in this paragraph is named as a defendant herein; that Lammot du Pont Copeland, Henry Belin du Pont, and Pierre [fol. 361] S. du Pont, III, are Directors of the du Pont Company; and that neither George P. Edmonds nor Colgate W. Darden, Jr., has at any time been a Director of the du Pont Company. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments relating to directorships in other companies, membership in the du Pont family, or ownership of stock in defendant U. S. Rubber. Except as specifically otherwise indicated, du Pont denies the averments in this paragraph.

10. Du Pont admits that the Wilmington Trust Company is named as a defendant herein. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments relating to stock held by defendant Wilmington Trust Company either in its own name or subject to trust arrangements. Except as specifically otherwise indicated, du Pont denies the averments in this paragraph.

11. Du Pont admits that each of the persons identified in this paragraph is named as a defendant herein as a party in interest but not a conspirator. Du Pont is without knowledge or information sufficient to form a belief as to the truth of the averments relating to property owned beneficially by the defendants named in this paragraph. Except as specifically otherwise indicated, du Pont denies the averments in this paragraph.

30. Du Pont denies the averments in this paragraph.

32-35. In answer to these amended paragraphs of the Complaint, du Pont refers to, adopts, re-alleges and incorporates herein by reference Paragraphs 32-35 of its original Answer.

[fols. 362-363] 36. Du Pont admits and avers that as of December 31, 1949, Christiana held 12,199,200 shares (or 27.2 per cent) and Delaware held 1,217,920 shares (or 2.7 per cent) of the outstanding shares (44,833,628) of the common stock of du Pont. Except as to the averments specifically admitted, du Pont denies the averments in this paragraph.

55. In answer to this amended paragraph of the Complaint, du Pont refers to, adopts, re-alleges and incorporates herein by reference Paragraph 55 of its original Answer.

116-121. In answer to these amended paragraphs of the Complaint, du Pont refers to, adopts, re-alleges and incorporates herein by reference Paragraphs 116-121 of its original Answer.

134. In answer to this amended paragraph of the Complaint, du Pont refers to, adopts, re-alleges and incorporates herein by reference Paragraph 134 of its original Answer.

Prayer

Wherefore, du Pont denies that the plaintiff is entitled to the relief prayed for in the Complaint or any part thereof or to any other relief against du Pont and prays for judgment dismissing the Complaint.

Hugh B. Cox, Howard Neitzert, Attorneys for E. I. du Pont de Nemours and Company.

Covington & Burling, 701 Union Trust Building, Washington 5, D. C., REpublic 7-5900, Sidley, Austin, Burgess & Smith, 11 South La Salle Street, Chicago 3, Illinois, STate 2-5400.

[fol. 364] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

ANSWER OF DEFENDANTS CHRISTIANA SECURITIES COMPANY, DELAWARE REALTY AND INVESTMENT COMPANY, PIERRE S. AND IRENEE DU PONT TO AMEND PARAGRAPHS OF COMPLAINT. Filed January 26, 1953.

Defendants Christiana Securities Company, Delaware Realty and Investment Company (described in the complaint as Delaware Realty and Investment Corporation), Pierre S. du Pont and Irenee du Pont, by their attorneys, answer the amended paragraphs of the complaint herein as follows:

7, 8(a) and 8(b). Defendants are advised that it is unnecessary to answer paragraphs 7, 8(a) and 8(b) of the complaint.

9. Defendants deny the allegations contained in paragraph 9 of the complaint except that they admit that the persons therein referred to are named as defendants, that their addresses are as set forth in said paragraph, that each is a member of the du Pont family as defined in paragraph 7 of the complaint, and that each now is or has been a director of one or more of the defendant corporations; [fol. 365] and except that they allege that they are without knowledge or information sufficient to form a belief as to how much, if any, voting stock each holds in the defendant U. S. Rubber.

10. Defendants allege that they are without knowledge or information sufficient to form a belief as to the allegations of paragraph 10 of the complaint except that they admit that Wilmington Trust Company is named a defendant herein; that they deny that they, or upon information and belief Wilmington Trust Company, participated in any combination or conspiracy as therein alleged; and except that defendants Pierre S. du Pont, Irenee du Pont and Christiana each admits that he or it holds voting stock in Wilmington Trust Company.

11. Defendants allege that they are without knowledge or information sufficient to form a belief as to the allega-

tions contained in paragraph 11 of the complaint except that they admit that the individuals therein listed are named as defendants and except that they deny that they, or upon information and belief Wilmington Trust Company, have ever participated in any combination or conspiracy as therein alleged; and except that the defendant Irenee du Pont admits that Irene Sophie du Pont May, Margaretta du Pont Greenewalt, Constance du Pont Darden, Eleanor du Pont Rust, Mariana du Pont Silliman, Octavia Mary du Pont Bredin and Lucile du Pont Flint are each beneficiaries of a trust of which defendant Wilmington is trustee and the assets of which include voting stock of defendant U. S. Rubber.

30. Defendants deny the allegations contained in paragraph 30 of the complaint.

[fols. 366-367] 32-36, 55, 116-118. Defendants refer to and incorporate by reference herein the denials and affirmations contained in paragraphs 32-36 inclusive, 55 and 116-118 inclusive of its original answer.

119. Defendants allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 119 of the complaint, except that they admit that the beneficial ownership of U. S. Rubber common stock by Pierre S. du Pont, Lammot du Pont and Irenee du Pont aggregated 68,816 shares as of April 26, 1950.

120-121, 134. Defendants refer to and incorporate by reference herein the denials and affirmations contained in paragraphs 120-121 inclusive and 134 of its original answer.

Wherefore, defendants deny that the plaintiff is entitled to the relief requested in the complaint or to any other relief, and pray that the complaint be dismissed.

Howard Neitzert, John M. Harlan, Philip C. Scott,
Attorneys for Defendants, Christiana Securities Company, Delaware Realty and Investment Company, Pierre S. du Pont and Irenee du Pont.

Sidley, Austin, Burgess & Smith, 11 South LaSalle Street, Chicago 3, Illinois, STate 2-5400, Root, Ballantine, Harlan, Bushby & Palmer, 31 Nassau Street, New York 5, N. Y., REctor 2-7000.

[fols. 368-369] UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

[Title omitted]

ORDER RE ANSWER OF GENERAL MOTORS CORPORATION—January 28, 1953

On motion of General Motors Corporation, one of the defendants in the above entitled cause, it is hereby ordered that the answer of said defendant heretofore filed herein on April 16, 1951, may stand as its answer to the amended complaint of the plaintiff herein.

Enter: Walter J. La Buy, Judge.

Dated: January 28, 1953.

[fol. 370] UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

[Title omitted]

ORDER DISMISSING COMPLAINT, WITHOUT PREJUDICE, AS TO CERTAIN DEFENDANTS—February 16, 1953

This matter coming on to be heard on the motion of plaintiff, made on January 5, 1953, to dismiss without prejudice the complaint, pursuant to Rule 21 and Rule 41(a)(2) of the Federal Rules of Civil Procedure, as to the following named defendants:

> Irene du Pont, Ernest Nugent May, Ernest Nugent May, Jr., Irenee du Pont May, Crawford Hallock Greenewalt, Nancy Greenewalt Frederick, David Greenewalt, Colgate Whitehead Darden, III, John Bruce Bredin, Robert Barnett Flint, Herbert Kimball Faulkner, Katharine Lewars du Pont, S. Hallock du Pont, Virginia Simmons du Pont, Eve du Pont Remer, Paulina du Pont Dean, Junius Simpson Dean, Wilhelmina du Pont Ross, Donald Peabody Ross, Margaretta du Pont Carpenter, Louisa Carpenter Jenney, Irene Carpenter Kitchell Morgan, Renee Kitchell Lickle,

Robert Ruliph Morgan Carpenter, Jr., William Kemble Carpenter, Hugh Rodney Sharp, Hugh Rodney Sharp, Jr., Bayard Sharp, Henry Harper Silliman, Pamela Cunningham Copeland, Mary Belin Laird Downs, William Winder Laird, Jr., Alletta Laird Downs, Wilhelmina Laird Craven, Rosa Laird Hayward.

[fols. 371-373] And the matter further coming on to be heard on the motion o. plaintiff, made on January 16, 1953, to dismiss without prejudice the complaint as to Irenee du Pont, Jr., pursuant to Rule 21 and Rule 41(a)(2) of the Federal Rules of Civil Procedure;

And the Court having considered said motions and read the briefs of the parties relating thereto, and being fully advised in the premises,

It is hereby ordered and adjudged:

That the motions of plaintiff to dismiss without prejudice the above named defendants be and they hereby are sustained.

Enter: Walter J. LaBuy, United States District Judge.

Date: February 16, 1953.

[fol. 374] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

[Title omitted]

POST TRIAL STIPULATION—Filed August 7, 1953

In order to provide for certain post-trial details it is hereby Stipulated by and between the attorneys for the plaintiff and the attorneys for the defendants E. I. du Pont de Nemours & Company, General Motors Corporation, United States Rubber Company, Christiana Securities Company, Delaware Realty & Investment Corporation, Wilmington Trust Company, Pierre S. du Pont, Irenee du Pont, Lammot du Pont Copeland, Colgate W. Darden, Jr., Henry Belin du Pont, George P. Edmonds, and Pierre S.

du Pont, III, and for the beneficiary defendants named in Paragraph 11 of the Amended Complaint that:

[fol. 375] 1. The provisions of the pre-trial order entered herein on January 5, 1953, shall have no further force and effect, with the exception of the provisions contained in paragraphs 5, A, (1), (2), (4), (5) and (7); 5, B; 5, C; 7; 9; 12; and 14, which shall remain in full force and effect.

2. Subject to the corrections set forth in Appendix A to this stipulation, the version of the transcript of the proceedings which is to be taken as the official and authentic transcript, for the purposes both of the trial and of any appeal which may be taken, shall be the version finally printed by Twentieth Century Press, Inc., 40 South Clinton Street, Chicago, Illinois, following receipt by Twentieth Century Press, Inc., of the corrected galley proof which it has been the custom of counsel for plaintiff and defendants to send to Twentieth Century Press, Inc.

3. Subject to the exceptions, corrections, and amplifications set forth in Appendix B to this stipulation, each exhibit shall be taken to be identified, for the purposes both of the trial and of any appeal which may be taken, by the trial exhibit designation printed or otherwise marked upon the exhibit by the parties in preparation for or during the course of the trial.

4. The list of exhibits the trial exhibit designations of which appear in the column "Received in Evidence" in Appendix C to this stipulation shall be taken, for the purposes both of the trial and of any appeal which may be taken, to be a complete, official, and authentic list of all exhibits received in evidence at the trial.

5. Where the identity of the author or authors of an exhibit is not established by the evidence, the statement of counsel on the record with respect to the identity of such author or authors shall, subject to the exceptions, corrections, or amplifications set forth in Appendix B to this [fol. 376] stipulation, be taken to be correct, for the purposes both of the trial and of any appeal which may be taken.

6. This stipulation and the appendices thereto shall become part of the official and authentic record in the case, for the purposes both of the trial and of any appeal which may be taken.

7. For convenience and uniformity the pages of the transcript shall preferably be referred to in findings and briefs by the printed page numbers alone, without abbreviations such as "Tr" or "R", but the name of the witness may be cited before the page reference and the letters "D" and "X" may be used after the page reference to distinguish between direct and cross-examination. The trial exhibits shall preferably be referred to in findings and briefs by the designating numbers which were assigned to them for the trial, prefaced by the letters "GTX" in the case of Government Trial Exhibits and, for Defendants' Trial Exhibits, by the letters "DP", "GM" or "USR", as the case may be.

8. The Case Hardening Survey—Chicago Office Territory, dated September 16, 1937 from which certain figures as to estimated annual requirements in Defendants' Trial Exhibit No. DP 362 were selected and from which certain statements were referred to on pages 5071-5075 of the transcript, shall be received in evidence as Government Trial Exhibit No. 1408.

9. The following exhibits are to be considered to have been formally placed in evidence at the time they were referred to: GTX 1315-1318, 1334, 1339, 1408; DP 210; USR 58.

10. That portion of the 1917 Report of the du Pont Company to its stockholders which was read into the record at printed page 2245 of the transcript shall be considered to have been placed in evidence as GTX 1409.

[fol. 377] E. Houston Harsha, Attorney for the United States. Howard Neitzert, Attorney for defendants E. I. du Pont de Nemours and Co., Christiana Securities Company, Delaware Realty & Investment Corporation, Pierre S. du Pont and Irenee du Pont. Ferris E. Hurd, T. C. S. per, Attorney for defendant General Motors Corporation. John T. Chadwell, Attorney for defendant United States Rubber Company. Mark H. Clayton, per C. T. Pravgley, Attorney for individual adult defendants (except Pierre S. du Pont, Irenee du Pont and Henry Belin du Pont, III). Guy A. Gladson, Attorney for defendant Wilmington Trust Company. Andrew J. Dallstream, At-

[fols. 378-417] torney for minor defendants of Irenee du Pont family. Andrew J. Dallstream, by Frederic W. Stafford and A. L. Hodson, Howard Ellis, Attorneys for minor defendants of Lammot du Pont family. Howard Ellis, A. L. Hodson, Claude A. Roth, Attorney for defendant Henry Belin du Pont, III, and for Edward Bradford du Pont, minor defendant. Claude A. Roth.

[fol. 418] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

Civil Action 49 C 1071

UNITED STATES OF AMERICA, Plaintiff,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, et al., Defendants

MEMORANDUM OPINION REGARDING ADMISSABILITY OF CERTAIN DOCUMENTS—November 16, 1954

There are forty-five exhibits which have been submitted at the close of the trial and offered in evidence subject to further ruling. Thirty-nine are government exhibits offered as rebuttal evidence and six are defense exhibits offered in surrebuttal.

The major portion of the thirty-nine exhibits offered by the government are directed to trade data. Eleven are statistical charts showing the ultimate percentage of business transacted between General Motors and du Pont and its competitors. To meet the evidence in these exhibits, the defendants have offered six surrebuttal exhibits which are also statistical charts. Twelve government exhibits consist of excerpts from Annual Competitive Reports made by the du Pont Fabrics and Finishes Department to the du Pont Executive Committee regarding trade in these [fol. 419] products and the factors affecting increases or decreases in sales each year. The balance of the government's exhibits consist of various letters or reports written in different years relating to a variety of subjects.

Defendants' principal objections to the government's exhibits are fourfold and are asserted either separately or in combination. These objections are (1) the offered exhibits are not proper rebuttal evidence and were properly a part of the main case; (2) some of them seek to impeach testimony of certain witnesses without having laid a proper foundation for such purpose; and further to allow these exhibits introduced at the close of the trial would be prejudicial to the defendants because the witnesses have been foreclosed the opportunity of being confronted with the alleged impeaching documents; (3) some of the exhibits are inadmissible as being hearsay evidence, and (4) the statistical exhibits are inaccurate and misleading.

The principal objection to the bulk of these exhibits is that they were properly a part of the government's case in chief and pursuant to rules governing orderly presentation of evidence should have been so submitted and not reserved until rebuttal. This is one of the criteria followed [fol. 420] by this court in its ruling with respect to the government's motion for discovery made near the close of the trial. In its memorandum this court recognized that the customary order of presenting evidence was not immutable and was subject to the permeating objectives of litigation to give opportunity for full disclosure of all facts in order to render a just determination. To this end, discretion reposes in the court to admit or reject evidence proffered out of context mindful that no prejudice should be suffered by the one against whom the evidence is offered. Furthermore, in anti-trust cases, if full effect is to be given the anti-trust laws, it is necessary to develop fully the background of facts out of which the alleged conspiracy arose and in which it operated, and that broad discretion and great latitude toward the reception of evidence should be exercised.

In ruling on these exhibits the court considers them in their numerical order.

GTX 199

In 1941 W. S. Carpenter, President of du Pont, wrote to Donaldson Brown at General Motors regarding certain proposed changes in the organization of General Motors [fol. 421] which were being considered by the Policy Com-

6

mittee expressing concern regarding the shortcomings of moving able personnel, specifically a Mr. Bradley, from the financial department to the operations department without providing for equal caliber to fill the vacancy. Mr. Brown replied to Carpenter, which letter has been objected to by the defendants.

In this letter Brown seeks to explain a presumed misconception of Carpenter and Lammot du Pont as "to the strength of personnel in the Finance Department of General Motors" saying:

> "In the first place I think you and Lammot have gained somewhat of a false impression for a too-liberal reading of the organization chart as it has pictured the financial department. My name has appeared in blocks representing Financial Department and also representing the group of activities embracing GMAC, GEIC, and MIC giving to you the impression that I was to be regarded as in administrative charge of these branc-es. Such has not been the case, and the new chart that is being prepared will be corrected and thereby remove any possible misinterpretation in this respect. * * *
>
> "Now, as to the central organization of General motors, as it may be concerned with the financial aspects, there is no weakness existing as I can see it. The application of Mr. Bradley's knowledge and feel of the financial aspects is not lost. In fact it is enhanced by the new duties he has assumed. The financial department remains separate, organizational-wise from operations and is responsible to the Policy side of management. Effort will continue in training of men [fol. 422] in the attainment of experience and skill in dealing with financial aspects and bringing in operating executives to greater consciousness of financial considerations and of the essential principle of coordinated control. * * *"

The basis of the defendant's objection to this exhibit is that it is not proper rebuttal evidence and that at one time plaintiff proposed to offer it as a part of its case in chief. The government maintains it is proper rebuttal of "new subordinate evidential facts" offered by the defense—that defendants introduced organizational charts GM 2-6, inclusive, designed to show that although du Pont representation may dominate the financial affairs of General Motors, there was a sharp separation of finances from operations.

The court is of the opinion this exhibit is proper rebuttal evidence. The objection of the defendants is overruled and the exhibit is received in evidence.

GTX 230

This is a letter written by Sloan on November 28, 1947 to Donaldson Brown concerning General Motors directors. Sloan at the time of this writing was Chairman of the Board and Brown was a member of the General Motors Board, a director of the du Pont Company, a member of the Financial Policy Committee of General Motors, and [fol. 423] also a member of the Finance Committee of the du Pont Company. A copy of this letter was sent to W. S. Carpenter, who was also a member of the General Motors Financial Policy Committee, a director of General Motors and du Pont, a member of the Finance and Executive Committees of the du Pont Company and its then President.

The significant part of the letter from the government's point of view is the last paragraph:

> "I might add to this, that I think the proper group —to the extent that there is a group—to discuss candidates ought to be the members of the Financial Policy Committee. I do not think it is an operating matter, in any sense of the word. By all this I mean, that the recommendations of the Financial Policy Committee, not as a Committee, but as individuals, should determine the recommendations to the Board because I am sure we would feel that the Board should have a voice in determining who is to be added to its membership, aside from the fact that its favorable action is necessary."

The government states it is offered as rebuttal to the testimony of Sloan concerning the manner of the nomination of men to membership of the General Motors Board of Directors; that Sloan's testimony that he discussed such directors with the General Motors Board raised the subordinate factual issue that the advice and guidance of the du Pont representatives on the matter of directors was not sought out and followed any more than any other directors. [fol. 424] (Sloan 2486-7, 2496). It is asserted that financial responsibility for General Motors being regarded as within the acknowledged sphere of the du Pont perimeter, this exhibit shows that Mr. Sloan regarded the Financial Policy Committee as the important body to determine candidacy of Board members of General Motors—ergo, the du Pont members on that committee determined the recommendations to the Board.

Objection has been made by the defendants to the receipt of this letter into evidence for the reasons (1) it is not proper rebuttal evidence and should have been introduced as part of the case in chief since the issue of du Pont influence on directors of General Motors was in the case from the beginning (Amd. Comp. par. 51, Ans. par. 51), and (2) it is not proper for impeaching Sloan's testimony since no proper foundation has been laid and furthermore it was not introduced until the end of the trial when Sloan was no longer available as a witness to be questioned regarding the letter.

The Court is of the opinion that this exhibit was properly a part of the Government's main case and should have been offered earlier. To admit it in evidence at the end of the trial, when the writer was no longer available to testify concerning its contents, would be prejudicial to the [fol. 425] rights of the defendants. Therefore the objections of the defendants are sustained.

GTX 237, GTX 238

These two exhibits are not covered in the government's brief relating to admissibility. Both of these letters were written during July 1923 when the General Motors bonus plan was still in the proposed stage.

In GTX 237 Donaldson Brown, Vice-President of General Motors, wrote to W. S. Carpenter, President of the du Pont Company, who had expressed objection to the contemplated plan on the ground of its "rigidity", stating that he saw this feature as "advantageous provided the plan is administered in the way we have in mind". Brown's objection to Carpenter's suggestions from a tax point of view were that the sale of du Pont's General Motors stock to recipients of bonus awards whose ability to pay therefor would be largely contingent upon further enjoyment of bonuses would put the du Pont Company in an "awkward position in view of the fact, that by reason of its representation on the Finance Committee of General Motors Corporation, it would be in a position to largely control the award of bonuses." GTX 238 is Carpenter's reply to Brown and discusses the proposed plan further in line with his objections.

[fol. 426] Defendants' objections are that these documents are irrelevant and in any event should have been introduced as a part of the case in chief. While these exhibits could properly have been introduced as part of the main case, the court is of the opinion no prejudice results in their introduction as rebuttal material. The objections of the defendants are overruled and the exhibits are received in evidence.

GTX 458

Sloan testified that he invited Pierre du Pont to attend the first meeting of the General Purchasing Committee "simply to give it a little atmosphere" and that neither Pierre du Pont nor Raskob had anything to do with the committee whatsoever and were not concerned with operations. (2548) To rebut this evidence, the Government has offered a memorandum of August 6, 1923 from Sloan directed to Pierre du Pont, John Raskob, C. S. Mott, and Fred J. Fisher reporting on a decision reached at a meeting of the committee wherein he stated that as the result of action by the Operations Committee he had issued instructions that divisions purchasing agents would not be permitted to buy outside of General Motors purchasing committee contracts; that because this was the first time, as a matter of policy, that he had taken away any divisional prerogative, he wanted the Executive Committee to [fol. 427] know and understand the reasons.

Defendants have objected to this exhibit on the ground that it is offered to impeach Sloan's testimony, and that it is not rebuttal evidence. These objections are overruled and the exhibit is received in evidence.

GTX 483-6

These four exhibits represent an exchange of correspondence between John Pratt, Vice-President of General Motors and Gordon Lefebvre, General Manager of General Motors of Canada, and a similar exchange between Pratt and William Coyne of du Pont. Pratt discusses with Lefebvre the switch by General Motors from du Pont to U. S. Industrial Alcohol Company for its thinner requirements in 1927 stating that it had been found necessary as a disciplinary measure to place some of their thinner business with U. S. Industrial Alcohol to bring down the price of Duco and thinner. Pratt wrote to Coyne concerning the problem that du Pont never voluntarily reduced its prices to General Motors on products and had done so only after outside competition had been brought in.

The government states that defendants introduced DP 224 to show that when General Motors failed to renew its six-month contract with U. S. Industrial Alcohol for thinner and purchased it from du Pont, it was because their [fol. 428] price was lower than that of its competitor. To rebut the implication of this evidence that du Pont lost the business for six months and therefore did not occupy a preferential supplier status with General Motors, the government has introduced the aforesaid exhibits. The only objection to these exhibits is that the government had already presented some of its evidence on industrial alcohol during its case in chief—GTX 467-9—and should have introduced these as well.

The objection of the defendants is overruled and these exhibits are received in evidence.

GTX 1347

Sloan testified that du Pont "had nothing to do except to authorize the General Managers Securities Company to sell to the Managers Securities Company a thirty per cent interest in General Managers Securities Company". (2892) He further stated that "on the face of that, it was an impossibility" for the plan to have the effect of inducing General Motors Executives to respond readily to the influences of the du Pont Company. (2906). To show it was not an impossibility and to rebut this assertion, the government has introduced GTX 1347 to demonstrate "how the

General Motors incentive plans have operated to do just what was intended—to place General Motors executives under pressure from the large stockholder, the du Pont [fol. 429] Company."

The exhibit is a memorandum, dated December 5, 1944, from W. S. Carpenter, then a member of the General Motors Policy Committee, a director in General Motors and President of du Pont, to Lammot du Pont, also a member of the Policy Committee, director of General Motors, and Chairman of the Board of the du Pont Company, dealing with two topics: (1) the bonus plan, and (2) advisability of asking a Mr. McLucas to join the General Motors Board. The memorandum refers to George Whitney's conversation with Carpenter about Charles Wilson's comments on the bonus plan. It states:

> "George felt that Wilson's analysis was not a sound one, which by the way I think we might discuss when opportunity affords, but what worried Whitney particularly was the thought he sensed some bitterness on Wilson's part on the relationship of management to stockholding interests. He suggested that I might explore the matter somewhat further with Wilson.
>
> "I am not sure that this impression is a correct one, though Whitney did talk with Wilson at greater length after lunch. As we all know, Wilson is very earnest and very insistent and intent in trying to get over his viewpoint and may sometimes use certain arguments which appear to be somewhat overdrawn. But if there is anything in George Whitney's viewpoint it certainly would be desirable to endeavor to arrest such a feeling before it proceeds too far.
>
> [fol. 430] "My reason for bothering you about this matter at this time is that Wilson is making a talk at your meetings over there and you may have an opportunity of discussing this subject with him."

The letter then continues with respect to the advisability of the appointment of McLucas to the Board,—

> "Wilson seeming rather anxious to do the thing promptly."

Carpenter stated he felt McLucas

> "is in a large measure unqualified because of his present age, though that handicap is somewhat offset by his already considerable familiarity with General Motors. On the other hand, McLucas' handling of the recent Bank of Detroit stock matter has not particularly impressed me with his fitness for the job. * * *"

Defendants assert that Carpenter, Sloan and Wilson all testified and could have explained what Wilson had intended in reference to the bonus plan; that in fact Wilson "was not referring to the du Ponts but was disturbed over the current tax situation which did not permit management to increase its stock holdings and thus participate in the earnings being produced by management to an extent comparable with the benefits enjoyed by the stockholders"; that this explanation is not in the record because the defendants were "tricked into assuming GTX 1347 was not a part of the government's case since it had not been used in the main case." The same assertion is made regarding [fol. 431] the text discussing McLucas; that it was his age that kept him off and that Sloan and management were in agreement on this.

The evidence the government introduced in its case in chief relating to the promulgation, discussion of the plan, the recipients of the awards, the features attendant on partial liquidation of Managers Securities, the minutes of certain meetings of General Managers Securities Company and the du Pont Company holding the du Pont General Motors stock, were all directed to show that du Pont participated in the plan adopted by General Motors. The issue of "responsiveness on the part of General Motors executives to du Pont wishes" was a part of the allegations contained in pars. 53, 54 and 55 of the Amended Complaint. The court is of the opinion that the objection to this exhibit is well-taken particularly as it refers to the bonus plan; that opportunity to explain should have been allowed and to admit this exhibit into evidence without such an opportunity would be prejudicial to the defendants. The objections of the defendants are sustained.

GTX 1348

Lammot du Pont, Chairman of the Board of du Pont, [fol. 432] who had been a member of the Executive Committee of General Motors from 1930-1934, resigned as a member of that Committee. In connection with his resignation, Sloan wrote to Lammot du Pont inquiring whether he would like to have Carpenter elected in his place. This exhibit reads as follows:

> "We were discussing this afternoon the constitution of the Executive Committee and, naturally, the subject came up of your desire to withdraw from the activities of that Committee. * * *
>
> "The purpose of this letter is to ask whether it would be your pleasure for us to extend the invitation to Walter. Everybody thinks very highly of Walter's judgment; he has always been interested in our problems, and we would like very much to have him join the Committee and continue the relationship just as you have, if that should appeal to Walter and yourself.
>
> "I recognize that the principle you have in mind would apply to Walter just as much as it does to yourself, and that is the reason why I haven't advanced it before, but in the hopes of trying to accomplish something in the direction we all think is desirable, I am advancing it at this time specifically. If this should be acceptable to Walter and yourself, there is no reason why it should interfere with the presentations we are arranging to make to such group in Wilmington as you may wish to get together from time to time to deal with them."

The letter has been objected to by the defendants on the ground of the impeachment and non-rebuttal character of the exhibit. The government contends that it is proper [fol. 433] rebuttal evidence since in assembling personnel for management responsibility existing in the Executive Committee, Sloan testified that management directors were always nominated by him "when they achieved in the management hierarchy of the corporation a position which entitled or required that they be on one of the committees of the Board." In addition, the defense have introduced

GM 15-16 to show that Sloan's activities as a director of the du Pont Company was limited to the attendance of very few du Pont Board meetings.

The Government asserts GTX 1348 was introduced to rebut the inference that Sloan selected members of the Executive Committee free from du Pont influence and that he could not be cognizant of du Pont desires as to General Motors because of his inactivity on the du Pont Board; that this exhibit establishes there existed a prevalence of "informal" meetings between Sloan and the top echelon executives of the du Pont Company.

The court is of the opinion the exhibit should be allowed as rebuttal evidence. The objections of the defendants are overruled and the exhibit is received in evidence.

[fol. 434] GTX 1367, 1368

GTX 1367 is a report of the du Pont Cellulose Department of May 15, 1922 and GTX 1368 is a report of the du Pont Paint, Lacquer and Chemicals Department of December 23, 1926. These reports were made to the Executive Committee of du Pont. They are offered by the government to rebut the testimony of A. E. Brown that du Pont's only concern in the fabrics field was with reference to color matching which caused loss of accounts (4558) and Irenee du Pont's denial of any knowledge of competitors selling below cost in an effort to compete with du Pont. (2318). These two exhibits refer to a fabric competitor selling his product below cost. GTX 303 introduced by the government in its case in chief refers to a competitor indulging in such a practice.

The objection of defendants is that these documents are not rebuttal evidence.

These two additional exhibits are cumulative to evidence introduced in the case in chief. The court is of the opinion that the defendants will not be prejudiced by the reception of these exhibits as rebuttal evidence.

The objections of the defendants are overruled and the exhibits are received in evidence.

[fol. 435] GTX 1375-1386

These twelve exhibits consist of excerpts from annual competitive reports made by the du Pont Fabrics and Finishes Department to the Executive Committee for the years 1935-1941, 1946-1950. The government states each was obtained pursuant to subpoena in the closing days of the trial when defense witnesses testified as to the existence of these reports. They are offered to rebut the evidence of the defense on trade relations in fabrics and finishes between du Pont and General Motors.

Richard C. Williams, a du Pont employee, testified as to why General Motors did not purchase some of the automobile finishes listed in defense exhibit DP 176 stating he knew of no reason why it was not buying from du Pont except "quality, service and price". (4233). Exhibits GTX 1375, 1376 and 1379 state that loss of General Motors thinner business was due to the adoption by General Motors of a new formula for 1935, and the improvement in the quality of Duco requiring less thinner for the years 1936 and 1939. Exhibits GTX 1377, 1378, 1380, 1381 and 1382 state that du Pont's decrease or increase in sales to General Motors, as the case may be, was due to General Motors competitive position in the market. For example, GTX 1382 states that in 1946 the strike in the General Motors [fol. 436] plants reduced the competitive position of General Motors and therefore du Pont's sales were also affected. Exhibits GTX 1384, 1385 and 1386 are directed to the same issue; that in 1948 80 per cent of du Pont fabric sales were made to General Motors; in 1949 due to unduly low prices of competitors loss resulted in part of the General Motors fabric business; and in 1950 increased due to General Motors tremendous production.

Exhibits GTX 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385 and 1386 are also directed to show the reasons for the reduction in the supply of fabrics—that is, adoption of the all steel top in automobiles and the reduction and subsequent increase of pyroxylin coated materials due to the introduction of rubber coated fabrics and the final adoption of pyroxylin fabrics as interior trim. The government asserts these are introduced to rebut the testimony of Brown and Nickowitz and defense charts DP 297, 298, 305-6, 307-8, 311-2, directed to show a reduction of fabric sales to General Motors.

Defendants' objections to these exhibits are that they are not rebuttal evidence and seek to impeach the defense witnesses by showing that their reports are inconsistent with their testimony without the laying of any foundation.

The objections of the defendants are overruled and the [fol. 437] exhibits are received in evidence.

GTX 1395

The government has introduced a copy of a letter represented to be written by William C. Durant. By way of stipulation with the defense, the government has established that this copy was taken from the personal files of Durant, which files are in the custody of his widow. Also, by stipulation, the government has established that one Murphy, personal secretary to Durant during the time of the writing of this letter, has identified the letter from the format and contents thereof, and the initial "W" in the lower left-hand corner as a letter dictated by Durant to his then stenographer, Miss Weiller. It was stipulated that Murphy stated that in the ordinary course of business Miss Weiller took dictation of letters from Durant, typed such letters, retaining copies thereof for filing purposes, and mailed such letters.

The copy of the disputed Durant letter is directed to Irenee du Pont, dated March 16, 1921, and reads as follows:

> "I notice in the annual report of the E. I. duPont de Nemours & Co., signed by you, which has been given considerable publicity, the following personal reference:
>
> > 'He desired to resign and sell his interest in the Corporation to liquidate his personal indebtedness [fol. 438] which was very large and pressing.'
>
> "There is evidently some mistake and I feel that I should acquaint you with the facts.
>
> "On the evening of November 15th, a personal friend of mine, representing the duPont interests, called at my apartment and informed me that my resignation as President of the General Motors Corporation was desired and would be accepted—the reason given, that I was not in sympathy with the policies of the controlling interests and would not cooperate. I must and do plead guilty to the charge.
>
> "Two days later, when I came to discuss the matter

> with Mr. P. S. duPont and Mr. Raskob, I told them (and up to that time they knew nothing of the situation) of the burdens which I had assumed in attempting to correct the mistakes and errors which had been made, for which I was in no way responsible, and FROM THAT POINT we started to work out a plan which would relieve me of my embarrassment and which resulted in the duPont Securities Co. taking over my General Motors holdings.
>
> "In our attempt to adjust to the new conditions, I trust nothing will occur to destroy our friendship."

The government states it has introduced this copy for the purpose of rebutting the defense position that Durant took his financial loss and his forced resignation from General Motors in good spirits. In defense exhibit DP 50, a letter written by Pierre du Pont to his brother, Irenee du Pont, on November 26, 1920, the circumstances of the purchase of Durant's holdings and resignation are set [fol. 439] forth; and on page 10 thereof reference is made to the fact that these negotiations involving Durant were "all in good spirit." In addition, the government asserts it is offering the document as a statement made by Durant, who until 1920, was the chief officer of one of alleged conspirators in this case—General Motors. The letter is offered to demonstrate that Durant believed and recognized that his elimination from General Motors was the result of improper pressure brought by those who were in a position, as a result of the unfortunate coincidence of Durant's personal financial difficulties, to force his resignation. The ultimate facts as to the circumstances of Durant's elimination from General Motors are asserted to be for the court to determine. Thus, it is not offered to prove the truth of the facts asserted in the letter, but merely to show Durant's belief that the assertions were true.

The defendants objections are that the document is hearsay and therefore inadmissible and that the authenticity of the document as being written by Durant was also questionable. Defendants contend that it is a declaration by a stranger to the litigation who is not available for cross-examination, that Durant's belief has no significance except as a foundation for an inference that the conduct believed to have occurred did in fact occur, and the ultimate [fol. 440] purpose of the evidence is to prove not the belief but the fact of the conduct. It is also asserted that ambiguities in the language of the letter, without cross-examination, establish conclusions which are nothing more than the writer's conclusions and opinions.

The court is of the opinion that the evidentiary requirements have been met for the introduction of this letter as a copy written by Durant and mailed to the addressee.

More disturbing is the objection that the document is a hearsay declaration. Courts will not receive the testimony of a witness as to what some other person told him as evidence of the existence of the facts asserted even though it consists of a statement based on his own knowledge. This rule is applicable to documentary evidence; that is, letters written by a third person under circumstances which do not render them binding on the party against whom they are offered and where offered to prove the truth of the recitals therein. Such documentary evidence is not admissible to show the truth of the recitals therein.

Wherever an utterance is offered to evidence the state of mind which ensued in another person in consequence of the utterance, it is obvious that no assertive or testimonial use is sought to be made of it. The condition of [fol. 441] the speaker's mind, as to knowledge, belief, or the like, may be evidenced by his utterances as assertions or considered circumstantially as affording indirect inferences. Therefore on this principle the hearsay rule interposes no obstacle to the use of letters, or any form of verbal utterances by one person as circumstantial evidence showing a state of mind. Such a declaration, however, is to be received only as circumstantial evidence to show the fact of the utterance indicating the state of mind or intent, but are not to be used to prove the truth or correctness of such statement. Wigmore on Ev., Vol. VI. §§ 1788, 1789, 1790. In addition, rules of evidence relating to admission or exclusion of evidence are intended primarily for the purpose of withdrawing from a jury matter which might improperly sway the verdict and not for the trial judge who is presumed to act only on proper evidence and questions regarding admission or exclusion of evidence are relatively less important in a case tried to the court without a jury. MacDonnell v. Capital Co. (C. A. 9, 1942) 130 F. (2d) 311, cert. den. 317 U. S. 692.

For the limited purpose then of showing a belief and state of mind, the court is of the opinion the document may be received. The objections of the defendants are overruled, and the letter is received in evidence.

[fol. 442] GTX 1396

This exhibit is a report of the du Pont Fabrics and Finishes Department for April 1931, and states on page 3 that Opel, the German automobile subsidiary of General Motors, transferred its pyroxylin lacquer business from I. G. Farben to du Pont's subsidiary at no price reduction as a result of "pressure from General Motors officials" brought to bear upon Opel. The government asserts that this evidence follows the same pattern causing adoption of Duco a few years earlier by General Motors in the United States. (GTX 377-8; Irenee du Pont 2367). It is urged that this exhibit is admissible to show intent and also proper to show the propensity of the parties to commit the acts alleged in the present suit.

The defendants aver that General Motors witnesses would have testified whether or not the hearsay surmise was accurate and if it was the reason for the change to Duco by Opel. The court is of the opinion the objection is well taken. The objection of defendants is sustained.

GTX 1404

Mr. Sloan was asked whether du Pont ownership of shares in General Motors "has necessarily affected the relationship between the two companies so that they have [fol. 443] become, as you expressed it in one of your letters, one family?". He replied in the negative. (3208). In addition, he later testified that "all transactions were at arm's length based upon the interests of all stockholders in General Motors and no other considerations entered into it so far as business judgment goes." (3212) Other defense witnesses testified to the same effect.

This exhibit is offered to rebut this testimony. It is a letter, dated September 27, 1930, from F. O. Clements, Technical Director of General Motors Research Laboratories to E. K. Bolton, Chemical Director of du Pont, referring to certain developments General Motors had made along lubrication lines, and Mr. Clements stated:

> ". . . I think we can open up to you quite freely.
>
> "We know of no one to whom we would prefer to extend this courtesy, more than your own organization, for we look upon duPonts as sort of grandpa to General Motors."

The defendants state that this exhibit does not refer to any stock investments at all; that the real purpose for which it is offered is to use the letter as proof that General Motors turned over to du Pont developments in the lubricating oil field and offered it as further proof that General Motors turned over its chemical discoveries to du [fol. 444] Pont for development and exploitation. The defendants assert that no opportunity to meet this charge was given in order to show that the lubricating research results were turned over to the oil companies and not to du Pont.

For the limited purpose for which this exhibit is proffered by the government—that is, the relationship between du Pont and General Motors—the court will admit the exhibit. The objections of the defendants are overruled and the exhibit is received in evidence.

Statistical Exhibits

GTX 1343A, 1343B, 1344, 1387, 1393, 1394, 1400, 1389-1392 and 1388

DP 568-573

The court now considers the seventeen charts which have been submitted by the government and the defendants. The purpose underlying their submission is to show the ultimate percentage of business transacted between General Motors and du Pont and its competitors. The charts deal with fabrics, finishes, anti-freeze, adhesives, anodes and chemical solvents.

The accuracy of these respective charts have been challenged and are the primary basis of the respective objections to their admissibility. All of these charts, govern-

[fol. 445] ment and defense, are premised on basic data and figures contained in tables prepared and submitted by General Motors and du Pont in response to grand jury subpoena. As to these basic tables the sole defense objection to their admissibility relates to their character as "rebuttal" evidence. These tables, GTX 1343A and 1344, were prepared by the government from information and figures divulged during the investigation preceding the filing of this action in compliance with grand jury summons.

The admissibility of GTX 1343A, 1343B and 1344 must therefore be determined before proceeding to objections on the respective charts prepared by both parties from them.

GTX 1343A is a table showing dollar volume purchases made by General Motors from suppliers other than duPont in fabrics and finishes for the years 1946, 1947 and the first half of 1948. GTX 1343B is a list sent to all General Motors Divisions by the Comptroller of General Motors instructing them as to what items should be considered in listing competitive products. GTX 1344 is a table of sales by du Pont by product and dollar volume to General Motors for 1938-1941, 1946-1947.

The government asserts that because of initial difficulties with these tables they were not introduced by the government in its case in chief. These difficulties were: First, it [fol. 446] appeared that identical products could not be extracted from the product listings on the tables so as to subject the sales and purchases for such products to comparative scrutiny; Second, it appeared that no proper determination could be made from GTX 1343A as to whether those companies listed as General Motors suppliers were in truth competitors of du Pont in that they supplied a product similar to one made and sold by du Pont. It is stated that as the trial progressed and as the government learned more about the products involved from the testimony of witnesses and from defense exhibits, the two tables became more intelligible. The court is of the opinion these basic tables should be allowed. The objection of defendants to GTX 1343A, 1343B and 1344 are overruled and they are received in evidence.

With respect to the charts prepared by both parties from these basic tables, the primary objection by these respective parties is directed to accuracy in their preparation.

Percentages may be considered as an additional factor, with myriad other circumstances in the evidence of alleged market control and the fact of control.

The court is of the opinion the charts, compilations and tables should be admitted in evidence and their evidentiary [fols. 447-449] value will be considered where pertinent. The objections of the parties relating to their accuracy are overruled and the exhibits are received in evidence.

Walter J. LaBuy, Judge, U. S. District Court.

November 16, 1954.

[fol. 450] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

Civil Action No. 49 C-1071

UNITED STATES OF AMERICA, Plaintiff,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, GENERAL MOTORS CORPORATION, UNITED STATES RUBBER COMPANY, CHRISTIANA SECURITIES COMPANY, DELAWARE REALTY & INVESTMENT CORPORATION, PIERRE S. DU PONT, LAMMOT DU PONT, IRENEE DU PONT, ET AL., Defendants.

OPINION OF JUDGE WALTER J. LABUY—December 3, 1954

[fol. 451] APPEARANCES:

Stanley N. Barnes, Assistant Attorney General, and Victor H. Kramer, Trial Attorney, both of Washington, D. C.; Earl A. Jinkinson and Willis L. Hotchkiss, Special Assistants to the Attorney General; Ewart Harris, Paul V. Ford, Charles W. Houchins, all of Chicago, Illinois, Margaret H. Brass, Washington, D. C., Dorothy M. Hunt, Francis C. Hoyt, and Raymond P. Hernacki, all of Chicago, Illinois, Trial Attorneys. Attorneys for the United States of America.

Covington & Burling, Washington, D. C., by John Lord O'Brian, Hugh B. Cox, Charles A. Horsky, Daniel M. Gribbon, Wilbur R. Lester.

Sidley, Austin, Burgess & Smith, Chicago, Ill., by Howard Neitzert, George Ragland, Jr., Attorneys for Defendant E. I. du Pont de Nemours and Company.

Root, Ballantine, Harlan, Bushby & Palmer, New York, N. Y., by John M. Harlan, Philip C. Scott.

Sidley, Austin, Burgess & Smith, Chicago, Ill., by Howard Neitzert, George Ragland, Jr., Attorneys for Defendants Pierre S. du Pont, Irenee du Pont, Christiana Securities Company and Delaware Realty and Investment Corporation.

[fol. 452] Pope & Ballard, Chicago, Ill., by Ferris E. Hurd, Frank F. Fowle, Jr., Henry M. Hogan, Detroit, Mich., Robert E. Nitschke, Detroit, Mich., James D. Carpenter, Jersey City, N. J., William A. Grier, New York, N. Y., Attorneys for Defendant General Motors Corporation.

Snyder, Chadwell & Fagerburg, Chicago, Ill., by John T. Chadwell, Rudy L. Ruggles, James A. Rahl, Arthur, Dry & Dole, New York, N. Y., by Paul H. Arthur, Morris E. Dry, Nelson F. Taylor, Walter Barthold, Jr., Attorneys for Defendant United States Rubber Company.

Howard Ellis, Chicago, Ill., A. Leslie Hodson, Chicago, Ill., Guardians ad litem for certain minor Defendants.

Andrew J. Dallstream, Chicago, Ill., Guardian ad litem for certain minor Defendants.

Claude A. Roth, Chicago, Ill., Guardian ad litem and Attorney for Henry Belin du Pont, III.

[fol. 453] Moore, Prangley & Clayton, Chicago, Ill., by Mark H. Clayton, Attorney for certain individual Defendants.

Berl, Potter & Anderson, Wilmington, Del., by William S. Potter, William Poole, Attorneys for certain individual Defendants.

Morris, Steel, Nichols & Arsht, Wilmington, Del., by Alexander L. Nichols, Attorney for certain individual Defendants.

Winston, Strawn, Black & Towner, Chicago, Ill., by Guy A. Gladson, Thomas A. Reynolds.

Richards, Layton & Finger, Wilmington, Del., by Robert H. Richards, Jr., Attorneys for Defendant Wilmington Trust Company.

[fol. 454] This action is brought by the United States

Government for alleged violation by defendants of Sections 1 and 2 of the Sherman Act (15 U. S. C. A) declaring illegal every contract, combination, or conspiracy in restraint of trade and prohibiting monopolization or the attempt to monopolize trade and commerce, and Section 7 of the Clayton Act (15 U. S. C. A. § 18) declaring illegal the acquisition of stock by a corporation in another where the effect of such acquisition may be to substantially lessen competition or tend to create a monopoly.

[fol. 455] The defendants against whom the action is brought are named and identified in the amended complaint as follows:

The three defendant "manufacturers": E. I. du Pont de Nemours and Company, General Motors Corporation, and United States Rubber Company. All of these companies transact business within the Northern District of Illinois and are found here.

The three "corporate" defendants: Christiana Securities Company; Delaware Realty & Investment Corporation; and Wilmington Trust Company, individually and as trustee.

The remaining defendants come within the categoric description of "members of the du Pont family." These members of the du Pont family are divided into the following:

The three "defendant individuals": Pierre S. du Pont and Lammot du Pont, for whom Suggestions of Death were filed May 6, 1954 and January 16, 1953, respectively; and Irenee du Pont.

The five "individual defendants": Lammot du Pont Copeland; Colgate W. Darden, Jr.; Henry Belin du Pont; Pierre S. du Pont III; and George P. Edmonds. These defendants are alleged to be members of the du Pont family and to hold substantial amounts of voting stock of the defendant United States Rubber Company.

The twenty-six "beneficiary" defendants, ten of whom are minors, also identified as "party in interest" defendants, who are not named as conspirators and who are beneficiaries of one or more trusts of which the defendant Wilmington is trustee.

With the exception of the twenty-six beneficiary defendants, all defendants are alleged to have participated in acts which violate the anti-trust statutes.

[fol. 456] The Government's statement of the offense is stated as follows:

> The Amended Complaint charges that the defendants have engaged in a conspiracy to restrain trade in certain products produced by the du Pont Company, United States Rubber, and General Motors, in violation of Section 1 of the Sherman Act, and to monopolize a substantial part of such trade in violation of Section 2 of the Sherman Act. It also alleged that the defendant du Pont Company has acquired a controlling interest in the stock or other share capital of General Motors in violation of Section 7 of the Clayton Act. The Amended Complaint states further that the defendants have done the things which they conspired to do, namely, that they have restrained trade and monopolized a part of the commerce in certain products. (Post-trial Brief, U. S., Vol. I, p. 3.)

In its summary of the statement of evidence the Government states that the evidence, when viewed as a whole, shows that the defendants have designed and followed a pattern of business conduct which has three basic objectives. The first of these objectives has consisted of obtaining control of the management and policies of the three manufacturing defendants, du Pont, General Motors, and United States Rubber. The second of these objectives has consisted of the creation and exploitation of protected markets for certain of the products produced by du Pont and United States Rubber, to the exclusion of competitive suppliers. The third of these objectives has consisted of the reservation of certain exclusive fields of production to the du Pont Company. These three purposes have been served by the fostering of a network of interrelationships among the corporate and individual defendants. This has insured the perpetuation of control of the corporate entities [fol. 457] under persons possessing in essence the same interests, and has enhanced the market position of each of the manufacturing defendants.

The Government further charges that the central thread of the entire pattern of conduct is the acquisition of interlocking stock controls and the use of such controls to dominate the management of the controlled corporations. (Post-trial Brief, U. S., Vol. I, p. 5.)

There is no dispute regarding the facts culminating in the formation of the present du Pont Company. From 1802 to 1899 it was operated as a family partnership. The first corporate predecessor to du Pont was formed in 1899. In 1902 T. Coleman du Pont, Alfred I. du Pont, and Pierre S. du Pont acquired the assets of the 1899 company pursuant to a proposal advanced by Alfred I. du Pont. These assets were later taken over by the 1903 company. Until 1915, T. Coleman du Pont was the largest stockholder in du Pont; his holdings being about equal to the combined holdings of Alfred I. du Pont and Pierre S. du Pont. The present du Pont Company was organized in 1915 to succeed the 1903 company.

The factual approach to the issues involved herein will be clarified and simplified by division of this memorandum into two general categories: First, the aspects of alleged control reflected in stock holdings, selection of officers, board and committee members; and, second, the trade aspects. The issue of conspiracy underlying as it does both phases of the case is of necessity interwoven and inseparable and is an ultimate fact which permeates the entire case.

[fol. 458]

Facts as to Control

Christiana and Delaware

In December 1914 T. Coleman du Pont offered to sell a substantial block of his du Pont stock to du Pont for resale by the company to its principal younger executives, but the offer was rejected since the price was considered too high.

In the early part of 1915 T. Coleman du Pont offered to sell his stock to Pierre S. du Pont and others at a higher price.

It is admitted that in 1915 Christiana was formed by a syndicate composed of Pierre S. du Pont, Lammot du Pont, Irenee du Pont, together with A. Felix du Pont, R. R. M. Carpenter, and John J. Raskob, for the purpose of acquiring this stock.

The evidence shows that Christiana was organized so that members of the syndicate could use the stock of the corporation as security for a loan it was necessary for them to obtain to buy the stock of Coleman du Pont.

This block of stock consisting of 63,314 shares of common and 14,599 shares of preferred was transferred to Christiana along with 28,177 shares of du Pont common transferred to it by the six syndicate members. The six incorporators of Christiana held all of the 75,000 shares of Christiana. The day after Christiana was organized each returned to its treasury approximately 15% of the Christiana stock to be distributed to the chairman of the Executive Committee of du Pont, the eight department heads of du Pont, and the General Counsel of du Pont under an agreement that the stock so assigned to each would become his property if he continued in the employ of the company for one year and that no assignee would sell or hypothecate [fol. 459] the stock for three years. After this allocation, the six incorporators held 68,250 shares of the 75,000 outstanding shares of Christiana.

After Coleman's stock had been acquired, Alfred du Pont and others brought suit alleging that Pierre and his associates abused the trust of their official positions in obtaining the Coleman stock. The trial court determined to submit to a vote of the stockholders the question of whether or not the Coleman du Pont stock should be acquired by the du Pont Company. In the ensuing proxy battle, the Pierre S. du Pont group won.

Thus, Christiana at its inception held 91,491 shares of the du Pont common stock amounting to approximately 27% of the du Pont's outstanding common shares. The evidence shows that commencing with the original acquisition of the Coleman stock, this percentage has continued throughout the years and that substantially all the stock now held by Christiana traces directly to the stock transactions occurring in 1915. No additional or other acquisitions of du Pont stock have been made by Christiana, and the evidence shows that a majority, or 68%, of the outstanding Christiana stock has been held continuously by Pierre S. du Pont and the members of the du Pont family, either directly or through Delaware.

In 1923 Pierre S. du Pont, having retired from active business life, decided to invest in an annuity to provide himself and his wife with an appropriate income. His decision to buy an annuity was based in part on the favorable tax treatment granted annuities under the existing tax laws. Pierre S. du Pont being unable to find a standard life insurance company which would offer him an arrangement not involving the sale of his stockholdings which event would depreciate the value of his estate, a group of [fol. 460] his brothers and brothers-in-law offered to sell him an annuity.

In 1923 Pierre S. du Pont transferred the bulk of his holdings in Christiana consisting of 49,000 shares, together with 24,000 shares of du Pont common, and other stock in other companies to Delaware Realty & Investment Corporation, which was specifically organized to hold the same and pay him and his wife an annuity for life. The common stock of Delaware was then divided into eight equal shares for Pierre S. du Pont's eight brothers and sisters or their families.

The evidence shows that the stock of Delaware up to the date of the filing of the complaint has continued to be wholly owned by the members of the du Pont family and in many instances transfers were made through the formation of trusts. Delaware also holds 49,000 shares of Christiana, being Pierre S. du Pont's previous holdings, which constitutes about 32% of the outstanding Christiana stock.

On March 29, 1944 E. H. Tinney, Secretary of Delaware, submitted a memorandum to members of the Advisory Committee of Delaware Realty and Trust dealing primarily with tax considerations on the advisability of liquidating that corporation. In addition to the tax factor, he stated:

> "Liquidation would afford greater flexibility, including better marketability, and permit diversification. Without liquidation, the stockholders are practically compelled to go along together; whereas if liquidated each stockholder could do as he thought best suited his individual purpose. There is no certainty whether those factors would in the final analysis represent reasons for or against liquidation.
>
> Delaware Realty, at least to some extent, facilitates [fol. 461] control of the du Pont and General Motors industries. While liquidation would not eliminate this immediately, it would weaken it; more particularly with the passage of time." (GTX 1335).

There is no evidence that Tinney knew anything about the relations between du Pont and General Motors and no evidence that he knew anything about the intentions of the individual defendants or other members of the du Pont family or that he was acquainted with their state of mind as it related to Delaware. Pierre S. and Irenee du Pont both testified that Delaware was not organized for the purpose of controlling du Pont or General Motors as charged by the Government and that it was not used for that purpose. Similar testimony was given by other individual defendants. Having heard the testimony of these witnesses, the Court finds their testimony more persuasive than the statement of opinion made by Tinney.

Defendants admit that Christiana holds 3,049,800 shares of du Pont common stock out of 11,158,340 outstanding du Pont stock, equivalent to 27%; that Delaware holds 304,480 shares of du Pont common stock, or 3%, of the outstanding du Pont stock; that defendant individuals and certain members of the du Pont family, who are either officers or directors of du Pont, own a further block of approximately 5.3% of the stock of du Pont; while other members of the du Pont family, who are not officers or directors of du Pont, own directly a further 2.2% of the stock of du Pont. Du Pont common stock at the time the complaint was filed was held by 82,000 shareholders.

It is also admitted that 30% of the outstanding du Pont common stock held by Christiana and Delaware has been consistently voted as a block always in support of du Pont management at du Pont stockholder meetings, that di-[fol. 462] rectors of Christiana have in most instances been directors and officers of du Pont, and that defendant individuals, younger members of the du Pont family and officers and directors of Delaware have assumed major responsibilities in du Pont management.

There is no evidence that either Christiana or Delaware, or both of them, had voting control of du Pont. However, the fact that the du Pont family had voting control of Christiana and Delaware whose du Pont stock is consistently voted as a block in favor of du Pont management, coupled with the fact that for many years members of the du Pont family have been major executives of the corporation, indicates control of management of du Pont by the du Pont family.

The Government has failed to prove that the stock held by the defendant individuals and members of the du Pont family in Christiana and Delaware was for the purpose of perpetuating control over the du Pont Company, and has failed to prove that there was any agreement, understanding, or conspiracy that they would continue to hold such stock, keep it within their families, or dispose of or vote the Delaware stock for the purpose of utilizing du Pont to create protected markets for du Pont, or to otherwise restrain or monopolize trade. The Government has further failed to prove that either Christiana or Delaware, or both, were formed, and their stock held, for the purpose of creating protected markets for du Pont and to otherwise restrain or monopolize trade.

General Motors Corporation

In the spring of 1914 Pierre S. du Pont purchased approximately 2000 shares of General Motors upon the recommendation of John J. Raskob. His personal holdings from 1914 to 1917 are set forth in GTX 114. Irenee du [fol. 463] Pont purchased 400 shares of General Motors in 1914 on the expressed enthusiasm of John J. Raskob, but did not know his brother had done the same. His personal holdings from 1914 to 1917 are set forth in GTX 115. He attended no General Motors meetings during this period.

General Motors was organized in 1908 by W. C. Durant and had acquired a number of previously independent automobile manufacturing companies—Buick, Cadillac, Oakland and Oldsmobile. In 1910 in order to raise needed working capital Durant had been compelled to borrow $14,000,000 from a group of "Boston" bankers under a voting trust agreement which supplanted Durant as President by Charles W. Nash, and gave control of the Board of Directors for five years to said bankers. Upon leaving the active management of General Motors, Durant and close associates incorporated the Chevrolet Motor Company to manufacture a new low-priced car. The Chevrolet Motor Company bought stock of General Motors until in 1916 it owned 450,000 shares of common stock out of 825,000 outstanding.

About September 1915 Pierre S. du Pont and John J. Raskob became actively involved in the affairs of General Motors when both attended a stockholders meeting at the invitation of Mr. Kaufman, who was president of the Chatham & Phoenix National Bank of New York. At this meeting, Durant and the lending bankers, who were operating General Motors under the voting trust agreement which expired in 1915, became deadlocked on the composition of a new Board. A compromise was reached whereby both sides agreed that each name seven candidates and Pierre S. du Pont was empowered to name three neutral directors not connected with either Durant or the lending bankers. Pierre S. du Pont submitted the names of J. A. Haskell, who had been a vice-president of du Pont for many years [fol. 464] and now retired; John J. Raskob, Treasurer of du Pont; and Lammot Belin, his brother-in-law. These were accepted by both factions. Pierre S. du Pont was elected Chairman of the Board.

Durant extended an invitation to Pierre S. du Pont and John J. Raskob to become members of the General Motors Finance Committee, which invitation was declined, and in October 1916 both declined chairmanship of that committee. In January 1916 Durant offered Pierre S. du Pont and Raskob the opportunity to exchange their General Motors holdings for Chevrolet Motor stock on the basis of five shares of Chevrolet for one share of General Motors, which offer was declined. Raskob stated "we were not sure he had control of the General Motors Company and being in the position of neutral directors, we might be charged with taking sides should we do anything which would tend to give one side or the other control of the Company." (GTX 119.) After it became clear in May 1916 that Durant, through Chevrolet Motors holdings in General Motors, had obtained control of General Motors, Pierre S. du Pont and Raskob availed themselves of the offer which Durant had held open for them, and as a result Pierre S. du Pont and Raskob became large holders in Chevrolet Motors which controlled General Motors.

In August 1917, Pierre S. du Pont and Raskob accepted Durant's invitation to become members of the General Motors Finance Committee, and Durant suggested that the "Wilmington people, as he called it, take more stock and more interest in the General Motors Corporation." (Pierre S. du Pont 1997) After Pierre S. du Pont and Raskob became members of the Finance Committee both saw a "good deal" more of Durant and he talked freely to them about operations and finances of General Motors and plans for its future expansion.

[fol. 465] Shortly prior to December 19, 1917, Raskob talked with Pierre S. du Pont with respect to a proposed company investment in General Motors. Raskob prepared a draft report in connection with this proposal which was reviewed and approved by Pierre S. du Pont and discussion was had between them regarding parts of the report. Raskob proposed to Pierre S. du Pont that he take on the promotion of such a plan with the du Pont directors and it was submitted in final form as a Report of the Treasurer to the Finance Committee of du Pont. On December 21, 1917 the Executive and Finance Committees of du Pont approved the acquisition of common stock in General Motors and Chevrolet Company in the amount of $25,000,000.

General Industries, Inc., all of whose stock was held by du Pont, was formed to acquire the General Motors stock. By March 8, 1918 General Industries, Inc. had purchased approximately 23% of the common stock of General Motors and Chevrolet. During the next two years the investment was increased to approximately $49,000,000 and in 1920 du Pont owned approximately 23.96% of the outstanding stock of General Motors.

The Raskob report submitted to the Finance and Executive Committees of du Pont in connection with the proposed purchase of General Motors and Chevrolet stock summarized the following points in favor of a substantial investment in the motor industry:

> "1. With Mr. Durant we will have joint control of the companies.
>
> 2. We are immediately to assume charge and be responsible for the financial operation of the Company. This involves the direction of cash balances which will aggregate upwards of $25,000,000 and the handling of annual gross receipts aggregating $350,000,000 to [fol. 466] $400,000,000. From a financial standpoint, I feel that a consolidation of the financial divisions of the du Pont and General Motors Companies will be of tremendous advantage to us as well as to the General Motors Company and is a thing to be sought and desired from our standpoint.

3. The du Pont Company, if the Class A stock is sold to the stockholders, will share in the profits of the industry to an extent equal to 120% on our investment and will receive 14% in annual dividends thereon; or in the event of carrying Class A stock in our Treasury the dividend rate will be about 12.6% and will share in the earnings about 42% and this after paying $20,000,000 war taxes.

4. Our purchase is on better than an asset basis.

5. Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor.

Management

Perhaps it is not made clear that the directorates of the motor companies will be chosen by Du Pont and Durant. Mr. Durant should be continued as President of the Company, Mr. P. S. du Pont will be continued as Chairman of the Board, the Finance Committee will be ours and we will have such representation on the Executive Committee as we desire, and it is the writer's belief that ultimately the Du Pont Company will absolutely control and dominate the whole General Motor's situation with the entire approval of Mr. Durant, who, I think, will eventually place his holdings with us taking his payment therefor in some securities mutually satisfactory. * * *". (GTX 124).

[fol. 467] Announcement of the purchase was made in the annual report of du Pont to its stockholders as follows:

> "Announcement was recently made of the acquisition of a large interest in the General Motors Corporation and Chevrolet Motor Company. Though this is a new line of activity, it is one of great promise and one that seems to be well suited to the character of our organization. The motor companies are very large customers of our Fabrikoid and Pyralin as well as paints and varnishes." (P. S. du Pont 2245).

Raskob's report, the testimony of Pierre S. and Irenee du Pont and all the circumstances leading up to du Pont's acquisition of this substantial interest in General Motors, as shown by the record, establish that the acquisition was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business.

The Government asserts that an agreement was made in 1917 at or about the time of du Pont's investment in General Motors which bound the latter to purchase from du Pont substantially all of its requirements of products of the kind made by du Pont. It also argues that du Pont's investment in General Motors was made with the purpose of using its alleged control of General Motors to require it to buy from du Pont.

The principal basis for both of these contentions appears to be the portion of Raskob's report wherein he stated:

> "Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor." (GTX 124).

[fol. 468] The Court has also considered in passing upon these contentions of the Government the testimony of Pierre S. and Irenee du Pont and other documents written at the time of or within a few years following the investment.

The Court finds on the basis of all of the evidence of record that no agreement was made in connection with du Pont's investment in General Motors, or subsequent thereto, which bound the latter to buy any portion of its requirements from du Pont. Raskob's report does not describe any such agreement. Pierre S. du Pont was party to the preparation of this report and he testified that he had no knowledge of any such agreement. Irenee du Pont similarly testified that he knew of no such agreement. The Court believes it most unlikely that an agreement of the kind alleged by the Government would have been made without the knowledge of these two important officials. On the General Motors side, neither Sloan nor Pratt was ever advised of any such agreement though both occupied positions under Durant in which they would be expected to have known of one had it existed. No document, either contemporaneous with the making of the alleged agreement or subsequently executed, makes reference even indirectly to an agreement of the kind alleged by the Government. The Court does not find in the actions over the years of du Pont's executives or salesmen or General Motors purchasing personnel corroboration of the existence of the alleged agreement.

The Court also finds based on all of the evidence of record that du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests. Du Pont, the record shows, never intended to preclude General Motors from dealing with suppliers of its choice, never [fol. 469] made any effort to so preclude General Motors, and did not limit General Motors' purchasing freedom.

Raskob's reports and other documents written at or near the time of the investment show that du Pont's representatives were well aware that General Motors was a large consumer of products of the kind offered by du Pont. Raskob, for one, thought that du Pont would ultimately get all that business, but there is no evidence that Raskob expected to secure General Motors trade by imposing any limitation upon its freedom to buy from suppliers of its choice. Other documents also establish du Pont's continued interest in selling to General Motors—even to the extent of the latter's entire requirements—but they similarly make no suggestion that the desired result was to be achieved by limiting General Motors purchasing freedom. On the contrary, a number of them explicitly recognized that General Motors trade could only be secured on a competitive basis.

At the time of this investment, Pierre S. du Pont, Haskell and Raskob were members of the General Motors Board and after the investment two additional du Pont nominees were elected to that Board. In 1919 the Board was increased to twenty members and the du Pont nominees remained at six.

The Finance Committee consisted of seven members, five of whom were du Pont representatives—Pierre S. du Pont, Irenee du Pont, John J. Raskob, Henry F. du Pont, and J. A. Haskell. Mr. Raskob was appointed chairman. It is apparent, and it is admitted, that a majority of this committee were officers and directors of du Pont.

The Executive Committee consisted of ten members, including one du Pont nominee, J. A. Haskell, with Durant as chairman and the other members consisting of management representatives.

[fol. 470] The evidence establishes that following the period of this investment until 1920 du Pont and Durant jointly controlled General Motors and that du Pont, through its affiliation with Durant, assumed the responsibility for the financial operation of General Motors.

During 1918 and 1919 General Motors acquired the assets of the Chevrolet Company, United Motors, which was an amalgamation of a number of accessory companies, the McLaughlin Buick properties in Canada, and a sixty per cent interest in Fisher Body Corporation. This expansion of General Motors had required the raising of new capital.

The Board of Directors of General Motors in 1920, after a previous unsuccessful effort to raise the necessary additional capital by an issue of seven per cent debenture stock, authorized an issuance of approximately 3,200,000 shares of new common stock to the common stockholders at $20 per share. It was also decided that du Pont and Durant would turn over their stock subscription rights amounting to 1,800,000 shares to Nobel and Canadian Explosives, Ltd., since Durant and du Pont were reluctant to make any further investments. J. P. Morgan & Co. subscribed to 600,000 shares of the new issue and one of its partners was named to the Board, together with representatives of Nobel and Canadian Explosives. The stock acquisitions of Nobel and Canadian Explosives were in large part taken over by du Pont at a later date.

The evidence shows that this new issue was accompanied by the formation of a syndicate managed by J. P. Morgan to buy and sell General Motors stock and subscription rights for the purpose of supporting the value of General Motors stock in the market. During the Fall of 1920, Durant, through individual stock market operations apparently designed to support the market price, had become [fol. 471] indebted in the amount of $27,000,000 to various banks and brokerage houses for which he had pledged some 2,700,000 shares of General Motors stock. These stock market investments by Durant were disclosed to Pierre S. du Pont and Raskob in November and alarm was felt as to the possible consequences in the event Durant failed in the market. Du Pont Securities Company was organized to borrow $20,000,000 and take over Durant's loans, pay his creditors and preserve for him a 40% equity in du Pont Securities stock, which was later exchanged for 230,000 shares of General Motors stock. The new company had seven million dollars in cash and loaned 1,375,000 shares of General Motors stock to borrow the balance needed. Du Pont in 1921 authorized a bond issue in order to finance the transaction.

The net result of the foregoing stock transactions was that du Pont owned, through du Pont Securities, the equivalent of 7,362,540 shares of General Motors stock at a cost of $75,581,259 and in addition owned directly 200,000 shares acquired at a cost of $4,000,000; being the equivalent of approximately 38% of General Motors stock outstanding.

In 1923 du Pont sold about 2,250,000 shares of General Motors stock (substantially the amount acquired through the 1920 stock transactions) to Managers Securities, a corporation organized by General Motors for the purpose of providing additional incentive to principal executives of General Motors. Du Pont began to surrender the voting right on this stock in 1930, and from time to time thereafter surrendered such rights as holders of Managers Securities stock surrendered their stock and took down the underlying securities. By 1938 du Pont had surrendered the voting rights on all of this stock. It is admitted that since the release of the voting rights to [fol. 472] such stock, du Pont has for many years owned 10,000,000 shares, or approximately 23% of General Motors common stock, and that the remaining shares in 1947 were held by 436,510 stockholders, 92% of whom owned no more than 100 shares each and 60% owned no more than 25 shares each. In 1950 a two for one split was effected resulting in du Pont holding 20,000,000 out of 88,000,000 shares, which did not change the percentage of du Pont holdings.

At the conclusion of the 1920 events Pierre S. du Pont became president of General Motors. He was urged to accept this position by the du Pont Finance Committee since du Pont had a large investment in General Motors to protect. In addition, the record discloses that he was urged to assume the presidency of General Motors by the bankers, by Sloan, and by others in the management.

Pierre S. du Pont held the presidency of General Motors until May 1923 when Alfred P. Sloan became president.

During Pierre S. du Pont's term of presidency significant and important changes were effected within General Motors. These were:

(1) A plan of reorganization for General Motors providing for substantial autonomy of the operating divisions of General Motors. The evidence shows that Pierre S. du Pont presented to the Board a plan, originated by Sloan during Durant's presidency, to decentralize the General Motors divisions.

(2) Certain changes in management and in the personnel of the Executive Committee were made. Under Durant the ten man Executive Committee consisted of managers of the operating divisions. In 1921 the Executive Committee was reduced to four members. They were Pierre S. du Pont, the President; Haskell and Sloan, heads of the Line and Staff Divisions; and John J. Raskob, Chairman of the [fol. 473] Finance Committee. This four man committee was enlarged to six in 1922 by the addition of Charles Fisher, a General Motors director, and C. S. Mott, also a General Motors man. Durant started a competing automobile company and the question of loyalty on the part of some of the car division managers to Durant was one of the reasons for reconstituting the Executive Committee.

The managers of the operating divisions became an Operating Committee under Haskell. Four out of five car division managers were appointed by Pierre S. du Pont, upon the recommendation of Sloan. Of the four replaced, two resigned and two were replaced as a result of disputes regarding contract rights under employment agreements made during Durant's presidency. The four new managers recommended by Sloan had in each case been with General Motors for years and never had any connection with du Pont. Testimony of witnesses shows that the changes in managers were unrelated to the use of du Pont products.

The Finance Committee of General Motors remained the same except the Durant vacancy was filled by Donaldson Brown, a former du Pont employee who was also a member of du Pont's Finance Committee.

(3) A General Purchasing Committee was created in 1922. This committee was created at the suggestion of Sloan in order to enable General Motors to set up machinery for standardizing items and for coordinating purchases where two or more divisions used a common product. James Lynah, who left employment of du Pont in 1919 under "acrimonious" circumstances, was appointed secretary by Sloan and the committee was composed principally of purchasing agents of the General Motors divisions. It is this committee which in September 1923 with Lynah's recommendation urged the adoption of a rule requiring a second source of supply for leather substitutes and rubber [fol. 474] coated fabrics which were being purchased in large quantities from du Pont. John L. Pratt, who was a du Pont employee from 1905 to 1919 when he resigned and went to work for Durant at General Motors, also became a member of this committee and was its chairman from 1924 to 1929.

(4) In 1918, during the Durant regime, at the suggestion of the du Pont nominees, General Motors initiated a bonus plan to outstanding employees. Before retiring as president, Pierre S. du Pont recommended that another plan be instituted providing for additional compensation to principal executives of General Motors.

Allotment of bonus awards was made by the Chief Executive Officer of General Motors subject to the approval of the Finance Committee. This procedure was followed until 1936 when a Bonus and Salary Committee of the Board replaced that function of the Finance Committee.

In addition to these changes in General Motors, two important discoveries affecting the automotive industry occurred.

In the latter part of 1920 Edmund M. Flaherty, an employee of du Pont, invented and carried to the commercial development stage a quick-drying, durable nitrocellulose lacquer, which was patented and called "Duco".

The other was the discovery of tetraethyl lead. In 1918 General Motors engaged in an extensive investigation into the nature and the causes of "knocking" in engines. In the General Motors laboratories chemical research under the direction of Charles F. Kettering and Thomas Midgely developed that the use of tetraethyl lead blended with gasoline in proper proportions constituted an effective anti-knock. It was further revealed that TEL, as it was called, was a scarce and expensive product, production of which [fol. 475] was extremely hazardous. General Motors discovered that TEL could be produced commercially from ethyl bromide. In 1922 General Motors and du Pont entered into an agreement under which du Pont manufactured TEL and it was distributed through a General Motors subsidiary organized to handle its marketing.

The record shows that during the 1920 to 1923 period du Pont had a 38% interest in the stock of General Motors. Three of the six members on the Executive Committee and seven of the eleven members on the Finance Committee were du Pont men. Haskell, former sales manager and vice-president of du Pont, who was willing to undertake the responsibility of keeping du Pont informed of General Motors affairs during Durant's regime, was Vice-President in Charge of the Operations Committee.

The defendants have conceded that "during the period of P. S. du Pont's Chief Executive Officership nominees of du Pont were thrust into positions of responsibility in General Motors which went beyond the financial supervision which had been their earlier role". (D. P. Brief, p. 332).

On April 24, 1923 Pierre S. du Pont informed the Finance Committee of du Pont of his desire to retire as president of General Motors and of his intention to recommend Alfred P. Sloan, Jr., as his successor. Sloan was a vice-president of General Motors and was in charge of the General Advisory Staff. He had been president of Hyatt Roller Bearing Company, one of the companies controlled by United Motors, which had been organized in 1916 by Durant. When General Motors acquired United Motors, Durant appointed Sloan as its president. The Finance Committee of du Pont adopted a resolution acquiescing in Pierre S. du Pont's decision and expressing confidence in Sloan as his successor to the presidency. Thereafter, [fol. 476] Pierre S. du Pont informed the directors of General Motors of his intention to resign and of his recommendation of Sloan for president.

On May 10, 1923 Sloan was elected president of General Motors and also was its Chief Executive Officer from 1937 until 1946. William S. Knudsen was elected president May 3, 1937 and served as such until September 3, 1940. In 1941 Charles E. Wilson was elected President and also became the Chief Executive Officer in 1946. Shortly after Sloan became president he was elected a director of du Pont.

Board Members.

On May 10, 1923 when Sloan became president, the Board consisted of thirty-two directors. The evidence shows that during the period of Sloan's presidency and that of Wilson, the du Pont nominees on the Board never exceeded six. The total number of members of the Board between 1949 and February 1, 1953 did not exceed thirty-two and was not below thirty.

Of the thirty-two directors when Sloan became president, sixteen were so-called management directors and only two of these had been connected with du Pont—Donaldson Brown and Haskell. The other than management directors were five bankers, three American industrialists, and two foreign industrialists:

Sir Harry McGowan of Imperial Chemicals, William McMaster of Canadian Explosives, Seward Prosser of Bankers Trust Co., Edward P. Stettinius of J. P. Morgan, William H. Woodin of American Car & Foundry, C. M. Woolley of American Radiator, and Owen D. Young of General Electric, all became members of the Board during the 1920 financing. There is no evidence that they were added at the suggestion of the du Pont nominees.

[fol. 477] The defendants have admitted that in 1942 du Pont suggested additional directors who were neither management nor du Pont nominees. At that time there were only three directors on the Board who were neither management nor du Pont nominees.

In July 1944 Carpenter wrote to Sloan urging selection of additional non-management and non-du Pont directors. Sloan testified he took the initiative in attempting to find qualified men who would be willing to serve. He also testified that in such search he sought suggestions from other members of the Board, including du Pont nominees, and discussed generally with all Board members the suggestions received.

In 1943 Sloan wrote to Carpenter, who was a member of the General Motors Board, that in his search for "outside" directors, he was "against Bankers on Boards of industrial companies" and had therefore eliminated the suggestions of Henry C. Alexander, Vice-President of J. P. Morgan, and R. K. Mellon, President of Mellon National Bank, whose names had been proposed by Carpenter some time previously. On January 8, 1948, five years later, R. K. Mellon was named to the Board of General Motors at the suggestion of Donaldson Brown. Mellon had by this time become "a very large stockholder in General Motors". In 1949 at the request of Sloan, Alexander, the other banker, was added to the Board. Thus some period of time passed between Sloan's indicated aversion to bankers on boards and the subsequent appointments.

In addition, on December 18, 1944, Lammot du Pont wrote to Sloan regarding Bernard Peyton, a nephew of Eugene du Pont who owned 60,000 shares of du Pont common "which is more than enough to give him a predominating interest in the affairs of that company and indirectly in [fol. 478] General Motors," (GTX 1230). Lammot du Pont wondered if "this would be a suggestion for consideration from the standpoint of directorship in General Motors". Sloan's reply admitted that neither he nor Donaldson Brown, to whom he spoke about Peyton, knew Peyton, and replied that if Peyton was the owner of a large block of du Pont common, involving indirectly substantial ownership in General Motors, together with his past business experience as Vice President and Treasurer of New York Air Brake Company, he would be qualified. He further stated that if necessary he would make inquiries regarding Peyton, but felt that since Lammot du Pont knew him no more was needed. In any event, Peyton never became a member of the Board.

On December 10, 1945 Sloan wrote to Carpenter, then President of du Pont and a member of the General Motors Board, regarding the suggestion of Mr. Pratt to consider General Marshall as a member of the General Motors Board and indicated that he did not favor the suggestion. A reply came from Lammot du Pont, Chairman of the Board of du Pont and also a member of the General Motors Board, that he was not in favor of General Marshall's membership. On Sloan's letter to Carpenter, there appears a handwritten notation of the name of "E. F. Johnson", and in the following month Johnson was elected a director of General Motors. Prior to his service with General Motors, he was an employee of du Pont.

On April 22, 1930, in an exchange of correspondence, Lammot du Pont agreed with Sloan's suggestion that Mr. Bishop should not be re-elected a vice-president of General Motors but thought he should be retained a director, and suggested further that Curtis C. Cooper, who had severed connections with the corporation, be dropped as a director. On May 1, 1930 Mr. Bishop was not re-elected [fol. 479] Vice-President but continued as a director, and Mr. Cooper was not retained as a member of the Board.

In 1928, Raskob, while chairman of the General Motors Finance Committee, became Chairman of the National Democratic Committee in connection with the candidacy of Alfred E. Smith for President. Sloan testified he considered it unsound for Raskob to manage a political campaign and at the same time continue as "unofficial" spokesman for General Motors because he felt it put General Motors in politics. Raskob differed with Sloan's view and was supported by Pierre S., Irenee, and Coleman du Pont. The episode resulted in Raskob's resignation and also the resignation of Pierre S. du Pont as Chairman of the Board. Both, however, remained as members of the Board and the Finance Committee. Lammot du Pont succeeded Pierre S. du Pont as Chairman of the General Motors Board and held that position until 1937.

Mr. Sloan testified that he discussed prospective directors, particularly "outside" directors, with the entire Board.

A majority of the directors have always been the nominees of management. Sloan testified that management directors were always nominated by him when they had achieved in the management hierarchy of the corporation a position which entitled or required that they be on one of the committees of the Board, and further that he never discussed these nominations with anyone except the management group and after his recommendation their election was automatic. Sloan and Carpenter testified that no du Pont nominee ever objected to the number of management directors which Sloan wanted on the Board.

Committees of the Board

The Executive Committee, until merged with the Policy [fol. 480] Committee in 1937, dealt with operational management problems. In May 1923 when Sloan became president of General Motors there were six members, three of whom were du Pont representatives, i.e, Pierre S. du Pont, Chairman of the Board, John J. Raskob, Chairman of the Finance Committee, and Donaldson Brown, a member of the Finance Committee. The membership of this committee was increased to twelve during the period 1923-1934, and new members were added at the suggestion and request of Sloan.

It is the Government's contention that du Pont directly intervened in decisions touching on changes in the membership of the Executive Committee and refer to the incident following the resignation of Raskob and Pierre S. du Pont from the Executive Committee. Irenee du Pont, then Vice-Chairman of the Board of du Pont wrote to Lammot du Pont, Chairman of the Board of General Motors, reminding him of the recommendations made by Pierre S. du Pont and Raskob for their vacancies—that Knudsen be placed on the Executive Committee for Raskob, Mr. Mooney in place of Mr. Mott, and possibly Walter Carpenter in place of Pierre S. du Pont. Knudsen was placed on the Executive Committee within three months; Mooney became a member of the Executive Committee some six years later; and instead of Carpenter, Lammot du Pont took Pierre S. du Pont's place on that committee. Neither Knudsen nor Mooney was connected with du Pont.

On April 22, 1930 Sloan received a reply from Lammot du Pont, then Chairman of the Board of General Motors, which approved of Sloan's idea expressed in an earlier letter of abolishing the Operations Committee and of placing its members on the Executive Committee. Lammot du Pont went on to say this meant that Bradley, Grant, Hunt and Wilson, all of whom were vice-presidents, would [fol. 481] have to become members of the Executive Committee and presumably would have to be elected directors, but added there was no reason why Glancey, Reuter and Strong, who were also vice-presidents, should be added to the Board. Some four or five years later, 1934 and 1935, Bradley, Hunt and Wilson were added to the Executive

Committee and to the Board. The others mentioned by Lammot du Pont never became directors.

Lammot du Pont, Chairman of the General Motors Board, who had become a member of the Executive Committee in 1930, resigned as a member in 1934. In this connection Sloan wrote to Lammot du Pont inquiring whether Lammot du Pont would like to have Carpenter elected in his place. The evidence shows that Carpenter did not go on the Committee and no one replaced Lammot du Pont. After his resignation, du Pont had no representative on the Executive Committee. Donaldson Brown remained a member of this committee.

The Finance Committee until merged with the Policy Committee in 1937 dealt primar-ly with financial matters. In 1923 of the eleven members, seven were du Pont men. These were Pierre S. du Pont, Chairman of the Board of du Pont, Irenee du Pont, President of du Pont, Lammot du Pont, Vice President and a director of du Pont, John J. Raskob, a director and member of the du Pont Finance Committee, J. A. Haskell, a vice-president and director of du Pont, H. F. du Pont, a director and member of the Finance Committee, and Donaldson Brown, a director and member of the Finance Committee of du Pont. With the death of Haskell in 1923, the du Pont representation was reduced to six. The Finance Committee in 1923 with continuing du Pont representation reflected the original understanding with Durant that in financial matters the du Ponts would assume the primary responsibility.

[fol. 482] In 1924 this committee was increased to twelve and eventually to fourteen. In 1927 Carpenter became a member of this committee.

With the resignation of Raskob from the Executive Committee and Chairmanship of the Finance Committee, Lammot du Pont, then President of du Pont and a director of General Motors, wrote to Sloan regarding the chairmanship of this committee stating that he felt it was up to du Pont to make a nomination since du Pont "has always assumed the responsibility for the financial direction of General Motors" and suggested the appointment of Carpenter and, if not agreeable, Donaldson Brown. The record shows that Donaldson Brown succeeded Raskob as Chairman.

On May 3, 1937, the membership of the Finance Committee was fourteen, seven of whom were du Pont representatives, i.e., Pierre S., H. F., Irenee, and Lammot du Pont, Raskob, Brown and Carpenter. The other members were Baker, Prosser, Sloan, Whitney, Morgan, Mott and Bradley. Sloan testified that most of the additions to this committee during the period 1923-1937 had been at his suggestion.

In 1937 at the insistence of Sloan, the two committee operation was consolidated into the Policy Committee. Sloan testified that the change was desirable because experience proved that the Finance Committee for some years prior to 1937 had dealt with problems which though financial in nature were operating problems as well. After some discussion, his recommendation was accepted and a Policy Committee which had complete authority to deal with broad policy questions was established. At this time Sloan resigned as President and was succeeded by Knudsen. Sloan remained the Chief Executive Officer and Chairman of the Board.

[fol. 483] The one committee idea had been discussed with du Pont representatives. It was considered by the Finance Committee of du Pont and the committee was in favor of the objectives of the proposal, but misgivings were expressed with respect to the discontinuance of the Finance Committee without creating some body whose particular function would be the handling of financial problems. A proposed compromise plan was submitted which was not adopted.

In connection with the 1937 reorganization, Lammot du Pont wrote to Carpenter reporting on a conference held in New York. Those present, including himself, were Alfred Sloan, Donaldson Brown, J. T. Smith, John Raskob, John Pratt and Pierre S. du Pont. At this conference it was agreed that the Board would be reduced to 28 omitting McGowan, H. F. du Pont, W. A. Fisher, Kaufman, Opel, Swayne, Woolley and Young; a Policy Committee would be appointed consisting of Bradley, Brown, Knudsen, Sloan, Smith, Wilson and three representatives of du Pont; and an Administrative Committee would be appointed with Wilson as Chairman. In addition it was agreed that eventually Sloan should become Chairman of the Board and

Knudsen, President. Lammot du Pont stated that Sloan seemed so insistent on his one committee idea, which was concurred in by the others, that he felt any objections Carpenter or he had should be waived in view of the fact that some other man of financial experience from du Pont might be named on the Policy Committee.

The record shows that during the life of the Policy Committee, continued misgivings were expressed as to its efficacy. Sloan, Carpenter and Lammot du Pont exchanged correspondence with reference to the weaknesses disclosed by operating under the Policy and Administration Committees. Sloan had reached the conclusion that the com-[fol. 484] mittee set up should be altered. In writing to Donaldson Brown Sloan stated "we put too many things on the Policy Committee that involve administration and do not confine their work sufficiently to broad questions of policy." In addition, Sloan in his correspondence with Lammot du Pont stated that the General Motors Organizational scheme of things was not adaptable to the same type of organizational set up existing in du Pont. A change in committee organization was effected in 1946 by a return to the two committee plan: one was the Financial Policy Committee and the other the Operations Policy Committee. Mr. Sloan testified as to the considerations evoking a return to this system. He also testified that the reason correspondence evidence existed with the du Pont group and none with the management group of directors was that the management group was in the same office and these matters of organization changes were discussed orally with them.

The Policy Committee always consisted of nine members. During the entire period of this committee the following du Pont officers and directors, not incuding Sloan, were members: Donaldson Brown, Carpenter and Lammot du Pont. The management members were Bradley, Sloan, Smith, Wilson and Knudsen, who was replaced by Hunt in 1940 on the nomination of Sloan. The other member was George Whitney of J. P. Morgan. With the exception of Knudsen, the personnel of this committee remained the same throughout its life.

In 1943 Sloan wrote to Lammot du Pont asking his reaction to the suggestion of Kettering as a member of the Policy Committee. Lammot du Pont did not favor the suggestion and Kettering was not appointed. Testifying regarding this incident, Sloan stated that others agreed with Lammot du Pont, including himself after giving the subject further consideration. Sloan also testified that he [fol. 485] consulted with all the directors regarding the appointments to the Policy Committee.

In 1946 with the change of committee organization, there were no du Pont representatives on the Operations Policy Committee. The Financial Policy Committee started with nine members and was later increased to ten. At no time during its existence were there more than three du Pont representatives on this committee.

The evidence shows that since 1934, with the exception of Donaldson Brown, no du Pont representative was on the Executive Committee. Brown had been described by Sloan as a General Motors man although he was a former officer of du Pont, retained his membership on its Board and its Finance Committee when he went to General Motors. Brown became a part of the General Motors organization in 1921 when Raskob in a letter to Irenee du Pont, who was then President of du Pont, wrote that General Motors needed expert financial assistance and that the person selected should not only be a man of unquestioned ability but one who enjoyed the absolute confidence of the directors of du Pont, which now controlled General Motors. He recommended Donaldson Brown and stated that since the financial interests of both companies were so closely interwoven, Brown should be retained as a director and member of the Finance Committee of du Pont. Brown eventually succeeded Raskob in General Motors and became chief financial advisor to its president.

There is no evidence that Brown was active in commercial relations between du Pont and General Motors or that he ever did anything to encourage the use of du Pont products by General Motors.

During the life of the Policy Committee, of a membership of nine, three, including Brown, were du Pont repre-[fol. 486] sentatives. There were no du Pont representatives on the Operations Policy Committee.

On the Finance Committee, which was changed to the Policy Committee in 1937, there were seven du Pont representatives, including Brown, in a total membership of fourteen. Of the ten members on the Financial Policy Committee in 1946, three were du Pont representatives. Thus, numerically, the du Pont representatives were not in a majority on the governing committees of General Motors. The record shows that during 1941 du Pont was interested in the retention and placing of able personnel in the financial department of General Motors.

The participation of the du Pont representatives in the selection of General Motors directors and in determining the organization of the board and the composition of its committees does not establish that du Pont has been the controlling force in the direction of General Motors affairs, or has been in a position to act as if it owned a majority of General Motors stock. The record shows consultation and conference, but not domination. Moreover, in all these matters Sloan has clearly been the leader and the dominating influence and has largely determined the results. With a minimum of consultation with du Pont representatives he has selected the management. In large part, though with somewhat more consultation with du Pont, he has suggested the names of directors and led the discussion in that respect. Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors.

The Court finds it highly significant that in all of the correspondence regarding General Motors directors the attitude of the suggested nominee toward du Pont was in no instance a consideration in his approval or disapproval. [fol. 487] Accordingly, the Court finds, based on all the evidence, that du Pont's participation in the selection of General Motors directors and management does not establish that it controlled General Motors or that it sought through such participation to place people in General Motors who would further du Pont's interests as a supplier or as a chemical manufacturer.

Bonus Plans and Awards

The record shows that in 1923 du Pont sponsored and supported the Managers Securities Plan. The idea had been suggested by Pierre S. du Pont, then President of General Motors, and the details, with some variations before the final adoption, are set forth in a report prepared by Raskob and Brown. This report was submitted to the du Pont Finance Committee and stated that Pierre S. du Pont's interest in the plan caused the report to be made. The report stated that Pierre S. du Pont felt that the most effective manner of attaining maximum success in the conduct of the affairs of General Motors was to interest its principal men as substantial stockholders or partners in the business, that du Pont with its large and controlling interest in General Motors would enhance the value of its own investment by the adoption of such a plan in General Motors and would retain the same control of General Motors through owning two-thirds of the stock of General Motors Securities Company, plus the fact that "it will definitely ti. up with us in the management and control of this huge investment the men in General Motors Corporation who are definitely charged with the responsibility and success of the corporation." (GTX 235).

Managers Securities Corporation was organized by General Motors to purchase 2,250,000 shares, or approximately one-third of the common stock of General Motors Securities [fol. 488] Company, the du Pont Company which held 7,500,000 shares of common stock in General Motors. Du Pont from time to time surrendered voting control of the 2,250,000 shares until 1938 when the successor corporations, General Motors Securities, was liquidated.

In the course of evolving this additional compensation plan, the evidence shows that Irenee du Pont had certain objections and suggested that the stock for Managers Securities be procured through circularization of General Motors stockholders. Mr. Laffey, Chief Counsel for du Pont, advised Irenee du Pont that a direct sale of the stock to General Motors would have incurred a federal capital gains tax. Irenee du Pont testified to this as one of the considerations for the plan ultimately adopted. The plan originally proposed by Raskob and Brown, and objected to by Irenee du Pont, was retained and du Pont supplied the stock which was the sole asset of Managers Securities. The Managers Securities common stock was sold to General Motors and resold by it to about eighty of its executives.

General Motors agreed to pay Managers Securities 5% of its earnings annually, plus $2,000,000 per year, after deducing 7% on invested capital. Prior to Managers Securities, General Motors had annually set aside 10% of its earnings, after deducing 6% on invested capital, for the bonus fund. With the creation of Managers Securities, one-half of the 10% previously set aside for the bonus plan, or 5%, was allocated to Managers Securities for distribution in Class A stock, having a par value of $100, and Class B stock, having a par value of $25. Sloan testified that the Class A, five million par value stock of Managers Securities was not entirely allotted to executives, a reserve being held so that in subsequent years the allotment to Managers Securities was reduced below 5%, the balance going to the bonus fund. The Class B stock of Managers [fol. 489] Securities received the dividends earned by 2,250,000 General Motors common purchased by Managers Securities from du Pont.

The executives purchasing Managers Securities stock paid one-seventh of the purchase price in cash and the balance was paid on a deferred payment basis out of future bonuses and out of the earnings of the stock purchased.

The Board of Directors created a committee which was empowered to designate the employees of General Motors who were to participate in the Managers Securities stock. This committee consisted of three members—Pierre S. du Pont, Chairman of the Board, and two other directors, Seward Prosser of J. P. Morgan, and Arthur G. Bishop, President of a Flint, Michigan, bank.

Sloan testified the stock allotments were made and determined by the special committee, then submitted to him as Chief Executive Officer for consideration and recommendation in the way of changes in the allotments. The initial awards of Managers Securities stock were made November 22, 1923 when Pierre S. du Pont wrote to the two other members of his committee making suggestions as to the distributions of stock. Sloan testified that the original allotment by the committee was made before submission to him, that Exhibit GM 30 contained the final allotment after submission to him, and showed the changes he had made.

Pierre S. du Pont testified the general method followed in bringing to the Special Committee recommendations for allotments for General Motors personnel of Managers Securities stock was that allotments were initiated by heads of the different departments of General Motors in a recommendation to the president of the corporation, who expressed his opinion thereon and passed the entire recommendation to the committee of three and so far as he knew no recommendation was changed by the commit- [fol. 490] tee after it came from Sloan. Sloan testified that bonuses were distributed by the Chief Executive Officer of the corporation whose recommendations went before the Finance Committee for approval. He further testified that although the chief executive officer had jurisdiction so far as the higher executives of the corporation were concerned, their compensation came through Managers Securities and he made no allotments to the higher officers since it was automatic and determined by the Special Allotment Committee. With respect to the operation of the bonus plan, he stated that although the responsibility rested with the chief executive officer he could not determine the allotments in the lower echelon of authority. A certain amount was allocated to a division and the chief executive of the division was the responsible agent in distributing the bonus within that division. He then submitted his recommendations to the chief executive officer who in turn submitted them to the Finance Committee until the year 1936 and thereafter to the Bonus and Salary Committee. Sloan testified that he could not remember any instance where the recommendations so made were changed by the Finance Committee or the Bonus and Salary Committee.

In 1923 the Finance Committee of General Motors, which received the recommendations of the Chief Executive, and the heads of the divisions, still reflected the original understanding with Durant that in financial matters du Pont would assume primary responsibility. Du Pont had six representatives in a total membership of eleven. After the membership was increased to fourteen in 1923, there were six du Pont representatives.

For the years preceding 1941 there are no records of the personnel of the Bonus and Salary Committee which replaced the function of the Finance Committee in connection [fol. 491] with the compensation plan. From 1941 to 1948, Government Exhibit 276 shows that of the five directors constituting this committee, the majority were du Pont representatives. They were W. S. Carpenter 1941-1944; H. B. du Pont 1944-1948; John J. Raskob 1941-1945;

Echols 1946-1948; and Lammot du Pont 1941-1945, who was also its chairman during that period. The other members were John L. Pratt 1941-1946; George Whitney 1941-1948; and E. F. Johnson 1947-1948. Carpenter suggested his position on the Bonus and Salary Committee in 1944 be taken by H. B. du Pont and added that this would give H. B. du Pont "an excellent opportunity to better familiarizing himself with the personnel" of General Motors. (GTX 210).

Mr. Sloan and Pierre S. du Pont testified that in the allocations made no consideration was given to the purchasing practices or attitudes of any executives toward du Pont.

The Managers Securities Plan as submitted and approved by the General Motors stockholders gave the corporation an irrevocable option to repurchase all or any part of the Class A or B stock and provided that the Finance Committee make a yearly review of the recipients of stock for the purpose of determining whether their stockholdings were disproportionate to the service being rendered, and providing for repurchase of stock in the event it was so found.

The Managers Securities Plan was terminated in 1929 because with the increase in the number of executives it was felt "something had to be done to broaden the scope of the plan." On January 1, 1930 a new seven year plan was developed and General Motors Management Corporation was organized. Du Pont did not provide any of the stock for this new corporation. Upon the expiration of the Management Corporation plan in 1938, General Motors [fol. 492] reverted to the old Bonus Plan as the sole vehicle for rewarding its personnel.

The Court finds no evidence that any action taken by du Pont representatives with respect to the compensation of General Motors executives was intended to influence those executives to deal with du Pont or to refrain from dealing with du Pont competitors. Nor is there evidence of any instance in which a General Motors executive favored du Pont out of consideration for the latter's sale of stock to Managers Securities Company or out of deference to the position of du Pont representatives on the General Motors board.

Du Pont for many years has had supplemental compensation plans in various forms. Pierre S. and Irenee du Pont testified that they believed strongly that management should share in the success of a company and should participate in its earnings as owners. Their sponsorship of the Managers' Securities Plan was no more than the application to General Motors of a business principle they had long practiced.

The record shows that some du Pont representatives did participate in the determination of the allotments under the Managers Securities plan and the bonus awards. There was opportunity, therefore, for them, in passing judgment on such matters, to attempt to further du Pont interests as a supplier of General Motors and as a chemical manufacturer. However, there is no evidence that any of them made any such attempt. The witnesses who testified and who would have been parties to such efforts vigorously denied the Government's charges. The Court refers to Pierre S. du Pont, Irenee du Pont, and Carpenter. A number of other executives who were witnesses such as Sloan, Kettering, Pratt, Lawrence Fisher, Lynah, and Wilson are [fol. 493] among those who would have been "influenced", if the Government's contention is correct. These men, the record shows, acted at all times solely in the best interest of General Motors.

The record as a whole and the findings made in the previous sections of this memorandum support these further findings on the issue of the alleged control of General Motors.

After the dramatic collapse of Durant and the ensuing financial crisis when du Pont representatives were thrust into positions of responsibility in General Motors, and after General Motors had been rescued from that crisis, du Pont's influence and position in General Motors declined radically. During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management, headed by such a forceful and resolute character as Sloan and including such positive personalities as Kettering, the Fisher brothers, Knudsen, Pratt, Brown, and Wilson.

More than a quarter of a century has passed since the twenties, and the strength and standing of the management have continued to increase and improve. The du Pont representatives who had originally been interested in General Motors have died or retired. These developments are reflected in the contemporaneous documents, the changes in the membership of the board, the various committees of the board, and in the testimony of Sloan and other witnesses.

Irrespective of what its position may have been before and during the Durant crisis, since the 1920's du Pont has not had, and does not today have, practical or working control of General Motors. On the basis of all of the evidence the Court finds as a fact that du Pont did not and could not conduct itself, for the past 25 years, as though it were the owner of a majority of the General Motors stock.

[fol. 494] The Government cross-examined Sloan respecting GTX 1307 which shows the percentage that the du Pont stock voted at the annual General Motors stockholders meetings bears to the total stock voted at such meetings. Counsel for the Government sought to obtain from him an admission or concession that du Pont's block of stock was at all times sufficient to prevail at a stockholders meeting. Sloan's position was that he did not believe one could tell what would happen if there was a conflict at a stockholders meeting. He pointed out that, for instance, in the year 1932 there were 17 million shares which were not represented at the meeting and further stated that, if there had been a contest for directors, there would have been a much larger representation than 26 million shares. His conclusion was that he did not think that anyone could tell how that large representation would vote because it would depend upon the issue that caused a particular conflict. He further stated that the stockholders owning those shares would be guided by the record of General Motors Corporation with respect to the advancement of its competitive position, its earnings, and its dividends.

Sloan testified that at no time had there been a contest over the selection of directors. He said that while it was true that the du Pont block of stock represented over 51% of the stock at certain of the meetings he emphasized that it was not 51% of *all* the stock entitled to vote. In this connection he said:

> "In case of conflict you immediately—the interest you arouse and all that, and the issues that are put

> before the stockholders, would mean that a much larger percentage of the stockholders would come into the meeting, and that would dilute in a way the du Pont interest. So I can't just say what would happen. * * * It would depend, as I say, upon a lot of circumstances that I can't evaluate." (3087)

[fol. 495] The Court finds the testimony of Sloan on this question of control both reasonable and persuasive.

There is a substantial failure of proof that du Pont controlled General Motors, even though it was voting at times 51% of the stock voted at a stockholders meeting. The testimony is that there was such satisfaction with the management and operation of General Motors that a large number of stockholders did not choose to vote their stock and made no protest with respect to the management of the company or the actions of the Board of Directors. It is entirely conjectural whether or not du Pont by its stock ownership could control if there had been a contest.

United States Rubber Company

It is admitted that in June 1927 the defendant individuals, together with Henry B. du Pont, Lammot du Pont Copeland and certain other members of the du Pont family and their close business associates formed a syndicate to purchase United States Rubber stock. It is the Government's contention that the syndicate's acquisition of this stock stemmed from a scheme to bring United States Rubber into the alleged conspiratorial plan involving General Motors and the du Pont Company. United States Rubber Company at this time was one of the largest manufacturers of rubber products in the United States.

In 1913 Irenee du Pont purchased 400 shares of United States Rubber common as a personal investment. He testified he made this initial investment through his confidence in a former fraternity brother, Raymond B. Price, who had invented a rubber reclaiming process which was sold to United States Rubber, and because he "was quite aware of the peculiar properties of rubber" and felt a "rubber company ought to be a good growing business." He later in- [fol. 496] creased his holdings to 12,000 shares and the extent of his investment from 1913-1926 is set forth in

GTX 1,029. During this same period, Lammot du Pont had also invested in United States Rubber common without the knowledge of his brother, Irenee.

Irenee du Pont testified as to the background, the reasons and circumstances which caused the formation of the syndicate to buy United States Rubber stock. He stated that in 1927 the stock took a very "sudden nosedive", but the stock of other rubber companies remained firm; that he believed the drop in price was due to the fact that "somebody knew the position of the United States Rubber Company was not what it ought to be; that there had been mismanagement somewhere, and somebody wanted to get out of it and get into something else"; that the United States Rubber balance sheet showed excessive accounts receivable, and excessive inventories, materials, supplies, and finished products which he thought indicated incompetent financial management. However, he thought this was a good time for a profitable investment in United States Rubber, but since it would have required a larger investment than he could properly go into alone, he discussed the formation of a syndicate to purchase United States Rubber stock with his brother-in-law, William Winder Laird. He testified that he and Laird were of the opinion that if they could get a group to purchase a large block they would establish prestige with the management and be in a position to make suggestions and offer criticisms.

Without discussing the identity of the syndicate members with Irenee du Pont, Laird drew a syndicate agreement. With the exception of Raymond Price and Henry Davis, who were solicited by Irenee du Pont, Laird solicited the other ten members of the first syndicate who were, in the main, clients of Laird's brokerage firm.

[fol. 497] Irenee du Pont wired Raymond Price on June 17 1927, as follows:

> "Would you join syndicate to buy control your former company." (GTX903).

He also sent him a letter reciting the fact that it would be a good plan to organize a syndicate to acquire control. Price accepted the invitation. On June 30, 1927, Irenee du Pont wrote inquiring whether Price would return to United States Rubber if "we should succeed in getting a large block and had a voice in the management". (GTX 906). Irenee du Pont testified this invitation to Price was not to replace anybody with him, since they "were backing the management, not through revamping the management" but supporting the management with the best advice. He stated that the syndicate thought the company would be impressed by the weight of a large stockholder, would get the matter "cleaned up" and as a result the company as a whole would prosper.

The syndicate agreement dated June 30, 1927 recited that the purpose was to acquire common stock in "quantities sufficient to give practical control, or at least a voice in the management". There were twelve persons in the syndicate at its inception. With the exceptions of Price and Henry Davis, all were stockholders in Christiana Securities and four—Irenee, Lammot and H. B. du Pont and W. W. Laird—who subscribed for over half of the amount were Delaware stockholders. Six of the subscribers were directors of the du Pont Company and the rest, with the exception of Price and Davis, were members of the du Pont family. At this time Irenee du Pont was Vice-Chairman of the Board of du Pont and Lammot du Pont was its President. Both were serving on the Finance Committees of General Motors and the du Pont Company.

[fol. 498] A report, addressed to Mr. Laird and presumably undertaken at his suggestion, was submitted on August 4, 1927 by Mr. Lytle on the problems and potentialities of United States Rubber. It was brought to Irenee du Pont's attention and he testified that it confirmed his views of the problems besetting United States Rubber.

A second syndicate was formed September 2, 1927 after the first syndicate had purchased 97,750 shares of United States Rubber stock. The second syndicate was formed in order to admit six additional subscribers. Among them was Pierre S. du Pont, who was Chairman of the Board of du Pont and General Motors, a member of the Executive Committee of General Motors, and also a member of the Finance Committees of du Pont and General Motors. With the exception of H. S. Meeds, Jr., the additional subscribers were Christiana or Delaware stockholders.

By December 9, 1927 the syndicate had purchased 154,750 shares of common stock, or 11% of the 1,379,503 total outstanding shares, both preferred and common, since both had voting rights. Of the 154,750 shares, the defendant individuals and members of the du Pont family, all of whom were stockholders in Christiana or Delaware, held 149,500 shares and the balance of 5,250 shares was held by Henry Davis, Raymond Price, and H. S. Meeds.

In December 1927 the syndicate operation was closed and some 154,000 shares of United States Rubber common were distributed to the syndicate members. Irenee du Pont testified that because they already had the ear of management there was no further need for the syndicate. In connection with the syndicate dissolution, H. B. du Pont wrote to Irenee and Lammot du Pont and other members on December 30, 1927 suggesting a voting trust of the syndicate stock be formed. On January 25, 1928 Henry B. du Pont, in writ- [fol. 499] ing to Pierre S. du Pont, indicated that all the members of the syndicate approved the idea and it was agreed that the trustees—Irenee and H. B. du Pont and H. S. Meeds—were to receive the stock from the syndicate members, deposit it in a box at the Wilmington Trust Company, and vote the stock as they saw fit. Irenee du Pont testified the reason for this procedure was to reassure Seger, then President of United States Rubber, that the investment by the group was not for speculation and also to make it possible to vote the stock as a unit.

In December 1929 after the termination of the second voting trust, Rubber Securities Company was organized by the syndicate members. Irenee du Pont had written to the syndicate members the month preceding that Mr. F. B. Davis, Jr., President, Mr. William de Krafft and Mr. Henry Davis, Directors of United States Rubber, were willing to undertake to organize a company to be known as Rubber Securities Company with a capital of 110,000 shares for the purpose of centralizing control of certain stock of United States Rubber. The syndicate stock of 25[illegible],300 common shares was to be sold at $26.50 to Rubber Securities; Rubber Securities stock was to be issued and subscribed to by such of the syndicate members who cared to subscribe in an amount equal to $29.50 for each share of United States Rubber common. This sale of syndicate stock to Rubber Securities permitted the members to crystalize a tax loss since the stock had been purchased at $40.50 per share.

Thus, H. S. Meeds, Jr. wrote to Irenee and Lammot du Pont on December 14, 1928 proposing the formation of a corporation with a view of taking advantage of such losses and expressing the belief that a corporation would offer a better means for "concerted action of the several interests involved" and suggested a Delaware corporation be formed.

In connection with the formation of Rubber Securities, [fol. 500] Irenee du Pont invited Cyrus Eaton, a banker, to join in the purchase of Rubber Securities stock and sell his United States Rubber shares to Rubber Securities. It appears from the record that Eaton, through Continental Shares, had about 100,000 shares of United States Rubber stock. Irenee du Pont testified that he thought it would be a very good thing to have him "definitely working with us rather than against us." Eaton refused the invitation.

The idea of centralizing the stock holdings of the syndicate members was one of the purposes for the creation of the new corporation. This is shown by both the record and testimony of Pierre S. du Pont.

Rubber Securities issued 106,335 shares of stock. A total of 101,146 shares was held by the members of the du Pont family; 80,930 shares were held by Delaware stockholders, and 5,159 shares were held by others who were not stockholders in Delaware or Christiana. Thus, 95% of Rubber Securities stock was held by Delaware and Christiana stockholders. Rubber Securities Company in December 1929 held 314,000 shares of United States Rubber common and 46,000 shares of preferred, or about 17% of the voting stock of 2,107,915 shares. It is admitted that this stock was voted as a unit at United States Rubber stockholders meetings.

The stock of Rubber Securities was closely held and kept intact until November 13, 1937 when, in anticipation of its dissolution, its stockholders received United States Rubber preferred and common stock on an approximate pro rata exchange for Rubber Securities stock. The reason for the dissolution of Rubber Securities, which was completed by December 1, 1938, was stated by Irenee du Pont to be a feeling among the stockholders that they would like to have something of tangible value on the stock exchange that they could borrow on as collateral and, further, the need for holding the group together had disappeared because they [fol. 501] had the ear of management.

After the dissolution of Rubber Securities, the holdings of United States Rubber stock were held by individuals and members of the du Pont family. These holdings have remained substantially intact since the dissolution of Rubber Securities. On June 30, 1949 the members of the du Pont family held a total of 324,516 shares of United States Rubber common, or 18% of a total of 1,761,000 shares, and 75,619 preferred, or 11%, of a total of 651,000 shares. The record shows that there were 14,000 other stockholders in United States Rubber besides the holdings above described. United States Rubber has introduced evidence showing that from 71.7% to 76.8% of United States Rubber stockholders were represented at the annual stockholders meetings for the years 1947-1949. At no time subsequent to the dissolution of Rubber Securities have the members of the du Pont family held more than 17% of the United States Rubber voting stock.

Irenee, Lammot and Henry B. du Pont transferred large blocks of their original holdings of Rubber Securities stock to trusts for the benefit of their children wherein the Wilmington Trust Company was designated as the trustee. On June 30, 1949 the Wilmington Trust Company held approximately 150,425 shares of United States Rubber common and 17,736 shares of United States Rubber preferred in the various trusts so established. Thus, almost one-half of the family holdings in United States Rubber common stock are held by the Wilmington Trust Company, as trustee. Most of the trust agreements provided that stock in the corpus of the estate may be voted by the trustee only with the advice and consent of a designated Advisor. Twenty-one of these trusts are listed in Appendix A to the Amended Complaint.

[fol. 502] In this connection the Government asserts that the Wilmington Trust Company is controlled by the du Pont family and this control directed the voting of shares of United States Rubber held by Wilmington Trust as trustee.

George Edmonds, President and Director of the Wilmington Trust Company, testified that the provisions regarding the holding and voting of securities underlying the trusts were entirely usual and in common use throughout the country; that specific or "blanket" approval by the Advisor to vote all the stock in a particular trust in favor of the management, provided there is no dispute, is required before the trustee will vote the stock; that where there is no contest for election of directors or other controversial question, the trustee follows the policy of voting for the management.

The members of the du Pont family hold 31,590 shares of voting stock in Wilmington Trust, and Christiana Securities holds 7,210 shares, constituting 24% of the total 161,150 shares of outstanding Wilmington Trust stock. The Raskob report lists the Wilmington Trust under the heading of "du Pont control". The government has introduced GTX 3 and 1276 to show that members of the du Pont family and their close associates have been and are directors of Wilmington Trust. As of June 1949, the board of Wilmington Trust consisted of twenty-two directors, seven were members of the du Pont family and three were their close associates.

Kuhn, Loeb & Co. had been issuing bankers for United States Rubber since 1917 and had been underwriters for about twelve issues of United States Rubber securities before 1927. It was in connection with the 1917 financing that Seger became a director in United States Rubber on recommendation of Kuhn, Loeb.

[fol. 503] Beginning in October 1927 Irenee du Pont had a series of meetings with Charles B. Seger, whom he met for the first time in July and who was the President and Chairman of the Board of United States Rubber. Irenee du Pont testified that the first time he met him, Seger inquired whether he had called to obtain his resignation. Irenee du Pont replied that they had bought into United States Rubber to support him and give what assistance they could to effect an improvement in the financial setup of the corporation. He also testified that he was favorably impressed with Mr. Seger and that he felt reassured that conditions would improve with guidance from some one who had been "through the mill" in similar problems. He sent Seger a copy of the Lytle report and a copy of the du Pont bonus plan, with the suggestion as to the latter that Seger see John J. Raskob, who had no interest in United States Rubber, regarding his views on United States Rubber adopting some such plan.

When the syndicate made its investment Irenee du Pont at a meeting with Wiseman and Schiff of Kuhn, Loeb & Co., subsequent to his meeting with Seger, informed Kuhn, Loeb of the syndicate investment in United States Rubber and asked for their cooperation in improving its financial management. At Schiff's suggestion, Irenee du Pont and the Kuhn, Loeb representatives met with Seger. Irenee du Pont offered to help Seger solve United States Rubber's problems of excessive accounts receivable and inventories. Seger appeared receptive to the views expressd at these meetings.

After the meetings with Irenee du Pont, Seger invited him to become a member of the United States Rubber Board but he declined for the reason he did not want to undertake the burdens and feared the presence of a du [fol. 504] Pont name on the Board might mislead the public as to the value of United States Rubber stock.

Early in 1928 when the price of crude rubber dropped from forty cents to twenty cents a pound, United States Rubber having a large inventory was faced with a possible inventory loss of almost two million dollars. This drop in the price of rubber reduced the value of the company's assets below the point at which payment of dividends was permitted under the terms of one of its note indentures, and the decline in the value of its assets made it imperative to conserve the company's cash for meeting approaching maturities on its borrowings.

Wiseman and Irenee du Pont testified that Seger was reluctant to recommend that no dividend be paid, but was eventually persuaded by Kuhn, Loeb to recommend to the Board that no dividend be declared. Seger, in a letter to the stockholders on April 5, 1928, explained the action of the company and stated that "except for the limitations imposed by the Indenture" there was no reason why the dividend should not have been declared at this time. Wiseman testified that Seger's reluctance to recommend non-payment of the preferred dividend strengthened the Kuhn, Loeb view that Seger needed help in running the company.

During the Spring and Summer of 1928 the price of crude rubber continued to decline and the company's loss of inventory value, plus a twenty million dollar indebtedness, created concern among its creditors and it was feared that a receivership might result.

In April 1928 Lewis L. Strauss of Kuhn, Loeb prepared a plan for the issuance of new common stock by United States Rubber. Irenee du Pont also regarded the raising of new capital necessary. Seger, however, took no action regarding it.

[fol. 505] In the Summer of 1928 the syndicate sold 27,600 shares of United States Rubber stock at a loss. Irenee du Pont testified the sale was made by the syndicate members for the reason that they suspected there might be a receivership and "that we had better sell some of the stock and reduce our commitments". In October 1928 the Guaranty Trust Co. threatened to cut off its credit to United States Rubber and several other banks expressed concern to Kuhn, Loeb about the continuance of credit to the company. Seger was finally persuaded that it was necessary to raise new capital, and at his request in October 1928 Kuhn, Loeb drafted another plan for the issuance of common stock. The issue of 728,412 shares of common was to be offered to the existing common stockholders on a share for share basis. Kuhn, Loeb invited other banking and brokerage firms to participate in the underwriting, including Laird, Bissell & Meeds, who were included at the request of Irenee du Pont.

Sir William Wiseman testified that as early as 1927, Kuhn, Loeb had come to the conclusion that Seger should be replaced as President because of his poor health, his difficulty in reaching decisions on pressing problems, and for the reason that United States Rubber was making a poor showing in comparison with its leading competitors.

Irenee du Pont, in November 1928, wrote the members of the syndicate informing them of the decision for the new issue of stock and suggesting that in order to improve the management the Board be enlarged by three additional members and to fill the two vacancies; that these appointees should be two from Kuhn, Loeb, two from the syndicate, and the proposed new president. In December 1928 Roger Winthrop and Sir Wiseman of Kuhn, Loeb, and Henry Davis, for the syndicate, were elected members of the Board. In addition, it was contemplated that these members [fol. 506] of the Board would become members of the

Finance Committee. Irenee du Pont testified that the decision to replace Seger as president became necessary because nothing had been accomplished to improve the weak financial structure of the company, and because of his unrealistic attitude in the dividend controversy and the new stock issue.

With the exception of H. F. and H. B. du Pont, all of the syndicate members decided to subscribe to the new stock issue. H. B. du Pont testified he was discouraged over the prospects of United States Rubber and did not wish to risk more capital in the company.

In the underwriting of the new common stock issue, Kuhn, Loeb allotted to Laird, Bissell & Meeds a 20% participation which was approximately the percentage which the syndicate members held in the common stock of United States Rubber. Wiseman testified this was a common arrangement. Thereafter, Laird, Bissell & Meeds and the syndicate members had an agreement whereby the syndicate members would receive a discount of $2.40 out of each $3.00 cost of underwriting their stock. The new stock was issued January 11, 1929 and the syndicate acquired 125,150 shares at a cost of over four million dollars.

Preceding the investment and issuance of the new stock, Irenee du Pont testified that the syndicate members had decided that if they were to take up their subscription rights to the new issue some safeguard against lack of proper financial management would be necessary and took "the position with Kuhn, Loeb that we should have some representation on a body which might be termed a finance committee so that we would have some control over the financial management of the company". This concern over the financial structure and the desire of the syndicate to [fol. 507] assume that responsibility is reflected in several letters written by Irenee du Pont.

Officers, Directors

Wiseman testified that he and Mr. Schiff, his partner, urged Seger to become Chairman and that a younger and more active man be made President. Kuhn, Loeb were unable to find anyone whom they considered suitable and in November 1928 asked Irenee du Pont to try to find such a person.

Irenee du Pont testified that H. S. Meeds suggested F. B. Davis, Jr. to him and Davis stated that Meeds had advised him he might be approached by Irenee du Pont. Shortly after the suggestion of Meeds, Irenee du Pont saw Davis and asked if he would be willing to take the post if elected, and Davis accepted.

On January 5, 1929 Irenee du Pont wrote a letter to Schiff of Kuhn, Loeb, sending a copy to Seger and Davis stating he had found a suitable man for the office of President. That same month, at the request of Irenee du Pont, Davis met with Schiff and Wiseman of Kuhn, Loeb. Schiff and Wiseman introduced Davis to some of the directors—J. S. Alexander, H. R. Winthrop, Matthew Brush, and L. B. Gawtry. Wiseman stated that they were impressed with Davis' qualifications and concluded he was an excellent candidate for president. Mr. Schiff advised Irenee du Pont that Seger had no objection to bringing F. B. Davis into the situation, but that there was difference of opinion as to how this could be accomplished without unfavorably affecting the organization. Wiseman negotiated with Seger as to the terms of his retirement. Irenee du Pont in writing Wiseman January 11, 1929 stated he was in favor of continuing Mr. Seger's contract with United States Rubber [fol. 508] and his salary payment "*if* it will assure the Rubber Corporation of his good advise based on many years' experience as head of that institution."

At a meeting of the Board on January 15, 1929 presided over by Wiseman, Seger resigned as President and Chairman of the Board, and F. B. Davis was elected President, Chairman of the Board and a director. Wiseman testified that Kuhn, Loeb, when sponsoring the election of Davis, did not know or inquire into the amount of stock held by the syndicate.

Prior to Irenee du Pont's letter to Kuhn, Loeb suggesting Davis as a suitable candidate for president, he had written to the Voting Trustees—H. S. Meeds, A. Felix du Pont, and Lammot du Pont—summarizing the steps regarding the central organization of United States Rubber which, as principal stockholders, the syndicate should advocate. Irenee du Pont indicated the recommended changes were to continue the body now known as the Executive Committee under the name of the Finance Committee to consist of five persons—two representatives of bankers, William Wiseman and James S. Alexander; two representatives from the syndicate, Henry Davis and William de Krafft; and the new president. Irenee du Pont stated: "(This would leave our group in control of those matters which will be delegated to the Finance Committee . . .)". (GTX988). A real Executive Committee was to be made up of not over eleven men familiar with United States Rubber operations headed by the president or one of the other principal employees, and the number and personnel of this committee to be subject to change on the advice of F. B. Davis, Jr. The evidence shows that the persons recommended by Irenee du Pont were elected members of the Finance Committee, and William de Krafft became its Chairman; that an Executive Committee was organized with F. B. Davis as Chairman and William de Krafft be-[fol. 509] came a member the following year.

At the time F. B. Davis, Jr. was elected President, the syndicate's representation on the Board was one director—Henry Davis. In addition there were the two representatives from Kuhn, Loeb. There were fifteen members, including Seger, on the Board at this time.

F. B. Davis, Jr. was the President of the Viscoloid Company: a du Pont subsidiary, at the time he accepted the presidency of United States Rubber. In 1909 he had been in charge of the black powder division of du Pont, later becoming superintendent of the sporting powder division when Lammot du Pont was its divisional manager. Following the end of World War I, he was assigned to the du Pont Central Office as assistant in charge of salvage and later became superintendent of the Pyralin operations. He left du Pont because he was ambitious and felt there were too many bosses over him, going to General Motors as assistant in charge of its Saginaw Products Division where he remained until 1923. He was asked to return to du Pont by a member of the du Pont Executive Committee and accepted because, as he stated, du Pont had changed its organization to a decentralized type and because the compensation offered was larger than he was receiving. He became assistant general manager of the Pyralin Department, later its general manager, and was also made a du Pont director. The P ralin Department was consolidated with the Viscoloid Company and in 1927 Davis became its president. After he became President of United States Rubber he continued as a director of du Pont until about 1941. He was also one of the incorporators of Rubber Securities, organized in December 1929. Irenee du Pont testified that F. B. Davis was known to all members of the syndicate and that therefore they were familiar with his [fol. 510] record. He also said that he had discussed the suggestion of Challen Parker as president with the syndicate, but since none of the members knew him he withdrew the suggestion. Irenee du Pont stated that he felt it was a requisite that the new president be personally known so that they would know what kind of a man they were getting.

Both Davis and Pierre S. du Pont testified that while Davis was president of United States Rubber he visited with the du Ponts, particularly Irenee and Lammot. He discussed with them the affairs of United States Rubber, consulting with them regarding the financial side, because as he said, "that was the part of it that they were most vitally interested in", but did not seek their advice on management or the operating end except to report on accomplishments.

Prior to Davis becoming president, Lucius D. Tompkins, Vice President of the Tire Division in United States Rubber, testified that it was a centralized organization and "was run by Mr. Seger as Chairman and President, and Mr. Homer Sawyer, Executive Vice-President". One of the first steps undertaken by Davis was to decentralize the organization and the commercial activities were conducted by separate and autonomous divisions, each under control of a general manager having full authority and responsibility as to manufacturing, selling, purchasing, accounting and research within his division, subject to the over-all policies decided by the Executive Committee.

Davis testified that the first thing he did on becoming president was to get acquainted with the Board, appraise the value of each individual member, and consult with them as to their desire to continue with United States Rubber; that he determined who would be most helpful to him and made up a proposed slate to be elected at the annual meeting. He testified further that he selected all the directors. [fol. 511] Davis testified that he not only discussed this proposed slate with the du Ponts but also with Sir William Wiseman of Kuhn, Loeb and "anyone else that seemed to me could be helpful in giving me advice on that subject". In addition, he stated he felt it was not only proper to discuss directors with important stockholders, but also with each member of the Board.

In March 1929, prior to the first meeting, Davis submitted his proposed slate to the members of the syndicate. This list consisted of twenty-eight names, some already members of the Board, and indicated that as to non-company representation, John W. Davis, and Samuel M. Nicholson desired to resign and that he did not favor continuing Lewis Gawtry. In addition he suggested that Henry L. Hotchkiss be dropped for reasons of age and Homer E. Sawyer be discontinued since he was relinquishing active duties with United States Rubber. He listed eight directors as outside representatives and three company representatives whom he considered desirable to retain, and these were approved by the syndicate. The syndicate also approved three suggested additions for company representatives. Lammot du Pont replied to Davis' suggestions stating the syndicate members approved the retention of the men already on the Board; approved five of nine suggested additions to outside representatives; and stated in the event Gerard Swope, Victor M. Cutter and James A. Farrell would not serve as outside representatives, that the syndicate did not favor the suggestions made by Davis to substitute Carle C. Conway, Harold E. Talbott, or Lewis Gawtry.

Charles B. Seger and Gerard Swope did not wish to serve and Homer E. Sawyer and James A. Farrell were not elected. Lewis Gawtry and Carle C. Conway were [fol. 512] elected directors on April 16, 1929 and August 6, 1929, respectively.

Davis testified that following 1929 when he became more experienced in United States Rubber operations there was no necessity for discussing changes on the Board with the du Ponts and syndicate members, but he did discuss the changes with every member of the Board to obtain their approval.

B. W. Doyle, a former Vice President of du Pont's Viscoloid Company, became a Board member in 1939; George P. Edmonds, a du Pont son-in-law and president of the Wilmington Trust, became a Board member in 1944; John L. Pratt was a director of General Motors at the time of his election to the Board of United States Rubber in 1937; W. P. Allen, a former vice-president and director of du Pont became a Board member in 1936; and H. E. Humphreys, Jr., a former employee of Delaware Realty, went on the Board in 1938. Allen, Doyle and Pratt were personally known to F. B. Davis. Between June 21, 1927 and June 30, 1949, a total of fifty-three men served on the United States Rubber Board, seven of whom were elected as temporary directors, leaving a total of forty-six regular members of the Board who served during this period at different times.

Davis and de Krafft did not get along together and eventually de Krafft resigned on June 30, 1938. Davis had previously met H. E. Humphreys, Jr., and thought he would be a suitable replacement. He asked Irenee du Pont whether Humphreys could be released from his duties as Secretary of Delaware Realty. Irenee du Pont approached Humphreys regarding United States Rubber, and when it was clear that he was interested his release was obtained and Humphreys was proposed by Davis as a member of the Board.

[fol. 513] In 1942 Herbert E. Smith became President of United States Rubber when F. B. Davis resigned. Davis remained as Chairman of the Board and Chief Executive Officer. Smith had been an employee of United States Rubber for about fourteen years before the syndicate was formed. Smith testified that he had only a casual acquaintance with the three du Pont brothers. He stated that following his election he had discussions with the du Ponts and many other stockholders a few times a year regarding the financial situation in United States Rubber.

When Davis retired as Chairman of the Board on December 31, 1948, Smith became the Chairman and the office of President was filled by Humphreys.

In this connection Lammot du Pont Copeland on April 5, 1948 wrote to the three defendant individuals and George Edmonds about a discussion he and Wiseman had concerning the situation when Davis would retire. Lammot du Pont wrote to Davis asking what his views were and stated that he knew of no candidates for president, with a single exception. Herbert E. Smith testified that the "one man who had what it took, had all of the qualifications that I recognized to succeed me, was Elmer Humphreys".

After he became President, Humphreys stated that he discussed with the du Ponts certain proposals of importance involving financial matters, and followed their advice only half the time and acted contrary to their advice at other times.

Executive Committee

In a letter to the stockholders on April 23, 1929 Davis stated the Executive Committee was to be made up of those members of the organization who had been heretofore charged with the responsibility of some of the major ac- [fol. 514] tivities of United States Rubber and would hold meetings each week to advise the president on all operations relating to manufacturing, selling, development and research. On April 23, 1929 the Executive Committee consisted of Edward J. Coughlin who had been with United States Rubber since 1892; William O. Cutter, an employee since 1916 who resigned from the Executive Committee in January 1930; William de Krafft who became a member in 1930; Ernest Hopkinson, an employee of United States Rubber since 1897; Herbert E. Smith, an employee since 1913; Lucius D. Tompkins, an employee since 1916; Eric Burkman, an employee since 1919; F. B. Davis, Jr., Chairman 1929. It is this committee which had the responsibility of approving contracts involving the sale or purchase of goods.

Six members of this Executive Committee were on Irenee du Pont's recommended list in addition to five others who were not elected. Irenee du Pont had included all the company's chief executive officers on this committee for the reason he felt that experienced operating personnel should be members. Tompkins stated he was approached by F. B. Davis with respect to becoming a member and that thereafter Davis discussed with him appointments or recommendations to that committee. Tompkins testified that Davis indicated to him that length of service was one of the qualifications for membership. Aside from Davis and de Krafft, the other members of the committee had all been employees of United States Rubber for many years before 1929.

The replacement of Cutter by de Krafft as a member of this committee occurred when Cutter was unable to perform the accounting functions inherent in a decentralized form of organization and there was no one in the company to take his place. Tompkins testified that when he and Davis were discussing this problem he told him that de Krafft impressed him as the type to undertake that responsibility. He testified he did not know that others had [fol. 515] also considered de Krafft suitable for the post. De Krafft remained a member of the Executive Committee until his resignation in 1938.

Finance Committee

The old Executive Committee of United States Rubber served the functions of a Finance Committee during the Seger regime and when Davis became president it became the Finance Committee. Its members on April 23, 1929 were James S. Alexander, F. B. Davis, Henry Davis, and Sir William Wiseman. William de Krafft became a member in January 1930 when James S. Alexander's membership ended. Charles H. Sabin and D. Dwight Douglas were also added to the committee the same year. In November 1948 the following were members of the Finance Committee of United States Rubber: Colgate W. Darden, Jr., F. B. Davis, Jr., Henry Davis, Bernard W. Doyle, George P. Edmonds, H. E. Humphreys, Jr., Herbert E. Smith, and Sir William Wiseman.

On April 8, 1947 Lammot du Pont Copeland wrote Pierre S. du Pont, stating that he, Copeland, and Lewis Strauss had resigned as members of the Board and Finance Committee, that Colgate Darden was elected to fill his place but that the bankers' nominee remained open on the Board, and that Wiseman had suggested Schiff be appointed which idea was not accepted. He stated that because Wiseman was frequently absent, the management group on the Finance Committee were a majority, and since United States Rubber was again pretty well in debt, the Finance Committee should be strong and play a dominant part in watching the finances. At that time the Finance Committee was composed of three management representatives, F. B. Davis, H. E. Smith, and Elmer Humphreys; and three non-man- [fol. 516] agement representatives, B. W. Doyle, Henry Davis and Sir William Wiseman. Copeland testified that his concern was that stockholder representation on the Finance Committee constitute a majority in order to maintain the proper balance between the Finance Committee and the Executive Committee; otherwise, a majority of management representatives on the Finance Committee would be approving their own actions, which "seemed like a weak position". In answer to this, Pierre S. du Pont replied, stating:

> "I do not fear the result of the management group being in the majority. If such fear is real, we should change the management."

Pierre S. du Pont testified that he used the noun "we" as meaning all the stockholders. Copeland in his letter to Pierre S. du Pont had suggested that Darden and Edmonds become members of the Finance Committee but since Darden's other interests were heavy, he suggested that Davis be urged to put Edmonds and Whelpley on that Committee. Irenee du Pont wrote Copeland April 21, 1947 stating that Darden should be given a chance to refuse, that Edmonds had his approval, and that he did not know Whelpley. Edmonds was elected to the Board and he and Whelpley became members of the Committee.

Incentive Plan

The stockholders of United States Rubber adopted an executive's incentive compensation plan in 1929 by a vote of 1,245,269 to 100. A study of several plans was made before the Managers Share Plan was finally adopted. The Plan provided that the Company should issue 100,000 shares of its common stock at $35 per share and the trustees would issue to the company 100,000 trust shares without par value, representing ownership of the assets to be held by the trustees of the plan. The plan further pro- [fol. 517] vided that the company should from time to time sell the trust shares to employees occupying responsible positions, including directors, actively engaged as officers, employees or members of the Executive Committee, to be chosen by a Special Committee of directors in such quantities as the committee determined and on such terms of payment, interest and prices as fixed by the Finance Committee of United States Rubber.

On December 20, 1929 Irenee du Pont wrote to Lammot, A. Felix and H. B. du Pont, H. S. Meeds and Henry Davis, officers of Rubber Securities, that he had discussed with F. B. Davis and William de Krafft the question of apportionment of Managers Securities stock and the setting aside of some 3000 shares of Rubber Securities stock for Davis to be paid out of bonuses voted him by Rubber Securities.

The members of the Special Committee appointed to act upon the allotment of trust shares from 1930 to 1949 were:

Matthew Brush, Chairman, 1930-1936
Lewis L. Strauss, Chairman, 1936-1947
Bernard W. Doyle, 1947 1949
Sir William Wiseman, 1930 to date, Chairman since 1947
Henry Davis, 1930 to date
F. B. Davis, Jr., 1948 to date

Wiseman testified that he consulted with Irenee du Pont with respect to the original allotment to be made under the plan in 1930 for the reason he had more experience than possibly any of the directors of United States Rubber and also asked him what allotment should be made for F. B. Davis. Irenee du Pont stated Davis should receive 15,000 shares. On March 28, 1930, Davis was allotted 20,000 shares [fol. 518] by the Special Committee and Wiseman advised Irenee du Pont of that action. This action of the Special Committee was approved by the Rubber Securities Board and Henry B. du Pont testified that when there was an increase in Davis' allotment from 15,000 to 20,000 shares it obviated the necessity of Rubber Securities assigning stock to him.

Irenee du Pont stated that at the time F. B. Davis went to United States Rubber his salary should not be less than Seger was receiving. The salary was fixed at that figure by a special sub-committee appointed for that purpose. Wiseman testified he did not know that Irenee du Pont had discussed with Davis the probability that his salary would be the same as Seger's. In 1937, after a study by a sub-committee of the Finance Committee, the company entered into an employment contract with Davis for a term of six years effective January 1, 1938 which remained in effect until his retirement in 1948. This action was adopted by vote of the stockholders. The contract fixed his salary at a definite figure and made him ineligible for any further participation under the incentive plan.

There is no evidence that the syndicate, or Rubber Securities Co., or the du Pont family in the aggregate ever had voting control of United States Rubber. The Government, moreover, has failed to show that the United States Rubber stock held by the defendant individuals and the members of the du Pont family was acquired with the intent to create a protected market for du Pont or for United States Rubber, or was ever used for that purpose. While much of the rubber stock acquired by the syndicate continues to be held, directly or indirectly, by members of the du Pont family there is no proof of any agreement or understanding that it will continue to be so held, or that it will be voted in concert.

[fol. 519]

Trade

Prior to 1910 du Pont had confined itself principally to the manufacture of military and commercial explosives. Nitrocellulose, a nitrated cotton, was the principal raw material used by du Pont in the manufacture of both military and commercial smokeless powder. Du Pont sold its military powder largely to the United States Army and Navy. By 1908, these principal customers had erected and were operating plants of their own and du Pont foresaw the ultimate loss of its smokeless powder business and recognized that diversification and expansion into other fields was essential to its progress.

To this end in 1908 the Executive Committee of du Pont appointed a committee to report "what additional steps they would recommend, in the direction of developing further uses for guncotton or any of the other products of our smokeless powder plants." The Development Department whose immediate jurisdiction it was to explore these fields, made an investigation of new outlets for the excess nitrocellulose in 1909 and found the most important industries in order of size were celluloid, artificial leather, artificial silk, and lacquer, which du Pont was already producing.

In 1910 du Pont purchased the Fabrikoid Company, the largest manufacturer of artificial leather, which in 1913 was incorporated as the du Pont Fabrikoid Company.

During World War I, du Pont plant facilities, sales and profits in the powder and explosives fields expanded and its net profits from all business during 1915-1918 totaled approximately $232,000,000. In addition during 1917 the du Pont Company, anticipating the end of World War I and the cessation of orders for powder and explosives, [fol. 520] determined to utilize part of its war profits to expand into fields other than gunpowder and explosives.

In September 1915 du Pont purchased the Arlington Company, one of the two largest celluloid companies in the United States.

In June 1916, the du Pont Fabrikoid Company, manufacturers of artificial leather, purchased the entire stock of the Fairfield Rubber Company, producers of rubber coated fabrics for automobile and carriage tops. The principal customer of Fairfield was the Ford Motor Company, which accounted for 60% of Fairfield's total business. Fairfield was dissolved and the entire stock was taken over by the Fabrikoid Company.

A report of the Development Committee of du Pont in August 1916 "recommended the paint and varnish industry shall be accepted as a suitable expansion of operations at Parlin" and it further recommended "to acquire by purchase one or more suitable going concerns. . . with a view to transfer of operations to Parlin at the first opportune time."

In March 1917, du Pont purchased Harrison Brothers & Company, Inc. manufacturers of paint, varnish, acids, and certain inorganic chemicals used in paint manufacture. The Harrison Company owned 52% of the capital stock of the Beckton Chemical Company, the other 48% being owned by Cawley Clark & Company, a color manufacturer. In the middle of 1917 Harrison purchased Cawley Clark & Company, including its interest in Beckton Chemical Company. In 1917 the Bridgeport Wood Finishing Company, a varnish manufacturer, was acquired by Harrison.

After considerable study, du Pont in February 1917 [fol. 521] decided that consideration of new industries at that time should be confined to five chemical fields: Dyestuff and allied organic chemicals; vegetable oil industry;

paint and varnish; water soluble chemicals; and industries related to cellulose and cotton purification.

Thus by the end of 1917, preceding the investment in General Motors, du Pont had made investments in companies manufacturing artificial leather, celluloid, rubber coated goods, paints and varnishes. In 1917 du Pont was engaged in the production of paints, varnishes and related products although it was still principally producing powder and explosives and manufactured few items used in the production of automobiles; among these were celluloid, used in making side curtains, and artificial leather, used in seats and upholstery.

Following the investment in General Motors, du Pont in 1918 purchased a majority of the common and preferred stock of Flint Varnish & Chemical Works. This event was preceded by a letter from Raskob to Carpenter, Vice President of du Pont. Raskob stated Durant had told him that W. W. Mountain, President of Flint, had approached him about consolidating Flint with Harrison, since Mountain knew du Pont had bought a substantial interest in General Motors and was interested in the paint industry; that Mountain felt he would lose a valuable customer; General Motors. Durant told him the du Ponts would not consider a consolidation but suggested "that they deliver control of the common stock to du Pont's" and that Willys-Overland, Mountain and General Motors retain a 20%-25% interest. This was effected—du Pont purchased 80% of the common stock; Willys-Overland, Mountain, and General Motors acquiring 20%, which was later purchased by du Pont. Flint was dissolved in 1924. At the time of the du [fol. 522] Pont investment, Flint made products primarily used in the finishing of railroad equipment and automobiles.

A few months after the Flint investment, du Pont acquired certain assets of the New England Oil Paint & Varnish Company.

A report by the Development Department in 1920 showed that existing facilities at Flint were insufficient to meet the demands of General Motors and a considerable volume of that business was being diverted to competitors. In April, 1920, W. S. Carpenter, Vice President of du Pont, reported to its Executive Committee, that the Sales Department anticipated increased orders from General Motors and other automobile companies, prompting an interest in an additional plant, that he favored acquisition of The Chicago Varnish Company. That year du Pont acquired certain assets of the Chicago Varnish Company, and in 1934 it acquired the assets of Mountain Varnish and Color Works.

In addition to the above acquisitions, du Pont also made investments in and acquisitions of other companies as set forth in ¶¶ 88, 90, 91, 92, 94, 95, 96, 98, 99, 100, 101, 102, 103 and 104 of the Amended Complaint.

It is admitted that du Pont is a substantial producer in the United States of explosives, powder and chemicals and that its principal manufacturing operations are conducted through ten departments. These departments and their products are:

Electrochemicals: Electro and industrial chemicals, including sodium, cyanides, peroxides, chlorinated solvents for metal cleaning, dry cleaning and extraction, refrigerants, formaldehyde, polyvinyl alcohol and acetate, ceramic decorations, and furfural products;

Explosives: Commercial explosives, blasting accessories, [fol. 523] miscellaneous chemicals, liquid and solidified nitroglycerin, oil and gas well torpedo service, military and sporting powders, and commercial nitrocellulose.

Fabrics and Finishes: Pyroxylin, synthetic resin, neoprene and rubber coated fabrics, and processed plastic sheeting, window shade fabrics, rug underlay, and synthetic rubberized tubing, protective and decorative finishes for all industrial, automotive, marine, transportation, and household purposes, wire enamels, automotive maintenance specialties, adhesives, plasticizers, and pyroxylin solutions.

Film: Cellophane, cellulose bands, cellulose sponges and sponge yarns, cellulose ~~acetate film, and polythene~~ film.

Grasselli: Inorganic and organic acids and heavy chemicals, zinc and zinc products, fungicides, seed disinfectants, household sprays and dusts, insecticides, animal remedies, weed killers, adhesives, wood preservatives, and chemicals for the textile, water purification, paper, leather, steel and food industries.

Organic chemicals: Dyestuffs, tetraethyl lead, neoprene, ethyl alcohol, camphor, and other organic chemicals for the rubber, petroleum, textile, paper, perfumery and other industries.

Photo Products: Motion picture, X-ray, portrait, lithographic, and micro films, intensifying and fluoroscopic screens, photographic printing papers, processing chemicals, and television phosphors.

Pigments: Titanium dioxide, extended titanium pigments, lithopone, dry colors, copperas, titanium metal and "Erifon" flame retardant.

Polychemicals: Ammonia, urea, urea fertilizer compounds, methanol, high alcohols, solvents, organic acids, hydrogenated products, antifreezes, food chemicals, acrylic [fol. 524] plastics, polyvinyl butyral, polythene, cellulose nitrate and cellulose acetate plastics, nylon molding powder and monofilaments, polytetrafluoroethylene, and fabricated articles.

Rayon: Viscose rayon yarn, staple, and tire yarn, acetate rayon yarn and staple cellulose acetate flake and vinyl acetate, nylon yarn, staple and flake.

It is admitted that General Motors is the largest customer of the Fabrics and Finishes Department, that its purchases from that department exceed its purchases from any other department of du Pont, that the total purchases General Motors makes from this department exceed its total purchases from all other departments, and that the sales made to General Motors by it are a significant part of its total business.

General Motors admits its principal business consists of the manufacture of passenger cars and trucks, including various parts and accessories. Paragraph 14 of the Complaint alleges it is the largest producer of passenger cars and trucks in the United States, constituting 38% of the industry total in 1947 and 43% for the period 1937-1941. General Motors also manufactures diesel locomotives, ball bearings, roller bearings and a wide range of household appliances, such as electric refrigerators and heating systems. General Motors operations are conducted through the following four divisions:

Car, Truck and Body Divisions—Buick, Chevrolet, Cadillac, GMC Truck and Coach, Pontiac, Buick-Oldsmobile-Pontiac Assembly, Fisher Body and Oldsmobile.

Accessory and Parts Divisions—A C Spark Plug, Aeroproducts, Brown-Lipe-Chapin, Central Foundry, Delco Products, Delco Radio, Delco-Remy, Detroit Transmission, Guide Lamp, Harrison Radiator, Hyatt Bearings, Inland [fol. 525] Manufacture, Moraine Products, New Departure, Packard Electric, Rochester Products, and Saginaw Steering Gear.

Household Appliances—Delco Appliance and Frigidaire.

Engine Divisions—Allison, Diesel Equipment, Cleveland Diesel Engines, Electro-Motive, and Detroit Diesel Engine.

United States Rubber admits it is the largest manufacturer in the United States of certain rubber products, other than tires and tubes. It conducts its business through five divisions: Tire; Mechanical Goods; Footwear and General Products; Naugatuck Chemicals; and Textile. General Motosr and United States Rubber admit that United States Rubber is the principal supplier of tires and tubes to General Motors as original equipment on the cars produced and sold by General Motors.

General Motors admits that it sells truck and passenger cars to du Pont and United States Rubber.

Paragraph 18 of the Amended Complaint alleges, and the defendant manufacturers admit, that the assets, sales volume and net income after taxes for the year 1947 are substantially as follows:

	Assets	*Sales*	*Net Income*
Du Pont	$1,438,000,000	$ 783,000,000	$120,000,000
General Motors	2,473,000,000	3,815,000,000	288,000,000
U. S. Rubber	348,000,000	581,000,000	21,000,000
Total	$4,259,000,000	$5,189,000,000	$429,000,000

Three phases of alleged trade control, apart from those specifically considered under Fabrics and Finishes, Tetraethyl Lead, Kinetic Chemicals, Synthetic Rubber, Antifreeze, miscellaneous products and Tires and Tubes, have [fol. 526] been accepted by the Government. They are (1) exchange of data, figures, and information on suppliers by certain officers and employees of du Pont and General Motors, including requests and inquiries by certain officers of du Pont on volume of trade conducted with General Motors; (2) the use of the General Purchasing Committee as a medium in alleged trade control; and (3) Fisher Body's trade with du Pont, and the use of the discount and rebate system in purchases and sales between the defendant manufacturers with special reference to Fisher Body.

Exchange of Data, Figures and Information on Suppliers by certain officers and employees of du Pont and General Motors, including requests and inquiries by certain officers of du Pont on volume of trade conducted with General Motors

Defendants admit that on occasion and for various purposes du Pont employees requested and obtained information from General Motors as to its suppliers and certain statistics.

During the time Durant was President, J. A. Haskell, former Sales Manager and Vice President of du Pont, then a member of the Executive Committee of General Motors, kept du Pont informed of General Motors affairs in order to better discharge the financial responsibility du Pont had assumed. The Government's evidence concerning Haskell shows that he was in contact with du Pont sales executives.

On April 15, 1918 Haskell wrote to William Coyne, Vice President of du Pont Sales, reporting that a conference had been held with General Motors car division managers and that the manager of the Oakland Division, Warner, had felt "it would be desirable to get each of the divisions using artificial leather and other material such as Pyralin" [fol. 527] samples to see what was being used. Haskell said this would "pave the way for perhaps a more general adoption of our material" and suggested du Pont place itself in position to furnish Fabrikoid of required quality and consider how best to promote its use and adoption by the car companies. A copy of this letter was sent to Pierre S. du Pont and John Raskob. The text of this letter shows, the question under consideration was whether the General Motors Division should adopt the use of artificial leather for upholstering. In fact the General Motors Divisions did not adopt the use of artificial leather for upholstery but continued to use genuine leather.

Shortly thereafter, at the request of the sales agent for du Pont Fabrikoid, Haskell provided him with a complete list of the firms comprising the General Motors organization.

In May 1918 Coyne in a letter to C. L. Petze, Director of Sales at du Pont Fabrikoid, reported on a discussion he had with Haskell regarding General Motors requirements for Pyralin sheeting. He stated that Haskell agreed with him that du Pont could not afford to jeopardize its business with other motor car companies by giving General Motors preferential treatment, but that Haskell thought "a continuation of the present policy should result in their securing practically all of the business with General Motors without jeopardizing its business with other manufacturers". In addition, Coyne stated Haskell asked he be kept advised periodically "as to the business shipped and booked with the different motor branches of General Motors and also advise him what proportion of our business is going elsewhere," that

> "* * * With this information in his possession he will be able to keep in touch with the relations between the [fol. 528] Arlington Works and the General Motors Company." (GTX 293).

On June 15, 1918, one of the sales managers at du Pont sent Haskell information regarding pyralin sheeting sales to General Motors and the amount of General Motors business placed with du Pont competitors.

Car division managers including Olds Motor Works, GM Truck, Cadillac, Oakland Car Co. made reports to Haskell on purchases of artificial leather and yardage for top and side material for the period 1917-1918. GM Truck reported that it purchased all its artificial leather from du Pont. Other divisions of General Motors reported that they had purchased varying amounts of artificial leather from du Pont and from several of its competitors. For example, Cadillac purchased the major share of its requirements from two competitors of du Pont, Pantasote Company and Hodgman Rubber Company. On July 12, 1918 Haskell received from du Pont Fabrikoid a report of General Motors yardage purchases for the month of June 1918.

J. S. O'Rourke of Oakland Motor in a letter to its manager, Warner, stated that purchases of artificial leather were being made from du Pont Fabrikoid and L. C. Chase and that the product of the latter company was superior to du Pont's, but upon being advised of the trouble had with the du Pont product, du Pont had sent a representative to investigate and another shipment had been received on which O'Rourke would report. Oakland, according to O'Rourke's report, had purchased small amounts of artificial leather from du Pont and substantial quantities from L. C. Chase, and also had purchased top material and curtain material in substantial amounts from competitors of du Pont.

[fol. 529] The Vice-President of du Pont Fabrikoid wrote a letter to Haskell on July 3, 1918 stating that if they were ultimately to furnish all or the greater part of the top material for Chevrolet and General Motors cars it might be better to have the users agree upon a uniform shade and was writing to him because he thought Haskell would put the request into proper hands.

On November 18, 1919 du Pont Fabrikoid submitted a report to the directors of the company regarding a contract made to supply yardage to Buick. This report stated that prior to the company's acceptance of General Motors contracts, the Fairfield plant was to all intents and purposes a "one-customer" plant (Ford Motor Co.) and it had been difficult to interest manufacturers of higher grade cars; that following the contracts with Buick, Chevrolet, Oldsmobile, and Oakland, they were placed in the position of writing contracts in other directions "at considerably higher prices than" the General Motors contracts. In addition, Petze, the Vice-President, reported that Pierre S. du Pont had instructed that prices for the Buick contract be quoted as low as cost since he had been advised that due to du Pont's relations with General Motors competitors were quoting abnormally low prices.

In 1920 the manager of du Pont Fabrikoid's Statistical Bureau wrote to the Treasurer of General Motors stating that he was not receiving "the statistical information formerly received from Detroit regarding purchases of Leather Substitutes and Rubber Cloth by the several units of General Motors" and asked whether there was any reason why this information which was statistically valuable to du Pont could not be continued. Later the same year the manager wrote to Haskell acknowledging receipt of data from Olds Motor Works on its purchases of Leather

Substitutes, Rubber Cloth and Mohair top material from December, 1919 to May 20, 1920 and expressed his appre- [fol. 530] ciation to Haskell for securing the information.

Pierre S. du Pont, then President and Chairman of the Board of General Motors, inquired of Lammot du Pont, Vice-President of du Pont, whether General Motors was taking its entire requirements of du Pont products from du Pont. Lammot du Pont on August 10, 1921 replied that they were not, listing seven divisions of General Motors and covering purchases of paint, varnish, fabrikoid, rubber cloth and transparent pyralin, stating where du Pont was enjoying all the business, where "no reason" appeared for withholding business, and "good reason" when withholding of business from du Pont was logically explicable. Pierre S. du Pont replied stating it appeared from the summary that Flint paint and varnish and fabrikoid were doing pretty well with General Motors and "that with the change in management at Cadillac, Oakland, and Oldsmobile", he thought du Pont should be able to sell substantially all the paint, varnish and fabrikoid products needed, further he thought a "drive for the Fisher Body business" should be made. Lammot du Pont replied that there appeared to be no real reason why Fisher body had not used Flint Varnish Co. products.

R. R. M. Carpenter of du Pont on October 7, 1921 addressed a letter to Pierre S. du Pont, President of General Motors, stating that while he knew that he personally could take no action, he wanted to know whether he was opposed to the policy of presenting to General Motors the subject of entering into negotiations to supply all the artificial leather and rubber goods on a mutually advantageous basis. He suggested this for two reasons: that du Pont was at a disadvantage owing to its connection with General Motors since other artificial leather companies were quoting "ridiculous prices" to General Motors believing that "du Pont would take all the business anyway" which forced [fol. 531] du Pont to accept the business at a loss; and if du Pont could secure all the artificial leather and rubber goods business, their plant could be operated on an economical basis resulting in lower costs which would operate to General Motors' benefit. There is no evidence that any arrangement of the kind described by Mr. Carpenter was ever made. In 1923 a somewhat similar proposal was made by du Pont to the General Purchasing Committee of General Motors and was rejected.

During the latter part of 1922, Lammot du Pont, Chairman of Flint, directed a letter to Fred Fisher, President of Fisher Body. This letter stated that in view of the stock ownership relation between Fisher Body, Flint Varnish, General Motors and du Pont, it would seem that Flint should be enjoying a large part, if not all, of Fisher Body's paint and varnish needs unless a good reason existed for not having it. He assured Mr. Fisher that Fisher Body orders would be given preference over those of any other customer, except General Motors, whenever contract conditions were equal between Fisher and Flint's other customers.

In this same period, Pierre S. du Pont, President of General Motors, wrote to Lammot du Pont, a member of the General Motors Board, stating he was considering Fred Fisher, already a member of the Board, as a member of the Executive Committee. As the reason for suggesting the membership of Fisher, he stated that Fisher Brothers had brought up the question of their future relations with General Motors, expressing a desire for closer association, and requesting consideration for an exchange of Fisher Body common stock for General Motors shares. He stated he had the approval of ten directors for such closer association with General Motors, and wanted the opinion of the members of the Board on adding Fisher and C. S. Mott [fol. 532] to the Executive Committee. At this time General Motors owned 60% of Fisher Body, the Fisher brothers owned 20%, 10% was owned by interests friendly to Fisher, and the balance was owned by others. Pierre S. du Pont stated that a closer association and closer cooperation between the two corporations would be of great benefit. Lammot du Pont replied, approving, and stating in addition that such closer association would be desirable, suggesting merely that it might be advisable to hold the election of Fisher coincident with the arrangements on consolidation so it would not appear that an important General Motors executive was personally interested in a controlled subsidiary. There is no evidence that the proposal to place Fred Fisher on the General Motors Executive Committee was related in any way to the effort of Lammot du Pont to persuade the Fisher Body Company to use the products of the Flint, Varnish & Color Works.

Pursuing his initial effort to secure the Fisher Body business, Lammot du Pont again wrote to Fred Fisher on the subject of paint and varnish and again referred to the "close stock relationship of the companies", making it seem "ridiculous that no business should be done between Flint and Fisher." Eventually an exchange of telegrams took place between the two and a meeting was set between them. Lawrence Fisher, who met with Lammot du Pont as the result of this exchange of telegrams, testified that the Fisher Body Division never did use the products of the Flint, Varnish & Color Works to any significant extent.

During the year 1921 Felix du Pont, Vice President of the Cellulose Products Department of du Pont, wrote to its Executive Committee reporting that the sales department was securing for Fairfield all the General Motors orders for rubber coated fabrics. He stated that both the sales and production departments had concentrated on Gen- [fol. 533] eral Motors and that today Fairfield was "solid" with General Motors, that with the "community of interest" existing between du Pont and General Motors he thought a plan should be worked out to make this a permanent arrangement so that the profits from manufacture could be retained. He stated that the latent resentment of the General Motors units encountered by du Pont in selling had been overcome since du Pont had started a fixed program of giving the best product, which several of the General Motors Divisions had considered to be equal to or superior to those of competitors.

On February 12, 1923, W. P. Allen, General Manager of the Cellulose Products Department, reported to the du Pont Executive Committee on the present status of General Motors relations with respect to Duco, Fabrikoid, and auto top material. He reported that several of the car divisions had expressed a keen interest in Duco but that they were unwilling to come to a decision until after extended experimentation and suggested that in view of this an aggressive campaign with other leading motor car manufacturers to test the material, who were anxious for du Pont to start experimental work with them, be adopted even though du Pont felt "under considerable obligation to General Motors in the development of this material on account of the assistance they had rendered". Allen stated the General Motors units were being furnished all leather substitutes and top material by Fabrikoid.

During 1923 Lammot du Pont wrote H. H. Rice, Manager of Cadillac, asking whether Flint could supply varnish to it if they could manufacture a varnish as good or better than that presently used by Cadillac. Rice replied, indicating Cadillac was already using Flint's primer color and finish varnishes on Cadillac chasses, but as to enamel Cadillac was not ready to make a change since Flint's enamel [fol. 534] had not as yet passed the tests. Lammot du Pont expressed the hope that a modified Flint enamel would soon prove satisfactory. Later he again wrote Cadillac, stating he had heard nothing from Rice and that it was to the advantage of both General Motors and du Pont to have Flint products used 100%.

To this Rice replied that Cadillac was anxious to use Flint products but was cautious in changing paints only after long trial and felt that as Flint material proved itself it was expected to be adopted by Cadillac.

There are many letters in the record involving requests made to John L. Pratt by du Pont employees for information and assistance covering the years 1922-1934. Pratt had a personal feeling of gratitude toward du Pont for what it did in saving Durant and General Motors from bankruptcy in 1920 and was inclined to do favors for his friends when, as he testified, it involved no injury to General Motors.

John L. Pratt had been an employee of du Pont in 1905 and met Durant in 1917, doing some personal work for him. In 1918 he was in charge of du Pont's motor development section, which was doing some research for Durant. In the Spring of 1919 Durant asked Pratt to work for him. Pratt left du Pont in the Fall of 1919 and became Durant's general assistant. In late 1922 he took over Alfred Sloan's position as Vice President in charge of the Accessories Division Companies of General Motors. He became a General Motors v-ce-president and director in 1921, a member of the Executive Committee in 1924, and was chairman of the General Purchasing Committee from 1924 to 1929.

On October 23, 1922, MacGregor of the du Pont Paint Department, wrote to Pratt for assistance regarding getting [fol. 535] ting a share of the up-keep paint for Hyatt

Roller Bearing Company, since he had been unable to secure any orders from Weiss, its purchasing agent. Pratt replied stating he had written to the General Manager of Hyatt to look into the situation and asked whether the quality had been improved so that du Pont had a paint of the quality, price and service equal to other manufacturers which he could "conscientiously recommend" to General Motors, and if so he would gladly do so. The General Manager of Hyatt replied to Pratt enclosing a copy of the purchasing agent's memorandum which stated that Hyatt had been using du Pont paint except the undercoat, which several years ago proved to be unsatisfactory, but since receiving the General Manager's request he had inquired further into it and "regardless of the wishes of the Paint Department" would purchase the du Pont product which he felt would serve the purpose equally as good. The dollar amount involved was about $1500 per year.

On March 22, 1924 Harrington of du Pont's Dye Stuff Department, who had known Pratt for about eighteen or nineteen years wrote to him about the fading of Cadillac upholstery and inquired whether du Pont could possibly offer its service to Fisher Body as to dyes. In his reply Pratt stated that "the Fisher Body outfit is pretty difficult to deal with" and did not know how to advise Harrington in approaching them. Pratt testified that he talked with Fisher about the problem. Five years later, on January 29, 1929, Harrington again wrote Pratt that General Motors frequently rejected fabrics because of the dyes and inquired whether it would be helpful if du Pont offered the services of its dye laboratories to General Motors. Pratt replied he thought it a "constructive" suggestion and sent Harrington's letter to Fisher, head of Fisher Body, and asked that if he agreed he would be glad to make the [fol. 536] arrangements. Fisher replied that they didn't dare "dictate" to the manufacturers regarding dye.

In August 1824, Z. Phelps, head of the Development Department of du Pont wrote Pratt whether he could conveniently find out the total quantity of ethyl alcohol used by General Motors, because du Pont wanted to find an outlet for a small surplus instead of selling it on the open market. Pratt replied he would obtain the information but that General Motor's requirements were small. In reply to

Pratt's inquiry, James Lynah informed him that 75,000 gallons a year would be required by General Motors and 50,000 for Fisher Body and this information was transmitted by Pratt to Phelps.

In 1925, H. F. Brown, Vice President of du Pont, wrote to Sloan informing him that du Pont and Kentucky Alcohol Corporation had formed Eastern Alcohol Corporation to manufacture industrial alcohol; stated that a news clipping had appeared concluding that glycerin had an advantage over alcohol as an antifreeze; that Kentucky Alcohol wanted to know whether General Motors was giving their official approval to such publicity, and, if so, "that their attention be called to the interest which the du Pont Company will have in the future" in the manufacture and sale of alcohol. To this Sloan replied that as a corporation, General Motors could take no position in the matter and must be guided by the facts in the case; that alcohol had been discovered to have a bad effect on Duco finish, used extensively by General Motors units, and therefore he would out of necessity favor glycerin.

In 1926, Pratt wrote to F. LaMotte, Director of Purchases at du Pont, that after study General Motors had concluded that Prestone, an antifreeze manufactured by Union Carbide, was the most satisfactory mixture on the [fol. 537] market and that General Motors was recommending its use. Thereafter, Sloan wrote to J. B. Jackson of General Motors Research Laboratory requesting information regarding the amounts of glycerin and alcohol used in antifreeze mixtures and their respective merits. The Laboratory report specified several points favoring glycerin and Pratt conveyed the information to du Pont.

In an exchange of letters between Sloan and the Chief Engineer of Chevrolet, Sloan suggested that the Chevrolet instruction book simply state facts on antifreeze and omit the words "are to be preferred". The Chevrolet instruction book eliminated the paragraph expressing preference for glycerin.

In October 1926 du Pont began production of ethyl alcohol. General Motors was approached as an outlet and was also requested to ascertain to what extent glycerin antifreeze might cut into the use of alcohol as an antifreeze. In addition, Phelps of the du Pont Development Department, asked Pratt to find out whether the shortcomings of glycerin as an antifreeze, as reported by du Pont, could be verified by the General Motors laboratory.

James Lynah, the Executive Secretary of the General Motors laboratory, reported to Pratt in November 1926 that as alcohol-water solutions were recommended for any class of service, and in view of the indifference toward Prestone, it was evident that General Motors divisions would largely employ the alcohol solution as an antifreeze. Lynah further stated that he had written Phelps regarding price considerations for volume purchases, and if that could be obtained, he would ascertain the requirements for the divisions.

Phelps again wrote Pratt stating some of the General Motors divisions, particularly Cadillac, were recommend- [fol. 538] ing glycerin instead of alcohol, although Buick recommended the use of alcohol. In the following month Cadillac recommended that only alcohol be used.

During this period when du Pont was seeking General Motors endorsement of alcohol for use as an antifreeze, glycerin manufacturers such as Armour & Company were similarly seeking General Motors endorsement of their product for use as an antifreeze.

In December 1926 Sloan advised Pratt that the General Technical Committee of General Motors, approved by the chief engineers of the car divisions, had decided on the policy of pointing out there were two antifreeze materials —glycerin and alcohol—and that the sole disadvantage of alcohol was that when spilled it would disfigure the finish and that glycerin was satisfactory if used in strict accordance with the manufacturers recommendation. In December 1926 Sloan wrote Pratt that he had looked over the file of correspondence Pratt had with du Pont on the question of alcohol and glycerin, and that with the decisions reached by the General Technical Committee, the new instruction books would contain a statement setting forth the advantages and disadvantages of both. The record shows that du Pont attempted in 1926, 1927 and 1928 to sell ethyl alcohol to General Motors. In each of these years its bid was rejected by General Motors Purchasing Committee.

On January 9, 1926 James Elms of the Paint and Varnish Department of du Pont wrote to Pratt about the Delco-

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Light Company, one of the accessory companies of General Motors. He stated that Delco-Light had been purchasing rubber and finish varnish from Lowe but that Lowe had been unable to solve a paint problem and du Pont had been called in; that the problem was solved and du Pont received an order from Delco-Light but before delivery it had been [fol. 539] cancelled in order to give Lowe another opportunity. Biechler, General Manager of Delco, wrote Pratt that Lowe had come up with a satisfactory enamel, but continued that the manufacturing, chemical and purchasing divisions felt they would be in better hands to deal with du Pont than Lowe and would be sure to advise him of this within a few days. To this Pratt replied that in view of the sacrifice du Pont made for General Motors in 1920 and 1921, he felt where "conditions are equal from the standpoint of quality, service and price, the du Pont Company should have the major share of those items" but that this was his personal sentiment and that Biechler should use his good judgment keeping in mind the prime consideration was what was best for Delco. Pratt testified he invariably insisted that his personal sentiments were not to control and the division managers were to make their own decisions, but that he personally thought in the above situation du Pont had not been treated fairly. Du Pont made one sale of the enamel which was the subject of Elms' inquiry and thereafter a competitor, The Kay & Ess Company, took the business from du Pont and has ever since retained it.

AC Spark Plug Division of General Motors wrote a memorandum on April 15, 1926 to Curtice of General Motors stating that du Pont had been giving very poor service and it would be to the advantage of AC Spark Plug to change their source of supply. The President of AC Spark Plug, Albert Champion, wrote Pratt enclosing that memorandum stating it was being brought to his attention because naturally they wanted to do business with du Pont. Pratt sent the letter to Moosmann at du Pont asking how he should reply. Moosmann responded he would have the situation corrected. Some months later Champion wrote to Pratt enclosing a memorandum from one of his men who desired direct contact with Parlin to work out a technical [fol. 540] problem. Pratt sent this to Moosmann. The matter was solved and Pratt thanked Mossmann for giving Champion the kind of service he should have.

On October 28, 1926, Lammot du Pont, President of du Pont, wrote to Sloan that du Pont's Paint Department was upset because of the difficulty of getting accurate information on the probable requirements of General Motors units for Duco and inquired whether there was any objection to giving production schedules he received from the General Motors Finance Committee, of which he was a member. Pratt, in Sloan's absence, replied stating the figures should not be given and upon his return Sloan confirmed this decision. Lammot du Pont pursued the subject further with Sloan and Sloan replied that in the meantime, until he looked into the matter, he had no objection to Lammot du Pont giving the production schedule figures to his paint man, confidentially. Pratt did not approve and wrote to Sloan that du Pont should not be put in any different position than any other supplier from whom General Motors was buying many times the amount purchased from du Pont.

On May 1, 1926 Phelps of du Pont asked Pratt whether he could conveniently get the approximate quantity of oil cloth and black enamel used by General Motors as du Pont was considering manufacturing oilcloth. Pratt sent the inquiry to Lynah and transmitted the information received from Lynah to Phelps. Pratt testified there were many inquiries along these lines not limited to du Pont and the committee customarily furnished the requested information as it was always interested in new potential suppliers.

Lammot du Pont in September 1926 wrote Pratt on behalf of Jack Sproul, a son of the Pennsylvania governor, who was with the General Refractories Company, about [fol. 541] giving that concern a chance at the fire brick business of Remy Company, a General Motors accessory division, stating that it would be greatly appreciated if some business could be turned his way. Pratt replied that Sproul's effort to use influence to get business from General Motors would not work, that General Motors purchasing departments tried to get the best for General Motors, that suppliers had to establish the merits of their product and it was not the duty of the purchasing departments to give special consideration to any firm.

Again in 1931, Lammot du Pont wrote to Pratt that the anthracite coal people had protested to du Pont regarding General Motors entering into the manufacture of oil burners. Lammot du Pont stated that the outlook for du Pont's business in the anthracite field was jeopardized, that though he was convinced that du Pont could not dictate to General Motors with respect to their going into the oil burner business nor could the advantages or disadvantages to du Pont be considered as a factor in General Motors' decision, that General Motors might be injured by going into that business. Pratt replied that because a "poorly led association of coal producers did not recognize that the world progresses" and takes an unsound position was no reason to discontinue that activity. Pratt continued to recommend the manufacture of oil burners by General Motors, and it entered that field and is still one of the large manufacturers of oil burners.

During 1934 Pratt wrote to Fred G. Hughes, General Manager for New Departure Manufacturing Company, a General Motors subsidiary, that some of his friends in du Pont had called him about the National Ammonia Company, a du Pont subsidiary, having lost the ammonia business they had formerly enjoyed with New Departure although their price and service were in every sense com- [fol. 542] petitive and stated he would be interested to know the reason. Hughes replied that the du Pont product had proved unsatisfactory, that the Barrett Company product which they used gave no trouble, that the truck division had asked New Departure to buy from Barrett as it was a large user of General Motors trucks, and further he did not know National Ammonia Company was a du Pont subsidiary, but did not believe that should make any difference. Pratt wrote to National Ammonia enclosing Hughes letter and said it might be more desirable and do the "desk warmers" in du Pont some good to contact General Motors units more closely to see whether or not their product was suitable. Pratt testified that Hughes' letter showed that du Pont had not even contacted New Departure and did not know their ammonia was unsatisfactory. Pratt wrote Hughes thanking him and stating that his reason for buying from Barrett was entirely satisfactory.

The evidence relating to the exchange of data, figures, and information on suppliers by certain officers and employees of du Pont and General Motors, viewed as a whole, establishes that the du Pont Company was interested in selling its products to General Motors and made efforts to do so; a fact which is not denied by the defendants. The evidence, both oral and documentary, does not establish, however, that there was any agreement between the two companies that required General Motors to buy all or any part of its requirements from du Pont. Nor does the evidence establish that du Pont dictated or controlled the purchasing policies and practices of General Motors or sought to dictate or control those policies and practices. In fact, the evidence shows that General Motors exercised complete freedom in determining where it would purchase its requirements of products of the kind that du Pont manufactured.

[fol. 543] *General Purchasing Committee (1923-1931)*

This committee was created at the suggestion of Sloan and was to enable General Motors to compete with Ford, which had approximately 55% of the business in 1921. James Lynah became its Secretary. After the establishment of this committee, Lynah conducted a study to determine what items might be common to some of the divisions and to pool the purchase of such items. Lynah reported a list of thirty-two possible items to Sloan, Chairman of the General Purchasing Committee. Only three of the thirty-two items listed were products manufactured by du Pont—imitation leather, top fabrics and paints.

In February 1923, Allen, General Manager of the Cellulose Department of du Pont, in a report to its Executive Committee on the subject of Fabrikoid and top materials, referred to a meeting in Detroit at which he, Lynah, the Assistant Director of the Purchasing Committee, Pratt, a member of that committee, and the purchasing agents for Chevrolet and Cadillac, met; that he discussed with them the great risk inherent in du Pont covering the grey goods requirements for six months and in turn selling the finished product on a requirements basis without protection against a slump in the motor industry; that their reaction was that it was a risk which other manufacturers in the same line assumed. The question of an additional source of supply was discussed and the conclusion reached that General

Motors units should purchase 20% of their leather substitutes and top material from one of du Pont's competitors leaving 80% to du Pont at prices determined by competition.

The Government has placed considerable emphasis upon this document and others written at about this time which [fol. 544] relate to General Motors' decision to limit its purchases of fabrikoid and top materials from du Pont to not more than 75% or 80% of its requirements. GTX 406 and related documents reflect the imposition by General Motors upon du Pont of the two-source-of-supply purchasing policy. Lynah testified that early in 1923 the General Purchasing Committee began to put that policy into effect wherever it found that all the Divisions were buying their requirements from the same supplier. The records of the Purchasing Committee corroborate his testimony. Since Allen, in GTX 406, was reporting to his superiors a substantial loss of business, it was natural that he should attempt to soften the blow by expressing his confidence that no further losses need be anticipated. Lynah's testimony, as well as the other evidence of record—both testimonial and documentary—relating to du Pont's varying success thereafter in the sale of its fabric and top materials to General Motors indicate that there was no agreement between Allen and the General Motors officials; and that his confidence about retaining 80% of General Motors business was based upon a belief that du Pont's quality and service were superior to those of any competitor.

On July 18, 1923, William Coyne, Vice President of du Pont, wrote to Pierre S. du Pont, reporting that for the last six months of 1923 du Pont had lost 25% of the Chevrolet top business although the price and quality of the du Pont material was as good as that of competitors; that he had been told Mr. Knudsen had Pierre S. du Pont's permission to give 25% of the business to O'Bannon Corporation which was in the hands of receivers, and wondered whether he could tell him the reasons for this so that the next time 100% of the Chevrolet business could be procured. Pierre S. du Pont replied stating that he thought the "two source of supply" idea was foolish, but that he did not think it advisable to interfere in any case [fol. 545] unless the "Executive Committee of the company outlines a policy advocating one source of supply", that as to the policy of General Motors he could not refuse permission to Knudsen to divide his orders for fabrikoid. He later sent a letter to Knudsen referring to the Chevrolet two source policy and expressing that he firmly believed that one good source of supply, properly maintained, was more reliable than two sources, but stated that Knudsen had no doubt given personal consideration to the Chevrolet matter and continued,

> "I find no fault with the principle which would apply as well to other manufacturers as to the du Pont Company." (GTX 410).

The minutes of the General Purchasing Committee on September 27, 1923 sent to all division purchasing agents of General Motors on the subject of leather substitutes and rubber coated fabrics stated that it was shown du Pont supplied the larger portion of General Motors requirements of these items, that on account of constantly increasing consumption, sound judgment demanded maintenance of more than one source of supply, that du Pont had been afforded the opportunity of meeting competitive prices and that competitors now believed that no matter what price they put in they would receive no business. It was agreed:

> "that on an equal competitive basis at least 25% of the business should be placed with sources other than the du Pont Company. That the du Pont Company be notified that they should make their best price in their initial offer and not count upon having the opportunity to meet competitive prices, and that on the basis of competitive prices the Divisions were free to place their business to the best advantage. * * *" (GTX 412).

[fol. 546] The minutes further directed the secretary to advise C. L. Petze, at du Pont's Newburgh plant regarding their decision. Lynah testified that it was he who brought up the subject of more than one supplier of imitation leather and rubber coated fabrics and further testified that there was no understanding that du Pont would have any particular percentage of the business, that being left to the division managers; that the instruction to advise du Pont of the decision was not unusual and was done with all large contractors.

From 1923 to 1931 the committee negotiated 709 contracts. Only fourteen were with du Pont, and thirty were with du Pont competitors. The committee rejected a total of 342 contracts, of which thirteen were proposed by du Pont or were for material du Pont was in a position to supply to General Motors. The committee authorized 147 contracts before any contract was made with du Pont.

Lynah testified that anyone in the corporation could suggest an item for consideration by the committee as a contract possibility and if worthwhile a questionnaire would be sent to the divisions from the committee asking for their annual consumption of the item, specifications under which they purchased, prices and sources of supply. If the item was approved by the committee after return of the questionnaire, the committee would notify the division that it intended to ask for bids and would be given an opportunity to suggest bidders. After bids were received, the committee would decide whether to contract for the item and with whom. If a contract was negotiated, the interested divisions were notified and required to participate unless specifically exempted, and any objecting division was excused from participation if it could not be persuaded or its objection "ironed out".

[fol. 547] The rule against a division purchasing outside of a general contract was contained in a letter which Sloan sent to Pierre S. du Pont, John J. Raskob, C. S. Mott and Fred J. Fisher, as follows:

> "* * * as Chairman of the Committee I wrote to the Purchasing Agents of all Divisions and told them that they were not to be permitted to purchase outside of the General Purchasing Committee's contracts and indicated that anything of that kind that was done would certainly have the disapproval of the Corporation and in a way would not be tolerated." (GTX 458).

The committee frequently referred specification problems to production experts with the view of ascertaining whether standardized specifications were feasible on some of the common items used by the divisions, where the specifications varied. Lynah testified that this was one of the important functions of the committee.

He further testified that the committee followed certain general rules in carrying out its work; such as (1) no general contract was developed unless the item was used by more than one division as there would be no price advantage unless there was increased volume, (2) no general contract was developed unless it would result in substantial savings, (3) where possible the committee desired more than one source of supply, (4) contract prices were to be kept confidential to protect sellers as the General Motors volume would justify lower prices than the seller could allow a customer purchasing in less quantity. These rules were adopted eighteen months before the committee made any contract with du Pont.

The first items reached by the committee which were manufactured by du Pont were fabrikoid and top or rubber coated fabrics and no contract for these items was [fol. 548] ever entered into by the General Purchasing Committee. In the Fall of 1923, twenty-one months after the formation of the committee, the subject of paints was considered and was referred to the Paint and Enamel Committee as there were no standards established for that material. No contract was entered into by the General Purchasing Committee requiring purchase of paints and varnishes, although du Pont requested such a contract. After quantity discount, a two year contract supplying requirements of seller's make was made.

The General Purchasing Committee rejected contracts with du Pont because of lack of volume on photographic supplies, maintenance paint, floor paint, stripping materials and thinners, machinery enamels and aluminum spar mixing liquid, and because of lack of savings rejected contracts with du Pont on pyralin, leather substitute and rubber coated fabrics, denatured alcohol, antifreeze material, antifreeze methanol, varnish and oil type materials.

Lynah testified that once the committee decided to contract for an item, selection of the supplier was premised only on "quality, service and price" and in 1928, answering a Mr. O. H. Briggs, Sales Manager of du Pont-Pathe Film Manufacturing Company, who had asked him to specify the use by General Motors of du Pont photographic film, stated:

> "In the making of our purchases, we believe that each transaction should stand on its merits and we pre-

> sume that the company buying films for our use is guided by this same principle and that if the quality of your product and service, consistent with prices quoted, are the best he can obtain, he will buy from you." (GM 194).

Early in 1924 the committee developed the idea of a sliding scale discount contract permitting a supplier to fix [fol. 549] his base price on volume of business he had previously enjoyed and for increased volume offer an additional discount. Many contracts were made by the committee on this basis and the divisions were encouraged to participate in them.

In April 1924 G. H. Kerr, a du Pont executive in the Explosives Department, wrote to Pierre S. du Pont, Chairman of the Board of du Pont and General Motors, stating that about two years ago he conceived the idea that it might be of value to du Pont to use their purchasing power for the purposes of influencing concerns from whom they purchase to purchase in turn from them; that if the purchasing power of General Motors were added to that of du Pont, and if used intelligently, it would result in securing large business for du Pont; that this was proved in the Acid and Heavy Chemicals Division of the Paint Department of du Pont which received consideration from Bethlehem Steel because of the purchases General Motors made from them. Pierre S. du Pont wrote to Sloan asking him to talk the matter over with Kerr saying that "one of our representatives was with the Bethlehem Steel people and happened to see their file card in which they classified du Pont and General Motors as one." Sloan replied to Pierre S. du Pont's letter stating the suggestion was constructive and referred it to the General Purchasing Committee. Lynah and a Mr. Kother subsequently saw Mr. Kerr.

About a year previously, Pratt, Vice President of General Motors, wrote to R. R. M. Carpenter that it had recently come to his attention that a number of the automobile companies outside of General Motors were considering their purchases from the General Motors Accessories Division and from du Pont as purchases from "one interest" and that consequently to have a better view point when considering those outside companies it might be helpful to get the entire volume of sales that du Pont and [fol. 550] General Motors make to the outside companies. He procured the sales figures from the Accessory Division and Parts Companies of General Motors and obtained from Carpenter the 1922 figures on sales du Pont made to outside companies.

On July 2, 1924 the General Purchasing Committee reported that while there are cases which might be profitably dealt with on a reciprocity basis, there were so many complications and difficulties involved that it would be best "to stand on our own equities and require our suppliers to do so"; but that the divisions were at liberty to treat such cases individually as the situation might require.

Lynah advised Kerr on August 13, 1924 that the information relating to Manhattan Rubber Company and Nairn Linoleum Company would be secured since it was available without any expenditure of time on the part of the divisions, but stated:

> "It is understood that information in connection with our purchases such as I have tentatively agreed to endeavor to secure for you, is not to be used to influence our sources to place business with the du Pont Company, or to place the du Pont Company in a preferred position as a source because of its interest in General Motors.
>
> "There would be no objection to your advising our sources that the du Pont Company holds a large interest in General Motors and solicit their earnest consideration on this account." (GTX 538).

The following month, the General Purchasing Committee determined that as a practice General Motors could not undertake to supply information showing the volume of business done with any suppliers to the du Pont Company [fol. 551] but "that in special cases, upon request by the President of the du Pont Company to the President of General Motors, the situation would be properly dealt with" by the presidents; and, that it was believed General Motors' buying position "would be prejudiced in that suppliers who had been influenced to place business with the du Pont Company through their relationship with General Motors might reasonably expect" General Motors to place business with them.

On September 6, 1924, excerpts of the committee's meeting were sent to Irenee du Pont by Lynah with a letter wherein he stated the reciprocity practice had been discussed by the committee at two meetings and

> "as we are following a very definite policy in General Motors of having our Sales activities and Purchasing activities maintain their own status without the one influencing the other, it was felt that to supply the du Pont Company with the information requested by Mr. Kerr would convey the impression that the du Pont Company could influence General Motors' purchases." (GTX 539).

The General Purchasing Committee agreed that it could not undertake to supply to du Pont information showing the value of business done with its suppliers. Irenee du Pont answered that, of course, any action which General Motors took was entirely its own affair and du Pont should not be critical, but that reciprocity yielded excellent results.

That same month, Pratt wrote to the General Manager of the Paint Department of du Pont, who was anxious to secure an acid contract with Bethlehem Steel:

> "It is practically impossible for me to give you any information as to where our steel requirements will be [fol. 552] placed from month to month, as our Purchasing Agents in the various divisions do not know themselves until a day or two before the order is placed." (GTX 542).

that one of the divisions was buying extensively from Bethlehem during the first six months of the year and would continue buying according to their needs if "Bethlehem's price and quality continue to be favorable in comparison with other companies."

The only special occasion in which the President of du Pont requested information from the President of General Motors occurred in 1928. In January 1928 Lammot du Pont wrote to Sloan that the du Pont Explosives Department was confronted with the loss of its trade through the use by a competitor of a reciprocity argument; that du Pont desired to supply Jones & Laughlin Steel and

Inland Steel with figures as to purchases from them by du Pont and its affiliated companies; that General Motors 1927 purchases from Jones and Laughlin and Inland were requested; and stated:

> "It is, of course, understood that in presenting these figures to our customers it will be for the purpose of retaining trade now enjoyed. There will be no promise or assurance that these purchases will continue or that the du Pont Company's efforts in the past have caused General Motors to place this business." (GTX 543).

Sloan sent the letter to Pratt stating that on general principles he was not keen about this matter but it was the first time it had happened and was not very important since he did not believe General Motors was buying to any great extent from these companies. Pratt replied to Sloan indicating that little was bought from Inland but a great deal was bought from Jones & Laughlin, and continued, that as [fol. 553] Chairman of the Purchasing Committee, he had invariably refused

> "to give the du Pont Company any information which they might use in any way to influence their customers to think that the du Pont Company in any way could influence General Motors Corporation in buying their materials and supply because the particular customer bought from the du Pont Company. Personally, I think it is very necessary that we have a definite policy in this respect, especially in connection with our dealings with the du Pont Company (who are working on the principle of reciprocity while General Motors is not), as I am afraid there are instances where du Pont salesmen have implied that they could influence General Motors in choosing its source of supply as other than the three fundamentals of purchasing, namely, quality, service and price. * * *" (GM. 201).

He continued stating he had been guided only by the following considerations:

> "(a) The du Pont Company in fact has no more right to such information than any of the other 60,000 stockholders in General Motors * * *

(b) If we supply the du Pont Company with the amount of our purchases from any company they wish to sell, and their salesmen are allowed to display this information to their prospective customers, it necessarily follows that the impression would be made upon the customer that General Motors wishes that particular supplier to consider in dealing with General Motors its relationship with the du Pont Company, or otherwise General Motors would not supply the du Pont Company with the information.

[fol. 554] (c) * * * The principle of reciprocity must imply that you are giving something in order to get something. * * * If there is any thing to be gotten our position should be to see that it is gotten for General Motors Corporation rather than the du Pont Company.

(d) If our Purchasing Agents know that we are willing to allow the du Pont Company to use our purchases to influence du Pont sales, can we expect them to always resist giving weight to other considerations than the best interest of General Motors in placing their orders?

(e) I think that we are all pretty well agreed that we could not afford to use the principle of reciprocity in General Motors purchases. If that is true we certainly can not allow anyone else to imply that they can use General Motors' purchases for the purpose of reciprocity.

In the particular case under consideration I see no difference in Mr. du Pont using the information he requested in order to retain business than for him to use same to get business. In my judgment, if the du Pont organization are not able to maintain the business they have through the quality of their goods and the service they render, then they should not be allowed to retain it because General Motors' purchases goods from that particular customer of the du Pont Company. The steel companies must know the amount of business they are doing with General Motors Corporation, and if being reminded of this volume of business by the du Pont Company results in the steel companies being willing to do something for the du Pont Company

> that they would not have done without such reminder, [fol. 555] then we in General Motors are not getting all we should from the steel companies." (GM 201).

He continued that since Sloan had promised the information to Lammot du Pont, it would be supplied but felt it was a very bad precedent to establish. Pratt testified concerning this letter that his seeming inconsistent attitude toward Mr. du Pont and toward "some of the small men in the du Pont organization" regarding exchange of information was that when Mr. du Pont was involved, General Motors was establishing a policy and when dealing with employees of du Pont it was on an individual basis.

Other than the single incident in 1928 referred to above, the Purchasing Committee Resolution of 1924 appears to have been a dead letter. The Government has offered no proof that any information was passed to du Pont since that time. Sloan could recall no instance and the last two presidents of du Pont not only could recall no such instance and also were unaware of the Resolution until the trial of this case. The Court is satisfied on the basis of all of the record that the Resolution never was carried out and does not represent the parties' practice—certainly not in the last twenty-five years. Accordingly, the matter deserves no further attention.

The General Purchasing Committee was abolished in 1931 and no centralized purchases of products have been made since that time.

The evidence of record does not establish, or tend to support, the Government's contention that the General Purchasing Committee was created and operated as an instrumentality to carry out the desires of du Pont. In fact, actions taken by the Committee were seriously detrimental to du Pont in a number of respects. For example, the Committee initiated the two source of supply policy in connection with artificial leather and top materials; it [fol. 556] refused to make a contract with du Pont for pyralin; it encouraged the early development of competition for Duco, and refused to renew du Pont's requirements contract as soon as a competitive lacquer was available.

The Committee, the record shows, was created, operated and ultimately terminated in 1931 to serve General Motors interests—not du Pont. Relations with du Pont were but a minor aspect of its activities, and it dealt with du Pont only in the same manner as it did with other suppliers. All of its work is now ancient history and the evidence with respect to its activities has but limited probative value. But to the extent it deserves consideration it supports the position of the defense rather than the Government.

Fisher Body; and use of the discount and rebate system in purchases and sales between the defendant manufacturers with special reference to Fisher Body.

Lawrence Fisher testified that Mr. Durant, and Mr. Chrysler, who was associated with him, had stated that General Motors would have to expand their capacity because of the increased public demand for closed bodies, that General Motors was not organized to do that, and needed a source of supply for such bodies, that they wanted the Fisher brothers to agree to come into General Motors for that purpose. In the negotiations, it was agreed that General Motors was to purchase from Fisher Body such of the closed body business as Fisher Body "was able to handle now and in the future". The affiliation was reported to the stockholders of both companies, each stating that the association of the two assured both a continuity of demand and supply for the Fisher Body product.

The voting trust agreement made in 1919 between Fisher brothers and Durant also provided that General Motors acquire 60% interest in Fisher Body and the majority of [fol. 557] Fisher Body stock was placed in a trust for five years with the right to vote same placed in the hands of four trustees—two representing Fisher Body interests and two representing General Motors. At the same time the six brothers contracted to remain with and direct the operations of Fisher Body for five years ending in 1924; the voting trust to expire the same time as these contracts. The Fisher brothers had expressed a wish for closer association with General Motors; and in 1922 Fred Fisher, already a General Motors director, became a member of the General Motors Executive Committee.

In 1924 it was agreed that three of the brothers would devote their entire efforts to General Motors and the other three were to operate Fisher Body; that all six would take allotments in Managers Securities in lieu of compensation provided in the employment contracts; and the voting trust would expire. In October of that year Pierre S. du Pont wrote to Sir Harry McGowan that for months General Motors had been negotiating with the Fisher brothers for the purpose of arriving at a satisfactory plan to continue their association with General Motors and in the plan evolved it was thought that

> "interesting two members of the Fisher family directly in General Motors will have a very beneficial effect in breaking up a line of separation of the two companies' interests that has not been altogether wholesome. From lack of knowledge, the two sides have tended to criticize each other, without good result. Hereafter the Fishers will better understand GM problems and difficulties and, I think, GM men will better appreciate the Fisher problems. * * *
>
> "We all feel that the settlement of this business will prove very beneficial. Messrs. Fisher are very happy [fol. 558] over the solution of the problem, as for some time they have been fearful lest failure to get together would necessitate the breaking up of relations, perhaps a break in the Fisher family, concerning which they naturally have great pride, as they have been phenomenally successful in the cleanest kind of a business enterprise." (GM 32).

On June 30, 1926 General Motors acquired the remaining 40% interest in Fisher Body for the reason that Fisher Body had been unable to make price reductions which General Motors needed or to expand its plant capacity and reserve its entire production for General Motors. Fisher Body became a division of General Motors. In connection with this acquisition, John J. Raskob requested du Pont to loan General Motors a quarter of a million shares of General Motors common to finance the transaction, which was done.

In 1919 when the voting trust was first established only 25% of General Motors car production was in closed bodies, but by 1926 the percentage had increased to 90%. The 1919 contract with Fisher Body provided that Fisher Body was to receive cost plus 17% on all closed body work for General Motors.

At the time of the du Pont investment in General Motors, Fisher Body was building closed bodies for General Motors and buying pyroxylin coated materials for closed body tops from Textileather. Before and after 1917 du Pont sought to secure this business of Fisher Body but was unsuccessful. In July 1925 the Executive Committee of du Pont was informed that du Pont had been unable to sell Fisher Body closed car curtains and had lost orders of about 200,000 yards on rubber coated fabrics to Chase and Haartz, [fol. 559] owing apparently to price considerations. In 1925 du Pont's total fabric sales to Fisher Body amounted to $303,000.

In 1925 three events occurred which established du Pont as a substantial supplier to Fisher Body of rubber coated material: (1) Fisher Body made a change from pyroxylin coated to rubber coated decking not produced by Textileather; (2) du Pont introduced a new rubber coated decking "Glazed Pontop" which tests showed to be superior to others; and (3) du Pont, at the request of a Fisher Body Vice-President, employed Mr. J. Henry Smith as its Detroit sales representative for coated and combined fabrics. This last event resulted in an order to du Pont for 300,000 yards of Pontop for the balance of 1925. This Brown testified was "about six times as much business as we had got from Fisher in previous years."

During the last half of 1925 Fisher Body placed with du Pont heavy fabric orders that increased its purchases almost fourfold the following year.

In early 1926 du Pont introduced "Everbright" a new rubber coated decking which was widely adopted by the automobile industry and in 1926, after Fisher Body had tested it, du Pont was supplying Fisher Body with considerably more than one-half of its top material requirements. Thus, during the last half of 1926 Fisher Body placed the greater portion of their rubber coated fabrics business with du Pont's Fairfield plant.

The advent of the so-called super discount plan is considered under this heading since the Government's analysis reflects that its operations were directed to the Fisher Body business.

Early in 1924 the General Purchasing Committee developed the idea of sliding scale discount contracts. This [fol. 560] permitted a supplier to fix his base price upon the volume of business he had previously enjoyed and as an inducement for increased volume offered an additional discount. Several contracts were made by the committee on this basis and GM 162 contains excerpts of these.

Preceding the adoption of the super discount plan in August 1926, du Pont had been making discount arrangements with General Motors on certain fabric materials. In July 1925 the Paint, Lacquer and Chemicals Division reported to the Executive Committee of du Pont as follows:

> "We are negotiating a one year's contract dating from July 1st with General Motors which will cover the entire requirements of the General Motors units for pyroxylin finishes and a minimum of 50% of Fisher Body requirements. The committee has approved an extension of the discount scale which has been in force this year, and by purchasing maximum amounts during any given quarter General Motors may gain up to 12% discount from the present standard price. It is hoped that, since almost all of the Fisher Body business must be included if General Motors as well as Fisher is to obtain this maximum discount, that this will prove such a strong inducement for Fisher to give us this business that competition for Fisher business will be greatly lessened." (GTX 454, p. 4.)

The General Purchasing Committee invited W. P. Allen of du Pont to present a proposal for sliding scale quantity discounts on all purchases from du Pont and invited Standard Oil of Indiana to submit a similar proposal on its products. In August 1926 W. P. Allen, General Manager of the Chemical Products Department of du Pont, attended a meeting of the General Purchasing Committee of General Motors and presented a plan for sliding scale quantity discounts [fol. 561] counts to General Motors and Fisher Body purchases on Duco, thinner, fabrikoid, rubber coated fabrics, pyralin, paints for maintenance purposes, etc., and the details were set forth in a letter from Allen to the General Purchasing Committee in September 1926, setting forth that the discount arrangement would begin when purchases totaled $9,000,000:

	Discount
$9,000,000	$ 75,000
10,000,000	175,000
11,000,000	300,000
12,000,000	450,000
Each additional One Million	150,000

(GTX 461, 462)

He wrote again, stating it was desirable to keep the arrangement confidential:

> "I want to say a word to you about the desirability of keeping this matter confidential and in treating it as an arrangement within the du Pont-G. M. family rather than as a mere concession in prices on individual commodities.
>
> "* * * I again want to emphasize the importance of treating this whole matter in a confidential manner. It is obvious that we would be unable to continue this arrangement unless we can secure much higher prices from our other customers; and, if the terms of this arrangement become public knowledge in the trade, we would inevitably be forced to reduce prices generally, which would in turn wipe out the earnings which we propose to return to you as a rebate under this plan." (GTX 463).

[fol. 562] In January 1927 Lammot du Pont wrote a memorandum addressed to Pierre S. du Pont, Chairman of the Board of General Motors and John Raskob, Chairman of its Finance Committee, giving figures on General Motors purchases of fabrikoid, rubber and parlin, and stated:

> "I gather you were somewhat surprised at the statement that General Motors was not buying anywhere near all of their requirements of products which du Pont makes, from the du Pont Company." (GTX 460).

The tabulation attached consisted of figures for the year 1926 on products consumed by General Motors and Fisher Body, which were not enjoyed by the Fabrikoid and Chemical Products Divisions of du Pont, in a total amount of

$5,339,500. It showed that Fisher Body purchased from competitors a larger amount of fabrikoid and rubber products than the other divisions and was the only one listed as purchasing from competitors products in the chemical field, approximately $3,012,500 in primers, surfacers, ground coats, black Duco and thinners. The reason for this was stated by Allen to be that the figures on chemical products did not mention General Motors car units since Buick, Chevrolet and Olds purchased practically 100% of their requirements from du Pont, so that Oakland was the only unit purchasing anything worthwhile from competitors and this mostly in undercoats. He stated:

> "When we were discussing with the General Motors Purchasing Committee in the middle of last year the question of granting them a super discount as an inducement to place with the du Pont Company more of the General Motors business, they admitted that for the year up to that time General Motors and Fisher Body had bought a total of $12,000,000 worth of materials made by the du Pont Company, of which $8,000,000 [fol. 563] had been placed with us and $4,000,000 with competitors." (GTX 460).

A report by the Paint, Lacquer and Chemicals Department to the Executive Committee of du Pont for the month of November 1926 stated that General Motors was unwilling to make a requirements contract for 1927 although du Pont had reduced the prices of thinner and although these prices were subject to quantity discount; that competition in the pyroxylin finish field was apparently the cause for General Motors' attitude. It was also reported that du Pont had succeeded in selling Buick its fabrikoid requirements for the first half of 1927 "notwithstanding competition from Federal Leather Co. at a differential of 11¢ per yard under our quotations."

The following month, December 1926, another report was made stating that General Motors' action in receiving a bid from U. S. Industrial Alcohol on specified thinner composition, compelled du Pont to make an offer "at approximately the same net price when all discounts are included" and that this would have to be extended to all customers with the result that profits from the thinner business during

1927 would be less than in 1926. The report also stated under Sales of Special Significance that Oakland Motor Co. had placed an order for their requirements of fabric for the first six months of 1927 with du Pont "notwithstanding lower prices being quoted by Federal Leather and Cotex." The contract on thinner requirements was granted by the General Purchasing Committee to U. S. Industrial Alcohol for a six month period.

In October 1927 the Paint, Lacquer and Chemicals Department reported as follows:

> "Renewed interest on the part of General Motors people has been aroused in the question of the volume [fol. 564] oil-type undercoats and black 'Duco' business that is being placed with competitors by Fisher Body Division. Their own estimate is that General Motors Corporation might save as much as 500,000 a year by placing this business with us, due to our lower prices on undercoats and the increased discount this added volume would enable them to obtain on all other purchases under our so-called 'super-discount's' agreement. Our latest information is that this subject is being actively agitated by the General Motors Purchasing Committee but have not yet heard to what extent the operation of the super discount plan is swinging sentiment in our favor." (GTX 492).

The General Purchasing Committee of General Motors in July 1928 wrote the purchasing agents of the General Motors Divisions and Fisher Body regarding the du Pont super discount saying that while it was agreed that healthy competition was to be maintained if 80% of the purchases of material such as du Pont was in a position to supply are given to them on an even basis, the earnings under the super discount will be materially increased and they were urged to cooperate to that end.

During 1927 Fisher Body went back to pyroxylin decking on most models and purchased about one-half of its requirements from du Pont's competitors. In 1928 Fisher Body returned to Everbright and in 1929 competitive materials met its quality and Fisher Body reduced its purchases from du Pont to about one-third of its coated fabric requirements, which it continued to purchase until 1935 when the all steel top eliminated its use.

The du Pont Fabrics and Finishes Department reported to the Executive Committee for the month of June 1929 on the effect of the special discount plan stating that [fol. 565] $379,000, representing discount earned on total purchases of du Pont products amounting to $11,528,000, had been paid for the year ending June 30, 1929, and that for the previous year the discount had amounted to $200,000 on purchases of $10,201,000; that

> "While the value to us of this arrangement has been subject to question at times, there appears to be no longer any doubt that it has had and is continuing to have a very beneficial effect in fostering a friendly attitude toward du Pont products in general, which serves to minimize the occasioned differences that must of necessity arise in handling of such a large volume of varied products." (GTX 496).

With the depression years, General Motors production and its purchase declined. From 1929 to 1932 Fisher Body curtailed its output 71%—from 1,360,617 units to 395,604 units—and its purchases from du Pont were reduced. Since General Motors requirements had been cut to a point where it was unable to earn a discount in 1930, du Pont lowered the minimum amount at which super discount would become payable during the next year. In 1932 the super discount plan was terminated.

In October 1931 du Pont bought 300,000 shares of General Motors common stock from the Fishers; the other 200,000 were purchased by the Opel interests in Germany. Before this purchase the Fisher Brothers held 532,069 shares of General Motors common, or 11.8% of the 4,509,060 General Motors common held in Managers Securities. In addition, they held 1,600,000 shares of common stock received when General Motors purchased the remaining 40% minority interest in Fisher Body in 1926. In 1934 F. J. and C. T. Fisher retired as directors and members of the Executive Committee of General Motors and L. Fisher [fol. 566] succeeded C. T. Fisher as Central Office Executive at General Motors. He held this post until his retirement in 1944.

When the all steel top for passenger automobiles was adopted for all General Motors cars in the mid-1930s and until 1939 the principal use of fabrics at Fisher Body was the combined uncoated fabric for tops of convertible cars. Du Pont presently enjoys between one-third and one-half of this business. Fisher Body first used du Pont Teal, a fabric used for convertible tops, in 1926, and purchased 50% of its requirements of this fabric until 1930. In 1931 Fisher Body requested all its suppliers, including du Pont, to give a two year guarantee against damage by cleaning materials. Although du Pont tests showed its Teal would withstand cleaning materials, du Pont felt it could not make the guarantee, and Haartz Auto Fabric Company, which was willing to make such a guarantee, became Fisher Body's sole supplier of this type of fabric. By 1933 du Pont felt it could make the two year guarantee and sought to regain some of this business, but secured none until 1948.

In late 1946 Fisher asked du Pont to develop a combined uncoated fabric which would not be subject to the fading and shrinking problems evidenced in Haartz material. By 1948 du Pont had solved the problem and was awarded part of Fisher's business. From that year to 1951 du Pont enjoyed one-half of Fisher's business, and in 1951 about one-third. Since 1946 or 1947 du Pont supplies Fisher Body with 35-45% of its coated and combined uncoated fabric requirements.

In 1940 and 1941 du Pont secured the major share of Fisher Body requirements for coated fabrics. Since 1947-1948 this business has declined and du Pont is only one of four major suppliers of this fabric to Fisher Body. The [fol. 567] other suppliers are Haartz, Textileather, and United States Rubber. Fisher Body has adhered to a policy of several sources of supply.

The record, including all the evidence summarized in the preceding paragraphs, amply establishes that du Pont sought to sell its finishes and fabrics to Fisher Body. It early recognized that Fisher would be a substantial consumer of those products since it was making all of the closed bodies for General Motors cars. Du Pont's sales efforts included a personal approach to the Fisher brothers by Lammot du Pont, at the suggestion of Pierre S. du

Pont; the employment as a fabric salesman of one Smith who apparently was favorably known to the Fisher management; and the offering of a substantial overall price reduction in the form of the super discount for a period of about five years during the 1920s.

The first of these efforts appears to have resulted in no advantage to du Pont since its stock ownership in General Motors did not persuade Fisher to use Flint products. The other two efforts did, it seems clear, increase du Pont's sale of finishes and fabrics to Fisher Body but they do not establish the existence of any agreement or understanding that Fisher would favor du Pont, and they do not establish that du Pont's sales to Fisher resulted from its stockholdings in General Motors or its alleged control of General Motors. Moreover, the record indicates that even the discount did not secure for du Pont all of Fisher Body's business and indeed may not have increased the portion of Fisher's requirements purchased from du Pont though the total dollar purchases from du Pont by Fisher did increase. The record also shows that Fisher Body at all times conducted its purchasing with respect to finishes, fabrics and all other products in accordance with its own best judgment. The Court finds the testimony of Lawrence [fol. 568] Fisher particularly persuasive in this respect. His competence and knowledge of this matter cannot be questioned. He was in active charge of the Fisher Company for many years and subsequently served in high executive capacities with General Motors. It is highly unlikely, if not impossible, that Fisher Body's purchasing practices could have been influenced by an agreement with du Pont or by the latter's position in General Motors without his knowledge. His forthright testimony and general demeanor on both direct and cross-examination are most convincing that Fisher Body was neither party to an agreement with du Pont nor the victum of du Pont domination.

Finally, the extent to which Fisher Body has purchased over the years from competitors of du Pont in substantial quantities cannot be squared with the charge that Fisher is a captive market for du Pont. The record is clear, for example, that Fisher immediately encouraged competitors of du Pont to produce a lacquer comparable to Duco, and has consistently over the years bought substantial amounts of topcoats from two or three of du Pont's competitors, and practically all of its undercoats are purchased from a single competitor of du Pont. Other examples are found in the detailed analysis of the evidence relating to the various products sold by du Pont.

Finishes

Duco

In 1910 General Motors and Chevrolet had been purchasing practically their entire requirements of automobile finishes from Flint. After the acquisition of Flint by du Pont, Flint's position as a supplier of paint and varnish to General Motors was not enhanced; in fact, Flint lost position as a supplier. In 1918 Flint had all the Buick, Oakland, Olds and Chevrolet business. In 1921 it lost half of [fol. 569] the Oakland business, and in 1923 some of the varnish business at Buick, Oakland and Olds.

Immediately following World War I the automobile industry entered into an era of great expansion. One important problem remained, however, that of a finish which would last as long as the automobile and which could be applied on the assembly line in a matter of hours.

Du Pont had entered into the nitrocellulose lacquer field in 1903. By 1920 it had a small but varied line of products. These lacquers were quick-drying and provided a durable film, but use was limited because the lacquer did not contain much solid material and if that were increased the lacquer became too viscous to work.

General Motors officials were interested in the problem and upon recommendations of Walter P. Chrysler and Herman L. Weckler of Buick, a Paint and Enamel Committee was created in December 1921 to study the problem. Clements of General Motors Research became Chairman and representatives of the car divisions were members.

The Paint and Enamel Committee began to test the finish used in each of the car plants and discovered the difficulty was in the top coat. It contacted every reputable paint manufacturer in the country and tested available material.

Kettering and Fisher Body used lacquer on airplanes during World War I and Kettering thought it might be the solution to the problem in the automotive industry. It had never been used on automobiles because it had a low solids content requiring application of many coats when used in colors.

Among the paint manufacturers approached was du Pont, which evinced an interest in the idea. By this time [fol. 570] du Pont discovered a process for producing a lacquer with a high solids content, called Duco. Edmund M. Flaherty, Assistant Director of Sales for du Pont's Chemical Products Division, told Harry Mougey, a member of the General Motors research group, of this new lacquer and agreed to send samples to Dayton, Ohio, to be tested with the other materials under observation by the Committee.

After testing samples of this new lacquer, Kettering and Henry Mougey became enthusiastic over its possibilities. However, it lacked the high gloss of varnish and it would not adhere to the traditional undercoats used on metal.

This was in the Spring of 1922 and marked the beginning of an experimental and production testing period that lasted more than two years. Both General Motors and du Pont joined in the testing to adapt the new lacquer to the demands of the automobile production line and a great deal of collaboration ensued toward this end. Williams of du Pont spent a considerable period of time working with Mougey of General Motors before the problem was solved. Both Williams and Flaherty testified that they met no chemists from other companies in the General Motors laboratories.

While Duco was still in this testing stage Pierre S. du Pont, then President of General Motors, at the request of the Paint and Enamel Committee asked du Pont to stop all negotiations with other possible consumers and all plans for selling these products in the open market "until such time as a suitable conference may determine whether it is possible for General Motors Corporation to obtain the entire product for the du Pont factories over a period of time in order to insure a satisfactory quantity of material". At the same time, he requested Sloan to secure a sample estimate from the several General Motors Divisions as to their probable needs if Duco were to be used so that [fol. 571] du Pont might set about constructing the necessary facilities. This feeling had been orally expressed to

Irenee du Pont and had been discussed at a meeting of the General Motors Paint and Enamel Committee which was attended by a du Pont representative.

In a report to the Executive Committee of du Pont in October 1922, the Cellulose Products Department stated that they had seriously considered the whole matter and after weighing all the factors was of the opinion that "it would not be to our best interests, nor General Motors', to give them this exclusive right." The report further stated that "any competitive advantage that General Motors might obtain by getting the exclusive use of our finishes must be temporary only" and such a practice "would have the effect of encouraging competition in the field," so that it would be better to take full advantage of the start du Pont had by being first in the field and "getting entrenched just as widely as possible."

Irenee du Pont in reply to Pierre S. du Pont's request said:

> "We are embarrassed at your request to stop all negotiations with possible consumers and plans for selling these in the open market, this because we have already started a number of small users in business and cannot now cut them off from their source of supply. Also, the rumors of the value of these products are spreading and inquiries will be received from others who are users of Fabrikoid, Pyralin, etc., and we would be in a most embarrassing position to have to refuse sale of 'Viscolac' or 'Duco'. This might even result in their ceasing to use Fabrikoid and Pyralin by way of retaliation. Finally, if we don't sell on the outside the demand will be filled by other manufacturers which will entrench competition for us at a later date." (GTX 380).

[fol. 572] Flaherty testified that du Pont was selling Duco to Franklin, Pierce Arrow and other automobile companies.

By early 1923 General Motors Research was convinced that Duco was the answer. In March 1923, Mr. Rogers, the paint superintendent at Oakland, did some experimental work of his own and developed a burnishing process that brought up the lustre of Duco. In the Spring of that year, Oakland decided to use Duco on its 1924 open car, with the hope that it would reestablish its lagging reputation. The promotion report on automobile companies in October of that year reported that Oakland distributors were demanding Duco on closed cars. Oakland's use of Duco was an immense success. Fisher Body Division, which was building the Oakland closed bodies, decided to use Duco.

Herman L. Weckler, Works Manager at Buick, recommended Duco to its manager, Mr. Bassett, in 1923, but Bassett decided to wait until the Oakland results were in. In the Spring of 1924, upon the continued recommendation of Weckler, Bassett decided that Buick would use Duco on its 1925 models.

H. H. Rice, President of Cadillac, wrote to Clements, who had urged a speedy decision on the use of Duco by General Motors Divisions, agreeing that "all speed should be used in making the investigation but I think one of the most dangerous things the Corporation could do would be to adopt, generally, the new method of painting before it had been tried out in every conceivable fashion." Lawrence Fisher testified that in 1924 Fisher Body used Duco on the first steel bodies for Cadillac. In writing to Allen of du Pont, Sloan stated that he disagreed with the attitude of Cadillac and would see what he could do toward helping the situation. Regarding Buick, he suggested that Allen contact Mr. Bassett of that Division.

[fol. 573] The caution on the part of Cadillac and Buick in adopting Duco was set forth by Sloan in a letter to Allen on February 4, 1924 wherein he said that he was disappointed to find Cadillac and Buick reluctant to accept a car with a dull finish.

At a meeting in April 1924, Bassett stated that he intended to put the entire Buick production into Duco and it was adopted for both its open and closed bodies on the 1925 model. Cadillac, for about two years before it adopted Duco as its standard finish, offered it only on an optional basis, and did not make it standard until 1926. Thus the change over to Duco was slow. Sloan said:

> "It is hard to separate reluctance from responsibility. Responsibility of a general manager of a division is very great, and while he wants to make technological progress, and improve his product, he has got to be

> pretty careful that any decisions he has made lead to that end. * * *" (Sloan 3017-3018).

Sloan testified that he was interested in Duco because it had great significance from the standpoint of consumer appeal and because of its economic advantage; that he had no interest in "pushing" Duco other than improving General Motors; and that the decision to try Duco was left entirely to the respective Divisions who were given no orders by him or anyone else.

In July 1924 the General Purchasing Committee began development of a general contract covering Duco. The minutes of the General Purchasing Committee in November 1924 in connection with a discount provision in the proposed general contract for Duco stated:

> "It was brought out that no effort had yet been made to develop competitive price situation as regards [fol. 574] pyroxylin paints and that this fact should be given consideration by the du Pont Company."

In December 1924 an agreement was reached with du Pont whereby General Motors undertook to purchase its entire requirements of pyroxylin finishes for the first six months of 1925. Within a month, Lynah pointed out that a field of competition for Duco should be developed and suggested that the Research Laboratories begin "characteristic and durability tests of competitive pyroxylin finishes." Lynah in February 1925 requested Research to test the products of seven named companies. The general contract provided for purchase of buyer's requirements of Duco and thinner.

By May 1925 Lynah, in a letter to Mougey, made reference to the fact that other automobile manufacturers—Paige-Jewett, Flint, and Packard—were using a competitive pyroxylin finish sold by the Zapon Company. Before the expiration in July 1925 of the first contract with du Pont, Lynah undertook again to find a competitive product and suggested to the members of the General Purchasing Committee:

> "* * * It is appreciated that a field of competition for 'Duco' should be developed." (GM 172).

At this time Fisher Body had started to use Forbes black lacquer in addition to Duco which it had adopted in 1924, although the Forbes product had not been tested or approved by General Motors Research. Du Pont did not regain any of the black Duco business from Fisher Body until 1931 when it offered a new and superior product. Du Pont, Rinshed-Mason, and Forbes have continued to be Fisher Body's major sources of supply for topcoats, and [fol. 575] for undercoats Fisher Body has used Rinshed-Mason almost exclusively.

In May 1925, Mougey, Chief Chemist for General Motors Research, wrote to Lynah that the problem of testing lacquers was not easy:

> "* * * the matter of tests on cellulose nitrate finishes is a very difficult one. When one is dealing with material as durable as Duco, it is very difficult to estimate its total life and also estimate the life of other materials as compared with Duco. * * *
>
> "* * * One of the reasons why it is so difficult to approve finishes made by different companies is because each color is a problem in itself. A company may make a very good black and yet certain shades of grays, blues, etc., may be very bad. * * *
>
> "Another factor which makes it very difficult to judge these finishes is the fact that all of the companies who are trying to duplicate Duco are constantly improving their materials. We feel that none of the exposure tests which we made last Summer and last Winter represent the same material as was submitted by you this Spring. In most cases we feel that the Companies have improved their materials in the meantime, but in some cases, due to inability to actually determine whether a change is an improvement or not, we feel that changes have been made for the worse. This matter of changing the composition of the material is one on which we have insisted very strongly with the du Pont Company. No changes are made in the material until after very extensive tests. * * *
>
> "We feel that in the case of material which is advertised by our Companies as strongly as Duco, no pro- [fol. 576] duction should be undertaken on material

which has not had at least a full year exposure test on test racks. * * *

"In conclusion we believe that the other Companies who are competing with du Pont have already developed individual colors in many cases which are the equal of Duco. We also believe that most, if not all, of the other Companies have not as yet developed a full line of colors of high durability. It is an open question whether it is possible at the present time to choose any individual color made by a competing company and guarantee that its durability is as great as that of Duco. In addition, there are many other properties such as quality of the color, ease of spraying, covering power, polishing properties, and other working properties which must be determined by actual tests on cars under production conditions.

"Under these conditions we believe it would be desirable for the General Motors Corporation to put out a limited number of cars finished with the particular colors from competing Companies in which we are most interested. * * * In this way we feel that the General Motors Corporation will be in a position by next Spring to definitely put into production materials made by some of the Companies competing with Duco. * * *" (GM 176).

Upon the expiration of the first general contract for Duco, a second agreement covering the last six months of 1925 was executed for all requirements of the car divisions, and 50% or more of Fisher Body's requirements. Lynah testified that the reason for the 50% requirement of Fisher Body was that it "was not a wholly owned division of General Motors" and had to be sold on the desirability of participating [fol. 577] in this contract. When the second contract was to expire, Lynah advised Research that it would be impossible to approve a competitive lacquer for at least another year and the same contractual arrangement was continued for 1926.

In 1927 the contract was changed so that General Motors bought its requirements of seller's make. Lynah testified this meant that General Motors could buy as much or as little of du Pont's pyroxylin finish as it wished and was free to purchase from competitors and this interpretation of the contract is supported by the terms of the contract itself. Competitive lacquers were approved by General Motors in 1927.

Some time between 1927 and 1930 Cadillac and Oldsmobile began using competitive lacquers. Fisher Body for many years purchased finishes from a number of sources, including du Pont, and is the principal purchaser at General Motors of undercoats, but buys these principally from Rinshed-Mason. Cadillac has continued to use Rinshed-Mason topcoats since the late 1920's, and its undercoats have been supplied by a number of different companies, including Rinshed-Mason, Ferbert-Schorndorfer. Ralph J. Wirshing, head of General Motors Research Laboratories, testified one of the reasons Cadillac uses Rinshed-Mason is because of the proximity of its plant to Cadillac. The Chevrolet Division continues to buy its entire requirements from du Pont for both its topcoats and undercoats. Pontiac Division buys exclusively from du Pont; the du Pont plant being only thirty miles away. Buick uses du Pont topcoats and undercoats from a du Pont plant close by. Oldsmobile has used Rinshed-Mason topcoats since 1927 and Forbes undercoats since the 1930s.

It has been admitted that soon after the advent of Duco [fol. 578] du Pont sold this finish to a considerable number of other automobile companies. Shortly after the adoption of Duco, du Pont offered and sought to promote a nitrocellulose undercoat made from essentially the same material as Duco as a substitute for the oil base product then used. The new product was sold to automobile companies other than General Motors—Nash, Marmon, and Chrysler—because it afforded quicker drying and better surfacing qualities. Du Pont was unable to sell it to Fisher Body or any of the General Motors car divisions.

Dulux

By 1926 Duco was in extensive use as an exterior finish for domestic refrigerators. At that time Frigidaire used Duco as an exterior finish for substantially all of the refrigerators which it made. In 1927 Frigidaire abandoned the use of Duco and spent over $1,000,000 to install equipment for finishing refrigerators with porcelain. It did this despite the efforts of du Pont to persuade Frigidaire that it should continue to use Duco. By 1930 Frigidaire was using a porcelain exterior finish on more than 80% of its refrigerators. Throughout this period General Electric, Frigidaire's major competitor, continued to use Duco or a similar lacquer finish. When Westinghouse began to manufacture refrigerators in 1932, it also used Duco. Even after the development of Dulux, Frigidaire continued to finish the exterior of about one-fourth of its refrigerators with porcelain—and is the only manufacturer of refrigerators in the United States which uses an exterior porcelain finish.

In 1932 General Electric and Westinghouse used Duco. The technical personnel of du Pont, and General Electric worked closely in General Electric's plants and laboratories on the problem of adopting Dulux to General Electric's [fol. 579] manufacturing process. General Electric was the first refrigerator manufacturer to use Dulux, Westinghouse was second, and Frigidaire did not adopt it until a year later.

C. L. Van Derau, a manufacturing executive at Westinghouse for over twenty-five years, testified that the reason it has purchased its entire requirements of refrigerator finishes from du Pont for many years was the fact that du Pont had "the finest trained technical group at their beck and call" and rendered excellent service.

With the exception of Frigidaire, the principal manufacturers and many of the smaller companies use Dulux exclusively; Frigidaire uses it on three-fourths of its refrigerators. Knight of General Electric, Norberg of Crosley, and Van Derau of Westinghouse, testified that these companies have used Dulux for many years because of its outstanding quality.

Dulux is not used by Frigidaire or the other major refrigerator manufacturers in inner liners or food compartments.

Finishes—Accessory Divisions

Richard C. Williams, Manager of Automotive Sales, Fabrics and Finishes Section of du Pont, testified that it sold substantial quantities of black lacquers to AC Spark Plug, but that Delco-Remy purchased its insulating varnish from two other sources. Du Pont has not sold to the Inland division in large quantities because the service problem was too great.

Guide Lamp Division has purchased quantities of enamel from du Pont, but a competitor succeeded in developing a primer which gave greater satisfaction and secured the business. The Ternstedt Division before World War II [fol. 580] obtained its interior enamel requirements from du Pont for a number of years but "as an economy move" switched to a competitive product although du Pont still has some of its business.

Williams testified that du Pont enjoyed varying degrees of success in its efforts to sell to the accessory divisions. Each division, he testified, purchases from du Pont or one or more of its competitors in accordance with the division's determination of price, quality and service.

Electro-Motive Division, manufacturer of Diesel locomotives, purchases 70-75% of its exterior finish requirements from du Pont. Its interior finish and its insulating varnish requirements are supplied by competitors.

The Packard Electric Division which uses cable lacquers and varnish was supplied by du Pont from 1929-1933 with all its requirements of black high tension lacquer being approximately 15,000 gallons a year. In 1933 a superior product was introduced by a competitor and du Pont lost the business although it continued as a supplier in lesser volume. In 1936 du Pont regained 50-75% of the black high tension lacquer business due to improvement in its product and continued to supply Packard Electric until 1939, when a competitor, the Standard Varnish Company, produced a lacquer of considerably higher heat and oil resistance and procured practically all the requirements of Packard Electric until the war.

Packard Electric was purchasing clear high tension lacquer from Arco and Ferbert-Schorndorfer, until 1934 when William Fisher testified they recognized the need for higher quality clear and started to buy most of their requirements from du Pont. This continued until 1936 when ethyl cellulose was produced. The Glidden Company secured the business in 1936, although du Pont was selling the lower quality [fol. 581] clear high tension lacquer to Packard Electric, until 1939. Fisher testified that since the war du Pont has not sold this lacquer to the Packard Electric Division.

In 1929 du Pont failed in its attempt to sell Packard Electric its low tension lacquer for cables. This was before the Division was acquired by General Motors. In 1931 Packard Electric produced its own low tension lacquer and purchased its film scrap solution from the Eastman Kodak Company. Fisher testified that du Pont was never able to persuade them to purchase their low tension lacquer and their film scrap solution from them.

Price Inertia

In 1927 the manager of General Motors Canadian subsidiary wrote to Pratt protesting that du Pont's subsidiary in Canada was not giving them a square deal on prices charged for Duco, that they were therefore contemplating using in part competitive products. Pratt replied that he saw no objection to using competitive products to get the du Pont subsidiary on a "proper basis" and that in fact it had been recently necessary for General Motors in the States to place some thinner business with a competitor as a disciplinary measure to bring down the price of Duco and thinner. The record shows that six months later du Pont met the competitive price and gained a general contract for 60% of General Motors thinner requirements.

In February 1927 Pratt wrote to Coyne of du Pont, complaining of their price policies:

> "* * * I want to tell you confidentially that the fellows responsible for the price policies in selling du Pont products to General Motors Corporation have used very bad sales psychology. I think I am safe in saying the du Pont Company has never voluntarily [fol. 582] made a price reduction on its products to General Motors. Price reductions have only been obtained by General Motors bringing in outside competition and forcing the du Pont Company to meet prices of outside competition in order to maintain the business. * * * Practically all successful suppliers of automotive parts and materials (with the exception of the du Pont Company)—when through improved design or increased production are in a position to make lower costs—pass part of the advantage of the lower costs on to their customers with reduced prices, without solicitation or pressure. I know you are salesman

> enough to appreciate the psychology in this policy, and realize the lack of good will created with a customer when it is necessary for that customer to take steps to bring down prices to a proper point, rather than having proper prices made through the initiative of the supplier." (GTX 485).

In response Coyne wrote Pratt stating he assumed he would have no objection to showing that part of the letter referring to the sales policy to du Pont's sales advisor so that he could look into the matter.

Du Pont's slowness in meeting competitive prices on Duco was contained in a du Pont report for 1928 wherein it was stated:

> "Naturally the manufacturers welcomed this reduction although several of them did not fail to remind us that our competitors had long since favored them with lower prices." (GTX 490).

80% of du Pont's total finish sales are made to customers other than General Motors. In 1948 du Pont sales of finishes to General Motors totaled $21,209,642 and its finishes [fol. 583] sales to customers other than General Motors totaled approximately ninety-seven million dollars. The loss of a number of the early automobile customers for Duco had been due to the fact that they had gone out of business—such as Franklin, Rickenbacker, Marmon, Moon, Cleveland, Chalmers, Morris, Lexington, Paige, Hupmobile, Gardner, etc. Williams testified that du Pont had been selling to Nash, Studebaker, Hudson, Packard and Willys since the middle 1920s. Until the early 1930s du Pont sold substantial quantities of topcoats and undercoats to Chrysler, but Chrysler thought their interests would be better served if they found a supplier who would take care of their entire requirements, and Pittsburgh Plate Glass has enjoyed the major share of Chrysler's finish requirements. Government Exhibits 1376-7 show that in 1935 Ford was buying one-half of its requirements from Du Pont and manufacturing the other half. In 1938 Ford ceased to buy Duco from du Pont but resumed substantial purchasing when Henry Ford II became active in Ford management.

Du Pont admits that for the ten years preceding the filing of the complaint, approximately three-quarters of its total sales to General Motors have consisted of products of its Finishes Division and that General Motors has been its largest single customer. The largest single finishes item which General Motors purchases from du Pont is Duco. In recent years about two-thirds of General Motors total purchases of finishes from du Pont have consisted of Duco, and the thinner and solvents used in its mixing and application. Thus in 1947 of du Pont's total sales of finishes to General Motors amounting to approximately nineteen million dollars, Duco and thinner sales constituted over twelve million dollars. For the six year period 1938-1941, 1946-1949, the sales totaled sixty-nine million dollars, forty-eight million dollars of which, con-[fol. 584] stituting slightly over 69% of the total sales, were for Duco and thinner.

Statistical Charts on Finishes

The charts submitted by the Government are GTX 1387, being du Pont's percentage of finish sales to General Motors; GTX 1393, 1394 and 1400 being General Motors' purchases of finish products from du Pont and from competitors of du Pont. GTX 1387 indicates 90% of du Pont's finish sales in the automotive field were to General Motors. GTX 1393 and 1394 show General Motors percentage and dollar volume of purchases from du Pont and competitors in paints, enamels, primers, lacquers, thinners and pyroxylin was 70% in 1946 and 72% in 1947. GTX 1400 is a tabular representation of the same information contained in GTX 1393 and 1394 and lists approximately twenty suppliers of finishes to General Motors other than du Pont with the amounts supplied in 1946 and 1947, and indicates that General Motors purchased finishes from du Pont constituting 70% of its purchases in 1946 and 71.55% in 1947. Defendants have offered DP 568 as being an accurate portrayal of General Motors' purchases of finishes from du Pont and its competitors. This chart shows that General Motors purchased 67% of its finishes from du Pont in 1946 and 68% in 1947.

The only differences in Government charts GTX 1393, 1394 and 1400 and defense chart DP 568 are: (1) the

Government has excluded from its charts the purchases of solvents which are items listed in GTX 1343A as being purchased from competitors of du Pont in the amount of one-half million dollars in 1946 and over a million dollars in 1947, and (2) the defendants have included solvents and excluded from their charts products [fol. 585] described as heavy-bodied cements, pyroxylin solutions, plastic protective coating, wax, and rubbing and polishing compounds.

Since the range of difference between the percentages submitted in the defense chart and the Government charts are not in significant disagreement—the Government asserting 70-71% and the defense 67-68%—the Court is of the opinion that a conclusion as to percentages will have no material bearing on the issues herein, and will not indulge in a technical discussion of the relative methods used in arriving at the respective percentages.

The record discloses that a very substantial portion of finishes sales consist of Duco, a pyroxylin lacquer used principally as a topcoat on automobiles, and Dulux, a synthetic enamel widely used as a refrigerator finish. The Court finds on the basis of all of the evidence of record that du Pont's success in the sale of finishes to General Motors is in large part attributable to the superior quality of these finishes and to the pre-eminence it gained as the developer of these two products, its continuing research, and outstanding service.

Duco was invented and patented by du Pont. It made a substantial contribution to the art of automobile finishing and was one of the factors that made possible mass production of automobiles. Testimony of Sloan, Lawrence Fisher and Weckler establish beyond any doubt the high value of this development to the automobile industry. Sloan recognized its potentialities in advance of some of his associates and urged the adoption of Duco. Such action on his part does not evidence a trade agreement with du Pont or response to alleged du Pont control. It is rather an instance of his foresight and leadership, not [fol. 586] unlike a number of other incidents that contributed to his success as the Chief Executive Officer of General Motors. The testimony of Weckler, who for many years was an executive of Chrysler Corporation, was similarly convincing that Duco answered a long felt need in the automobile industry and made its way solely on its merits. In short, the Court rejects as wholly without foundation any contention that Duco was forced upon General Motors by reason of du Pont influence or domination.

The record shows that after competitors began to produce a lacquer comparable to Duco some General Motors Divisions turned to such competitors while others continued to buy in whole or in large part from du Pont. Du Pont, it appears, has retained its position as the most important single supplier of General Motors. The Government has failed to establish, however, that this position was maintained in any illegal manner. Flaherty, Williams and Wirshing all made clear that du Pont's position was at all times a matter of sales effort and keeping General Motors satisfied. There is no evidence that General Motors or any Division of General Motors was ever prevented by du Pont from using a finish manufactured by one of du Pont's competitors; nor is there any evidence that General Motors has suffered competitively from its substantial use of Duco. Kettering testified explicitly that the superior finish used on General Motors cars was responsible for their higher resale value. In view of all the evidence of record, the only reasonable conclusion is that du Pont has continued to sell Duco in substantial quantities to General Motors only because General Motors believes such purchases best fit its needs.

The evidence with respect to Dulux presents a similar picture. It is apparently an ideal refrigerator finish and is widely used by a number of major manufacturers other [fol. 587] than General Motors. Several representatives of competitive refrigerator manufacturers testified that they purchased 100% of their requirements from du Pont. There is no evidence that General Motors purchased from du Pont for any reason other than those that prompted its competitors to buy Dulux from du Pont—excellence of product, fair price and continuing quality of service.

Fabrics

One of the first fabrics which du Pont developed after its 1910 purchase of the Fabrikoid Company was a pyroxylin coated fabric which was used in the automobile industry for upholstery. My mid-1913 sales of this artificial leather fabric were made to nearly every major automobile company including the General Motors car units. In 1918 du Pont developed "Pontop" a double rubberized top material. During 1925, it produced "Glazed Pontop", which was replaced in 1926 by "Everbright", a material similar to the Pontop but having greater lustre and durability. Everbright at one time supplied 75% of all the closed car top material business in the country. In 1937 Cavalon, a rubberized upholstery material compounded with ground leather and finished with a thin coating of shellac, which was brominated or given a case hardened surface, was developed and was used particularly in the trucking, theatre seating and public seating trades. During the period Glazed Pontop and Everbright were manufactured, du Pont developed a combined uncoated fabric which it called "Teal". This fabric was dyed before it was woven and used for the tops of open cars.

For about two decades none of the automobile divisions of General Motors have been purchasers of fabrics for use in making automobile bodies. With the advent of the closed body car in the late 1920s and early 1930s, these automobile divisions discontinued the making of open car [fol. 588] bodies. Fisher Body had manufactured closed bodies for General Motors cars before that type became popular and later continued the manufacture. In the mid-1930s it adopted the all steel top for all General Motors cars. Since these changes Fisher Body became a large consumer of fabrics for automotive use.

Until the adoption of the closed body car, fabric purchases by the General Motors car divisions were made principally by the respective divisions.

Before the stock purchase in late 1917, du Pont was supplying substantially all of the coated fabric requirements for both upholstery and top material for Chevrolet and Oldsmobile; about one-half for Buick; about one-third for Oakland; and all interior trim for Cadillac, but none of the top material.

Cadillac, Oldsmobile and Oakland used fabrikoid for interior trim and by 1916 Buick was one of du Pont's four largest fabrikoid customers.

In 1918-1919 Chevrolet, Buick, Oldsmobile and Oakland made purchases of Pontop when it was introduced but Cadillac made no purchases until 1920.

Chevrolet continued to use artificial leather until 1930 and du Pont enjoyed a substantial portion of its upholstery and trim requirements. After the discontinuance of the open body it made only limited purchases of the same for upholstery and trim. In 1917 du Pont attempted to persuade Chevrolet o change to another top material which it believed was superior but was unsuccessful and the business went to a competitor; this was regained in 1919, however, when du Pont introduced "Pontop". Du Pont maintained its pre-1917 position as Chevrolet's rubber coated top material supplier until 1924 when it purchased its requirements from competitors, but regained that business in 1925 when Chevrolet was having both quality and [fol. 589] delivery difficulties with its other suppliers. Du Pont did not succeed in selling Chevrolet its combined uncoated top material until 1927, when it started buying du Pont's Teal. During this time Haartz was Chevrolet's supplier. In 1929 Chevrolet used this fabric for about one-half of its production. In 1930 Chevrolet abandoned rubber coated top materials and du Pont secured about one-half of Chevrolet's business for uncoated materials.

During 1920 du Pont, at Chevrolet's request developed a coated panel board and sold it to Chevrolet at about one-half the price charged by other panel board manufacturers. By the end of 1920 these manufacturers reduced their prices and Chevrolet thereafter purchased exclusively from them. During the 1920s and 1930s Chevrolet used a large quantity of coated fabrics for winter fronts to prevent radiator freezing and during this period purchased the du Pont product for only one year—1936.

Cadillac purchased du Pont's fabrikoid for interior trim for all its requirements until 1924. In that year for six months it purchased its requirements from Textileather. Prior to 1917 Cadillac purchased all its requirements of top material from competitors of du Pont until 1920. In that year it purchased du Pont's "Pontop" and continued to do so until 1924 when it ceased manufacture of open bodies.

Oakland purchased fabrikoid for use as interior trim until 1933 when it ceased the manufacture of open bodies. Previous to 1917 and from 1919 to 1922 this division purchased one-third of its coated fabric requirements from du Pont. In 1918 du Pont had difficulty in maintaining color uniformity and Oakland purchased from competitors. In 1922 Oakland purchased its entire requirements of coated fabrics from du Pont, but in 1923 began to purchase from competitors. By 1925 du Pont again received about [fol. 590] one-third of its coated fabric business. In 1926 it converted to uncoated combined top material and purchased from du Pont competitors.

Except for 1922, when du Pont supplied Buick's entire requirements for coated fabrics, it supplied one-half of this division's requirements. When du Pont commenced the manufacture of uncoated combined top material, it solicited the Buick business but received no orders until 1927-1928, when it supplied all its requirements. In 1929-1930 Haartz became Buick's supplier of this fabric. Buick discontinued the manufacture of open bodies in early 1930.

Oldsmobile, between 1923 and 1929, purchased about one-half of its requirements for coated and combined fabrics from competitors of du Pont. In 1923 it purchased one-half of its requirements from du Pont in the rubber coated material "Pontop". From 1924 through 1926, this division used uncoated combined top material and purchased a substantial amount from du Pont. In 1927 and until 1929 it purchased from du Pont's competitors.

Between 1918 and 1923 du Pont supplied the bulk of General Motor's fabric business. The depression of 1920 and 1921 caused a drop in automobile sales and the automobile manufacturers, including General Motors, had large stocks of coated fabrics on hand, including future commitments under contracts. Several of the General Motors units requested du Pont to cancel their contracts but du Pont refused. An agreement for deferred delivery was made on Chevrolet's contract and settlement eventually made on the Buick, Oldsmobile and Oakland contracts to cancel same on the condition that each would purchase their entire requirements of coated material for the year 1922 from du Pont. Due to the settlements of the 1920 contracts, du Pont in 1922 supplied a greater percentage [fol. 591] of General Motors requirements than it had previously.. In 1923 these three divisions commenced to purchase this fabric from other manufacturers.

Early in 1923 the General Purchasing Committee found that General Motors had purchased nearly all its fabric requirements in the preceding year from du Pont and determined that at least 20% of the requirements should be placed elsewhere. In 1931 du Pont made a study of its total sales of coated and combined fabrics and the study showed that du Pont supplied 31.5% of General Motors requirements in 1930.

Fisher Body manufactured closed cars for the General Motors car divisions before 1917, and between 1924 and the early 1930s, manufactured the open bodies and convertibles. Until 1935 or 1936, when the all steel top was introduced, Fisher Body used coated fabrics as top material for the closed cars, but used no coated fabrics for upholstery and trim until 1939. It used combined fabrics as top material on convertibles. Fisher Body was buying none of its material from du Pont, purchasing from Textileather, until it bought du Pont's "Glazed Pontop" in 1925. In 1927 it changed to pyroxylin top materials and purchased one-half of its requirements from Textileather. It commenced to use du Pont's Everbright in 1928-1929. In 1929 it purchased two-thirds of its requirements from du Pont competitors. It continued such purchasing until 1936, when all of the General Motors closed bodies had an all steel top practically eliminating requirements for coated or combined fabrics except for convertible top material. Fisher Body began to use uncoated combined fabrics for top material on convertible models in 1926, purchasing about one-half of its requirements from du Pont. In 1931, when du Pont refused to grant a guarantee against damage by cleaning, it purchased its entire requirements from Haartz. In late 1946 or early 1947 Fisher Body had dif- [fol. 592] ficulty with shrinkage and fading of top material purchased from Haartz. In 1948 du Pont successfully met the difficulty and secured a part of the Fisher Body business. Since that year du Pont has supplied Fisher Body with less than one-half of its requirements of top material.

In 1939 Fisher Body began to use coated fabrics for interior trim and purchased part from du Pont and part from its competitors. Du Pont secured a major portion of its requirements for the years 1940-1941, and immediately following the war Fisher Body purchased from du Pont all of the coated fabrics du Pont would sell since there was a shortage of said material. Since 1947 or 1948, Fisher Body has been purchasing its coated and combined fabrics from Textileather, Federaleather, Haartz Auto Fabric Co., and United States Rubber, as well as du Pont.

Fisher Body also purchases about $1,000,000 of weather stripping cement. It purchases from du Pont a neoprene base adhesive called Fairprene 5115. Sales of this cement amount to about 3% of Fisher Body's total purchases. The bulk of its requirements for this material are purchased from Armstrong Cork, although Nickowitz testified that du Pont was still trying to sell larger quantities of Fairprene 5115.

In 1930 General Motors purchased the Indianapolis plant of the Martin-Parry Corporation, which became the Chevrolet Commercial Division of General Motors. This division makes bodies for light trucks and commercial vehicles. Between 1922 and 1930 Martin-Parry Corporation purchased 100 percent of its requirements of coated fabrics for upholstery and trim from du Pont. From 1930 to 1937 it purchased only du Pont pyroxylin coated fabrics. In 1937 du Pont supplied 90% of its rubber coated fabric requirements, but in that year it started to purchase from [fol. 593] United States Rubber a part of its requirements. In 1940 du Pont lost more of this business, and in 1948 supplied only 60% of this division's requirements. Du Pont now obtains less than one-third of the approximately two million dollars of annual fabric purchases made by this division.

GMC Truck & Coach Division buys one-third of its requirements for light truck upholstery from du Pont. Its requirements of heavy truck upholstery are supplied by United States Rubber. When GMC Truck shifted, after the war, to vinyl coated fabrics instead of natural leather for the upholstery of its heavy trucks, United States Rubber succeeded in getting that business. Vinyl material for bus seats was supplied by B. F. Goodrich Company.

A C Spark Plug purchases about $2,000,000 annually of coated fabrics for fuel pump diaphragms and continues to use its own material despite du Pont's sales efforts. At Chevrolet's request A C uses du Pont material for its automatic transmission. Electromotive's requirements of synthetic rubber coated material for batten strips and rubber coated fabrics for insulating material are not supplied by du Pont although it supplies its principal competitor. Delco Appliance Division has a large requirement for synthetic rubber coated fabrics and sheet stock, but does not purchase from du Pont. Packard Electric Division also has large requirements for vinyl coated insulating tape, but does not purchase from du Pont. Du Pont supplies one-half of Packard Electric's requirements in "Teflon" a coated glass fabric for insulating aircraft ignition wire.

General Motors Overseas Division, which before the war purchased substantial amounts of coated fabrics in the United States, purchasing one-half from du Pont, has since the war made all its purchase abroad.

[fol. 594] A du Pont Annual Report for 1940 shows that demand for rubber coated fabrics continued until 1940 when pyroxylin coated material came into being. It stated:

> "About five years ago rubber coated fabrics started to supplant proxylin materials for automobile truck seat upholstery and usage of the latter by the automobile industry gradually decreased until 1940 when style changes resulted in considerably higher requirements of pyroxylin coated fabrics as trim on the interior of closed cars. Our sales improved from $360,000 in 1939 to $870,000 in 1940, approximately 50% of the industry's total requirements." (GTX 1380).

In 1941 a du Pont Annual Competitive Report stated:

> "The trim of the interiors of 1941 and 1942 passenger cars was such as to permit increased usage of pyroxylin coated fabrics for such purposes as the tops and backs of front seats, kick-pads, shelves behind rear seats, etc. Du Pont sales increased to $1,365,000 in 1941, 5% over 1940, and represents 30% of the total automobile requirements. It is believed that Textileather Corporation secures the next largest share, as they supply a sizeable portion of Chrysler's needs." (GTX 1381).

In 1949 du Pont's total dollar sales to General Motors increased from $3,500,000 in 1948 to $3,700,000; and du Pont's Annual Market Survey for 1948 stated that du Pont's fabric division sold four million dollars of its fabric to the automotive industry, General Motors purchasing over 80%, or $3,700,000.

Nickowitz testified that since 1944 when he became Director of Sales at du Pont, sales of coated fabrics to the [fol. 595] automobile industry represented only 20% of the total, and that sales of coated fabrics represented approximately 2%-3% of its sales. He stated the largest customer in the automobile field of the Fabrics Division for the year 1948 was General Motors which purchased $3,700,000 of fabrikoid, fabrilite and Teal, and that sales to General Motors in that year represented about 80% of the Fabrics and Finishes Departments automobile sales.

Statistical Fabric Charts

The charts submitted by the Government in this field are GTX 1391 and 1392, showing General Motors' percentage and dollar volume purchases from du Pont and its competitors for 1946 and 1947. These charts indicate that 74.5% of General Motors' purchases of fabrics in 1946 and 60% in 1947 were made from du Pont. Defendants have offered DP 569 showing that in 1946, 52.3% in 1946 and 38.5% in 1947 was purchased from du Pont.

In support of its charts the Government states a study of the evidence shows that the largest usage of any automobile fabric was for upholstery and trim; that GTX 1391 and 1392 reflect the percentage of fabric purchased by General Motors from du Pont for that use. It is stated that one of the chief reasons for concluding that this sole classification is an accurate one and the one most commonly used in the automotive field, was the usage of that term by Thomas A. Nalle, a du Pont fabrics salesman, whose reports are represented by GTX 1349 and 1358. The Government arrived at its percentages by comparing du Pont total sales of fabrikoid, fabrilite and Cavalon to General Motors, as shown on GTX 1344, with only that part of General Motors purchases from du Pont competitors which is shown in GTX 1343A under heading "Imitation Leather".

[fol. 596] The defendants object to the accuracy of this comparison and to the assumptions on which it rests for the following reasons:

1. The Government's assumption that all fabrikoid, fabrilite and Cavalon sold by du Pont to General Motors is used solely for upholstery and trim is improper; the du Pont sales figures shown on GTX 1344 are for total sales and purchases without regard to the end use of the fabric; the record does not support the assumption that all coated fabrics purchased by General Motors from du Pont were used for upholstery and trim; on the contrary the record shows that these fabrics had other uses such as head linings, winter fronts, seat covers, top materials, case coverings, spring boots, sheet stock, work clothing and curtains.

2. The Government's assumption that only those purchases by General Motors from du Pont competitors shown on GTX 1343A under the heading "Imitation Leather" were used for upholstery and trim is likewise improper; that the record shows that the terms "coated fabrics" and "imitation leather" are used interchangeably and that these separate headings in GTX 1343A were used merely to permit recording in accordance with personal preference in usage of terms, and that in collecting and presenting the figures contained in GTX 1343A, General Motors included under both headings fabrics that were competitive with those offered by du Pont. The Government states that General Motors did not use the fabric suppliers listed under "coated fabrics" as suppliers for upholstery and trim ~~fabric; that they supplied~~ fabrics which General Motors used for other purposes as gaskets, welts, gimps, etc. as is substantiated by the testimony of Nalle and Nickowitz and the documentary evidence. Defense chart DP 569 includes both categories of "coated fabrics" and "imitation leather" figures in its computations.

[fol. 597] The Court is of the opinion that the product comparison ~~made by the~~ defense chart from the base charts, GTX 1344 and 1343A, reflects the proper delineation to be accorded the figures contained therein, and the use figures submitted by the Government calls for assumptions not supported by the record. Thus, the Court concludes that in the fabrics field General Motors purchased approximately 40-50% of its requirements from du Pont for the years 1946 and 1947.

Du Pont since 1910 has been one of the major producers of coated fabrics and related products. At the time of its investment in General Motors it had been engaged in selling such products to the automobile industry for many years and its customers included many of the companies that subsequently became a part of General Motors. Following its investment it continued to sell to the General Motors divisions, and over the years those divisions that use fabric products have purchased them from du Pont in varying amounts.

On the basis of all of the evidence of record the court finds that there was at no time any agreement that bound General Motors to buy any fixed portion of its fabric requirements from du Pont with the exception of the year 1922. In that year it appears that du Pont was promised, and perhaps received, all of General Motors' fabric business. This arrangement grew out of the cancellation of certain contracts in the previous year which caused du Pont substantial loss. It thus grew out of a normal buyer-seller relationship. The Court further finds that such purchases of fabrics as the General Motors divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment and are not the result of du Pont domination. Du Pont, the record shows, has maintained its position as the principal fabric supplier to General Motors through its early leadership [fol. 598] in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery.

Tetraethyl Lead

C. F. Kettering became associated with General Motors in 1918 when it merged with United Motors, a division of which included the Delco Company. He was its General Manager and retained that office after the merger. On December 31, 1920 he was made a director and shortly thereafter a Vice-President of General Motors.

Kettering became interested in exploring the causes of engine "knock" in 1912 or 1913. He conceived the idea that he might lessen the knock and improve the engine efficiency by adding something to the motor fuel.

This was a subject of revolutionary interest in the evolution of the internal combustion engine because until the problem of "knocking" could be solved, the possibility of improving engines and engine performance was limited. The oil and automotive industries both were tremendously interested in Kettering's research.

Research was conducted at the Delco Company, then a part of United Motors, with Thomas Midgley in charge, and was later transferred to the Dayton Metal Products Company, acquired by General Motors in 1919.

During this research Kettering prepared papers and made talks before technical groups, wrote letters, and invited help in the research. Among those interested, who directed an inquiry to Kettering in 1916, was a Mr. Kurtz of du Pont who inquired for more particulars after hearing of a talk Kettering had made in Cleveland. Kettering sent him a copy of a new paper he was about to deliver, also stating "any time we get anything of interest we will be [fol. 599] glad to give you the benefit of it." In 1919 Frank Howard of Standard Oil of New Jersey contacted Mr. Kettering because of Standard's interest in the problem. Kettering explained the work he was doing, and Standard started research work on its own.

Through the American Chemical Society, Kettering testified he met some du Pont chemists and after World War I invited them to visit his laboratory to see what he was doing. In August 1919 Dr. Midgley or Dr. Clements wrote to the Manager of the du Pont laboratory listing materials which had been tried in the "suppression or elimination of the kerosene knock" and indicated that a study was to be made of the "homologues of aniline," listed the materials desired to be studied in connection therewith, and requested du Pont to supply them with any information they had on the best methods of preparing compounds which du Pont could not supply, and closed with the statement that "we are anxious to cooperate with you in every possible way." Subsequent to joining General Motors, Kettering testified he continued to call on du Pont scientists for assistance.

On October 28, 1919 K. W. Zimmerschied, Assistant to the President of General Motors, wrote C. M. Stine, Assistant Director of Chemical Research at du Pont that:

> "The Dayton Laboratories will continue the broad subject of fuel utilization in internal combustion en-

> gines, and your people will take up the development of chemicals which may be added to undesirable fuels for the purpose of converting them into usable products. * * *
>
> "It is presumed that the marketing of this chemical will be a matter of interest to the du Pont organization, and that the expense of developing it will be borne by your Research Department. We are glad to lend [fol. 600] the mechanical equipment * * * without charge for the purpose of this investigation." (GTX 599).

Du Pont's Chemical Director replied that he had no funds available for such work and that in any case the ultimate expense of the research should be borne by whichever company derived the greatest benefit from the work.

On June 20, 1920 Lammot du Pont, Chairman of the du Pont Executive Committee, submitted to it for their approval a form of proposed general chemical agreement between General Motors Chemical Department and du Pont, which the committee approved.

On August 5, 1920 General Motors Research wrote to the Chemical Director of du Pont stating:

> "Confirming our conference on my recent visit to Wilmington: I understand that the du Pont Company will cooperate with our Company in placing aniline on the market for use as an anti-knock material, in connection with the aniline injector which we are developing.
>
> "* * * A further working out of this program would comprise the sale of aniline by the du Pont Company through some satisfactory distributing agency, such as has been suggested by the Standard Oil Company, who could give aniline national distribution * * *
>
> "In connection with the above, it was agreed that we would cooperate with du Pont in securing satisfactory patent protection on the above mentioned devices." (GTX 601).

Dr. C. M. Stine, Assistant Director of Chemical Research of du Pont, on April 22, 1920, reported on a conference held in Wilmington at which Mr. Kettering was present and [fol. 601] members of the du Pont Chemical Department, including Irenee and Lammot du Pont and Raskob, wherein "various phases of the proposal to use the Chemical Department of the du Pont Company in a consultant capacity and for research work for the General Motors" was discussed.

On August 14, 1920 Lammot du Pont wrote Kettering that he believed that a memorandum submitted by Mr. Midgley on the results of the conference was substantially correct except in one respect: "We agreed that the du Pont Company would cooperate with General Motors on this aniline subject, provided the manufacture, distribution and sale of aniline for this purpose appeared sufficiently attractive from the profit standpoint."

In connection with the General Chemical Research agreement urged by Lammot du Pont, Kettering replied on October 21, 1921 that the Executive Committee of General Motors was antagonistic to the proposition and after talking with Pierre S. du Pont Kettering wanted to arrange a later meeting between du Pont and General Motors to discuss the whole problem, but that at the present time to consider the matter of the contract "out of the picture." Lammot du Pont again wrote Kettering on October 24, 1921 stating:

> "Our understanding of present conditions is that we are expected to take up experimental chemical work for the General Motors Corporation when requested. We have taken up such work from time to time and have consulted and advised from time to time.
>
> "At present we have no definite authority for doing this and have no mutually agreed upon basis of charging for the work or dividing the results in the shape of rights. The purpose of the agreement is to give the du Pont Company definite authority and a basis for [fol. 602] charging, and either reserving or turning over to General Motors any rights that may be developed. It seems to me that this purpose must be accomplished regardless of what arrangement is made with respect to any of the work, and that, therefore, the agreement should be executed at once." (GTX 583).

Research continued for a better anti-knock solution and negotiations with du Pont for the production of aniline were suspended. In December 1921 Kettering's research organization discovered tetraethyl lead to be a more effective anti-knock than aniline. On January 28, 1922 General Motors advised du Pont that their work at the laboratories had taken an entirely different turn and that it had been decided for the time being no contract would be made. On March 18, 1922 Frank A. Howard of Standard was also advised by the General Motors Research that "research work took a very sudden turn in a direction that would indicate that it would be a mistake both on your part and on ours to enter into an agreement such as we discussed."

On March 27, 1922 Lammot du Pont again wrote Kettering stating he had heard nothing from him on the General Motors-du Pont contract regarding experimental chemical work, that the fuel problem was in no way the cause of his present writing, that he felt a general contract should be prepared and executed in order to clear up the present situation, and he had no objections to any suggested changes Kettering would make. Mr. Kettering replied he had taken the matter up with Pierre S. du Pont suggesting it would be well to get some representative of the du Pont Company to come to Dayton to "get a picture of what our problems really are" and that after a time, if "we find it would be desirable to enter into a contract" it would be worked out. Lammot du Pont on April 1, 1922 replied that Kettering seemed to have missed his point stating that General Motors [fol. 603] in its research frequently runs into chemical problems, that the du Pont Company in its research was continually dealing with all kinds of chemical problems, that duplication of staff could be avoided "by an arrangement whereby General Motors has a contract with du Pont" to assign chemical problems to du Pont whenever desired, that an arrangement of this kind should provide for some form of compensation or payment of expenses otherwise the assignment of each particular problem would "require a conference and settlement in each case before work could proceed, which obviously would cause delay and loss." He also said:

> "Why can we not execute a general contract to cover any and all future cases?

> "The only reason I can see for not doing so is the decision by General Motors to establish their own chemical staff. If you have come to this conclusion, I have no objection as a representative of the du Pont Company, and have nothing more to say." (GTX 591).

Kettering replied affirming the desirability of the du Pont organization supplementing the work in the General Motors laboratory, but felt that some of the du Pont associates should come out to their laboratory to see "what we are aiming at" and that possibly after such visit "there would be no difficulty whatever in getting together and working this matter out." The following month he replied to Lammot du Pont's renewed urging saying:

> "In going through this matter I consider that this is entirely outside the range of the Research Laboratory to enter into a contract of this kind. I am, therefore, turning the matter over to the head of our Corporation and any plan which they may work out will be entirely satisfactory to us." (GTX 594).

[fol. 604] Kettering sent a copy of the proposed contract submitted by Lammot du Pont to Pierre S. du Pont. On November 6, 1922 the matter was permanently closed as shown by a file memorandum written by Lammot du Pont:

> "In conversation with Pierre S. du Pont he advised that it does not seem possible at this time to institute any plan for cooperation on chemical research work between General Motors Corporation, his feeling being that as problems come up, special arrangements with reference to each should be made between the two companies, rather than an attempt now to make a general arrangement to cover prospective cases." (GTX 598).

Kettering testified that when the proposed contract was originally discussed at the Wilmington conference, he was opposed to it because "du Pont Company was thinking in terms of manufactured chemicals rather than the resea chemicals General Motors was interested in." Sloan als testified; "the fact is that the whole proposition was unsound. Mr. Kettering was against it. Everybody was against it. It couldn't be considered from the General Motors point of view."

During the negotiations concerning this General Chemical Agreement, on March 22, 1922, Pierre S. du Pont sent a brief report to Irenee du Pont on the new "doping" compound—tetraethyl lead—and stated that:

> "Mr. Kettering would like to take up the question of manufacture with the du Pont Company representatives at an early date." (GTX 610).

On April 15, 1922 the patent application covering TEL was filed and Dr. Midgley wrote to Dr. Stine of du Pont advising him of the "new anti-knock material" TEL.
[fol. 605] It was Kettering who made the decision to call in du Pont for assistance in the manufacture of tetraethyl lead. In June 1922 Kettering invited Irenee du Pont to come to Dayton to discuss the problem. Thereafter, he met with C. S. Mott and Pierre S. du Pont and proposed that the manufacture of TEL be started as soon as possible by du Pont in order to produce about one hundred gallons a day. Sloan testified that he recognized General Motors had no competence in chemical manufacture and that research and manufacture of chemicals were quite different; that the manufacture of tetraethyl lead involved danger and was an entirely new venture, the product never having been manufactured in the United States. He stated du Pont had demonstrated through its war work "its ability to deal with problems involving dangerous materials, such as dynamite; and their well organized research offered the best opportunity for us to produce tetraethyl lead and put it on the market."

Kettering and members of his staff went to Wilmington for a series of conferences with Irenee du Pont and members of the du Pont chemical staff. Irenee du Pont advised Dr. Stine, Harrington and Reese of du Pont of Kettering's forthcoming visit and stated he was anxious for du Pont to sell Kettering on du Pont's ability to help General Motors on the TEL proposition.

At this time, du Pont without a written contract, undertook the production of TEL using the bromine process developed by Midgley. On September 5, 1922 General Motors Research reported to the Executive Committee of General

Motors that satisfactory progress had been made in the production program, that research and production at General Motors could be dropped, and that the du Pont Company would continue production: Kettering testified he told Sloan that a contract should be made since there was [fol. 606] nothing between the two companies regarding prices or anything else. Sloan wrote Kettering advising him that Irenee du Pont also felt that a more definite arrangement between the companies should be made and that an appointment had been made for Kettering, Irenee du Pont, Harrington of du Pont, and Sloan to discuss the matter.

On October 6, 1922 General Motors and du Pont entered into a contract relating to the manufacture of tetraethyl lead. Under this agreement du Pont was to build a plant to produce TEL at the rate of one hundred gallons (1300 lbs.) a day using the ethyl bromine process; the price was set at $26 a gallon; the contract was a "continuing one" but included a provision for cancellation and gave General Motors the right to manufacture TEL itself or have it manufactured by others if at any time du Pont prices should not be the lowest.

The distribution of tetraethyl lead was made in February 1923 at gas stations in Dayton, Cincinnati, and Hamilton, Ohio and by the middle of 1923 had tremendous public acceptance. In April 1923 Midgley of General Motors met with Howard of Standard Oil, which corporation had been interested in the anti-knock project from the beginning. At this meeting Howard revealed a new ethyl chloride process developed by a chemist at Standard Oil. This new process could produce tetraethyl lead at less than $10 a gallon which was cheaper than the ethyl bromine process. There was a shortage in the supply of bromine from commercially developed sources.

During this time Midgley continued working out distribution arrangements of TEL with the various oil companies, including Standard. Midgley suggested that Standard consider the possibility of its manufacturing TEL and offered that if Standard would establish facilities for manu- [fol. 607] facturing one hundred gallons of TEL per day, General Motors "would then sign with them a similar contract to the one now in force with the du Pont Company";

that Mr. Howard stated to him they were not chemical manufacturers and suggested a meeting between the principal executives of the two companies to develop a "working arrangement between General Motors and Standard Oil." On June 15, 1923 Mr. Pickard, General Manager of du Pont's Dyestuffs Department wrote to Irenee du Pont that Standard had developed a new cheaper process for producing TEL.

On January 28, 1924 Sloan wrote to Irenee du Pont, president of du Pont, that he had talked with two or three of the Standard Oil people with reference to TEL; that they reported that in discussing the manufacture of TEL with Kettering and Midgley they had been encouraged to see what they could do in developing a process for marketing TEL; that they had a method covered by patents which gave lower cost of production; that Standard had a contract with General Motors on the distribution of TEL and was urging a deal to license competitors to distribute TEL thereby getting broader distribution which "they claim will be in our interest in return for that they want the right to manufacture for our account tetraethyl lead at a price competitive with the du Pont Company." He expressed his thought that since TEL was still in the development stage that manufacture by Standard should not be discussed and further did not think it was good business "from our standpoint for them to manufacture tetraethyl lead and at the same time have such a large slice of the distribution." In addition he stated he would rather obtain a license from them, pay for it and "get the du Pont Company to use it in reducing the cost" instead of dealing with Standard as a manufacturer. Irenee du Pont replied on February 2, [fol. 608] 1924 that du Pont was in accord with that course of procedure and suggested General Motors write Standard indicating it had contacted du Pont on its estimated requirements for TEL "believing that they are the best equipped company to handle complicated organic chemical problems" and also suggesting that Standard contact du Pont "to see if they are in any wise interested in your proposed method for the manufacture of that compound." Sloan sent Irenee du Pont a copy of the letter he sent to Standard Oil, and stated he thought it best in view of his conversation with Standard Oil to write along different lines and had taken the liberty of modifying Irenee's suggested letter. His letter to Standard stated that because of rapid developments in the plant built for the manufacture of TEL and the fact that the whole picture is more or less in the development stage, it was desirable to refrain from discussing the situation at the present time" but that General Motors would be glad to discuss the relative merits of the two processes and perhaps work out a plan which would preserve the equities."

The minutes of the Executive Committee of General Motors for February 27, 1924, members present being Pierre S. du Pont, Raskob and Sloan, reported that discussion was had on the future policy of General Motors in the development and marketing of TEL and that "it might be possible to work out a plan whereby a company could be formed to control our patents and the distribution of the material which would be jointly controlled by the large oil companies and ourselves."

Several conferences took place in June 1924 between General Motors and Standard Oil on the subject of tetraethyl lead and the possibility of Standard engaging in its manufacture. Standard proposed to erect a one hundred gallon plant, chlorine process, to be installed at the Bayway Re- [fol. 609] finery for the purpose of affording "the experience basis for future construction of this process" and "provide an additional one hundred gallons of TEL per day for the end of the peak season, September and October."

On June 25, 1924 Howard of Standard Oil had a meeting with Irenee du Pont to be shown through the du Pont plants. Irenee du Pont testified that he learned for the first time of Standard's interest in the manufacture of the antiknock compound. Irenee du Pont wrote to Sloan following Howard's visit stating that Howard was anxious to start the Standard plant at Bayway, that Irenee appreciated there would be some advantages in having an independent plant operated by General Motors and Standard "as a check on prices charged by the du Pont Company and also to obtain such advantage as there may be in the enthusiasm of the Standard Oil men to put across their own 'baby.'" To this letter Sloan replied indicating du Pont should increase its production and production facilities for TEL; that

> "for psychological reasons we should permit the Standard Oil Company of New Jersey to expend \$35,000 or \$40,000 of their own money to experiment with the 100 gallon a day outfit in one of their plants, I believe in Bayway, in a building which they could use temporarily for the purpose. This will serve to satisfy them from the psychological standpoint and it is certain that it will be impossible to operate such an experimental plant successfully when the larger units are running, but will give them a means to work out their viewpoint which certainly can do us no damage when we approach it from the bigger way.
>
> "Any further thought of developing any real production other than under the auspices of the du Pont [fol. 610] Company will be deferred until some later time." (GTX 661).

Sloan wrote to Kettering on July 25, 1924 reporting a conference he had with Howard of Standard Oil for the formation of the company to be jointly owned by General Motors and Standard under the name of the Ethyl Gasoline Corporation. In August 1924 a formal agreement was entered into between General Motors and Standard Oil organizing such a corporation.

This agreement provided that the capital stock of Ethyl be divided equally between General Motors and Standard, each to have a 50% interest; each was to have five directors of the ten members on the Board; each was to grant Ethyl exclusive licenses under all patent rights from their respective patent applications in the field of anti-knock compounds; and each was to grant Ethyl exclusive rights on all future discoveries until August 1, 1940. In addition, the agreement provided that Ethyl would handle the distribution of TEL and would purchase the same.

> "in the open market at the lowest price at which it is offered and, to permit competitive bidding, shall offer to instruct and license any bona fide probable supplier,

including the Standard Company; * * * provided, however:

> "Purchases shall be made from E. I. du Pont de Nemours & Company under the existing contract between it and General Motors * * * until the expiration of said contract or until a substitute therefor is made direct with the Ethyl Company." (GTX 668).

The General Motors directors on the Ethyl Board were Sloan, Kettering, Donaldson Brown, Midgley and John T. [fol. 611] Smith; the officers were Kettering, President, Howard of Standard, Vice President, and Midgley, General Manager.

Tetraethyl lead is a poisonous substance. Both General Motors and du Pont were fully aware of its toxic effects: Sloan in June 1924 wrote to Kettering regarding the appointment of a board of medical men to study the problem. Sloan and Kettering both testified that General Motors had not invented TEL as a product to add to its line in order to make money producing and selling it, but that its interest was the advance in engine compression and to make a better and more efficient motor car.

The properties of tetraethyl lead made its production on a commercial scale a hazardous undertaking and Sloan stated he fully realized the dangers incident to the manufacture of this material. He testified that he knew Standard was not a chemical manufacturer, that its chief business was digging wells and pumping oil from the ground, and he felt Standard was not equipped to enter the field of chemical manufacture at this stage of TEL's development. His acquiescence to Standard's plant at Bayway was because Standard wanted to try the manufacture of TEL and further he thought something might be learned from the experiment.

During the Summer of 1924 technical planning at Bayway and du Pont's Deepwater plant proceeded, and a difference of opinion emerged between the engineers of the two companies with respect to the manufacturing equipment to be employed in producing the ethyl chloride process. Harrington testified that du Pont advocated a completely closed, airtight system of manufacture, while Standard felt economy would be achieved by permitting the working force to handle the lead residue directly. After visiting the Bayway plant, Harrington said there was unanimous agreement that Standard's process was [fol. 612] "too dangerous" for du Pont to use, notified Standard to that effect, and received permission from Ethyl to install equipment of its own design.

In October 1924 the Bayway plant was stricken with a series of fatalities resulting from TEL poisoning—there were five deaths within a period of a few days, with many other employees being poisoned. A public uproar followed; exaggerated reports filled the press; university professors made adverse comments; major oil companies announced they would no longer distribute TEL and municipalities banned its distribution. The Standard plant was immediately closed. The New Jersey authorities ordered its dismantling and Standard was ordered not to engage in TEL manufacture. Following this disaster Sloan in writing to Irenee du Pont on December 12, 1924 asking him to take a position on Ethyl's Board stated:

> "du Pont will always be the manufacturing agent of Ethyl Gasoline Corporation whether we make tetra ethyl lead or whatever we make, now or in the future. I am sure of that. * * *" (GTX 710).

Ethyl was forced to suspend its sales of TEL completely. Ethyl requested du Pont to withhold deliveries from its bromine process plant. The figure of $1.66 per pound was the approximate cost of producing TEL at this plant and $1.17 at du Pont's chloride plant. Du Pont withheld its deliveries. Howard wrote to Irenee du Pont on March 28, 1925 stating the problem following the Bayway disaster as follows:

> "while owing to conditions over which neither party has had any control it would have been to the ad- [fol. 613] vantage of the du Pont Co. to have continued uninterruptedly to produce lead from its bromine plant and its failure to do so, out of consideration for the interests of the Ethyl Corp., resulted in some loss to the du Pont Co., this is a loss of profit which neither party contemplated at the beginning the du Pont Co. would make. On the other hand, the du Pont Co. is suffering a loss of profits which the parties did con-

> template the du Pont Co. would make, through the failure of the chloride plant to deliver the quantity of lead which both parties hoped and expected it would deliver prior to April 15th.
>
> "Owing to conditions over which neither party has had any control, the Ethyl Corp. at the same time finds itself with a stock of over $1,000,000 worth of lead on hand and deliveries still coming in very much more rapidly than the goods can be marketed at present. This situation was not contemplated by the Ethyl Corp., but, on the contrary, the Ethyl Corp. had hoped and expected to be able to market immediately and at a profit to itself any lead supplied to it by the du Pont Co. prior to April 15th, even though such lead bore a price of $1.66 per pound." (GTX 677).

He continued stating that he was content to leave the decision in Irenee du Pont's hands, "with entire confidence in your reaching a fair conclusion."

Irenee du Pont replied to this letter stating:

> "apart from the contract we were asked to defer deliveries of material which we could make in January and would have made at a profit. We suggested that these deliveries be simply deferred and not cut out entirely, an eminently fair proposition to make. Owing [fol. 614] to the fact that the Ethyl Gas executives were very busy and/or away, delay would have ensued detrimental to your interests if we had stood 'pat' and waited for you to 'come across'. In our desire to be helpful to the 'picture' we acted on your orders without getting approval for a deferment of the deliveries in question. It seems to me only equitable that you should have accepted our offer of deferment and not take advantage of our efforts to be of service to you.
>
> "It is, therefore, my judgment that you should accept delivery at $1.66 per lb. of the amount of tetraethyl lead which we voluntarily abstained from making and shipping in January, and that, further, if owing to our misfortune at the ethyl chloride plant you are sufficiently short of ethyl lead so as to make a loss thereby, the amount up to that accruing by reason of the lead not delivered in January, should not

> be assessed to us on the damage paragraph." (GTX 679).

He admitted that from a law point of view Ethyl might maintain its position, but that the equities indicate otherwise.

When the manufacture of TEL was suspended, there was also disagreement between Ethyl and du Pont as to the settlement to be made on cancellation of their contract. Under the terms of its contract du Pont was to be reimbursed for its expenditures in building the chloride plant. Webb in a letter to Sloan stated that Ethyl had informed du Pont it would be reimbursed for the cost of such building and any expenditure incurred so as to make du Pont "whole". He stated further:

> "It seems to me that we should get from the du Pont [fol. 615] Company at the time of settlement assurances of placing us in possession of all facts and data relative to this work, so that we may have the benefit of any information or knowledge gained in such research work. This has not been suggested to the du Pont Company as a part of settlement, but I feel confident that Mr. du Pont will not raise the slightest objection to giving us full and complete copies of or access to this data." (GTX 685).

He also reported that he wrote to Mr. du Pont:

> "I naturally assume that if operation of the plant is not resumed during our present contract period and meanwhile it has been paid for by us in accordance with the terms of the understanding which we are now attempting to reach, then it would seem to me that the building, its equipment and appurtenances (excluding land) would be our property." (GTX 685).

but that Mr. du Pont replied:

> "If it is your desire that the plant be scrapped at your expense, the proceeds of the scrapping should properly be yours under a general proposition that we shall be made whole.' However, the economies of such a procedure are not good, which being the case, it

> seems essential that the physical property of unknown and somewhat doubtful value should be left in our hands, perhaps as a compensation for our having waived any profits on the contract." (GTX 685).

Webb stated that "if it should not ultimately be used to manufacture something for us that we be paid the salvage value, whether demolished or converted to some other purpose."

[fol. 616] Howard had written Webb of Ethyl on June 29, 1925 regarding the discussions concerning settlement and stated:

> "If at any time the du Pont Co. wishes to make use of the ethyl plant for any purpose, it shall then pay to the Ethyl Corp. the then value of the plant to the du Pont Co. for the purpose for which they contemplate its use." (GTX 686).

He further revealed the sum of $1,500,000 was to be paid du Pont on account of the settlement. On June 30, 1925 Webb delivered the $1,500,000 "without any strings attached to it at all" and further discussion of the settlement terms were to be had later with Irenee du Pont.

Irenee du Pont wrote to Webb on July 1, 1925 that Howard's letter of June 29, 1925 relating to the adjustment of the controversy was "not satisfactory" stating that du Pont could not cede ownership of the plant and that

> "our contract speaks for itself as regards ceding to you any inventions on the anti-knock compounds but we could not undertake to teach you * * * how to carry on that manufacture as well as we could do." (GTX 688).

Webb replied saying that he considered the salvage or conversion value of the chloride plant as the principal matter to be adjusted between them.

In August, 1925 Webb suggested that settlement of the question of ownership of the plant be deferred until the investigation then being conducted by the Surgeon General of the United States was completed, and if the report made by him was favorable Ethyl would make another contract covering manufacture of TEL with du Pont and "the salvage problem would have answered itself," but this suggestion [fol. 617] gestion was not acceptable to Irenee du Pont who did not wish to defer the issue. Harrington testified that eventually Webb's suggestion was accepted and the matter was not settled until the contract between Ethyl and du Pont was negotiated in March 1926. Du Pont retained the chloride plant at Deepwater, since in January 1926 the Surgeon General of the United States in a report approved renewal of the business and production of TEL and manufacture was resumed in March 1926.

In the negotiations regarding this controversy Sloan testified he took little part since he wanted to be in a completely unprejudiced position, although he revealed he believed the du Pont position was entirely correct. In March 1925 he wrote to Irenee du Pont that he had come to the conclusion it was a mistake to leave the management of Ethyl's property so largely in the hands of Dr. Midgley who was entirely inexperienced in organization matters, and thought progress would be made more rapidly and constructively if there was more of a business side to the development, but that Kettering opposed that idea. He continued that while Standard Oil was not receptive to the idea in the beginning he found later in discussion with Mr. Teagle of Standard that they had come to the same conclusion and it was agreed that Mr. Kettering and Mr. Howard, President and Vice-President, respectively, should resign and "an active President should be appointed of proper ability, administrative and otherwise, to deal with the problems that confront the Corporation". Sloan proposed Earl W. Webb then in the Legal and Real Estate Department of General Motors and Standard accepted the recommendation. Webb was appointed President in the Spring of 1925 when he had made a satisfactory report on Ethyl's operations as a preliminary test of his qualifications.

Ethyl's losses during the shutdown necessitated a series [fol. 618] of loans from Standard and General Motors and by July 1925 General Motors and Standard had loaned Ethyl $1,700,000 with authorization for further loans of $500,000. On May 22, 1925 Irenee du Pont wrote to Raskob at General Motors that he approved of the borrowing of funds by Ethyl from General Motors and Standard and said:

> "As the amounts due to the du Pont Co. are in some particulars overdue, I am very glad you can arrange to immediately send the necessary cash to Ethyl Gasoline Corp." (GTX 682).

During the cessation of manufacture at Ethyl's plant, Webb and the Dow officials had a series of conferences on the subject of the manufacture of TEL for Ethyl. Dow had developed a process for producing TEL by means of a reaction which used magnesium. In April 1926 Webb also came in contact with the American Research Laboratories, which also claimed to have developed a process using magnesium and offered to undertake the manufacture of TEL. Webb visited the Dow plant with a representative of the American Research Laboratories and upon seeing the Dow chemical manufacturing facilities, the American Research Laboratories realized "it would be rather foolish for them to venture into anything of this kind", suggested cancellation of the contract and an arrangement whereby manufacture under their process would be conducted by Dow. The American Research Laboratories process proved worthless. Irenee du Pont, then a director of Ethyl and aware of American Research Laboratories' desire to manufacture, expressed opposition pointing out that if another disaster occurred after the Bayway disaster only a few months before:

> "No amount of explaining will excuse our directors for having encouraged novices to undertake such a dangerous operation." (GTX 711).

[fol. 619] Dow continued as a prospective manufacturer until late in 1926 when it informed Webb it was unwilling to undertake the manufacture of TEL by any process because of the hazard factor.

During these incidents du Pont and Ethyl entered into a contract in March 1926 for the production and sale of TEL. From 1926 to 1937 du Pont sold TEL to Ethyl under a series of short term contracts negotiated for Ethyl by Webb. The 1926, 1928 and 1929 contracts made no reference to patents, improvements or new developments in TEL, and from 1928 the contracts provided that Ethyl's entire requirements were to be taken from du Pont.

In 1929 Ethyl Corporation gave consideration to the situation that would exist when the basic patents expired—Midgley's to expire December 30, 1947, and the chloride process patent of Standard January 1, 1946. Ethyl, not being a manufacturer, would find it difficult to manufacture the product without knowledge of the du Pont processes. Sloan stated in a letter to Webb of Ethyl that they should make their contracts on the supply of TEL so that the supplier of the lead, the du Pont Company

> "together with others later on, would at all times sell to us exclusively" (GTX 748)

so that if tetraethyl lead is still a factor in the fuel situation at the expiration of the patents and there was no restriction on manufacturers as to whom they would sell the material, "there would be no place in the picture for Ethyl."

In 1930 a new contract was executed between Ethyl and du Pont and in all subsequent contracts between them until 1938, it was provided that if Ethyl would purchase at least 50% of its annual requirements of TEL from du Pont [fol. 620] until January 1, 1938, du Pont would on that date make full disclosure to Ethyl of all its patents, know-how and secret processes on TEL manufacture and would license Ethyl to manufacture TEL under the du Pont patents.

From 1930 to 1937 Ethyl began a long term campaign to put itself in a position to manufacture TEL. Several proposals were considered and rejected before the execution of a Manufacturing Service Agreement between du Pont and Ethyl on January 1, 1938. In 1936 du Pont agreed to build a TEL plant for Ethyl at Baton Rouge, Louisiana and the following year agreed to construct a second plant for Ethyl. Under the 1938 agreement du Pont contracted to construct for Ethyl plants at Baton Rouge, Louisiana, a site selected by Ethyl; lease the du Pont facilities at Deepwater to Ethyl, and operate them as Ethyl's agent in return for a specified percentage of Ethyl's proceeds from operation for the next ten years. Du Pont further agreed to advance certain funds to Ethyl and build such tetraethyl lead and raw material plants as Ethyl required. In addition, the agreement provided that on the expiration of patent protection in 1948, Ethyl and du Pont would each be free to engage in both the manufacture and distribution of tetraethyl lead.

During the negotiations preceding the ultimate agreement, Sloan replied to a letter from Webb that he was not opposed to contracting to give du Pont 50% of the business of Ethyl but felt strongly that Ethyl should be entitled to any of du Pont's improvements resulting from the manufacture under Ethyl's patents.

Sloan wrote to Lammot du Pont in April 1930 in connection with the proposed know-how clause and urged him to do anything he could to "facilitate this and broaden the base upon which it is developed." Lammot du Pont felt that Ethyl did not have the background to undertake the manufacture of a dangerous chemical.

[fol. 621] On June 9, 1936, prior to the ultimate agreement, a comprehensive report and study of the origin and early history of the tetraethyl lead business, including suggestions on arrangements to be worked out between Ethyl and du Pont, was made on behalf of the du Pont Company by N. P. Wescott and submitted to F. Spaare, Director.

During the pre-1938 period du Pont fixed its prices on the sale of TEL to Ethyl at a level high enough which would give du Pont a manufacturing profit equal to one-third of the total profits derived both from the manufacture and distribution of TEL, and the remaining two-thirds to be divided equally between General Motors and Standard in the form of dividend payments from Ethyl, after deducting the royalty due General Motors on its patents. From 1930 to 1937 du Pont's total profits from Ethyl's operations were approximately $35,000,000 and General Motors and Standard received dividends of approximately $30,000,000 each, and in addition General Motors received the sum of $19,000,000 in royalties.

The Manufacturing Service Agreement in 1938 provided a compensation of 30% of Ethyl's gross operating profits to be paid to du Pont. The 30% was premised on a minimum of 53,000,000 pounds of tetraethyl lead and one-tenth of the profits for production above that figure.

The percentage of profits received by du Pont is reflected in the defendants' chart which premises the ratio of du Pont profits to Ethyl's profits on figures before taxes and bonus of either corporation. The basic figures used by the Government chart also show du Pont's profits before taxes and bonus. The average share of Ethyl's gross operating profits which du Pont received during the 1938-1948 period was 18%.

Shortly after the 1938 agreement Standard Oil conveyed [fol. 622] to du Pont and Ethyl the information that a new oil cracking process in the gasoline industry would require an expansion in the production of TEL, and necessitate the erection of additional plants at Ethyl's Baton Rouge site.

On December 31, 1947, all the basic patents relating to the production and use of TEL having expired, du Pont and Ethyl discontinued operations under the 1930 agreement and each went its separate way. Ethyl's lease on du Pont's Deepwater plant expired at the same time and du Pont undertook to manufacture lead for its own account. Ethyl took over the direct operation of the larger plant facilities at Baton Rouge. Both sold their respective fluid to oil companies. J. R. Sabina, a du Pont executive, testified that beginning in 1945 du Pont began to expand its petroleum products staff; a petroleum laboratory was organized in the Fall of 1947, and in anticipation of freedom from Ethyl's patent in 1948, every oil company in the United States had been personally visited and orders were solicited.

In 1948, all but seven of the fifty-nine companies that dealt with du Pont had dealt previously with Ethyl. In 1948 du Pont owned at Deepwater the four original plants constructed before 1938, and Ethyl owned five plants at Baton Rouge, four of which were designed to have the same size and capacity as the Deepwater plants. In 1948 du Pont had a capacity of between 180,000,000 and 194,000,000 pounds per year for its four plants, or about four-fifths of Ethyl's capacity. John F. Daley, General Manager of the Organic Chemical Department at du Pont, testified that in selling to the oil companies, the Ethyl trademark was very much of an obstacle. He also testified that du Pont lost customers to Ethyl and vice-versa in the years following the severance.

The evidence with respect to the discovery and development of TEL fails to establish the Government's charges.

[fol. 623] It will not support a finding that the discovery of TEL was surrendered to du Pont pursuant to any agreement that du Pont was to have exclusive rights to General Motors chemical discoveries. The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment. Kettering appears to have been largely responsible for this decision, and neither the alleged pre-existing agreement nor du Pont's stockholdings in General Motors was the basis of the decision. It is clear that General Motors' lack of experience in chemical manufacture and du Pont's superior competence and wide experience were the reasons for the decision.

Similarly, du Pont retained its position as the manufacturer of TEL by reason of the continued high quality of its performance. The Court finds that General Motors and Ethyl Corporation were at all times free to turn elsewhere and were not coerced in any way to continue purchasing from du Pont.

Kinetic Chemicals, Inc.

In 1928 Frigidaire and its leading competitors were using sulphur dioxide as a refrigerant, a chemical presenting health hazards. Pratt, Kettering, and E. G. Biechler, General Manager of Frigidaire, expressed a desire for a new safe refrigerant and Mr. Midgley was assigned the task of working on the problem. An appropriation for this research was approved by Frigidaire. The objective sought by this research was a refrigerant which had a suitable boiling point, non-toxic and non-inflammable, and which had a distinct but not unpleasant odor.

Thomas Midgley spent eighteen months on this project and by the end of 1928 had determined that Freon 12 (F-12) met the above requirements and the discovery was [fol. 624] patented, with patents being assigned to General Motors. The principal elements of freon were chlorine and fluorine, both being dangerous and toxic. During 1929 and early 1930 Midgley continued to work on Freon "to develop suitable manufacturing processes." In August 1929 Pratt approved the erection of a small plant to produce F-12 in quantities sufficient to make laboratory tests. Frigidaire erected a semi-commercial plant in the Winter of 1929-1930.

In March 1930 Biechler wrote to Pratt stating a decision on the manufacture should be made as quickly as possible, recommending that either Frigidaire or some other division of General Motors manufacture the same because he felt

> "a great deal would be gained if we would control this rather than let a chemical company do it." (GTX 838).

Pratt, on March 15, 1930, although having approved the small scale production for test purposes of Frigidaire, stated:

> "It is quite a fundamental step [illegible] us to start General Motors in chemical manufacture. Up to this time we have more or less elected to confine ourselves to the mechanical side of manufacture and I do not want to depart from this until a very thorough consideration has been given to all of the factors involved." (GTX 839).

He stated that he would have to discuss the same with Sloan. When he did so, Sloan agreed that General Motors should not manufacture the new refrigerant. Sloan testified that he took that position on the basis of General Motors' lack of competence to manufacture a material involving the dangers in manufacture "somewhat analogous to TEL." Sloan left it to Pratt to investigate and develop [fol. 625] a suitable program for supplying Frigidaire's requirements of F-12. Without consulting Sloan further, Pratt went to see H. F. Harrington of the Dyestuffs Division of du Pont and suggested that a joint company be formed between General Motors and du Pont to sell freon. He testified he selected du Pont because of their experience in handling dangerous chemicals and because he had confidence in the du Pont people. Biechler expressed his pleasure that the responsibility of manufacture had been assumed by du Pont. The desirability of getting into the production of freon quickly was recognized by all.

Harrington and Pratt agreed substantially upon the details of the contractual agreement and Pratt suggested that the new company be owned 51% by du Pont and 49% by General Motors, so that operating responsibility rested on du Pont which had the personnel and experience required for manufacture. Pratt also suggested a provision that future chemicals developed by General Motors be first offered to Kinetic, the joint company.

The formal agreement organizing Kinetic was executed August 27, 1930 and was approved by the General Motors Finance Committee, the minutes reciting:

> "It was felt that because of the experience of the du Pont Company in the chemical field that it is to the interest of General Motors Corporation to arrange with the du Pont Company for the commercial development and production of these chemicals rather than for us to undertake the organization of the necessary personnel, technical staff, etc. for their production; and in order to give the du Pont Company an incentive for the most efficient development of these chemicals it was considered mutually advantageous that the du Pont Company should have the right to subscribe to [fol. 626] 51% of the stock of the Kinetic Chemicals, Inc. Under this agreement a royalty will be paid to General Motors for the right to use the inventions transferred to Kinetic Chemicals, Inc. as covered more fully in the agreement." (GM 238).

The clause regarding future General Motors chemical discoveries required that the offer to Kinetic of any such discovery should be "on such terms as may be mutually agreed upon." The new corporation had a board of directors of five members—three selected by du Pont and two by General Motors; its personnel was furnished by du Pont and the latter received a management fee of $50,000 a year; General Motors granted Kinetic an exclusive license on its patents covering freon and received a royalty in the amount of 5% of sales.

The process used by Frigidaire during the experimental period was found to be so expensive as to be commercially prohibitive. Du Pont chemists assigned to the problem succeeded in developing a feasible commercial manufacture which reduced the costs. In addition, an essential raw material—anhydrous hydrofluoric acid—was not commercially available in sufficient quantities and du Pont invented and patented for Kinetic a process which enabled Kinetic to make its own acid.

The New York Fire Department was disturbed over the possible danger in the use of freon and du Pont was able to demonstrate its properties as being a safe refrigerant. Du Pont, through Kinetic, also undertook a general educational campaign to convince the public of its safety.

With respect to the clause regarding future chemical discoveries by General Motors, Pratt wrote to Lammot du Pont on July 20, 1931, as follows:

> [fol. 627] "This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing process.
>
> "To summarize, as far as I am concerned I hope to see General Motors Corp. utilize to the fullest extent the chemical experience of the du Pont Company in manufacturing any chemical compounds that General Motors laboratories may discover, where there is a possibility of commercialization."' (GTX 899).

Clause Seventh of the agreement provided:

> "* * * it being further agreed that future chemical developments (other than those relating to 'said products') originating in the laboratories of General (Motors), or its subsidiaries, shall be offered by General to the New Company, on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, the General shall be free to dispose of the same elsewhere." (GTX 850, p. 3).

Pratt suggested this clause for the reason he believed that "General Motors instead of having a lot of different activities" might wish to use Kinetic as a single vehicle for developing any chemical discovery it made. He also testified that during the existence of the clause, no development was turned over to Kinetic.

In May 1944, fourteen years after the agreement, John T. Smith, General Counsel for General Motors, gave his opinion that this clause was "unenforceable," and the two [fol. 628] companies by formal contract cancelled it in its entirety on June 6, 1945.

In the Fall of 1923, Biechler reported to Pratt that the supply of lithium chloride necessary to be used in an air-conditioning system which Frigidaire was developing was limited and asked Pratt to investigate the possibility of additional supply of lithium chloride. Pratt informed Harrington condfidentially of the Frigidaire work on the air-conditioning system, asked whether du Pont could provide the additional supply, stated that he would rather have the du Pont Company undertake the chemical development than General Motors, and inquired whether it would be an industry in which du Pont would be interested. He testified, "It was a business that required mining, and just a complete new business that wasn't in line with anything we were doing." General Mofors did not pursue the experiment using lithium chloride and there was no need for an additional supply of the lithium chloride refrigerant.

From the outset, Freon 12 and all of the freons, with one exception, were offered for sale to all refrigerator manufacturers. Thomas Midgley in 1932 discovered Freon 114. Each of the freons had distinct properties and were suitable to different uses and types of refrigerator machines. Frigidaire developed a rotary compressor for its household refrigorators and discovered that Freon 12 could not be used efficiently in the new compressor. Freon 114 was found to be effective and a product patent was obtained.

The Kinetic Board on September 29, 1932 approved the construction of a plant to manufacture F-114 and it further [fol. 629] ther resolved that for the time being commercial distribution should be confined to Frigidaire. Pratt testified that Frigidaire had developed its own machine, developed the special refrigerant for it, and to release that refrigerant would cause competitors to duplicate their machine.

The exclusive sales policy on F-114 continued, and in 1938 Sears Roebuck threatened an appeal to the Federal Trade Commission to force the release of this freon. In the Fall of 1938 W. W. Rhodes, Sales Director of Kinetic, reported to its President, E. G. Robinson, that a market for approximately one million pounds of F-114 a year could be obtained if sales restrictions were lifted.

Harrington testified that the attitude of the du Pont members on Kinetic's Board was that for the first year or two it was reasonable for Frigidaire to make the request for exclusive use, and after that argument regularly ensued between General Motors and du Pont on this policy but "General Motors was so urgent and so insistent on the thing, rather than create the ruction that would be involved if we just completely overrode them, the du Pont directors went along and allowed the product F-114, to be exclusive for quite a long time."

Following the challenge Sears Roebuck had made, the Kinetic Board on October 3, 1938 met again to review this policy. Harrington testified at this meeting "General Motors was more vehement than ever that we should reserve the thing to them for a further length of time, and in order to keep peace in the family we agreed."

General Motors General Counsel, John T. Smith, wrote to Ernest R. Breech, General Motors Vice President, on May 8, 1939 on the exclusive use by Frigidaire and concluded that the best way to protect Frigidaire in such use was to have Kinetic Chemicals grant an exclusive license [fol. 630] to it. This recommendation was adopted and an agreement executed on September 18, 1939 accomplishing such result. During the war Frigidaire granted permission to others to use the refrigerant. In June 1943 the question of its unlimited sales again arose and in 1944 the product was offered for sale generally when the exclusive use license to Frigidaire was cancelled. However, F-12 proved to be a cheaper and better refrigerant, and Sears Roebuck refused to purchase F-114 when it was offered to it, and no manufacturer of household refrigerators uses F-114 today, including Frigidaire.

The Development Department of du Pont reported to the Executive Committee in April 1945 on anticipated post war demand for freons and their future promise in plastics and other fields, and recommended that du Pont negotiate for the purchase of General Motors interest in Kinetic if General Motors indicated a desire to sell.

The actual purchase of General Motors interest in 1950 was preceded by negotiations which began in 1948. On January 1, 1950, General Motors sold its 49% interest for approximately ten million dollars. Since this purchase was subsequent to the filing of the complaint in the instant case, the Department of Justice was consulted, and it assured du Pont in writing that it did not oppose the purchase and if it were carried out the prayer in the complaint seeking divestiture from du Pont would be dropped. Upon that assurance the purchase was made.

Synthetic Rubber

In January 1926 Sloan authorized Midgley to conduct some research on synthetic rubber under Kettering's supervision, authorizing a budget of $60,000 for the first year. When Midgley had worked two months on the project, [fol. 631] James McEvoy, Director of the General Motors Patent Section, wrote to Sloan expressing concern about Midgley's project, criticized Midgley's research technique as being deficient in failing to give sufficient evaluation to existing literature in the field, and indicated that Midgley was wasting time and money because prior patents existed on the discoveries he was trying to make. Sloan decided to let Midgley continue, pointing out that Midgley was "a research man first and foremost", and stated that he fully recognized that it was a problem on which it would take over six months to accomplish anything. Midgley went ahead with his research, and under arrangements approved by Sloan conducted his research in the Thomas and Hochwalt Laboratories in Dayton.

A year after this work began, Lammot du Pont heard of it and stated that du Pont had been working on one phase of synthetic rubber and was not conducting as broad an investigation as General Motors. In writing to Raskob, he questioned the advisability of General Motors spending this money, since a great deal of work had already been done on the subject by competent people and well organized research groups; he thought that the du Pont Company, which had also been doing some research, was better equipped for the purpose than General Motors. He further stated:

> "Should General Motors be successful in developing a process, it would probably not be desirable for it to go into the manufacture; whereas if du Pont were successful, it is just the kind of manufacturing opera-

> tion which the Company should be qualified to enter. This is an additional reason why du Pont should work on the problem rather than General Motors.
>
> "In view of the above, it seems to me that either Gen- [fol. 632] eral Motors must be making a mistake in working on this problem, or du Pont is making a mistake in not working on it in a broader way. Won't you refer this letter to the party responsible for General Motors having embarked on this investigation, and ask him to let me know the reason which has guided his decision to undertake the work." (GTX 888).

Raskob replied that the rubber situation was very close to General Motors Corporation and it was tremendously important for the corporation to interest itself in every possible phase of it, and further felt that the laboratories were equipped to do the research that was being conducted. Raskob referred Lammot du Pont's letter to Sloan, who also wrote to Lammot du Pont defending the research being conducted. Lammot du Pont replied that he regarded synthetic rubber to be a problem which would tax the facilities of the most complete laboratory, but

> "Do not let me trouble you any further on this point —I am not trying to force upon you my views or opinions. If I have put into your mind the thought that possibly synthetic rubber is not a suitable subject of investigation by the General Motors Chemical Department, then I am perfectly willing to accept your decision." (GTX 891).

In February 1927 Sloan again wrote to Lammot du Pont that he thought it was desirable to encourage people in the General Motors organization, that he had done so in Midgley's case even though he did not expect the research to accomplish much, and stated:

> "As I said before, if nothing tangible develops during the current year, I shall feel fully warranted in feeling that he has been given his chance and that, [fol. 633] considering we are not directly concerned even if we are greatly indirectly concerned, we might

better transfer his efforts to some other direction." (GTX 892).

Lammot du Pont replied acknowledging the letter and stated that he appreciated fully the desirability of allowing good minds to "have a little more than the normal amount of rope", and that du Pont followed this also since it tended to "keep up the enthusiasm and interest of all concerned."

In March 1927 Midgley suggested that his work be reviewed by a "good rubber chemist". Sloan replied that he thought this was a mistake since he felt a chemist in commercial practice and even the du Pont Company would not have the imagination, sympathy, and ethusiasm possessed by Midgley, and preferred to leave the determination to his own judgment, supported by Mr. Kettering.

Midgley went forward during 1927 with his research and made his progress reports directly to Sloan. In December 1927 McEvoy wrote to Pratt that Midgley knew nothing about the subject he had not learned from others and recommended that the "whole operation be terminated".

By April 1928 the price of rubber had dropped from $1.00 to twenty cents a pound. Midgley thought that if he could produce a synthetic rubber it would cost not less than thirty-five cents a pound. Sloan testified that both Midgley and Kettering then determined that General Motors should abandon the project. In late March or early April 1928 it was decided that while the work for General Motors should cease, Midgley could have all the equipment and continue the research on his own if he desired. On April 27, 1928 an agreement to that effect was executed.

Midgley went ahead on his own, but as Sloan testified, [fol. 634] he never succeeded in solving the problem, but made some very outstanding contributions to the evolution of synthetic rubber.

The evidence relating to the formation and operation of Kinetic Chemicals and to General Motors synthetic rubber research does not establish that General Motors had agreed to surrender or was bound to surrender to du Pont its chemical discoveries.

The Court finds that du Pont did not terminate or in any way limit General Motors research on synthetic rubber, although Lammot du Pont, as well as others in General Motors, suggested it was an inappropriate project for General Motors to undertake. Despite this suggestion Sloan directed that the project should be continued. The evidence bearing on the entire incident is inconsistent with either a basic agreement with respect to General Motors chemical research or with du Pont domination of that research.

The provision of the agreement between du Pont and General Motors establishing Kinetic Chemicals Company which related to further chemical discoveries is no longer in effect, having been eliminated some years before the Complaint herein was filed. The Court finds that this agreement was not executed pursuant to any prior understanding or arrangement that du Pont was to have the exclusive right to discoveries of General Motors. On the basis of the evidence of record, particularly the testimony of Sloan and Pratt, the Court finds that General Motors entered into the contract because those responsible in General Motors believed that Freon could best be manufactured by du Pont rather than by General Motors itself or by some other chemical company.

[fol. 635]

Antifreeze

In connection with the glycerin-alcohol incident in 1926, du Pont's proposal that General Motors make a contract to purchase ethyl alcohol from du Pont was rejected by the General Purchasing Committee even though in 1927 du Pont quoted a "special price".

General Motors commenced selling antifreeze in 1933 using glycerin purchased from Glycerin Producers Association. In 1935 the association advised General Motors, which sold the antifreeze to its dealers for resale to the public, that due to a glycerin shortage, none would be available for 1936. General Motors made an effort to meet its needs by trying to purchase ethylene glycol from Union Carbide, which was sold under the name of Prestone. Union Carbide was unwilling to accept the condition that it be furnished under General Motors' private brand name.

Before 1929 du Pont was engaged in the production of a synthetic methyl alcohol known as methanol. In 1930 it sought an outlet for it. Du Pont marketed the product in 1934 under the trade name Zerone and sought to persuade General Motors to purchase it for resale to its distributors. Zerone had a large market by the end of 1935, but du Pont was unable to sell it to General Motors.

Du Pont made no sales of antifreeze to General Motors until 1936, when it agreed to General Motors' condition that the product be sold under its private brand name. Elmer F. Schumacher, Director of the Polychemical Department at du Pont, testified that at that time he had become aware of the volume of General Motors business and "couldn't for-go the opportunity to enlarge our sales of methanol", capitulating to General Motors' demand on the brand name. Irvine W. Thompson, General Parts & Accessories Merchandising Manager of Chevrolet and General [fol. 636] Manager of the Parts Division, testified that after the notification from the Glycerin Producers Association, General Motors immediately sought to find a source of supply for the non-permanent, or methanol antifreeze; that permanent type antifreeze sources were limited to Union Carbide and that company was not interested in contracting with General Motors. He stated that after canvassing every source available for methanol type antifreeze, a contract was signed with du Pont. Contracts were made for six months duration because of future possibilities of getting a better price or product. General Motors purchased this type of antifreeze from du Pont for the period 1936-1940 and packaged the same under the private brand name. It purchased the product from du Pont because it was the only available supplier and because it offered both quality and fair price.

Thompson, who was in charge of General Motors purchases of antifreeze, testified that each season bids were solicited from all known suppliers and a thorough canvass was made for other sources of supply. According to his testimony, the General Motors Divisions continued to buy from du Pont "because we felt very definitely that they gave us the best product at the best price."

In 1939 du Pont developed a new process for making a permanent type antifreeze, described as ethylene glycol, and sold it under the trade name Zerex. The product was approved by the General Motors Laboratories and in 1940 purchasing of this product began and continued until 1953. Du Pont and Union Carbide were the only two producers of ethylene glycol antifreeze. Both Schumacher and Thompson testified that during 1946 and 1947 this type and the methanol type were in short supply; and ethylene glycol was not produced in quantities to meet the market demand until 1952-1953. Du Pont packaged both the methanol and [fol. 637] ethyelene glycol products under General Motors private brand name.

In 1946 and 1947 General Motors purchased 97% of its antifreeze requirements from du Pont. In 1951 when du Pont advised General Motors that it could no longer sell either type of antifreeze under the private brand name for the reason that its purchases were a small portion of du Pont's total sales and too costly to accommodate the packaging requirements, General Motors sought to find another source. In 1953 when other sources became available, Buick, Chevrolet and Pontiac turned to a competitor who agreed to General Motors private brand packaging. Du Pont presently sells antifreeze for resale only to Oldsmobile.

The only evidence offered by the Government in support of its contention as regards antifreeze is that in recent years General Motors has purchased practically all of its requirements from du Pont. The proof offered by the defense, however, establishes that General Motors determined initially to make such purchases because du Pont was the only available supplier that could meet General Motors' demands as to price, quality and delivery. The defendants' proof further shows that General Motors re-examined the supply situation each year and sought regularly to obtain new sources of supply. The Court finds this proof convincing that General Motors was not limited by agreement or by du Pont domination in its purchases of antifreeze and bought from du Pont only because it believed that du Pont best served its needs.

Miscellaneous Products

Electroplating Chemicals

Electroplating is a process of depositing a coating of one metal upon another and is a highly technical field in [fol. 638] which metallurgists disagree sharply in assessing relative merits of various processes. In 1934 du Pont developed the first improved copper plating process known as du Pont's "High Speed Copper", and development work on it was done for the next four years. When it was offered in 1938 it was accepted and adopted by a number of electroplaters which supplied the automobile industry, including companies, which did work for Chrysler, Studebaker and Nash. In addition, du Pont sells chemicals for copper electroplating and has sold to electroplaters materials for zinc, cadmium, and tin plating, including sodium, copper, zinc, cyanides, anodes, additive agents and brighteners, even though the most important of its processes was the "High Speed Copper" method.

There are three processes for copper electroplating—the cyanide process in which du Pont is interested; the acid copper method developed by General Motors Research; and the pyrophosphate process.

Chevrolet installed the du Pont process in 1939 and discontinued it within two months returning to heavy nickel electroplating. During the nickel shortage, it installed the acid, "Day-Brite" and pyrophosphate "Unichrome" methods.

Ternstedt, a Division of General Motors which is relied upon by the General Motors car units for their electroplating, installed the du Pont copper process in 1938 and discontinued it in 1939. It adopted the General Motors Research acid process in 1939.

Buick has never used the High Speed Copper process, but does little electroplating.

Cadillac has continued to use the High Speed Copper process and purchases the majority of its chemical requirements for it from du Pont since its introduction in 1938.

[fol. 639] Oldsmobile did not adopt the High Speed Copper process until 1941 and used it until 1949 when it shifted to a competitive process.

Pontiac adopted the process in 1940 for part of its plating work and in 1950 shifted entirely to a different and competitive process.

Although Cadillac and AC Spark Plug use the du Pont process for the major part of their plating operations, eight of the nine General Motors Divisions have installed it for varying periods of time and have gone to other processes for all or a major portion of their electroplating process.

In a du Pont study of the electroplating industry in 1945 or 1946 it was reported that unless certain difficulties in the high speed copper process were eliminated or greatly minimized, a "further serious loss of business will result". However, the study reported that "regardless of the difficulties with High Speed Copper * * *, the process, because of certain basic factors, has a greater potential field of usefulness than any offered by competition."

Du Pont's Durobrite process of zinc plating is used by Delco-Remy which does a substantial amount of zinc plating, although Chevrolet, which also does a substantial amount of zinc plating, and purchases a portion of the zinc and sodium cyanide from du Pont, does not use it. Du Pont's two processes, "Zin-O-Lyte" and "Durobrite", are well established in the trade and enjoy a major part of the business in the plating field.

Case Hardening Chemicals

Prior to its acquisition by du Pont in 1930, R & H Chemical Company supplied sodium cyanide, a chemical used for hardening steel surfaces, to all of the automobile manu- [fol. 640] facturers. Sodium cyanide was imported from France in substantial amounts; before du Pont entered the field, Chevrolet and Buick Divisions of General Motors were using case hardening materials.

Beginning in the early 1930s the first of two departures from the sodium cyanide method of case hardening occurred. A new chemical product was introduced on the market by another chemical manufacturer, called "Aerocase". This and other subsequently developed processes by Perliton, Holden and Parkease resulted in a loss of business for du Pont. With these newly developed processes, Chevrolet, Buick and GM Truck turned to the newly accelerated deep case hardening method.

When Aerocase was introduced by the American Cyanamid Company, Buick became the first major user. Du Pont sought to develop a competitive product and in 1933 introduced Ducase, which was never adopted for general use since it was not the complete answer to the type of case hardening requirements of many large customers.

In the 1930s shortly after Aerocase was introduced, a gas carburizing process was developed wherein the steel to be case hardened was run through a furnace into which gas was introduced at high temperature. Initially the larger installations for gas carburizing were expensive and the largest units of the automobile manufacturing industry were the first to convert to this method. Buick commenced displacement of liquid hardening with the gas process in 1936 and in 1937 Ford ~~had~~ partially converted to the process. Saginaw Steering Gear Works of General Motors and Chevrolet Gear and Axle started the new process in 1937.

In 1937 du Pont conducted a comprehensive survey of the quality and type of casehardening material used in [fol. 641] the Chicago territory, including Michigan. The survey showed that automobile manufacturers other than General Motors were buying 88% of their case hardening requirements from du Pont while General Motors bought only 47% of their requirements from ~~them~~. Of four divisions using over 100,000 pounds per year of case hardening products, two bought ~~less~~ than 5% from du Pont and two bought over 90%. In 1937 Ford was buying a greater quantity of case hardening materials from du Pont than all General Motors Divisions combined.

With the new gas carburizing process liquid case hardening operations were largely displaced by the new process, although a demand for du Pont case hardening materials still exists.

Cadillac purchased its needs from R & H before its acquisition by du Pont in 1930 and continued to do so under 1935; from 1935 to 1947 it obtained its case hardening materials from competitors. Since 1947 Cadillac has used the gas process to an increasing extent and purchases its liquid hardening materials in part from du Pont and in part from du Pont competitors.

Buick purchased none of du Pont's case hardening materials until 1946, using imported sodium cyanide or competitive case hardening salts. Since 1946 Buick has purchased du Pont materials for a minor part of its liquid case hardening operations and has converted the majority of its operations to the gas process.

Chevrolet Gear & Axle and Saginaw Transmission purchased a minor part of their case hardening materials from du Pont prior to 1938, purchasing the bulk of their requirements of sodium cyanide from importers and other competitors. In 1938 du Pont developed a special case hardening material for Chevrolet Gear & Axle which pur- [fol. 642] chased substantial quantities thereafter. Saginaw Transmission continued to purchase imported cyanide until such material became unavailable. Since 1946 most of the Chevrolet plants have purchased part of their materials for liquid case hardening from du Pont and part from its competitors. Chevrolet's case hardening operations have been largely displaced by gas carburizing.

Oldsmobile purchased no du Pont case hardening materials prior to 1937. From 1937 through 1946 Oldsmobile purchased some of du Pont's sodium cyanide and small quantities of du Pont's heat treating salts. Since 1947 Oldsmobile has used the gas hardening process to an increasing extent and purchased its requirements of liquid case hardening materials entirely from du Pont competitors.

Pontiac purchased only a minor part of its requirements of case hardening from R & H before the acquisition and from du Pont thereafter. Since 1938 du Pont has sold no case hardening materials to Pontiac except for small quantities of high-purity sodium cyanide.

General Motors Truck & Coach, A. C. Spark Plug, Ternstedt, and Saginaw Steering Gear all have displaced their liquid case hardening processes with gas and purchase only small quantities of du Pont's sodium cyanide. Brown-Lipe-Chapin and Frigidaire prior to 1930 had purchased sodium cyanide from R. & H. Brown-Lipe-Chapin continued to purchase from du Pont for about two years after its acquisition of R & H, using competitive materials for a majority of its case hardening operations until they were discontinued in 1936. Shortly after the acquisition of R & H, Frigidaire commenced using imported sodium cyanide and other competitive materials. Since 1946 it has purchased some sodium cyanide and carburizing salts from du Pont. Delco-Remy and Delco Products purchased all their case hardening requirements from R & H prior [fol. 643] to 1930 and continued to buy from du Pont until 1941 and 1948, respectively. Delco Remy since 1946 and

Delco Products since 1948 purchased sodium cyanide and small quantities of heat treating salts from du Pont, purchasing other case hardening materials from du Pont's competitors.

Before the advent of the new processes, du Pont's sodium cyanide was from one-half to one cent higher per pound than the imported product. In 1947 and 1948 when no imported sodium cyanide was available du Pont supplied all the requirements of 96-98 per cent sodium cyanide to General Motors and other users.

In addition to sodium cyanide, du Pont developed accelerated salt and carburized salt to meet the competition of Aerocase. These compete with the other liquid case hardening products, including sodium cyanide.

Rubber Chemicals and Synthetic Rubber

Ernest R. Bridgewater, Director of Sales for the Rubber Chemicals Division of du Pont, testified that he believed this Division enjoyed about 25% of the rubber chemicals requirements of the Packard Electric and Inland Manufacturing Divisions of General Motors; that du Pont is the second largest supplier to these divisions. Of 65 rubber chemicals which du Pont offers, there were only three that du Pont supplied to these Divisions in larger volume—M.B.T.X., Thiuram M and Thionex.

About 15% of the Rubber Chemical Division's sales are comprised of rubber chemicals; the remaining 85% of the business of this division being represented by sales of neoprene, du Pont's synthetic rubber product.

Neoprene, the first synthetic rubber made on a commercial scale in the United States, is regarded as one of the outstanding achievements of du Pont's research. It was introduced in 1931, receiving acceptance in the market be- [fol. 644] cause of its resistance to oil, heat and sunlight. By 1940 more than three hundred rubber fabricators were using neoprene. Neoprene competes with other synthetic rubbers and with natural rubber. Some synthetic rubbers are less expensive than neoprene.

Automotive radiator and heater hose made of neoprene are being used as standard equipment by Chrysler and Ford because their experience in using this hose has demonstrated advantages for neoprene which justify its higher cost.

Buick once used neoprene for radiator hose but discontinued its use and switched to butyl rubber which cost seventeen cents less per pound than neoprene. Du Pont did not consider reducing the price of neoprene to retain the Buick business because

> "we sell 'neoprene' at the same price to everybody . . . so that if we were to reduce the price of 'neoprene' for Buick, we would have to reduce it for everyone, and we could not afford to do that." (Bridgwater 4987).

Chrysler and du Pont worked together to pioneer a synthetic rubber adhesive based on neoprene to replace old countersunk brass rivets formerly used to attach brake linings to the brake shoe. At General Motors adhesive for this purpose was based on a Buna-N type of synthetic rubber which is more expensive than neoprene. Du Pont sought to sell neoprene to General Motors as an adhesive for use in brake linings but was not successful. A du Pont trade report stated that General Motors would not use neoprene in resilient applications where oil resistance was the primary requirement.

Chrysler and Ford purchase and use neoprene for covering electric wires, seals, gaskets, and have used it to a greater extent than any General Motors Division.

[fol. 645] General Motors followed the common practice of using sub-contractors for major parts and these were left to choose adhesives for brake linings as they desired consistent with specifications, whether it be neoprene or some other material, and du Pont sales efforts were directed to General Motors sub-contractors. Chevrolet Division on one occasion supplied du Pont with the names of its sub-contractors who were supplying it with axle seal, but did not specify the material to be used in their manufacture. Chrysler also provided du Pont with a list of its suppliers fabricating its synthetic rubber parts and included the specifications.

Du Pont also sought to interest Fisher Body in using neoprene for weather stripping. Fisher admitted it was to its advantage to use neoprene but that the price was too high. Since 1945 the du Pont Fabrics Division has sought to sell Fisher Body its special rubber cement—Fairprene

5115—to fasten weather stripping to automobiles. Fisher Body uses about one million dollars worth of adhesive annually. It was not until 1951 that du Pont secured an order for this product although it was equal competitively to others. Since 1951 du Pont secures about 3% of this business. Louis Weyand of Minnesota Mining & Manufacturing Company testified that General Motors bought various adhesives from his firm for attaching trim materials to metal, rubber weather stripping, rubber for windshields and rear lights, felt for sound deadeners. In 1946 it sold two million dollars worth of adhesive to General Motors, and in 1947 three million dollars worth.

Automotive Plastics

In 1930 du Pont marketed a cellulose acetate—Plastacele—and commenced selling some to the Inland Division of General Motors for use in the manufacture of steering [fol. 646] wheels which it made for all automobile companies, including General Motors. In 1937 sales to Inland amounted to $1,200; in 1938 $39,000; and in 1939 sales increased to $157,000, representing about 25% of Inland's requirements—the major supplier being Tennessee Eastman. After 1940 no sales of cellulose acetate were made by du Pont and Inland purchased all of its supply from Tennessee Eastman, which had developed a product called Tenite. Gillie testified that he felt du Pont's product was equal to that of its competitor, and the price was the same. Du Pont made large sales of the product to other customers for uses other than steering wheels.

Du Pont began producing acrylic resin molding powder in 1937 which it sold under the trade name of Lucite. It is a transparent plastic used in the manufacture of reflectors, instrument panels, tail lights and various knobs. Du Pont sells the product to the Inland, Guide Lamp, and A C Spark Plug Divisions. Du Pont's first sale of this material for the manufacture of automobile parts was to Dodge, and it sold no substantial amount of the plastic to General Motors until 1946. Two years after du Pont produced Lucite, Rohm & Haas offered Plexiglas. In 1948 Rohm & Haas supplied more of the requirements of AC Spark Plug Division than du Pont and at the present time du Pont gets a little more than 50% of it. At times du Pont had as much as 95% of the business. At Guide Lamp, du Pont was able to develop a colorfast red composition and obtained its business, but Rohm & Haas matched it and Guide Lamp began to divide its purchases equally between du Pont and Rohn & Haas.

Brake Fluid

Brake fluid is used in hydraulic brakes which came into usage on automobiles in the early 1920s when Chrysler [fol. 647] adopted them. General Motors commenced to install such brakes in 1934 and Ford in 1936. Both Chrysler and Ford used brake fluid which they themselves mixed. No technical skill is required in the making of brake fluid, it being a mixture of several oils and no hazards are present in the mixing. The characteristics sought in brake fluid are a high boiling point and a low freezing point.

General Motors first used a brake fluid supplied by Wagner Electric Company, but shortly thereafter followed Chrysler and Ford in mixing its own, and continues to do so to date.

The General Motors Division assigned to the brake fluid mixing operation is Delco Products. In 1935 it produced a satisfactory fluid and improved it from time to time. Du Pont in late 1934 offered General Motors a fluid to replace that provided by the Delco Division but did not succeed. Other automobile manufacturing companies used du Pont's propylene glycol fluid called Lockheed 21. In 1939 du Pont developed a new fluid marketed as Lockheed 21-11, but was not able to sell it to any of the General Motors car units.

In late 1938 or early 1939 Delco and Union Carbide developed a fluid called Delco 9 which was more expensive than Lockheed 21. Walker testified the reason for the refusal of General Motors units to purchase the du Pont fluid was an agreement among the car division engineers to buy from Delco and help Delco write off the investment they had made in the equipment. Delco bought the chemical ingredients for the Delco 9 fluid from the Carbide & Carbon Chemicals Corporation, a unit of Union Carbide.

Safety Glass

In 1928 du Pont's Viscoloid Company and Pittsburgh Plate Glass jointly and equally owned Duplate Company [fol. 648] which made safety glass. Duplate supplied the glass and Viscoloid supplied the laminating plastic, or pyralin. The automobile industry was a market for safety glass, but all automobile manufacturers were not then entirely converted to its use. In February 1929 only Cadillac and La Salle were using it, while it was optional equipment at Buick.

In 1929 General Motors was installing experimental equipment for compositing safety glass and expected to build a regular compositing plant at their subsidiary, the National Plate Glass Co. A report in 1929 by the President of the du Pont Viscoloid Company stated:

> "... a larger proportion of the safety glass for Cadillac and La Salle is being produced by the Fisher Body Company. The progress which is being made by the General Motors and its subsidiaries in laminating safety glass indicates that the best prospects for the immediate future for Duplate sales depend upon manufacturers other than General Motors." (DP 164).

and the Annual Report for the year 1929 states:

> "Competition became more severe during the year. In the latter part of 1929 Libby-Owens Glass Company came into production with strong sales efforts being made to secure business. Fisher Body Company increased production with the result that they were able to supply practically all safety glass required for Cadillac and La Salle, with a consequent loss of this business which had previously been supplied by Duplate." (DP 169).

In January 1931 du Pont sold its interest in Duplate to Pittsburgh Plate Glass, and later that year General Motors disposed of its safety and plate glass business to Libby-Owens-Ford.

[fol. 649] Total sales by Duplate to General Motors and Fisher Body exceeded two million dollars in 1928 and 1929, but as General Motors expanded its purchases, decreased to $67,000 in 1930 and $37,000 in 1931.

All of the evidence bearing upon du Pont's efforts to sell these various miscellaneous products to General Motors supports a findings that the latter bought or refused to buy solely in accordance with the dictates of its own purchasing judgment. There is no evidence that General Motors was constrained to favor, or buy, a product solely because it was offered by du Pont. On the other hand, the record discloses numerous instances in which General Motors rejected du Pont's products in favor of those of one of its competitors. The variety of situations and circumstances in which such rejections occurred satisfies the Court that there was no limitation whatsoever upon General Motors' freedom to buy or to refuse to buy from du Pont as it pleased.

Sales to General Motors by United States Rubber

The rubber plantations in the Far East were considered the most valuable single asset owned by United States Rubber when the syndicate investment was made, and in 1926 profits from these amounted to six and one-half million dollars, being approximately one-half of United States Rubber's total profits. These plantations supplied less than 25% of United States Rubber's requirements of crude rubber. In 1926 the rubber corporation had the smallest proportion of its total sales in tires—70% of its production being in footwear and mechanical goods. Tire sales accounted for 98% of Fisk's business and 95% of Firestone's business. In addition, both Goodyear and Goodrich had a higher portion of their business in tire sales than did United States Rubber.

[fol. 650] Of total raw inventories which United States Rubber had, 45% were in the tire department. During the correspondence between Sloan and Lammot du Pont concerning the synthetic rubber project, Sloan in 1927 stated:

> "As a matter of fact, however, the single item by all odds that we purchase from outside sources and the one that has been most satisfactory from the standpoint of erratic costs out of line with the real economies of the case is the rubber tire." (GTX 892).

As early as 1925 General Motors had considered buying a rubber tire *manufacturing company*—the Ajax—and the

Executive Committee of General Motors to whom the matter was submitted concluded it would be a constructive thing for General Motors to acquire an interest in an established tire company. The matter was postponed for further consideration and finally dropped because the profit opportunities did not warrant the investment.

Prices in the crude rubber industry during the period 1923-1932 fluctuated widely from twenty cents in 1924 to over a dollar per pound in 1925, forty cents in 1926 and 1927 and below twenty cents in 1928, falling to ten cents and lower in 1930.

Wilson testified that the problem at the time was how the tire manufacturers who had rubber stock at high prices and could buy rubber cheaper with the decline, could get their customers to purchase tires on the basis of high rubber prices. Another factor leading to the high cost of tires was the fact that contracts were written for short periods of from three to six months. The General Purchasing Committee in 1926 and again in June 1930 voted against a general contract for tires and had been continually reviewing the situation on tires to see if anything could be done about it. A plan was considered for General Motors to manufac-[fol. 651] ture its own requirements or to acquire a small tire plant and get some knowledge of cost as a check on the tire companies prices.

During this period United States Rubber negotiated with Goodyear on a proposal to sell or lease its tire business. Irenee du Pont in February 1929 wrote to F. B. Davis that while negotiating for such a lease of the tire business to Goodyear, that United States Rubber should negotiate for a lease of Goodyear's plantations as well; he stated further that it seemed likely that Chrysler or General Motors would acquire their own tire manufacturing facilities which would leave the tire manufacturers in a "very trying position". These negotiations with Goodyear never came to fruition.

In April 1930 at a joint meeting of the General Motors Executive and Operations Committees a discussion was had on whether General Motors should manufacture tires either by buying a small plant or undertaking substantial manufacture. Pratt was designated to investigate both proposals, and he assigned Wilson to make the study.

Wilson made a report on June 3, 1930 stating he had made a survey of the tire industry, had visited the Kelly-Springfield and United States Rubber plants, and recommended against General Motors going into the tire business since his investigation showed the companies were losing money on both original equipment and replacement sales. His recommendations were accepted.

Wilson then proposed a plan whereby General Motors was to purchase the necessary raw materials—rubber and cotton—and furnish the same to a tire manufacturer who would fabricate them into finished tires thus eliminating the cost of raw material going into the tire price. He prepared and submitted a plan for investing twenty million dollars in raw materials such as copper, lead, zinc, tin, rub- [fol. 652] ber and cotton. The plan was approved by the Finance Committee of General Motors on September 8, 1930 and the purchase of these commodities was started and continued for several years. Wilson also believed that this plan should be combined with a long term contract with a tire manufacturer who could then plan his production more efficiently, enabling him to produce more and to sell at a lower price.

While getting Sloan's approval on this plan, Wilson learned that Sloan and Litchfield, President of Goodyear, had been classmates at Massachusetts Institute of Technology, and Sloan arranged an appointment. In the Fall of 1930 Wilson discussed the matter of long term fabrication with Goodyear since he thought it was the "best", "biggest"; and "a progressive company", and one of General Motors' principal suppliers. Litchfield was not interested in the fabrication plan.

Goodrich, which was supplying one-half of the tire business of Chevrolet, was approached by Knudsen, who knew its President, Mr. Tew, and Goodrich quoted some prices which were unsatisfactory.

The formula used in requesting submission of prices was

A—rubber converted into pounds of raw rubber
B—cotton converted into pounds of raw cotton
C—all other items of cost

Wilson finally contacted United States Rubber through Emmet Sheehan, its Detroit Sales manager. Sheehan contacted F. B. Davis and L. D. Tompkins, Vice-President of the Tire Division of United States Rubber, made an appointment with Wilson, and the plan appealed to them. Tompkins testified:

> "We evidenced all the interest we possibly could in the matter, and told him very frankly that at least [fol. 653] part of it was not new to us because we had already negotiated contracts with Montgomery Ward and Atlas in which the question of rubber and cotton financing and so forth, had become a part, so we were playing along the same alley with him in connection with his plan. We knew what he was talking about, at least." (5732).

Wilson invited United States Rubber to submit prices and indicated that W. S. Knudsen, head of the Chevrolet Division would have to be satisfied since this division accounted for one-half of General Motors' tire business. Knudsen was delegated to talk price with the rubber corporation. Tompkins said that "we sharpened our pencils more than we had ever done"; costs were carefully calculated; account was taken of the additional increase in operating efficiency if General Motors' volume was obtained; and the prices were then submitted to Knudsen. Both Goodyear and Goodrich were asked and gave prices on the sale of tires if they could buy rubber and cotton at the current market price and of the three companies, the price quoted by United States Rubber was the lowest.

Wilson then made a report to the Operations Committee concerning all of these negotiations with the three companies, the price formula followed and recommended an authorization for 50% of General Motors' requirements to be supplied by United States Rubber. He also attached a schedule comparing the prices submitted. He stated:

> "Goodrich brought in figures as above, but added 6% to the total, for profit. United States included their profit in factor 'C'. When prices were compared, it was decided to ask for prices on other General Motors sizes, with the result that we have today a complete list of all, making it possible to compute the tire prices [fol. 654] by simply multiplying Factors 'A' and 'B' with today's market price and adding Factor 'C' to the total.

> "Comparison developed that United States Tire & Rubber Company have given us the most favorable terms, and Mr. Pratt has notified them of our willingness to enter into a contract for 1½ years on the above basis, and has at the same time signified our willingness to underwrite the purchase of up to 5,000 tons of rubber @ .08 per lb. this representing about 25% of the Corporation's requirements for one year and an expenditure of $800,000.
>
> "Immediately when the decision was announced to the trade, Goodyear and Goodrich both made applications for permission to quote on the balance of the Corporation's requirements, or any part of them, at competitive prices.
>
> "It is our opinion that it would not be desirable to close contracts for 100% of the Corporation's tire requirements, but that the remaining open 50% should be left to the Divisions to handle on the best possible basis. We therefore ask authority to conclude the contract for 50% of General Motors tire requirements with United States Tire & Rubber Company." (GTX 1089).

On October 9, 1930 the Operations Policy Committee approved a contract with United States Rubber for 50% of General Motors' requirements.

Purchases from United States Rubber by the General Motors Car Divisions for the years preceding 1928 are not available.

In 1928, 1929 and 1930 Pontiac purchased approximately 18%, 8% and 10%, respectively, of its requirements of [fol. 655] casings from United States Rubber based on an estimate in 1929 of 315,000 cars produced.

In January 1928 the sales manager for United States Rubber wrote to the Oakland Division confirming that it was to receive from 20-25% of the Pontiac business, both domestic and foreign, and 40-50% of Oakland's business, domestic and foreign, for the first six months of 1928. In May 1929 Glancy wrote Davis that United States Rubber was getting 30% of Pontiac business, a percentage larger than any other manufacturer received, and 15% of Oakland's business, which was the same percentage other suppliers received; that although the large percentage for Pontiac had been opposed by the Sales Department, he believed that it was United States Rubber's intention to bring the quality of its goods up to competition and was "happy to take this chance" with United States Rubber.

In 1929 Chevrolet purchased no tires from United States Rubber and in 1930 through the efforts of its sales staff a small volume was procured. General Motors purchases in 1929 decreased from 524,205 units in 1928 to 441,659 and to 465,267 in 1930 before reaching 2,508,241 units in 1931. Oakland-Pontiac purchases declined from 227,652 units in 1928 to 105,882 in 1929, and to 124,005 in 1930.

Both Chrysler and Ford were also purchasing tires from United States Rubber in 1928; Ford purchasing 362,016 units and Chrysler 287,742.

In 1929 General Motors had a car manufacturing subsidiary in Canada—General Motors of Canada, Ltd., and United States Rubber had a Canadian subsidiary—Dominion Rubber Company. Canadian Industries, Ltd., in which du Pont held an interest, held stock in the Dunlop Tire & Rubber Goods Company of Canada. On March 25, 1929 [fol. 656] R. S. McLaughlin, President of General Motors of Canada, wrote to A. B. Purvis, President of Canadian Industries, advising him that du Pont had acquired an interest in United States Rubber and

> "they naturally would like to see us do some business with the Dominion Rubber Company." (GTX 1082).

He inquired whether Canadian Industries was still interested in Dunlop. Purvis replied that it was still interested in Dunlop, holding 35% of its common stock, that General Motors' business was vital to Dunlop and would be sorry to see it go to United States Rubber, and that McGowan would appreciate their continued support of Dunlop.

Six months later, Purvis forwarded copies of this correspondence to Lammot du Pont and advised that Dunlop, effective April 18th, 1930, would be entirely supplanted as a tire supplier to General Motors of Canada by Dominion Rubber Company, and asked that McLaughlin of General Motors be relieved of the "evident pressure to which Mr. McLaughlin refers and which Mr. Davis would very naturally bring to bear upon them."

Lammot du Pont wrote to F. B. Davis:

> "Now it is, of course, all right for United States Rubber Company to 'go after' the General Motors of Canada business through the Dominion Rubber Company, but I do not believe it is either fair or proper, under the circumstances, to use as an argument the interests of the U. S. Rubber stockholders or their connection with General Motors. Could you not get the business on the basis of quality, services and price?
>
> "I have told Mr. Purvis that as far as I am personally concerned, and I think I represent the feelings of [fol. 657] the other individuals here, that I cannot subscribe to the idea of using our interests in both General Motors and United States Rubber as a means of getting business." (GTX 1085).

Davis replied stating that this account was secured on

> "the basis of quality, service and price, and we not only do not use any du Pont or General Motors connections as arguments for getting business, but find that many times we are handicapped because of rumors of the tie between the three companies, and we take great pains in explaining the facts—just as we have done to Mr. McLaughlin." (GTX 1086).

He continued that Mr. McLaughlin had advised Eden, President of Dominion Rubber that

> "he would be very glad to give him a portion of his business but that his hands were tied as he had instructions from Mr. John L. Pratt, of the General Motors Company, requiring him to favor Dunlop." (GTX 1086).

and that if this could be rescinded he would be able to give Dominion some of his tire business; that Tompkins had immediately contacted Mr. Stettinius of Mr. Pratt's office and

> "Mr. Pratt arranged to have the instructions, whatever they might have been, rescinded." (GTX 1086).

whereupon Dominion actively opened negotiations with General Motors of Canada.

Tompkins testified that when he called on Mr. Stettinius in 1929 he was advised no such instructions had in fact been issued, and Pratt testified he had never given any instruc- [fol. 658] tions that General Motors of Canada was to use Dunlop. For the years 1928 to 1930, inclusive, Goodyear was the principal supplier of tires to General Motors of Canada. Dunlop's business with General Motors of Canada shrank from 23% in 1929 to 4.6% in 1930, whereas Goodyear's increased from 70.83% to 84.34% in the same period. The 1931 contract with United States Rubber provided for 50% of General Motors of Canada's requirements.

In 1930 Davis contacted General Robert E. Wood, President of Sears, Roebuck & Co., with the view, shared by Tompkins, that large retail outlets would result in volume business for the tire department. He found that Sears had an arrangement with Goodrich and that Montgomery Ward was buying its tires from several small suppliers but might be interested in dealing with United States Rubber. Following a conference with Mr. Everett, Ward's President, a contract was signed covering 90% of Ward's requirements of its own brand of tires. In the same year United States Rubber succeeded in obtaining a five year contract with Atlas for 50% of that company's requirements of "Atlas" brand tires to be sold through Standard Oil Service stations. In 1937 United States Rubber's share of Atlas business was increased to 100%. Tompkins stated the procurement of this business was of vital importance to the company and "was the turning point" in the future success of the tire division.

Tompkins and Davis testified that throughout the 1930s Emmet Sheehan, the Rubber Company's sales representative contacted all automobile manufacturers, including Ford, Chrysler, and the General Motors Divisions, and succeeded in getting orders from Ford and Chrysler until both turned to Firestone and Goodyear respectively as their principal suppliers.

[fol. 659] The 1931 tire contract was for a term of 21 months containing an automatic renewal clause and was signed by L. D. Tompkins and Charles E. Wilson. It provided that (1) General Motors would buy at least 50% of its original equipment tires, including spare tires, for cars produced and sold in the United States and Canada, (2) the prices to be determined by the A, B, C formula in Wilson's plan—that is the number of pounds of rubber in a set of four tires multiplied by the price per pound of rubber specified by General Motors, a similar computation for the cotton used, and all other costs, including profit, the total of these three items being the price per set of four tires, (3) General Motors designated United States Rubber as its purchasing agent to buy crude rubber, General Motors to inform the rubber company the quantity to be purchased and the price to be paid. It would then resell to the rubber company the rubber requirements for each succeeding month for the manufacture of tires. In such resale, General Motors was permitted to charge a mark-up of not to exceed 12½% over the original cost of the material. (4) United States Rubber was to bill the General Motors divisions for the tires supplied but was to do the billing at billing prices agreed upon with General Motors. These billing prices were on regular shipments to the divisions and the level of prices which the various car division buyers had been able to establish in the purchase of tires beyond the 50% covered by the contract. After the divisions made payments on the basis of the billed price, United States Rubber was to make an adjustment between the billing price and the lower prices fixed by the formula.

On February 25, 1931 a supplemental letter agreement was executed wherein Oldsmobile, Oakland-Pontiac and GMC Truck Divisions agreed to purchase all their remaining requirements from United States Rubber, and Cadillac-[fol. 660] LaSalle agreed to purchase 15% additional. Buick and Chevrolet bought their remaining 50% elsewhere.

In July 1931 when the price of rubber was around six cents per pound, Tompkins and Wilson signed a modification of the 12½% mark-up providing that General Motors could resell up to ten cents a pound regardless of the 12½% limitation.

The provision regarding the billing arrangement was included so that the basic or ultimate price resulting from the contract could be kept "as confidential as possible." Tompkins testified that both Goodyear, which sold to Chrysler in substantial volume, and Firestone, which supplied Ford, also kept their prices secret, and that the same practice was followed by United States Rubber and Goodyear in their contracts with Montgomery Ward and Sears, respectively.

An addendum to the 1931 contract provided that tires used by General Motors as spares would be priced at a specified amount above running tires. No extra price was to be charged for second spares or spares on exported cars. The Government concedes the allegations contained in ¶128 of the Amended Complaint relating to the price of spare tires is erroneous.

United States Rubber continued to sell tires to General Motors pursuant to contracts until 1942. After the original contract, new contracts were signed in 1932, 1933 and 1936. The 1932 contract adhered to the ABC pricing formula, the percentage of General Motors requirements, and also provided for the extra percentages reflected in the agreement of 1931. During the 1932 contract a patent license option agreement was made, providing that if General Motors desired to manufacture its own tires it would [fol. 661] be granted a non-exclusive license on United States Rubber's patents and applications relating to tire manufacturing processes and "know-how," providing General Motors continued to purchase 50% of its tire requirements: The license was never used by General Motors.

The 1933 contract executed May 22, 1933, effective January 1934, replaced the ABC price formula with a provision that prices to be charged General Motors should be no greater than the lowest price charged by the four largest manufacturers of tires—Goodyear, Firestone, Goodrich and United States Rubber. This change was made because of the increased stability of the rubber and cotton markets and the higher level of prices for those commodities.

In a separate concurrent agreement, United States Rubber agreed to give General Motors the following discounts on its annual volume of sales:

$10,000,000	$ 825,000
11,000,000	940,000
12,000,000	1,040,000
13,000,000	1,200,000
14,000,000	1,350,000
15,000,000 and up.	10%

(GTX 1141)

It was also provided that United States Rubber should not be required to furnish tires at prices which, after the discount, would not return its costs. The current billing price before the year end discount was measured by cost plus 10%.

The dollar sales figures for 1934 to General Motors totaled over sixteen million and General Motors was entitled to receive the maximum discount. United States Rubber and General Motors agreed on December 17, 1934 to fix the discount for 1934 at $500,000 or 2.8% on its 1934 sales.

[fol. 662] The 1933 contract was supplemented by an extra percentage letter agreement and for the first time United States Rubber received an additional 20% of Buick's business, Cadillac-LaSalle was increased to 20%, Pontiac and Oldsmobile declined to 30% and 40% respectively.

In 1934 the price and discount arrangements were modified and United States Rubber agreed that in the event General Motors purchased fifteen million or over and if the rubber company's profit exceeded 10% that General Motors would receive one-half of the amount of such profit exceeding 10% up to and including "an excess of 5%" which would make it possible for General Motors to receive a maximum discount of 10% on purchases of fifteen million or more. The discount paid after some negotiations on total purchases of $25,114,888 was $1,044,516.87, or 4% of the 1935 sales.

On August 1, 1936 another contract containing an automatic renewal clause was executed which lasted until May 8, 1942 when the United States entered World War II. The maximum discount provided was 3½% on sales of twenty-one million dollars. After the war General Motors resumed its purchases from United States Rubber on a non-contractual basis. Purchasing was done through orders and the percentages of business to be supplied the General Motors car divisions from March 1, 1949 to August 31, 1949 were: 64% of Buick, Oldsmobile, Pontiac, Cadillac and GMC Truck passenger tires, 50% Chevrolet passenger tires, 55% truck tires for Chevrolet and GMC Truck. The prices fixed by this order were subject to being lowered if General Motors bought from other suppliers at a lower price or if United States Rubber sold at a lower price elsewhere.

For the years 1934 through 1940, United States Rubber's profit attributable to sales of original equipment to General Motors was $9,737,000 and its net income was $45,764,000. [fol. 663] Wilson testified that United States Rubber's share of General Motors' business during the period 1931 to 1936 was about 55%; 1936-1942 it was about 60%-70%; and the years following the war 1946-1948 it was 55%-58% of General Motors needs. Throughout the years United States Rubber's sales to General Motors of tires for original equipment constituted a high percentage of its total sales of original equipment. General Motors also made purchases of tires from Goodrich and Firestone in the years 1946, 1947 and 1948 averaging approximately 20-23%. The Company's private brand unit sales have been greater in most years than its total original equipment sales.

Throughout the years Irenee du Pont viewed the tire business of United States Rubber as its most precarious branch and expressed his desire that this phase of its operations be dropped. He urged Davis in 1934 to sell this branch of its business, and testified that his views today are the same as those expressed at that time. Davis confirmed the fact that Irenee du Pont had made repeated suggestions for the rubber company to dispose of its tire business.

The Court finds that the evidence with respect to the original negotiation of the tire contract and United States Rubber's subsequent sales of tires and tubes to General Motors establishes that General Motors initiated discussions leading to that contract, entered into it, and has ever since continued to buy a substantial portion of its tires and tubes from United States Rubber for its own good business reasons—and for no other reason. The Government's contentions to the contrary are supported only by suspicion and conjecture.

Other Products

The Government concedes that du Pont sales to United [fol. 664] States Rubber are far greater than the purchases du Pont makes from United States Rubber.

Paint. On January 18, 1932 William Richter wrote to William Zintle, also a du Pont employee, and attached a letter from F. B. Davis to Lammot du Pont regarding a

Pratt and Lambert can of paint which Lammot du Pont had seen being used in painting a building at United States Rubber. Davis assured Lammot du Pont the can contained du Pont paint because the contractor had been told "he could not have the contract unless he used du Pont paints" and stated that United States Rubber had a genuine interest in using and recommending du Pont products wherever possible. United States Rubber since 1929 has purchased more paint and maintenance paint from du Pont's competitors than from du Pont. The percentages of all paint purchased from du Pont in 1946, 1947 and 1948 were 31.1%, 34.5% and 25.3%.

Rayon. Rayon, first introduced to the rubber industry in 1936, was for a time produced only by du Pont. From 1936 to 1941 du Pont supplied almost 100% of United States Rubber's requirements of high tenacity rayon. During the war years the percentage of the rubber company's requirements declined since rayon was in short supply and subject to Government allocation orders. United States Rubber approached du Pont requesting a larger percentage of their total production or to increase their facilities for production, but du Pont refused to do either. The percentage of United States Rubber's requirements of rayon purchased from du Pont which was 100% in 1936 declined to 37.7% in 1946, 33% in 1947 and 27.3% in 1948. In 1946 and 1947 United States Rubber purchased more rayon from one du Pont competitor than it did from du Pont, and in 1948 it purchased more rayon from each of two du Pont competitors than from du Pont. United States [fol. 665] Rubber purchases of rayon constituted two-thirds of its total purchases from du Pont during 1946-1948. In the years 1942-1948 du Pont sold more high tenacity rayon to Goodyear Tire & Rubber than it did to United States Rubber.

Neoprene. Neoprene is a synthetic rubber manufactured only by du Pont. Tisdale testified that United States Rubber purchased neoprene from du Pont during and shortly after World War II, despite neoprene's odor and heaviness, only because natural rubber latex was unavailable. When natural rubber latex was again available, United States Rubber returned to its use. GRS and buytl are other synthetic rubbers and are cheaper than neoprene. Dry neoprene and other types of dry rubber are purchased by United States Rubber and are used to make products other than Lastex thread. Eliminating the abnormal purchase of neoprene in the making of lastex during the years natural latex was unavailable, United States Rubber obtained from du Pont only 11% of its total requirements of neoprene and competitive rubbers in 1948.

Dr. Tuley testified that the only significant test of price of rubber products was the relationship of price to the ultimate cost of the article to be produced. In addition, in making the table of competitive rubber products, United States Rubber did not use neoprene in the manufacture of some products, although its competitors did. He stated that only rubber which was used to make products directly competitive with those in which other companies used neoprene was included in USR 217.

Rubber Chemicals

Naugautuck Chemical Division of United States Rubber supplies its parent company with rubber chemicals as does [fol. 666] du Pont and other competitors of du Pont. Tisdale testified that this division of the rubber company is a self-sufficient operation and has to compete with outsiders for United States Rubber's business and maintains a sales and technical staff. United States Rubber pays no lower price to Naugautuck than to any other customer.

Wetting agents. These products constitute a small portion of United States Rubber purchases. Tisdale testified that these and other items were included in the survey made by Dr. Tuley because in the judgment of technical men they were competitive in use although du Pont does not make the same type. Dr. Tuley stated that more competitive products were studied than were included and as to those included "we established in each case that our use of them matched some commercial use of the du Pont product."

Terprene. United States Rubber purchases Terprene products, a small item in its total purchases, from naval stores industry. Du Pont does not manufacture this product. Exhibit USR 217 includes an item in that class manufactured by du Pont which has the same character as that manufactured in naval stores and turpentine industries and is sold in competition with those industries.

Diphenylamine. Du Pont is the only commercial producer of diphenylamine and United States Rubber purchases this product exclusively from du Pont. The Naugatuck Division of United States Rubber uses this material for a patented antioxidant, BLE, which it sells in competition with du Pont's product called the "Neozones". Next to rayon, this product constituted the largest dollar volume purchases made by United States Rubber from du Pont, being about 10% of its total purchases from 1946-1948.

[fol. 667] *Nylon.*

Nylon is patented and manufactured exclusively by du Pont. United States Rubber does not use the product in its truck or passenger tires for civilian use although its competitors do. In 1946 du Pont's total sales of nylon to United States Rubber were $617,000 and two years later increased to $895,000. In 1946, 1947 and 1948 Goodyear, Goodrich and Firestone purchased more nylon from du Pont than did United States Rubber.

The foregoing four products—rayon, diphenylamine, neoprene and nylon accounted for a great preponderance of United States Rubber's total purchases from du Pont. In 1948 these products accounted for over ten million dollars of the total purchases made by United States Rubber equalling $11,500,000, or 87%. Of all products required by United States Rubber and which were manufactured by du Pont, United States Rubber's purchases from du Pont constituted 36.5% in 1946, 31.9% in 1947 and 28.8% in 1948.

In the compilation of Exhibits USR 217 and GTX 1332 Dr. Tuley testified that a product purchased from a competitor of du Pont was not regarded as competitive unless it met certain tests, such as:

> "First, the composition of the material, its price in relation to related products; its availability; quality; du Pont's postion in regard to supply and their ability to deliver in the quantities required and at the time we required them; and particularly the critical test was whether there was an established commercial use for the du Pont product identical with our use of the product we had purchased from some other supplier." (Tuley 6661-2).

[fol. 668] In 1932 Lammot du Pont sent Davis a table of the purchases by du Pont from United States Rubber and its competitors, showing purchases from United States Rubber of $361,000 in 1930 and $204,000 in 1931. He said:

> "the purchases we make from United States Rubber Company are far larger than from any other rubber company." (GTX 1059)).

In 1935 he again wrote regarding purchase figures for 1933 and 1934 and commented that the 1934 purchases were less than those for 1933 from United States Rubber, whereas the Rubber Company's purchases for 1934 from du Pont were higher than in 1933 stating he thought that was due to the fact that the rubber company bought products which were raw materials, whereas

> "du Pont buys from U. S. Rubber substantially nothing, except products that are used as supply or small items in construction of machinery and equipment." (GTX 1060).

On January 19, 1938 E. R. Bridgwater of du Pont's Research wrote Ackart of du Pont's Engineering Department that local buyers at du Pont's various plants had told salesmen for rubber manufacturers other than United States Rubber that

> "they are unable to give them any business because they are instructed to place business with U. S. Rubber whenever possible." (GTX 1061).

He stated that the managers of the purchasing departments had been circularized and told to refrain from giving the impression that United States Rubber had any better chance of getting du Pont's business than any other rubber manufacturers and concluded:

> [fol. 669] "I do think it would be very helpful to us if you would ask all members of your department who contact rubber salesmen or engineers to so conduct their conversations as to convince the salesman that he has as good a chance of getting our business as anyone else and that our rubber goods are bought solely on the basis of price, quality and delivery. I realize, of

> course, that we do show preference to U.S. Rubber in certain instances but I think that's no one's business but ours, and it is, of course, a fact that we buy much less than half of our rubber goods from U.S.
>
> "Perhaps Mr. Hawkins would like to again remind all buyers on the Company that our rubber chemicals business need not suffer by reason of the fact that we buy much more from U.S. Rubber than from any other rubber manufacturer so long as they take pains to prevent any salesmen from getting the idea that it is our policy to give U.S. Rubber all the breaks and reporting that to his main office as an alibi for not getting du Pont business." (GTX 1061).

On February 26, 1947 L. D. Reed, Director of Trade Analysis Section of du Pont, in answer to Lammot du Pont's inquiry on trade relations with United States Rubber stated:

> "You will notice from this summary sheet that the purchase/sales relationship with United States Rubber would still be way out of line if we had purchased our entire requirements of industrial rubber commodities from them alone, which amounted to $1,264,348. In view of the other large sales which are made to competitors of United States Rubber, some recognition must be taken of this business, and the result is that rather insignificant purchases are made from the re- [fol. 670] mainder of the rubber industries listed, with the possible exception of Goodrich." (GTX 1062).

He explained that Goodrich sold a chemical which the Rubber Company did not make and made no similar product. He stated:

> "Goodyear Tire and Rubber are generally competitive with United States Rubber so far as rubber commodities are concerned, but they have not been successful in securing much of the business we have to give the rubber trade in rubber lined tanks. Just recently, they visited our office feeling that they were not being treated fairly in this respect, but were finally convinced that they had not been successful bidders and would

> still have to sharpen their pencils. The other rubber companies do not engage in this type of endeavor." (GTX 1062).

The evidence relating to purchases and sales between United States Rubber and du Pont was, for the most part, introduced by the defendants. The Government has failed to show the existence of any agreement or understanding that each of these companies would prefer the products of the other and would decline to deal with competitors of the other. The Court finds that, in fact, each company has enjoyed freedom to buy as it pleased.

The Issue of Conspiracy

At the outset of this memorandum the Court stated that the issue of conspiracy permeated the entire case, underlying both the trade and the control aspects thereof. This is so because conspiracy to restrain trade can only be determined after consideration of the entire record of evidence. [fol. 671] The Court finds, on the basis of all the evidence of record, that the Government has failed to establish the existence of any such conspiracy.

The record discloses a number of instances in which various of the defendants have engaged in concerted action of one kind or another. For example, the syndicates that were formed to purchase du Pont stock in 1915, and United States Rubber stock in 1927; and the collaboration on the development of "Duco" and TEL. But concerted action does not necessarily constitute conspiracy or proof of conspiracy. It does so only if the object of the action is to restrain trade or commerce. The Court finds that none of the actions taken in concert had as their objective, or necessary consequence, the imposition of any limitation upon the free flow of trade and commerce. A number of such actions, such as the formation of Christiana in 1915 and Delaware in 1924, were undertaken for purely personal reasons of the participants, largely financial and unrelated to restraint of trade and commerce or the monopolization thereof. The record as a whole does not support a finding that any of them, or all of them in the aggegate, did restrain or intended to, or had the effect of, restraining or monopolizing trade and commerce. The Court bases this conclusion on both documentary and testimonial evidence of record and upon the more detailed findings made in the earlier parts of this memorandum.

Conclusion

The Amended Complaint charges violations of both the Sherman and the Clayton Acts. Those Acts broadly condemn conspiracies, contracts, agreements, understandings, and acquisitions that result in monopoly or unreasonable restraints of trade. If the facts established the existence of a conspiracy or agreement to restrain or to monopolize [fol. 672] trade, or if the facts showed that a restraint of trade or monopolization had occurred, it would be necessary to determine as a matter of law whether the situation disclosed was condemned by the statutes. However, there is no need in this case to consider that question or to discuss legal principles or precedents because there has been no conspiracy to restrain or to monopolize trade and no restriction or monopolization of the market.

The essence of the conspiracy and restraint which the Government finally charged and sought to prove in this case is the alleged limitation upon General Motors' ability to deal as it pleased with competitors of du Pont and United States Rubber. In various ways and subject to various limitations, the Government has alleged that General Motors either itself agreed to such a limitation, or was forced to it by du Pont. But the evidence of record fails to support the Government's charges. In preceding portions of this opinion there has been shown, by detailed analysis of the evidence, the extent to which General Motors enjoyed complete freedom of action with respect to specific products manufactured by du Pont and United States Rubber, and with respect to its discoveries and developments of new products. When read as a whole the record supports a finding, and the Court so finds, that there has not been, nor is there at present, a conspiracy to restrain or to monopolize trade and no limitation or restraint upon General Motors' freedom to deal feely and fully with competitors of du Pont and United States Rubber, no limitation or restrain upon the freedom of General Motors to deal with its chemical discoveries, no restraint or monopolization of the General Motors market, and no restraint or monopolization of the trade and commerce between du Pont and United States Rubber. The findings that there has been neither a conspiracy to restrain or to monopolize trade nor [fols. 673-674] a restraint or monopolization of trade make it unnecessary to consider the questions of law that would otherwise arise with respect to the Wilmington Trust Co. and the so-called "beneficiary" defendants, including the infants for whom guardians ad litem have been appointed.

It may be that a violation of the Clayton Act can be made out in the absence of an actual restraint of trade where it is established that there is a reasonable probability that a condemned restraint will result from an acquisition of stock. The acquisition challenged by the Government—du Pont's investment in General Motors—took place over thirty years ago. In those many intervening years the record discloses that no restraint of trade has resulted. Accordingly, the Court is of the opinion that there is not, nor has there been, any basis for a finding that there is or has been any reasonable probability of such a restraint within the meaning of the Clayton Act.

The Government has failed to prove conspiracy, monopolization, a restraint of trade, or any reasonable probability of a restraint, and for those reasons the Amended Complaint should be dismissed.

Walter J. LaBuy, Judge of the United States District Court.

[fols. 675-676] UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

Civil Action No. 49 C-1071

UNITED STATES OF AMERICA, PLAINTIFF

v.

E. I. DU PONT DE NEMOURS AND COMPANY, GENERAL MOTORS CORPORATION, UNITED STATES RUBBER COMPANY, CHRISTIANA SECURITIES COMPANY, DELAWARE REALTY & INVESTMENT CORPORATION, PIERRE S. DU PONT, LAMMOT DU PONT, IRENEE DU PONT, ET AL., DEFENDANTS

FINAL JUDGMENT—December 9, 1954

This cause coming on for final disposition upon the pleadings and evidence, both oral and documentary, and the Court having heard the arguments, and considered the briefs of counsel and having made and filed herein its memorandum of opinion on to wit December 3, 1954,

It is hereby, ordered, adjudged and decreed, that

1. Said memorandum of opinion be and the same hereby is adopted as the Court's findings of fact and conclusions of law herein, and said memorandum of opinion be and the same hereby is made a part of this judgment and decree by reference as such findings of fact and conclusions of law.
2. The amended complaint herein and the above entitled cause be and the same hereby are dismissed for want of equity.
3. Plaintiff take nothing by its suit and defendants and each of them go hence without day.

Dated December 9, 1954.

Enter:

Walter J. La Buy, Judge of the United States District Court.

[fol. 677] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

UNITED STATES OF AMERICA, PLAINTIFF

v.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL., DEFENDANTS

NOTICE OF APPEAL TO THE SUPREME COURT OF THE UNITED STATES—Filed February 4, 1955

I. Notice is hereby given that the United States of America, the plaintiff above named, hereby appeals to the Supreme Court of the United States from the final judgment dismissing this action and the amended complaint for want of equity, entered in this action on December 9, 1954.

This appeal is taken pursuant to Section 2 of the Expediting Act of February 11, 1903, 32 Stat. 823, 15 U.S.C. 29, as amended by Section 17 of the Act of June 25, 1948, 62 Stat. 869.

II. The clerk will please prepare a transcript of the record in this cause, for transmission to the Clerk of the

Supreme Court of the United States, and include in said transcript the following:

1. All docket entries.
2. Complaint filed June 30, 1949.
3. Answer of Christiana Securities Company, Delaware Realty & Investment Corporation, Pierre S. du Pont, Lammot du Pont, and Irenee du Pont filed April 26, 1950.
4. Answer of E. I. du Pont de Nemours and Company filed April 26, 1950.
5. Plaintiff's More Definite Statement under Rule 12(e), filed April 27, 1950.
6. Answer of General Motors Corporation filed April 16, 1951.

[fol. 678] 7. Plaintiff's motion to amend the complaint filed July 3, 1952.

8. Order granting plaintiff leave to amend the complaint entered July 28, 1952.
9. Answer of E. I. du Pont de Nemours and Company to amended complaint filed September 15, 1952.
10. Answer of Christiana Securities Company, Delaware Realty & Investment Corporation, Pierre S. du Pont and Irenee du Pont to amended complaint filed September 15, 1952.
11. Pre-trial order entered January 5, 1953.
12. Plaintiff's motion to amend the complaint and proposed amendment filed January 5, 1953.
13. Order granting plaintiff leave to file amended complaint entered January 16, 1953.
14. Suggestion of death of Lammot du Pont filed January 16, 1953.
15. Order dismissing the complaint, with prejudice, as to certain defendants entered January 16, 1953.
16. Amended complaint (printed copy) filed January 28, 1953.
17. Answer of E. I. du Pont de Nemours and Company to amended complaint filed January 26, 1953.
18. Answer of Christiana Securities Company, Delaware Realty & Investment Corporation, Pierre S. du Pont and Irenee du Pont to amended complaint filed January 26, 1953.
19. Order that answer of General Motors Corporation

filed April 16, 1951 stand as its answer to the amended complaint entered January 28, 1953.

20. Order dismissing complaint, without prejudice, as to certain defendants entered February 16, 1953.

21. Post-trial stipulation filed August 7, 1953.

22. Memorandum opinion regarding admissibility of certain documents filed November 16, 1954.

23. All exhibits listed in Schedule A attached to and made a part of this notice of appeal.

24. All pages of the printed transcript of the trial listed in Schedule B attached to and made a part of this notice of appeal.

25. Opinion holding that amended complaint should be dismissed filed December 3, 1954.

26. Final judgment dismissing the action and the amended complaint entered December 9, 1954.

27. This notice of appeal.

[fol. 679] III. The following questions are presented by this appeal:

1. Whether the district court erred in failing to find and to conclude:

(a) That E. I. du Pont de Nemours and Company (du Pont), by its acquisition in 1918 of 23% of the outstanding capital stock of General Motors Corporation (General Motors) and its continuing ownership of at least this percentage of General Motors' outstanding stock, and by the ensuing permeation of the top echelon of General Motors' management by du Pont officers and directors and other persons long affiliated with it, has had power to control, and effective working control of, General Motors throughout the period covered by the Government's complaint.

(b) That one of the purposes of du Pont in acquiring and retaining such stock interest in General Motors was to obtain for du Pont preference over its competitors in the sale of products to General Motors and in the development, production, and sale of commercially valuable chemical products based on discoveries made by General Motors and covered by patents held by it.

(c) That du Pont's stock interest in General Motors and the active participation of du Pont representatives in General Motors' management tended to give and gave du Pont a preference over its competitors in the sale of products to General Motors and in the development, production, and sale of commercially valuable chemical products discovered by General Motors, with resulting restraint of the trade of du Pont's competitors.

2. Whether the district court erred insofar as it made findings and reached conclusions inconsistent with 1(a), 1(b), and 1(c) above.

3. Whether, under the circumstances set forth in question 1, du Pont and General Motors constitute a combination in restraint of interstate trade in violation of Section 1 of the Sherman Act, and a combination to monopolize a part of such trade in violation of Section 2 of that Act.

[fol. 680] 4. Whether the effect of du Pont's acquisition and retention of General Motors stock may be to restrain interstate trade in any section of the country, or to tend to create a monopoly of any line of interstate commerce, in violation of Section 7 of the Clayton Act.

5. Whether the United States is entitled to relief which, in addition to appropriate injunctive provisions, would require du Pont to divest itself of its General Motors stock, and would require Christiana Securities Company and Delaware Realty & Investment Corporation (if du Pont should be permitted to divest through a distribution of General Motors stock to du Pont stockholders) to dispose of all General Motors stock received as a result of such distribution.

Stanley N. Barnes, Assistant Attorney General.
Victor H. Kramer, Charles H. Weston, Special Assistants to the Attorney General. Address: Department of Justice, Washington 25, D. C.

SCHEDULE A

[fol. 681]

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[fols. 685-739] PROOF OF SERVICE (omitted in Printing)

[fol. 740] Clerk's Certificate to foregoing transcript omitted in printing.

[fol. 741] SUPREME COURT OF THE UNITED STATES

[Title omitted]

ORDER NOTING PROBABLE JURISDICTION—October 10, 1955

Appeal from the United States District Court for the Northern District of Illinois.

The statement of jurisdiction in this case having been submitted and considered by the Court, probable jurisdiction is noted.

October 10, 1955

Mr. Justice Clark and Mr. Justice Harlan took no part in the consideration or decision of this question.

LIBRARY
SUPREME COURT, U.S.

Vol. II

TRANSCRIPT OF RECORD

(Pages [illegible] to [illegible])

(TRANSCRIPT OF TESTIMONY)

LIBRARY
SUPREME COURT, U.S.

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

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[fols. 596-601] IN UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS

Mr. Harsha: I next offer in evidence Government's Exhibit No. 67.

[fols. 602-609] I also offer Government's Exhibit No. 52. I am not reading it. It is headed "Irenee du Pont, Summary of Acquisitions and Dispositions of Capital Stock of Christiana Securities Company."

I call the Court's attention to the last figure in the left-hand column under the common shares, that as of 10/1/51 he held, Irenee du Pont held 7,301 shares.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 52.)

Mr. Harlan: And will you stipulate that in the next to last item, that is Sales through brokers, 1933 to 1939, 1,989 common shares, those sales were to outsiders, not members of the family?

Mr. Harsha: I will accept that.

[fols. 610-611] I call your Honor's attention to paragraph 37 of the complaint and the answer of the du Pont Company, which admits that as of the time when this complaint was filed, its capital stock was held by approximately 100,000 shareholders, including 82,000 holders of common stock.

In support of the Government's allegation in this paragraph, I offer in evidence Government's Exhibit No. 68.

[fols. 612-613] I also offer at this time, in connection with this paragraph, your Honor, Government's Exhibit 103.

[fols. 614-615] Mr. Harsha: I will offer next, your Honor, Government's Exhibit No. 104.

[fols. 616-619] Mr. Harsha: I next offer, your Honor, Government's Exhibit 105, which is related to this.

[fols. 620-627] Mr. Harsha: I believe, your Honor, prior to the luncheon adjournment that I called the Court's attention to the admission of the du Pont Company with respect to Paragraph 38, and I would now like to direct the Court's attention to Paragraph 39 of the complaint, and in respect thereto I should like to read the admission of the du Pont Company, part of which reads as follows:

> "* * * that it admits and avers that, anticipating the end of World War I and the cessation of orders for

> powder and explosives, it determined to find sources for the investment of its excess capital and for the utilization of such capital for expansion into fields other than gun powder and explosives."

And in further support of the averments in that paragraph of the complaint, I should like to offer Exhibit No. 106.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 106.)

[fols. 628-639] Mr. Harsha: The next exhibit the Government offers is Exhibit 107..

Mr. Neitzert: Exhibit 107, your Honor, is an excerpt. Do you intend to offer only an excerpt here?

Mr. Harsha: Yes.

Mr. Neitzert: Under paragraph 10-A of the pre-trial order, we ask that the entire exhibit be offered.

Mr. Harsha: Very well.

Mr. Houchins: We will read, however, your Honor, only those portions which were marked on your copy and on defense counsels' copy as being excerpts, which are the portions we originally intended to offer.

Of course, the entire document is now being offered.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 107.)

[fol. 640] The Government next offers Exhibit No. 109 which we do not proposed to read at this time, and the Government next offers Exhibit No. 110 on the basis of excerpts marked.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 109.)

Mr. Cox: May it please the Court, we object to the admission of the excerpts of this document, and ask that the entire document be admitted under the pretrial procedure.

The Court: It may be received in its entirety.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 110.)

• • • • • • •

We next offer, your Honor, Exhibit No. 111 which has been excerpted, and we offer only the excerpts.

Mr. Cox: May it please the Court, we object to the admission of the excerpts on the same basis as the objections [fol. 641] I previously made, and ask that the entire document be admitted.

The Court: The entire document may be received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 111.)

* * * * * * *

I next wish to offer Exhibit No. 112 which has been excerpted, and we are offering only the excerpts.

Mr. Cox: We object on the same basis.

The Court: The entire document is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 112.)

* * * * * * *

[fols. 642-644] The Government next offers Exhibit No. 113 which has been excerpted, and we have offered only those portions that are excerpted.

Mr. Cox: We object, your Honor, on the same basis.

The Court: The entire document is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 113.)

[fols. 645-646] Your Honor, I next wish to offer a document which is not found in Volume 1. It is one of those which was marked quite recently. It is numbered 1244, which is found in Volume 8.

[fols. 647-648] In further support of the allegations of this paragraph of the complaint, the Government offers Exhibit No. 114, which we do not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 114.)

Mr. Harlan: You recognize, of course, that the balance of that paragraph 40 is denied.

Mr. Harsha: We next offer Exhibit No. 115, which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 115.)

The Government next offers Exhibit No. 116, which it does not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 116.)

The Government next offers document No. 117, which it does not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 117.)

The Government next offers Exhibit No. 118, of which it wishes to read a portion.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 118.)

[fol. 649] Mr. Harsha: The Government next offers Exhibit 119, which it does not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 119.)

The Government next offers Exhibit 120, which it does not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 120.)

The Government now offers Exhibit 121, which it does not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 121.)

The Government next offers Exhibit 122, which it does not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 122.)

The Government next offers Exhibit 123, which it does not propose to read.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 123.)

* * * * * * *

[fols. 650-665] In further support of the allegations contained in paragraph 41 of this complaint, the Government offers Exhibit No. 124.
[fol. 666] Mr. Harsha: The Government next offers Exhibit No. 125 which is an excerpt from the annual report of the du Pont Company for the year 1918.

The excerpt reads as follows:

(Said Government's Exhibit No. 125 was thereupon read to the Court by Mr. Harsha.)

[fols. 667-668] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 125.)

Mr. Harsha: Next the Government offers Exhibit 126, which it does not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 126.)

Mr. Harsha: The Government next offers Exhibit No. 129, which is a letter dated January 23, 1918, addressed to W. C. Durant, Esquire, and signed by Mr. Raskob.
[fols. 669-670] Mr. Harsha: The Government next offers Exhibit No. 130 which it does not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 130.)

Mr. Harsha: Next the Government offers Exhibit No. 131, which the Government does not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 131.)

Next, the Government offers Exhibit 132, which it does not propose to read at this time.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 132.)

Next, the Government offers Exhibit 133, and this we have marked for excerpting, your Honor.

Mr. Harlan: If your Honor please, we would like to have the entire document in.

The Court: The entire document is received in evidence.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 133.)

[fol. 671] Mr. Harsha: The Government next offers Exhibit 134, which it does not propose to read at this time. It is an unsigned document, but it is our understanding that this was prepared by Mr. John J. Raskob.

Mr. Cox: That is correct.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 134.)

Mr. Harsha: The Government now offers Exhibit No. 135, which it does not propose to read at this time.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 135.)

[fol. 672] Mr. Harsha: The Government offers Exhibit No. 137. The Government proposes to read only a portion appearing at page 12 of that document.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 137.)

[fol. 673] Mr. Harsha: Your Honor, my attention has been called to the fact that in respect to Exhibit 134, which was addressed to the Finance Committee from the Chairman, John J. Raskob, that we should make it clear, and it is accurate, that this is the Finance Committee of General Motors which is here referred to, not of the du Pont Company.

We next offer Exhibit 138. This is a meeting of the [fols. 674-678] Finance Committee of General Motors Corporation, September 25, 1919.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 138.)

* * * * * * *

Mr. Harsha: The Government next offers Exhibit No. 139, which is a report of the General Motors Corporation for the fiscal year ended December 31, 1919.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 139.)

* * * * * * *

In connection with paragraph 42 of the complaint, we are offering Exhibit No. 128. This is addressed to the Finance Committee from the Treasurer, signed by John J. Raskob, dated March 8, 1918.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 128.)

[fol. 679] Further in connection with the allegations of this paragraph, the Government offers Exhibit No. 153.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 153.)

* * * * * * *

Next, the Government offers Government Exhibit No. 154.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 154.)

* * * * * * *

[fol. 680] The Government next offers Exhibit No. 155 which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 155.)

Mr. Harsha: Next the Government offers Exhibit No. 156. This is an advice of action by M. D. Fisher, Secretary, Finance Committee, to Mr. J. J. Raskob, Vice President, on the letterhead of the du Pont Company, dated January 18th, 1921. Subject, Proposed plan to purchase Mr. W. C. Durant's interest in du Pont Securities Company—Loan to him of $500,000.

* * * * * * *

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 156.)

[fols. 681-682] Mr. Harsha: The Government next offers Exhibit No. 157 which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 157.)

Mr. Harsha: The Government next offers Exhibit No. 158 which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 158.)

Mr. Harsha: The Government next offers Exhibit No. 161 which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 161.)

Mr. Harsha: We next offer Government's Exhibit No. 162 which is a letter by Irenee du Pont to Mr. John J. Raskob dated April 8th, 1921.
[fol. 683] The Government offers Exhibit 140 which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 140.)

Mr. Harsha: We now offer Government's Exhibit No. 141 which we do not propose to read at this point.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 141.)

Mr. Harsha: Next we offer Government's Exhibit No. 142, which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 142.)

Mr. Harsha: We next offer Government's Exhibit No. 143, which is a letter addressed to John J. Raskob, dated May 21, 1920, written by Irenee du Pont, stating:

* * * * * * *

[fols. 684-685] Mr. Harsha: The Government next offers Government Exhibit No. 144, dated July 16th, 1920, which I believe was written by Pierre S. du Pont. It is printed on the original, I believe.
Mr. Harlan: That is right.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 144.)

Mr. Harsha: We do not propose to read it at this time.
We next offer Government's Exhibit No. 145 which we do not propose to read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 145.)

[fols. 686-687] Mr. Harsha: Just before adjournment last evening the Government was offering documents in connection with Paragraph 45 of the complaint, and the next exhibit which the Government wishes to offer is No. 166, dated August 17, 1921. We are offering the entire document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 166.)

[fol. 688] I should like to offer in evidence a document, No. 167, which is a communication from John J. Raskob to the Finance Committee dated January 30th, 1922, and I believe this is the Finance Committee, unless I am incorrect, your Honor, of the du Pont American Industries, Inc., a wholly owned subsidiary of the du Pont Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 167.)

* * * * * * *

[fol. 689] I should also like to offer, your Honor, document marked Exhibit No. 168, which is directed to the Finance Committee from the Treasurer, Mr. W. S. Carpenter, Jr., dated February 6, 1922, which is merely reporting a resolution authorizing the exchange of stock in the liquidation of the Chevrolet Motor Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 168.)

Next I should like to offer document marked 181. This is a significant document, your Honor, in our judgment, because it is written to Mr. Irenee du Pont, under date of January 8, 1921, by Mr. John J. Raskob.

* * * * * * *

[fols. 690-692] The Government next offers Exhibit 235.

* * * * * * *

[fol. 693] Mr. Harsha: In connection with paragraph 48, your Honor, of the complaint in which it is alleged that in the du Pont Company, the Finance and the Executive Committees of the Board of Directors are the bodies which control the basic policies of the company, and in which it is likewise alleged that in defendant General Motors the Finance Committee, otherwise known as the Policy Committee, later as the Financial Policy Committee, and the Executive Committee, are the bodies which control the basic policies of that company, the Government wishes to tender in evidence Exhibit 178, which is a document dated December 29, 1920, and addressed to the officers, directors and heads of departments, General Motors Corporation.

It carries the signature of Pierre S. du Pont, President.

This outlines the functions of the Finance Committee and [fol. 694] also the Policy Committee, Staff Committee—rather, I should say, Committee on Operations.

I do not wish to read the entire document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 178.)

* * * * * * *

[fol. 695] Mr. Harsha: Next, the Government offers in evidence Exhibit 194, which is a letter dated April 6, 1937, addressed to Mr. Alfred P. Sloan, Jr., President, General Motors Corporation, written by Lammot du Pont, Chairman of the Board.

* * * * * * *

[fols. 696-697] Next, the Government offers Government's Exhibit 1238, your Honor, which is bound in volume 8.

* * * * * * *

Next, the Government offers Government's Exhibit 200. That will be found, I think, in volume 2, your Honor.

[fol. 698] The Government also should like to tender Government's Exhibit 180 which is addressed to the Finance Committee of the du Pont Company.

Mr. Harlan: Are you putting the entire document in?

Mr. Harsha: We are only offering excerpts unless you have objection.

Mr. Harlan: We are objecting to the excerpt.

The Court: It is received in its entirety.

(Said document, so offered and received in evidence, was marked Government's Exhibit 180.)

* * * * * * *

[fol. 699] Next, the Government offers Exhibit 188. This is a letter addressed to Mr. Alfred P. Sloan, President of General Motors, dated December 24, 1928, signed by Lammot du Pont, President.

* * * * * * *

Next, the Government offers Government's Exhibit 201, which is a letter dated April 8, 1942, to Mr. Alfred P. Sloan, Jr., General Motors' Corporation, signed by W. S. Car- [fols. 700-701] penter, Jr., which discusses the various proposed changes in the organization, the top organization of General Motors. I do not intend to read all that document at this time, your Honor.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 201.)

Mr Harsha: The Government next offers Government's Exhibit 202 which is a letter dated April 10, 1942, addressed to Mr. Alfred P. Sloan, signed by Lammot du Pont.
[fols. 702-706] The Government next offers Exhibit No. 203.

Mr. Hurd: If the Court please, Exhibit 203 is marked "Excerpt." If that is the Government's intention, we would like to have the entire document received.

The Court: The entire document is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 203.)

[fols. 707-709] Mr. Harsha: I should now like to re-offer, your Honor, Government Exhibit 1238 in Volume 8. We have provided counsel for the defense with copies.

The Court: That is No. 1238?

Mr. Harsha: 1238, your Honor.

The Court: All right.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1238.)

[fols. 710-711] In support of the allegation, the Government offers Exhibit 182, which is an extract from minutes of Finance Committee meeting No. 271, dated April 24, 1923, of the du Pont Company.

It is entitled, "Presidency of General Motors Corporation."

(~~Said document~~, so offered and received in evidence, was marked Government's Exhibit No. 182.)

* * * * * * *

Mr. Harsha: The Government next offers Exhibit No. 183.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 183.)

[fol. 712] Mr. Harsha: The Government next offers Exhibit 184.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 184.)

* * * * * * *

[fol. 713] Mr. Harsha: Next the Government offers Exhibit 185.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 185.)

Mr. Harsha: This is addressed to Mr. Pierre S. du Pont, written by John J. Raskob, copies to Irenee du Pont and Lammot du Pont, dated May 15, 1923.

(Said Government's Exhibit No. 185 was thereupon read to the Court.)

The Government next offers Exhibit No. 186 which is dated May 22nd, 1923, which your Honor will recall is a matter of seven days after this last document from the du Pont Company, addressed to Mr. Irenee du Pont from M. D. Fisher, Assistant Secretary, entitled "Election of Mr. Alfred P. Sloan, Jr., as a member of the Board of Directors of E. I. du Pont de Nemours and Company."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 186.)

(Said Government's Exhibit No. 186 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next the Government offers Exhibit No. 187 which your Honor will note consists of a table of the positions held by Mr. Alfred P. Sloan, Jr., in the General Motors

Corporation from 1918 to date. I do not propose to read all of it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 187.)

[fol. 714] Mr. Harsha: The Government next offers Exhibit No. 189 which is a letter dated February 13th, 1929, addressed to Mr. Lammot du Pont, signed by Irenee du Pont, and states as follows:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 189.)

(Said Government's Exhibit No. 189 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Exhibit No. 190, which is a letter dated April 22nd, 1930, to Mr. A. P. Sloan, Jr., President, General Motors Corporation, from Lammot du Pont, Chairman of the Board and states:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 190.)

(Said Government's Exhibit No. 190 was thereupon read to the Court by Mr. Harsha.)

Mr. Hurd: If the Court please, may the record show that this letter was written by Mr. Lammot du Pont as Chairman of the Board of General Motors Corporation.

Mr. Harsha: I thought I made that clear in my description. I think it should so state.

The Court: Is it a fact?

Mr. Harsha: It is a fact.

Next, the Government offers Exhibit No. 195, which is dated April 6th, 1937, addressed to Mr. F. D. Brown, Vice President, General Motors Corporation, from Lammot du Pont, Chairman of the Board.

[fol. 715] I presume counsel will wish to have the record show that that means Chairman of the Board of General Motors.

Mr. Hurd: Yes.

Mr. Harsha: It commences: "Dear Don:"

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 195.)

(Said Government's Exhibit No. 195 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Exhibit No. 196 which is dated April 23, 1937, addressed to Mr. W. S. Carpenter, Jr., E. I. du Pont de Nemours & Co., London, England, and signed by Lammot du Pont, President, which I presume means of the du Pont Company

(Said document, so offered and received in evidence, was marked Government's Exhibit No 196.)

(Said Government's Exhibit No. 196 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Exhibit No. 197, which is a telegram dated May 3, 1937, signed by Carpenter, which reads:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 197.)

(Said Government's Exhibit No. 197 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Exhibit No. 198, which is a letter dated September 12, 1940, addressed to [fols. 716-718] Alfred P. Sloan, Jr., General Motors Corporation, and signed by W. S. Carpenter, Jr., President du Pont Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit 198.)

(Said Government's Exhibit No. 198 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Government's Exhibit No. 205, which is a letter dated May 29, 1943, addressed to Mr. Lammot du Pont, Chairman of the Board, E. I. du Pont de Nemours & Company, Wilmington, Delaware, from Alfred Sloan, Chairman of the Board of General Motors, on General Motors Corporation stationery.
[fol. 719] The Government next offers Exhibit No. 207.

Mr. Harlan: Would you like to have us translate that note on the side?

Mr. Harsha: I would. I could not make it out.

Mr. Harlan: I would guess at it, subject to correction: "Putting him on the Policy Committee is not the way," namely, to ease up.

Mr. Harsha: The Government offers Exhibit No. 207, which is a letter addressed to Walter S. Carpenter, Jr., President, du Pont. It is dated September 23, 1943, by Mr. Alfred P. Sloan, Jr., copies to Messrs. Lammot du Pont and Donaldson Brown.

* * * * * * *

[fols. 720-721] Mr. Houchins: Government next offers Government Trial Exhibit No. 208, which is a letter from Alfred P. Sloan, Chairman of General Motors Corporation, to Mr. Walter S. Carpenter, Jr., President of du Pont Company, Wilmington, Delaware.

Mr. Hurd: This is marked for excerpt. We would like to have the entire document offered.

The Court: The entire document is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 208.)

[fol. 722] Mr. Houchins: The Government next offers Government Trial Exhibit 209, which consists of a letter to Alfred P. Sloan, Jr., Chairman, General Motors Corporation, from Lammot du Pont—we presume.

Is that correct?

Mr. Hurd: Lammot being Chairman of the du Pont Company at that time.

Mr. Houchins: Chairman of the Board of General Motors, is that correct?

Mr. Hurd: No, Chairman of the du Pont Company. Mr. Sloan was Chairman of General Motors.

Mr. Houchins: Yes.

The letter is dated May 22, 1944. That is a letter which continues the discussion of certain personnel as to the Board of Directors and committees on General Motors and which the Government does not propose to read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 209.)

Mr. Houchins: The Government next offers Government Trial Exhibit No. 210. This is a letter on the letterhead of [fol. 723] the du Pont Company. It is a memorandum, actually, addressed to Mr. Lammot du Pont, and it is from the President of the du Pont Company, which I presume is W. S. Carpenter, Jr.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 210.)

* * * * * * *

Mr. Harsha: The Government next offers Exhibit No. 1236, your Honor, which is in Volume 8. I might say we will take, immediately after that, Exhibit No. 1237 in the same volume.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1236.)

* * * * * * *

[fols. 724-725] I next offer Government's Exhibit 1237, which is a reply to the previous exhibit, written by Alfred P. Sloan, Jr., to Mr. Lammot du Pont, dated December 29, 1944.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1237.)

* * * * * * *

[fols. 726-727] The Government now offers Exhibit No. 217, your Honor.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 217.)

* * * * * * *

The Government next offers Government Trial Exhibit No. 220.
[fol. 728] The Government next offers Government Trial Exhibit No. 221 consisting of a letter which is obviously a reply to the previous letter, addressed to Mr. Alfred P. Sloan, Jr., and signed by Lammot du Pont and dated December 13th, 1945.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 221.)

(Said Government's Exhibit No. 221 was thereupon read to the Court by Mr. Houchins.)

* * * * * * *

[fols. 729-730] The next Government exhibit is Exhibit No. 222 which is a letter addressed to Lammot du Pont at The Villas, Worth Avenue, Palm Beach, Florida, dated February 26th, 1946, from Walter S. Carpenter, Jr.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 222.)

(Said Government's Exhibit No. 222 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Exhibit No. 224 which is a letter written by W. S. Carpenter, Jr., to Mr. Donaldson Brown, dated May 22nd, 1946, and marked "Personal & Confidential":

[fol. 731] Mr. Houchins: The Government next offers Exhibit No. 228. Exhibit No. 228 is a letter from Alfred P. Sloan, Jr., Chairman, General Motors Corporation, to Walter S. Carpenter, President, du Pont Corporation, dated September 30, 1947. The letter indicates that its subject matter concerns the Board of Directors of General Motors Corporation. The Government does not propose to read the document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 228.)

Mr. Houchins: The Government next offers Government Trial Exhibit No. 232. It is a letter from Alfred P. Sloan, Jr., Chairman, Board of Directors, General Motors Corporation, to Walter S. Carpenter, Jr., Chairman, Board of Directors of du Pont Corporation, dated September 15, 1948.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 232.)

(Said Government's Exhibit No. 232 was thereupon read to the Court by Mr. Houchins.)

Mr. Houchins: The Government next offers Exhibit No. 231, which is a memorandum, an inter-office memorandum apparently from W. S. Carpenter, Jr., to Lammot du Pont.

The subject matter apparently concerns the same matter discussed in the previous document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 231.)

* * * * * * *

[fols. 732-733] The Government next offers Trial Exhibit No. 233.

[fols. 734-735] The Court: you may proceed.

Mr. Harsha: I should now like to call attention, your Honor, to Paragraph 52 of the complaint which concerns the principal official positions which the individual defendants have held with the du Pont Company and the General Motors Company, and in connection therewith the Government offers Exhibit No. 174.

The Court: Did you say 174?

Mr. Harsha: 174, your Honor.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 174.)

[fol. 736] Mr. Harsha: The Government next offers Exhibit 177, which is a chart showing the members of the Board and principal executive offices held in the General Motors Corporation by certain individuals during the period from 1917 to 1948.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 177.)

[fols. 737-739] Mr. Harsha: The Government next offers Exhibit 179, which is an "Advice of Action" in the du Pont Company, dated November 22, 1920, concerning the presidency of the General Motors Corporation, which is a resolution which was offered and adopted at that time by the Finance Committee of du Pont, in which it is indicated that the du Pont Company has indirectly an investment of approximately $70,000,000 in General Motors, and it is the wish of the du Pont Company that Mr. P. S. du Pont accept the presidency of General Motors.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 179.)

[fols. 740-741] The Government next offers Exhibit No. 240, which is a document dated July 26, 1923, which is addressed to the Finance Committees of General Motors Corporation and E. I. du Pont de Nemours & Company from J. J. Raskob.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 240.)

[fol. 742] The Government next offers Government's Exhibit No. 241, which is from the Minutes of the meeting of the Board of Directors of the General Motors Corporation, dated August 9, 1923.

* * * * * * *

[fol. 743] I next offer Government's Exhibit No. 242, which is a letter to Mr. P. S. du Pont, dated August 14, 1923, written by Irenee du Pont.

* * * * * * *

[fol. 744] The Government next offers Exhibit No. 243, which is the Minutes of a special meeting of the Board of Directors of the E. I. du Pont de Nemours & Company held on August 30, 1923. This concerns the plan for the General Motors Securities Company, and it is not my intention at this time to read it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 243.)

Mr. Harsha: Government next offers Exhibit No. 244, which is a document addressed to the Finance Committee from the Board of Directors of the du Pont Company, dated October 15, 1923, reporting the approval by the Board of [fol. 745] Directors of certain minor changes in the plan as submitted to it. It is not my intention to read it at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 244.)

Mr. Harsha: As I indicated, your Honor, I believe this is a somewhat intricate plan, the details of which might more appropriately be outlined by the Government in its closing brief in the case. These other documents go, however, to establish the basic mechanics of the problem.

Next, we offer Government's Exhibit No. 246, which is a letter dated October 19, 1923, addressed to Walter S. Carpenter of du Pont from J. J. Raskob, which encloses a corrected draft of the plan of the Managers Securities Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 246.)

Mr. Harsha: Next; I offer Government's Exhibit No. 247, which is a communication dated October 27, 1923, addressed to the Board of Directors of the du Pont Company from its Vice President, J. J. Raskob, about the subject matter and the plans of the Managers Securities Company, which I propose to read:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 247.)

(Said Government's Exhibit No. 247 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Exhibit No. 248 which consists of the minutes of a special meeting of the [fol. 746] Board of Directors of du Pont American Industries, Inc., held on November 5th, 1923, which consists primarily of a resolution approving, by that subsidiary of the du Pont Company, the proposed plan.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 248.)

Mr. Harsha: The Government next offers Exhibit No. 250 which is a minutes of meeting of Board of Directors of the General Motors Corporation dated November 8th, 1923, which I don't propose to read, but which contains a resolution approving, subject to the ratification thereof by said stockholders, of this Managers Securities plan.

Said document, so offered and received in evidence, was marked Government's Exhibit No. 250.)

Mr. Harsha: The Government next offers Exhibit No. 252, which is the minutes of the regular quarterly meeting of the Board of Directors of General Motors Securities Company on May 16, 1924. I don't propose to read this, your Honor.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 252.)

Mr. Harsha: The Government next offers Exhibit No. 253, which is the minutes of the annual meeting of the stockholders of the General Motors Securities Company on March 17th, 1926, which is concerned, among other things, with the election of the directors of the General Motors Securities Company.

[fol. 747] I think the record will show that all of those listed on page 2 were also officers or directors of the du Pont Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 253.)

Mr. Harsha: I next offer Exhibit No. 254 which is an annual meeting of the stockholders of the General Motors Securities Company dated March 16th, 1932, which again pertains, among other things, to the election of the Board of Directors of the General Motors Securities Company, the names of the successful nominees being listed on page 2.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 254.)

Mr. Harsha: I next offer Exhibit No. 256 which is another annual meeting of the stockholders of the General Motors Securities Company, dated March 15th, 1933.

I also call the Court's attention to the list of directors who were nominated and elected at that meeting as stated on page 1.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 256.)

Mr. Harsha: I next introduce Government's Exhibit No. 257 which is another annual meeting of the stockholders of the General Motors Securities Company of March 21st, 1934.

I might indicate, your Honor, as to the last two documents that these exhibits also list the number of shares of the Class A stock which was outstanding, and it will be observed that [fols. 748-750] the Class A stock is decreasing in amount during these years.

I think the record will show from the documents which we have put in and which we are about to put in, that there was a partial liquidation begun in 1930 which was not accomplished completely until 1938.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 257.)

Mr. Harsha: I next introduce Government's Exhibit No. 262 which is a letter dated August 7th, 1929, written by John J. Raskob, addressed to the General Motors Securities Company, with copies to the gentlemen indicated:

Irenée du Pont, Lammot du Pont, Henry du Pont, H. G. Haskell, Walter S. Carpenter, Jr., and M. D. Fisher.

[fol. 751] And in connection with our further allegations, I introduce next Government's Exhibit No. 276 which charts the membership of the Bonus and Salary Committee of General Motors during the period 1941 through 1948.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 276.)

Mr. Harsha: Next I introduce Government's Exhibit No. 258, which consists of certain interrogatories propounded by the plaintiffs in this action to the General Motors Corporation, specifically Interrogatories 7 and 8.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 258.)

Mr. Harsha: I should also like to introduce, together with [fol. 752] this, the answer, which is Schedule F, found in Exhibit No. 259, which I also offer at this time, which lists the names and positions and date of awards of the Class A stock purchased and the Class B stock purchased for each of the persons indicated on this list.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 259.)

Mr. Harsha: I think the record will indicate that Mr. Alfred P. Sloan, Jr., who was the President of the company, received the largest allotment of 2800 shares, Class A stock, and 2800 shares, Class B.

I next offer Exhibit No. 260, which consists of the answers of the General Motors Corporation to Interrogatory 7(a) and 7(b).

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 260.)

Mr. Harsha: This deals with the General Motors Management Corporation stock purchased from the date 1930, and I think the last date is around 1935. This is also arranged similarly to the previous exhibit.

I next offer Exhibit No. 263, which is a letter dated August 13, 1929, addressed to Mr. Lammot du Pont from Alfred P. Sloan.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 263.)

[fol. 753] Mr. Harsha: Reading Government Exhibit 263, which consists of a letter from Alfred P. Sloan, Jr. to Mr. Lammot du Pont, dated August 13, 1929:

(Said Government's Exhibit No. 263 was thereupon read to the Court.)

Mr. Harsha: Government next offers Exhibit No. 264, which I believe is the reply to the previous exhibit written by Mr. Lammot du Pont to Alfred P. Sloan, Jr., dated August 20, 1929.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 264.)

Mr. Harsha: The Government doesn't propose to read it at this time.

The Government next offers Exhibit No. 265, which consists of the minutes of a special meeting of the Board of Directors of General Motors Securities Company, held on January 6, 1930, headed, "Partial Liquidation of Company."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 265.)

Mr. Harsha: The Government doesn't propose to read this at this time.

The Government next offers Exhibit No. 266, which is a communication from Lammot du Pont, President, to Mr. W. S. Carpenter, Jr.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 266.)

[fol. 754] Mr. Harsha: This is dated October 24, 1930, and it reads:

(Said Government's Exhibit No. 266 was thereupon read to the Court.)

Mr. Harsha: The Government next offers Exhibit No. 267 which is a communication to the Finance Committee, and Board of Directors of the General Motors Securities Company from the Chairman Finance Committee concerning the reorganization of General Motors Securities Company and acquisition of assets of Managers Securities Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 267.)

Mr. Harsha: It is not the Government's intention at this time to read the various agreements attached thereto. I think they can be more appropriately summarized in our closing briefs.

We next offer Government's Exhibit No. 268, which consists of the Minutes of a special meeting of the Board of Directors of General Motors Securities Company, on December 15, 1930. We do not propose to read that at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 268.)

Mr. Harsha: We next offer Government's Exhibit No. 269, which is a communication dated January 17, 1931, addressed to the Board of Directors, General Motors Securi- [fol. 755] ties Company from Treasurer, concerning reorganization of General Motors Securities Company. We do not propose to read that at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 269.)

Mr. Harsha: We next offer Government's Exhibit No. 270, which is dated February 12, 1932, addressed to the Board of Directors, General Motors Securities Company from Treasurer, which we do not propose to read at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 270.)

Mr. Harsha: We next offer Government's Exhibit No. 273, which is a communication dated January 4, 1939, to the Finance Committee from Treasurer. That should be from the Treasurer of du Pont Company, I believe, subject to correction.

Mr. Harlan: That is correct.

* * * * * * *

[fols. 756-757] Mr. Harsha: The Government next offers Government's Exhibit 274, which is a document apparently submitted to the Treasurer of the Bureau of Internal Revenue entitled, "Proposed Complete Liquidation of General Motors Securities Company."

[fol. 758-764] Mr. Hoyt: I should now like to offer Exhibit No. 277.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 277.)

[fol. 765] The Government now offers Exhibit No. 278. This is a report to the Executive Committee dated August 14th, 1918, signed L. du Pont and William Coyne, Committee. It is the Government's intention to offer only excerpts from this document.

Mr. Cox: May it please the Court, we object to the document on those terms, and ask that the whole document be received in evidence.

The Court: The whole document will be received in evidence.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 278.)

* * * * * * *

[fols. 766-769] Mr. Hoyt: We next offer Government's Exhibit No. 279 and do not intend to read anything from that document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 279.)

Mr. Hoyt: We now offer certain excerpts from Government's Exhibit No. 280.

[fols. 770-773] The Government next proposes to offer excerpts from Government's Exhibit No. 281.

[fols. 774-775] We next offer Government's Exhibit 282 which is addressed to the Executive Committee Building, signed by W. S. Carpenter, Jr., per FSP, vice president, dated March 18, 1920.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 282.)

[fols. 776-777] The Government now offers Exhibit 283 which is entitled: "Advice of Action" dated March 23, 1920, to Mr. W. S. Carpenter, Jr., attention Dr. Fin. Sparre. Copy to Messrs. W. C. Spruance, C. A. Meade, and F. W. Pickard, signed by M. D. Fisher, Secretary, Executive Committee.

The Government does not intend to read from this document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 283.)

We next offer Exhibit No. 284, which is addressed to the Executive Committee Building, dated April 7, 1920, and signed by W. S. Carpenter, Jr., vice president.

[fols. 778-784] We next offer Government's Exhibit No. 285.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 285.)

[fol. 785] The Government now offers Exhibit No. 286, which is addressed to the Board of Directors, Flint Varnish & Color Works, from Hunter Grubb and A. B. Echols, dated November 30, 1921.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 286.)

* * * * * * *

[fol. 786] Government now offers Exhibit No. 287, which is an extract from minutes of meeting of the Board of Directors of General Motors Corporation held on the 8th day of January, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 287.)

* * * * * * *

We next offer Government's Exhibit No. 288, an extract from minutes of Finance Committee meeting on February 16, 1923.

[fols. 787-790] The subject is "Flint Varnish & Color Works."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 288.)

Mr. Hoyt: We do not propose to read from that exhibit.

Next, the Government offers Exhibit No. 289, which is dated January 27, 1923, addressed to the Executive Committee from the Development Department.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 289.)

[fol. 791] The Government next offers Exhibit No. 290 which is a letter addressed to Mr. William Coyne, Vice President, and dated April 15th, 1918. It is not signed except for the title of "Vice President."

Would defense counsel agree that this letter was signed by J. Haskell?

Mr. Harlan: Yes, it was.

Mr. Hoyt: Reading from the beginning of the letter:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 290.).

(Said Government's Exhibit No. 290 was thereupon read to the Court.)

Mr. Hoyt: The Government next offers Exhibit No. 291 which is on the letterhead of the du Pont Fabrikoid Company, addressed to Mr. J. A. Haskell and signed by Mr. C. Hallock Silkman, Sales Agent, dated April 19th, 1918.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 291.)

(Said Government's Exhibit No. 291 was thereupon read to the Court.)

[fol. 792] Mr. Hoyt: We next offer Exhibit No. 292, which is a letter dated April 20th, 1918, addressed to Mr. C. Hallock Silkman, Sales Agent, du Pont Fabrikoid Company, which is apparently in answer to the preceding exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 292.)

(Said Government's Exhibit No. 292 was thereupon read to the Court by Mr. Hoyt.)

Mr. Harsha: The government next offers Exhibit No. 293, which is a communication addressed on May 22nd, 1918, on the letterhead of the du Pont Company, to Mr. C. L. Petze from Mr. William Coyne, headed "SALES TO GENERAL MOTORS COMPANY."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 293.)

(Said Government's Exhibit No. 293 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The Government next offers Exhibit No. 294, which is a letter on the letterhead of the Arlington Works, owned and operated by Du Pont, dated June 15, 1918, addressed to Mr. J. A. Haskell, Vice President, du Pont Company, and signed by J. A. Burckel, Sales Manager.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 294.)

(Said Government's Exhibit No. 294 was thereupon read to the Court by Mr. Harsha.)

* * * * * * *

[fol. 793] I next offer Government's Exhibit No. 295 which is a letter dated July 2, 1920, on the stationery of the Du Pont Fabrikoid Company, by W. S. Simpson, Manager Statistical Bureau, addressed to Mr. J. A. Haskell, Vice President, General Motors Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 295.)

(Said Government's Exhibit No. 295 was thereupon read to the Court by Mr. Harsha.)

We next offer Exhibit No. 296, which is a letter dated July 11, 1918: it is a letter by Mr. Edward Ver Linden to Mr. J. A. Haskell, Vice President, General Motors Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 296.)

* * * * * * *

[fol. 794] I next offer Exhibit No. 297, which is a letter dated July 12, 1918, addressed to Mr. J. A. Haskell, c/o Chevrolet Motor Company, by Mr. C. O. Terpenning.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 297.)

(Said Government's Exhibit No. 297 was thereupon read to the Court by Mr. Harsha.)

* * * * * * *

Next Exhibit is No. 298 from the president of the Cadillac Motor Car Company, Mr. R. H. Collins to Mr. J. A. Haskell, General Motors Corporation dated July 12, 1918.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 298.)

[fols. 795-833] (Said Government's Exhibit No. 298 was thereupon read to the Court by Mr. Harsha.)

* * * * * * *

I next offer Government's Exhibit No. 299 which is somewhat similar to the preceding document, being a communication on the letterhead of General Motors Truck Company by W. L. Day addressed to Mr. J. A. Haskell, dated July 13, 1918, stating:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 299.)

Said Government's Exhibit No. 299 was thereupon read to the Court by Mr. Harsha.)

I next offer Government's Exhibit No. 300, which is a communication dated July 15, 1918, on the letterhead of the Oakland Motor Car Company, addressed to Mr. J. A. Haskell and signed Fred W. Warner, General Manager, Oakland Motor Car Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 300.)

[fol. 834] Mr. Harsha: The Government offers Exhibit No. 301, which is an exhibit dated July 20, 1918, office memorandum of the Oakland Motor Car Company, for the attention of Mr. Warner, signed by Mr. J. S. O'Rourke.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 301.)

Mr. Harsha: The memorandum states:

(Said Government's Exhibit No. 301 was thereupon read to the Court.)

Mr. Harsha: I next offer Exhibit No. 302, which is on the letterhead of the Du Pont Fabrikoid Company, dated July 3, 1918, directed to Mr. J. A. Haskell, Chevrolet Building. It is signed by F. Kniffen, Vice President. It states:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 302.)

(Said Government's Exhibit No. 302 was thereupon read to the Court by Mr. Harsha.)

[fols. 835-836] Mr. Harsha: I next offer Government's Exhibit No. 303, which is addressed to the Board of Directors of the du Pont Fabrikoid Company, dated November 18, 1919, and signed by Charles L. Petze, Vice President. It concerns the contract with the Buick Motor Company on top material.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 303.)

[fol. 837] Mr. Harsha: I next offer Exhibit 304, dated December 19, 1919, which is a communication addressed to the Executive Committee of du Pont from the Board of Directors of the du Pont Fabrikoid Company. It merely includes a copy of the report from the sales department, and I do not propose to read it. It merely indicates that the report was accepted and ordered filed.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 304.)

Mr. Harsha: I next offer Government's Exhibit No. 305, which is a letter to Mr. M. L. Prensky, Treasurer, General

Motors Corporation, dated February 3, 1920. It is unsigned, but I presume it is by J. A. Haskell, subject to correction.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 305.)

[fol. 838] (Said Government's Exhibit No. 305 was thereupon read to the Court by Mr. Harsha.)

Mr. Hoyt: The Government next offers Exhibit No. 306, which is a letter addressed to Mr. John J. Raskob, Vice-President, dated July 29th, 1920, and it is signed by Charles L. Petze, Vice-President.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 306.)

(Said Government's Exhibit No. 306 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers Exhibit No. 307, which is a letter dated August 25th, 1920, addressed to Mr. C. L. Petze, Vice-President, du Pont Fabrikoid Company, Wilmington, Delaware. It bears the initials J. A. M., which apparently should be J. A. H., referring to Mr. J. A. Haskell, Vice-President.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 307.)

(Said Government's Exhibit No. 307 was thereupon read to the Court by Mr. Hoyt.)

* * * * * * *

[fols. 839-840] The Court: Proceed.

Mr. Hoyt: Before the noon recess the Government was about to introduce Exhibit No. 308. I will now offer that exhibit. That is a letter on the letterhead of E. I. du Pont de Nemours and Company, addressed to Mr. J. A. Haskell, Vice President of General Motors Corporation, and signed by F. W. Pickard, Vice President. The date is September 15th, 1920:

(Said Government's Exhibit No. 308 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 308.)

Mr. Hoyt: The Government next offers Exhibit No. 309, which is on the letterhead of E. I. du Pont de Nemours and Company, Treasurer's Office, signed by W. S. Carpenter, Jr., addressed to Mr. F. Donaldson Brown, Vice President,

* * *

[fols. 841-842] Mr. Hoyt: We next offer Exhibit No. 310 which is dated April 29th, 1921, addressed to Mr. W. S. Carpenter, Jr., Treasurer, E. I. du Pont de Nemours and Company, and bears the initials at the bottom "DB" which we assume stands for "Donaldson Brown," the Vice President.

(Said Government's Exhibit No. 310 was thereupon read to the Court by Mr. Harsha.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 310.)

Mr. Harsha: The Government next, your Honor, would like to offer Exhibits 311, 312, 313, and 314, which are four exhibits consisting of an exchange of correspondence on a related subject.

(Said exhibits, so offered and received in evidence, were marked Government's Exhibits Nos. 311, 312, 313 and 314.)
[fol. 843] Mr. Hoyt: The next group of documents all contain the subject of anti-freeze, beginning with Exhibit No. 315, which I now offer.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 315.)

* * * * * * * *

[fol. 844] We next offer Exhibit No. 316.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 316.)

Mr. Hoyt: This is addressed to Mr. Z. Phelps, from Mr. Pratt, Vice-President, in answer to the preceding one, and is dated September 2, 1924.

(Said Government's Exhibit No. 316 was thereupon read to the Court.)

Next is Exhibit No. 317, which is a letter from J. L. Pratt to Mr. James Lynah, dated September 2, 1924.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 317.)

Mr. Hoyt: This reads as follows:

(Said Government's Exhibit No. 317 was thereupon read to the Court.)

We next offer Exhibit No. 318, which is a letter from Mr. James Lynah, Secretary of General Motors, to Mr. J. L. Pratt, dated September 4, 1924.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 318.)

Mr. Hoyt: The subject is "Ethyl Alcohol."

(Said Government's Exhibit No. 318 was thereupon read to the Court.)

[fol. 845] I would like to make a correction. Mr. Lynah was secretary of the General Purchasing Committee. The letterhead of Exhibit No. 318 is the General Purchasing Committee of the General Motors Corporation.

We next offer Exhibit No. 319.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 319.)

Mr. Hoyt: This is a letter on the letterhead of E. I. du Pont de Nemours & Company, Executive Offices, signed by H. Fletcher Brown, Vice-President, and addressed to Mr. Alfred P. Sloan, President of General Motors, dated November 13, 1925.

(Said Government's Exhibit No. 319 was thereupon read to the Court.)

Mr. Hoyt: We next offer Exhibit No. 320, which is a letter addressed to Mr. H. Fletcher Brown, Vice President, E. I. du Pont de Nemours & Company, dated November 17, 1925, and is signed by A. P. Sloan, Jr.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 320.)

(Said Government's Exhibit No. 320 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers Exhibit No. 321, which is a letter to Mr. F. La Motte, Jr., Director of Purchases, E. I. du Pont de Nemours and Company from J. L. Pratt, dated January 11, 1926.

[fol. 846] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 321.)

(Said Government's Exhibit No. 321 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt; We next offer Government's Exhibit No. 322, which is dated January 22, 1926, and is a letter from Mr. J. L. Pratt to Mr. J. B. Jackson.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 322.)

(Said Government's Exhibit No 322 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Government's Exhibit No. 323, which is on the letterhead of the General Motors Corporation, from J. B. Jackson to John L. Pratt, dated January 28, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 323.)

* * * * * * *

[fol. 847] The Government next offers Exhibit No. 324, dated March 23, 1926, which is on the letterhead of the Development Department of E. I. du Pont de Nemours & Company, signed by Z. Phelps to Mr. John Pratt, Vice President, General Motors Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 324.)

(Said Government's Exhibit No. 324 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers Exhibit No. 325 [fol. 848] which is a letter from J. L. Pratt to Mr. Z. Phelps of the Development Department of du Pont, dated April 5, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 325.)

(Said Government's Exhibit No. 325 was thereupon read to the Court by Mr. Hoyt.

Mr. Hoyt: The Government next offers Exhibit No. 326 dated August 23rd, 1926, addressed to Mr. O. E. Hunt, Chief Engineer, Chevrolet Motor Company, and is from Alfred P. Sloan, Jr.:

(Said Government's Exhibit No. 326 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 326.)

Mr. Hoyt: The Government next offers Exhibit No. 327, which is addressed to Mr. A. P. Sloan, Jr., and is from Mr. O. E. Hunt, Chief Engineer of the Chevrolet Motor Company, and dated September 1, 1926.

(Said Government's Exhibit No. 327 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 327.)

Mr. Hoyt: The Government next offers Exhibit No. 328, a letter from Z. Phelps of the E. I. du Pont de Nemours & Company Development Department to Mr. John Pratt, [fols. 849-851] Vice President, General Motors Corporation, dated October 14, 1926.

(Said Government's Exhibit No. 328 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 328.)

Mr. Hoyt: We next offer Exhibit No. 329, which is a letter from J. L. Pratt, Vice President, to Mr. Phelps, dated October 19th, 1926.

(Said Government's Exhibit No. 329 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 329.)

Mr. Hoyt: We next offer Exhibit No. 330 from Z. Phelps to J. L. Pratt, dated October 21, 1926:
[fol. 852] Mr. Hoyt: We next offer Exhibit No. 331.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 331.)

[fol. 853] Mr. Hoyt: This is a letter from James Lynah to Mr. J. L. Pratt, on November 13, 1926, subject: "ANTI-FREEZE SOLUTIONS."

(Said Government's Exhibit No. 331 was thereupon read to the Court.)

We next offer Exhibit No. 332.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 332.)

Mr. Hoyt: This is a letter from Mr. Z. Phelps to Mr. J. L. Pratt, dated November 17, 1926.

(Said Government's Exhibit No. 332 was thereupon read to the Court.)

The Government next offers certain excerpts from Exhibit No. 333. The excerpt offered begins on page 5 of this document, which is a memorandum by Zack Phelps, dated November 16, 1926, entitled: "Disadvantages of Glycerin for Anti-Freeze."

Mr. Cox: May it please the Court, this exhibit was not excerpted in the copy that I have, but without knowing what the excerpts are, I think I shall object to the admission of the excerpts only.

The Court: The entire document will be received.

Mr. Hoyt: Very well. The entire document is offered.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 333.)

[fol. 854] Mr. Hoyt: The Government next offers Exhibit No. 334, which is a letter from Z. Phelps of the Development Department to J. L. Pratt, dated November 19, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 334.)

(Said Government's Exhibit No. 334 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: I next offer Exhibit No. 335, which is a letter from Z. Phelps to J. L. Pratt, dated December 3, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 335.)

[fol. 855] (Said Government's Exhibit No. 335 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers Exhibit No. 336, which is a letter from A. P. Sloan, Jr., to J. L. Pratt, dated December 8, 1926, subject: "ANTI-FREEZE SOLUTION."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 336.)

(Said Government's Exhibit No. 336 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers Exhibit No. 337, a letter from A. P. Sloan, Jr., to J. L. Pratt, dated December 20, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 337.)

* * * * * * *

[fol. 856] Mr. Harsha: Your Honor, we next turn to the so-called Delco-Light incident, and it consists of four related documents, Nos. 338, 339, 340 and 341. They are a connected series of correspondence which I now offer, the first of which is 338. Exhibit 338 is a letter dated January 11th, 1926, written by Mr. J. L. Pratt to James Elms of the Paint & Varnish Division of du Pont stating:

(Said Government's Exhibit No. 338 was thereupon read to the Court by Mr. Harsha.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 338.)

Mr. Harsha: I offer Exhibit No. 339, on the stationery of the Delco-Light Company, addressed to J. L. Pratt and [fols. 857-858] signed by Mr. E. G. Biechler, President and General Manager of Delco-Light Company, and dated January 21, 1926.

(Said Government's Exhibit No. 339 was thereupon read to the Court by Mr. Harsha.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 339.)

Mr. Harsha: Next is Exhibit No. 340.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 340.)

Mr. Harsha: This is addressed to Mr. E. G. Biechler, General Manager of Delco-Light Company, written by Mr. J. L. Pratt, Vice-President, with a copy to Mr. Elms, and is dated January 23, 1926.

(Said Government's Exhibit No. 340 was thereupon read to the Court.)

Mr. Harsha: Next is Exhibit No. 341.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 341.)

[fol. 859] Mr. Hoyt: The next group of documents, if the Court please, deal with the A. C. Spark Plug Company. We now offer Exhibit No. 342.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 342.)

Mr. Hoyt: This is a letter from Mr. R. G. Knight to Mr. Curtice, copies to Messrs. Champion, deGuichard, Vessey, and Proctor, and dated April 15, 1926.

(Said Government's Exhibit No. 342 was thereupon read to the Court.)

Mr. Hoyt: We next offer Government's Exhibit No. 343.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 343.)

Mr. Hoyt: This is on the letterhead of A. C. Spark Plug Company, Flint, Michigan, and bearing the signature of A. Champion, President, addressed to Mr. J. L. Pratt, General Motors Corporation, dated April 16, 1926.

(Said Government's Exhibit No. 343 was thereupon read to the Court.)

Mr. Hoyt: We next offer Exhibit No. 344, a letter from J. L. Pratt to Mr. J. J. Moosman, of the du Pont Chemical Co., dated April 19, 1926, and marked "Personal."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 344.)

[fol. 860] (Said Government's Exhibit No. 344 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Government's Exhibit No. 345, which is a letter from Mr. J. J. Moosman to Mr. John L. Pratt, on the letterhead of the E. I. du Pont de Nemours & Company, Chemical Products Division, dated April 20, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 345.)

(Said Government's Exhibit No. 345 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers in evidence Exhibit No. 346, a letter from John L. Pratt, to Mr. Albert Champion, President, A. C. Spark Plug, dated April 21, 1926; copy to Mr. J. J. Moosman.

(Said document, so offered and received in evidence, was thereupon marked Government's Exhibit No. 346.)

(Said Government's Exhibit No. 346 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers Exhibit No. 347, a letter from A. Champion to J. L. Pratt, dated April 23, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 347.)

(Said Government's Exhibit No. 347 was thereupon read to the Court by Mr. Hoyt.)

[fol. 861] Mr. Hoyt: The Government next offers Exhibit No. 348, which is signed by Mr. R. B. Knight, addressed to Mr. deGuichard, copies to Messrs. A. Champion and Curtice, dated July 12, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 348.)

(Said Government's Exhibit No. 348 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: The Government next offers in evidence Exhibit 349, a letter on the letterhead of A. C. Spark Plug Company, signed A. Champion, President, to Mr. Pratt, dated July 14, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 349.)

(Said Government's Exhibit No. 349 was thereupon read to the Court by Mr. Hoyt.)

Mr. Harsha: The next series of exhibits are under the heading, "Information on General Motors Buying Potential." The Government offers Exhibits 350, 351, 352 and 353, which are a related series of correspondence. The first, No. 350, is a letter dated May 1, 1926, from Z. Phelps, Development Department of du Pont to Mr. John L. Pratt, Vice President of General Motors, and states:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 350.)

[fol. 862] (Said Government's Exhibit No. 350 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The next is 351 which we introduce, a letter written by Mr. J. L. Pratt, Vice President, to Mr. James Lynah, dated May 4, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 351.)

(Said Government's Exhibit No. 351 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next is Exhibit No. 352 which we offer, written by James Lynah, Executive Secretary, General Purchasing Committee, General Motors Corporation, dated May 15, 1926, for the Attention of Mr. J. L. Pratt, General Motors Corporation, subject: Black Enamels.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 352.)

(Said Government's Exhibit No. 352 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next is Exhibit No. 353 which we offer, and it is written by Mr. John L. Pratt to Mr. Z. Phelps, dated May 17, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 353.)

(Said Government's Exhibit No. 353 was thereupon read to the Court by Mr. Harsha.)

Mr Harsha: Next we offer Exhibits Nos. 354, 355, 356 and 357, which are a related series.
[fol. 863] First, No. 354 is written by Z. Phelps of the Development Department of du Pont to Mr. J. D. Brown, Vice President, General Motors Corporation, dated July 7, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 354.)

(Said Government's Exhibit No. 354 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The next number, 355, is a letter dated July 8, 1926, addressed to Mr. Charles T. Fisher, of the Fisher Body Corporation, written by Donaldson Brown, Vice President, General Motors Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 355.)

(Said Government's Exhibit No. 355 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next is Government's Exhibit 356 which we now offer, and was written by Charles T. Fisher to Donaldson Brown, dated July 30, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 356.)

(Said Government's Exhibit No. 356 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next is Exhibit No. 357 which we offer, and is dated August 2, 1926, written by Donaldson Brown to Mr. Z. Phelps of the Development Department of du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 357.)

[fol. 864] (Said Government's Exhibit No. 357 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next the Government offers Exhibits Nos. 358 and 359 which are related. The first is a letter written by W. F. Harrington, General Manager of du Pont to John L. Pratt, Vice President, General Motors Corporation, dated August 4, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 358.)

(Said Government's Exhibit No. 358 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: The reply to this letter is dated August 10th, 1926, and is Government's Exhibit No. 359, written by J. L. Pratt to W. F. Harrington, General Manager, Dyestuffs Department, du Pont.

(Said Government's Exhibit No. 359 was thereupon read to the Court by Mr. Harsha.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 359.)

Mr. Harsha: The Government next offers Exhibits Nos. 360 and 361 which are related, and 362. The first number, 360, is a letter by W. F. Harrington to Mr. John L. Pratt, Vice President of General Motors, dated September 23rd, 1925, and reads:

(Said Government's Exhibit No. 360 was thereupon read to the Court by Mr. Harsha.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 360.)

[fol. 865] Mr. Harsha: The reply is dated September 29th, 1925, and is written to Mr. Harrington by Mr. Pratt and reads:

(Said Government's Exhibit No. 361 was read to the Court.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 361.)

Mr. Harsha: Next we have a letter dated October 9th, 1925, which is Government's Exhibit No. 362, to Mr. W. F. Harrington, written by the Delco-Light Company General Manager, which I believe is Mr. Biechler with a carbon copy to Mr. Pratt.

(Said Government's Exhibit No. 362 was thereupon read to the Court by Mr. Harsha.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 362.)

Mr. Hoyt: The next series of documents concern production forecasts. I now offer Government's Exhibit No. 363 which is on the letterhead of E. I. du Pont de Nemours and Company, signed by Lammot du Pont, President, addressed to Alfred P. Sloan, President of General Motors, and dated October 28th, 1926.

(Said Government's Exhibit No 363 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 363.)

[fol. 866] Mr. Hoyt: I next offer Government's Exhibit No. 364 from J. L. Pratt to Lammot du Pont, dated October 29th, 1926.

(Said Government's Exhibit No. 364 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 364.)

Mr. Hoyt: I next offer Government's Exhibit No. 365 from A. P. Sloan to Lammot du Pont, dated November 8th, 1926.

(Said Government's Exhibit No. 365 was thereupon read to the Court by Mr. Harsha.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 365.)

Mr. Hoyt: This follows as part of this schedule, as part of this exhibit; there are some handwritten pages showing or listing names of various General Motors divisions, and with figures of production after them which we don't propose to read.

Mr. Cox: May it please the Court, there is a problem, I think, and not a serious problem about the organization and authenticity of this exhibit on which, with the Court's permission, I should like to make a brief comment.

The exhibit or letter which counsel for the Government has just read to the Court, Government trial Exhibit No. 365, is a letter sent by Mr. Sloan to Mr. Lammot du Pont, and it follows, of course, that the original of that letter is [fol. 867] in the files of the du Pont Company, and that the copy which we have here was taken therefore, from a document that is in the files of the du Pont Company.

In those files the following documents which are attached to the Exhibit 365 of trial Exhibit No. 365, were found attached. That is, the handwriting, the handwritten schedules, and the handwritten note, and the two typewritten pages were found attached to the letter, which is now Government trial Exhibit No. 365, but so far as we could determine those pages were not enclosures with Mr. Sloan's letter. They were something that were added to the document at a later date, and as we reconstruct what happened, it is this: That if your Honor will look at the handwritten note that appears on page 5 of the exhibit, addressed to L. du Pont, President, and signed "W. P. Allen," we think that is a memorandum that was sent by Mr. Allen to Mr. du Pont, and that the two typewritten pages that follow were material that Mr. Allen attached to that memorandum to Mr. du Pont.

Do I make myself clear?

Mr. Hoyt: Yes, it is understandable.

Mr. Cox: And we believe that the two handwritten tables of figures are figures that were prepared either by Mr. Lammot du Pont or by someone for Mr. Lammot du Pont independently, and not something that was enclosed in the letter that was sent by Mr. Sloan to Mr. du Pont.

Mr. Hoyt: You are not objecting to this, to their admission?

Mr. Cox: No, but I think the record should be clarified, because as it now stands I think the impression may be left [fol. 868] that these documents were enclosures, and I think they were not, so far as we could ascertain. I was going to suggest to counsel for the Government in the interest of clarity that it might be well to number these exhibits separately, giving them A and B numbers, and making the memorandum from Mr. Allen with the two typewritten pages Government's trial Exhibits 366-A, and the second handwritten tabulations of figures Government's trial Exhibit No. 366-B, and we will supply reprinted copies of those pages to the Government.

Mr. Cox: What we intended to do was to have them follow the reply of Mr. Lammot du Pont, which is Government Exhibit No. 366.

Mr. Harsha: Would counsel stipulate that the pages which bear the notations G.M.C.-594-C, which are the handwritten notes, and G. M. C. 594-D, are figures which were provided by someone in the General Motors organization to the du Pont Company?

Mr. Cox: Mr. Harsha, I am not in a position to stipulate to that this afternoon. I will make a further investigation. All I am certain of now——

Mr. Harsha: Yes. I want to make it clear to the Court, we had no intention of attempting to mislead the Court as to this being enclosed.

It was our impression, since the Court will notice that each of these documents, beginning with 365, bears the notation, G.M.C.-594, and then they go alphabetically, A, B, C, and D, and were all attached together at the time we received the documents.

Mr. Cox: I think those numbers, Mr. Harsha, are our file numbers for our own convenience.

[fol. 869] These documents—there is no dispute about that—were all found together in the files of the du Pont Company. But we do not believe that this document physically was sent by anyone in General Motors to Mr. Lammot du Pont, that is, the two pages that are numbered G.M.C.-594-C and G.M.C.-594-D.

It may be that the information on those pages was obtained from some source at General Motors, but that is a point on which I cannot give you any assurance this afternoon.

Mr. Harsha: Perhaps it would be best to withdraw this temporarily until such time as we can explore this matter further.

Mr. Cox: Well, I will defer to you on that point. We are not objecting to the authenticity of any of these documents. It is a matter of making sure that there is no misunderstanding as to the fact that the other documents were not enclosed.

The Court: The Government is not representing that these attached statements were enclosed?

Mr. Harsha: No, your Honor, we are not. We were merely offering together that which was found physically grouped together as it came into our possession.

The Court: You have no information as to the source?

Mr. Harsha: Nothing other than the natural presumption which arose from the numbering that we found on the documents that this apparently had been included with the covering letter to Mr. du Pont.

[fol. 870-872] The Court: I think with that explanation it will be received.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 365.)

Mr. Cox: You understand, Mr. Harsha, the file numbers were something that were put on there, as I understand it, after the case started for our own convenience. So that no inference can be drawn from the presence of those numbers.

Mr. Harsha: I see.

Mr. Hoyt: The Government next offers Exhibit No. 366, that is, certain excerpts from Exhibit No. 366.

Mr. Cox: Are you offering just the excerpts?

Mr. Hoyt: Yes.

Mr. Cox: We object to that, your Honor.

The Court: The entire exhibit will be received.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 366.)

[fol. 873] Mr. Hoyt: The Government next offers Exhibit No. 367, a letter from A. P. Sloan, Jr., to Mr. Lammot du Pont, President of E. I. du Pont de Nemours & Company, with copy to Mr. J. L. Pratt.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 367.)

[fol. 874] Mr. Hoyt: The letter is dated November 11, 1926, and reads as follows:

(Said Government's Exhibit No. 367 was thereupon read to the Court.)

Mr. Hoyt: We next offer Government's Exhibit No. 368, which is a letter from Mr. John L. Pratt to A. P. Sloan, Jr., dated November 15, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 368.)

(Said Government's Exhibit No. 368 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Government's Exhibit No. 369, a letter from Mr. Alfred P. Sloan, Jr., to Lammot du Pont, dated November 16, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 369.)

(Said Government's Exhibit No. 369 was thereupon read to the Court by Mr. Hoyt.)

Mr. Harsha; I think we have time for just about three more short documents which bear on the ammonia purchases. The Government offers Exhibits 371, 372, 373 and 374. The first is a document dated December 7, 1934, to Mr. Fred G. Hughes, General Manager, New Departure Manufacturing Company, which the record I am sure will show is a subsidiary of General Motors Company, and written by Mr. J. L. Pratt.

[fols. 875-879] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 371.)

(Said Government's Exhibit No. 371 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next we offer Government's Exhibit No. 372, dated December 10, 1934, which is on the stationery of the New Departure Division, and written by F. G. Hughes, General Manager, to John L. Pratt and is a reply to the previous exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 372.)

(Said Government's Exhibit No. 372 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: Next I offer Exhibit No. 373, which is a letter dated December 14, 1934, addressed to Mr. Robert McClellan, National Ammonia Company, du Pont Building, written by Mr. J. L. Pratt, Vice President, General Motors.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 373.)

(Said Government's Exhibit No. 373 was thereupon read to the Court by Mr. Harsha.)

Mr. Harsha: I next offer Exhibit No. 374, which is a letter addressed to Mr. F. G. Hughes, General Manager of the New Departure Division, and written by Mr. J. L. Pratt.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 374.)

(Said Government's Exhibit No. 374 was thereupon read to the Court by Mr. Harsha.)

[fol. 880] Mr. Hoyt: The first group of documents concerns Duco. The first document that the Government offers is Exhibit 377 which is on the letterhead of General Motors Corporation. It is addressed to Mr. Irenee du Pont, president of E. I. du Pont de Nemours & Company. It is dated October 19, 1922.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 377.)

* * * * * * *

[fols. 881-884] Mr. Hoyt: I next offer Government's Exhibit No. 378, a letter from Mr. P. S. du Pont to A. P. Sloan, Jr., dated October 19, 1922.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 378.)

(Said Government's Exhibit No. 378 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Exhibit No. 379, which is a memorandum to the Executive Committee from the Cellulose Products Department of the du Pont Company, dated October 13, 1922.

[fol. 885] Mr. Hoyt: The Government next offers Exhibit

No. 380, a letter from Irenee du Pont to Pierre S. du Pont dated October 20th, 1922.
[fols. 886-887] (Said Government's Exhibit No. 380 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 380.)

Mr. Harris: I will call the Court's attention now to Exhibit No. 381. It is a report to the Executive Committee from the Cellulose Products Department, signed by W. P. Allen, General Manager, and dated November 17th, 1922.

I am reading from page 10 of the report.

Mr. Neitzert: Counsel, are you offering excerpts from that exhibit?

Mr. Harris: I am offering excerpts from that exhibit.

Mr. Neitzert: We object to the offer of the excerpts, and ask that the entire exhibit be received.

The Court: The exhibit is received in its entirety.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 381.)

[fol. 888] Mr. Harris: Our next document, if your Honor please, is somewhat out of numerical order. It is Government Exhibit No. 1228.
[fol. 889] Mr. Harris: Then coming back, your Honor, to Volume 3, I call the Court's attention to Exhibit No. 383.

The Court: You may proceed.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 383.)

Mr. Harris: I shall not read from this document except to call the Court's attention to the fact that it is a report on methods of finishing automobiles using Duco material, and it is for Mr. F. O. Clements who, as we see, was the Director of Research. It is signed by a person, H. C. Mougey. It bears the date of February 21, 1923, and is introductory to the next document, which is 384.
[fol. 890] (Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 384.)

Mr. Harris: I will read it all. This is dated February 28, 1923. The signature is President—the initials are H. H. R.

Mr. Hurd: ~~That is Mr. Rice.~~

Mr. Harris: Thank you, sir. That is president of what company?

Mr. Hurd: Cadillac Motor Car Company.

Mr. Harris: Thank you, Mr. Hurd.

This is dated February 28, 1923, to Mr. F. O. Clements, General Motors Research Corporation.

* * * * * * *

Mr. Harris: The next one, your Honor, is Exhibit No. 385, which is a letter to Mr. A. P. Sloan, Jr., from Mr. F. O. Clements, dated April 18, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 385.)

[fol. 891] (Said Government's Exhibit No. 385 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: Mr. Hoyt will take over, your Honor.

Mr. Hoyt: We next offer Exhibit No. 386 which is a letter from Alfred P. Sloan to Mr. William P. Allen, General Manager of the du Pont Company, dated January 28, 1924, Re: Matter of Duco Finish.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 386.)

(Said Government's Exhibit No. 386 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Exhibit No. 387, a letter from A. P. Sloan to Mr. F. O. Clements, director of Research, General Motors Research Corporation, dated February 4, 1924.

This letter bears the notation, "Duco Finish" across the top.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 387.)

(Said Government's Exhibit No. 387 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Government's Exhibit No. 388 from A. P. Sloan, Jr., to W. P. Allen, General Manager of the Cellulose Products Department of the du Pont Company, dated February 4, 1924, Re: Duco Finish.

(Said documents, ~~so~~ offered and received in evidence, was marked Government's Exhibit No. 388.)

[fol. 892] (Said Government's Exhibit No. 388 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Exhibit No. 394, a letter from Alfred P. Sloan, Jr., to Mr. William P. Allen, of the Cellulose Products Department, dated March 25, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 394.)

(Said Government's Exhibit No. 394 was thereupon read to the Court by Mr. Hoyt.)

Mr. Harris: May the record show, if the Court please, that the documents which were read by Mr. Harris were each offered in evidence by the Government. I would like that statement as to the excerpts which are received.

The Court: It is understood. It is not necessary for the Court to rule. It is implied.

Mr. Harris: I didn't even make the offer, your Honor.

The Court: They are received without the Court's ruling unless they are objected to.

Mr. Harris: Thank you.

Calling your attention now, and offering in evidence Government's Exhibit No. 399, which has been excerpted; I desire to read only excerpts. The exhibit is an excerpt from the Minutes of the meeting——

Mr. Hurd: If the Court please, we would prefer to have the entire document received.

The Court: The entire document is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 399.)

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[fols. 893-895] The government offers next Exhibit No. 401 which is headed: "Excerpts" but is not an excerpt by the government. We are offering the entire document. It is an excerpt from an unsigned document to the Executive Committee dated September 27th, 1926, from the Paint, Lacquer & Chemicals Department, and is headed "Monthly Report—August, 1926—Paint, Lacquer & Chemicals Department GMC-1055."

[fol. 896-898] Mr. Neitzert: Mr. Harris, may it be stipulated that these Fairfield Branch sales are sales of rubber coated goods, and the Newburgh Branch sales of pyroxylin coated goods?

Mr. Harsha: That is correct, counsel.

Mr. Harris: It may be so stipulated.

[fols. 899-901] The Government offers Exhibit No. 402, a letter from John Marshall, marked Confidential, to Dr. Roy B. Davis, Mr. G. E. Conde and Mr. J. B. Bullitt, Jr. Copy to Dr. H. H. Hopkins and Mr. Matt Denning in turn.

Wilmington, Delaware, July 9, 1945.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 402.)

* * * * * * *

The Government offers Exhibit No. 417 in the form of excerpts.

[fol. 902] Mr. Harris: The Government offers Exhibit No. 403, which is a letter to P. S. du Pont, dated October 7, 1921, and signed R. R. M. C.

May I inquire who that is?

Mr. Cox: R. R. M. Carpenter.

Mr. Harris: On the letterhead of E. I. du Pont de Nemours & Company, Wilmington, Delaware, Executive Offices.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 403.)

* * * * * * *

[fol. 903] Mr. Harris: The government offers Government Trial Exhibit No. 404.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 404.)

Mr. Neitzert: As far as this exhibit is concerned, I have only the first page that I would like to have offered along with your excerpt.

Mr. Harris: I have no objection.

The Court: The record may so show.

Mr. Neitzert: That is the page that is numbered 2 on the first sheet.

Mr. Harris: Yes, sir, that is in addition to our excerpt.
Mr. Neitzert: That's right.

* * * * * * *

[fol. 904] The Government next offers Trial Exhibit No. 411, and we will read all of it.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 411.)

[fol. 905-907] Mr. Harris: This is stated to be a Government excerpt from August 18, 1922, Cellulose Products Department, Final Report for June, and Preliminary Report for July, 1922, to Executive Committee of du Pont Company (G.M.C.-1052).

(Said Government's Exhibit No. 411 was thereupon read to the Court.)

Mr. Harris: The Government now offers Trial Exhibit No. 405. We will read certain portions.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 405.)

Mr. Harris: If the Court please, this is a memorandum which is stamped with the initials J. L. May we be advised?
Mr. Hurd: J. L. is J. Lynah.

[fols. 908-912] Mr. Hoyt: Government next offers Exhibit No. 406, which is addressed to the Executive Committee, and is from the Cellulose Products Department, dated February 12, 1923.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 406.)

[fol. 913] I next offer Government's Exhibit No. 407, a letter from Mr. William Coyne on the letterhead of the E. I. du Pont de Nemours & Company to P. S. du Pont. The letter is dated July 18, 1923. It is entitled "Chevrolet Top Business".

(Said document so offered ~~and~~ received in evidence, was marked Government's Exhibit No. 407.)

[fols. 914-915] Mr. Hoyt: We next offer Government's Exhibit No. 408 which is a letter addressed to William Coyne, Vice President, and it is signed merely "Chairman of the Board". But it apparently and obviously is an answer to the preceding exhibit, dated July 19, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 408.).

(Said Government's Exhibit No. 408 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Exhibit No. 410, a letter addressed to Mr. William S. Knudsen, Vice-President, Chevrolet Motor Car Company.

It is noted that P. S. du Pont is stamped across the document, although the document bears no signature. It is dated July 27, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 410.)

(Said Government's Exhibit No. 410 was thereupon read to the Court by Mr. Hoyt.)

Mr. Harris: The Government offers excerpt, if the Court please, from trial exhibit No. 412.

[fol. 916-919] The next document, which is Government's Exhibit No. 413, which we wish to offer, is in the form of excerpts.

[fol. 920-921] The Court: You may proceed.

Mr. Houchins: If the Court please, continuing the same general subject matter that was being covered before the noon recess, the Government now wishes to offer Government Exhibit 418.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 418.)

[fol. 922] The Government next offers Trial Exhibit No. 419, which is a letter from Mr. Phellis, General Director of Sales of the du Pont Company, to Mr. Lammot du Pont.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 419.)

* * * * * * *

[fol. 923] The Government next offers Exhibit No. 420, which is a letter to Mr. P. S. du Pont, Chairman, Board of

Directors, from the Vice President, the dictator's initials indicating that he was Lammot du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 420.)

* * * * * * *

[fol. 924] The Government next offers Government trial Exhibit No. 421, which is a letter from P. S. du Pont, President, in his capacity as President of General Motors Corporation, to Lammot du Pont, Vice President of the du Pont Company, dated August 23, 1921.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 421.)

* * * * * * *

[fol. 925] Mr. Hoyt: I next offer Exhibit No. 422, a letter from Lammot du Pont to Pierre S. du Pont, President General Motors Corporation, dated September 2, 1921.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 422.)

* * * * * * *

[fol. 926] Mr. Hoyt: I next offer Government's Exhibit No. 423, a letter from J. L. Pratt, to Mr. Z. Phelps, of the Development Department of E. I. du Pont Company, dated September 12, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 423.)

(Said Government's Exhibit No. 423 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: I next offer Government's Exhibit No. 424, a letter from J. J. Raskob to the Finance Company, dated September 11, 1919.

(Said document, so offered and received in evidence, was thereupon marked Government's Exhibit No. 424.)

(Said Government's Exhibit No. 424 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: I next offer Government's Exhibit No. 425 which is not signed, but as Chairman; that is the only thing that appears. We assume it is from Mr. Raskob, and it is addressed to F. J. Fisher, President, Fisher Body Company. It is dated September 11, 1919.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 425.)

Mr. Hoyt: The Government does not propose to read anything from this exhibit.

I now offer Exhibit No. 426 which is addressed to General [fol. 927] Motors Corporation, dated September 25, 1919, and is not signed.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 426.)

Mr. Hoyt: The Government does not propose to read anything from this exhibit.

I next offer Exhibit No. 427, a letter dated September 25, 1919, addressed to Messrs. F. J. Fisher and Charles T. Fisher. There is no signature on this letter.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 427.)

Mr. Hoyt: I will read the letter.

(Said Government's Exhibit No. 427 was thereupon read to the Court by Mr. Hoyt.)

I next offer Exhibit No. 428, which is on the letterhead of the Fisher Body Corporation, and signed by Fred J. Fisher, President, by order of the Board of Directors. It is addressed to the Holders of Preferred and Common Stock of Fisher Body Corporation, dated October 18, 1919.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 428.)

* * * * * * *

[fol. 928] I next offer Exhibit No. 429, dated November 24, 1919, which bears the heading General Motors Corporation, office of the Secretary, between Fisher Body Corporation of Detroit, Michigan, and Fred J. Fisher, Louis Mendelssohn, W. C. Durant, and Pierre S. du Pont, subject Voting Trust

Agreement Covering Stock of Fisher Body Corporation. I offer this Trust Agreement.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 429.)

Mr. Hoyt: The Government does not intend to read any portion of this exhibit.

I next offer Government's Exhibit No. 430, dated December 9, 1919, which is an agreement signed by the Fisher Body Corporation, by Charles T. Fisher, Vice President, and it is an agreement between Fisher Body Corporation and Fred J. Fisher.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 430.)

Mr. Hoyt: The Government does not propose to read anything from this exhibit.

I next offer Exhibit No. 431, which is a letter on the letterhead of the Bankers Trust Company of New York, addressed to Mr. Fred J. Fisher, Louis Mendelssohn, John J. Raskob and Pierre S. du Pont, Voting Trustees, Fisher Body Corporation. It is dated February 11, 1925, and is [fol. 929] signed by the Assistant Secretary of the Bankers Trust Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 431.)

(Said Government's Exhibit No. 431 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: I next offer Government Exhibit No. 432, a letter from Bankers Trust Company signed by the Assistant Secretary, dated February 14th, 1925, and addressed to Mr. John J. Raskob, General Motors Corporation.

The Government does not intend to read any portion of this exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 432.)

Mr. Hoyt: I next offer Government's Exhibit No. 433 addressed to H. B. Watt, Assistant Secretary, Bankers Trust Company, New York City, and it is dated March 16th, 1925, has no signature, but does have the title "Chairman," and it is apparently from Mr. Raskob to whom the previous correspondence had been addressed.

The Government does not propose to read any portion of Exhibit No. 433.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 433.)

[fol. 930] Mr. Kramer: The Government next offers Exhibit No. 434, which is a letter from Lammot du Pont, Chairman of the Board of Flint Varnish & Color Works to Mr. Fred Fisher, President, Fisher Body Corporation, Detroit, Michigan, and is dated October 20th, 1922.

(Said Government's Exhibit No. 434 was thereupon read to the Court by Mr. Kramer.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 434.)

Mr. Kramer: The Government next offers Government's Exhibit No. 435 which is a letter from Pierre S. du Pont, written as President of the General Motors Corporation, to Mr. Lammot du Pont of the du Pont Company:

(Said Government's Exhibit No. 435 was thereupon read to the Court by Mr. Kramer.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 435.)

Mr. Kramer: The Government offers next Exhibit No. 436 which is a letter from Lammot du Pont, Vice President, to Mr. P. S. du Pont, President, General Motors Corporation, dated November 3rd, 1922:

(Said Government's Exhibit No. 436 was thereupon read to the Court by Mr. Kramer.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 436.)

[fol. 931] Mr. Kramer: The Government next offers Government's Exhibit No. 437 which is a letter by Lammot du Pont, Vice President, to Mr. Fred Fisher, President, Fisher Body Corporation, Detroit, Michigan, dated December 2nd, 1922:

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(Said Government's Exhibit No. 437 was thereupon read to the Court by Mr. Kramer.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 437.)

Mr. Kramer: The Government next offers Government's Exhibit No. 438 which is a telegram, dated January 5, 1923, from Lammot du Pont to Mr. L. P. Fisher, General Motors Building, Detroit, Michigan.

(Said Government's Exhibit No. 438 was thereupon read to the Court by Mr. Kramer.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 438.)

Mr. Kramer: The Government offers next Exhibit No. 439, a telegram from Lammot du Pont to Mr. Lawrence P. Fisher, Hotel Biltmore, New York City, dated January 6th, 1923.

(Said Government's Exhibit No. 439 was thereupon read to the Court by Mr. Kramer.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 439.)

Mr. Kramer: The Government next offers Exhibit No. 440, dated January 6, 1923.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 440.)

[fol. 932] Mr. Kramer: This is a telegram from Mr. L. P. Fisher to Mr. L. du Pont at Wilmington.

(Said Government Exhibit No. 440 was thereupon read to the Court.)

Mr. Kramer: The Government next offers Exhibit No. 441.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 441.)

Mr. Kramer: This is a letter from Lammot du Pont, Chairman of the Board, to Mr. L. P. Fisher, General Motors Building, Detroit, Michigan, dated January 5, 1923.

(Said Government's Exhibit No. 441 was thereupon read to the Court.)

Mr. Kramer: The Government next offers Exhibit No. 442.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 442.)

Mr. Kramer: This is a letter from Lammot du Pont, Vice-President, to Mr. H. H. Rice, General Manager, Cadillac Motor Car Company, Detroit, Michigan, dated January 27, 1923.

(Said Government's Exhibit No. 442 was thereupon read to the Court.)

Mr. Kramer: The Government next offers Exhibit No. 443.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 443.)

[fol. 933] Mr. Kramer: This is a letter from Lammot du Pont, Vice-President, to Mr. Lawrence P. Fisher, Fisher Body Corporation, Detroit, Michigan, with a copy to Mr. Hunter Grubb, General Motors, dated January 31, 1923.

(Said Government's Exhibit No. 443 was thereupon read to the Court.)

Mr. Cox: May it please the Court, I think that Mr. Kramer by inadvertence was misled by the two letters opposite Mr. Grubb's name and described him as an employee of General Motors.

In fact, he was an employee of the du Pont Company.

Mr. Kramer: Thank you. I did.

The Government next offers Exhibit No. 444.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 444.)

Mr. Kramer: This is a letter from H. H. Rice on the letterhead of the Cadillac Motor Car Company, Detroit, Michigan, to Mr. Lammot du Pont, of the du Pont Company, Wilmington, dated January 29, 1923.

(Said Government's Exhibit No. 444 was thereupon read to the Court.)

Mr. Kramer: The Government next offers Exhibit No. 445.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 445.)

Mr. Kramer: This is a letter from Lammot du Pont, Vice-[fol. 934] President, to Mr. H. H. Rice, General Manager, Cadillac Division, Detroit, Michigan, dated February 5, 1923.

(Said Government's Exhibit No. 445 was thereupon read to the Court.)

Mr. Kramer: The Government next offers Exhibit No. 446.

(Said exhibit, so offered and received in evidence, was thereupon marked as Government's Exhibit No. 446.)

[fol. 935] Mr. Kramer: The Government next offers Exhibit No. 447, which is a letter from Lammot du Pont, Vice President, to the Cadillac Motor Car Company, Detroit, attention Mr. Widman, with a copy to Mr. H. Grubb, recently identified by Mr. Cox, dated May 5, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 447.)

(Said Government's Exhibit No. 447 was thereupon read to the Court by Mr. Kramer.)

Mr. Kramer: The Government next offers Exhibit No. 448 which is a letter, dated May 21, 1923, from the Cadillac Motor Car Company, S. W. Widman, Manager of Manufacturing, to Mr. Lammot du Pont of the du Pont Company, Wilmington, Delaware.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 448.)

(Said Government's Exhibit No. 448 was read to the Court by Mr. Kramer.)

[fol. 936] Mr. Kramer: Following the letter is a note apparently addressed to Mr. Grubb: "Please note and return" signed by L. du Pont. The date of the note is May 26, 1923.

The Government next offers Exhibit No. 449, being a letter from Mr. Lammot du Pont to Mr. W. S. Widman, Cadillac Motor Car Company, dated May 26, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 449.)

(Said Government's Exhibit No. 449 was thereupon read to the Court by Mr. Kramer.)

Mr. Kramer: The Government next offers Exhibit No. 450, being a letter from Mr. Lammot du Pont to Mr. L. P. Fisher, Detroit, Michigan, copy to Mr. W. P. Allen, Fabrikoid Department, dated February 25, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 450.)

(Said Government's Exhibit No. 450 was thereupon read to the Court by Mr. Kramer.)

Mr. Kramer: The Government next offers Exhibit No. 451, being a letter from W. P. Allen on the letterhead of the du Pont Company, Wilmington, Delaware, Cellulose Products Department, addressed to Mr. Lammot du Pont, Vice President, dated March 9, 1923, with the caption "Fisher Body."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 451.)

(Said Government's Exhibit No. 451 was thereupon read to the Court by Mr. Kramer.)

[fol. 937] Mr. Kramer: The Government next offers Government's Exhibit No. 452, a letter from Lammot du Pont, Vice President, to Mr. L. P. Fisher of Fisher Body Corporation, in Detroit, Michigan, dated March 10th, 1923.

(Said Government's Exhibit No. 452 was thereupon read to the Court by Mr. Kramer.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 452.)

Mr. Houchins: The Government next offers Government's Trial Exhibit No. 453, consisting of the excerpts from Minutes of a Meeting No. 18 of Interdivisional Relations Committee—General Purchasing Committee of the General

Motors Corporation. The subject is indicated as being "Duco".

* * * * * * *

[fol. 938-940] Mr. Houchins: The Government next offers Government's trial Exhibit No. 454 which is a covering memorandum and report. It is from the Paint, Lacquer & Chemicals Department of du Pont to the Executive Committee. The covering memorandum is dated July 24th, 1925.
[fols. 941-943] Mr. Houchins: The Government next offers Government's trial Exhibit No. 455, a letter to Mr. J. L. Pratt on the letterhead of the du Pont Company dated March 22nd, 1924. It is from Mr. W. F. Harrington:

(Said Government's Exhibit No. 455 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 455.)

Mr. Houchins: The Government now offers Government's Exhibit No. 456, which is a reply to Mr. Harrington from J. L. Pratt, dated March 26th, 1924, reading as follows:

(Said Government's Exhibit No. 456 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 456.)

Mr. Houchins: The Government now offers Government's trial Exhibit No. 461, which is the minutes of the meeting of the Interdivisional Relations Committee of General Motors Corporation, held August 12, 1926.
marked Government's Exhibit No. 460.)

* * * * * * *

[fol. 944] Mr. Ford: We next offer Government's Exhibit No. 460, which is a memorandum from Lammot du Pont to P. S. du Pont and J. J. Raskob.

(Said exhibit,, so offered and received in evidence, was
[fol. 945] Mr. Ford: We next offer Exhibit No. 462.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 462.)

Mr. Ford: This is a letter from W. P. Allen to Mr. James Lynah, dated September 23, 1926, and marked "Personal and Confidential.".

(Said Government's Exhibit No. 462 was thereupon read to the Court.)

Mr. Ford: We next offer Exhibit No. 463, a letter from W. P. Allen to James Lynah, dated September 23, 1926, marked Personal & Confidential.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 463.)

[fol. 946] (Said Government's Exhibit No. 463 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Exhibit No. 464, which is a letter from James Lynah to W. P. Allen, dated September 30, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 464.)

(Said Government's Exhibit No. 464 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Government's Exhibit No. 465, which is a letter from W. P. Allen to Mr. James Lynah, dated October 2nd, 1926.

(Said Government's Exhibit No. 465 was thereupon read to the Court by Mr. Ford.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 465.)

Mr. Ford: We next offer Exhibit No. 466, which is a letter from W. P. Allen to Mr. Lammot du Pont, dated October 2, 1926, marked "Confidential," and "Subject, Confidential Discount Arrangement with General Motors Group:"

(Said Government's Exhibit No. 466 was thereupon read to the Court by Mr. Ford.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 466.)

[fol. 947] Mr. Houchins: The Government's next exhibit is Government's Exhibit No. 470, being a letter to Mr. Alfred P. Sloan, President, General Motors Corporation, from Mr. Lammot du Pont, dated October 28th, 1926:

(Said Government's Exhibit No. 470 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 470.)

Mr. Houchins: The Government next offers Government's trial Exhibit No. 471 a letter to Mr. Lammot du Pont, President of E. I. du Pont de Nemours and Company, from J. L. Pratt, Vice President of General Motors Corporation, dated October 29, 1926, and written in reply to the document just introduced.

(Said Government's Exhibit No. 471 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 471.)

Mr. Houchins: The Government next offers Government's trial Exhibit No. 472, which is apparently the enclosed letter referred to by Mr. Pratt in the previous document. It is a letter to Mr. Ed Fisher of the Fisher Body Corporation, Detroit Michigan, from J. L. Pratt, Vice President, dated October 29th, 1926.

(Said Government's Exhibit No. 472 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 472.)

[fol. 948] Mr. Houchins: The Government next offers Government's trial Exhibit No. 475, a letter from Alfred P. Sloan, Jr., President of General Motors Corporation, to Mr. Lammot du Pont, President of the du Pont Company, dated November 8th, 1926.

(Said Government's Exhibit No. 475 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 475.)

Mr. Houchins: The next Government exhibit is trial Exhibit No. 476 which the Government offers, a letter from E. F. Fisher, to Mr. John L. Pratt, General Motors Corporation, dated November 12th, 1926.

(Said Government's Exhibit No. 476 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 476.)

Mr. Houchins: The Government next offers trial Exhibit No. 477. This is a letter from Vice President, apparently J. L. Pratt of the General Motors, to Lammot du Pont, President of du Pont Company, dated November 15th, 1926.

(Said Government's Exhibit No. 477 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 477.)

[fol. 949] Mr. Houchins: The next that the Government offers is Government's trial Exhibit No. 478, which is a letter from Lammot du Pont, President of the du Pont Company, to Mr. W. P. Allen, dated November 16th, 1926.

(Said Government's Exhibit No. 478 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 478.)

Mr. Houchins: We now offer Government's trial Exhibit No. 479, being a letter from Lammot du Pont, President of the du Pont Company, to John Pratt, Vice President General Motors Corporation, dated December 17th, 1926.

(Said Government's Exhibit No. 479 was thereupon read to the Court by Mr. Houchins.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 479.)

Mr. Houchins: Government next offers Government Trial Exhibit No. 467, which is an excerpt from the December 23, 1926, monthly report of the Paint, Lacquer & Chemical Department.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 467.)

[fol. 950] Mr. Houchins: The excerpt reads as follows:

(Said Government's Exhibt No. 467 was thereupon read to the Court.)

Mr. Houchins: The Government next offers Government Trial Exhibit No. 468.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 468.)

Mr. Houchins: This is also an excerpt from a report to the Executive Committee of the du Pont Company from the Paint, Lacquer and Chemical Department. The report is for the month of December, 1926.

(Said Government's Exhibit No. 468 was thereupon read to the Court.)

Mr. Houchins: The Government next offers Government Trial Exhibit No. 469.)

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 469.)

Mr. Houchins: This is an excerpt from the minutes of the meeting of the Inter-Divisional Relations Committee—General Purchasing Committee, held on January 26, 1927.

Under the sub-heading of Duco and Duco Thinner, we read the following:

(Said Government's Exhibit No. 469 was thereupon read to the Court.)

[fols. 951-954] Mr. Ford: We next offer Government's Exhibit No. 492, and wish to read parts of it.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 492.)

[fols. 955-957] Mr. Ford: We next offer Government's Exhibit No. 494, which is a letter from James Lynah, with a carbon copy to J. L. Pratt, addressed to G. G. Allen, W. F. Armstrong, D. F. Hulgrave, W. E. Kreitzer, C. O. Miller, D. P. O'Keefe and J. T. Stratman, dated July 12, 1928; marked Confidential.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 494.)

(Said Government's Exhibit No. 494 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Government's Exhibit No. 495, which is a letter from William Richter to Mr. James Lynah, dated July 10th, 1928, marked "Personal and Confidential." Copies are indicated to J. T. Stratman, George Allen, D. J. O'Keefe, C. O. Miller, D. F. Hulgrave and E. C. Beichler of the Frigidaire Corporation:

(Said Government's Exhibit No. 495 was thereupon read to the Court by Mr. Ford.)

[fol. 958] Mr. Harsha: I should now like to call Mr. Lawrence Fisher.

May it please the Court, Mr. Fisher is a Director of the General Motors Corporation, and I should like to have permission to examine him as an adverse witness, pursuant to Rule 42(b) of the Federal Rules.

Mr. Hurd: No objection, if the Court please. I think the plaintiff is clearly entitled to do that.

LAWRENCE FISHER, called as an adverse witness by the Government, having been first duly sworn, was examined and testified as follows:

Direct examination,

By Mr. Harsha:

Q. State your name, please.

A. Lawrence P. Fisher.

Q. Where do you live?

A. Detroit, Michigan.

Q. What official position, if any, do you now hold with the General Motors Corporation?

A. I have no official position, only a Director of General Motors.

Q. How long have you been a director of General Motors?

A. I think since 1924, if my memory serves me.

Q. Have you been a director consecutively since that time?

A. That's right.

Q. What other official positions, if any, have you held with General Motors?

A. Previously?

Q. During the period say from 1924 to date.

A. Well, I was on the Executive Committee. I think I [fol. 959] went on the Executive Committee of General Motors, I think in 1924, and in 1925 I became president of the Cadillac Motor Car Company, and until 1934—and in 1934 I was then brought on the central staff, taken on the central staff under Mr. Knudsen as group executive which took in Fisher Body Corporation, and at that time the Art and Color Section which is now called the Styling Section, which has to do with all of the designing of the General Motors products.

Q. I don't want to tax your memory on official dates, that is the dates of your various official positions, Mr. Fisher, but I show you Government's Exhibit No. 177 which is now in evidence, and if you will note here, there have been drawn in pencil lines, and the dates indicated, and I shall read them to you and ask you if that coincides with the best of your recollection.

As shown by Exhibit No. 177, Lawrence P. Fisher was a director from September 25th, 1924, to the date of this document, which was 1948, and vice president from February 9th, 1925, to August 7th, 1944; a member of the Administration Committee from May 2nd, 1937, to May 4th, 1942, and a member of the Executive Committee from September 25th, 1924, to May 3rd, 1937.

Do you want to examine that?

A. I guess that's right.

Q. Prior to the time that you became employed by the General Motors Corporation, what had been your previous employment, if any?

A. Well, do you want me to tell you how I started, my first job?

Q. I think perhaps that would be more connected that way, sir. Please proceed.

A. I first came to Detroit when I was sixteen years old. I went to work at that time with the C. R. Wilson Body Com-

[fol. 960] pany who at that time were building automobile bodies, that started, and building carriage bodies. That had been their business previous to that, and I was with Wilson from, I think, if my memory serves me, I came to Detroit in 1905. I was then, I think, sixteen years old, and I worked at Wilson's until we formed the Fisher Body Company.

Q. When was that, sir?

A. 1908.

Q. Is that a Detroit corporation?

A. A Detroit, Michigan, corporation.

Q. Located in Detroit?

A. That's right.

Q. And when you say "we formed," were you personally one of the incorporators?

A. No, but when I say "we," you know I am always talking about my brothers and myself, you see. So when I say "we," why——

Q. Now, so we get this in the record, you are one of the renowned automobile Fisher brothers?

A. That's right.

Q. Could you tell us what the names of your other brothers are?

A. Well, there were seven brothers, two of which have passed on. We have Charles T. Fisher——

Q. Pardon me for interrupting, but will you indicate to us as you name them, whether they are still living?

A. Yes.

F. J. Fisher is dead; C. T. Fisher is living; W. A. Fisher is living, and Mr. E. F. Fisher is living; Mr. A. J. Fisher is living, and I think I am.

Q. I am not sure that I am.

A. And brother Howard A. Fisher—he is dead.

Q. Now, you say that you formed the Fisher Body Corporation in 1908, is that correct?

A. What is that?

Q. I say, you say that the Fisher Body Corporation was formed in 1908?

A. That's right.

[fol. 961] Q. Were your other brothers interested in this corporation?

A. Not at that time.

Q. When did any of your brothers become interested in the Fisher Body Corporation?

A. Do you mean as officers?

Q. Yes, sir.

A. I think we became at first officers, I think it was when the Fisher Closed Body Company was formed, and that was in '10, and I think I went on that Board at that time. We had the first company that was formed in Fisher Body, was the Fisher Body Company, and following that we in Fisher bodies, we built bodies in the white—that was the custom in those days, the body builders built the bodies, and we sent them out to another company at that time. At that time it was the Everett Company that did the painting and trimming. These were open bodies, you understand, and without their tops, and that was the nature of the business at that time.

Following that we organized the Fisher Closed Body Company which was either 1910 or 1911, and where we started to build closed bodies for the industry, and we painted and trimmed those, and we never did sell a body that was not painted and trimmed. That was the first time it had been done in the industry.

Q. Was there any corporate change in the years ensuing after 1910 or '11—any corporate change in the Fisher Closed Body Corporation?

A. No.

Q. Was that the name of the corporation?

A. Fisher Body and Fisher Closed Body Company. There were two separate companies.

Q. Could you explain the relationship there? Could you explain briefly what the relationships were between the two companies?

A. Well, there was a difference in stock ownership, if that is what you want.

[fol. 962] Q. Were the officers similar?

A. Similar, yes.

Q. Who was the president of the companies, do you recall?

A. Fred J. Fisher.

Q. What position did you occupy, if any?

A. I was factory manager of the Fisher Closed Body Company, assistant general manager.

Q. You were not an officer?

A. No. I was a director, if I remember right.

A. You were a director?

A. Yes.

Q. Were you a stockholder?

A. I was a stockholder, but not in the original Fisher Body. I was no stockholder then. I was sixteen years old.

Q. Do you recall whether your other brothers were stockholders in the Fisher Closed Body Corporation?

A. Oh, yes.

Q. They were all stockholders?

A. Oh, no, no. Just brother Fred and brother Charlie and myself.

Q. Do you recall approximately, sir, what the total outstanding voting stock of the Fisher Closed Body Corporation was in 1911?

A. You mean at what the company was capitalized?

Q. I mean the number of shares.

A. No, I couldn't tell you that now. If my memory serves me, I think we put in $125,000, the original capital in the Fisher Closed Body Company.

Q. Do you recall whether you and your two brothers who were stockholders had a majority of the outstanding stock in the Closed Body Company?

A. Yes, we had the controlling interest—that is in the Fisher Closed Body Company now.

Q. Yes, and the other corporation was named the Fisher Body Corporation?

A. Fisher Body Company.

[fol. 963] Q. Fisher Body Company?

A. Yes.

Q. Did there come a time when these two corporations were merged?

A. Yes. Well, in the meantime we organized the Fisher Body Company of Canada. That was another company. Then the three companies were merged in 1916—I think that is the year—under the name of the Fisher Body Corporation.

Q. Was that a New York corporation?

A. Delaware.

Q. Were all of your brothers stockholders in this new corporation, the Fisher Body Corporation?

A. They finally became stockholders.

Q. It was formed, I understand, in 1916?

A. Yes.

Q. Were they as of that time all stockholders?

A. No, but shortly afterwards they were.

Q. Within say a year?

A. Two years.

Q. So that as of two years later there were then what, six or seven of you?

A. Six.

Q. Six of you who were stockholders?

A. My younger brother had nothing to do with the business.

Q. Who was the president of this new company?

A. F. J. Fisher.

Q. Were you an officer?

A. I was a director.

Q. Were you an officer, too?

A. Vice-President, I think.

Q. In charge of what?

A. I was the vice-president, in charge of the Fisher Closed Body Company at that time.

Q. Were your other brothers, any of them, directors in addition to yourself and Fred Fisher?

A. No.

Q. None of them were directors?

A. No.

Q. Were any of them officers?

A. No.

Q. Do you recall, Mr. Fisher, as of 1919 what position, [fol. 964] if any, you had in the Fisher Body Corporation?

A. I had the same position.

Q. You were vice-president and director?

A. That is right. That is, of Fisher Body Corporation.

Q. Could you tell us who Mr. Aaron Mendelssohn was, in connection with the Fisher Body Corporation?

A. Mr. Aaron Mendelssohn was the secretary of Fisher Body.

Q. Did any change in the ownership of the Fisher Body Corporation take place in or about 1919, if you recall?

A. Yes, that is right.

Q. Do you recall the circumstances under which that occurred?

A. Sure.

Q. Could you tell us briefly what took place at that time?

A. What took place—now you mean?

Q. In 1919.

A. You mean the negotiations you are talking about now?

Q. Yes. I mean there was some change in the ownership. Could you tell us what that was?

A. Are you referring now to General Motors?

Q. Yes, sir.

A. All right. Well, let me say this first. I think if you will let me take one minute here, your Honor, to give you a little background.

In 1910 or 1911, when the Fisher Closed Body Company was formed, at that time no automobile companies had a closed car in their line. In the meantime, we had introduced Fisher closed bodies on all the leading car manufacturers, which started out with Cadillac first, and Buick, and Hudson, and Chalmers, and Studebaker, and Chandler, and Cleveland, at that time, which were at that time a very good company.

Then finally Ford—we introduced Fisher closed bodies on the Ford chassis. Then after the war—in the meantime, [fol. 965] the industry had been using what at that time they called winter tops. Maybe you remember back to when they used winter tops, and all, which were very unsatisfactory.

As the engines got where you could start them in the winter, when people were driving their cars all the year around, the closed car became a factor in the business. So by the time after the war, there was a built up demand for closed bodies way beyond anything that we had anticipated. Our capacity, of course, was divided up among all of these manufacturers, and only Buick and Cadillac were using Fisher closed bodies at the time. We couldn't take on the other business. We hadn't the capacity.

In the meantime, Chevrolet and Olds and Oakland at that time, which is now the Pontiac Company, at that time they were getting what few closed bodies they could get from sources of supply that apparently were very unsatisfactory. In fact, one of the companies was buying them from a wagon works at Toledo.

So it became very apparent that between our capacity which at that time we thought was pretty big because we had practically all the business, that it became more evident to Mr. Durant and the Car Divisions that the way the growth of the closed body and public demand was increasing, that General Motors would have to get themselves in a position to take care of the business. They knew that Ford had quite a big part of our capacity, but mind you, at the same time, we were building open bodies for all these companies, too.

You see, this is on the other side. So Mr. Chrysler, who previously had been president of the Buick Company, had been called to New York by Mr. Durant; he came out to Detroit to see me and told me that Mr. Durant wanted to [fol. 966] interest the four younger brothers, that is, myself and two younger brothers and one older.

Q. Will you identify those four brothers to keep them in mind?

A. Mr. A. J. Fisher, Mr. E. F. Fisher, Mr. W. A. Fisher, and the reason for this—that they did not go to my brother Fred was in 1916, when we merged the three companies, and we refinanced the Fisher Body Corporation or Fisher Body, that my two brothers, brother Fred and Charlie, made a contract, a ten year contract, employment contract, whereby they could not go into the body business; they could not go into the automobile business, with all the restrictions, you know, that bankers put around a contract in a deal of that kind.

Q. Could we pause there just for a second? I show you Government's Exhibit No. 430. Is that the contract you are referring to? I think you will find it on the back of the page.

A. Yes, that is it.

Q. That was to continue your brother as president for a period of ten years from 1916?

A. Yes, sir.

Mr. Hurd: May it please the Court, I believe both counsel and the witness are confused. I believe that is the 1919 contract, which is an amendment of the 1916 contract.

Mr. Harsha: The 1916 is attached here.

Mr. Hurd: You are referring to the exhibit?

Mr. Harsha: Yes.

Mr. Hurd: All right.

The Witness: That is the contract.

Mr. Cox: That is Schedule A.

The Witness: Then I—

By Mr. Harsha:

Q. Now, let me see. May I interrupt you. I don't want to cut off your answer, but I want to go back and say in 1919 General Motors Corporation entered into negotiations [fol. 967] with the Fisher Body Corporation for the purchase of its stock or some of it?

A. That is right.

Q. At that time, isn't it correct that the capitalization of the Fisher Body Corporation was increased from 200 to 500,000 common shares?

A. That is right.

Q. Of which 300,000 was sold to General Motors?

A. That is right.

Q. Isn't it a fact that at that time the 300,000 shares purchased by General Motors were placed in a voting trust together with 35,000 shares owned by some of the Fishers?

A. I think that is correct.

Q. I show you Government's Exhibit No. 429 which have been introduced. I believe that is the voting trust agreement, isn't it?

A. That is right.

Q. Do you recall who those trustees were?

A. No.

Q. I should like to direct your attention to Paragraph 4 on page 7 of that document, Mr. Fisher. Do you find that?

A. Page what?

Q. Page 7.

A. Yes.

Q. In which it states:

> "On the first day of October, 1924, or whenever, earlier, the Voting Trustees in their discretion shall decide to make such delivery, the Voting Trustees in exchange for, and upon surrender of, any Voting Trust Certificate then outstanding will, in accordance with the terms thereof and subject to Article Seventh hereof, deliver, at their office or agency in the Borough of Manhattan, in the City of New York, certificates of stock of Fisher Body Corporation, aforesaid, to the amounts and of the class called for by the respective Voting Trust Certificates, and may require the holders of the Voting Trust Certificates to exchange them for

> [fol. 968] such certificates of stock, subject, however, to the redemption of preferred stock by the Company in accordance with the terms of the certificates for such stock."

I am not reading the rest.

In connection with this paragraph do you recall whether, in fact, the Voting Trust agreement ended on October 1, 1924?

A. Yes, that is right, I think.

Q. Do you recall whether there were any of the shares which had been deposited with the Voting Trustee which remained subject to their control after October 1, 1924?

A. I don't remember.

Q. I should like to show you, sir, Government's Exhibit No. 431. I think it is the second paragraph there. You first note the date of that letter? Will you tell what it is?

A. February 11, 1925.

Q. That is later than the date provided, isn't it, for the termination of the Voting Trust?

A. Yes.

Q. Is it fair to assume from the contents of that letter that there were still some shares of the Fisher Body stock still subject to the Voting Trusteeship?

A: That I could not tell you.

Q. You don't recall about that?

A. I don't recall it.

Q. Do you recall having seen this letter before?

A. No.

Mr. Harsha: If your Honor please, I should like to read once again the terms of this letter so that we may connect it up.

The Court: It may be read.

Mr. Ford: This is Government's Exhibit No. 431. I am unable to read the signature. Do you have the printed copy?

Mr. Harsha: It is Plumb.

[fol. 969] Mr. Ford: This is from Mr. Plumb, and is on the stationery of the Bankers Trust Company. It is addressed to Mr. Fred J. Fisher, Mr. Louis Mendelssohn, Mr. John J. Raskob, Mr. Pierre S. du Pont, described as Voting Trustees, Fisher Body Corporation.

It bears date February 11, 1925.

"Gentlemen: Attention: Mr. John J. Raskob.

> "According to the terms of the Voting Trust Agreement dated November 14, 1919, it is provided that on October 1, 1924 the holders of the Voting Trust certificates issued under such agreement will be entitled to receive a certificate or certificates for no par value common stock of the Fisher Body Corporation in exchange for voting trust certificates.
>
> "Article Fourth of the Voting Trust Agreement provides for the deposit by the Trustees of the stock, duly endorsed for transfer with some bank or trust company in New York, with authority to such depositary to make delivery thereof in exchange for Voting Trust Certificates. As your Agent we now hold the stock certificates, but which have not been endorsed by you as Voting Trustees.
>
> "As several holders of Voting Trust Certificates are endeavoring to have their Voting Trust Certificates exchanged we would thank you to advise and direct us in the premises."

Mr. Harsha: Going back to the Voting Trust just a moment, Mr. Fisher, do you recall that under the Voting Trust, the stock which was placed in the Voting Trust was to be voted only by the unanimous vote of the four trustees?

A. I don't remember that.

[fol. 970] Q. You do not recall that?

A. No. That is thirty years ago.

Q. Do you have any recollection as to whether the trustees did in fact vote that stock?

A. No.

The Court: What is the answer?

By the Witness:

A. No, I don't remember.

The Court: Answer orally, because the Reporters have to take it down.

By Mr. Harsha:

Q. Did you personally place any of your own stock interest in the Fisher Body Corporation in this voting trusteeship?

A. No.

Q. You did not?

A. No.

Q. Isn't it a fact that the Fisher Body management maintained control of the Fisher Body Corporation during the period this voting trusteeship was in existence?

A. You mean the operating control?

Q. Yes, sir.

A. That's right.

Q. And that that continued at least as of the date of October 1st, 1924?

A. That's right.

Q. Did that control by the management continue after 1924, sir?

A. Yes, sure.

Q. How long did that continue, if you recall?

A. Why—say that again, will you?

(Question read.)

By the Witness:

A. Well, it was a control that still stayed in the hands of the Fisher—my—two years later I was taken out of Fisher Body and brother Fred and I, and moved into General Motors, and it left C. T. and E. F. and A. J. and W. A. in charge of the operations of Fisher Body Corporation.

By Mr. Harsha:

Q. Now, let me see if I can get this transaction straight in my own mind, sir. I want to get it straight.
[fol. 971] As I understand it, you left the Fisher Body Corporation in 1924 to go over to Cadillac, is that right?

A. 1925.

Q. 1925?

A. I think that's right.

Q. And thereafter the Fisher Body was operated by your other three brothers, is that right?

A. Yes, it became a division of General Motors after that.

Q. And they remained in the——

A. The Fisher Body Corporation then was a division just the same as the Cadillac Motor Car Division or Chevrolet Division.

Q. Now, in 1926 there was a further purchase of Fisher Body stock by General Motors, was there not?

A. That's right.

Q. They bought up all of the outstanding stock, didn't they?

A. That's right.

Q. And took over the assets of the Fisher Body?

A. That's right.

Q. And then it became a division?

A. That's right.

Q. Going back for just a moment, sir, to Government's Exhibit No. 430 which I have shown you previously, you will recall I showed you the schedule A attached, which is a copy of the original agreement of August, 1916, between your brother Fred and the Fisher Body Corporation, providing for his employment as President of Fisher Body Corporation for a ten year period.

A. Yes.

Q. Did you have any employment arrangement similar to this with the Fisher Body Corporation in 1916?

A. Did we have an employment contract?

Q. Yes, did you?

A. No.

Q. You did not?

A. No.

Q. Did you enter into any such contract in 1919?

A. Yes.

[fol. 972] Q. When General Motors bought the 60 per cent interest?

A. Yes, we entered into a contract before General Motors bought any interest in Fisher Body.

Q. Was that a condition of the purchase, a condition of the sale of the 60 per cent interest?

A. Was that a——

Q. Was that a condition? Do you understand what I mean?

A. Yes.

Q. Was that a condition precedent before you would sell 60 per cent of the Fisher Body Corporation to General Motors, that you have such an employment contract?

A. Well, that was, of course, when the corporation bought

60 per cent of Fisher, the contracts that had existed had to be carried out. They were made in 1916.

Q. Yes, and I understand it, as I understand it, you entered into one yourself in 1919?

A. That's right. That was a five year contract.

Q. Five years. Did you have any option of renewing that?

A. No.

Q. Did this contract terminate then in 1924?

A. Right.

Q. Were you given a similar contract in 1924 for another five year period?

A. No.

Q. You went over to Cadillac soon thereafter, didn't you?

A. That is right.

Q. Do you know whether your brother, W. A. Fisher, entered into an employment contract in about 1924?

A. No.

Q. You have no recollection of that?

A. No. We all contracted together, you know, the four of us made one contract, and F. J. and C. T. made a contract at the same time.

Q. I see. The four of you were parties to this one employment contract, is that right?

A. That is right.

[fol. 973] Q. And that ran until 1924?

A. That is right.

Q. Then a week before the expiration of the voting trusteeship, you were elected to the Board of Directors of General Motors, isn't that right?

A. I guess that is about right. I don't know that that is the timing or not, but I was elected a director.

Q. Let me just refresh your recollection, sir, if I may. I think you recall your previous testimony was that the voting trusteeship was to terminate on the 1st of October, 1924. I show you the listing here opposite your name, which indicates that on September 25, 1924, you were elected a director of General Motors.

A. Yes.

Q. Is that right?

A. Yes.

Q. So that just a week before the termination of that voting trusteeship, were you placed on the Board of Directors, isn't that correct?

A. Yes, I guess that is right.

Q. You have indicated in your previous testimony, Mr. Fisher, that in 1926 the remaining Fisher Body stock was purchased by General Motors, I believe?

A. Right.

Q. Were there any employment arrangements entered into between General Motors and any of your brothers about that time, do you recall?

A. No, we entered into no employment contract afterward.

Q. It is a fact, however, that your brother W. A., William A. Fisher, remained as president and general manager of Fisher Body Division, isn't that correct, after it was absorbed by G. M.?

A. That is right, yes, that is right.

Q. Do you recall approximately how long he remained as president and general manager of that division, Fisher Body?

A. No.

[fol. 974] Q. I think we may have that——

A. I can't tell you that. Too many Fishers to watch there.

Q. I see that his position, William A. Fisher as vice-president of G. M., terminated May 4, 1942. Would that be approximately the time?

A. Approximately, yes, that is right.

Q. That he ceased being the president and general manager of Fisher Body Division?

A. Yes.

Q. I am just a little bit confused on one answer, Mr. Fisher. I am not trying to trip you, but I want to get it clear. As I understand it, there was one employment contract entered into by you and three other of your brothers as signatories?

A. Yes.

Q. With Fisher Body Corporation, is that right?

A. Fisher Body Corporation.

Q. In 1924, is that right, or was that earlier?

A. No, we made no—the contract we made, as I remember, was in 1918.

Q. 1918, for how long a period?

A. That was our original contract for five years, as I remember.

Q. I didn't hear you. Did you tell me how long that ran?

A. For five years.

Q. Did you enter into any similar sort of arrangement at the end of that period with either Fisher Body or General Motors?

A. Then when we entered into this deal where General Motors bought 60 per cent of the holdings of Fisher Body, we made, if my memory serves me right, we made a new contract, the six of us, that expired all at the same time, in 1924.

Mr. Fred Fisher's and Mr. C. T. Fisher's contract that was made in 1916 ran until 1926, and that was changed. That was changed.

[fol. 975] Q. Do you recall approximately when?

A. What is that?

Q. Do you recall approximately when that was changed?

A. It was changed when we made the deal with General Motors.

Q. In 1919, is that right?

A. That is right.

Q. As I understand it, the employment contracts for all six of you, although they were in separate documents, two documents, all were termed to expire approximately October 1st, 1924?

A. I think that is right.

Q. Do you recall whether Mr. W. A. Fisher had any carry-over or new contract?

A. No.

Q. As of 1924?

A. No.

Mr. Harris: What is the answer—that he doesn't recall?

By Mr. Harsha:

Q. You don't recall?

A. No, no, only one contract was ever made, one employment contract with General Motors.

Q. I show you now, Mr. Fisher, Government's Exhibit No. 427 which has been introduced previously.

May we have some help from counsel here as to the authorship of this document? I believe it is Mr. Raskob but I am not sure. Can you inform me, Mr. Hurd, as to the authorship of Exhibit No. 427?

Mr. Hurd: No, I don't know anything more about it than you do.

By Mr. Harsha:

Q. It is addressed to Mr. F. J. and Charles T. Fisher. Would you read the last sentence aloud, sir, so we all know what we are talking about?

A. "At the same time your present contracts of employment are to be so modified as to give you the option of terminating the same at the end of five years."

[fol. 976] Q. What is the date of that letter?

A. September 25, 1919.

Q. As I understand it, am I correct in assuming that you had the option of terminating at the end of five years on your employment contract?

A. That is right.

Q. And if you did not exercise that option, would it automatically thereafter continue?

A. No.

Q. It would not?

A. I don't think so. My understanding was at the time that we went into a five year deal with General Motors.

Q. I show you also Government's Exhibit No. 428, Mr. Fisher, which is an announcement by the Fisher Body Corporation to the holders of its preferred and common stock, dated October 18th, 1918, and signed by your brother Fred J. Fisher.

I would like to draw your attention, sir, to the paragraph beginning right here. Would you read that aloud so we will all know what we are talking about?

> A. "A voting trust will be created which will insure for at least five years from October 1, 1919, the continuity of the present operating management, and of the other features of the proposed transaction outlined above.
>
> "Your directors have no hesitation in expressing their gratification of the proposed arrangement, and in

urging all the holders of stock, preferred as well as common, to approve the increase of capital, and the amendments of the certificates of incorporation and by-laws referred to in the accompanying notice of meeting.''

Q. I am sorry. I only wanted to call your attention to the first paragraph.

[fol. 977] You notice in that announcement to the stockholders it states: ''That the voting trust will insure for at least five years.'' Do you recall whether there was any contemplation by you that there was to be another arrangement entered into at the end of five years which would continue the same management?

A. No; no.

Q. Mr. Fisher, if my recollection is correct, one week before the voting trust arrangement came to an end, according to its terms, you were made a member of the board of directors of General Motors. Do you remember that exhibit I showed you where you went on the 25th of September?

A. Right.

Q. And you also recall on the same day, that on September 25th, 1924, you also became a member of the Executive Committee of General Motors?

A. That is right.

Q. Was it brought to your attention while you were serving on either of those two bodies that the General Motors Corporation had received voting control over the 60 per cent of the stock which you had had in this voting trust up to October 1st, 1924?

A. No, I don't remember that. I don't remember anything about that, any part of that.

Q. Do you recall when General Motors began to vote the 60 per cent interest in the Fisher Body Corporation?

A. Yes.

Q. Would you tell us when that was?

A. I can't explain that to you.

Mr. Harsha: Your Honor, would it be convenient with you if we had a short recess?

The Court: The Court stands recessed for fifteen minutes.

(Recess taken.)

[fol. 978] By Mr. Harsha:

Q. Mr. Fisher, I want to show you Government's Exhibit No. 426, and this deals with the negotiation back in 1919 when General Motors bought 300,000 shares of Fisher Body Corporation, and I am reading to you on the first page of this document—this is a letter addressed to the General Motors Corporation, and our copy is unsigned but from the context of the letter, it is apparent it is from the Fisher interests.

In the second paragraph it states:

> "We own or control at present approximately 140,000 shares or 70 per cent of the outstanding 200,000 shares of no par value common stock in the Fisher Body Corporation."

Now, I think I asked you previously about the fact that the Fisher interests, so-called, at the time when the voting trust arrangement was created in this year, 1919, that in addition to the 300,000 shares of Fisher Body common which General Motors purchased, the Fisher interests placed 35,000 shares of their common stock in this voting trust agreement. Do you recall that?

A. Yes.

Q. So, when we deduct the 35,000 shares from 140,000 shares, which this letter states the Fisher Body interests controlled, we have left, outside of the voting trust agreement, 105,000 shares, out of the 200,000 shares which are outside of the voting trust agreement.

Do you follow my arithmetic?

A. That is right.

Q. So that after the voting trust agreement was set up, the Fisher interests still controlled the management of the [fol. 979] Fisher Body Corporation because they had 105,000 out of the 200,000 shares, is that correct?

Mr. Hurd: Object to that as argumentative and calling for a conclusion, if the Court please.

The Court: I think it calls for a conclusion. I sustain the objection.

By Mr. Harsha:

Q. I now want to call your attention, Mr. Fisher, to Government's Exhibit No. 426, which I showed you previously, which is a copy of the voting trust agreement.

On page 3 of this document in the Preamble, it is stated:

> "Whereas, in order to secure continuity of management and policy of the company, it is deemed desirable that the stockholders deposit their stock with the voting trustees hereunder."

Do you recall whether there were any other purposes behind the creation of the voting trust agreement?

A. No.

Q. It was to continue the continuity of management as it then existed?

A. That is right.

Q. Do you recall, Mr. Fisher, whether, in fact, the 35,000 shares of the Fisher Body Company common were deposited by the Fisher interests in this voting trust agreement?

A. Well, I could not say how that was split up. I know there were 35,000 shares of stock put in this voting trust, but that is all I can tell you today.

Q. At the time this document was written, No. 426, September 25th, 1919, Mr. Fisher, were you an owner of any [fol. 980] of the Fisher Body common stock? That was September, 1919.

A. Yes, I am sure, yes.

Q. Approximately what were your holdings, do you recall?

A. No, I couldn't say that. I can't say that today.

Q. Did you continue to hold your stock of unrecalled amount until the General Motors Corporation purchased the outstanding 40 per cent in 1926?

A. Yes, and held it and combined some more.

Q. Do you have any idea what your stockholdings were in 1926, immediately prior to their purchase by GM?

A. No, I don't.

Q. You don't recall?

A. I don't recall, no.

Q. Do you recall what you were paid by GM for this Fisher Body stock in 1926?

A. Well, as I remember there was an exchange.

Q. And what did you receive?

A. You mean the amount, what——

Q. Well, first the nature of whatever the article was, and how much of it, if you recall?

A. I can't tell you that.

Q. Well, you know what you received, what sort of thing you received, don't you? Was it General Motors stock?

A. Yes, but I forget whether it was share for share, or just what the final deal was, my memory isn't clear for the minute, just what the final deal was. You have the record of it.

Q. But you are sure, aren't you, Mr. Fisher, that it was General Motors common stock that you got in exchange for your Fisher Body common?

A. Yes, I think that's right.

Q. Now, going back to one point in your previous testimony, Mr. Fisher, I want to get this straight through my [fol. 981] mind, if I can, and that is, as I understand it, the employment contract which your brother, William A. Fisher, had with the Fisher Body Company came to an end about October 1st, 1924, do you recall?

A. Yes.

Q. He was one of the four of you, I believe, all of whom went in on a joint contract?

A. (Indicating yes.)

Mr. Harris: What do you say, sir?

Mr. Hurd: Speak orally.

The Court: Yes, speak up orally.

By the Witness:

A. That's right.

By Mr. Harsha:

Q. And the next year, in 1925, W. A. Fisher became president and general manager of the Fisher Body Corporation, if I recall, is that right?

A. That's right.

Q. Now, at the time when he became president and general manager in 1925, didn't he have some form of employment contract?

A. No.

Q. None with Fisher Body?

A. None.

Q. Did he have any with General Motors?

A. No.

Q. Do you recall what the arrangement was? Was it just an oral day-to-day arrangement for employment?

A. He didn't have any more contract than I had, or Brother Fred had, or any of the other brothers. Why should he have a contract to run Fisher Body?

Q. So he had no written instrument expressing what his responsibilities were toward the Fisher Body Corporation?

A. No; after that Fisher Body Corporation was a division of General Motors.

Q. That was in the subsequent year, wasn't it, 1926?

A. What is that?

[fol. 982] Q. I say, it didn't become a division of General Motors until 1926?

A. That's right.

Q. So I am addressing my question, sir, and perhaps I am not making myself clear, but I am trying to address my question to the period in 1925 when there was still a Fisher Body Corporation, and when your brother, W. A. Fisher, became president?

A. Yes?

Q. (Continuing) Of that corporation, and as I understand your testimony, he didn't have any written employment contract of any sort with either Fisher Body or General Motors?

A. That's right.

Q. Do you recall what his compensation was?

A. What?

Q. Do you recall what his compensation was?

A. No.

Mr. Hurd: I object to that as being immaterial.

The Court: I think that is immaterial. Sustained.

By Mr. Harsha:

Q. Now, one further point on that: At the time that your brother, W. A. Fisher, was made president of Fisher Body Corporation in 1925, you were at that time a member of the

Executive Committee and the Board of Directors of General Motors, is that right?

A. That's right.

Q. Do you recall any resolution having been passed by either of those two bodies concerning the retention of your brother, W. A. Fisher, as president of Fisher Body Corporation?

A. No, I don't remember.

Q. In 1925, were you a director of Fisher Body Corporation? I am not clear.

A. That I can't tell you now.

Q. You don't recall?

A. I can't tell you whether I was a director in 1925 of Fisher Body.

Q. Do you recall whether the Fisher Body Corporation passed any resolution retaining your brother, W. A. Fisher, [fol. 983] as president of the Fisher Body Corporation?

A. No.

Mr. Harris: Is it, "Do you recall," or did they pass the resolution, which is it? I think the form of the question perhaps may bother him. We want to know, did they pass the resolution.

The Witness: That I don't know. That is a long time ago.

By Mr. Harsha:

Q. It is correct, isn't it, Mr. Fisher, that in 1926 you and some of your other brothers received General Motors common stock for your holdings in Fisher Body Corporation? Isn't that right?

A. That is correct.

Q. By the way, you sold those to du Pont in 1931, didn't you, some of it?

A. Yes, we sold some of the stock to Mr. du Pont——

Q. You sold about 300,000 shares, didn't you, to du Pont?

A. I think that is the figure.

Q. Was some of that your stock?

A. Well, that was stock that belonged to Fisher & Company, our holding company. In Fisher & Company, I at the time owned one-sixth interest.

Q. You had a one-sixth interest?

A. One-sixth, yes.

Q. Did you participate in the negotiations preceding the sale of this block of 300,000 shares to the du Pont Company in 1931?

A. I didn't, personally.

Q. Do you recall who did handle it for the Fishers?

A. Mr. C. T. Fisher and Mr. F. J. Fisher.

Q. Is Mr. C. T. Fisher still alive?

A. He is alive.

Q. Do you know where he lives now?

A. He lives in Detroit, Michigan.

Q. Do you have his address, Mr. Fisher?

A. It is Boston Boulevard. I can't tell you the number.

Mr. Harsha: That finishes our examination, Mr. Fisher. [fol. 984] Thank you.

Mr. Hurd: I have some questions.

Cross-examination,

By Mr. Hurd:

Q. Mr. Fisher, you have referred to the fact that you and three of your brothers obtained employment contracts with Fisher Body Corporation in 1919, five year contracts, is that correct?

A. That is correct.

Q. Were those contracts entered into in connection with negotiations for the investment that General Motors made in Fisher Body?

A. No.

Q. Had they been entered into before that or were they entered into afterward?

A. They were entered into before that.

Q. At the time of the investment by General Motors in 1919, those four contracts and the two earlier ten year contracts were modified, I believe you stated?

A. Right, I believe they were modified.

Q. At whose suggestion was that change in their term, their modification, made?

A. By me.

Q. Did you have any discussion with anyone regarding that subject?

A. Yes.

Q. With whom?

A. We had the discussion with Mr. Durant.

Q. Do you recall about when that was?

A. Well, that was in the spring of 1919, before we made the deal.

Q. Was anybody else present besides yourself and Mr. Durant?

A. No.

Q. Where was this, in Detroit or in New York?

A. New York. Well, I had several talks with Mr. Durant on this matter.

[fol. 985] Q. I am referring to the time when you discussed the change in the terms of the contracts, these employment contracts.

A. Yes.

Q. That was in New York?

A. New York, and in Detroit also.

Q. Did you have more than one conversation with him on the subject?

A. Yes.

Q. How many?

A. Oh, I think we talked to Mr. Durant four or five times about this matter.

Q. Who had the conversations, you and Durant? Was anyone else there?

A. No.

Q. What was the substance of the conversations you had during those occasions?

A. The subject of the conversations was that our position was at that time that four of us that had agreed, we had a five year contract, the four of us younger brothers, let me put it that way, and Fred and Charlie's contract ran two years longer, which was made in 1916, and which would carry their contract up to 1926.

When we made the deal with Mr. Durant, let me put it that way, Mr. Durant in our first talk with brother Fred and I, Mr. Durant invited the Fisher brothers in as partners in General Motors to help him in the operation of the body divisions and whatever he wanted us to do. He took us in as partners and we always remained partners in General Motors with Mr. Durant.

So knowing Mr. Durant like we did—we knew him from when we were kids, we sold his buggies that he made in Flint. So we knew lots about Mr. Durant.

Going into this deal, we were going in the automobile business, if this is of any interest. We weren't interested in going with Mr. Durant or Mr. General Motors or Mr. [fol. 986] Ford or nobody because we were organizing to go into the automobile business.

Q. Let me interrupt you there. That is something I want to touch on a little later, but first, just in connection with the talk you had with Mr. Durant about changing these contracts, you said that yours was for five years?

A. Yes.

Q. Your two brothers had one for ten?

A. That is right.

Q. So that yours would expire in 1924 and the three brothers also in 1924, and then two other brothers in 1926?

A. Right.

Q. So what did you say to him about changing those contracts?

A. I wanted Mr. Durant to change the contract and shorten F. J.'s and C. T.'s contracts so they would expire the same time the four of us, our contracts expired.

Q. Did you tell him a reason for your request?

A. No. I told him that is the way we wanted it.

Q. Did Mr. Durant make any statement?

A. Well, he didn't like it. That is what held it up. That is what held the deal up for a month, as I remember, or more.

Q. Were the changes that were finally made, those that you had requested in the conversations?

A. That is right.

Q. The change that you made was to alter them so that they would have a common date of expiration?

A. That is right.

Q. Now to go back to a little earlier period, you testified on examination by plaintiff's counsel to a discussion with Mr. Walter Chrysler. When did that occur, approximately?

A. Oh, that was sometime in the fall. I would say it was a year before we finally consummated the deal with Mr. Durant.

[fol. 987] Q. The fall of 1918?

A. That is right.

Q. Was that the first discussion you had with anyone connected with General Motors regarding going with General Motors?

A. That is right.

Q. What was Mr. Chrysler's position with General Motors at that time?

A. His position, he was talking for Mr. Durant. Mr. Durant had sent him to Detroit.

Q. And this conference occurred in Detroit, did it?

A. At the Pontchartrain Hotel.

Q. Who was there beside yourself and Mr. Chrysler?

A. Nobody.

Q. What was that conversation?

A. The conversation started out by — knowing Mr. Chrysler, we had been very friendly with Mr. Chrysler and knew him very, very well,—he started out by telling me that he had got into the General Motors picture in New York and had been moved from Flint. This closed body situation with General Motors was a very serious one, and they had to deal with it; that Mr. Durant—at that time Fisher Body had all its plants, brick and mortar, were all located in the city of Detroit, and he wanted to build plants in Flint and Lansing and Pontiac for the other three divisions—Flint, Pontiac and Lansing—wanted to enter into a deal with four of us to come with General Motors and set up this organization for them to handle their closed body business.

Q. Which four did he refer to?

A. Brother Ed, Brother Al, and W. A., the four younger brothers.

Q. He did not include Fred or Charles?

A. No.

Q. Fred and Charles were the ones that had contracts [fol. 988] with Fisher Body?

A. It was on account of their contract that they had made with the bankers in 1916.

Q. And the four of you that he invited to go with General Motors did not have any contract with Fisher Body at that time?

A. Well, we had a contract. The four of us had a contract, you know, but our contract didn't read like their contracts read.

Q. Was this proposal to merely take the four Fisher indiiduals over into General Motors or was it to acquire an nterest in Fisher Body Corporation?

A. For the Fishers to come with General Motors, not to uy any interest in Fisher Body.

Q. Did you give him an answer at that time?

A. Yes, I gave him an answer at that time.

Q. What was the answer?

A. I told him we couldn't split the Fisher brothers.

Q. How long after this was it that you had your next onversation with any General Motors people regarding oing with General Motors?

A. Oh, I think it was several months. It was after the first f the year. As I remember, this was in the fall. This is long time, you know, to go back and make dates. After e first of the year——

Q. That is 1919?

A. Yes. Mr. Murphy, who was at that time Mr. Durant's ecretary, called up and wanted to know, he got hold of Mr. . J. and wanted to know when we were going to be in New ork, he would like to talk to us.

So Mr. F. J. got on the telephone and talked to Mr. urant, and he said he would like to have us come down and we would like to talk to you."

Q. Did you go down to New York?

A. We went to New York

ol. 989] Q. Did you have a conference with Mr. Durant?

A. We had a conference with Mr. Durant.

Q. Who was there besides yourself and Mr. Durant?

A. Well, we went to Mr. Durant's apartment on Fifth venue, as I remember. We didn't go to the General Motors ffices. As I remember, there was Mr. Raskob, Mr. John homas Smith, Mr. Haskell, Mr. Chrysler, Mr. Durant and rother Fred and I. They composed the party.

Q. What was the conversation at that time?

A. Well, it duplicated practically what Mr. Chrysler had aid. We had lunch in the living room and Mr. Durant said Fred, he said, "Fred we want to talk to you about bringg the Fisher Brothers into General Motors."

And then he went on to elaborate where this closed body usiness—the public demand for closed bodies, and other tuations as they stood at that moment, that he had to do omething, and they had to build some plants in Lansing and

Flint and in Pontiac to meet this demand, and that is what he had to do. He said they were not organized to do it; they had no organization to do it, and knew nothing about it, and they wanted the Fishers to come with General Motors. That was the substance of the talk.

Q. Did you or Fred say anything?

A. No, we just listened.

Q. Did you give any answer at that time?

A. No.

Q. Did you have a later conversation with anyone from General Motors regarding that proposition?

A. Yes.

Q. About how soon was your next conversation?

A. Oh, I think it was at least two months. We were not interested at the time.

Q. With whom was your next conversation?

A. Mr. Durant.

[fol. 990] Q. At whose request?

A. Mr. Durant's.

Q. Where did it take place?

A. I think in Detroit.

Q. Who was present on that accosion?

A. I think Mr. Durant and brother Charlie and myself.

Q. Can you give us the substance of that discussion?
the situation became more acute, as Durant could see it, and

A. Well, it followed the same discussion. By that time, he had to make a move to increase his capacity for closed bodies.

Q. And did his lack of adequate capacity become more acute?

A. It became more acute. In the meantime, we had received the largest order for closed bodies we had ever been getting up to that time from the Ford Motor Company. He knew that Ford at that time was dominating the low price field. In fact, he was the only one in it, and Mr. Durant naturally was going to try to build the Chevrolet up to meet this Ford competition. Then he had to have a source of supply for closed bodies in doing it.

Q. Did you have the capacity at that time to provide the bodies?

A. No.

Q. Did you and your brother take any position at this discussion?

A. No, we did not take any position at all. We thought we would think it over. We had some other associates we had to talk to.

Q. To whom do you refer?

A. Mr. Mendelssohn.

Q. Mr. Mendelssohn had some stock in the Fisher Body Company?

A. That is right, and they also had a contract.

Q. An employment contract?

A. An employment contract with Fisher Body which was entered into in 1916.

Mr. Harsha: May we ask that the witness identify the Mendelssohns?

[fol. 991] By Mr. Hurd:

Q. Yes, sir. Will you name them?

A. Mr. Aaron Mendelssohn and Mr. Louis Mendelssohn.

Q. What was Mr. Louis Mendelssohn's position with Fisher at that time?

A. He was treasurer.

Q. And Aaron was secretary?

A. Secretary.

Q. About how long after this was it that the decision was reached on the part of the Fisher Brothers and the other stockholders in the Fisher Body Corporation to accept the General Motors proposal?

A. Oh, I think it was along about two months we were working back and forth. I don't know how many meetings we held.

Q. Who conducted these negotiations for the Fishers?

A. Well, Fred and I and Charlie.

Q. And for General Motors, who conducted them?

A. Mr. Durant.

Q. At the time of the first meeting with Mr. Chrysler back in 1918 to which you referred, did the Fisher Body Corporation have any plans for going into the automotive industry?

A. Yes, we started out—at least, we felt that the way Durant and General Motors were going—Durant was buying up everything at that time. And knowing the Ford situation as it was, and knowing Mr. Ford very well, we had a terrific lot of ambition, and we figured it would be possible that we would get into the squeeze between Ford and General Motors and be left with a few of the so-called independents, so we prepared ourselves. We set up an engine company called the Hinckley Motor Company which we developed. We developed an engine, and for a blind, we built a truck engine which was used during the War. We built, I don't know how many thousands. Then we set up another [fol. 992] company. At the same time, we were going on with the development of the engine, which was the heart of the automobile, or was at that time. Everybody else was buying axles and transmissions and steering gears, and putting them together, and we figured we could do the same thing. There was no mystery in the automobile business. There was not, to us, and is not now.

Q. About when was that that you set up the Hinckley Motor Company?

A. That was set up, as I remember, around 1913 or 1914.

Q. Do you know whether or not Mr. Durant knew of your interest in the Hinckley Motor Company at the time the negotiations were started?

A. I don't think so; nobody knew that.

Q. In the discussions with Mr. Durant which led up to this 1919 arrangement, you stated that he referred to the need General Motors were having with some body plants at Lansing, Flint and Pontiac. Was anything stated as to how he proposed to obtain those if General Motors acquired an interest in the Fisher Body Corporation?

A. Will you say that again?

Q. Did Mr. Durant or anyone else connected with General Motors state how their investment in Fisher Body Corporation would solve the problem of having body plants at Flint and Pontiac and Lansing?

A. Well, with the added capital that we would have in Fisher Body.

Q. That who would put into Fisher Body?

A. General Motors.

Q. The purchase price or the money General Motors was putting into Fisher Body would be used to build the body plants?

A. That's right.

[fol. 993] Q. Was anything said with regard to who would run those plans?

A. Who would—?

Q. Who would operate the plants.

A. The Fishers would.

Q. Now, a part of this 1919 arrangement was that there was a voting trust to which reference has been made this morning.

Do you recall who suggested the voting trust in the first instance?

A. No, I couldn't say that, whether it was our counsel, you know, or General Motors counsel, or who, I couldn't tell you that.

Q. Do you recall the positions of the Mendelssohns on the subject?

A. I think they had quite a part in that, because they were trying to protect their position and their holdings in Fisher Body.

Q. In connection with that 1919 transaction, there was also a contract to run for ten years for the construction of the closed bodies for General Motors Corporation, was there not? Do you recall the ten year requirement contract on closed bodies?

A. Yes.

Q. Who suggested the creation of that contract?

A. Oh, I think that that was one of those things that came about, I think, between both Fisher Body and General Motors.

Q. Do you recall what the interest was in Fisher Body having that contract?

A. What the interest was?

Q. Yes.

A. Well, you see, under the contract that was made, General Motors could not go out and buy any bodies beyond what they were then ma~~king, open cars,~~ and they were all making open bodies. Olds was making open bodies and all. But they could not build, buy any closed bodies, and I think it was set up on that basis.

[fol. 994] Q. General Motors was interested in being assured of the capacity and the production of the bodies?

A. Yes.

Q. And Fisher Body was interested in obtaining the business?

A. That's right.

Q. Now, you recall that these 1919 documents, the voting trust and the employment contracts, were both for five years? They were to expire in the fall of 1924?

A. Yes.

Q. What was the occasion for limiting them to five years, if you recall?

A. Well, the reason was that we were still young, and we made up our mind that if we didn't like this partnership that we had entered into with Mr. Durant and General Motors, we would get through in 1924, and do whatever we wanted to do, go into the automobile business or do whatever we wanted to if we didn't like our association.

Q. Was the idea of having these terminate in five years, did that come from the Fishers?

A. That's right.

Q. Sort of a trial marriage?

A. That's right.

Q. By the time the five years had elapsed, what was the position of the Fishers with reference to the success or failure of this trial marriage?

A. We liked it. We liked the General Motors people.

Q. Do you recall about when the discussion started with reference to the 1926 acquisition of the remaining 40 per cent?

A. What started it?

Q. About when did the discussions start regarding the——

A. Oh, I think that started in 1924, and previous to that the closed body had become such an important factor in the industry, and the percentage of the business was increasing all the time, and we were—we had, in the meantime, [fol. 995] taken on Chrysler after General Motors had bought in. We had taken on the Chrysler business, and closed car business, and Mr. Pierre du Pont, who we negotiated with on the final deal, his position was that we ought to come in to General Motors 100 per cent, so they could move part of us into General Motors, and we could become a bigger factor in the operation of the corporation by them taking over all of the balance of the holdings that we held in Fisher Body.

Q. Who conducted the negotiations that led up to the final consolidation in 1926?

A. Brothed Fred and I.

Q. And for General Motors, who conducted them?

A. Mr. Pierre du Pont.

Q. Those negotiations occurred over a two-year period. What was the occasion for the extended period of negotiations?

A. Why, it took——.

Q. Yes?

A. The delay? Well, we had problems that entered into it with other associates.

Q. The Mendelssohns?

A. The Mendelssohns got into the picture. That was kind of a difficult one. They had an employment contract, and while they had no percentage of the profits as we did, but it was a troublesome deal, and General Motors wasn't at that time what it is today.

In other words, General Motors' financial position still wasn't too good at that time, and they questioned it, and we threw all of our eggs in one basket with General Motors, and it was a selling job we had to do, and they were big stockholders, and we had to reckon with it.

Q. You were elected to the Executive Committee in the fall of 1924, the Executive Committee of General Motors.

Did you have any discussion with anyone regarding that [fol. 996] change in your situation?

A. Oh, yes, yes, I discussed that, we discussed that with Mr. Pierre du Pont.

Q. By "we", to whom do you refer?

A. Who?

Q. By "we" whom do you refer to?

A. Brother Fred and I.

Q. And was that discussion, did that occur on more than one occasion?

A. Yes.

Q. Over what period of time?

A. Oh, I would say for a year and a half.

Q. Before the fall of 1924?

A. Yes.

Q. And what was the substance of the discussion?

A. Well, the whole substance was that Mr. du Pont wanted to bring us closer into the General Motors picture, you see.

Q. Did he give any reason?

A. Yes, to help them.

Q. In what respect?

A. With management.

Q. Financial or operating management?

A. Operating.

Q. Did he explain that as to just what he intended you to do, and the reasons for requiring any changes?

A. Well, he wanted Fred and I to get in the General Motors picture and deal with the products of the corporation, which was the most important thing in the automobile business, a good product, and at that time General Motors had some divisions whose products were not very good.

Q. Which divisions?

A. The Olds and Oakland. At that time, you know, you see, they were not very good products, and he wanted some help, and Chevrolet was just coming out of the red at that time, and they needed some help.

Q. Now, in 1925, was it 1925 or 1926 that you went with Cadillac?

A. 1925.

[fol. 997] Q. Did you have a discussion with anyone regarding that change in your position?

A. What is that?

Q. Did you have any discussion with anyone regarding your going to Cadillac?

A. Yes, Mr. Sloan.

Q. On more than one occasion or discussion?

A. Oh, no, I don't know. We used to see him and we would talk, and exchange in General Motors and back and forth on the train to New York, and what-not.

Q. What was the substance of the discussion?

A. He wanted me to go over there. At first I didn't want to go.

Mr. Harris: Could we have the date?

Mr. Hurd: Yes.

By Mr. Hurd:

Q. When were these discussions?

A. Oh, I would say about six months before I went over there.

Q. That would be in late 1924 or early 1925?

A. Yes, I would say that.

Q. Did Mr. Sloan give you any reason for wishing to have you go over to Cadillac?

A. Why, he wanted me to go over and straighten the Cadillac Company out, and Packard was just running away with the market, and he felt the management over there should be changed, and he wanted me to go over there and take charge of the Cadillac Company.

Q. What was the difficulty with the Cadillac operation under the prior manager?

A. Well, the trouble [illegible] it is that the Cadillac car had gone to seed. Rice—I don't want to be critical of the man, he has [fol. 998-999] passed away, and I don't like to have anything in the record, but Rice didn't keep up with the procession. Let me put it that way. The automobile industry is a fast business, and Packard was just stepping away from Cadillac, and was getting the lion's share of the market, which Mr. Sloan thought that Cadillac and General Motors were entitled to or at least an even split, and we weren't getting it.

Q. What position did you occupy when you went to Cadillac?

A. President.

Q. And what, if anything, did you do regarding the product on your arriving over at Cadillac?

A. Well, the first thing I did when I got there was to—of course, previous to that I had given the thing a lot of thought, what ought to be done with the company, because you couldn't turn the Cadillac car from one night to the next morning, into a new automobile, so I started out to put a lot of colors on Cadillac, which was the first time it had been done, and I don't know how many color combinations we went into. We started a regular color-craze.

I brought Mr. Harley Earl from California who at that time was with the Don Lee Corporation in California, a Cadillac distributor, and who was in charge of making custom bodies out there, and today, who is in charge of the Styling Section of General Motors, and I brought him on the job from California. In fact, I loaned him from Mr. Lee, and I said, "What should we do with these cars," and he said, "Let's paint them up so they look like something."

And he said, "Put a lot of color on them and put some wire wheels on them and doll them up." That was the nature of the business.

So that was the first move we made in Cadillac.

[fol. 1000] Cross-examination,

By Mr. Hurd (Continued):

Q. Mr. Fisher, just prior to our recess, you mentioned what you had done to the Cadillac to pick it up, so to speak, after you became manager in 1925, and you referred to bringing cars out in a number of different colors.

What had been the practice of the industry with respect to the colors of automobiles prior to that time?

Mr. Harsha: Your Honor, I would like to object to this line of questioning. It is going beyond the scope of direct, and is a flat violation of Rule 43(b).

We asked no questions regarding styles of automobiles, colors, et cetera, on our direct examination.

The Court: Part of the history, the general history, I [fol. 1001] think, is helpful to a better understanding of the issues. I think you can narrow it down somewhat.

Mr. Hurd: I had only this one question with respect to this, just to complete the picture he gave this morning.

By the Witness:

A. Well, the practice of the industry prior to that was to have about three colors. Ford, of course, was always black. Mr. Ford said, "Paint them any color, as long as they are black."

There was a dark blue, and a dark green, and black, because they could be handled and serviced in the field. If the car was damaged, they could take it to a repair shop, some buggy repair shop or similar set-up, and have it repaired. You must know that in those days the dealers had no service stations and no paint shops like they are equipped today, you see, so they confined it down to as few colors as they could, and colors that they could easily repair in case of an accident or damage.

By Mr. Hurd:

Q. Your bringing the Cadillacs out in a variety of colors, then, was an innovation as far as the industry was concerned?

A. That is right.

Q. To return for a moment to the 1926 transaction when General Motors acquired the remaining 40 per cent interest in Fisher Body Corporation, up to that time was Fisher Body manufacturing bodies for any company other than General Motors Corporation?

A. Yes. We built bodies for Ford. We built bodies for [fol. 1002] Hudson, and Chalmers and Studebaker, Chandler and Cleveland.

I think we started with Chrysler in 1924. The Chrysler Company, I think we got started in 1924 with the Chrysler Company.

Q. Walter Chrysler in the meantime had left General Motors Corporation and started his own company?

A. That is right.

Q. Did the capacity that you were devoting to these outside makes of cars, outside of General Motors, have any bearing upon the final acquisition by General Motors of the entire stock interest in Fisher Body?

A. Yes, it did have.

Q. In what respect?

A. Well, the corporation felt they could, you see, with the demand for the closed cars, that the divisions could use the entire capacity of the Fisher Body Corporation, and under the existing set-up we could work for anybody we wanted to. That was part of the original arrangement. We wouldn't have it any other way.

It was also understood that we would give our customers plenty of time so they could place their business with other concerns.

Q. Then following the final acquisition of all the stock in Fisher Body by General Motors, did you cease manufacturing bodies for competitive makes?

A. They left, you see. We didn't have to tell them because they knew eventually General Motors would take the entire capacity, so they took a position—Ford did immediately, started to make preparations. In fact, they enlarged their own body plant.

[fol. 1003] Q. You failed to get orders from competitors after that?

A. What is that?

Q. You failed to get orders from competitors?

A. No. We knew when we made the final disposition of our interests that our customers would find sources of supply elsewhere, which they did. So it wasn't a case of us dropping these people who were our customers. They took care of that themselves over a period of time.

Q. During the period of 1919 to 1924, who had charge of the management of the Fisher Body Corporation, the operations of the company?

A. Between 1919 and 1924?

Q. Yes.

A. Well, Fred was president of the company, and my brother Charlie was in charge of the operations of the Fisher Body open division, as we called it. That was making all the open bodies. I was in charge of the operations of the closed bodies. That is how we split the responsibility.

Q. You left the Fisher Body Corporation in 1925, I believe you stated?

A. That is right.

Q. From 1925 on, who had charge of the operating management of the Fisher Body Corporation?

A. That was C. T.

Q. Your brother Charles?

A. Yes. In the meantime, as I remember, Mr. F. J. had gone with the corporation, spent his time entirely with the corporation. All the while he still was with Fisher Body, but he spent most of his time with the corporation.

Q. That is, Fred had gone with General Motors Corporation?

A. Yes.

Q. And Charles remained on in charge of the management of Fisher Body?

A. That is right.

Q. How long did that continue?

[fol. 1004] A. That continued right on until C. T. retired.

Q. When was that?

A. He retired, I think, in 1934.

Q. Following 1934, who had charge of the management of the Fisher Body Division?

A. Mr. E. F. Fisher then became general manager of Fisher Body Corporation.

Q. Mr. E. F.?

A. E. F. Fisher.

Q. Edward Fisher?

A. That is right.

Q. How long did he continue in that position?

A. Until he left General Motors.

Q. When was that?

A. 1944, I think, late 1944.

Q. During the period of 1924 to 1934, approximately, who was the group executive in General Motors who was responsible, had general supervision over the Fisher Body Division?

A. We had no group executives at that time.

Q. When did they acquire a group executive that had jurisdiction?

A. When I left Cadillac.

Q. When was that?

A. That was in 1934.

Q. 1934?

A. That is right.

Q. Who became the group executive having supervision over the Fisher Body Division at that time?

A. I did.

Q. How long did you remain in that position?

A. Until we resigned in 1944.

Q. During that period, to whom did you report?

A. Who did I report to?

Q. Yes.

A. Mr. Knudsen.

Q. The president?

A. He was the president of the corporation.

Q. He wasn't the president during the whole period?

A. No.

Q. Did you report to him at all times regardless of his position?

A. Yes. He was executive vice-president, and then president, but we all reported to Mr. Knudsen.

[fol. 1005] Q. And Mr. Knudsen I believe left the corporation for war duty in the early '40s. Following that, to whom did you report?

A. That is right.

Q. To whom did you report after that?

A. To Mr. Wilson, C. E. Wilson.

Mr. Hurd: If the Court please, that fully completes the cross examination insofar as what I consider germane to the direct. There are about two or three subjects relating to the defense more than to the direct examination. I wonder if I might have permission to go into them. I know they are out of order, but ask permission in order to save the convenience of the witness.

The Court: That would be considered direct examination as your witness.

Mr. Hurd: Yes, as my witness.

The Court: I presume you want to do that in order to avoid bringing the witness back?

Mr. Hurd: That is right.

The Court: I see no objection.

Lawrence Fisher, called as a witness on behalf of General Motors Corporation, having been previously sworn, was examined and testified as follows:

Direct examination

By Mr. Hurd:

Q. The first subject I would like to go into, Mr. Fisher, is the situation that existed at the time of the collapse of Mr. Durant in the fall of 1920. Did you have any discussion with anyone at General Motors regarding his collapse and what might be done to take care of the situation that the company found itself in?

A. Yes.

[fol. 1006] Q. With whom?

A. With Mr. Raskob.

Q. About when was this?

A. Well, it was, I would say, around three or four weeks before the final collapse when the Morgan Company stepped in with the du Ponts. I don't know what those dates are.

Q. Where did this conversation take place?

A. In New York.

Q. Who was present besides yourself and Mr. Raskob?

A. Just Mr. Raskob and Fred and I.

Q. Your brother Fred?

A. My brother Fred.

Q. What was the discussion or the conversation?

A. Well, the conversation was along the lines of what had to be done. At that time they didn't know—Durant had at that time stock in all the brokerage houses and they did not know how much he had, or how much he was obligated for, ~~and it was a question of getting all that information~~ together at that time, and they were working out different plans. They had different plans in mind at the time.

In the meantime, the stock was dropping every day. They could not support it, and it meant that either General Motors would go in the hands of a receiver—that is where it got to—or there had to be a financial arrangement made, and in the discussion, the point came up the only way that was open was that Fisher Body would take over General Motors.

Q. Who suggested that?

A. Mr. Raskob.

Q. Did you and your brother Fred take any position on that subject at that time?

A. Not at the time, because it was just a discussion of what possibly could happen. They wondered how we felt about it, and we said we would have to deal with that one; [fol. 1007] we would have to think it over. It was a pretty big thing to deal with, and their decision was at the time that Fisher Body had a credit position with the banks which would enable us to borrow this money that was needed, and that was the situation.

Q. Did you ever reach a decision?

A. No.

Q. In the meantime, that transaction was handled in another method?

A. That is right.

Q. Now, I would like to turn for a moment, Mr. Fisher, to another subject, the subject of Fabrikoid. Certain documents have been introduced by the Government. They are Exhibits 450, 451, and 452, which are letters written in 1923 on the subject of the purchase of Fabrikoid by the Fisher Body Corporation, letters to you, some of them. Will you tell us what the Fabrikoid situation was in the Fisher Body Corporation at that time in 1923?

A. Well, the du Pont Company at that time, of course, was making all the material for the bodies, the open bodies, for the tops. It was the material we did not have to stretch over a radius whereby it would lose all the grain. There was a company in Toledo—I do not think we ought to bring this company's name in—that was in the business that developed an artificial leather. We started out originally and used the regular general cowhide leather, but that was too expensive, and we could not get enough of it, and with all the imperfections in the leather, such as the hide runs, we had to get an imitation, so Textileather developed—a company in Toledo, Ohio, developed a material that could cover the roof that was very satisfactory in that it had the print of this grain. It looked exactly like leather, and when you stretched it over the corners of the roof, you know, you did not pull out all the grain so that it no longer looked like leather.

[fol. 1008] The du Pont material would not do that. You could not stretch it, and if you did, there was no surface left to it, and my position was if we could get their material where we could use it, we would be glad to use it.

Q. What would be the occasion for your using that?

A. Well, the occasion was we only had one source of supply, and we thought that was a dangerous position to be in, with a big volume of business that we had, and the company at that time was set up with stock ownership, with a couple of brokers, and one thing and another that involved——

Q. You are referring to the Toledo Company?

A. To the Toledo Company. It was a situation that was not healthy. I will put it that way, and we thought that the du Pont Company with their facilities should make this material and they finally did make it.

They went down to Toledo and found out how they did this job, and they got the material in and finally we approved it, and then we ordered it.

Q. Who instigated the du Ponts interest in this, of changing their material?

A. Their representative in Detroit. I have forgotten the man. I think it was before George Staples came into the picture representing General Motors, or representing the du Ponts in Detroit.

Q. Did you discuss the subject with their representative?

A. Oh, yes, sure, time and time again.

Q. At whose instance did these discussions take place, at his or at yours?

A. Mine.

Q. What was the occasion for your taking it up with them?

A. I wanted to get another source of supply. We were vitally interested in getting another source of supply because we had to have roof material, and if something hap- [fol. 1009] pened over in Toledo, the quality of the product was not as good as we would like to have them.

Q. Who, in the Fisher organization made the decision to use the du Pont material once they had a satisfactory material?

A. I made the decision.

Q. Were you requested to make that by anyone in General Motors?

A. No, sir.

Q. I would like to turn now to another subject, a little more elaborate one, perhaps, the subject of "Duco."

A. Yes, sir.

Q. Did you have experience with the paints on car bodies, Fisher bodies, in the pre-"Duco" days?

A. I handled the "Duco" situation from the first can of it we got.

Q. Well, did you have jurisdiction or supervision over the painting before you had "Duco"?

A. That is right.

Q. Will you tell us briefly what the procedure was for painting cars before you had "Duco," that existed in your plant.

A. Well, the process of painting an automobile—let us take Cadillac, a closed car, which we were dealing with at that time.

The operations that we went through from the time we put on the first coat of primer which was more or less of a coat to seal the metal from rusting and all, until we finally got to the varnish, that took ordinarily about twenty or twenty-one days. That was the schedule that it took from the time we put on the first coat of primer.

The next day, there was an operation of glazing. In those days, we did not get steel like we get today. In other words, the companies knew nothing about these high finishes of steel that we are dealing with today.

[fol. 1010] In other words, it was like a soft iron, and the surface was bad, and then we had a lot of filling to do. Then we had to do what we call the glazing operation. It was like a putty. That was a white lead with linseed oil.

Q. You filled the pits in the metal with that?

A. Yes, the pits. There were spots that were rough, that had been filed off. Then we had a surfacer. We put five coats on over that, what we called—this was rough stuff, that was the trade name, and that was the operation.

That had to dry over twenty-four hours, and in those days, there were no ovens, no kilns. We didn't know anything about them. So, after five days, then they were rubbed out with pumice, you know, and water, which was a very bad operation. And that was another day's operation.

Then they went through another operation, and they had to be touched up again on account of the rust. Then the next operation was the color operation. Then the next day there was a coat of color varnish and the second day, it was another coat of color varnish, and on the third day a coat of color varnish, then the body had to sit usually—depending on the condition of the weather.

Where we had a lot of humidity, when it didn't dry, it took four or five days sometimes before we could put these coats on, and they were then rubbed with pumice to get the surface smooth before the last coat of finish varnish was applied.

And in the meantime there was a striping operation in those days. The closed bodies were striped. They are not today.

[fol. 1011] So, it was a long process from the time we started to paint a closed car until it was finished.

Q. What was the space situation? How did you handle those cars for drying purposes as this operation went on?

A. Well, I was figuring the other night, you take the average closed body in those days, in those days there was no such thing as a conveyor, and all of the things we are dealing with today, and the bodies were all put on trucks, these closed bodies, and they were all moved by hand.

Well, I figured out that the average body at that time, a Cadillac, or regardless of what it was, took about one hundred square feet of floor space, one hundred feet of floor space, so if you had a thousand or a hundred bodies of one model going through, you know, you see, well, you had two thousand—you just had a hundred times that much, a hundred times a hundred, you see, in floor space that was occupied all of the time from the time that body started, until it was finished.

Do you get me? Is that clear?

Q. Yes. You referred to the problem of humidity, were there any other problems incident to the drying?

A. Well, another thing was the damage. When you had paint, varnish, the atmosphere when you put the last coat of varnish on, in those days we had a big dark room where we used to put the bodies in the last coat, because the flies won't go where it is dark. If a fly got on a panel and crawled along, that meant the re-finishing of the whole panel, and it kept the dirt out.

These were sealed like a vault; these rooms. If the weather wasn't good, and the humidity was very high, the [fol. 1012] varnish wouldn't flow. Well, it meant that there were rejections the next day. I have seen as high as fifty per cent, sixty per cent rejections, and then it was a matter of three or four or five days before you could touch that body, because the varnish was soft. You couldn't rub it, and surface it down, and get it ready for another coat of finishing varnish, and it was a terrible job, or one of the worst problems about the paint.

Q. If a car became damaged, scratched or bumped, did you just touch up the area that was damaged?

A. No. You see, when you took and scratched a door on your car, then you had to putty up that scratch, and you had to go all through these operations, and it was a matter of six, seven, eight days, and then you would have to revarnish that whole panel, and when you put another coat on—if it was a light color, and you put another coat on top of the finish varnish, it changed the color, so it was just—it was a terrible problem.

That is why when we were talking before, they only painted cars black, dark blue and green—just what I am talking about now, you see.

Q. How durable was the finish once you had it complete?

A. It was never durable. We used the best materials that we knew from our experience. The painting operation was the most important part of building a closed body. We bought the best material. We had a lot of experience at home working with paint materials, and in fact the varnishes, Murphy Varnish we used, we used when we were boys.

Mr. Harris: May we inquire the period of time of which the witness is talking about?

[fol. 1013] By Mr. Hurd:

Q. When was the procedure that you have outlined, in operation?

A. When was this in operation?

Q. Yes.

A. Before "Duco" came in.

Q. From the standpoint of years, during what period was it?

A. What period?

Q. Yes.

A. It has been that way, you know—it was that way in the carriage days.

Q. How long did it last, up until you had "Duco" in the early 20's?

A. That's right, until "Duco" came in the picture.

Q. To what extent did this painting problem have an effect on the capacity of your company to put out bodies?

A. Well, the result was that when we got the "Duco" you know, you see, and could paint a Cadillac car in six or seven days, and shorten the time up, you know, you see, to one-third, it meant we just tripled our production in the same amount of floor space. If we would have carried on with paint the way we were going, we would have had to put a roof over Michigan.

Q. In order to take care of the cars?

A. To take care of the painting operations.

Q. Did Fisher Body Corporation conduct any research or work in the field of finishes to try to solve this problem?

A. We were dealing with it with all of the paint companies. It was a terrific problem, and when you have a problem you deal with it, and especially since it was incorporated, you see, in the price that made up the price with the closed body that made up this big operation of painting.

[fol. 1014] Q. When did you first hear of "Duco", and from what source?

A. Well, we heard from "Duco", one of the "Duco" representatives came in.

Q. You don't remember his name?

A. Oh, I can't do that now.

Q. About when was it?

A. Oh, I would say around 1924, along in there, right after we became part of General Motors.

These paint men, that was the custom in those days, you know, and they were all working on all kinds of materials, because they knew the problem as well as we did, and they were also working on every kind of a material that was going to shorten the time, and all, and varnishes that would dry in four or five hours, and all of those things, and so we had a regular laboratory, you know, not like we have today, but just a practical one where we used to take the big panels and put them on the roof, you know, you see, and leave them up there and do our testing work on our own cars, and the brothers' cars, and the foremen's cars, and we painted the panel with this supplier's paint, and his varnish, and all, and so we just had kind of a moving laboratory all the time to see if we couldn't get something that would shorten the time of this painting operation.

Q. When this du Pont man came in with this "Duco" at the beginning, did you have any discussion with him?

A. Yes, sure.

Q. What was the nature of that?

A. Well, he wanted us to, like all paint salesmen that came in, he wanted us to try this material and see what we thought of it.

[fol. 1015] Q. What did you do?

A. We got busy on it. We started to work with it. Mr. Breslin, who was then superintendent—

Q. How do you spell that name?

A. Breslin, John B-r-e-s-l-i-n, a man that we brought from the east, from Chauncey Thomas. They were one of the outstanding carriage builders. They only built very expensive carriages in Boston.

Q. Breslin was your paint superintendent at Fisher Body at this time?

A. That is right. And he—in fact, he spent most of his time working with all these new products, things that the paint companies—in those days the paint companies were all not in very good shape financially and otherwise, you see. It wasn't a very good business as a whole. We naturally tried everybody's material that came in.

We had had some experience during the war. We had built a lot of airplanes for the Government in Fisher Body. At that time they were all covered with linen, and then we applied what we called dope, which was practically the same base as "Duco."

Q. A type of lacquer?

A. It was a lacquer, yes. That started us thinking. Then when they brought in this sample, you know——

Q. The sample of "Duco"?

A. Yes, "Duco," and with the experience that we had had on the application of this lacquer, you know, and saw the action of the weather on it—the weather had no effect on it at all, and we were vitally interested in the "Duco."

Q. What, if anything, did you do about the new dope, this "Duco"?

A. What is that?

Q. What did you do about this new dope, this "Duco"?

A. We started right in to experiment with it, and the first [fol. 1016] "Duco" that came, why, in the first place, we were afraid it was going to blow in the can before we opened it, you see, because it was highly explosive. At least, we thought so.

We painted our panels, and at first the "Duco" would pit. There was no surface to it. You couldn't rub it. You couldn't do anything with it. It was just a raw material, like everything else that starts. Their chemists at the du Pont Company, their men kept coming back and forth making this change. Breslin says do this with it, and do that with it.

I watched it all the time because it was so important. It was so important to us, you see.

Q. From what standpoint?

A. The cost of our products.

Q. Production standpoint?

A. Production standpoint and everything. It was the most important thing I could deal with at that time. If we could shorten that time—

Q. Of paint?

A. Of paint. The other divisions in General Motors were doing the same thing.

Q. How long was it before you had a "Duco" that was satisfactory for placing on automobiles?

A. I think it was about a year, a year and a half, if my memory serves me. We painted some cars. I know I had a little Studebaker at that time that I painted with it, you know. Of course, it was hand polished and all, and I used to take it around and show it to the divisions and whatnot, to try to sell the idea. Of course, the original "Duco" had no luster to it. It was as flat as this paper.

It had no luster, and the public, being accustomed to a very high finish on cars, the same as they had had on bug- [fol. 1017] gies, and for the public to take a car that looked to them at that time like it was four or five years old, you know, it was a job selling.

The divisions at that time, they were all working with it. I think Buick up there was doing more with it because other fellows weren't worried too much. They were having too much trouble with their cars to worry much about their paint. But Buick at that time were really dealing with it, because Buick made their own open cars, pretty much of their own open cars, and they wanted to eliminate all this long schedule they had to deal with, you know.

In those days these cars all had to be loaded in boxcars, in the handling of them, and in those days you took a painted car and you put those paper covers over it. Well, by the time it got to California, with the humidity, dampness, and whatnot, it got out there and the paper would be all stuck to the body.

It meant a refinishing job. It was just one headache from start to finish.

Q. Was that with "Duco" or with the paint?

A. No, that was with the paint.

Q. On what cars did you put "Duco" once you were satisfied that the "Duco" would solve the problem?

A. We put it on the Oakland first. They needed some real help, so we thought this was a fine advertising thing. Mr.

Hannum at that time was the general manager of the Oakland Company, and we sold him the idea that he could start that off.

They got a marvelous public reaction to it, you know. He went on to say he could leave his car out in all kinds of [fol. 1018] weather, didn't have to worry about the varnish and water spotting, and all the things that went with it, and it was durable, serviceable.

It sold a lot of cars. It just lifted Oakland right up, got them going.

Q. About when was it that Fisher Body went to "Duco" practically completely for closed bodies?

A. Oh, that was in—that was quite a selling job. We had a tough time with Cadillac because they had been used to those very high finishes, you know, and "Duco," the first couple of years, if a car was in the sales room for very long it, what we called at that time, it took on a kind of gloom like, you know; cloudy, got cloudy like a window.

The Cadillac organization, of course, just couldn't put up with that. And prices on the Cadillac car were so high, and they wanted to—Cadillac cars at that time were all built of aluminum, which was very costly, and they decided that they should have a lower priced Cadillac in the line.

So we made a set of hand tools and made some steel, the first steel bodies for Cadillac, which we then painted with this Duco.

Q. About when was that?

A. Oh, I would say this was in 1924.

Q. At about that time were you painting the bodies for the other divisions with "Duco"?

A. Some of them, yes. I think Buick, after Oakland. As I remember, I think that Buick went along because Weckler up there was then works manager, and Buick had a big production. They said they would take hold of it and they would work it and take all the grief that went with it.

Q. As far as the bodies painted by Fisher Body were [fol. 1019] concerned, who made the decision as to whether or not to use "Duco"?

A. I made the decision.

Q. You made the decision to paint the bodies?

A. Yes, I made the decision that it would stand up and we would stand back of it.

Q. At that time, from what source were you obtaining "Duco"?

A. What was that?

Q. At that time, from what source were you obtaining the "Duco"?

A. Just from the du Pont Company.

Q. Was there any other source available at that time?

A. Not at the time when we started.

Mr. Harsha: What time are you referring to?

Mr. Hurd: I am referring to 1924.

The Witness: Oh, yes, there were other sources.

By Mr. Hurd:

Q. From whom were you obtaining it in 1924?

A. Well, I think we were buying material from Forbes Varnish. I think they were the first company. Just as soon as they got hold of a can of it, you know, they started to experiment with it because they knew that lacquer was going to be the answer to the varnish problem.

Being in the varnish busines, they got right into this, what they called "lacquer." They didn't call it "Duco." It was a lacquer. They had their own name for it, their own trade name, but it was the same thing.

Q. Did you buy any from Forbes then?

A. Yes, we did.

Q. And from any other source?

A. Yes, Rinshed-Mason.

[fol. 1020] Q. Did you continue to buy from du Pont also?

A. Yes.

Q. Were those three companies, Rinshed-Mason, Forbes and du Pont, your principal suppliers of the lacquer?

A. That is right.

Q. Do you know, has that pretty much continued throughout the years at Fisher Body?

A. I don't think it has changed. I don't know whether Forbes is still in the picture or not. That I wouldn't know, but I know Rinshed-Mason still sells to General Motors.

Q. Up until the time that competitors had the product, I suppose all of your "Duco" or lacquer was purchased from the du Pont Company?

A. That is right.

Q. When competition came into the picture, you bought from competition also?

A. That is right, yes.

Q. Now, you have referred to taking the matter up with divisions. You said, "We took it up with the divisions" about using "Duco." By "we," whom do you refer to?

A. I mean Fisher Body Organization.

Q. Was that true of all divisions?

A. Yes.

Q. All the motor divisions?

A. Oh, yes, all the motor divisions. You know, it was a selling job. You had to sell the sales manager because he wanted the thing that was easiest to sell and the thing that looked the best, and it was a selling job. We were poor salesmen in those days.

Q. But you did succeed in selling all the divisions on going to lacquer?

A. That is right, because they all had their troubles. They had their troubles all over the country, you know, with paint. They didn't guarantee any paint, and it wasn't the custom of the industry at that time for anybody to guarantee paint. [fol. 1021] You couldn't, because the fellow with the car could drive it in—at that time we didn't have garages. They drove it in a horse stable.

Well, you let a car in a horse stable, you know, with the ammonia conditions from the offal from the horse, and leave it stand there for two weeks, and you would have no varnish on the car. So they had their troubles with their own paint. So it wasn't just Fisher Body.

Q. Was it about 1924 that the car divisions as well as Fisher Body got into substantial——

A. What is that?

Q. It was about 1925 that the car divisions as well as Fisher Body was using the lacquer substantially entirely for their finishing?

A. Yes, and competition, you know, got to using it, too.

Q. During this time you were making bodies for some competitive cars, up until 1924 and including 1924?

A. Yes.

Q. Did you finish any of those with "Duco"?

A. Sure; sure.

Q. What cars, what makes?

A. We started right out with Chrysler, with their closed cars. We never did paint one of them.

Q. At the time that Chrysler started in, you painted those with "Duco" or with competitive products from the beginning?

A. They were painted with "Duco," if I remember rightly. But it might have been some of Rinshed-Mason because Chrysler at that time, if you remember, his cars had a lot of bright colors, light blue and all. When he first put his first original car out, they all had a lot of color on. He liked color himself, and he said, "As long as you get 'Duco' and can handle it, let's have colors."

Q. To return for a moment to the point when you went to Cadillac in 1925, you have told us earlier about bring- [fol. 1022] ing those cars out in a variety of colors.

A. Yes.

Q. What lacquer did you use at Cadillac?

A. It was Rinshed-Mason.

Q. What was the occasion for your using Rinshed-Mason?

A. Well, the reason for using Rinshed-Mason was that they were located in the City of Detroit, and "Duco" was made in Delaware, a long ways off.

At that time, you see, while Fisher Body was painting the body these colors, the hoods and fenders were painted at Cadillac, and at that time you could get one batch of "Duco" and that, of course, went with paint also—you know, the same color, there was never two batches alike. That is, you just had to use, mark every can that came in.

We had a serial number on it, so we used that up. We used that up. and even went as far in some of the big production, we would set some of it aside and put a number on it in case we had a condition in the field to meet, so we could go and find the color, you know, because you might send a fellow some paint out there and it wouldn't match at all.

Q. Did Rinshed-Mason have a plant at Detroit?

A. Yes.

Q. That is where the Cadillac plant was?

A. Yes, near the Cadillac plant, you see, and the service, and their man was back and forth, and the quantities weren't large at that time, and the service and everything that went with it, and we just bought Rinshed-Mason paints.

Q. Did that continue throughout the period that you were connected with Cadillac?

A. That is right, as I remember.

Mr. Hurd: If the Court please, that completes my examination. I will tender the witness back to counsel for the plaintiff for both redirect and cross examination.

[fols. 1023-1025]

Mr. Harsha: Your Honor, I wonder if the Government might have about five minutes before we resume?

The Court: The Court stands recessed for fifteen minutes.

(Recess taken.)

Mr. Harsha: No cross examination, your Honor.

Mr. Hurd: Is the witness then discharged?

The Court: There will be no more questions?

Mr. Harsha: Not as far as the Government is concerned.

Mr. Hurd: Thank you.

The Court: The witness is excused.

(Witness excused.)

Mr. Hoyt: The Government now offers Exhibit No. 490, which is the next group of documents continuing along with the relation of the Fisher Body Company.

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[fol. 1026] Mr. Hoyt: I next offer Government's Exhibit No. 496, which is entitled "Excerpt from July 20, 1929 Fabrics & Finishes Department, Monthly Report, June, 1929, to Executive Committee of du Pont Company.

(Said Government's Exhibit No. 496 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 496.)

Mr. Hoyt: We next offer Government's Exhibit No. 497, a letter of July 20, 1928, addressed to Mr. George Staples of the du Pont Company from J. L. Pratt, Vice President.

(Said Government's Exhibit No. 497 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 497.)

Mr. Hoyt: We next offer Government's Exhibit No. 498, [fols. 1027-1028] which is a letter addressed to Mr. J. L. Pratt and dated August 8, 1928, from Mr. Staples.

(Said Government's Exhibit No. 498 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 498.)

Mr. Hoyt: We next offer Government's Exhibit No. 499 on the letterhead of General Motors Corporation, General Purchasing Committee, and the subject is: "du Pont Super Discount Agreement," dated November 10, 1930, and it is to the attention of the Purchasing Agents, All Divisions:

(Said Government's Exhibit No. 499 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 499.)

Mr. Ford: We next offer Government's Exhibit No. 500, which is a letter from J. J. Moosman to Mr. A. B. Echols, Chairman, Subcommittee on Purchases & Sales of the du Pont Company. The date is June 30, 1937, and I would like to read just the first paragraph:

> "It is customary for the Fisher Body Division of General Motors to purchase their requirements of leather substitute materials on definite yardage contracts covering periods of from six to eight months."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 500.)

Mr. Ford: I next offer Exhibit No. 501.

* * * * * * *

[fol. 1029] Mr. Ford: We next offer Exhibit No. 502, which I would like to read, if the Court will bear with me. This is a very difficult photostat to read. It is a letter from

J. J. Moosman to Mr. A. B. Echols dated January 15, 1940, subject, Chevrolet Motor Company:

(Said Government's Exhibit No. 502 was thereupon read to the Court by Mr. Ford.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 502.)

[fol. 1030)] We next offer Government's Exhibit No. 503. This is a memorandum from the Fabrics & Finishes Department—Automotive Finishes Division, to the Chairman, Sub-Committee on Purchases & Sales, signed by J. J. Moosman.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 503.)

* * * * * * *

I next offer Government's Exhibit No. 504. This is a summary of du Pont purchases from and sales to General Motors Corporation, dated November 2, 1948. It is for the years 1938 to 1947, inclusive, and seven months of 1948.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 504.)

* * * * * * *

[fol. 1031] We next wish to offer Government's Exhibit No. 505, and do not propose to read any part of it.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 505.)

Mr. Ford: We next offer Government's Exhibit No. 506, without reading.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 506.)

Mr. Ford: We next offer Government's Exhibit No. 507, without reading.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 507.)

Mr. Ford: We next offer Government's Exhibit No. 508.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 508.)

[fol. 1032] Mr. Ford: This is a letter from J. J. Raskob to Walter S. Carpenter, Jr., Treasurer, General Motors Securities Company, dated July 12, 1927.

(Said Government's Exhibit No. 508 was thereupon read to the Court.)

Mr. Ford: We next wish to offer Government's Exhibit No. 509, which is an extract from minutes of regular monthly meeting, Board of Directors, du Pont Company, July 18, 1927, without reading.

(Said exhibit, so offered and received in evidence, was marked Government's Exhibit No. 509.)

Mr. Hoyt: We next offer Exhibit No. 510, which is on the letterhead of the E. I. du Pont de Nemours and Company, entitled "Advice of Action."

It is addressed to Mr. Donaldson Brown, Vice President, General Motors Corporation, copies to Mr. J. B. Eliason and Mr. A. B. Echols. Signed M. D. Fisher, Secretary Finance Committee, dated October 20th, 1931.

(Said Government's Exhibit No. 510 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 510.)

Mr. Hoyt: I next offer Exhibit No. 511, dated October 22, 1931, which is addressed to Mr. Donaldson Brown, from M. D. Fisher, with copies to Mr. A. B. Echols and Mr. J. B. Eliason.

[fol. 1033] (Said Government's Exhibit No. 511 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 511.)

Mr. Hoyt: I next offer Exhibit No. 512, which was on the letterhead of J. P. Morgan & Company, dated October 29th, 1931, to W. S. Carpenter, Jr., Vice President of the du Pont Company. "Private and confidential."

(Said Government's Exhibit No. 512 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 512.)

Mr. Hoyt: I next offer Government's Exhibit No. 514, dated July 6, 1953, which is addressed to Finance Committee from Treasurer, signed by J. B. Eliason, subject "General Motors common stock."

> "We originally purchased General Motors common from the Fisher Brothers—"

There follows a tabulation of the various purchases which the Government does not propose to read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 514.)

Mr. Hoyt: I next offer Exhibit No. 515, which is addressed to Finance Committee from Treasurer, [fol. 1034] signed J. B. Eliason, dated November 29th, 1935.

(Said Government's Exhibit No. 515 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 515.)

Mr. Hoyt: We now wish to offer Exhibit No. 516, a memorandum addressed to Heads of Departments, dated March 20, 1918.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 516.)

(Said Government's Exhibit No. 516 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Exhibit No. 517, a memorandum signed by M. D. Fisher, Secretary, Executive Committee, addressed to Heads of Departments, dated July 23, 1918.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 517.)

(Said Government's Exhibit No. 517 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Exhibit No. 518, a memorandum from M. D. Fisher, Secretary, Executive Committee, addressed to Heads of Departments, dated December 6, 1923.

* * * * * * *

[fol. 1035] Mr. Hoyt: I next offer Exhibit No. 519, which is a letter from Ed H. Ford, assistant director, to H. R. Kinsley, Assistant to President, copies to Lammot du Pont and L. P. Mahony, Director of Sales, dated January 15, 1921.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 519.)

(Said Government's Exhibit No. 519 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: I next offer Exhibit No. 520, a letter from H. R. Kinsley, Assistant to President, addressed to Ed H. Ford, Assistant Director, dated January 17, 1921.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 520.)

(Said Government's Exhibit No. 520 was thereupon read to the Court by Mr. Hoyt.)

[fols. 1036-1037] Mr. Hoyt: We next offer Government's Exhibit No. 521, a letter from Ed H. Ford, Assistant Director, addressed to Mr. G. D. A. Belin, President, dated January 19, 1921; copies to Mr. Lammot du Pont, Mr. L. P. Mahony and Mr. A. J. Abrams.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 521.)

(Said Government's Exhibit No. 521 was thereupon read to the Court by Mr. Hoyt.)

[fol. 1038] The Government will now offer Government's Exhibit No. 522, still in Volume 3, your Honor.

The Court: Proceed.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 522.)

[fol. 1039] Mr. Hoyt: We next offer Government's Exhibit No. 523, a letter by C. A. Petterson, General Manager, on the letterhead of E. I. du Pont de Nemours & Company, to Alfred Sloan, Vice-President, General Motors Corporation, with a copy to Mr. Irenee du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 523.)

[fol. 1040] Mr. Hoyt: We next offer Government's Exhibit No. 524, which is on the letterhead of E. I. du Pont de Nemours & Company, signed by Irenee du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 524.)

Mr. Hoyt: We next offer Exhibit 525 from E. W. Furst to William Richter, Fabrics and Finishes Department, dated January 3, 1931.
[fol. 1041] Mr. Hoyt: We next offer Exhibit No. 526 from E. W. Furst to Lammot du Pont, President of the du Pont Company, dated January 8, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 526.)

(Said Government's Exhibit No. 526 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: I should now like to call the Court's attention to paragraph 82 of the Complaint, and to the answer of the du Pont Company therefo.

The du Pont Company denies the averment in this paragraph except that it admits and avers that on occasion and for various purposes its employees have requested and obtained information from General Motors as to its suppliers.

Mr. Ford: We would like next to offer Exhibit No. 527, a letter from John L. Pratt to R. R. M. Carpenter, dated April 13, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 527.)

[fol. 1042] (Said Government's Exhibit No. 527 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Exhibit No. 528, a letter from the Assistant Manager of du Pont, Pyralin Department, to Mr. John L. Pratt, dated April 20, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 528.)

(Said Government's Exhibit No. 528 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: I do not propose to read the table attached.
I next offer Exhibit No. 529, a letter from L. R. Beardslee to J. H. Main, of the Purchasing Staff, dated January 18, 1934.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 529.)

(Said Government's Exhibit No. 529 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: I next wish to offer Government's Exhibit No. 530, and read it.
It is a letter from G. H. Kerr to P. S. du Pont, and it is dated March 31, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 530.)

[fol. 1043] (Said Government's Exhibit No. 530 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: I next offer Government's Exhibit No. 531.
Can you supply the author of this letter?
Mr. Harlan: Mr. P. S. du Pont.
Mr. Ford: A letter from Pierre du Pont to Alfred P. Sloan, dated April 7th, 1924.

(Said Government's Exhibit No. 531 was thereupon read to the Court by Mr. Ford.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 531.)

Mr. Ford: I next offer Government's Exhibit No. 532, a letter from Alfred P. Sloan, Jr., to P. S. du Pont, dated April 12th, 1924, on the subject re: Matter of Reciprocity:

(Said Government's Exhibit No. 532 was thereupon read to the Court by Mr. Ford.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 532.)

Mr. Hoyt: I next offer Government's Exhibit No. 533 from G. H. Kerr to Pierre S. du Pont on the letterhead of the du Pont Company, dated April 18th, 1924.

(Said Government's Exhibit No. 533 was thereupon read to the Court by Mr. Hoyt.)

[fols. 1044-1045] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 533.)

Mr. Hoyt: I next propose to offer several excerpts from Exhibit No. 534.

[fol. 1046] Mr. Hoyt: I next offer Government's Exhibit No. 535, addressed to Alfred P. Sloan, Jr., President, General Motors Corporation, and signed by G. H. Kerr with copies to Mr. William Coyne and Mr. P. S. du Pont, dated April 30th, 1924.

(Said Government's Exhibit No. 535 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 535.)

We next offer Exhibit No. 536, which is headed "Matter of Relation Between Fisk Rubber Company and du Pont Company," dated August 13, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 536.)

Mr. Hoyt: This is addressed to Mr. James Lynah, Secretary, General Purchasing Committee, General Motors Corporation. The letter is from Alfred P. Sloan.

(Said Government's Exhibit No. 536 was thereupon read to the Court by Mr. Hoyt.)

[fol. 1047] Mr. Hoyt: We next offer Government's Exhibit No. 537, which is entitled "Excerpts from Minutes of Meeting No. 16 of Interdivisional Relations Committee—General Purchasing Committee held September 5, 1924."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 537.)

Mr. Hoyt: This is on the letterhead of the General Motors Corporation, and is entitled "Reciprocity."

(Said Government's Exhibit No. 537 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Exhibit No. 538, on the letterhead of General Motors Corporation, the General Purchasing Committee.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 538.)

Mr. Hoyt: This is dated August 13, 1924, signed by James Lynah, addressed to Mr. G. H. Kerr, with a copy to Mr. Pratt.

(Said Government's Exhibit No. 538 was thereupon read to the Court by Mr. Hoyt.)

Mr. Ford: We next offer Government's Exhibit No. 539, letter from James Lynah to Mr. Irenee du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 539.)

[fol. 1048] Mr. Ford: This is dated September 6, 1924, and reads as follows:

(Said Government's Exhibit No. 539 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Exhibit No. 540, a letter from Irenee du Pont to Mr. James Lynah, dated September 8, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 540.)

(Said Government's Exhibit No. 540 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Exhibit No. 541, a letter from Hunter Grubb to Mr. John Lee Pratt, marked "Personal & Confidential" dated September 11, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 541.)

(Said Government's Exhibit No. 541 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Government's Exhibit No. 542, a letter from J. L. Pratt to Mr. Hunter Grubb, marked "Personal and Confidential," dated September 22, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 542.)

(Said Government's Exhibit No. 542 was thereupon read to the Court by Mr. Ford.)

[fol. 1049] Mr. Ford: We next offer Government's Exhibit No. 543, a memorandum to Mr. Lammot du Pont from L. P. Mahoney, dated January 23.

* * * * * * *

[fol. 1050] Mr. Ford: I next offer Government's Exhibit No. 544, a letter from W. F. Harrington to Mr. J. L. Pratt, dated January 29th, 1929.

(Said Government's Exhibit No. 544 was thereupon read to the Court by Mr. Ford.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 544.)

[fol. 1051] Mr. Ford: I next offer Exhibit No. 545, which is a letter from J. L. Pratt to W. F. Harrington, dated January 31, 1929.

(Said Government's Exhibit No. 545 was thereupon read to the Court by Mr. Ford.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 545.)

Mr. Hoyt: I next offer Government's Exhibit No. 546, a letter from J. W. Fitterer, Manager, Cellulose Acetate Sales, on the letterhead of the du Pont Rayon Company, dated August 30th, 1934, addressed to Mr. John Lee Pratt, Vice President of General Motors.

(Said Government's Exhibit No. 546 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 546.)

Mr. Hoyt: I next offer Government's Exhibit No. 547 from Mr. Pratt to Mr. J. W. Fitterer, dated August 31st, 1934.

(Said Government's Exhibit No. 547 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 547.)

[fol. 1052] We next offer Government's Exhibit No. 548 from J. W. Fitterer to J. L. Pratt, Vice-President, General Motors Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 548.)

* * * * * * *

[fol. 1053] Mr. Hoyt: We next offer Government's Exhibit No. 554, which is a letter on the letterhead of du Pont Rayon Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 554.)

Mr. Hoyt: This is from the General Manager of the Technical Department, addressed to Mr. John Lee Pratt, dated April 6, 1934.

(Said Government Exhibit No. 554 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: We next offer Government's Exhibit No. 555, dated April 8, 1934.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 555.)

* * * * * * *

[fols. 1054-1056] Mr. Ford: The next segment of the documentary evidence which the Government proposes to offer is in Volume 4, your Honor, and is directed to paragraph 64 of the complaint, which is the allegation on agreements relating to division of fields in the development and exploitation of chemical discoveries.

There is an admission by the du Pont Company. It admits that both prior to its investment in General Motors in 1917 and since then, it has extended its operations into the manufacture of paints and varnishes and related products and also other chemical and allied products.

* * * * * * *

Mr. Ford: We next offer Government's Exhibit No. 557, a document entitled, "Advice of Action" from Mr. M. D. Fisher, Secretary Executive Committee, to Mr. R. R. M. Carpenter;

[fol. 1057] Mr. Ford: I next offer Government's Exhibit No. 558, a document entitled "Advice of Action" from the Secretary of the Executive Committee, Mr. Lammot du Pont, with a copy to Dr. C. L. Reese, and the subject is "Work done by Chemical Department for General Motors Corporation, Action taken by Executive Committee at meeting of January 12, 1920."

* * * * * * *

[fols. 1058-1059] Mr. Ford: I next offer Government's Exhibit No. 575, a memorandum from Lammot du Pont to the Executive Committee dated April 22nd, 1920, and I wish to read only portions.

[fol. 1060] Mr. Ford: I next offer Government's Exhibit No. 576.

* * * * * * *

[fols. 1061-1062] Mr. Ford: We next offer Exhibit No. 576, memorandum from Irenee du Pont to Mr. Lammot du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 576.)

Mr. Ford: This is dated May 3, 1920;

(Said Government's Exhibit No. 576 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Government's Exhibit No. 230, a letter from Charles L. Reese, Chemical Director, to Mr. Lammot du Pont, dated April 28, 1920.

I desire to read only the last paragraph on page 2.

Mr. Harlan: Mr. Ford, I think you have given the wrong number. It should be No. 577. No. 230 is the deposition number.

[fols. 1063-1065] We next wish to offer Government's Exhibit No. 579, which is entitled "Memorandum of Discussion of Proposed Agreement Between the du Pont Company and General Motors Corporation by which the Services of the Chemical Department of the du Pont Company might be made Available to the General Motors Corporation."

[fols. 1066-1068] We next offer Exhibit No. 580.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 580.)

[fol. 1069] Mr. O'Brian: Solely for clarification, I would like to draw the Court's attention to the fact that this exhibit or proposed agreement which was just read was never executed as shown by Exhibit 598 subsequently. It was abandoned.

Mr. Ford: We will stipulate it was never formally signed. I do not want to stipulate that its terms or spirit was never carried out.

* * * * * * *

[fols. 1070-1072] Mr. Ford: We next offer Exhibit No. 581, a letter from Lammot du Pont to Mr. C. F. Kettering, President, General Motors Research Corporation, dated October 10, 1941.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 581.)

(Said Government's Exhibit No. 581 was thereupon read to the Court.)

Mr. Hoyt: I next offer Government's Exhibit No. 582 from C. F. Kettering to Lammot du Pont, dated October 21, 1921.

(Said Government's Exhibit No. 582 was thereupon read to the Court by Mr. Hoyt.)

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 582.)

Mr. Hoyt: I next offer Government's Exhibit No. 583, a letter from Lammot du Pont to C. F. Kettering, dated October 24th, 1921. I do not intend to read from that exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 583.)

[fol. 1073] Exhibit No. 585, consisting of a letter from Mr. Lammot du Pont to Pierre S. du Pont, dated October 31, 1921.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 585.)

Mr. Hernacki: The letter reads as follows:

(Said Government's Exhibit No. 585 was thereupon read to the Court by Mr. Hernacki.)

Mr. Hernacki: I now offer Government's Exhibit No. 584, consisting of a letter from Mr. C. F. Kettering, President, to Mr. Lammot du Pont, Vice-President, du Pont Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 584.)

Mr. Hernacki: This is dated November 5, 1921:

(Said Government's Exhibit No. 584 was thereupon read to the Court by Mr. Hernacki.)

Mr. Hernacki: I now offer Government's Exhibit No. 589, consisting of a letter from Mr. Lammot du Pont to Mr. C. F. Kettering, President, dated March 27, 1922, which I shall not read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 589.)

Mr. Hernacki: I now offer Government's Exhibit No. 590, consisting of a letter from Kettering, President, General Motors Research Corporation, to Mr. Lammot du Pont.

* * * * * * * *

[fols. 1074-1076] Mr. Hernacki: I now offer Government's Exhibit No. 591, consisting of a letter from Mr. Lammot du Pont to Mr. C. F. Kettering, President, General Motors

Research Corporation, dated April 1, 1922. I shall not read this.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 591.)

Mr. Hernacki: I now offer Government's Exhibit No. 592, consisting of a letter from C. F. Kettering to Mr. L. du Pont, Vice-President of the du Pont Company, dated April 3, 1922.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 592.)

[fol. 1077] Mr. Hernacki: I now offer Government's Exhibit No. 593, consisting of a letter from Mr. Lammot du Pont to Mr. C. F. Kettering, President, General Motors Research Corporation, dated April 14, 1922.

I shall not read this letter, but simply offer it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 593.)

Mr. Hernacki: I now offer Government's Exhibit No. 594, consisting of a letter from Mr. C. F. Kettering to Mr. Lammot du Pont, dated May 8, 1922.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 594.)

(Said Government's Exhibit No. 594 was thereupon read to the Court by Mr. Hernacki.)

Mr. Hernacki: I now offer Government's Exhibit No. 595, consisting of a letter to Mr. P. S. du Pont, from Mr. C. F. Kettering, dated May 2, 1922.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 595.)

(Said Government's Exhibit No. 595 was thereupon read to the Court.)

Mr. Hernacki: I now offer Government's Exhibit No. 598, consisting of a memorandum for file, written by Mr. Lammot [fol. 1078] du Pont, Vice President, and the date below the initials is November 6, 1922.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 598.)

Miss Hunt: We are now offering Government's Exhibit No. 598, a letter from Mr. K. W. Zimmerschied to C. M. Stine of E. I. du Pont de Nemours & Company dated October 28, 1919.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 599.)

(Government's Exhibit No. 599 was thereupon read to the Court by Miss Hunt.)

Miss Hunt: We are now offering Government's Exhibit No. 601, a letter from Thomas Midgley to the E. I. du Pont de Nemours & Company, attention Dr. Reese, Chemical Director, dated August 5, 1920, without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 601.)

Miss Hunt: We are now offering Government's Exhibit 602, a letter from Lammot du Pont to Mr. C. F. Kettering, dated August 14, 1920, without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 602.)

Miss Hunt: We are now offering Government's Exhibit [fol. 1079] 601, a memorandum from Pierre S. du Pont to Irenee du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 610.)

Miss Hunt: We are now offering Government's Exhibit No. 611, a letter from Mr. Thomas Midgley to Dr. C. M. Stine of E. I. du Pont de Nemours & Company, dated April 15, 1922.

* * * * * * * *

Miss Hunt: We are now offering Government's Exhibit No. 612, a letter from Irenee du Pont to C. F. Kettering, dated July 10, 1922; reading only a portion therefrom, the first paragraph:

* * * * * * * *

[fol. 1080] Miss Hunt: I now offer Government's Exhibit No. 613, a letter from Irenee du Pont to Dr. C. M. Stine, W. F. Harrington, and C. L. Reese, dated July 12th, 1922.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 613.)

(Said Government's Exhibit No. 613 was thereupon read to the Court by Miss Hunt.)

Miss Hunt: I now offer Government's Exhibit No. 615, a memorandum from F. O. Clements, Director of Research, General Motors Research Corporation, to the Executive Committee, General Motors Corporation, Mr. R. L. Beardsley, Secretary, with the subject, "Report of Research Laboratories for the Month of August."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 615.)

* * * * * * *

[fol. 1081] Mr. Ford: We next offer Government's Exhibit No. 617, a letter from Alfred P. Sloan to C. F. Kettering, President, General Motors Research Corporation, dated September 27th, 1922, with a carbon copy to Irenee du Pont.

* * * * * * *

[fols. 1082-1086] Mr. Ford: We next offer Government's Exhibit No. 618, a contract dated October 6th, 1922, and signed by E. I. du Pont de Nemours and Company, by Irenee du Pont, President, and General Motors Corporation by Pierre S. du Pont, President, and I would like to read a substantial portion of this contract.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 618.)

[fols. 1087-1090] We next offer Government's Exhibit No. 621, a letter from F. W. Pickard, General Manager, to Mr. Irenee du Pont, dated June 15, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 621.)

[fol. 1091] Mr. Ford: We would next like to offer Government's Exhibit No. 620, which I might characterize as an agreement between General Motors Chemical Company and the Standard Oil Company, the franchise for the distribution of tetra-ethyl-lead on the eastern seaboard which was referred to in the preceding exhibit.

I do not propose to read it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 620.)

Mr. Ford: We would like to offer Government's Exhibit No. 622 which is a letter from A. P. Sloan to Irenee du Pont, dated January 28, 1924. That is the one I just finished.

Mr. O'Brian: Yes, you are up to 623.

Miss Hunt: We are now offering Exhibit No. 623, a letter from Irenee du Pont to Alfred P. Sloan, Jr., dated February 2, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 623.)

(Said Government's Exhibit No. 623 was thereupon read to the Court by Miss Hunt.)

[fol. 1092] Miss Hunt: We now offer Government's Exhibit No. 624, a letter from Alfred P. Sloan, Jr., to Irenee du Pont, dated February 5th, 1024, together with an attachment thereto:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 624.)

* * * * * * *

[fol. 1093] I now offer Government's Exhibit No. 625, a letter from the President of General Motors Corporation to Irenee du Pont, dated January 12th, 1924, which will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 625.)

[fol. 1094] Miss Hunt: I offer now Government's Exhibit No. 626, a memorandum from Irenee du Pont to Mr. W. F. Harrington, dated January 14th, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 626.)

(Said Government's Exhibit No. 626 was thereupon read to the Court by Miss Hunt.)

Miss Hunt: I now offer Government's Exhibit No. 628, a letter from Irenee du Pont to the Executive Committee, dated January 14th, 1924, which will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 628.)

Miss Hunt: I now offer Government's Exhibit No. 630, a letter from Irenee du Pont to Alfred P. Sloan, Jr., dated January 18th, 1924, which will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 630.)

Miss Hunt: I now offer Government's Exhibit No. 631, a letter from Mr. Kettering to A. P. Sloan, Jr., dated September 8th, 1924, which will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 631.)

Miss Hunt: I now offer Government's Exhibit No. 640, a letter from Fin Sparre to Inspector General Patart of the [fol. 1095] Ministry of War, Paris, France, dated October 10th, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 640.)

(Said Government's Exhibit No. 640 was thereupon read to the Court by Miss Hunt.)

Miss Hunt: I now offer Government's Exhibit No. 641, a letter from Alfred P. Sloan, Jr., to Irenee du Pont, dated December 27th, 1924, which will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 641.)

Miss Hunt: I now offer Government's Exhibit No. 642, a letter from Irenee du Pont to Alfred P. Sloan, Jr., dated December 30th, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 642.)

* * * * * * *

[fol. 1096] I now offer Government's Exhibit No. 647, a letter from Thomas Midgley, Jr., to Irenee du Pont, dated April 8, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 647.)

* * * * * * *

[fol. 1097] I shall now offer Government's Exhibit No. 648, a letter from Irenee du Pont to Thomas Midgley, Jr., with copy to Dr. Fin Sparre and W. F. Harrington, dated April 9, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 648.)

* * * * * * *

[fol. 1098] Mr. Hernacki: I now offer Government's Exhibit No. 657, consisting of a telegram from Mr. C. F. Kettering to Mr. A. P. Sloan, General Motors, dated June 5, 1924. I shall not read it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 657.)

Mr. Hernacki: I now offer Government's Exhibit No. 659, [fols. 1099-1100] consisting of an inter-organizational letter from Mr. Pierre S. du Pont to Mr. Alfred P. Sloan, Jr., dated June 5, 1924. I shall not read it.

(Said Exhibit No. 659, so offered and received in evidence, was marked Government's Exhibit No. 659.)

Mr. Hernacki: I now offer Government's Exhibit No. 660, consisting of a letter from Mr. Irenee du Pont, President, du Pont Company to Mr. Alfred P. Sloan, Jr.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 660.)

Mr. Hernacki: This is dated June 26, 1924.

(Said Government's Exhibit No. 660, was read to the Court by Mr. Hernacki.)

Mr. Hernacki: I now offer Government's Exhibit No. 661, consisting of a letter from Mr. Alfred P. Sloan, Jr., to Mr.

Irenee du Pont, President of the du Pont Company, dated June 27, 1924.

[fols. 1101-1102] I now offer Government's Exhibit No. 662, a letter from Mr. Irenee du Pont, President of the du Pont Company, to Mr. W. F. Harrington dated June 30, 1924. I shall not read it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 662.)

Mr. Hernacki: I now offer Government's Exhibit No. 663 consisting of a letter from Mr. Irenee du Pont to Mr. Alfred P. Sloan, Jr., dated June 30, 1924.

* * * * * * *

I now offer Government's Exhibit No. 664, a letter from Alfred P. Sloan, Jr., to Mr. Irenee du Pont, dated July 8, 1924.

[fols. 1103-1104] Mr. Hernacki: I now offer Government's Exhibit No. 665 consisting of an extract from the Minutes of the meeting of the Executive Committee of General Motors Corporation duly held on the 27th day of February, 1924, and signed by George E. Brooks, Secretary.

* * * * * * *

Mr. Hernacki: I shall now read Government's Exhibit No. 666, consisting of a letter from Mr. Alfred P. Sloan, Jr., to Mr. C. F. Kettering, President, General Motors Research Corporation, dated July 25, 1924.

Mr. Harris: You have offered that in evidence, Mr. Hernacki?

Mr. Hernacki: I do now offer it in evidence.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 666.)

[fol. 1105] Mr. Ford: We next offer Government's Exhibit No. 667, an extract from the minutes of the meeting of the Finance Committee of General Motors Corporation the 27th of August, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 667).

[fols. 1106-1113] (Said Government's Exhibit No. 667 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: We next offer Government's Exhibit No. 668 which is an agreement dated August 1, 1924, between General Motors Corporation and the Standard Oil Company of New Jersey.

This agreement has certain exhibits attached to it, and it is stipulated that Exhibits A and C attached to it, although they do not appear here in the exhibits as being signed contracts, it is stipulated that they were signed.

Is that correct?

Mr. Horsky: That is correct.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 668.)

[fol. 1114] We wish to offer without reading Exhibit No. 670, and we wish to offer without reading Exhibit No. 672.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 670 and 672, respectively.)

Mr. Hernacki: We wish to offer Government's Exhibit No. 673 which is a memorandum of Conference between Messrs. P. S. du Pont, Irenee du Pont and W. F. Harrington of the du Pont Company, and Messrs. A. P. Sloan, Jr., and T. Midgley, Jr., of General Motors Chemical Company. Subject: Tetra Ethyl Lead. Dated August 11, 1924.

* * * * * * * *

[fols. 1115-1117] Mr. Hernacki: I wish to offer Government's Exhibit No. 675.

[fols. 1118-1120] Mr. Hernacki: I now offer Government's Exhibit No. 676 which consists of a memorandum of Meeting of Board of Directors of Ethyl Gasoline Corporation held in the Office of the Standard Oil Company, 26 Broadway, December 23, 1924.

[fol. 1121] Mr. Hernacki: I now offer Government's Exhibit No. 677, consisting of a letter from Mr. Frank A. Howard, to Mr. Irenee du Pont, dated March 28, 1925. Subject: "Adjustment of Lead Price."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 677.)

[fol. 1122] (Said Government's Exhibit No. 677 was thereupon read to the Court by Mr. Hernacki.)

Miss Hunt: We next offer Government's Exhibit No. 678, a letter from Alfred P. Sloan, Jr., to Irenee du Pont, dated March 28th, 1925, with copies to P. S. du Pont and Lammot du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 678.)

(Said Government's Exhibit No. 678 was thereupon read to the Court by Miss Hunt.)

Miss Hunt: We next offer Government's Exhibit No. 679, a letter from Irenee du Pont to Frank Howard, with copies to Alfred Sloan, Jr., W. F. Harrington, dated April 3rd, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 679.)

(Said Government's Exhibit No. 679 was thereupon read to the Court by Miss Hunt.)

We next offer Government document 680, a letter from Alfred P. Sloan, Jr., to Irenee du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 680.)

[fol. 1123] Miss Hunt: This is dated April 10, 1925:

(Said Government's Exhibit No. 680 was thereupon read to the Court by Miss Hunt.)

Miss Hunt: We next offer Government's Exhibit No. 681, a letter from E. W. Webb, President, Ethyl Gasoline Corporation, to Irenee du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 681.)

* * * * * * * *

[fol. 1124] We next offer Government's Exhibit No. 682, a letter from Irenee du Pont to John J. Raskob of the General Motors Corporation, with copy to Mr. E. W. Webb, President of the Ethyl Gasoline Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 682.)

* * * * * * * *

[fol. 1125] Miss Hunt: We are next offering Government's Exhibit No. 684, a letter from A. E. Mittnacht of the Ethyl Gasoline Corporation, to Alfred P. Sloan, Jr., dated June 12th, 1925, without reading the letter.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 684.)

Miss Hunt: We are next offering Government's Exhibit No. 683, a letter from Irenee du Pont to E. W. Webb, dated June 29th, 1925, which is not being read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 683.)

Miss Hunt: We next offer Government's Exhibit No. 685, a letter from E. W. Webb to Alfred P. Sloan, Jr., dated June 27th, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 685.)

(Said Government's Exhibit No. 685 was thereupon read to the Court by Miss Hunt.)

Mr. Ford: We next offer Exhibit No. 687, a letter from W. S. Carpenter to Mr. Irenee du Pont dated June 30, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 687.)

(Said Government's Exhibit No. 687 was thereupon read to the Court by Mr. Ford.)

[fols. 1126-1127] Mr. Ford: We next offer Government's Exhibit No. 686, which is a letter from Frank A. Howard on the stationery of the Standard Oil Company to Mr. E. W. Webb, dated June 29, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 686.)

[fols. 1128-1131] Mr. Houchins: Continuing, your Honor, with the same general subject matter that we were in yesterday when we recessed, the matter of tetraethyl lead, the Government offers Government Trial Exhibit No. 688.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 688.)

Mr. Houchins: This is a letter from Irenee du Pont, President of the du Pont Company to Mr. E. W. Webb, President of the Ethyl Gasoline Corporation dated July 1, 1925.

A notation on the letter indicates that the letter was read to Webb, but was not sent to him, the notation signed by Irenee du Pont.

The letter reads as follows:

(Said Government's Exhibit No. 688 was thereupon read to the Court by Mr. Houchins.)

Mr. Houchins: The Government next offers Government Trial Exhibit No. 690. This is a letter from Mr. E. W. Webb to Mr. Irenee du Pont, dated July 27, 1925. Mr. Webb wrote as President of the Ethyl Gasoline Corporation, re: Chloride Process Contract Adjustment.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 690.)

[fol. 1132] Mr. Houchins: The Government now offers Government's Trial Exhibit No. 691, which is a letter from E. W. Webb, President of the Ethyl Gasoline Corporation, to Mr. Alfred P. Sloan, Jr., President of General Motors Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 691.)

Mr. Houchins: The letter is dated August 6th, 1925, and concerns lead contract.

(Said Government's Exhibit No. 691 was thereupon read to the Court by Mr. Houchins.)

Mr. Houchins: The Government next offers Government's Trial Exhibit No. 692, a letter from Alfred P. Sloan, Jr., President of General Motors Corporation, to Mr. E. W. Webb, President of Ethyl Gasoline Corporation, August 7th, 1925, re lead contract.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 692.)

[fol. 1133] (Said Government's Exhibit No. 692 was thereupon read to the Court by Mr. Houchins.)

Mr. Houchins: The Government next offers Government's Trial Exhibit No. 693, which it does not propose to read, being a continuation of the same subject-matter.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 693.)

Mr. Houchins: The Government next offers Government's Trial Exhibit No. 694, which is a letter from A. M. Maxwell, Vice President and Sales Manager of the Ethyl Gasoline Corporation to Mr. Donaldson Brown, Vice President of General Motors Corporation. The subject-matter is indicated as being a $250,000.00 loan, and it is dated March 10th, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 694.)

(Said Government's Exhibit No. 694 was thereupon read to the Court by Mr. Houchins.)

Mr. Houchins: The Government next offers Government's Trial Exhibit No. 695, which is a letter from Donaldson Brown to the Finance Committee of General Motors, March 16th, 1925, and the subject-matter is "Loan to Ethyl Gasoline Corporation."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 695.)

(Said Government's Exhibit No. 695 was thereupon read to the Court by Mr. Houchins.)

[fol. 1134] Mr. Houchins: The Government next offers Government's Trial Exhibit No. 696, which is a memorandum from C. D. Hartman, Jr., on the letterhead of General Motors Corporation, dated April 13th, 1925, for the attention of Donaldson Brown.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 696.)

(Said Government's Exhibit No. 696 was thereupon read to the Court by Mr. Houchins.)

The Government next offers Government's Trial Exhibit No. 697, which is an extract from Minutes of Meeting of the

Finance Committee of General Motors Corporation held April 13, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 697.)

Mr. Houchins: Among those present as indicated were John J. Raskob, Chairman, H. F. du Pont, Lammot du Pont, Irenee du Pont, Donaldson Brown, Alfred P. Sloan, Jr., and George Whitney.

(Said Government's Exhibit No. 697 was thereupon read to the Court by Mr. Houchins.)

The Government now offers Government's Trial Exhibit No. 698, which is Extract from Minutes of Meeting of the Finance Committee of General Motors Corporation, held on April 27, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 698.)

[fol. 1135] (Said Government's Exhibit No. 698 was thereupon read to the Court by Mr. Houchins.)

The Government now offers Government's Trial Exhibit No. 699 which is another Extract from the Minutes of Meeting of the Finance Committee of General Motors Corporation held June 1, 1925.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 699.)

Mr. Houchins: This document is a continuation of the matter of the loan previously discussed, and the Government does not propose to read it.

The Government next offers Government's Trial Exhibit No. 700, which is another Extract from Minutes of Meeting of the Finance Committee of General Motors Corporation, held on July 24, 1925.

This offer continues the discussion of the same subject matter and will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 700.)

Mr. Harris: Government next offers Government's Trial Exhibit No. 702, letter from Irenee du Pont, President du Pont Company, copy to Mr. W. F. Harrington, addressed to Mr. E. W. Webb, President of Ethyl Gasoline Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 702.)

[fols. 1136-1137] Mr. Harris: This is dated May 7, 1925.

(Said Government's Exhibit No. 702 was thereupon read to the Court by Mr. Harris.)

We next offer Government's Exhibit No. 703, a letter on the letterhead of General Motors Corporation of New York.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 703.)

Mr. Harris: This is signed Alfred P. Sloan, Jr., dated January 26, 1926, to Earle W. Webb, President, Ethyl Gasoline Corporation.

(Said Government's Exhibit No. 703 was thereupon read to the Court by Mr. Harris.)

We next offer Government's Exhibit No. 704, which is a letter with the initials A. P. S., Jr., which we take to be Alfred P. Sloan, dated February 8, 1926, to Irenee du Pont, President, E. I. du Pont de Nemours & Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 704.)

[fol. 1138] Mr. Harris: We offer Exhibit No. 705, on the letterhead of the E. I. du Pont de Nemours and Company, signed Irenee du Pont, President, dated February 10th, 1926, to Alfred P. Sloan, Jr., President, General Motors.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 705.)

* * * * * * *

[fols. 1139-1143] We offer Exhibit No. 706, which is an agreement made on the part of the E. I. du Pont de Nemours and Company by W. F. Harrington, General Manager, Dyestuffs, and by Ethyl Gasoline Corporation by E. W. Webb, President, dated March 31st, 1926; du Pont is called the seller and Ethyl is called the buyer.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 706.)

[fols. 1144-1145] We next offer Exhibit 708, which is a letter from Irenee du Pont, President, to Alfred P. Sloan, Jr., dated December 3, 1924.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 708.)

(Said Government's Exhibit No. 708 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: Next, No. 709, a letter of Alfred P. Sloan on the letterhead of General Motors Corporation to Mr. Irenee du Pont, President.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 709.)

[fols. 1146-1147] Mr. Harris: The next is a letter bearing the initials "APSJr", which we will take to be Mr. Sloan, dated December 12th, 1924. It is Exhibit No. 710, which we now offer.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 710.)

Mr. Harris: It is a letter to Irenee du Pont, President.

(Said Government's Exhibit No. 710 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: I offer now No. 711, a letter from Irenee du Pont to E. W. Webb, dated June 2nd, 1926, copy for Mr. Sloan and for W. F. Harrington.

[fol. 1148] I next offer Government's Exhibit No. 712, which is "Extract from Minutes of Meeting of the Executive Committee of General Motors Corporation duly held on the 30th day of December, 1924."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 712.)

Mr. Harris: I shall read it all.

(Said Government's Exhibit No. 712 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: I offer Government's Exhibit No. 713, "Extract from Minutes of Meeting of the Executive Committee of General Motors Corporation duly held on the 5th day of January, 1925."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 713.)

Mr. Harris: I shall read it all.

(Said Government's Exhibit No. 713 was thereupon read to the Court by Mr. Harris.)

[fol. 1149] Mr. Harris: I now offer Government's Exhibit No. 714, "Cable from London Office, March 22, 1926."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 714.)

Mr. Harris: I shall read it all.

(Said Government's Exhibit No. 714 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: We next offer Government's Exhibit No. 715, a letter from Irenee du Pont to Alfred P. Sloan, Jr., copy for Mr. Jasper E. Crane, dated June 8, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 715.)

Mr. Harris: I shall read it all.

(Said Government's Exhibit No. 715 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: The next document we offer is Government's Exhibit No. 716. It is a suggested form of letter by Ethyl Gasoline Corporation to I. G. Farbenindustrie A. G.

Mr. Horsky: Mr. Harris, will you permit me to say that under the pre-trial stipulation, I take it we are not agreed that the letter was sent since it is captioned this way.

So far as we know, it was not sent.

Mr. Harris: That is for the record. That is right.

[fol. 1150] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 716.)

Mr. Harris: The date is June 25, 1926. It has a covering to Mr. Irenee du Pont from J. E. Crane, "For information." This is the suggested form of letter:

(Said Government's Exhibit No. 716 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: I next offer Government's Exhibit No. 717, a short letter from L.duP., which we will assume to be Lammot du Pont, signed President, to Mr. A. P. Sloan, Jr., President, copy to Mr. Irenee du Pont, Vice-President.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 717.)

Mr. Harris: This is dated July 24, 1926, and I shall read it all.

(Said Government's Exhibit No. 717 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: We next offer Government's Exhibit No. 718, which is a document dated November 18, 1926, to Mr. Lammot du Pont, and signed by Irenee du Pont; copies to Mr. Haskell and Mr. Pickard.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 718.)

* * * * * * *

[fol. 1151] I offer Exhibit 720, and will read it all. It is a letter from E. W. Webb to Alfred P. Sloan, Jr., dated January 11, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 720.)

(Said Government's Exhibit No. 720 was thereupon read to the Court by Mr. Harris.)

Mr. Harris: Next I will offer Government's Exhibit No. 721, which is a letter dated January 11, 1927, apparently signed by E. W. Webb or from E. W. Webb to Mr. Frank A. Howard.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 721.)

* * * * * * *

[fol. 1152] Mr. Ford: We next offer Exhibit No. 722, a letter from I. G. Farben signed by Dr. Abel to Frank A. Howard, dated December 22, 1926.

* * * * * * *

[fols. 1153-1154] We next offer Government's Exhibit No. 723, a contract dated January 10, 1927, between I. G. Farben and Ethyl Gasoline Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 723.)

[fol. 1155] We wish now to offer Government's Exhibit No. 745, contract dated the 31st day of March, 1928, between du Pont and Ethyl.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 745.)

* * * * * * *

[fol. 1156] I wish next to offer Government's Exhibit No. 746, without reading. This might be characterized as a blending contract between Ethyl Gasoline Corporation and du Pont; that is, the blending of the ethyl fluid from the tetraethyl lead.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 746.)

[fol. 1157] Mr. Ford: I next wish to offer Government's Exhibit No. 747 and read portions on pages 2, 3 and 4.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 747.)

* * * * * * *

[fol. 1158] Mr. Ford: Next I would like to offer Exhibit No. 748, a letter from Alfred P. Sloan, Jr., to Earle W. Webb, President, Ethyl Gasoline Corporation, dated March 28, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 748.)

* * * * * * *

[fol. 1159] I next offer Exhibit No. 749, a letter from E. W. Webb to Mr. Alfred P. Sloan, Jr., President, dated April 3, 1930.

[fols. 1160-1161] Mr. Ford: We next offer Exhibit No. 750, a letter from Alfred P. Sloan to Mr. Earle W. Webb, President, Ethyl Gasoline Corporation, dated April 5, 1930.

[fols. 1162-1163] Mr. Ford: We next offer Exhibit No. 751, a letter from Alfred P. Sloan to Lammot du Pont, dated April 18th, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 751.)

[fols. 1164-1166] Mr. Ford: I next offer Government's Exhibit No. 752, a contract dated the 26th of February, 1930, between du Pont and the Ethyl Gasoline Corporation, and I wish to read certain portions on pages 1, 2, 3, 4, 6, and 7.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 752.)

[fol. 1167] We next offer Government's Exhibit No. 753, and I wish to read portions of page 2 and 3. This is contract dated the 26th of September, 1931, between du Pont and Ethyl.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 753.)

* * * * * * *

[fol. 1168] We next offer Government's Exhibit No. 754, which may be characterized as another manufacturing contract between du Pont and Ethyl.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 754.)

* * * * * * *

[fol. 1169] Mr. Ford: I now wish to offer Government's Exhibit No. 755, and for brevity and expediency, I should like not to read it, but to invite the Court's attention to similar provisions of paragraph numbered 2 and paragraph numbered 4,—I am sorry, your Honor. I merely want to offer this one without reading it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 755.)

Mr. Ford: We next offer Government's Exhibit No. 756, contract dated the 29th day of May, 1930, between du Pont and Ethyl Gasoline Corporation which we wish to offer without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 756.)

Mr. Ford: We wish to offer Exhibit No. 757, a contract dated the 24th of August, 1934, between du Pont and Ethyl. It may be characterized as another contract for manufacture of tetraethyl lead.

* * * * * * *

[fols. 1170-1171] Mr. Ford: I next offer Government's Exhibit No. 758, a contract dated the 20th of December, 1935, between du Pont and Ethyl Corporation. It may be characterized as another manufacturing contract.

I wish to offer it without reading it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 758.)

Mr. Ford: I wish to offer now Government's Exhibit No. 759, a contract dated the first day of July, 1936, between du Pont and Ethyl. It may be characterized as another manufacturing contract containing similar provisions as in the earlier contract which we wish to offer without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 759.)

Mr. Houchins: I now offer Government's Exhibit No. 762, which is a letter from Alfred P. Sloan, Jr., President of General Motors to Lammot du Pont, dated July 17, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 762.)

[fol. 1172] We now offer Exhibit No. 763, which is a reply to the letter previously offered from Lammot du Pont to Alfred P. Sloan, Jr., dated July 22, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 763.)

[fol. 1173] The Government now offers Government Trial Exhibit No. 764, which is a letter from Alfred P. Sloan, Jr., President, General Motors, to Lammot du Pont, dated July 28, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 764.)

* * * * * * *

[fols. 1174-1175] The Court: You may proceed.

Mr. Houchins: If the Court please, commencing where we stopped before the noon recess, the Government offers Government's Trial Exhibit No. 766 which is a letter from Lammot du Pont to Alfred P. Sloan, Jr., President of General Motors Corporation, dated February 25th, 1932.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 766.)

(Said Government's Exhibit No. 766 was thereupon read to the Court by Mr. Houchins.)

Mr. Houchins: The Government next offers Government Trial Exhibit No. 767, which is a letter from Alfred P. Sloan, Jr., as indicated by the dictator's initials, President of General Motors Corporation, to Mr. Lammot du Pont, President of the du Pont Corporation, dated February 27th, 1932.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 767.)

[fols. 1176-1177] The Government next offers Government Trial Exhibit No. 769, which is a letter to Alfred P. Sloan, Jr., President of General Motors Corporation, from Lammot du Pont, dated September 20th, 1933.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 769.)

(Said Government's Exhibit No. 769 was thereupon read to the Court by Mr. Houchins.)

Mr. Houchins: The Government next offers Government Trial Exhibit No. 768, a letter from E. G. Robinson, writing as General Manager of the Organic Chemicals Department of the du Pont Corporation to Mr. Mittnacht, September 15th, 1933.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 768.)

[fols. 1178-1179] The Government next offers Government Trial Exhibit No. 770, which is a letter from A. E. Mittnacht of the Ethyl Gasoline Corporation, to Mr. E. G. Robinson, General Manager, of the du Pont Corporation of the Organic Chemicals Department, dated September 19th, 1933.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 770.)

[fols. 1180-1216] Turning now to Volume 5 of the exhibits, the Government next offers Government Trial Exhibit No. 773.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 773.)

[fol. 1217] Mr. Houchins: The Government next offers Government Exhibit No. 774, which we do not propose to read but simply invite your Honor's attention to the exhibit as being a chronological history of the development of tetraethyl lead up to the commencement of the year 1936.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 774.)

Mr. Horsky: Your Honor, might I state, just to clarify the record, that this contains the exhibits attached to the previous report that we have been reading, and the numbers or letters in 773 refer to similar letters in 774.

The Court: I understand.

[fols. 1218-1219] Mr. Houchins: That is correct.

The Government next offers Government Trial Exhibit No. 775, which is a letter from Irenee du Pont to Mr. W. J. Beadle, Assistant Director, Development Department. A copy is indicated as going to Lammot du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 775.)

[fol. 1220] Mr. Eisen: We should now like to offer Exhibit No. 779, which is a letter from E. W. Webb to Lammot du Pont, dated December 19th, 1935.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 779.)

* * * * * * *

[fol. 1221] I now offer Exhibit No. 780, which is a letter from E. W. Webb to Lammot du Pont, dated February 27th, 1936, and I shall read an extract therefrom.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 780.)

* * * * * * *

[fols. 1222-1225] I next offer Exhibit No. 781, which is a letter from Lammot du Pont to Mr. E. W. Webb, dated March 6th, 1936. I shall not read this letter.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 781.)

Mr. Eisen: I next offer Exhibit No. 782, which is a letter from Mr. E. W. Webb to Mr. Donaldson Brown dated March 18th, 1936. That letter will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 782.)

Mr. Eisen: I next offer Exhibit No. 783, which is a letter from E. W. Webb to Messrs. Donaldson Brown, E. M. Clark, W. S. Farish, F. A. Howard, Alfred P. Sloan, Jr., and W. C. Teagle, dated March 12th, 1936.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 783.)

[fol. 1226] We next offer Government's document No. 785 which is a memorandum of agreement between Ethyl Gasoline Corporation, E. I. du Pont Company and Standard Oil Development Company, dated July 31st, 1936. I shall read excerpts therefrom.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 785.)

* * * * * * *

[fol. 1227] I next offer Government's document No. 786 which is a memorandum executed by E. W. Webb, November 24th, 1936. I shall not read this memorandum.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 786.)

Mr. Eisen: I next offer Government's Exhibit No. 788 which is a letter executed by Mr. Howard with an attached memo.

I understand that the letter begins at "3" on page 3, and it has been stipulated that this letter is Mr. Howard's letter.

Mr. Horsky: I want to make a slight correction. I agree that the part beginning at the top of page 3 with the letter "3" in the middle of the page is what I understand to be the attached memo from Mr. Howard, although not his letter. The letter from Mr. Howard apparently is not in this exhibit.

Mr. Ford: And then the part from the beginning to that part are the notes on that memorandum?

Mr. Horsky: That is correct.

[fol. 1228] Mr. Eisen: I do not intend to read Government's document No. 788 as offered.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 788.)

I now offer Government's Exhibit No. 790, which is an agreement in connection with the building of a plant at Baton Rouge, executed by Ethyl Corporation, and E. I. du Pont, and Standard Oil Development Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 790.)

Mr. Eisen: I do not intend to read this document.

We next offer Government's Exhibit, document No. 794, which is a memorandum from J. W. McCoy to Messrs. Lammot du Pont, W. S. Carpenter, Jr., and others, dated July 30, 1937.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 794.)

Mr. Eisen: I do not intend to read this memorandum.

I next offer Government's Exhibit No. 795. This is a letter from Irenee du Pont to Alfred P. Sloan, Jr., dated December 20, 1937.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 795.)

* * * * * * *

[fols. 1229-1234] Mr. Ford: We next offer Government Exhibit No. 797, which is a report from the Chairman of the Policy Committee to the Policy Committee of General Motors, signed by Alfred Sloan, bearing the date of December 31, 1937.

The subject is, "Agreement Between Ethyl Gasoline Corp. and E. I. du Pont de Nemours & Co. Covering Manufacture of Tetraethyl Lead."

(Said document so offered and received in evidence was marked Government's Exhibit No. 797.)

[fol. 1235] We next offer Exhibit 798. Would you consent to my offering this without the sketch on the back? I do not want to offer that as an excerpt.

Mr. Horsky: Yes.

Mr. Ford: We offer Government's Exhibit No. 798, the lease, less the map or sketch on the back.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 798.)

* * * * * * *

[fols. 1236-1239] I next offer Government's Exhibit No. 799, which is a Manufacturing Service Agreement dated January 1, 1938, between the Ethyl Gasoline Corporation called the Ethyl Company and the du Pont Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 799.)

[fols. 1240-1249] I next offer Exhibit No. 800 which is the license agreement between the du Pont Company and the Ethyl Corporation, Ethyl Gasoline Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 800.)

[fols. 1250-1251] Mr. Ford: We next offer Exhibit No. 801, which may be described as a license agreement dated January 1st, 1938, between Standard Oil and Ethyl. I do not propose to read it. It was in connection with the January 1st, 1938 contracts which were offered at the close of the day yesterday.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 801.)

Mr. Ford: I next offer Exhibit No. 803, which is an amendment to the license grant which is Exhibit A to Trial Exhibit No. 669.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 803.)

[fols. 1252-1255] We next offer Government's Exhibit No. 804, which is a letter from E. G. Robinson, at du Pont to the Ethyl Gasoline Corporation, dated January 6th, 1938. It pertains to the financing of the construction of new lead plants in Baton Rouge.

I do not propose to read it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 804.)

Mr. Ford: I now offer Exhibit No. 806, which is a memorandum from George Russell to Mr. Donaldson Brown, Vice Chairman, on the stationery of General Motors Corporation and bears the date January 12th, 1938.

[fol. 1256] I next offer Government's Exhibit No. 807, a letter from Alfred P. Sloan to Earle Webb, Ethyl Gasoline Corporation, dated January 18, 1938, with copies to Lammot du Pont and Donaldson Brown.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 807.)

Mr. Ford: I do not propose to read this. It bears on the program involving expansion of production.

I next offer Government's Exhibit No. 808, letter from E. G. Robinson, of du Pont, to Lammot du Pont, dated January 31, 1938.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 808.)

* * * * * * *

[fols. 1257-1261] We next offer Government's Exhibit No. 810, report fron Donaldson Brown to the Policy Committee, General Motors, dated July 12, 1939. The subject is, "Investment in Ethyl Gasoline Corporation."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 810.)

[fols. 1262-1264] Mr. Ford: I next offer Exhibit No. 811, a memorandum from F. G. Donner, General Assistant Treasurer, to Mr. Albert Bradley, Vice-President, General Motors Corporation dated July 31, 1939, entitled "Ethyl-du Pont Profit Sharing Arrangement."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 811.)

[fols. 1265-1266] I next offer Exhibit No. 821, which is an agreement between the Ethyl Company and du Pont dated January 1, 1945 and may be characterized an extension of the January 1, 1938 contract.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 821.)

[fols. 1267-1270] I next offer Exhibit No. 826, which is the report from the Special Committee to the Board of Directors of General Motors Corporation, dated May 28, 1947, subject: "LEGAL ASPECTS OF GENERAL MOTORS CORPORATION INVESTMENT IN ETHYL CORPORATION."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 826.)

[fol. 1271] I next offer Exhibit 830, which is a letter from General Motors Corporation by F. G. Donner, Vice President of General Motors Corporation to the du Pont Company, and dated December 5th, 1947, and I propose to read certain portions of that.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 830.)

* * * * * * * *

[fol. 1272] I wish next to offer Exhibit No. 831, a letter from the Special Committee of the Ethyl Corporation, from

Albert Bradley, General Motors Chairman, to the Board of Directors, dated February 25th, 1948, and it bears on the same subject, Liquidation of the du Pont preferred stock.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 831.)

Mr. Ford: I next offer Exhibit No. 832, a bill of sale of the Ethyl Corporation to the E. I. du Pont de Nemours and Company of certain tangible property in the Deepwater plants, and executed in anticipation of the termination of the 1938 agreements. I do not propose to read that.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 832.)

Mr. Ford: Exhibit No. 833 is an Immunity and Cancellation Agreement of 1938 arrangement made by Ethyl Corporation and the du Pont Company, and bears the date of August 19th, 1947. It is offered without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 833.)

[fol. 1273] Mr. Ford: We offer Exhibit No. 834, which is a table of the distribution of the profits for 1924 to 1947 in the tetraethyl lead operation. It was prepared by the Anti-Trust Division, and I wish to read only the totals.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 834.)

* * * * * * *

[fol. 1274] Mr. Houchins: If the Court please, the Government now wishes to commence the introduction of evidence concerning the discovery by G. M. of certain fluorine compounds for use as refrigerants, later known as F-12, and the formation by General Motors and du Pont of Kinetic Chemicals, Incorporated.

The pertinent portions of the complaint are paragraph 76 through paragraph 80.

The Government first offers Government Trial Exhibit No. 838, which is a letter from E. G. Biechler, General Manager of Frigidaire Corporation, to J. L. Pratt, Vice-President, General Motors Corporation, dated March 11, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 838.)

* * * * * * *

[fol. 1275] The Government next offers Government Trial Exhibit No. 839, which is an excerpt of a letter to E. G. Biechler from J. L. Pratt. This is in reply to the previous letter, and is dated March 15, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 839.)

* * * * * * *

[fol. 1276] Mr. Houchins: The Government next offers Government Trial Exhibit No. 840, which is a letter from E. G. Robinson, General Manager of the Dyestuffs Department of du Pont, to Mr. John L. Pratt, Vice-President, General Motors Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 840.)

* * * * * * *

Mr. Houchins: The Government next offers Government Trial Exhibit No. 841, which is a letter, as indicated by the dictator's initials, from John L. Pratt, Vice-President of General Motors to E. G. Robinson, Dyestuffs Department, E. I. du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 841.)

[fols. 1277-1280] Mr. Houchins: The Government next offers Government Trial Exhibit No. 842, which is a letter, dated June 12, 1930, from John L. Pratt, Vice-President of the General Motors Corporation, to Mr. E. G. Robinson, who is General Manager of the Dyestuffs Department of du Pont, copy of the letter going to Mr. Donaldson Brown.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 842.)

[fol. 1281] The government next offers Government trial Exhibit No. 843, which is a letter from E. G. Robinson, General Manager of the Dyestuffs Department at du Pont to John L. Pratt, Vice President of General Motors Corporation, and the subject-matter is refrigerants. It is dated June 24, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 843.)

* * * * * * *

[fols. 1282-1283] We next offer Government Trial Exhibit No. 844, which we do not propose to read, but simply draw the Court's attention that the letter, dated June 24, 1930, is from John L. Pratt, Vice President of General Motors to E. G. Biechler, General Manager of the Frigidaire Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 844.)

Mr. Houchins: We next offer Government Trial Exhibit No. 845, which is a progress report on fluorides, signed by J. W. Morrison of the Patent Section of the General Technical Committe, and dated June 26th, 1930, re: Progress Report on Fluorides.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 845.)

[fol. 1284] We next offer Government Trial Exhibit No. 846, which is a letter or memorandum from H. M. Williams, Manager of the Research and Future Demands Division, dated June 28th, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 846.)

* * * * * * *

[fol. 1285] We next offer Government Trial Exhibit No. 847, which is a letter from E. G. Biechler, President and General Manager of the Frigidaire Corporation to John L. Pratt, Vice President of General Motors Corporation, and dated July 25, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 847.)

* * * * * * *

[fol. 1286] The Government next offers Government Trial Exhibit No. 849, which is a memorandum on the letterhead of General Motors Corporation to Mr. John L. Pratt.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 849.)

[fols. 1287-1288] Mr. Houchins: This is dated August 12, 1930. It advises of action taken by the Executive Committee of General Motors Corporation on August 8, 1930.

(Said Government's Exhibit No. 849 was thereupon read to the Court by Mr. Houchins.)

Mr. Harsha: The Government now wishes to offer, your Honor, Government Exhibit No. 850, which is an agreement between the General Motors Corporation and the du Pont Company dated August 27, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 850.)

[fols. 1289-1290] Next I should like to offer, your Honor, an exhibit which is a little out of line, No. 899 in connection with this agrement I have just introduced.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 899.)

[fol. 1291] We now offer Exhibit No. 851 which I do not propose to read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 851.)

Mr. Harsha: I next offer a letter, Government's Exhibit No. 852, which is dated October 10, 1931, to Mr. W. F. Harrington, Vice President, du Pont, written by Mr. J. L. Pratt, Vice President, General Motors.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 852.)

(Said Government's Exhibit No. 852 was thereupon read to the Court by Mr. Harsha.)

Mr. Hoyt: We next offer Exhibit No. 853, which is a letter from W. W. Rhodes, to Mr. E. G. Robinson, dated September 8, 1938. Subject Freon-114 Situation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 853.)

(Said Government's Exhibit No. 853 was thereupon read to the Court by Mr. Hoyt.)

Mr. Ford: I next offer Exhibit No. 854 on the letterhead of Kinetic Chemicals, Inc., addressed to E. G. Robinson, President, from W. W. Rhodes, dated September 12th, 1938. [fols. 1292-1293] The subject is "Conference with Dr. A. J. Snow of Sears-Roebuck on September 9, 1938, at du Pont Offices in Empire State Building in New York City."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 854.)

(Said Government's Exhibit No. 854 was thereupon read to the Court by Mr. Ford.)

We next offer Government's Exhibit No. 855, addressed to Mr. E. G. Robinson, President, Kinetic Chemicals, Inc., with copy to Mr. Biechler, from Mr. E. R. Breech. This is dated September 21, 1938.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 855.)

Mr. Hoyt: We do not propose to read this exhibit.

We next offer Government's Exhibit No. 856 from E. G. Robinson, President, Kinetic Chemicals to E. G. Biechler, President, Frigidaire Corporation, dated September 15, 1938.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 856.)

[fol. 1294] We next offer Government's Exhibit No. 857, a letter from Mr. E. G. Robinson, President, Kinetic Chemicals to Mr. E. R. Breech, General Motors Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 857.)

Mr. Hoyt: This letter is dated September 28, 1938.

(Said Government's Exhibit No. 857 was thereupon read to the Court by Mr. Hoyt.)

We next offer Government's Exhibit No. 858, a letter from W. W. Rhodes, sales director, to Mr. N. J. Snow, Sears Roebuck & Company, with a copy to Mr. Robinson, President, Kinetic Chemicals.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 858.)

Mr. Hoyt: This letter is dated October 14, 1938, and reads:

(Said Government's Exhibit No. 858 was thereupon read to the Court by Mr. Hoyt.)

Mr. Hoyt: I next offer Exhibit No. 859, on the letterhead of the E. I. du Pont de Nemours & Company from Mr. Lammot du Pont to Mr. Alfred P. Sloan, dated October 10, 1938.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 859.)

[fol. 1295] Mr. Hoyt: I do not propose to read this letter. I next offer Government's Exhibit No. 860, from Alfred P. Sloan to Lammot du Pont, dated October 14, 1939, "re: Kinetic Chemicals Company--General Policy with regard to F-114."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 860.)

Mr. Hoyt: I do not propose to read that exhibit.
I next offer Exhibit No. 861, on the letterhead of the Frigidaire Division, General Motors Corporation, signed by E. G. Biechler, General Manager, addressed to Alfred P. Sloan, Jr., Chairman of the Board of Directors, General Motors Corporation, dated October 17, 1938.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 861.)

Mr. Hoyt: I do not propose to read from that exhibit.
I next offer Government's Exhibit No. 862, from E. G. Robinson, President, Kinetic Chemicals, Inc., to Mr. E. R. Breech, dated October 19, 1938.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 862.)

* * * * * * * *

[fol. 1296] I next offer Government's Exhibit No. 863, which is from John Thomas Smith, General Counsel to Mr. Ernest R. Breech, Vice President, dated May 8, 1939, "Re: Frigidaire's use of "F-114."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 863.)

(Said Government's Exhibit No. 863 was thereupon read to the Court by Mr. Hoyt.)

Mr. Ford: I next offer Exhibit No. 864 on the letterhead [fol. 1297] of Kinetic Chemicals, signed by E. G. Robinson and addressed to E. R. Breech, Vice President, General Motors, dated June 13th, 1939.

I will not read from this exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 864.)

Mr. Ford: I next offer Exhibit No. 865 from E. R. Breech, Vice President, General Motors, to E. G. Robinson, Kinetic Chemicals, Inc., dated June 19th, 1939.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 865.)

(Said Government's Exhibit No. 865 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: I next offer Exhibit No. 866 from E. G. Robinson, President of Kinetic Chemicals, Inc., to E. R. Breech, Vice President, General Motors Corporation, with a copy to Mr. Biechler, dated June 29th, 1939.

I will not read the exhibit.

(Said document, so offered and received in evidence, was marked Governemnt's Exhibit No. 866.)

Mr. Ford: I next offer Government's Exhibit No. 867 from E. R. Breech, Vice President, General Motors Corporation to Mr. John Thomas Smith, General Motors Corporation, dated September 21st, 1939.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 867.)

[fol. 1298] (Said Government's Exhibit No. 867 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: I next offer Government's Exhibit No. 868 from W. W. Rhodes, Sales Director of Kinetic Chemicals, Inc. to E. G. Biechler, President of Frigidaire Division, dated April 3rd, 1942.

I will not read from this exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 868.)

Mr. Ford: I next offer Exhibit No. 869 from E. G. Robinson, President of Kinetic Chemicals to E. F. Johnson, Vice President, General Motors, and Mr. E. G. Biechler, General Manager, of the Frigidaire Division, dated March 8th, 1943, and bearing the subject: "F-114 For Large Scale Refrigeration."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 869.)

Mr. Ford: I will not read further from that exhibit.

I next offer Exhibit No. 870 from E. G. Biechler to E. G. Robinson, President, Kinetic Chemicals, Inc. The only date on this exhibit is March. There is no year. I will not read this exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 870.)

Mr. Ford: I next offer Exhibit No. 871 from E. G. Biechler to E. G. Robinson, bearing the date, March 24th, 1948.

[fol. 1299] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 871.)

Mr. Ford: I will not read that exhibit.

I next offer Government's Exhibit No. 872, a letter from E. G. Robinson, President, Kinetic Chemicals, Inc. to E. G. Biechler, General Manager, Frigidaire Division, bearing date of April 8th, 1943, without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 872.)

Mr. Ford: I next offer Exhibit No. 873, addressed to Mr. C. D. Porch, President of Kinetic Chemicals, and from the Divisional Comptroller of Frigidaire Division, dated February 21st, 1944.

I will not read that exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 873.)

Mr. Ford: I next offer Exhibit No. 874 from C. D. Porch, President of Kinetic Chemicals, to E. F. Johnson, Vice President, General Motors Corporation, dated March 10th, 1944.

I will not read from that exhibit.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 874.)

[fols. 1300-1311] Mr. Ford: I next offer Exhibit No. 875 from a vice president, signature illegible, of General Motors Corporation, addressed to Kinetic Chemicals, Inc., dated February 24th, 1944, without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 875.)

Mr. Ford: I next offer Exhibit No. 876 from W. W. Rhodes, Sales Director of Kinetic Chemicals, Inc. to C. D. Porch, President, on March 4th, 1944. With the subject "Right to Sell 'Freon-114'."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 876.)

(Said Government's Exhibit No. 876 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: I next offer Exhibit No. 878 to E. G. Robinson from C. D. Porch, dated March 6th, 1944.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 878.)

[fol. 1312] Mr. Ford: We next offer Government's Exhibit No. 879, a letter from J. Ralph Fehr, Patent Department of the Frigidaire Division, to Mr. E. F. Johnson, General Motors Corporation, dated April 20th, 1944.

We do not propose to read it. It is on the same subject-matter, sales of Freon.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 879.)

Mr. Ford: We next offer Government's Exhibit No. 880, an agreement dated May 18th, 1944, between General Motors and Kinetic Chemicals, Inc. It may be described as a cancellation agreement cancelling the license agreement of September 18th, 1939.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 880.)

Mr. Ford: We next offer Government's Exhibit No. 881, a letter from W. F. Harrington to Mr. E. F. Johnson, Gen- [fol. 1313] eral Motors, dated June 22nd, 1944, and I wish to read the letter.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 881.)

* * * * * * *

I next offer Government's Exhibit No. 882, a letter from Donaldson Brown, Vice Chairman, to the Policy Committee of General Motors, dated November 9th, 1944, which transmits a report prepared by Messrs. E. F. Johnson and E. R. Godfrey, covering operations of Kinetic Chemicals, Inc., from 1930 through 1943.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 882.)

[fol. 1314] Mr. Ford: I next offer Exhibit No. 883, which is the report referred to 882, and I wish to read one paragraph on page 10.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 883.)

* * * * * * *

I next offer Exhibit No. 884, a letter from E. G. Robinson, General Manager, to E. K. Gladding, Director of Development Department, dated April 23, 1945.

* * * * * * *

[fol. 1315] Mr. Ford: I next offer Exhibit No. 885, a document entitled "Advice of Action." It is from the Secretary of the Executive Committee of the du Pont Company, and it is dated May 2nd, 1945. I do not propose to read it. It also bears on the purchase by du Pont of General Motors' interest in Kinetic.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 885.)

Mr. Ford: I next offer Exhibit No. 886, a report from the Development Department to the Executive Committee, du Pont Company, and I wish to reach certain portions.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 886.)

* * * * * * *

[fol. 1316] I next offer Exhibit No. 887 which I do not propose to read. It is a statement of sales and profits of Kinetic Chemicals, Inc., from 1930 to 1942.

Mr. Horsky: Your Honor, we have had an opportunity to check these figures, and they are all correct with the exception of the last figure in the middle column which now reads $1,326,071.91. It should be, Mr. Ford, $1,303,967.81.

I will show Mr. Ford the basis upon which I reached that, and see if we can agree to correct it.

Mr. Ford: We accept it, and thank you.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 887.)

[fol. 1317] Mr. Horsky: Before we reach another topic, Mr. Ford, may I ask you to stipulate with me that on June 26th, 1945, du Pont and General Motors agreed to eliminate that part of Article Seven of the agreement setting up Kinetic as follows:

> "It being further agreed that future chemical developments, (other than those relating to 'said products') originating in the laboratories of General or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical de-

velopments, then General shall be free to dispose of the same elsewhere."

Will you agree that those words were eliminated by agreement on June 26th, 1945?

Mr. Ford: We will so stipulate.

Mr. Horsky: And will you also agree, sir, that as of January 1st, 1950, du Pont did acquire Kinetic Chemicals, the 49 per cent interest of General Motors in Kinetic?

Mr. Ford: If you say that is the date, I will stipulate to it.

Mr. Horsky: It is the date.

In connection with that acquisition, will you agree that the Department of Justice wrote this letter, which I will read with your permission.

Mr. Ford: Yes.

Mr. Horsky: It is addressed to E. I. du Pont de Nemours [fol. 1318] and Company, Wilmington, Delaware, and is from Herbert A. Bergson, Assistant Attorney General on the letterhead of the Federal Bureau of Investigation:

> "Dear Sirs:
>
> "I refer to letters from Mr. Horsky of October 13 and November 8, 1949, in which he advised me that an agreement has been reached whereby the du Pont Company is prepared to purchase all of the stock now held by General Motors Corporation in Kinetic Chemicals, Inc., and transmitted to me the minutes of the du Pont Executive Committee setting forth the details of the proposed transaction.
>
> "This is to advise you that the Department does not object to the consummation of the agreement referred to. In the event that du Pont thus acquires the stock now held by General Motors, the Department will waive that part of its prayer for relief relating to Kinetic (Paragraph 17, page 69 of the Complaint) in United States *v.* E. I. du Pont—"

This pending present action which is described by letter and number.

> —"It should be clearly understood, however, that the Department, if it deems it desirable and advisable to do so, is free to introduce evidence at the trial of

the above action relative to history and background and all other aspects of joint operation and control by du Pont and General Motors of Kinetic."

Thank you.

[fol. 1319] Mr. Ford: May it please the Court, we are now going to section in Volume 5 bearing on synthetic rubber.

I wish to offer Exhibit No. 888, which is a letter from Lammot du Pont to John J. Raskob, dated January 18, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 888.)

Mr. Ford: I should like to read this letter.

(Said Government's Exhibit No. 888 was thereupon read to the Court by Mr. Ford.)

Mr. Ford: I next offer Government's Exhibit No. 889, letter from J. J. Raskob to Lammot du Pont, dated January 19, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 889.)

* * * * * * *

I next offer Exhibit No. 890, letter from Alfred P. Sloan to Lammot du Pont, dated January 21, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 890.)

* * * * * * *

[fol. 1320] I next offer Government's Exhibit No. 891, letter from Lammot du Pont to Alfred P. Sloan, dated January 25, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 891.)

* * * * * * *

[fol. 1321] Mr. Ford: We next offer Exhibit No. 892, letter from Alfred P. Sloan to Lammot du Pont, dated February 3, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 892.)

* * * * * * *

[fol. 1322] I next offer Government's Exhibit No. 893, letter from Alfred P. Sloan to J. Brooks Jackson, General Motors Corporation, dated February 3, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 893.)

* * * * * * *

I next offer Government's Exhibit No. 894, a letter from Lammot du Pont to Alfred Sloan, dated February 21, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 894.)

* * * * * * *

[fol. 1323] Your Honor, that brings us to the section in Volume 5 bearing on motor fuel accelerators.

I wish to offer Government's Exhibit No. 895, memorandum from Fin Sparre, Director, to the Foreign Relations Committee, du Pont Company, with a copy to Lammot du Pont and W. S. Carpenter.

It is dated—can you give me the date on that?

Mr. Cox: July 13, 1931.

Mr. Ford: Yes, thank you. July 13, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 895.)

Mr. Ford: I should like to read this.

(Said Government's Exhibit No. 895 was thereupon read to the Court by Mr. Ford.)

Mr. Hernacki: I now offer Government's Exhibit No. 896, consisting of a copy of a letter from J. L. Pratt, Vice President General Motors, to Mr. David W. Jayne, Development Department du Pont Company, dated July 3, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 896.)

(Said Government's Exhibit No. 896 was thereupon read to the Court by Mr. Hernacki.)

Mr. Hernacki: I now offer Government's Exhibit No. 897, [fol. 1324] dated July 15, 1931, consisting of a memorandum from J. K. Jenney, Secretary of Foreign Relations Committee, du Pont Company, to Dr. Fin Sparre, Director Development Department. I do not propose to read the document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 897.)

Mr. Hernacki: I now offer Government's Exhibit No. 898, consisting of a letter from Mr. Lammot du Pont to Mr. John Pratt, Vice President, General Motors, dated July 16, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 898.)

(Said Government's Exhibit No. 898 was thereupon read to the Court by Mr. Hernacki.)

Mr. Ford: I should like at this point to invite the Court's attention to Exhibit No. 899 which was offered by Mr. Harsha this morning.

Mr. Hernacki: I now offer Exhibit No. 900, consisting of a letter from Mr. Lammot du Pont to Mr. John L. Pratt, Vice President, General Motors Corporation, dated July 21, 1931, copy to Mr. E. G. Robinson.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 900.)

(Said Government's Exhibit No. 900 was thereupon read to the Court by Mr. Hernacki.)

Mr. Hernacki: I now offer Government's Exhibit No. 901 [fols. 1325-1432] from Mr. Lammot du Pont to Mr. E. G. Robinson, dated July 21, 1931. I shall read this; it is very short.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 901.)

(Said Government's Exhibit No. 901 was thereupon read to the Court by Mr. Hernacki.)

Mr. Hernacki: I now offer Government's Exhibit No. 902. It is a rather lengthly document from D. W. Jayne, Development Department, to Mr. F. Sparre, Director. It is dated August 26, 1931, copy to C. L. Burdick.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 902.)

[fols. 1433-1458] I next offer Exhibit No. 1050 from Lammot du Pont Copeland to Mr. Lammot du Pont, and dated March 11th, 1946.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1050.)

(Said Government's Exhibit No. 1050 was thereupon read to the Court by Mr. Hoyt.)

[fols. 1459-1536] I next offer Government's Exhibit No. 1085, which is a letter to Mr. F. B. Davis from Lammot du Pont?

Mr. Harlan: That is right.

Mr. Eisen: This is dated January 31, 1930.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1085.)

[fols. 1537-1571] I next offer Government's Exhibit No. 1271, which is an answer to our Interrogatory No. 5 of December 7, 1951.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1271.)

[fols. 1572-1573] Miss Hunt: I offer Government's Exhibit No. 3, a chart showing members of the du Pont family as described in paragraph 7 of the amended complaint.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 3.)

[fol. 1574] Miss Hunt: I now offer Government's Exhibit No. 1277, a tabulation showing the amounts of stock in Delaware, Christiana, U. S. Rubber, and Wilmington Trust Com- [fol. 1575] pany, held by the individual members of the du Pont Family.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1277.)

* * * * * * * *

Miss Hunt: Government's Exhibit No. 1209; Interrogatories Nos. 3 and 4, propounded by Plaintiff to Pierre S. du Pont, Irenee du Pont, and Lammot du Pont.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1209.)

* * * * * * * *

[fol. 1576] Miss Hunt: I now offer Government's Exhibit No. 1210 together with Exhibit C, which is offered as Exhibit 1210-A, and Exhibit D, which is offered as Government's Exhibit No. 1213.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 1210, 1210-A and 1213.)

These exhibits together constitute the answers of Pierre du Pont to Plaintiff interrogatories 3 and 4.

The answer of Pierre du Pont to interrogatory No. 3 has been modified by an asterisk to conform to the description of members of the du Pont family as now defined in Paragraph 7 of the amended complaint.

These answers will not be read.

I now offer Exhibit No. 1211 together with Exhibit C, which is offered as Exhibit 1211-A and Exhibit D, which is offered as Government's Exhibit No. 1214, which together contain the answers of Lammot du Pont to Plaintiff's interrogatories 3 and 4.

Again the answer of Lammot du Pont to Plaintiff's [fol. 1577] interrogatory 3 has been modified by an asterisk to conform to the description of members of the du Pont family as now defined in paragraph 7 of the amended complaint.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 1211, 1211-A and 1214.)

* * * * * * * *

I now offer Government's Exhibit No. 1212, together with Exhibit C which is offered as Government's Exhibit 1212-A, and Exhibit D, which is offered as Government's Exhibit No. 1215, constituting together the answers of Irenee du Pont to Plaintiff's interrogatories 3 and 4.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 1212, 1212-A and 1215.)

Miss Hunt: The answer of Irenee du Pont to Plaintiff's interrogatory No. 3 has been modified by means of asterisks to conform to the description of members of the du Pont family as now defined in paragraph 7 of the amended complaint.

* * * * * * *

I now offer Government's Exhibit No. 27, which is a [fol. 1578] letter from Pierre du Pont, Vice President, addressed to the Board of Directors of the E. I. du Pont de Nemours Powder Company, dated September 11, 1914.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 27.)

* * * * * * *

[fols. 1579-1580] I now offer Government's Exhibit No. 43, Minutes of the organizational meeting of the du Pont Securities Company, which is now known as the Christiana Securities Company, which was held on March 1, 1915.

This is offered without reading.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 43.)

Miss Hunt: I next offer Government's Exhibit No. 41, a letter to the du Pont Securities Company now known as the Christiana Securities Company dated March 2, 1915, bearing the signatures of Pierre du Pont, Irenee du Pont, Lammot du Pont, and others.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 41.)

[fols. 1581-1593] I now offer Government's Exhibit No. 45, Minutes of Board of du Pont Securities Company, which is now the Christiana Securities Company, held on March 19, 1915.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 45.)

[fols. 1594-1597] I now offer Government's Exhibit No. 1240, which is a list showing the persons designated by the management of Christiana, du Pont, and General Motors to receive proxies of stockholders and to vote the stock at stockholders' meetings of those three companies for certain of the years from 1919 to 1949.

This exhibit will not be read.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1240.)

[fols. 1598-1636] Miss Hunt: I now offer Government's Exhibit No. 1217, which is Plaintiff's Interrogatory No. 4 to Delaware, together with Government's Exhibit No. 1217-A, which is also offered, and which is an excerpt from the answer of the defendant Delaware to plaintiff's interrogatory 4.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 1217 and 1217-A.)

[fols. 1637-1686] FRANCIS B. DAVIS, JR., called as a witness on behalf of the Government, having been first duly sworn on his oath, was examined and testified as follows:

Direct.

Q. Now, I show you a document which is Government's Exhibit—this has not yet been offered in evidence. I offer it now, if the Court please, Government's Exhibit No. 1245.

Mr. Chadwell: Would that be in Volume 8?

Mr. Harris: It would be in Volume 8, or it may have been withdrawn. I will show it to you.

Mr. Chadwell: I have it.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1245.)

[fol. 1687] Mr. Harsha: We have a few more documents, your Honor, to offer.

First is the document found in Volume 8, numbered 1294.

The Court: 1294, you say?

Mr. Harsha: 1294.

The Court: Proceed, please.

Mr. Harsha: I offer this document.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1294.)

Mr. Harsha: This is a compilation prepared by the Government showing the positions in various of the corporate defendants held by Pierre S. du Pont, Irenee du Pont, and Lammot du Pont during the period stated.

You will note that on the first page there are listed positions held by the defendant Pierre S. du Pont, and in the [fol. 1688] right hand column are listed the names of the corporations in which he held offices. First, the du Pont Company; next, General ~~Motors~~; and third, Christiana, with the various offices indicated, and opposite the office, the date of such tenure. And in the last column over to the right is the source from which we derive this information.

I do not propose to read the entire exhibit.

I am offering it, really, as a foundation for the next exhibit. You will note, however, on the second page are listed the corresponding positions held by the defendant here in the du Pont Company, General Motors, Christiana, and Delaware; and then on the third page the positions held by the late Lammot du Pont in the du Pont Company, General Motors, Christiana, and Delaware.

* * * * * * * *

[fol. 1689] Mr. Harsha: I should like to offer Government's Exhibit No. 1309, your Honor, which is found in Volume 8. 1309 is a summary prepared by the Government showing the directorship and other official positions ~~held~~ by the individual defendants and certain other individuals in the various defendant corporations during the period covered by this complaint.

* * * * * * * *

Mr. Harsha: Government next offers Exhibit No. 1204, which is found in Volume 8, and that is a tabulation of the relative sizes of the du Pont, General Motors and U. S. Rubber in their respective fields.

Do you find that, your Honor?

[fol. 1690] The Court: Yes, I have it.

Mr. Harsha: It is a tabulation, and we are offering this here really as a foundation for the next exhibit No. 1205, which is a chart depicting this information.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1204.)

Mr. Harsha: I do not wish to read it, and I will pass then to Exhibit No. 1205, which I offer.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1205.)

Mr. Hurd: If the Court please, I wish to object to Government's Exhibit No. 1204 and I shall also object to Exhibit No. 1205. These postdate the complaint in this case. 1205 is also objectionable on various other grounds as I think it is also true of 1204. I think they both relate to sales, and they contain combinations of various companies not involved in this action in any way.

In 1204 I notice there is Union Carbide & Carbon, and Ford and Chrysler, and 1205 is also related—

Mr. Harsha: Perhaps I should explain the purpose of these exhibits a little more thoroughly.

Mr. Cox: Do you want to hear what I have to say first?

Mr. Harsha: All right.

Mr. Cox: May it please the Court, I, on behalf of du Pont [fol. 1691] Company, should like to amplify in one respect the objection Mr. Hurd has made.

What I have to say relates particularly to the portion of Government's Trial Exhibit No. 1204, which appears under the heading "du Pont in the Chemical Field."

In addition to the grounds that Mr. Hurd has specified, I object to that much of the exhibit on the ground that it is compiled on what seems to me to be an erroneous statistical or economic assumption.

The Government is there essentially comparing unlike things. The figure of $1,297,000,000 of sales for du Pont includes everything that du Pont sells. That includes synthetic fibers, such as nylon, rayon, dacron, all of those synthetic fibers that are sold in large volume.

It includes cellophane. It includes paint. It includes synthetic rubber. It includes such things as explosives and coated fabrics.

Now the sales figures for the other three companies, if I understand correctly what the Government has done, do not include commodities of the same range and kind that the du Pont Company sells because those companies are not engaged in the manufacturing and selling of commodities of that kind.

The Union Carbide Company, the Allied Chemical Company, and the American Cyanamid Company are chemical companies in a more limited sense. They make and sell chemicals. They do not, for example, make and sell paint. They do not make and sell the synthetic fibers.

There are paint companies, for example, which are larger [fol. 1692] than the du Pont Company, whose sales are larger than the du Pont Company, whose activities are not reflected at all in this exhibit.

For whatever purpose it may be offered, I therefore object to it, as I said at the beginning, on the ground that it seems to me to be compiled on an erroneous assumption or basis.

Mr. Harsha: In reply to the objections, your Honor, I should like to call the Court's attention, first, to the allegations found in the complaint.

Speaking first to the objections of the du Pont Company —I am speaking now of Paragraph 12 of the complaint, in which it is charged that the du Pont Company is the largest producer in the United States of explosives, powder and chemicals.

Then it goes on to list in the complaint, and most of this is admitted, the various types of products, the very wide range of products manufactured and sold by the du Pont Company.

It is in support of the allegation in the complaint that the du Pont Company is the largest in the chemical field that we have produced this chart, because, as you will notice, we have taken here the four largest chemical producers in the

United States—du Pont, followed by Union Carbide & Carbon, Allied Chemical, and American Cy-namid.

We are attempting to show here by the net sales in round figures of the relative size that the du Pont Company occupies in respect to all other chemical concerns in the industry.

Now it is true—I would certainly agree with Mr. Cox—[fol. 1693] that it is undoubtedly true that there are some products manufactured by the du Pont Company which are not manufactured by some of the other chemical concerns.

But that is true in any industry, and it is not, I submit, a valid objection, because we are attempting to show here merely in terms of relative position in the broad chemical field, which includes many, many things, the relative position of this defendant.

Now, in respect to the objections by General Motors, certainly we are not charging that Ford, Chrysler, and all other automobile manufacturers are in this case.

What we are charging is that the General Motors Corporation, as it is alleged in Paragraph 14 of the complaint, that it is the largest producer of passenger cars and trucks in the United States.

We have adduced here the total units of passenger cars and trucks produced by General Motors as contrasted with its other principal competitors in the automobile field.

Thus we have shown that General Motors leads in the automobile field, having produced 3,656,000 cars and trucks as contrasted to its next largest competitor, Ford, with 1,902,000.

There has been the further objection raised by Mr. Hurd—well, I must confess, Mr. Hurd, that your other point has slipped me.

Mr. Harris: Later than the filing.

Mr. Harsha: That is right. Thank you.

That it is later than the time alleged in the complaint. [fol. 1694] It is true that this is for the year 1950, but we are submitting this in the sense that we think it is valuable to the Court to see, based on late data, what is the relative position of these defendants in their respective fields.

It is not necessary in that respect to take a period of time covered by the complaint since, obviously, the relative size is something with which the Court will be faced throughout the entire period covered by this complaint and as of today, when it renders its decision.

I should also add that we would make the same arguments with respect to U. S. Rubber, which is the third one listed there, but I feel that the objections offered by counsel should not be sustained since what we are obviously trying to do here is to show the Court the relative size of these defendants in their respective industries.

Mr. Chadwell: If the Court please, in view of counsel's comment on U. S. Rubber, I want to say that I understood the objections raised by counsel for one defendant will be for the benefit of all defendants in the case under the pre-trial order.

The Court: That is right.

Mr. Chadwell: I don't want him to understand by my silence that I am not joining in the objections made by Mr. Hurd——

Mr. Harsha: We are amenable to that.

Mr. Chadwell:—on the point that this postdates the complaint, and therefore we think it is immaterial on that ground.

Mr. Hurd: If the Court please, I think both sides have [fol. 1695] been very careful not to go beyond the date of the complaint with reference to any of the documents or any of the testimony in this action, and I think this is a very poor time to start going beyond that.

I don't know where we will end if we are going to treat this as a supplemental complaint rather than an amended complaint.

If this has any materiality, I think an exhibit should be submitted for the year 1949 rather than the year 1950 in order not to depart from that basic proposition.

However, I also think it is entirely immaterial as to how many units may have been produced by General Motors Corporation in any particular year.

The Government has disclaimed that this is an attack on bigness. While I have some doubts as to their sincerity, they certainly have failed to point out any materiality to this case of an exhibit showing how many units General Motors has produced compared with any other automotive company in the United States, or elsewhere.

If they were interested in the financial size of the company, something of that sort, we might have a different problem. But the number of units that you may produce certainly would have no bearing on the issues of this case, even if it were for a proper year, which this is not.

The Court: The suit was filed in 1948, was it not?

Mr. Hurd: 1949.

Mr. Harsha: June of 1949.

The Court: Well, is there any particular reason why you [fol. 1696] didn't get the statement for the period prior to, or at the time of, filing of the complaint?

Mr. Harsha: Merely that we were attempting to bring this data as close to date as we could at that time, your Honor.

If the objection is to be sustained, if there is to be an objection and it is to be sustained as to the date, the year 1950 is not a magic year, and if the year 1949 is considered to be a more appropriate year, even there, of course, you would have the problem that I suppose for six months of that year it would postdate the complaint, but we are merely attempting to use data which was fairly current, but I submit that whether we take the year 1949 or 1950, the relative positions of these defendants in their respective fields would not be materially altered.

The Court: Well, the purpose of the Government introducing this is to show volume of sales as to the four leading chemical companies, isn't that right?

Mr. Harsha: And size in their respective fields, your Honor.

The Court: And also as to the rubber companies, the four different rubber companies? That would be five, including United States Rubber. You are making no representations as to how this volume is arrived at?

In other words, what portions would be classified as chemicals, and various other products, sales from other products?

Mr. Harsha: No, I might say in respect to the objection on chemicals, your Honor, that you get here into the prob- [fol. 1697-1699] lem that I suppose has beset the census department for many, many years. They do take a census of manufacturers, and they do have a category known as the chemical field. Now, the chemical field true is a fairly loose sort of terminology, but it is one that is generally accepted, and it does include a great many products including plastics and acids, and various other things, but it is certainly recognized by almost any expert in the field that the du Pont Company properly falls within the chemical industry, and for that reason we do not make a representation that each and every product manufactured by du Pont is also manufactured by Union Carbide or Allied or American Cyanamid, or vice versa, but that is a problem that you have in creating any broad classification that you will have a certain amount of overlapping.

The Court: It appears to the Court that because of the limited purpose for the introduction of the document that the objection should be overruled, and it should be allowed to remain in.

Mr. Harsha: I should also like to offer, your Honor, Exhibit No. 1205. That is really a chart depicting information on Exhibit No. 1204.

The Court: That objection to that one is also overruled, and it is received.

Mr. Harsha: Next I should like to offer, your Honor, Exhibit No. 1295 found in Volume 8, and this is a chart once again.

[fol. 1700] Mr. Harsha: Next, your Honor, the Government offers a document numbered 1301, which is found in Volume 8, and this is an abstract or excerpt from a grand jury subpoena dated August 20th, 1948, and addressed to General Motors Corporation, and this excerpt relates to Paragraph 3 of that subpoena in which the General Motors Corporation was requested to produce before the grand jury all statistical tables, charts, drafts, tabulations and summaries, together with reports, records and other documents which show the following information for each year as to the following companies.

* * * * * * *

[fol. 1701] I am offering this document, and also 1302 which is connected with this.

(Said documents, so offered and received in evidence, were marked Government's Exhibit Nos. 1301 and 1302.)

* * * * * * *

[fol. 1702] Mr. Houchins: If the Court please, we have just three or four other documents of a miscellaneous nature which we wish to introduce in evidence. The first document is 1304, in Volume 8.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1304.)

* * * * * * *

[fol. 1703] The Government next offers Government Trial Exhibit No. 1305, which is interrogatory No. 1, propounded by the Government to General Motors Corporation on December 7, 1951.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1305.)

* * * * * * *

[fol. 1704-1705] Mr. Houchins: In connection with that exhibit, the Government will offer two other exhibits. The first will be Government Trial Exhibit No. 1306.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1306.)

The Government next offers Exhibit No. 1307, which is the tabulation that was made by the Government.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1307.)

[fol. 1706-1708] The Government next offers Government's Trial Exhibit No. 1308, which is an excerpt from the annual report of the du Pont Corporation to its stockholders for the year 1938. It is on page 22 of that report.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1308.)

[fol. 1709] Mr. Harsha: The Government next offers, your Honor, some excerpts from the deposition taken in this case by the defendants of Pierre S. du Pont.

Do you have a copy of the deposition, your Honor?

The Court: I do not.

Mr. Harsha: I think we can provide you with one.

We are only offering excerpts, your Honor, and the first excerpt is the material beginning on page 169, at the bottom of the page.

This is during the direct examination of Mr. Pierre S. du Pont. He is being questioned by Mr. Harlan, and we intend to read from there over to page 180:

"Q. Now, still carrying on the question that I am exploring with you as to how du Pont and General Motors carried on its financial responsibilities for the General Motors affairs, what position did Mr. J. A. Haskell occupy in General Motors?

"A. He was a representative of du Pont, a liaison officer between the two companies.

"Q. What was his function in General Motors?

"A. He was a vice president, and he was a member of the Executive Committee and the Finance Committee.

"Q. Apart from the specific title that he held, what were [fol. 1710] the areas of his functions? What was he supposed to do?

"A. General knowledge of the actions of those committees and what followed those actions.

"Q. Did he function in any way as a contact between the Finance Committee and the operating people in General Motors?

"A. Yes, he was a member of those committees. I suppose that he did, but not by any appointment.

"Q. What I'am trying to get at is this: When the Finance Committee was concerned with a particular phase of GM's operations in relation to the financial aspects of General Motors, how did the Finance Committee keep itself informed of the operational aspects of the problem?

"A. Through Mr. Durant and Mr. Haskell.

"Q. To what extent was the Finance Committee, which was concerned with financial management interested in the operations of General Motors?

"A. Nominally only in the amount of appropriations that must be made, and the arrangement of finances. But principally they were interested in the character of the investments to be made.

"Q. Did Haskell function in that area in keeping the finance committee abreast of operational problems so far as they impinged on financial matters?

"A. Yes, Haskell and Durant together.

"Q. Haskell was a vice president of General Motors, wasn't he?

"A. Yes.

"Q. And also a member of the Finance Committee?

"A. Yes.

"Q. And of the Executive Committee?

"A. That's right.

"Q. Until you became president of General Motors in 1920, was there any other so-called du Pont man on the General Motors Executive Committee other than Haskell?

"A. No, he was the only one.

[fol. 1711] "Q. Do you recall that in 1918 General Motors Corporation increased its capital?

"A. Yes, sir, it did.

"Q. I hand you a document dated February 12, 1918, being a letter from Raskob to John Thomas Smith, Esquire, and ask you if you can refresh your recollection as to the occasion in 1918 for this first increase of capital in General Motors?

"A. This is a statement by Mr. Raskob addressed to John Thomas Smith, Esquire, New York.

"Q. Yes.

"A. Suggesting that the financing of the General Motors should include Chevrolet Motors.

"Q. What I had in mind was whether you recall that the increase of capital effected in 1918 in General Motors was in contemplation of General Motors Corporation acquiring the assets of Chevrolet?

"A. That was one of the items.

"Q. That was one of the items?

"A. The principal item, I think.

"Mr. Harlan: Mark it, please, as 96."

Skipping the colloquy, and this was marked Defendants' Exhibit 96.

Your Honor, there will be a couple of exhibits referred to in here which were not introduced by the Government in its case.

This is the first. We do not intend to offer them at this time, but they are available for inspection by counsel or by the Court.

Mr. Harsha: (Continuing):

"Q. Do you recall that following that, the General Motors Corporation did in fact acquire the assets of Chevrolet for stock of General Motors?

"A. It did, yes, sir."

[fol. 1712] And then I skip over:

"By Mr. Harlan:

"Q. Do you recall that as a result of such purchase Chevrolet was left only with General Motors stock as its assets?

"A. That's right, yes.

"Q. Just for the record, can you refresh your recollection from Exhibit 97 for identification as to approximately how much General Motors stock Chevrolet held after the purchase by General Motors of its physical assets?"

Exhibit 97 is not a Government Trial Exhibit and has not been introduced into evidence.

Then I skip the colloquy.

"By Mr. Harlan:

"Will you see whether on page 2, following Mr. Hotchkiss' kind suggestion, the purchase by General Motors of Chevrolet assets excluded, in the sense that it left with Chevrolet, 450,000 shares of the common stock of General Motors Corporation which Chevrolet had theretofore held?

"A. That's right, yes.

"Q. Then on the next page, page 3, that the stock which Chevrolet received from General Motors for the purchase of the other assets, involved an additional 252,000-odd shares of General Motors common, the total of those two being roughly 700,000 shares of General Motors stock that Chevrolet ended up with?

"A. "That's right.

"Q. And then again for the record, this document says that the total of 700,000 shares represented approximately—or, I guess exactly—1-1/7 shares of General Motors stock for each share of Chevrolet stock outstanding?

"A. That's correct.

"Q. Ultimately what became of the Chevrolet Company?

"A. It was dissolved, and its stock distributed to its stockholders—the General Motors stock distributed to its stockholders.

[fol. 1713] "Q. Did this matter of the purchase by General Motors of the assets of Chevrolet come before the Finance Committee of General Motors?

"A. It did, yes, sir.

"Q. And was it approved?

"A. It was approved.

"Q. (Continuing) And considered by the Finance Committee?

"A. Yes, sir.

"Q. As a matter of fact, do you happen to recall that Mr. Raskob himself was quite active with Durant in advocating the taking over by General Motors of the assets of Chevrolet?

"A. He was quite active.

"Q. Do you remember the United Motors Corporation?

"A. Yes.

"Q. Do you recall that that company was acquired by General Motors some time in 1918?

"A. It was, yes, sir.

"Q. Can you recall what the considerations were that led to that acquisition by General Motors?

"A. It was in order to gain control of a very important part of the motor car manufacture being accessory parts. It was necessary.

"Q. Why was that considered important from General Motors' standpoint?

"A. Because it could control the manufacture of the essential parts, and direct construction and design."

"Q. Prior to that acquisition of United Motors at that time, General Motors itself manufactured its own accessory parts?

"A. I suppose some of them, but practically none.

"Q. And as to those that it did not manufacture, where did it get the accessories from?

"A. Purchased on the market.

"Q. From what company or companies, if you recall?

[fol. 1714] "A. I suppose to a large extent from companies that went into the United Motors Corporation.

"Q. After United Motors itself was formed, from the constituent companies composing United Motors, then I suppose United Motors was the supplier?

"A. No, I think the individual companies in United Motors dealt directly with General Motors. I am not sure about that.

"Q. I see. All right. Now, did the acquisition of the United Motors Corporation come before the Finance Committee of General Motors?

"A. Yes, it did.

"Q. You were a member of it at that time?

"A. Yes, sir.

"Q. These other gentlemen from du Pont were also members?

"A. Yes.

"Q. Was the matter given consideration?

"A. It was.

"Q. Was the transaction approved by the Finance Committee?

"A: Unanimously, I believe."

Next Mr. Harlan offered two exhibits which have been offered by the Government, and they appear as Government's Trial Exhibits No. 132 and No. 137.

Continuing on page 176:

"Q. Mr. du Pont, looking at that report, which Mr. Lester will hand you, can you refresh your recollection that in 1918 in addition to the Chevrolet assets and in addition to the United Motors acquisition, General Motors also acquired a number of other enterprises?

"A. Yes, sir.

"Q. Those are listed, I believe, on pages 12 and 13 of the report that you have before you?

"A. That's right.

"Q. The only one I want to ask you anything about, because the document shows the names of the acquisitions, is the McLaughlin Carriage Company, Limited, and the [fol. 1715] McLaughlin Motor Car Company, Limited, acquisitions. Do you see that there?

"A. I do.

"Q. What were those acquisitions?

"A. The McLaughlin companies were the manufacturers of motor cars in Canada—motor cars only, I think.

"Q. What kind of cars did they make?

"A. Do you mean the name of them?

"Q. Do you happen to remember?

"A. I think it was sold under the McLaughlin name.

"Q. McLaughlin-Buick?

"A. I think they used that name, but I am not sure they did before the acquisition by General Motors.

"Q. Do you recall whether the acquisition of those Canadian properties was made by General Motors for stock, or cash?

"A. It was made by stock.

"Q. Did that transaction come before the Finance Committee of General Motors?

"A. It did, yes, sir.

"Q. At a time when you were a member of it?

"A. Yes, sir.

"Q. And these other gentlemen from du Pont were members?

"A. That's right.

"Q. Was it given its consideration?

"A. That's right.

"Q. Was it acted on only after approval by the Finance Committee?

"A. That's right.

"Q. Now, we are down to the end of 1918, and I now hand you a document, being a memorandum from Mr. Raskob to the General Motors Finance Committee dated December 12, 1918, which I ask to have marked as Exhibit 100 [Government Trial Exhibit 134], and ask you if you can refresh your recollection from that, that at the end of 1918 Raskob recommended to the Finance Committee the provision of addi- [fol. 1716] tional capital for General Motors, to finance a contemplated expansion program.

"A. He did, yes.

"Q. To the tune of what figure, if you can remember?

"A. $52,800,000.

"Q. Did that recommendation go forward and did the additional expansion and financing incident thereto take place?

"A. That's right.

"Q. Will you please look at Exhibit 99 for identification [Government Trial Exhibit 137], which is the annual report of General Motors for the year ending December 31, 1918, and state if you will for the record the total increase in the outstanding capital stock of General Motors which had taken place between the end of 1917 and the end of 1918?

"A. The total of debenture stock of $30,756,000 and common stock, $70,506,000.

"Q. That is for what year? Or is that the difference?

"A. That is the amount issued during the year 1918.

"Q. And were those increases in capital——

"A. I think that seventy million is wrong. The change is since the last annual report, December 31, seventy—that looks like eighty.

"Q. Were those increases in capitalization the subject of consideration by the General Motors Finance Committee?

"A. They all were, and they all were approved unanimously.

"Q. And not acted on until they had been approved by the Finance Committee? Not carried out?

"A. Not carried out until they were approved, yes, sir.

"Q. In this increase of capital that took place as you referred to during the year 1918, do you recall that there was a new stock issue gotten out for cash?

"A. There was a new stock issue.

[fol. 1717] "Q. Can you refresh your recollection as to the approximate amount of it?

"A. I think it was twenty-four million.

"Q. Who underwrote that issue?

"A. The du Pont Company.

"Q. What was the occasion for the issue?

"A. To provide more capital for the General Motors Corporation. That, I think was practically all for working capital. The acquisition of properties—the twenty-four million, I think, was entirely in working capital.

"Q. Now we are through 1918, and we will come to 1919 for a few minutes. Again I am interested in developing the General Motors expansion during the year 1919. First of all, do you recall that in that year General Motors acquired an interest in Fisher Body Corporation?

"A. Yes, it did.

"Q. What was Fisher Body?

"A. Fisher Body was a manufacturer of car bodies.

"Q. Do you remember the approximate size of the interest that G. M. acquired?

"A. Sixty per cent.

"Q. Did that transaction come before the General Motors Finance Committee?

"A. It did, and it was approved by them.

"Q. And approved by them?

"A. Yes.

"Q. What were the reasons for the acquisition of that sixty per cent interest by General Motors in Fisher Body?

"A. Practically the same as for the accessories. The body being an essential part of the motor car, it was thought that the whole car should be designed and manufactured by the same people.

"Q. Do you remember how that acquisition was made, whether for stock or cash, by General Motors?

"A. Well, largely notes given to the Fisher Body people.

[fol. 1718] "Q. Do you recall in 1919 that in addition to that acquisition General Motors embarked on a construction program of its own?

"A. Yes, it did.

"Q. Did that construction program and the financing of it incident thereto come before the Finance Committee of General Motors?

"A. It did.

"Q. And was considered?

"A. And considered and approved.

"Q. Considered and approved, and not implemented until after it had been approved by the Finance Committee?

"A. That's right.

"Q. At that time were you and the other men whom you have named as coming from du Pont still members of the G. M. Finance Committee?

"A. We were."

That is all I intend to offer in that section.

Turning then to 182, and Mr. Harlan is referring there to an exhibit which was marked Defendants' Exhibit 104, which the Government has introduced as its Trial Exhibit No. 139, which is now in evidence, and reading from page 182:

"Q. Can you refresh your recollection, Mr. du Pont, from page 13 of that report, and tell me whether in 1919 there were any acquisitions involving new fields by the General Motors Corporation?

"A. Yes, they were.

"Q. What were they?

"A. The farm and home lighting systems, the iceless refrigerator, which became Frigidaire, General Motors Export Company, General Motors Acceptance Corporation, and the housing facilities for employees.

"Q. Did those matters come before the Finance Committee of General Motors?

"A. They did, yes, sir.

[fol. 1719] "Q. And were they considered and approved before they were implemented?

"A. They were."

That is all I propose to read at that point.

I turn now to page 566, your Honor.

Mr. Houchins: Reading from page 566, the cross examination by Mr. Hotchkiss starting at the bottom of the page:

"Q. Mr. du Pont, I ask you now to direct your attention to what has been marked as Defendants' Exhibit 85, which is a memorandum from the Treasurer of the du Pont Company, that is, Mr. Raskob, to the Finance Committee, regarding the General Motors-Chevrolet Motor stock investment."

That exhibit referred to at that point is Government's Trial Exhibit No. 124, which is found in Volume 1.

"Q. The memorandum is dated December 19, 1917. It is a rather lengthy communication. Had you known prior to the time this memorandum was submitted to the Finance Committee of the du Pont Company that Mr. Raskob was going to make such a recommendation?

"A. I believe I did, yes.

"Q. And for how long a time prior to that? Have you any idea?

"A. I couldn't say—not very long.

"Q. You had discussed with Mr. Raskob, had you not, the general tenor of this memorandum?

"A. I believe so. My recollection is that he wrote a memorandum of this nature and submitted it to me as a proposal to the Finance Committee. And this final draft was made after that and substantially in the same form as the original.

"Q. On that original draft, Mr. du Pont, did you suggest certain changes?

"A. I don't remember any.

[fol. 1720] "Q. But you did indicate to Mr. Raskob your approval of the memorandum?

"A. Yes, that is right.

"Q. And he thereafter put it in the final draft, incorporating in that draft the ideas of both you and himself on the matter, and this memorandum to the Finance Committee is the end result?

"A. That is right.

"Q. Had Mr. Irenee du Pont participated in these conversations with Mr. Raskob and yourself regarding the early draft of this memorandum?

"A. I think not.

"Q. Had Mr. Lammot du Pont participated with you and Mr. Raskob regarding this early draft?

"A. I believe not.

"Q. Were those two gentlemen informed by either you or Mr. Raskob regarding the general nature of the proposal or that such a proposal was contemplated?

"A. I believe not. I am certain.

"Q. You have no present recollection——

"A. I don't remember having discussed it with them but I may have.

"Q. Do you recall having discussed the matter with other members of the Finance Committee of the Board of the du Pont Company?

"A. No.

"Q. So that the conversations were limited to those between yourself and Mr. Raskob?

"A. I believe so, yes.

"Q. It was, I take it, the memorandum in this form which was submitted to the Finance Committee?

"A. It was, yes.

"Q. And then subsequently submitted to a joint meeting of the Finance Committee and the Executive Committee, is that correct?

"A. Yes.

"Q. Now, I ask you to turn to page 9, the top of the page.

"A. I have it here.

[fol. 1721] "Q. Now, opposite page 9, at the bottom of the page, there is this paragraph, and I read: 'The total outstanding voting stock of the enlarged General Motors Company would be approximately 1,080,000 shares, 50% or control of which would require ownership of 540,000 shares. With the above purchases, control could be summarized as follows:—'

"First, Mr. du Pont, the reference to the enlarged General Motors Company refers, does it not, to the then pending plan to merge General Motors and Chevrolet?

"A. I think it more particularly refers to the enlargement of the General Motors Company itself. The former company sold out to the new company at that time. The former New Jersey corporation sold out to the General Motors Corporation of Delaware, which was the existing corporation at that time. I think that refers to that more than to Chevrolet."

"Q. Was there in effect at that time a plan or proposal that this new General Motors Company would take over at least the assets of the Chevrolet Company?

"A. I believe so, yes.

"Q. So that it would thereby extend the coverage of types of cars which would be manufactured under the banner of the General Motors Corporation, the new company?

"A. That is right.

"Q. Now, over to the right, at the top of the page, the page which has the figure '9' at the top, there is the breakdown of share ownership to which the words on the preceding page 'control could be summarized as follows' apparently apply. At the top of the page it shows Durant as having 280,000 shares and du Pont 223,000. I take it that the du Pont holding of 223,000 applies to the holdings which the du Pont [fol. 1722] Company was about to make, is that correct?

"A. I would suppose so. I don't know whether it is given in this report or not. This report proposes to purchase General Motors and Chevrolet stock. So the 'du Pont' would refer to that.

"Q. And, of course, the 'Durant' refers to the personal holdings of Mr. Durant, Durant 280,000 shares?

"A. Well, it might refer to others among his associates also.

"Q. In other words, it is referring in terms of the possibility that if there were a stockholders' vote and there were certain conflicting interests then ~~Mr.~~ Durant, both from the standpoint of his own personal holdings and those of the persons affiliated with him could depend on 280,000 shares voting with him?

"A. That is right.

"Q. Dropping down to the next breakdown, there is the statement, 'Additional stock to be bought by du Pont to make our investment $25,000,000.00 say 50,000 shares.' I take it that at that time you contemplated—when I say you, I am speaking of the du Pont Company, or possibly more precisely that Mr. Raskob is recommending that the du Pont Company—in addition to buying the 223,000 shares, buy an additional 50,000 shares? Is that correct?

"A. I believe that is right, yes.

"Q. So that the grand total at that point of the Durant and du Pont Company holdings, assuming these additional acquisitions were made by the du Pont Company, would total 553,000 shares out of a grand total of slightly over 1,000,000 shares outstanding, and that would be a clear majority, would it not, of the shares?

"A. It would.

"Q. Now the next category is, 'Stock held by Wilmington people and du Pont friends approximately 100,000,' Now, at this point, Mr. du Pont, I ask you to turn over toward the [fol. 1723] back of the report. There is a two-page listing of share holdings. Up at the top of that listing appear the words 'Du Pont Control.' May I ask, Mr. du Pont, what you and Mr. Raskob meant by that particular phraseology appearing at the top of that listing of stockholders in General Motors?

"A. This list was made by Raskab, and I understood it, and I think he understood it to mean these people would vote with the du Pont Company in General Motors.

"Q. In case there should be a conflict between different stock holding groups, then this group would side with you?

"A. Yes.

"Q. Now how would you know that, Mr. du Pont, or how would you reach such an assumption as to these persons?

"A. That was Mr. Raskob's opinion. It was not mine, am sure, because a number of the people listed here I do not know. This is his opinion of what those stockholders would do and he evidently knew them all.

"Q. I would like to have you look at certain names on that list, and in order to simplify the examination I am going to ask you to look only at the names of those persons who hold

500 or more shares of stock. Did you know W. Sexton, who is down for 600 shares?

"A. No, I did not.

"Q. Did you know John Aspinwall?

"A. I think he was a du Pont Company employee. I knew him slightly.

"Q. As a du Pont Company employee you felt that in the event of a clash in interests in the General Motors Company that you could rely upon his voting his stock with you?

"A. I didn't know him well enough to assume that. But I suppose Raskob did.

[fol. 1724] "Q. Mr. Barksdale is down for 2250 shares.

"A. He was a du Pont officer.

"Q. Then Mr. F. L. Belin—you have already indicated your relationship with him?

"A. Yes.

"Q. We drop down to Mr. C. Copeland, who is down there for 550 shares.

"A. He is my brother-in-law.

"Q. Then we drop down to Mr. William M. Dole, who is down for 6,218 shares.

"A. He was Coleman du Pont's secretary.

"Q. Then we drop down to Ethel H. du Pont.

"A. My sister-in-law.

"Q. Then we drop down to E. E. du Pont.

"A. He was at that time, I believe, a director of the du Pont Company, and one of the du Pont family.

"Q. And next, H. A. du Pont, 1,610 shares.

"A. He was one of the former stockholders in the corporation of 1899.

"Q. H. F. du Pont, down for 650 shares.

"A. He was a director of the du Pont Company, and my cousin.

"Q. And Irenee du Pont, of course, is your brother. And Lammot du Pont is down for 1500 shares, and is your brother. P. S. du Pont is yourself, down for 20,000 shares. T. C. du Pont, is your old partner——

"A. Yes.

"Q. (Continuing) down for 15,000 shares. Then we are down to the Glenden Land Company. Do you know what that was?

"A. That was a corporation formed by my brother-in-law and his wife.

"Q. And then over to the next page, we have Mr. C. B. Holladay.

"A. He was in the Treasurer's Department of the du Pont Company.

"Q. And then we have Mr. C. C. Kurtz, down for 500 shares.

"A. He was a well-known citizen of Wilmington.

[fol. 1725] "Q. Of Wilmington?

"A. Yes.

"Q. You knew him personally?

"A. Yes, quite well.

"Q. And next is F. D. Lackey, who is down for 3,181 shares.

"A. He was a broker in Wilmington.

"Q. And was he with any particular firm or was he——

"A. No, that was the name of the firm.

"Q. That was the name of the firm?

"A. Yes. But this is his personal holding, I suppose.

"Q. Yes.

"A. It is not named as a firm holding.

"Q. And I take it he was well known personally by you? You knew him?

"A. I knew him, but not well.

"Q. Next is J. B. Niles, down for 600 shares.

"A. He was an employee of the du Pont Company.

"Q. Next is Helena S. Raskob.

"A. John Raskob's wife.

"Q. And John Raskob. Of course we already know who he is. Then the Wilmington Trust Company as Trustee and I think the record already shows that various members of the du Pont Company hold stock interests in the Wilmington Trust Company, is that correct?

"A. Yes.

"Q. Did you personally, Mr. du Pont, hold stock in the Wilmington Trust Company?

"A. I had a small amount.

"Q. And your brothers Irenee and Lammot, did they have certain holdings there?

"A. I don't know whether they had or not. There is one more at the end, F. G. Tallman, a thousand shares. He is a du Pont employee, and he was a Director at that time.

"Q. How did Mr. T. C. du Pont become interested in the General Motors stock? Did you or Mr. Raskob discuss [fol. 1726] with him the advisability of purchasing this stock?

"A. For the du Pont Company?

"Q. No, of the General Motors Company.

"A. No. For the du Pont Company? The stock of General Motors Company?

"Q. I am afraid I didn't make myself clear, Mr. du Pont. Your cousin, T. C. du Pont, is down as holding 15,000 shares. He purchased those shares of stock on his own account, did he? For himself?

"A. As far as I know.

"Q. In other words, he was not purchasing as the nominee or the agent of du Pont Company?

"A. No.

"Q. How did he happen to get into the matter of buying the General Motors stock? Did you recommend it to him?

"A. No. It was his own selection.

"Q. Did Mr. Raskob, do you know, have any conversations with Mr. Coleman du Pont on the matter of purchasing this General Motors stock?

"A. No. I don't know.

"Q. Do you recall whether prior to the date of December 19, 1917, you had had any conversations with any of the persons whose names we have just been discussing, recommending to them or suggesting to them or advising them to buy either General Motors or Chevrolet stock?

"A. I couldn't say that I did or did not. I don't remember.

"Q. It was, however, rather well known among the members of this group that we have just been discussing that you and John Raskob were excessively interested financially in the General Motors and Chevrolet companies?

"A. I doubt if any of them knew the extent of our holdings—whether they were large or small.

"Q. They knew that you were interested?

"A. That is so. It was published in the papers—an [fol. 1727] account of my accepting the Chairmanship of General Motors Board. They knew I was interested."

* * * * * * *

"Q. Mr. du Pont, at this time, December 19, 1917, assuming that the du Pont Company would buy as recommended the 223,000 shares of stock plus the 50,000 which Mr. Raskob refers to, and assuming that his figures are correct with respect to, those friends of du Pont who can be relied upon in a proxy battle, then as of December 19, 1917, the du Pont interests—I will use the broad phrase—actually controlled more votes in General Motors than did Mr. Durant. Is that not correct?

"A. I don't think we knew that to be correct. I am not sure that it was.

"Q. I call your attention, to refresh your recollection——

"Mr. Harlan: Let him finish.

"Mr. Hotchkiss: Oh, pardon me.

"The Witness: From the figures here, we are not certain that those attributed to be du Pont were really du Pont, and those attributed to Durant were really Durant people. This was an estimate made up by Mr. Raskob, I suppose in connection with Mr. Durant, but you can't make those groups one unit by supposition.

"By Mr. Hotchkiss:

"Q. But on the basis of the best information then available, the du Pont Company stock which the company was [fol. 1728] going to get, plus the stock held by Wilmington people and du Pont friends, totaled more than the shares of stock ascribed to the holdings of Mr. Durant and his friends. Is that not true?

"A. As it appears from these figures, it is true.

"Q. Yes.

"A. But I wouldn't consider they were very reliable.

"Q. Yes. Was it not a fact that as of December 19, 1917, you and your associates in the du Pont Company intended to acquire effective operating control of General Motors and felt at that time that for all practical purposes you had achieved that objective?

"A. I don't know what you mean by 'effective operating control,' but at that time we did not intend to possess any more General Motors stock than is set forth here. That was all we proposed to buy, and none of the Wilmington people were any way certain.

"Q. Mr. du Pont, at that time, December 19, 1917, didn't you and your immediate associates in the du Pont Company feel that Mr. Durant was on his way out as an effective force in the company?

"A. No.

"Q. I call your attention to page 12 of Defendants' Exhibit 85——"

and that is the same Government Trial Exhibit No. 124——

"you will find the page number two-thirds of the way down the page—and under the heading 'MANAGEMENT' I read:

> " 'Perhaps it is not made clear that the directorates of the motor companies will be chosen by du Pont and Durant.'

[fol. 1729] "Then I read:

> " 'Mr. Durant should . . .' — I repeat — '. . . should be continued as President of the Company, Mr. P. S. du Pont will . . .' — I repeat — '. . . will be continued as Chairman of the Board, the Finance Committee will be ours and we will have such representation on the Executive Committee as we desire, and it is the writer's belief that ultimately the du Pont Company will absolutely control and dominate the whole General Motors situation with the entire approval of Mr. Durant, who, I think, will eventually place his holdings with us taking his payment therefor in some securities mutually satisfactory.'

"Then the last sentence of the next paragraph:

> " 'If our fundamentals are sound, as they certainly seem to be in this case, the control of the General Motors Company will be a task worthy of the best there is in us and will I feel afford many opportunities to keep our important men occupied with big things after the war.'

"Mr. du Pont, do you recall whether this recommendation of the Treasurer to the Finance Committee, this Defendants' Exhibit 85, or a copy thereof, was ever shown to Mr. Durant?

"A. I do not know whether it was or not, no.

"Q. I call your attention to the opposite page, the understanding under which the du Pont Company is to make this investment:"

And reading from the Government trial exhibit:

> "'1. With Mr. Durant we will have joint control of the companies.
>
> [fol. 1730] "'2. We are immediately to assume charge and be responsible for the financial operation of the Company;'"

referring to General Motors Company.

"Then towards the end of that number 2, I read:

> "'From a financial standpoint, I feel that a consolidation of the financial divisions of the du Pont and General Motors Companies will be of tremendous advantage to us as well as to the General Motors Company and is a thing to be sought and desired from our standpoint.'

"I ask, Mr. du Pont, with reference to that last portion that I read, particularly the language referring to a consolidation of the financial divisions of the du Pont and General Motors companies, whether you and Mr. Raskob were referring to a kind of arrangement under which most of the members of the Finance Committee of the du Pont Company would sit on the Finance Committee of the General Motors Company. Is that true?

"A. No, I don't think it is true. I don't know what that paragraph means, about consolidation of the financial divisions of the du Pont and General Motors Corporations.

"Q. I suggested for your consideration the machinery whereby such an effective consolidation might be accomplished, and I asked whether that was the machinery which was utilized to secure this consolidation of the financial divisions of the du Pont Company and the General Motors Company.

"A. No, it was not.

"Q. Was it not a fact, however, Mr. du Pont, that most of the members of the Finance Committee of the du Pont [fol. 1731] Company as it was then constituted were in fact placed on the Finance Committee of General Motors?

"A. That might be.

"Q. I call your attention now to Defendants' Exhibit 88."

That exhibit is not in evidence.

"That is, is it not, the minutes of the joint meeting of the Executive Committee and the Finance Committee—pardon me. That is a meeting of the Board of Directors of the du Pont Company, at which time the Board formally approved this acquisition by the du Pont Company of this interest in the General Motors Company.

"A. Yes.

"Q. Mr. du Pont, did not then and thereafter a very considerable number—a majority, as a matter of fact—of the persons listed as being here, as being the members of the Board of Directors of the du Pont Company, serve in various official capacities with the General Motors Company?

"A. There are six of them.

"Q. There is Mr. P. S. du Pont—certainly you served?

"A. Yes.

"Q. With General Motors?

"A. Yes.

"Q. Mr. Irenee du Pont did serve?

"A. Yes.

"Q. Mr. H. F. Brown did serve, did he not?

"A. No.

"Q. Did Mr. F. G. Tallman serve?

"A. No.

"Q. Did Mr. H. F. du Pont?

"A. Yes.

"Q. Did Mr. William Coyne?

"A. No.

"Q. Mr. J. P. Laffey?

"A. No.

"Q. Mr. Barksdale—he was with Chevrolet at the time, was he not?

"A. He was with Chevrolet, but not with General Motors.

"Q. And Mr. Lammot du Pont?

"A. Yes.

[fol. 1732] "Q. Mr. R. R. M. Carpenter?
"A. No.
"Q. Mr. Raskob?
"A. Yes.
"Q. Mr. A. Felix du Pont?
"A. No.
"Q. Mr. H. G. Haskell?
"A. No.
"Q. Mr. J. A. Haskell?
"A. Yes.
"Q. Mr. Patterson?
"A. No.
"Q. Mr. Eugene du Pont?
"A. No.
"Q. Mr. Pierce?
"A. No.
"Q. Reese?
"A. No.
"Q. Eugene E. du Pont?
"A. No.
"Q. Alexis I. du Pont?
"A. No.
"Q. Buckner?
"A. No. There are about six of them."

Mr. Houchins: That is all from that particular portion. Moving on over in the deposition.

Mr. Harsha: Reading from page 586 a short excerpt. This is a continuation of the cross examination by Mr. Hotchkiss. Mr. Hotchkiss asked:

"Q. You think you wrote that? Thank you.

"Mr. du Pont, I hand you what has been marked for the purposes of identification as Government's Exhibit 82."

And that, incidentally, is Government's Trial Exhibit 134, your Honor, now in evidence.

"This exhibit bears in the lower right hand corner the numbers gmc 912b, is dated December 12, 1918, and is from John J. Raskob to the Finance Committee, and deals generally with estimates as to certain capital expenditures which should be made by the General Motors Corporation during the coming year, and there appears a recommendation on the second page that the company sell eighteen [fol. 1733] million dollars worth of common stock and that certain other money be secured through issuing common stock in payment for the McLaughlin-Buick properties. Mr. du Pont, in the normal course of proceedings this would go to the Finance Committee of the General Motors Company?

"A. Yes, it would.

"Q. Do you recall this proposal going to the Finance Committee?

"A. I believe it did, yes, sir.

"Q. Now, at the same time—this is December 12, 1918—you were also on the Finance Committee of the du Pont Company?

"A. Yes.

"Q. Do you also recall this particular recommendation or report, or a copy, being submitted to the Finance Committee of the du Pont Company?

"A. I don't recall that. There may have been.

"Q. There were, were there not, occasions when reports which were made to the Finance Committee of the General Motors Company were then referred to the Finance Committee of the du Pont Company? Is that correct?

"A. No, I think not. There was no motion to refer anything to the du Pont Company.

"Q. I am not speaking in terms of any formal motion.

"A. No.

"Q. I am simply speaking, Mr. du Pont, in terms of a report or a recommendation which had been made in usual channels informing the Finance Committee of General Motors, also being submitted or shown or turned over to the Finance Committee of the du Pont Company.

"A. I think that was done in line with the understanding that the du Pont Company would manage the finances of the General Motors Company, subject to the Finance Committee and approval of General Motors."

[fol. 1734] Mr. Harlan: Your Honor, at this time may I read and excerpt from the redirect to fill out the portion which has been read?

The Court: You may.

Mr. Harlan: Your Honor has been advised that Mr. du Pont is going to be a witness on our side of the case. I am limiting myself in this reading to such portions that I feel would fill out the matters that the Government has read.

I am reading from page 895 and 896 which is the redirect examination.

"Q. Will you please look at page 587 of the record, the questions on that page 587, and particularly the last question which Mr. Hotchkiss asked you at that point?

> " 'I am simply speaking, Mr. du Pont, in terms of a report or a recommendation which had been made in usual channels informing the Finance Committee of General Motors, also being submitted or shown or turned over to the Finance Committee of the du Pont Company?'
>
> " 'A. Think that was done in line with the understanding that the du Pont Company would manage the finances of the General Motors Company subject to the Finance Committee and approval of General Motors.'

"I want to ask you whether irrespective of the circumstances or irrespective of the subject matter was there any general practice of having reports made to the Finance Committee of General Motors submitted to the Fi- [fol. 1735] nance Committee of the du Pont Company?

"A. Yes. You mean all reports?

"Q. Yes.

"A. No, there was no such system.

"Q. What were you referring to there in your answer when you stated as I read in answer to the question of Mr. Hotchkiss that I read?

"A. The items to be referred from General Motors to the Finance Committee of the du Pont Company related to the du Pont management of finances.

"Q. Management of finances of what?

"A. Of General Motors, which they had engaged to undertake.

"Q. Can you give any illustrations of the type of situation that you are describing in your answer?

"A. For instance, if a new issue of securities was to be made of General Motors stock to be taken by the stockholders of General Motors, of which du Pont Company was one, I think that would have been referred, especially if that required any guaranty of shares or anything of that kind."

Mr. Harsha: I now turn to page 593. This is continuing in the cross examination the second question on the page:

"Q. I call your attention, Mr. du Pont, to Defendants' Exhibit 111——"

I should add, your Honor, that is Government's Trial Exhibit No. 140, already in evidence.

"—which consists of—I suppose you would call it a report or recommendation from John J. Raskob to the Finance Committee of the du Pont Company—dated March 19, 1920. It relates generally to the matter of raising additional capital for the use of the General Motors Company. The figure sixty million dollars is mentioned. At that time is it not true that General Motors Company as well as other companies and business enterprises in the country were going through what might today be called a business [fol. 1736] recession?

"A. The latter part of 1920, yes. I think it had hardly started in March, 1920.

"Q. The proposal is made in this communication to the Finance Committee of the du Pont Company that additional stock of General Motors be sold. At the bottom of the first page there is this language:

'. . . . the industry can employ $60,000,000 additional which will also earn 30 per cent then there is no sacrifice in having the $60,000,000 additional supplied by others provided they are satisfactory partners.'

"At this time apparently General Motors did need sixty million dollars or thereabouts. Why should Mr. Raskob be concerned with the question of who would supply that additional capital? Do you recall it?

"A. That was one of the duties of the Finance Committee of the General Motors, to supply the capital. The du Pont Company would undertake to look after the financial business of General Motors for it, according to the arrangement with Durant. Thereupon it became the concern of the du Pont Company to propose the means of getting this money.

"Q. It was then the responsibility of the du Pont Company?

"A. The responsibility through that agreement with Durant that du Pont entered into, with the General Motors Corporation."

That is all I propose to read from that excerpt.

I now turn to page 732, your Honor. Beginning with the second question on the page, and this is continuing the cross examination:

"Q. I direct your attention now, Mr. du Pont, to Defendants' Exhibit 160—[marked also in the deposition as Defendants' Exhibit No. 256]" which is now in evidence as Government Trial Exhibit 610——

[fol. 1737] "—which is a memorandum from you dated March 24, 1922, to Mr. Irenee du Pont, in which you state, 'I am enclosing herewith brief report on the gasoline dope situation. The developments look very promising.'

"Mr. du Pont, back in those days you were president of the General Motors Corporation?

"A. I was, yes.

"Q. And you were also Chairman of the Board, were you not, at this particular time?

"A. Yes.

"Q. You received this report that is referred to here on the gasoline 'dope' situation in the more or less normal routine of your duties, is that correct?

"A. With General Motors, yes.

"Q. And thereupon you transmitted the report which had been made by Mr. Kettering to Mr. Irenee du Pont. In what capacity were you transmitting this report to Mr. Irenee du Pont, do you recall?

"A. This was not a written report from Kettering. It came from conversations I had had with Kettering. The information was gained from Kettering, but it was not a report made by him, just a conversation.

"Q. Mr. Kettering had a conversation with you?

"A. Yes.

"Q. And then after the conversation you dictated a summary of the conversation, is that correct?

"A. Yes.

"Q. Now, was Mr. Irenee du Pont at that time a member of the Board of Directors of General Motors?

"A. I think he was, yes.

"Q. And he was also, was he not, the President of the du Pont Company?

"A. Right.

"Q. Now, in transmitting this memorandum of yours to Mr. Irenee du Pont with this report, in what capacity did you want Mr. Irenee du Pont to receive the report? Was [fol. 1738] it in his capacity as an officer of du Pont or in his capacity as a Director of the General Motors Company, do you recall?

"A. In any capacity he chose to receive it.

"Q. That is, it would not make any difference to you in what capacity he received it, is that right?

"A. I think that is right, yes.

"Q. And it would make no difference to the operations of either the General Motors Corporation or the du Pont Company as to in what capacity he received your communication?

"A. I think it would make no difference."

I turn now to page 766, beginning at the bottom of the page. This is continuing the cross examination:

"Q. Mr. du Pont, I want to advise you that in the next few minutes I want to direct some questions at you with reference to the fabrikoid business and possibly the rubber-coated fabric business. The first document I want to call to your attention is Government Exhibit No. 278 [Government Trial Exhibit No. 291], so marked for identification, which consists of a letter dated April 19, 1918, from Mr. Silkman, sales agent of du Pont Fabrikoid Company, to Mr. J. A. Haskell, which reads:

> " 'We are to a great extent familiar with the various companies, comprising the General Motors, but we are afraid we have not the entire list, and pursuant to a plan, thought, which we wish to work out, which came up at a recent meeting, our people had with Messrs. Hohensee and Durant, at which conference, I had the pleasure of meeting you, it is necessary we have a complete list of all of the firms, comprising the General Motors Organization.
>
> " 'Won't you kindly favor me with such a list?' "

[fol. 1739] "I call your attention now to the reply to that letter which has been marked for identification as Government Exhibit No. 279 [Government Trial Exhibit No. 292] in which Mr. Haskell replies giving a list of the companies comprising General Motors. Was it not true, Mr. du Pont, that one of the functions of Mr. J. A. Haskell in these early years of the du Pont interest in General Motors was to act as the liaison man between General Motors and du Pont in supplying the du Pont people as to information regarding trade opportunities in the General Motors organization and in advising the General Motors people as to the products which they could secure from the du Pont Company.

"A. It is very difficult to answer that question. He certainly occupied a position of giving information concerning General Motors to du Pont as a large stockholder in General Motors and as a person that was engaged to look after the finances of General Motors Company. I believe that is all that he was.

"Q. Now he had, prior to the time that he became affiliated with General Motors in an official capacity, been connected with the du Pont Company, had he not?

"A. Yes, sir.

"Q. Could you estimate the number of years that he had been connected with the du Pont Company prior to that?

"A. Since 1903."

"Q. And had he held important positions with the du Pont Company during that period of time from 1903 to let us say 1917?

"A. He had.

"Q. Could you state the general nature of the positions which he held with the du Pont Company?

"A. In general he was head of the sales department of the du Pont interests. That was his chief function throughout.

"Q. And is it not true that very shortly after du Pont [fol. 1740] acquired its interest in General Motors Company, that Mr. Haskell, J. A. Haskell, became an officer and a director of the General Motors Company?

"A. Yes."

I am stopping there and passing on then to——

Mr. Harlan: Excuse me. May I read one more excerpt to fill out the excerpt just read?

The Court: You may.

Mr. Harlan: I am reading from redirect examination at pages 904 and 905:

"Q. Now, will you direct your attention to Mr. J. A. Haskell for a moment, page 768 of the printed record, the last question on page 768 and the first two questions on 769, where Mr. Hotchkiss asked you:

"Question: 'And on whose initiative did Mr. J. A. Haskell become an officer and a director of General Motors Company if you recall?'

"Answer: 'No, I do not recall. It would have been the province of the Executive Committee of the du Pont Company to appoint someone.'

"Question: 'It would have been the province of the Executive Committee of the du Pont Company to designate Mr. Haskell for that position with the General Motors Company?'

"Answer: 'And to release him.'

"Question: 'And to release him from his duties with the du Pont Company?'

"Answer: 'Right.'"

Then a question on redirect follows.

"In point of fact did the Executive Committee of du Pont appoint Haskell to do his job in General Motors?

[fol. 1741] "A. No,I was wrong in that. Haskell was originally chosen for General Motors at the first meeting of the committee to nominate directors of the General Motors Corporation, and I made that appointment myself.

"Q. That was that episode that you referred to with Kaufman in your previous testimony that took place in 1915?

"A. Yes, that is when Haskell first appeared. And he stood in that relative position throughout as a director and afterwards as an officer, and as an officer, of course, he was appointed by the Board of Directors, the Board of Directors of General Motors.

"Q. And at the time you designated him as one of the three neutral directors in the 1915 episode in connection with the panel for the General Motors Board, did Mr. Haskell perform any active functions in the du Pont Company?

"A. Well, he was one of the vice presidents and open to any assignment that was given to him. He had no definite assignments.

"Q. He was on a semi-retired basis, wasn't he?

"A. I would say so, yes."

Thank you, your Honor.

Mr. Harsha: I turn now to page 782 at the top of the page, the second question:

"Q. I call your attention to Government Exhibit No. 291 [Government Trial Exhibit No. 406], the same being a report dated February 12, 1923, from the Cellulose Products Department to the Executive Committee of the du Pont Company, and I ask you to turn to page 7 of that report, and I read from the middle of the page a sentence which starts about the middle of that long paragraph immediately under the heading 'Fabrikoid & Auto Top Materials': 'At the present time all leather substitute and top material is [fol. 1742] furnished by the Fabrikoid Division, and while several of our competitors are large enough to constitute a satisfactory source of supply the fact that under present conditions none of our competitors are called up to furnish any material constitutes a violation of this resolution.'

"For the sake of the record, Mr. du Pont, the 'resolution' is referred to in the foregoing part of this report as being a resolution of, I think, the Purchasing Committee of General Motors that they wished to have two sources of supply for all their products.

"Mr. du Pont, were you kept advised during this general period of time as to the relative amount or proportion of General Motors business which the du Pont Company was receiving?

"A. Not in any regular manner, no.

"Q. Periodically, however, information did reach you?

"A. At times, yes.

"Q. And you did receive, did you not, information similar to this?

"A. Yes. I don't remember this report.

"Q. Now I call attention to the next paragraph on this page 7:

> " 'A meeting was arranged while I was in Detroit to enable me to confer with Messrs. Main, Director of Purchases, Lynah, Assistant Director of Purchases,

J. L. Pratt, who is on the purchasing committee, O'Keefe, Purchasing Agent for Chevrolet, and Hulgrave, Purchasing Agent for Cadillac.'

"Mr. du Pont, are you or were you acquainted with each of the persons there named: Messrs. Main, Lynah, Pratt, O'Keefe and Hulgrave?

"A. Was I acquainted with them?

"Q. Were you acquainted with those persons?

[fol. 1743] "A. I was with Lynah and Pratt, but not with Main, O'Keefe or Hulgrave. I don't remember having met those men.

"Q. You say that you were acquainted with Mr. Lynah. What was his background, do you recall?

"A. His background was in the manufacture of smokeless powder, during the Great War, for the du Pont Company.

"Q. He had been employed by the du Pont Company for a number of years, had he?

"A. Not very many years. He was a young man.

"Q. And then after World War I he was transferred to the General Motors Company, is that correct?

"A. That is right, yes.

"Q. Where he became Assistant Director of Purchases?

"A. That is as it reads here.

"Q. Who was Mr. J. L. Pratt?

"A. He was also of the du Pont Company, engaged I think in the war effort, but I can't remember in what capacity.

"Q. And after World War I, and following the du Pont acquisition of a stock interest in General Motors, was Mr. Pratt transferred to the General Motors Company?

"A. At the request of Mr. Durant, I believe.

"Q. At the request of Mr. Durant?

"A. Yes.

"Q. And du Pont acceded to that request, did they not?

"A. Yes.

"Q. And Mr. Pratt became a rather important official of the General Motors Company?

"A. He did.

"Q. I believe the record will show that he became a Vice President and a Director?

"A. Yes, that is right.

"Q. And did Mr. Pratt, in connection with his functions with the General Motors Company, devote rather particular [fol. 1744] attention to the question of the purchases which the General Motors Company made?

"A. He was Chairman of the Purchasing Committee, I believe."

I stop there. I turn next to page 879, and this is on cross examination, and I am reading from the middle of the page:

"Q. Now, I hand you, Mr. du Pont, Government's Exhibit 370"——

That is, your Honor, Government's Exhibit No. 509 which is in evidence—"which consists of an extract from minutes of regular monthly meeting of the Board of Directors of the du Pont Company, July 18, 1927, and at the top of the material appears this in caps—apparently the subject of the meeting is the 'Loan to General Motors Corporation of 247,600 Shares of General Motors Corporation Common Stock by General Motors Securities Company.'

"Now, Mr. du Pont, about this time in 1927 the proposal did arise, did it not, that the General Motors Company acquire the remainder of the stock of the Fisher Body Company?

"A. That question arose. I don't remember the date, though.

"Q. Yes. And the du Pont Company approved General Motors Company making that acquisition?

"A. Whatever the record shows. I have no recollection of the transaction.

"Q. It is a fact, is it not, that the General Motors Company did thereafter acquire all the outstanding stock of Fisher Body?

"A. Yes.

"Q. Did General Motors in return for that stock or at least in part payment therefor give the Fisher boys Gen- [fol. 1745] eral Motors stock, do you recall?

"A. I don't recall, but apparently that was the case.

"Q. And do you recall whether any arrangements or understandings or any agreements was entered into between General Motors and the Fisher Body Company or the Fisher boys with respect to the matter of retaining the services of the Fisher boys?

"A. I think there were agreements with all of them.

"Q. There were agreements with all?

"A. Yes, Service agreements."

I stop there and I turn now to 931 near the bottom of the page, and this was on recross examination:

"Q. Now going a step further on, Mr. du Pont, after Fred Fisher was appointed to the Executive Committee did the Fisher Body Company start to buy substantially larger quantities of goods from the du Pont Company and from Flint?

"A. I don't know.

"Q. As a matter of fact Fisher Body did not, did they?

"A. I don't know either whether they did or did not.

"Q. You don't recall that? Well, I think the record will show. The record will show also how long a time after this appointment was made that General Motors bought the remainder of the outstanding stock of Fisher.

"A. The record will show, yes.

"Q. That acquisition of stock was made from the Fisher brothers, was it not, in large measure? The acquisition by General Motors of the remainder of the Fisher Body stock?

"A. Well, there was quite a lot of Fisher stock that was not owned by the Fisher brothers. I can't remember whether that was in the second purchase or whether it was in the first.

[fols. 1746-1823] "Q. But the big block in the second purchase was made from the Fisher boys, was it not?

"A. I don't know about that.

"Q. You have testified on cross examination that in connection with this second purchase by General Motors of the Fisher Body stock that certain arrangements and understandings were arrived at with the Fisher boys with respect to their continuing status with the company. In the meantime, Mr. du Pont, do you recall or remember what those arrangements were?

"A. I think they had employment contracts or something of that nature covering a period of time.

"Q. For a considerable period of years? Do you recall approximately?

"A. No, I don't recall at all, no. I would think not. Maybe five years.

"Q. You have referred to—I think it was Fred Fisher, or perhaps the Fisher boys—as being hard bargainers in your cross examination. Did the Fisher boys, as a condition to their selling this second block of their Fisher Body stock to General Motors, require these employment contracts, do you recall?

"A. I think they probably did, it having occurred about the same time, but I don't recollect any agreement regarding the two things."

Mr. Harsha: That is all we propose to offer, and that completes, your Honor, the proffer of the Government's documentary evidence. There are a few things I should like to mention first. There are just a few brief tag ends before th Government rests.

[fol. 1824] Pierre S. du Pont, called as a witness in his own behalf, having been first duly sworn, was examined and testified as follows:

Direct examination

By Mr. Harlan:

Q. Now, Mr. du Pont, if you will turn your chair so that it is easy for you to face me, and use the microphone, I am sure we will all be able to hear you.

You are an individual defendant in this lawsuit?

A. I am, yes sir.

Q. What was the year of your birth?

A. 1870.

Q. And the month?

A, January.

Q. So that you are now in your eighty-fourth year?

A. Right.

Q. Where were you born?

A. Near Wilmington, Delaware.

Q. And how long have you resided in the State of Delaware?

A. Practically all my life excepting three or four years of college, and three years spent at Lorain, Ohio.

Mr. Harlan: Can your Honor hear satisfactorily?

The Court: Keep your voice up a little higher.

Mr. Harlan: If that microphone could be raised a little, perhaps.

The Court: Well, it is more distinct if he doesn't sit too closely. I thing he is about in the right position now.

Mr. Harlan: I hope your Honor will let me know——

The Court: Yes, I will let you know if I don't hear.

[fol. 1825] By Mr. Harlan:

Q. From what college or university did you graduate?

A. Massachusetts Institute of Technology.

Q. And what year did you graduate?

A. 1890.

Q. And did you receive a degree?

A. Yes, Bachelor of Science.

Q. And what branch of science?

A. In chemistry.

Q. Is your wife deceased, Mr. du Pont?

A. Yes, she is.

Q. What was her name, Mr. du Pont?

A. Alice Belin du Pont.

Q. When did she die?

A. In 1944.

Q. In 1944. Did you and Mrs. du Pont have any children?

A. No, we had none.

Q. What living brothers and sisters have you at the present time?

A. I have two, one brother and one sister.

Q. And what are their names?

A. My brother Irenee du Pont, and my sister, Margaretta du Pont Carpenter.

Q. Mr. Irenee du Pont is one of the individual defendants in this lawsuit?

A. He is.

Q. And your sister, Margaretta, was the wife of Mr. R. R. M. Carpenter, is that right?

A. Yes, sir.

Q. What deceased brothers and sisters did you have?

A. Enumerating them, Mrs. Louisa du Pont Copeland, Mrs. Mary Aletta du Pont Laird, Mrs. Isabella du Pont Sharp; also Mrs. R. R. M. Carpenter that I already mentioned, and my brothers, H. Belin du Pont and William Kemble du Pont, and Lammot du Pont.

Q. You mentioned Mrs. R. R. M. Carpenter. She is still alive, is she not?

A. That's right.

Q. The others are all deceased?

A. Right.

Q. And the Lammot du Pont whom you have mentioned, [fol. 1826] was he also, during his lifetime, one of the so-called individual defendants in this lawsuit?

A. He was.

Q. When did you first become connected with any job in the du Pont Company?

A. In September, 1890.

Q. September, 1890?

A. 1890, yes.

Q. And what was your first job with the du Pont Company?

A. It was in chemical work and superintendence work in the Black Powder Department at Brandywine Mills, near Wilmington.

Q. And did you receive a salary?

A. Yes.

Q. How much was it when you first started?

A. I think it was $80.00 a month.

Q. $80.00 a month?

A. That's right.

The Court: Will the witness move this way a little further, please, so as to be right behind the microphone. Proceed, please.

By Mr. Harlan:

Q. Have you been with the du Pont Company ever since 1890 in one capacity or another?

A. Excepting the three years spent in Ohio at another job.

Q. And what was that other job, and what were the years?

A. The years were 1899 to 1902, and the job was in connection with liquidation of a corporation.

Q. Is that the Johnson Company?

A. The Johnson Company.

Q. And apart from that you have had no other jobs or connections than with the du Pont Company?

A. That's right, sir, yes, sir.

Q. So am I correct in saying that you have been connected with the du Pont Company in one capacity or an-[fol. 1827] other for the last—for 61 out of the last 63 years?

A. That's right.

Mr. Harlan: I now offer du Pont Exhibit No. 1, which is in your Honor's loose leaf volume. By the way, if your Honor please, we have marked these exhibits for the most part on the examination of these witnesses. I intend to introduce them chronologically as they are marked.

As du Pont Exhibit No. 1, we offer a tabulation of the different positions held by Mr. Pierre du Pont in the du Pont Company, the present du Pont Company, and its predecessors, from 1890 to date.

I thought it would be convenient to have that in tabular form so we don't have to go through the question of putting those details on the record through the testimony.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 1.)

By Mr. Harlan:

Q. When did you first become a stockholder in the du Pont Company or any of its predecessors?

A. 1902.

Q. Have you since that time always been a stockholder?

A. I have.

Q. Have you read the complaint in this lawsuit?

A. Yes, I have.

Q. Are the charges that you were a participant in a conspiracy to violate the Sherman Act, the anti-trust laws, are those charges known to you?

A. I know the charges, yes.

Q. Are they true or false?

A. False.

[fol. 1828] Q. Your deposition, if you recall, was taken in this lawsuit in Wilmington in May and June, 1951. Do you recall that?

A. I recall that, yes.

Q. Has it always been your intention to appear before his Honor personally, if you were able to do so, and testify in person at this lawsuit?

A. Yes, that has been my intention.

Mr. Harlan: If your Honor please, the first line of proof that I am going to undertake to develop relates to the Government's charges that the individual defendants as part of this alleged Sherman Act conspiracy, conspired to get control of the du Pont Company, or as it is stated in their trial brief, to seize control of the du Pont Company.

My questions to Mr. du Pont for the next few moments are going to be directed to that assertion on the Government's part.

By Mr. Harlan:

Q. Are you familiar with the history of the du Pont Company and its predecessor companies?

A. Yes, I am.

Q. By whom was the original business of the du Pont Company founded?

A. E. I. du Pont.

Q. What was his full name?

A. Eleuthere Irenee du Pont.

Q. What relation was Mr. Eleuthere I. du Pont to you?

A. My great grandfather.

Q. Without going into too much detail, will you please state to the Court the circumstances as to how that original enterprise came to be founded by Mr. Eleuthere I. du Pont?

A. Mr. du Pont was employed in the powder factory of the French Government in France as a young man, and [fol. 1829] there he learned quite a good deal of the powder manufacturing business.

Later, he left the powder business and conducted a printing press for his father. Those are the only two positions he held while in France. He was then quite a young man.

In 1800, du Pont and his wife and the three children went to America. His father had a plan for operations in Delaware in connection with real estate matters. The plan of the father failed, leaving du Pont, the younger, stranded in America with no information as to what he might do and nothing that he could go into excepting the powder business. That was the only thing he knew.

As a result he decided to try to start the powder business in America through his own knowledge; he having found that the powder that was used in America was of very poor quality, especially the English powder which was selling at a very high price.

He then proceeded to France, and ordered the machinery which could not be obtained in the United States; he consulted with friends in the French Powder Works, who gave him information, drawings, and so on. He also obtained some subscriptions to his stock list to start his company.

He returned to America in the course of three or four months. He then traveled all through the eastern part of the United States, seeking a water power in order to operate his plant, which required what was considered quite a little power at that time.

He finally located near Wilmington, Delaware, on the banks of Brandywine Creek, which was considered a very fine water power, and started building his factory. The [fol. 1830] factory started manufacturing in 1804, and continued, and was finally abandoned a very few years ago.

That was the life work of Eleuthere I. du Pont. He died in 1834, after having paid off the debts of his company, and was the owner of the complete stock at the time.

Q. Can you tell us what the original capital of that first enterprise amounted to, how much?

A. $36,000 in shares, which were paid for in cash. Then what we would call common stock shares, which had no payment of cash back of them, but which were divided in large part, I think 30 per cent, to Irenee du Pont, and the rest to the subscribers of the capital.

Q. How much of that $36,000 did your great grandfather, Eleuthere, put up—or I guess it was your great great grandfather, Pierre Samuel du Pont, who put up the capital, was it?

A. He put up, I think it was, $12,000 of it, of the $36,000. His son, Irenee, put up nothing because he had nothing to put up.

Q. Was that first enterprise a partnership or a corporation?

A. A partnership.

Q. How long did that partnership continue?

A. It continued with some revisions until the death of Irenee du Pont in 1834.

Q. Following Mr. E. I. du Pont's death in 1834, was the partnership continued by his descendants?

A. It was continued by his children, the three sons and four daughters.

Q. What was the name of your father, Mr. du Pont?

A. Lammot du Pont.

Q. Your deceased brother, Lammot, bore his name?

A. Yes, he did.

[fol. 1831] Q. Was your father, Mr. Lammot du Pont, Sr., a member of that partnership?

A. He was.

Q. For how long?

A. From 1857 until 1880.

Q. When did your father die?

A. 1884.

Q. How did he die?

A. He was killed in an accident in the mills.

Q. Were you ever a member of the original du Pont partnership?

A. No, I never was.

Q. Or were any of your brothers and sisters?

A. None of them.

Q. How long did the partnership, following Mr. E. I. du Pont's death, in 334, continue as a partnership?

A. Well, it continued with revisions until 1899.

Q. And at that stage what happened?

A. It was incorporated as E. I. du Pont de Nemours & Company, the same name as the partnership, in the State of Delaware.

Q. And that was 1899?

A. 1899.

Q. Who were the stockholders of that 1899 company which succeeded to the partnership?

A. The same individuals who had been in the partnership with the same relative holdings. Shall I name them?

Q. No, I don't think that is necessary. You say they were all members of the du Pont family?

A. All of them, yes.

Q. Did you own any stock in the 1899 company?

A. No, I did not.

Q. Do you know whether any of your brothers and sisters owned any stock in that company?

A. They did not.

Q. Who was president of the 1899 company?

A. Eugene du Pont.

Q. What relation was he to you?

A. My father's first cousin.

[fol. 1832] Q. When did Mr. Eugene du Pont die?

A. He died in January of 1802.

Q. 1802?

A. 1902.

Q. What became of the 1899 company upon the death of Mr. Eugene du Pont?

A. That was liquidated.

Q. Was it replaced by another company?

A. It was replaced by a company organized in 1902.

Q. You have previously stated that you became a stockholder of the du Pont Company in 1902.

A: Yes, sir.

Q. Will you please tell the Court the circumstances under which you became a stockholder in the business at that time?

A. Eugene du Pont had died in January of 1902. None of the other stockholders felt capable of heading the business, taking charge. Three of them were in ill health and the senior member was unwilling to take on the work. The sixth member asked whether he might be permitted to organize a company to take over the business of the 1899 corporation. He was granted that permission and he proceeded to interest my cousin, Coleman du Pont, and myself in the business with him.

Q. Who was that man?

A. That was Alfred du Pont. He had the option to organize the new company. Coleman du Pont was my first cousin, and also first cousin of Alfred du Pont.

Q. Then what happened following Alfred's invitation to you and Coleman to join with him in purchasing the 1899 company?

A. Coleman said that he would agree to go in if I would join, and that was agreeable to Alfred, so we three together made a proposition to the owners of the company to purchase its assets.

They named the price of $12,000,000, which was accepted. Coleman du Pont told the owners that we could not pay cash [fol. 1833] for the whole amount, but would pay some cash and give a stock bonus in proportion, in relation of the cash to the whole, and if they would consent to take notes for the full $12,000,000, we would give them 25 per cent of the stock of the new company, which we proposed to organize. That was accepted by the former partners, or stockholders, of the 1899 corporation.

Q. And that resulted in the formation of the 1902 company?

A. Yes, the new company was organized in Delaware to take over the property.

Mr. Harlan: I am sure there will be no objection to my stating, to keep the chain of events in chronological order—it is in the complaint and in the answers—that all the seventy-five percent of the stock of the 1902 company, which was left over after the twenty-five percent of the stock went to the former stockholders of the 1899 company, or, rather, to the 1899 company as part payment of its assets, then distributed by the 1899 company, that seventy-five percent was distributed, 43,000-odd shares to Mr. Coleman du Pont, 21,600 shares odd to Mr. Pierre du Pont, and 21,600 shares to Mr. Alfred du Pont. Is that all right, Mr. Harsha?

Mr. Harsha: That is agreeable, sir.

By Mr. Harlan:

Q. And in addition, Mr. Alfred I. du Pont received as his share of the twenty-five percent of the stock that was retained by the 1899 company, because of his being a stockholder in that company, an additional 3,000-odd shares.

Do you recall, Mr. du Pont, there was an additional block of stock of the 1902 company that was trusteed?

[fol. 1834] A. Yes, sir, three percent of the stock was trusteed for the future benefit of those who might join the company, who were not then employed by the company.

Q. Who became the president of the 1902 company?

A. Coleman du Pont.

Q. What job did Alfred hold?

A. He was vice president of the company in charge of the black powder manufacturing.

Q. What job did you hold?

A. I was treasurer.

Q. And isn't it a fact that the stock of the 1902 company continued to be held entirely by you gentlemen, and the former stockholders of the 1899 company, all being members of the du Pont family?

A. That is substantially right, yes. There were a few shares that got into other hands.

Q. You understand I use the du Pont family in its broader sense, not in its more restricted sense as it is used in the complaint?

A. In the broad sense.

Mr. Harlan: Now, I offer as the next du Pont Exhibit 2, if your Honor please, a letter dated February 20, 1902, from Mr. Pierre du Pont to Mr. Irenee du Pont, his brother, which refers to the circumstances under which Mr. Pierre du Pont, Alfred du Pont and Coleman du Pont were given the opportunity to purchase the assets of the 1899 company. I shall not bother to read it, but it deals with the events Mr. du Pont has just summarized.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 2.)

By Mr. Harlan:

Q. Was the 1902 company succeeded by another company?

A. It was.

[fol. 1835] Q. What was the name of that company?

A. E. I. du Pont de Nemours Powder Company.

Q. Who was president of that company?

A. Coleman du Pont.

Q. What office did Alfred I. du Pont hold in that company?

A. Vice president.

Q. What office did you hold?

A. I was treasurer.

Q. This is 1903 we are talking about now.

A. Yes, sir.

Q. Did any of the younger members of the family, following 1903, come into the business in any capacity?

A. I think my brother Irenee came in in 1903 and my brother Lammot in 1905.

Q. Do you remember whether Mr. R. R. M. Carpenter came in?

A. He came in about that time.

Q. How about A. Felix, your cousin?

A. He also came in at that time. Francis I. du Pont, Felix's older brother, was employed by the company at the time of the transfer.

Q. Now, that 1903 company was called the Powder Company generally speaking, wasn't it?

A. That is right.

Q. And that company lasted how long?

A. Until 1915.

Q. And then that company was succeeded by the present du Pont Company, was it not?

A. That is right.

Q. The so-called 1915 company?

A. That is right.

Q. Now, so much for the background.

Mr. Harlan: Now, if the court please, I am going into the circumstances and reasons for the formation of Christiana Securities Company which is claimed by the Government to have been formed for, and continued as a part of, this alleged conspiracy to violate the Sherman Act, and I [fol. 1836] want to ask Mr. du Pont questions as to the circumstances under which that company was formed.

Q. You said that Coleman was the president of the 1903 company?

A. That is right.

Q. Was he active throughout the existence of that company and up until 1914; was he active as president?

A. He was active, but with a number of intermittances. He fell into ill health and was absent a number of months at a time during that interval.

Q. What about Alfred?

A. Alfred also had a misfortune. He lost the sight of one eye. He also became very deaf so that he could not operate as chairman of the meeting or anything of that kind, not having hearing aids at that time.

Q. These periods when Coleman was inactive because of illness, intermittently, who carried on the functions of the president of the company?

A. I did.

Q. You still formally held the title of treasurer, is that right?

A. Yes, and acting president.

Q. Did there come a time when Coleman completely withdrew from any active participation in the management of the company?

A. There were several periods in which he was inactive, starting in 1909, when I was made acting president by a vote of the executive committee and the board of directors. And then, after that, he was intermittently with the company and kept up his interest, but finally in 1914, although he had made a recovery in the early part of the year and had come back to active work, his health did not hold up and he retired permanently in 1914, in September, and that was the last time he appeared as an officer of the company. [fol. 1837] Q. Now, at the time of his permanent retirement, as you have just described it, were any administrative changes or organizational changes made in the 1903 Company?

A. Yes, sir, under his plan and direction—under Coleman's plan and direction, a new executive committee was organized, and the former active members of the executive committee retired and became vice presidents, and I, I took the burden of the presidency. Coleman directed that the new executive committee should be put through, and he directed that my brother Irenee be chairman, and the new executive committee became the active administrative body of the company. The president was not a member of that committee.

Q. It was the younger group that came into the executive committee?

A. That is right.

Q. Now, at this point, I want to refer to Government's Exhibit No. 27; when I say refer, I am trying to distinguish between offering our exhibits and referring to Government's Exhibits which are already in evidence, which I do not need to introduce again.. Government's Exhibit No. 27, I read from page 1; this is a memorandum from Mr. Pierre du Pont, vice president of the 1903 company, to the board of directors of the company, dated September 11, 1914. The opening paragraph reads:

> "As I have been requested by our President to assume the active duties of that office, I ask you to approve the following plan of changes in the organization of the company with a view to carrying out the policy of bringing into greater activity and responsibility those men who are now in charge of the several departments of the company."

[fol. 1838] Then going down to the bottom of the page and continuing, it is recommended:

> "Increase the membership of the Finance Committee to four and place on that committee, P. S. du Pont, Alfred I du Pont, William du Pont and T. C. du Pont."

You have already described who Alfred and T. C. du Pont were. Who was Mr. William du Pont?

A. Mr. William du Pont was a first cousin of my father's. That is the relationship. He had been active in dynamite manufacturing.

Q. Was he a substantial stockholder in the 1903 company?

A. He was a substantial stockholder, yes.

Q. As were the other members of the Finance Committee?

A. Yes, sir.

Q. This appears on page 3; this is a further recommendation:

> "Request the resignation of the present members of the Executive Committee and elect to Committee the following as in charge of the departments indicated."

Then there are listed the members of the new Executive Committee headed by Mr. Irenee du Pont as chairman.

Without reading the list, I want to ask you whether Mr. F. L. Connable who was in that list described as being on the purchasing committee was related to you in any way?

A. No, he was not.

Q. How about Mr. H. F. Brown, director, smokeless powder department?

A. He was not related to me.

Q. Mr. William Coyne?

A. No, not related.

Q. Mr. H. G. Haskell?

A. No, he was no relation.

[fol. 1839] Q. J. J. Raskob, treasurer?

A. He was not related to me.

Q. By the way, let me ask you at this point, Mr. Raskob at this stage in 1914 was treasurer of the 1903 company?

A. He was made treasurer, yes.

Q. What has been Mr. Raskob's history in the company? How had he first come into the company?

A. He came in as my secretary. He was first employed by me as secretary and typist when I was in Lorain, Ohio. He came with me to the du Pont Company and was made assistant treasurer and remained with the company then after that.

Q. All right. Now, you said that Mr. Coleman du Pont retired from active affairs in the company in September of 1914?

A. Yes.

Q. Following that do you recall whether any offer was made by him with respect to the disposition of his stock or part of his stock in the company?

A. Yes, there was an offer made.

Q. When was it made, if you recall?

A. December, early December of 1914.

Q. And to whom was the offer made?

A. It was an offer suggested to the company. It wasn't directly an offer. It was a proposition to be put through. It was not in the form of an offer first. It was that the company agree to purchase stock and re-sell it to the prominent men in the company, especially the members of the Executive Committee who had no interest in the bonus plan of the company under the bonus rules. Coleman would furnish the stock, and the company would furnish the money to purchase it from him, and resell it to the different officers of the company on reasonable terms. He named the price, incidentally, of $160.00 a share.

[fol. 1840] Q. $160.00 a share?

A. Yes.

Q. Do you remember how much stock was included in that proposal to the company?

A. It was 20,000 shares.

Q. Well, what happened with that suggestion of his?

A. That was referred to the Finance Committee for their approval, the approval that the company should purchase the stock and resell it to the individuals..

Q. With what result?

A. The Finance Committee at first approved the plan—they had verbally—but in the meantime two of the members changed their minds thinking that the price of $160.00 was too high, and recommended that $125.00 would be a sufficient price to charge the men, that they couldn't afford to pay any more.

Q. And who were the two in the Finance Committee who took the position that Coleman's offer was too high?

A. Alfred du Pont and William du Pont.

Q. And what position did you take with respect to the company accepting Mr. Coleman's proposition?

A. I wished that they would do it. I voted that the proposition be accepted.

Q. Do you know what the considerations were that prompted Mr. Coleman du Pont to make this proposal to the company? Why did he wish to do this?

A. He was a great believer in interesting the prominent men of the company in the company's affairs as stockholders. The members of the Executive Committee, not having any opportunity for awards under the bonus plan of the company, were really shut out from any of the advantages that other employees had, and it was to them that he directed this opportunity chiefly.

Q. The Executive Committee at this time had been re-[fol. 1841] constituted to bring in some of the younger men, as you described it already?

A. I didn't understand the question.

Q. I say, at the time of Mr. Coleman's offer to the company, for the purposes that you described, had the Executive Committee just been reconstituted to bring in the younger men into the top management of the company?

A. It had, yes.

Q. And do you know what the fact was as to whether or not these new, younger members of the Executive Committee were or were not substantial stockholders at that time in the company?

A. Some of them had a considerable amount of stock, but they were not large stockholders. Most of them had very little stock.

Q. Now, you said that William du Pont and Alfred du Pont at the Finance Committee meeting when the Coleman proposal was made and put to them, objected to it?

A. Yes, that's right.

Q. And that you voted in favor of it?

A. Right.

Q. And as a result, what came about with Coleman's offer in light of that vote?

A. It was turned down by a two to one vote on it. Coleman du Pont was a member of the committee, but he was not present.

Q. And did you take any steps to notify Mr. Coleman du Pont as to the action taken by the Finance Committee?

A. He was, at that time—he had just submitted to a very severe operation, but I notified him by letter immediately. He received that letter about the first week in January.

Q. And then what happened to his offer?

A. Well, he was very much disappointed, but thought [fols. 1842-1843] maybe that something could be done to bring about a similar plan later on. I encouraged him in that belief thinking that the other members could be persuaded to take favorable action, which they did not.

Q. And what became of his offer?

A. It was withdrawn about the middle of January.

Mr. Harlan: Now, at this point may I introduce some documents, if your Honor please.

First, I offer du Pont No. 3, which is a letter from T. C. du Pont—that is Coleman du Pont—to Pierre du Pont dated December 7th, 1914; and I should like to read a portion of that letter.

The Court: Is that in my book?

Mr. Harlan: It should be, as Exhibit No. 3.

The Court: It should be in Volume 1, shouldn't it?

Mr. Harlan: It should, sir. I think those exhibits have been marked at the upper right-hand corner, and you should find one there called DP 3.

The Court: It doesn't appear to be here. I have 1, 2 and then 18.

I am sorry. I was looking at the second number. I understand.

Mr. Harlan: Then your Honor has du Pont Exhibit 3?

The Court: Yes, I have it.

(Said document so offered and received in evidence, was marked du Pont Exhibit No. 3.)

[fol. 1844] By Mr. Harlan:

Q. Mr. du Pont, having regard to the statement in Mr. Coleman's letter that he would like to have a suggestion from the Finance Committee or a committee appointed by them, as to how this stock might be allocated among the executives, can you say whether such a suggestion was made to him?

A. Yes, it was.

Q. By whom?

A. I made the suggestion.

Q. You made the suggestion?

A. Yes.

Q. Do you know whether or not the result of that suggestion was to increase the total amount that would be needed for this purpose above the 20,000 shares that Coleman said he was willing to sell?

A. The total amount of the list that I gave Coleman was 20,700 shares. I think he said in that letter or another letter that he would furnish that extra stock.

Mr. Harlan: I next offer du Pont Exhibit No. 4, which is a letter from T. C. du Pont to P. S. du Pont, dated December 14, 1914.

[fol. 1845] (Said document so offered and received in evidence was marked du Pont Exhibit No. 4)

Mr. Harlan: Next in sequence I offer du Pont Exhibit No. 5. I need not read that, but simply point out to your Honor that that refers to Alfred du Pont's objection to the $160 price, and suggests that that was too high for the company to pay.

(Said document so offered and received in evidence was marked Government's Exhibit No. 5.)

Mr. Harlan: Next I offer du Pont Exhibit No. 6, which is a letter dated December 17, 1914, from Coleman to Pierre du Pont. I want to read, with your Honor's permission, two or three paragraphs.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 6.)

[fol. 1846] Mr. Harlan: (Continuing)

> "As I will be here likely 2 mos I told Lew Dunham of the stock sale, but made all necessary financial arrangements for the Equitable for Dec and until about middle of Jany. to be on the safe side."

[fol. 1847] By Mr. Harlan:

Q. Who was Lew Dunham?

A. Lew Dunham was Coleman du Pont's secretary.

Q. Do you know from any conversations that you had with Coleman about this time what the reference is in this last paragraph to the financial arrangements for Equitable?

A. I knew that he was in course of construction of the Equitable Building at New York, which he organized, and it was far from complete at the time. He did some financing in New York in regard to it. I knew nothing of the details of the financing, though.

Mr. Harlan: Next I offer du Pont Exhibit No. 7, which is a letter from Alfred I. du Pont to P. S. du Pont, dated December 21, 1914.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 7.)

Mr. Harlan: I shall not read it. It refers again to Alfred's criticisms, objections, to the price at which Coleman was offering the stock to the company.

Next I offer du Pont Exhibit No. 8, which is an excerpt from the minutes of the Finance Committee of the du Pont Company of a meeting held December 23, 1914.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 8.)

[fol. 1848] Next I offer du Pont Exhibit No. 9, which is a letter dated January 4, 1915, from Mr. Pierre du Pont to Mr. Coleman du Pont.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 9.)

Next I offer du Pont Exhibit No. 10, which is a letter to Coleman du Pont from Pierre du Pont, dated January 14, [fol. 1849] 1915.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 10.)

Mr. Harlan: I would like to read, with your Honor's permission, from the last page, the next to last paragraph, which refers to this train of events that we are now discussing:

"As to the stock offer: In Willie's absence—"

By Mr. Harlan:

Q. Who was Willie?
A. William du Pont.
Q. A member of the Finance Committee of the du Pont Company?
A. Yes.

Next I offer du Pont Exhibit No. 11, which is a letter from Coleman to Pierre du Pont, dated January 15, 1915.

[fol. 1850] (Said document so offered and received in evidence was marked du Pont Exhibit No. 11.)

Mr. Harlan: This reads:

"Dear Pierre:

"Thinking over the stock offer matter, I still think it an advantage to the company, but in view of Alfred's position I think it best to withdraw it if the Finance Committee has not accepted my proposition; when I get home we can talk it over and if best I can renew it, but it seems very unbusinesslike to leave it in its present condition.

"Of course if you have talked to Willie——"

By Mr. Harlan:

Q. That is William again?
A. That is right.

Mr. Harlan: William du Pont. Continuing:

"Of course if you have talked to Willie or are in any way committed that settles it I will carry out any statement you have made, on the other hand if you have not made any my judgment is to withdraw it, again if you have any good reason for not doing so let me know your position.

"Glad to say I am gaining a little daily about one day in four or five I get an off day and feel 'Bum' but four out of five or six I feel that I am gaining."

Next I offer du Pont Exhibit No. 12, if your Honor [fol. 1851] please, which is a telegram from Coleman du Pont to Pierre du Pont, dated January 17, 1915.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 12.)

Mr. Harlan: This reads:

> "Letter of fourteen received if you are not committed withdraw my offer will write."

The letter of the 14th is du Pont Exhibit No. 10, just offered. This was signed Coleman du Pont.

Finally, in this particular series, closing this episode, I offer du Pont Exhibit No. 13, which is a letter from Coleman du Pont to P. S. du Pont, dated January 19, 1915.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 13.)

[fol. 1852] By Mr. Harlan:

Q. Now the offer of Coleman to the Company having met the fate that you have testified to and that these letters show, I want to turn to another subject.

Did you know a man in 1915 and 1914 named Kraftmeier?

A. I did, yes.

Q. What was his job? Who was he?

A. When I first knew him, which was a few years before that, he had been connected with the British Explosives Company in London.

Q. Without going into the details, when the European war broke out, in August of 1914, did the du Pont Company receive very substantial powder orders from the Allies, as they were called later on?

A. Yes.

Q. Did you have any connection or did your company have any connection with Mr. Kraftmeier, any dealings with Mr. Kraftmeier, in relation to those powder orders?

A. No, not at that time.

Q. Not at that time? Did they subsequently?

A. No, we never had any communication with Kraftmeier directly in regard to powder orders.

Q. Do you recall an episode during 1915 when Mr. Kraftmeier came to this country to see you and you had some talk with him?

A. Yes, I did.

[fol. 1853] Q. Will you state, as fully as you can from your recollection, how that meeting came about, and what the conversation was at the meeting?

A. The meeting was initiated by a cablegram from Kraftmeier saying that he was about to sail for the United States and was very anxious to meet me immediately on arrival.

I thought, of course, that it had something to do with powder orders of the British government, as we were engaged in such orders at the time.

When the appointed day came for his arrival I was in New York with my brother Irenee who was chairman of the Executive Committee, and in charge of operations of the company, and Col. Buckner, who was a man who placed all of the powder contracts with the foreign governments, thinking there was something to do with powder orders that brought Kraftmeier to cable me.

But when he arrived he said nothing about the powder orders until he drew me aside and asked me pointblank whether it was true that some large stockholders of the du Pont Company had become financially involved, and that there was danger that the control of the du Pont Company might fall into other hands that were supposedly inimicable to the Allied cause. It was not the Allied cause at that time, but it became the Allied cause, and I assured him that that was not the case, that no such situation existed; I knew who the principal stockholders of the company were, and I knew that they were not selling stock, and he might dismiss the whole thing from his thoughts as being a false alarm.

Q. Did that complete the conversation?

A. That completed the conversation, and Kraftmeier seemed very pleased to hear the news, and that was the last I heard of him, although he stayed in the United States [fol. 1854] something over a month after that; I had no further communication with him.

Q. Following that communication did you report that conversation to anybody in the du Pont Company or to the Finance Committee?

A. I reported to the Finance Committee immediately.

Q. Can you state what discussion you had with the Finance Committee?

A. Well, after relating the incident I suggested—no, I think Mr. William du Pont suggested—that Mr. Alfred du Pont, himself and I, each make a statement of the condition of our holdings in the du Pont Company, as to which neither one of us knew of the other's position, and I stated that I had no loans with du Pont stock as collateral, that my du Pont stock was all in my lock box and would remain there, and they made like statements, and we were all very positive of the nature of those statements, with no hesitation.

They then asked me whether I knew what Coleman du Pont's position was. He was the largest stockholder involved, and I did not know, and had no idea what his situation was, but I agreed that I would find out from him, and I communicated with Coleman to give him the details of what had happened, and asked him whether he would make a statement, or whether he would join a pool of the stockholders which had been suggested at the previous meeting, and pool his stock for the duration of the war so that we would know that it could not fall into enemy hands and could assure our customers.

Coleman replied by letter that he was not embarrassed anyway, but that he would not join a pool unless he knew the conditions of the pool, which was certainly a proper [fol. 1855] reply. But that is all that was done in that matter, and I heard nothing further from Coleman.

Mr. Harlan: Now, at this point I offer, if your Honor please, du Pont Exhibit No. 14 which is a letter from Mr. Pierre du Pont to Mr. Coleman du Pont, dated January 25th, 1915.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 14.)

Mr. Harlan: And I would like to read from the middle of page 2 as follows, and that is the last paragraph on page 2:

> "My New York visit was to meet Mr. Kraftmeier, who, with his wife and daughter, arrived on the Lusitania Saturday. He had cabled he wished to meet Irenee and me immediately on his arrival. I supposed

> that his mission was to place additional orders so we took Colonel Buckner along and were much surprised to find that Mr. Kraftmeier made no mention of orders. Finally, after he succeeded in drawing me aside, he told me that they had had a report that Kuhn, Loeb & Company of New York (who are pro-German firm)"—

By Mr. Harlan:

Q. Who told you they were a pro-German firm?
A. I don't remember. I think it was common gossip.

> "had gained control of our company through the embarrassment of one of our large stockholders and that they on that account had fears concerning the orders placed with us. I, of course, assured him that nothing [fol. 1856] of the kind had happened, or would happen; that all orders would be filled according to contract without any shadow of a doubt. He seemed somewhat relieved to hear this and said this was one of the important things that brought him over. From his conversation I judge that it was THE important thing, for no other part of our discussion seemed to be of moment. I imagine that the orders placed with our company are of serious concern to the Allies and a rumor such as Kraftmeier outlined might well be worth a visit of investigation to the United States."

Mr. Harlan: Next, if your Honor please, I offer du Pont No. 15 which follows in your Honor's book which is a letter from Pierre du Pont to Mr. Coleman du Pont, dated January 28, 1915.

[fol. 1857] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 15.)

[fol. 1858] Next, I offer du Pont Exhibit No. 16, which is a telegram from Coleman du Pont to Pierre du Pont, dated January 31, 1915:

> "Dear Pierre:
>
> "I am in receipt of your letter of January 28th—"

That is du Pont's Exhibit 15 just read, if your Honor please.

> "in regard to dispositing—"

and it so reads:

> "dispositing stock and am sending the answer through Lew in same mail."

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 16.)

Q. Did you ascertain from Mr. Lew Dunham, his secretary, Coleman's attitude towards this temporary pooling situation?

A. Yes, but not a very certain reply.

Q. In all events, it did not go through as you proposed?

A. It did not go through.

Q. Now, after that Kraftmeier incident, do you recall that you received another proposal from Mr. Coleman du Pont about selling all or some of his holdings in the du Pont Company?

A. Yes, I did.

Q. Was that proposal a proposal to the company, as the former one had been, or was it a proposal to somebody else?

A. It was a proposal or a statement that he was going to sell the stock. He sent his secretary to me to announce this, and said that he wanted the secretary to advise me of the situation that the stock was for sale.

Q. Did you have a conversation with the secretary?

A. I did, yes, sir.

[fol. 1859] Q. That was Mr. Dunham?

A. That was Mr. Dunham.

Q. Could you state the substance of that conversation as you now recall it?

A. Dunham's statement was that Coleman was about to sell 20,000 shares of his stock; that if he did not sell it in Wilmington, he was to go to New York to sell it; that he was willing to sell 40,000 shares, but would not sell an additional amount unless he went to Coleman for special permission to do so. I then asked him whether Coleman would sell all of his stock, and he said he did not know but would find out the situation. Coleman named a price to

Dunham, or to me, of $200.00 a share for the stock. That was the proposition, and the mission that he had to fill. That was the result of the conversation.

Q. Then having said that to Dunham, did you get a report back of any kind from Dunham as to Coleman's reaction to that proposition?

A. Dunham made a report almost immediately; I think the next morning, and said that Coleman was willing to sell all of the stock, but he would not join in a pool—which was another question I had put up to Dunham—he would not join in a pool unless he knew what the pool was going to be; that he would sell his preferred stock also.

Q. What next followed after you got that report back?

A. Following that, I got in touch with my brother, Irenee and my bother Lammot and John Raskob and R. R. M. Carpenter, my brother-in-law. They were my close associates in the business, and were always available to talk with, and I gathered them together immediately and reported the situation. That was the group that had recently come into the management, the younger people.

Q. The new Executive Committee?

A. That was the new group, yes.

[fol. 1860] Q. In September, 1914?

A. Yes, sir, that was the group.

Q. What did you say to them?

A. I told them the situation, what Coleman had said he would do about the proposition, and they all agreed that we would try to purchase the whole block of stock, not only as a good investment, but to make ourselves secure.

Q. Secure for what?

A. Secure against the stock getting into enemy hands at that particular time, and although Kraftmeier was not mentioned at this time, it was in my thought that Kraftmeier should not hear of any large block of stock passing from du Pont stockholders at that time. It was my idea that such a thing should not happen, but that was not discussed at the meeting.

Q. This conversation with Dunham was very shortly after your talk to Kraftmeier?

A. Yes. The Kraftmeier talk was in the latter part of January, and this was about the 20th of February.

Q. All right. Now, after having talked to that group that you just mentioned as to whether they would be interested in joining with you, what next happened?

A. The next question was how such a purchase could be financed. John Raskob was asked to go to New York to see whether he could interest the bankers to make a loan which would enable us to put the proposition through.

Q. With what result?

A. With the result that he came back the next day and said that he could get a loan of the proper amount of money—I think it was about ten million dollars, on the stock, and that it was up to us to form a real proposition to the bankers on the subject.

[fol. 1861] Mr. Harlan: Now, at this point, if your Honor please, I would like to introduce some documents dealing with that chain of events. I start with du Pont No. 17 which is a letter from Coleman du Pont to Pierre du Pont, dated February 13, 1915.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 17.)

By Mr. Harlan:

Q. You said Kraftmeier was in late January, 1915, is that right, Mr. du Pont?

A. That is right.

Mr. Harlan: (Reading):

"Dear Pierre:

"The more I have thought of the stock question the more I believe with what little information I have that the common stock should reach 250 and may reach 300. If this is true, the men who are now at the helm and actually doing things should make the profit as between today's figures and that figure; it will be by far the best thing that can happen to the Company. So clear I am that this is the right time to get them interested that I am willing, figuring as surely as I can that that stock will go much higher, to let go for the benefit of the men who are working, which, of course, means the benefit of the Company, 20,000, 30,000 or even 40,000 shares at today's market which I assume is about 200.

> As to the details of working this out I am entirely willing to leave this to you and Lew."

I turn over, your Honor, to the top of the next page, the first paragraph:

> [fol. 1862] "Of course, I am only using my best judgment in this matter, but I am willing and strongly urge that the heads of departments and younger members of the family become most interest in the common stock."

Next I offer du Pont Exhibit No. 18, which is a telegram from Dunham to Coleman du Pont, dated February 17, 1915:

> "Wire me if you would be willing to sell forty thousand shares and pool balance for voting purpose. Another proposition would you be willing to sell entire holdings. Both cash."

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 18.)

By Mr. Harlan:

Q. Does that refer to the proposal that you made to Dunham?

A. That was the proposal, yes.

Q. And that proposal that he passed on to "pool balance for voting purpose," what was the reason for your making that suggestion?

A. In case that he elected to sell only a portion of his stock, that we would know that the rest of the stock was closely held by him in a pool.

Q. Did or did not the Kraftmeier incident have a bearing on the reason for this?

A. That was the reason I wrote that in.

Q. Any other reason?

A. I don't know of any other.

Mr. Harlan: Next I offer du Pont Exhibti No. 19, which is a letter dated February 20th, 1915 from Mr. Pierre du Pont to Coleman du Pont which confirms the exchange of telegrams between the two relatives to this offer, the proposed purchase, which, without reading, shows that the [fol. 1863] original proposition of Mr. Pierre and his associates to buy the preferred stock at $80.00 a share was unacceptable to Mr. Coleman, who said that the price should be $85.00, which was accepted by the purchasing group; and that the original proposal of the purchasing group as to interest on the balance of the purchase price that would be paid on a deferred basis to Coleman du Pont of five percent was unacceptable to Mr. Coleman du Pont who wanted six pecent, and the purchasing group took that change.

Next, I offer du Pont Exhibit No. 20, which is a telegram from Pierre du Pont to Coleman du Pont dated February 22, 1915, asking for a final word from Mr. Coleman du Pont as to whether the proposal outlined in the previous memorandum or letter, du Pont No. 19, was acceptable to Coleman.

I next offer du Pont No. 21, which is a telegram dated February 22 from Coleman to Pierre du Pont accepting the proposal as modified as to price and interest terms.

And finally, in this series, du Pont Exhibit No. 22 which, I am sure there will be no objection to my stating, is a hand-written memorandum in the handwriting of Mr. P. S. du Pont, Mr. Harsha.

Mr. Harsha: That is right.

Mr. Harlan: Which is indicated by the italics in the printing. This gives the course of the negotiations from their inception to the end as they have been testified to here in summary form and as the documents which I have put in show to have taken place.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 19, 20, 21 and 22.)

[fols. 1864-1865] Now, we have referred to the exploration that was made as to whether you could get a bank loan to finance this purchase. Do you recall about how much in dollars that purchase represented?

A. It was about almost $14,000,000.00

Q. Almost $14,000,000.00. Do you recall roughly how the payment of that purchase price was split as between the cash payment that would be made to Mr. Coleman du Pont and the deferred portion of the total purchase price?

A. It finally resulted in our paying $8,000,000.00 in cash and five million nine in notes.

Q. The $8,000,000.00 in cash that was paid to him, where did you get that from?

A. Through J. P. Morgan and Company, in New York.

Q. On a loan?

A. On a loan.

Q. Was there any vehicle formed to carry out the financing of this purchase?

A. Yes, a corporation was organized in order to accomplish the result.

Q. What was the name of the corporation?

A. It was originally Du Pont Securities Company, but the name was changed to Christiana Securities Company very shortly afterward.

Q. That was where Christiana comes into this lawsuit?

A. That is right.

Mr. Harlan: Now, I offer in evidence a tabulation which is du Pont Exhibit No. 24, which is a summary, and which has been submitted to the government, on the mechanics of the financing of this purchase through the du Pont Securities Company which we all the way through this case call Christiana.

[fol. 1866] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 24.)

By Mr. Harlan:

Q. Let me ask you first, Mr. du Pont, why did you form a corporation to handle this financing?

A. It was the only way of doing it, with a number of people having varying financial capacities; it required a corporation to do it. Something was required to bring them together in a unit, and that was the only thing to do.

Q. Now, this tabulation that has just been offered in evidence shows that of the 28,177 shares of du Pont stock that was needed to collateralize these obligations in con- [fol. 1867] nection with the purchase of Coleman's stock, that of that you supplied some 14,000 shares of that 28,000, or 50 per cent.

How did you get to that 50 per cent figure?

A. Well, we had to provide double that, and the other participants could not put up those entire shares. I said

I would take whatever the others didn't want, and that happened to come out to 50 per cent.

Q. Now, it is already in evidence through these letters, and I think you testified to the same thing, that when Coleman made this proposal that resulted in the purchase by you and this group of his common stockholdings and preferred stockholdings, that he wanted a substantial portion of that stock allocated among the executives of the du Pont Company.

A. That was in the original proposition, yes. It was not the one we have been talking about.

Q. Well, in his letter of February 13th, 1915, which is du Pont Exhibit No. 17, perhaps you will recall that he said he was willing to sell the stock, since the company wouldn't take it, for the benefit of the people who were active, and suggested that department heads and younger people in the company should get the allocations.

A. We knew of that letter, but it was not used in the whole transaction.

Q. I see. But did you take any steps to redistribute the Christiana stock to any of the other younger executives of the company?

A. Well, yes, we distributed it in equal amounts to the members of the Executive Committee, stock in the amount of—I think 1250 shares or 1500 shares—1250 shares each, to each one of the members of the Executive Committee and a like amount to the Chief Engineer of the company.

Mr. Harlan: Don't try to carry all of these names in your head here. I have got the schedule right here.

[fol. 1868] I now offer du Pont Exhibit No. 23, if your Honor please, which is a schedule showing how the Christiana stock or du Pont Securities stock was reallocated so as to give to the executives of the company 1250 shares of such stock each, except for a gentleman named Mr. Laffey at the bottom, who got 500 shares, and which further shows how Christiana stock for that purpose, a total of 11,750 shares, was contributed by the members of the original purchasing group. In other words, your Honor as an example, Lammot du Pont got 12,000 shares under the original distribution, or 16 per cent, representing the amount of the du Pont stock that he had contributed, his share of the du Pont stock that he contributed to the needed collateral, and then out of that he contributed the same per cent, 16 per cent, to the total of 11,750 shares that was required for the purpose of reallocation to the younger executives, including himself, of course.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 23.)

I next offer du Pont Exhibit No. 25, which is the next in your Honor's book, which is a list of the members of the Executive Committee to whom this distribution of Christiana stock was made and gives their then positions in the company.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 25.)

By Mr. Harlan:

Q. Mr. du Pont, taking this list, Mr. Irenee du Pont [fol. 1869] is your brother who was then on the Executive Committee as chairman?

A. Yes.

Q. Mr. H. Fletcher Brown—was he related to you in any way?

A. Not at all, no.

Q. Mr. R. R. M. Carpenter was your brother-in-law?

A. Yes, sir.

Q. And a member of the Executive Committee?

A. Right.

Q. Mr. William Coyne, who was he?

A. He was a member of the Executive Committee, not related to me.

Q. Lammot du Pont was your brother, and on the Executive Committee?

A. Right.

Q. Harry G. Haskell, who was he?

A. On the Executive Committee.

Q. A member of the du Pont family?

A. No, not related to me.

Q. John J. Raskob you have already described?

A. Yes.

Q. William G. Ramsay, who was he?

A. He was the Chief Engineer of the company.

Q. On the Executive Committee?

A. No, he was not.

Q. Was he a member of the du Pont family?

A. No, he was not.

Q. Mr. Frank G. Tallman, who was he?

A. He was head of the purchasing for the company.

Q. Was he a member of the du Pont family?

A. No.

Q. Then can you tell me why the figure 1250 shares is the amount of Christiana stock that was allocated, other than the 500 to Mr. Laffey? Why 1250 shares?

A. That corresponded to the 1500 shares that Coleman du Pont originally wanted to allot to the members of the Executive Committee in December.

Q. To put it a little differently, 1250 shares of Christiana was roughly the equivalent of 1500 shares of du Pont, [fol. 1870] is that right?

A. Or the other way about, I don't know which it was.

Q. All right, or the other way?

A. Yes.

Q. But what you were seeking to do, as I understand it, was to reach the 1500 figure of du Pont stock that Mr. Coleman du Pont had suggested?

A. Yes, that was the basis of it.

Mr. Harlan: In that connection, your Honor, you will find that specific suggestion made by Mr. Coleman du Pont in du Pont Exhibit No. 4, where he says that he thinks each member of the Executive Committee ought to have 1500 shares of du Pont stock.

By Mr. Harlan:

Q. Now, as to Laffey, what was Laffey's position in the company?

A. He was Chief Counsel of the company.

Q. Your inside counsel, so-called, General Counsel of the company?

A. Yes.

Q. On what basis was the 500 shares figured as his share of the redistribution?

A. I don't remember if there was any basis at all.

Q. Why was Christiana stock rather than du Pont stock distributed to these members of the Executive Committee?

A. Well, it was the purchasing company. That brought the group together more intimately.

Q. Was there any du Pont stock that wasn't in hock or pledged with the banks or as collateral for the deferred balance of Coleman's payment?

A. No, there wasn't. That stock was being used. The individual members of the group would have to put it up.

Q. Then the Christiana stock, therefore, which repre- [fol. 1871] sented the du Pont stock was used as the stock that was distributed to these executives, is that right?

A. That is right. It also put the members of the Executive Committee in a similar position to those who had gone into the proposition, since the stock was subject to the payment of the notes of the Christiana Company.

Mr. Harlan: Now, I next offer as du Pont Exhibit No. 26, if your Honor please, a copy of the agreement dated March 19, 1915 which these members of the Executive Committee and other distributees in the company of this Christiana stock signed in connection with the receipt of that stock.

(Said document so offered and received in evidence was thereupon marked du Pont Exhibit No. 26.)

Mr. Harlan: This is a typical incentive agreement where they obligated themselves to stay with the company for a certain period of time.

One thing I forgot to ask you, is it not a fact that A. Felix du Pont was a member of the original purchasing group?

By the Witness:

A. Yes.

By Mr. Harlan:

Q. He was not on the Executive Committee at that time, was he?

A. No.

Q. What position, do you recall, or what department was he working in the du Pont Company?

A. Military Explosives.

[fol. 1872] Q. That was an important position in the company?

A. Very important, yes.

Q. Not being a member of the Executive Committee, did he share in this redistribution of Christiana stock that was made to the members of the Executive Committee?

A. I think he did not.

Mr. Harlan: The record shows that he did not.

By Mr. Harlan:

Q. Referring to du Pont Exhibit No. 17, already marked in evidence, which relates to this offer of Coleman's that culminated in your and the others' purchase of his stock, he says this:

> "Of course I am only using my best judgment in this matter, but I am willing and strongly urge that the heads of departments and younger members of the family become most interested in the common stock."

Did you make any offer to the younger members of the family?

A. Yes, I did.

Q. Of Christiana stock following the transaction that we have just discussed?

A. Yes, I did make such an offer to all of them.

Q. Why was that done?

A. That was in accordance with Coleman's expressed opinion and with which I agreed heartily.

Mr. Harlan: Now, I offer, if your Honor please, du Pont Exhibit No. 27, which is a letter from P. S. du Pont to some twelve members of the family, offering to exchange Christiana stock for du Pont stock on the basis indicated in the [fol. 1873] third paragraph of the letter, 500 shares of du Pont Securities stock to be delivered for 223 shares of common stock of du Pont.

(Said document so offered and received in evidence was thereupon marked du Pont Exhibit No. 27.)

By Mr. Harlan:

Q. Who made that offer to exchange to these members? Was it Christiana or du Pont Securities, or who was it?

A. I made it myself.

Q. Personally?

A. Personally, yes.

Q. And as a result of the offer and its acceptance, to the extent that it was accepted, what effect did the exchange by those members of the family of du Pont stock have upon the theretofore existing holdings of du Pont stock by du Pont Securities Company?

A. It had no effect. I exchanged my Christiana Securities stock which I had already received, for du Pont stock which they offered on the same basis as I originally went in.

Q. And you did not put any of that du Pont stock you received into Christiana?

A. No, that was not part of what I put into Christiana.

Q. This figure that you propose here in this letter of exchanging 500 shares of du Pont Securities stock for 223 shares of du Pont common stock, what did that basis of exchange represent? How did you reach that basis?

A. It was the same relation to Christiana as my subscription to Christiana and du Pont stock had been. They were placed on an equal footing right away. For every share [fols. 1874-1875] of Christiana they received, they put in the same amount of du Pont stock as I had done.

Q. And as the other members of the purchasing group had put in?

A. That is right, yes.

Q. Mr. du Pont, referring back to du Pont Exhibit No. 24, which contains the figures as to how the Coleman purchase was financed, it appears that you put in 14,089 shares out of the 28,177 shares of the needed collateral?

A. That is right, yes. That is 50 per cent of the whole.

Q. Did that represent all of the du Pont stock that you held at the time?

A. No, it did not, about half.

Q. Can you recall roughly about how much du Pont stock you held after this 14,000 odd shares had gone into Christiana for the purposes mentioned?

A. About the same amount. Maybe a little less.

Q. You mean you held about what?

A. About 12,000 shares, I think.

Q. You had left?

A. Yes.

[fol. 1876] By Mr. Harlan:

Q. Mr. du Pont, at the time that Christiana was formed, was any du Pont stock put into Christiana other than the stock purchased from Mr. Coleman du Pont, plus the du Pont stock that was put in by the members of the purchasing group to supply the needed additional collateral?

A. There was no other stock.

Q. Now, I refer to paragraph 33 of Government's amended complaint which states that following the formation of Christiana "thereafter most of the common stock which the defendant individuals and members of the du Pont family held in du Pont Company was turned over to Christiana in exchange for its stock to prevent dispersal of such du Pont Company stock and to insure the perpetuation by such individual defendants and members of the du Pont family of their control over the du Pont Company."

You testified yesterday that after having put into Christiana your share of the additional du Pont stock required for collateral that you still retained in your own portfolio some 12,000 shares of du Pont stock?

A. Yes, I did.

Q. Did you ever put any of that stock into Christiana?

A. I did not.

[fol. 1877] Mr. Harlan: Will the government stipulate that all of Christiana's holdings of du Pont stock trace substantially, with minor purchases that are shown on the schedule in evidence, from the original Coleman transaction?

Mr. Harsha: We will so stipulate.

Mr. Harlan: Thank you. In that connection I refer to Government's Exhibit 1219 which confirms that stipulation.

By Mr. Harlan:

Q. I next turn to paragraph 34 of the Government's amended complaint where it is alleged as follows:

> "It was understood and agreed among the individual defendants and members of the du Pont family who held Christiana stock that they would continue to hold

it, would keep it within their families, and would not dispose of it to outsiders so that either directly or through their families such defendants would maintain control of a majority of the stock of Christiana, and through such holdings maintain control of the du Pont Company."

At the time that Christiana was formed, Mr. du Pont, was any agreement or understanding made between you and the other family members of the purchasing syndicate as to the disposition in their hands of the Christiana stock?

A. There was no agreement.

Q. Has there ever been any such agreement or understanding between you and any of the subsequent family holders of Christiana stock?

A. None.

Q. Have you ever suggested, directed or attempted to dissuade any family holders of Christiana stock from doing [fol. 1878] with that stock as they pleased?

A. I remember no such occasion.

Q. What has been your own state of mind as to your freedom to deal with the Christiana stock that you yourself had?

A. I felt free to deal as I pleased, and I have done so also.

Q. Without consultation or reference to any other member of the du Pont family?

A. That is correct.

Q. Do you recall an occasion in 1921 when you transferred certain shares of Christiana stock to members of the Executive Committee of the du Pont Company?

A. I remember it, yes.

Q. Will you please state the curcumstances under which that was done?

A. Those executives had purchased du Pont common stock through the instrumentality of the du Pont Company. The du Pont Company purchased the stock from me and sold it to the executives on reasonable terms of payment. After that the stock fell in value very much, and the men who held it were very much worried about their investment, and at that time I turned over to each one of them 400 shares, I think it was, of Christiana common stock to support their loans to the du Pont Company, and that became their property thereafter. I had a right to redeem it later, but I never did.

Mr. Harlan: Your Honor, I find the acoustics much better with Mr. du Pont sitting where he is. Is it satisfactory to your Honor?

The Court: Yes, I hear much better than I did yesterday.

Mr. Harlan: I now offer du Pont Exhibit No. 28, your Honor, and it ought to be in Volume 1 of your looseleaf book.

[fol. 1879] The Court: What is the number, please?

Mr. Harlan: du Pont No. 28, sir.

The Court: I have it.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 28.)

Mr. Harlan: (Continuing) Which is a list of the members of the Executive Committee to whom Mr. du Pont transfered, in 1921, certain shares of Christiana stock, as he has just testified.

By Mr. Harlan:

Q. Do you recall the number of shares of Christiana stock you transferred to each executive or committee member?

A. It was 400 shares, I think.

Q. Now, referring to that list, one of the members is F. Donaldson Brown. Is he a member of the du Pont family or was he a member of the du Pont family, as that term is used in the amended complaint?

A. He was not.

Q. The second one is W. S. Carpenter, Jr. Was he a member of the du Pont family as that term is used in the complaint?

A. He was not.

Q. A. Felix du Pont, was he a member of the du Pont family as defined in the complaint?

A. He was, I believe.

Q. Well, he was a cousin of yours?

A. Yes.

Q. And do you understand that the members of the du Pont family as presently defined in the complaint, as distinguished from the original complaint, are simply that group of the du Pont family who are your brothers and sisters or the descendants of your brothers and sisters?

A. I did not understand it that way. I thought you meant——

[fol. 1880] Q. And A. Felix does not fall into that definition in the Government's complaint?

A. He is a cousin.

Q. Lammot du Pont was your brother?

A. Yes.

Q. By the way, when did Mr. Lammot du Pont die?

A. The latter part of last year.

Q. The fourth member is J. B. D. Edge. Was he a member of the du Pont family as defined in the complaint?

A. No, he was not.

Q. The next is C. A. Meade. What about him?

A. He was not a member of the du Pont family.

Q. The next is C. A. Patterson. What about him?

A. He was not a member of the du Pont family.

Q. The next is F. W. Pickard.

A. He was not a member of the du Pont family.

Q. And the last one is W. C. Spruance.

A. He was not a member of the du Pont family.

Q. Before you turned over this Christiana stock for the purposes for which you have testified to, did you consult or get the pemission of any members of the so-called purchasing group of the Christiana Securities Company?

A. I believe my brother Irenee knew about it, but I am not certain of that even. But I didn't consult him as to whether I had the right to do it.

Q. You did not?

A. No.

Q. Now, you have stated that you have felt free to deal with your Christiana stock as you pleased, and that you have done so. Will you state to the Court what the considerations have been that have affected your decision or judgment as to disposing of Christiana stock or as to holding on to it?

Mr. Harsha: I object to that question, your Honor. It calls for the mental condition of the witness.

[fol. 1881] The Court Overruled.

By Mr. Harlan:

Q. Do you understand the question?

A. No, I don't understand it.

Q. I would like to have you tell his Honor, in deciding whether you would retain your Christiana stock or dispose of it, what have been the factors that you have taken into consideration that let you take one conclusion or the other?

A. I am afraid I don't understand how to answer such a question.

Q. All right. You have disposed of certain Christiana stock, you say?

A. Yes.

Q. And you have held on to the other Christiana stock?

A. Yes.

Q. Now, why is it you have held on to the latter Christiana stock and that you have disposed of the stock that you have disposed of?

A. I really don't know, excepting the whim of the moment.

The Court: Will you read the answer?

(Answer read.)

Q. No particular considerations——

The Court: Read the answer, please.

(Record read.)

By Mr. Harlan:

Q. What has been the situation with respect to the marketability of Christiana stock? Has it been a wide market or a thin market?

A. A very narrow market.

Q. Do you know what Christiana stock is quoted at today [fol. 1882] by any chance?

A. I think it is about $6,500 a share.

Q. Have you on various occasions had under consideration disposing of some of your Christiana stock and then concluded not to?

A. Yes. I have disposed of most of it.

Q. You have disposed of most of it?

A. Yes.

Q. You disposed of a block of it to Delaware, did you not?

A. Yes.

Q. And beyond that, have you disposed of other Christiana stocks?

A. Yes. I started several trusts which contain Christiana stock.

Mr. Harlan: I offer as the next exhibit, if your Honor please, du Pont Exhibit No. 29, which is a letter on the letterhead of Laird, Bissell & Meeds, dated July 9, 1937, signed George.

I believe it is George Weymouth of the Laird firm, is that right?

Mr. Harsha: If you say so, I will take your word for it.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 29.)

Mr. Harlan: This is addressed to Lammot du Pont, dated July 9, 1937, the first paragraph reading:

> "For the past three weeks I have made a concentrated drive to sell a large block of Christiana Securities common stock in whole or in part. It occurred to me that in view of your interest in the company, it might be of interest to you to know the results of these efforts, together with the reactions and comments of the people interviewed."

[fol. 1883] Then your Honor will see that among those whose views were canvassed by Mr. Weymouth as to their attitude towards purchasing Christiana stock were Mr. Scott of the Finance Committee of the University of Virginia; Mr. Shattuck, of Harvard University; Mr. Cox of the Old Colony Trust Company, who was in charge of the investments of funds in the Massachusetts Institute of Technology; and the Comptroller of Yale University.

On the second page, without reading it, you will see the results of those interviews as to the difficulty of disposing of that stock to institutions of that kind.

Next I offer du Pont Exhibit No. 30, which is a letter dated August 9, 1937, to Mr. Charles S. Mott, from Mr. Pierre du Pont.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 30.)

The third and fourth paragraphs of du Pont Exhibit 30 read:

> "The Christiana Securities Company common stock has varied from 75 to 80% of the break-down value—"

By Mr. Harlan:

Q. What is meant by the "break-down value"?
A. Its equivalent in du Pont Company stock.
Q. That is the underlying du Pont Company stock which Christiana held?
A. Yes.

Mr. Harlan: (Continuing)

> "—common stock has varied from 75 to 80% of the break-down value of the stock as expressed in the value [fol. 1884] of du Pont shares. However, the Government does not accept this as values made for the purpose of taxation. Since receipt of your letter this week, I have learned of a tentative offer of 73% of the break-down value for 600 shares of the common stock.
>
> "I have been contemplating sale of part of my holdings of Christiana Securities Company in order to obtain cash for other purposes, but I feel doubtful about the wisdom of going as low as 73% or even 75%."

Next, if your Honor please, I offer du Pont Exhibit No. 31, which is a letter from a gentleman named Cecil Backus of Laird, Bissell & Meeds, dated October 23, 1939, to Mr. Pierre du Pont, which contains a proposal for marketing Christiana stock.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 31.)

Mr. Harlan: The third and fourth paragraphs of that exhibit I would like to read:

> "As mentioned in our letter of the 6th, we refrained from making some sales on a 77% basis, as the du Pont market broke down to 176½. We subsequently received

> instructions on October 9th to sell Christiana so long as du Pont did not go below 173.
>
> "It has been our experience that as du Pont advances it becomes more difficult to sell Christiana above 75% of break-up."

Then follows a suggested formula on the basis of which [fol. 1885] he suggests that blocks of Christiana might be disposed of at a discount.

Now I want to turn to another set—

Mr. Harsha: Counsel, may I interrupt for just a second? I was wondering if you were going to read the first paragraph on page 2? If not, we would like it read at this time.

Mr. Harlan: I would be glad to have you do so.

Mr. Harsha: Turning to the second page, it continues:

> "Our suggestion is as follows:
>
> "Disregard General Motors market changes and fractional changes in the price of du Pont."

That is all we propose to read.

Mr. Harlan: Now, if your Honor please, I want to turn to another aspect of the Government's charge; that is, the charge that relates to Delaware, the formation of Delaware and its continuation which is charged in the complaint as being part of this alleged conspiracy to violate the Sherman Act.

I want to develop through Mr. du Pont the circumstances under which that corporation was formed as I have done with Christiana.

By Mr. Harlan:

Q. When did you retire from the presidency of the du Pont Company, Mr. du Pont?

A. The year 1919.

Q. You had been president since 1915?

A. That is right.

Q. By the way, since that time have you occupied any position in the du Pont Company in the active management? [fol. 1886] A. No, I have been Chairman of the Board but nothing else.

Q. Your positions as a member of the Board and a member of the Finance Committee are already scheduled, but you have occupied no active position in the active management of the company since your retirement as president in 1919?

A. No, I have not.

Q. Is that right?

A. That is right.

Q. At the time you resigned as president in 1919, did you give any consideration to your personal affairs, and particularly as to what disposition you proposed to make of some of your large holdings?

A. Yes, I did.

Q. That consideration at that time, did it reach any conclusion or was it interrupted?

A. The first conclusions I had were seriously interrupted by the General Motors troubles.

Q. When you refer to the General Motors troubles what do you mean?

A. The failure of Mr. Durant and my taking the presidency of General Motors.

Mr. Harlan: By the way, at that point, in looking over the record last night, due to a rather inartistic question that I asked, it might appear, on page 3243, that there was some intended denial by Mr. du Pont that he had ever been connected with General Motors, where I was going over the history of his connection with the du Pont Company.

Of course, no such thing was intended either by my question or the answer. We not only recognize and admit that, but assert his connection with the General Motors Corporation.

[fol. 1887] By Mr. Harlan:

Q. Now, as we will develop later, you remained president of General Motors how long?

A. About two and a half years, at least.

Q. And following your resignation as president of General Motors, did you give any attention to your personal affairs, and particularly what disposition should be made of your holdings?

A. Yes, I did. I had time and opportunity to take action then.

Q. Will you please state as fully as you can, beginning with that period, what the train of events were and what the considerations were that resulted in the formation of Delaware Realty & Investment Corporation in 1924?

A. The whole thing started with my desire to make provisions in my estate for the future, not only during my lifetime but afterward.

I decided that an annuity for the benefit of myself and wife would be a prudent thing to take out. I had quite large ideas of how much it should be because I wanted it commensurate with my income.

I found that no such annuity could be taken out. The companies that wrote annuities could not furnish an annuity large enough for my purposes. They also required that the securities be sold in order to reinvest in proper securities for annuities, as generally written by the annuity companies.

This meant a serious depreciation in the value of my estate—typically, disposing of the stock in the first place; and second, a loss of the income in the future.

It was after I had decided to do that, and failed, that two of my brothers-in-law came to me with a proposition to issue an annuity.

[fol. 1888] Q. Who were they?

A. Irenee and R. R. M. Carpenter. They represented themselves as acting for my other brothers and sisters, whether all of them or not, I didn't know at the time, but their proposition was to use a small company that Laird had, as a means of issuing the annuity, which they proposed to do on very attractive terms as far as income was concerned. They wished to take the securities for the future benefit and would use the income of the securities as a basis for the annuity, which meant that they considered the likely income at about five and one-half percent over a period of years while the regular annuity companies would not allow more than two or three percent, and would therefore require a larger volume of securities. That proposition promptly developed into the Delaware Realty Company. It was a real estate company originally. That is how the name came about, but they used it entirely for the placing of the annuity. We then organized the company, or they did, and the securities were turned over to it under the annuity contract, and it was an annuity for our lives.

Q. What was the amount of the annuity?

A. $900,000.00 a year.

Q. As to the stock of the Delaware Realty & Investment Company, and the setup that you have referred to, what became of that?

A. The stock of what?

Q. Of the company that granted the annuity, the Delaware Company?

A. That belonged to the people who organized the plan. I had nothing to do with that, of course, and I didn't receive any of it, and I was given no notice of who did receive it at the time.

Q. Did you know that the organizers of the company, or the proposers of this plan arranged for the securities [fol. 1889] to pass to your brothers and sisters or the spouses of deceased brothers and sisters?

A. Yes, sir, I knew that in a general way. I didn't know the exact division.

Q. Did you know what the subscribers to that stock were going to do with it?

A. The stock of the Delaware Realty?

Q. The stock of Delaware.

A. No, I didn't.

Q. You did not know that?

A. No.

Mr. Harlan: Now, I offer at this time, if your Honor please, du Pont No. 32, which is a letter dated May 22, 1924, from John M. Clayton on the letterhead of the Equitable Life Assurance Society to Mr. F. A. McHugh, dated May 22, 1924.

By Mr. Harlan:

Q. Who was Mr. F. A. McHugh?

A. He was my secretary.

Mr. Harlan: And without reading all of the letter, your Honor will see that the letter sets forth various information in connection with annuities.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 32.)

Q. By the way, Mr. du Pont, do you happen to recall, at the time of this setting up of Delaware and the granting of the annuity, whether from the standpoint of income taxes, there was any advantage to you in providing for an annuity as the source of income?

A. There was quite an advantage.

Q. What was it?

A. The income on an annuity was not taxable as regular income in those days.

[fol. 1890] Mr. Harlan: In that connection, your Honor, I refer to page 3 of this letter in which Mr. Clayton says, in the last paragraph:

> "For Income Tax purposes, Annuity Payments are not taxed until the payments to the annuitant exceed the price paid for the annuity. There are other special forms of annuities issued by the Society, an outline of which we would be glad to send you, if you are interested."

That, I might say, is a provision of the law that no longer exists.

Next, I offer du Pont No. 33, which is a formal offer from Delaware Realty & Investment Company to Pierre S. du Pont, dated May 30, 1924, relating to the granting of an annuity for the lives of Mr. du Pont and Mrs. du Pont of $900,000.00 in consideration of the transfer of the list of securities set forth in that letter.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 33.)

Mr. Harlan: Next I offer du Pont Exhibit 34, which is a copy of the annuity contract between Delaware Realty and Mr. and Mrs. du Pont, dated May 31, 1924, and I call your Honor's attention particularly to the table of annuity values that are set forth on the last page before the acknowledgment to that contract.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 34.)

Mr. Harlan: Next, if your Honor please, I offer du Pont [fols. 1891-1893] No. 35, which is a letter from Mr. Pierre du Pont to Mr. Paul Belin, dated June 12, 1924, which is a short period of time after the formation of Delaware for this annuity transaction, which I would like to read.

By Mr. Harlan:

Q. Who was ~~Mr.~~ Paul B. Belin?

A. My brother-in-law.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 35.)

[fol. 1894] Q. Now, Mr. du Pont, I hand you what has been marked Government's Trial Exhibit 92, which is an unsigned memorandum, and ask you whether that memorandum ever came to your attention prior to the commencement of this litigation, after we started to prepare this case for trial?

A. I have read it recently. I had not known it before the last few months.

Mr. Harlan: In connection with that unsigned memorandum, if your Honor please, I offer du Pont No. 36, which should be in your Honor's book.

The Court: I have it.

Mr. Harlan: And I think it should state the purpose of this offer. If your Honor will turn to the second page, you will see there in italics, which means that the original is in handwriting, a letter dated December 9, 1924, on the letterhead of Charles Copeland to Dear Rod.

[fol. 1895] By Mr. Harlan:

Q. That is Rodney Sharp, I suppose?

A. That is right.

Q. Nobody else is called Rod?

A. No, sir.

Q. In which Mr. Copeland—was Mr. Copeland called Bob?

A. Yes.

Q. In which Mr. Copeland refers to this memorandum, and says:

> "It has seemed to me that in connection with the offer to Pierre to make the annuity arrangements we should have in our file some definite reasons for such action; one that could be understood by the Revenue Agent when the returns are audited. I have submitted the enclosed to Winder—"

Q. That is Winder Laird, I suppose?

A. That is Winder Laird, my brother-in-law.

Q. There is no other Winder?

A. No other Winder, no, sir.

Mr. Harlan: (Reading):

> "—suggesting that it might be adopted by The Board or some similar paper, if you prefer—and made a part of our minutes. Will you please read it over and use your pencil freely. I have not discussed it with Richards as I wanted the idea of the crowd first. My references to P. S. may seem a little flowery, but I put them in to emphasize the point."

Then, if your Honor will turn to the first page, you will see Mr. Richard's letter to Mr. Copeland in which he acknowledged receipt of the memorandum.

[fol. 1896] Mr. Richards was at that time the senior partner of the law firm of Richards, Layton and Finger, as it is now called.

Q. Do you recall any meeting of the Delaware Realty & Investment Corporation where the unsigned memorandum you just looked at was brought before the meeting and discussed?

A. I never attended a meeting of the Delaware Realty & Investment Company.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 36.)

Mr. Harlan: Now, if your Honor please, turning to another aspect of the Government charges with respect to Delaware, which they claim was formed to obtain captive markets in General Motors, it is alleged in 35, paragraph 35 of the amended Complaint:

> "It was understood and agreed among the defendant individuals and members of the du Pont family who held Delaware stock that they would hold it for themselves and the members of their families, so that control of Defendant Delaware would remain in perpetuity in the hands of the defendant individuals and certain of the members of the du Pont family."

Q. In your discussions with your brothers and your brothers-in-law with respect to the formation of Delaware, did you impose any condition as to the retention of the Delaware stock in the hands of its recipients?

A. No, sir, I did not. They were free to sell and do as they pleased.

Q. Did you ever discuss that question with any of them?

A. No, not to my recollection.

Q. Have you ever had any understanding or arrange- [fol. 1897] ment between the subsequent holders of the Delaware stock and yourself limiting in any way the complete freedom of action on the part of those holders to do as they wished with the Delaware stock?

A. No, I had no conversation and I had no right to impose such a condition.

Q. Have you ever sought to dissuade or persuade the holders of the Delaware stock not to dispose of the Delaware stock?

A. No, I have not.

Q. Have you ever had any understanding or agreement with any of the holders of Delaware stock as to how that stock should be voted?

A. No, I did not.

Q. I think you said you never attended a meeting of Delaware Realty Corporation.

A. I never did, no.

Q. Have you ever sought to direct or persuade or influence any holder of Delaware stock as to how he or she should vote that stock?

A. No, they were perfectly free to vote as they chose, and I never questioned them about it.

Q. I omitted to ask you this in connection with Christiana; have you ever had any arrangement or understanding with other holders of Christiana stock as to how they should vote their Christiana stock?

A. No.

Q. Or how they should vote their Christiana stock at any stockholders' meeting?

A. No agreement at all.

Q. Have you ever sought to persuade or influence any holder of Christiana stock to vote or refrain from voting his particular stock in a particular way?

A. No, I have not.

Mr. Harlan: Will the government be willing to stipulate that the holdings of Christiana stock by Delaware Realty & Investment Corporation all represent the Christiana stock that went into Delaware in connection with the annuity [fol. 1898] transaction, and that no other Christiana stock has at any other time gone in there?

Mr. Harsha: We will so stipulate.

Mr. Harlan: And will you stipulate the same with reference to portions of the Delaware holdings that represent du Pont stock?

Mr. Harsha: I will have to check on that, Mr. Harlan.

Mr. Harlan: That is perfectly all right. In the meantime, I make that as an assertion of fact, that there are no holdings of du Pont stock other than those that derive from the du Pont stock that went into Delaware in connection with the original transaction, except possibly an odd purchase in small amount, and I refer in that connection to Government's Exhibit 1217-A.

And then, if your Honor please, I simply call attention to the provisions of the annuity contract which is du Pont Exhibit No. 34, and point out that there is no restriction in the annuity contract limiting in any way Delaware's right to dispose of the Christiana or du Pont stock, if it so pleased, the only provision being that Delaware obligates itself, obligates itself, to protect the annuity by always maintaining a reserve fund of, I think, 30 per cent of the value of the unexpired term of the annuity.

And now, at this point, with your Honor's permission, I will ask Mr. Pierre to step down and continue the development of the defense on these issues through Mr. Irenee du Pont, it being understood that Mr. Pierre du Pont will return later and ultimately for cross examination.

(Witness temporarily withdrawn.)

[fol. 1899] Mr. Harlan: Mr. Irenee du Pont.

Irenee du Pont, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Harlan:

Q. Mr. du Pont, you are one of the individual defendants in this lawsuit?

A. I am.

Q. And you are the brother of Pierre du Pont and of the late Lammont du Pont?

A. I am.

Q. What was the date of your birth?

A. December 21, 1876.

Q. So you are now in your 77th year?

A. Yes.

Q. How long have you been a resident of Delaware?

A. I assume that while at college I was a resident of Delaware. I think I maintained my residence in Delaware for the four years I was in Newark, New Jersey. I was working outside of the State. With those allowances I have been a resident of Delaware since 1882—no, 1892.

Q. From what college did you graduate?

A. M.I.T., Massachusetts Institute of Technology.

Q. What year did you graduate?

A. 1897.

Q. Did you receive a degree or degrees from M.I.T.?

A. I received the degree of Bachelor of Science in 1897 and a Master's Degree in 1898.

Q. In what subject was your Master's Degree?

A. Chemical Engineering.

Q. After you graduated from M.I.T., what was the first [fol. 1900] job that you went to work at?

A. Pusey & Jones Machine Shop.

Q. Without going into detail, what was the nature of that job?

A. The equivalent of being an apprentice.

Q. What was your salary?

A. $2 a week.

Q. What was the next job that you had following that with Pusey & Jones?

A. I went to Hay Foundry & Machine Company, Newark, New Jersey.

Q. Without going into detail, what was the nature of that job?

A. I was a draftsman for the first two weeks, and I checked after that.

Q. What did you get for that?

A. I checked the drawings of other people.

Q. What salary did you get for that job?

A. $12. And raised to $15.

Q. A week?

A. Dollars a week.

Q. Following that, did you hold another job?

A. I was secretary and treasurer of a small contracting company in Newark.

Q. What was the name of that?

A. Manufacturers Contracting Company.

Q. Where was this business located?

A. Newark, New Jersey.

Q. How long did you remain with that connection?

A. About four years.

Q. That would carry it up until about when?

A. 1903.

Q. Then what did you do?

A. I went down to the du Pont Company.

Q. And got a job?

A. I did.

Q. What job was it that you first held with the du Pont Company?

A. I was in charge of the construction of the Black Powder Department.

[fol. 1901] Q. What was your salary in that job, if you remember?

A. Well, I am afraid I can't remember: It was of the order of $150 a month.

Mr. Harlan: Now I offer, if your Honor please, du Pont Exhibit No. 66, which is still in Volume I.

This is a schedule of the positions held by Mr. Irenee du Pont at various times in the du Pont Company and its predecessor companies.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 66.)

By Mr. Harlan:

Q. I see from this schedule, Mr. du Pont, that you were president of the du Pont Company, the present company, from sometime in 1919 to sometime in 1926, is that right?

A. That is correct.

Q. You having succeeded your brother, Pierre, in that position?

A. I did.

Q. When did you first become a stockholder in the du Pont Company or the predecessor companies of this company?

A. When I moved from Newark, New Jersey; the du Pont Company purchased Manufacturers Contracting Company, and I automatically went with it.

Q. That would have been 1900——

A. 1903, I believe.

Q. And your stockholdings in du Pont Company would have been holdings in the so-called 1902 company, is that right?

A. I don't recall.

Q. Were you ever a member of the original du Pont partnership that you heard Mr. Pierre testify about yesterday?

A. No, sir.

[fol. 1902] Q. Or were you ever a holder of stock in the 1899 company which succeeded that partnership?

A. I did not. I never owned any.

Q. Have you read the complaint in this lawsuit?

A. I have.

Q. Are you aware that you and your brother are being charged with a conspiracy to violate the Sherman Act and anti-trust laws?

A: I am aware of that.

Q. Are you familiar with the nature of those charges?

A. Some of them sound fantastic.

Q. Are the charges true or false?

A. False.

Q. Your deposition was also taken, was it not, at a stage in this case in, I believe, November and December of 1951?

A. That is correct.

Q. What has been your intention throughout as to your desire to appear before his Honor in person to testify orally at this trial?

A. I desired to testify personally.

Q. You were one of the members of the purchasing group, original purchasing group, of the Coleman stock which resulted in the formation of Christiana, were you not?

A. I was.

Q. Will you state to the Court, as fully as you can, in your own words, the circumstances under which you became a member of that group and a holder of Christiana stock as a result?

A. For some time before the purchase, I was quite anxious to increase and get a reasonable interest in the du Pont Company. With two or three others of the younger group, I wrote to T. Coleman du Pont, asking whether he would be willing to sell us a considerable block. This was in May of 1914—it may have been April. It was the spring of 1914.

I did not get a reply to that. Later I heard that Coleman [fol. 1903] made some sort of an offer to the Finance Committee to interest younger men in the du Pont Company, and I of course heard rumors from time to time about it, that is, not rumors but words from Pierre that he was working on it.

When Pierre called us in and said Coleman's stock could be bought and did I want a share in the purchase, I said, "Yes." He said, "How much?"

I said, "How much can I have?"

He said, "Anything you want." Then he explained the plan which they had.

I felt that by buying, roughly, one seventh of it, I could swing it without endangering my wife's and children's support because I considered it as a speculation, one which I could help make a success of.

Q. Without going into the details or unnecessarily traversing ground that we have already traversed, you put in, in connection with that purchase, certain du Pont stock to supply your share of the additional collateral required to purchase the Coleman stock?

A. I did.

Q. And the record shows that you put in 4508 shares as your share of the collateral?

A. I remember it was about that much I put in. I furnished a statement to you showing exactly what it was. I have no doubt that is the exact figure.

Q. Did that represent all of the du Pont stock that you then had in your portfolio?

A. No, sir.

Q. You retained some additional stock?

A. I did.

Q. Was that additional stock, or any of it, ever put into Christiana?

A. It was not.

Q. At the time that Pierre came to you and offered you the opportunity to participate with him and others in [fol. 1904] the purchase of Coleman's stock, what position did you hold in the du Pont Company?

A. I was Chairman of the Executive Committee, which was formed the latter part of 1914 or early 1915.

Mr. Harlan: At this point, if your Honor please, I would like to offer du Pont Exhibit No. 67, which would be in the first volume, which is a letter from Irénée du Pont, A. Felix du Pont, Lammot du Pont, and R. R. M. Carpenter, to T. C. du Pont, dated May 14, 1914.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 67.)

By Mr. Harlan:

Q. Before I read this, do you recognize that as the letter that you referred to as having written in the spring of 1914 to T. C. du Pont inquiring as to the availability of the stock?

A. I have no doubt that is what it is, but you haven't showed it to me.

Q. Good enough. I will do so.

A. I have no doubt that that is a copy of it.

Mr. Harlan: This I would like to read, your Honor.

(Said du Pont Exhibit No. 67 was thereupon read to the Court.)

By Mr. Harlan:

Q. Do you recall that following the formation of Christiana—can you hear me all right?

A. Yes, sir.

Q. Do you recall that following the formation of Christiana, a re-distribution of the Christiana stock that had been received by the original purchasing group was made? [fol. 1905] A. That was after the formation of Christiana, not before.

Q. I intended to say after.

A. I may have misunderstood.

Q. Do you recall that episode?

A. Yes, I remember that very well.

Q. Will you state as fully as you can what was done and why it was done in that connection?

A. The idea was to interest principal men in the company as owners in the company. Coleman du Pont, I mean, was a firm believer that owner-management is superior to hired management.

I was convinced of that before that, and had discussed it with Coleman ad lib. I pointed out that Mr. Carnegie did it and it worked. Mr. J. B. Duke did it, and it worked, and it seemed to have worked very well when he and Alfred and Pierre bought out the old company because they were the newcomers then.

What was the rest of the question?

Q. So what was done?

A. We each chipped in as our contribution a percentage which would yield to handing out to the men of the Executive Committee 1250 shares each of Christiana stock. They had one string tied to it. They would not either leave the company or sell it for a period of one or three years, a short period, I have forgotten exactly. The contract will speak for itself.

Q. That was a written contract which is already in evidence. I don't need to refer to that.

A. There was one, I know. I suppose you have it.

Q. Now it is charged in this case that at the time that Christiana was formed and subsequently thereto, there have been arrangements or agreements or understandings of [fol. 1906] some kind between the Christiana stockholders that they would not dispose of their Christiana holdings outside the family. Do you know of any such arrangement, agreement or understanding?

A. I know there was no such agreement. As a matter of fact, if there was, I broke it pretty nearly in the day because I did sell quite a little and I gave away a great deal without any control over it.

Mr. Harlan: In that connection, if your Honor please, I refer to Government Trial Exhibit No. 52, this being a Government exhibit which is a schedule of Mr. Irenee du Pont's holdings in Christiana stock from the inception of Christiana and down to date, or at least down to June 30, 1949, more accurately speaking.

This shows that excluding the shares of Christiana that were utilized and contributed by him as a member of the original purchasing group for this redistribution to Executive Committee members of the du Pont Company, excluding those, there have been a total of 15,352 shares of Christiana stock disposed of by him, of which 5,792 of those dispositions have been to persons outside of the members of the du Pont family, as that term is used in the Government's amended complaint.

By Mr. Harlan:

Q. For example, Mr. du Pont, you have listed here gifts to charities between 1933 and 47 of 1321 shares of Christiana stock. Do you see that there?

A. Yes.

Q. Can you state from recollection the names of any of those charities who were the beneficiaries of your bounty?

A. Undoubtedly the largest portion of that went to the Bio-Chemical Research Foundation of the Franklin Institute in Philadelphia. They are investigating the subject of [fol. 1907] cancer, and I thought it was a very good expenditure to deliver the stock, and they sold it.

Q. The sales from brokers amounted to nearly 2,000 shares. Are those sales on the open market in due course for the purpose of raising cash?

A. Yes.

Q. Before you made any of those sales or charitable dispositions, did you assemble the Christiana stockholders together and tell them that you were going to breach this alleged agreement that prevented you from making these dispositions?

A. I didn't consult anybody but myself.

Q. You have disposed of, as this schedule shows, certain shares of Christiana stock to your own family, children, from time to time?

A. I did.

Q. In connection with any of those dispositions have you imposed any condition or asked for any arrangement or agreement from your children that they would not dispose of the Christiana stock outside of the family?

A. No such agreement.

Q. Or have you made any effort to dissuade then from doing that at any time?

A. I think not.

Q. Now, passing over to the Delaware Realty & Investment Corporation which the Government also charges, you are aware, was formed as a part of this alleged conspiracy to restrain trade, are you familiar with the circumstances under which Delaware Realty & Investment Corporation came into being?

A. I am familiar.

Q. Will you state that story, please, in your own words, as fully as you can recall it?

A. Well, Pierre wanted to get an annuity and pay for it with industrial stocks. The grantor of an annuity was not limited as to the character of the investment. We could continue to hold the same investment. Those on the average [fol. 1908] returned far higher than the standard funds used by insurance companies for annuities and insurance, so that the income from it was larger per dollar capital than the capital used by insurance companies. We thought that by making a proposition based on that high rate of return on which we could count, and if the thing was successful, we would make a great deal of money. If the thing failed, all we would lose was $100,000.00 apiece that we put into the company, so it looked to me like a pretty good gamble. All we risked was the value of the stock that we subscribed to, $100,000.00 for each of the eight participants. Well, that is all ~~there was to it~~:

By Mr. Harlan:

Q. Was there any discussion with Pierre or your brothers-in-law as to this being a useful device to get a captive market from General Motors?

A. No, sir, never thought of it. Didn't even know we were going to own any General Motors at the time.

Q. Delaware was formed in 1924.

A. Oh, I thought it was the Christiana date.

No, sir, it was not.

Q. Now, what did you do with the Delaware stock that you subscribed for in connection with this annuity transaction?

A. I put it in trust for my children.

Q. Did you do that of your own free will?

A. I did.

Q. Was there any discussion between you and Pierre or direction by Pierre that he wanted you to keep this stock in the family?

A. None whatever.

Q. Why was it that you decided to trustee all of the stock representing your share of the subscription for the [fol. 1909] benefit of your children?

A. I had enough to get along on without any income from it, and I didn't think there would be income from it for several years, and I thought it would be a more appropriate item to pass along to my children under a trust to take effect later than it would be to hold it myself.

Q. Do you happen to recall what the terms of those trusts were, meaning by that, at what stage, if any, did the children as beneficiaries receive the Delaware stock outright, as distinguished simply from the income of it?

A. I think—I may have it confused with another trust, but I think it was when they got married, or when they reached 26 under one trust, and the other was when they reached 31. I have forgotten which was which, but you have copies of it.

Q. All right. Do you recall whether or not at the time you established those trusts or at the time the remainders fell in, and the children got the stock outright, you had any discussion with them or understanding with them as to whether they should keep the Delaware stock always in the du Pont family?

A. None whatever, with the exception that you flashed some letters on me that I had forgotten entirely, one to the effect that I had admonished my daughter Margaretta not to throw the certificate in the waste basket, that it might be worth something.

Q. Have you at any time tried to limit in any way the freedom of any of your children to dispose of the Delaware stock, if they wished to do so, if they pleased?

A. I have never done anything of the kind.

Q. Have you had any arrangement or understanding with your children as to how they should vote the Delaware stock?

A. I think not, although I heard later that one [fol. 1910] of the trusts made by one of my children appointed me as a sort of an adviser, and I received a letter, and I didn't know I had been appointed an adviser, so I said, "Do just whatever they ask you" as advice to the Wilmington Trust Company. That only happened this year. I think they simply woke up to the fact that I was an adviser, I suppose, on account of this trial.

Mr. Harlan: At this point, may I offer, with your Honor's permission, or refer to—I beg your pardon—refer to a Government's exhibit that is already in evidence, Government's Exhibit 97, which is a letter signed "Your affectionate father" from Irenee du Pont to Misses I. Sophie, Margaretta and Constance, with a copy to Mrs. du Pont.

By Mr. Harlan:

Q. Who were I. Sophie, Margaretta and Constance?

A. Those were my three older daughters.

Mr. Harlan: This letter, if your Honor please, enclosed a copy of a deed of trust or copies of a deed of trust for 100 shares each of the Delaware stock, and in that letter it is stated as follows:

> "The Delaware Realty & Investment Co. was incorporated to purchase from Uncle Pierre a large amount of stock in the du Pont Co., Hercules Company and Atlas Company. They gave in payment for this stock an annuity payable to Uncle Pierre and Aunt Alice"—

By Mr. Harlan:

Q. Aunt Alice being whom?

A. His wife, Pierre's wife.

[fol. 1911-1913] Mr. Harlan: (Continuing):

> "for life and the amount of the annuity will likely eat up all the income from the securities purchased—in

bad years probably more; in good years probably less; but in no case can the stockholders be assessed if there is not sufficient money to pay the annuity. In that event some of the securities will have to be sold.

"As the annuity payments will cease when Uncle Pierre and Aunt Alice are dead, at that time the stock of the Realty Co. will become very valuable, and as at that time I will probably be too old to need any income, it seemed to me wise to put the stock of the Delaware Realty Co., which cost me about $100,000, in trust for my children."

Next I offer as du Pont Exhibit No. 68 which would be in Volume 1 of your Honor's book, a copy of a deed of trust dated June 4, 1924 by Mr. Irenee du Pont as settlor, with himself as trustee, and Eleanor Frances du Pont, one of his daughters, as the beneficiary, and before I go further, I want to ask a question.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 68.)

By Mr. Harlan:

Q. Is it your best recollection that the trusts set up for your children of Delaware stock were identical as to their terms?

A. They were.

[fol. 1914] Mr. Harlan: Now, if your Honor please, I turn to another line of testimony which relates to the Government's charges that prior to the General Motors Investment in 1917 and beginning shortly about the time of the war, du Pont's development in the fields other than explosives was motivated by the purpose to acquire for itself a captive market in fields other than explosives which might replace the explosives business after the war ended, and my purpose in this line of interrogation is to develop, through Mr. du Pont, the various developments and expansions that were made by du Pont during this period, up to 1917, to show the circumstances and the reasons why these various steps were undertaken.

Q. You say that you went with the du Pont Company in the black powder department first in 1903?

A. Yes.

Q. What was the business, the principal business of the du Pont Company around that time? What were its products?

A. Explosives; essentially dynamite, black powder and smokeless powder.

Q. Did you also make, or did the du Pont Company also make certain raw materials which went into the manufacture of explosives?

A. Yes, to some extent.

Q. What is smokeless powder?

A. I am speaking first of the military powder. It is made from nitrocellulose by incorporating it with a mixture of [fol. 1915] ether and alcohol that changes the character of the nitrocellulose from the appearance that it had before nitration. It looks originally like cotton, which is nitrated into the plastic form, which could be extruded from a hole to make a cylindrical cross section like a wire, or more accurately with holes in it like a lead pipe has one hole when it is extruded, and smokeless powder had seven, depending upon the character of the cannon or the rifle that was being used for that powder.

That, when dry, turns into a substance which maintains its shape under very high pressure. That is essentially the way of making it. Now, the principal——

Q. May I interrupt you there for a second. What were the principal uses of smokeless powder at the time we are talking about, 1903?

A. Well, the military powder went entirely to the United States Government with the exception of a small amount of small arms powder which went to various loading companies for amateur use.

Q. Was the base of both the military powder and the commercial smokeless powder nitrocellulose or was that confined to the smokeless military powder?

A. They were both nitrocellulose.

Q. Who were the principal customers in those days for your military smokeless powder?

A. The army and navy, U. S.

Q. Did there come a time when the army and navy, or one of them built smokeless powder plants of their own?

A. They had one mill—the army built one at Picatinny Arsenal, at the base arsenal according to my recollection.

Before that, the navy had built one at Indian Head. Of course, I knew that at the time when I went to [fol. 1916] the du Pont Company. I heard of that. The Picatinny Arsenal was built while I was with the du Pont Company.

Q. What effect did the erection of those plants have upon the smokeless powder business of the du Pont Company?

A. We were, of course, immediately fearful, knowing that their capacity was approximately equal to our capacity, that we would lose the business altogether, that the Government would make its own powder.

Q. What, if anything, did you do in anticipation of that happening?

A. Well, the executive committee of the du Pont Company before I was on it, started in to try to find what use they could make of nitrocellulose apart from smokeless powder, to try to use the plant that we had. That had been investigated at the time I went into the development department, and things were pretty black at the time. I was in charge of that, and I had before that been on the committee to find uses for nitrocellulose, anticipating that branch of the industry would disappear.

Q. Then subsequent to your resignation as head of the development department, you became the assistant general manager of the company?

A. That was in 1910 I became general manager. I was not familiar with the development department thereafter.

Q. As such in those various capacities, are you familiar with the history of the development and exploration and research of du Pont Company into the question of uses for excess nitrocellulose, as you referred to it?

A. Yes, I think I might say I was posted on that, certainly up to the end of 1910.

Mr. Harlan: At this point, before we start on that, I would like to offer, if your Honor please, du Pont Ex- [fol. 1917] hibit No. 69, which would be in the first volume, which is a copy of a resolution of the du Pont Company Executive Committee, December 17, 1908.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 69.)

Mr. Harlan: This reads:

> "A general discussion ensued concerning the probable amount of smokeless powder orders we are likely to receive from the Government in the future, and the likelihood of our having considerable idle capacity at our smokeless powder plants."

Then follows the appointment of Mr. Haskell, Mr. P. S. du Pont, and Mr. Dwinnell as a special committee to look into the question of the direction of developing further uses for guncotton "or any of the other products of our smokeless powder plants."

By Mr. Harlan:

Q. Is nitrocellulose sometimes called guncotton?

A. That is the old name for it, and it is still in use.

Q. You seem to have some difficulty hearing me. Is that gadget of yours out of order?

A. I hear better this way (indicating) than I can with the gadget.

Q. Am I talking loud enough?

A. Plenty.

Mr. Harlan: Next I offer du Pont Exhibit No. 70, which is another resolution or advice of action of the Executive Committee of du Pont dated March 6, 1909.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 70.)

[fol. 1918] Mr. Harlan: This simply substitutes Mr. Irenee du Pont for Mr. Dwinnell on that special committee to look into the excess nitrocellulose problem.

By Mr. Harlan:

Q. Mr. du Pont, at the time that you were confronted with this situation as to nitrocellulose and new uses for it, what were the principal fields other than military powder in which it was believed nitrocellulose might be used?

A. I think the largest field was in what was known as celluloid products. The second largest was in artificial leather. The third largest, I think, was probably artificial silk made by the Chardonnet process, but that was entirely abroad, none in the United States. The fourth was lacquers, which the du Pont Company was already engaged in manufacturing.

Mr. Harlan: I offer at this point, if your Honor please, du Pont Exhibit No. 71, which would be, I think, in Volume II.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 71.)

Mr. Harlan: This is a memorandum on the letterhead of the du Pont Development Department, dated September 12, 1913, from a gentleman named Richards to Mr. R. R. M. Carpenter, the manager, in which the opening paragraph reads:

> "You recently asked me to give some attention to the purposes for which nitrocellulose is used in the various arts and manufactures, to determine whether there are uses, other than those with which we are already familiar, that seem susceptible of development [fol. 1919] into outlets for material quantities of nitrocellulose in addition to our present sales."

Then he lists, which I need not read, various products in which nitrocellulose is used, including the four that Mr. Irenee du Pont has just testified about.

By Mr. Harlan:

Q. I would like to begin, first, with artificial leather, which is one of the possible outlets for nitrocellulose that you referred to a moment ago.

Will you please state, as fully as you can from your recollection, what the reasons were that attracted du Pont into artificial leather as a possible field for nitrocellulose, and what the steps were that finally brought it into that kind of manufacture.

Take your time and state it as fully as you can.

A. I think the fact that we had heard rumors that one of the manufacturers of artificial leather, the Fabrikoid Company, was experimenting in their recovery of solvents from the manufacture of artificial leather. They were one of the larger artificial leather manufacturers.

We thought that we already knew about solvent recovery from our smokeless powder experience; knew far more about the difficulties and the means of accomplishing it than anybody else.

We thought that it might be a very good thing for us to jump right in on artificial leather and make use of our knowledge of the recovery of solvents, which is a very considerable part of the cost of manufacturing.

We investigated the Fabrikoid Company, and found them a very good concern. They had a pretty good name.

No artificial leather was entirely satisfactory at that time. There was ample opportunity to improve it. That [fol. 1920] improvement consisted not only of a general improvement, but, as you might say nowadays, tailoring it for the particular use it was to be put to.

The hospital sheetings which were in use to some extent were a very, very thin film of nitrocellulose jelly put over thin cotton cloth. The bulk of the cost was in the cloth. We were not interested in cloth. But the heavier grades had all sorts of difficulties. Some were too stiff. Some would go sour and smell bad, and we thought that we could do something with that.

We negotiated with the Fabrikoid people, and finally purchased them for about a million dollars. Immediately we found out that they had tried to recover solvents and had a number of fires resulting.

Q. Have you finished?

A. I think that is all.

Q. Before you purchased the Fabrikoid Company, had you conducted within du Pont any experiments or any research to see whether your expectation that you could improve on the quality of artificial leather was or was not based on a sound foundation?

A. Well, we ran a laboratory outfit. It wasn't a plant. We made artificial leather before we bought Fabrikoid Company. We knew what the process was. We knew we could operate it. Solvent recovery didn't seem to present very great difficulties to us at that time.

Q. I wish you would elaborate a little bit, since we are all laymen on this subject. What do you mean by the solvent recovery process, and what bearing did that have on your getting into artificial leather?

Could you explain that a little more?

A. I think so. To make artificial leather, they make a gelatinous solution of nitrocellulose in a solvent. That is [fol. 1921] the variable thing, the solvent. But they all have the property of dissolving nitrocellulose, and when the evaporation of the solvent takes place, it leaves a hard, springy layer, resistant to abrasion.

The solvent used varied according to whose plant you went in and according to what you were trying to make. The solvent in use by the old Fabrikoid Company was very largely scrap celluloid and by-product ketones and aldehydes, by-products from charcoal manufacture. The destructive distillation of wood gives off various vapors which condense into quite a conglomeration of things, but the aldehydes that come off are very good solvents of nitrocellulose, and that is the bulk of what they used at first.

We were quite aware that other methods of solution were used, such as ethyl acetate, which we had used in lacquers for a long time. There was a secret formula called "Star Solvent" that happened to be a very good solution.

We, of course, could use that in artificial leather, in the manufacture of artificial leather. It is not there when the finished article comes out. It is all evaporated and gone, but by condensing those vapors or absorbing them in sundry materials which have the property of selective absorption of the solvent, we can get it back again or a good deal of it.

Q. Did the manufacture of explosives at this time involve the use of a solvent recovery process of some kind?

A. Yes, sir. We recovered it and had perfected it very well. I mean by perfected, we were getting very high yields of recovery.

Q. Before I introduce the next few exhibits, Mr. du Pont, did you succeed in improving the quality of artificial leather and broadening its uses over and above what had been the case before you got into the artificial leather [fol. 1922] business?

A. We certainly did that. Over the years we made it very much better. It isn't noticeable any more that it is artificial leather. You see it on book bindings, furniture, and lots of things.

Nobody appreciates that it is artificial leather any more. They used to have great resistance in selling because it was artificial leather and had drawbacks, but those have been overcome.

Mr. Harlan: Now, if your Honor please, I offer du Pont Exhibit No. 72, which is a report by Mr. Irenee du Pont to the Executive Committee of the du Pont Company, dated February 9, 1910. This would be in Volume II, if your Honor please.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 72.)

Mr. Harlan: I would like to read the item relating to artificial leather, beginning on page one:

"The study of this subject was commenced—"

It is "commended" in the copy, but I assume it means commenced—

"—early in the year 1909 as a possible outlet for nitrocellulose in case our Government Smokeless Powder business should dwindle. The early work on the subject indicated that most of the artificial leather on the market was of a poor quality although there existed an unsatisfied demand for a high grade artificial leather besides which there was reason to believ that the demand for the high grade article would increase greatly were an ample supply of reliable material placed on the market.

[fol. 1923] "With a view of determining whether a satisfactory artificial leather can be produced at a reasonable cost as well as to determine whether the solvents used in the manufacture can be recovered, a coating machine for manufacturing artificial leather was set up in the fall at the Oakland plant—"

By Mr. Harlan:

Q. What was the Oakland plant?

A. It was a small plant, I think, in New Jersey, across the river from Wilmington.

Q. Of the du Pont Company?

A. Yes.

Mr. Harlan: (Continuing)

"—while this plant was being abandoned by the smokeless department. Experiments in the early winter have been impeded by minor difficulties, probably largely due to our lack of familiarity with the subject, so that the year closed without our having the data desired but we have gained information which will enable us to make more rapid progress in the future."

Next, if your Honor please, I refer to Government's Exhibit No. 106, which will be in the Government volumes, and simply point out for the record that that report contains a history of the du Pont development of artificial leather that has been testified to by Mr. du Pont.

By Mr. Harlan:

Q. Finally, Mr. du Pont, do you know whether or not the Fabrikoid Company itself had a source of nitrocellulose [fol. 1924] in its manufacture of artificial leather?

A. It did. It had a rather antique type of plant.

Q. The next subject that you mentioned as possibly furnishing an outlet for nitrocellulose was celluloid?

A. Yes, sir.

Q. Can you state as fully as possible the circumstances under which du Pont went into celluloid, and what the steps were that were involved in its examination of that product, that subject?

A. The large volume of celluloid at that time put it ahead in tonnage over the other uses we had been looking into. It looked as though it were a very good thing, and we thought that we should investigate the possibilities of seeing whether that wouldn't be a good outlet. Investigation showed that it had some very good points and some poor ones. There were two large manufacturers—the Arlington Company, and still larger, the Celluloid Company, both of Newark, New Jersey. They were fairly good sized companies.

We found that they had a very good product. We also found that they had to sell a good deal of it as knick-knacks and odds and ends, which were not really up our alley.

We studied that over quite a period of time, and finally put it on the shelf to be considered later, when, rather unexpectedly in 1915, we heard that the owners of the Arlington Company were very anxious to sell out.

That was due presumably, and I think it was a fact, that they were having trouble among themselves. There were two cliques that didn't get along well, and both, I think, were getting along in years and wanted to sell out.

Anyhow, the opportunity seemed to be pretty good. The price seemed to be right. We thought we would get into it by that route and bought them.

[fol. 1925] Q. That was in 1915?

A. Yes, 1915.

Q. Let me go back for a moment. You haven't yet told us what celluloid is and what its relation is to nitrocellulose.

A. It is made of nitrocellulose and camphor incorporated together. The camphor acts as a solid solvent. Although they are both solid when the are incorporated and warmed they become a plastic which can be molded and retains shape when they cool.

Q. You stated that the idea of your going into the celluloid business and having to sell a lot of celluloid knick-knacks didn't appeal. What, if any, steps were taken then by you to explore the possibility of selling better material of cheaper material to the celluloid manufacturers?

A. Oh, already I think before that, we had tried to sell nitrocellulose to them, but they would have none of it. They wanted to control the quality. We later found out that quality is a very important matter in celluloid. The least speck will show up in the sheets, and that makes it unhandy, so to speak, to inspect and remove them.

So that our method of making nitrocellulose from cotton was not as good as the method of producing a high grade product, by nitrating fine paper made out of rags. That is much more costly, but offset by the quality of the goods.

Q. What about the aspect of camphor as one of the ingredients of celluloid manufacture?

A. Well, we tried, I don't know which year it was, to make synthetic camphor, and finally built a plant to make it, and the first plant was unsuccessful. Neither the quality nor the price was right. Later on we tried again and succeeded in making a very satisfactory camphor at a good price, and that is what we are doing.

[fol. 1926] Q. Where did the camphor come from?

A. It came from Formosa, by way of Japan, and the Japanese sold it, but I believe the camphor trees were grown entirely in Formosa.

Q. The camphor you are selling today, does that come out of a tree?

A. We buy turpentine as raw material. There is plenty of it in the South here, and after a long series of reactions it comes out camphor of a very good quality indeed.

Q. Synthetic camphor?

A. Yes.

Mr. Harlan: Now, in connection with the celluloid development, if your Honor please, I refer to Government's Exhibit No. 108, which refers to the various courses that might be open to du Pont toward getting into the celluloid business as an outlet for nitro-cellulose.

Next I offer du Pont No. 73, which is, if your Honor please, in the second volume. It is a report dated November 11, 1914, of the Development Department of the Executive Committee, and I would like to read a few paragraphs from that report, with your Honor's permission.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 73.)

Mr. Harlan: This relates to celluloid. I start, if your Honor please, on page 3 at the top:

> "In accordance with the request of the Executive Committee estimates were compiled of a large economically operating plant and for the small plant a capacity of 10% of the large one was accepted. Inasmuch as the small plant was so designed as to readily facilitate enlargement, as might be expected, neither its original cost nor its cost of operation are such as [fol. 1927-1928] might be expected had it been layed out with a view to economy of installation and efficiency in operation.
>
> "However, circumstances which have arisen during the last two months may make it expedient to postpone for the present the erection of even the small plant at Haskell."

By Mr. Harlan:

Q. This being in November, 1914, can you say what those circumstances were that intervened?

A. I suppose it was World War I. We were fighting the Kaiser then.

[fol. 1929] And finally, to complete the series on celluloid, I offer, or rather, refer to Government's Exhibit No. 109, which refers to the opportunity to purchase the Arlington Company, and which, without reading, your Honor will note that the opportunity arose because of a series of circumstances within the internal organization that led to the desire of the owners to sell out.

Q. Is celluloid sometimes known as "Pyralin"?

A. That is our name for it. Celluloid, I believe, is a copyrighted name by the Celluloid Company.

[fols. 1930-1931] Adjournnment

[fol. 1932] Irenee du Pont, resumed the stand, having been previously duly sworn, testified further as follows:

Direct examination (continued)

By Mr. Harlan:

Q. Mr. du Pont, we were discussing yesterday the various fields of possible uses for nitrocellulose that were explored by the du Pont Company following the period in the early part of the century when the smokeless powder orders from the government either dried up or were threatening to dry up.

We covered yesterday "Fabrikoid" and celluloid, and we were about to embark on artificial silk, which was one of the subjects that you mentioned as being an outlet for nitrocellulose.

A. Yes, sir.

Q. Can you tell us what was done in the field of exploring artificial silk during this early period?

A. That was confined to artificial silk made from nitrocellulose, the Chardonnet process.

We investigated that quite fully, but soon reached the conclusion that it could not compete with viscose silk. It was more expensive to make by that route, and at the same time it was considerably more dangerous, there being danger from fire when nitrocellulose is first spun.

Q. You refer to nitrocellulose silk and viscose silk. Could you explain a little more what the difference between the two is, and why you in du Pont were interested in nitrocellulose silk?

A. Nitrocellulose silk is made by spinning a filament squirted out through a small, very fine die to make a fiber [fol. 1933] out of colloided nitrocellulose, very thin limpid form, that made a very thin filament of colloided nitrocellulose which to all appearances is very silk-like. We had heard that that was one of the old forms of artificial silk. We passed that up—put it on ice, so to speak—on account of the danger and the fact that inherently it ought to cost more than viscose.

Q. Viscose silk is what?

A. That is cotton dissolved into viscose. I won't go into the chemistry. It is first treated with caustic potash, I think, and other things, and becomes a soluble material, not nitrated.

Q. Why was it that the du Pont Company at this stage was interested in looking into the possible manufacture of nitrocellulose silk as distinguished from viscose silk?

A. We were looking for an outlet for nitrocellulose and not to go into just the spinning of cotton by a different route.

Q. Do you recall whether at the time of this early exploration of nitrocellulose silk anyone came over and started a viscose silk project in this country?

A. Yes, sir. Courtaulds & Company, a British firm, came over and built a plant at Marcus Hook, which is not very far from Wilmington, about ten miles away, and with a cheaper form of manufacture already started it would be foolish to go into nitrocellulose silk competition.

Q. The Courtaulds process was what process?

A. Viscose process.

Q. You said you laid aside your consideration at this stage of the matter. Did you subsequently go into the artificial silk business?

A. We did not. We had more negotiations later. We had some sort of an overture, I think, from a French [fol. 1934] concern that made Chardonnet silk. I think it was called the Chardonnet Company at the time. I have forgotten or never knew, but I knew what it was.

In the first place, they wanted entirely too much for it, and in the second place, our forecast that artificial silk by the Chardonnet process could not compete had come true.

Q. Did you subsequently and after the end of World War I go into the manufacture of artificial silk by the viscose process?

A. We did.

Q. Did you acquire rights from any source for the viscose process?

A. I believe we did. I think—well, I am not up on that. It was after my time, really.

Q. Well, in all events, when you went into the artificial silk business eventually, it was through the viscose process?

A. Yes, sir.

Q. And since that time you have been in competition with American Viscose?

A. American Viscose, which was the name Courtaulds & Company was operating under in America.

Q. The Courtaulds outfit?

A. Yes, sir.

Mr. Harlan: Now, if your Honor please, I refer to du Pont Exhibit No. 72, which is already in evidence, which is a report of the Development Department signed by Mr. Irenee du Pont, and I read, if your Honor please, from page 2 under the caption "Artificial Silk."

The report is dated February 9, 1910:

> "A study of the different methods of manufacturing artificial silk assures us that the product resulting from the nitrocellulose method, though more expensive, is of the best quality and therefore like artificial leather is a possible outlet for our nitrocellulose should Government orders—"

[fol. 1935] By Mr. Harlan:

Q. Government orders there being the Government orders for military smokeless powder?

A. From the United States.

Mr. Harlan: (Continuing)

"—Government orders decrease to a marked extent. Of the nitrocellulose processes, that of Chardonnet, which is being worked on a large scale at Besançon, France, with a subsidiary company operating in Italy, is the best known and most successful. It was thought that our best move would be to purchase the experience and rights of such a company and for this purpose negotiations with the Chardonnet people were entered into and a proposition received, but by this time the immediate necessity of finding an outlet for nitrocellulose had disappeared because of the large orders received from the Government and the work on the subject was not pushed rapidly. The considerable capital cost required, together with the decreased likelihood of the United States Government cutting off our orders for smokeless powder, caused us to delay active work on the subject from that time, although it was recognized that should our alcohol factory be eminently successful the low cost of this material and other resulting therefrom would make the artificial silk industry much more attractive."

By Mr. Harlan:

Q. Now in the Development Department report that I introduced in evidence yesterday that was written by Mr. [fol. 1936] Richards outlining or listing the then uses of nitrocellulose, one of the items mentioned is photographic film.

I am referring, if your Honor please, to du Pont Exhibit No. 71.

Can you tell us, Mr. du Pont, what, if any, investigation was made about this time by the company in the field of photographic film as a possible use for nitrocellulose?

A. I recall that we had looked into that quite carefully. In fact, we started to make the nitrocellulose backing of photographic film at that time. I think we had an experimental wheel for casting the sheeting, and that was the same wheel and the same undertaking which developed Duco in 1920.

We found that a very fine, thin limpid solution of nitrocellulose could be made if you had a trifling amount of another material added, such as sodium acetate, in minute quantities. It not only made it a conductor of electricity, so that the film would not have static electricity markings on it then, but it also enabled you to get a great deal more solids into the solution without stopping the ability to use it as a paint or spray.

Q. Did anything come at this stage, that is prior to 1915, prior to the war, did anything come at that stage of your exploration into the artificial film manufacture? Did you go into it at that time? I mean photographic film. I beg your pardon.

A. I don't remember just when we started putting emulsion on, going into photographic part of it, but I know we had worked on the backing with the idea of selling that to people who did want it.

Q. Well, without regard to the date, do you recall generally that subsequently the du Pont Company did go into [fol. 1937] the photographic film product manufacture?

A. They did.

Q. And it is now in competition with such concerns as Eastman, and so forth, is that right?

A. That is correct.

Q. Now, the fourth of these subjects that you mentioned yesterday concerning the possible uses for nitrocellulose was the field of lacquers. Can you tell us what was done by the du Pont Company to explore that field prior to 1915, or in that area?

A. The International Smokeless Powder & Chemical Company already had embarked into it when we took them over, so it was a small established business at that time, and we made an excellent quality and most attractive material, but the volume was too small to make a good industry out of it. We had to add to it to make it a component part of the paint and varnish industry, in order to carry the overhead.

Q. Was there any real development made in expanding your lacquer business at this early stage?

A. Well, a part of that is "Duco" cement. We went into that, which is a nitrocellulose solution of a different type, or a different solvent which is used to unite pieces of leather together so that the joint of the bond was stronger that the leather it was made of, and that came into vogue as a belt cement, and we put it out as "Duco" cement for family use.

But we were up against the same thing we foresaw in "Pyralin." We were making little articles, and the distributing was very expensive, a very expensive item, and we were not very well versed in that, so I think we lost money on du Pont cement for many years.

Q. Now, in these various fields you have discussed, artificial leather, celluloid, artificial silk, photographic film and lacquers, in connection with the search for uses for nitrocellulose, will you please tell us what the considera- [fol. 1938] tions were that led du Pont to explore these particular fields and uses for nitrocellulose or to go into some of them, what were the basic objectives?

A. Clearly the use of nitrocellulose was not the objective. We wanted something to use the nitrocellulose on and put in operation in the nitrocellulose plants which had become idle, on account of the government ceasing to take smokeless powder. We felt we had a lot of technical information, through our considerable experience from the manufacture of smokeless powder with nitrocellulose, which would enable us to make improvements, and we felt we could reduce costs and increase the excellence of the product to a point where the use of the material could be greatly expanded, and we could make an industry out of it which would be worthwhile.

In the first World War, in making the smokeless powders, we found that the recovery of alcohol made a difference of $100,000,000.00 in our profit so it was a very valuable thing to have the know-how, and if we had not been able to do that in the case of smokeless powder, we could not have gotten enough alcohol to meet the powder requirements, so in the first place, we had to do it to save the alcohol and in the second place the economy of it was enormous.

Q. Was your consideration of these various fields you have just been over, as a possible outlet for nitrocellulose, affected in any way or to any degree by the prospect or hope of obtaining protected or captive markets for the products you were going to make?

A. Absolutely not. I had never heard of a protected market at that time.

Q. Now, I want to pass along to the phase of the company's development which began with World War I and then to carry it through afterwards.

[fol. 1939] First of all, let me ask you, following the outbreak of the European war in August of 1914, did the du Pont Company receive any orders for military powder from the combatants on the other side?

A. We did.

Q. From what countries did you receive such orders?

A. France, Italy, England, Russia, and I think Japan.

Q. Japan at that time was on our side of the fence, or what later became our side of the fence?

A. Yes, and so was Italy.

Q. Now, I wish you would state—

A. I omitted Russia.

Q. Russia, and in those days, Russia was—

A. Our friend.

Q. Now, I wish you would state from your recollection, —you, by the way, were the chairman of the Executive Committee of the company at this time, were you not?

A. 1915, yes.

Q. What the problems were that the company was faced with, and what the company had to do in order to fulfill those war orders?

A. Our customers wanted speed, early deliveries. That was the absolute requirement that we had to meet. They were out of powder, and they wanted it, and they wanted it quickly. When we got these contracts, we had to promise very early delivery, earlier than we believed we could possibly meet, but we met them and that was one of the triumphs of the du Pont Company's participation in the war effort, the speed with which we were able to erect factories. Sulphuric acid was one of the prime components of the industry, in smokeless powder, and it requires nitric acid, which in turn makes use of the sulphuric acid. [fol. 1940] We tried to get the General Chemical Company to do it, and they could not promise a new plant to be in operation in less than eight months, and I think we did it in sixty-five days, got the plant in operation from the time of breaking the ground, and I thought that was pretty good time.

We found that could not be done with the ordinary type of lead burners, so we built them entirely out of iron, and then made the sulphuric acid with sulphur trioxide which is sulphuric acid without water.

Q. When did these first war orders from the Allies come into the company?

A. I cannot remember that in order.

Q. No, I did not mean in order. The war started in August, 1914; when did you begin?

A. It was some time late in the fall.

Q. In the fall of 1914?

A. Yes, sir.

Q. Do you recall as to the delivery date that was called for by your customers, for the first deliveries of powder out of the plants that were constructed?

A. I think it was about April of 1915.

Q. And now, during the period from the fall of 1914 to April, 1915, did you build any new plants or enlarge your facilities?

A. We enlarged our facilities at Carney's Point and other points and we started the Hopewell plant for nitrocellulose and we enlarged the nitrocellulose output of our old plant, but not nearly enough that our customers wanted. We had to start from the ground up and build a plant at Hopewell. These units manufactured in a sort of independent way and we built each one as an independent line. Some were gun cotton. The gun cotton lines were built at Hopewell, six of them. At that time the head of the [fol. 1941] smokeless powder department, Mr. Brown, said now we have reached the limit, and we could not possibly make more than that.

When the war closed, we had twenty-four plants, four times as much as he thought physically possible.

We did it without sabotage or undue fires. These commodities were more or less inflammable. Some were worse than others, and some stages were worse than others, but they were all subject to fire.

Q. Can you state whether, at the time you got these orders in 1914, when the Allies came to you, did you foresee at that time that the ~~large~~ earnings that eventually resulted were sure to result?

A. Far from it.

Q. Why was that?

A. Because we had undertaken a tremendous job and we did not know if we could educate enough men or assemble enough material, or get enough raw material to be 100 percent sure of winning out, and if it had not been for the improvements that were made, I do not think that we would have done it. We would not have been able to fulfill their requirements.

Q. There has been reference made in this case in the government's trial brief, and in this court room at earlier stages, as to the provisions of those contracts, the initial contracts with the warring powers which fixed the price of the initial contract rates on powder at a figure which included a charge to take care of the amortization of the new plants and facilities that you had to build.

Do you recall that?

A. That is correct.

Q. Will you say why that was done, and what the basis for it was?

A. In the first place, we didn't have the capital to build and get into operation, so we required a down payment of [fol. 1942] 50 cents a pound, half the purchase price on these new factories, and that enabled us to finance them to keep going. We couldn't have done it without that advance. It was not an allowance for depreciation. They were really paying our estimated cost of the factories in advance.

Q. What did that total charge, the powder charge, plus the charge for the construction of the plant, that component of the total charge, what did that bring the total price of powder at initially?

A. One dollar.

Q. And when the first contracts were fulfilled and your plants, the new plants had been paid for on that basis, what happened to the price of powder then?

A. We reduced it.

Q. To what price, do you remember?

A. It varied at different periods, but it was on the order of 50 cents.

Q. Do you recall what relation that price bore to the pre-war United States Government price?

A. The Government had a fixed price of 52 cents before the war. That was set after their investigation of the subject, and it was based on the supposed cost to the Government, but in their cost they had nothing for supervision, nothing for taxes, nothing for obsolescence, so we really were doing it on a basis which was false, but it was satisfactory. We made money on it.

Q. Following the entry of this country into the war in April of 1917, I guess it was, did the du Pont Company do any powder manufacture for the United States Government?

A. I don't think we did until 1917—no war orders until—

Q. I said after the United States entered the war in April of 1917, did you engage in any powder manufacture for the United States Government?

A. The United States combined with the Allies and took [fol. 1943] the whole lot, and apportioned it the way they wanted it after the United States got in. That is my recollection.

Q. Did you build any war plants or manufacturing facilities for the manufacture of powder for the United States Government?

A. Yes, we did.

Q. Where were they?

A. Old Hickory, Tennessee, was the big plant.

Mr. Harlan: Now, if your Honor please, I offer a copy of the annual report of the du Pont Company which is du Pont Exhibit No. 74, for the year 1918, an excerpt from which has been offered by the government, as its exhibit, and I would like to have the whole report in.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 74.)

Mr. Harlan: I don't intend to read it, but I do want to call attention to certain of the figures in that report that bear upon the testimony that Mr. du Pont has just given as to the Allied war orders.

If your Honor will turn to page 10 of the report, in the paragraph following the figure 9 in the middle of the page, your Honor will find the figures that the pre-war powder output of the du Pont Company was at the rate of 700,000 pounds a month, and that that had been stepped up in consequence of these war orders, and this emergency situation, by March of 1918, to the rate of 37,000,000 pounds a month.

Again, if your Honor please, at page 9 of the report, that is the 9 at the bottom of the page, just the page before the one your Honor is looking at, you will find a figure of 1,400,000,000 pounds of powder, as representing the total production of the company for the Allies, and later for the United [fol. 1944] States Government during the war, and further, on the top of the page, that that output was estimated at being about 40 per cent of all of the explosives made throughout the war and used by the Allies.

On page 4 of the report, your Honor will note the figure in the last paragraph that new construction executed by the du Pont Company for the war emergency represented an investment of $220,000,000 odd, and on the same page and in the same paragraph, that the increase called for in the engineering department of the company alone was from a figure of 800 personnel before the war to some 45,000 people in that department alone by March of 1918.

Then if you Honor will look at page 10, you will find that the total employees, supervisory, et cetera, employed in all departments of the company before the war was about 5300, and by reference to page 3, or the first page of the report it actually is, that that total personnel had been stepped up by March of 1918 to over 85,000.

Then on page 4 your Honor will find that the gross capital employed by the company in meeting these demands had increased from a figure of roughly eighty-three and a half million dollars in the beginning of 1915 to some three hundred and nine million dollars by the end of 1918 or the middle of 1918.

By Mr. Harlan:

Q. In connection with your war orders, did the company find it necessary to engage in the manufacture of raw materials for the manufacture of explosives which it had previously gotten from other sources?

A. Yes, sir.

Q. Can you state what some of those materials were, the [fol. 1945] more important of them?

A. Well, of course the great volume was sulphuric acid, nitric acid, purifying cotton lintners.

Mr. Harlan: Excuse me. I have slight difficulty in hearing. Does your Honor?

The Court: I have no difficulty in hearing him at all. I hear him very well.

By Mr. Harlan:

Q. Proceed.

A. They were unobtainable in the quantities we wanted. They were entirely unobtainable. We had to make them ourselves. Sulphuric acids, I think, were used, something like two billion pounds, and there was no such capacity even approached in the country. In fact, I doubt if there was that much anywhere assembled in the world. That was the big item.

The next was nitric acid, and that is made by consuming sulphuric acid and treating nitrate of soda, mined and purified there for use. That in itself was an enormous undertaking. It is a very corrosive process to heat them up. The mixture is of sulphuric acid and nitrate of soda, and the nitric acid is forming as you put it in. When the reaction is completed, the nitric acid all boiled off, and the products all condensed, the sulfate left over is waste material which we carried out and dumped into a little valley from which the water of the streams had been diverted, and after the war we had 2,000,000 tons of it on hand, and we found we could quarry it out and sell it to the steel people, which made a very nice "yapa"—if you know what a yapa is. That is a dividend.

Q. Any other products that you had to go into the manu- [fol. 1946] facture of?

A. The difficult one was diphenylamine. That came entirely from abroad before the war, and was a difficult process to make in that it is very corrosive and the apparatus kept destroying itself very rapidly, so we just had to keep building new units for that all the time until about the end of the war we finally found materials which would stand the treatment.

Q. Where had you procured your diphenylamine before the war?

A. From Germany. But where we made it ourselves, we made it at Deepwater Point, I believe, or Repauno. I am not sure if they diverted some from Repauno.

Q. Are there any other products that you recall that you had to engage in your own manufacture?

A. Alcohol. We had a small plant to make it from wood waste, but we were able to get alcohol by the expedient of recovery better than we did before.

I think in that report there are some figures on alcohol which are rather astounding. I couldn't state them from memory, but an enormous amount of alcohol was consumed and a very large amount of it recovered. I think there is mention of it there—might I refer to the report? It is quite an astonishing figure.

Q. Certainly. I am showing Mr. du Pont Exhibit No. 74, page 6.

A. The amount handled through the factory was 216,000,000 gallons, of which 86,000,000 gallons were consumed in manufacture and the balance was recovered. That is the difference between 86,000,000 and 216,000,000, which means 130,000,000 gallons were recovered by our recovery system.

That is why we had to have so much ice machinery, to get the low temperatures to condense the last vapors of alcohol out of the air. I think the ice machinery is equivalent to making something like 9,000,000 tons of ice. That is [fol. 1947] how much chilling effect was required, but we got the recovery.

We couldn't have bought additional alcohol. The price had already sky-rocketed and we had reached the limit of manufacture in this country.

Q. What about aniline? Was that one of the products you had to manufacture?

A. Yes, I think that is used in diphenylamine. I know we made aniline. At one time aniline was used in place of diphenylamine, but that became obsolete before the war started.

Q. Did there come a time in the progress of events where it appeared that the du Pont Company was going to make very substantial, extraordinary profits as a result of this war business?

A. That assurance was when we had actually got the factories in operation on time up as far as April and May. Then we knew we had the thing licked, provided something didn't happen, something unforeseen.

As far as our part in it, we had the factories and we could make the goods, we were sure of that, if not interfered with.

Q. When this stage was reached, what, if any, consideration was given by the company or its executives as to what would be done with such profits?

A. Well, the theory of the management was we ought to hold back a considerable amount, and to hold it back we put it before the stockholders by asking for a reorganization, crystallizing in permanent securities a large amount of additional capital.

That was done in the reorganization of 1915 when we changed the name from the Powder Company to the du Pont Company.

[fol. 1948] Q. Can you state what the considerations were that underlay the decision to keep a substantial amount of such war profits in the business?

A. I think that the committee felt that first we should be able to invest it for greater benefit to our stockholders than by handing it out as a dividend and having those stockholders try to invest it for themselves.

We had trained personnel and we were in a position with the know-how we had, we thought, to find industries to which we could contribute something and utilize the personnel which we had trained, especially in the upper brackets of the company.

We thought it would be a wise thing to do, and I think the theory we had was correct.

Mr. Harlan: Now, if your Honor please, I offer at this point du Pont Exhibit No. 77, which is an excerpt from a report dated March 31, 1915.

I don't intend to read that except to call your Honor's attention to the second page under the caption "Manufacture of Diphenylamine," which relates to the necessity for the company engaging in that manufacture in connection with its war orders.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 77.)

Mr. Harlan: Next, in the same connection, I offer du Pont Exhibit No. 78, which is a Development Department memorandum, dated July 26, 1915.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 78.)

[fols. 1949-1950] Mr. Harlan: This relates to a whole series of products, raw materials, which the du Pont Company was then faced with the necessity of manufacturing or considering manufacturing.

Next, if your Honor please, I offer du Pont Exhibit No. 75, which should be in the same book, which is a memorandum from Mr. Irenee du Pont to the Development Department, dated May 3, 1915.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 75.)

Mr. Harlan: I should like to read this memorandum.

(Said document du Pont Exhibit No. 75 was thereupon read to the Court by Mr. Harlan.

Mr. Harlan: Next I offer, if your Honor please, du Pont Exhibit No. 76.

[fol. 1951] By Mr. Harlan:

Q. Mr. du Pont, following the decision to capitalize a portion of these extraordinary war earnings, were any steps taken to explore possible fields that would be suited to the du Pont organization?

A. There was.

Q. Under whose immediate jurisdiction in the company was the exploration of those fields?

A. The Development Department.

Q. Do you recall what conclusion, what general field of activity it was finally concluded would be best suited to the du Pont Company's experience and skills?

A. I think there were things which would be sufficiently analogous to what we were doing so that our know-how could be put to best advantage, as was in the case of "Fabrikoid" at an earlier date.

Q. What was the general field in which it was considered the du Pont Company would utilize this capital?

A. Chemical manufacture essentially, or involving chemical manufacture.

Q. Can you state why chemical manufacture as distinguished from some other kind of manufacture was considered the suitable field in which to utilize this new capital?

A. I think we had very much greater chemical knowledge. When it came to mechanical knowledge we had no special [fol. 1952] advantage over a great many other people, but we certainly had in matters chemical.

Q. What relation, if any, does explosives manufacture have to chemical manufacture?

A. It is a branch of chemical manufacture.

Mr. Harlan: I offer, if your Honor please, at this point du Pont Exhibit No. 79, which is a memorandum from a gentleman named William Coyne to the Executive Committee, dated January 15, 1916.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 79.)

Mr. Harlan: I should like to read:

> "At our Monday's meeting, I propose to introduce the following resolution:
>
> "Whereas, we have approximately $22,000,000 invested in Hopewell, Virginia, Plant"—

By Mr. Harlan:

Q. What was that plant, Mr. du Pont?

A. A gun cotton plant.

Q. Was that one of the old plants of the du Pont Company?

A. No, that was an enlargement. We owned the property there. It had been purchased as a possible site for a small dynamite plant, but that plant was never built. But the real estate was a very well selected site, with ample water and shipping connections with railroads, and had barge shipment on the James River so you could reach the sea by that route.

Q. What was the occasion for your building the Hope- [fol. 1953] well plant?

A. To make nitrocellulose for the war orders.

Q. That was one of the plants that was built following the war orders from the Allies?

A. Yes.

Mr. Harlan (Continuing):

> "Whereas, we have approximately $22,000,000 invested in Hopewell, Virginia, Plant, and have orders to keep the Plant employed only to the end of November, 1916.

> "Therefore, be it resolved :
>
> "That, notwithstanding there is likelihood of further orders, the work of finding employment for that plant, either on present product, or different product or products, be most actively prosecuted"

Next I offer du Pont Exhibit No. 80, which is a minute of the Executive Committee of the du Pont Company dated January 18, 1916, approving the report just read and referring the matter to the Development Department for consideration and recommendation.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 80.)

Mr. Harlan: Next I offer du Pont Exhibit No. 81, which is a report of the Development Department to the Executive Committee entitled "Hopewell Plant-Progress Report," dated January 19, 1916.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 81.)

[fol. 1954] I next offer du Pont Exhibit No. 82, which is a minute from the Executive Committee of the company dated January 26, 1916, approving the Development Department's recommendations as to Hopewell.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 81.)

[fol. 1955] Next I offer du Pont Exhibit No. 83, which is a progress report on excess plant utilization and new industries by the Development Department of the company to the Executive Committee, dated February 1, 1917, which proposes among other things a resolution that relates to the general fields in which it is recommended the Development Department should be authorized to explore in the chemical field.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 83.)

[fol. 1956] Mr. Harlan: I am going to read the text of that resolution in a moment from the next exhibit, which I offer, which is the minutes of the Executive Committee meeting of February 6, 1917, du Pont Exhibit No. 84, where this resolution is adopted.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 84.)

[fol. 1957] Q. Mr. du Pont, will you now direct your attention, please, to the first of the items in that so-called five industry plan, which is referred to as dyestuff and allied organic chemicals, and tell us from your recollection, as fully as you can, what du Pont did toward exploring that field as a part of the line of endeavor, and what it eventually resulted in?

A. During the First World War there was a shortage of dyestuffs in the United States. These dyestuffs had formerly come from Germany, and there was nobody to make the dyes in this country. We thought at that time that it might be a good plan for us to embark into the industry. We thought if anybody could find out how to produce dyes, to make them successfully, the du Pont Company ought to be able to do it, and there was a terrific shortage of dyestuffs in this country: We were further advised that there was a need for the dyestuffs in the textile mills; that if we did not have some way to dye blue jeans, you are not going to get people into that branch of the textiles, and we thought it was necessary to get busy to try to make dyes.

We got copies of the patents that Germany had in this country, and tried to unravel some of them, but they were so drawn up, or substantially all drawn up in a way that [fol. 1958] a man well versed in the art of manufacturing dyes could understand it, and successfully operate them, but for an ordinary chemist, it just would not work out.

In other words, their idea of the art is dependent upon the art as it was in Germany. A German chemist could understand it, because he had been brought up in the dyestuff industry, but a manufacturer of dynamite was not so good at it. To overcome that, we finally imported some German chemists. We got them at a later time, and they came over, and we employed them, and they stayed there, some of them up to the end of their life, and some are still living.

Q. Did the State Department help you in getting the chemists, the German chemists?

A. Yes, they were very kind about it, and they knew of the danger in the shortage of dyes. It became a national matter.

Q. At which one of your plants was the dyestuff industries, or what later became the dyestuff business first established?

A. At Deepwater Point, right across from Wilmington.

Q. Do you recall whether or not, in addition to the dyestuff project, the dyestuffs was broadened out to include any other general field of chemical endeavor?

A. Yes. We began with an organic chemical reaction that would naturally turn into this division of the company, that is the synthetic camphor which will come up sooner or later, and we built a camphor plant to make camphor from turpentine, and that solved the problem of the Japs [fol. 1959] who had the camphor production from Formosa tied up, and they could charge anything they wanted to, and we had to pay it or do without it.

Q. At the time that you decided—and when I say "you" I mean the du Pont Company—to go into dyestuffs manufacture, was the du Pont Company manufacturing any products that had any utility in the manufacture of dyestuffs?

A. I think yes, we made a number of such products. The diphenylamine is also the starting point on a good many dyes. Analine is the starting point of a good many of the cheaper classes of analine dyes.

I was trying to think of that—anthracene—we were making some dithallic acid from anthracene. I think that that became quite a little industry for a short time because the Government provided that a compound of that was suitable; denatured, for alcohol so that people wouldn't use it for beverage purposes, and it worked fine. We had a huge business in that particular denature until the Government discovered there was an equally easy way of getting it out of the alcohol, and the business faded away. We were not engaged in bootlegging, I might say. [Note—See pages 2119-2120.]

Q. These products, what are they called in relation to the manufacture of dyes?

A. The anthracene series?

Q. Yes, and these other products.

A. Intermediates. I think that is a general name for all types of things. The anthracene dyes are some of the very high-grade ones, very difficult to operate.

Q. Now, before I offer a series of documents here, do you recall an episode in this development or investigation of dyestuffs manufacture where during the World War I it was proposed that you should make dye intermediates for [fols. 1960-1961] shipment to England?

A. I recall that incident. I don't know why it fell out, except that we had use for everything in the organic line in the war effort, and we couldn't afford to send it over to Britain to work on. The idea was that we would make crude intermediates and send them to England and they would refine them and make them into dyes and ship them back to this country, but it didn't go through.

Mr. Harlan: Now, if your Honor please, I offer, in connection with this subject, du Pont Exhibit No. 85, which is a report to the Executive Committee from the Director of the Development Department, entitled "Dyestuffs," dated December 29, 1915, and I would like to read a paragraph or two from that report.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 85.)

[fol. 1962] I next offer the minutes of the Executive Committee as du Pont Exhibit No. 86, dated December 29, 1915, taking action on that proposal, the resolution reading as follows:

> "Resolved, that the Development Department be advised that the Executive Committee feels that due to the raw material situation and the lack of information on which to base any definite action we are not prepared to commit ourselves at this time to go into the manufacture of intermediates for the production of chemical dyes, but that the Development Department be requested to keep closely in touch with this matter with a view to securing final decision of the Executive Committee later."

(Said document so offered and received in evidence was marked du Pont Exhibit No. 86.)

[fol. 1963] Mr. Harlan: Next I offer du Pont Exhibit No. 87 which is a report of the Development Department to the Executive Committee dated May 15, 1916, a progress report on plant utilization, and I refer in this connection, if your Honor please, to page 2 at the top which shows that it is there proposed, as Mr. du Pont testified a moment ago, that the dyestuffs project be broadened out at Deepwater to include an organic chemical industry.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 87.)

By Mr. Harlan:

Q. By the way, at this point, what is the relation, Mr. du Pont, between organic chemical manufacture and dyestuffs manufacture?

A. Dyestuffs manufacture is a branch of organic chemistry.

Mr. Harlan: Next, if your Honor please, I offer du Pont Exhibit No. 88 which is a report of the Development Department of plant utilization dated November 23, 1917.

In this connection I refer to the material under the caption "Dyestuff and Allied Organic Industries" on the first page, particularly the second paragraph which refers to the setting up at the Deepwater plant of a dyestuff unit or group.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 88.)

By Mr. Harlan:

Q. Mr. du Pont, do you recall whether, following the end of hostilities in World War I, the United States Government took any position or gave any encouragement to [fol. 1964] the establishment of a dyestuff industry in this country?

A. They did.

Mr. Harlan: I ask that the Court take judicial notice of a message of the President of the United States, President Wilson, in 1919, with reference to the then existing tariffs, and in particular to the bearing upon the establishment of a dyestuff industry in this country of then pending tariff legislation.

I would like to read an excerpt from this. No doubt it will go into the record, but I will supply the Court with a full copy of the message in addition.

This is from a statement of President Wilson to the Congress in 1919, and I read:

> "There is, fortunately, no occasion for undertaking in the immediate future any general revision of our system of import duties. No serious danger of foreign competition now threatens American industries. Our country has emerged from the war less disturbed and less weakened than any of the European countries which are our competitors in manufacture. Their industrial establishments have been subjected to greater strain than ours, their labour force to a more serious disorganization, and this is clearly not the time to seek an organized advantage. The work of mere reconstruction will, I am afraid, tax the capacity and the resources of their people for years to come. So far from there being any danger or need of accentuated foreign competition, it is likely that the conditions of the next few years will greatly facilitate the marketing of American manufactures abroad. Least of all should we depart from the policy adopted in the Tariff Act [fol. 1965] of 1913, of permitting the free entry into the United States of the raw materials needed to supplement and enrich our own abundant supplies.
>
> "Nevertheless there are parts of our tariff system which need prompt attention. The experiences of the war have made it plain that in some cases too great reliance on foreign supply is dangerous, and that in determining certain parts of our tariff policy domestic considerations must be borne in mind which are political as well as economic. Among the industries to which special consideration should be given is that of the manufacture of dyestuffs and related chemicals. Our complete dependence upon German supplies before the war made the interruption of trade a cause of exceptional economic disturbance. The close relation between the manufacturer of dyestuffs, on the one hand, and of explosives and poisonous gases, on

the other, moreover, has given the industry an exceptional significance and value. Although the United States will gladly and unhesitatingly join in the programme of international disarmament, it will, nevertheless, be a policy of obvious prudence to make certain of the successful maintenance of many strong and well-equipped chemical plants. The German chemical industry, with which we will be brought into competition, was and may well be again, a thoroughly knit monopoly capable of exercising a competition of a peculiarly insidious and dangerous kind."

By Mr. Harlan:

Q. You have referred to some of the practical problems [fol. 1966] that you have encountered in building up your dyestuffs industry. Can you tell me about how much money the du Pont Company put in to its dyestuffs venture before its profits, before profits began to exceed accumulated losses?

A. Well, I don't think anybody could figure quite exactly, but it was of the order of $30,000,000. I don't know what date that was, but that sticks in my mind.

Q. Now, the next branch of chemical fields in the five-industry plan as adopted by the Executive Committee and recommended by the Development Department was the paint and varnish industry. Are you familiar with the train of events that took place there, how it got started, and what finally eventuated in that field?

A. Reasonably so.

Q. Will you please state what you can recall on that subject?

A. We had this lacquer business at Parlin, New Jersey, which was too small to be worth while. It is quite evident, to go into the paint business you ought to have all branches, paint, varnish, lacquers, linseed oil, pigments, and what-not, and maybe paint brushes. But that was clear to us, that we would have to go in in a well rounded way, and we also had an opportunity to buy the Harrison Brothers Paint Company who also made some varnishes, and they had at that time some sulphuric acid capacity. We wanted that capacity for explosives.

What small amount it was, it would save building that much additional plant by us. We had an opportunity to buy them, and we bought them out, as a first material step, I think.

We found that they had an interest in, I think it was called the Beckton-Chemical Company, and I think the other half was owned by Cawley-Clark. Cawley-Clark and Beckton made pigments. That is the coloring matter or the [fol. 1967] grit in the paint. We call it grit, but that is the solid part of paint.

And to have a well rounded industry you have to make your own pigments, too. We acquired them, and that gave us an interest in the paints and varnishes, and Beckton and Cawley-Clark which we consolidated with right away.

There was another little varnish company up in New England and New York which made a specialty of varnish for furniture which was tailor-made for that job, and they were highly successful, and had a highly successful sales organization, and we didn't have anything competitive with that at all, so we bought them out, too.

The lithopone which was a brand new white pigment had come in, and when we got into this Beckton Company, we added that capacity. Then I think later on we got into some varnish for automobiles, and up in the vicinity of Detroit and Chicago——

Q. That was later on?

A. Much later on.

Q. I am interested in this, the state of this at the end of 1917, at the moment.

A. Well, I think that that was the Harrison purchase, about that time, and Beckton and Cawley-Clark.

Q. Now, to go back for a moment, what relation was there between varnish which you say was the first line of exploration that you undertook, and the lacquer that you were already making? What is the relation in the manufacture of the two?

A. The finished product looks somewhat alike, but the material they are made of is very, very different. Lacquers are made with a volatile solvent, nitro-cellulose, and varnishes are a mixture of gums, linseed oil, which is a solid, and solidified not by evaporation, but by oxidation, but by [fol. 1968] oxygen from the air, and consequently takes quite a while to dry.

Lacquers dry quickly, varnishes slowly, and they have different properties besides that. There is a great deal of the idea of having tailor-made materials for what the user wants to accomplish, and that is one of them.

Mr. Harlan: On this subject, if your Honor please, I now offer du Pont No. 87—it is already in, I beg your pardon, so I simply refer to it; I refer to du Pont 87 which is a report of the Development Department dated May 15, 1916, and which shows on page 2 that the department recommends the manufacture of varnish at the Parlin plant, as a logical new line for Parlin, and then over on page 4 this statement is made with reference to the possible expansion of such a varnish endeavor to include paints.

> "From the consumer's standpoint, and therefore from a sales standpoint, paints and varnishes go together, and paint and varnish manufacture are therefore frequently combined. The combination of these two kinds of manufacture is also to a extent logical from the manufacturing standpoint. We are not at this time submitting any proposition in respect to paint manufacture, but attention is called to the probability that paint manufacture should be kept in mind and may be proposed at a later date as a further extension of the manufacturing industries."

Then I refer also, your Honor, to what has been marked Government's Exhibit 111, which is a report of the Development Department to the Executive Committee, dated [fol. 1969] August 11, 1916; and simply call attention to page 9 which refers to this subject of paints wherein it is recommended that both paints and varnishes should be manufactured at Parlin.

Then I also refer in that same report to another page—I am sorry—on page 6, which refers also to the possibility in connection with the development of a rounded paint industry, that the manufacture of pigments and of chemical colors might be added.

And then, finally; I offer du Pont No. 89, which is a report of the Development Department to the Executive Committee dated May 1, 1917, recommending the purchase of the so-called Cawley, Clark & Company.

Q. Cawley, Clark and Company made what, in relation to paints, Mr. du Pont?

A. Pigments.

Q. Pigments?

A. Yes, sir.

Q. The Beckton made what?

A. Beckton white, which was a white pigment at that stage.

Q. Was that called Lithopone sometimes?

A. Yes, sir.

Mr. Harlan: Next we offer du Pont No. 90, if your Honor please, which is an extract of the Executive Committee minutes dated Aug. 31, 1917, which relates to the Bridgeport Wood Finishing Company.

Q. That company made what?

A. Varnish for interior work, I believe.

Q. A line of varnishes?

A. A line of varnishes, yes.

Mr. Harlan: Now, the next subject recommended in this so-called five industry plan was the field of water soluble chemicals and acids and so forth.

Q. Is that field sometimes known as the heavy chemical field?

A. Yes, I think that is a better name for it.

[fol. 1970] Q. What do you mean by heavy chemicals as distinguished from other kinds?

A. Well, it depends on the shipment, carload lots, I think.

Q. What was done by the du Pont Company prior to the end of 1917, or prior to the end of the war in relation to the development of a heavy chemical industry in that early period, do you recall?

A. Of course, we were in the heavy chemical industry, making sulphuric acid and nitric acid which were the great tonnage articles of the industry, and they with quite a number of others, odds and ends.

I am trying to think where it was that lactic acid was made.

Mr. Harlan: Well, I refer in that connection on that subject again to du Pont No. 88, in which the stage of the investigation of the water soluble chemical acids field, and so forth, is summarized on pages 1 and 2, and similarly I refer to the same exhibit, du Pont 88, with reference to the next field of the so-called five industry plan, industries relating to cellulose, and cotton purification, to show what had been done by the du Pont Company in exploring the possible activities in that field of endeavor.

The final one of the five industry plan, the so-called vegetable oil line, did you ever get into that?

A. No.

Q. Never. Nothing ever became of that one?

A. No.

Q. Having gone over these various fields again, let me ask you what it was that underlay du Pont's purpose in deciding to choose dyestuffs for example as against something else as a useful line of endeavor for the company to get into after the war ended? What were the circumstances?

A. Our past experience, and personally we thought that [fol. 1971] could be improved on, and to reduce their cost while improving their quality. That is what our record was, and that is what we were after. That would give us plenty of outlets to sell, with quality and price.

Q. Was it any part of your consideration, in connection with any of these fields, to obtain, or endeavor to obtain a captive market?

A. No, sir.

Q. Which one of these lines of endeavor, dyestuffs, paints and varnishes, as you have described them, and so forth, which ones of them, if any, represented useful products in the automotive field?

A. Well, I would guess that they use—I know they used to use varnish. I positively know they used Duco when it came out.

Q. I am talking about the time 1917, of the developments you have told us about here, which of these fields, the dyestuffs, paints and varnishes, or the Harrison line, which one of them was useful in the automobile field?

A. I don't know. I don't know that they had much of any use. You mean what the automobile people used them for?

Q. Yes. Were they useful in the automobile field?

A. Well, I suppose that paints and varnishes were used somewhere in it, but we did not come into the picture at all. We were not looking for customers, but were trying to get producing plants and improve on plants.

Q. Did you happen to know whether the Harrison Company which you purchased, in connection with going into paints, sold to any automobile companies any of its products?

A. I don't know *know* what their sales outlets were at all.

Mr. Harlan: Now, if your Honor please, following the course suggested, I am going to ask, with your permission, [fol. 1972] Mr. Irenee du Pont to step down and Mr. Pierre du Pont to take the stand again, so that we can carry on:

(Witness withdrawn.)

Pierre S. du Pont, recalled as a witness on behalf of the Defendants, having been previously duly sworn, was examined and testified further as follows:

Direct Examination (Continued).

By Mr. Harlan:

Mr. Harlan: Now, I am going to embark again with Mr. du Pont on a line of evidence which goes to the Government claim that the motive for du Pont's General Motors investment was to capture the market of some kind for du Pont products, and I want to trace the development from the beginning.

Q. Mr. du Pont, when did you first personally become the owner of any General Motors stock?

A. About the year 1914.

Q. Do you remember what the approximate size of your holding was initially?

A. Around 2,000 shares. I believe I purchased a smaller quantity than that at first, then it was raised to about 2,000.

Q. Can you recall the circumstances under which you made your first purchase of General Motors stock?

A. It was entirely on the recommendation of Mr. John Raskob. He was very enthusiastic about the motor industry as a coming development in this country, and the possibility of General Motors selling its cars. It was through him that I made the first investment.

[fol. 1973] Q. Was that a personal investment for your own account?

A. Yes, personal, entirely.

Q. Had you, at the time in 1914, when you first purchased General Motors stock, met Mr. Durant?

A. No, I had not met him.

Q. Do you happen to know at the time Raskob interested you in buying General Motors stock whether he had met Durant? Do you know?

A. I am not certain, but I believe not.

Q. Did you at the time you made your investment, have any expectation, you, yourself, of becoming active in the affairs of General Motors?

A. No, I did not.

Q. Do you know whether Mr. Raskob had, based on your conversations with him?

A. I had no knowledge of that, no.

Mr. Harlan: I offer at this point, if your Honor please, du Pont 37, which should be in your volume 1, which is a letter dated February 12, 1914 from Mr. Raskob to a gentleman named Henry P. Scott, Wilmington, Delaware, regarding the General Motors stock and the prospects as Mr. Raskob saw them at that time.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 37.)

Mr. Harlan: Next I offer du Pont No. 38, which is a similar letter from Mr. Raskob dated February 28, 1914, to a gentleman named William A. Brady, regarding Mr. Raskob's views as to General Motors stock being a good investment.

(Said document as offered and received in evidence was marked du Pont Exhibit No. 38.)

[fol. 1974] Mr. Harlan: Next I refer to Government's Exhibit No. 114, which contains a tabulation of Mr. Pierre du Pont's personal holdings of General Motors stock, beginning with this early purchase that he has described in 1914 down to the end of 1917.

Q. When you thus became an investor in General Motors, did you learn something about the background of the company, how General Motors had come into being?

A. Not immediately. I only knew General Motors as a market investment.

Q. Later on, did you become acquainted with some of the history of General Motors?

A. I did, yes, quite soon after.

Q. Can you state, without too much detail, what you learned as to the origin of General Motors, and how it had been formed, and so forth?

A. I learned that General Motors was a combination of Buick, Cadillac, Oakland and Olds cars which I had not known before, and that the combination called General Motors Corporation had been organized by Mr. Durant and associates, and had been carried on since 1908.

Q. Up to that time, had you had occasion to meet Mr. Durant in any connection?

A: Not then, no.

Q. Did this investment at that time lie in any different shape in your mind or in your investment portfolio than any other personal investment you had?

A. The same as any stock market investment would have been.

Q. Did you learn anything at the time you are talking about as to the existence of some kind of a voting trust in General Motors, in relation to bank borrowings that it had to make?

A. That came a little later.

[fol. 1975] Q. Well, could you tell us what you learned about that?

A. That resulted from a meeting with Mr. Kaufman, who was president of the Chatham & Phenix National Bank in New York, of which I was a director.

Mr. Kaufman told me that General Motors Corporation was about to be reorganized, on account of the lapse of an investment agreement and trust in which the stock of General-Motors had been trusteed and operated by a committee of Boston bankers who had loaned money to General Motors.

Mr. Durant, who was then president of the company, or had been, retired during that interval, which was about five years, and his place was taken by Mr. Nash, who had taken up the position of president and was operating the company.

Q. Who was it that told you this, Mr. du Pont?

A. This was told to me by Mr. Kaufman, and he continued then to say that a meeting was to be held shortly in New York to consider General Motors affairs; that the investment trust having run out, there was to be a meeting to propose a new directorate, the annual meeting being in November; and that that meeting had been harmoniously arranged, that Mr. Durant and the Boston backers were in harmony, and he invited me to attend the meeting.

Q. May I interrupt you just a second? You referred to an investment trust.

A. I shouldn't have said that. It was a deposit of the stock.

Q. A voting trust?

A. Yes, a voting trust.

Q. Did you accept Mr. Kaufman's invitation to go to this meeting?

A. Yes, he invited me and also Mr. Raskob to attend.

Q. Can you place about the time of this, Mr. du Pont—[fol. 1976] I mean the date, the period, the year?

A. That was about September, I think, of 1915.

Q. Where was the meeting?

A. I think it was at the Chatham Phenix Bank, but it was in New York somewhere.

Q. Would you state, if you will, what transpired at the meeting?

A. At the meeting we met the directors who were present. I think none of them I had ever known before—maybe one or two I did.

Instead of a harmonious meeting as Kaufman had expected to find, the two factions were at loggerheads; the Boston bankers on one side, Durant on the other. They failed to come to an agreement as to what the new directorate slate would be.

Q. What happened? Did it break up?

A. Well, after much conversation, Mr. Kaufman drew me aside. Then we returned to the meeting and it was announced that if I would name three neutral directors for the company, they would make up the slate from that, each faction having seven directors and I would name three.

In the meantime, they had appointed me chairman of the meeting.

Q. You say name three neutral directors for the company. What company are you referring to?

A. General Motors Company, the new slate for directors.

Q. Did you follow that suggestion?

A. That was followed out.

Q. And make the nominations?

A. Yes.

Q. Whom did you nominate?

A. Mr. J. A. Haskell, who had been vice president of the du Pont Company for many years and was then in semi-retirement on account of others having taken over his [fol. 1977] previous duties. He was a resident of New York, and conveniently at hand for meetings.

Then Mr. Raskob; and my brother-in-law, Mr. Lammot Belin, who had been engaged in industry, but there was no particular reason for naming him except I knew he would be a neutral in the outfit.

Q. When you say that you nominated these gentlemen, what do you mean by that?

A. I proposed them as the three neutral directors which they asked me to appoint.

Q. Pursuant to this suggestions of Mr. Kaufman's?

A. That is right. The suggestion was made by the meeting. I don't know whether Mr. Kaufman made it.

Q. Did you meet Mr. Durant at that meeting?

A. I think that was the first time I met Mr. Durant.

Q. The first time?

A. Yes.

Q. Following that meeting was the slate of directors suggested by this meeting in New York that you have just referred to, was that proposed to the annual meeting of the General Motors stockholders?

A. It was, yes.

Q. What happened? Was the slate elected?

A. They were elected directors.

Q. Including yourself and the three other gentlemen whom you suggested as neutral directors?

A. That is right, yes.

Q. And at the organization meeting of the board, what happened as regards the choice of officers of the board? I don't mean officers of the company. I mean chairman of the board.

A. I was elected chairman of the board and Mr. Nash was re-elected president. I don't remember the other officers.

Q. When Mr. Kaufman invited you and Raskob to attend this meeting, did he make any suggestion to you that [fol. 1978] as a result you might be elected a director of General Motors?

A. No, he did not.

Q. Or did he make any suggestion that Raskob might be elected as a director of General Motors?

A. No. That came about during the meeting when our names were proposed.

Mr. Harlan: Your Honor, I now refer to Government Trial Exhibit 116. I have a loose copy of that here so it can be seen by your Honor. I would like to read it, with your Honor's permission.

This is a letter from Mr. Pierre du Pont dated September 17, 1915, to J. A. Haskell, Esquire.

By Mr. Harlan:

Q. J. A. Haskell was one of those whom you suggested as a neutral director?

A. He was.

(Said Government's Exhibit No. 116 was thereupon read to the Court by Mr. Harlan.)

Mr. Harlan: Next I refer, and I think I need not bother your Honor about handing you a copy, to Government's Exhibit No. 117, which shows that following the annual stockholders' meeting of General Motors in the fall of 1915, the new board was elected as proposed by this informal meeting which included Mr. du Pont and the other gentlemen whose names have been mentioned here.

By Mr. Harlan:

Q. Do you recall, Mr. du Pont, whether following your election to the Board of General Motors under the circum- [fol. 1979] stances that you have just mentioned, any invitation was extended to you and Raskob to become members of the General Motors Finance Committee?

A. Yes, that invitation was given to us.

Q. By whom?

A. By Mr. Durant.

Q. And what was your response to the invitation?

A. My response, and I think Raskob's, too, was that we were so bound up with the du Pont Company we could not spend the time to look after General Motors affairs.

Q. And you declined?

A. I declined the invitation, yes.

Q. Is that true, also, of Mr. Raskob?

A. Yes.

Mr. Harlan: In that connection I now offer du Pont Exhibit 39, which is in your Honor's book. This is a letter from Mr. Pierre du Pont to J. J. Storrow, Esquire, Boston, Massachusetts.

(Said document so offered and received in evidence, was marked du Pont Exhibit No. 39.)

Mr. Harlan: Q. Who was Mr. Storrow, Mr. du Pont?

A. He was one of the Boston bankers that had been interested in General Motors affairs.

Q. And a member of the Board of General Motors?

A. Yes, a member of the Board.

Mr. Harlan: This is dated October 26, 1915:

> "My dear Mr. Storrow:
>
> "As you have probably learned from Mr. Raskob, he and I, with Mr. Lammot Belin, are arranging to visit [fol. 1980] Detroit on Wednesday of next week. After this it might be well to have another meeting on the Chairmanship of the Finance Committee."

By Mr. Harlan:

Q. Whose Finance Committee are you referring to there?

A. That is the General Motors Finance Committee.

Mr. Harlan: (Continuing):—

> "I hope that the suggestion of Mr. Wiggin will eventually meet with the approval of yourself and Mr. Nash; but it is quite necessary that we all be candid in our expressions of approval, or disapproval. Both Mr. Raskob and I feel that we have not sufficient time at our command to warrant accepting your suggestion as to the Chairmanship."

By Mr. Harlan:

Q. Did that also go for accepting an invitation to membership on the Finance Committee as distinguished from the Chairmanship?

A. I didn't quite gather what you read there.

Q. This letter states that "both Mr. Raskob and I feel that we have not sufficient time at our command to warrant accepting your suggestion as to the Chairmanship of the Finance Committee."

A. Yes, that is the same invitation as to become Chairman.

Q. My question is simply did you also decline membership on the Committee as distinguished from the Chairmanship?

A. Right.

[fol. 1981] Mr. Harlan: (Continuing):—

> "We will hold ourselves ready to cooperate in any plan that may be agreed upon as best for the interests of the General Motors Company."

By Mr. Harlan:

Q. At this time did you have any other interest in General Motors other than your interest as a stockholder through these personal investments?

A. That is all.

Q. Was there any connection of any kind or thought in your mind of any kind of any possible connection between General Motors and the du Pont Company?

A. None whatever.

Q. When you and Raskob became members of the General Motors Board in the fall of 1915, what did you find as to Durant's position in the company?

A. Well, Durant had ceased to be president, as I said before, and was not re-elected president at the November meeting. Therefore, his position was quite the same as it had been.

Q. The president continued to be Mr. Nash?

A. Mr. Nash, yes.

Q. The banker's representative?

A. Yes, but it was rumored about that time that Mr. Durant was coming back and taking charge of the General

Motors Corporation, and that became a reality during the year 1916.

Q. 1916?

A. Yes.

Q. Do you recall what the rumors were as to how he was proposing to get back into his former position in General [fol. 1982] Motors, how he was going to accomplish that? Do you recall the formation of the Chevrolet Company?

A. Oh, that was a different thing. He was going to get back in the General Motors Company, and he proposed, had in his mind, that he would be able to go in the General Motors through the Chevrolet Motor Company, which he had organized.

Q. The Chevrolet Motor Company at that time was not part of General Motors at all, was it?

A. No, it was organized by Durant during the time the Boston bankers were in charge of General Motors, and it was organized to manufacture a car in competition with Ford. The General Motors had no car of that size and price.

It was an entirely separate venture by Durant personally. Then after having done that, he increased the stock of Chevrolet Company and used it for the purchase of General Motors shares, thereby getting control of the General Motors Corporation itself.

Q. That is what I intended to ask you.

A. I called it General Motors Corporation. It was General Motors Company.

Q. At that stage?

A. Yes.

Q. In connection with what you have just said as to Durant offering to buy General Motors stock for Chevrolet stock, was any offer of that kind made to you and Raskob, to exchange your stock?

A. Yes, I think there was a general offer made, and it was made to us, I know, to exchange our General Motors stock for Chevrolet.

Q. Do you recall what attitude you and Mr. Raskob took at the time that suggestion was first made to you that you could exchange your General Motors stock for Chevrolet?

[fol. 1983] A. I took the position that as a neutral man in the contention between the two sides, the Boston people and Durant, it was not fair for me to enter on Durant's side in such a matter, that is, joining his Chevrolet proposal, so I refused to make the exchange. Mr. Raskob did likewise.

Q. Did there come a time when you changed your position on that and accepted the exchange?

A. Later on it became evident that Durant was in control and the Boston people had retired. I think they retired from the Board, and that was notice that they had given up their thought of control. Durant was in control, and he renewed the offer to exchange Chevrolet stock for General Motors, and we accepted it at that time.

Mr. Harlan: I think I have just time, if your Honor please, before the recess to put in the documents that I would like to introduce at this point.

First, I simply refer, to keep the chronology straight, to Government's Exhibit 118, which is the government document that simply shows the formation of this plan by Chevrolet that Mr. du Pont has described, and the offer by Chevrolet to exchange its stock for General Motors stock.

Then I offer as our exhibit, du Pont Exhibit No. 40, which will be in your book, if your Honor please, a letter from Mr. P. S. du Pont to Mr. L. G. Kaufman, dated March 21, 1916.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 40.)

By Mr. Harlan:

Q. Mr. du Pont, is that Mr. Kaufman the same Mr. [fol. 1984] Kaufman that you have been referring to in your previous testimony?

A. The same one, yes.

Q. It reads:

"My dear Mr. Kaufman:

"Owing to Mr. Raskob's absence from the office I have only today found opportunity to talk with him about your offer."

That refers to the offer of exchange?

A. Yes.

Q. (Continuing reading):

> "We both feel hesitancy in accepting an offer that is so generous, in view of the time that has elapsed since the exchange of stock was originally suggested to us; however, apart from this feeling, neither of us is yet convinced that we would be taking a proper step in making this exchange, in view of our relations to the General Motors Company and its stockholders in general. On that account, we have decided not to accept your offer. Mr. Raskob asked me to thank you on his part for your offer, as I do for myself, personally."

The reason for your turning down the offer as you have heard read in that letter being what, Mr. du Pont?

A. My position of neutrality between the Boston people and Mr. Durant.

Mr. Harlan: Next I refer to Government's Exhibit No. 121, which I will read, your Honor. It follows in sequence [fols. 1985-1986] to the last one, this being a letter from Mr. Durant to Mr. Raskob, and reads:

> "Accept my thanks for your kind letter of the 10th, just received.
>
> "I am in position, as Syndicate Manager, to continue until December 1st next the offer previously made, and you can consider this a firm commitment to exchange—"

and so forth.

Next is Government's Exhibit No 119, which is a letter from Raskob to Mr. Lammot Belin.

By Mr. Harlan:

Q. He was one of the three so-called neutral directors that you had suggested?

A. He was.

Q. This is a letter from Mr. Raskob to Lammot Belin in May of 1916, at which time Mr. Raskob accepted the offer of exchange. By May of 1916 had you received any definite information as to whether this two-faction situation no longer existed?

A. By May 1916, I think we knew it at that time.

Mr. Harlan: Finally your Honor, I refer to Government's Exhibit No. 122.

[fols. 1987-1989] By Mr. Harlan:

Q. Did Mr. Durant accept your suggestions that he might want you to resign as a director?
A. No, he did not.

[fol. 1990] **Pierre S. du Pont**, a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued) by Mr. Harlan:

Q. The General Motors Company of which you became director, you and Raskob became directors in the fall of 1915, I think you said yesterday was called General Motors Company?
A. Originally, yes.
Q. With accent on the Company?
A. Yes, sir.

Mr. Harlan: I now, if your Honor please, offer du Pont No. 41.
The Court: 41 will be in volume 1.
Mr. Harlan: It should be in volume 1, if your Honor please.
The Court: I have it.
Mr. Harlan: Which, your Honor will see, is a letter from the General Motors Company Board of Directors to the stockholders of that company, dated October 16, 1916, outlining a plan of recapitalization of the company, which was to create a new company called General Motors Corporation, with a capital of some one hundred million dollars, representing an increase in the capital over the old company of some seventy million dollars, and then the terms of an exchange of the stock of the new company for the stock of the old company, and eventually the taking over of the assets of the company by the General Motors Corporation.

[fol. 1991] (Said document so offered and received in evidence was marked du Pont Exhibit No. 41.)

By Mr. Harlan:

Q. That followed that reorganization, didn't it, Mr. du Pont?

A. Yes, that is right.

Q. And I think it elsewhere appears in the record, or if not, it will appear in the record, that the taking over of the assets by the corporation from the company was effective as of August 1, 1917?

A. Yes.

Q. Now, Mr. du Pont, following your election, under circumstances that you described yesterday as a member of the Board of General Motors Company, and I shall use the word Company rather than Corporation from here on it, because it is easier to use—did you and Raskob see more of Durant than you had theretofore seen?

A. Yes, sir, we did.

Q. Did you have any discussions with him, either at Board meetings or apart from Board meetings relating to the business of the company?

A. Yes, he talked very freely about the business of the company.

Q. With reference to any particular aspect of the company's problems or business?

A. Yes, he went in particularly, into general statements, financial and operating both; he talked very freely.

Q. Did Mr. Durant consult you and Raskob from time to time about the financial problems of the company?

A. Yes, in that we knew what he was planning to do in the way of expansion, and the need of money.

Q. Did there come a time in 1917 when you and Raskob became members of the Finance Committee of the General Motors Company?

A. Yes, I believe it was in 1917.

Q. How did that come about?

A. Well, we had been invited to become members of the [fols. 1992-1994] Finance Committee earlier, but refused on account of our duties with the du Pont Company. By the time of the second invitation, the du Pont load had eased up quite a little, and we thought it would be a good thing to take on the finance committee of General Motors.

Q. At whose invitation or whose suggestion was it that you and Raskob should become members of the Finance Committee of General Motors Corporation?

A. Mr. Durant.

Q. Now, did your going on the Finance Committee of General Motors Corporation have anything to do with the du Pont Company?

A. No, it had nothing to do with it. The du Pont Company was not involved in it in any way.

Q. You and Raskob still held only your personal investment interests in General Motors Corporation?

A. That ~~is~~ right.

Mr. Harlan: I now offer, if your Honor please, du Pont No. 42 which should be in your Honor's first volume, which is a letter from Raskob to Durant dated January 24, 1917.

(Said document so offered and received in evidence, was marked du Pont Exhibit No. 42.)

By Mr. Harlan:

Q. That was prior to you and Raskob going on the GM Finance Committee?

A. January 24, 1917?

Q. January 24, 1917.

A. Yes, I believe it was.

[fol. 1995] Next I offer, if your Honor please, du Pont Exhibit No. 43 which should be the next document in your book, which is a letter from Raskob to Durant, dated January 30, 1917.

(Said document, so offered and received in evidence was marked du Pont Exhibit No. 43.)

Mr. Harlan: The first paragraph reads:

"Dear Mr. Durant:

"In order to secure a better and more concentrated organization, and incidentally avoid the excessive cost in the way of duplicate income taxes which are now becoming quite heavy, and to clarify the atmosphere generally, I think it would be a very good plan, and I suggest that the General Motors Corporation consider seriously the matter of purchasing the properties of the Chevrolet Company."

By Mr. Harlan:

Q. The Chevrolet Company, Mr. du Pont, was the com- [fol. 1996] pany you said yesterday that Durant had organized to make this small car, Chevrolet car, to compete with Ford?

A. The same company, yes.

By Mr. Harlan:

Q. Do you recall whether during this period following your going on the Finance Committee of the General Motors [fol. 1997] Corporation, any suggestions were made by Durant that you and Raskob and other associates of yours should buy more stock in General Motors?

A. Yes, Durant became quite eager to have the Wilmington people, as he called it, take more stock and more interest in the General Motors Corporation.

Q. Did he say why?

A. I think he liked the association, thought it was a good association for him to make.

Q. Was there any suggestion at this stage by Durant or anyone else that the du Pont Company itself should take an interest in General Motors?

A. No, he referred to the Wilmington people as individuals, some of whom were du Pont Company stockholders; others not.

Mr. Harlan: I next offer, if your Honor please, du Pont Exhibit No. 45, and that document, as your Honor will note, at the top defines Durant as "W. C. Durant, Associates or Nominees," and defines du Pont as "P. S. du Pont, Associates or Nominees," and your Honor will see without reading all of the detail that it evidently contemplated some kind of a partnership arrangement between du Pont individuals and Durant in the purchase of stock in the General Motors Corporation.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 45.)

Mr. Harlan: The paragraph in which I am particularly interested is on the second page, if your Honor please, the first new paragraph, wherein it is said:

"The purpose of this plan is to interest du Pont"—and by definition that means du Pont individuals—

"in Chevrolet-General Motors in a substantial way [fol. 1998] so that du Pont will assume responsibility for financial management of Chevrolet-General Motors affairs thus making it possible for Durant to give entire time and attention to operating end.'"

Perhaps I should also say that this memorandum, though unsigned, ~~was written~~ by Mr. Raskob.

By Mr. Harlan:

Q. Do you recall anything about the details of this proposal, Mr. du Pont?

A. No, I think there were very few details concerning it. Raskob wrote the report, and as a throw-down proposition, but it never came to fruition.

Q. It never came to fruition. Now, we are at the fall of 1917, and it is already in the record that on December 20th, 1917, a report was submitted by Mr. Raskob to the Finance Committee of the du Pont Company, proposing a du Pont Company investment in General Motors.

Do you recall that?

A. I recall that, yes.

Q. Prior to the submission of that report to the Finance Committee did you have any conversations with Mr. Raskob with respect to such a proposed company investment?

A. Yes.

Q. Would you please state those conversations as fully as you can recollect them?

A. Well, Raskob prepared the original report, and while he was doing it, or shortly after, he showed me the results and proposed to me that I should take on the promotion of such a plan with the du Pont directors.

He believed it was a very good investment for du Pont, and gave the reason that the du Pont Company needed [fol. 1999] an investment of good earning power and good dividend power in order to supplement its current dividend. Du Pont had lost the military business, or we knew it would be lost very shortly, and in the interim between the earnings of the military business and what might come after that, we needed something to support the dividends of the du Pont Company.

The companies that we had already invested in—that is in the Fabrikoid and so on—were not yet bearing fruit to any extent, nothing like what the du Pont Company would need to maintain its dividends, but General Motors was already in full swing. They had established a good line of cars, and they were very popular, and there was every promise that their dividends would continue at the then rate which was good, or maybe would be higher. That was the attractive point to Raskob and it also became my idea that it was a very good investment, and one that could not be duplicated, so far as we knew, anywhere else.

The General Motors Corporation and the industry itself had not advanced to a general acceptance. It was regarded as being something very risky, and consequently the stock was selling at about par at that time, which was a very good investment apparently from the actual earnings, but the public hadn't learned to believe that, so that the investment that was possible to make was extremely interesting, and that was the starting of the proposition to the du Pont Company.

Q. Now, it appears that the report that you have referred to was presented to the Finance Committee of the du Pont Company on December 20th, followed by a joint meeting between the Finance Committee and the Executive [fol. 2000] Committee and those meetings in turn being followed by a Board meeting of the du Pont directors.

Did you attend all of those meetings, Mr. du Pont?

A. I did, yes.

Q. Without regard to drawing distinctions between various meetings, can you inform us, please, to the best of your recollection, and as fully as possible, what the discussion was, and the debate was in those meetings concerning this proposed investment?

A. Well, the discussion was entirely on the subject of whether it was an appropriate investment for du Pont to make.

I realized from the very beginning that there would be great opposition on that account, that the motor industry had nothing to do whatever with the du Pont Company affairs. We were not engaged in that kind of industry, the mechanical part of it, and the motor people were not interested in chemical business, so we were just about as far apart as any two corporations could be, and the problem before Raskob and me was to get the directors into our way of thinking on the whole subject, that they were making a good investment and had nothing to do with the du Pont Company, but the investment would have to stand on its own legs, and to my surprise a great many of the directors were very easily persuaded to our point of view, but there were quite a number that were not so persuaded until after thorough discussion had been made both in the committees and in the Board meetings.

Q. What argument was used by Raskob or by you or both of you to overcome the objection that this investment in General Motors was too far afield of the business of the du Pont Company?

A. Everybody acknowledged that that was the fact; [fol. 2001] that there was no connection whatever between the two companies in their business lines, but the connecting link which we felt important was one financial.

We had been through a great many financial arrangemens in relation to the military business of the du Pont Company, and Durant needed financing or financial management in his corporation. He acknowledged that he wanted that, and he was very glad to take on du Pont interest to run that part of his business.

The proposition was that the du Pont Company would come in and take off Durant's shoulders the burden of financing General Motors Company; that would be their position in the General Motors Company, their part in the whole business. Durant would be the operating man and du Pont would look after the financial affairs, which Durant acknowledged he was weak in.

Q. Did that argument carry the day with all of the directors of the du Pont Company?

A. Well, yes, it did, excepting, I think, there were only three directors who voted against the proposition out of some, I think, twenty-three.

Mr. Harlan: I will put in the minutes in just a moment.

This is Government Exhibit 124, if your Honor please. I have a loose copy here. This is the so-called Raskob Report.

I propose to read a considerable portion of that report, your Honor, and also to interrogate Mr. du Pont about it, since it has been described by the Government the other day to be one of their key documents.

My purpose in reading the report is to subject it to scrutiny from the standpoint as to whether it evidences a purpose to make the kind of an investment that Mr. du Pont has described or whether it evidences what the Government [fol. 2002] claims, a scheme to go out and secure captive markets for du Pont.

I ask your Honor to bear that thought in mind as I go through this report.

First of all, on page one, the report is dated December 19, 1917, addressed to the Finance Committee, from the Treasurer.

The opening paragraph is:

> "I recommend that our Company purchase Chevrolet Motor Company and General Motors Company common stocks in accordance with plan herein outlined and with a view to bringing this formally before our company I have asked for a special meeting of the Finance Committee to be followed as soon as possible by a special meeting of the Board of Directors to consider the following resolution:
>
> " 'Resolved that the President and Treasurer of this Company be and they are hereby authorized to purchase up to $25,000,000.00 worth of the common stocks of the Chevrolet and General Motors Companies paying for the Chevrolet Motor Company common stock an average price not to exceed $115.00 per share and for the General Motors Company common stock an average price not to exceed $95.00 per share;' "

By Mr. Harlan:

Q. At this point, Mr. du Pont, let me ask you whether it was contemplated at the time of this proposal for a company investment in General Motors, whether it was contemplated that there would be a merger between the Chevrolet [fols. 2003-2011] and the General Motors Companies?

A. Yes, that was the plan by Durant before this proposition came up.

Q. And was in contemplation at the time this recommendation was made?

A. Yes.

[fol. 2012] By Mr. Harlan:

Q. Mr. du Pont, did you hear the last sentence I read there as to the suggestion of a consolidation of the two financial divisions?

A. Yes, sir.

Q. Of the two companies?

A. Yes, sir.

Q. Do you know what Mr. Raskob was referring to there?

A. Well, that could not have been actually a consolidation; it would have been impossible to consolidate the financial divisions of two companies without consolidating the companies themselves. What he meant was that the financial organization of the du Pont company, with regard to finances would become available to General Motors Corporation.

Q. Did anything of that kind ever take place?

A. Well, we did guard the financial arrangements of General Motors Corporation.

Q. That is what I mean. You and other members of the du Pont Finance Committee went on the General Motors Finance Committee right after this. Was there any consolidation of the personnel of the two companies?

A. No, it was impossible. It could not have been done.

Mr. Harlan (reading):

> "3. The du Pont Company, if the Class A stock is sold to the stockholders, will share in the profits of the industry to an extent equal to 120% on our investment and will receive fourteen percent in annual dividends thereon;"—

And I will explain that reference to Class A stock when I return to the proposed method of financing, if your Honor please.

> "—or in the event of carrying Class A stock in our [fol. 2013] Treasury the dividend rate will be about 12.6% and will share in the earnings about forty-two percent and this after paying twenty million dollars war taxes.
>
> "4. Our purchase is on better than an asset basis.
>
> "5. Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid,

Pyralin, paint and varnish business of those companies, which is a substantial factor."

By Mr. Harlan:

Q. Will you state what discussion there was of that last paragraph that I have just read at any of these meetings that you have described where the investment was considered?

A. Well, there was no discussion whatever. It was an unimportant statement made in the record, and it had nothing to do with——

Mr. Harsha: I object to that, your Honor, stating a conclusion. He is stating a conclusion whether it is important or unimportant.

Mr. Harlan: He is answering as to his motivation.

The Court: The latter part, the expression of opinion, I sustain the objection as to that.

By Mr. Harlan:

Q. Were there any figures before any of the meetings at which the investment was considered which related to the sales of du Pont products to General Motors Company?

A. No, there were no figures.

Q. Were there any figures before any of the meetings which related to the requirements of General Motors of the [fol. 2014] products that are referred to in this paragraph 5 under "summary"?

A. No, nothing of the kind.

Q. As a director and a member of the Finance Committee of the du Pont Company who voted in favor of the investment, will you state what part the suggestions made in point 5 played in your vote in favor of the investment?

A. No part whatsoever.

Mr. Harsha: I object to that, your Honor, asking for a mental condition.

The Court: I think that is stating a fact; overruled.

By Mr. Harlan:

Q. Will you please answer the question?

A. It had no connection whatever with my opinion of the General Motors purchase or my vote. I had no information concerning the earnings from sales to General Motors or its departments.

Q. Now, referring to your attitude or your state of mind as a director, in casting your vote, can you amplify a little more as to why it was you say that this did not play a part in your vote in favor of the investment?

A. Well, it was too extravagant a thing to consider; the whole investment of the du Pont Company in the "Fabrikoid" and so on, that General Motors might have used was so small in comparison to the very large investment that we were making, it was ridiculous to consider such a thing. It could not have had any part in our opinion.

Q. What was your objective in buying into the stock of the General Motors Company?

A. To get a good investment for the du Pont Company, that had intrinsic value on its own account.

Mr. Harlan: Now I continue with the report, the section [fol. 2015] headed "Management" at the bottom of the last page, in which Mr. Raskob suggests that ultimately du Pont Company will—

> "—absolutely control and dominate the whole General Motors situation with the entire approval of Durant who, I think, will eventually place his holdings with us, taking his payment therefor in some securities mutually satisfactory."

By Mr. Harlan:

Q. Can you tell us what Mr. Durant was referring to in that paragraph, if you know?

A. Mr. Raskob?

Q. Mr. Raskob. I beg your pardon.

A. No, I don't know what he was referring to. It had no influence on the whole situation, as far as I was concerned.

Mr. Harsha: I object to that, your Honor, it is stating a conclusion, the last part.

The Court: Will you read the last part?

(Answer read.)

The Court: I will sustain the objection to the last statement.

By Mr. Harlan:

Q. Can you state with respect to your vote in favor of this investment as a director, what part the presence of Durant continuing as an active man in General Motors played in your vote in favor of the investment?

A. Well, I should not have voted for the proposition if I knew that Durant was not going to be connected with it.

Q. Why not?

A. Because he was the man we looked to to operate the company. We knew nothing of the operations of motor [fols. 2016-2017] companies, and we relied on him, and the organizations he would build, to govern that part of it. We would not have undertaken it ourselves, and as long as he was with us it was a good proposition. Without Durant we would not have taken it. I would not have voted for it.

Q. At any time in connection with the General Motors investment was there any discussion or effort made by the du Pont Company to obtain majority control of the voting stock of General Motors?

A. No, none whatever. I mean, we knew it couldn't be done.

Mr. Harlan: Now, I want to offer a number of documents, if your Honor please, the first of which is du Pont Exhibit No. 46 which is the minutes of the du Pont Company on December 20, 1917, which reads as follows:

It should be in your first book, if your Honor please.

The Court: I have it.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 46.)

[fol. 2018] Finally I offer, which should be in your Honor's book, as du Pont No. 47, a copy of the minutes of a special meeting of the Board of the du Pont Company held on December 21, 1917, at 11:15 o'clock, the attendance being listed there.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 47.)

[fol. 2019] By Mr. Harlan:

Q. Mr. du Pont, will you explain what relation the argument that you say was made to overcome the objection that the General Motors' business was too far afield from du

Pont—the argument that du Pont would have a contribution to make through its responsibility for the financial management of General Motors—what relation that argument had to overcoming the objection on the part of the majority of the directors?

A. Well, everybody present conceded that du Pont would be of great value to General Motors in the financing part of their affairs, and that was discussed and mentioned in every real discussion. Everybody took that for granted, that it would be a good thing for General Motors, and therefore a good thing for du Pont to go into.

[fol. 2020] Q. What relation did the financial management of General Motors have to the justification of du Pont making an investment in General Motors from the point of view of those who objected to making the investment?

A. To those who objected? I don't understand——

Q. To those who raised doubts about it. What was that argument directed to?

A. Oh, it was directed to the lack of connection between the du Pont Company and General Motors in regard to the operations of the company. One was strictly a mechanical corporation. The other was chemical. There was no relation whatever.

Naturally, we all thought of those companies as being separate identities in every particular. Only the financing was in common, but it was a very important part of the whole thing for General Motors and for du Pont also.

Q. Was there any discussion at any of these meetings that du Pont was going to take charge of the operations of the General Motors Company?

A. None whatever. If that were proposed, I think it might have resulted in the whole thing falling through. I shouldn't have voted for du Pont doing anything of the kind.

Mr. Harlan: Now, your Honor, I want to revert to the method of financing this investment that I promised I [fol. 2021] would come back to. If your Honor will be kind enough to turn to du Pont No. 47, on the second page at the bottom, and the third page, you will see there the proposed method of financing, and I think I can simplify it by summarizing it rather than reading it.

That original proposal contemplated the formation of a subsidiary company of the du Pont Company, and the issuance of $25,000,000 of stock of that new company, $7,000,000 of which stock would be subscribed for by the du Pont Company and $18,000,000 of which stock would be offered to the stockholders of the du Pont Company.

The provision with reference to the stock being offered to the stockholders of du Pont, namely the Class A stock, being that would be callable at any time at $150 a share.

I might also interject, if your Honor please, that that method of financing was not adopted for reasons that I will show in a moment.

By Mr. Harlan:

Q. Mr. du Pont, can you state what the reasons were for that initial proposed method of financing?

A. The object of that was to have the stockholders of the du Pont Company subscribe to the stock that the company itself did not happen to have the funds for at that moment. They expected funds to come in, but they hadn't yet come in, and this proposition was offered, and it was thought the stockholders could not refuse it. It was paying a very high rate of interest, and it was to be redeemed at $150, which was a very high rate.

Q. At the time the proposal was made for that type of financing, was the du Pont Company's cash position affected in any way by war business that it was doing for the [fol. 2022] United States Government?

A. I think we had war contracts at that time, and there were payments due on them. The payments had not come in.

Mr. Harlan: Next, your Honor, to show why the method of financing was changed, I offer du Pont No. 48, which is the next one in your Honor's volume, which is a report dated January 17, 1918 from the Treasurer to the Finance Committee of du Pont, entitled "General Motors-Chevrolet Motor Stock Investment."

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 48.)

The opening paragraph and the succeeding tables showing the extent of the purchases that du Pont made of General Motors stock up to that time, pursuant to the original authorization to invest, I continue at the bottom of page one:

"Since my report of December 19th our cash position has been materially altered through having made arrangements with the Ordnance and Navy Departments of the United States Government whereby our contracts with them have been modified to provide an advance payment in cash equal to 25% of the value of the contract in lieu of advances equal to 80% of the cost of materials assembled at our plants provided for in the original contracts. This places us in position to finance the materials, etc., necessary for the manufacture of powder called for by these contracts and releases a corresponding amount of our own capital which would otherwise have been diverted to this pur- [fol. 2023] pose. Under this arrangement we have received approximately $20,000,000.00 in cash during the past few days and will receive $12,000,000.00 additional before the 25th instant."

Then he summarizes the effect of that on the cash forecast of the company over the next few months, and following the tables that are on that page, and the following page, appears a paragraph on page three under the table:

"In view of this showing I strongly recommend that we do not at this time make an offering of the Class A stock of General Industries, Inc."—

By Mr. Harlan:

Q. Mr. du Pont, General Industries was a subsidiary that was organized for the purpose of purchasing General Motors stock?

A. I believe that was the name of it.

Mr. Harlan: (Reading)

"—as outlined in my report of December 19th. It would be a mistake to resort to such an extravagant method of financing this purchase—"

In that connection, I refer, if your Honor please, to the call provisions of the Class A stock at $150 a share.

"—It would be a mistake to resort to such an extravagant method of financing this purchase unless the necessity were such as to make it seem advisable, and our present necessities are not such as to warrant any such action."

Then he concludes with the recommendation that the entire $25,000,000 of stock of General Industries, being the [fol. 2024] amount that was to be invested in General Motors stock be subscribed for by the du Pont Company, and thereafter the General Motors investment was financed entirely by the du Pont Company.

That is how that situation developed, if your Honor please.

Mr. Harlan: Now, I next offer du Pont No. 49, which is the resolution of the joint meeting of the Finance and Executive Committees of du Pont, held January 21, 1918, approving the substitute method of financing that I have just described.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 49.)

Mr. Harlan: And finally, I refer to Government's Exhibit No. 128, a loose copy of which I hand to your Honor.

It is a government's exhibit, which is a report dated March 8th, 1918, from the Treasurer of the du Pont Company to the company's Finance Committee that summarizes the purchase of the General Motors stock and Chevrolet stock, made pursuant to the original authorization, and you will see that those purchases are summarized on page 2 as translated into General Motors stock, that is, stating the equivalent of Chevrolet stock in General Motors stock.

Those purchases aggregated the sum of 250,663 shares at a total purchase price of around 24 or 25 million dollars, representing, as the report shows, 23.83 per cent interest in the common stock of the General Motors Corporation.

By Mr. Harlan:

Q. Just for the record, Mr. du Pont, so that we do not [fol. 2025] have to get any more documents than is necessary, was the merger between Chevrolet and General Motors that you have testified was originally in contemplation in fact subsequently carried through?

A. The Chevrolet——

Q. I do not want the details of it, just the facts.

A. No, not as originally planned. The Chevrolet Company was liquidated and it promptly went into General Motors.

Q. You are quite right. The point is, apart from my misuse of the characterization of the transaction, the Chevrolet Company and its assets were taken finally into General Motors Corporation?

A. The assets were taken in, and Chevrolet Company liquidated.

Q. Now, the original authorization to invest in General Motors stock was to invest up to $25,000,000.00?

A. That is right.

Q. The records show in the case that by the end of 1919, roughly another $25,000,000.00 had been invested?

A. Yes, sir.

Q. Can you state the circumstances under which that additional investment was made?

A. That came about through du Pont's efforts to finance the General Motors, and one of the items was to offer General Motors stock, common stock, to the common stockholders, and our company underwrote that issue. That meant $8,000,000.00 more stock.

Q. Now, the total investment, the records show, of the du Pont Company in General Motors by the end of 1919 was roughly fifty million?

A. Yes, sir.

Q. Can you state what decision, if any, was reached by the du Pont Company at that time as to whether it would make further investment in General Motors?

A. Well, shortly after that, they purchased a compara-[fol. 2026] tively small amount of General Motors stock, then they made a declaration that that would be the end of their investment, and they would take no more.

Q. And that investment was around fifty million dollars in total?

A. Yes, sir.

Q. And was considered to be the permanent investment of the company in General Motors?

A. It was at that time, yes, sir.

Q. Under circumstances that later developed, did du

Pont in fact buy further General Motors stock? Did you hear me?

The Witness: No, I did not hear you.

By Mr. Harlan:

Q. I say despite that decision that you have just described, did circumstances later develop which resulted in the du Pont Company purchasing additional General Motors stock?

A. Yes.

Mr. Harlan: I want to take up one of those subsequent episodes. I will develop the others through other witnesses, if your Honor please.

By Mr. Harlan:

Q. Do you recall the circumstances under which the stock of Mr. William Durant in General Motors was purchased in the fall of 1920?

A. I do, yes, sir.

Q. Before I ask you further questions, I wish to call attention to the allegation in paragraph 44 of the government's complaint where this charge is made:

> "44. In 1920, William Durant, the organizer of General Motors, was in financial difficulty and the [fol. 2027] du Pont Company undertook to acquire his stock holdings in General Motors so as to eliminate him from participation in the control of General Motors, concentrate the control in the hands of du Pont Company, and prevent interests unsympathetic to du Pont Company from acquiring an interest in and a voice in the control of General Motors. To accomplish this, the du Pont Securities Company was organized as a subsidiary of du Pont American Industries and purchased William Durant's General Motors stock. The du Pont Company's stock purchasing subsidiaries, du Pont American Industries, Inc., and du Pont Securities Company, were later dissolved and their General Motors stock holdings taken over by du Pont Company. It thereafter from time to time acquired additional blocks of General Motors stock to prevent them from

falling into hands which might embarrass du Pont Company's control of General Motors."

Q. Are those charges as to the reasons for du Pont acquiring the General Motors stock of Durant true? A. No, they are not.

Mr. Harsha: I object to that question, your Honor, asking for a conclusion of the witness.
The Court: Objection overruled.

By Mr. Harlan:

Q. Will you state in your own words, in as much detail as you can recall, the circumstances and full train of events that led up to the acquisition of the so-called Durant stock in General Motors in the fall of 1920? Take your time.
A. Starting quite a little time before the actual transfer [fol. 2028] of Durant stock was made, Durant had always been more or less of a speculator in the stock market. I never knew to what extent, or whether he was able to support his transactions or not. I knew nothing of his affairs.
In the fall of 1920 it became evident from rumors that Durant might be involved. The Morgans who were the bankers, called Mr. Raskob and me to their office one day and asked us if we knew anything about Durant's affairs, and both of us said we did not know anything. We did not know whether he had been speculating or anything about it. That was the end of that conversation. We couldn't give them any information.

Later on Raskob and I met Durant at a luncheon that he gave, and he said enough about his affairs then to indicate that he was worried about certain financial situations, General Motors particularly, and the general stock market also.

After that meeting Raskob and I consulted a good deal about the possibility of Durant being involved. He had said enough to make us possibly suspicious, but nothing more than that.

Later we had another meeting with the Morgans at which one of the Morgan partners asked Mr. Durant whether he knew of any weak accounts in the market. Durant said no, he did not. That was practically all that could be asked on the subject under the circumstances, but after the meeting Raskob and I were still more suspicious that something was wrong.

We went to Mr. Durant's office one day to ask him about it. We sat there from ten o'clock until four, waiting to get an audience, which we finally did.

[fol. 2029] We asked him what his financial condition was, and after some talking he admitted that he was in very serious plight; that he had very large accounts; he had no more collateral, and no books, no record of what he had done in the way of speculation. The whole thing was in a general mess.

It finally resulted in Durant agreeing with us to have an accounting made, that he would go to his brokers and find out what he did owe. He intimated that it might be something like twenty million, but he was very vague about the whole thing. But apparently he was not trying to hide anything. He didn't know.

That same day, or the next day, after we left Durant, it was quite late in the afternoon, and as we went downstairs we met three of the Morgan people coming upstairs. They wanted to know why we were at the office as late as that. It was nearly six o'clock then.

We told them what was happening, and they said they were going to see Mr. Durant on the same subject, and that they would like to have a short conference with us before they went.

That resulted in exchange of information which led us to believe that Mr. Durant really was in a serious situation. The Morgan people said then they were certain of it, too, and that Durant's collapse might have very serious influence, not only on the stock market, but would involve two or three banks in addition.

They had their conference with Durant and it resulted in his agreeing to make a complete statement to all of us as to what the situation was. It then seemed probable that his obligations might come out as much as thirty million, for all he knew.

[fol. 2030] It was not until the end of the next day that we got a definite report from the Morgan people—from Mr. Durant, I mean, in regard to his obligations. The returns were coming in, and the worst was about to happen.

Returning to our office that day, after we learned this from Mr. Durant, Mr. Raskob ran over a hasty plan by which the du Pont Company might come in and possibly save the situation. Raskob wrote that down briefly, and when we returned to the office, we met the Morgan partners and they said that the worst had happened, something had to be done to alleviate the situation, if possible.

Mr. Raskob presented his plan for the du Pont Company to borrow money in order to help the Durant situation and take up his stock. Morgan said that they thought it far better if a general issue of notes was made, fortified by collateral that we would get from the stock that Durant had had for collateral, and from stock that the du Pont Company would put forth, and the Morgan Company agreed that they could float the loan with that aid.

That was the plan that was worked on, and by the next day they had that plan ready. The banks had subscribed to the necessary loan. The collateral had been put up or arranged. The bankers held the Durant stock, and the whole thing was finally settled that evening.

Durant realized at the time that he had lost everything. He didn't have enough stock to cover his accounts, and he had nothing left.

In the financing a note issue was made for which the du Pont Company was responsible or made themselves responsible, and the collateral that was needed in the way [fols. 2031-2041] of General Motors stock to support the loan was furnished by du Pont Company also, and its subsidiaries, and also the Chevrolet Company.

That was put up, leaving an equity in this corporation that was formed to do the financing. There was a common stock issue which was divided. There was nothing back of that common stock. All of the values were under the other issues of preferred stock and the note issue. The common stock had nothing but the liquidated profits which might occur.

Of that equity the bankers were allotted twenty per cent for floating the loan. The du Pont Company had forty per cent, and Durant had forty per cent. So that Durant ended with nothing but the equity in that stock, the forty per cent.

Q. What was the total amount of money that you had to raise under these circumstances—that is the amount that was necessary to rescue this situation as to Durant, roughly? I don't mean the du Pont Company's share, but the total.

A. Well, the notes of this corporation, the rescue corporation?

Q. Yes.

A. It skips me for a minute. I think it is in the record.

Mr. Harlan: If your Honor please, I offer du Pont Exhibit No. 50, which should be in your first book, and I desire, with your Honor's permission, to read this letter in full.

[fol. 2042] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 50.)

Next, if your Honor please, I offer du Pont Exhibit No. 51—I think that is in your Honor's book—which is simply a schedule of the bank loans of General Motors Corporation in 1920, 1921 and 1922. I shall have occasion to refer to this from time to time, but for present purposes, at the time of this Durant situation that has just been described, you will note that the bank loans of General Motors at that time were, in October, just before this event, presumably the end of October, $82-million odd, and by the end of November, $80 million of bank loans were outstanding.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 51.)

Mr. Harlan: I next offer du Pont Exhibit No. 52, if your Honor please, which is a memorandum bearing the initials W.C.D..

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 52.)

[fol. 2043] By Mr. Harlan:

Q. Would that be Mr. Durant, Mr. du Pont?

A. Mr. Durant, yes.

Q. And "P.S.duP.", that would be you?

A. Yes.

Mr. Harlan: With the words "O.K. November 19, 1920."

Q. That is the memorandum you referred to as having been originally gotten up as the proposed basis of this financing scheme?

A. Yes, that's right, the whole thing.

Mr. Harlan: Thank you.

I might point out that in that memorandum you will note the equity as proposed there in the new corporation, which represented the equity in effect on any proceeds of the sale of the underlying General Motors stock of Durant which was purchased, is described here as being two-thirds to P. S. du Pont and associates, and one-third to Durant, and that the final arrangement on that was as indicated in Mr. du Pont's letter, forty percent to du Pont and forty percent to Durant and twenty percent to the bankers.

Finally, I think I have time to offer one more document, your Honor, to complete this series, which is du Pont No. 53, which is the minutes of a meeting of the du Pont Finance Committee dated November 19, 1920, which approves the final scheme of financing as it was eventually put through.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 53.)

And then I would like to read, and call your Honor's particular attention to page 2 of the resolution:

[fols. 2044-2045] "As it is the purpose of this company to resell all or part of the stock purchased.—"

That, of course, refers to the Durant stock.

> "—it is recommended that the officers of the Company assent to the use of twenty percent of the profits resulting from the sale of stock to assist in the placing of the notes of the proposed company, and agree to divide equally the remaining eighty percent of the profit between those from whom the common stock is purchased and the common stockholders of the proposed Company."

By Mr. Harlan:

Q. Mr. du Pont, was it ever the intention of the du Pont Company, at the time it came to Durant's rescue under the circumstances you have described, to retain that Durant General Motors stock as a part of the du Pont Company permanent investment?

A. I think not.

[fol. 2046] Mr. Harris: We also ask to substitute, if the Court please, for the existing Exhibit 834, the 834 which I now offer in evidence. That, again, was a document which was corrected.

The Court: Are there no objections?

Mr. Harlan: No, sir.

[fol. 2047] The Court: Motion allowed.

(Said document so offered and received in evidence, was marked Government Exhibit No. 834.)

The Court: You may proceed.

Mr. Harlan: Mr. du Pont, will you resume the stand, please?

Pierre S. du Pont, a defendant herein, having been previously duly sworn, was examined and testified further as follows:

Direct examination (Continued):

By Mr. Harlan:

Q. Mr. du Pont, we had reached a point yesterday where the du Pont Securities Company had been formed as the financing vehicle for the acquisition of the Durant stock under the circumstances you described yesterday.

A. Yes.

Q. And from the papers that were put in and your own testimony, you recall that Mr. Durant received forty percent of the du Pont Securities stock representing a forty percent equity in the underlying General Motors stock in the event that it was sold at a profit?

A. That's right.

Q. Did there come a time when the du Pont Company purchased the forty percent of the stock of the du Pont Securities which had been issued to Mr. Durant?

A. Yes, shortly after he received the stock.

Q. I think the record will show that that was in 1921. Will you state to the Court what the circumstances were under which the du Pont Company purchased that forty percent of the du Pont Securities stock? Why was that [fol. 2048] done?

A. The purchase was made at the request of Mr. Durant who wanted to invest elsewhere, I suppose, and he asked the du Pont Company to purchase the stock.

Q. Do you happen to recall whether at the time Mr. Durant had embarked, or was about to embark on any other venture of his own?

A. Shortly after that he did embark on a project, yes.

Q. What was that project?

A. American Motor Car, the "Durant Car," so-called.

Q. Did he organize a corporation for that purpose?

A. Yes.

Q. Called the Durant Motors, Inc., wasn't it?

A. I think that was the name, yes.

Q. Do you happen to recall what consideration or what payment was made to Mr. Durant for the acquisition of this forty percent of the du Pont Securities stock?

A. Why, he was paid in General Motors stock for it.

Mr. Harlan: I simply refer in this connection, your Honor, to Government's Exhibit No. 156. I need not bother to read it. It shows that the consideration received by Mr. Durant for the forty percent of the du Pont Securities stock was 230,000 shares of the underlying General Motors stock held by du Pont Securities, and in the same connection, I refer, without comment or reading, to Government's Exhibit 157 which was the formal agreement between Durant and du Pont Securities relating to that transaction.

Q. Now, do you recall that subsequent to that acquisition, the du Pont Company issued a $35,000,000 note or bond issue to permanently finance the Durant-du Pont Securities transaction and certain other obligations du Pont had incurred in connection with General Motors?

A. That was done, yes.

[fol. 2049] Q. Can you state what the reason for du Pont making that permanent financing was? Why did it do that?

A. The initial financing was a very temporary one. I think it was a year's note with the intention of making it a more permanent arrangement thereafter.

Q. That is the du Pont Securities transaction?

A. Yes, that is right.

I think it was in June of the following year when we started negotiations to refinance the project by issue of $35,000,000 bonds of the du Pont Company. Those were supported by collateral furnished by the du Pont Company or the du Pont interests.

Q. Why was it that du Pont felt it necessary to permanently finance those previous transactions?

A. Largely because the first notes were temporary ones and fell due within a year, so that permanent financing had to be arranged before the first notes became due.

Q. Do you recall any factors connected with that permanent financing that related to the credit of General Motors as it might have been affected or was affected by these temporary notes being outstanding secured by General Motors stock?

A. The General Motors Company—I can't think of the name——

Q. The corporation?

A. The company that issued the first note, that company, had notes outstanding with the du Pont stock as collateral.

Q. You mean General Motors stock, don't you?

A. General Motors stock, yes. General Motors itself had a large amount of paper floating in regard to its business which was unsecured, and that was too nearly connected with this du Pont arrangement which was supported by General Motors stock entirely to expect the banks to keep [fol. 2050] the loans going, and I think the banks really objected to that arrangement. They would not be willing to continue the loans to General Motors, unless the first note of the du Pont Securities Company was taken up by refinancing.

Q. Am I correct in stating that the net effect of that transaction was to substitute the credit of the du Pont Company for these obligations of du Pont Securities that we have been talking about rather than the credit of the General Motors Corporation which had theretofore been the case?

A. That was the effect and had the desired result in affecting the General Motors credit.

Q. And at the time of that transaction, was it still the position of the du Pont Company that it was responsible for the financial management of General Motors?

A. It had assumed that responsibility and continued to do so.

Mr. Harlan: In that connection, if your Honor please, I offer du Pont Exhibit No. 54, which should be in your Honor's first volume, which is a memorandum dated March 28th, 1921, to Mr. P. S. du Pont, President, General Motors Corporation, enclosing a memorandum which is attached thereto and from which I would like to read a portion.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 54.).

Mr. Harlan: The memorandum relates to what became of this $35,000,000.00 bond issue of the du Pont Company, and reads as follows, on page 1:

> "Vice President J. J. Raskob called attention to the [fol. 2051] statement contained in the Annual Report to the Stockholders to the effect that plans were under consideration for permanently financing the purchase from Mr. W. C. Durant by du Pont Securities Company of shares of the General Motors Corporation, and stated that various plans had been discussed."

Then the next two or three pages proposed various alternative plans, which finally culminated in the $35,000,000.00 bond issue, and the memorandum continues on page 8, if your Honor, please, as follows:

> "Mr. Raskob stated that the occasion for considering the matters referred to in the foregoing plans was due to the desirability of enabling General Motors Corporation to procure additional loans from the banks in order to strenghen its cash position, and particularly to enable it to effect the settlement of a large number of contracts for materials which it was represented could be disposed of on advantageous terms if approximately $15,000,000.00 were made available to the Company for that purpose. He said that he had been advised by Messrs. 'blank'."

I am sure there will be no objection to my stating that the blank referred to J. P. Morgan. At least, I assume it does.

Mr. Harsha: I will accept your assumption, Mr. Harlan.

Mr. Harlan: Thank you. (Reading):

> "that a careful investigation of the situation had convinced them that owing to the present condition in the money market it was difficult, if not impossible, for the General Motors Corporation materially to increase its [fol. 2052] loans from banks until the notes of the du Pont Securities Company and the Chevrolet Company, now held by the banks, had been retired."

By Mr. Harlan:

Q. These notes referred to of du Pont Securities Company and Chevrolet Company were all collateralized, were they not, by General Motors stock?

A. By General Motors stock entirely.

Mr. Harlan: Reading:

> "He explained that it appeared possible to do this if either of the plans referred to above were adopted, and in view of the large interest held directly and indirectly by the E. I. du Pont de Nemours & Company in the General Motors Corporation it appeared clearly to be in the interests of the stockholders of the E. I. du Pont de Nemours & Company to adopt some plan by which the financial position of the General Motors Corporation could be strengthened.
>
> "After discussion, the following resolution was offered and unanimously adopted:—
>
> "Resolved, that Mr. P. S. du Pont be and he is hereby authorized to give assurances to Messrs. J. P. Morgan & Company and/or other banking institutions and firms either that one of the plans referred to above will be adopted within ninety days or in the event that neither of such plans are found to be desirable from our point of view then to give assurances that there will be substituted therefor some other plan satisfactory to Messrs. J. P. Morgan & Company, or that the notes of [fol. 2053] the du Pont Securities Company and Chevrolet Motor Company now held by the banks will be taken up before July 1, 1921, it being understood that in the event that a plan is developed whereby the Board of Directors of E. I. du Pont de Nemours & Company

feels that it would be justified in authorizing an issue of notes of the Company not to exceed $35,000,000.00, such a note issue will constitute an acceptable plan."

Then follows a resolution authorizing the officers to proceed.

By Mr. Harlan:

Q. It was that $35,000,000.00 note issue that eventually was issued and put out to take care of these overhanging obligations secured by General Motors stock?
A. That is right, yes.

Mr. Harlan: In that connection, if your Honor please, in reference to the statements in the paper just read on the General Motors credit situation as affected by these outstanding obligations, I refer to our du Pont Exhibit No. 51, which simply shows that as of this period in 1921, the month being April, the bank loans of General Motors Corporation were roughly $74,500,000.00.

[fol. 2054] By Mr. Harlan:

Q. Just to anticipate a moment, Mr. du Pont, by June, 1921, you had become president of the General Motors Corporation, had you not?
A. Yes.

[fol. 2055] Mr. Harlan: Now, I turn to another line of proof, if your Honor please, which relates to the so-called control issue, which, stated in more simplified form, is the Government's contention that du Pont sought to establish, and that it did establish some control of some kind over the management and the Board of Directors of General Motors for the purpose of putting itself in a position where it could control General Motors purchases, and therefore produce in some fashion a so-called captive market for du Pont.
[fol. 2056] That is the control issue on this phase of this case, and I propose to examine with Mr. du Pont, the relationship, the general relationship at the policy levels of the Board of Directors and committees of General Motors, between du Pont and General Motors for the purpose of exposing them to scrutiny as to whether they evidence

the purpose to control markets that Mr. Harsha and his associates would contend, or whether, as we contend, the relationships evidence nothing more than the representations and other relationships which one would expect to find in an investment of this kind by du Pont in General Motors,—by the du Pont Company in General Motors.

By Mr. Harlan:

Q. Now, first of all, you testified yesterday, Mr. du Pont, that under the original proposal set forth in the Raskob report, which we considered yesterday, that the understanding was that in the management of General Motors, du Pont would assume responsibility for the financial aspect of the management, and Durant would assume responsibility for the manufacturing and other operating aspects of the business.

A. That is correct, yes.

Q. Can you state what steps, following the investment of duPont, were taken in the organizational set-up of General Motors to give effect, or implement that division of responsibility between Durant and du Pont?

A. Between Durant and du Pont before he left?

Q. Yes, right after 1918.

A. The Finance Committee and the Executive Committee were both remodeled with a new provision to express their duties. The Finance Committee was to take complete charge of the financial arrangements of the company. It was headed by John Raskob as chairman, and other [fols. 2057-2059] members were Mr. Durant and myself, Lammot du Pont and Irenee, five members, of which Durant was the only one not in the du Pont Company. On the other hand, the Executive Committee, which was the operating committee in charge of all operations, was headed by Mr. Durant as chairman, and he had with him his own associates chosen by him, and his own men who knew his business. Mr. Haskell was added to that group, so we had Mr. Durant, and Mr. Haskell on the Executive Committee, ~~and Mr. Haskell and Mr.~~ Durant on the Finance Committee.

I think I neglected to say Mr. Haskell was on the Finance Committee, too.

Q. Haskell was the so-called du Pont liaison on the Executive Committee, and vice versa, Durant, the other partner, was his own liaison officer on the Finance Committee?

A. Yes, sir.

[fols. 2060-2061] Now, I offer, if your Honor please, du Pont Exhibit No. 56.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 56.)

[fol. 2062] By Mr. Harlan:

Q. Now, Mr. du Pont, in the year 1920, this record which I have in my hand shows that directors were added, their names being Mr. Baker, George F. Baker, Mr. Chamberlin, Mr. McGowan, Mr. McMaster, Mr. Prosser, Edward R. Stettinius, William Woodin, Clarence M. Wooley, and Owen Young.

Can you tell me how it came about that these additional directors were added to the General Motors Board in 1920?

A. They were added after Mr. Durant left the company, and I think largely at the instance of the bankers, and Mr. McGowan and Mr. Chamberlin had become large stockholders of General Motors, and they were invited to join the Board on that account.

The others, I think, were all just bankers who were prominent bankers, who were connected with corporations in New York.

Q. Without going into detail, which I shall develop otherwise, do you recall in 1920 a sixty-odd million dollar common stock issue of General Motors was put out?

A. It was, yes.

Q. Isn't it a fact in connection with that stock issue, which I will develop through other witnesses who were more closely connected than you were, that these nine directors came onto the Board?

A. Well, certainly the British members did about that time.

Mr. Harlan: Next, if your Honor please, I turn to the portion of this document here that relates to the Finance

Committee. It is on page 11, and the Finance Committee, throughout the years 1918, 1919 and 1920, as indicated by Mr. du Pont's testimony, was composed of the so-called [fol. 2063] representatives of du Pont, Mr. Durant being the seventh member. Then finally as to the Executive Committee on page 14 of this Exhibit 56, during those three years, as Mr. du Pont indicated in his testimony, the composition of that committee was entirely "Durant" personnel except for Mr. J. A. Haskell who was the so-called du Pont liaison representative on that committee.

By Mr. Harlan:

Q. Now, without going into undue detail, could you describe generally how General Motors operated during this so-called Durant-du Pont partnership period with respect first to the operation of the financial side of the business, then as to the manufacturing and operational side of the business?

A. Well, on the finance side, the chief duty of the committee was to provide money necessary for the expansion of General Motors, which Mr. Durant had in mind, at that time, of his own volition. Nothing was suggested to him by the Finance Committee.

He, as an executive of the Executive Committee made all the suggestions for expansion, and the Finance Committee was to furnish the money for the improvements.

The Finance Committee kept thoroughly posted, through Mr. Haskell, and Mr. Durant, who were common members of the two committees.

On the other hand, Mr. Durant's presence on the Finance Committee, together with Mr. Haskell's would keep the Executive Committee up to date on the plans of financing, so there was a complete separation of functions between the two committees.

Q. Now, as to the function of the corporation on the operating side, who was to carry that forward as distinguished from the financial side?

A. Mr. Durant had with him a body of men who were [fols. 2064-2066] prominent in the automobile industry, and had been in General Motors. They were all governing men of the operation, and in any expansion of the business, they ~~were all~~ kept informed as to the financial arrangements through Mr. Haskell and Mr. Durant. They had direct contact with the Finance Committee.

Q. During the period of '18 through '20 was there a period of upsurge, and general expansion in the automobile industry generally?

A. Yes, it was. The industry was advancing very rapidly in its production and the popularity of the motor car and all of the companies were expanding at a rapid rate.

Q. Do you have any idea in your mind how much new capital was put into General Motors without regard to the sources from which it was raised, during that period of 1918 to 1920, inclusive?

A. Well, that was the capital that was arranged for in connection with the du Pont interests, proposed by them and accepted by Mr. Durant. That was almost $400,000,000.

Q. When you refer to the du Pont interests, you are talking about the du Pont people on the General Motors Finance Committee?

A. Right.

Mr. Harlan: There is a document that I must offer at this point, and that is du Pont Exhibit No. 57, if your Honor please, and I shall have occasion to refer to this one from time to time, which is the annual report of the General Motors Corporation for the calendar year ended December 31, 1922.

[fol. 2067] By Mr. Harlan:

Q. Now, let me pass to the period following the event of the Durant collapse and pick up from there.

You stated a moment ago that you became president of General Motors Corporation following those events that we went over yesterday?

A. That is right.

Q. Will you state to the Court what you know of the circumstances which led to your nomination as president and election as president of General Motors?

A. Well, the first message I had concerning that was a talk I had with Mr. Seward Prosser who was one of the directors of the company, saying that the banking element were very anxious that I should accept the presidency, if not for any length of time, at least temporarily until affairs had been straightened out.

They felt that the company had received a very bad shock in the sudden failure of Mr. Durant, and they thought it was very necessary to put somebody who was well known at the head of the company.

I was very loath to accept the position. I had recently retired from business, but I said that I would do whatever they thought best, and I was put in as president with the distinct understanding that I was only to stay there until a better posted man could be found to take the job.

Q. Actually, your term of office ended when, as president of General Motors?

A. In the spring of 1923.

Q. And then you were succeeded by Mr. Sloan?

A. That is right.

Mr. Harlan: I have a document, if your Honor please, Government's Exhibit No. 235. I will ask Mr. Winscott to hand your Honor a loose copy. This is a memorandum from Raskob to J. P. Laffey, Esquire.

[fols. 2068-2069] By Mr. Harlan:

Q. He was general counsel of the du Pont Company or became such?

A. He was.

[fol. 2070] By Mr. Harlan:

Q. Had you in fact, at the time you were suggested for the presidency of General Motors, retired from the du Pont Company?

A. I had. I had retired in the year 1919.

Q. What had been your intention at the time of that retirement with respect to resuming active business affairs in any realm?

A. I had no intention of resuming anything.

Q. And these events brought you out of hiding?

A. That is right.

Q. Now, following your assuming the presidency of General Motors, do you recall that a reorganization plan was put into effect very shortly after your resuming the job as president?

A. It was.

Q. Do you know, without going into any details, because those will be developed otherwise, who was the originator of what finally became the reorganization plan?

A. That was Mr. Alfred P. Sloan, who was then Mr. [fols. 2071-2074] Durant's chief assistant, and he had evidently prepared the plan in connection with his duties. That was done before Mr. Durant left the company.

Q. It had not been promulgated or put into effect up to the time of his collapse, is that right?

A. That is right.

Q. Do you recall whether that plan was submitted to the Board of Directors of the General Motors Corporation?

A. It was, yes.

Q. Before it was promulgated?

A. That is right.

Q. And it was debated?

A. Debated, yes.

Q. And thrashed out?

A. Well, I think it was accepted practically as it was, but it was debated and questions were asked and it was considered very carefully.

[fol. 2075] By Mr. Harlan:

Q. Now, this 1922 annual report of General Motors (du Pont Exhibit 57) that I referred to a moment ago, Mr. du Pont, refers to various matters of administration, of business, of financing, that arose at that point under your regime as president. I want to deal with some of them. Let me ask you first, and without going into specific subjects, can you inform the court as to what kind of a General Motors organization you found; what kind of a business you found in late 1920 when you went in? Was it a healthy condition you found, or what was it? Could you describe that [fol. 2076] generally to the Court?

A. Well, from my point of view, there was a great lack of proper organization. Mr. Durant had operated as a one-man concern. He was really the head of the company and attended to everything. The other men were subject to his direction. There was very little incentive to the men themselves to operate independently. That was Mr. Durant's plan, and it worked out very well during the earlier years. The du Pont plan was to give more leeway to the head men of the different departments. That was part of the changes made almost immediately, that the head men of the departments should take complete charge of their departments and operate independently, subject to the regulation of the Executive Committee. It was a very important change.

Q. Could you state what the general business or economic conditions in the country were in the fall of 1920?

A. In 1920 we were preparing for a very bad year. Business had fallen off during the year 1920, and continued to fall off.

Q. Let me turn—if you have finished?

A. Yes.

Q. Let me turn to certain of these specific problems that confronted you in General Motors. Do you recall that you were presented with a situation that related to the extent and value of the company's inventories when you went in?

A. That was a very serious situation which had already developed in the year 1920. A large amount of materials had been taken on at the plant, and contracted for on the theory that there was going to be good business during the latter part of 1920, which business had not come about, so we entered into the year 1921 with—

Q. Take your time.

A. (Continuing)—with very heavy inventories, and a [fol. 2077] large amount of floating debt outstanding as a consequence. Unfortunately, it was bound to increase early in 1921. Not only had we the inventories, but they were not appropriate for the manufacture of cars that we found would have to be manufactured in the future. The early cars up to 1920, almost all had been sold. There was a great demand for cars, but as the trade fell off people became more particular and it was found necessary to revamp the construction of nearly all of the cars, the Buick and the Cadillac excepted, but the other three cars were in very bad condition and had to be rebuilt entirely on new lines. Therefore, a large part of the inventory that had been laid out could not be used, and we had to sacrifice it almost at no value at all.

So the condition was doubly bad on that account.

Mr. Harlan: In this connection, I refer, if your Honor please, to 1922 annual report of General Motors at page 9 (du Pont Exhibit 57), simply to put on the record the figure as to inventory write-offs which was the result of this condition that Mr. du Pont has described. On page 9 it appears as follows:

> "The reduction of the surplus materials purchased at high prices, and of inventory and other commitments made prior to December, 1920, resulted in a total liquidation loss of $84,869,893.00."

By Mr. Harlan:

Q. Do you recall in this same connection any problems that confronted you with respect to the extent of the company's bank loans at this time?

A. I would say the bank loans were very heavy at that time.

Q. Were those gradually reduced during your admin- [fol. 2078] istration as president?

A. Yes, those were gradually reduced.

Mr. Harlan: In that connection, if your Honor please, I refer to du Pont Exhibit No. 51 which shows that in November of 1920 when Mr. du Pont assumed the presidency right at the end of November or early December, the bank loans of General Motors were some $80,699,784.00, and that all of those bank loans had been paid off or were paid off by June of 1922.

Next, in relation to what the witness has said as to the car design situation, I offer du Pont Exhibit No. 58, which is in your Honor's first book. I will read it.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 58.)

Mr. Harlan: It is very short, du Pont Exhibit No. 58, which is an excerpt from the minutes of the Executive Committee of General Motors Corporation on March 15, 1921, that relates to tests of new products.

By Mr. Harlan:

Q. By the way, before I do read this, what was the situation as to testing procedures, research facilities, in General Motors at the time that you went in there as president?

A. Well, they had very little equipment for that purpose. The divisions tested their own cars by running on the common road, a very inefficient custom, and the different materials that they received and so on were not tested properly, and not tested with a view to bettering conditions.

Q. Were steps taken to remedy that?

A. Immediately, yes.

[fol. 2079] Mr. Harlan: Now, I read from the document that I have just referred to:

> "Whereas, in the judgment of this Committee"——

this is the General Motors Executive Committee——

> "it is not only eminently proper but absolutely essential that an independent engineering test should be conducted on every new piece of apparatus under development or a major change on any piece of apparatus in production by any Division or Subsidiary before any commitments are made other than experimental commitments, and
>
> "Whereas, this Committee feels it is essential that a method of procedure should be adopted in order to reduce to the minimum losses in connection with the developing and marketing of new products,
>
> "Now Therefore, Be It Resolved, that the following method of procedure be outlined and that same be presented at the next meeting of the Operations Committee for its information and guidance, and for any further recommendations that the Operations Committee may wish to make, with a view to a better method, if possible, of effecting the desired result."

Then follows a tabulation of the various procedures having to do with testing that it is recommended should be adopted.

Next, in a little different connection, I offer du Pont Exhibit No. 59, and before I get to that, let me ask Mr. du Pont a question:

[fol. 2080] By Mr. Harlan:

Q. I will ask you if you can elaborate a little further on what you said as to the adequacy of the design and engineering of General Motors cars as you found them at the time you went in as president?

A. Well, the engineering and general construction of the cars was found to be very poor. I was no judge of them myself, but relied on the General Motors men to give the information, and they acknowledged that the conditions were lamentable in the three lower-priced cars, especially. The Buick was in good condition, and so was the Cadillac, but the other three cars were in very bad condition. They had to be rebuilt entirely on new lines.

Mr. Harlan: Now, I read just a portion of this exhibit, your Honor, that relates to that subject. It is dated September 13, 1921.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 59.)

Mr. Harlan: This is dated September 13, 1921, and it is the minutes of meeting of Executive Committee:

> "Whereas, The President has submitted a report to the Executive Committee in which he calls attention to the necessity of adopting certain fundamental principles to be observed in the planning of our line of cars to be manufactured in the future, and feels, among others, that the following principles should be enunciated:"

Then follow the resolutions as to the procedures that shall be adopted in connection with the testing and rede- [fol. 2081] signing of cars, and also a list of the specific cars with the recommendations made with reference to them: Buick, Cadillac, Chevrolet, Oakland and so forth——

The Witness: Might I add there, that these discoveries had nothing to do with the du Pont Company taking hold? The General Motors people themselves realized what the situation was, and they applied the corrective measures. It had nothing to do with the du Pont management.

Mr. Harlan: I don't think any of us understood anything different, Mr. du Pont. Thank you.

By Mr. Harlan:

Q. Now, do you recall that there were any of the manufacturing enterprises that you found that had to be scrapped or liquidated in General Motors?

A. The most prominent item of that kind was the tractor which had been newly acquired and a plant constructed and was almost ready to operate when I started there, but they found that the whole conception of the tractor was wrong, and the tractor could not be produced at the proper price, and the whole investment was a total loss.

They abandoned the tractor and everything concerning the plant was scrapped.

Q. That was the Samson. Was that the Samson tractor venture?

A. Yes.

Mr. Harlan: And just for the record, the annual report of 1922 shows that the write-off in connection with that unfortunate venture was—page 11 of the annual report shows that the write-off was to the tune of some $21,000,000, total investment up to that time having approximated some thirty millions.

[fol. 2082] By Mr. Harlan:

Q. Now, some reference was made in 1922 annual report to the Fisher Body Corporation. That is a name we have heard about in this lawsuit.

First of all, are you aware that in 1919, that is prior to your becoming president of General Motors, that the General Motors Corporation, under the Durant regime acquired a 60 per cent interest in the stock of Fisher Body?

A. Yes, I am aware of it.

Q. Did you participate in the details of those negotiations?

A. Well, I was present when the matters were being discussed. I didn't take much part in them.

Q. Can you state from your contact with the situation what the basic purpose of General Motors was in acquiring that 60 per cent interest in Fisher Body?

A. It was to gain control of the body manufacture that was necessary for their cars. Up to that time the car bodies had been made by people who did not make the chassis, even, of the automobile, and General Motors at the time thought that the whole car should be designed and made by the same manufacturer. That was being done by the Ford car very successfully and prominently, the successful car of the time, and General Motors decided they must do the same thing.

The Fisher Body was the only manufacturer of car bodies that was large enough to accommodate General Motors' demands, and that was one of the chief reasons why they took hold of Fisher, but they are also very efficient men, and were known to produce the best line of bodies for the general car, and that led to negotiations with Fisher.

Q. Now, the government has put in a document or two [fol. 2083] that relate to Mr. Fred Fisher going on the General Motors' Executive Committee, I think in the year 1922?

A. Yes.

Q. Do you recall that episode?

A. Yes, I do.

Q. And could you state why it was that it was considered desirable to take Fred Fisher on the General Motors' Executive Committee in 1922?

A. I think the principal reason was that he was a very good man for general purposes in all sorts of manufacturing. He is a very bright man and made a great success of his own body business. But our idea was to get him in connection with the chassis, to bring him in complete contact with it, and that was a very desirable thing to have his interests not in the body alone, but in the whole car.

Q. The Government, as you know, suggests th t the reason for putting him on the Executive Committee was to break down his resistance to buying du Pont products. That is what they say. Is there anything to that?

A. No, certainly not.

Q. Did you ever hear if suggested until the Anti-Trust Division came up with that one that that was the purpose?

A. No, I never heard it before.

Q. Now in 1926, the papers in evidence also show that the General Motors Corporation purchased the outstanding minority interest of Fisher Body or the Fisher boys. Do you know why that was done?

A. That was done in order to bring the entire body manufacture in harmony with the chassis manufacture. The General Motors was manufacturing entirely its own bodies and cars.

Q. In 1926, you had ceased to be president of General Motors Corporation three years before?

A. Three years before, yes.

[fol. 2084] Q. And Mr. Sloan was the active president and chief executive of the company at that time?

A. He was, yes.

Q. One further thing on Fisher. The Government has read some of your testimony in the old deposition with respect to Fisher Body, and I want to ask you a question about it.

Mr. Hotchkiss was cross examining you, if you recall, and in reference to Fisher Body he asked you these questions, at page 1744 of the present transcript, as read in by Mr. Harsha:

> "Q. Now Mr. du Pont, about this time in 1927, the proposal did arise, did it not, that the General Motors Company acquire the remainder of the stock of the Fisher Body Company?"

Actually Mr. Hotchkiss was off a year there. It was 1926.

> "A. That question arose. I don't remember the date, though.
>
> "Q. Yes, and the du Pont Company approved General Motors Company making this acquisition.
>
> "A. Whatever the record shows, I have no recollection of the transaction.
>
> "Q. It is a fact, is it not, that the General Motors Company did thereafter acquire all of the outstanding stock of Fisher Body?
>
> "A. Yes.
>
> "Q. Did General Motors in return for that stock,

or at least in part payment therefor, give the Fisher boys General Motors stock? Do you recall?

"A. I don't recall, but apparently that was the case.

"Q. And do you recall whether any arrangements [fol. 2085] or understandings or any agreement was entered into between General Motors and the Fisher Body Company or the Fisher boys with respect to the matter of retaining the service of the Fisher boys?

"A. I think there were agreements with all of them.

"Q. There were agreements with all of them?

"A. Yes, service agreements.

Then Mr. Harsha continues at page 1745:

"Q. Now going a step further on, Mr. du Pont, after Fred Fisher was appointed to the Executive Committee, did the Fisher Body Company start to buy substantially larger quantities of goods from the du Pont Company and from Flint?

"A. I don't know.

"Q. As a matter of fact, the Fisher Body did not, did they?

"A. I don't know whether they did or didn't."

Going over to page 1746—I got into something that I didn't care about, and this is what I wanted to ask you:

"Q. You have testified on cross examination that in connection with this second purchase by General Motors of Fisher Body stock—that is the purchase of a minority interest—that certain arrangements and understandings were arrived at with the Fisher boys with respect to their continuing status with the company. In the meantime, Mr. du Pont, do you recall or remember what those arrangements were?

"A. I think they had employment contracts or something of that nature covering a period of time.

"Q. For a considerable period of years? Do you [fol. 2086-2087] recall approximately?

"A. No, I don't recall that at all. I would think not, maybe five years.

"Q. You have referred to—I think it was Fred Fisher, or perhaps the Fisher boys—, as being hard bargainers in your cross examination. Did the Fisher boys, as a condition of their selling this second block of their Fisher Body stock to General Motors require these employment contracts, do you recall?

"A. I think they probably did, it having occurred about the same time, but I don't recollect any agreement regarding the two things."

Have you since had occasion to refresh your recollection on that, as to whether or not in 1926 any employment contracts of any kind were entered into with the Fisher boys?

A. Not in 1926, no.

Q. What were you referring to in your answer? What contracts were you referring to?

A. To the contracts originally with their own company, before the 60 per cent was acquired, and those contracts, I think, lasted maybe four or five years, but I think in 1926 all that was over.

[fol. 2088] Mr. Harlan: Mr. du Pont, will you resume the stand, please?

Pierre S. du Pont, called as a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand, was examined and testified further as follows:

Direct Examination (Continued).

By Mr. Harlan:

Q. Mr. du Pont, I want to commence this morning by asking you a few questions with respect to the bonus plan that was introduced into General Motors in the year 1918. Do you recall that subject?

A. I do, yes.

Q. Can you tell us how the introduction of that plan came about?

A. That was initiated through the du Pont Company. I think Mr. Raskob took it up with Mr. Durant.

Q. Do you recall what the considerations were that led Mr. Raskob to recommend to Mr. Durant that such a plan be adopted in General Motors?

A. It was the same idea that prevailed in the du Pont Company, that it was a very good thing to have the head men of the company interested in the stock.

Q. Had you had such a bonus or incentive plan in the du Pont Company for a number of years prior to 1918?

A. Yes, since about 1903 we had a bonus plan. It operated very well, and we recommended it to Mr. Durant, and he was very enthusiastic about changing from his plan to the du Pont plan.

[fols. 2089-2091] Q. When you say the du Pont plan, you are referring to the set-up under the du Pont plan which might be a prototype for the General Motors plan?

A. That is right, yes. It had nothing to do with the du Pont Company, of course.

Q. I have seen the phrase used in some of these papers that are in evidence in the case describing what is called "owner-management." What is that?

A. Well, owner-management is trying to bring into the company, as far as possible, as stockholders those who are operating the company.

Mr. Harlan: Now, if your Honor please, I offer du Pont Exhibit No. 60, which should be in your Honor's Volume 1. [fol. 2092] Next, if your Honor please, I offer what should be the next document in your book, du Pont Exhibit 61, which is a letter from Pierre du Pont to his brother, Lammot du Pont, dated March 16, 1937.

(Said document, so offered and received in evidence was marked du Pont Exhibit No. 61.)

[fol. 2093] By Mr. Harlan:

Q. What sort of a bonus plan, if any, did General Motors have under Durant prior to the recommendation of the so called du Pont method of bonus payments, if you recall?

A. Their plan was hardly a bonus plan. It was merely an arrangement on the part of the chief men, the heads of divisions, to draw out cash when they saw fit to do so, under the direction of Mr. Durant himself.

It was a very loose plan, applied to only certain men, without any general plan of operation. Of course, the very good men were interested, but it was too loosely administered to be of any real value.

Q. Do you happen to know whether the bonus plan as recommended in 1918 and as then introduced by General

Motors has continued from that time in substantially the same form or philosophy down to the present date?

A. It has, yes.

[fol. 2094] Q. Has it worked well?

A. Very well.

Q. Now, I want to direct your attention, if you please, to the plan called in this case the Managers Securities Plan.

Are you aware that the Government, in its complaint, charges that the Managers Securities Plan was a device and method to induce or insure that the executives of the General Motors Corporation would be subservient to the du Pont interests? Do you recall that part of the complaint?

A. I recall it, yes, sir.

Q. Can you state what the origins of what became the Managers Securities Plan, and what the objectives were that were set up to be achieved under the plan?

A. Well, the Managers Plan grew out of the regular bonus plan, but it was an enlargment of it in order to bring large bonuses to the chief men of the company.

Q. Without going into details of the plan in any way, which I will come to later with others, can you state what the source of the stock was, the General Motors stock was, that was utilized in this so-called Managers Securities Plan?

A. That was the stock that the du Pont Company had purchased from the Durant Estate, or Mr. Durant, at the time of his failure. That was practically all turned in to the Managers Plan.

Q. Do you recall that following the promulgation of the Managers Securities Plan, a special committee of the Board of Directors of General Motors was set up in connection with the making of allotments to GM executives under the plan?

A. Yes, there was a special committee of the Board to review the recommendation of the officers of General Motors Corporation. Of course the committee itself was chosen because they were not employees of General Motors, [fol. 2095] and they had no part in the awards themselves. That is, they were not acquainted in any way with most of the participants in the bonus plan.

Q. Who were the members of the special committee on the Board?

A. Mr. Bishop of Flint, Michigan, Mr. Prosser, president of the Bankers Trust Company of New York, and myself.

Q. And yourself you say?

A. Yes.

Q. What connection did Mr. Bishop and Mr. Prosser have with the du Pont Company?

A. None whatever.

Q. Now, again, without going into detail, Mr. du Pont, can you state what the general method was that was followed in bringing up to the special committee recommendations for allotments for General Motors personnel of the Managers Securities stock under this plan? Where did that come from?

A. The allotments were initiated by heads of the different departments of General Motors, as to the people who were directly under them whom the heads of departments would know well. They made recommendations to Mr. Sloan, who was then president of the General Motors Company, and he expressed his opinion, and finally the whole recommendation was passed to the committee of three. It was their province to make a review of the whole situation in order to see whether there were any apparent inequities in the recommendation.

I think no recommendations were changed.

Q. That is, no recommendation was changed as you recall it from the committee as it came up to you from Sloan?

A. Yes. I don't know how it was done by Mr. Sloan, but probably he made some suggestions, but the committee made no suggestions at all in the whole plan.

[fol. 2096] Q. Was the attitude of the recipient of the Managers Securities stock towards du Pont Company a factor in the committee's approval of Sloan's allotment?

A. Most certainly not.

Q. Now, I want to ask you, if you will, please, at the time you were president of General Motors from 1920 to 1923, and thereafter, in your connections with General Motors, with the committees that are shown in evidence, I want to ask you what your own attitude was with respect to the considerations which governed the commercial or trade relations between du Pont Company and General Motors?

A. I don't understand your question.

Q. I want to ask you, while you were president of General Motors, and subsequently, as a member of the finance committee of General Motors, what your attitude was, your own point of view was as to what consideration should govern the commercial relations, the purchases and sales of products, between General Motors and the du Pont Company?

A. The same consideration as dealing with other corporations and individuals, nothing whatever in favor of those who were du Pont men against those who were not, and vice versa with General Motors men.

[fol. 2097] Q. At any time while you were connected with General Motors, did you ever hear it said that there was some agreement or understanding between du Pont and General Motors that General Motors would prefer du Pont products in purchasing to those of products of du Pont's competitors?

A. I probably did, but I cannot remember of any instance.

Q. I beg your pardon?

A. I cannot remember of any instance that I did hear it. I probably did hear such a thing. Gossipy rumors of that kind do get around, but I cannot name an instance.

Q. Were you aware of any arrangement between du Pont and General Motors?

A. I am sure there was no arrangement.

Q. Of that kind?

A. I am sure there was none.

Q. Did you ever, as president of General Motors, issue any instructions to General Motors purchasing department [fol. 2098] that they were to prefer du Pont products to those of du Pont's competitors?

A. No, I never did. I never issued any orders to them at all about any products.

Q. Did you ever hear of any such order having been issued by any of the top level people in General Motors Corporation?

A. I am quite sure there was no such order issued.

Q. Going back to the time when du Pont first made its investment in General Motors in 1917, did you have any discussions with Durant before the investment was made, connected with the investment, that General Motors should be expected to prefer du Pont in its purchase of products?

A. No, I never heard such a thing.

Q. Did you ever have any such talk with John Raskob, at the time of the initial investment?

A. No, not at all.

Q. Or subsequently?

A. Or subsequently.

Q. Where was the seat of primary responsibility for deciding in General Motors, what products should be purchased, and from whom?

A. It was in the several departments who needed the materials to be purchased.

Q. In the several departments, you say?

A. Departments, yes.

Q. Did you ever have a discussion with any of the heads of those departments in which you urged or attempted to influence any of those men favorably toward purchasing du Pont products?

A. No, I never did.

Q. Do you recall an episode that took place in 1923 which related to the question of General Motors establishing what was called a two-sources of supply policy?

A. Yes, I remember perfectly.

Q. Will you state what you recall of that incident, and your connection with it?

A. Well, this occurred in the Chevrolet Division of the [fol. 2099] General Motors Corporation, of which I was president at the time, and Mr. Knudsen was the vice president and in complete charge of the division. I had really very little to do with it. He consulted with me on the subject of the two sources of supply proposition. He thought that there should be two sources of supply in all of the principal products and said that he would like to proceed on that theory.

I told him frankly that I was not a believer in that, but it was entirely up to him to chose whether he would have two sources of supply or any number of sources.

That was his province to decide. And he went ahead on his own ideas and started to have two sources of supply in the principal products, or the principal raw materials, I mean.

Q. And did you attempt to dissuade Mr. Knudsen in any respect from going ahead and introducing his two-sources of supply idea?

A. Quite the reverse, I put it up entirely to him. I only expressed a personal opinion, but he could disregard it entirely, if he wished to, and he did.

Mr. Harlan: In that connection, your Honor, may I offer du Pont Exhibit No. 62, which should be in your first volume, which is a letter from William Coyne.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 62.)

By Mr. Harlan:

Q. Who was William Coyne in the du Pont Company?

A. He was a member of the Executive Committee, and chiefly on the sales department staff.

[fol. 2100] Mr. Harlan: This is a letter from William Coyne addressed to Mr. P. S. du Pont, dated July 23rd, 1923. I would like to read it.

"My dear P. S.:

"Yours July 19th:
"Ferd La Motte"—

By Mr. Harlan:

Q. Who was Ferd La Motte, do you know?

A. He was one of the employees under Coyne.

Mr. Harlan (Continuing):

"Ferd La Motte assures me that the du Pont Company does not divide orders for Raw Materials for the purpose of having two sources of supply, and that the only instance where we buy the same commodity from two people is when one supplier is not able to care for our total requirements.

"While the loss of 25% of the Chevrolet top business seemed a little cruel, because of our having waived

> a very large sum due us under our 1920 contract; because of having given them splendid service and quality and having met their unusual and unexpected heavy requirements during 1922,—buying gray goods at the market because our commitments were not heavy enough to meet their demands, and not charging them for the difference between the market and our contract price; expressing many shipments and not charging them the difference between express and rail rates; perhaps there is some justification for Mr. Knudsen's [fol. 2101] attitude, in the fact that we have but one Plant and if anything serious happened to it his production might be interfered with, although I have no hesitancy in saying that we would take care of him in some way, even if we had to buy from our competitors, because the rubber manufacturing facilities are nearly double the requirements."

Then, if your Honor please, I read what has been offered by the Government as Government Trial Exhibit No. 410. That is not in your book, and I am asking Mr. Scott to hand your Honor a loose copy.

It is a letter from Pierre du Pont to William S. Knudsen, vice president, Chevrolet Motor Car Company, dated July 27th, 1923:

> "My dear Mr. Knudsen:
>
> "I have learned recently that Chevrolet is dividing its orders for coated fabrics in order to have two sources of supply. While you have authority to make these arrangements, I do not wish to appear as approving. I am a firm believer that one good source of supply, properly maintained, is more reliable than two sources. I particularly condemn switching large orders from one source to another unless for very good reason. The temporary advantage gained through a contract at a lower price does not compensate having to support two plants where one would suffice. Doubtless you have given personal consideration to the case in question. I have no fault to find with the principle which would apply as well to other manufacture as of the du Pont Company."

[fol. 2102] By Mr. Harlan:

Q. And following that, do you know whether Mr. Knudsen, disagreeing with the view that you had expressed, went ahead and introduced a two sources of supply policy?

A. He did, yes, sir.

Q. And you made no attempt to interfere with it?

A. No, I thought he was doing the proper thing.

Q. Tell me, at the time that this correspondence took place, and this letter is addressed to Mr. Knudsen as vice president of Chevrolet Motor Car Company, what was your relationship, if any, to the Chevrolet Motor Car Company or the Chevrolet Division at that time?

A. I was president of it, but never in an active way. Mr. Durant had been president of Chevrolet and, when he left the company, that was turned over to me, but it was a nominal appointment.

Q. Now, I am handing you three government exhibits, Exhibit No. 420 and Government Exhibit No. 421, and Exhibit No. 422. I think his Honor should have copies of those.

Will you please look at these exhibits and I will ask you a question.

Have you examined those?

A. Yes, sir.

Q. Do you recall the episode that those letters relate to?

A. I think I do, yes.

Q. Will you please state what you recall?

A. The question came up as to whether the du Pont Company was receiving orders from General Motors for du Pont goods. That was referred to, I think, by my brother, Lammot. This is Lammot du Pont's reply to a question which I had taken up with him, stating what the condition was in the General Motors departments with [fol. 2103] respect to the purchases from du Pont.

Q. How did you come to take up with Lammot du Pont the question, to make the inquiry that he referred to?

A. I think that came up in a discussion introduced in the Finance Committee of the du Pont Company, but I don't find it stated here. I am not sure how it came up. It might have come through Mr. Coyne, whom you spoke of before.

Q. Do you recall a conversation with Mr. Coyne in this connection prior to your inquiry to Lammot du Pont?

A. I am not certain whether this event was with Mr. Coyne or whether it came from the discussion in the Finance Committee.

Q. Let me anticipate a moment and see if this refreshes your recollection. I hand you Government Exhibit No. 460, which is 1927 (the other event being in 1921), that relates to a Finance Committee discussion that I will ask you about in a minute.

A. Yes, I recognize that. Well, this first question must relate to the Coyne episode.

Q. Right. Now, having refreshed your recollection, as to the timing of this, 1921, can you state what you recall of your conversation with Mr. Coyne that led to your making inquiry of Lammot du Pont?

A. Only that Mr. Coyne had consulted with me on the subject, as he did frequently on different things. I knew him very well. He brought up the question whether General Motors was giving du Pont the orders that he thought they should. Being a salesman, his idea of what they should get was, of course, 100 percent. But I didn't agree with him on that. But I communicated with Lammot du Pont to find out what the situation was. I had no idea what it was.

[fol. 2104] This resulted in the letter to me, August, 1921, in which he describes the situation in various General Motors departments.

Q. Having received that reply from Lammot du Pont, what further steps, if any, did you take in reference to the Coyne conversation?

A. The letter of August 23rd that I hold here is to Lammot from me. I think it describes practically the situation, what the situation was.

I said, "It would seem from your summary that the Flint, Paint and Varnish and Fabrikoid interests are doing pretty well with General Motors, Scripps Booth being the only division that does no business with these companies.

"However, Scripps Booth is a small part of the General Motors and may be disregarded for the present."

Q. Now, did you take any steps following the receipt of Lammot's memorandum to you describing the extent of the purchases as they then existed from General Motors, as he understood them to have existed—did you take any steps in General Motors to try to influence General Motors to buy more?

A. No, indeed. That wasn't my province at all. That was with the purchasing people. I had nothing to do with that.

Q. Did you give any instructions or orders to any of your subordinates in General Motors that they should try to use their influence to induce such departments as were not purchasing from du Pont to buy more goods from du Pont?

A. No, that was with the purchasing agent and divisions of General Motors entirely. It wasn't my province.

Q. Now, in your reply to Lammot which is Government's Exhibit 421, you said this: "With the change in management at Cadillac, Oakland and Olds, I believe that you [fol. 2105] should be able to sell substantially all the paint, varnish and 'Fabrikoid' products needed; especially is this true of Cadillac."

Can you tell us what it was that you referred to in that paragraph with reference to the changes in management in those divisions?

A. Only that I was sure that the management in those divisions would be fair. It was up to Lammot and the du Pont Company to get the orders if they could.

Q. Do you recall that there was a change in management about this time prior to this communication in those three divisions?

A. Yes, there was.

Q. Do you recall what the circumstances were that gave rise to the change in the managers of the three divisions, Olds, Oakland and Cadillac?

A. Yes, I do.

Q. Will you state to the court what happened in that respect?

A. In the Cadillac Division, Mr. Collins, who was head of the division, had gone to or was preparing to go to

California on a trip, and he advised me that he had drawn out something over $200,000.00 on his personal signature from Cadillac funds in preparing for the trip, which apparently he thought was all right to do. He was perfectly open in reporting it.

I objected seriously. I said such conditions shouldn't exist, and I found that it was done in the different departments—that the head of the department had a right to draw funds for his own account from the general funds on a single signature.

I objected seriously to this act of Collins and told him to pay the money back to the company immediately. He advised me after that that he had done so. But I discovered [fols. 2106-2107] covered that while he had paid back the money to the bank which he had drawn, he drew another draft of practically a similar amount on another bank, which he didn't report to me, and the result of that was that Collins left the employ of General Motors.

I think he may have been honest in intent, but it certainly was a very bad thing to have permitted and would not occur again in that division. We changed our method of signatures so it couldn't be done.

Mr. Ver Linden's case was quite similar. He drew cash out normally in payment of what he thought was due on some bonus arrangement that he had with Mr. Durant, but did it without leave and refused to return the money. On that account he left the company.

The head of the Oakland division was Warner. He left the company about that time for no reasons such as I have stated in the other two cases. I think he realized that the division had not been well run, and he preferred to retire rather than to try to make matters straight.

Q. Was the displacement of any of these three men because they had not been willing to buy enough products of du Pont?

A. Certainly not. It had nothing to do with it.

By Mr. Harlan: Now I offer some documents on that episode, if your Honor please.

Number one is du Pont Exhibit No. 63, which relates to Mr. Collins of the Cadillac Division.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 63.)

[fols. 2108-2110] By Mr. Harlan:

Q. March 18, 1921, was a few months after you had succeeded Durant as president of General Motors?

A. It was, yes, sir.

Mr. Harlan: Next I offer what should be the next exhibit in your Honor's book, du Pont's Exhibit No. 64, a portion of which I would like to read. It relates to the Collins episode as well as to the VerLinden episode.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 64.)

[fol. 2111] By Mr. Harlan:

Q. And following this discussion with reference to these withdrawals, Mr. Collins was replaced as the Cadillac manager?

A. That is right.

[fol. 2112] Following that episode, Mr. VerLinden left the Oldsmobile division?

A. That is right.

[fol. 2113] Q. Who succeeded Mr. Collins as head of the Cadillac division following this episode, do you recall?

A. Mr. Rice.

Q. Herbert H. Rice?

A. Yes, sir.

Q. Who recommended him as successor of Mr. Collins, if you know?

A. I think it was Sloan and Mott.

Q. Had Mr. Rice ever been connected with the du Pont Company in any capacity?

A. No; I had never known him before he was put in as president. He was treasurer, I think, of the Cadillac Division before.

Q. Who succeeded Mr. VerLinden as head of the Olds Division, if you recall? Was it Mr. Hardy?

A. Yes.

Mr. Harlan: I take it there is no objection to my refreshing his recollection?

Mr. Harsha: No.

By Mr. Harlan:

Q. Alex Hardy?

A. Yes, sir.

Q. Who recommended him?

A. Mr. Sloan, and I think Mott, and I think I should have said Mr. Bassett also. Those three. I relied on their recommendations in all such things.

Q. Had Mr. Hardy had previous connections with the du Pont Company?

A. No, sir.

Q. Had you known him before?

A. No; I think I had not known him before he was head of the Olds Division.

Q. Finally Mr. Warner was succeeded by Mr. Hannum at Oakland?

A. Yes..

Q. Who recommended Mr. Hannum?

A. I think he was likewise recommended by Mr. Sloan, and Mr. Mott.

Q. Did he have any connection with the du Pont Company?

A. None whatever.

[fol. 2114] Q. What is your recollection as to whether you had known him before he was elected to succeed Mr. Warner?

A. I think I had never seen him before.

Q. Now, just a word about this Government Exhibit 460 which I handed you a moment ago. This refers to some kind of discussion in 1927 where a question of the purchases from General Motors of du Pont was raised. Do you happen to recall anything about that episode, how it came about?

A. I don't remember it particularly except that it is here stated that the question came up in the Finance Committee of the du Pont Company; that General Motors was not taking as much of the du Pont products as we thought they should take.

Q. Following that, do you recall whether any steps were taken by you or anybody else in the Finance Committee to influence General Motors to purchase a greater amount of products?

A. No, I am sure no steps were taken. That was not a part of the Finance Committee meeting. That was brought out after the meeting. No action was taken by the du Pont Finance Committee.

Q. Now, do you recall an episode about which the Government has introduced some papers, and I refer to Government Exhibit 530 and a few succeeding ones where a man named Kerr came to you and suggested that he had a plan for reciprocity which might be useful to du Pont in its sales force?

A. I remember that, yes.

Q. Can you state what you recall of that episode and your part in it and how it ended so far as you were concerned?

A. Mr. Kerr was in the sales division of the du Pont Company and had been there a long time. In fact, he was [fol. 2115] my father's secretary as a very young man, and had come up in the du Pont Company. He had a plan with regard to sales and things of that kind, a technical plan, of which I did not know very much. He came to me with a proposal that some reciprocity arrangement be made between du Pont and General Motors in making purchases of materials, that they would endeavor to have du Pont and General Motors act as a unit in gaining favorable terms from people that they were dealing with, and I turned him over to the General Motors people for their opinion.

I was not particularly impressed with the idea, but knowing nothing of the subject, I refrained from expressing an opinion.

It was turned over to them, to Mr. Sloan, and nothing came of it. I doubt if General Motors took it very seriously.

Q. That ended your connection with the episode?

A. That is right.

Q. Now, just a question or two more. Do you recall this memorandum dated March 24, 1922, which is Government Exhibit 610, which you wrote to Mr. Irenee du Pont?

A. Yes, I remember that.

Q. On the subject of tetraethyl lead?

A. Yes, sir.

Q. And do you recall that prior to writing this memorandum you had some conversation with Mr. Kettering?

A. Yes, I do.

Q. About the subject?

A. Yes, I do.

Q. Will you state what you can recall of the conversation with Kettering?

A. The conversation occurred at Dayton. I was visiting a plant there, and Mr. Kettering who was in charge spoke about this discovery that they had made in his laboratory [fol. 2116] of adding a material to the gasoline which would prevent the knocking of the engine, which was quite a problem in motor construction.

He stated that they tried—I think he mentioned aniline and some other things, possibly, but he recently found that tetraethyl lead was the best substance that they had ever had by a great deal.

And he wanted to try and get production of it—it was not a commercial article then,—and he suggested that the du Pont people should talk with him about the subject. I doubt if he said at that time that he wanted the du Pont people to make it for him, but he wanted to talk to the du Pont chemists about the whole subject.

He mentioned at that time that tetraethyl lead was very poisonous and would have to be dealt with very carefully, but even then I don't think he really knew the danger.

Q. And that resulted in your memorandum that you just looked at to Irenee du Pont?

A. Yes.

Q. And from there on he carried the ball in the discussions with Mr. Kettering?

A. Yes, that's right, when the du Pont Company made a deal with Kettering, I didn't take any part in it.

Q. Now, the record shows that you resigned from the Executive Committee of General Motors in 1929, I think, and that you resigned as Chairman of the Board in 1929, and that you resigned as a member of the Finance Committee in 1937, and resigned from the Board in 1944.

Since 1944 have you held any office or directorship or committee membership in General Motors?

A. No, I haven't.

Q. I want to spend just a moment on your resignation in 1923 as president of General Motors. The record shows that you resigned in May of 1923.

A. That's right, yes.

[fols. 2117-2118] Q. What was the occasion for your resignation?

A. Well, because we found a man to take the place, which was the original plan, that I was to take the presidency temporarily until a better man was found, that knew the job better, and he had been discovered, or at least I thought he had, and I recommended Mr. Sloan as my successor.

Q. And he was duly elected by the General Motors Board?

A. Yes, sir.

Q. I want to ask you a question or two about the Wilmington Trust Company, before I close my direct examination of you.

Government Exhibit No. 1309 shows that you were a director of the Wilmington Trust Company from 1903 to 1920, and again from 1924 to date. Have you been a regular attendant at the meetings of the company?

A. Regular? I should say more irregular. I very seldom have gone to the meetings in recent years, but originally, I think I was a fairly good attendant, but in recent years I have not attended practically at all.

Q. And this same exhibit shows that you were a vice president of the Wilmington Trust Company from 1903 to 1935.

What did you do as vice president of the Wilmington Trust Company?

A. I had no duties whatever. I may have put a signature to a paper occasionally when it was presented to me, after examining what the paper was, but I had practically nothing to do with the administration.

Q. Then the record further shows that you were honorary chairman of the board from 1935 to date.

What were your duties as honorary chairman?

A. No duties.

Q. Sir?

A. No duties whatever.

[fol. 2119] (Witness temporarily withdrawn.)

Irenee du Pont, resumed the stand, having been previously duly sworn, testified further as follows:

Direct Examination (Continued)

[fol. 2120] By Mr. Harlan:

Q. Now I want to direct your attention, please, to du Pont's first investment in 1917 in the stock of General Motors Corporation.

First of all, let me ask you whether for some years prior to that investment you had held various amounts of General Motors stock for your own personal account.

A. That is correct.

Q. There is in evidence already, if your Honor please, as Government's Trial Exhibit No. 115, a record of those personal holdings, which your Honor might want to glance at.

This paper that I hold, Government's Trial Exhibit [fol. 2121] No. 115, shows that you purchased 400 shares of General Motors Company's stock in 1914, a total investment of about $27,000 at that stage.

Do you recall the circumstances under which you came to make that purchase?

A. Not particularly. It was a minor investment in a company that I knew comparatively little about, but it had been talked up a great deal by John Raskob, and I had certainly enough faith in him to take a fling, if he thought it at good one.

Q. Did you know at the time that you bought the stock that your brother Pierre held stock in General Motors?

A. I think not.

Q. What about as to the fact that Mr. John Raskob held any stock?

A. I would say he must have had some, he was so enthusiastic about General Motors.

Q. Did you consult your brother Pierre in any way before you accepted John Raskob's suggestion and bought 400 shares of General Motors stock?

A. I did not consult Pierre, and I don't think it was John's suggestion that I buy it. He just simply was such a bull on the future of the motor industry that I thought it was worth buying.

Q. Between 1914 and 1917, did you attend any meetings of General Motors following the purchase of this stock, either stockholders meeting or any other kind of meetings?

A. I did not.

Q. To what extent during that interval did you undertake to keep abreast of General Motors' Affairs?

A. Practically nothing.

Q. Did there come a time in 1917 when you learned of the recommendation that Mr. Raskob made that the du Pont Company should itself make an investment in General [fol. 2122] Motors stock?

A. I don't think I heard of that until either the same day or very shortly before the meeting of the Finance Committee at which that suggestion was presented.

Q. Before I come to that, let me hand you a document which is in as du Pont Exhibit No. 45, and since I want to ask you to identify some handwriting on it, I will show you a photostat of that exhibit.

There is no objection to that, is there?

Mr. Harsha: No objection.

Mr. Harlan: I think perhaps I will have it marked then, if there is no objection, your Honor.

I will ask that this photostat I am using be marked as du Pont Exhibit No. 45-A so we will know what we are identifying.

The Court: No objection.

(Said document so offered and received in evidence was marked du Pont's Exhibit No. 45-A.)

By Mr. Harlan:

Q. Will you look at what has now been marked as du Pont's Exhibit No. 45-A, which is this memorandum. There is referred to here the du Pont associates—P. S. du Pont associates, this proposal of an individual Wilmington group—Durant partnership in General Motors.

Look at the photostat of that, 45-A, and tell me whose handwriting that is on the second page of the photostat and any subsequent pages that you find handwriting on.

A. This handwriting on the second page is undoubtedly mine.

Q. Any more handwriting on any of the other pages? [fol. 2123] A. This diagram is mine. I made that. I made the original of it.

The Court: Pardon me, counsel. Is that 45?

Mr. Harlan: 45 is the print, your Honor. I will hand your Honor 45-A.

The Court: I have it.

Mr. Harlan: This is the photostat of the same document, the handwriting on the second page there being what Mr. du Pont has identified as his own.

Q. Do you recall what if anything came of the proposal that is reflected in that paper that you have just looked at?

A. No, nothing did come of it.

Q. Did you attend the meetings of the du Pont Finance Committee on December 20, the joint meetings of the du Pont Finance and Executive Committees of December 20 and 21, and the Board meeting of December 21, which resulted in the approval by the Board of du Pont making a $25,000,000 investment in the stock of General Motors Corporation?

A. I attended all of those meetings.

Q. And you were present throughout the meetings?

A. Yes, sir.

Q. Will you state from your recollection of those meetings what the considerations, factors and objectives were, as you recall them, that led to the making of that investment on the part of du Pont?

A. I think the discussion and the differences of opinion were almost entirely a question of whether motor building and an investment in General Motors was too far afield from our experience and abilities to warrant our going into it. That was a pretty telling argument.

[fol. 2124] On the other hand, those who approved the idea and talked it up—that is a bad expression—who approved of it and backed it up at the meeting were all clear in their heads that we did have a contribution; that it meant a very great deal to have control of the financial end, so we would be assured that that would be will run by men who had had considerable experience, and it was the only weak point apparently in Mr. Durant's organization, and he had suffered from lack of it before.

We felt that that would be a great contribution to make. Therefore it was a good thing for us to go in. We could be of use and enhance the value of our investment.

Q. What arguments, if any, do you recall were put forward by Mr Raskob as to the desirability from the du Pont Company's point of view of having this investment? A. In the oral discussion he did not mention anything about what we might expect to buy or sell to and from General Motors. That was down in his written report, but I don't think that was discussed at all. I have no recollection of the question having been discussed.

Mr. Harsha: Your Honor, I move to strike. I don't think that is responsive to the question.

The Court: Sustained.

The Witness: I didn't hear that.

Mr. Harlan: Mr. Harsha made an objection that you gave an answer that was not responsive to my question, so I will put the question again.

By Mr. Harlan:

Q. Do you recall what arguments were made by Mr. Raskob that were advanced by him as to why it was good [fol. 2125] for du Pont, why he thought it was good for du Pont to make this investment? A. He put in the argument, which no one could refute, that the motors industry as an industry was in a rapidly expanding position; that it ought to have a great future; that everybody needed a car, and that this expansion would come just at the time when our contraction was coming, by the end of the war, and the ceasing of the big powder orders, so we would have plenty of manpower who could, maybe, be of use in such an investment.

I think those were his big points, and we had men who could be let go to go to General Motors.

Q. I hand you Government's Exhibit No. 124, which is the so-called Raskob report, and direct your attention to Item 5 under the summary of the report, where Mr.

Raskob refers to General Motors purchasing "Fabrikoid," et cetera.

Do you recall that item in the report?

A. That is the point that I have mentioned just a moment ago.

Q. Do you recall the item?

A. That was not discussed.

Q. Just a minute, Mr. Harsha will object unless you confine your answers to my questions.

Do you recall that item in the report?

A. I do.

Q. What discussion was there of that item at any of these meetings that you have told us about?

A. I recall no discussion of it whatever.

Q. Please listen to this question because I want to avoid an objection.

In your voting as a director of du Pont in favor of making this investment, what part did that suggestion in Point 5 play in your vote in favor of the investment?

A. None whatever.

[fol. 2126] Q. Can you explain why that was the case?

A. It was something that couldn't be measured and must be negligible. It couldn't have any weight as compared to investing $25,000,000 in a rapidly growing industry.

Q. I notice from the Board minutes that among the three directors who dissented from this approval of the investment was Mr. A. Felix du Pont. Is that the same Mr. A. Felix du Pont who was a member of the original Christiana group when Coleman's stock was purchased?

A. It was.

Q. Before any of these meetings at which the General Motors investment was considered by the du Pont Company, did you have any figures as to the volume of du Pont sales to General Motors?

A. No.

Q. Or the volume of its sales to the automotive industry in general?

A. No.

Q. Or did you have before the meetings any figures as to General Motors purchases from du Pont at that time?

A. No.

Q. Or as to General Motors requirements for products such as those referred to in Mr. Raskob's report?

A. No.

Q. Are you familiar with the circumstances under which, late in 1920, the du Pont Company participated in the purchase of certain General Motors stock that was held by Mr. Durant?

A. I am afraid I missed that.

Mr. Harlan. Strike it out.

By Mr. Harlan:

Q. Do you recall the circumstances in 1920 under which Mr. Durant's stock was purchased by the du Pont Company?

A. Yes, sir.

Q. General Motors stock, I am talking about.

A. Yes, sir, when he was in trouble.

[fol. 2127] Q. Will you state the purpose of your participation in the events leading up to that transaction; what happened leading up to the purchase of the stock?

A. I was an audience in those meetings to a considerable extent so that I can give you a general impression of it. I was not one of those who audited the accounts from the brokers, and I took no active part in the mechanism of it.

At the time, Mr. Durant had borrowed against his stock, General Motors stock, as collateral very large sums of money. I think it proved to be something like $30,000,000.00 when the accounts were in, and the brokers were clamoring for more collateral because of the decline in the market. He could not put it up, and it was found out later abruptly by our people, and they were disturbed, and they were still more disturbed when representatives of the Morgan people sat in a meeting, and said certain of the banks might become involved, and certainly a number of brokerage houses might fail, and that might cause a run or call of the loans on General Motors—well, they did not say that latter, but that was clearly in the mind of some of these people present.

Q. Without regard to details, do you recall that the du Pont Securities Company was formed as a means to finance that purchase?

A. Yes.

Q. I won't go into the details of that, because it is documented already.

Do you recall subsequent to that purchase the du Pont Company purchased Durant's interest in the equity, so-called, Durant's interest in the du Pont Securities Company?

A. They did.

Q. Do you know why that was done?

A. I think at his request.

[fol. 2128] Q. Following that, do you recall that the du Pont Company issued some $35,000,000.00 of its bonds or notes in 1921 to permanently finance these acquisitions and other commitments with General Motors?

A. I do.

Q. What was the reason for du Pont issuing those bonds?

A. The General Motors Company still owed very large sums of money, and the rescue party had borrowed, with General Motors stock as collateral, and the banks very properly felt that they could not expand General Motors credit while this added load was collateralled practically by the same property, and for that reason we brought out the new issue which was an obligation of the du Pont Company.

Q. Now, Mr. du Pont, you were president, were you not, of du Pont Company from 1919 to 1926?

A. Correct.

Q. Following the General Motors investment, you became a member, did you not, of the Finance Committee of General Motors?

A. I did.

Q. I want to ask you as to your attitude and viewpoint, as to the considerations you felt should govern the trade relations between General Motors and du Pont following the making of that investment by du Pont?

A. I don't think that I had very much feeling about it or gave it much of a thought. It is not up my alley, as they say, but I would expect that a big corporation like that, or the steel corporation or Ford would buy some from us, but that was all.

Mr. Harsha: I object, your Honor. That is going beyond the scope of the direct examination. I would like to ask that that last be stricken.

The Court: Overruled.

[fol. 2129] Mr. Harlan: Maybe you can take up from there. The stenographer is going to read your answer up to the time you were interrupted.

(Answer read.)

By the Witness:

A. I think I would expect the same kind of treatment that we would get from the steel company.

By Mr. Harlan:

Q. Did you ever hear it said, until this lawsuit was filed by the Government, that General Motors had some kind of deal with du Pont, that it preferred du Pont products?

A. I never did, no.

Q. Did you ever undertake, in any of your activities, to try to persuade the purchasing people of General Motors to purchase greater amounts of du Pont products?

A. No.

Q. Now, the Government has put in evidence what appears in Government's Exhibits Nos. 516, 517, 518 to be a series of resolutions by the du Pont Company in 1918 calling upon the du Pont people to purchase cars and trucks from General Motors.

Do you remember that episode?

A. I remember that episode, yes.

Q. What was the reason for that kind of a resolution or that kind of decision?

A. Well, I think whoever originated it thought if we took nothing but General Motors trucks and automobiles, that the profits on those purchases would enhance the value of our stock in General Motors, and we were satisfied it was [fol. 2130] very good material. Why shouldn't we buy it so as to get the benefit, as it were, of a discount.

Q. Was there any discussion that you had with Mr. Durant prior to the adoption of these resolutions by the du Pont Company?

A. No, sir.

Q. Did you ever advise him in advance you were going to take such steps?

A. No, sir, I did not.

Q. Now, there are some papers in evidence that relate to the cancellation of certain "Fabrikoid" contracts, Government Exhibits 306-310.

A. Yes, sir.

Q. That du Pont had with Buick, the Buick Division of General Motors in 1920 and 1921. Do you recall that episode?

A. I do.

Q. Will you state what you can recall about how it came about and what the nature of it was, and your participation in it?

A. My participation started following the claim that General Motors had refused to make good on gray goods purchased to make "Fabrikoid" on their account, on a firm order, and I found that was correct.

They did not deny it. Finally, it got to be so that I interviewed Mr. Sloan on the subject. He explained their position by saying that if he were required to make good on the contracts, after this tremendous decline in the value of the material, for everybody like we were asking for du Pont, it would mean a receivership for General Motors Company.

He said he did not see how he could treat us any differently from others, and we agreed to let it go at that, and cancel it, and it cost us nearly a million dollars, somewhere in that neighborhood.

[fol. 2131] By Mr. Harlan:

Q. Mr. du Pont, do you recall the episode of the discovery of what later became "Duco"?

A. Yes, sir.

Q. Will you state what you recall of the chain of circumstances that led to that?

A. I was not present at the experiment that brought into being "Duco," but I heard about it very soon afterwards.

It was on the 4th of July of 1920. They shut down the power house at the Parlin plant where experiments were being tried, in the manufacture of the film which is the backing of a photographic film. It is a thin nitrocellulose band, as you know.

They had had trouble with making these backings because when they are run through a camera, the rubbing in cold, dry weather would make static electricity on the backing, and that would make a little exposure, a little flash would go by, and of course, would spoil the film.

They were trying experiments to eliminate that by putting different things in the material that the backing was made of, to make it a better conductor. They had reached the point where they had found something which substituted very well indeed.

At the time of the shut down of the boiler plant, the experiment shut down, and it was some forty-eight hours [fol. 2132] before they started to try to cast film again from a drum of material they had which was all ready only two days before, and to their amazement the contents of the drum had become so limpid and so fluid that you couldn't cast it on a wheel. It would be just like trying to cast water on a wheel; it would run right off.

Now, that put into them the thought that if so, why not put some pigments into the stuff and make lacquers with very heavy pigment-carrying power, so you would get a thick layer of lacquer instead of a thin one for each coat, and they found it would work, and that was "Duco."

Q. After "Duco" commanded interest on the part of automobile companies, as a means of painting cars, do you recall an episode where you, as president of the du Pont Company, were requested on behalf of General Motors to give General Motors an exclusive contract for "Duco"?

A. Yes.

Q. Will you state what you can recall of that episode?

A. I received a letter from my brother Pierre, then president of General Motors, asking whether we wouldn't enter into a contract with General Motors by which they had first call on the entire output of our "Duco" plant, and I replied to that that we couldn't do it for the reason that we had outstanding agreements with others, and we also wanted to make its use general everywhere, and we wouldn't therefore, agree to turn our entire output over to any one concern.

Mr. Harlan: The reference is to the two Government exhibits on that subject, which I won't bother to read, but it is Government's Exhibit 377 and Government's Exhibit 380, if your Honor please.

[fol. 2133] By Mr. Harlan:

Q. Now, Mr. du Pont, are you familiar with the reasons and objectives behind what became known as the Managers Securities Plan?

A. Yes.

Q. That was adopted in 1923 in General Motors?

A. I am familiar with that.

Q. Will you state how that plan came about and what the purpose of it was.

A. If you will let me answer that in reverse, I will tell you the purpose first and it will make it very much easier to understand the rest of it.

We were believers, I think, in the du Pont Company that owner-management was of great benefit to a company. The whole bonus plan was an implementation of that because it had gradually built up—if you paid the bonuses in stock, it made them gradually owners, those who were beneficiaries under the bonus plan would become really partners by owning a small amount of stock, and as time went on the amount that they had would accrue, get bigger, because they would get several years' bonuses in succession during the period.

Not only that, but you will recall, I think, in the testimony before, that T. C. du Pont, in 1914, had made an offer to the du Pont Company to give or to sell to the principal men in the du Pont Company, new and active men, about one-third of his interest; 20,000 shares—I think he had about 63,000 shares, if I remember rightly. That showed that he wanted owner-management at that early date. That was a decade before this.

Not only that, but going further back, Mr. Duke told me that he had a plan of awarding his principal assistants and that he had the pleasure of distributing $60,000,000 among [fol. 2134] 66 men, when they made the American Tobacco Company split up or break up. Mr. Carnegie did it, and Ford. I am showing that it worked there, too.

With that, and the general common knowledge that a farmer on a farm, if he owns it himself, will do better than if he is a hired man for an absent landlord—that kind of thing is well known everywhere—or that the owner fattens the horse, which shows that ownership makes you more eager to make it go well.

That being the case, we wanted to make things go well in General Motors, Durant having left there, we had his stock, and it seemed the logical way was to figure out some sort of a scheme by which the principal men would become owners with us in the General Motors enterprise.

With that picture, Don Brown and John Raskob, I believe, were asked or did make up a plan. It had ramifications because every once in a while we would find that there was a defect in a batch of ideas, and it ended up this way: that we would take the du Pont holdings in General Motors, which was, I think, then in the hands of the du Pont American Industries or some subsidiary, and we would let that company acquire the Durant stock in addition, and give stock in the company, sell stock in the company, this holding company, to the General Motors men.

If we sold the stock directly to the men, we would become involved in very high profit taxes, which we didn't want to do, profit taxes for doing nothing, because we could get the same result by selling them stock in this holding company, which was new stock and therefore there was no profit in it.

I think that was the underlying thing. It makes it confusing because of that ramification of having a holding com- [fol. 2135] pany injected in between. The rest of it just went the way that Coleman's plan was, to get somebody competent to select who the partners were, and we would furnish the stock at a price which we thought was low.

[fol. 2136] By Mr. Harlan:

Q. Do you recall when the origianl plan was proposed that you had certain objections to the plan from the point of view of the du Pont Company?

A. Yes, I objected to the plan that was proposed at that time. It was modified later and I voted for it, the final one. [fol. 2137] Q. What was the initial objection that you found with the plan as originally proposed?

A. Well, there were two objections. One was that we were selecting our partners before they performed, and it would be better to select them after they performed, as you do in a bonus.

They easily convinced me that that wasn't very material, and it proved not to be very material.

The other objection was the unilateral aspect of the sale of the stock. We were to be paid out of earnings which accrued to the stock we sold, and when those payments aggregated the value that we sold it at, why, we wouldn't have the stock, but we would have the accruals to that stock up to that time.

Whereas, if we held the stock without giving it away, as it were, selling it, we would get not only the accruals, but when those accruals ended we would have the stock, too. It looked very short sighted.

Of course, that could be simply cured and was simply cured; General Motors guaranteed these payments to the extent of $2,000,000.00 a year, whether they were earned or not, so that we were assured of getting $2,000,000.00 a year, and therefore, it became an arm's length sale.

Q. Do you recall that before that final solution to your objection was adopted that you made some other proposal as a means of handling it?

A. Why, yes. I thought the down payment was too small; that they ought to give us assurance of a reasonable amount, and they did change the amount by putting up, well, more than a nominal amount. I think it was four million. I think they put up something like that.

Q. Do you recall in the discussions of your objections [fol. 2138] that at one stage you proposed that the du Pont Company should sell the General Motors stock directly for cash to the General Motors, and then General Motors could finance the resale to the executives; do you recall that?

A. Yes, I recall that.

Q. Do you recall why that was not done?

A. It would have involved us in a huge profit tax and also, I think, there was some legal defect that Laffey found, that a corporation incorporated in the State of Delaware, and I think that is where General Motors was, could not invest its cash in its own stock or buy its own stock.

Q. You have referred to Mr. Laffey; who was Mr. Laffey at that time?

A. He was general counsel of the du Pont Company at the time.

Q. Do you recall that you presented to him your objections to the plan as originally proposed and your proposed solution of your objections, and that you got an opinion from him?

A. That was the same Laffey, yes.

Mr. Harlan: I offer, if your Honor please, du Pont Exhibit No. 91. This is an opinion letter, a memorandum, from Mr. Laffey to Mr. Irenee du Pont, dated August 18, 1923.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 91.)

Mr. Harlan: If your Honor will turn to page 3, at the bottom, the second sentence in the last paragraph, you will find that Mr. Laffey there points out that if Mr. du Pont's suggestion that General Motors stock itself should be sold for entire cash to the General Motors Corporation with the General Motors Corporation then financing the resale of [fol. 2139] that stock to the General Motors executives on some kind of a deferred payment plan against the security of the General Motors stock itself, Mr. Laffey points out that under the then Delaware Corporation law, as it then stood, that would be a violation of the law because of the provision that the corporation could not loan money against its own stock.

He therefore pointed that out as a fundamental objection to the idea that the stock should be sold entirely to General Motors for cash, and then sold on an installment basis against the security of the stock by General Motors Corporation to its executives. That was the first suggestion.

If your Honor will then turn to the fourth page, the sentence in the middle that begins with the words, "However, the following may be noted——"

He points out there that if the General Motors stock, whether on an installment basis or on a full cash payment basis, was sold by the du Pont Company to General Motors or Managers Securities, that would expose the du Pont Company to a capital gains tax represented by the difference between the original cost base of the General Motors stock and the price at which it was being sold; and that that problem could be avoided as proposed in the original plan and the tax problem could be avoided by selling not the General Motors stock, but the stock of this holding vehicle, General Motors Securities, newly issued stock, which being newly issued stock would not stand with the base of the original base underlying General Motors stock.

Finally, as to the third objection, under the proposed plan which contemplated that the deferred balance of the purchase price would be paid by notes of the purchasing company, Managers Securities, Mr. Laffey pointed out that if [fol. 2140-2141] that were done, du Pont would then have to pay an income tax, corporate income tax, on the interest represented by those notes, whereas under the then law the dividends on stock were not subject to corporate income taxes.

By Mr. Harlan:

Q. Do you happen to recall whether under the final plan that was cured?

A. Yes, that was cured. It was cured by putting out preferred stock in the place of notes.

[fol. 2142] Mr. Harlan: Mr. Irenee du Pont, will you resume the stand, please.

Irenee du Pont, a witness on behalf of the defendants, having been previously sworn, resumed the stand and testified further as follows:

Direct Examination (Continued)

By Mr. Harlan:

Mr. Harlan: If your Honor please, the line of evidence which I am going to present this morning relates to the Government's charges that the manufacture of tetraethyl lead by du Pont was the result of some kind of a division of fields agreement between General Motors and du Pont, and the testimony for the balance of Mr. Irenee du Pont's examination will be addressed to that charge.

By Mr. Harlan:

Q. Mr. du Pont, prior to the discovery of tetraethyl lead by Mr. Kettering and his associates, had the du Pont Com-

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pany done any work in the field of fuel combustion research at Mr. Kettering's request?

A. They had.

Mr. Harlan: I offer, if your Honor please, du Pont Exhibit 93, which is in the second book, your Honor, which is a letter dated April 20, 1916, from Mr. Kettering—it is not signed as such, but there will be no dispute that he was the author—to Mr. Frederic W. Kurtz, care of du Pont Company, Henry Clay Postoffice, Delaware.

[fol. 2143] By Mr. Harlan:

Q. Do you happen to recall anything about the subject matter of this letter, in 1916?

A. I do not.

Q. From the address, Henry Clay Postoffice, Delaware, what was that postoffice with relation to the du Pont Company at the time?

[fol. 2144] A. The experimental station was located there at that time. There were no other industries at that address.

Mr. Harlan: Bearing in mind, your Honor, this letter is dated April 20, 1916, I should simply like to point out that this letter was written more than a year and a half prior to the du Pont Company investment in General Motors in 1917.

By Mr. Harlan:

Q. Do you happen to know, Mr. du Pont, whether in 1916, Mr. Kettering, or the Dayton Engineering Laboratories had any connection with General Motors Corporation?

A. I think not, but I don't know. That was at the beginning of the war.

Mr. Harlan: I think the record will state, or will show, if your Honor please, and if not, I think it is a fact that Mr. Kettering at this time, and the Dayton Engineering Laboratories had no connection with General Motors, and that connection did not ensue until some time in 1919.

Mr. Harsha: I believe that is correct, Counsel. I believe they were a part of the United Motors at that time.

Mr. Harlan: Yes, it is in the record.

By Mr. Harlan:

Q. Now, following that episode, or following that date, can you state in general what work in the field of fuel combustion was done by du Pont for the Dayton Engineering Laboratories or General Motors, and under what circumstances it was done?

A. I think it was the General Motors Company or Kettering, which I am not quite sure, asked the du Pont Com- [fol. 2145] pany to try out certain organic chemicals and to prepare organic chemicals which might be expected to be anti-knock. It was carried on for a period of about six months before the discovery of tetraethyl lead, and nearly a year before I heard of the discovery of tetraethyl lead.

Q. At whose request, if you recall, was that work on the part of the du Pont Company undertaken?

A. It was either Kettering or General Motors. I classified them as the same thing at the time.

Q. I wonder if you could indicate, Mr. du Pont, what the relation was at that time, or what the interest was in fuel research in relation to the manufacture of automobile engines.

A. I think the best way to describe that is that the knock in automobiles seriously interfered with the power output per gallon of fuel. In other words, it was very wasteful to have an engine knock. It would not deliver full power. Certain chemicals had been found which tended to reduce that. Benzol was one of these, and I won't mention any names of any firms, but they put that in in a big way, and made a great thing of it, that their gasoline was better than the untreated gasoline, but there was not enough of the chemicals to go around because it required large quantities to get the effect.

Q. Do you recall now, prior to the discovery of tetraethyl lead, the occasion when you were requested to engage in the manufacture or increase the manufacture of aniline?

A. Yes, sir.

Q. Can you state what source that request came from and what it was related to?

A. That came from Mr. Kettering, because this organic chemical does have considerable anti-knock powers. He made a request for an enormous quantity of aniline, far be- [fol. 2146] yond what we could manufacture, and we declined to put up a factory just at his request. By the time we got nearly started to see whether we could make it for them, they preemptorily told us it would not be needed.

Q. Is aniline the same thing that you referred to in your testimony, that was made by the du Pont Company in connection with the manufacture of diphenylamine?

A. Yes, sir.

Q. So nothing came of that in connection with fuel research?

A. That request for a large volume of aniline just died away.

Mr. Harlan: Now, if your Honor please, I offer du Pont's Exhibit No. 94, which is a letter from C. M. Stine, Assistant Director.

By Mr. Harlan:

Q. Who was Mr. Stine at that time in connection with the du Pont Company?

A. He was a director of research, I believe, at that time. That is what his job was anyhow.

Mr. Harlan: Addressed to Mr. C. F. Kettering, President, The Dayton Engineering Laboratories Company, Dayton, Ohio, dated February 2, 1920.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 94.)

[fol. 2147] By Mr. Harlan:

Q. What was the Eastern Laboratory, Mr. Irenee?

A. It was the research station located at the plant across the river.

Q. The laboratory for the du Pont Company?

A. Yes, sir. The original research was high explosives.

[fol. 2148] Next, if your Honor please, I simply refer, or offer, rather, du Pont Exhibit No. 95, which again is a letter from Mr. Stine, or a memorandum from Mr. Stine to Mr. Lammot du Pont, dated May 1, 1920, the subject being Knock Suppressors for Automobile Motors.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 95.)

I next offer du Pont Exhibit No. 96, which would be the next one in order in your Honor's book, which is a letter from Mr. Kettering who was then president of The Dayton Engineering Laboratories Company, dated August 17, 1920, addressed to Mr. Lammot du Pont.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 96.)

[fol. 2149] I next offer du Pont Exhibit No. 97 which is a letter from Mr. Midgley, Chief Engineer, Fuel Research Section.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 97.)

By Mr. Harlan:

Q. Was he in General Motors, Mr. du Pont?
A. He was in The Dayton Laboratories.

[fol. 2150] By Mr. Harlan:

Q. Do you happen to know whether or not the reference to this new antiknock material at this time, in April of 1921, referred to what became known as tetraethyl lead, or to something else?
[fol. 2151] A. I didn't know it at the time, but looking back on it I am quite sure it referred to tetraethyl lead.
Q. Let me ask you, had Mr. Kettering ever been employed by the du Pont Company at any time?
A. Not so far as I know.
Q. Now, when was it that you learned for the first time, Mr. du Pont, as to the discovery by Mr. Kettering and his associates of tetraethyl lead?
A. It was the March following the discovery. Pierre sent me a communication which disclosed that tetraethyl lead had been worked on by the Dayton Laboratories.
Q. I hand you what has been marked Government's trial Exhibit No. 610, and ask you whether this is the communication that you referred to as notifying you of the discovery of tetraethyl lead?
A. Yes, sir.
Q. Now, I notice on the first page of that memorandum certain handwriting. Whose handwriting is that?

A. That is my handwriting, and that is how I can identify the letter.

Q. Can you translate the handwriting which is a little illegible there? What do those notations mean?

A. "Speak to P. S., 3-28"—and then following in figures that look like "31", but is meant for "3:00 o'clock". That is, 1931 was at that time nine years ahead. The words under that are "Re poisonous properties". In other words, I was making a date for Pierre for March 28th at 3:00 o'clock which was the General Motors meeting in New York, following the date that I received this letter by two days, and the poisonous properties I was aware of at that time. I do not know whether I got it from the communication that I received then or not, but I felt sure it would be poisonous because of the soluble lead compound. [fol. 2152] Q. What would be poisonous?

A. Tetraethyl lead.

Q. Now, this memorandum is dated March 24, 1922. After getting that communication from Mr. Pierre du Pont, what next happened?

A. I was advised that Mr. Kettering would get in touch with me on the subject of tetraethyl lead. I had expected him to make an early date, but quite a little period had elapsed before I got an invitation to go to Dayton and talk to him about it.

Q. And from whom did you get such an invitation?

A. From Kettering.

Q. Did he telephone you about it?

A. I am not sure if it was the telephone or not. I couldn't find any letter about it, or engraved invitation, so I suppose it was a telephone call, although I have no recollection of how I heard it.

Q. Was that sometime after the memorandum that you have just looked at?

A. Yes, sir, I think that was—I think it was July that I went out there, so there was quite a little elapsed time between March and then.

Q. So irrespective of the exact date, did there come a time when you received an invitation from Kettering which took you to Dayton?

A. There did. I went out there.

Q. And did you see Mr. Kettering?

A. I did.

Q. Will you tell us what the conversation was at that time that you had with Mr. Kettering?

A. It was purely on the subject of the best way to enter the manufacture of tetraethyl lead, and I thought I had sold him the idea that he ought to come to the du Pont Company on account of our previous experience in the manufacture of dangerous chemicals. I thought I had him pretty well convinced.

Q. What was his attitude towards your suggestion that you were qualified to make this material?

[fol. 2153] A. That is what rather astonished me. I thought I was a very good salesman, he came so easily to the idea, and he was quite enthusiastic, I thought, about letting us make it, but he did not suggest writing a contract then and there.

Q. Was there anything said by him to indicate that he or General Motors were considering the commercial manufacture of tetraethyl lead?

A. He didn't mention manufacturing commercially at all, but he did say they had prepared some in the laboratory experimentally, and he didn't apparently care to mention going into it.

Q. Did he mention it?

A. I don't think so.

Q. What was the process that was to be used in the manufacture of tetraethyl lead at this stage?

A. The method they used in the laboratory was to put together an alloy of sodium and lead, and treat that with ethyl bromide under slight pressure and heat. That would convert it into ethyl lead. I won't go through the intermediate reactions in between.

Q. You would be talking way above my head, at least, if you did.

A. Over mine at the time, too.

Q. What was the process known as?

A. It was referred to later as the bromine process. That was in contradistinction to making it from ethyl chloride instead of ethyl bromide.

Q. You have referred in your testimony a few minutes ago and in your memorandum, Government Exhibit 610, to the poisonous characteristics of tetraethyl lead. I wonder if you could explain a little more what the characteristics were and what the hazards were as they appeared in manufacture.

A. The material is quite poisonous. It is a soluble material, so that if it gets onto the skin it will penetrate the [fol. 2154] skin and the poison will get into the system. That makes it very treacherous because workmen working in it could get a very little amount on their hands or get some on their glove or get even their shoes wet with it, and would show signs of lead poisoning quite early. If not immediately corrected, they are apt to die of it.

Q. Following your visit to Dayton that you have just described, what next happened?

A. I got a communication from Kettering asking whether he and some of his men could come down and look over Deepwater Point where we proposed to make it. That is where we made all that type of organic compounds. He wanted to come down so he could see for himself just what we had.

I arranged a meeting for him to come down. He arrived with two of his specialists, I might call them, and they were looked after by the Eastern Laboratories. I did not go with them to the station at that time.

Q. Was this shortly after your July visit to Kettering, or what period of time was it? A matter of weeks or months?

A. I think it was about a week or thereabouts.

Q. Did you see Mr. Kettering on that occasion?

A. I don't think I did. The reason I don't think I did, I think I would have gone over there with him had I been available. I think I must not have been available at the time.

Q. What resulted after that visit to Deepwater?

A. I think they gave them a very good picture of what they had, and he was a little bit, I think, astonished at the elaborate apparatus and reactions that were being carried on. I think that made him still more convinced that we were the right people to handle the job of manufacturing.

Q. Were any steps taken following that visit to construct a semi-works plant or a small plant of any kind for [fol. 2155] the commercial manufacture?

A. There were, yes. I don't think I was in on the negotiating of that. They put up a small plant and manufactured on what we would term a semi-works scale.

Q. At whose suggestion or request was the plant constructed?

A. I couldn't say if it was at the request of Kettering or not. I am a little bit hazy on who started it. I think it unlikely we would have gone ahead and done it without his assent.

Q. Now, this is July, roughly, of 1922 that we are in, right?

A. Yes, sir.

Q. What do you recall then as the next train of events, having constructed this small plant?

A. It wasn't until October that we entered into a formal contract to make a larger plant. The period in between there, I think, we were carrying on research on the semi-works scale plant with a view to trying to find out what the best way to make it was in detail, what kind of apparatus and things of that type, so the time was not wasted at all. We prepared to make a new chemical, and you certainly have got to have it on the drawing board, so to speak, and make up your mind what you want to do and how you must do it.

Mr. Harlan: At this point, may I refer, please, with your Honor's permission, to Government's Exhibit 612. These documents refer to what Mr. du Pont has just testified about.

Government Exhibit 612 is a letter from Mr. Irenee du Pont to Mr. Kettering, dated July 10, 1922:

> "Dear Mr. Kettering:
>
> "Am just dropping you a line to thank you for the [fol. 2156] very pleasant time I had while visting your laboratories on Thursday last,"

Q. Is that the visit you referred to as your first visit to Kettering on the subject of tetraethyl lead?

A. Yes, that is right.

Mr. Harlan (Continuing):

> "The visit was certainly most interesting and instructive.

"On returning I find the attached circular of A. A. Hassan. I do not suppose this topic is of material interest to you but am sending it to you thinking that it might be included in your files rather than mine.

"Am looking forward to a visit from you next week. I am trying to arrange it so that you will meet some of our men in the Dye Division as well as those in our Research Department. When you come, will you bring your latest information on the production of 'dope' by the bromine method."

Q. Dope refers to what?

A. The tetraethyl lead; they didn't put in any of the anti-scavenger stuff.

Mr. Harlan: Next, if your Honor please, I refer to Government's Exhibit No. 613—I think your Honor has a copy—which is a memorandum from Mr. Irenee du Pont to Dr. C. M. Stine, Mr. W. F. Harrington, and Dr. C. L. Reese.

By Mr. Harlan:

Q. Dr. Stine is the gentleman that you previously described?

A. Yes.

[fol. 2157] Q. Who was Mr. W. F. Harrington?

A. He was the man in charge of that section of the du Pont undertakings, and a member of the Executive Committee later.

Q. And Dr. C. L. Reese?

A. He was formerly head of the Research Department and was consulting, top consulting man.

Mr. Harlan: This memorandum is dated July 12th, 1922 and reads:

"Mr. C. F. Kettering, Manager of the Dayton Engineering Laboratories, will be in Wilmington on Thursday, July 20th. I am very anxious that we 'sell' our ability to help them on the Tetra-ethyl lead proposition."

By Mr. Harlan:

Q. You have the word "sell" there in quotes. What do you refer to?

A. A slang expression, meaning to convince him, to get him in favor of the opportunity; not to take pay or money.

Mr. Harlan (Reading):

"Trust that you will be available."

By Mr. Harlan:

Q. Does this refer to the visit that Mr. Kettering and his associates made that you described to Wilmington?

A. It does.

Q. And you were not present at the tour that he made of the dye works at that time?

A. I was not.

Q. Do you recall that you had any conversation with him after the tour was over?

A. I don't recall that.

Q. You described the work generally that was done fol- [fol. 2158] lowing this visit in trying to adapt the laboratory process to commercial manufacture.

Were there problems that you were confronted with in setting up the commercial manufacture procedure to make this material?

A. Undoubtedly there were.

Q. Who had charge of that immediate work, do you know?

A. I think the dye department people were doing that work.

Q. Before I offer the next document, do you recall that a time came in the fall of 1922 where consideration was given as to what should be done with any patents that your laboratories might take out in connection with this early development of the commercial manufacture?

A. I think it was agreed, and I thought it was entirely properly so, that those should be ceded to the General Motors and not be any property of the du Pont Company.

In other words, we were being put into a position where we would have the opportunity to maybe find some patentable processes, and it wouldn't be fair to take advantage of that for our own use.

Q. Do you recall whether that matter was laid before the du Pont Finance Committee?

A. I think it was, yes.

Mr. Harlan: I offer, if your Honor please, du Pont Exhibit No. 98, which is a resolution of the Finance Committee of du Pont Company, September 18, 1922.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 98.)

[fol. 2159] By Mr. Harlan:

Q. You have referred a moment ago, Mr. du Pont, to the making of a contract between General Motors and du Pont Company respecting the manufacture of tetraethyl lead?

A. Yes, sir.

Q. That contract which will shortly be in evidence—I think it is already in evidence—was signed on October 6th, 1922.

[fol. 2160] Can you state the circumstances or how it came about that that contract at that time was made?

A. I think General Motors was satisfied that we were the most likely people to make it. We could do better than others, and they wanted to have a contract with us to make it, but they weren't ready to go ahead at that time, so that the contract starts off that we will make it, but only four months after they give us notice to proceed, which was a little unusual.

Then as to the amount, we had to figure that the cost of a plant to make that size quantity would have to be included in the price, and we made that provision that they should pay for the tetraethyl lead at, I think it was, two dollars a pound, which would be sufficient, we thought, to build the plant and make the material.

Q. I have here what is Government's trial Exhibit No. 617, which is a letter from Mr. Sloan to Mr. Kettering, dated September 27th, 1922, in which he states in the first paragraph:

"I was just talking over the telephone with Mr. Irenee du Pont and he believes it would be desirable, as I think you do as evidenced by our discussion in Detroit week before last, that a more definite arrangement be made between the du Pont Company and ourselves relative to the work that they are doing."

This is about a week before the contract?

A. Yes, sir.

Q. Can you state whether or not you had suggested that from the du Pont Company's point of view it would be desirable to have a more definite arrangement, and if so, why? What was in your mind?

A. Well, I think we had been a little loose in doing ex- [fol. 2161] perimental work and not paying any attention for whose benefit it was, and charges were not being made properly.

I think it was an endeavor to take care of that unbusinesslike procedure. The contract for a definite quantity of material would include research carried on under that appropriation, but this was miscellaneous laboratory work that is referred to.

Mr. Harlan: Now, I refer, if your Honor please, to Government's trial Exhibit No. 618, which is the October 6th, 1922 contract that has been referred to, and which provides in the first paragraph that the du Pont Company, upon notice from the General Motors people, four months notice, should erect a plant capable of producing some 1300 pounds a day of tetraethyl lead, and the contract also contains the provision that all improvement patents and processes, et cetera, taken out by du Pont in the work, should be assigned to the General Motors Corporation.

By Mr. Harlan:

Q. Now, bearing in mind that the contract that you referred to provided for the giving of notice by General Motors when they wished you to proceed with the erection of a plant, did there come a time when you received such a notice?

A. There did.

Q. Do you recall about when that was?

A. The following January, I would guess, about that length of time.

Q. A little later than that, wasn't it?

A. No, the contract was signed in October, and I know there was quite a pause between the time we signed the contract and getting of notice, but I can't recall just when it was.

Q. I think we can refresh your recollection with papers [fol. 2162] that will be introduced shortly that it was the spring of 1923 when you got such a notice to proceed with the erection of a plant.

In all events, without regard to the time for the movement, did you get to work right away after you received such a notice to construct a plant?

A. We did.

Q. Do you recall whether or not after the plant got into operation, at 1300 pounds a day, the capacity of the plant was shortly thereafter increased?

A. It was.

Q. Why was that done?

A. I guess they wanted more of it. They raised their sights on how fast they could sell it.

Q. And at whose request did you proceed to increase your capacity?

A. Yes.

Q. At whose request did you proceed to increase your capacity?

A. I gather through General Motors.

Q. Can you hear me? Am I talking loud enough?

A. Yes.

Q. Now, you have referred to the bromide process as being the process that was first used in the manufacture of tetraethyl lead.

A. It was.

Q. Did there come a time when you were informed that another process had been discovered for the manufacture of tetraethyl lead by some other company?

A. Yes, sir.

Q. Will you state the circumstances under which that information came to you, and explain as fully as you can what you learned about it?

A. I think that my first information that there was such a process came in a letter from Mr. Rickard, that he had heard in Detroit that there was a method which he called [fol. 2163] the sodium chloride process, but that was a misnomer. It was the chloride process, no sodium about it. In contradistinction, they used ethyl chloride instead of ethyl bromide, and they had a patent covering that improvement.

Q. You mean they had a patent or purchased a patent?

A. No. Standard Oil had purchased a patent, and were negotiating in some way with General Motors to obtain the use of it.

Q. Well, now, what was the chloride process as you understood it at that time as distinguished from the bromide process?

A. As I understood, and I think as the patent disclosed, they were simply substituting ethyl chloride for ethyl bromide in the reaction. That might require a little bit higher pressue to obtain the temperature necessary to make the reaction, and that I thought was the reason nobody had used the chloride process before. I think they were fearful of the danger.

Q. Without regard to specific dates, can you give us, as fully as you can, the course of events, following your being informed that the Standard Oil people had discovered the so-called chloride process, what happened?

A. Well, the most important thing that happened, I think, I suggested to Sloan that he simply turn the Standard Oil over to us to negotiate with them. They could not operate their chloride process except under the General Motors patent. It was a general patent which belonged to General Motors, so its value, its real value, was some estimate of how much could be saved by using chloride over the bromide, and I thought we could handle that manufacture, and figure out what the actual value might be considered for it better than General Motors could, which had no way to measure [fol. 2164] at all how it was going to affect the cost, and I wrote to Sloan suggesting that he turn the Standard Oil over to us and we would do the negotiating for it, for his account entirely—I mean their account.

To that, Sloan replied, "No." He went ahead and made a deal which involved some sort of a partnership. I think as their interest they received an equal amount of stock in a corporation to be formed.

Q. You are referring to the Ethyl Gas Corporation?

A. The Ethyl Gas Corporation it became later.

Q. Let me ask you at this point, were you informed by Sloan at any stage prior to the formation of the Ethyl Gas that he was proceeding to negotiate with Standard, looking to the formation of this so-called partnership between Standard and General Motors?

A. I had not heard of it.

Q. Had you heard anything about the formation of Ethyl Gas until after that corporation was formed?

A. I had not.

Mr. Harlan: Now, in that connection, if your Honor please, I refer to Government's Trial Exhibit No. 662, which is a letter dated January 28, 1924, from Mr. Sloan to Mr. Irenee du Pont in which Mr. Sloan advises Mr. du Pont of the possible desire of Standard Oil Company to manufacture tetraethyl lead under the chloride process.

Next, I refer to Government's Trial Exhibit No. 623, which is a letter from Irenee du Pont to Mr. Sloan in which he suggests that Mr. Sloan should refer the Standard Oil people to du Pont for the purpose of negotiating on behalf of General Motors, as to possible rights under the Standard Oil chloride patents.

And finally, to Government's Trial Exhibit No. 624, which [fol. 2165] is Mr. Sloan's reply of February 5, 1924, to Mr. du Pont's suggestion in the previous letter, in which he says he has followed it.

And next, I refer to Government's Trial Exhibit No. 660, which is a letter from Mr. Irenee du Pont to Mr. Sloan, the first paragraph of which I will read. This is dated June 26, 1924, some six months following Mr. Irenee du Pont's suggestion which was turned down by Mr. Sloan as to du Pont's possible negotiating with Standard for the patents.

By Mr. Harlan:

Q. Following the formation of the Ethyl Gas Corporation, the so-called partnership between Standard and General Motors, what followed with reference to the manufacture of tetraethyl lead by either the chloride process or the bromide process?

A. The Ethyl people authorized Standard Oil of New Jersey to proceed to build a small plant, I think 100 gallons a day, or something of that order. That was to find out how they could make it, and see what their process amounted to. I took it up with Sloan at that time, and said, "If you [fol. 2166] are going to do that, you may save a lot of time if you will give us a similar order to that, and let us run a pilot plant on it, or on a semi-work scale, or similar to the chloride process, because I think we could beat the Standard Oil to it. We are better equipped to do it." They did give us such a contract.

Q. Did that result in the cancellation of your contract of October 6, 1922, in the making of a new contract?

A. I don't think you would say it was a cancellation. It could be terminated at any time under some conditions, but I don't think the fact that we were making it from the chloride process automatically cancelled it.

Q. Now, there was a new contract, whether the old contract was cancelled or substituted for—was there a new contract, do you recall?

A. Only very hazily that there was such a thing.

Q. All right. Did you participate in the negotiations leading up to a contract under which du Pont got the direction from General Motors to erect a small chloride process plant? Did you participate in that?

A. I don't think I was mixed up in that.

Q. Who handled that?

A. Mr. Harrington.

Might I interject there, I am not quite sure if that was the time we took back the handing over of any invention to General Motors and they became for our account—or it is not mentioned, it was cut out in the contract.

Q. You are a little ahead of yourself. That was in 1926.

A. That is what I was wondering, if I was a little ahead of myself.

Q. Government's Exhibit 675, which is a contract between the du Pont Company and the Ethyl Gasoline Corporation, dated October 10, 1924, will you look [fol. 2167] at that and see if that refreshes your recollection?

A. Well, this seems to be the contract of October of 1924. I don't recall.

Q. You don't recall that contract?

A. I don't recall having anything to do with having made it. I undoubtedly saw it at the time.

Mr. Harlan: That contract, your Honor, is already in as Government's Exhibit 675, and in connection with it, I now offer du Pont Exhibit 99, which is a resolution of the Executive Committee of the du Pont Company dated September 3, 1924, entitled—or a minute, I should have described it more accurately as—entitled "Proposed Contract with Ethyl Gasoline Company for manufacture and delivery of tetraethyl lead", and I think this will make clear what Mr. du Pont says he was not connected with.

[fol. 2168] By Mr. Harlan:

Q. Now, did the Standard Oil Company, as you referred to a moment ago, it was contemplated it would do by Standard—did it or Ethyl Gasoline construct a chloride process plant?

A. The Standard Oil of New Jersey constructed a plant to operate by ethyl chloride.

Q. Where was that plant?

A. Bayway, New Jersey.

Q. And following the construction of the plant, did anything take place?

A. Yes, they had a rather lamentable accident by poisoning on a large scale, a considerable number of their men were poisoned at the same time; and some of the symptoms are somewhat like delirium tremens, and it caused a great deal of comment, and the papers were full of it at the time, which was called the "looney gas episode". They shut down the plant immediately, and didn't re-open.

Q. When did that disaster take place?

A. I couldn't remember the date.

[fol. 2169] Q. Do you recall the year?

A. Well, it was just after they had started up. It had been running only a short time when the accident happened. That was 1926——

Q. Well, there won't be any dispute about the date. It was the fall of 1924.

Can you state what followed after this disaster took place? What happened?

A. Well, the newspaper accounts got a lot of people sitrred up and confused over the danger of manufacturing something, and the danger of its use, and a number of municipalities passed ordinances prohibiting the sale of it, and the Ethyl Gas people just stopped selling until the excitement would be over.

Q. And what happened to the manufacture of tetraethyl lead as a result of this disaster, by the du Pont Company, under its contract with the Ethyl Gas?

A. I think we ceased also, at the request of the Ethyl Gas, excepting we did deliver tetraethyl lead to the Navy Department from the stocks on hand, material available.

Q. And do you recall approximately the period of the shut down that was involved on du Pont's part as a result of this disaster, except for your furnishing the Navy with supplies of tetraethyl lead? How long was it?

A. Might you repeat that question, please?

Q. How long were you shut down in the manufacture of tetraethyl lead as a result of this disaster at the Standard plant in Bayway?

A. I think the better part of a year.

Q. Do you recall whether any investigations were made of tetraethyl lead manufacture or sale by any public authorities following the Bayway disaster?

A. Apart from these more or less hysterical bills prohibiting small municipalities—I think even New York City [fol. 2170] passed an ordinance prohibiting its use—after that a surgeon general of the United States—Cummings, or I have forgotten what his title is—Surgeon General of the United States, had an investigation of the subject, held a public hearing, and it finally ended nearly a year after.

It was finally that he withdrew the suggestion that the manufacture be discontinued. He sent some of his men up—I think he came up himself to the Deepwater Point to see whether it was safe or not, which was not in his line of duties at all. He was with Public Health instead of Industrial Health—which he was supposed to supervise.

Q. Did you or any other representatives of du Pont present any data to the Surgeon General with respect to the hazards or lack of them?

A. Yes, we attended one of more meetings. I was there at one with Mr. Harrington who presented our side of the case, which was that although it was not free from accidents in manufacture, it was not nearly as dangerous as some other manufactures, and that the public hazard just didn't exist, that there never had been a case in all that had been sold of anybody being poisoned that used it in an automobile.

Q. Did you have any discussions with any of the Standard Oil people as to their attitude towards resumption of manufacture, as a result of the Bayway disaster?

A. Well, I found that they were in a blue funk over the whole thing, and the directors were very much afraid about it. They didn't know what was going to happen to them, and I thought I should put a little courage into them, and so I called on Mr. Bedford who was then Chairman of the Standard Oil whom I had known before, and I told him I thought the whole thing was hysterical; it was lament- [fol. 2171] able, but that couldn't be helped, to stick by the ship and make it go.

I went so far as to say, "If you people are really going to back out, I would like to have the opportunity of acquiring your holdings for the du Pont Company, and if they wouldn't take it, I would take it in person," and he said, "Well, if it is good enough for you, it is good enough for Standard Oil."

And so he called in Mr. Teagle, and I think Mr. Clark, and he told them of his decision, and told them not to be frightened about it. But they didn't do anything about it.

Q. But they didn't do anything about what?

A. Building again or starting up.

Q. Do you recall about this time, following the Bayway disaster, that you received an invitation to become a director of the Ethyl Gas Company?

A. Well, I received a suggestion asking if I would be a director, to which I replied that I thought I should not have been, but I think about the time of this disaster or a little after I got a renewal of that, and it seemed that I could be of some use, and I said, "O. K. with me," and they made me a director. I cannot recall the date.

Q. Look at this letter and see if this refreshes you on the subject.

A. Yes, that is the letter from the second time.

Q. Following the receipt of this letter you accepted?

A. I accepted, yes.
Q. Now, you stated——

Mr. Harris: May I have that number?
Mr. Harlan: Government's Exhibit No. 710.

[fol. 2172] By Mr. Harlan:

Q. Now, you stated you were persuaded on this occasion that you could be of some use to Ethyl Gas. Please elaborate what you mean by that.

A. I was very enthusiastic about the future of tetraethyl lead. I thought they had really made a wonderful discovery which would do an enormous amount of good, and therefore there was great room for profit in it. I think what they lacked mostly was enthusiasm and faith that they could put the thing across, and I thought I could supply that.

We had a similar experience during the war when we undertook things that seemed almost hopeless to perform, and succeeded in doing it by everybody pulling together, and I thought we could do the same thing here.

[fol. 2173] By Mr. Harlan:

Q. Based on your discussions with Mr. Sloan and the discussion that you had with Mr. Bedford, can you state what Mr. Sloan was referring to, as you understood it, in this letter, in saying that "du Pont would always be the manufacturer"?

A. Well, that was because of the hazard that had cured them of any desire to try to do for themselves the job, and I think they would be very doubtful about picking out another inexperienced company to try to make it for them. I think that is what he refers to, that we will always be the manufacturer of tetraethyl lead.

I think "or the substitute for it" are just thrown in for good measure, to show how serious they are and to put the emphasis on "we are looking to you to do that job."

[fol. 2174] Q. That is December 12th, 1924.

I should have offered, prior to the reference to that government exhibit, du Pont Exhibit No. 99-A, if your Honor please, which is a letter dated December 6th, 1924, signed by Irenee du Pont to Mr. Alfred Sloan, which refers to the pending Surgeon General's investigation of the Bayway disaster.

There is a typographical error there; the "Surgeon General" has been referred to as the "Sergeant General."

(Said document so offered and received in evidence was marked du Pont Exhibit No. 99-A.)

Mr. Harlan: Next I offer du Pont Exhibit No. 99-B, which would be the next letter, if your Honor please, in your book, which is a letter from Irenee du Pont to Alfred P. Sloan dated June 8, 1925, this being during the period of the shut down in the manufacture of tetraethyl lead, and the distribution of tetraethyl lead, or ethyl fluid, as the result of the Bayway disaster.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 99-B.)

[fol. 2175] Mr. Harlan: In that, Mr. du Pont says:

> "Dear Mr. Sloan:——
>
> "I was sorry to find you could not attend the Yama Conference although I hardly expected it in view of your long trip just finished. Also, I was disappointed to find that Mr. Bedford was not there."

By Mr. Harlan:

Q. Mr. Bedford was who?

A. He was Chairman of the Board at that time, I think, of Standard Oil of New Jersey.

Mr. Harlan: (Reading)

> "I wanted to discuss with him the question of ethyl gas and to try to put some courage into your Standard Oil partners.
>
> "I am a little disturbed for fear that the Ethyl Gas will not actively pursue the Sub-committee appointed by the Surgeon General to report on ethyl gas as a possible menace to public health. If it is not pushed vigorously the topic will carry along with nothing done either for or against for a protracted period. The evidence which was submitted at the hearing (see Mr.

Webb's report May 20th) make it perfectly clear in my mind that nothing has developed which would warrant the Surgeon General finding that the sale of ethyl gas or its use in automobiles constituted a public health menace. The Committee must make this finding on the evidence and my only fear is that they will delay in making it or that they will couple with that finding a recommendation that certain research be carried out in an endeavor to make sure that the evidence submit- [fol. 2176] ted is really representative. The latter may run into years of work unless the Ethyl Gas Corp. takes the position that time is too important to warrant considering unduly the remote contingency fear.

"I think it would be worth while for you, or if you would prefer for me, representing you from the General Motors point of view, to give Mr. Webb some encouragement and support of a more or less official character. Individually I have been doing my best but of course that cannot carry the weight of official responsibility."

Next, I offer as du Pont Exhibit—this is already in, I beg your pardon, as Government's Exhibit No. 711, a letter from Irenee du Pont to Mr. Webb of the Ethyl Gasoline Corporation, referring to the proposed contract between Ethyl Gas and the American Research Laboratories for the manufacture by American Research of tetraethyl lead.

By Mr. Harlan:

Q. Do you recall that episode?

A. I do.

Q. Do you recall what your position was with respect to it?

A. Yes, sir.

Q. Would you please state what you recall as fully as you can?

A. I was very much opposed to it. I think that the letter will probably speak for itself, that I would resign immediately if they attempted to do a thing like that, that I would not take the responsibility as a director, that they would be hiring somebody without experience to undertake a very dangerous matter, which, if it should be done, would not only be dangerous to the men connected with it, but it would have been the death knell of tetraethyl lead. [fol. 2177] The public would not permit it. We would have another Ethyl Gas episode, and I think I said in my reply if they are going to attempt to have a greenhorn come in and make tetraethyl lead, to accept my resignation forthwith.

Mr. Harlan: That letter, I will just read a portion of it. It is dated June 2, 1926.

By Mr. Harlan:

Q. That was following the resumption, after the Surgeon General had completed his investigation, the resumption of manufacture and distribution of tetraethyl lead?

A. I think it was.

[fol. 2178] Q. Now, following the Surgeon General's investigation—and there will be no dispute that that was completed and the green light was on again for manufacture and distribution in early 1926 or late 1925—did the manufacture and distribution of tetraethyl lead proceed?

A. Yes.

Q. Do you happen to know what the Standard Oil people's attitude was toward they themselves resuming manufacture following their experience in Bayway?

A. I am satisfied they didn't want to touch it.

Q. Do you recall, and I think you mentioned this a moment ago in your testimony, do you recall that in 1926 a change was made in the contractual relationship between du Pont and Ethyl Gas with reference to what should be done with improvements patents taken out by du Pont in connection with its manufacture of tetraethyl lead?

A. Yes.

Q. What was that change and how did it come about?

A. We struck out the proviso that any patents or secret processes discovered would be ceded to Ethyl Gas. They would presumably be owned by the discover, whoever he might be.

That was because we had found that we were not spending any money on research, which we ought to, because we would have had to pay the bills, the money, and they would get the results. Now, it is just uphill work to try to make an organization do things and pay the cost of it and give the proceeds away. It didn't seem reasonable. The Ethyl Gas people had no objection to leaving out the provision that they should have the improvements.

Q. Tell me, in connection with the situation at Bayway that you have described from lead poisoning, what had been [fol. 2179] the du Pont Company's experience since this early development of tetraethyl lead with regard to hazards and losses from poisoning?

A. It was very bad; very bad. I think all told about eight men through the period, I think about eight, died of poisoning. That was using every kind of precaution we could think of.

They finally got everything stopped off. I don't think there has been but one serious accident there in the last fifteen or twenty years.

It is very elusive to stop those kinds of accidents. In the first place, they always happen in a place where they never happened before. It seems to be a peculiarity. The things you stop off and protect are the things that don't happen, but once in a while some new thing will happen.

We had one happen in the lead smelting. There was no tetraethyl lead involved at all, but he got a dose of lead fumes, and that made a serious accident. I think he died of it. But it had nothing to do with tetraethyl. It was smelting the lead to make it in bars suitable for alloying with sodium.

Q. You say since the last twenty-odd years or so, you haven't had any——

A. I said twenty reservedly. I should have figured it first, but for a long period of time.

Q. Did you participate in connection with the negotiations of the 1926 contract between du Pont and Ethyl Gas?

A. I did to the extent of assenting to that change in the provision of who would own the patents. I think that is the only thing I had to do with.

Q. Without regard to trying to identify them in the subsequent contracts that were entered into between du Pont and Ethyl Gas relating to tetraethyl lead, did you [fol. 2180] participate in any of those negotiations?

A. I never participated in any of those.

Q. Who was in charge of that?

A. Whoever was in charge of that department. I think Harrington, for almost all of it.

Q. While you were on the Ethyl Gas board, do you recall a debate or discussion that took place with reference to the so-called problem of standardization?

A. Yes.

Q. Will you state as fully as you can what that debate concerned and what the outcome of it was, and particularly your own position with respect to it?

A. It was part of the prime objective of the Ethyl Gas to standarize gasoline so that no matter where you went in the country and bought gasoline, ethylized gasoline, it would all have the same characteristics with respect to antiknock. It would all be an 80 per cent so-called antiknock, or some other per cent.

In other words, they were going to require the users of tetraethyl lead to use it to the extent of standardizing their gas to be of equal antiknock, as the standard required. I know nothing about selling, but I know if I had been a manufacturer, I would have resented their telling me how I got to run my business, and that is what I told them. I thought that they were just building up objection to tetraethyl lead by our would-be customers. We would lose customers because of trying to tell them how to run their business, and we probably didn't know as much about it as they did.

We had sundry discussions on that subject, but whenever it came to a vote, why, it was nine to one, and I was the one.

Q. You referred to the bromine process in which bromine [fol. 2181] is used to manufacture tetraethyl lead. Was bromine also used for some other function in connection with the use of tetraethyl lead?

A. Yes. They put in a salt of bromine in the gasoline, so that when the combustion takes effect the lead of the tetraethyl lead isn't burned to litharge, oxide of lead, which is a flux and tends to melt the spark plugs.

They put in another bromide in there which makes the lead go to a bromate of lead, which has a high melting point and doesn't act as a flux, so you don't spoil the spark plugs.

That is the theory, a thumb nail sketch of it, and that takes a great deal and can't be recovered. That goes out with the exhaust.

Q. Were any problems encountered in 1924 or thereabouts relating to the adequacy of sources of bromine?

A. Yes. They felt sure we were going to have shortage of bromine by the bromine process, or even with the chlorine process. They would have to find new sources of supply.

Q. Did the du Pont Company do any work in connection with trying to find new sources of supply of bromine?

A. We did not, but we offered our services, one of their researches was to send a commission to Tunis. They thought that some of those salt lakes in north Tunis were supposed to contain a high amount of bromine and were workable, and that being a French possession and with our acquaintance with a number of the French officers during the war, supply officers, we felt that we would get an entree there better than General Motors.

We offered our services, but they said no, and sent Kettering over. He found what I think he suspected would happen anyhow, that the duty on bromine was so high they [fol. 2182] couldn't afford to make it there. They would have to make it in the United States somehow.

Q. Did you in du Pont do any experimental work or research work in an effort to find new sources of supply of bromine?

A. Yes, sir. Kettering made some synthetic sea water out at Dayton, same combination, and discovered he could get a small amount of bromine out of that by rather a simple process. He asked us if we would try it on actual sea water in the east, where we have plenty of salt water, and see if it would work there.

We put up a little plant—I wouldn't call it a plant—an experiment, down at Rehoboth, Delaware, the extreme south end of the state.

We tried it there and it worked, but it ran into a difficulty which we didn't see any solution for. That is, to filter off the bromine which comes out as aniline tribromide, a solid, little fine crystals. It has to be passed through a filter. The filter presses that squeeze that out would get clogged by the silt in the sea water.

Along the Atlantic coast there is enough silt in it—you can't see it—but it makes a good dark green instead of blue, but that is a silt, and it would gum up the filters, so we saw it was going to be a very difficult thing to operate.

Q. Was there any other research done following that?

A. Yes. We felt that if the silt was the only trouble, why not go out to the gulf stream where there is no silt. It has all been separated by gravity long ago.

We thought we could have a floating plant on a ship and make bromine there, and that would count as if it were made in the United States.

So we bought a ship from the United States Government [fol. 2183] for a trifling price, because we told them it was not for shipping, it was for trying this experiment.

We installed the necessary apparatus and went out there to the gulf stream, and after people got used to being seasick, they produced aniline tribromide by that. The idea was originated on the 31st of December, and by the last of April the boat had come in, successful technically, but obsolete because the German dye people cut the price of bromine to a point below what we could make it for. It shows how fast amortization can happen at times.

Q. What was the name of that ship you are referring to?

A. It was christened the Good Ship Ethyl. I don't know why the "Good Ship" especially.

Q. For whose account did she sail?

A. We did it for their account, and I think it did a pretty good job.

Q. Who was "their"?

A. They were Ethyl Gas and we are the du Pont Company. I just get in the habit of talking that way.

Mr. Harlan: In that connection, if your Honor please, I would like to offer some exhibits. I shall not read many of them, but they relate to this bromide research.

I first offer du Pont Exhibit 100, which a letter from Mr. Sparre to Dr. Stine, both of du Pont, dated November 28, 1924.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 100.)

Mr. Harlan: That relates to the terms on which du Pont would engage in this bromine research for Ethyl Gas.

Next I offer du Pont Exhibit No. 101, which is a letter dated December 8, 1924, from Dr. Sparre to Mr. Midgeley.

[fol. 2184] (Said document so offered and received in evidence was marked du Pont Exhibit No. 101.)

Mr. Harlan: Exhibit 101 again relates to the terms on which du Pont would engage in further bromine research for Ethyl Gas.

Next I offer du Pont Exhibit No. 102, which is a letter from Mr. Irenee du Pont to Mr. Midgeley, dated December 30, 1924, which relates to the so-called Good Ship Ethyl, and that research project by du Pont on behalf of Ethyl Gas.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 102.)

Mr. Harlan: Next I offer du Pont Exhibit No. 103, which is a letter from Irenee du Pont to Alfred Sloan, dated January 30, 1925, which relates to the question of the amount of compensation of du Pont for constructing the bromine plant at Rehoboth, I believe.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 103.)

Mr. Harlan: Next I offer du Pont Exhibit No. 104, which is a letter from Mr. Irenee du Pont to Mr. Midgeley, dated April 2, 1925, which relates to the use of such new sources of bromine as might be discovered.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 104.)

Mr. Harlan: I next offer du Pont Exhibit No. 105, which is a letter from Mr. Irenee du Pont to Mr. Midgeley, dated [fol. 2185] April 6, 1925, relating to the same subject as the preceding exhibit.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 105.)

By Mr. Harlan:

Q. Before I offer the next exhibit, you said that the result of your experiments with the Good Ship Ethyl led the Germans across the seas to reduce the world price of bromine?

A. That was based on observation. The price was immediately cut when it was reported publicly that we had succeeded in extracting bromine from sea water.

Q. Do you recall whether any other company discovered new processes for making tri-bromide aniline, I guess it is called?

A. Another company, the Dow Chemical, figured out a way of making it from brine. They were familiar with doing that and were in the bromine business. They found they could get it from sea water by the general method they had been following, just simply larger surfaces, I understand. I didn't hear that until after I heard they had combined with Ethyl Gas to put up a plant to extract it along the shores of North Carolina.

It did not involve filtration, and so they didn't have any trouble from that. They have produced bromine, and I think are still producing it in a large way there.

Q. You say that you had not heard that the Dow Corporation with Ethyl Gas were going into a venture to make tri-bromide aniline?

A. It was not tri-bromide.

Q. I beg your pardon, I misspoke myself.

A. I had not heard of that until after they were in operation.

Q. Do you know what the corporation was that was [fol. 2186] formed with Dow and Ethyl Gas?

A. I have heard its name.

Q. Ethyl-Dow Corporation?

A. Ethyl-Dow; I think that is the name of it.

Q. Were you consulted in any way in any stage of the proceeding whether or not the Ethyl Gas Company would go in with Dow in forming the Ethyl Dow Corporation?

A. None whatsoever.

Mr. Harlan: I offer now du Pont's No. 106 which is a letter from Mr. du Pont to Mr. Webb dated June 18, 1931.

(Said document so offered and received in evidence was marked du Pont's Exhibit No. 106.)

[fol. 2187] Next, I offer du Pont Exhibit No. 107 which is a short letter from Mr. Irenee du Pont to Mr. Webb, in 1934, sometime after the formation of the Ethyl Dow Corporation, in which Mr. du Pont refers to having seen the Ethyl Dow report, and refers to the operation in—the Ethyl Gas report, and refers to the operation of Ethyl Dow Corporation.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 107.)

[fol. 2188] Finally, on this subject, I offer du Pont No. 108, which is a reply dated February 15, 1934 from Mr. Webb, President of Ethyl Gas, to Mr. Irenee du Pont, giving him the information as the Ethyl Dow Company and its operation.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 108.)

By Mr. Harlan:

Q. Mr. du Pont, you remained a director of the Ethyl Gas Corporation until 1937, I believe?
A. Yes, sir.
Q. And at that time you resigned?
A. I resigned.
Q. You have never been a director since?
A. I beg your pardon?
Q. You have never been a director of that company since?
A. No, sir.
Q. You resigned, I believe, also in 1937, or at least did not stand for renomination on the Finance Committee of General Motors Corporation?
A. Yes, sir.
Q. Have you, since 1937, had any connection, committee [fol. 2189] connection of any kind or director connection of any kind with General Motors Corporation?
A. I have not.

Mr. Harlan: That concludes my direct examination on this phase of the case with both of these witnesses; therefore, under our arrangement, Mr. Pierre du Pont will return to the stand for cross examination, and he will be followed by Mr. Irenee du Pont.

PIERRE S. DU PONT, a witness called on behalf of the Defendants, having been previously duly sworn, resumed the stand, was examined and testified further as follows:

Cross Examination.

By Mr. Harsha:

Q. Mr. du Pont, I should like first to ask you a few questions concerning an old associate of yours, Mr. John J. Raskob.

He was, was he not, a close business associate of yours over the years?

A. Yes, he was.

Q. Wasn't he the treasurer of the du Pont Company about the time that you were president of the du Pont Company?

A. Yes, he was.

Q. And I gather that he continued in that position of treasurer for a few years after you retired as president of the du Pont Company, is that correct?

A. Several years, yes.

Q. Isn't it a fact that Mr. Raskob assisted you in the negotiations with Morgan & Company at the time when you were obtaining a loan to purchase the T. Coleman stock?

A. He did.

[fol. 2190] Q. It was Mr. Raskob, wasn't it, Mr. du Pont, who urged you and the directors of the du Pont Company to purchase a large block of the stock of General Motors in 1917?

A. He did, yes, sir.

Q. Isn't it true that you relied very heavily on his business judgment over the years of your association?

A. I believe that is correct, yes.

Q. Would you say that he was particularly able in financial matters?

A. I would, yes.

Q. I would like to ask you a few questions relating to events in the year 1914. Can you hear me all right?

A. Yes, I can.

Q. Now, in about December, 1914, T. Coleman du Pont was the largest single stockholder in the du Pont Company, wasn't he?

A. Yes, he was.

Q. And Mr. Alfred I. du Pont, I believe, was the next largest stockholder?

A. Yes.

Q. Then you were the third largest stockholder?

A. Yes.

Q. Now, you testified that Mr. T. Coleman du Pont was the active president of the du Pont Company from about January, 1914, to September, 1914, is that correct?

A. That is correct.

Q. And it was about some time in September or October, I believe, that he left the company for health reasons and went out west, isn't that right?

A. He stopped being active in the du Pont Company on account of ill health, but he did not leave until December.

Q. I see. Thank you.

Now, as I recall from your previous testimony, you and [fol. 2191-2192] T. Coleman had been close associates for many years prior to 1914, is that right?

A. We had, yes, sir.

Q. Isn't it true you were also good personal friends?

A. Yes, indeed.

Q. But isn't it true that during the period that I have mentioned, that is January, 1914, to say, August of 1914, that you and Mr. Coleman du Pont had differences over business policies which should be pursued by the du Pont Company?

A. We had different opinions, but I would not call them differences personally.

Q. I do not mean personal differences, but you had different opinions, did you not, over business matters?

A. We did, yes, sir.

Q. Relating to the du Pont Company?

A. We did, yes.

Q. Isn't it true that along in August of 1914 that Coleman du Pont wrote to you a note in which he offered either to buy you out entirely, or, vice versa, that you could buy him out entirely?

A. About that time, yes.

Q. And I gather at that particular time, however, nothing occurred as a result of that offer?

A. No, nothing occurred then.

Q. Now, on direct examination, Mr. Harlan laid, it seems to me, considerable stress on an inquiry made by Mr. Kraftmeier, who was representing the British Government, who had a short conference with you in January, 1915, inquiring whether, I believe, Kuhn, Loeb & Compay had obtained stock control over the du Pont Company, and I believe you, also referred to a letter which was put in evidence, which was du Pont Exhibit 14, in which you informed Coleman du Pont about this Kraftmeier inquiry; is that right?

A. That is right.

[fol. 2193] Mr. Harsha: And we can refer to it, I believe, as Government's Exhibit 17 for identification. This is the letter. I should like to read it to you first, Mr. du Pont, dated February 5, 1915, addressed to Mr. T. C. du Pont, Esquire:

"Dear Coleman:

"Lou has shown——"

Q. Lou, I presume, is Mr. Lou Dunham?

A. That is right.

Mr. Harsha: (Reading):

"—me the letters written by you in regard to the depositing of stock. I think you somewhat misunderstand the situation. Mr. Kraftmeier made no request nor did he hint that assurances in regard to the future of our stock was desired by him or the Allied nations. The purpose of depositing a majority of the stock was to put the company in position where definite assurances could be given that the stock was in safe position for a period of time necessary to complete war orders. From the company's standpoint this would have the advantage of bringing to us a greater share of the business than might be obtained if the matter were left uncertain. If uncertain the Allies can easily get others is this country interested in the powder business. They might have to wait some time for powder in quantity, but if they started now they could expect large quantities for the year 1916. However, I do not think the situation is any way acute; certainly Mr. Kraftmeier's inquiry is the only intimation that any fears might be entertained concerning our alliance with German interests. You are right with respect to the [fol. 2194] latter; if they come forward with orders in quantity similar to the orders of Allied nations we would be willing to sell; but we would not be willing to place small orders, say, five to ten million pounds, with the Germans giving them access to our factories, through which means they might cause great damage and loss of profits far in excess of the value of the above mentioned orders.

"In view of your letters, I propose stating to the Finance Committee that you are not in position to take advantage of offers to loan money and that you do not care to deposit stock at this time. These certainly should be sufficient assurances that any fears they entertain are absolutely groundless, and will also avoid a situation which might lead to misrepresentation if you give the company the benefit of any loans that you might have to offer. Personally I should advise you not to place loans with the company unless for some reason unknown to me you feel it desirable to do so.

"I did not keep either of the letters which Lou showed me this morning."

By Mr. Harsha:

Q. Now, in connection with the phrase you use in there, Mr. du Pont, "I do not think the situation is any way acute" and that "any fears that the Finance Committee entertain are absolutely groundless", didn't that accurately reflect your position on this pooling matter and the Kraftmeier inquiry at that time?

A. Not altogether, I think. I didn't dismiss the subject from my mind.

[fol. 2195-2203] Q. You did know, however, that at the time that you wrote this letter, that Coleman du Pont was still proposing to sell some of his stock, isn't that right?

A. No, his offer to sell to the men of the du Pont Company had been withdrawn in January.

Q. Well, he had withdrawn his offer to the company, but hadn't he also indicated in correspondence with you that he might be willing to sell directly to some of the men in the company?

A. Yes, and in fact I think he expressed it that when he returned we could make some arrangement by which those sales could be made.

Q. Just so we keep our records straight, Exhibit du Pont No. 13, that is the letter you are referring to, written to you by Mr. Coleman du Pont?

A. Yes, January 19th, 1915.

Mr. Harsha: Your Honor, this previous exhibit that I have just read has not been previously offered by the government. We could offer it on rebuttal at the close of the defendant's case, but I thought that perhaps in terms of keeping the record orderly, I might have permission to offer it in evidence at this time.

The Court: Is there any objection?

Mr. Harlan: No objection.

The Court: It is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 17.)

[fol. 2204] Q. And that your reasons for buying all, as I recall, were two-fold; one, that it was a very good investment, and also to keep the stock secure from falling into enemy hands.

Do you recall that?

A. That's right.

Q. Now, I believe you also stated that at that meeting the Kraftmeier inquiry was not mentioned by you, isn't that right?

A. That's right, yes.

Q. And isn't it true that the Kraftmeier inquiry or incident was not mentioned by any of the other five men who were associated with you?

A. That is correct, I think.

Q. And was there anything said in that conference about the stock, keeping the stock from falling into enemy hands?

A. I don't remember that that was brought up at the time, but I am uncertain of it.

Q. Now, shortly after you purchased—when I say "you" I mean you and your five close business associates—the Coleman du Pont stock, you were formally elected president of the du Pont Company, isn't that right?

[fol. 2205] A. Yes, that's right, after the resignation of Mr. Coleman du Pont.

Q. Yes, and wasn't it very shortly after you became the president of the du Pont Company that Mr. Alfred I. du Pont was dropped as an officer of the du Pont Company on your recommendation?

A. It was not immediately; it was some little time after, might have been a couple of months, or something like that.

Q. About eight months later, something like that?

A. Well, it wasn't any longer than that.

Q. And then Mr. Alfred du Pont's name was not included on the management slate of nominees for directors of the du Pont Company, was he?

A. He was not.

Q. And at the next stockholder meeting he was not reelected as director of the du Pont Company?

A. That's right, yes.

Q. But isn't it true that even after Mr. Alfred du Pont was dropped as a director, that he remained a very large stockholder in the du Pont Company?

A. He did, yes, sir.

Q. As a matter of fact, next to the holdings in the name of Christiana Securities, and next to your holdings, he was the next largest stockholder in the du Pont Company, isn't that right?

A. He was, yes.

Q. Now, I would like to address a few questions to you, Mr. du Pont, concerning the organization and the purposes for which the Christiana Securities Company was formed.

You recall in your direct testimony, after it was decided that the six of you would make this offer for the Coleman stock, that Mr. John J. Raskob was sent to New York to the Morgan & Company, and he arranged there a loan for approximately eight and a half million dollars?

A. That's right.

[fol. 2206] Q. Then as soon, you might say, as the proposition had jelled, that is Mr. Coleman du Pont had agreed to sell the stock and the bankers had agreed to loan the eight and a half million, Christiana Securities was formed, wasn't it?

A. Yes.

Q. I am using that term loosely. I think it was actually the du Pont Securities Company, but the name was changed later to Christiana?

A. That is right.

Q. This $8,500,000 loan that Morgan & Company made to Christiana was evidenced by a note over the signature of Christiana Securities, isn't that right?

A. Yes, it was.

Q. It was an obligation payable by Christiana Securities?

A. I think there was more than one note, though. I think it was divided.

Q. But isn't it also true that in connection with this loan that Morgan & Company also required that each of you six original stockholders in Christiana become personally liable for varying amounts of money?

A. That is right, yes.

Q. So that if Christiana Securities for some improbable reason defaulted on the loan, Morgan & Company could then look to you six persons as the guarantors of that note?

A. That is right, yes.

Q. And the amount which each of ~~you, as~~ stockholders guaranteed personally was, roughly, equivalent to the amount of stock in Christiana which each of you had taken?

A. In proportion, yes.

Q. So that you six original stockholders of Christiana were not relieved of personal liability, were you, in connection with the Morgan loan?

A. No, that remained as a liability.

[fol. 2207] Q. Then could you tell us what was the purpose of incorporating Christiana Securities?

A. To purchase the stock of Coleman du Pont.

Q. I believe you mentioned in your direct that it was to bring the six of you together as a unit, something of that sort. Was it to centralize that stock in the hands of Christiana?

A. That is very hard to say. Christiana was a necessary procedure in order to purchase the stock. We couldn't have done it any other way. That brought the people together, but it was not done for that purpose. The purpose was to furnish the medium for making the purchase.

Q. But as you say, inasmuch as each of you was personally liable to the Morgan Company for various sums of money, you could have arranged the loan directly with Morgan without organizing Christiana, isn't that correct?

A. No, because there was no participation in common. The corporation brought the group together and our liabilities were divided, but they couldn't have been by individual notes.

Q. Isn't it true, though, that after Christiana was formed, Mr. du Pont, that one very important result was that thereafter the very large block of stock which had formerly been owned by Coleman was voted as a unit in the annual stockholders meeting of the du Pont Company?

A. That is true. The only way it could be.

Q. And that stock amounted to roughly 27 per cent, didn't it, of the outstanding common stock of du Pont?

A. Yes, I think it was about that.

Q. Now through the organization of Christiana Securities, isn't it true that through this block of roughly 27 per [fol. 2208] cent of the du Pont Company voting stock five close associates whom I have named really obtained working control of the du Pont Company?

A. That is a pretty hard question to answer. It depends on who held the control. If they behaved themselves within the company, they would stay. But they would be very quickly put out if they were not efficient.

The question of making a success of the company is what gave them their "control."

Q. I show you, Mr. du Pont, Government's Exhibit No. 65, which has been introduced in evidence in this case. You will note it is a letter dated August 21, 1923 written by your brother, Mr. Irenee du Pont, to John J. Raskob, and I read it to you:

> "Would it not be well while the skies are clear to arrange for a refinancing of the Christiana Securities bonds and possibly modify the nature of the collateral requirements, placing our Atlas stock so as to make a divided collateral and limiting the collateral to some predetermined but very ample margin; this to avoid the bare possibility that some financial cataclysm might make our bonds become due through insufficient collateral at a very inopportune time. Bearing in mind that this obligation is backed by the working control of the entire du Pont Co. it seems wrong to jeopardize that control even in a remote degree in order to obtain as little as $500,000."

Can you tell us, Mr. du Pont, what you understood your brother, Mr. Irenee du Pont, to mean by the term "working control?"

A. The obligation to manage the company and manage it successfully so that it would retain the vote [fol. 2209-2211] of the stockholders.

Q. Now, isn't it true that through the stock held by Christiana Securities, you and your five close associates, who were the principal stockholders, had the power to determine who should be put on the Board of Directors and who should be dropped from the Board of Directors of the du Pont Company?

A. No, that was a matter for the stockholders to decide; the stockholders of the du Pont Company. We had a 27 per cent vote, but the rest of the stockholders were free to choose as they would. We had no control over the others.

[fol. 2212] Q. Now, Mr. du Pont, I would like to address a few questions to you concerning your testimony surrounding the purchase by the du Pont Company in 1917 of approximately twenty-five million dollars worth of General Motors and Chevrolet common stock. In your direct examination you testified that after you and Mr. Raskob had become members of the General Motors Finance Committee in 1917, I believe, both of you, Mr. Raskob and yourself saw Mr. Durant a good deal more than you had in previous years, and that Mr. Durant talked very freely about the business of General Motors, both as to its financial and operational aspects. Isn't that probably true?

A. That is correct.

Q. And in those discussions which you had with Mr. Durant, did he ever mention, while you were present, his need for aid in the financial management of General Motors?

A. I cannot remember that he did, no.

Q. Did you receive that information through Mr. Raskob?

A. I cannot remember any special discussions of that. I don't remember how the question of Durant-finances first came up.

Q. Now, I want to make myself clear. I am talking now about the aid in running the financial management of General Motors in the period immediately prior to du Pont's purchase of a considerable block of GM stock. Do I make myself clear?

A. I am a little uncertain as to what the situation was. My recollection is that Durant was not known by us to be in financial need personally, but news did come to us that he proposed expanding General Motors Corporation [fol. 2213] and would need money for that purpose. It didn't relate to his own personal affairs, but for General Motors affairs he would need in the future more capital, not that he was troubled about existing capital, but it was what he was going to do in the future.

Q. Did he express, while you were present, a need for men who were able in financial matters for General Motors Corporation?

A. No, I don't remember that, either.

Q. You don't recall anything of that sort?

A. No.

Q. In your conversations with Durant when he was talking about the operational aspects of General Motors, do you recall the nature of those conversations?

A. With respect to him personally, or in what way?

Q. Well, that is what I am trying to find out. You mentioned that he talked very freely about all aspects of the General Motors business, including the operational aspect, and I was wondering if you could describe to us, as best you recollect, just what those discussions concerned in the way of operations of GM?

A. I think the discussions were chiefly in connection with the future of General Motors, the possibilities in the future, and what should be done in the way of promoting the future and acquisitions of other properties, and with respect to the connection of Chevrolet and General Motors, but the more intimate matters relating to him personally, I cannot remember that Durant made any complaints about the personnel. That part was never taken up, so far as I know.

Q. Did Mr. Durant ever discuss with you the question of the volume of sales of automobiles by General Motors, either prospectively or at that particular year?

A. Well, yes, I believe he did. He was very enthusiastic over the future of General Motors.

[fol. 2214] Q. Did he ever discuss with you the question of supplies needed by General Motors?

A. No, I cannot remember that coming up.

Q. Did you ever receive any report from Mr. Raskob concerning the conversations that he may have had privately with Mr. Durant that concerned the use by General Motors of various products such as paints, varnishes and "Fabrikoid"?

A. I am sure I never heard anything of that kind.

Q. You knew nothing of that?

A. No. What year are you speaking of?

Q. I was addressing my remarks to the period immediately before the du Pont Company purchased its block of GM stock, in the latter part of 1917?

A. All right.

Q. The same?

A. Yes.

Q. Now, I show you what has been introduced as du Pont Exhibit No. 45, which was identified, I believe, either by you or by Mr. Irenee du Pont as a memorandum prepared by Mr. Raskob proposing some sort of an arrangement between Durant and du Pont to form a Securities Company to split up control, apparently, of certain stocks of GM and Chevrolet.

Mr. Harlan: You don't mean du Pont, you mean the du Ponts individually?

Mr. Harsha: Yes, I believe it says here P. S. du Pont and Associates.

By Mr. Harsha:

Q. My question is this, Mr. du Pont. This is undated, you will note, and it was obviously prepared before the Raskob memorandum, which you were questioned about the [fol. 2215] other day, that he submitted to the Finance Committee on December 19, 1917. This was written before that, wasn't it?

A. I believe so, yes.

Q. Do you recall approximately how long before the Raskob report that this was prepared?

A. No, I have nothing to guide me there, unless it is in this memorandum.

Q. I find no reference to date, and I was just wondering if you had any recollection as to whether it was a month before, or several months before, or possibly a year before the Raskob memorandum?

A. No, I cannot locate any date on it.

Q. Very well, sir. Can I relieve you of those?

A. Thank you.

Q. I should now like to adress a few questions, Mr. du Pont, about the circumstances surrounding this report which I have shown you, Government's Exhibit No. 124, which has been referred to as the Raskob report, dated December 19, 1917, addressed to the Finance Committee.

Now, in your direct examination, I believe you stated that prior to the submission by Mr. Raskob of this report to the Finance Committee, you had some conversations with Mr. Raskob concerning the proposed stock purchase in G. M.

A. Yes, I did.

Q. And also that Mr. Raskob showed you either a draft or the original of this report, is that correct?

A. Yes, I believe a draft of it.

Q. It was a draft?

A. Yes, I think I knew of it before this final report was drawn up.

Q. Do you recall approximately how long before he submitted [fol. 2216] the report you had seen it in draft form?

A. Oh, I would say a week, maybe—something like that.

Q. Perhaps a week before?

A. Not very long.

Q. And I believe you indicated in your conversations with Mr. Raskob that he asked you to in a sense promote the presentation of this issue before the Finance Committee and the Board of Directors?

A. That he asked me to promote it?

Q. Yes, isn't that right?

A. I don't remember that. He may have made some sort of remark.

Q. I think there was a statement similar to that in your direct testimony, but it is not important.

Now, this report that Mr. Raskob showed you in draft form——

A. Yes.

Q. (Continuing)—was it in any way different from the final report that was submitted?

A. I can't remember that it was. The only question that I have is with regard to No. 5, on page 12.

Q. I am sorry, I didn't hear you.

A. Point No. 5, "Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, Paint and Varnish business of those companies, which is a substantial factor."

I am not sure whether that was in the draft.

Q. You are not sure that was in the draft?

A. Yes, I don't remember it being discussed with Raskob before the report was finally drawn.

Q. Well, do you know whose decision it was to put in Point No. 5 that was not in the original draft? Was it yours?

A. No, it was not mine.

Q. Mr. Raskob's?

A. I presume his.

[fol. 2217] Q. Do you recall the discussion to insert that Point 5?

A. No, I don't remember any discussion. I am not certain whether Point 5 was in it or not, but I think it was not.

Q. This draft form, did you read over the report?

A. Oh, yes, I was acquainted with it before it went to the meeting.

Q. You read the entire report?

A. I knew about Point 5 being in when I went to the meeting.

Q. And in your discussions with Mr. Raskob when you had read the draft report, did you express approval or disapproval of the report?

A. As a whole I approved it, yes.

Q. You did?

A. Yes.

Q. While it was in draft form did you discuss with Mr. Raskob the section of the report entitled "Method of Financing" which you will find on the second page? Do you see that section?

A. Yes.

Q. Do you recall whether you discussed that aspect of the report with Mr. Raskob?

A. Yes, I believe that was discussed.

Q. You did?

A. Yes.

Q. And then would you turn to page 4, the section of the report entitled "Necessity for Finding Investments." Do you recall having discussed that aspect of the report with Mr. Raskob?

A. Well, I agreed with that, but I don't remember whether I discussed it. I think that was written in the report and accepted as it was; I am not sure, though.

Q. Then, if you would turn over to the page 8, do you see the section that is entitled "Stock Available for Acquisition"? Do you find that?

A. Yes, sir.

Q. Do you recall whether you discussed that section or [fol. 2218] aspect of the report with Mr. Raskob?

A. I am quite sure that I knew of that occurring, the securing of options or the proposal to secure options.

Q. And then if you would turn over to what is numbered page 12 at the end of the report, the section entitled "Management," do you recall having discussed that section of the report with Mr. Raskob?

A. I don't remember any discussion of it.

Q. But it was in the draft report?

A. It was in the draft, yes, and I knew it was in there.

Q. At the top of that page—it really begins over on page 11, the preceding page, is a section entitled "Summary" and then there are the five points listed on page 12.

Do you recall any discussion between you and Mr. Raskob concerning that section entitled "Summary"?

A. I think the third paragraph in regard to the Class A stock was discussed. It was a rather unusual provision and was put in there for a definite purpose. I am quite sure that was discussed.

Q. Were any of the other points discussed?

A. Point 4 is obvious—"Better than an asset basis." I knew that to be true.

But point 5, I am a little uncertain about that. I don't remember any discussion of it.—

Q. How about point number one, which reads:

> "With Mr. Durant we will have joint control of the companies."

Was there any discussion of that point?

A. No, I think that was accepted as obvious.

Q. After the du Pont Company accepted this report, [fol. 2219] in a sense, and went ahead and bought approximately $25,000,000 worth of G.M. stock—I should say G.M. and Chevrolet, I guess—isn't this exactly what did happen after that purchase, that with Mr. Durant, the du Pont Company had joint control of those companies, G.M. and Chevrolet?

A. I suppose at the time we made our purchases, Mr. Durant alone controlled the company by more than 50 per cent stock ownership.

Q. And you shared that control after your purchase?

A. Only at his invitation. There was no agreement as to that.

Q. Then I would like to address your attention to point two, the first sentence of which states:

> "We are immediately to assume charge and be responsible for the financial operation of the company."——

Meaning G.M.

Isn't that exactly what happened after you made this purchase of stock?

A. That is right, yes.

Q. And as to point 3, that was subsequently changed, was it not, that is in operation, so that the du Pont Company bought the entire block of stock itself without calling upon the stockholders of du Pont to purchase some of the Class A stock?

A. That is right.

Q. But in point 3 there is also, you might say, a prognostication as to what sort of dividends would be realized as a result of this investment. Isn't it true that after you made this investment that in the ensuing years your investment in G.M. realized you dividends as large as those [fol. 2220] indicated here?

A. That is right, with the exception of the year 1921, I believe.

Q. Which was a depression year.

A. And maybe 1922 and 1923, I am not sure about that.

Q. Addressing your attention to the point No. 4, which states, "Our purchase is on better than an asset basis," that certainly is a correct statement, isn't it, as to that transaction?

A. That was my understanding at the time, seeing the reports, and so on.

On point No. 2, responsibility for the financial operation, that was at the invitation and wish of Mr. Durant entirely. There was no obligation to retain us or to employ us at all, but the thing was entirely controlled by Mr. Durant as manager in control of the company itself.

Q. Addressing your attention to point 5, which I believe you read aloud just a minute ago, that "Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, pyralin, paint and varnish business of those companies, which is a substantial factor."

Isn't it true that over the years since 1917 that possibly, except for the United States Government as a customer in wartime, hasn't the General Motors Corporation been the largest single customer of the du Pont Company?

A. I really don't know that it has. I have no information.

Q. Isn't it true that after you made—when I say "you" I mean the du Pont Company—made this purchase of G.M. stock in 1917 that in the years following the du Pont Company did, in fact, secure all or a very large proportion of G.M.'s requirements of "Fabrikoid"?

A. I don't know that to be true, no.

[fol. 2221] Q. I show you Government's Exhibit No. 420, which is a communication written by Mr. Lammot du Pont as vice president addressed to you as chairman of the Board of Directors of the du Pont Company, dated August 10th, 1921, which states that:

> "Sometime ago you inquired whether General Motors was taking its entire requirements of du Pont products from du Pont. My understanding at that time was that they were not. I have made inquiry and find the situation at present is as follows: (O. K. means that du Pont is enjoying all the business in their respective lines. Where I specify 'No reason,' there appears to be no reason for General Motors withholding the business from us. Where I say 'With good reason,' there is a logical explanation.)"

Then under that you will find that there has been set up in tabular form the listing of the various divisions of General Motors in the lefthand column and in the second—I guess technically the third column which you find in the middle of the page, which is headed "Fabrikoid"—do you see that?

A. Yes.

Q. You will note that opposite "Cadillac," there are the initials "O. K.", which according to the letter means that du Pont is doing all of the business in that line for that division; next is Buick, which states "O. K."; next is Olds, which says "Part", and then under that "No reason", which means that du Pont is obtaining part of the "Fabrikoid" requirements, I gather, and that there is no reason as to the other part not being given to du Pont.

[fol. 2222] Then Oakland is next, and it states "O. K." Next is Chevrolet, which is "O. K." Then Scripps-Booth, "None." Then Fisher Body is left blank, and the next is

G. M., and next and last is G. M. Truck, and that indicates "O. K."

This would appear to indicate, does it not, Mr. du Pont, that at least as of that particular time du Pont Company was enjoying all or a very substantial portion of G.M.'s business in "Fabrikoid"?

A. No, I don't think that is true. The Fisher Body Company was the largest user of those items. They were the manufacturer of bodies, and I doubt very much whether that is indicative of the condition you think it is.

I know of no record that would indicate what part of the bodies were manufactured by Fisher at that time, but the Fisher Company was purchased, or the control, for the purpose of obtaining bodies which General Motors did not and could not produce, and finally resulted in the Fisher Company supplying all of the bodies.

Q. Isn't it true that at the time that this letter was written, in 1921, that the voting control of Fisher Body, that is 60 per cent of its stock, had been purchased by General Motors, and then placed in a voting trust, the control of which was equally split between the representatives of the Fishers and representatives of General Motors?

A. I think that is true, yes.

Q. And that during this period of time while the voting trust continued, the Fisher Brothers did retain control over the management of Fisher Body?

A. They did, yes.

Q. Now, another product which was mentioned in Mr. Raskob's memorandum of December 17, 1917, was the commodity "Pyralin", a celluloid type product?

A. Yes.

[fol. 2223] Q. If you will look at the last column of Exhibit No. 420, which I believe you still have in hand.

A. Yes.

Q. You will note that the entire column is made up of O. K's., which indicates that each of the various body divisions outside of Fisher was purchasing all of its requirements of "Pyralin" from du Pont at that time, isn't that correct?

A. Yes. The same remark is true in regard to "Pyralin", that Fisher might have supplied all of that for the companies for which they supplied bodies. I don't know whether they did or did not, but it was part of the body, though.

Q. I show you now Government's Exhibit No. 460, the first page of which shows it is a memorandum directed to you and to Mr. Raskob, written by Mr. Lammot du Pont, dated January 27th, 1927.

This is approximately six years after the other document I showed you and states on the first page that:

> "At the last meeting of the Finance Committee the question of purchases by General Motors from du Pont was mentioned and I gathered that you were somewhat surprised at the statement that General Motors was not buying anywhere near all of their requirements of products, which du Pont makes, from the du Pont Company. I asked Mr. Allen to prepare a statement of those things which du Pont makes and which General Motors buys from du Pont competitors, and enclose herewith a letter from Mr. Allen which gives these figures in some detail."

Then on the next page, on the letterhead of the du Pont Company, there is this communication written by Mr. Allen, addressed to Mr. Lammot du Pont, president, entitled "Sales to General Motors and Fisher Body."

[fol. 2224] This is prepared in somewhat of an inverse fashion, I would say, in that it states that:

> "In response to your verbal request for a statement of the volume of business on products of this Department that are consumed by General Motors and Fisher Body, but which was not enjoyed by the du Pont Company for the year 1926, this is estimated to have amounted to a total of $5,339,500, made up as follows."

Then you will note that there is another one of these charts listing each of the GM car divisions, and then opposite that a column headed "Fabrikoid", another headed Rubber, which I presume refers to rubber coated products, doesn't it? Isn't that right?

A. I suppose that it means that, yes.

Q. And the dollar figures there, as I understand the chart, refer to the amounts supplied GM by competitors of du Pont, isn't that correct? I believe that is a fact, Mr. du Pont? You see he states that the volume of business which was not enjoyed by the du Pont Company——

A. I suppose that is true, yes.

Q. And where there are dashes opposite the names of the various car divisions indicating no sales by competitors of du Pont, presumably du Pont is the sole supplier as of that particular time, isn't that correct?

A. I am not sure whether it means that or whether there is no information. The report doesn't state which it is, does it?

Q. You will note that on the first page, Mr. du Pont, the memorandum states that, "I asked Mr. Allen to prepare a statement of those things which du Pont makes and which General Motors buys from du Pont competitors." Presumably the dashes indicate total sales by du [fol. 2225-2227] Pont, isn't that right, or aren't you sure?

A. No, I don't know which it is.

Q. You will note that on page 2 of that document—do you see that?

A. Yes.

Q. After the table it states that, "The above figures for Parlin do not mention General Motors car units. The reason for this is that Buick, Chevrolet and Olds purchased practically 100 percent of their requirements, so that Oakland was the only unit who purchased anything worth while from competitors. This was mostly on Undercoaters and amounted to approximately $100,000.00 for the year 1926."

Then it goes on to say:

> "When we were discussing with the General Motors Purchasing Committee in the middle of last year the question of granting them a super discount as an inducement to place with the du Pont Company more of the General Motors business, they admitted that for the year up to that time General Motors and Fisher Body Company had bought a total of $12,000,000 worth of materials made by the du Pont Company, of which $7,000,000 had been placed with us and four million with competitors."

In view of that portion of the memorandum, isn't it correct to assume that this table now on the front of the page, on the front of the document, indicates that where there is a blank that du Pont was the sole supplier of GM at that particular time?

A. Yes, I think it might indicate that.

[fol. 2228] Mr. Harsha: It is Government's Exhibit 125.

The statement is made:

> "... The interest of certain officers of the company in the motor field was engaged for many months prior to the making of an investment by the company. While there is no immediate relation between the explosive industry and the manufacture of motors, this investment was made in such a way as to give opportunity for our financial organization to be of service, and at the same time increasing greatly our financial strength. The large engineering and construction forces of our company, the development, legal and accounting department facilities, coupled with the demands of the motor industry for talent of that kind, ~~has~~ furnished a connecting link which seems desirable in all investments. The consumption of paints, varnishes and fabrikoid in the manufacture of automobiles gives another common interest."

What was your purpose, Mr. du Pont, in inserting this statement in your annual report to your stockholders concerning, and I quote again: "The consumption of paints, varnishes, and fabrikoid in the manufacture of automobiles gives another common interest." Do you recall?

A. That means that those items, paints, varnishes and "Fabrikoid" were in use by the automobile industry.

[fol. 2229] Q. By those companies in which you had invested?

A. Well, the automobile industry, the manufacturers of automobiles of which General Motors was quite a small one at that time.

Q. Now, these were products which were then being manufactured and produced by the du Pont Company, were they not?

A. Yes, in a very small way, compared with what we are thinking of these days, but the General Motors Company was a small item in the motor business. Ford was supposed to be 50 per cent owner of automobile manufacture, and I think undoubtedly was, and General Motors had about a third, maybe, of the remaining half, so it was a small item.

Q. Well, wasn't this intended also, this statement in the annual report, intended also as a justification for the du Pont investment of some $25,000,000 in General Motors?

A. No, I can hardly say that, no. That is too great a disproportion. There was no warrant that we would get any of that General Motors business.

Q. The rest of that paragraph, you will note, refers to the investment in General Motors, does it not?

A. That is right, yes.

Q. Now, I would like to return very briefly to the period of time in late 1920, after the du Pont Company indirectly had purchased the Durant block of stock in General Motors, at which time I believe the record shows that the du Pont Company held either directly or indirectly, approximately 38 per cent of the General Motors common stock, and it was about that time in early 1920, or, pardon me, in late 1920, that you became president of the General Motors?

A. That's right.

[fol. 2230] Q. And then you related in your direct examination the incident which occurred, oh, perhaps six or eight months after you assumed the presidency of General Motors when it became necessary, in your judgment, to remove the heads of several of the motor car divisions of General Motors. Do you recall that?

A. Yes.

Q. I think the car divisions referred to were Cadillac, Oldsmobile, and I think Oakland?

A. Right.

Q. And there were several documents introduced on the reasons for those removals, which I don't want to go into at this time, but you were also shown a letter which indicated, did it not, that at the time that this change in the heads of these three car divisions was in the making, that you wrote a letter as president of General Motors, informing the du Pont organization that such a change was in prospect, and that as a result of that change du Pont should be able to sell substantially all of the paint, varnish and "Fabrikoid" requirements of those three divisions.

Can you tell me why the change in the top management of those three divisions should enable the du Pont Company to sell all of the requirements in those products?

A. Well, there seemed to be a feeling in the du Pont Company and in General Motors also, more or less of animosity in connection with sales to and from the other. The du Pont Company especially, in trying to make sales to General Motors, had the notion that there was a great deal of opposition, as salesmen always do excuse their troubles, and so that on that account, after the General Motors Company had changed the heads of their departments, if the Sales Department of du Pont was active, they should be able to sell their goods.

[fol. 2231] They wouldn't have the excuse that the General Motors people were set against them. They had new people in there, and the reason, if there was any, that General Motors would not buy from du Pont, had disappeared, and du Pont should be able to sell, if they were good salesmen and had a good product.

That was the chief determinant all along the line, as to whether du Pont really had a good product, and whether they had a good Sales Department.

Q. Of course, it is true ~~that as of~~ that time—and when I say "you" I mean the du Pont Company—the du Pont Company was selling a very considerable amount of the requirements in those products, such as "Fabrikoid" and rubber-coated fabrics, and paints and varnishes, to these three divisions, isn't that right, even before the change?

A. That is right.

Q. But it was not 100 per cent across the board?

A. No, we never did sell 100 per cent.

Q. Now, at the time that you wrote this letter to the du Pont Company in 1921, I believe, as president of General Motors, you didn't write a similar letter to any of the competitors of du Pont, did you, informing them of the contemplated change?

A. I don't quite understand the question.

Q. It is a poor question. Let me rephrase it.

I just asked you in connection with this letter that you wrote to the du Pont Company in 1921, informing them of the contemplated change in top management in these three car divisions, and my question is that at that time did you write a similar letter to any of the competitors of du Pont, notifying them of this change?

A. No, I did not.

Q. And there is no question but what that letter that [fol. 2232] you did write to du Pont was in your capacity as president of General Motors, isn't that true?

A. I think so, yes.

Q. I don't want to tax you on this document, but I want to cover it thoroughly.

I am showing you again Government's Exhibit No. 124, and I would like to draw your attention to the last part of that exhibit, which is headed "Management." That is on page 12. Do you see that?

A. Yes.

Q. It is stated that:

> "Perhaps it is not made clear that the directorates of the motor companies will be chosen by du Pont and Durant. Mr. Durant should be continued as president of the company, Mr. P. S. du Pont will be continued as chairman of the Board, the Finance Committee will be ours, and we will have such representation on the Executive Committee as we desire,"

omitting the last part of the sentence.

Aren't those statements that were made by Mr. Raskob in December of 1917 when this investment was under contemplation—isn't that exactly what did take place after the du Pont Company purchased this $25,000,000.00 block of stock in GM?

A. I think that is correct, yes.

Q. Then isn't it true that right after this investment of some $25,000,000.00 was made, the Board of Directors of General Motors, the size of it, was increased to include several additional men who had come from the du Pont Company? Do you recall that?

A. That is true. I think that was all arranged by Mr. Durant and Mr. Raskob before this was written.

[fol. 2233] Q. By the way, did Mr. Raskob ever make memoranda of his conversations with Mr. Durant concerning this matter?

A. I don't remember any.

Q. Did all the information that you got from Mr. Raskob concerning this matter come to you orally?

A. I think so, yes.

Q. Other than this report?

A. Yes.

Q. On your direct examination you described in some detail the circumstances under which, in I believe late November of 1920, the Durant block of stock in General Motors was purchased indirectly by the du Pont Company, and which resulted, as I recall, in a figure of approximately 38 per cent of the GM stock then being held either directly or indirectly by du Pont.

Isn't it true that after the du Pont Company bought this Durant block of stock and then had approximately 38 per cent of the outstanding stock in GM that the du Pont Company did in fact control General Motors?

A. No, I don't think so. Thirty-eight per cent is not controlling. There was a large percentage they did not control.

Q. We have introduced in evidence, Mr. du Pont, what is known as Government's Exhibit No. 1304, which is an excerpt from the 1920 annual report of the du Pont Company, and I show you the excerpt. I have the full report here, but I don't think I need tax you with that.

I would like to direct your attention to the second paragraph of that excerpt which states that:

> "During the latter part of November last, Mr. W. C. Durant, the then president of the General Motors Corporation, requested that we take over the management and control of that corporation."

[fol. 2234] Then after that there is a detailed discussion in the report concerning the method by which this Durant block of stock was financed, and so forth.

Can you tell me what was intended by that statement in the annual report of the du Pont Company that you take over the management and control of General Motors?

A. Well, Mr. Durant had exercised that management and control for many years. Mr. Durant had resigned, and it left the du Pont Company in the position of doing something to keep the company going. We happened to have officers in saddle and it was a natural thing for us to take hold.

Somebody had to do it. The "control" was not because we owned the stock. It was because we had individuals there who took hold and ran the thing.

Q. The "we" in the statement, where they say that we take over the management and control, that refers to the du Pont Company, doesn't it?

A. Well, I really doubt if it did, because the individuals were the ones who acted in that case. The company couldn't act in controlling General Motors. It has to be done by individuals, and they were the ones who stepped in and took over the management.

Q. There is no doubt in your mind that this is from an annual report of the du Pont Company?

A. I don't doubt that.

Q. Are you aware, Mr. du Pont, that over the years following the du Pont Company's purchase of this large block of Durant stock that the stock held by the du Pont Company either directly or through a subsidiary has constituted a very large percentage of the total stock voted at the GM annual stockholders' meeting?

A. I don't know that to be a fact. I have never seen figures on it.

[fol. 2235] Q. I show you an exhibit which has been introduced in this case, Government Exhibit No. 1307?

A. This is a new compilation, which I have seen.

Q. Yes, this is a compilation prepared by the Government of information submitted by various of the corporate defendants, I believe.

If you will address your attention to the right hand column, which is headed "percentage of du Pont voted shares of GM common to total shares of GM common represented at GM stockholder meetings," you will note that the percentages start out in 1928 at a little over 52 percent, by 1932 it is 51 percent, in 1933, I believe, it is 49 percent, and it fluctuates over the years. The lowest percentage, I believe, is the last year, which is 29.9 percent, or almost thirty percent of the total stock voted at the annual meetings.

You will note, though, that at some of the meetings where it ran over 51 percent, there could be no question, could there, that that constituted the controlling stock voted at that meeting?

A. Well, if du Pont had over 51 percent, over 50 percent of the stock voting at the meeting——

Q. That they could control the result of that meeting?

A. Yes, for lack of attendance, but that meant that the other stockholders who did not come to the meeting were perfectly content with what was going on. If the situation were otherwise, and the other 50 or 49 percent would be discontented, they certainly would have appeared.

Q. Yes, sir. That is a situation that obtains in many large corporations which have highly diversified holdings—perhaps I don't make myself clear, but there are many thousands of very small stockholders, and where you have a large concentrated block, of, say, 29 or 30 percent, that [fol. 2236] concentrated block can control in most stockholder meetings, isn't that true?

A. Can control?

Q. Yes.

A. Well, it depends on the corporation and those who attend. I suppose it woud be very different in different corporations.

Q. Wouldn't you say that there is a difference, though, between 'a' corporation which has a large public common stock outstanding in the hands of many thousands of stockholders as contrasted to the element of control in, say, a jointly owned subsidiary?

Take, for example, the subsidiary which du Pont and General Motors set up, Kinetic, Inc., where they split the stock 51-49. There is no question but what the du Pont Company with the 51 percent would control that subsidiary, isn't that true?

A. I am afraid I didn't get the point there.

Q. Well, I don't think it is a very good question myself. What I am trying to say is this: If you take Kinetic, Inc., you recall that that stock for a number of years was owned 51 percent by du Pont and 49 percent by General Motors?

A. Yes.

Q. That du Pont would then be in control of Kinetic, isn't that right? They could select the management?

A. Well, they did, but if there had been lack of harmony there, there would have been a very different situation. I doubt very much if du Pont with 51 percent would have controlled in that case. The 49 percent could have made themselves so disagreeable that they could have gotten many things themselves.

Q. But, as a matter of fact, in that situation, as I recall, the top management of Kinetic was selected from the du Pont Company, do you recall that?

A. Yes.

[fol. 2237] Q. To contrast that situation with a corporation, such as General Motors, where the records in this case show that there were several hundred thousand, I believe, stockholders, many of whom have very small blocks of stock, I was attempting to find out what the effect would be of having a very large block, such as the du Pont Company had, concentrated in its hands, what the effect would be with that large block of stock in the voting at the annual stockholders meeting?

A. Well, I suppose as long as the company was well run, the large block would prevail at the meeting.

Q. In connection with that, I would like to show you Government's Exhibit No. 235, which is a report prepared, or it is a memorandum by Mr. Raskob to the Finance Committee of du Pont, dated June 21, 1923, and I do not want to read the whole report, but I would like to call your attention to this sentence in the middle of the page, on page 2, where, after he has dealt with the purchase by the du Pont Company of the Durant block of stock in 1920, he states that:

> "This gave the du Pont Company approximately 38 per cent of the total common stock of the General Motors Corporation which is practical control and made it necessary to assume complete responsibility for the management."

I assume that that "practical control" term used by Mr. Raskob there is similar to what you indicated in your last answer that they would, as a practical matter, control at the stockholders meetings, having that large block.

A. As long as they were well run, it would be, if they were not, it would be a very different situation.

Q. Now, I should like to address a few questions to this so-called Managers Securities Plan, and I believe you tes- [fol. 2238] tified on that in your direct examination. Isn't it true that one of the purposes of the Manager's Securities Plan was to bring into the partnership with the du Pont Company certain of the top G.M. managerial executives so that together the du Pont Company and the top echelon of the G.M. management would manage and control General Motors?

A. No, I do not think that is the way to put it. The purpose was to get into General Motors a body of men who would be interested in the management of General Motors, and operate the company properly and profitably for themselves and for the stockholders in general, du Pont being one of them.

Q. In this same document that I have just shown you, No. 235, you will note that on page eight, there is a paragraph entitled "8."

The preceding matter is a discussion of this plan to set up the Managers Securities, and the second sentence of that states:

> "We will be in a position to liquidate our entire indebtedness of $35,000,000.00 of seven and a half percent notes created in order to finance this Durant purchase; will retain the same control of General Motors Corporation that we have today through controlling two-thirds of the stock of General Motors Securities Company with its 7,500,000 shares of General Motors common stock and will definitely tie up with us in the management and control of this huge investment the men in the General Motors Corporation who are definitely charged with the responsibility and success of the corporation."

Now, tell me, Mr. du Pont, what is meant by the phrase- [fols. 2239-2240] ology that the result of this: "will definitely tie up with us in the management and control."

What was intended by that?

A. That it would tie these men, important men, to General Motors Corporation, which was a desirable thing to have. They were not stockholders in the du Pont Company, they were stockholders in the General Motors Corporation, and their allegiance would be to their own company, to their own advantage and to the advantage of all stockholders.

Q. I think it is probable, isn't it, that "us" referred to in this sentence, "will definitely tie up with us" refers to the du Pont Company, doesn't it?

I mean, this is the report, as I read it, that was prepared for the Finance Committee of the du Pont Company by Mr. Raskob.

A. Well, that does not harmonize with what happened, and I don't think that is very important. I think as long as the men had stock in General Motors Corporation, that was supposed to gain their allegiance to that corporation.

Q. Now, in connection with this very large block of General Motors stock that was placed in the treasury, I believe, of General Motors Securities Company, it was specially created so du Pont would act as depositary for this General Motors common stock—isn't it true that the voting of that stock remained in the control of du Pont Company after 1923 until the final liquidation in 1938?

A. I am not sure when it ended. It did for a long time.

[fol. 2241] By Mr. Harsha:

Q. Did it occur to you at the time that the Managers Securities Plan was set up, and the allotments were made under that plan, that one result of the plan was that it might make it difficult for arms length dealing between the top GM executives and the du Pont Company?

A. I never thought that, no.

Q. Do you recall Mr. J. A. Haskell, who had been, I believe, a vice president and sales manager of du Pont [fols. 2242-2245] Company, who later went into the General Motors organization.

A. That's right, yes.

Q. He was a vice president? He became a vice president, I believe, didn't he, of General Motors?

A. He did, yes, sir.

Q. I think very soon after the first purchase was made by the du Pont Company, or perhaps before that, I am not sure, in 1917, but in any event in 1918 he was a vice president of General Motors?

A. Yes.

Q. Did you know at that time that Mr. Haskell from time to time was requesting information from the various car divisions of General Motors concerning their purchases, both the quantities they were purchasing from du Pont, and from competitors of du Pont, and that he was then sending such information to the du Pont Company?

A. I think I did, yes, sir.

Q. And was it the understanding or at least the attitude of many, many of the people in du Pont in this early period, 1918 to 1919, that they were going to get or at least serve General Motors their entire requirements in many of the products made by du Pont, and sold for the automobile business—that is, "Fabrikoid" and "Pyralin"? Didn't they expect to have one hundred per cent of the business?

A. Who in du Pont are you speaking, the salesmen or the officials of du Pont or——

Q. The heads of the divisions. For example, the head of the chemical products department.

A. I think they knew very well that they would not get the business unless they had the quality and delivery of goods that were needed.

That was the prime factor.

[fols. 2246-2247] By the Witness:

A. Well, the 1917 report referred to the motor industry in general, of which General Motors was a small part only. The Ford Motor Company was the largest producer of cars, and at that time I believe the largest consumer of those products.

By Mr. Harsha:

Q. If I understand your answer, are you saying that the language, the motor companies, in that paragraph, does not refer merely to General Motors and Chevrolet?

A. That is what I mean, yes.

Q. You mean that it refers to the entire automobile industry?

A. Yes.

Q. But this paragraph of the report is the first official announcement, is it not, by the du Pont Company of its investment in the General Motors and Chevrolet companies to its stockholders?

A. I believe it was, yes.

[fols. 2248-2257] The Court: Any redirect examination?

Mr. Harlan: I have just one question, if the Court please.

Redirect Examination.

By Mr. Harlan:

Q. Mr. du Pont, when the offer of Coleman, or the information that Coleman was going to sell his stock, came to you, and you inquired through Dunham as to whether Coleman would be willing to sell all of his stock, or sell part and pool the balance, what prompted you to make those suggestions?

A. That refers back to the incident of Kraftmeier in which I assured Kraftmeier that Coleman's stock would be protected, and would not get into foreign or enemy hands.

Q. The pool that was contemplated in the event that Coleman had not sold all his stock was a pool with whom?

A. It was an agreement with the purchasers of his stock.

Mr. Harlan: Thank you, that is all.

Mr. Harsha: No recross.

(Witness excused.)

Mr. Harlan: Now, I understand that Mr. du Pont is released.

Mr. Harsha: That is correct.

Mr. Harris: If your Honor please, we ask that Mr. Irenee du Pont be called for cross examination.

Irenee du Pont, a witness called on behalf of the Defendants, having been previously duly sworn, resumed the stand, was examined and testified further as follows:

Cross Examination.

[fol. 2258] Q. Du Pont's Exhibit No. 69 is a letter from Beardslee of the Executive Committee to Haskell, Pierre du Pont and Dwinnell, dated December 17, 1908, advising of the action of the Executive Committee of December 16, appointing Haskell, Pierre du Pont, and William D. Dwinnell as a committee to report as to what steps are being taken when idle capacity in the smokeless powder plant might ensue.

Do you recall that committee?

A. I recall that committee, and I read the report Dwinnell made. That was made before my time.

Q. Yes, sir. On March 6, 1909 du Pont's Exhibit No. 70 advises of action of the Executive Committee that the special committee appointed on December 16, 1908, to which I have just referred, to make a study for the further uses for guncotton and other products of our smokeless powder plants be changed to consist of Messrs. J. A. Haskell and Irenee du Pont.

That was you, wasn't it?

A. Yes, sir.

Q. And you went on that committee after that, did you?

A. I did.

Q. Now, I call your attention to Government Exhibit 101, which is a report to you, Mr. Irenee du Pont, by Mr. W. W. Richards.

It is dated March 16, 1909, and it concerns artificial leather and nitrated cotton requirements.

Do you recall such a report?

A. I can't recall that one from any other report, but I have no doubt—

[fols. 2259-2267] Mr. Harris: I didn't know it was withdrawn, sir. If it was withdrawn, may I offer it at this time?

There is no note on my document that it was withdrawn.

The Court: My records show that it was withdrawn.

Is there any objection to its introduction at this time?

Mr. Harlan: No, your Honor.

Mr. Harris: Thank you.

(Said document so offered and received in evidence was marked Government Exhibit No. 101.)

[fols. 2268-2281] Q. I am going to call your attention only to three items on that, item No. 2, item No. 3, and item No. 10. That is all I will ask about.

A. Yes, sir.

Q. This report gives a list of principal industries using nitrocellulose.

I call attention to No. 2 which is artificial leather, including dress shields, hospital sheetings, et cetera;

No. 3, which is lacquers, dips, enamels, paints, bronzing liquids, varnishes, et cetera;

And No. 10, celluloid.

Now, in the artificial leather field, you had by this time —this is now 1913,—you had acquired Fabrikoid and one or two of these companies.

Who were your customers at that time for artificial leather, if you know?

A. I don't know. We had a great variety of customers at that time.

Q. There were, however, were there not, some automobile companies?

A. Some automobile companies? I have no doubt there were.

Q. Calling your attention to the lacquers, dips, enamels and other similar products, do you recall whether at that time or around that time the du Pont Company went into the business, rather extensively into the paint and lacquer business?

A. We went into the paint business later, but we were in the lacquer business. We inherited that from the International Smokeless Powder Company, I think, in about 1902 or 1903. They had a lacquer plant, and that had been in operation up to this time, which was a decade or more afterward.

[fol. 2282] Q. Before the matter came to the Finance Committee, had you heard of it in any other way?

A. Not before I got that report.

Q. You had had no talk with Mr. Raskob about it before then?

A. I recall none.

Q. Would you say that Mr. Raskob was, what you might call, the moving spirit in that investment?

A. I think he was.

Q. At this Finance Committee meeting, which was the subject of the report, Exhibit 124, do you recall whether it was a full meeting? Do you recall whether most of the members were present?

A. I know there was a quorum present. I couldn't remember whether they were all there. That, the minutes of the meeting will disclose.

Q. What would be a quorum?

A. I don't know how many directors there were at that time. It is given in the minutes of the meeting, I think.

Q. Yes. The Finance Committee would be made up of directors, wouldn't it?

A. Yes, sir.

Q. I will be coming back to Exhibit No. 124.

Now I call your attention to Defendant du Pont's Exhibit No. 47, which are the minutes of a special meeting of the Board of Directors of your company, held on December 21, and will ask you to look at the list of directors whose names appear there, and will ask you if it refreshes your recollection as to who was present or if you remember those persons being present.

A. Of course, I couldn't remember that many years back [fol. 2283] just who was present, but I have no doubt that these were present if it is so stated here.

Q. That isn't exactly what I want. I would like to know who you remember were present at that meeting, if you remember any of them.

A. Well, I remember I was present, and we had a pretty full meeting. But I couldn't say which ones might have been absent, if any.

Q. It is rather important. I would like to take just a few of these names and see if it rings any bell.

Was Pierre there?

A. I am quite sure he was.

Q. Was Lammot there?

A. I think so, but——

Q. Was Raskob there?

A. Yes, he was there.

Q. Was Laffey there?

A. I don't know.

Q. You know who Laffey was?

A. Yes, he was our chief counsel.

Q. You don't recall whether he was there that day?

A. I don't.

Q. You remember, do you, that at that meeting—yes, I I think at the Board meeting—there were three dissenters, three people who dissented, who didn't want to make the investment? Do you remember that?

A. There might have been three at one time in the discussion. I don't think that there were only three that were opposed and stayed opposed all the way through.

Q. What is that?

A. I don't think that would be a correct statement, only three who opposed or had any question of it.

Q. So that we understand each other, do you mean that during the discussion there were more than three who opposed it?

A. I couldn't tell you.

Q. Do you mean that you don't remember there were only [fol. 2284] three who finally opposed it?

A. No, I can't recall that.

Q. Who was E. G. Buckner?

A. Mr. Buckner had been head of the Smokeless Sales Department during the first World War.

Q. He was Colonel Buckner, wasn't he?

A. Yes, I think a Kentucky Colonel.

Q. Who was A. Felix du Pont?

A. Felix du Pont was my cousin and by brother-in-law.

Q. Do you remember whether Felix du Pont was there?

A. I couldn't remember about that. I would always go to the record to see who was there. If the record says he was there, he was there.

Q. It is your memory I am seeking now to know about.

A. I couldn't be sure he was there from memory, but I would guess he was.

Q. I would rather not have a guess. If you don't remember it, I will understand you don't remember it.

Was Eugene E. du Pont there, if you remember?

A. I think he was, but I am not sure of that.

Q. Who was Eugene E. du Pont?

A. Well, he was a second cousin of mine, and of Pierre's and of Lammot's.

Q. When the matter came up for discussion before the Board—we are coming now to the Board meeting—do you recall anything of what was said at that meeting, anything at all?

A. I recall a good deal of the drift of the argument because I had that same opinion. I was of that opinion, that the automobile was a great, coming industry. I felt very sure of that.

I was not a bit worried over the thought that the saturation point had been reached in automobiles. It was quite the fashion to forecast when everybody that wanted an automobile would have one, and the business would dwindle. I was not a disciple of that particular point.

[fols. 2285-2330] That was given, I think, as one of the reasons. The earnings statements were vouched for by John Raskob, I remember that. And I thought that one of the things to assure me that the investments were properly accounted for, that there was no fake in the large earnings they were making, was the fact that they proposed to let us have charge of the finances. Of course, if there was anything crooked, we would dig it right up.

So I felt sure we had a safety valve on that. That weighed with me. I don't know that I originated that. I think somebody else may have mentioned that there was no question about the safety of the figures given for earnings.

I think it was just a very long-sighted speculation in the stock,—speculation is not the word—investment. Because we thought we could add to that investment by controlling the weakest place, which Durant admitted openly, and it was quoted in there, that Durant was an expert at making cars, but he had not been very successful in financial ventures.

Q. Your position in the du Pont Company at that time was what, Mr. du Pont? What was your official position?

A. 1917? I was Chairman of the Executive Committee and vice-president.

Q. The Executive Committee has to do, has it not, with the operational part of the company?

A. Yes, sir.

[fols. 2331-2341] Going over now to the last paragraph:

> "Please do not misunderstand the attitude our laboratory has taken toward your Company with respect to cooperative research. We are very heartily in favor of doing everything we can for you and having you do everything you can for us. It is simply the matter of a formal agreement, which I personally believe would be out of place, that is causing all the misunderstanding."

Q. What was the misunderstanding?

A. It doesn't state here. I can't——

Q. No, I wonder if you know.

A. No. I think this refers to the fact that we were preparing various organic materials which would be tested out to see if they were good anti-knocks or not, and that no arrangement had been made as to who paid for it. We were just simply doing it on the cuff.

Q. Were you doing it at the request of General Motors?

A. Yes.

Q. And you proceeded to do that, didn't you?

A. We did for a while, but I think that at this time it was probably called off because they asked us not to do anything more. They found the perfect antiknock.

Q. Then what did du Pont do about it?

A. Well, that is where I got into it. I went out to see Mr. Kettering, sometime after this letter from Pierre was received, and tried to sell him the idea that we ought to make tetraethyl lead for him.

[fol. 2342] By Mr. Harris:

Q. What would you say he meant by that,—it would be a disturbing influence?

A. I don't know, unless it had to do with the distribution. They were afraid they would get tied up with Standard Oil, and maybe they could not sell to other oil companies.

Q. Didn't they already have an exclusive Standard Oil contract for the eastern seaboard?

A. I don't think so. Did they?

Q. That is what I think.

A. I never was in any of those deals with Standard Oil.

Q. They say:

> "Our contract with them provides for distribution throughout practically all the Eastern Seaboard."

A. Well, they wanted more than the Eastern Seaboard. They wanted to supply the whole nation with tetraethyl lead.

Q. Then he goes on to say:

> "If it develops that these people have a process which, due to the nature of same, it should be cheaper from the standpoint of manufacture, I personally would much rather obtain a license from them, pay for it and get the du Pont Company to use it in reducing the cost than I would to deal with the Standard Oil Company as a manufacturer."

[fols. 2343-2351] This was your point of view?

A. It was, yes. Could I butt in to say that although I wrote Sloan that was the right way to do it, to turn over the Standard Oil negotiations to us, because we could evaluate what it was worth on a dollar and cents basis rather than have them get tangled up with some alliance which they absolutely did not want to do, and although Mr. Sloan replied to me and said that we have done so-and-so, it was just the reverse, and they made a deal with Standard Oil.

Q. They made a deal with Standard Oil, didn't they, to let Standard Oil go ahead and manufacture one hundred gallons a day?

A. Yes, something of that order.

Q. When you heard about that, didn't you say that you should be allowed to manufacture a thousand gallons a day?

A. Yes, I think so. They were in a hurry to get it, and Standard Oil could not expect to catch up. We had experience which we had gotten by making it from the bromine process.

Q. If Standard Oil could only make a hundred gallons a day and you, at the same time, were making a thousand gallons a day, Standard Oil would be at somewhat of a disadvantage in competition with du Pont?

A. Yes, sir.

Q. Now, Mr. Sloan at that time was taking, was he not, the du Pont point of view in this matter?

A. What?

Q. Mr. Sloan was taking the du Pont point of view?

A. He ~~did in~~ this matter, but very shortly afterwards, he reversed it entirely and dealt with Standard Oil.

[fol. 2352] By Mr. Harris:

Q. I call your attention, Mr. du Pont, to Government's Exhibit 710.

A. Yes, sir.

Exhibit 710 is a letter, apparently from A. P. Sloan to yourself, dated December 12, 1924, regarding your coming on the Board of Ethyl.

You stated that "on account of the fact that you were contractors, and all that sort of thing, it might not be just the right thing to do."

What was the ground of your objection to going on the Board?

A. That is stated in the letter by Alfred. My feeling was that unless I could do some good going on the Board, something of specific value, I ought not go on on account of the fact that although I would be looked upon as a General Motors man on the Board, I still would be a contractor with them on these contracts, and I had to keep aloof from that, and sometime I might want to say something about the contracts, which I couldn't do.

Q. Would that mean that you thought there might be a possible conflict of interest?

A. The looks of it rather than the fact. I would be perfectly square, but somebody else might not think so.

Q. Who was Ethyl Gasoline Corporation? Who were [fol. 2353] they?

A. Ethyl Gasoline Corporation was a corporation, I understand, organized by General Motors in which General Motors held fifty percent of the stock, and Standard Oil of New Jersey held fifty percent of the stock.

That was formed before I knew that it had been formed, and we dealt with them rather than with General Motors after that combination. In other words, we contracted with Ethyl Gasoline Corporation. It was in the same box with General Motors.

Q. You were contracting to make the tetraethyl lead?

A. I was what?

Q. Contracting to make the tetraethyl lead.

A. With the owners of tetraethyl lead.

Q. I said, du Pont was going to manufacture tetraethyl lead?

A. For Ethyl Gas.

Q. That is right, and Ethyl Gas did the distributing?

A. No.

Q. Ethyl Gas sold it?

A. No. The fluid we sold to the Ethyl Gas. The manufacturers of gasoline, I understand, did the actual blending with the gasoline.

Q. Now, did you go on the Board?

A. I did, yes, sir.

Q. Then you stayed on the Board, did you not, for about 13 years until 1937?

A. Yes, sir.

Q. I think we can agree that you resigned December 20, 1937, did you not?

A. I did.

Q. One of the reasons you gave there was that "It is the feeling of our Finance Committee that it might be better that du Pont Company should not have even such a representative as myself on the Board."

Mr. Harlan: What exhibit is that?

[fol. 2354] Mr. Harris: I am reading now from Exhibit No. 796, which was withdrawn.

Mr. Harlan: Witness hasn't got that.

Mr. Harris: He has it now.

The Witness: Why, yes, I wrote that letter to Mr. Webb, who was the president of the Ethyl Gasoline Corporation, and retired.

Mr. Harris: As this exhibit was withdrawn, may I now offer it in evidence, if the Court please?

Mr. Harlan: No objection, your Honor.

The Court: It is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 796.)

By Mr. Harris:

Q. What then, if you know, was the reason that the du Pont Company felt that it would be better that they should not have even such a representative as you on the Board when the company, that is the du Pont Company, I take it, is negotiating with Ethyl on a very important and far-reaching contract?

What was the point of your resigning at that time?

A. My own reason at the time was that I was tired and wasn't doing anything of value, and I thought I ought to get out.

I think I approached the Finance Committee, and they put up this additional reason. As I understand at that time we were going to change from an arms-length contract for bidding to make so much gas to some sort of an arrangement whereby we acted as their agent and participated in the profits, and things like that.

[fols. 2355-2363] I don't know what all it was about, but I dropped out of it at that time.

Q. Had you been on the Board when any previous contracts between Ethyl and du Pont had been made?

A. I had.

[fols. 2364-2374] Q. I call your attention now to a document which is an Advice of Action of the Executive Committee of du Pont on February 16, 1923, and is numbered Government's Exhibit No. 382.

Mr. Harris: Excuse me, that was withdrawn. I have given a copy to counsel.

The Court: I don't have No, 382 in by book.

Mr. Harris: No, I ask leave to introduce it at this time.

The Court: Any objection?

Mr. Harlan: No objection.

The Court: It is received.

[fol. 2375] Q. Well, I am asking you, sir, what Mr. Haskell did for du Pont before he went to General Motors?

A. Well, he had been a vice president of the du Pont Company in charge of sales for a number of years.

Q. That's right.

A. And had been on the Executive Committee, the old Executive Committee, and he was semi-retired before then. They made him just a consulting man.

Q. Now, what did he do for General Motors in his capacity as vice president?

A. I understood that besides being a vice president, which would have any duties that the president saw fit to assign to him, that he was also a representative on the Finance Committee as a sort of a liaison officer from the operating men in General Motors, operating the general manufacturing end, and he was also a member of the Executive Committee which handled the operations, physical operations of General Motors.

Q. Was he a liaison man between General Motors and du Pont?

A. No.

Q. Were you aware, Mr. du Pont, that Mr. Haskell was obtaining from the various divisions of General Motors and conveying to du Pont, the amount of business shipped and business bought?

A. I am quite sure that was not his duties. He may have been called on to do it in some particular case.

Q. I call your attention to Government's Exhibit No. 293, a letter of May 22nd, 1918, from William Coyne to C. L. Petze, concerning sales to General Motors Corporation.

[fol. 2376] I call your attention only to the last paragraph but one, and it begins, "Mr. Haskell makes the suggestion."

A. This wasn't part of the regular procedure of the du Pont Company.

Q. I have not yet asked a question. Will you wait a minute, please, Mr. du Pont?

Who was W. L. Coyne?

A. Coyne?

Q. Yes.

A. He had formerly been in charge of sales in the du Pont Company, and he also became a member of the Executive Committee after the war or at the beginning of the war.

Q. Who is C. L. Petze?

A. Petze was a financial man originally. They said he was an accountant and had charge of the payrolls, and items of that kind. Later he went into the sales department and it seemed to suit his abilities much better. He was a very aggressive young fellow.

Q. At this time was he in the sales department of "Fabrikoid"?

A. What?

Q. Was he in the sales department of "Fabrikoid"?

A. I presume so. I don't see it here, but——

Q. All right. I am going to read this paragraph:

> "'Mr. Haskell makes the suggestion, which I consider a good one, that I advise him periodically as to the business shipped and business booked with the different motor branches, of General Motors, and also advise him what proportion of their business is going elsewhere. With this information in his possession, he will be able to keep in touch with the relations between the Arlington Works'"——

What is the Arlington Works?

A. That was the "Pyralin" plant.

[fols. 2377-2381] Q. Is that where "Fabrikoid" was made?

A. No.

Q. (Continuing):

> "'and the General Motors Company, and will give me his suggestion at any time when the conditions indicate the need of special attention'."

Would you know what he meant by that?

A. Well, your will recall that at that time "Pyralin" was used as windows in the curtains of automobiles, before the closed body type. In those days, there were a great many competitors in that, and there was a criticism about the competitors' "Pyralin" turning yellow and turning brittle, and breaking, and there were continual troubles of that kind.

Now, I think what we were asking there was to find out about "Pyralin", because this refers to "Pyralin" and not to "Fabrikoid". I know we licked that job. We found out a way of fixing the "Pyralin" so it wouldn't turn yellow and get brittle. As soon as we did that we got substantially all of the business.

Q. I call your attention to Government's trial Exhibit No. 294, a letter from J. A. Burckel, sales manager of the Arlington Works, to J. A. Haskell, Vice President of du Pont, dated June 15th, 1918.

A. That is exactly what I guessed a moment ago, that it had to do with the sheeting of "Pyralin".

Q. Yes, sir.

A. But it was "Pyralin" put in sheets for the use of making windows in automobiles that were not closed jobs.

Q. Well, it was a du Pont product, wasn't it?

A. Yes, sir.

[fol. 2382] Q. What amount of "Fabrikoid" did Buick take?

A. I couldn't tell you, sir. I don't carry those in my mind, but Cadillac I know because I drive a Cadillac, and it doesn't use artificial leather. The seats are upholstered in very fine upholstery, not leather, but some sort of a mohair. From driving cars around for several years, I don't see any "Fabrikoid" in them at all. There may be a piece back in the trunk on the floor. I am not one of these fellows that journey around. There may be a piece there, but barring that or at some other hidden place, I don't think they have any.

The same is true of "Pyralin". "Pyralin" we used to sell in the early days when the sheets were used for win- [fols. 2383-2395] dows in the open top car and we did that, and we got it purely on account of the excellence of our "Pyralin". We washed it so thoroughly that no nitric acid was left in it which made it turn yellow and crack, and of course we got all of the business as soon as they found out ours would outlast the others two or three times over.

Q. How much "Fabrikoid" did Oakland take?

A. I couldn't tell you unless it is written there.

Q. How much did Chevrolet take?

A. I think they took more than Cadillac, because they did have——

Q. So that the figure you gave us this morning was one that came to you because of your observation that Cadillac used very little "Fabrikoid", was it?

A. I think so.

[fol. 2396] Mr. Hurd: If the Court please, the next witness for the defense is Mr. Alfred P. Sloan, Jr.

Mr. Sloan's hearing is rather bad, and I wonder if it would be agreeable with the Court if I would stand near him for examining purposes.

The Court: I have no objection.

Mr. Hurd: Mr. Sloan, will you take the stand, please?

ALFRED P. SLOAN, JR., called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Hurd:

Q. You are Alfred P. Sloan, Jr.?

A. Correct.

Q. At the present time you are Chairman of the Board of General Motors Corporation?

A. Correct.

Q. Mr. Sloan, will you tell us when and where you were born?

A. Waterbury, Connecticut, May 23, 1875.

Q. Where were you educated?

A. Massachusetts Institute of Technology. I graduated there in 1895 with a Bachelor of Science degree in engineering.

Q. After finishing college, what was your first employment?

A. I went with the Hyatt Roller Bearing Company, a small manufacturing enterprise in Newark, New Jersey, which was engaged in developing a special form of antifriction bearing.

Q. How long did you remain with that company?

A. I remained from about 1898 to 1916.

Q. What was the nature of your work with the company?

[fol. 2397] A. Well, it was a very small institution, and I was draftsman and sort of a super salesman and a general assistant to the manager of the enterprise.

Q. For how long?

A. For a period of two years. Then circumstances developed and I assumed the title of General Manager.

Q. What were those circumstances, briefly?

A. The circumstances were that the business was not successful. It was losing money, and the individual who was putting up the money finally decided that he was not willing to continue it.

So he and a friend of his and my father agreed and did put up an aggregate sum of $10,000.00, and I was given the job of operating the business for six months to see whether I could turn it from the red into the black.

In that six months I succeeded in making $10,000.00, and that established it as a going concern, of course, in a very small way.

Q. Did it continue to grow after that time?

A. It continued to develop after that, especially after the turn of the century it developed in a very big way because the automotive industry was really born in 1900, and after that our business increased very rapidly.

Q. What industries did you service primarily?

A. The anti-friction bearing business at that time had not yet found itself. We succeeded in getting our bearings in a small way on mine cars and shafting, and we had a small business in equipment involving the manufacture of paper.

The mechanical arts at that time had not reached the point where efficiency demanded a bearing of this type, and not only that, but the manufacture of steel had not yet got to the point where we had the tensile strength to carry the high load necessary in an anti-friction type bearing.

[fol. 2398] Q. After the turn of the century, when the automotive industry arose, did you provide bearings for that industry?

A. Yes, we did. As I said before, the automotive industry really was born in terms of the generalities in 1900.

After that we began to get orders from individuals who were experimenting in what was called at that time the horseless vehicle. We followed those up very aggressively, and while many of the manufacturers who carried on those experiments never came through in a big way, yet a few of them did. By following up these experiments from engineering and sales work, we developed over the next few years quite important positions so far as the anti-friction bearing is applied to automotive practice.

Q. What automotive companies were your principal customers?

A. Well, they were all our customers at the beginning. It is interesting to observe perhaps that there were 2500 manufacturers of automobiles that came into the picture and went out of the picture in the first 15 years of this century.

People like Ford, of course, developed in a very big way. The Hudson Company was organized, and also reached important proportions. The Reo Company, at that time the Olds Motive Works, likewise.

There were two or three companies down in Indiana and Ohio, the Haynes. There was a very considerable number of manufacturers who really did what in those days was a considerable volume and our bearings were applicable not only to those manufacturers who used the gasoline engine, but also the steam cars and also to some extent electric vehicles. They were all in the picture at that time.

Q. To what extent were you a supplier of the Ford Motor Company?

A. We were a 100 per cent supplier to the Ford Motor [fol. 2399] Company of those parts of the Ford chasis in which our bearings were applicable.

In other words, most anti-friction bearings had certain points of superiority in certain parts of the design as against others. We had a very strong position in certain parts, and in that position we had 100 per cent of the Ford Motor Company.

Q. Could you tell us what your largest customer was in, say, 1915?

A. Ford Motor Company.

Q. Approximately what was the Hyatt Roller Bearing Company worth? What was its net worth in 1915?

A. I haven't the figures, Mr. Hurd, definitely in mind, but it was something around $5,000,000.

Q. Had any money been put into the company since that addition in 1898?

A. No. In those days a business could develop on its own earnings. Now, of course, that is impossible because the government takes so much.

Q. Taking up the year 1916, were there any changes made as far as the Hyatt Roller Bearing corporate situation was concerned?

A. In 1916 I received an invitation to call on Mr. W. C. Durant. Mr. Durant at that time was president of the Chevrolet Motor Company, and he had organized the

Chevrolet Motor Company back somewhere about 1912, and he asked me to come to see him, which of course I did.

I found out that what he wanted to know was whether the Hyatt Roller Bearing Company was for sale or not. Of course, it came as a great surprise to me because I wasn't thinking of such a thing.

I took the matter under advisement and consulted our directors, which consisted of two lawyers, my father and myself, and I made a recommendation that we should sell [fol. 2400] the Hyatt Roller Bearing Company to Mr. Durant, and that the price should be $15,000,000.

I think they thought it was a pretty big price, but I tried to sell them and succeeded in selling them on the idea that we had a very great deal of good will in the previous ten years. We had developed a position where we were really consulting engineers to most of the large companies.

We had opportunity to discuss the engineering design and formulas, and I felt that our good will should be rated at a very high value.

My associates finally approved the proposal, and I had entered into the negotiations with Mr. Durant. Like all those kind of cases, you have to do a certain amount of dickering.

To make a long story short, I finally sold Hyatt Roller Bearing Company to Mr. Durant for $13,500,000.

Q. What was the basis of your recommendation that you sell the company?

A. Why did I do it?

Q. Yes.

A. Well, I had become forty or forty-one years of age. I had worked very hard all my life and I felt it was clear that the automobile industry as it grew and developed would require large scale operations, and I felt that any accessory manufacturer—and I was ranked as an accessory manufacturer—would be very much handicapped unless they associated themselves with some large producer, because I had developed in Hyatt a very large plant and if I lost one or two accounts, there was no place in the world I could get the business to build it up because it didn't exist.

So I thought if I had an opportunity to capitalize my twenty years' work, and protect my own family and myself, [fol. 2401] that it was a wise thing to do.

Q. Had you been a supplier of General Motors Corporation?

A. To some extent, Mr. Hurd. I really had not been a supplier to General Motors direct, but in the automobile business at that time and today, accessory manufacturers frequently sell to other accessory manufacturers, who, in turn, sell to the car operation. And most of my business, so far as General Motors units were concerned, went to the Weston-Mott Company, who built axles for the General Motors units, particularly Buick.

Q. Was there any company other than Hyatt Roller Bearing involved in this 1916 transaction?

A. Yes. I didn't know about them at the time, but it finally developed in further discussion with Mr. Durant that there were four other companies involved.

Q. Do you recall what they were?

A. Yes. One was the New Departure Manufacturing Company. It was a large producer of ball bearings, in Bristol, Connecticut.

The second was the Delco-Remy Electric Company of Anderson, Indiana, who were manufacturers of electrical equipment for the automotive industry.

The next one was the Dayton Engineering Laboratories Company, which was a company that originated and sold starters some years before, and they made a self starter and ignition for automobiles.

The last was the Perlman Rim Corporation of Jackson, Michigan. Perlman Rim Corporation at that time was supposed to have controlled a patent on a demountable rim. So, with Hyatt, that made five operations in the aggregate.

Q. Who initiated the bringing in of these additional companies, these four additional companies?

A. After the organization of the United Motors Corporation?

[fol. 2402] Q. No, at the time.

A. Mr. Durant was the one that had the conception of the United Motors. He was the one that picked out the companies that were to be included in the United Motors organization.

Q. Did the Hyatt Roller Bearing Company then become a part of the United Motors?

A. It became a part of the United Motors, yes, Mr. Hurd.

Q. On what basis was this transaction handled? Did you sell for cash or for stock?

A. Well, at the time the original discussions came up with Mr. Durant, it was understood it was to be a cash deal.

In the final negotiations, when I found out what the type of the organization was going to be, I agreed to take half cash and half stock, so that the deal with the Hyatt Roller Bearing Company was made on that basis. I don't know how the deal was made with the other four companies because I had no part in that at all.

Q. Was this stock of United Motors Corporation that you took?

A. What?

Q. What stock did you receive?

A. United Motors Corporation.

Q. Was that offer of half stock and half cash an offer that was made to all stockholders of the Hyatt Roller Bearing?

A. Yes, it was.

Q. Did they all take half stock and half cash?

A. No. Some were not willing to take stock. As a matter of fact, at that time the automobile industry had not demonstrated its capacity as, I might say, a legitimate enterprise. There was a good deal of prejudice against Mr. Durant and his operations, because it was looked upon by conservative investors as quite speculative, so some of my stockholders were not willing to accept the fifty-fifty proposition.

[fol. 2403] In that case, in view of the fact that I was anxious to deliver as much as I could to Mr. Durant, I took more stock and less cash.

Finally, after a good deal of negotiation, with the various stockholders, I turned the property over to Mr. Durant 100 percent, but it was at the sacrifice of cash to myself. Of course, in turn for that, I got more stock.

Q. Approximately, what percentage of the stock turned over by the Hyatt Roller Bearing Company did you and your father acquire?

A. We had 60 or 65 per cent of the common stock of the Hyatt Roller Bearing Company. When the final deal was consummated, Mr. Hurd, I did not know what my proportion of the stock relative to the cash was, but I do know that I had considerable less cash than the fifty-fifty basis, consequently more stock.

Q. In negotiating this transaction, did you have any contact with any representative of the du Pont Company?

A. No, I did not know anybody in the du Pont Company at all at that time. They did not enter into it.

Q. After this sale to United Motors, what did you personally do?

A. Well, I was made,—I became president of the corporation, that is the United Motors Corporation.

Q. At whose suggestion?

A. It must have been, Mr. Hurd, at Mr. Durant's suggestion, because it was his concept, and he was determining the various—made the various decisions. I have not any recollection of how he called me. That has gone out of my mind but anyway I became president of the United Motors Corporation, and it must have been at Mr. Durant's request.

Q. How long did you remain as president of the United Motors Corporation?

A. From May or June, 1916, to approximately November, [fol. 2404] 1918; appproximately two and a half years.

Q. During that time, did United Motors acquire any additional properties?

A. They did acquire three additional properties which I brought in to United Motors group in that two and a half years in which I was president.

Q. What were those companies?

A. One was the Harrison Radiator Corporation, or what became of the Harrison Radiator Corporation, of Lockport, New York. I had had an important customer, when I was selling Hyatt roller bearings in Lockport. I became acquainted with Mr. Harrison, who was developing a new type of radiator core, and I was impressed with the efficiency of that core compared to competing cores on the market.

So, when I came into the United Motors, I was charged with developing the property, and I entered into negotiations with Mr. Harrison. To make a long story short, he came into the United Motors Corporation as one of the units in the corporation. He came with the business, and continued the business as chief executive in charge of the enterprise.

Then, at that time, there was a very great demand for a service company, electrical appliances, starting and lighting and other electrical parts of the car, and I organized the United Motors Service Corporation, and that spread out throughout the United States in order to take care of the customers of the Dayton Engineering Laboratories Company, and the Remy Electric Company. They were selling electrical equipment to automobile manufacturers.

Q. Did you acquire any other company during this period?

A. Yes, there was an additional company taken in, the Klaxon Company of New Jersey. They manufactured a [fol. 2405] certain type of horn that was very fine. They came into the enterprise at that time.

As far as I recollect, those were the only three companies that came into the organization in those years I served as president of the United Motors Company.

Q. Were those acquisitions discussed with Mr. Durant?

A. I don't think so, Mr. Hurd. As best as my recollection is, it is that after Mr. Durant organized United Motors and turned it over to me, he had nothing more to do with it. He had other responsibilities and dut~~ies, and he left~~ the whole thing to me, and I think I can say very factually that I was the one that operated the properties, and I was the one that initiated these three extra companies, the additional companies that came in in two and a half years in which I was president.

Q. Do you recall whether Mr. Durant was a stockholder in United Motors?

A. Yes, he was, Mr. Hurd. When it was organized, Mr. Durant and an associate of his, had a certain amount of common stock which they received as a bonus in consideration of their organizing efforts.

Q. Was that a substantial stock interest or not?

A. As I recollect it, Mr. Hurd, the United Motors had a million shares outstanding. I remember that because at that time that was the first corporation that ever issued a million shares of stock. It caused a good deal of comment in financial circles, and according to my best recollection, Mr. Durant and the associate of his had a bonus of 200,000 shares.

Q. Were these acquisitions, the Harrison Radiator, the Klaxon Company, and United Motor Service discussed by [fol. 2406] you with any representative of the du Pont Company?

A. No, they were not, not to any extent at all, Mr. Hurd.

Q. When Dayton Engineering Laboratories Company of Dayton, Ohio, was taken into United Motors, at the beginning, did Mr. Kettering go with United Motors?

A. Well, Mr. Kettering continued as chief executive of Dayton Engineering Laboratories Company and to that extent he came into United Motors. He also had other interests in Dayton of substantial amount which came into General Motors later on, in the year 1919, if I recall correctly.

Q. But did not go into United?

A. Did not go into the original setup, no, Mr. Hurd.

Q. Now, going to the year 1918, I believe you said about November, 1918, was the termination of United Motors.

What happened then, at that time?

A. Mr. Raskob, who was at that time in charge of the Finance Committee of General Motors, entered into negotiations with me with a view to consolidating United Motors Corporation with General Motors Corporation.

Q. And what was the result of those negotiations?

A. After considerable discussion, United Motors Corporation became part of General Motors Corporation. In other words, General Motors Corporation made an offer for the stock of United Motors Corporation, an exchange, and that exchange became effective in the latter part of 1918. I don't remember just when the final—what the final date was, but in the latter part of 1918 United Motors Corporation property became a constituent part of General Motors Corporation.

Q. Do you recall what the basis was for the exchange of stock?

A. Yes, there was a million shares of stock outstanding, as I stated before, and the stockholders of United Motors [fol. 2407] Corporation were paid $30.00 in preferred stock of General Motors, and $10.00 in common stock.

Q. Was there any cash involved?

A. No, no cash was involved so far as I can recall.

Q. What position did you take with respect to whether you were willing to sell to General Motors?

A. Well, my thought was that it was to the interest of United Motors Corporation to consolidate with General Motors Corporation. The answer to your question really was answered when you asked me why I was willing to sell Hyatt to United Motors because I thought it was very advantageous for these accessory properties to be linked up with a large car producing corporation because it gave them the assurance of a substantial amount of business, and as I observed before, the accessory manufacturers were in a very vulnerable position because of the large amounts of their output required by a limited number of people, and if they lost that business it was practically irreplaceable.

Q. Had United Motors been a supplier of the Ford Motor Company?

A. As I have already testified, Hyatt was, New Departure was, and really, Mr. Hurd, I don't remember whether the others were or were not.

Q. Did Hyatt continue to be a supplier of Ford after United Motors was formed?

A. Yes, it did.

Q. You had known Mr. Raskob before these negotiations were opened?

A. No, I didn't know Mr. Raskob, never met him, and up to that time I had met nobody in the du Pont organization.

Q. Did you have any discussions with Mr. Durant regarding the sale of United Motors to General Motors Corporation?

A. I don' think I had to any extent, because I was under [fol. 2408] negotiations with Mr. Raskob. He handled it for General Motors Corporation.

Q. Do you know whether Mr. Durant was in favor of the acquisition or opposed to it?

A. Well, my impression was, and it was only an impression, that at the beginning he felt that perhaps the timing was not just right, but as it developed, as negotiations continued, I got the impression that he was very much in favor of it.

As a matter of fact, when he organized United Motors Corporation he must have had in mind the eventual consolidating of United Motors with General Motors. He must have had in mind that it would be a desirable acquisition for General Motors to make.

Q. Was it customary for Mr. Durant to make investments in companies and later bring them into General Motors?

A. I don't know of any other instance in which he did that.

Q. Do you recall the Guardian Refrigerator?

A. I do.

Q. What happened in that situation?

A. Well, Mr. Durant had made a personal investment—the name of the company was The Guardian Refrigerator—or something like that—Company, and he brought the problem up to the Executive Committee, and if I recollect the figures, he said that he had made a personal investment of something like $75,000.00, and he recommended that General Motors take it over because he had in mind—this was at the end of 1918—and he had in mind perhaps in view of the fact that it was a question at that time as to whether the government would permit the automobiles to be made after the 1st of January, he had in mind perhaps if we couldn't make automobiles we could make electric refrigerators.

Anyway, I know that was in his mind because frankly he [fol. 2409] didn't impress me as being very convincing, but anyway the corporation took over the investment and took over the properties which were at that time located in Detroit, Michigan.

Q. When General Motors acquired United Motors in 1918, what became of you? Where did you go?

A. I sort of went along with the properties, Mr. Hurd. I can't remember. There were no promises or commitments made, but I was president of United Motors, and I had been in the accessory business all my life, and United Motors was an accessory manufacturer, and I think I just went along with the property.

Q. Do you recall having any discussions with anyone regarding what you would do?

A. I can't recall having any discussions with anybody. I have tried to, but I think it was one of those things that just happened.

Q. What position did you take in General Motors at that time?

A. Well, after the acquisition was made, I became a member of the Executive Committee, and of course, that meant I had to be a director according to that, and I also became vice president at the end of the year.

My responsibilities as an executive of General Motors at that time were limited to the operations which I had at United Motors Corporation. I had no additional responsibilities, and up to that time I had no responsibilities whatsoever in the car operations. I was confined to United Motors properties.

Q. Did you remain in charge of the same management of the same properties after the acquisition?

A. I did.

Q. And you have been with General Motors ever since 1918?

A. Ever since.

[fol. 2410] Q. Mr. Sloan, I am going to show you a document that has been marked Government's Exhibit No. 187, which purports to have a list of the positions that you have held in General Motors Corporation.

I would like to have you tell me whether or not that is a correct summary of the positions you have held?

A. I am sure that is correct, Mr. Hurd.

Q. You remained a vice-president until May of 1923?

A. That is correct.

Q. And you were president of General Motors from May, 1923 until May, 1937?

A. That is correct.

Q. Since that date, have you been Chairman of the Board of Directors of the General Motors Corporation?

A. Correct.

Q. During what period were you the chief executive officer of General Motors?

A. From May, 1923 until May of June, 1946.

Q. You were a member of the Executive Committee from the time you went with General Motors until it terminated in 1937?

A. Correct.

Q. And chairman of that committee during the period that you were president of the corporation?

A. Correct.

Q. You were also a member of the Finance Committee from 1922 until 1937?

A. Correct.

Q. And a member and chairman of the Policy Committee from 1937 to 1946?

A. Correct.

Q. Since that time you have been a member of the Financial Policy Committee?

A. Correct.

Mr. Hurd: If the Court please, in the book of Sloan Exhibits, I have interspersed the Government exhibits to which I am going to refer along with the new exhibits, in order that you might have them all available.

[fol. 2411] The Court: Yes, I have the book.

By Mr. Hurd:

Q. During the time that you were a vice-president of General Motors and Durant was president, that is, 1918 to 1920, the end of 1920?

A. That is correct.

Q. During that period, what, if any, contact did you have with Mr. Durant?

A. Well, I had a rather close contact with him, Mr. Hurd. I lived in New York and Mr. Durant's headquarters were in New York. I was with him going out on the trains back and forth to Detroit. On various operating trips he made, I went along with him. But I had no contact with him so far as his contact in turn with the other division managers was concerned.

Mr. Durant operated a personal, sort of a personal contact, between the various division managers and himself, and I had no contact at all with the car operation so far as his administration of them was concerned.

Q. You did not act as an assistant in any way to Mr. Durant?

A. In no way, shape or manner. As a matter of fact, Mr. Hurd, I was in sort of an isolated position.

Q. Did Mr. Durant have anyone that acted as an assistant to him?

A. Yes, he did, Mr. Hurd.

In 1919, the early part of 1919, Mr. Durant brought into the central organization as assistant to him Mr. Walter P. Chrysler. Mr. Chrysler was at that time general manager of the Buick Motor Division. He brought him into the central organization as an assistant.

In February of 1920, Mr. Chrysler retired from the corporation, and Mr. Durant at that time appointed a man called Zimmerschied as an assistant.

I would say from my contact with General Motors before [fol. 2412] January 1st, 1921, those are the only two assistants or men or executives which I think you could call principal assistants of Mr. Durant.

Q. Was Mr. John Pratt with General Motors during any of this period?

A. Yes. I don't remember the date that Mr. Pratt came into the organization, but it must have been around 1919 because he was there about the same time I had left United Motors Corporation.

Q. What was his position?

A. He was sort of a general assistant to Mr. Durant, but not in the sense that I interpreted your first question.

Q. Will you tell us briefly what kind or type of organization Mr. Durant had?

A. That is a rather embarrassing question, Mr. Hurd, in a way. What I mean by that is that when I came into General Motors, at the end of 1918 and 1919 and began to learn and see how the operations were conducted, there was a great deal about it that I felt was not sound or desirable.

Therefore your question really involves a certain amount of criticism, which I hate to make because, after all, Mr. Durant created General Motors and was a pioneer and all that sort of thing.

Therefore to answer your question, I shall try to do so in an entirely constructive way as an analysis rather than as a criticism.

Mr. Durant was a man of charming personality. He was generous. He was always willing to do something for anybody that needed help.

He was the salesman-promoter type. He was not a scientific operator or a business administrator. He was rather [fol. 2413] unfortunate, I thought, in picking out the executives that served under him.

I think he was perhaps inclined to pick out executives who would agree with him rather than executives who disagreed with him.

I have already testified here that he brought into the central organization Mr. Walter P. Chrysler. After Mr. Chrysler came into the central organization in close association with Mr. Durant, they were always quarreling about one thing and another, and it finally got to the point where Mr. Durant really let Mr. Chrysler out of the organization.

In the course of time, Mr. Chrysler distinguished himself as one of the most able men that the automotive industry ever had.

Mr. Durant did not have an organization. He operated in a purely personal way between the different executives, particularly as between those, in charge of the car operations, and himself.

While it would not be sound to say that Mr. Durant did not believe in quality, yet he did not believe in the things that were necessary to assure the quality of the corporation's products. As to the quality of our products at that time, some were good and some were bad.

The quality of the Buick car was outstanding because it reflected the capacity of Mr. Chrysler. The quality of the other cars was quite below par, to the extent that when Mr. Durant retired from the corporation and Mr. Pierre du Pont became president, one of the first problems that arose was as to whether we would change the name of the Chevrolet and change the name of the Oakland and Olds because of the bad reputations they had.

I fought that and succeeded in convincing Mr. du Pont that you couldn't improve the quality by changing the name. [fol. 2414] If you improved the quality mechanically, you wouldn't have to change the name, and that policy was carried out.

While it would be unfair to say that Mr. Durant did not believe in accounting, yet it would be fair to say that he didn't understand or believe in the wonderful possibilities of accounting in terms of indicating what ought to be done in the administration of the business.

Also, the line of products that we had was very defective. General Motors had a line of cars, and of course it was in a highly competitive position. It seemed to me that the intelligent approach would be to have a car at every price position, just the same as a general conducting a campaign wants to have an army at every point he is likely to be attacked.

We had too many cars in some places and no cars in other places.

One of the first things we did was to develop a line of products that met competition in the various positions in which competition was offered.

I could go on at great length, but I think that that probably will give you a general idea of my attitude toward the organization at the time I headed it, 1918, or rather, the beginning of 1919.

Q. What type of an engineering staff did Mr. Durant have?

A. The engineering staffs at that time, as now, were in the operations divisions. Buick had a good engineering staff. Cadillac had one. The others had very indifferent engineering staffs.

Outside of those two operations, Mr. Durant had a great deal to do with the products that were developed in the other operations, and they were inadequately engineered, and that [fol. 2415] was reflected in the fact that the quality was far from what it ought to be to meet competition.

Q. You referred to Mr. Chrysler having developed Buick. Had he been with Buick prior to becoming Durant's assistant?

A. Yes. Mr. Chrysler was brought into Buick by Mr. Nash, who was president of General Motors from 1912-1916. In 1910 Buick was a very indifferent car. The management of Buick, up to the time Mr. Chrysler came, was very much below what it ought to have been. Mr. Chrysler put Buick on the map, so to speak, and it became in a very short time one of the outstanding cars in the industry—if not the outstanding car, certainly the outstanding car in that price position.

As I have testified before, Mr. Chrysler then went into the central organization as principal assistant to Mr. Durant.

Q. Did Mr. Durant have any procedure for pricing the product?

A. Well, no, he didn't have any well developed procedure.

The prices were largely determined at the initiative of the different managers.

I think perhaps I should answer that question by an illustration. I remember once at an Executive Committee meeting, one of the division managers said, "I see you raised your price $150.00 the other day."

The other one said, "Yes," and he said, "I guess I will do the same thing tomorrow."

That was the sort of way the prices were made. They were made on an individual basis without any broad economic scheme of assuring over a period of time an adequate return on the capital employed such as we have developed since.

Q. What procedure did Mr. Durant have for controlling [fol. 2416] inventories?

A. It was entirely left to the discretion of the individual division managers. At that time there were no statistics, nothing to guide the division managers from a statistical point of view as to how inventory stood relative to the demands of inventory by products.

Q. Were there any procedures for determining what production ought to be?

A. That was entirely left to the discretion of the general managers of the operating divisions. We had no contact with the field at that time to determine what cars were sold in the field, as a means of determining what production ought to be. That was developed after Mr. Pierre du Pont became president.

Q. You have referred to the fact that Mr. Durant did not place as much emphasis on accounting as perhaps he should. Did you make any suggestion to him on the subject of accounting or auditing?

A. Well, I didn't have anything to do, Mr. Hurd, with the accounting end of the business. I have explained the limitations of my responsibility anyway.

But there was one incident that I think comes within your question, and that is this: I was surprised to find, when I joined General Motors, that Mr. Durant was issuing statements to the stockholders and the public without their being certified by outside public accountants.

I went into his office one day and protested against that.

I said I thought it wasn't fair to himself or to the directors to issue statements without a proper certification, and he said, well, I agree with you, and he instructed me to get some certified public accountants, which I did.

I employed Haskins & Sells for the purpose, and they have been the certified public accountants of General Motors ever since.

[fol. 2417] That is the only incident, I think, and that was more of an accident than anything else.

Q. During the period that you were with General Motors under Mr. Durant, did you make any study of the possible corporate setup that you thought would be suitable for General Motors Corporation?

A. Well, I have always been interested, Mr. Hurd, in management and all its various phases, and seeing the need of that thing when I entered General Motors in 1920 I made a study of the organization or the corporation from two counts.

First, the philosophy of management as applied to an enterprise of that kind. Then I applied that philosophy to General Motors as a specific case.

I made quite an elaborate report to Mr. Durant, accompanying it with a chart, or what we call an organization chart, that exemplified as a chart the report that I had submitted to him in detail.

Q. What were the basic features of your proposed type or organization?

A. Well, the basic feature of it was to put the question that way, that we should operate with a decentralized system of management. I outlined in this report the responsibilities of the directors, the Executive Committee and the Finance Committee, also the responsibility of the chief executive, which, of course, was Mr. Durant.

I also outlined the grouping of the properties within the corporation that had common denominators, and I suggested that they be put under what I termed at that time, and we continued to call, group executives, in order to relieve the president from as many administrative responsibilities as possible.

[fol. 2418] I also developed a scheme which would serve the corporation from the point of view of investigating the problems which would lead to increased efficiency in the operations, also improvement in the management technique of the corporation.

Q. In what respect did you consider that your proposed plan would create a better operating corporation?

A. It certainly would.

Q. In what respect?

A. Oh. In all of the respects that I just mentioned. It outlined the whole philosophy of management, and showed how that philosophy would apply to General Motors.

Q. Was that different from the type of organization that Mr. Durant had?

A. Well, I do not think, Mr. Hurd, that he really had an organization. He was a personal operator with the different component parts with very little organized effort as such, except that he would validate proposals which required validation by the Executive Committee or Finance Committee, or the Board of Directors.

Q. What was the occasion at that time of making this study?

A. Simply because I was interested in the problem fundamentally, and more particularly because I saw the need of it as applied to General Motors.

Q. Were you requested to do this by Mr. Durant?

A. No, I did it entirely on my own initiative and on my own time.

Q. What did you do with it once you had finished it?

A. I went into Mr. Durant's office one day and talked it over with him, and presented the study with the accompanying chart.

Q. What did he do about it?

A. He never took any action on it, and I think perhaps [fol. 2419] at that time he was engrossed in matters which seemed to him more highly significant. Anyway, no action was taken on the study at that time.

Q. Mr. Sloan, I am going to show you a document marked GM Exhibit 1 for the purposes of identification, and ask you if that is a copy of the study to which you have been referring?

A. Yes, I am certain, Mr. Hurd, that this document is the study that I made in the spring or early summer of 1920, and recommended to Mr. Durant as a scheme of organization for General Motors.

Q. And it has attached to it charts that you presented to Mr. Durant?

A. That is correct.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 1.

The Court: Are there any objections?

Mr. Harsha: No objection.

The Court: It is received in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit 1.)

Mr. Hurd: I would like to read a few portions, if the Court please, starting on the first full page of the report, which is marked Page 3.

"General Motors Corporation.

"Study of Organization.

"The object of this study is to suggest an organization for the General Motors Corporation which will definitely place the line of authority throughout its [fol. 2420] extensive operations as well as to co-ordinate each branch of its service, at the same time destroying none of the effectiveness with which its work has heretofore been conducted.

"The basis upon which this study has been made is founded upon two principles, which are stated as follows:

"1. The responsibility attached to the chief executive of each operation shall in no way be limited. Each such organization headed by its chief executive shall be complete in every necessary function and enable to exercise its full initiative and logical developments.

"2. Certain central organization functions are absolutely essential to the logical development and proper control of the Corporation's activities.

"Having established the above principles as fundamental, and it is believed that all interests within the Corporation agree as to such principles, the definite objects which it is hoped to attain by this study, are enumerated as follows:

"1. To definitely determine the functioning of the various divisions constituting the Corporation's activities, not only in relation to one another, but in relation to the central organization.

"2. To determine the status of the central organization and to coordinate the operation of that central organization with the Corporation as a whole to the end that it will perform its necessary and logical place.

[fols. 2421-2424] "3. To centralize the control of all the executive functions of the Corporation in the President as its chief executive officer.

"4. To limit as far as practical the number of executives reporting directly to the President, the object being to enable the President to better guide the broad policies of the Corporation without coming in contact with problems that may safely be entrusted to executives of less importance."

At that point, Mr. Sloan, I would like to ask you to what extent did you consider that Mr. Durant's operations were defective or embarrassed by having the executives report directly to him?

A. Practically everybody, Mr. Hurd, reported to him directly.

By Mr. Hurd:

Q. Were these merely information reports, or reports for the purpose of obtaining decisions?

A. Well, both. For instance, you take one of the operations like—take the Olds Division. Mr. VerLinden was general manager of the Olds Division, and everything pertaining to the Olds Division would be taken up with Mr. Durant direct, and Mr. Durant would make decisions involving the problems of the Olds Division and then it would be carried out by Mr. VerLinden as chief executive.

[fol. 2425] Mr. Sloan, did Mr. Durant have anything comparable to this general Advisory Staff to which you refer?

A. Only, Mr. Hurd, in a very indifferent way at that time. There was no well developed advisory staff in that time. We had certain activities, other than the operating divisions, but they might better be called "Service organizations" rather than "Advisory organizations."

Q. Was this Advisory Staff, that you contemplated, to have any authority over the division managers?

[fol. 2426] A. No, the Advisory Staff, I think, might be compared wtih the Army organization where you have line officers and advisory officers. An officer who is on the advisory staff only has authority over his own individual organization. He couldn't give any instructions or issue any directives to the operating divisions. That could only be done by a line officer.

Q. Turning to page 25, at the bottom of the page under the heading, "President's Personal Staff":

> "In view of the large number of matters that must necessarily come directly under the supervision of the President of the Corporation, through the interchange of matters from the different staffs, it becomes absolutely essential that an organization be provided to relieve the President of detail matters so far as it is possible to do so. The President's personal staff is divided into two general divisions:—
>
> "1. Personal Assistants to the President
> "2. Appropriations Committee."

And dropping down to the heading, "Appropriations Committee," on the top of page 26:

> "This Committee is to investigate, on behalf of the President, as to the propriety of extensions to the Corporation's units represented by betterments to existing properties or additions through the acquisition of new properties as may be recommended by the executive in charge of any operating division or group of operations or by the Vice President in charge of the General Advisory Staff. The Appropriations Com-[fol. 2427] mittee has the privilege of drawing on the General Advisory Staff for such technical information and assistance as in its judgment may be desirable, with a view to obtaining the benefit of all the resources and expert information within the Corporation organization as a whole, in order that the President may best determine the proper method of procedure in each individual case."

Mr. Sloan, up to this time, had there been an Appropritions Committee that investigated properties that were being considered for acquisition or investigated for the desirability of extensions of existing properties?

A. That recommendation, Mr. Hurd, that you just read, grew out of the fact that at the time that I developed this study, we had an Appropriations Committee. Mr. Pratt was the Chairman of the Appropriations Committee, and in making the study I had to make certain compromises between what we had and what might be best to do in order to make it realistic from the standpoint of its being applied.

As a matter of fact, the Appropriations Committee as such passed out of the picture at the end of 1920, and the responsibility for recommending expansions in plant capacity, additional properties that might be taken up, were turned back to the particular operating divisions involved where they properly belonged, and a study would be made of the recommendations to be made by the operating divisions.

Then they would be passed on by the group executive to the president, and finalized by the Executive Committee and the Finance Committee, if the amount involved required Finance Committee Approval.

[fol. 2428] Q. Are you acquainted with the extent to which Durant investigated into properties before acquiring them or made a scientific investigation of the need for an extension of the existing properties?

A. Well, Mr. Hurd, I have already testified here that I was not in the car division atmosphere at all. My responsibilities were entirely limited to the properties that I have already mentioned. Therefore, I was looking from the out, in, rather than from the in, out, so to speak, and my impression was that the recommendations for expansion at that time were still developed by the operating car divisions as to their validity and desirability, and that the Appropriations Committee passed upon it, the Appropriations Committee, as it was at that time constituted, passed upon it from the standpoint of general terms, more particularly from the financial side involved than the justification of it as a proper expansion of the business.

I cannot testify—I cannot talk very authoritatively on that, because I was not part of that picture at all.

Q. Turning to the bottom of page 26, to the heading, "Advantages":

> "Having outlined in a general way the functioning of the various staffs on the executive side and the relation of those staffs with the 'Major Control', the benefits to be obtained by the proposed organization may be enumerated as follows:
>
> "1. The broad policies of the Corporation are formulated by two principal Committees; that is, the Financial and Executive Committees. These Committees constitute experts in their individual line—the Execu- [fol. 2429] tive Committee in the detailed management of the Corporation's operations—the Finance Committee along lines of finance and accounting.
>
> "2. The direct operation of the Corporation is centered in a single individual—the President of the Corporation. This must result in prompt and effective action on all important questions.
>
> "3. The direct operation of each individual unit is in the direct control of the executive in charge of that unit. This executive is responsible for the successful conduct of his specific operation in all its activities, resulting in the full exercise of that executive's initiative and ability together with that of his organization.
>
> "4. Operations of an allied nature are grouped together without lessening in any sense the initiative of the executive in charge of the individual operation. Through this plan the number of executives reporting to the President is very properly reduced.
>
> "5. Proper co-ordination between the Executive Staff, General Advisory Staff, and General Finance and Accounting Staff is provided by Advisory Committees in which all these various staffs are represented. This must necessarily result in the development of each staff along lines that will be profitable to the other staffs with a constant inter-change of viewpoints between the staffs to the end that illogical development incurring unnecessary expense with corresponding ineffectiveness will be eliminated. This should result in the development of cooperation through

> [fol. 2430] the Corporation as a whole increasing the morale and effectiveness."

Then there is attached the chart which shows that W. C. Durant is president.

Mr. Sloan, after you prepared this plan and submitted it to Mr. Durant without result, what position did you take regarding remaining with General Motors Corporation?

A. Well, in the beginning of 1920, more particularly after I had been with the corporation for a year and had a chance to evaluate all phases of it, I became quite concerned as to my own future in the business.

I have already testified here what my original effort, going back to the Hyatt Roller Bearing Manufacturing concern, had been. What I created there had gone into United Motors and then gone into General Motors, and I thought with the trend of things, that the investment in General Motors was to a certain extent uncertain.

I recognized that Mr. Durant had a very large interest in the business, perhaps the controlling interest. I knew nothing about his personal affairs. Due to the changes and the fact that I started with a substantial amount of stock as compared with cash, practically all I had was involved in my ownership of General Motors at that time.

I felt that I couldn't protect myself by liquidating any part of it because Mr. Durant, who wanted the responsibilities that he sort of assigned to himself, was participating in a good market for the stock, and he was buying it quite generously, and in view of the fact that my office was very close to his, or really next to his, it seemed to me to be very unethical for me to dispose of my stock when he was trying [fol. 2431] to support the market, and I became considerably concerned as to the future, to the extent that I got quite upset physically, and I decided that the best thing for me to do was to ask for a leave of absence, which I did, and which, of course, he very kindly consented to. I went to Europe for a month, and tried to think the matter over, and previous to going to Europe I had some negotiations with an important banking firm in New York with a view to retiring from General Motors and becoming a partner in this banking firm, dealing with their industrial operations, and when I came back from Europe at the end of August or

September, whenever it might be, I realized that conditions were moving forward very rapidly, and Mr. Durant was on vacation,—something that he had never taken before in all the history of General Motors—and in view of the fact that my commitments to this banking firm were not limited, so far as timing was concerned, I decided I would continue on with General Motors, to see what might happen, so to speak, and that was about my frame of mind in 1920, after I had had a chance to evaluate the future of the corporation under Mr. Durant's management.

Q. What was the name of this banking firm?

A. Lee Higginson & Company.

Q. Do you have any personal knowledge about the events in November of 1920 culminating in Mr. Durant's resignation?

A. No, Mr. Hurd. I know nothing about that whatsoever. I again testified to the fact that I was not in the top echelon of the executive management in General Motors. I was not in any of those discussions or problems.

As I remarked before, I was rather on the side dealing [fol. 2432] with the particular operations for which I was responsible. Incidentally, I got my information more through the underground route, as you might put it, more than I did by direct contact or having any responsibility with those problems at all.

Q. Upon Mr. Durant's resignation and retirement from General Motors, did you have any discussion with anyone as to who should succeed Durant as president of General Motors?

A. The only thing that I can recall, Mr. Hurd, was that I remember very definitely a discussion in the office at about that time. I know Mr. Pierre du Pont was present. Mr. Raskob was present. Of course, I was present myself. There were others present, but I can't recall just who was present, in addition to us three, when the subject of who was to succeed Mr. Durant came up.

I remember very strongly urging that the only one who would do the job that had to be done to restore the morale of the organization, to give the public, especially the banking interest, confidence in the future of the corporation—at that time the corporation was indebted to the banks something like $80,000,000—of course, that doesn't seem like very much I know now, but at that time it was an awful big amount—, I emphasized the fact that the only individual who could do all those things was Mr. Pierre du Pont. I realized that Mr. du Pont had no knowledge specifically of the motor car business; that his technical competence was in an entirely different line of activity. It was not in mechanical, but of course in the chemical industry.

Today that would be normally a very important consideration. In the situation that existed back in 1920 it was not important. The importance was to get in the presidency an [fol. 2433] outstanding figure who had the respect and confidence of all groups, and Mr. Pierre du Pont was the only one that I thought could measure up to that responsibility.

I strongly urged him taking the presidency. He finally did so, with the understanding that his term of office would be very definitely limited, and we accepted him as president on that basis.

Q. After Mr. Pierre du Pont became president of General Motors, what were generally your duties during the first six months?

A. Well, I became in a general way his principal assistant, Mr. Hurd. For the first six months after he became president, there were a good many shifts around. We were trying to find ourselves, and I think that his scheme of organization showed Mr. J. A. Haskell and myself as operating vice presidents, or something of that kind.

Mr. Haskell, we designated, as having executive responsibility over the operations, or producing organizations, and I had general supervision over the advisory staff.

I think in the first six months, most every month, there was some change. I can answer your question from the standpoint of July 1, 1921, which is about six months after Mr. Pierre du Pont became president; I then turned up, so to speak, as operating vice president, and I had charge of the whole corporation subject to the administration of Mr. Pierre du Pont as president.

Q. And that continued until you became president in 1923?

A. That is correct.

Q. What, if anything, did Mr. Pierre du Pont do regarding the corporate organization of General Motors when he became president?

A. Well, the first thing that was done of significance was to reorganize the executive committee.

[fol. 2434] The executive committee, up to that time, had consisted of nine members. Mr. Durant, of course, was chairman. I was on that committee, as I stated before. That committee was practically liquidated and a new executive committee formed, consisting of Mr. Pierre du Pont as chairman; Mr. J. A. Haskell, Mr. John Raskob and myself. There were four on the new executive committee.

The membership of the old executive committee was continued under the name of operations committee. That was the principal change in the governing committee that took place shortly after Mr. du Pont became president.

Q. What was the position of the people who had been on the executive committee? What type of people had been on the executive committee before?

A. The car division managers. I can name them, if you wish.

Q. No.

A. The car division managers and Mr. J. A. Haskell. I was not a car division manager, but I was on the executive committee. I think that constitutes the committee, Mr. Hurd. If I remember correctly, there were nine of us on the committee, that is, the old executive committee, Mr. Hurd.

Q. Was the operations committee in existence under Durant?

A. No, it was not.

Q. When this operations committee was created under Mr. du Pont, what type of people were put on the operations committee?

A. The same people that were on the former executive committee, in terms of generalities.

Q. Was there anything else done by Mr. Pierre du Pont with respect to the organizational set-up of General Motors?

A. Not with respect to the Board of Directors, or the finance committee. The executive committee we have already dealt with.

[fol. 2435] Q. Did you have any discussion with him regarding your proposed organization chart, and your study of the organization?

A. I don't recall whether I did or not, Mr. Hurd, but shortly after Mr. Pierre du Pont became president, I think very early in January, he issued a scheme of organization to the executives which was substantially equivalent to what I had recommended to Mr. Durant the previous spring or summer.

Q. Mr. Sloan, I am going to show you a document which is marked in evidence as Government's Exhibit 178, and ask you whether or not that is a communication and chart of organization that Mr. Pierre du Pont issued to which you have referred?

A. This is the scheme of organization that Mr. du Pont promulgated to the management. It carries the date of December 29, 1920. It embodies in general terms the recommendations that I have testified before that I submitted to Mr. Durant. This particular memoranda has been changed in some particulars in line with the changes that took place about which I have already testified.

Q. Changes in personnel?

A. Changes in personnel. The executive committee changes are indicated; the operations committee setup is also indicated on this chart, and naturally, that was not on the previous chart, because it was developed from the point of view of Mr. Durant as president.

Q. Did you have any discussions with Mr. Pierre du Pont regarding the change in the executive committee, and the creation of the operations committee?

A. I cannot recollect specifically that I did, Mr. Hurd, but you must remember that while I was Mr. du Pont's principal assistant, all I can say is that I must necessarily have had, even if I cannot specifically remember it.

[fol. 2436] Q. To what extent is the system of organization that was contained in the original chart that you prepared for Mr. Durant and is contained in Government's Exhibit 178 representative of the type of organization that General Motors has today?

A. There is very little change in basic principles. There has been quite a good deal of change in the shape of the organization chart. You might say there has been quite a number of changes in nomenclature, what we call things, that developed over a period of thirty years, but the basic principles of the management to date that I have outlined in the original study that I made in the spring or early summer of 1920, still hold in General Motors today.

Q. During the two or two and a half years that Mr. Pierre du Pont was president, what, if anything was done with respect to the difficulties of the organization that you considered existed under Mr. Durant, for example, take the subject of inventory, controlling inventory; was there anything considered during this period to change the procedure with respect to that?

A. Well, your first question was rather in terms of generalities, then you dealt with the inventory, so I will deal with the inventory. The inventories were considered from the standpoint, from the statistical standpoint. One of the first things we did was to set up statistics which indicated, what we call in industry, the turn-over. Naturally, an efficient management carries inventory at the minimum amount, yet, in sufficient amount to supply the production schedules, whatever they may be. The ratio of one to the other is the best index we have of the correct status of inventory with respect to current production schedules. We established such an index, and that same [fol. 2437] index holds good today. Every month, even the directors get a report of the inventory turn-over that was established back shortly after Mr. Pierre du Pont became president.

Q. Do you recall who it was in the automotive industry that originated the idea of having inventory not accumulate in the automobile industry?

A. That was Mr. Henry Ford in the early days. He laid down a very sound rule, and that was that a piece of material should never stand still. It should always be moving. The whole scheme of production in the automotive industry today has a philosophy behind it that was established by Mr. Ford thirty or thirty-five years ago, that you should never have things pile up. You should always have them moving from one machine to the other.

Q. What type of studies or procedures were worked out in General Motors to provide for this control of inventory? You have referred to having some reports.

A. Well, that was the responsibility of the division executives. What I described before is more simply the index of what they accomplished, and if we found that the inventory ratio was declining, of course, it would be taken up and we could try to correct it.

That way we have a constant—we can go back in our records for thirty years and see what the inventory turnover has been every month over those whole thirty years.

Q. Were any procedures worked out to guide the corporation in purchasing in order to provide for this turnover of inventory?

A. I don't know that I get what you are driving at, Mr. Hurd.

Q. Do you recall the ten-day report?

A. Oh, you are talking now, Mr. Hurd, not about—I am sorry, I interpreted your question as being inventory [fol. 2438] within the plant itself. You are talking about inventory in the field?

Q. Yes.

A. Car inventory. That is quite different. Yes, steps were taken in that direction, something like this: We developed a system by which all General Motors dealers would report to their respective division the amount of inventory, car inventory I am talking about, unsold merchandise, which they had three times a month, on the 10th, on the 20th, and the end of the month.

With those records before us we had a prime index of what the production ought to be for the following three or four months.

In the automotive industry, you know—or perhaps you don't,—but anyway in the automotive industry, we have to change our models once a year. It is very necessary to keep a close contact between the cars in the field and production in order to be able to have a minimum number of cars in the field at the time that the model changes, otherwise both the corporation and the dealers are subject to very excessive losses because the new car depreciates the old car.

Although previous to this system the production schedule was laid down in a haphazard sort of way, these three reports per month from the dealers put it really on a scientific basis, and we now set our schedules in relation to the cars in the field based upon these reports, giving consideration to the trend of consumer demand, whatever we think that may be.

Q. To what extent, if any, is there a relationship between the production schedule, that is your production schedules, and the purchase of material to go into the products?

[fol. 2439] A. Well, that of course comes within the jurisdiction of the operating division. Generally speaking, the operating division has authority to make contracts for material for current months and three months in addition. Beyond that, they can make commitments if, in their judgment, it is desirable, but they must report it so that it becomes a record of the corporation, beyond the four months.

Does that answer your question, Mr. Hurd?

Q. Was anything done during this period of Mr. Pierre du Pont's presidency regarding engineering and testing equipment procedures?

A. Well, in the first place, as I testified before in connection with the question you asked me respecting Mr. Durant's administration, a line of products was laid out that met competition at every point in the pyramid of price.

For instance, we had the Cadillac car, which was the General Motors representative in the high priced line. We had a car that might be termed a car for every purse and purpose. We organized our line of products along these lines so that we could meet competition, as I said before, like a general can meet an opposing army at all the various points.

That was the engineering development of the car product that took place shortly after Mr. Pierre became president.

Q. During this period of Mr. du Pont's presidency, did the corporation dispose of any properties?

A. Yes. At the time Mr. du Pont became president, there were two divisions making cars which did not conform to this plan which I have just mentioned. One was the Sheridan Motor Car division in, I think it was down in Indianapolis, and the other was the Scripps-Booth Division in [fol. 2440] Detroit. Those were liquidated because they didn't fit into the amended picture that I have just described.

Q. Do you recall what happened to the tractor business?

A. The tractor business was liquidated shortly after Mr. Pierre du Pont became president.

Q. Who took the initiative in working out this program for coordinating your products to have one for every purse and purpose, as you have said?

A. That was up to Mr. Pierre du Pont and myself. I think as the operating vice president that I probably took the initiative in that.

Q. Who developed the system of reports for your production schedules?

A. That I have already testified to?

Q. Yes.

A. I did. At that time that we are discussing, Mr. Hurd, the statistical information was very scarce, and one of the first things that I did was to make a contact with a concern called R. K. Polk Company, who, in turn, set up organizations in the different state capitals whereby we could learn, among other things, our cars that were being registered in the different states, so we knew at all times what percentage of the automobile business of our make would pass into the hands of the consumers.

Q. And is substantially that same system used today?

A. That system still continues today. We know every month just exactly what percentage of General Motors cars the American public bought as compared with our competition. That is the final measure of the strength of our cars as compared to competition.

Q. Who worked out the system of dealer reports to guide you in projecting your production?

A. That was my idea.

Q. The ten-day reports and those?

A. Yes.

[fol. 2441] Q. During the period of Mr. Pierre du Pont's presidency, were there any changes made in the managers of the car divisions that you recall?

A. Yes, there were quite a number of changes. Mr. Hohensee was head, general manager of the Chevrolet Motor Division, and he retired.

It might be said that shortly after Mr. Durant retired from General Motors, he organized a competing enterprise called Durant Motors, and Mr. Hohensee left General Motors and took charge of Durant Motors under Mr. Durant.

Mr. VerLinden at that time was general manager of the Oldsmotor Division. Mr. Collins was general manager of the Cadillac Division, and they both retired from the organization.

A question arose as to their ethics in drawing money from the corporation that was not properly authorized, and Mr. Pierre du Pont, who handled the matter entirely, —I had nothing to do with that—felt that it was entirely wrong, and those two division managers left the organization.

Mr. Fred Warner, who was the general manager of the Oakland Division, retired because he didn't feel that he fit into the new picture.

So of the nine men on the executive committee we were discussing before, four of them left the organization within six months after Mr. du Pont assumed the presidency.

Q. Who succeeded Mr. Hohensee as manager of the Chevrolet?

A. Mr. Hohensee was general manager of the Chevrolet Division, and was succeeded by Mr. Zimmerschied, whom I mentioned before as coming into the organization in 1920 as a principal assistant to Mr. Durant.

[fol. 2442] Q. Who succeeded Mr. Warner at Oakland?

A. Mr. Warner was succeeded by a man by the name of Hannum. Mr. Hannum had been general manager of one of our accessory divisions up at Saginaw, Michigan. He came into Oakland as a general manager of that division when Mr. Warner retired.

Q. He had been working under you?

A. Yes.

Q. Who succeeded Mr. Collins at Cadillac?

A. Mr. Collins was succeeded by Mr. H. H. Rice. Mr. Rice was at that time in the central organization. In fact, he was treasurer of General Motors. He moved over and became general manager of the Cadillac Motor Division.

Q. And who succeeded Mr. VerLinden at Olds?

A. Mr. VerLinden at Olds was succeeded by Mr. A. B. C. Hardy. Mr. Hardy at that time was in the central organization of General Motors.

Q. Do you recall who suggested these various new managers?

A. They were entirely my recommendations and my appointees. Nobody had anything to do with them whatsoever except myself.

Q. In selecting them, did you give any consideration to whether or not they were friendly to the du Pont Company?

A. I didn't know anything about it, and I was not interested in it. My sole objective was to get the best men I had available to fill the responsible positions.

Q. Turning now, Mr. Sloan, to the spring of 1923, when you became president of General Motors, will you tell us the circumstances under which that occurred?

A. Well, so far as I am concerned, Mr. Hurd, there weren't any circumstances. In other words, Mr. Pierre du Pont had just previous to my election as president [fol. 2443] accepted the presidency at an organization meeting following the meeting of the stockholders in 1923.

I knew, of course, that Mr. Pierre du Pont's service with the corporation was limited, but I thought, as you might say, we were set for another year.

At the next meeting of the Board, he presented his resignation and recommended to the Board that I be elected president. I may say that I was completely flabbergasted. I didn't know anything about it.

I heard afterward that Mr. Pierre had written a letter to all of the directors, making the recommendation, explaining that he was retiring. It is one of those things, the kind of secret that is hardly ever kept, but this one certainly was kept. I was completely uninformed.

Q. When you became president of the General Motors Corporation, what, if any, instructions did you receive from Mr. Pierre du Pont or any other du Pont representative?

A. I didn't receive any instructions from anybody, Mr. Hurd. I was completely on my own from that point on.

Q. Mr. Sloan, I show you a document that has been marked for identification as General Motors Exhibit No. 2. That is the first organization chart since your presidency.

I also show you a document marked General Motors Exhibit No. 3 for identification. Exhibit No. 2 is dated 1925. Exhibit No. 3 is dated April, 1927.

Will you tell us whether or not the organizational setup in the 1927 chart is substantially the same as that in the 1925 chart?

A. Yes, it is. There might be some differences in personnel, but the scheme of management is about the same.

Mr. Hurd: If the Court please, I am going to ask Mr. [fol. 2444] Sloan to explain the 1927 chart from an organizational standpoint for the sole reason that it is more legible than the 1925 chart in view of the fact that the organizational setup is the same.

I offer in evidence General Motors Exhibit No. 2 and No. 3.

The Court: Is Exhibit No. 3 the one you are referring to?

Mr. Hurd: Exhibit No. 3 is the one I will have him explain, yes.

The Court: They are both received in evidence.

(Said documents, so offered and received in evidence, were marked Defendant General Motors Exhibits Nos. 2 and 3.)

Mr. Hurd: With the Court's permission, is it agreeable if I have Mr. Sloan go over here to the chart for the purpose of explaining the type of organization?

The Court: That is agreeable.

By Mr. Hurd:

Q. Mr. Sloan, will you take this pointer and explain to the Court the setup of General Motors from an organizational standpoint as shown by General Motors Exhibit No. 3, which is dated April, 1927?

Will you start at any place you please and end at any place you please?

A. Anyway I want?

Q. Yes.

A. All right.

Well, I think to make the problem, which looks rather [fol. 2445] complicated, clear to the Court, I would like to deal, if I may, first with the philosophy of our management technique, and then apply the philosophy to the chart that is before us.

I may say that this chart, although it is 1927, is typical of the whole scheme of General Motors management technique from 1921 on to the present time.

General Motors operates on what is recognized as a decentralized system of management. By decentralization, I mean we believe in giving the responsibility with the maximum authority necessary to discharge the responsibility as far down in the echelon of authority as we possibly can.

The heart of our management technique is the operating divisions. That is where the business is conducted, and that is where the money is made or lost.

In our management technique, the general manager of an operating division has complete authority over that particular operation. He has authority and responsibility which, I think, might be said to be perhaps even greater or certainly as great as the chief executive of an independent corporation.

He lays down his own program of production. He buys his own materials. He hires his own people. He works out his own organization. He has complete charge of the distribution of his product. He makes contracts with the dealers throughout the country. All the functional activities of the operations are under the complete jurisdiction of the general managers of the divisions.

The rest of the scheme is more to help him to do a constructive piece of work and finalize the decisions that [fol. 2446] he has to make in relation to his particular part of the corporate responsibility.

We even carry that to the point that in the time we are discussing here, which is 1927 in this particular chart, we often discussed whether it would be a proper procedure and management technique to lay down a policy that nobody could reverse the judgment of the general manager of a division except the Executive Committee itself or the Board of Directors, and even the president of the corporation could not make a decision against the judgment of the general manager of a division.

That never was promulgated because it wasn't exactly practical. But I merely mention that to emphasize the importance of the general manager of the division in discharging his responsibility in that particular operation.

As chief executive of General Motors at times I have deliberately let the general manager of a division adopt a policy which both my associates and myself thought was unsound and undesirable—in some cases it turned out that that was so—simply because we didn't want in any way to detract from the responsibility or authority or prerogatives of the operating division.

I often say in describing the management technique of General Motors that we operate almost on a free enterprise system within ourselves because now the general manager in turn delegates his responsibility to his particular executives that are concerned with that operation, and our philosophy is that they must also be given a broad responsibility and the authority to carry out that responsibility.

Without making the record too long, I just want to make the observation that February 1, 1941, when we [fol. 2447] were no longer permitted to make automobiles on account of the war, we were required to go into war production, in which we made an outstanding record, the reason that we were able to make such an outstanding record was because we had trained our people to take responsibility with the authority as a part of our management technique.

I mention that in some detail—perhaps too much detail—because that is the heart of the managing technique of the General Motors Corporation, and it would be impossible, according to my judgment, operating so closely with the properties for over thirty years—it would be impossible for us to maintain an efficient organization or efficient management in the scale we are now operating, unless we lived rigidly up to this scheme of decentralized management.

Now, passing from that description to this particular chart, we have the operation staff here, which is the part of the corporation which I have been discussing. This represents the different operating divisions at that time, and the executive, the chief executive in charge of those operations.

You will notice, in accordance with the scheme that I laid down in that study in 1920, we put certain of the groups together under what we call a group executive. For instance, here are all of the accessory divisions of General

Motors. At this time they were grouped together under Mr. John L. Pratt who was the vice president in charge.

Take our extensive export operation, they were under the direction of Mr. J. D. Mooney who was vice president in charge. The purpose of that was to give a more concen- [fol. 2448] trated attention to certain individual operations, and to relieve the president of the responsibility of dealing with those operations individually. Naturally, the group executive, as we call it, would take up with the president, anything he wished, but the idea was to relieve the president of all of the problems that did not have to go to him directly.

These are the individual relations committees. The purpose of these committees was to get a greater degree of coordination between certain functional activities within the operations here, the producing operations. For instance, here is the general technical committee. At this time I was chairman of the General Technical Committee. The General Technical Committee consisted of the chief engineers of the car operations here, and also the chief engineers of certain accessory divisions. It was representative of the technical side of the business. This technical committee met every month, considered problems of general character which were applicable to all of the various car operations, and perhaps technical problems involving other activities within the corporation.

These committees were advisory, and more of a development nature. They had no authority whatsoever. If the general technical committee took a position on something, or made a recommendation, approved by the chief engineer, say, of a division who was on the committee, it would have to be passed on by the general manager, because the general manager had complete supervision. None of these committees had any line authority whatsoever.

When you pass on up the chart, you have the president, [fol. 2449] who was the chief executive officer. Then you have the Finance Committee and the Executive Committee.

The Executive Committee dealt with problems involving the administration of the business, the management of the business. The Finance Committee dealt with the problems more specifically of a financial character.

There is one committee here which perhaps I should mention because it has a very important significance, and that is this, that in an operation as large as General Motors, having so many important operations, any new development or any important piece of policy has to be discussed and developed on as broad a base within the corporation as possible.

For instance, to illustrate that, take the Chevrolet Motor Division. If the Chevrolet Motor Division was lifted out of General Motors, it would probably be one of the biggest manufacturing corporations in the United States. The general manager of that division, of course, is a very important executive in General Motors, and it would be entirely unsound and undesirable to develop a policy unless he was a party to it, believed in it, and could support it, and in view of the fact that in the aggregate there are so many executives of that type that have to be consulted down through the years, we found it necessary to have an operations committee where plans and ideas and techniques are discussed in very great detail before they go up to the Executive Committee to be finalized or dealt with, if they require corporate action from a legal point of view.

I think, Mr. Hurd, that gives in general how we operate, and I may say again that the general scheme of the organization, although the shape of the chart has changed and [fol. 2450-2451] the nomenclature has changed, the broad principles have not changed.

[fol. 2452] **Alfred P. Sloan, Jr.**, witness on behalf of the Defendants, having been previously sworn, resumed the stand and testified further as follows:

By Mr. Hurd:

Q. Mr. Sloan, referring briefly to the General Motors organization that you were discussing at the end of the last session, will you tell us in general the type of matters that come before the Board of Directors of General Motors?

A. Well, in the case of General Motors, which is, of course, a large scale operation, the problems that are presented to the Board are something like this. In the first place, the Board has to deal with certain questions in order that they may be properly legalized, like dividend action and so forth. It also has to deal with other problems of a legal nature. The Board receives monthly, as our meetings take place monthly, voluminous reports from the governing committees of the Board, presently called the Operations Policy Committee, and the Financial Policy Committee.

The Board may be required to take certain action with respect to those reports.

In all cases, the Board receives the report and incorporates it in the records of the Board.

Beyond that, the operations of the Board of Directors consist of examining the condition of the property or the business as it moves forward from month to month, and to make any comment at the Board meeting that that examination might bring forth; to the effect that, an examination [fol. 2453] consists of a screen analysis of all the salient points in the operation of the business.

For instance, the Board receives a forecast of earnings; it receives an inventory turn-over; it receives car sales, and it deals with all the statistical, economic and business problems which are presented to the Board on a screen.

The Board sits around a table and sees the facts thus presented. The facts are explained by an economist, so far as they affect economic problems, and by a financial analyst so far as they affect their problems.

In addition to that, the Board receives verbal statements from the operating executives who are on the Board as to the condition of the business from the standpoint of the operations with which they are particularly familiar.

In addition to that, there comes before the Board, from time to time, executives of important operations who are not on the Board, but who may talk to the Board in order that the Board may be informed more in detail as to the nature of what is going on in that particular area of the corporation's activities.

The Board, generally speaking, does not initiate policies or programs, because, outside of the operating people who are on the Board, the operating executives, the Board hasn't sufficient contact with the details of an enormous business like this in order to exercise initiative.

It may exercise it as an incident, but not as a general program.

— Does the Board deal with engineering problems?

A. Not at all. The Board deals with no specific problems unless it should come before the Board incidentally. For instance, an executive talking to the Board may deal with the engineering phase of his particular operation, but it would be purely for informative purposes. The Board [fol. 2454] would take no action on it. It is only for the information of the Board as to the detail of the Board's operations.

Q. Does the Board deal with the subject of purchasing materials used by the division?

A. Not at all. That does not come to the Board in any way. That responsibility of purchasing is the responsibility of the division manager who has charge of that particular operation.

Q. You referred yesterday to the fact that, when Mr. Pierre du Pont became president, the division managers who had been on the Executive Committee were taken off of that Committee and put on the Operations Committee. What has been the practice of General Motors since that time as far as the personnel of the Executive Committee is concerned?

A. Well, generally speaking, the idea is that the members of the Executive Committee should not be division managers as such. The membership of the Executive Committee should be confined to the executives who are handling a group of properties, what we call group executives. That has been the practice from the time Mr. Pierre du Pont became president up to the present time.

As a matter of fact, in thirty odd years, there have been only two instances or exceptions to that rule.

The exceptions were Mr. Bassett, who was general manager of the Buick Division—he was a member of the Executive Committee for three or four years, and ~~Mr.~~ Knudsen, who was general manager of Chevrolet, who ultimately became president of the corporation—he was on the Executive Committee for a few years, but outside of those two exceptions, there have been no instances where managers of divisions have sat as members of the Executive Committee.

[fol. 2455] Q. You also referred yesterday to the fact that the divisions of General Motors were complete unto themselves, like separate corporations. I am now showing [fol. 2476] having on that Committee a cross-section of interests."

Mr. Sloan, at this time, did you recommend any change in the committee system?

A. No, I didn't recommend any change at that time, Mr. Hurd.

Q. In the first part of this paragraph, you referred to the question of the so-called "du Pont influence." To what did you refer?

A. Well, it was my thinking, Mr. Hurd, when I became president of the corporation and had really great responsibility which, of course, developed enormously over the twenty-three years, as I say, as chief executive officer, that it would be encouraging and helpful to me if I had in the deliberations of the business at the top policy level, a representation of large stockholders like the du Ponts and others, as well.

We had, in General Motors down through the years in the operating organization, representation of stockholders' interests in quite a large way.

I myself have always been a large stockholder in the corporation, and I felt that, when important, significant problems of policy arose, if we had in contact with those problems people who had a stockholder interest and they felt it was all right, it would strengthen my conviction that it was the right thing to do.

It will be recalled and is in the record, that in around 1931, I think it was, Mr. Lammot du Pont came on the Executive Committee.

In 1934 he moved out of the Executive Committee. When he submitted his resignation and told me he wanted to retire, I rather rebelled against it because I felt, sitting on the Executive Committee and knowing what the problems [fol. 2477] were and how we were dealing with them, and having his support, it brought strength to the deliberations of the Committee and assurance to all the members on the part of an outstanding business executive outside of the stockholders' interest that we were doing the right thing.

That is what I meant when I referred in that letter to the "du Pont influence."

The Court: Court stands recessed for fifteen minutes.

(Recess taken.)

The Court: Proceed.

Mr. Hurd: If the Court please, I would like to call attention to General Motors Exhibit marked for identification as No. 7.

Q. Mr. Sloan, will you look at this document and tell me whether or not that is the letter that you wrote to Mr. Brown on or about December 28, 1944?

A. That is right, Mr. Hurd.

Q. At that time were you concerned about the overlapping of the activities of the Administration Committee and the Policy Committee?

A. Well, I was not particularly concerned with it.

As I testified just before the recess, I think that the problem was more the way the plan operated than the plan itself. I think probably we brought into the discussions of the Policy Committee problems that might better have been taken care of by the Administration Committee, but we recognized the fact the Policy Committee had the responsibility of finalizing certain problems that required finalization from a legal point of view.

[fol. 2478] The Administration Committee had no authority of that kind because it was not a member of the Board of Directors.

Mr. Hurd: If the Court please, I will offer in evidence General Motors Exhibit No. 7.

The Court: The exhibit is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 7.)

Mr. Hurd: I woud like to read some portions, beginning with the first page.

This is a communication from Mr. Sloan to Donaldson Brown, dated December 28, 1944.

By Mr. Hurd:

Q. Mr. Sloan, at that time what was Mr. Brown's position with General Motors?

A. He was vice-chairman of the Board and he had complete supervision over finances.

Mr. Hurd: Starting with the first paragraph:

"As you have an opportunity to think over things, I would appreciate it if you would give some thought to the point that has recently come up with respect to the relationship of the Administration Committee to the Policy Committee to the Board of Directors. I think it is quite important.

"While you say, very properly, that Lammot and Walter—"

By Mr. Hurd:

Q. "Walter" refers to Mr. Carpenter?
A. That is right.

[fol. 2479] Mr. Hurd: (Reading)

"—have never been very enthusiastic about our present set-up, I think their objection centers around the problem that I am now laying before you. Walter feels that the Policy Committee is asked to pass on too many details of administering the business, concerning which they cannot possibly be familiar. I don't know exactly what Lammont's objection is. But I think that we ought to give some thought to the problem with the hope that we might present some modification at the Organization Meeting next May, providing we can work out something that would not limit the present scheme of things, with which I am very enthusiastic, and at the same time meet the viewpoint of the others. That ought to be done, if it can be done.

"As I said the other day when we were discussing the matter, it was my original concept that the Administration Committee would run the business. Everything pertaining to what we might call 'running the business' would be up to that Committee. And solely that Committee. Nothing would have to go beyond that Committee except matters of very broad policy. Of course, it is difficult to decide what is broad policy and what is not—it is a matter of interpretation—but I still think that we put too many things to the Policy Committee that involve administration and do not confine their work sufficiently to broad questions of policy. When I speak of broad questions of policy I don't necessarily mean financial policies. If the concept of the old Finance Committee was to deal with the problem as to whether the money was available or [fol. 2480] not—and I think it was to a large extent—then I don't think in our set-up the responsibility goes far enough. I think the top Committee should deal with the broad questions of policy, financial and otherwise, but should not deal with the administration of policy. It is in that area that I think we should give some thought.

"I might illustrate by referring to the coming question of whether we should operate in Germany or not. I don't think it is a question for the Policy Committee to decide as to how the operation shall be set up—that involves the running of the business. I do think, however, it is up to the Policy Committee to decide whether in its judgment it is desirable for General Motors to conduct a manufacturing operation in Germany."

Mr. Sloan, was there any change made at this time?

A. No change was made at that time.

Q. What was it that precipitated or brought about the change that was ultimately made in 1946?

A. I think it was my retirement as chief executive officer, and Mr. Brown's retirement as chief financial officer, and the passing of that responsibility to Mr. Wilson and the concentration of the administration of the business in Detroit. All of this led—together with the greatly increased complication of the business as a result of the war, and expansion, especially on the operating side, I think all those things together were just incidental to my retirement, as I had really served the corporation in a top way for over twenty-six years, and brought about the discussion which led to the change in 1946.

[fol. 2481] Q. Who was it that made the recommendation of the change that was made in 1946?

A. I recommended the change, Mr. Hurd. Let me say it is very difficult, generally, in terms of generalization to answer a question of that kind. As I testified here before, we operate in General Motors on a democratic principle of discussion, eliminations, and final decisions, based on what seems to be the agreed upon opinion of many executives who are interested in the problem, and dealing with the problem.

After that is gone over, it sometimes takes weeks and even months. It is almost impossible to point to one man to say he did it or he suggested it. Sometimes it is possible, but it is not always possible. In the changes in 1937, it was some individual. In 1946 it was my retirement, and the tremendous changes in the responsibilities of the corporation, raising important demands on the financial end as well as the operational end of it which led to the fact that it was better to divide the responsibilities.

I am inclined to think, Mr. Hurd, if we had continued up to now the 1937 setup, the demands on the non-operating people, that is, the financial policy demands, would have been such that they would have had to at least give a great deal more time than they had been giving.

Q. With whom did you discuss the proposed change in 1946?

A. We discussed it with everybody, Mr. Hurd. It was always our practice. We never did anything in General Motors unless we took it up with all the people. If it is important, it goes through endless discussions with the directors, and particularly with the operating people, in order to be sure that whatever was decided, everybody was in harmony. We operate in General Motors as a team, and not as an autocracy.

[fol. 2482] Q. Now, I show you a document which has been marked General Motors Exhibit 8 for identification, and ask you if that reflects the change made in 1946?

A. That is correct, Mr. Hurd. This is——

Q. I do not want you to explain it yet.

If the Court please, I want to offer in evidence General Motors Exhibit 8.

The Court: It is received in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 8.)

By Mr. Hurd:

Q. With the Court's permission, I should like to have you step to the easel and point out what the changes were that were agreed upon at that time?

A. The changes contemplated in the 1946 organizational setup that we just discussed are limited to the policy formation phase of the enterprise in this way.

The Board of Directors, of course, was practically the same. Instead of having a single policy committee as exemplified by the previous chart, we had the Operations Policy Committee and the Financial Policy Committee. The Operations Policy Committee deals with the Administration Committee. Recommendations came up to the Operations Policy Committee from the Administration Committee. You will note that Administration Committee consists of quite a considerable number of executives.

I have already testified here that it has been thought unwise to have division managers on that type of non-governing committee. We felt that the divisional manager's interests are centralized in his particular operation, [fol. 2483] and that the man who is dealing with the particular problems of corporate policy should be a man who has a responsibility from the point of view of this one specific operation.

On the other hand, you cannot develop a policy except as a team.

We always try to operate General Motors as a team, and we have a thorough discussion among the important executives, especially those that manage the large car operations.

For instance, I think I testified yesterday that the general manager of our Chevrolet Division has a tremendous responsibility upon himself.

I think I said and it is true, if we lifted Chevrolet out of General Motors, and set it up separately, it would rank as probably one of the largest manufacturing operations in the United States.

Now, you cannot legislate for a man who has that responsibility. He has got to be a part of the legislation, if the thing is going to be a success.

That is true because the members of that Committee are members of the Board of Directors. That is necessary under Delaware law.

Q. Has the organization within the divisions changed during this period?

A. No. The organization within the divisions, I cannot say hasn't changed because change is going on all the time, but so far as the general principle of the Administration Committee is concerned, anything happening in the organization as a whole that we have described here has no bearing whatsoever as to what might happen in an operating division under the control of its respective general manager.

Q. I show you a document marked General Motors Ex-[fol. 2484] hibit No. 9 for identification, which is the organization chart of Chevrolet Motor Division in 1946.

Are the other divisions organized in a similar fashion?

A. In a similar way. In other words, an operating division or organization would divide itself into the four functional activities shown on this chart, No. 9; that is, engineering, manufacturing, sales and financial.

When you get below that, there would be a great difference depending upon the character of the operation, because they differ very completely in most every way.

Mr. Hurd: I offer in evidence, if the Court please, General Motors Exhibit No. 9.

The Court: It is received in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 9.)

By Mr. Hurd:

Q. Mr. Sloan, I now wish to turn to a new subject, the matter of selection of directors.

What procedure is followed in General Motors Corporation with respect to the initial addition of a member to the Board of Directors?

A. What do you mean by "neutral"?

Q. An "initial."

A. What?

Q. What procedure is followed in adding a new member to the Board?

A. Oh, Well, that depends, Mr. Hurd, upon the circumstances.

For instance, as presently constituted, our Board comprises 34 members. Twelve of those members are members of the Operations Policy Committee which is shown on that previous chart.

[fol. 2485] As I have testified here, those men have to be on the Board of Directors to deal with their particular responsibilities, which is a delegation of the authority of the Board of Directors. Those men come on the Board in this way: The president of the corporation, in discussing the problem with me, brings up the point that he is making certain changes in the administration of the business, and that he wants to put on the Operations Policy Committee a certain individual who is moved up, or because of certain changes that have taken place, and I know the circumstances; so at the next meeting of the Board, I recommend that that individual be made a member of the Board of Directors and made a member of the Operations Policy Committee.

I don't discuss that with anybody particularly except the president who brings the recommendations to me because that is a routine matter, and that individual has to be on the Board.

That is the administration phase of the business.

So far as representatives on the Board who are designated as representing the du Pont interests, they themselves make those nominations, and naturally they are generally accepted by the Board as being desirable.

In the case presently, in addition to the twelve members on the Board, because of their responsibility on the Operations Policy Committee, there are five representatives of the du Pont group. There are eleven members of the Board who are retired executives of the corporation, who went on the Board because they were concerned with the administration or otherwise.

In addition to this, there are six outside directors. I mean by that, directors that are not concerned with management and are outside the du Pont group.

[fol. 2486] Practically all of the discussion regarding additions to the members of the Board or changes in the Board, as occasion develops, center around those six individuals, which is the number presently in that particular group.

Back in 1919 and 1920, we had a very considerable number of what I call outside directors. That was before my time, and I don't know just how they were appointed. I think that the majority of them or practically all of them came on the Board at the time that the corporation made a large issue of common stock, which was in 1919.

Through changes, death, elimination and so forth, those outside directors finally got down to three, and one, Mr. Douglas, was Ambassador to Great Britain, and he had a leave of absence for some time, so it really got down to two.

I felt that it was undesirable to have the Board limited, as it was, and that we should have on our Board representation of outstanding citizens, businessmen, scientists, men who were recognized as being successful people; that was particularly essential because, on our governing committees, we certainly have to have people who are not concerned with management, in order that they may qualify.

So in the '40's, I gave a certain amount of consideration to developing, to expanding our Board in a moderate way by taking on directors, men who had become directors along the line I have just indicated, and lists were developed and considered, and like everything else in General Motors, we developed along after discussing the problem with all those who were interested.

Finally, we presently arrived with six outside directors [fol. 2487] who are men of importance and fully measure up to the standard that I think we should have in General Motors.

Q. When a new director is added, is he elected in the first instance by the Board?

A. In nearly all cases that is true, Mr. Hurd.

The Board has the power to change the number of the Board, to alter the by-laws to change the number of the Board as it may resolve to do, and when a change is made requiring an extra director, the by-laws are changed, the Board elects the director, and then that director is recommended to the stockholders at the next annual meeting. That is the usual procedure in General Motors, Mr. Hurd.

Q. Mr. Sloan, I now hand you a document marked for identification as General Motors Exhibit No. 10.

Referring to the first page and the first column, which is headed "Management," will you run through the list of names, and tell us in what position in General Motors they were active or had been active as of that date?

A. Mr. Day was manager of the General Motors Truck Division.

Mr. Mott was in the general organization as an executive.

Mr. McLaughlin was general manager of the General Motors operations in Canada.

At this time—I assume this is the beginning—I was president of the corporation, if it is before—

Q. That is May 10, 1923.

A. Yes, that is right.

Mr. Bassett was general manager of the Buick Division.

Mr. Smith was legal advisor in charge of our legal affairs.

Mr. Brown was vice-president in charge of finance.

Mr. Kettering was vice-president in charge of research.

Mr. Swayne was a vice-president at large on the operating side.

[fol. 2488] Mr. Hannum was general manager of the Oakland Division.

Mr. Hardy was general manager of the Olds Division.

Mr. Rice was general manager of the Cadillac Division.

Mr. Pratt was vice-president at large and principal assistant to myself.

Mr. Page was general manager of the New Departure Manufacturing Company.

Mr. Mooney was vice-president in charge of overseas operations.

Mr. Fisher was a director and member of the Executive Committee and an executive dealing with special assignments.

Q. Had any of the men on that list, at any time, been employed by the du Pont Company?

A. Not to any extent except Mr. Pratt. Mr. Pratt had come to the company four or five years before from the du Pont organization.

Q. What about Mr. Brown?

A. Mr. Brown, too. I thought that was a matter of record here, Mr. Hurd.

Q. Now, referring to the second column, headed "du Pont," will you tell us the origin of those people as directors?

A. Those were all du Pont representatives, Mr. Hurd. I can't define the responsibilities they had in the du Pont business. I am not familiar enough with that company to do so.

Q. They were nominated by the du Pont Company?

A. Nominees of du Pont, that is correct, Mr. Hurd.

Q. Now, refer to the third column, headed "Other." Do you recall who Mr. Bishop was.

A. Mr. Bishop was president of the First National Bank of Flint, Michigan.

Q. Do you know at whose suggestion he had been made a [fol. 2489] director?

A. He was a director from way back because, you see, you might say General Motors was almost born in Flint, and Mr. Bishop was a close friend of Mr. Durant. I think —I wouldn't be surprised to find but what he was a director at the time General Motors Company was organized back in 1908.

Q. Who was Mr. Kaufman?

A. Mr. Kaufman was president of the Chatham Phoenix National Bank of New York City.

Q. Do you know the occasion for his coming on the Board?

A. I don't know. That was before my time, but Mr. Kaufman was identified with General Motors and associated with Mr. Durant back for some years.

He was the one with Mr. Durant, Mr. Hurd, that organized United Motors Corporation.

Q. Back in 1916?

A. Back in 1916, that is correct, Mr. Hurd.

Q. Who was Mr. McGowan?

A. Sir Harry McGowan was an Englishman, as his name indicates. He came on the Board because he was Chairman of Imperial Chemicals in England, the largest industrial organization in England, and he came in as a large stockholder in 1919, when General Motors issued a considerable amount of common stock to finance its expanding organization and expanding operations.

Q. Who was Mr. McMaster?

A. Mr. McMaster came in under the same conditions except he was either president or chairman of Canadian Explosives, which had a large interest in General Motors at the time of the stock issue in 1919.

Q. Who was Mr. Baker?

A. Mr. Baker was president of the First National Bank of New York City.

[fol. 2490] Q. Do you recall the circumstances under which he came on the Board?

A. I don't know. That was before my time, and I think it was due to the financial operations of 1919. I am not too certain about that.

Q. Was Mr. Baker a stockholder in General Motors?

A. A large stockholder, Mr. Hurd.

Q. Who was Mr. Prosser?

A. Mr. Prosser was Chairman of the Bankers Trust Company.

Q. And Mr. Stettinius?

A. Mr. Stettinius was the partner in the then J. P. Morgan & Company.

Q. Do you recall when Prosser and Stettinius came on the Board?

A. No, I don't, Mr. Hurd.

Q. Who is Mr. Woodin?

A. Mr. Woodin was chairman of the American Car & Foundry Company. He subsequently became Secretary of the Treasury when Mr. Roosevelt was first made president of the United States.

Q. Mr. Wooley?

A. Mr. Wooley was Chairman of the American Radiator Corporation.

Q. And Mr. Young?

A. Mr. Young was Chairman of the General Electric Company.

Q. Now, will you refer to the second page of that document, under the heading "December 31, 1942."

Referring to the first column headed "Management," drop down to where there is an asterisk opposite L. P. Fisher.

Will you tell us what Fisher that is, and what his position was?

A. That is L. P. Fisher—Lawrence as we called him. He is one of the six Fisher brothers that established the Fisher Body Company in which the corporation took a sixty per- [fol. 2491] cent interest in 1919. In the years that passed, he had retired from Fisher Body Corporation as an executive and came into General Motors on special assignment as an assistant to me.

Q. Who was Mr. Bradley?

A. Mr. Bradley was a vice president on the financial side. Previous to that, he had been next to Mr. Brown in charge of finance. He came on the Board in the years that had passed since the last list that you showed me.

Q. And Mr. Grant?

A. Mr. Grant had started in Dayton; and, when I became president, I transferred him to the Chevrolet Motor Company as the general sales executive.

He made an outstanding record there, and in the development of the corporation from the standpoint of coordination in distribution, Mr. Grant was brought into the central organization; he was made a director.

Q. Mr. Hunt?

A. Mr. Hunt was chief engineer of the Chevrolet Motor Division, and in order to strengthen the advisory staff—he was an outstanding engineering technician—he was brought into the central organization, and another executive appointed to succeed him in Chevrolet, and he was made a director in consequence of that change.

Q. Mr. Schumann?

A. Mr. John Schumann was president of the General Motors Acceptance Corporation.

Q. Mr. Wilson?

A. Mr. Wilson was brought in because he was an outstanding executive, and was brought in to strengthen the general organization of the corporation.

He was formerly general manager of the Remy Electric Division of Anderson, Indiana.

Q. That is Mr. C. E. Wilson, is it?

A. Mr. C. E. Wilson, yes.

[fol. 2492] Q. Mr. Coyle?

A. Mr. Coyle was general manager of the Chevrolet Division, and he was transferred to the central organization and came to the Board of Directors in consequence of that.

Q. Mr. Curtice?

A. Mr. Curtice was general manager of the Buick, and came into the central organization when he was transferred from Buick and a new division manager appointed.

Q. What is his present position?

A. He is president of the corporation.

Q. Mr. Donner?

A. Mr. Donner was next to Mr. Bradley on the financial side of the business, and he was made director in consequence of that.

Q. Who was Mr. E. F. Fisher?

A. Mr. E. F. Fisher was an executive in the Fisher Body Division. He was a manufacturing executive.

Q. Are any of these directors who appear under this "Management" column as directors in 1942, and who were not directors in 1923, had any of them at any time been connected with the du Pont Company?

A. No relationship whatsoever, no connection whatsoever, so far as I am informed.

Q. At whose suggestion were these men who are marked with an asterisk under this first column added to the Board?

A. Why was it?

Q: Who suggested it?

A. I did.

Q. Turning to the second column, headed "du Pont," there are two names at the bottom, Carpenter and H. B. du Pont, that appear on this list which were not on the 1923 list.

[fol. 2493] Who suggested their addition?

A. Those were nominees of du Pont, and represented their interest in General Motors.

Q. Under the third column "Others," you have only three names. What had happened to the other people that had been on the 1923 list?

A. Do you want me to go over each one?

Q. No—

A. Just natural elimination.

Mr. Stettinius had died. Mr. Baker had died. Mr. Woodin had died.

Mr. Wooley retired from business.

Mr. Young resigned.

Mr. Kaufman resigned.

Mr. McMaster resigned. I think that covers the point.

Q. There is one new one added to this list of 1942, Mr. Whitney. Who is he?

A. Mr. Whitney was president of J. P. Morgan & Company. He came on the Board many, many years ago.

Q. Do you recall the circumstances?

A. No, I do not, Mr. Hurd. I do not remember the circumstances.

Q. Now, turning to page 3 on this document, under date of June 6th, 1949, and referring to the first column headed "Management," will you explain who the last seven people are, those marked with an asterisk?

A. Mr. Archer was top executive in the Fisher Body Division. He came on the Board because he became a member of the Operations Policy Committee.

Mr. E. F. Johnson came on the Board. He was a retired executive.

Q. What had been his position in General Motors?

A. His position had been—he had been retired since [fol. 2494] sometime in the 30's. He had been in the accessory operations, if my recollection is correct.

Mr. Evans became a member of the Operations Policy Committee, hence on the Board. Mr. Evans had started in the overseas operation. He was two years managing director of Adam Opel, a German operation. He was brought into the central operation and made a member of the Operations Policy Committee; hence came on the Board.

Do you want me to go down the list?

Q. Yes, starting with Mr. Goad.

A. Mr. Goad came on the Board because he was a member of the Operations Policy Committee.

This also applies to Mr. Kunkle, Mr. Burke and Mr. Godfrey. Practically all the men you have asked me about came on the Board through the operations or administrative route.

Q. Had Mr. E. F. Johnson at one time been an employee of the du Pont Company?

A. He had.

Q. Do you recall how long ago that had been?

A. It was a long time ago, Mr. Hurd. He was out of General Motors from the middle of the 30's until the war started, and he came into General Motors on war service.

He was only with us three or four years. When the war was over, he retired. He continues on the Board, but he is no longer in administration.

Q. Was he employed by General Motors under Mr. Durant?

A. I cannot answer that question. I am sorry, Mr. Hurd.

Q. Do you recall whether he was there when you became president?

A. Yes, sir, he was.

[fol. 2495] Q. Had he been employed by the du Pont—

A. May I go back to correct my answer?

Q. Sure.

A. First you asked me a question. As I think about it, I think the answer that he was employed under Mr. Durant is correct, because I am quite certain that I testified correctly yesterday that Mr. Chrysler came in as assistant to Mr. Durant around 1919, and Mr. E. F. Johnson was assistant to Mr. Chrysler, so I am quite certain he came in. I may have to be corrected on that, but that is my recollection, Mr. Hurd.

Q. Was he ever employed by the du Pont Company up to that time?

A. Yes.

Q. Had any of the other new men on the management list ever been connected with the du Pont Company in any way?

A. Not that I know of, and I am sure I am informed on that point.

Q. Now, turning to the second column, headed "duPont," Mr. Brown appears there as the first one. Is that the same Donaldson Brown who was formerly listed as a management director?

A. That is correct. In my distribution of the Board as presently existing, I put Mr. Brown on in my distribution as representative of the company. He was with General Motors practically all his life.

Q. At this time, was he still active in General Motors?

A. No, except as a member of the Board and a member of the Financial Policy Committee. He had no administrative responsibilities whatever.

Q. When did he retire?

A. 1946.

[fol. 2496] Q. Mr. Echols and Mr. Copeland listed under the heading of "du Pont"; who named them?

you a document which is marked General Motors Exhibit No. 4 for identification, which is a chart showing the organization of Chevrolet as of 1925, which is on the easel, and is an enlargement of that chart.

Is that typical of the organization of the divisions of General Motors?

A. I would say it is entirely so, Mr. Hurd.

You see, this shows that Mr. Knudsen was head of the operation. He is down there as president. He really would have been better termed as general manager. That is, he has four executives report to him dealing with the engineering, manufacturing, sales and finances. I would say that is a typical distribution of the responsibilities of the divisional executives under the general manager.

It undoubtedly is true, if we had before us the organization chart of the other divisions, you would find a great difference below those four general executives dealing with those four functional activities. So far as the general principle is concerned, you would find it to be exactly the same.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 4.

Mr. Harsha: No objection.

The Court: It is received in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 4.)

By Mr. Hurd:

Q. Mr. Sloan, I would now like to turn to the year 1937. [fol. 2456] Will you tell us about the changes in the organizational setup of General Motors that occurred in that year?

A. Perhaps, Mr. Hurd, to make it clear to the Court, I should tell first what caused the change, if I may, then deal with the changes themselves.

In the ten years that elapsed between the chart we were looking at yesterday, 1927, and the chart you are now asking me to deal with, 1937, important influences entered into the industry which caused or suggested certain quite important changes in the organization setup.

In the first place, going back to 1927, two or three years minus or plus that year, to illustrate the point, it was my practice to go up to the divisions, say to the Buick Division in Flint, to illustrate, and I would go over all the problems of that particular division, particularly the engineering program, and of course incidentally the distribution program and others, and everything was there, so to speak, so far as that particular divisional operation was concerned.

When we pass to 1937, the conditions were entirely different. Things had happened in the industry that required a far greater coordination between the different divisions than was necessary or desirable in 1927.

The important advances product-wise and otherwise in the low priced field—that is the cars like the Chevrolet, Ford, and so forth had increased their proportion of the business of the industry, and it had an important effect on the high priced cars to the extent that it was necessary to push the price of the high-priced cars down, and it narrowed the spread of price between one line of cars and another.

For that reason a much more important degree of co-[fol. 2457] ordination became necessary. In other words, if, in 1937, I had gone up to Buick as I did, say in 1927, I couldn't have dealt with it in that way, because I would have had to consider the impact of the program on the other car operations.

That required a different system of administration whereby the problems of the different divisions could be brought together and discussed, one in relation to the other.

That in principle brought up the desirability of a somewhat different setup in 1937.

In addition to that, I had in mind this: To make a business successful and virile and progressive, and all that sort of thing, the executives not only have to do with the daily problem, but they have got to give consideration to ways and means of improving the technique of the business in all its functional activities, engineering, distribution, and so forth, and it is very difficult for executives who are pressed to the limit on operating problems to give consideration to an advance in technique. It is something added, and it is difficult for them to get the time to do it.

So my contention in 1937 was to develop a scheme of organization to bring the employees on the advisory staff, which is on a functional basis like engineering, production and so forth, in line with the general executives of the corporation, and consider ways and means whereby our technique could be improved through research and study so essential to the progress that we must make to increase our efficiency and so forth.

That was a very important consideration in the 1937 setup.

There was another factor that entered into my feeling that a change was desirable and that is this:

[fol. 2458] An examination of the records of the Finance Committee over the period some years prior to 1937 indicated that most of the problems that they had to deal with were, although financial in nature, operating problems as well.

For instance, in 1928 we made a very large investment in Germany, with a view to expanding our overseas operations. That was both a financial problem and it was an operating problem, and I thought it would improve our efficiency if we brought those two together so that the people who were passing on the financial side of it would have a better understanding of the desirability of it from the operating point of view.

So I recommended, and after a very great amount of discussion my recommendation was accepted, that instead of having the Finance Committee, which we had up to 1937, and Executive Committee, which dealt with the operating problems, that we would have one committee which would be called the Policy Committee, and which would have complete authority to deal with the broad policy questions that came up to the corporation.

Those were the conditions that made me feel that the change in 1937 was desirable and caused me to recommend it to the Board, and as I said before, it was finally adopted.

Q. Did you continue on as president at that point?

A. No, I did not. Mr. Knudsen became president at that time. I moved up to the chairmanship of the Board. Mr. Lammot du Pont, who had been chairman of the Board, retired; but, in corporate organization, Mr. Hurd, it is not so much what your title is as what your responsibilities are, and I continued for the next nine years as chief executive officer of the corporation.

In other words, notwithstanding Mr. Knudsen's becoming [fol. 2459] president, I had charge of all of the operations of the corporation up to 1946.

Q. Had Mr. Pierre du Pont been chief executive officer while he was chairman of the Board?

A. No, he had not, not at the time he was chairman of the Board, Mr. Hurd. He was chief executive officer when he was president of the corporation from November, 1920 to May, 1923.

Q. And had Lammot du Pont been chief executive officer while he was chairman of the Board?

A. He had never been chief executive officer. He was chairman of the Board without executive responsibilities.

Q. So that in 1937 the chairman of the Board became the chief executive officer for the first time?

A. That is correct.

Q. This change in 1937 to a one committee system was initiated by whom?

A. By myself. It was entirely my idea from beginning to end, although it had the complete support of my associates in the management of General Motors.

Q. To whom are you referring? Are you referring to the representatives of the du Pont Company?

A. No, I am talking about the people who were operating the business.

Q. What position did the representatives of the du Pont Company take regarding this change?

A. Well, as in all cases, when a change of some significance, such as this, takes place, it has always been my practice to discuss it at great length with everybody. General Motors has never been operated as an autocracy; it has been operated as a democracy, and any problem of any consequence that I had to deal with as chief executive officer of [fol. 2560] the corporation, I have never taken a position on or made a recommendation on until I was satisfied that it had the support of all of those who were interested, and particularly those who were concerned with the administration of the policy, whatever it might be.

Q. What position did Mr. Lammot du Pont take regarding this, if you recall?

A. I think that after the matter was thoroughly discussed with Mr. Lammot du Pont and the others, they came to an agreement that it was a desirable thing to do. I think that, when the proposition was originally put to them, they were rather negative to it because it involved quite a new approach to corporate management.

When you try to do something that is different, it takes a certain amount of time to get people reconciled to it, and this was a case in point.

Q. Do you recall that Mr. Lammot du Pont suggested an alternative plan?

A. I do, Mr. Hurd. When changes of this kind take place, they are discussed over a period of weeks and perhaps months, and you get all kinds of plans and suggestions. That is what the discussion is for.

Out of those discussions and suggestions and elimination and so forth, you finally reduce everything to a common denominator, and an agreement is made that after all has been said and done, that this is the best way to meet the problem, and that way is finally adopted by the corporation. It is a question of evolution and development.

Q. Do you recall what the alternative plan was that Mr. Lammot du Pont suggested?

A. I think—I am not too certain—but I think probably I am pretty close to it. He suggested reducing the membership of the Board and passing on to the Board certain spe- [fol. 2461] cific responsibilities that before that time had been lodged with the two governing committees.

As I recollect, after he had made the suggestion, I think he said that nobody was for it and he didn't know as he was for it himself. Anyway, it got washed out through the process of evolution and development.

Q. Mr. Sloan, I will show you a document in evidence as Government Exhibit No. 194, which is a letter from Mr. Lammot du Pont to you, dated April 6, 1937.

Will you look at that and tell us whether, in substance, that sets forth Mr. Lammot du Pont's alternative plan?

A. This appears, Mr. Hurd, to be a letter he wrote me outlining the alternative plan to which you referred, but this plan was not adopted, Mr. Hurd.

Mr. Hurd: If the Court please, I would like to read a few excerpts from this Government Exhibit No. 194.

The first is on the first page, third paragraph:

> "There seems to be no question but what the opinion was unanimous in favor of the objectives of your pro-

posal, nor did there seem to be any unanimous disfavor of any particular element or feature of your proposal. There was a general feeling of misgiving with respect to discontinuing the present Finance Committee and not establishing some body whose particular function would be handling financial problems of the organization and which would also constitute a concentrated representation of stockholders' opinions on important matters."

Turning to the second page, the first full paragraph:

> "Another suggestion was offered (after Don's departure),—"

[fol. 2462] Q. Who is Don?

A. Mr. Donaldson Brown.

Q. (Reading):

> "—on which I would like to get your reaction. I will describe the suggestion by outlining the procedure:"

It then refers to reducing the Board of Directors.

Then turning to the bottom of the third page, last paragraph:

> "Having thus reduced the membership of the Board, either at the same meeting or subsequent meeting, a general Policies Committee would be appointed, composed of: Bradley, Brown, Knudsen, Sloan (as Chairman), Smith, Wilson."

I interrupt there, Mr. Sloan. Were any of those six men representatives of the du Pont Company at that time?

A. They were not.

Q. Continuing with the letter:

> "This Committee would be made responsible for the formulation of general policies of the Corporation, including financial policies: but insofar as the financial policies are concerned, they would not have authority to decide certain kinds of financial questions, the decision on which would be reserved to the Board of Directors which, as stated before, would meet monthly and

keep itself intimately informed with respect to the Corporation's affairs. These matters which would be left to the Board might include purchase, sale, issue or redemption of securities, dividends, general bonus plans, working capital policies, budgets and appropriations in excess of, say, ten million dollars, not previously budgeted.

[fol. 2463] "At the same time, the Board would appoint an Executive Committee, composed of: Bradley, L. P. Fisher, Grant, Hunt and Mooney."

Q. Mr. Sloan, were any of those six named men representatives of the du Pont Company?

A. They were not.

Q. (Reading):

> "Wilson (as Chairman) with the addition of Knudsen and Sloan, ex officio, and any other additions which might be appropriate."

Then turning to the bottom of page 5:

> "It seems to me that this suggestion accomplishes the same result as your proposal, except that, in effect, the Board of Directors would, to some extent, become the Finance Committee, and the Board would be made a real working group. Perhaps on this basis, some of the Board enumerated above and included in those of the banking and du Pont groups might wish to resign, because of the additional time required. Certainly, I would feel like doing so for this reason, unless the du Pont Company should desire me to remain."

Q. Do you recall, Mr. Sloan, that at this time Mr. Lammot du Pont was supported by other representatives of the du Pont Company with respect to his alternative plan?

A. I don't recall that.

Q. I show you a document that is in evidence as Government's Exhibit No. 195.

Mr. Hurd: If the Court please, I would like to read that exhibit.

[fol. 2464] This is a letter dated the same day as Government's Exhibit No. 194, that is, April 6, 1937. It is from Mr. Lammot du Pont to F. D. Brown:

"Referring to our telephone conversation this morning, in regard to the proposed General Motors reorganization, I have drafted a letter to Alfred of which I am enclosing two copies."

That refers to the prior exhibit.

"I think I am correct in saying that Pierre approves this proposal in principle and has no objection to the details, but realizes that some of them might be improved; and, of course, it is understood that that would be done, if possible. Walter——"

By Mr. Hurd:

Q. To whom does "Walter" refer?
A. Mr. Carpenter.

Mr. Hurd: (Reading)

"—Walter does not like the proposed plan generally, but thinks it is acceptable and as good, if not better, than anything else suggested. Irenee left for Cuba last night, hence did not see the draft, but participated in the discussion which led up to its preparation, and I guess would be in accord with Pierre's view. I think this proposal is entirely acceptable, but, like Pierre, feel sure that you and Alfred and John can make many suggestions for improvement.

"If you see fit, will you forward a copy of this draft to Alfred?"

By Mr. Hurd:

Q. "Alfred" refers to you?
A. Yes.

[fol. 2465] Q. That plan, however, was not adopted?

A. That plan was not only not adopted, Mr. Hurd, but from my point of view it was not realistic and I don't think I could have accepted it.

Mr. Hurd: In that connection, if the Court please, I would like to refer to Government's Exhibit No. 196.

The Court: Are you offering 195?

Mr. Hurd: That is a Government Exhibit, if the Court please.

The Court: Already in evidence?

Mr. Hurd: Yes.

I would like to refer to Government's Exhibit No. 196, which is also in evidence. This is a letter from Lammot du Pont to Walter Carpenter, dated April 23, 1937.

Turning to the fourth page, the bottom of the page, the last paragraph:

> "Alfred seems so insistent on this general plan and was so generally backed up by the others that I feel your objection, in which I concur, could well be waived, especially in view of the fact that you and some other man of financial experience from the du Pont Company might be named on the Policies Committee."

By Mr. Hurd:

Q. Mr. Sloan, will you look at this exhibit, Government's Exhibit No. 196, and see if that sets forth substantially the plan that you recommended and which was adopted?

A. This exhibit, Mr. Hurd, outlines the plan in exactly [fol. 2466] the form that I recommended it. However, the recommendation, the report here, includes a statement of those men who would be on the Policy Committee.

That would somewhat change it, Mr. Hurd. Additional members were added to the Policy Committee as it was about to be appointed, increasing the number shown on page 3 of this exhibit.

Q. I now show you a document which is marked for identification as General Motors Exhibit No. 5, which is a chart dated June, 1937, and ask you if that reflects the changes that were made in 1937?

A. That is correct, Mr. Hurd. That shows the Policy Committee and the members of the Policy Committee as amended, indicated in the report or the letter that you just showed me.

It also shows the Administration Committee and, I explained yesterday, the purpose of the Administration Committee was to develop a broader basis of discussion, understanding and recommendation of policy than was possible with the limited membership of the Executive Committee.

You will note further, Mr. Hurd, what is defined here as policy groups. That was my administration suggestion of bringing the research or the development side of this more in line with the current operating side, and also to effect the increased coordination between the operating divisions made necessary by the change of circumstances that developed over the ten years since the chart of 1927 was in use, as exemplified by our discussion of yesterday.

Q. Mr. Sloan, I now show you a document marked for identification as General Motors Exhibit No. 6, which is dated October, 1944, and ask you if that sets forth the same organization as contained in General Motors Exhibit No. 5? [fol. 2467] A. That is correct, Mr. Hurd. The difference is more the artist's conception of how it should be laid out than affecting the administration of the business. But there were no changes of any consequence between the organization setup agreed upon as was developed here in 1937 until we reached the year 1946.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 5 and 6. The reason for including 6 is the draftsmanship makes the plan a little clearer.

The Court: The exhibits are received in evidence.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 5 and 6.)

By Mr. Hurd:

Q. With the Court's permission, Mr. Sloan, I would like to have you go to the enlarged chart and point out to us those features you have just been mentioning, the addition of the policy groups, where they are, and the changes in the committee.

Would you explain that?

A. I have already explained the underlying reasons that brought about the change from what we had previous to 1937 to the adoption of the 1937 scheme of things.

It will be noted that, in the place of the first two committees, the Finance Committee and the Executive Committee, we consolidated those two operations into one committee of which I was chairman.

Then we had an Administration Committee, which I have already stated yesterday, and a few minutes ago, was for [fol. 2468] the purpose of developing a broader basis of understanding and discussion from those operations of the corporation which were not represented on a governing committee.

Then we find the policy groups here which was my conception of the type of organization which would bring the daily problems—the executives dealing with the daily problems in line with the experts, on a functional basis, so that we could discuss ways and means whereby we could improve the operating efficiency of the business through research and investigation.

The operating divisions and subsidiaries, to which production and result are confined, were not changed at all, as the fundamental concept of General Motors' management contemplates that the responsibility given to the chief executive of the division be a complete responsibility, and my own development of this program, as to engineering and sales and advertising and dealer relationships and purchasing, and all that sort of thing, was not in any sense changed.

That remained exactly as it is through the whole course of General Motors' development in the last thirty years.

Outside of that fundamental change, which was here and here (indicating), the rest of it remains practically the same, Mr. Hurd.

Q. To whom did these policy groups report?

A. They each had a chairman. They had no line of authority as I defined it yesterday. I mean, they could not decide anything within themselves, but in view of the significance of these policy groups in dealing with the current operations of the corporation, and particularly involving the forward practices in technique, all of these policy groups were high officers of the corporation.

[fol. 2469] For instance, let us take engineering. Mr. Wilson and Mr. Bradley and myself, who ranked high with the corporation, were on the engineering policy group. That meant, of course, that when the policy group took a position, involving an engineering program, or some advanced technique, the fact that the president and other executives were on the policy group, would carry a great deal of weight in the recommendations of that particular policy to the Administration Committee, which gave a broader discussion from the operating division to the Policy Committee recommendations for finalization of the program. In other words, to repeat to some extent, these policy groups had no authority to issue directives, but the fact that they had on them the president and other executives, and those executives had line authority really meant that the policy agreed upon in these different groups was quite generally accepted by the Administration Committee as the recommendation of the policy group committee, unless something important arose that was not considered at the time the policy was developed.

Q. Did the reports from these policy groups go originally to the Administration Committee?

A. That is correct.

Q. To what group did the Administration Committee report?

A. To the Policy Committee. That is shown by this solid line.

Q. Turning now to the year 1946, will you tell us what changes were made in the organizational setup at that time?

A. Well, to 1946 was a period of nine years, and a great deal had happened. In the first place, we had gone into a war and come out of the war, and the time arrived when [fol. 2470] I felt that I should retire and turn the responsibility that I had been assuming for something like twenty-three years over to others. Therefore, I retired as chief executive officer of the corporation, and that was passed on to Mr. Wilson, who had been president. Mr. Wilson therefore became chief executive officer of the corporation, and I continued as Chairman, in a position permitting such services as I could render, especially to the governing committee, but without executive responsibility, dealing with administrative matters.

In addition to that, the war and post-war era brought very many very important problems to the corporation that had not existed before the war. For instance, we embarked on a very large expansion program involving the investment of something like a billion dollars. The financial programs of the corporation have increased very importantly over what existed before the war.

In addition to that, Mr. Donaldson Brown, who served as chief financial officer, retired with me. It was considered desirable to continue the top financial administration of the business in New York, and we moved Mr. Bradley, who was going to Detroit for war services to New York, as chief financial officer in the place of Mr. Brown.

In addition to that, the expansion of the corporation's activities in that and other fields has brought operating problems of far greater consequence and diversity and magnitude than we had before the war.

Still, in addition to that, some of the men who had served on the policy committee which was in force between 1937 and 1946 felt that they were asked to take a responsibility on operating matters that they did not have competence to adequately deal with.

[fol. 2471] For all those reasons, a change was effected in 1946. What we did was to take the Policy Committee, as organized and started in 1937 and divide it into two parts. One was the Financial Policy Committee, and the other was the Operations Policy Committee. And in order to support the particular coordination; it was agreed, when any problem of significance on the financial side involving a high question of policy on the operations side arose, it would be considered by joint committees, where the two committees would get together for a general consultation. That has taken place quite a number of times.

In addition to that, as significant questions arose which perhaps would not require a general meeting, the Financial Policy Committee could have before it one or more executives who were concerned with the particular problem in order that they could get a broader understanding of the relationship of that problem to the business in terms of finances, and general operating results.

Q. What had been the attitude of Mr. Lammot du Pont and Mr. Carpenter regarding the operations of the Policy Committee and the Administration Committee in the early part of the '40s?

A. They supported it and approved it, but I think as time passed they felt it was not working as well as it could. Personally, I thought their point of view was perhaps caused by the fact the war had come along, and the war changed about everything in General Motors.

You will recall after the war started, we were completely out of production of motor cars. We had to make things we never saw or heard of or knew about before. Now, the time factor was very important, and no organization that [fol. 2472] was set up on a peace basis could be entirely satisfactory on a war basis such as we went on when the war began, at least, when we went out of automobile production, which was February 1, 1942.

Q. Do you recall Mr. Carpenter and Mr. Lammot du Pont taking the matter up with you from time to time in the early part of the war?

A. Mr. Hurd, as I testified before, whenever a question arises of a substantial change in technique in General Motors, it has to go through a long process of examination, discussion, consideration, and elimination of one idea after another, and this change in 1946 which was really brought about by my retiring from the corporation, went through the normal processes, and out of it came the scheme of thinking which I just a few moments ago testified to.

Q. Mr. Sloan, I am going to show you three documents, Government's Trial Exhibit No. 201, a letter from Walter Carpenter to you dated April 8, 1942; Government's Exhibit No. 202, which is a letter from Lammot du Pont to you dated April 10, 1942; and Government's Trial Exhibit No. 203, which is a letter from you to Mr. Lammot du Pont dated April 13, 1942, and ask you if this constitutes part of the correspondence that you had with representatives of the du Pont Company on this general problem?

A. That is correct, Mr. Hurd. I might add for the information of the Court that in developing changes in organization such as we have been discussing here this morning, we find a considerable amount of correspondence with certain of the members of the Board of Directors—take the du Pont group for instance—but you don't find any correspondence [fol. 2473] with the members of the management of the operating organization.

The reason for that is that we are all together in the same office, and we don't write letters to the man next door. We go in and talk the thing over with him. Therefore the whole development of the program, when these things were going on, was carried on just as much within the management group as it was with certain of the directors. The whole thinking part of the business is called into play to develop the best ideas possible, and the only point I want to make is that it is done partly by correspondence and partly by personal contact.

Mr. Hurd: If the Court please, I would like to read a few excerpts from these letters. The first is Government's Exhibit No. 201. It is an exhibit in evidence.

I am starting with the third paragraph, the first page, and this is a letter from Mr. Carpenter to Mr. Sloan:

> "I agree that the Committee setup which we have over there today is one which should be altered. The developments growing out of the present critical emergency have brought out some of the weaknesses in our present setup, though I do believe the weaknesses existed even before the war and the creation of the War Committee and would have required a change in our organization in any event.
>
> "I say this because I feel we have gradually moved away from the idea which was the foundation of our present organization, namely, that the Policy Committee would set up major policies and that the Administration Committee would carry them out.
>
> [fol. 2474] "I think, as the years have gone by, the Policy Committee has become stronger and stronger, and the Administration Committee has become of gradually lesser importance. I think this is true both as respects the personnel of the two Committees as well as their activities * * *"

Then referring to Government's Trial Exhibit No. 202, which is a letter from Lammot du Pont to Mr. Sloan, the second paragraph:

> "On page 2, second paragraph, Walter refers to the Policy Committee"—

He is apparently referring to the prior exhibit, 201—

> "refers to the Policy Committee becoming in large part 'a repetition of the War Committee.' If I understand Walter's idea correctly, I agree with him, but would express it 'that a large part of the Policy Committee's activities have been a rediscussion and approval by implication of what the War Committee has already done.'"

By Mr. Hurd:

Q. Mr. Sloan, referring to that for a moment, what was your position as to this comment that Mr. Lammot du Pont makes, that the Policy Committee's activities were largely a rediscussion of what the War Committee had already done?

A. Well, that was probably so, and perhaps there was too much of that going on, but that had nothing to do with the soundness of the plan. That had simply to do with the [fol. 2475] administration of the plan. The whole concept of the Policy Committee was to bring together at a top policy level, the top officers of the administration of the business, and outside directors who were general representatives of important stockholders' interests. It was a coordination between ownership and operation.

Q. Then turning to Government's Trial Exhibit No. 203 to the last page, I would like to read the last paragraph. Trial Exhibit No. 203 is Mr. Sloan's reply to the prior exhibit, the letter from Lammot du Pont to Mr. Sloan dated April 10th.

This letter from Mr. Sloan is dated April 13th, 1942, and in the last paragraph it states:

> "In the last paragraph of your letter you bring up the question of the so-called 'du Pont influence.' I understand how you view that and I do not know as I differ greatly with you from the standpoint of the general trend of affairs, but at the same time I hold that while the responsibility is there, it must be discharged. It can not be dodged. And, as I said at the beginning of this letter, entirely irrespective of that situation I still feel—and here is really the most important point I have to make in the whole discussion—that the top Committee should be the top Committee; and not one having only equal power with the other Committees; and that it should be comprised of personnel representing the interest we have discussed; viz., that it should deal with broad questions of operating policy as well as with financial policies—the former from the standpoint of a general review and the latter from a more definite standpoint of established policy, but particularly we should always recognize the importance of

A. The du Pont group.

Q. Now, at this point under "Others," you have two new names, Douglas and Mellon. Who was Douglas, and who suggested him as an addition to the Board?

A. I think I suggested Mr. Douglas, and I think Mr. Mellon was suggested by Mr. Donaldson Brown. Mr. Mellon had become a large stockholder in the corporation in the interim, a very large stockholder, and he was elected on account of his stock interest.

Q. What Mellon is that?

A. Richard Mellon.

Q. What Douglas is this?

A. Lewis Douglas, who was president of the Mutual Life Insurance Company, and former Ambassador to Great Britain from the United States.

Q. Referring back just a moment to that first column "Management," the last seven names.

At whose suggestion were they added to the Board?

A. I suggested them, or rather, that is not so. I suggested them to the Board, but they were suggested to me by the president of the corporation; because they had to come on the Board be[illegible]se he wished to put them on the Operations Policy Committee.

Q. That was Mr. Wilson?

A. Mr. Wilson, yes.

Q. Now, turning to the last page of the document, the last five names under the first column.

Who suggested their addition to the Board?

A. Mr. Alexander—

Q. No, the first column under "Management."

A. I am sorry.

[fols. 2497-2499] Q. The last five names.

A. All those names, five in number, that carry the asterisk before their names, were men that came on the Board on the recommendation of the president because it was necessary to qualify them for responsibility on the Operations Policy Committee.

Q. And that would be Mr. Wilson who suggested them?

A. Mr. Wilson. He was president of the corporation at that time.

Q. In that last column, headed "Others," the last three names.

Who was Alexander, and who suggested him?

A. Mr. Alexander at this time was president of J. P. Morgan & Company, and I suggested him.

The next name is General Lucius Clay, the military commander in Germany. He was suggested by Mr. Pratt, because Mr. Pratt worked with General Clay during the war, and he thought he would be a desirable addition to the Board.

The other name is Dr. Karl Compton. He was my nominee. He was Chairman of the Board of the Massachusetts Institute of Technology. He was also a very large stockholder in the corporation.

Mr. Hurd: If your Honor please, I offer General Motors Exhibit No. 10 in evidence.

The Court: It may be received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 10.)

[fol. 2500] Mr. Hurd: If the Court please, the subject I wish to take up this morning concerns the General Purchasing Committee of General Motors Corporation that was in existence from about the end of 1922 until sometime in 1931.

The testimony is directed particularly to paragraph 61 and 62 of the amended complaint which charge in substance is that this committee was formed to ensure that the wishes of the du Pont Company would be fully complied with.

Alfred P. Sloan, Jr., called as a witness on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued).

By Mr. Hurd:

Q. Mr. Sloan, can you tell us who originated the idea of the General Purchasing Committee?

A. I did.

Q. In general, what was your purpose in bringing about the creation of that committee?

A. The purpose was to coordinate the purchasing power of the various operating divisions on the basis that volume affected cost, and hence is reflected in price. That was the first consideration.

The second consideration I had in mind was the standardization of things that the General Motors was purchasing, materials and properties or products that could be properly standardized.

[fol. 2501]

The benefit of that was to further increase the volume of any one thing, and hence to reduce the cost, and it should be reflected in the lower price to the benefit of the corporation.

Q. Do you recall what the occasion was for your conceiving of this idea of combining purchases?

A. Well, it was a natural, Mr. Hurd, for any businessman, as illustrated by what I have already said. Also, I previously testified here that when I was selling Hyatt Bearings I had a very important customer, the Ford Motor Company, and I was a very close friend of Mr. Ford's executive who had charge of production engineering, and I was familiar with the fact that they had brought together all of their needs in purchasing, say, like steel, and then Mr. Wells would go down to New York, and he would dicker with the steel producers to get the benefit of the lowest price that might be had.

That made quite an impression on me, and when I got into a similar position where I had like responsibility, I recognized that that was something I had to do, to capitalize the advantages of the corporation's purchasing power.

Q. About when did you start on your program combining purchases?

A. About the end of 1921; perhaps it was January or February, 1922. It was in that time area, Mr. Hurd.

Q. And at that time, approximately what were the relative standings in the industry of the Ford Motor Company and the General Motors Corporation?

A. Well, the Ford Motor Company at that time did 55 to 60 per cent of the business of the industry in terms of units.

[fol. 2502] The General Motors in the aggregate had something like 12 per cent.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 35, which is a tabulation comparing the number of motor vehicles sold by Ford Motor Company, General Motors Corporation, and the other manufacturers.

Mr. Harsha: May I inquire of counsel whether this chart is supposed to be representative?

Mr. Hurd: This chart is, I believe, statistically correct as to what the situation was in 1921, in that particular industry, with respect to the relative standings of the various motor companies.

Mr. Harsha: My inquiry, your Honor, is addressed to the testimony of the witness that as of about this time the ranking of the Ford Motor Company was around 55 to 60 per cent of the industry, and General Motors around 12 per cent, and then this chart is being introduced in support thereof.

If this is being introduced as representative of the relative positions, I think the government objects.

I think it is true as a statistical picture of the conditions existing in 1921, which is a very unrepresentative year, shown by the documents which the defendants themselves have placed in evidence.

For example, quoting from the General Motors annual report for the year 1922, which is the du Pont Exhibit No. 57, on page 12, the statement is made:

> "Excepting for the year 1921 earnings of the corporation have been satisfactory. The year 1921 showed [fol. 2503] a shrinkage of 45 per cent in the number of cars produced, and 40 per cent in volume of sales."

We have checked the tabulation, and I think the Court will see from the FTC report upon which this chart seems to be based that this is the one year which shows a low percentage for General Motors.

For example, in 1919, which is the previous recorded year, we have a showing that General Motors produced 362,000 in round figures, against 782,000 by Ford, and in the two years after 1921 we have General Motors producing 754,000 as against Ford's 1,917,000. The percentages for those years, as shown by this table indicated that Ford had 40 per cent roughly in 1919, as against over 18 per cent in General Motors, and in the year 1923 Ford had 47 per cent, roughly, against General Motors' 18-plus per cent.

The Court: Well, it appears to me that if your only objection is based on the fact that it is not a representative year, but yet you do not question the accuracy of the statistics quoted, that would not be a basis for a sound objection.

It seems to me that you would have an opportunity in rebuttal to offer evidence—

Mr. Harsha: That is why I inquired, your Honor, whether it is being offered as being representative of the relative positions of Ford and General Motors in the industry over this early period.

The Court: If it is an accurate representation for that period, I think it is admissible. You may have the opportunity to offer evidence in rebuttal.

[fol. 2504] Mr. Hurd: I might say, if the Court please, that the reason for selecting this year was that this coincided with the activity on the part of Mr. Sloan in creating this committee.

It was a situation that existed at that time which contributed to his thinking that he needed to combine purchases.

The Court: The objection is overruled and the exhibit is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 35.)

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 36, which is a chart reflecting the statistical data that is on General Motors Exhibit No. 35.

Mr. Harsha: We would interpose the same objection, your Honor.

The Court: The same ruling, and for the same reason.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 36.)

Mr. Hurd: With the Court's permission, Mr. Sloan, I would like to have you step to the easel and using the pointer explain General Motors Exhibit No, 36 in so far as it related to the problem that you had before you in

1921 with respect to combining the purchases of General Motors Corporation.

The Witness: I don't think, Mr. Hurd, there is anything particularly complicated. It is really self explanatory.

This pie, as we call it, represents 100 per cent of the industry's volume in units. It shows for this particular [fol. 2505] year, Ford, 55.45 per cent. The various General Motors units are substantially as follows:

Buick had 4.77 per cent; Cadillac .66 per cent; Chevrolet 4.04 per cent; Oldsmobile, 1.13 per cent; Oakland, .70 per cent; and the Truck Division, .49 per cent.

The Court will recognize, I am sure, that we are dealing here with units and showing the percentage on a unit basis.

From the standpoint of purchasing power, it might well be that this aggregate, 11.79 would be a little out of ratio to this because the amount of material required in some of these cars would be somewhat greater than the Ford car which is in the low price area.

Q. Mr. Sloan, had there been any procedure under Mr. Durant's presidency for having the motor divisions or any of the divisions combine their purchasing?

A. Not that I know of, Mr. Hurd.

Q. Had there been any procedure prior to Mr. Durant's presidency dealing with this subject?

A. Between 1912 and 1916, at the time Mr. Nash was president, there were some activities of this kind. It wasn't very definite. It was very informal. But the idea was exemplified in certain meetings that took place during Mr. Nash's presidency.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 37 to 42, inclusive, which are minutes of meetings of purchasing agents during the years 1913 to 1915.

The Court: Any objection?

Mr. Harsha: No objection, your Honor.

The Court: The exhibits are all received in evidence.

(Said documents so offered and received in evidence were [fol. 2506] marked General Motors Exhibits Nos. 37 to 42, inclusive.)

Mr. Hurd: With the Court's permission, I would like to call attention to portions of these exhibits and read portions of them.

The first exhibit is General Motors Exhibit No. 37. I would like to call attention to the people who were present at this meeting held on May 7, 1913.

There were a number of people there. The Court will notice that they are representatives of various divisions, principally motor divisions of the General Motors Company as it then existed. These were all purchasing agents as is stated in the first paragraph.

The last full paragraph on the page, I would like to read:

"Mr. Nash—"

Q. Mr. Nash was then president of General Motors?
A. Correct, Mr. Hurd.
Q. (Continuing):

"Mr. Nash stated that he had called the meeting with a view to giving the Purchasing Agents an opportunity to become better acquainted and to discuss topics of common interest relating to their branch of the work"

Turning to the second page, the last paragraph:

"In response to an inquiry regarding the form of Buick contracts, Mr. Copeland stated that as a rule [fol. 2507] said contracts are drawn to cover the requirements of the Company not to exceed a stated amount, in other words, the contracts specify a maximum but not a minimum amount so that the Company is obligated only for orders actually placed. The contracts are drawn so as to give the Company the benefit of any general reduction of prices or more favorable quotations from others. In certain of the contracts a provision is inserted making them available for any subsidiary company of General Motors Company. It is the intention to use such a provision in practically all of the 1914 contracts and the other companies will be duly advised regarding all such contracts.

"As a result of the discussion which followed it was decided that much good could be accomplished by an

> exchange of contract forms between the various companies. In pursuance of this plan each Purchasing Agent is to send the others a copy of the contract form which he is now using."

Mr. Sloan, at that time which was the largest division of General Motors Corporation?

A. Buick, in all probability.

Q. The Mr. Copeland referred to here as shown in the document was a representative of the Buick Company at that time.

A. Yes.

Q. Exhibit 38, the first full paragraph—this is another meeting of the purchasing agents, held on June 4, 1913. The heading is, "Standardization of Contract and Inquiry Forms."

> "Consideration of this matter was deferred to the [fol. 2508] next meeting because of the absence of Mr. Main, one of the committee having it in charge."

Mr. Sloan, is that the same Mr. Main that later acted for your purchasing committee?

A. Correct.

Q. Turning to page 2 of Exhibit 38, second paragraph:

> "Mystic Cutting Compound—It was decided that a general contract, available for all the companies, should be made covering this compound. Each member of the Board is to ascertain the amount of said compound used by his Company and report the same at the next meeting in order that the aggregate requirements may be determined to serve as a basis for such a contract."

Then turning to page 3, at the bottom:

> "Compilation of Data—In order that the data regarding prices, etc., obtained by the various members of the Board might be brought together and combined in comparative statements so as to be of maximum usefulness to each member it was decided that any member desiring information concerning any item should so advise the Chairman of the Board (Mr. Copeland)—"

that was the Buick representative.

> "—who will thereupon have this data gathered and compiled, furnishing a copy of the statement to each member of the Board."

[fol. 2509] Exhibit No. 39, the last page under the heading: "Burroughs Adding Machines."

> "Mr. Copeland stated that a letter had been received from Burroughs Adding Machine Company offering to renew their arrangement with General Motors Company for a term of two years, that is, to July 11, 1915. It was decided to accept the proposition provided the arrangement is so worded as to cover only the requirements for Burroughs adding machines."

The Court will note this contract applied to all divisions of General Motors.

Exhibit No. 40, second page, under the heading: "General Contracts"—

> "A discussion was had relative to the procedure to be followed in making general contracts to cover the requirements of all or a number of the companies on various terms. As a result, it was decided that all contracts entered into by the companies respectively should, whenever possible, contain a provision giving any other constituent company the privilege of buying under said contract."

I will not read excerpts from the last two, but point out that there were further meetings of the purchasing agents of General Motors Company held in August, 1914, and August 20, 1915.

By Mr. Hurd:

Q. During the period that Mr. Nash was president, and as covered by these minutes, did the du Pont Company, so far as you know, have any interest in General Motors?
[fol. 2510] A. So far as I know, they did not.

Q. During the later years, from 1916 until the end of 1920, when Mr. Durant was president, did you ever hear of any comparable meetings of the purchasing agents of General Motors?

A. I did not.

Q. At the time that you prepared your organization study that you submitted to Mr. Durant in 1920, did you consider the problems of purchasing?

A. The problem was developed in terms of generalities in that study, but it was not carried to the point where an administrative set-up was recommended to support the broad idea.

Q. The idea of a General Purchasing Committee occurred at a later date, 1920?

A. Yes.

Mr. Hurd: In that connection, I would like to call the Court's attention to General Motors Exhibit No. 1, which is already in evidence, on page 19, under the heading, "Purchasing Section."

The Court: Whose exhibit was that?

Mr. Hurd: General Motors Exhibit No. 1.

The Court: And the page?

Mr. Hurd: Page 19, under paragraph No. 1, "Purchasing Section."

> "This section is to study source of supply, tendencies in prices of materials in general use by the Corporation, especially those applicable for forming a basis for general contracts such as various kinds of steel, brass, and copper, lumber, ties, fuel and all other materials that can be treated in a general way whether in the raw state or finished. Also, to co- [fol. 2511] ordinate the purchasing with a view to getting the greatest benefit possible for the Corporation as a whole."

By Mr. Hurd:

Q. Did Mr. Durant set up any section such as you recommend?

A. Not that I recollect, Mr. Hurd. I think I testified yesterday to the best of my recollection that that particular study was given no consideration by him because at that time I think he was involved in what he thought were more consequential problems.

Q. After your suggested form of organization was adopted under Mr. Pierre du Pont's regime in December, 1920, was such a purchase section set up?

A. There was a purchase section set up.

Q. Do you recall who was in charge of that section at the beginning?

A. A man by the name of Hardy, A. B. C. Hardy, who shortly ~~thereafter~~ became general manager of the Oldsmobile Division.

Q. Where had Mr. Hardy been in the organization prior to that?

A. I don't know his background, Mr. Hurd. From my point of view, he had always been with General Motors. When I got there, I found him there. I don't know what his beginning really was.

Q. Who selected Mr. Hardy for the division director of the purchasing section?

A. I did.

Q. Mr. Sloan, I show you a document which has been marked General Motors Exhibit No. 43, for identification, and ask you if that is the notification that you sent to the division managers regarding the appointment of Mr. Hardy?

A. That appears to be correct.

Q. Does it correctly summarize what you considered Mr. [fol. 2512] Hardy's duties were as of that date?

A. It does.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 43.

The Court: It is received.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 43.)

Mr. Hurd: I would like to read through the first paragraph. This is dated January 25, 1921.

"To all General Officers and
General Managers of Divisions.

"In connection with the tentative form of organization recently adopted—"

By Mr. Hurd:

Q. That refers to your plan that Mr. Pierre du Pont had approved?

A. Yes.

Mr. Hurd: (Reading):

> "—the following appointment, with the duties designated, has been made.
>
> "Mr. A. B. C. Hardy—Director Purchasing Section—Advisory Staff—Headquarters, Detroit, Michigan.
>
> "Duties are specified as follows:—
>
> "1. To consider and make such general contracts pertaining to the purchase of materials, supplies and equipment, as in his judgment may be desirable and to the interest of two or more Operating Divisions. The use of such general contracts to be entirely at [fol. 2513] the option of the Operating Divisions and, when used, all dealings to be directly between the Seller and the Purchasing Division."

By Mr. Hurd:

Q. Mr. Sloan, had Mr. Hardy any authority to compel the divisions to purchase from any source he selected?

A. He did not.

Q. What was your purpose in limiting the contracts that he would make to items purchased by two or more operating divisions?

A. Well, there would be no use of having it operative, Mr. Hurd, unless two or more divisions were involved, because otherwise if one division was involved, it would come under the jurisdiction of that division solely, and it would not be acted upon by General Motors.

Q. There would be no increase of the volume by purchasing, if you had only one division?

A. That is correct.

Q. Do you recall whether Mr. Hardy remained as a director or whether he was succeeded?

A. He did not remain long. I testified a minute ago that he became general manager of the Oldsmobile Division when the change took place there. He was succeeded by a man named Main, J. R. Main, who was the former purchasing agent of the Cadillac Motor Division.

Q. This was a man who had been with the company for a good many years?

A. He had.

Q. Who selected Mr. Main as the director of the purchase section?

A. I did.

Q. Did the working of this purchase section solve your problem of combining purchases?

A. I do not think it was broad enough. I do not think it had enough responsibility definitely attached to it. I thought we ought to have a more concrete form of organi-[fol. 2514] zation if we were to get the benefit from the general contracts that I had in mind.

Q. Did Mr. Main make some general contracts?

A. I think he did, but on a very limited scale. I may have to be corrected on that, Mr. Hurd.

Q. Do you recall whether or not the divisions purchased under the contracts that were made?

A. I don't know that.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 44, which is a memorandum of a meeting of the car division managers on June 23, 1921.

The Court: It is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 44.)

By Mr. Hurd:

Q. I would like to call attention to the people who were present Mr. Sloan. Would you look at General Motors Exhibit No. 44?

After Mr. Haskell's name, can you tell us whether or not the names listed were the managers of car divisions at that time?

A. Do you wish me to repeat them?

Q. No. Were they all car division managers?

A. No, they were not all car division managers.

Q. Which ones were?

A. Mr. Hannum was; Mr. Basset was; Mr. Zimmerschied was, and I think Mr. Sarver was; Mr. Hardy was not; Mr.

Rice was; Mr. Day was; Mr. Hawkins was not, and Mr. Merrill was not.

Q. I believe this date is after the appointment of Mr. [fol. 2515] Main as director of purchases.

A. And I testified on the basis that Mr. Hardy had become general manager of the Oldsmobile Division. I do not recall the exact date when that took place.

Mr. Hurd: I would like to read the portion relating to "Contracts;" appearing at the bottom of the page.

By Mr. Hurd:

Q. Who is Mr. Mott, or who was Mr. Mott?

A. Mr. Mott was vice-president of the corporation in the general organization., He might be defined as principal assistant to myself.

Mr. Hurd: (Reading)

> "Mr. Mott brought out the fact that General Motors Corporation has entered into various contracts with concerns, but the Divisions apparently do not know anything about these contracts and are therefore not availing themselves of possible opportunities, to purchase more advantageously, etc. Particular attention was called to the Armstrong Springs Company, which company has a contract to furnish 60% of General Motors springs and which company has borrowed $1,000,000 from General Motors.
>
> "It was agreed that Mr. Main should furnish the General Managers of the Divisions with two copies of all contracts affecting them, which General Motors Corporation has entered into.
>
> "Mr. Bassett recommended that the Division Managers recommend to their Purchasing Agents that they get together with Mr. Main, in Detroit, and discuss the matter of furnishing records, data, etc."

[fol. 2516] By Mr. Hurd:

Q. What was Mr. Bassett's position at this time?

A. General manager of the Buick Motor Division.

Mr. Hurd: If the Court please, now I offer in evidence General Motors Exhibit No. 45, which is the minutes of the meeting of the car division managers with the Executive Committee on November 3, 1921.

The Court: It is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 45.)

Mr. Hurd: I call attention to the fact that practically the same people were present at this meeting.

[fol. 2517] I will offer in evidence General Motors Exhibit No. 46, which is a letter from Mr. Steenstrup to Mr. Sloan, dated May 5, 1922.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 46.)

By Mr. Hurd:

Q. Mr. Sloan, who was Mr. Steenstrup?

A. Mr. Steenstrup was the bookeeper of the Hyatt Roller Bearing Company when I was with the Hyatt Company, and when I became general manager, so-called, of Hyatt, Mr. Steenstrup undertook the sales activity of Hyatt, and I undertook the engineering activity.

Q. Do you recall receiving this memorandum from him on the subject of purchasing?

A. Yes, I do.

[fol. 2518] Q. Mr. Sloan, what, if anything, did you do to improve the situation as it existed regarding purchases?

[fol. 2519] A. Early in the year 1922—it might have been December, 1921—I talked to Mr. Main, who was then executive in charge of the central purchasing activity, and asked him if he would give some thought to the problem.

I explained to him that I thought we ought to have a more definite form of administration in order to capitalize the perfectly enormous advantages of consolidating our purchasing power.

I asked him if he would give some thought to the matter and if he could make any recommendations that seemed to him proper in the premises.

Q. Did he make any recommendations?

A. He did.

Q. Mr. Sloan, I show you a document marked General

Motors Exhibit 47 for identification, and ask you if that is the report that Mr. Main made pursuant to your request?

A. That appears to be the report that Mr. Main developed as a result of my conversation. It was submitted to Mr. C. S. Mott, who was—Mr. Mott was, I think at that time vice president in charge of the advisory staff. From an organization standpoint it would pass to me through Mr. Mott.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 47.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibits No. 47.)

Mr. Hurd: I would like to call attention to the first page of the proposal inside of the cover. It will be noted that there are two proposals in this plan called "Proposal No. 1" and the other "Proposal No. 2."

[fol. 2520] Under Proposal No. 1, elimination of all divisional purchasing departments by centralization:

> "This plan would be the centralization of everything purchased for all divisions under one head, or division, and would necessitate the elimination of all the divisional purchasing departments, and also of the formation of a central Accounts Payable Division to work in conjunction with the centralized purchasing division."

Now, turning to page 9 of the report, the second full paragraph, after he has outlined what his plan is under this proposal:

> "This plan is now in operation by the following companies with certain detail modifications to dovetail in with their other departments but the general outline is identical."

And he lists:

Western Electric Company
U. S. Rubber Company.
Standard Oil Company of New Jersey.

New Jersey Zinc Company.
The Barrett Company.
Grasselli Powder Company.
Armour & Company.
du Pont de Nemours & Co.
Swift & Company.
Standard Oil Company of New York.
American Tobacco Company.
Municipality of New York.
The Procter & Gamble Company.

[fol. 2521] Then turning to page 10, we have "Proposal No. 2," the alternative proposal. This is an enlargement of the present purchase section.

> "This plan would be an enlargement of our present Purchase Section with the necessary authority to carry on the work.
>
> "Method of Procedure
> "Standardization of Materials:
>
> "In order to make this plan workable, it would be necessary to establish a list of all standard materials to be contracted for. This could be accomplished by having each division make a list of all materials purchased during a period of 12 months. These lists from the several divisions would be sent to the Purchase Section to be analyzed and recompiled. All materials that are common in two or more plants, or materials of sufficient quantity, to warrant making a general contract, would be listed by the Purchase Section. The several Divisions then would be notified that on all future purchasing on such items would be handled by the Purchase Section."

By Mr. Hurd:

Q. Mr. Sloan, did either of these plans recommended by Mr. Main fit the program that you had in mind?

A. When I examined those recommendations of Mr. Main, I wrote him that I was entirely out of sympathy with the first program because it completely centralized purchasing and it was contrary to the fundamental philosophy of the General Motors that the divisional executives [fol. 2522] should have complete charge of all the component parts of their particular operation, and I told him that so far as I recall I thought he must have misunderstood me because I was against centralization in any form, and therefore I couldn't adopt that.

So far as the second part of the report is concerned, that was a little more to my line, and with certain minor details it formed a recommendation or report that I submitted to the organization later in the year under date May 8th, I think, in which I asked for criticism and comments both as to the propriety of doing more consolidation in General Motors purchasing; and whether this particular plan met the ideas of the different divisions to the extent that it would be a satisfactory type of administering such an idea.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit 48 for identification, and ask you if that is your letter to Mr. Main after you studied his proposal, which is General Motors Exhibit No. 47.

A. That is a letter I wrote to Mr. Main when I received his recommendations, which is substantially along the lines I testified previous to your handing me that exhibit.

Mr. Hurd: If the Court please, I offer into evidence General Motors Exhibit 48.

The Court: It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 48.)

Mr. Hurd: I would like to read a small portion of the second paragraph of the letter.

This is a letter dated February 9, 1922, from Mr. Sloan [fol. 2523] to Mr. Main, director, purchase section, of General Motors Corporation.

Reading from the second paragraph:

> "It was not my idea that we would in any sense centralize purchasing. As a matter of fact, it is not my idea that we centralize anything and I would hate to have anything that I said misconstrued into the thought that my mind is running that way for I say, frankly, it is not."

By Mr. Hurd:

Q. Mr. Sloan, you stated that after this, you worked up a plan of your own dealing with the subject of purchasing?

A. I did.

Q. I show you a document marked General Motors Exhibit 49 for identification, and ask you if that is a copy of the plan to which you refer?

A. What is the question, Mr. Hurd?

Q. Is that the plan you worked up?

A. That appears to be the plan that I developed, including, with certain modifications, Mr. Main's recommendation No. 2.

This carries the date May 8, and was sent out for criticism to all those within the corporation who were concerned with such matters.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 49.

The Court: It may be received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 49.)

[fol. 2524] By Mr. Hurd:

Q. Do you recall which division you sent this proposed plan to in the beginning?

A. Will you repeat that, please?

Q. Do you recall which division of General Motors that you first sent this plan to?

A. I sent that to Mr. Bassett, who was general manager of the Buick Motor Division. That was at that time one of our largest divisions, had the greatest volume of purchasing, and I got his reaction before I submitted it to the organization as a whole.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 50, and ask you if that is Mr. Bassett's reply to your proposed plan?

A. This appears to be Mr. Bassett's reply to my submission of the plan, and with it he hands me certain comments of Mr. Allen who was the general purchasing agent of the Buick Motor Company at that time.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 50.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 50.)

Mr. Hurd: I would like to call the Court's attention to the third page of the document, the top of the page.

The second and third pages of the document contain the comments that Mr. Allen made to Mr. Bassett which were sent along by Mr. Bassett to Mr. Sloan.

The first paragraph on the third page reads as follows:

> "If trouble develops with any article of this nature, [fol. 2525] (and with the great variety of materials used, trouble does develop frequently) and only one source of supply, it often would be impossible to correct the condition in time to avoid interruptions to our production; but in the meantime a second source can usually increase quickly and save delays and shutdowns. Experience has taught us that trouble may be expected at times from the most reliable of sources and this is especially true regarding manufactured articles, such as valves, springs, malleable castings, various stampings, etc. There are many other instances which might be mentioned, but I think these will serve to illustrate my point."

Mr. Sloan, as the purchasing committee operated later on when it was created, what position did it take regarding having more than one source of supply for any particular item?

A. I don't think it took any—that it laid down any specific policy on that. I don't see how it could be. I think each case has to be judged by itself.

Q. Do you recall whether there were any recommendations as to what the policy should be, where it was feasible?

A. I think generally speaking, the policy would be we should have more than one source of supply. I don't think it was an inflexible policy.

Q. Not a hard and fast rule?

A. No.

Q. It would depend on what the product was and who the supplier was?

A. It had to be that way. As a matter of fact, in an organization as large and complicated as General Motors, it is unsound to lay down an inflexible policy.

Q. After receiving Mr. Bassett's comments, did you send [fol. 2526] your plan out to the other divisions?

A. I did. That was done under date of May 8, 1922.

Q. And did you receive replies from the other divisions?

A. I received quite comprehensive replies.

Q. Did you also advise Mr. Main about the reactions that you received from divisions?

A. I did.

Q. Mr. Sloan, I show you a document that is marked General Motors Exhibit No. 51 for identification, and ask if that is the communication you sent to Mr. Main regarding Mr. Bassett's reactions?

A. Yes. This is a letter sending to Mr. Main recommendations of Mr. Bassett to which I previously testified.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 51.

The Court: It is admitted.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 51.)

Mr. Hurd: I would like to read a few portions of that, if the Court please.

This is a letter from Mr. Sloan to Mr. J. H. Main, Director of Purchase Section, dated April 13, 1922:

> "When I was in Detroit last week you recollect I had a little talk with you relative to a more definite program for capitalizing General Motors purchases and I told you that some weeks ago I had worked out something that I propose sending out to all the Division Managers in order perhaps to have the thing in little more definite shape which I think you believe is desirable.
>
> [fol. 2527] "I submitted this program to Mr. Bassett and received his comments, through Mr. Allen, Buick Purchasing Agent. Mr. Allen seemed to be in accord with the whole program and simply pointed out, very

> properly so, the importance of dealing with sources of supply that were reliable and that would not go back on us in times of stress. This, of course, is just as important a phase of the situation as the question of getting the right price."

Then going down to the last paragraph on the page:

> "My thought would be to send copy of this to the General Manager of each Division and ask him to look it over and take it up with his Purchasing Agent and any comments that the General Manager might want to make would be made through his Purchasing Agent. You would then contact with the Purchasing Agent and either adopt this plan or modify it, as you might elect. What I want to do is to feel assured that you as the Director of Purchase Section have the necessary authority to capitalize General Motors purchasing power to the fullest possible extent. It is a very important thing and something we have not fully appreciated or made effective and rather than have it drag along and perhaps take five years to work out, I would like to hasten the ultimate end, if I possibly could. Therefore, if this plan goes through, I should feel that you were responsible for putting this thing across and if anything comes about that will prevent you from doing so, it will be up to you to take it up with me."

[fol. 2528] Q. You said you did send the plan out to the other divisions after that?

A. That is correct, Mr. Hurd.

Q. Mr. Sloan, I show you documents that have been marked for identification as General Motors Exhibits 52 to 60, inclusive, and ask you if those are replies that you received commenting on your proposed plan?

A. These appear to be the replies that I received to the proposed plan that I submitted to the organization at that time.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 52 to 60, inclusive.

The Court: They are received.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 52 to 60, inclusive.)

Mr. Hurd: I would like to call the Court's attention to one of them. That is Exhibit No. 57, which is a letter dated May 27, 1922, from Mr. Knudsen to Mr. Sloan.

By Mr. Hurd:

Q. At that time what was Mr. Knudsen's position?

A. He was general manager of Chevrolet Motor Division at that time.

Mr. Hurd, I would like to make this comment. In answering your questions where I refer to division, I use the term division, and to be technically correct I want to call your attention to the fact at this time some of these operations were companies.

I don't think it is important, but I want to be technically correct.

Q. Some of your motor car divisions were incorporated?

A. That is right. They were consolidated at various times, and I don't remember the circumstances or the years.

[fol. 2529] Q. And by referring to the divisions, you are including those that were incorporated as well as those that were not?

A. That is right. I will continue to refer to them as divisions.

Mr. Hurd: I would like to call the Court's attention to the reverse side of this Exhibit, No. 57, which contains the copy of memorandum to Mr. Knudsen from Mr. O'Keefe, signed as General Purchasing Agent of Chevrolet, about the middle of the page, the paragraph starting:

> "If it is decided that all purchases of certain items should be made by the Purchase Section of the Advisory Staff, I believe the Purchasing Agents of the Cadillac Motor Co., Buick Motor Company, Olds Motor Works, Oakland Motor Car Company, and the Chevrolet Motor Company should meet with Mr. Main and discuss the concerns with whom he is thinking of doing business, regarding quality of material and whether or not they can take care of the combined General Motors on deliveries."

By Mr. Hurd:

Q. Without taking the time to refer to the other replies you received, can you state, Mr. Sloan, whether generally they seemed to be in sympathy with your plan?

A. They entirely accepted the idea as sound and desirable.

Q. What, if anything, did you do next regarding your proposed plan?

A. Following the receipt of these replies, I revised the plan that I had submitted to the organization under date of May 8th, 1922.

The principal change between the submission of May 8th and the approved plan which carried, I think, a December [fol. 2530] date, was to the effect that the purchasing should be done by a committee. That idea was suggested to me by a reference to Mr. O'Keefe's letter to Mr. Knudsen in which he suggested that the purchasing agents get together.

That gave me the idea that they not only ought to get together, but they ought to have the responsibility, so that my plan as submitted to the organization on the date of May 8th was modified by me, and it set up a committee to be appointed by the president who would deal with purchasing matters, and that constituted the General Purchasing Committee.

That was an important change in the original recommendations of Mr. Main, which he submitted to me in February of 1922.

Q. Was that the plan that ultimately went into operation?

A. That was the plan that ultimately went into operation, Mr. Hurd, that is correct.

Q. How was the personnel of that committee selected?

A. I selected the personnel.

Q. From what source? Who were they representatives of?

A. It was a broad cross-section, so far as I could make it, with the limited membership. We had—

Q. Well, without going into who they were, were they central office people or——

A. They were both. Mr. Pratt was on the committee.

He was in the central office. Mr. Main was on the committee. We have already dealt with him.

Outside of that, as I recall the committee, there were nine on the committee, and they were all the purchasing agents of the different divisions, more particularly the car divisions where the important purchasing problems took place.

[fol. 2531] Q. After you had revised your plan to incorporate this suggestion that you received from Chevrolet, did you then send the plan out again to the various divisions?

A. I did. That was done in December, 1922, or sometime close to that.

Q. I show you a document marked for identification as General Motors Exhibit No. 61, and ask you if that is the communication you sent regarding your final plan?

A. That is correct. I see it carries the date November 28, 1922.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 61.

The Court: It is admitted.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 61.)

[fols. 2532-2539] By Mr. Hurd:

Q. Mr. Sloan, I show you a document marked Defendant General Motors Exhibit No. 62, and ask you if that is the draft of the final plan you put into operation.

A. It appears to be the plan we have discussed here, Mr. Hurd.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 62, if the Court please.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 62.)

[fol. 2540] By Mr. Hurd:

Q. Now, Mr. Sloan, I believe the plan called for the appointment of the Purchasing Committee by the president of the corporation.

A. Correct.

Q. At that time, who was president?

A. Mr. Pierre du Pont.

Q. Did he make the appointment?

A. He made the appointment on my recommendation.

Q. Who was it that suggested or selected the people to act on the committee?

A. I did.

Q. And you submitted your recommendation to Mr. Pierre du Pont?

A. I did.

Q. Did he accept all of your recommendations of them?

A. Yes, he did.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 63 for identification, and ask you if that is the communication that you sent out advising the divisions of the appointments to this committee?

The Court: What number is that?

[fol. 2541] Mr. Hurd: General Motors Exhibit No. 63, if the Court please.

By the Witness:

A. Yes, sir, that is a list of the members that were appointed to serve as members of the General Purchasing Committee that I sent out on November 29th, 1922.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 63.

The Court: It is admitted.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 63.)

By Mr. Hurd:

Q. Mr. Sloan, I notice in this exhibit that Mr. Allen, purchasing agent of Buick, is included. Was Buick still the largest division at that time?

A. That is correct.

Q. The next name on it is Mr. H. L. Barton, director, Manufacturing Section, Advisory Staff. What was that section?

A. That section applied to manufacturing problems, and in that section was involved the question of standardization. In other words, the standardization phase of the General Purchasing Committee's activities would be developed by the manufacturing staff, of which Mr. Barton was director.

Q. Perhaps you would like to hold a copy of this. The next name on there is Mr. Cromer, purchasing agent, Dayton Engineering Laboratories Company. Was that one of the accessory companies?

A. That was an accessory company. That was an important operation, and the purpose of including the purchasing agent of the accessory division was to get a broader [fol. 2542] foundation of discussion and consideration of the problems that came before the General Purchasing Committee.

Q. The next name is Mr. Hulgrave, purchasing agent of Cadillac. To what extent was the Cadillac an important division at that time?

A. Cadillac was, as the name indicates, a car division? It was an important purchaser of materials, and they should very properly be represented.

Q. The next name is Kimball, purchasing agent, New Departure Manufacturing Company. Is that another accessory company?

A. That was an accessory company. He was included because the New Departure Manufacturing Company had a friction bearing operation, and they had particular need for certain specific things which should properly be included in the deliberations of the General Purchasing Committee.

Q. Mr. Main, of course, was director of purchasing?

A. Correct.

Q. Mr. Mott, what was the occasion for including Mr. Mott?

A. Mr. Mott was on the general staff. He was really an important assistant to me at that time. He very properly belonged on the committee.

Q. Had he ever been connected with the du Pont Company?

A. Not at all.

Q. How long had he been with General Motors?

A. He came into General Motors through the Weston-Mott Company of Flint, Michigan. The Weston-Mott Company made axles for Buick and other producers.

Previous to that, he was in Utica, New York, in a business [fol. 2543] completely unrelated to the motor car business; as a matter of fact, before the motor car business came into existence.

Q. The next name is O'Keefe, purchasing agent of Chevrolet.

Was Chevrolet the second largest division at that time?

A. Chevrolet was the second largest division at that time.

Q. Mr. Pratt is included. What was the occasion for including Mr. Pratt?

A. He was brought on the committee because he had good sound business judgment. He was on the General Staff. He was not concerned with divisional activities.

Q. And Mr. James Lynah, secretary. Who was Mr. Lynah?

A. Mr. Lynah was assistant director of the purchasing section under Mr. Main. He came into the General Purchasing Committee as secretary of the committee.

Q. Did you consult with Mr. Pierre du Pont in picking the personnel of this committee?

A. I do not recall that I did.

Q. Did you consult with Mr. Lammot du Pont or Mr. Irenee du Pont?

A. I certainly did not.

Q. Or any other representative of the du Pont Company?

A. I certainly did not.

Q. Now, I notice some divisions are not represented.

A. It would be impossible with a large number of divisions to have them all represented, because that would nullify the whole idea. A large committee is almost worse than no committee at all.

Q. At the beginning, I notice that you were chairman of the committee.

Did you act as chairman for a period?

A. I acted as chairman for something like two years. [fol. 2544] Now, that might not be exact, but it is pretty close.

Q. Now, will you tell us, Mr. Sloan, in a general way, what the committee's program was while you were following it, and what its objectives were?

A. The activities of the committee are quite definitely outlined in the program I submitted on November 28th, extracts from which you just read. It was not my intention, in laying down that program, to place any restrictions on the committee.

The responsibility was on the committee to take such action or pursue the objectives they had in mind. It definitely outlined them, I think, and other particulars of that program, if I recall correctly.

After the organization of the committee, the committee proceeded to examine what items, materials and supplies, component parts, and otherwise, that the corporation was purchasing through their various divisional activities.

They took action as to whether a general contract was feasible. If they did, the purchasing section was instructed to develop a contract for submission to the committee.

It was thought that increasing volume was possible through standardization. The problem of standardization was referred to the manufacturing section, under Mr. Barton.

In some cases, or in many cases, it was found undesirable to make general contracts. If it was inapplicable that matter was dropped. In other cases, general contracts were made.

When a general contract was made, it was not obligatory on any division. In other words, a division could say that while they thought the general contract was desirable from the General Motors' point of view, that it did not apply to [fol. 2545] them, in which event, they were excused from making such general contracts or participating in such general contracts.

The entire program was flexible, and the committee itself was to lay down the rules.

The report I submitted establishing the committee, was more in terms of objective purposes rather than administrative procedure. It was left to the discretion of the members of the committee, who had complete responsibility in the areas under consideration.

Q. To what extent was saving money for General Motors an important consideration of the committee?

A. I did not get the first part of the question.

Q. To what extent was saving money for General Motors an important consideration of the committee?

A. That was one of the prime objectives of the committee, to save money, through co-ordination of the corporation's purchases in terms of how much volume, also the cost, hence also the selling price, which, however, is outlined in the extract you read from my program.

Other considerations entered into this question other than price. That was referred to in the letter Mr. Allen wrote to Mr. Bassett when they were commenting on the general scheme.

In other words, the price, the supply, the ability to deliver the goods when wanted in the particular quantity wanted, are factors in the automobile business that are equally important as price. I was first going to say more important, and I don't know but what they are. I think I should possibly say more important than price.

By Mr. Hurd:

Q. Did you consider that the Committee was successful [fol. 2546] in saving money?

A. I think it was successful in saving money.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit 64 for identification. Is that a report that you made to the Executive Committee on or about its date?

A. Yes, I recall that.

Mr. Hurd: Now, if the Court please, I offer in evidence General Motors Exhibit 64.

The Court: It is admitted.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 64.)

Mr. Hurd: I would like to read the portion starting at the middle of the page:

> "At the Purchasing Committee meeting a few days ago two very interesting exhibits came up as to what that particular Committee has accomplished and I thought as a matter of general information it might be well to submit them at this time. They are as follows:
>
> "1. Contract with V. O. Smith Company."—

The Witness: That is supposed to be "A. O. Smith Company."

Mr. Hurd: (Continuing):

> "This contract had something like one and a half to two years to run at the time we started to discuss the matter. It appeared from an analysis of the contract that the equities on both sides were well pre- [fol. 2547] served, but still we thought that in view of the large increase in our business we perhaps ought to see if something better could not be obtained through a modification of the contract at this time. The result of this is shown in the letter, copy of which is attached hereto, from which you will note that there is a total saving of something like $500,000.00. Understand, this is simply from September 1, 1923, to July 1, 1924. It is unquestionably a fact that if it had not been for the activities of this Committee this matter would not have been taken up in this way with the resultant saving.
>
> "2. Contract between the Corporation and the Electric Storage Battery Company of Philadelphia. This was taken up in a similar manner to the above and it being, of course, a cost plus contract, we were able to make a reduction in the amount of profit which mean, against our purchases for 1924, an estimated saving of $125,000.00.
>
> "The above two instances represent an estimated saving of $625,000.00."

By Mr. Hurd:

Q. Were these the only savings the Committee made?

A. What was that question?

Q. Were these two illustrations the only savings that the Committee made?

A. Oh, no, practically all of the items in which the Committee made general contracts represented savings of one form or another. That was only submitted to the Committee for an illustration of the trend, rather than the complete report of all of the facts.

[fol. 2548] Q. Did Mr. Raskob participate in any of the activities of this general purchasing committee?

A. He had nothing to do with it whatsoever. Mr. Raskob was not concerned with operations.

Q. Did Mr. Irenee du Pont have anything to do with the activities of the Committee?

A. Nothing whatsoever.

Q. Did Mr. Lammot du Pont have anything to do with the activities of the Committee?

A. Nothing whatsoever.

Q. Or Mr. Pierre du Pont?

A. Mr. Pierre du Pont was president at this time, and I think, if I recollect correctly, and I might have to be corrected, but I think I invited him to the first meeting of the purchasing committee, of which I was Chairman, simply to give it a little atmosphere.

Q. Thereafter did he participate?

A. Took no part whatsoever.

Q. Did Mr. Brown participate in any of the activities?

A. I don't think he did at that time.

Q. Did any representative of the du Pont Company, so far as you know, except what you said about Pierre, have anything to do with the operations of this Committee?

A. The answer is no, except that Mr. Pratt was on the Committee, and Mr. Pratt, in the early days, had come from the du Pont Company.

Q. Had he ever been an official of the du Pont Company?

A. I cannot answer that question.

Q. About how long did you remain as Chairman?

A. Two years to two and a half years.

Q. And what happened at that point?

A. I passed out as Chairman, and Mr. Pratt became Chairman of the general purchasing committee, and I moved over or on to other activities.

[fol. 2549] Q. Who selected Mr. Pratt to succeed you?

A. I did.

Q. And what was the occasion for your selecting him and retiring from the position yourself?

A. Because it has been my practice in the operations of General Motors, when a thing is started, I participate in it, speaking in terms of the generalities in order to get it started, and functioning along the lines which I want it to function, and after that is accomplished, I pick out another executive and I take on other activities along similar lines, things where I think I can use my time better to the interests of the corporation.

Q. Did you select Mr. Pratt because you considered that he might be friendly to the du Pont Company?

A. No. I considered him and selected him because he was one of the most able executives we ever had in General Motors Corporation.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 65 for identification, and ask you if that is your communication to the committee at the time of your retiring as its Chairman?

A. This appears to be the communication I sent to the members of the general purchasing committee on December 1, 1924. That indicates, Mr. Hurd, that I served just about two years.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit 65.

The Court: It is admitted.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 65.)

[fol. 2550] By Mr. Hurd:

Q. Did Mr. Lynah remain on as secretary of the Committee during most of its activity, do you recall?

A. According to the best of my recollection, he did.

[fol. 2551] Q. Do you recall how long the Committee lasted, approximately?

A. It lasted until 1931.

Q. Was the committee abandoned at that point, or what became of it?

A. Well, as a formal committee, compared with its operations between 1922 and 1931, it was thought that the opportunities for general contracts had been exhausted.

The pattern was very well set; we were moving into a depression, and the activities of purchasing, from the standpoint of the corporation, were continued under the auspices of the purchasing section of the Divisions.

They were involved more in commodity purchases and things like that—subsequently, in steel purchases in recent years—than they were in the form of general contracts and miscellaneous items which was contemplated more concretely at the time the Purchasing Committee was formed in 1922.

Q. To what extent had the Purchasing Committee standardized specifications?

A. To a very considerable extent.

Out of the developments of the General Purchasing Committee, the story of outstanding accomplishments was made in standardizing materials of all kinds that were subject to standardization.

Q. And that work had been fairly successful by the time the committee was terminated?

A. I would say so, yes.

Q. Now, Mr. Sloan, I would like to call to your attention certain of the charges in the amended complaint in this case.

I will refer first to paragraph 61 of the complaint:

> [fol. 2552] "At the time du Pont Company first acquired a substantial stock interest in General Motors that company operated through somewhat autonomous operating divisions, each of which had its own purchasing departments which purchased for their own division with but limited supervision from the central office of General Motors. In order to secure more effective liaison among these divisional purchasing agents and to insure that du Pont Company wishes would be promptly communicated to them and fully complied with, a central purchasing committee for General Motors was established in or about 1922."

I would like to have you tell us to what extent, if any, the Purchasing Committee was formed for the purpose of insuring that the du Pont wishes would be communicated to the purchasing agents.

A. Well, what I had in mind when I developed and organized the General Purchasing Committee, as I testified here at length this morning, well, I had no thought of any such thing.

From my point of view the charge has no substance whatsoever. The purposes, objectives of the General Purchasing Committee are clearly set forth in the record.

The minutes of the General Purchasing Committee over a period of nine or ten years indicate very clearly that the General Purchasing Committee was for volume capitalization of the corporation's activities to the interest of the stockholders and to promote the progress of the corporation and for no other reason whatsoever.

Q. To what extent, if any, was the committee formed to ensure that the du Pont wishes would be complied with by [fol. 2553] the purchasing agent?

A. I don't know anything about any du Pont wishes. I never contacted them in my operations in General Motors.

Q. Did you have in mind the formation of the committee to assist du Pont in getting any business whatsoever?

A. I have already stated the purposes of the development and organization of the committee, its objectives, and I can't add anything to what I have already said.

Q. Reading on in paragraph 61:

> "The membership of this committee was made up of the purchasing agents of the Operating Divisions and the Committee met approximately monthly. The chairman of the Committee was at all times one of the high executives of General Motors who was either a former executive of du Pont Company or one who possessed the complete confidence of du Pont Company."

Were you ever an executive of the du Pont Company?

A. Never.

Q. You stated you did not know whether Mr. Pratt had or had not been?

A. I so stated.

Q. Who succeeded Mr. Pratt as the chairman of that committee?

A. Mr. C. E. Wilson ultimately became president of the corporation, now Secretary of Defense.

Q. Do you know whether Mr. Wilson was ever a high executive of the du Pont Company?

A. No. I know Mr. Wilson's history from the very beginning. He never was connected with the du Pont Company in any way, shape or manner.

Q. Do you know whether or not Mr. Wilson had the complete confidence of the du Pont Company at the time he was chairman of the committee?

A. You will have to ask the du Pont Company that question.

[fol. 2554] Q. Do you know whether or not Mr. Pratt had the complete confidence?

A. Same answer.

Q. Do you know whether or not you had the complete confidence?

A. Same answer, only more forcibly expressed.

Q. Reading the last sentence of this paragraph:

> "This central purchasing committee was an effective instrumentality in carry out du Pont-General Motors intercompany sales arrangements hereinbefore and hereinafter described."

Did you ever hear of any understanding between General Motors and du Pont or their representatives that General Motors would buy its requirements of materials made by the du Pont Company from that company?

A. I never heard of any such understanding, and if there ever was such an understanding, which I never heard of, all I can say is it was never carried out under my administration.

Q. Did you consider that the purchasing committee was an effective instrumentality in getting business for the du Pont Company?

A. I don't think it was any more than it was proper for the du Pont Company to have business in view of their products, the price and the service they were prepared to render.

Q. Turning to the next paragraph of the complaint, paragraph 62:

> "The original policy of requiring General Motors to purchase exclusively from du Pont the products du Pont was able to supply was subsequently modified so as to permit General Motors to purchase from 20 to [fols. 2555-2556] 25 per cent of its requirements of the products du Pont manufactured which General Motors used from companies other than du Pont, leaving du Pont with 75 to 80 per cent of the General Motors business. This modification was made because of the fear of both du Pont and General Motors that their business relations with other concerns might be jeop-

ardized if it became generally known that General Motors was required to buy exclusively from du Pont."

Did you know of any understanding that General Motors was required to buy exclusively from du Pont?

A. I never heard of any such understanding.

Q. Do you know of the Purchasing Committee adopting a resolution limiting the purchases from du Pont to not to exceed 75 or 80 per cent? Have you heard of such a resolution?

A. I recall, I think, such action on the part of the General Purchasing Committee.

Q. Was that action taken because of fear that business relations of du Pont and General Motors with other concerns would be jeopardized?

A. I am sure that was not a consideration. Whatever the Purchasing Committee did, so far as I know and believe, was based upon the business judgment of the members of the committee.

Q. Did the interests of the du Pont Company in obtaining business from General Motors Corporation enter in in any way to your creation of the committee or the administration of the committee under you?

A. Absolutely not.

Mr. Hurd: If the Court please, that is all I wish to cover with this witness at this time.

[fol. 2557]

Before Judge LaBuy,
Wednesday, March 11, 1953,
2:00 o'clock p.m.

Court met pursuant to adjournment.

Present:

Same as before.

Library

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. du PONT de NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

VOL. III

INDEX

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Mr. Hurd: Mr. Lynah, will you take the stand, please?

James Lynah, called as a witness on behalf of the Defendants, having been first duly sworn, testified as follows:

Direct examination.

By Mr. Hurd:

Q. Will you give us your full name please, Mr. Lynah?

A. James Lynah.

Q. What is your address?

A. Savannah, Georgia.

Q. Are you engaged in any business at the present time?

A. No, sir.

Q. Mr. Lynah, where did you receive your education?

A. In the public schools of Savannah; at Clemson College, South Carolina, and at Cornell University, Ithaca, New York.

Q. What degrees do you have?

A. A B. S. degree, Bachelor of Science degree from Clemson College, and an M. E. degree with an E. E. certificate from Cornell University.

Q. Where did you finish your education?

A. At Cornell University, 1905.

Q. What was your first employment after that?

A. With the du Pont Company in Wilmington, Delaware.

[fol. 2558] Q. How long were you with the du Pont Company?

A. From July 1, 1905, until December 31, 1919.

Q. What was your first work with the du Pont Company?

A. I was an electrical engineer in the black powder operating department.

Q. What location?

A. At Wilmington, Delaware.

Q. Will you trace briefly your positions with the du Pont Company from that date until the time you left the company?

A. Well, in the fall of 1905, as electrical engineer, I was sent to one of the black powder plants in southeastern Kansas to erect a power plant and install electrical apparatus. In the fall of 1906, I was brought back to Wilmington, and made chief electrical engineer of the black powder operating department.

March 1st I went into the purchasing department as assistant district purchasing agent, in charge of purchasing of engineering, construction and chemical supplies. I was later made district purchasing agent on September 1, 1910. After the du Pont Company had acquired an interest in the Fabrikoid Company at Newburg, New York, a company engaged in the manufacture of imitation or artificial leather, I was made superintendent of that plant. I remained there until April 1, 1915, when I was made manager of one of the smokeless powder plants at Haskell, New Jersey.

On July 18th, in addition to those duties, I was made manager of a plant owned by the U. S. Ordnance Department at Tulleytown, Pennsylvania, which was operated by the du Pont Engineering Company for loading smokeless powder into silk bags for large caliber guns.

After the armistice, I went to the Wilmington office on detached service, assigned to the developmental department with the understanding that when negotiations were com- [fols. 2559-2560] pleted with a Belgian company for the American rights to manufacture rayon under the nitrocellulose process, I was to be put in charge of that enterprise.

During the year 1919 while negotiations were in progress, I was assigned to a study of the celluloid and pyralin business at Wilmington, New Jersey, and later in that year I was assigned to a study of the costs of paints in the Harrison plant at Philadelphia.

During the summer or fall of that year, the negotiations for the rights to produce artificial silk under the Belgian company's patents broke down, and negotiations with the French Viscose Company to manufacture rayon under their process was taken up.

Those negotiations developed rather slowly. In the meantime, I had acquired an interest in a domestic washing machine, and requested a leave of absence to take an active part in that business.

In the meantime, in October, 1919, I had requested a transfer to the General Motors Corporation because the motor field at that time seemed to offer unusual opportunities. Nothing developed from that.

Later in the year, I requested a leave of absence of two years to engage in this washing machine activity. That leave of absence was granted for one year, and having had no vacation that year, I left the 1st of December on that leave.

Q. Mr. Lynah, were you ever an officer of the du Pont Company?

A. No, sir.

Q. Are you a stockholder in the du Pont Company today?

A. Sir?

Q. Are you a stockholder today in the du Pont Company?

A. No, sir.

[fol. 2561] Q. Mr. Lynah, I show you a document which has been marked General Motors Exhibit No. 139 for identification.

Is that your letter to Mr. Carpenter requesting a leave of absence?

A. It is, sir.

Mr. Hurd: I offer General Motors Exhibit No. 139 in evidence, if the Court please.

The Court: It is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 139.)

Mr. Hurd: It is a letter dated October 30, 1919, from Mr. Lynah to Mr. W. S. Carpenter, Jr.:

> "In view of my knowing of no suitable permanent position at this time available in the Company wherein my services can be advantageously utilized, and in view of my having an attractive offer to engage in a financial business in an executive position, this business in no wise being competitive with any of the interests of the du Pont Company or any of its subsidiaries, and in view of my being able to complete or put in shape for ready completion the Costs Accounting Studies in which I am now engaged, I respectfully apply for leave of absence for one year beginning January 1, 1920.
>
> "If granted this leave, it is my intention to take up my new employment February 1, 1920."

[fol. 2562] By Mr. Hurd:

Q. Mr. Lynah, what was the name of the company that you were considering going with at that time?

A. Brokaw Eden Company.

Q. What was its business?

A. Manufacture of domestic washing machines.

Q. Upon securing the leave of absence, did you join that company?

A. I did.

Q. About how long did you remain with it?

A. I remained with that company until the summer of 1920.

Q. Now, in the meantime, Mr. Lynah, did you have any communication from the du Pont Company regarding the rayon business to which you have referred?

A. I did, sir.

Q. In what form was that, and about when was it?

A. On December 31st.

Q. What year?

A. 1919. I had a telegram from Mr. W. S. Carpenter, Jr. informing me that the artificial silk arrangements had been consummated, and requesting me to come to Wilmington.

Q. Did you reply to that telegram?

A. I replied advising him that I would be in Wilmington a few days later, giving him the date.

Q. Mr. Lynah, I show you documents marked General Motors Exhibits Nos. 140 and 141, respectively, for identification, and ask you if those are the wire you received and wire you sent?

A. They are.

Mr. Hurd: I offer General Motors Exhibits Nos. 140 and 141 in evidence.

The Court: They are received.

[fol. 2563] (Said documents so offered and received in evidence were marked, respectively, General Motors Exhibits Nos. 140 and 141.)

Mr. Hurd: I would like to read Exhibit No. 140, if the Court please.

It is addressed to Mr. James Lynah, dated at Wilmington, Delaware, December 31, 1919, and signed Carpenter."

> "Artificial silk subject practically settled. Can you leave for Wilmington today for consultation?"

By Mr. Hurd:

Q. Mr. Lynah, did you have a conference in Wilmington on this subject of rayon business following this exchange of telegrams?

A. I did.

Q. About when was that conference?

A. January 5, 1920.

Q. Where was it?

A. It was held in the du Pont Building, Wilmington, I believe in the office of Mr. Leonard Yerkes who was attached to the Development Department.

Q. Who was present besides yourself?

A. As I recall, Mr. William S. Carpenter and Mr. R. R. M. Carpenter.

Q. Was Mr. Yerkes present?

A. Yes, he was.

Q. Will you tell us the substance of the conversation that took place?

A. Well, as I recall it, Mr. Hurd, I was told that the artificial silk arrangements had been completed, and that Mr. Yerkes had been made executive officer of the proposed new artificial silk company, and that I had been appointed production manager.

I expressed my disappointment and dissatisfaction, and [fol. 2564] I believe left that meeting with the understanding that I would give a definite answer in a day or two.

Q. Did you give them an answer after that?

A. I did.

Q. In what form?

A. I wrote Mr. Carpenter in New York on January 6th that I was disappointed with the position that had been offered, that I had been led to believe that I would be put in charge of the artificial silk enterprise when it was consummated, and in view of my length of service and achievements with the du Pont Company that I didn't feel that I had been given the right consideration.

Q. Mr. Lynah, I show you a document that has been marked General Motors Exhibit No. 142 for identification and ask you if that is a copy of the letter which you sent to Mr. Carpenter on this occasion?

A. It is.

Q. I note that the date on it is January 6th, 1919.

A. That date is a mistake. It should have been 1920, sir.

Mr. Hurd: I offer in evidence, if the Court please, General Motors Exhibit No. 142.

The Court: It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 142.)

Mr. Hurd: I would like to read a portion of it, starting with the third paragraph. This is a letter from Mr. James Lynah to Mr. W. S. Carpenter, Jr., vice president of the du Pont Company, bearing date of January 6th, 1919, which should be January 6th, 1920, and starting with the third paragraph:

> "In several talks which I had at odd times with Mr. [fol. 2565] C. A. Patterson and Mr. F. A. Felix du Pont, individually, and with Mr. Spruance and yourself, it was explained to me that the reason why I had not been appointed to any position during the reorganization of the company last May and June, was because I had been previously selected to handle the Artificial Silk enterprise"—

By Mr. Hurd:

Q. Was the rayon business then known as "artificial silk"?

A. Yes, sir.

Mr. Hurd: (Continuing):

> "regarded as a most important undertaking, for which I was peculiarly qualified. You may recall that in a conference in Mr. Lammont du Pont's office, on October 30th, at which you and Mr. Spruance were present, arranged for the purpose of learning Mr. du Pont's views upon my application for a two years' leave of absence, Mr. du Pont said he believed that I should have felt complimented in having been selected to handle the Artificial Silk enterprise.
>
> "The Executive Committee's resolution appointing Mr. Yerkes 'Executive Head' of the silk company, clearly designated him as the one to handle the enter-

prise. My appointment as 'Production Manager' does not sufficiently define my status. When the proposed company is completely organized I may find myself in a distinctly subordinate position. Naturally, I do not understand the reasons why. I have been in the employ of the company fourteen and one-half years, Mr. Yerkes about two years. What conclusions should one draw? [fols. 2566-2570] "Having in my mind experiences in the Newburgh enterprise, and considering events of the past six months, I could not at this time return to the employ of the du Pont Company and work with that energy and initiative which only the hope and expectation of fair and considerate treatment can stimulate. I have therefore, decided to remain with the Brokaw-Eden Company."

By Mr. Hurd:

Q. Following this, Mr. Lynah, did you have an exchange of correspondence with Mr. Walter S. Carpenter regarding the incident?

A. There was a subsequent letter from Mr. Carpenter acknowledging that letter.

Q. I show you documents which have been marked General Motors Exhibits Nos. 143, 144 and 145 for identification, and ask you if those are letters passing between yourself and Mr. Carpenter regarding this incident?

A. They are.

Mr. Hurd: If the Court please, I offer General Motors Exhibits Nos. 143, 144 and 145.

The Court: They are admitted.

(Said documents so offered and received in evidence were marked Government's Exhibits Nos. 143, 144 and 145.)

[fol. 2571] By Mr. Hurd:

Q. Did that terminate this discussion?

A. It did.

Q. After leaving the du Pont Company in 1920, what employment did you have?

A. With one or two of my former du Pont associates, we organized a small company in New York known as the

L. & M. Distributing Corporation for the distribution of household appliances.

Q. How long did that continue?

A. That continued for about two years. I was not active in it for the full two years.

[fol. 2572] Q. What did you do after that?

A. I went into a partnership for the sale of cotton fabrics in New York City. That lasted about three months.

Q. Approximately when was that dissolved?

A. That terminated about July, 1922.

Q. Following that, what did you do?

A. Mr. John L. Pratt, who was assistant to Mr. Sloan of General Motors at that time, had been a director of our L&M Distributing Corporation. He had his headquarters in New York, and I went to see him about getting a production job in General Motors Corporation.

Q. The L&M Distributing Company, was this the small company which you had organized in 1920?

A. Yes.

Q. What was its business?

A. What was its business?

Q. Yes, the L&M Distributing Company.

A. Distributing household appliances.

How long had you known Mr. Pratt?

A. I had known Mr. Pratt since about 1906, or 1907, when we were both with the du Pont Company in Wilmington.

Q. When you went to see Mr. Pratt in the fall of 1922 about a production job with General Motors, did you have a discussion with him?

A. I did.

Q. Was anyone else present?

A. No, sir.

Q. What, in substance, was the discussion?

A. Well, as I recall it, Mr. Pratt mentioned that Mr. Sloan was considering employment of an assistant to Mr. Main, who was at that time director of the purchase section of General Motors; that he had a purchase plan that he was considering, and that I might be fitted into that plan.

Mr. Pratt knew of my former connection with the du Pont Purchasing Department, and the fact that during my em-
[fol. 2573] ployment with the du Pont Purchasing Depart-

ment I had been Chairman of the du Pont Committee on Standards.

Mr. Sloan was abroad at the time, and nothing transpired until he returned from his visit, sometime in September, I believe.

Q. Did you have a conference with Mr. Sloan upon his return?

A. I went to see Mr. Sloan.

Q. Where did you see him?

A. At his office.

Q. In what city?

A. On the corner of Broadway and 57th Street, in New York.

Q. Was anyone else present?

A. I do not recall that anyone else was present.

Q. What was your conversation with Mr. Sloan?

A. Mr. Sloan told me of the—I don't recall just how he described this plan—but it had to do with the setting up of purchase specifications and lumping the volume purchases of General Motors, and things of that character, and asked me to go to Detroit to call on Mr. Main, to discuss my qualifications with Mr. Main.

Q. Did he give you a letter of introduction to Mr. Main?

A. He gave me a letter of introduction to Mr. Main.

Q. I show you a document marked General Motors Exhibit No. 146 for identification, and ask you if that is the letter of introduction that he gave you.

A. It is.

Q. Did you have a conference with Mr. Main?

A. I did.

Q. Did you report back to Mr. Sloan after that?

A. I wrote Mr. Sloan that I had called on Mr. Main as requested by him, and stated that I felt that I could carry out the proposed work to his entire satisfaction.

Q. Did you receive a reply from Mr. Sloan?

[fol. 2574] A. I received an acknowledgment of my letter, saying that he would give the matter consideration.

Q. I show you documents marked General Motors Exhibits Nos. 147 and 148, respectively, and ask you if those are your letter to Mr. Sloan and his reply?

A. Yes, sir, they are.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 146, 147 and 148.

The Court: They are received.

(Said documents, so offered and received in evidence, were marked General Motors' Exhibits Nos. 146, 147 and 148, respectively.)

By Mr. Hurd:

Q. Were you employed subsequently or shortly after this by General Motors?

A. The 1st of October, 1922, I was employed as assistant director of the purchase section.

Q. In general, what were your duties?

A. At that time the work of the purchase section in making General Motors contracts in which all of the divisions might participate had not progressed very far. I was assigned to take up the matter of sending out questionnaires through the divisions on items that were picked at random, or suggested by any division who cared to make suggestions, and to analyze and compile the data on those questionnaires and consider the making of general contracts.

Q. At that time was there a Purchasing Committee in General Motors?

A. There was not.

Q. At the time you were employed, was there any mention of the creation of a Purchasing Committee?

A. None whatever.

[fol. 2575] Q. When did you first hear of the proposed Purchasing Committee?

A. Sometime later in that fall. Mr. John Pratt, who was then Mr. Sloan's assistant, and who came to Detroit every two weeks with the New York executives, lived with two old General Motors' friends and myself when he was in Detroit. He told me about it informally during one of those visits that that was proposed. That was about in November, 1922.

Q. Did you become secretary of the Committee when it was created?

A. Yes.

Q. When did you first hear that you were to be secretary of the committee?

A. As I remember it, Mr. Hurd, it was when I got the notice giving the membership of the committee on which I found my name as secretary. There had been nothing previously said to me about it that I recall.

Q. In mentioning the proposed committee to you, did Mr. Pratt tell you that the committee was to be an instrument for the carrying out of the wishes of the du Pont Company?

A. No, sir.

Q. Or anything similar to that?

A. No, sir.

Q. Did anyone ever tell you anything like that?

A. Certainly not.

Q. What, in general, were your duties as secretary of this committee when it was created in December, 1922?

A. Well, my duties were to prepare lists of items that the committee might consider as general contract possibilities for submission to meetings, to prepare programs of the meetings, and chiefly to implement the plan for the co-ordination of General Motors purchases which Mr. Sloan had [fol. 2576] prepared, and on the basis of which the General Purchasing Committee was formed; to keep the proposed plan for the coordination of the purchases up to date, and then to incorporate into it any changes that seemed logical as the work of the committee proceeded, and to particularly follow up the important matter of standardizing products, and the writing or developing of specifications to cover all of the various items purchased by the corporation.

Q. When you entered upon this activity, what was your state of mind with respect to the du Pont Company?

A. Well, naturally, Mr. Hurd, under the circumstances of my leaving the du Pont Company, I was greatly disappointed at first, and then very thoroughly disgusted with the treatment I had received. I had no feeling of enmity toward anybody, and of course, having been in the production end of the du Pont Company's business for nearly ten years, I appreciated the integrity that went into the products that they made. I appreciated not only the quality of their product, but also, because of my connection with the du Pont Company, and the work I had done, I had a very clear idea of the cost of production of all of the items that General Motors was buying from the du Pont Company, and I proposed to capitalize on that information to the best interests of General Motors.

Q. Will you describe for us briefly, Mr. Lynah, the procedure that was followed by the Purchasing Committee in determining whether it would contract for the particular items, starting at the beginning; how did this subject come before the committee, and what were the steps?

A. Well, Mr. Hurd, anyone in the company, any employee of the corporation could suggest an item as a general contract possibility. A list of all such items would be presented at meetings of the General Purchasing Committee.

[fol. 2577] It would be considered by the Committee, and if it was decided to be worthwhile, a questionnaire, or the first step would be a questionnaire sent to all divisions of the corporation asking for their annual consumption of such items in terms of units and/or dollars; specifications under which they were purchased; the prices were being paid at that time, and the sources of the supply from which they got those items.

Upon receipt of the questionnaires, they were summarized, and the consolidated information, including all of the factors, was placed before the Committee.

If the Committee agreed that a savings could be effected by making a general contract, the next step was to reconcile the purchase specifications that were prepared on all the questionnaires, and to arrive, if possible, at a common specification that would be acceptable to all using divisions. Upon presentation of that information to the Committee, the divisions were notified that general contract proposals had been ordered developed upon a particular item and under such-and-such a specification, were told the names of the sources which were to be asked to bid, and were requested to name any other additional sources whom they would like to see invited to bid on the general contract.

The next step after that would be inviting suppliers, and we only invited suppliers to bid whose products and reliability of service and financial responsibility and so forth were such that we would be willing to place a contract with them, if their prices and terms were satisfactory.

After the bids were received and summarized, they were placed before the Committee, and the contract awarded to [fol. 2578] the source or sources whom the Committee felt would be the best ones to serve us.

Then the only remaining step was to send a brief of every contract made, a brief giving all of the important terms of the purchasing contract. It was sent to each operating division, or in some cases, branches, sales branches if they were expected to participate in the contract.

Q. Mr. Lynah, I show you a document marked General Motors Exhibit 149 for identification, and ask you if that revision of the plan to September 21, 1923, was prepared by you?

A. Mr. Hurd, a great deal of the subject matter of this plan was in Mr. Sloan's original plan. There are paragraphs in here that were prepared by me based on the experience of the purchasing committee, from the time of its first meeting, until just before this revised plan was promulgated on September 1, 1923.

Q. Was it a part of your duty to keep the plan up to date?

A. It was a part of the original instructions for the secretary to keep the plan up to date.

Q. Was the issuance of this revision something you did pursuant to that duty?

A. Yes, sir.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 149, if the Court please.

The Court: It is admitted.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 149.)

By Mr. Hurd:

Q. Mr. Lynah, I would like to call your attention to the [fol. 2579] exhibits at the end of this document; first, Exhibit A, which is on the third page from the end. Was that the form of questionnaire you sent out in the event the committee thought of some item that they considered might be a possibility for a contract?

A. It was.

Q. That was sent to all purchasing agents?

A. Of all divisions of the corporation.

Q. Then I call your attention to Exhibit B, the next document. Is that the form of notification that you have referred to that was sent out in the event you decided to try to develop a contract?

A. It is.

Mr. Hurd: I call the Court's attention to the last three paragraphs:

> "Please suggest any additional sources you desire to give preference, if any, for sources listed.
>
> "Sources are being requested to bid on the following specifications."

And they set forth specifications. And then the last paragraph:

> "Please advise these specifications are satisfactory and fully cover the matter and if not give any additional specifications."

Then the last page of the document, Mr. Lynah, marked Exhibit C, is that the form of the contract brief that was issued after the committee entered into a contract?

By the Witness:

A. It is.

[fol. 2580] By Mr. Hurd:

Q. That went to all purchasing agents?

A. Of all divisions.

Mr. Hurd: I call the Court's attention to the last paragraph, to the writing:

> "Your participation in this contract is required unless specifically excepted by the General Purchasing Committee."

By Mr. Hurd:

Q. Mr. Lynah, how did the committee operate, by majority vote or unanimous vote?

A. Mr. Hurd, the important thing of all of this work was teamwork, and when the committee dealt with a question, unless we could argue it out among ourselves, and arrive at a unanimous decision in the best interests of the corporation, we could hardly expect those divisions that were expected or required to participate in these contracts to play on the team with us. So that I can say that all of our decisions were unanimous. We never left a subject until they were.

Q. Were there divisions of the corporation covered by the contracts which were not represented on the committee?

A. Quite a number of them.

Q. Were they consulted before a contract was made?

A. In the case of important items, yes, sir, but it was long after the committee began to operate before we won the confidence of our outlying divisions that were not represented, by or through contacts by visits and other means of convincing them what the committee was trying to do was in the best interests of the corporation.

[fol. 2581] Q. Did you compel divisions to buy under your contracts against their will?

A. They were required to participate in the contract, as it says here, unless they were specifically exempted.

Q. And were there any cases where a division, wishing to be exempted, was refused exemption and was later required or compelled to buy under the contract?

A. Not that I recall.

Q. If a particular division objected to buying under the contract, what was your procedure? What did you do about it?

A. Well, the procedure would be taken up with the general manager of that division, if necessary, and either through meetings or other means the difficulties ironed out.

There were many cases where divisions were exempted from participation in the contracts. For instance, we had a division further east in Bristol, Connecticut, and we made contracts for metal cleaners where the manufacturer was in Detroit, for instance, and it might be obviously much cheaper for that division to buy its metal cleaners from some eastern source that did not have a contract, because there wasn't enough volume of business down east to warrant a contract.

In that case he would be excepted from participation.

Q. In the original procedure outlined by the plans, I believe there were two steps you have not mentioned.

At one time did you follow the practice of asking the various divisions to develop contracts before the committees tried to develop contracts?

A. That was part of the original procedure.

Q. What happened to that?

A. That was done because some of the large divisions [fol. 2582] felt that they could get just as good or better terms—that means prices—because of their individual volume than the Purchasing Committee could on the whole corporation's volume.

So that they were given an opportunity to do that, and it didn't work out that way particularly, and the time element involved in their developing their own contract proposals was such as to postpone, you might say, the development of general contracts, so that was dropped.

Q. Was that early in the proceedings?

A. That was early in the procedure, and the other item that was tried and dropped, it was felt that interchange of price information between divisions might be very helpful to the purchasing agents of the individual divisions.

Well, shortly after the Purchasing Committee began to function the suppliers made pretty much the same offers to all of our divisions, so that the need for that procedure was not borne out.

Q. Now, do you recall that after the committee had operated for a time some additional representatives were added to the committee?

A. Yes.

Q. When was that?

A. Well, we had, the original committee, the purchasing agents of Cadillac, Chevrolet and Buick were the car division representatives.

As the work of the committee progressed it became quite evident that the large volume of purchases to be made were by the car divisions and as we only had two other car divisions, Oakland and Olds, it was thought advisable and helpful to add the purchasing agents of those divisions to the committee.

Q. And were they added?

A. They were added.

[fol. 2583] Q. That is, representatives from Olds and Oakland were added.

Did you lose any of the old members?

A. Well, I think the member from Bristol, Connecticut, was withdrawn because of the requirements of their work, particularly their raw materials, were not of interest to other operating divisions.

Q. Was that an accessory division?

A. That was an accessory division.

Q. About when was this change made, adding representatives of Olds and Oakland?

A. I think that took place in the fall of 1923.

Q. About the same time, did you create a sub-committee?

A. Yes, sir, we did.

Q. And just what was the sub-committee?

A. Well, we found that the volume of work that was coming before the committee was such that to deal with it by the full committee—well, we just didn't have time to do it, and the purchasing agents of the three larger car divisions seemed to have the confidence of all the other car groups and were the largest purchases of all classes of material and were easily available to Detroit—two of them were in Detroit, and one was in Flint, Michigan—the logical thing seemed to be to organize a sub-committee of the General Purchasing Committee to handle any matters that might be dealt with by the big committee, the full committee, except policy.

Q. What was this committee called?

A. The Committee was called the Standing Sub-Committee, and they had the authority, full authority, to act for the Committee with the understanding that the proceedings of [fol. 2584] all of their meetings be reported and approved by the next following meeting of the General Purchasing Committee.

Q. At whose suggestion was this Standing Sub-Committee created?

A. That was my suggestion.

Q. Mr. Lynah, I show you a document marked General Motors Exhibit 150 for identification, and ask you if that sets forth the minutes authorizing these two changes that you have just described; the addition of the Olds and Oakland representatives; and the creation of the Sub-Committee?

A. It does.

Mr. Hurd: If the Court please, I offer into evidence General Motors Exhibit No. 150.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 150.)

By Mr. Hurd:

Q. Now, Mr. Lynah, at the time that the Committee started operating in December, 1922, were there any contracts in existence covering General Motors generally, the requirements of all the divisions?

A. Yes, there were a few contracts, Mr. Hurd.

Q. Do you recall any of them?

A. Well, I recall the principal one, which was with the A. O. Smith Corporation of Milwaukee for frames.

I believe there was one with the Burroughs Adding Machine Company of Detroit; one for carbonizing boxes; one for carriage bolts; and fuses.

That is about as far as I can go, I think.

Q. To refresh your recollection, was there one on coal?

A. Yes, one for coal.

[fol. 2585] Q. Now, turning to the work of the Committee, what type of items did you cover by contract in general categories?

A. Of course, the large volume of purchases, where the money for purchases was spent, was in what we call productive materials, and that is the material that enters into the final product.

Those were also the materials that it was rather difficult to have generally adopted, at least, to develop specifications for generally, because of variations by the different manufacturing divisions.

So our efforts were at first, pending the development of specifications of these other items, what we called expense materials or operating supplies that did not enter into the products.

I think—well, that's that.

Q. The expense materials were generally common to all the divisions?

A. Yes.

Q. What about the productive materials? Were they common to all divisions?

A. Well, certain types of productive materials were. All car divisions used frames. The chemical analysis of the steel used in car frames was the same.

In other parts of the car, the springs, for instance, or parts of the engine, and whatnot, had different analyses of steel. We took up those things for which there was already in existence a common specification or for which a common specification could be more easily developed.

Q. Now, when you started in with your work with the Committee, did you make any study of possible subjects for consideration by the Committee, possible items?

A. I did. And it was pretty generally known what the large volume items were. I sent out questionnaires to all the [fol. 2586] divisions, listing these items, and asking for their annual consumption in terms of dollars.

As I recall it, there were some thirty-two items on that list, with an aggregate cost of $138,000,000.00.

Q. What did you do with the list after you compiled it?

A. The list was sent to Mr. Sloan and presented at the next meeting of the General Purchasing Committee.

Q. Did the General Purchasing Committee from time to time consider the items on your list?

A. Well, immediately it was determined that some of the items were peculiar to each manufacturing division and were discarded for the time being. There were others that were considered general contract possibilities and were dealt with accordingly.

Q. I show you a document marked General Motors Exhibit 151 for identification. Will you refer to the back side of that, and tell us whether or not that is a list of thirty-two items that you compiled?

A. Yes, sir, that is the list.

Q. Is the front page your communication to Mr. Sloan regarding the list?

A. It is.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit 151.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 151.)

By Mr. Hurd:

Q. I would like to call the Court's attention to three items in the list. It appears on the back side of a letter, a little more than half way down in the first column, the word "Leather-Im.".

[fol. 2587] What does that refer to?

A. That is imitation leather. The du Pont Company's product was Fabrikoid. Each manufacturer of that commodity had a different trade name for it.

Q. The du Pont Company did make imitation leather at that time?

A. It did.

Q. Then tracing that across the page—it is rather difficult—but the total dollar item at the end is 1,243-odd thousand dollars.

That was the amount that the corporation as a whole had paid out for imitation leather during the calender year 1922?

A. Yes, sir.

Q. Then about half the distance from there to the bottom of the page, the item "Top fabrics."

Were top fabrics made by the du Pont Company at that time?

A. Yes, sir.

Q. Tracing that across the page, the dollar item in the last column is 2,266-odd thousand dollars.

Then the last item in the original column is "Paints-Color."

At that time the du Pont Company was engaging in the manufacture of paints?

A. They were.

Mr. Hurd: Then, your Honor, you will see that in the last column that amount is $1,300,000.00.

By Mr. Hurd:

Q. Mr. Lynah, you have referred to the fact that the specifications that came in answer to the questionnaires might differ on the product. What did you do in those situations?

A. Mr. Hurd, we had at that time on the Advisory Staff in Detroit a section known as the factory section. On the [fol. 2588] staff of that section were some production experts, men who were familiar with all phases of the manufacturing operations in an automobile plant. The specifications were referred to them for simplifying or unifying or improving, or whatever needed to be done.

We also had in the research laboratories in Dayton, Ohio, a staff of highly expert chemists who could deal with the metallurgical and chemical type of specification.

So that whenever any reconciling of specifications became necessary or evident, they were referred to one or more of those sections.

Now, later on, we found it desirable to organize a great number of subcommittees and committees to deal with the preparation and simplification of specifications.

For instance, we had the metallurgical subcommittee. We had the paint and enamel committee. We had a committee on foundry practice. We had a safety engineering committee. We had a works engineers committee. We had a power and maintenance committee.

We had committees that dealt with every phase of manufacturing operations. So that the divisions themselves who were represented on these committees could have a direct say in the preparation of specifications, which finally came back to the purchasing committee for submission to the divisions in an official form for approval.

Q. When the particular committee handling the problem of standardizing any particular item reached a standard, it notified the General Purchasing Committee of its results?

A. Yes. Their results were reported.

Q. Then what did you do with the report?

A. The General Purchasing Committee, after reviewing the recommended specifications, would submit them to the [fol. 2589] divisions through the purchasing agent for approval by that department of the division that would use those specifications on their purchase requisitions.

There was just one other step in there that I might mention, too. There was no use in developing a specification that wouldn't be found perfectly practical by the manufacturer who was going to be called on to produce the material under that specification.

So that wherever it was considered desirable, we submitted the proposed specification to the manufacturers who would be expected to supply materials under those specifications for their approval as to the practicability of the specifications.

After all that was done, then the specifications were ordered printed and put in the General Motors standards book.

Q. In the event that a division objected to the specification, what happened?

A. The usual effort was made to reconcile it. If the majority of divisions approved a specification, it went into the standards books anyhow, and sooner or later the division that originally objected would find it desirable to use it.

Q. If the standards specification went into the standards book, were the divisions required to follow that standard?

A. No, that was up to their engineering departments, but the approval of the specfications had gone through so many channels that as a rule it was generally accepted.

Q. To what extent was this work of standardization an activity of the Purchasing Committee?

A. It became one of the very important activities of the General Purchasing Committee. As I say, we had every [fol. 2590] phase of manufacture working on it—a man in every phase of manufacture working on it.

Q. Did the committee, the General Purchasing Committee, work out procedures for effecting standardization?

A. Yes, sir.

Q. Mr. Lynah, I show you a document marked General Motors Exhibit No. 152 for identification, and ask you if that contains selections from the plans and minutes setting forth procedures and policies on standardization and dealing with the importance of it?

A. Yes, sir.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 152.

The Witness: May I interrupt for one moment? On this question of specification and standardization, I would like to cite just one thing.

In 1923 before this work started, the Cadillac Motor Car Company used bolts, nuts, set screws and top screws, all of which have special threads, so that if anybody having a Cadillac car down in some isolated section of the country—and it didn't have to be too isolated—happened to have one of those bolts or set screws or what-not break, he would probably have to lay up there until he could get a replacement from the nearest Cadillac branch or even back from the factory.

That was just one of the items of difficulty that we had to overcome in this process of standardization.

Q. That was due to the fact that Cadillac had its peculiar type of thread?

A. That was.

Mr. Hurd: If the Court please, I offer General Motors Exhibit No. 152.

[fol. 2591] The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 152.)

Mr. Harsha: Your Honor, may I be heard very briefly on these?

The Court: Yes.

Mr. Harsha: We are not objecting to their admission at this time, but you will note that these are excerpts from minutes which cover a considerable period of time.

Counsel for General Motors has provided us with a photostatic copy of the complete minutes, but we have not yet had an opportunity to check through completely. I wonder if we could have a reservation that if there is any other portion we feel is relevant, we can offer it later?

The Court: The Court will reserve its ruling for the present.

Mr. Hurd: Would it be agreeable that they be received subject to correction, if there is any error in them?

Mr. Harsha: Oh, surely.

Mr. Hurd: This is one of the things we are liable to lose track of. That is all I have in mind. If that is agreeable?

Mr. Harsha: Certainly. We have no objection to that.

The Court: They will be received subject to correction.

Mr. Hurd: There — a number of these, and that is agreeable to us if that applies to all of them.

[fols. 2592-2593] Mr. Harsha: Maybe I didn't make myself clear.

We also have the point that in addition to any corrections, there may be other portions of the full minute that we feel are relevant.

Mr. Hurd: We have no objection to the introduction of any additional portions or whole part of any or all of them.

The Court: Very well.

The court now stands recessed for fifteen minutes.

(Recess taken.)

Mr. Hurd: With respect to General Motors Exhibit 152 I would like to call the Court's attention to the fact that this subject of standardization is dealt with on the first page, and quotations from the plan itself that contemplated that problem.

On the succeeding pages, it was dealt with at various times, particularly in 1923 and 1924, and also in some later years, in setting forth the procedures it followed in carrying out the standardization program.

By Mr. Hurd:

Q. Mr. Lynah, I show you a document which is marked General Motors Exhibit 153 for identification, and ask you if that contains a summary of the illustrations of the activity of the Committee in standardizing these various products?

A. Yes, sir.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 153.

The Court: It is admitted.

[fol. 2594] By Mr. Hurd:

Q. Mr. Lynah, was the Committee of Body Trimming Engineers formed at this time?

A. Yes.

Q. Is that procedure typical of the way you proceeded in an effort to standardize materials?

A. It was.

Q. Having committees for that purpose?

A. It was.

Mr. Hurd: Now, on page 14, at the top of the page, "Battery Terminal Standardization."

> "Ground connections made of laminated copper strip have been adopted by all divisions except Buick at an indicated saving of $15,000.00 per annum. Buick have found certain reasonable objections to the use of this connection. It is hoped that their objections may be overcome as there is an indicated saving to Buick of $12,000.00 per year."

By Mr. Hurd:

Q. Was that the general procedure you followed to induce any objecting divisions to accept standardization?

A. It was.

Mr. Hurd: The next item, the Court will notice, "Specifications for Approval for Insertion in Standards Books."

[fol. 2595] "(a) Aluminum Sheet & Strip.

(b) Aluminum Rod and Wire.
(c) Alloy Tubing.
(d) Phosphor Bronze Sheet & Strip.
(e) Babbitt."

By Mr. Hurd:

Q. Those were all items where there had been specifications and some committee had worked out a standard specification?

A. Correct.

Mr. Hurd: Turning over to page 21, the Court will note that the first three items are all specifications of various types that have been approved for insertion in the Standards Books.

By Mr. Hurd:

Q. Does that mean that it had been approved by all the divisions using the particular items, when they were approved for insertion in the Standards Books?

A. They had to be approved by the majority of the using divisions.

Mr. Hurd: Page 23, the whole page is an illustration of the items that have been approved for insertion in the Standards Books. The same is true of page 24. It is a solid list of items. Also all of 25, and it is also true of 26, 27, and 28.

I won't bother to read any of the particular provisions, but the majority of this document thirty pages long, contains item after item that was standardized?

A. Yes.

Q. Mr. Lynah, now I show you a document marked Gen- [fol. 2596] eral Motors Exhibit 154 for identification. Does this contain a list of the contracts that were entered into by the General Purchasing Committee or the Sub-Committee with the approval of the Purchasing Committee?

A. It does.

Mr. Hurd: I offer in evidence General Motors Exhibit 154.

The Court: It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 154.)

By Mr. Hurd:

Q. Mr. Lynah, I notice that some of the items are underlined in red. What does that signify?

A. That signifies contracts that were made with the du Pont Company.

Q. I notice some items are underlined in green. What does that signify?

A. That signifies contracts for items of competitors of the du Pont Company.

Mr. Hurd: Now, I would like to explain to the Court briefly the setup of the chart. The first column is an arbitrary listing of the items in the order that the contracts were approved. It is a listing of the contracts.

For instance, No. 1 is the first contract authorized by the Committee; No. 2 is the second contract, and so forth.

In the second column, under the heading, "Meeting Number", that refers to the meeting at which the action was taken.

All of the minutes were numbered, as I recall, and it merely identifies that particular meeting.

The third column shows which committee it was. GPC [fol. 2597] is the General Purchasing Committee, and SSC is the Standard Sub-Committee.

The fourth column shows the date that the action was taken.

The fifth column, the product that was covered by the contract.

The sixth column, the supplier with whom the contract was made.

The seventh column is headed Portion of Requirements.

Now, the minutes showed that the contract, for example, with the Carnegie-Steel Company was for seventy percent of the total demand for carbon steel bars. That information is set forth.

Nothing is shown—the minutes do not show whether there was a definite portion or not—if the letters REQ appear in that column, that means it covers the full requirements of the using division.

If the letters ROSM appear in that column, that means that the contract covered General Motors requirements of the seller's make.

By Mr. Hurd:

Q. Mr. Lynah, will you explain what you mean by the term "Requirements of Seller's Make?"

A. Each manufacturer in any particular field had his own brand name of product, or its product was known under the name of the manufacturer. The requirements of seller's make meant our requirements of that make of equipment or commodity, or product of that particular manufacturer.

Q. Does a contract for the requirements of the seller's make require anyone to buy any item from that manufacturer?

A. No, it does not, but if the terms of the contract were [fol. 2598] favorable, even though the division may have been using some other manufacturer's make of a similar item, that is without a requirement of his participation, it might very readily be an inducement for him to participate in that type of contract, and that was frequently the case.

Mr. Hurd: Now, the next column, "Kind of Discount"; and if it appeared from the minutes as to what the discount was, it was inserted there. There were generally two types of quantity discount, which may be a sliding scale quantity discount or a straight quantity discount. If it was a discount covering all items that a company might sell, it has been marked MP in that column. That refers to Multiple Item.

By Mr. Hurd:

Q. Will you explain briefly just what multiple item contracts were, Mr. Lynah?

A. Well, a manufacturer would make a different product, or would have a line of products of many different specifications. We might buy from him a certain volume of one specification and a certain volume of another specification where the prices of those items were not related in any way, but in order to capitalize on the volumes of the business that we might place with him, he could be induced to lump all of these items which he might supply and give us a base price on each item plus a multiple item discount.

Mr. Hurd: The column headed "Participation" refers to any division that was included, if it appears in the minutes that some division was participating in the contract.

Of course, the last column, "Terms of Contract" merely [fol. 2599] shows whether it was six months, a year, three months or some other term, or a renewal of the past contract.

By Mr. Hurd:

Q. Mr. Lynah, will you turn to page 13?

A. Yes, sir.

Q. The item there, Pyroxylin Finishes, E. I. du Pont. Was that the first contract made with the du Pont Company through the General Purchasing Committee?

A. Yes, sir, it was.

Q. How long had the committee been in existence before this contract was entered into?

A. A little over two years.

Q. How many contracts had the committee made before making this contract?

A. 147.

The Court: You mean for the same product, or contract generally?

Mr. Hurd: For contracts generally?

The Witness: For contracts generally, sir.

By Mr. Hurd:

Q. The committee had entered into 147 contracts for various items before entering into any contracts with the du Pont Company?

A. Correct.

Q. And it had been in existence and operating for over two years before it entered into any contract with the du Pont Company?

A. Correct.

Q. Now, will you turn to page 18, the item at the top of the page, Pyroxylin Finishes with the du Pont Company. Was that the second contract made with the du Pont Company by the General Purchasing Committee?

A. Yes, sir.

Q. How long had you been operating at that point?

A. A little over two years and a half.

[fol. 2600] Q. How many contracts had you made before you made the second one with du Pont?

A. 197.

Q. Now, turn to the next page, on page 21.

A. Yes, sir.

Q. Item 240, "White Lead in Oil - Dry White Lead"; National Lead Co., was that a product then made by the du Pont Company?

A. Yes, sir.

Q. And was the National Lead Company a competitor of the du Pont Company at that time?

A. It was on that product.

Q. And the next item, right below that, "Paint & Varnish Type Materials", the supplier the du Pont Company, under "Portion of Requirements" is "ROSM." That was one of those contracts specifying requirements of seller's make?

A. It was.

Q. It did not require the purchase of any item under the contract?

A. Correct.

Mr. Harsha: Pardon me, Mr. Hurd. Am I on the wrong page? Are you on page 21?

Mr. Hurd: Yes page 21.

Mr. Harsha: The copy I have shows "du Pont Req."

Mr. Hurd: That is not the corrected copy.

What does your Honor have on yours?

The Court: "ROSM" on mine.

Mr. Hurd: That was an error in the original printing, and you have a copy that didn't get corrected, Mr. Harsha. That was an error that we found.

By Mr. Hurd:

Q. The item right below that is "Pyroxylin Finishes, [fol. 2601] Duco & Duco Thinner" and that was for 100 per cent of the requirements of the General Motors division, and 50 per cent of Fisher Body Company?

A. That is correct.

Mr. Hurd, I would like to point out in connection with that, at that time the trend towards closed cars which had been very rapid, put the consumption of Pyroxylin finishes on Duco and Duco thinner by the Fisher Body Corporation quite substantially above that of the General Motors units.

Now, in the purchase of paints where the matching of colors from one shipment to another is of the greatest importance, it was not advisable to have our divisions which used a decreasing amount of such finishes, have colors from different sources coming into the plants. That was one of the influences that tended towards the increase in the percentage of paints placed with any one supplier.

Q. Now, will you turn to the item at the bottom of page 23, "White Lead in Oil - Dry White Lead, Carter White Lead Co."

Was the Carter White Lead Company a competitor of du Pont with respect to that product at that time?

A. It was.

Q. Will you turn the page again and look at page 25, Item 296. Just what is that item? Explain that.

A. Well, that item meant anything that our divisions would buy or specify from the du Pont Company, or buy from the du Pont Company which might include any artificial leather or Duco, Duco thinner, or any other items that the du Pont Company might supply.

Q. Was that a contract that required you to purchase anything?

A. No, that was one of the requirements of seller's make, [fol. 2602] contracts in which participation was optional with the divisions.

Q. Will you turn to the next page at the bottom of the page, Items 312 and 313, and one is Pyroxylin Finishes and Thinner, and the other Paint & Varnish Type Materials. Those are both marked "ROSM," and those were both just requirements of the seller's make?

A. Yes.

Q. And the next page, National Lead Company, underlined in green, that was still a competitor of du Pont Company at that time?

A. It was.

Q. And the following page, page 25—no, page 28, Item 333 underlined in green, Duco Thinner, U. S. Industrial Alcohol Sales Co., was that a competitor of the du Pont Company with that product at that time?

A. It was.

Q. And turn the page again to page 30, Item 355, Thinner, E. I. du Pont, 60 per cent. Does that refer to 60 per cent of the requirements of the General Motors Corporation?

A. Sixty per cent of the requirements, yes.

Q. Turn two sheets now to page 34.

The Court: Pardon me. I notice the number of contracts for goggles. What are all of those goggles used for? I notice they are for goggles. What are all those goggles and head masks—what are those used for?

The Witness: In the operations, sir, where the workmen are exposed to steel particles.

The Court: And torches and things?

The Witness: Yes, torches and foundry work and operations of that nature.

The Court: I thought that was in the days of the open cars where they used to wear goggles.

[fol. 2603] Mr. Hurd: And also in painting.

The Witness: Yes, spray painting.

Mr. Hurd: On page 34, the second item, was that also a du Pont competitor?

By the Witness:

A. Correct.

By Mr. Hurd:

Q. And the next page, page 35, the two items were du Pont, those are both requirements of seller's make?

A. Correct.

Q. And turn to page 37, a further contract with National Lead Company—still a competitor?

A. Correct.

Q. Turn two pages to page 41, the two items underlined in green; the first one is another one of National Lead, and the one at the bottom, Caustic Soda, Detroit Soda Products Co.—was that a competitor on that product of the du Pont Company?

A. It was.

Q. Will you turn to the top of the next page, page 42, the first item underlined in green, Cyanide-Sodium-Copper, Charles Hardy, Inc., was that a competitor of the du Pont Company as to that product at that time?

A. It was.

Q. And that was another contract. That was requirements of the seller's make?

A. Correct.

Q. And the following page, page 43 is another contract with National Lead.

Turn to page 44, the first item underlined in green, Aluminum Bronze Powder, Aluminum Company of America, was that a competitor of the du Pont Company with respect to [fol. 2604] that product at that time?

A. I am sure it was at that time.

Q. The next item, Aluminum Spar Mixing Liquid, was that a competitor of the du Pont Company?

A. It was.

Q. Later on there are two more contracts, one with National Lead and one with Detroit Soda Products, and also one on page 45 with Detroit Soda Products Company.

Page 47, another contract with du Pont. Were those requirements of seller's make?

A. Correct.

Q. And another one with National Lead, and below that, Trisodium Phosphate, Detroit Soda Products Company. Is that a competitor of du Pont as to that product?

A. It was.

Q. The next page, on the next page there is another contract, Cyanide-Sodium, the Charles Hardy, Inc., and then at the bottom of the page is Caustic Soda, Dow Chemical Company. Was that a competitor of du Pont as to that product at that time?

A. It was.

Q. At page 49, the item "Carburizing Compounds, Steel Treating Equipment Company," is it a competitor of du Pont for that product?

A. I believe it was.

Q. There is another contract to Detroit Soda Products Company, on that page.

A. That is right.

Q. Page 50, there is one with National Lead Company. There is also one on page 50 for "Chromic Acid, Mutual Chemical Company." Was it a competitor of du Pont at that time?

A. On that item, yes.

Q. At the bottom of that page 50, toward the bottom, is Item 648, "Anti-Freeze Methanol, Western Rosin & Turpentine Company." That is underlined in red.

[fol. 2605] Do you recall whether that was a distributor of du Pont at that time?

A. That is my understanding, it was.

Mr. Hurd: That particular item, if the Court please, while du Pont does not appear, it was a distributor, so it has been included as a purchase from the du Pont Company.

By Mr. Hurd:

Q. At the bottom of page 51 is another contract with Industrial Chemical Company.

A. Right.

Q. Page 52, "Pyroxylin Finishes," with du Pont. That was a requirement of seller's make?

A. Correct.

Q. And contract with National Lead and Charles Hardy.

Page 53, contracts with Dow Chemical and Detroit Soda, similar to the prior ones.

On the last page, 54, contracts with National Lead and Mutual Chemical Company, similar to the prior ones.

Those companies were still competitors with du Pont on those products at that time?

A. They were.

Q. Mr. Lynah, do you recall how many contracts there were that the committee entered into with the du Pont Company?

A. According to this chart, which I am ~~sure~~ is correct, there were 14 du Pont contracts, or contracts with the du Pont Company, during this period.

Q. That is, out of a total of 709 that were made?

A. Out of a total of 709.

Q. How many contracts with competitors of du Pont?

A. 30.

The Court: What period does this cover?

[fol. 2606] Mr. Hurd: This covers the period from January, 1923 until the committee ended in August, 1931, if the Court please. This is the full life of the committee.

By Mr. Hurd:

Q. Now, Mr. Lynah, were there any extensive rejections of items for contracting?

A. There were.

Q. I show you a document marked General Motors Exhibit No. 155 for identification.

Does that contain a list of the items with respect to which the Committee decided not to enter into contracts?

A. It does.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit 155.

The Court: It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 155.)

By Mr. Hurd:

Q. Mr. Lynah, I notice some items are underlined in red on this document. What does that indicate?

A. That indicates that the materials for which contract proposals had been made and rejected covered materials that could be supplied by the du Pont Company.

Q. That is, they were available at the time from the du Pont Company?

A. They were available at the time from the du Pont Company.

Mr. Hurd: I would like to explain the chart briefly to the court.

As far as the first four columns are concerned, it is [fol. 2607] similar to the first chart and is keyed to the particular meeting where the subject came up and where the contract was rejected.

The fifth column shows the product.

The sixth column shows the supplier, if the rejection was directed to a particular supplier. If it was directed to the subject, and they were not going to contract at all for the subject, then nothing appears in the supplier column.

If the minutes showed a specific reason for the rejection, it appears in the last column under remarks. If the item is "Too Special," it appears there. If there was "No Saving," it so appears, and so on.

By Mr. Hurd:

Q. Mr. Lynah, what is meant by "Too Special?"

A. It meant that the item was one that was required by a division for particular purposes. It was not subject to coordination or lumping of volume.

Q. I call your attention to the chart, Mr. Lynah, the first page, fourth item, which is underlined, Pyralin.

Was that made by the du Pont Company at that time?

A. It was.

Q. What is Pyralin?

A. Pyralin is really celluloid. That is the ordinary trade name for it, celluloid. It was used by the car divisions for windows in the back curtains and side curtains of open cars.

Q. Turning to page 3, item 51, "Leather substitute and rubber coated fabrics."

Those were items that you listed in your thirty-two items as possibilities, are they not?

A. Yes, sir.

[fol. 2608] Q. In the last column, the comment "Cost plus unsatisfactory." Do you recall what the circumstances were of that particular incident?

A. Yes, sir. Items that were purchased in large volume where the manufactured article was composed of raw materials of several kinds—in this particular instance, the base of all artificial leather is cotton fabrics. There were times when it was considered more favorable to buy cotton fabrics than other times.

To carry that a step further, it was considered possible to effect substantial savings by buying the raw cotton and paying the cotton mills a conversion charge to convert that raw cotton into different types of fabrics.

Of course, in the artificial leather business we used a great many types of fabrics.

The idea in the submission of this contract was that the du Pont Company would contract for a substantial amount of cotton fabrics when that market was favorable, and we would pay a conversion charge to have the material dyed and coated with the particular amount of pyroxylin coating required for the different qualities, so called, of artificial leather.

Q. Did this particular incident that occurred in September, 1923, relate to a proposed contract with the du Pont Company?

A. That is my recollection of it.

Q. And it was rejected by the purchasing committee?

A. Yes, sir, because it was too speculative.

Q. Referring to page 5, item 81, photographic supplies, were they available at that time from the du Pont Company?

A. I believe so.

Q. Referring to page 7, two items are underlined. The top item is acid-sulphuric 66 percent, and then further down another item, acid. Were those available from the du Pont Company at that time?

A. They were.

[fol. 2609] Q. Turning to page 9, two items are underlined. One is "Paints for Nonproductive and Maintenance Use."

Were they available from du Pont at that time?

A. They were.

Q. Is that also true of "Floor Paints" appearing right below that?

A. They were, correct.

Q. Then the next page, page 10, item 153, "Striping Materials and Thinners," were they available from the du Pont Company at that time?

A. Correct.

Q. The next page, "Denatured Alcohol," was that available from the du Pont Company?

A. Correct.

Q. Turning to page 13, "Machinery Enamels," was this available from the du Pont Company?

A. Correct.

Q. Further on, on that page, "Anti-Freeze Materials," was that available from the du Pont Company?

A. Correct.

Q. Then turning two sheets, item 247, "Varnish and Oil Type Materials," the next column, "E. I. du Pont de Nemours Company," was that rejection specifically related to a proposal made by the du Pont Company?

A. The item rejected meant a contract proposal rejected, and the fact that the du Pont Company's name appears there meant that their proposal had been rejected.

Q. Turning to the next page, item underlined, "Aluminum Spar Mixing Liquid," was that available from the du Pont Company?

A. Correct.

Q. Then the last page, "Anti-Freeze Methanol," with the du Pont name, does that mean that the contract under consideration was rejected, a proposed contract with the du Pont Company?

A. Correct.

Q. Of the total of 342 rejections, do you recall how many [fol. 2610] of these were proposed contracts with the du Pont Company?

A. 13.

Q. Contracts with the du Pont, or for a material that they could supply?

A. A material that they could have furnished, yes, sir.

Q. I would like to turn briefly to the general rules, the general test that you used for determining whether to make a contract.

Did you have any requirement as to the number of divisions that would be intrested in the product?

A. No general contract development was undertaken unless the item involved was used by more than two divisions.

Q. What was the purpose of that rule?

A. The purpose of the rule was that unless we could add to the volume of one division in getting better prices, that that division by itself could get just as favorable terms as the General Purchasing Committee could get.

Q. Did you have any rule with respect to having the product involve any particular volume before you would contract for it?

A. There had to be a substantial saving.

Q. There had to be a substantial saving resulting from your contract?

A. Yes, resulting from the contract.

Q. Did you have any rule with respect to the number of sources of supply?

A. There was no official rule, but on the old-fashioned thesis of not putting all of your eggs in one basket, it was just sound practice to have more than one source of supply familiar with your requirements and conversant with the specifications under which you purchased.

Further, in order to encourage competition, and to keep [fol. 2611] abreast of developments by other potential suppliers, it was desirable as a general thing to have more than one source of supply.

Q. Did you have any general rule with respect to keeping the prices that you obtained confidential or secret?

A. That was a thing that we worked on constantly all through the life of the General Purchasing Committee, to keep prices confidential. We had to send out these contract briefs with the terms of purchase, including prices, to the Purchasing Department of all of our operating divisions.

The Purchasing Departments in some of those divisions had very large personnel. They had different buyers for many different classifications and products.

These contract briefs, or copies of them, had to be in the hands of those buyers, at least the terms of the contract, and it was a perfectly natural thing—it seemed to be, at least—that suppliers of similar products, not holding the contract, would keep contact with the divisions in an effort to get business, and in the course of some of those private negotiations the contract prices would be disclosed.

Our effort was to keep the contract prices confidential because our volume of purchases frequently enabled us to get better prices than concerns requiring smaller volumes might get. In those days, things were "cheaper by the dozen."

Q. With respect to savings, you said you would not contract for an item unless there was a saving resulting from it.

I show you a document that is marked General Motors Exhibit No. 156 for identification, and ask you if that contains typical illustrations of contracts producing savings?

A. Yes, sir, it does.

[fols. 2612-2613] Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 156.

The Court: It is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 156.)

[fol. 2614] By Mr. Hurd:

Q. Mr. Lynah, did the Committee make any effort to review its accomplishments from time to time in saving money through its contracts?

A. Well, the existence of the Committee, the reason for its existence was the savings that it could effect in the coordination of General Motors purchases.

It was necessary, to justify their existence, to review their achievements from time to time, and show savings by the use of a formula that had been approved by the purchasing agents of all divisions, and when they approve a formula it is pretty well bedrock. That was done annually.

Q. I show you a document that has been marked General Motors Exhibit No. 157 for identification.

Will you look at the first page of that and tell me whether [fol. 2615] or not that sets forth the formula that you worked out for determining what your savings were?

A. It does.

Q. Then will you look at pages 2 and 3. Do those contain references to the amount of savings that the Committee had accomplished?

A. Yes.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 157.

The Court: It is admitted.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 157.)

[fols. 2616-2617] Adjournment.

[fol. 2618] James Lynah, called as a witness on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (continued).

By Mr. Hurd:

Q. Mr. Lynah, you explained yesterday the position of the General Purchasing Committee with respect to having more than one source of supply.

I now show you a document marked General Motors Exhibit No. 158 for identification, and ask you if that contains the rulings of the Purchasing Committee with respect to that subject?

A. It does, sir.

Mr. Hurd: I offer in evidence, if the Court please, General Motors Exhibit No. 158.

The Court: It is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 158.)

Mr. Hurd: I would like to call attention to the second item on this exhibit, headed "General Purchasing Committee Minutes, January 2, 1924," under "Miscellaneous Matters":

> "For the purpose of enabling Divisions to keep in touch with sources of supply and to be in a position to feel out the market at any time and to encourage best

possible service on part of contractor it was agreed that as regular procedure general contracts would read to cover not more than 80% of General Motors requirements of any item."

[fol. 2619] By Mr. Hurd:

Q. Mr. Lynah, at that time had the Purchasing Committee made any contract with the du Pont Company?

A. No, sir.

Q. Was it at that time negotiating any contract with the du Pont Company?

A. No, sir.

Mr. Hurd: I would also like to read the next sentence, although it deals with a different subject:

> "Divisions will be required to take the percentage for which they are committed regardless of whether or not more favorable terms are offered on the open amount as it is believed that it is chiefly through the existence of general contracts that better prices on open amounts are frequently offered to Divisions."

By Mr. Hurd:

Q. Mr. Lynah, were there any occasions where a Division was compelled to comply with that rule?

A. Not that I recall, Mr. Hurd. That is where the teamwork came in. If it was in the best interests of the corporation to comply with these requirements, the Divisions did so.

Q. I show you a document which has been marked General Motors Exhibit No. 159 for identification; and ask you if that contains representative illustrations of the Purchasing Committee's effort to use more than one source of supply for items?

A. These were typical cases, Mr. Hurd.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 159.

The Court: It is admitted.

[fol. 2620] (Said document, so offered and received in evidence, was marked General Motors Exhibit No. 159.)

Mr. Hurd: There are certain portions of that I would like to call to the Court's attention.

On the first page, the first item, which is the action of the General Purchasing Committee on January 4, 1923, dealing with carbon steel bars, 70 percent of the corporation's requirements are contracted for with the Carnegie Steel Company, and 15 percent with Cambria Steel, and 15 percent left open.

The next item, March 14, 1923, relates to brass and copper, sheets and rods, and states that it was decided to award contracts for 75 percent of the requirements to American Brass Company, and 25 percent to another company.

The next item shows step bolts, awarded 75 percent to one company.

On the second page, first item, December 20, 1923, deals with leather, and states that:

> "The contract concluded with General Leather Company for a two year period commencing January 1, 1924, was discussed.
>
> "Referring to the second paragraph, page 2, the agreement to purchase at least 75 percent of leather requirements from General Leather Company was approved."

The next item dealing with coal provides for 60 percent of General Motors requirements to one company.

The item at the top of page 3 dealing with steel, provides that the action of the Standing Sub-committee in awarding [fol. 2621] contract to Carnegie Steel Company for 80 percent of General Motors requirements of carbon steel was approved.

The next item dealing with cap screws provides for 80 percent to one company.

The next item dealing with carbonizing compounds provides for 80 percent of General Motors requirements to one company.

On the fourth page, first full item, June 28, 1927, provides for general contract for 75 percent of General Motors requirements for acetylene and oxygen to one company.

The next item, friction tape, 80 percent to one company.

The last item on the page, this is in 1928, dealing with soda ash, a general contract for 80 percent of General Motors requirements awarded to one company.

By Mr. Hurd:

Q. Was this rule followed invariably that there would be more than one source of supply?

A. That was the standard rule, Mr. Hurd. Unless there were unusual conditions, it was followed.

Q. Can you give us an illustration of what you considered an unusual condition?

A. Well, where the field of supply under approved specifications was limited. Where there was only one source of supply who complied with the three standard requirements of quality of product, service and price, made it desirable.

Q. Do you recall whether the subject of pig iron ever came up before the committee with respect to whether there should be more than one source of supply?

A. I recall that very well. As the car production increased, the consumption of our iron foundries naturally increased, and the demand for pig iron increased. [fol. 2622] The question of developing a second source of supply was seriously discussed. It was considered desirable, but the question of analysis of the pig iron would introduce problems in the foundry process, and the contractor who was supplying us on a contract at the time had ample production facilities, and we were assured that he could take care of our requirements.

Q. Was the second contract or second supplier contracted with in that situation?

A. I don't recall it. I think not. We did develop the possibilities with another supplier.

Q. Did you have situations where the material was available from only one supplier?

A. I cannot recall any specific instances. If not more than one source was contracted with, there were specific reasons for it.

Q. Now, turning to the subject of keeping prices confidential or secret, I believe you explained yesterday the general position of the Purchasing Committee on that subject. From whom did that proposition originate?

A. Well, it invariably originated with the supplier, because with the volume of business that we had to offer, we expected volume prices, and if he was not in a position to make those prices with his general run of customers, he naturally wanted it kept confidential.

Q. Mr. Lynah, you testified yesterday, I believe, that the problem of keeping prices secret was constantly a problem before the General Purchasing Committee.

I now show you a document which is marked General Motors Exhibit No. 160 for identification, and ask you whether that contains the typical rulings of the General [fol. 2623] Purchasing Committee with respect to the subject of keeping prices confidential?

A. Yes, sir, these are all excerpts of the proceedings of the General Purchasing Committee meetings.

Mr. Hurd: I offer in evidence, if the Court please, General Motors Exhibit No. 160.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 160.)

Mr. Hurd: I would like to call the Court's attention to the first page. The first page of the exhibit contains excerpts from the Sloan Plans for coordination of GM purchases, and without reading them, I merely call attention to the fact that in his plans, the problem of keeping prices secret was recognized.

Turning to the second page, the second item on the page is "General Motors Purchasing Committee draft of Proposed Circular Letter to Purchasing Agents," under date of June 12, 1923. It is a provision on the confidential nature of information.

> "In the distribution of Contract Briefs, and particularly regarding the information to be contained in the Monthly Circular Letters from the Committee, care must be taken to insure that the information contained therein is held confidential."

By Mr. Hurd:

Q. How long after the date of this letter was it that the Committee made its first contract with the du Pont Company, approximately?

[fol. 2624] Mr. Harsha: Are you speaking of a general contract, Mr. Hurd?

Mr. Hurd: Any contract that the General Purchasing Committee made with the du Pont Company.

By the Witness:

A. Eighteen months.

Mr. Hurd: Turning to page 3, in the center of the page, the item "General Purchasing Committee minutes, October 25, 1923:".

"Miscellaneous Matters.

"(d) Confidential Nature of Matters Treated at Meetings.

"There are indications that decisions regarding matters discussed at meetings of the Committee and set forth in the minutes have been communicated to suppliers. It was agreed that the Chairman would write a letter to all Purchasing Agents instructing them to use every safeguard in the use and distribution of the minutes to insure the contents being treated as confidential."

By Mr. Hurd:

Q. How long was that before the first contract was made with the du Pont Company by the General Purchasing Committee?

A. Fourteen months.

Mr. Hurd: Then the last item on page 3, the General Purchasing Committee minutes, July 2, 1924:

"Miscellaneous Matters.

[fol. 2625] "(c) Participation in General Contracts.

"Attention was drawn to Mr. Sloan's letter of August 8, 1923, dealing with the subject which read as follows—

* * * * *

"FIRST: No Division is permitted to disclose prices on which general contracts are based, nor any special terms or conditions incident to said contracts, to any source whatsoever outside said Division."

By Mr. Hurd:

Q. How long was that before the first contract was made with the du Pont Company by the General Purchasing Committee?

A. Nearly six months.

Q. Now, on the 4th page, the last item. This is in 1927, General Purchasing Committee Minutes, November 30, 1927.

Mr. Hurd: (Reading)

> "Participation in Quantity Discount Contracts.
>
> "Secretary pointed out that quantity discount contracts were serving to level the prices of items covered by such contracts to the prevailing prices less the anticipated discounts because competitive suppliers either knew or suspected the percentage of quantity discount applying and figured their bids accordingly, or were permitted to meet the contractors price less the anticipated discount and the results are that some contractors formerly holding quantity discount contracts, have stated their inability to renew such contracts because of the lower level of prices established as a result of quantity discount contracts. The matter of our [fol. 2626] ability to keep quantity discounts confidential (within the Committee) and expect the divisions to support and participate in contracts carrying such confidential discounts, was discussed."

Then the last item of that exhibit I call attention to. That is 1929, under the heading "Confidential Prices."

> "The suggested plan offered as a partial solution of the above much discussed subject considered, but again Committee feels any plan prohibiting our Purchasing Departments from having the full details of a contract is not feasible."

By Mr. Hurd:

Q. Mr. Lynah, I now wish to turn to the subject of quantity discount contracts and sliding scale quantity discount contracts.

Will you explain those terms?

A. Mr. Hurd, the quantity discount contract was one in which the volume of business offered the supplier was far in excess of what he would obtain on his usual orders. We always discussed with suppliers the effect on manufacturing costs of having a large volume of business from one source, and studied the backlog over which he could spread his fixed charges, and effect the usual manufacturing economies that would result in such excess.

I would like to state here, too, that in discussing matters with suppliers, we always tried to have them understand that we expected them to make a profit on all the business they did with the General Motors Corporation.

In other words, there should be mutual advantages in effecting such contracts. We also knew that unless our sup- [fol. 2627] pliers made a profit on the business they did with us, they could not continue in business.

We were always encouraging suppliers in a particular field of supplies. The seller as a rule was willing to share his prospective savings because of the volume of business we were offering him with us, and the quantity discount seemed to be the most practical form of measuring such savings.

Q. What is the difference between quantity discount and a sliding scale quantity discount contract, if there is a difference?

A. There is a difference to this extent, that if the bidders on our invitation on general contract proposals had been doing a substantial volume of business with the corporation, that would establish his base line for the base price, and the volume of business that he had previously done, and as an inducement to the division to participate in the sliding scale quantity discounts, we would add increments to that base volume, and the supplier, or prospective contractor, is offered an additional percentage of discount for that increased increment of business.

Q. Do you recall approximately when the General Purchasing Committee started making these quantity discount contracts?

A. I think it was in 1924, sir.

Q. What part of the year?

A. I don't recall distinctly, Mr. Hurd, but I think it was in the spring of the year.

Q. Do you have any recollection as to what the first item was that was covered by such a contract?

A. I think the first item was renewable fuses.

Q. Do you recall who originated the suggestion that the General Purchasing Committee make quantity discount contracts?

A. No, sir. I don't. I was so interested in that phase of [fol. 2628] our work that I may have done it, but I hesitate to take credit for it.

Q. Do you know whether or not it was anyone in the du Pont Company that originated it?

A. Oh, no, sir.

Q. You don't know, or it wasn't?

A. No, absolutely no.

Q. Well, was it anyone in the du Pont Company who originated the suggestion?

A. No.

Mr. Hurd: My question was ambiguous.

By Mr. Hurd:

Q. Mr. Lynah, I show you a document marked General Motors Exhibit No. 161 for identification, and ask you if that contains minutes of the General Purchasing Committee dealing with the development of the idea of quantity discount contracts?

A. That was, sir; that was one of the possibilities of bringing the smaller divisions into the participation in our general contracts.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 161.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 161.)

By Mr. Hurd:

Q. Mr. Lynah, the first item in this exhibit refers to the meeting of the Electrical Group. What was that group?

A. Some of our accessory plants, consisting of the Delco Light Company in Dayton, the Remy Electric Company [fol. 2629] in Anderson, Indiana, the Klaxon Horn Company, and others who used electrical supplies in the production of their products, that is, who produced electrical products.

Q. Did the accessory divisions customarily have meetings with the General Purchasing Committee?

A. They did not. There was, in the original Purchasing Committee, a representative from the accessory group, from the Electrical Division which was the Delco Light plant.

Q. And what was the occasion for this meeting that is referred to at the top of this Exhibit No. 161?

A. These smaller divisions were not in as close contact with the operations in Detroit as the car divisions, and in order to bring their volume of purchases into the picture it seemed best to have these group meetings to determine to what extent they might participate in such contracts and to determine whether the volume of requirements that they had could be included in any general contract volumes.

Mr. Hurd: I would like to call the Court's attention to the fact that at this meeting referred to in the first item on Exhibit No. 161, the meeting of the purchasing agents, the Electrical Group, the subject of sliding scale quantity discounts was discussed.

Then on page 2 at the bottom, which is a full meeting of the General Purchasing Committee that occurred a few weeks after the meeting of the Electrical Group stated in the last paragraph:

> "A point of general interest elaborated upon at the meeting in Dayton was the possibility of having suppliers agree to some cumulative quantity discount to be applied particularly in cases where there would be no price advantage alone in the co-ordination of purchases. This effort has already borne fruit in some [fol. 2630] cases and other cases are under negotiation. Wherever possible this provision will be included in general contracts."

That is on November 20th, 1924, and the accessory group meeting had been in October of that year.

Then the last item on this exhibit on page 3, dated June 17, 1926, deals with the application of sliding scale quantity discounts to purchases of equipment.

> "It was agreed that effort could be profitably exerted along this line and members of the committee will sub-

mit to the Secretary list of sources of supply of machinery and equipment whose aggregate sales to divisions during the past year were in sufficient volume to warrant attempting to secure quantity discount proposals from them."

By Mr. Hurd:

Q. To what extent did the committee make quantity discount contracts, Mr. Lynah?

A. Well, we tried to apply them wherever we could.

Q. To what extent were you successful?

A. Well, we were very successful. It appealed to a great many suppliers.

Q. I show you a document, Mr. Lynah, marked General Motors Exhibit No. 162 for identification, and ask you if that contains typical illustrations of quantity discount contracts entered into by the General Purchasing Committee?

A. Yes, sir, I should say so.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 162.

[fol. 2631] The Court: It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 162.)

Mr. Hurd: I would like to call attention to the first item appearing on that exhibit, which is dated in July of 1924 entitled "Savings Resulting from General Contracts on Sliding Scale of Discount Basis":

> "(These would include contracts such as our present fuse contract where the discount increases with each thousand dollars of purchases made and where obviously the lumping of our purchases increases the amount expended.)
>
> "The quantity bought by divisions being known the savings can be easily computed."

By Mr. Hurd:

Q. Is that fuse contract mentioned here, the one you referred to earlier?

A. Yes, that is the one.

Q. Your first recollection of the use of such contract by the committee?

A. It is.

Q. I call attention to the second item, which is aluminum, November, 1924:

> "It was considered desirable to continue our policy of dealing with the Aluminum Company of America. The matter of cumulative quantity discounts will be discussed with this company."

On the second page at the bottom is an item I would like [fol. 2632] to refer to. This is from the committee's minutes, September 24, 1925:

> "Consideration of Alemite-Zerk General Contract Proposal. This proposal which offers to General Motors on a contract for General Motors' requirements of car lubricating systems a quantity discount of five percent on purchases up to $500,000.00 per year, and seven and one-half percent on purchases in excess of $500,000.00 per year, with a one percent additional cash discount, was considered."

Turning over to page 4, first item—this is from the minutes of August 1926—Cleveland Graphite Bronze Company.

> "Extension of contract for period of one year from January 1, 1927, authorized because this company agreed to increase the sliding scale of quantity discounts beyond the present minimum of ten percent for $1,000,000.00 to include eleven percent for $11,000,000.00, twelve percent for $12,000,000.00, and so forth, and to make this new scale retroactive to January 1, 1926."

The next item deals with quantity discounts with Eastern Machinery Screw Corporation and Trico Products Corporation.

Page 5, center of the page, quantity discount contract, Horton Chucks.

The last item on the page is one we got in Carbon Tool Steel.

While I will not refer to any of the others particularly, [fol. 2633] with one exception, I would like to point out the exhibit is approximately 23 pages long, and is filled with dozens of illustrations of these contracts of various types of products with various types of companies.

There is one further item I would like to refer to on page 9, the second item, which is Lubricating Fittings:

> "Secretary advised that Executive Committee had approved making of quantity discount contract with Bassick-Alemite Company for General Motors requirements of Alemite-Zerk fittings such as we now use, from October 1, 1926 to June 30, 1928."

By Mr. Hurd:

Q. Now, Mr. Lynah, was it customary to have the Executive Committee pass upon the contracts entered into by the Purchasing Committee?

A. The Purchasing Committee had been instructed by the Executive Committee that all contract commitments, even the requirements contracts, extending beyond the twelve months period would not be allowed without express permission of the Executive Committee.

Q. Was that the occasion for sending this contract to the Executive Committee?

A. That was the occasion, and the request was supported by the fact that this particular item was standard in the trade and there was no competition available at that time.

Q. And this was a contract that was to continue for more than one year?

A. Yes, for two years.

Q. Did the Committee make any effort to induce divisions to buy under the quantity discount contracts that it entered into?

A. Well, the proper functioning of the quantity discounts [fols. 2634-2635] depended upon the participation of divisions, and they were being constantly urged to participate. Under the General Motors scheme of organization, nobody was compelled to do anything. If it was in the best interest of the corporation, it was expected that they would do it.

Q. I show you a document marked General Motors Exhibit No. 163 for identification, and ask you if that contains typical illustrations of the committee's encouraging participation in quantity discount contracts?

A. Yes, sir. I am familiar with all of these.

Q. Are those typical of the efforts made by the committee to obtain participation?

A. They are typical.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 163.

The Court: It is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 163.)

[fol. 2636] By Mr. Hurd:

Q. Turning to another subject, Mr. Lynah, you explained yesterday in general the multiple item discount contracts, the contracts providing for a discount by combining various products.

Do you recall who originated the idea of the multiple item discount contracts?

A. I did.

Q. I will show you a document that is marked General Motors Exhibit No. 164 for identification.

By looking at that document, can you tell us approximately when you first took up with the Committee the idea of them multiple item discount contracts?

A. I should say, Mr. Hurd, from the first dates listed in this exhibit about the middle of 1926.

Q. Those first two items are your first recollection of the subject coming before the Committee?

A. Yes.

Q. Does this exhibit contain illustrations of the Committee's action with respect to these multiple item discount contracts?

A. Typical illustrations.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 164.

The Court: It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 164.)

[fol. 2637] By Mr. Hurd:

Q. Calling your attention, Mr. Lynah, to the first item on this Exhibit 164:

> "Paints for Maintenance Uses.
>
> "This item rejected for questionnaire at 27th meeting on July 13th was again presented to Sub-Committee because of certain savings to be afforded by making general contract. It was agreed that a plan may be worked out with the du Pont Company under which they would offer a sliding scale of quantity discounts applying to all items purchased by General Motors divisions from the du Pont Company. Secretary was instructed to invite Mr. W. P. Allen of the du Pont Company to meet with the Standing Sub-Committee at its meeting to be held during the week of August 9th."

Q. Was an invitation extended to Mr. Allen of the du Pont Company?

A. It was.

Q. Did he attend?

A. He did.

Q. Was a contract of that type worked out with Mr. Allen subsequent to that meeting?

A. Yes.

Q. Who handled the negotiations for General Motors?

A. I did.

Q. I call your attention, Mr. Lynah, to certain Government Trial Exhibits which are in evidence; Government Trial Exhibits 462, 464 and 465. Will you look at those and tell the Court whether those letters contain the terms of the arrangement that was worked out with the du Pont Company for multiple item discount contracts?

A. Yes, I am familiar with the correspondence.

Q. Does that set forth the terms of the agreement that [fol. 2638] General Motors made with the du Pont Company regarding the multiple item discount?

A. It does.

Q. Was that arrangement with the du Pont Company unique?

A. It was not unique. It was put into effect with other suppliers.

Q. Now, referring again to General Motors Exhibit No. 164, I would like to call the Court's attention to a few of the other items. I have already referred to the first item on the first page which deals with inviting the du Pont Company to consider such a contract.

I would like to call attention to the second item which deals with the Standard Oil Company. These are the minutes of the same meeting which occurred at the same time as the minutes regarding the du Pont Company.

> "It was suggested that representatives of the Standard Oil Company be requested to appear before the Sub-Committee at its meeting to be held during the week August 9th to consider the volume of purchases by General Motors divisions with a view to working up a sliding scale quantity discount price."

And on the third page, the first item:

> "General Contract Proposals Authorized for Development.
>
> "Truscon Products.
>
> "General Contract proposals for General Motors requirements of products supplied by Truscon Steel Company, with quantity discount provision, for one year from November 1, 1926."

[fol. 2639] By Mr. Hurd:

Q. Is that a multiple item discount contract?

A. It was.

Q. The next item, with the Cleveland Graphite Bronze Company.

> "It has been arranged with the Cleveland Graphite Bronze Company, in addition to the twelve percent quantity discount from face of invoices effective October 15, 1926, and retroactive to include all business done with them since January 1, 1926, to apply additional discounts as follows:"

By Mr. Hurd:

Q. Was that a multiple item quantity discount?

A. It was.

Mr. Hurd: On the top of page 4, Machinery and Equipment.

> "Quantity discount with Potter & Johnson Machine Company for General Motors requirements of seller's manufacture of machines and tools—"

By Mr. Hurd:

Q. Was that a multiple item quantity discount?

A. It was.

Mr. Hurd: The next item deals with Carriage Bolts, Clevis Pins, Hexagon Head Bolts, Hub Bolts, Lag Screws, Machine Bolts, Rivets, Semi-finished Nuts, Shackle Bolts, Step Bolts, and Stove Bolts.

> "Quantity discount contracts with the following concerns for such of the above line of items and any others that they supply,"

[fol. 2640] listing the various companies to be contracted.

The next item is the Rand Kardex Service Corporation Products:

> "Quantity discount contract for General Motors requirements of seller's products for period of one year."

On page 5, the item Remington Rand, Inc., Products:

> "General contract for General Motors requirements of the following items such as we may purchase from them on which a scale of quantity discounts also apply."

Listing a dozen or more items.

The last item on page 5 is "Woodworking Machinery," quantity discount contract for General Motors requirements of combined purchases of woodworking machinery as manufactured by the principals represented by him as listed on following page, listing a number of manufacturers.

Then on page 6, two-thirds of the way down the page, deals with Witherow Steel Corporation.

> "Quantity discount contract for General Motors requirements of such products including rolled rear axle shafts, gear shift levers,"—

and so forth, "and any other products of their make as are purchased from them."

Then on page 7 is a similar contract, Lock Washers. Then the next item is a similar contract regarding Cutters, Hobs, Reamers, and so forth.

[fol. 2641] By Mr. Hurd:

Q. Were all the contracts referred to in this exhibit illustrations of the multiple item quantity discount contract?

A. They were.

Q. Now, to what extent did the multiple item contract you made with the du Pont Company result in savings to General Motors?

A. It resulted in substantial savings for the period of several years.

Q. What happened to it at that point?

A. Well, competition came into the picture. The price level flattened out as time went along.

Q. Did the savings continue?

A. They did not. After about 1928, I believe, they practically disappeared.

Q. Mr. Lynah, I show you a document marked General Motors Exhibit No. 165 for identification, and I ask you if that is a tabulation of the savings resulting from the multiple item discount contracts to the du Pont Company.

A. The first four items, Mr. Hurd, took place during my period of employment by General Motors. I am not in a position to answer the last two.

There were practically no savings anyhow.

Mr. Hurd: Well, I can assure the Court that all the figures were taken from the books of General Motors Corporation, and I offer in evidence General Motors Exhibit No. 165, of course, subject to counsel for the Government finding any error in the document.

Mr. Harris: We object to the exhibit, not on the ground suggested by counsel, but on the ground that these figures show the amount per vehicle and do not show whether [fol. 2642] those vehicles were ones that had the du Pont products on them.

They could put anything in here.

Mr. Hurd: Well, I can explain that. They were not limited to the vehicles that had du Pont products on them.

The last column dealt with the amount per vehicle as the total savings in dollars down to how much these amounts were per car, whether they did or did not use it.

Mr. Lynah, in some of the earlier minutes of the Purchasing Committee, was pointing out savings under a particular contract would be "X" dollars, and that would be an average—I think one was 27 cents a car. It did not mean that all cars used it, but merely as a demonstration as to what extent the saving was important to General Motors, if it was important at all.

The Court: Well, the Government does not question the accuracy of the figures?

Mr. Harris: I am not questioning the accuracy of the figures. I am saying it is absolutely useless as an exhibit, nothing relative to du Pont products at all.

Mr. Hurd: It shows savings resulting from this du Pont contract.

Mr. Harris: They would save a lot if they did not use the du Pont product. They could save everything.

The Court: Well, this deals with discounts, doesn't it?

Mr. Harris: But not on the du Pont products, your Honor. These figures cover all vehicles, all vehicles of every type, not vehicles on which the du Pont products [fol. 2643] were used. I say they have no relevancy to the issues before the Court as to whether or not du Pont was preferred.

Mr. Hurd: Well, they have a relevancy, I believe, to the charges in the complaint that du Pont subsidized General Motors by the special discounts it gave.

These are discounts received from the du Pont Company, on purchases made from the du Pont Company, pursuant to this contract.

The Court: I think it is admissible. It is received in evidence.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 165.)

Mr. Hurd: I would like to call the Court's attention to the fact that in the first three years there were substantial savings resulting from this, in the year from October, 1926, to June, 1927—that is a nine-month period—a savings of $77,000. which was an average of seven cents for every car made by General Motors regardless of whether it did or did not use the product.

In the next full year to July, July, 1927, to the end of June 1928, there was a savings resulting of $200,000.00 or an average of 12 cents a car; and in the third year of July '28 to the end of June '29, the largest year, a saving of $379,000 odd, or 21 cents a car.

The next year and a half there was no discount earned under the contract.

In the fifth year there was a discount of $1,000.00 earned, or one-tenth of a cent per car.

[fol. 2644] In the last year that it was in effect, there was a saving of $400.00 or eight one-hundredths of a cent per car.

The total saving throughout the whole period that it operated was $648,000.00 or an average of 8 cents per car.

By Mr. Hurd:

Q. Mr. Lynah, I would now like to turn to the subject of "Duco." Yesterday we introduced in evidence General Motors Exhibit No. 151 which contained a list of 32 items that you said you had prepared at the beginning of the operation of the General Motors Purchasing Committee.

I want to call your attention to the fact that on that exhibit the last item that you listed was paints-color, showing that in the year 1922 General Motors had spent $1,300,000.00 on paints-color, and I believe you testified yesterday that this list was suggestions you presented to Mr. Sloan and to the Committee as possible subjects for contract consideration.

Did the subject of paint come before the Committee immediately?

A. It did not.

Q. Do you recall approximately how long it was before that subject was brought up for consideration by the General Purchasing Committee?

A. Well, Mr. Hurd, as I recall it, in the spring of 1922 the du Pont Company had brought their development of a new nitrocellulose base paint which was known as "Duco" into the paint market, and the Oakland Division, the Oakland Car Division of General Motors, was beginning experiments with the use of that product.

The question of automobile paints as a general contract possibility was simply not taken up by the General Pur- [fol. 2645] chasing Committee because the whole question was in flux, as you might say.

Q. Mr. Lynah, I will show you a document marked General Motors Exhibit No. 166 for identification, and ask you whether or not that contains quotations from the minutes dealing with the subject of paints?

A. It does.

Q. Now, looking at that document, does that refresh your recollection as to when the subject of paints originally came before the General Purchasing Committee?

A. It does, and I recall distinctly that it was in the fall of 1923.

Q. And what was done about it by the Purchasing Committee at that time?

A. Well, there were no standards for paints and varnishes that had been set up to guide the Purchasing Committee in its efforts. So that the question was referred to the Paint and Enamel Committee that had been established meanwhile, on which the Paint Departments of the divisions were represented, and we looked to them to take up the matter of approving paints for use by the—

Q. Was that similar to the other standardizing committees that you referred to yesterday, or was it different?

A. That was one of the committees that had been set up for such purposes.

Q. For standardizing?

A. Standardizing and writing specifications for paints, varnishes and other finishes.

Q. Did you contact the Paint and Enamel Committee subsequent to the committee's taking up the subject in October, 1923?

A. I did.

Q. And whom did you contact?

A. Mr. F. O. Clements who was assistant director of the Research Laboratories, was chairman of the Paint and Enamel Committee; Mr. H. C. Mougey was chairman of the—who was the control chemist following the "Duco" developments.

[fol. 2646] Q. What did you learn from Mr. Clements at that time?

A. We learned there had been no standardization of paints.

Q. Did the Committee, the General Purchasing Committee, do anything more about the subject at that time?

A. Not until the fall of 1924, as I recall it, that they authorized a questionnaire to be sent out.

Q. I call your attention to the third item on this Exhibit No. 166. Does that refresh your recollection as to when a questionnaire was sent out?

A. Yes, that is the official record.

Q. Do you know to what extent "Duco" had been adopted by the divisions at that point, at that time?

A. Oakland had pretty much adopted "Duco." The other divisions were still experimenting.

Q. Did you get replies back from the divisions regarding their requirements pursuant to your questionnaire?

A. The uses of "Duco" by divisions had not progressed far enough to indicate any volume requirement, and the approval of "Duco" by the divisions was still in question.

Q. I call your attention to the last item on the first page of General Motors Exhibit No. 166.

Does that—on the last item on the first page—does that refresh your recollection as to when you received information from the divisions regarding their demands for paint and "Duco"?

A. Yes, that is the official record.

Q. And is that September 4, 1924? Is that about the time that you obtained information?

A. That is about the time.

Q. At that time were they using "Duco"?

A. On an experimental scale.

Q. Did you take up negotiations with the du Pont Com- [fol. 2647] pany at some date for the contract covering "Duco"?

A. As I recall it, the first inquiry to the du Pont Company on a contract basis was in the late fall of 1924.

Q. Then was the contract with the du Pont Company worked out shortly after that?

A. It was. I believe the first contract was worked out with the du Pont Company, became effective January 1, 1925.

Q. At that time were the divisions generally using "Duco"?

A. Yes, sufficiently to warrant the contract development.

Q. Was this a quantity discount contract or cumulative quantity discount contract?

A. The development or the offer of a quantity discount contract was made by the du Pont Company, but we insisted on a flat percentage discount.

Q. Do you recall what percentage it was?

A. I do. It was 6 per cent.

Q. 6 per cent discount regardless of the amount you purchased?

A. Yes.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 166. It is the minutes that he has been discussing.

The Court: It is admitted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 166.)

By Mr. Hurd:

Q. I show you a document, Mr. Lynah, marked General Motors Exhibit No. 167 for identification.

[fol. 2648] I ask you if that is a copy of the contract that was worked out with the du Pont Company at this time?

A. I believe that was the first contract.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 167.

The Court: It is received.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 167.)

Mr. Hurd: I would like to call the Court's attention to a few of the items in Exhibit No. 166, the minutes.

The first item is October, 1923, and the secretary was instructed to write the Paint and Enamel Committee to find out if anything toward standardization could be accomplished. That refers to paints—color, varnish.

The third item shows that the subject was presented for questionnaire. Mill White paint and "Duco" paint and reducer, and a questionnaire was ordered developed.

The last item on the first page is the report on the questionnaire authorized at the July 2nd meeting, and shows the aggregate annual expenditures were reported, that is reported by the divisions, as follows:

> "Duco" paint and reducer, $1,394,039.
> Mill White paint, $16,000.

On the second page, the item in the center of the page—this is in November, 1924—the heading is "Duco."

> "Letter from Chemical Products Division of the du Pont Company offering General Motors the opportunity to pool their purchases of 'Duco' and Thinner so [fol. 2649] that each unit might enjoy the maximum discount earned by the pool during any three months period, and enclosing copy of letter to Purchasing Agents of Car Divisions dealing with the offer was read. It was believed that the General Motors purchases of 'Duco' together with those of Fisher Body Corporation would in any period aggregate the amount required for maximum discount, but that even though this amount is not regularly met the maximum discount should be insisted upon, and further, if agreeable, that this discount be deducted from the invoice price on each invoice so as to avoid cumulative credit which would not be properly reflected in current car costs.
>
> "Forecasts of divisions' requirements for six months from December 1, 1924 will be promptly secured. It was brought out that no effort had yet been made to develop competitive price situation as regards pyroxylin paints and that this fact should be given consideration by the du Pont Company."

Then the last item at the bottom of page 2:

> " 'Duco'.
>
> "Secretary advised that agreement had been reached with Chemical Products Division of du Pont to charge on a general contract for General Motors' requirements of Pyroxylin finishes for the first six months of 1925 net prices equivalent to the list prices less 6%—"

General Motors Exhibit No. 167, which is a contract, paragraph 1:

> "Description and Quantities:

[fol. 2650] "Buyer's requirements of Pyroxylin finishes, including 'Duco' and 'Duco' Thinner, at the following prices:"

Then they list the prices.

> "It is agreed that the above prices are subject to a discount of 6%, and the prices charged on invoices will be NET prices, which will include this 6%."

I call attention to the last paragraph on the page, paragraph 4:

> "Delivery shall be made . . . on or before June 30, 1925."

That is the six months.

By Mr. Hurd:

Q. Mr. Lynah, who negotiated this contract in behalf of General Motors?

A. This contract of January 2, 1926?

Q. 1925.

A. I did.

Q. The contract refers to Pyroxylin Finishes. What were Pyroxylin Finishes?

A. Pyroxylin Finishes would include "Duco" and the accompanying thinners and so forth. They were all combined as Pyroxylin Finishes.

Pyroxylin is nitrocellulose or gun-cotton in the trade language.

Q. Prior to your negotiation of this contract, did you make any effort to find out whether or not any competitor of du Pont had a Pyroxylin finish that was satisfactory?

A. I did. But, Mr. Hurd, I also knew the complexity of Pyroxylin finishes.

The manufacture of nitrocellulose is a very complicated [fols. 2651-2653] process. The purification of the raw cellulose that goes into the manufacture of nitrocellulose and the subsequent required purification of the nitrated product itself, in order to prolong its life before decomposition might set in, and the use of stabilizing chemicals in those mixtures, the introduction of a proper amount of nitrocellulose into solutions—and the thing that made "Duco" possible was the discovery of a chemical that made the introduction of a high percentage of solids into the solutions possible, the thing that every lacquer manufacturer had been looking for for years. I knew from my former experience that the paint and enamel concerns who did not produce their own nitrocellulose would be slow in developing competitive products for "Duco."

At the same time, we did try through our Research Chemical Department to keep in touch with possible other suppliers of Pyroxylin finishes as substitutes for "Duco" and to encourage their entry into that branch of the business.

So that the advent of competition into this particular field was very slow. The product being new to all of us required long-time exposure tests, and the only answer to the stability and durability of the product was this long-time exposure test.

Q. Mr. Lynah, I show you two documents marked respectively as General Motors Exhibits 168 and 169 for identification, and ask you whether or not that is an exchange of correspondence between you and Mr. Moguey in the summer of 1924?

A. It is.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit Nos. 168 and 169.

[fol. 2654] By Mr. Hurd:

Q. Mr. Lynah, pursuant to Mr. Mougey's request, did you contact any of these companies for samples?

A. I did.

Q. I show you documents which have been marked for identification as General Motors Exhibits 170 and 171, respectively.

Are those copies of letters which you sent to other paint companies?

A. They are.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 170 and 171.

The Court: They are admitted.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 170 and 171.)

Mr. Hurd: I would like to read the first one, Exhibit No. 170. That is a letter dated August 4, 1924, a week after Mr. Moguey's letter. This is from Mr. Lynah to the Sherwin-Williams Company:

> "If your developments of Pyroxylin Paints have proceeded sufficiently far so that you are in position to quote prices and supply the products in any quantity we should like to have you send to—
>
> "General Motors Research Corporation,
> Dayton, Ohio,
>
> "Atten: Mr. H. C. Moguey
>
> samples for inspection and determination.
> [fol. 2655] "Please send us quotations covering any samples which you send to Mr. Mougey."

Signed, General Purchasing Committee, James Lynah, Secretary.

General Motors Exhibit No. 171 is identical, the same date, from Mr. Lynah, except it is to the Valentine Varnish Company, rather than Sherwin-Williams.

By Mr. Hurd:

Q. Do you recall, Mr. Lynah, whether you also sent similar inquiries to the other companies that Mr. Mougey had listed?

A. I don't recall, but naturally I should have.

Q. At the time you negotiated the first "Duco" contract —this is General Motors Exhibit No. 167—had Research or the Paint and Enamel Committee approved any competitive pyroxylin finish?

A. They had not.

Q. What was the occasion for that contract running for six months, the first "Duco" contract?

A. I presume in the hope that competition might enter into the picture.

Q. You can't presume. Do you have any recollection?

A. I don't recall.

Q. After you made that first "Duco" contract, which you say was negotiated November and December, 1924, did you make any further effort to obtain a competitive pyroxylin finish?

A. We made continuous efforts.

Q. Mr. Lynah, I show you a document that is marked General Motors Exhibit No. 172 for identification.

Is that a copy of a letter from you to members of the Purchasing Committee?

A. It is.

[fol. 2656] Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 172.

The Court: It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 172.)

Mr. Hurd: This is a letter dated January 22, 1925, from Mr. Lynah to nine different individuals.

By Mr. Hurd:

Q. Were those nine addressees all members of the Purchasing Committee at that time?

A. They were.

Mr. Hurd: The subject is "Duco."

"It comes to our attention that Fisher Body are using, on certain work, pyroxylin finishes of a manufacture other than 'Duco.' Proxylin finishes as adapted for automobile painting are very complex in character and their fitness and durability can be determined only after long time tests.

"No agency of General Motors has made any durability test of the Forbes product which is now being used by Fisher Body, in fact we understand that this make of pyroxylin finish is rather new in the market.

"It is appreciated that a field of competition for 'Duco' should be developed. Certainly because of the proven qualities of 'Duco' it has no competition at the present time.

"It is suggested that we request General Motors [fol. 2657] Research to begin certain characteristic and durability tests of competitive pyroxylin finishes, and you are requested to suggest any makes which have been brought to your attention by reliable concerns."

By Mr. Hurd:

Q. Did the General Purchasing Committee agree with you and proceed to make an effort to have tests made of competitive products?

A. They did.

Q. I show you a document marked Government's Trial Exhibit No. 453 which is already in evidence. It is dated February 6th, 1925—your letter to the committee had been dated January 22, 1925, two weeks prior.

Does this Government's Exhibit No. 453 correctly reflect the action of the purchasing committee on this subject at that time?

A. It does.

Mr. Hurd: If the Court please, I should like to read a portion of it, headed "Duco".

> "Attention was called to the use by Fisher Body Corporation of a pyroxylin finish manufactured by Forbes Varnish Company. The very complex nature of pyroxylin compounds was described and the experience required for the production of stable and durable compounds emphasized. The Forbes product has not been put through the exhaustive durability tests that 'Duco' has been subjected to. It is known that the durability of such finishes can be determined only by long time exposure tests. It was agreed that General Motors Research be requested to begin durability tests of pyroxylin finishes manufactured by—

[fol. 2658] "Acme White Lead & Color Works
Beckwith-Chandler Company
Forbes Varnish Company
Murphy Varnish Company
Patton Pitcairn Div. of Pittsburgh Plate Glass Co.
Valentine Varnish Company
The Zapon Company."

By Mr. Hurd:

Q. Following this, was Research requested to make tests of pyroxylin finishes made by these companies?

A. It was.

Q. Mr. Lynah, I show you two exhibits, one document marked General Motors Exhibit No. 173 and another one No. 174 both for identification.

Is the first one a copy of your communication to Mr. Clements on this subject?

A. That is GM 173?

Q. Right.

A. Yes.

Q. And the second document, No. 174, is that a copy of Mr. Moguey's letter to Valentine, which was sent to you?

A. It is.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 173 and 174.

The Court: Let the record show when an offer is made without objection, it is received without Court ruling.

Mr. Hurd: Thank you.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 173 and 174.)

[fol. 2659] Mr. Hurd: I should like to read both of these documents. The first one is dated February 10th, 1925. It is GM 173. That is just a few days after the action of the Purchasing Committee instructing Research to make these tests. It is a letter to Mr. F. J. Clements, General Motors Research:

> "This matter has been discussed by our committee and you are requested to secure samples and make continuous durability tests of the following pyroxylin finishes including 'Duco'."

Then the items manufactured by the Valentine Varnish Company, Murphy Varnish Company, Patton Pitcairn Division of the Pittsburgh Plate Glass Company are referred to.

> "In addition to the above there is the Forbes product which Fisher Body have been using to some extent,

and a product manufactured by the Acme White Lead and Color Works, the trade-name of which we do not have.

"The product manufactured by the Zapon Company of Stamford, Conn. and the Beckwith Chandler Company of Newark, N. J. might also be properly tested."

General Motors Exhibit No. 174 is a letter, dated March 13, 1925, from Mr. Mougey to Valentine & Company with a copy to Mr, Lynah.

"In reply to your letter in regard to samples of pyroxylin finishes, the General Motors Purchasing Committee is anxious to keep in touch with the new developments in pyroxylin finishes. There are now about 25 or 30 brands of pyroxylin finishes for automobiles on the market. Some of these finishes may be good [fol. 2660] while some are very bad, as we have found from actual experience.

"In all probability the General Motors Purchasing Committee will have preliminary tests made on the samples submitted and in the case of materials which look interesting, further tests will probably be made. The information obtained by the General Motors Purchasing Committee would be sent to the different General Motors Units through their connection with the Purchasing Committee.

"In regard to the inquiry from the Buick, it appears that the Buick Company individually is interested in your material. Tests made by the Buick will be largely for Buick information only."

By Mr. Hurd:

Q. Mr. Lynah, when the first "Duco" contract, the one in evidence of January, 1925, which was a six month contract, when it expired, was a new contract made with the du Pont Company covering pyroxylin finishes?

A. There was.

Q. Who conducted the negotiations that led up to the making of that contract?

A. I did.

Q. Before you entered into that contract did you make any further inquiries as to whether competitive products had been approved by research of the Paint and Enamel Committee?

A. I did. There had been no competitive products approved.

Q. Mr. Lynah, I show you three documents marked General Motors Exhibits Nos. 175, 176 and 177, for identifi-
[fols. 2661-2668] cation, and ask you if those are letters passing back and forth between yourself and Mr. Mougey regarding the subject matter of "Duco"?

A. They are.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 175, 176 and 177.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 175, 176 and 177, respectively.)

Mr. Hurd: The first document, General Motors Exhibit No. 175, I would like to read. It is a letter dated May 20, 1925, from Mr. Lynah to Mr. Mougey:

> "We are negotiating new contract with the du Pont Company for 'Duco' requirements for the second half of this year.
>
> "It is highly desirable to have some competitive figures. There is no use in our getting them from suppliers whose pyroxylin finishes are not approved.
>
> "I understand that Paige-Jewett, Flint, and Packard are using Zapon. Have your tests gone far enough for you to permit of putting Zapon on the approved list?
>
> "Are there any others that you are in position to approve? Please advise promptly."

By Mr. Hurd:

Q. Mr. Lynah, was your purpose in getting this information solely to find out what price other companies were charging?

A. No, sir, we never solicited the quotations from any companies with whom we were not willing to do business.

[fol. 2669] Mr. Hurd: If the Court please, I would like to offer in evidence General Motors Exhibit No. 178, which is a letter, dated May 26, 1925, from Mr. Clements to the Paint and Enamel Committee, a document taken from our file.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 178.)

Mr. Hurd: I call attention to the fact that this is sent to a number of different individuals, Mr. Housier, Mr. MacQuaid, Mr. Widman, Mr. Bergland, Mr. Kinney, Mr. Weckler, Mr. Scott and Mr. Mougey.

By Mr. Hurd:

Q. Were those the members of the Paint and Enamel Committee?

A. They were.

Q. The first sentence is "There are a number of questions up for consideration by the Paint and Enamel Committee."

Then dropping down to the last paragraph:

> "In addition, Mr. Lynah, Executive Secretary, General Purchasing Committee, has asked the laboratory [fol. 2670] to pass upon various finishes intended to substitute for 'Duco'."

This second contract which you were negotiating at this time was for what period?

A. Six months.

Q. With whom did you carry on these negotiations?

A. With Mr. Allen of the Cellulose Products Department of the du Pont Company.

Q. Was there any discussion between you and Mr. Allen regarding the length of time that contract would run?

A. Mr. Allen wanted a longer contract than six months. I held to six months because we expected to approve competition.

Q. Well, Mr. Lynah, I want to call your attention to General Motors Exhibit No. 162 which is in evidence, to the second page, the first full item, "General Purchasing Committee Minutes, June 24, 1925, Pyroxylin finishes."

Do you find that?

A. Yes, sir.

Mr. Hurd (Reading):

> "Secretary advised that the du Pont Company had offered for a period of one year beginning July 1st,

1925, prices based on a sliding scale of quantity discounts, the maximum being a discount of 12% on business over $700,000.00 placed in one quarter of a calendar year. On the net amount of the invoice 1% cash discount is allowed. Prices include deliveries to all points of 'Duco' in 5 gallon cans, and Thinner in drums. In order to secure the maximum discounts it will be necessary to combine our purchases with those of Fisher Body Corporation. Fisher Body will be requested to participate in a contract."

[fol. 2671] By Mr. Hurd:

Q. Do you know whether or not Fisher Body was requested to participate in the contract?

A. Yes, they were.

Q. And do you know whether or not they did participate?

A. They agreed to participate.

Q. Do you know who it was, if anyone, connected with the General Purchasing Committee, who contacted the Fishers regarding this?

A. As I recall, Mr. J. L. Pratt who was a member of the Purchasing Committee and an executive of the corporation, a central office official.

Q. At that time do you know whether or not the Fisher Body Company had been using "Duco"?

A. I think they had been experimenting with colors, but not on a production basis.

Q. Now; Mr. Lynah, I show you a document marked General Motors Exhibit No. 179 and ask you if that is the second contract, the second "Duco" contract, that you negotiated with the du Pont Company?

A. It is.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 179, and I call the Court's attention to the fact that it is for 100 per cent of Buyer's requirements—the buyer being General Motors Corporation—and 50 per cent or more Fisher Body Corporation's requirements of pyroxylin finishes, including "Duco" and "Duco" thinner.

Following that are the prices, and then the schedule of discounts, and at the bottom it shows that it is for a period of six months expiring December 31, 1925.

By Mr. Hurd:

Q. Following the making of this second "Duco" contract, Mr. Lynah, did you continue with any efforts to test competitive materials?

A. Continuous efforts.

[fols. 2672-2673] Q. Do you recall whether or not the divisions were requested to paint some, finish some cars, with competitive pyroxylin finishes in accordance with Mr. Mougey's suggestion in the memorandum I read?

A. The Paint and Enamel Committee handled that matter, and I believe they requested each of the divisions to—

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 180, 181, 182 and 183, which are letters from the Paint and Enamel Committee to various General Motors Divisions.

These were all taken from the files of General Motors Corporation.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 180, 181, 182, and 183, respectively.)

Mr. Hurd: I would like to read the first one. It is dated July 27, 1925, as are all of the others. It is from Mr. Clements, Chairman of the Paint and Enamel Committee, and Exhibit No. 180 is addressed to Mr. H. C. Weckler of the Buick Company, Flint, Michigan.

By Mr. Hurd:

Q. What was Mr. Weckler's connection with the Buick Company?

A. He was the production manager at the time; no, he was a works engineer.

[fol. 2674] By Mr. Hurd:

Q. Mr. Lynah, by the time this second "Duco" contract was about to run out, had the paint and enamel committee or General Motors Research approved of any competitive pyroxylin finish?

A. They had not.

Q. Were negotiations re-opened with the du Pont Company for a third "Duco" contract?

A. They were.

Q. About when was that?

A. That would be in the Fall of 1925.

Q. Who conducted them on behalf of General Motors?

A. I did.

Q. And was a contract entered into?

A. It was.

Q. And what period of time was covered by this contract, do you recall?

A. I recall that that period of time covered by that contract was one year, because it had been indicated by the research that it would take at least another year to write a proof of competition, that could supply all of the varieties of color and so forth into the picture.

Q. Mr. Lynah, I show you General Motors Exhibit No. 184, and ask if that is a copy of the third company contract to which you referred?

A. It is.

Mr. Hurd: If the Court please, I offer that document in evidence, General Motors Exhibit No. 184.

[fol. 2675] (Said document, so offered and received in evidence, was marked General Motors Exhibit No. 184.)

Recess.

[fol. 2676] James Lynah, having been previously duly sworn, resumed the stand, was examined and testified further as follows:—

Direct examination (continued).

The Court: Proceed.

Mr. Hurd: If the Court please, the last document introduced before the noon recess was General Motors Exhibit No. 184, which is the third "Duco" contract, dated January 1, 1926.

I wish to call the Court's attention to the fact that it is for 100 percent of the buyer's requirements, that is, General Motors, for domestic plants, and fifty percent or more of the Fisher Body Corporation's requirements.

As appears at the bottom of page 2 of the document, it was to run until December 31, 1926.

By Mr. Hurd:

Q. Mr. Lynah, at the time this third "Duco" contract was negotiated, did you also negotiate with the du Pont Company regarding a paint and varnish contract?

A. I did.

[fol. 2677] What type of contract was that?

A. That was what we call requirements of seller's make. Such a contract made participation by the divisions optional, and was made because prices were favorable.

Q. I show you a document marked General Motors Exhibit No. 185 for identification, and ask you if that is the paint and varnish contract to which you have referred?

A. It is.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 185.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No..185.)

Mr. Hurd: I would like to call the Court's attention to the first page of the document, under Paragraph 1, "Buyer's requirements of Seller's manufacture of the following paint and varnish type materials."

At the bottom of the document, it is also to expire December 31, 1926.

Q. Mr. Lynah, when the third "Duco" contract ran out, which would be the end of 1926, was a further contract negotiated with du Pont Company covering "Duco"?

A. It was, but for buyer's requirements of seller's make because competition had entered into the picture.

Q. That was not a requirements contract?

A. It was not.

Q. I show you a document marked General Motors Exhibit 186 for identification, and ask you if that is the fourth "Duco" contract, the contract that you entered into the end of 1926?

A. It is.

[fol. 2678] Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 186.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 186.)

Mr. Hurd: I wish to call the Court's attention to the front page of the document, under Paragraph 1, "Buyer's requirements of Seller's make of Pyroxylin Finishes," where the prior one had been 100 percent of Buyer's requirements.

I also call attention to the notation at the bottom of the page, it expires at the end of 1927.

By Mr. Hurd:

Q. When that expired was a further "Duco" contract negotiated with the du Pont Company?

A. Yes.

Q. I show you General Motors Exhibit No. 187 for identification.

Is that the "Duco" contract negotiated at the end of 1927?

A. It is.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 187.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 187.)

Mr. Hurd: I call attention to the similar items on the front page: That it is buyer's requirements of seller's make rather than a requirements contract, and the expiration date at the bottom of the sheet is December 31, 1928.

[fol. 2679] By Mr. Hurd:

Q. Mr. Lynah, when that expired was a further similar contract negotiated?

A. I believe there was.

Q. I show you General Motors Exhibit No. 188 for identification.

Is that the contract negotiated at the end of 1928?

A. It is.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 188.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 188.)

Mr. Hurd: I call attention to the similar passages on the front page, General Motors' requirements of Seller's make of DUX materials, as noted below, and Pyroxylin Finishes including "Duco."

By Mr. Hurd:

Q. What were DUX materials, Mr. Lynah?
A. I don't recall what that designation was, Mr. Hurd.
Q. I call attention to the notation at the bottom of the page that it expired at the end of 1929.

Mr. Lynah, I show you General Motors Exhibit No. 189 for identification.
Is that the next "Duco" contract?
A. It is.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 189.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 189.)
[fol. 2680] Mr. Hurd: I call attention to the fact that it also is not a requirements contract and expires at the end of 1930.

By Mr. Hurd:

Q. Before that expired, had you left General Motors, Mr. Lynah?
A. I left General Motors on September 1st, 1930.
Q. The committee was still in operation at that time?
A. It was.

Mr. Hurd: If the Court please, I offer in evidence the "Duco" contract, General Motors Exhibit No. 190 for identification.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 190.)

Mr. Hurd: I call attention to the fact that it is like the prior three documents. It is not a requirements contract, but merely the requirements of the seller's make, Pyroxylin Finishes, and is a one-year contract.

By Mr. Hurd:

Q. Mr. Lynah, you explained earlier some of the general principles that the Purchasing Committee undertook to follow in placing contracts.

One of them, I believe, was that the Committee would not contract for a product unless it was used by two or more divisions. Was there any departure from that rule in contracting with the du Pont Company?

A. Not if there was any competition available.

Q. Did you make any contract with the du Pont Company where only one division was buying material?

[fol. 2681]

A. We did not.

Q. Another principle that you said you followed was contracting only when the item was of substantial volume.

A. That is correct.

Q. Was that principle followed in dealing with the du Pont Company?

A. It was.

Q. Mr. Lynah, will you look at General Motors Exhibit No. 155, which is in evidence. It is Contracts Rejected. You recall that the items underlined with red, you testified yesterday were available from the du Pont Company at the time noted?

A. That is right.

Q. Will you turn to page 5 of that document?

A. I have it.

Q. The item underlined in red, "Photographic Supplies."

A. Yes.

Q. The committee rejected that as a subject for contract. Do you recall the basis for that rejection?

A. There was no volume requirement in the corporation for such supplies.

Q. Well, now, will you turn to page 9 of that same document. There are two items underlined in red. One is "Paint for non-production and maintenance use," and the other is "Floor paint."

What was the basis for those rejections?

A. The requirements were very spotty. The volume was inadequate.

Q. Will you turn to page 10 of that same document underlined in red, "Stripping materials and thinners."

What was the basis for that rejection?

A. The notation here is "Scattered requirements." It would fall into the same category; the volume was not sufficiently large.

[fol. 2682]

Q. Now, will you turn to page 13, the first item on that page, "machinery enamels."

A. Spotty requirements and inadequate volume.

Q. Will you turn to page 18?

A. Yes, sir.

Q. "Aluminum Spar Mixing Liquid."

What was the basis for that rejection?

A. I would judge from the notation here, and my recollection, that it was inadequate volume.

Q. Another general principle that you have explained as applying to the work of the Purchasing Committee was that the committee would not enter into a contract unless there was a saving to be gained as a result of it.

Was that principle followed in considering contracts with the du Pont Company?

A. Strictly.

Q. Using this same exhibit, will you look at the first page, "Pyralin." Do you recall the basis for that rejection?

A. I do not recall the specific reason for rejecting it, but under our rules, it would be insufficient volume or no savings.

Q. Will you look at page 3, "Leather substitute," and "Rubber coated fabrics." It has the words, "Cost plus, unsatisfactory."

Do you recall what the incident was that that relates to?

A. I do recall that, Mr. Hurd.

Our divisions at that time were doing their individual buying of leather substitutes and rubber coated fabrics in a competitive market. The du Pont Company representatives felt that if we could agree on a contract under which the raw materials, chiefly cotton fabrics, could be bought on a forward commitment with the cotton mills, or even going back to buying the raw cotton for conversion [fol. 2683] into cotton fabrics so that they might make these purchases at a favorable market period, they could offer lower prices.

The committee decided that was too speculative a method, and the offer was rejected.

Q. Will you look at page 11 of this exhibit, "Denatured Alcohol." Do you find that?

A. Yes, sir.

Q. What was the basis for that rejection?

A. Well, the notation here was "too seasonal." Denatured alcohol was used chiefly as an anti-freeze mixture or item, and the volume was not very large, and seasonal.

Q. How did the seasonal aspect of it enter into the picture?

A. Because it was only used in the wintertime to be put in radiators of cars that were driven away from the factory, chiefly.

Q. Did the prices of the material fluctuate during the year to any degree, do you recall?

A. It was a very fluctuating item.

Q. Will you look at page 13, at the bottom of the page, "Anti-Freeze Material," marked "too special."

What does that indicate?

A. I presume—I don't presume, I know, that it was for the same reason. It was a seasonal item.

Q. Will you look at page 16, the item, "Varnish and Oil Type Materials." Under "Remarks," there is "no savings."

What does that indicate?

A. That means that that proposal was rejected because the prices offered by the du Pont Company showed no savings.

Q. Now, will you turn to the last page of the document, at "Anti-Freeze Methanol." "No price advantage," is [fol. 2684] that another illustration of rejecting the contract because of lack of saving?

A. Lack of saving.

Q. Now, you have testified earlier that where contracts did offer substantial savings, you urged participation in them.

Did you follow that practice with respect to the du Pont contracts?

A. I am sorry, I didn't get your question.

Q. You have testified earlier where the contracts made by the Committee offered substantial savings to General Motors that you urged participation in those contracts, participation by the divisions.

A. I did, specifically.

Q. Did you follow that same practice with respect to the du Pont contracts?

A. I did.

Q. I call your attention to Government's Exhibit No. 494, which is in evidence, which is a letter from you to members of the Purchasing Committee, is that correct?

A. It is.

Q. The date is July 12th, 1928, and I will read the first paragraph:

> "There is attached a copy of letter from Mr. Richter of the du Pont Company, showing the volume of purchases by divisions from the du Pont Company for the 12 months ending June 30, 1928. Checks covering the discount earned will be forwarded to each division as promptly as possible from our Treasurer's Department in Detroit."

Then passing down to the paragraph right below the figures:

> "It is noted that the super-discount amounts to approximately 2% on the total purchases. It should be [fol. 2685] carefully noted, however, that had total purchases been increased by $800,000 that there would have been an additional $100,000 discount, or 12½% of the $800,000. Had the purchases aggregated $12,000,000 there would have been a further discount of 15% on the additional $1,000,000 of business.
>
> "We all agree that it is desirable to maintain some healthy competition. However, if 80% of our purchases of our purchases of material such as the du Pont Company is in position to supply, are given to them on an even basis, the earnings under the super-discount contract will be materially increased, and it is urged that you cooperate to this end.
>
> "We will ascertain from the smaller using divisions the total volume of their purchases of such items and endeavor to gain their cooperation in increasing the volume of such purchases from the du Pont Company in case they are now placing more than 20% of such business outside."

By Mr. Hurd:

Q. What was the occasion for your writing this letter?

A. The reason was to inform the divisions that participated in the contract of the discounts, and what discounts there would have been had there been additional business in those amounts placed under the contract, with a view to increasing the savings under the contract as much as possible.

Q. Were you undertaking to get business for the du Pont Company?

A. No.

[fol. 2686] Q. Was your sole interest the matter of saving money for General Motors Corporation?

Mr. Harris: I object to the leading question, if your Honor please. The witness has been answering without any help.

The Court: Sustained.

Mr. Hurd: Q. What, if any reason did you have for writing this letter other than the one you mentioned saving money for General Motors Corporation?

A. That was the prime reason, and as I recall, the only reason.

Q. Now, was this effort on your part to obtain participation in the contract unique?

A. It was not.

Q. Was any similar effort made with respect to any other company, any other products?

A. The same effort was made with respect to participation in all quantity discount contracts.

Q. Mr. Lynah, I show you a document that is in evidence as Government's Exhibit No. 499, which is a communication from Mr. Campau to the purchasing agents of the division. Who was Mr. Campau?

A. Mr. Campau was at that time the head of what we called the Purchase Contract Investigation Section which was a section of the staff of the General Purchasing Committee.

Q. Now, I call your attention to a portion of the first paragraph:

> "We desire to call your particular attention to the confidential super-discount agreement between ourselves and the du Pont Company. This agreement has been in effect for some time, but starting July 1 of this

year the volume discount brackets have been reduced which should make this new arrangement much more [fol. 2687] profitable to the corporation. During the year ending June, 1938, under the old plan, there was distributed to the divisions a refund of $200-thousand odd. During the year ending June 30th, 1929, $379,176.60. For the year ending June 30, 1930, purchases were not sufficient to earn any refund. We believe the year ending June 1928 can probably be considered a normal year, therefore, with the lowering of the volume brackets and by including purchases of the Export Company which have not been included in previous years, our earnings for the period ending June 30, 1931, under this arrangement, should show a very material increase.

"Assuming, therefore, that the du Pont Company is competitive at all times, not only in price but service and quality, a substantial refund can be earned under this new arrangement and greater benefits derived according to the extent of our purchases of du Pont products in question. Your cooperation on this basis, therefore, will help towards a maximum refund."

By Mr. Hurd:

Q. At this time you were no longer with the Purchasing Committee?

A. Not at the time of the date of this letter, sir.

Q. Did you ever send out similar communications while you were active with the Committee?

A. Frequently.

Q. Dealing only with the du Pont Company?

A. Dealing with the holders of all quantity discount contracts.

Q. Mr. Lynah, I show you a document marked for identification as General Motors Exhibit No. 191. That is a letter you wrote to Mr. Richter on the date it bears?

A. I did.

[fol. 2688] Mr. Hurd: I offer in evidence General Motors Exhibit No. 191, and I would like to read the first two paragraphs.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 191.)

Mr. Hurd Reading:

"Your personal letter of June 21st, informing me of the amount of the super-discount is good news.

"I have been much interested in the functioning of this arrangement as I have felt that the super-discount is a distinct saving to us, and I am very much in hopes that the volume of participation will increase during the next year."

By Mr. Hurd:

Q. Mr. Lynah, you testified earlier that another principle followed by the Committee was to have more than one source of supply of one item, unless you had peculiar circumstances that required otherwise.

To what extent was that principle followed in dealing with the du Pont Company?

A. It was followed to the same extent as it was followed with regard to any other items that we purchased.

Q. Do you recall any du Pont product where the Committee made an effort to have competition?

A. Will you please repeat the question?

Q. Do you recall any product made by the du Pont Company with regard to which your Committee, the Purchasing Committee, undertook to have more than one supplier?

A. No.

[fol. 2689] Q. What about "Duco"? Was any effort made to have more than one supplier of "Duco"?

A. Consistent effort was made to have more than one supplier.

Q. Was there any more products you bought from du Pont where you tried to get more than one competition?

A. All products.

Q. Do you recall any specific product?

A. "Duco" thinner was one of them.

Q. To refresh your recollection, did the Committee take any position regarding Fabrikoid or artificial leather?

A. Artificial leather, yes.

Q. What position did they take regarding that?

A. That there should be more than one source of supply.

Q. Did the committee ever contract for Fabrikoid?

A. It did not.

Q. What were the circumstances under which the Committee made an effort to have more than one supplier of Fabrikoid?

A. At the time that question was discussed by the Purchasing Committee, the divisions individually were purchasing a very large portion of their requirements of artificial leather, or imitation leather, from du Pont Company. That information was brought out in the return of a questionnaire to the Committee, and it was in connection with that that the introduction of competition to the extent, I believe, of 20 per cent at least had been brought into the picture.

Q. Mr. Lynah, I call your attention to Government's Trial Exhibit No. 412 which is in evidence. Will you refer to the last page of that document.

Do you find Paragraph "(c) Leather Substitute—Rubber Coated Fabrics"?

A. Yes.

Q. (Continuing):

> [fol. 2690] "It was brought out that the du Pont Company has enjoyed the larger portion of General Motors requirements of these items. That on account of constantly increasing consumption, sound judgment demands the maintenance of more than one source of supply. That the du Pont Company has been afforded the opportunity of meeting competitive prices and that competitors now believe that no matter what price they put in they would receive no business.
>
> "It was agreed that on an equal competitive basis at least 25% of the business should be placed with sources other than the du Pont Company. That the du Pont Company be notified that they should make their best price in their initial offer and not count upon having the opportunity to meet competitive prices, and that on the basis of competitive prices the Divisions were free to place their business to the best advantage. Inasmuch as Divisions have no facilities for making complete chemical and physical tests of these items the Factory Section was instructed to immediately install apparatus and equipment. Secretary advised that suppliers of these items would afford representative from the Factory Section every possible

facilities in developing the proper methods and securing equipment necessary for making such tests.

"Secretary was instructed to write Mr. C. L. Petze, Division Manager of du Pont Company relative to decision of the Committee and to send copies to the Purchasing Agents of interested Divisions."

Q. Do you recall who it was that brought up the subject [fol. 2691] or suggested to the Purchasing Committee that there should be more than one supplier of imitation leather and rubber coated fabrics?

A. I did.

Q. Was there any understanding that the du Pont Company would have at least 80 per cent?

A. No.

Q. Was there an understanding that the du Pont Company would have any particular percentage of the business?

A. No.

Q. To whose decision was that left?

A. That was left to the decision of the divisions who bought the artificial leather.

May I add a comment here?

Q. Yes, sir.

A. The last paragraph of that section that you read, regarding instructions to the secretary to write Mr. Petze of the decision of the committee—I would like to call attention to the fact that when any of our suppliers of large items might be concerned with a reduction in the volume of business placed with them, in order to save them from committing raw materials with the thought that they might be continued, that is the suppliers and so forth, their attention was called to that so as to save them from putting in unnecessary inventory of raw materials.

Q. You are referring to the provision that the secretary was instructed to write Mr. Petze of du Pont relative to this decision?

A. Yes.

Q. Was that ever done with any company other than du Pont?

A. It was done with all of the large contractors.

Q. Another general principle that you mentioned as guiding the operations of the Purchasing Committee was that the terms of contract should be kept confidential.

I show you Government's Trial Exhibit Nos. 462, 463, 464, and 465.

[fol. 2692] As to Exhibit No. 462, will you look at the back page of it, find the next to the last paragraph?

A. Yes.

Q. This is a letter from Mr. Allen to you in 1926:

> "As explained by me at the time of my discussion with your committee, the success of this plan hinges largely on the ability of the members of your committee to treat the details of this arrangement as a confidential matter between the two companies."

To what extent was that unusual, if at all?

A. That was a very usual thing on the part of all contractors.

Q. The other exhibits that I have handed you all deal with the same subject.

To what extent was your effort to treat du Pont prices confidential different from your treatment of prices of other companies?

A. No different.

Q. Then you had a sliding scale quantity discount contract with du Pont, as you have testified. Was that different from other sliding scale quantity discount contracts?

A. The same type.

Q. You also had a multiple item contract. Was that different from other multiple item contracts?

A. It was not.

Q. Mr. Lynah, after the Purchasing Committee decided to contract for a particular item and had bids from different suppliers, what, if any, tests did it use in determining which supplier to use for its contract?

A. Well, the standard test was quality of products, service, and price.

Q. Were they of equal importance?

A. They were important in the order mentioned.

Q. That is?

A. Quality of product was the first consideration. Service, [fol. 2693] which meant the ability to meet contractural obligations, and so forth, and then price.

Q. Mr. Lynah, do you recall correspondence with Mr.

Briggs of the du Pont-Pathe Film Manufacturing Company while you were with the Purchasing Committee?

A. I do.

Q. I show you documents marked General Motors Exhibits 193 and 194, respectively, and ask you if that is the correspondence to which you refer?

A. That is.

Mr. Hurd: I offer in evidence General Motors Exhibits Nos. 193 and 194.

(Said documents so offered and received in evidence were marked General Motors Exhibits 193 and 194.)

Mr. Hurd: I would like to read them.

Exhibit No. 193 is a letter from Mr. Briggs, sales manager of the du Pont-Pathe Film Manufacturing Corporation, to Mr. Lynah, director of purchases, dated May 16, 1928:

"Dear Mr. Lynah:

"I understand that the Rothacker Film Company of Chicago is making pictures from time to time for General Motors. We are wondering if there is not some way that we can get you to specify ~~the~~ use of du Pont film. Both our negative and positive film is being used in large quantities by practically all of the large producing companies, the product to you as being equal to the best on the market.

"We have taken this matter up with the General Motors Office here in New York and they have advised [fol. 2694] us that your office handles all matters of this kind. We will be glad to give you any further information that may be desired in case you can see your way to cooperate with us.

"We will appreciate any assistance you may give us in this matter."

Your reply dated May 18, 1928, to Mr. Briggs:

"With reference to your letter of May 16th, informing us that the Rothacker Film Company of Chicago is making pictures from time to time for General Motors, and raising the question whether in some way or other you can get us to specify the use of du Pont films. I advise that such pictures as the Rothacker Company may be making are for our individual units and if you ascertain the names of these units you might properly take the matter up with them.

"It is my belief that the present time Chevrolet, and possibly Olds, are the only units having motion pictures made, and I believe that the concern making the pictures handles its purchase of films independently.

"In the making of our purchases, we believe that each transaction should stand on its merits and we presume that the company buying films for our use is guided by this same principle and that if the quality of your product and service, consistent with prices quoted, are the best he can obtain, he will buy from you."

[fol. 2695] By Mr. Hurd:

Q. To what extent did the Purchasing Committee follow the principle that you have outlined in your last paragraph?

A. That was our guiding principle.

Q. Did you depart from it on any occasion?

A. Not to my recollection.

Q. Did you ever depart from it in dealing with the du Pont Company?

A. Never.

Q. Mr. Lynah, you have told us you retired in 1930. What was the occasion for your retirement?

A. Well, Mr. Hurd, I had reached the mature age of fifty, and my home was in the deep South. My father, who was eighty years old was still living. I had two married daughters living in the South, and I had acquired some old rice plantations that I wanted to get back on and do a little hunting and so forth, and it seemed an opportune time to do it.

Q. Did you subsequently come out of retirement for any purpose?

A. Well, in 1935, the trustees of Cornell University invited me to come back there as Chairman of their athletic board, as director of athletics, and to reorganize their student recreation program, and the intercollegiate athletic program. I had been an athlete when I was in college, and it seemed to offer a good interlude in my retired life, so I went back there and was there for five years, until 1940, when the National Defense Advisory Commission came into being in Washington, and Mr. Knudsen, who had gone down there from the presidency of General Motors to be head of the production division of the Defense Commission, and Mr. E. F. Johnson, who was another former associate in General Motors, asked me to come down and work with them, [fol. 2696] chiefly to utilize my experience in the powder business for the du Pont Company in World War I.

I went down there the first of July, 1940, as assistant director of the small arms, ammunition, and explosion section of the production division that was headed by Mr. Knudsen.

When I got down there, I found that Mr. Knudsen had offered to loan me to Mr. Donald Nelson who had just been appointed by the National Security Organization, approved by President Roosevelt, as coordinator of National Defense purchases. Mr. Nelson asked me to come into his office to organize the specification division, which I did, for two months; and rendered a report to him. I then went back with Mr. Knudsen as assistant director of small arms, explosive and ammunition section, and continued in that office for several months, and to be perfectly frank, I could not work myself into the dilly-dally atmosphere in Washington at that time, so I got a leave.

After we entered the war, I went with the J. G. White Engineering Corporation in New York as general manager of their overseas division, which had been organized to build and operate repair bases behind our lines for the repair of heavy ordnance and trucks and other such equipment.

It was quite evident to us in the beginning that such an operation should be conducted by the armed personnel of the Army, because all of these proposed plant locations or sites would be in territory pretty close to enemy lines, and the use of civilians in that work was very questionable. I think we were very instrumental in persuading the Ordnance Department that those bases should be operated by uniformed personnel.

[fol. 2697] Mr. Harris: If your Honor please, I have not interrupted, but I think this is entirely irrelevant. There seems to be no relevancy. I was waiting for Mr. Lynah's reference to his going back to General Motors.

The Court: I have lost track of the question.

Mr. Hurd: I asked him what his activities were, and his qualifications, to bring it down to date.

The Court: He may answer, in a general way.

The Witness: I had nearly finished, your Honor.

From that activity, I went back South and became general manager of a Liberty Ship building yard at Brunswick, Georgia, and after that, I went back to the farm.

By Mr. Hurd:

Q. About when was that?

A. That was in 1943 or 1944.

Q. Have you had any connection with athletics since leaving Cornell?

Mr. Harris: I object to that, if the Court please.

Mr. Hurd: It is merely a part of his general background.

The Court: It is a part of his experience.

Mr. Harris: He is not being qualified as an expert on anything, I submit, your Honor.

Mr. Hurd: It is a part of his qualifications, if the Court please.

The Court: All right, he may proceed.

[fol. 2698] The Witness: A. In 1948 I was appointed Chairman of a panel of the National Collegiate Athletic Association to investigate violations of their so-called sanity code, which was set up to eliminate and control, as much as possible, the subsidization of college athletes.

That is all.

By Mr. Hurd:

Q. Have you had any connection with the du Pont Company since 1930?

A. No, sir.

Q. Or any connection with General Motors Company since 1930?

A. Yes. For a period of nine months in South Carolina, I had charge of one of their sales districts for the Buick, Olds, and Pontiac cars.

Q. About when was that?

A. That was from October, 1932, when the depression was well under way, until August, 1933.

Q. Just one other question, Mr. Lynah.

Did you testify before the Grand Jury that investigated this case that preceded the institution of this case?

A. I did.

Mr. Hurd: If the Court please, that completes the direct examination of Mr. Lynah.

Mr. Harris: Does the Court desire to recess before the cross examination?

The Court: I have an appointment at 3:30. I would prefer to continue until 3:30.

Mr. Hurd: If the Court please, I overlooked one exhibit, General Motors No. 192, that I would like to show the wit- [fol. 2699] ness and have it offered and received in evidence, if the Court please.

By Mr. Hurd:

Q. Mr. Lynah, will you tell us what GM Exhibit No. 192 represents?

A. This exhibit represents a report that the General Purchasing Committee staff made at regular intervals to the General Motors operating divisions showing their participation in general contracts, and showing the overall participation in general contracts, and the amount of discount, quantity discount, earned under each contract.

Q. Was this the only such document that you made up?

A. This one exhibit?

Q. Yes.

A. So far as I know, it became the standard practice.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 192.

I would like to call attention to a few of the items. It is dated October 31, 1927, and it is entitled "Performance of Quantity Discount Contracts."

It lists a number of companies, and shows the date of the contract, and shows the purchases in dollars that had been made under the contract.

It shows the annual rate of purchases continued at the current rate. It shows what the total annual amount must be to reach the top maximum percentage, and shows what the discount is, and then it shows what the actual savings have been to date, and what they will be if the present annual rate is continued, and it shows the total amount of the discount if the purchases equal the point where the maximum discount applies.

[fols. 2700-2709] In the last column, the figures show what the discount will be if the maximum is reached.

I just call the Court's attention to a few. The second item is the contract with Russell Burdsall & Ward. Total discount at the maximum rate would be $112,000.00.

With the Lamson & Sessions Co., would be $112,000.00; with the Hamilton Press & Machine Co., would be $45,000.00.

Going down to the third from the bottom, with the Wire Wheel Corporation, the savings would be $96,000.00.

On the back page, Trico Products Company, the savings would be $25,000.00, and the last item the du Pont savings would be $64,000.00.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 192.)

Cross-examination.

By Mr. Harris:

[fol. 2710] Now, carry on to page 15. This is Allen talking—

A. Near the top of the page?

Q. That's right, sir.

A. I have it.

Q. (Reading):

> "I offered to cooperate with them in every way to enable them to decide for themselves the proper time at which to make these contracts, giving them the benefit of all of the information which we have as to the probable cause of the cotton market, and I am confident that even though they decide to place 20 per cent of their business with our competitors, there will be no question about our securing the remaining 80 per cent."

And as a matter of fact that is about the way it worked out, isn't it?

A. I don't know because the divisions bought these items for themselves.

Q. Didn't you testify just a few minutes ago that in [fols. 2711-2712] Fabrikoid you looked about for a second source and gave 20 per cent to the second source, or did I misunderstand you?

A. We advocated a second source of supply, or other sources of supply, let's put it that way, that would receive at least 20 per cent of the business, but there was no obligation to place 80 per cent of it with any one supplier.

Q. Was 80 per cent placed with any one supplier?

A. I don't know.

Q. You have not had occasion in getting ready for this appearance on the witness stand to check over the sales, have you, in connection with these different contracts that you talked about?

A. To check over the sales?

Q. The sales, whether when you gave a contract, we will say, for 75 per cent of the requirements, you sold 75 per cent of the requirements? Did you go into that?

A. We tried to write the contracts, if they were quantity discount contracts, up to the maximum percentage, but we did not make these contracts for artificial leather.

Q. No, I understand that. I am asking you whether you know that 80 per cent of the contract went to one supplier, and 20 per cent to a competitor, whether you know that.

A. I do not know.

[fols. 2713-2714] Q. Now, I call your attention to Government's Exhibit No. 415, which has not previously been offered in evidence but which, by agreement of counsel, is introduced at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 415.)

[fol. 2715] Q. Now, I would like to show you Government's Exhibit No. 416, which has not previously been offered in evidence, but which, by agreement of counsel, is introduced at this time.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 416.)

Have you got it? This is two days after the one we have just read. It is dated October 18, 1923, and it is from Mr.

Allen to Mr. Sloan, and he says to Mr. Sloan, regarding Fabrikoid and Rubber-coated Fabrics:

> "***I quite appreciate your position and that of the individual units in this matter, but think that the whole subject presents opportunities for an improvement in the relationship of the two companies"...

What would he mean by that?

A. I wouldn't know.

Q. (Reading):

> "and that some scheme of genuine cooperation might be worked out whereby each company would benefit."

Does that give you an idea what he means?

A. That was a happy thought, but I don't know just what he contemplated.

Q. It wouldn't mean, would it, that the arrangement that he was trying to sell to General Motors, that General [fols. 2716-2722] Motors should give du Pont their entire requirements instead of 80 per cent was what he called "cooperation"?

A. Mr. Harris, I don't feel qualified to interpret these letters written by others where I am not even concerned directly or just in this manner.

Q. You would think, would you not, that it does refer to purchasing and sale of Fabrikoid? You could go that far with me, couldn't you?

A. In cases of this kind I don't believe I should think. I believe I should know.

Q. Well, do you know?

A. I don't know.

Q. Now, I am going to call your attention to Government's Exhibit No. 494. You just looked at that earlier in the afternoon, I believe.

This is a confidential letter, or whatever it is, a confidential communication by James Lynah to a number of people who you testified were heads of divisions and so forth, and it is about the discount, and I call your attention, as counsel did, to the last paragraph but one:

> "We all agree that it is desirable to maintain some healthy competition. However, if 80 per cent of our

purchases of material such as the du Pont Company is in position to supply, are given to them on an even basis, the earnings under the super-discount contract will be materially increased, and it is urged that you cooperate to this end."

What does "cooperate" mean there?

A. Cooperate means there that they place the maximum possible of their purchases under the 80 per cent against the contract in order to get the benefit of the quantity discount.

Q. As a matter of fact, it is asking them, is it not, Mr. Lynah, to give 80 per cent of their requirements to du Pont?

A. It could be so interpreted.

[fol. 2723] Q. Was there any specific difference, Mr. Lynah, between a contract which called for requirements and which called for requirements of seller's make?

Now I am asking you whether there was any particular difference in practical operation of those contracts?

A. There was.

Q. Would you say that a contract which called for requirements of seller's make, and was on this list that we are coming to, would often not get any purchases from the unit involved?

A. Now, when you say "the unit involved"—

Q. Well, the one that is purchasing.

A. Participation in those contracts was optional by every division of the corporation.

Q. And that would go, would it, if the contract said "all requirements?"

A. No, if the contract said "all requirements," then requirements of whatever items that were covered by that contract should go to the contractor.

Q. And if it said "all requirements" of seller's make, [fols. 2724-2727] what then was the effect?

A. Well, if a division wanted to buy a piece of equipment or material of other seller's make, he was not bound under that contract with the particular specified holder of the contract.

Q. But if he wanted the seller's make mentioned in the contract, he must use a general contract and its terms, must he not?

A. I think I don't understand that, sir.

Q. I say, if he wanted to buy the seller's make, something of the seller's make, he would have to buy it in accordance with the general contract?

A. He would specify under that contract, yes.

[fols. 2728-2744] Q. That cumulative quantity discount, I believe you told us, some time after it had been introduced; it ran for a number of years?

A. I think it ran out in about 1928 or 1929.

Q. You were still with the General Motors, weren't you?

A. I was.

Q. Could you tell us after this cumulative discount had served its term, what percentages you gave to competing suppliers other than your principal one? I am not speaking of du Pont at all. I am speaking of other products.

A. Mr. Harris; there were other considerations than price, quantity and so forth. Unless a product was of a mechanical nature that was easily standardized, and so forth, or where it was a material that required uniformity, at least where uniformity played an important part in its fabrication in our plant, it was desirable for the divisions to get their material supplies from as few sources as possible.

Q. Take steel. What did you do about steel?

A. Steel of course, was made to chemical analysis, and with the exception of heat treatments, and so forth, could be bought generally at fairly uniform quality.

Q. When you were purchasing steel, it was divided among a number of principal suppliers, wasn't it?

A. Three, or two with a percentage of requirements open to divisions.

[fol. 2745] Q. Now, we will come to the contracts, Mr. Lynah. And you will just keep General Motors Exhibit Nos. 167, 179, 185, and 186, there, Mr. Lynah.

A. I have them in numerical order, sir.

Q. Thank you, sir.

Calling your attention to 167, that was the contract of the 2nd of January, 1925, and that was for buyer's requirements.

As I understood your testimony, that meant that all of the pyroxylin finishes, including "Duco" and "Duco" thinner would be bought from du Pont?

A. That is correct.

Q. And under the rules that we have referred to and read, if a general contract was in existence such as this was, the divisions were required to buy under these terms from this supplier; that is true, isn't it?

A. That is true.

Q. General Motors Exhibit No. 179 calls for 100 per cent of buyer's requirements and 50 per cent or more of Fisher Body's requirements.

Why was the Fisher Body requirements only fifty per cent under the du Pont contract?

A. At that time the Fisher Body Corporation was not a wholly owned division of General Motors, and we had to sell them on the desirability of participating in this contract on the basis of the prospective saving in quantity discount.

Q. They bought the other fifty per cent elsewhere, didn't they?

A. At their option.

Q. Well, they did buy it elsewhere?

A. I don't know.

[fol. 2746] Q. I call your attention now to Exhibit No. 185, and that is a contract dated the 1st of January, 1926, and that is for buyer's requirements of seller's manufacture of certain items, and I also call your attention to Exhibit No. 184.

Do you have that?

A. No, sir, I don't have No. 184.

Q. That is a contract also dated the 1st of January, 1926, and that is for 100 per cent of buyer's requirements for domestic plants, and 50 per cent or more of Fisher Body.

That is the same situation, isn't it?

A. That is correct.

Q. Now, let's come to the next one, first, Exhibit No. 186, and that is the 1st of January, 1927, buyer's requirements of seller's make, and there apparently the Fisher Body people are included, are they not, there being no exception?

A. Well, there being no exception, except under a contract of that nature, the purchasing division would only buy under the contract the make of product that the contractor supplied.

In other words, participation in a contract of that character was optional.

Q. Now, in 1927, could any of the General Motors Divisions buy "Duco" elsewhere than from du Pont?

A. Well, now, by "Duco" you include pyroxylin finishes—you mean pyroxylin finishes?

Q. No, sir, I mean exactly what I am talking about.

A. "Duco" was a trade name.

Q. I say, could any of the General Motors Divisions buy any "Duco" elsewhere than from du Pont in 1927?

A. There was no approved competitive source.

Q. So that if this contract reads that, "Buyer's requirements of seller's make of pyroxylin finishes, including 'Duco' and 'Duco' thinner," they could only get that material from du Pont, could they not? [fol. 2747]

A. They could only get that material that had been approved by the regular channels through which such a proposal—

Q. Well, I am asking you under this particular contract; "Duco" was certainly approved, wasn't it, in 1927?

A. Yes.

Q. Well, could they get any "Duco" elsewhere with this contract in force?

A. No, I want to stipulate there that by "Duco" you mean the du Pont brand of pyroxylin finish.

Q. By "Duco" I mean the "Duco" which is mentioned in the contract. I know nothing about any other "Duco." "All standard shades, maroon, five gallon cans, $6.00 per gallon, striping 'Duco,' 'Duco' thinner."

Now, this is mentioned in the contract, and I am asking you whether under this contract, this contract being in effect, the Divisions could buy this material elsewhere than from "Duco"?

A. No.

Q. I call your attention now to GM 187. This is a contract in 1928, first day of January, and it is one of your buyer's requirements of seller's make, pyroxylin finishes, including "Duco."

Would you give the same answer that under this contract when it was in force, the divisions of General Motors would buy and were required to buy all of their "Duco" and striping "Duco" from du Pont?

A. They were expected to buy, yes.

Q. That was the rule, wasn't it?

A. That was the rule.

[fols. 2748-2753] Q. Now, I call your attention to Government's Exhibit No. 495.

Government's Exhibit No. 495 is dated July 10, 1928, and it is a letter from Mr. William Richter, General Manager, directed to Mr. James Lynah.

What was Mr. Richter the general manager of?

A. Mr. Richter was general manager of the Cellulose Products Division.

Q. Of du Pont?

A. Of the du Pont Company.

Q. I notice he sends copies to the various directors of purchases of the different divisions or companies of General Motors. You will note that at the bottom. Right?

A. Mr. Harris, the copies were either sent direct from Mr. Richter or to the divisions through my office. I don't recall.

Q. All right, sir. Now I am calling your attention to the first paragraph with respect to the "Confidential Super-discount plan in effect between our company and the General Motors Corporation, we are pleased to enclose herewith our check for $200,136.79, representing the discount earned on total purchases by your company of $10,201,094.33 for the twelve months ending June 30, 1928."

You would say, would you not, from those figures that the divisions did purchase their requirements from du Pont for "Duco" and other things?

A. I would say a substantial part of their requirements.

Q. Would you know where else they got it over and above that $10,000,000.00?

A. I would not.

Q. That would be about, wouldn't it, what they would buy from du Pont and from any other company for the type of material that du Pont produced and furnished?

A. That I don't know.

[fol. 2754] Q. Yes, I will reframe it. What is an allied company to General Motors from which General Motors bought supplies of any nature?

A. An allied company, as I recall the use of the term, was a company that was partially owned, but not wholly owned.

Q. Could you give us any one of those companies by name, from which you bought supplies that was in that category?

A. The Fisher Body Corporation at one time was an allied company.

Q. What would you buy from Fisher Body?

A. Bodies.

Q. Oh, yes, that is probably so. I wonder if you could give me somebody else from whom you could buy paints and varnishes or soda or white lead, and things like that?

A. So far as I know, General Motors had no allied companies of that nature.

Q. Would you say when, in the contract briefs, they are referring to allied companies, that the du Pont Company would be an allied company?

A. Of General Motors?

Q. Yes.

A. No.

Q. Let us see, then, I am reading now from the briefs of the various contracts of this meeting of February 6, 1925, to the General Purchasing Committee, and it is page No. 2. The paragraph in question is paragraph 2:

> "Purchases from outside companies obtainable from allied companies—"

[fol. 2755] By Mr. Harris:

Q. Now, just what does that mean?

A. That means that we had a number of accessory divisions and parts divisions making products that were used by the General Motors Corporation. In order to keep all of those operations on a competitive basis, they were required to in their sales, and they had to sell to the car divisions of General Motors Corporation.

In other words, the car divisions were not required to take the products of those divisions just because they were accessory groups of the corporation.

These groups were required to sell in competition, and there were times when the car divisions bought from outside suppliers items that could be supplied by these accessory or parts divisions of the corporation.

Q. So you say now, Mr. Lynah, that an allied company was a subsidiary of General Motors?

A. That would be my understanding of an allied company.

Q. Why would you say—

A. I don't know just how that term was used there or why that term was used, but it would indicate some relationship in ownership of the corporation.

Q. You would expect, would you not, that the word "subsidiary" would be used, or "parts company" would be used?

A. Subsidiary is another term that does not imply a wholly owned corporation.

Q. We may get some light on it later. In case we do, I will, at least, read into the record this particular paragraph:

> "Purchases from outside companies obtainable from allied companies.
>
> "Circular letter has been addressed to all purchasing agents requesting report on G.M.E. 55—"

[fol. 2756] That was one of your forms of contract or report forms?

A. I would take it so, yes.

Mr. Harris: (Reading)

> "—covering every purchase of materials from outside companies obtainable from allied companies be made. It was decided that these reports should be summarized, and reviewed by the committee at its meeting. The divisions have been requested to send in a list of all products manufactured by them, the parts they manufacture and the service capacity for manufacturing parts."

By Mr. Harris:

Q. Now, what divisions are they, are they car divisions or parts divisions?

A. That would be parts and accessory divisions, Mr. Harris, and they must be the divisions that were referred to in there as "allied companies."

I do not recall any allied company except, perhaps, Fisher Body Corporation.

Q. They would hardly be referring to bodies in this paragraph?

A. No.

Mr. Harris: (Reading)

> "Study will be made to arrive at a method of determining how much lower the price the successful outside company must be than the price of the allied company bidding in order to justify placing the business outside. Due consideration is being given to the unabsorbed burden where such sales are lost to allied companies."

[fols. 2757-2809] By Mr. Harris:

Q. What is the unabsorbed burden?

A. Well, the burden in any manufacturing operation is the fixed charges over which the cost of production has to be spread. The larger the volume of business of a manufacturing company is, the more product it has to absorb that burden, which is really a fixed charge.

Q. You would not say, would you, that what has been known as a member of the du Pont-General Motors family was an allied company?

A. No, in no sense of the word.

Q. As a matter of fact, however, it was your practice, was it not, Mr. Lynah, to find out from competing companies, including the competing companies of du Pont, what the going prices were; that is so, isn't it?

A. We got that information on bids requested on general contract proposals.

Q. Yes, and when you got those bids, except in certain instances which we have already gone into, you would show them to du Pont, wouldn't you?

A. We, in the General Purchasing Committee staff, never did business that way.

Q. Du Pont—

A. So far as we were concerned, prices were confidential. The price of every bidder was confidential, and no other bidder was permitted to see that price.

Q. Would you say that the du Pont Company was not permitted to meet the bids of other people outside of the 75 or 80 per cent that was going to du Pont?

A. So far as General Motors Purchasing Committee staff was concerned, they never were permitted. I cannot answer for the divisions.

Q. In fact, when it came down to that, that would not be within the Purchasing Committee's competence, would it?

A. Of the divisions.

[fol. 2810] Q. I call your attention now, Mr. Lynah, to a letter of August 13, 1924, from Mr. Sloan to you concerning the relations between the Fisk Rubber Company and the du Pont Company.

A. May I have the number?

Q. Government Exhibit No. 536. I am sorry.

> "It appears that some time ago, Mr. Pickard, Vice President in Charge of Sales of the du Pont Company got in touch with Mr. Swayne to see if Mr. Swayne knew anybody in the Fisk Rubber Company."

By Mr. Harris:

Q. Who is Mr. Swayne?

A. Mr. Swayne was at that time a Vice President at Large with General Motors. I think he was generally known as Vice President in charge of transatlantic trips.

Mr. Harris: (Reading)

> "There followed a meeting here in Mr. Swayne's office in which the du Pont people and the Fisk people got together and following that a very valuable business has been given to the du Pont interest by the Fisk people. [fols. 2811-2817] "The principle in General Motors is that each proposition should stand on its own foundation and, as I said before and repeat it to emphasize the point, we are not suggesting that any exception be made in this case but simply to let the Committee know that this has taken place, in the line of general information."

By Mr. Harris:

Q. Would you say that is approval or disapproval of the practice of telling one of your suppliers that the du Pont Company was an investor?

A. I do not think I can answer that. This transaction had nothing to do with any General Motors information.

Q. Well, wouldn't you say—

A. I take it at the time you were getting to the point that Mr. Swayne got into the picture.

Q. It looks like it. May I ask you this question?

At the time, on August 13, 1924, was General Motors buying to any extent tires from the Fisk Rubber Company?

A. I believe not.

Q. What would be the point then of Mr. Swayne introducing someone to the du Ponts from the Fisk people?

A. I don't know, unless the Fisk people hoped to get the General Motors tire business.

Q. Didn't you, in 1924, get tires from Fisk and Goodrich and Goodyear?

A. Mr. Harris, the purchases of tires was done by the individual divisions.

Q. Then you don't know, do you, whether General Motors was buying from the Fisk Rubber Company?

A. No, but I know enough of the makes of tires that went on our cars and from general information to know they were not.

[fols. 2818-2819] Q. Did you have occasion to read the annual report of 1918, the time that the investment was made by du Pont in General Motors? Did you ever have occasion to read that?

A. I couldn't say that, Mr. Harris.

Q. Can you state whether or not there was any feeling in the General Motors Company that if you could do anything for du Pont, it should be done, other things being equal?

A. Mr. Harris, my first experience with that kind of thing, when I went with General Motors, was a feeling of resentment on the part of many of the General Motors division people, particularly the purchasing agents and others who were afraid that there might be an effort to centralize General Motors organization on the same scheme of organization under which the du Pont Company operated.

That resentment, the overcoming of that resentment, became quite a problem.

Q. It was overcome, wasn't it?

A. To what extent, I don't know. So far as the cooperation in my work was concerned, I think it was pretty well overcome.

Q. Was it fairly frequent, Mr. Lynah, for one or the other of the du Ponts to interpose in action of your committee?

A. Never.

[fol. 2820] Redirect examination.

By Mr. Hurd:

Did the du Pont Company endeavor to change the action that your Purchasing Committee had taken with respect to reciprocity?

A. Never.

Q. Mr. Lynah, going back to some of the matters covered earlier in the cross examination, I first want to call your attention to General Motors Exhibit No. 149, which is the revised plan for co-ordination of purchases, dated September 1, 1923.

Will you turn to page 12 of that document, please?

A. I have it, sir.

Q. Paragraph No. 12, first sentence I wish to read, deleting some of the parenthetical clauses which have no bearing on the question I am going to ask:

> "Provided it is necessary in order to secure the lowest possible price to obligate the corporation to take a specific amount of material from any supplier, such contract can only be entered into with the approval of the Finance Committee."

At any time while you were connected with the Purchasing Committee, was the Finance Committee consulted for consent to enter into any contract?

A. It was not. There was no occasion for it.

Q. Did you report to the Finance Committee in any respect as to what contracts you proposed to enter into?

A. We did not.

[fol. 2821] Q. Did you report to them with respect to any contracts that you did enter into?

A. We did not.

Q. At any time did you consult the Executive Committee with respect to any contract?

A. There was one occasion. The Executive Committee had passed a resolution, which had been sent to the General Purchasing Committee, that commitments should not be made for a period in excess of twelve months.

There was one occasion, I believe I mentioned it previously in my testimony, where the proposed contract with the Alemite-Zerk Company for lubricating fittings, which were standard on all General Motors cars, and I believe throughout the automobile trade.

There was no competition in that field, and permission was asked of the Executive Committee to conclude a two-year contract. That permission was granted.

Q. Did you ever consult the Executive Committee for permission to enter into any contract that did not exceed one year?

A. We did not.

Q. Did you advise the Executive Committee as to the contracts that you proposed to enter into?

A. We did not.

Q. Did you advise them of the contracts that you did enter into?

A. We did not.

Q. Mr. Lynah, I would now like to call your attention to Government's Trial Exhibit No. 463, which is a document that was shown to you this morning by Mr. Harris.

This is a letter from Mr. Allen of the du Pont Company to you, dated September 23rd, 1926. It deals with the subject of the multiple item discount contract that you entered into with the du Pont Company.

[fol. 2822] Will you turn to the back side of the document, the first full sentence:

> "It is obvious that we would be unable to continue this arrangement unless we can secure much higher prices from our other customers."

Mr. Lynah, was it unusual for a supplier to tell you that you were getting better prices than anyone else?

A. That was very frequently done, Mr. Hurd. That was one of the stock things to be expected.

Q. Was it only the du Pont Company that told you such things, made such statements?

A. I can unqualifiedly say that that kind of statement was frequently made by respective suppliers.

Q. Now I want to call your attention to Government's Trial Exhibit No. 462, which is another one of the letters dealing with this same multiple product discount contract.

Will you turn to the third page, please.

A. That is the page numbered 3? These documents are confusing because the page numbers are sometimes in the middle of a sheet.

Q. It is the third page, with the 3 down at the corner, just above a tabulation.

A. Yes, I have that.

Q. Calling your attention to the tabulation at the bottom of this third page, you were asked this morning, I believe, by Mr. Harris, as to whether or not the scale of discounts set forth at that point was followed in a contract with any other supplier.

A. Not a similar scale of discounts.

Q. You previously testified that you had entered into many multiple item contracts. Am I correct in that?

A. Correct.

[fol. 2823] Q. Did any two of them have the same scale of discounts?

A. Not that I recall.

Q. Now I want to call your attention to General Motors Exhibit No. 186, which is a contract between General Motors and the du Pont Company for pyroxylin finishes, dated January 1, 1927.

Paragraph 1 states that it is buyer's requirements of seller's make of pyroxylin finishes, including "Duco" and "Duco" thinner.

I believe you have testified that this is the first "Duco" contract that was for requirements of seller's make. Was any company making "Duco" or "Duco" thinner other than the du Pont Company?

A. No. That trade name was a du Pont Company name. There were no other suppliers making "Duco" or offering it to the trade under the name of "Duco."

Q. Under this contract did you consider that any of the divisions were required to buy anything from du Pont?

A. Not unless they wanted to—no, they were not required to. The participation in this contract would be optional.

Q. Did that apply to Fisher Body as well as to the other divisions?

A. Any of the divisions.

Q. This contract did not require that Fisher Body purchase anything from du Pont?

A. Correct.

Q. If any division wanted to buy a pyroxylin finish product of the du Pont Company, was there any place that the division could buy it except from the du Pont Company, even if you didn't have that contract?

A. Unless it was from a distributor of "Duco."

[fol. 2824] Q. The du Pont Company, or one of its distributors?

A. Yes.

Q. There was no place that anyone could buy du Pont pyroxylin finish except from du Pont or one of its distributors?

A. Not to my knowledge.

Q. So that this contract did not change the situation from what it was before you had any contract, except to the extent that if a division wanted to purchase a product from du Pont it could get the benefit of the prices that were set out here?

A. That is right.

Q. I think you have testified that this contract was not a requirements contract due to the fact that competitive products, competitive pyroxylin finishes, had at this time been approved by the Paint and Enamel Committee and Research Corporation?

A. Correct.

Q. Did the Purchasing Committee enter into any contract with any of the competitive pyroxylin manufacturers?

A. So far as we know the divisions were using different —the divisions who were not participating in this contract, or who did not participate in the contract, were using competitive makes, different makes. No division that we knew of was using common makes, makes common to two or more suppliers, that would make a general contract under our practice of two or more divisions having to use a common product, before it became a problem for the General Purchasing Committee.

Q. You testified earlier that one principle that the Committee followed was that it would not contract for the item unless that item was being used for two or more divisions?

A. Correct.

[fol. 2825] Q. Was there any competitive make of pyroxylin finishes that came within that principle, while you were with the Committee, as far as you know?

A. Evidently not to the knowledge of the Committee.

Q. And that is, or is that not, the reason that the Committee did not enter into any contract with any competitive manufacturer of the finishes?

Mr. Harris: I object to that, if the Court please. He said it did not come to the knowledge of the Committee.

The Court: Well, it could have come to his knowledge.

Mr. Harris: I assume it is addressed to him as a committeeman.

The Court: No, I think he may answer that.

Overruled.

The Witness: Will you please repeat the question?

The Court: The reporter will read the question.

(Question read.)

Mr. Harris: Do I understand that that is the Committee, that that is the Committee action that is being asked for?

The Court: Either way.

Mr. Harris: If Committee action is what he is asking for, he already said that it did not come to the knowledge of the Committee that they were using these finishes.

Mr. Hurd: My point is that the witness has testified that the Committee could not contract for it unless two or more were using it, and he said that they did not know that two or more were using it.

[fol. 2826] Now I want to know that the fact that they did not have any information that at least two were using it, whether that was the reason or not the reason that they didn't have a contract.

The Court: I think he may answer it.

By the Witness:

A. Yes.

By Mr. Hurd:

Q. Well, which is it? I have got the question both ways. Is that it, or is it not, the reason?

A. Yes, that is the reason.

Mr. Hurd: That is the trouble; if I ask the question in proper form, it is ambiguous.

Q. Now, Mr. Lynah, I also wish to call attention to Government's Exhibit No. 468. You testified that in 1927 the contract did not require anyone to buy anything because it was merely the requirements of the seller's make, unless they bought the seller's make they didn't have to buy.

Now, I want to call your attention to Exhibit No. 468, the first paragraph. This is the du Pont report for the month of January, 1927, the same month the contract is dated:

> "On our 1927 contract with General Motors we are unable to get any definitely specified amount of business in the contract. Last year we had a provision in the contract giving us all the General Motors business with minimum of 50% of the Fisher Body purchases of pyroxylin materials. In the 1927 contract General [fol. 2827] Motors agree only to purchase their requirements of our make of pyroxylin materials which, of course, may be as little or as great as they care to purchase from us."

Do you consider that that is a correct interpretation of the contract?

A. I do.

Q. Mr. Lynah, this morning Mr. Harris called your attention to Government's Trial Exhibit No. 407 which was a letter from Mr. Coyne to Mr. Pierre du Pont regarding the Chevrolet top business.

The second paragraph stated:

> "Further statement was made that Mr. Knudsen had gotten your permission to give 25 per cent to our competitors, the O'Bannon Corporation, which is in the hands of a receiver."

Did you ever ask permission of Mr. Pierre du Pont to give business to a competitor of the du Pont Company?

A. At no time.

Q. Did you ask Mr. Irenee du Pont?

A. At no time.

Q. Or did you ask Mr. Lammot du Pont?

A. At no time.

Q. Did you ever ask any representative of the du Pont Company for permission to give business to du Pont competitors?

A. Absolutely not.

Q. Did anyone ever tell you that you were supposed to favor the du Pont Company?

A. No one ever did.

Q. Did anyone ever tell you that you were supposed to do business with the du Pont Company?

A. No.

Q. Did anyone ever tell you that because the du Pont Company owned stock in the General Motors that they were [fols. 2828-2830] entitled to have business from General Motors?

A. I don't recall that, but I should say no.

Q. Did anyone ever tell you that it was the policy of General Motors to favor the du Pont Company in any respect?

A. No.

Q. Did anyone ever tell you that it was the policy of the du Pont Company to favor General Motors in any respect?

A. No.

Mr. Hurd: Thank you.

Mr. Harris: Nothing further, your Honor.

[fol. 2831] Alfred P. Sloan, called as a witness on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (continued).

By Mr. Hurd:

Q. Mr. Sloan, last Tuesday we dealt with General Motors Exhibit No. 10 which is now in evidence, listing the membership of the Board of Directors on various dates.

I call your attention to the fact that as of May, 1923, there are ten names in the last column, that is, "Others," ten directors other than management directors and other than representatives of the du Pont Company.

On the inside of the document under date of December 31, 1942, there are only three in that column marked "Others." That is also the case in 1949; and then on the last page, I call your attention to the fact that in the last column there are six directors under the heading "Others."

[fol. 2832] Now, Mr. Sloan, will you tell us to what extent, if any, the matter of adding to the Board of Directors who are neither management directors nor representatives of the du Pont Company, was a problem that you dealt with during the last ten years?

A. Well, during the last ten years, Mr. Hurd, looking over the record, I became concerned with the fact that the changes of time had reduced our outside representation to the number indicated on the exhibit here. I felt very strongly that a corporation of the importance of General Motors should have representation by directors who were successful men, respected in the community, outstanding citizens, and other necessary qualifications in order to give a better balance to our Board of Directors.

Therefore I gave some thought to it in the last ten years, beginning probably around 1945 or something like that.

Q. Mr. Sloan, I show you two documents marked General Motors Exhibits Nos. 11 and 12 for identification, and ask you if those are copies of letters which you received on or about their respective dates from Mr. Walter Carpenter?

A. As I testified yesterday or before in a related matter, it was my policy in all matters in the corporation—that included the management directors—to discuss the problem with my immediate associates, and with the important directors in this case, to present an idea and to seek their cooperation in developing the idea, and these letters here to which you refer indicate that the subject was under discussion back in 1943.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 11 and 12.

[fol. 2833] The Court: They are received.

(Said documents so offered and received in evidence, were marked General Motors Exhibits Nos. 11 and 12.)

By Mr. Hurd:

Q. Mr. Sloan, I call your attention to the fourth page of General Motors Exhibit 11. Will you tell us whether any of the individuals named on that page ever became directors of General Motors Corporation?

A. No, they did not.

Q. Now, will you refer to page 5 and tell me whether any of those individuals ever became a director of General Motors Corporation?

A. There is one there, Mr. Hurd. Mr. Alexander became a director of General Motors seven or eight years after this letter was written.

Q. And at whose suggestion was he brought on the Board when he was added?

A. At my suggestion, at the time the event took place, although his name was in this list.

Q. Now, will you turn to the next page, page 6, and tell us whether any of those individuals ever became a director of General Motors?

A. Mr. Douglas became a director.

Q. Is he the one on that page?

A. That is correct.

Q. Did he become a director at the time of the suggestion by Mr. Carpenter, or was it a later date?

A. Some years after, Mr. Hurd.

Q. Do you recall at whose suggestion that was?

A. I think it was mine.

Q. Will you look at the seventh page, and tell us whether either of those individuals ever became a director of General Motors?

A. They did not, Mr. Hurd.

[fol. 2834] Q. Will you give us the same information regarding the names on page 8?

A. No, no name on page 8 became a director.

Q. What about page 9?

A. Mr. Mellon became a director in some seven or eight years, as near as I can recall.

Q. After the date of this letter?

A. That is right.

Q. Do you recall the circumstances of his coming on the Board?

A. Mr. Mellon became a very large stockholder in General Motors around the time he became director, or shortly before that, and he was invited on the Board for that reason, as well as for other reasons,—principally because he was a large stockholder.

Q. Do you recall at whose suggestion he was added?

A. To the best of my recollection, it was Mr. Donaldson Brown who recommended Mr. Mellon as a member of the Board of Directors.

Q. Will you turn to the last page, Page 10. Will you tell us whether any of those individuals ever became a director of General Motors Corporation?

A. Mr. Copeland became a director and Mr. Echols became a director. They were representatives of the du Pont interests on the General Motors Board.

Q. Did the other individuals named on the page—

A. No, no other names on that ever became directors of General Motors.

Q. Now I ask you to look at General Motors Exhibit No. 12, pages 2 and 3. With the exception of the last name on page 3, I believe all the names contained in this exhibit were also listed in General Motors Exhibit No. 11.

[fol. 2835] Will you look at the last name, Mr. S. Sloan Colt. Did he ever become a director of General Motors Corporation?

A. He did not.

Q. Mr. Sloan, I now show you Government's Exhibit No. 207, which is in evidence.

Is that a letter which you wrote to Mr. Carpenter in reply to General Motors Exhibits Nos. 11 and 12?

A. Yes, it appears to be, Mr. Hurd.

Q. I call your attention to the first page of the letter, next to the last paragraph:

> "I will use the following formula, and for the following reasons:—
>
> "First: Frankly, I am opposed, and others are likewise, to further representation on the Board, of Bankers."

Turning the page:

> "Second: I think we should give some consideration to geographical location, and your list of April 8th, which I have referred to above, is set up on that basis.

> "Third: I think we must be careful to exclude those who represent interests that have relationship with General Motors, particularly in the buying and selling area."

Will you explain the basis for that test?

A. I didn't get the last question.

Q. Will you explain the basis for your question in paragraph "third"?

A. Paragraph third—well, what I meant by that is that I feel that if an individual has a large stockholder interest in the corporation, that he is entitled to representation on [fol. 2836] the Board of Directors, if he is invited to serve. The fact that he is a supplier, I don't think that should interfere with that, providing he is a large stockholder. I think the large stockholder interest, the ownership of property, entitled an individual to serve on the Board in order to take part so far as it is proper for him to do so in the management of that property.

Q. In the event he is not a large stockholder and is a supplier, what is the basis of your objecting to him?

A. If he is a large stockholder and not a supplier, did you say?

Q. If he is not a large stockholder, but is a supplier.

A. I wouldn't think then that he would qualify unless he had other qualifications that would justify him being on the Board. I feel that the qualifications of representatives on the Board should be their ability to contribute to the welfare of the business. I put that very high, and I think that other things should take a secondary position.

Therefore, if an individual is an outstanding citizen, a man of experience, and so forth, I would waive the stockholder qualifications, and I would accept him on the Board, even if he were a supplier.

For instance, in my own case, I feel that I am entitled to a directorship in General Motors because I am a very large stockholder. I am also a director in another corporation which is a supplier of General Motors, and I don't think that this disqualifies me in view of my large stockholding interest in General Motors.

Q. Going to Paragraph 4:

> "I will eliminate representatives of du Pont and du Pont affiliated companies, because I believe that you

> [fol. 2837] should determine what representation you want on the General Motors Board."

Have you always followed that same proposition?

A. We have always followed that. Any recommendation tnat they made as changes developed over the years have been accepted, and they have been elected to the Board.

Q. As far as representatives of that company are concerned?

A. That is correct.

Q. (Reading): Fifth:

> "I shall avoid making more than one recommendation from the same line of industry."
>
> "Sixth: I will ignore the holdings of General Motors Stock, as an essential qualification."

What was your understanding of that last proposition?

A. I think it speaks for itself, Mr. Hurd. For instance, we have two members of our Board now who are outstanding citizens—General Clay, who was former military governor of Germany, and Mr. Douglas, who is an outstanding citizen, formerly ambassador to Great Britain, and they have practically no stockholdings at all.

I think they would contribute and do contribute importantly to the corporation, and I think that from my point of view is the outstanding qualification.

Q. Mr. Sloan, I now show you Government's Exhibit No. 1236, which is in evidence. It is a letter to you from Mr. Lammot du Pont, dated December 18, 1944.

I call your attention to the third sentence in the second paragraph. This all relates to Bernard Peyton.

The second paragraph, about half way down:

> [fol. 2838] "Bernard is a Director, Vice-President and Treasurer of the New York Air Brake Company. I understand his managerial activities are in the manufacturing or operating side. His previous experience was as the active head of a comparatively small company, manufacturing locomotive stokers.
>
> "As the New York Air Brake Company seems to be a company of some $20,000,000.00 assets and doing an annual business of about the same amount, his business

> experience seems to have been in activities of substantial importance."

In the last page, second paragraph:

> "Bernard is now about forty-five years of age, I think, but appears to be considerably older than that. I wonder if this would be a suggestion for consideration from the standpoint of Directorship in General Motors."

Do you recall receiving this letter?

A. I recall that letter.

Q. I now show you Government's Exhibit No. 1237, which is a letter from you to Mr. Lammot du Pont, dated December 29, 1944.

Is that your reply to Mr. du Pont's letter we have just referred to?

A. Yes, that is the reply I wrote to Mr. Lammot du Pont in reference to the letter you just handed me.

Q. Will you turn to the last page, the last paragraph:

> "How would you suggest I proceed? If you wish me to I will be glad to make some inquiries and see if I can get any further information, but in view of the fact that you know him, what more is needed? If you take [fol. 2839] that position and will let me know, we could have his name go before the Board at the January or, perhaps better, the February meeting, whichever appeals to you as desirable."

By Mr. Hurd:

Q. Will you explain what your understanding was of that statement?

A. What I meant by that is when I read the letter, Mr. Peyton's qualifications appealed to me as those of one that I wanted to have on our Board of Directors.

In fact, Mr. Lammot du Pont had vouched for him, and it seemed to me that was all-important. However, I testified here that no member went on the Board of Directors unless I submitted his name and had it considered by the group as a whole, which I would have done in this case. I cannot remember just what I did about this, whether I went ahead with it or whether I dropped it. The fact is Mr. Peyton was never a member of the Board of Directors of General Motors.

Q. You said the fact that Mr. Lammot du Pont vouched for him was of significance. In what respect was it of significance?

A. Because his endorsement was the endorsement of a man of experience and ability. I would have done the same thing if Mr. Whitney had endorsed him or anybody else in whom I had confidence.

Q. Mr. Sloan, I now show you a document marked General Motors Exhibit No. 13 for identification, which is a letter from you to Mr. Carpenter, dated August 15th, 1944.

If the Court please, that is under the heading Selection of Directors, all of these exhibits.

The Court: No. 13.

[fol. 2840] Mr. Hurd: This is No. 13, yes.

By Mr. Hurd:

Q. Will you look at the document, please, Mr. Sloan. Now, this letter refers to Dr. Karl T. Compton, Lewis W. Douglas and Calvin P. Bentley. Did Mr. Compton become a director of General Motors?

A. Yes, Dr. Compton became a director, and is now a director of General Motors.

Q. At whose suggestion was he added?

A. He was my nominee. I am a graduate of MIT, and I have great admiration of Dr. Compton's accomplishments.

Q. I believe you already testified that Mr. Douglas became a director. What about Mr. Bentley?

A. He never became a director, Mr. Hurd.

Q. Was he ever suggested to the Board as a candidate for director?

A. Mr. Bentley, no.

Q. Whose decision was it not to submit his name?

A. I guess it was my directive, because I had the leadership of the problem.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 13.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 13.)

By Mr. Hurd:

Q. Now, Mr. Sloan, do you recall having some correspondence with respect to General Marshall?

A. I do.

Q. I show you Government's Exhibit 220, which is a letter from you to Mr. Carpenter, dated December 10, 1945. Do you recall sending that letter to Mr. Carpenter?

A. Yes, I recall it.

Q. Who was suggesting General Marshall?

[fol. 2841] A. Mr. John Pratt, Vice President—no, he was not vice president at that time. He had retired from General Motors, but he was a director.

Q. What was your position with respect to that suggestion?

A. I submitted it to the group which was in accordance with my regular practice, and the general feeling was that in view of the fact it took so long to become acquainted with the affairs of the corporation, and General Marshall, although he was a man of outstanding experience in certain things, was really too far along to be elected to the Board, so far as age was concerned, and also, if I recollect, some of the group felt he did not have business experience essential for a member of the Board; as he was up to that time entirely an Army officer.

Q. Do you recall what your feeling was, in that regard?

A. I subscribed to that feeling, and I did not recommend him to the Board.

Q. Now, I show you what has been marked General Motors Exhibit No. 14 for identification. Is that a letter that you received from Mr. Carpenter?

A. Yes, sir, I recall the letter, Mr. Hurd.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 14.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 14.)

By Mr. Hurd:

Q. Mr. Sloan, will you note the first paragraph, which states:

> "Regarding our chat the other day, I am noting below three names. I am not urging strongly that any one

> [fol. 2842] of them be presented, but rather am I sending them along to add to your galaxy for consideration—
>
> "The first one is Mr. Robert Woodruff. He is the head of the Coca-Cola Company."

Did Mr. Woodruff ever become a director?

A. He did not.

Q. If you will turn to the next page, second full paragraph:

> "Another name that we might consider is that of John Hanes. He is a member of that important group down in the Carolinas. There are several brothers, I believe. One of them is Robert Hanes who is the banker."

Did Mr. Hanes ever become a director of General Motors?

A. He did not.

Q. Then next to the last paragraph:

> "Another name which occurs to me is that of Brehon B. Somervell."

That is General Somervell, as I recall. Did he become a director?

A. He did not.

Q. Now, Mr. Sloan, are you a director of the du Pont Company?

A. Yes, sir.

Q. When did you become a director of the du Pont Company?

A. Shortly after I became president of General Motors, probably in June, 1923.

Q. Have you attended the meetings of the du Pont Board of Directors regularly?

A. I am afraid, Mr. Hurd, more often not.

Q. What generally takes place at the Board of Directors [fol. 2843] meetings insofar as your attendance would apprise you? What takes place at the Board of Directors meetings so far as you know from your attendance?

A. The business transacted is in line with the business transacted in all large corporations. The Board acts on reports submitted. It takes action on such legal matters that have to be approved by the Board. The President of the du Pont Company makes a short statement as to the status of the business. At times the executives of the du Pont Company who are not on the Board make statements to the Board. That is about the type of business that comes before the Board.

Q. Did you take any particular part in the activities of the Board meetings?

A. My participation on the Board has been limited to making a few extemporaneous remarks about the position of General Motors in terms of generalities. I have taken no participation in any of the affairs of du Pont except in that area.

Q. To what extent are you given instructions or advice at the Board meetings with reference to the conduct of General Motors affairs?

A. I have never been given any instructions at all, Mr. Hurd. Besides, instructions of that kind are never given to anybody in the Board of Directors meetings.

Q. Do you recall any question coming up at any of the Board meetings dealing with General Motors Corporation?

A. There never was a question came up in that area that I can recall, and I think my recollection on that is reliable.

Q. To what extent was the purchase practice of General Motors discussed at the Board meetings of du Pont which you have attended?

A. My previous answer covers that, that it was never discussed in any shape or way or manner.

[fol. 2844] Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 15 for identification, and ask you if that is a schedule showing your attendance at the Board meetings of the du Pont Company?

A. Of course, Mr. Hurd, I cannot remember all these dates. It is a very complete document. I will take it on its face, as you have probably taken it from the records.

Mr. Hurd: Yes, I will state to the Court this is taken from the records.

By Mr. Hurd:

Q. I will show you General Motors Exhibit for identification No. 16, which is a recapitulation of your attendance taken from General Motors Exhibit No. 15 for identification.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 15 and 16.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 15 and 16.)

By Mr. Hurd:

Q. I would like to call your attention to some aspects of 15, which is broken down by years showing the date when a directors' meeting of the du Pont Company was held, and if Mr. Sloan attended the meeting, the date is followed by an asterisk. So that for the year 1923, there were nine meetings held, and Mr. Sloan attended two. In the year 1924, there were twelve meetings held, and Mr. Sloan attended two. In 1925, he attended one meeting out of twelve. In 1926, he attended one meeting out of twelve. [fol. 2845] In 1927, he attended one meeting out of twelve. In 1928, there were twelve meetings, and Mr. Sloan did not attend any of them. In 1929, he attended one out of twelve. In 1930, there were twelve meetings, and Mr. Sloan did not attend any of them. In 1931, there were twelve meetings, and he attended one. In 1932, he attended one out of twelve. In 1933, he attended two out of twelve. In 1934 he attended two out of twelve. In 1935, he attended one out of twelve. In 1936, there were twelve meetings and he was not in attendance at any of them. In 1937, there were fourteen meetings, and he was not in attendance at any of them. In 1938 he attended two out of twelve. In 1939, out of fourteen meetings, Mr. Sloan attended none of them. 1940, he attended one out of twelve. In 1941, he attended two out of twelve. In 1943, he attended three out of twelve. In 1944, five out of twelve. 1945, three out of twelve. In 1946, he attended six out of twelve. In 1947, he attended six out of thirteen, and 1948, he attended four out of twelve.

By Mr. Hurd:

Q. Mr. Sloan, what is the explanation of your having attended more meetings in the last ten years than you did in the prior seventeen or eighteen or twenty years?

A. You see, Mr. Hurd, I retired in 1946, and therefore I was not under the pressure of time. In those early years I was under terrific pressure in General Motors, and I couldn't take the time. There is no significance to the record except as to that.

Mr. Hurd: In respect to General Motors Exhibit No. 16, which is the recapitulation of 15, I would like to call to [fol. 2846] the attention of the Court the fact that Mr. Sloan attended none of the meetings for five years. He attended only one meeting in eight years, and the average is less than two a year.

The Witness: I may say, Mr. Hurd, that I am not proud of that record as a director.

By Mr. Hurd:

Q. Mr. Sloan, turning to another subject, do you recall an incident in about 1928 with respect to Mr. John Raskob's position in General Motors?

A. I do.

Q. What was that incident?

A. That incident relates to the political campaign of 1928 when the late Governor Smith was running for president. Mr. Pierre du Pont and Mr. Raskob had been very much concerned with the impact of prohibition upon our society—put it that way—and Mr. Pierre du Pont had organized an activity to bring the problem to the consciousness of the American people.

He became very much interested in the matter, and when the election came up in 1928, Governor Smith took a position against prohibition, against the Prohibition Act, and he was a close friend of Mr. Raskob's, and as a result of that association, when the late Governor Smith was nominated as a presidential candidate in the Democratic Party, Mr. Raskob and Mr. Du Pont supported him, and Governor Smith asked Mr. Raskob to head the campaign and he became Chairman of the National Democratic Committee.

In the years just previous to that, Mr. Raskob had become the self-appointed spokesman of General Motors Corporation. I put it that way because he was Chairman of the Finance Committee, and the earnings of the corporation were increasing very rapidly, and the stock was advancing [fol. 2847] in the market, and you will remember it was a time of considerable speculation, and Mr. Raskob was issuing statements to the financial press and so forth, so they came to look to him as the spokesman for General Motors. The management of General Motors, particularly myself, felt that it would be very unsound for an individual who was managing a political campaign to continue as spokesman of General Motors.

We felt that it put General Motors in politics, and we had worked very hard to get General Motors where it was. We were selling to the ultimate consumer, and the campaign was quite an important one, so far as the psychology of it was concerned, and we felt that it was unfair to the management for Mr. Raskob to take that position.

Mr. Raskob differed with us, and we simply said that he couldn't continue with General Motors, and he should retire, if he wished to continue to manage Governor Smith's campaign, and as a result of that discussion and the position that the management took, Mr. Raskob retired from the corporation as Chairman of the Finance Committee.

Mr. Pierre du Pont, who was Chairman of the Board of Directors of General Motors at that time, took the position that Mr. Raskob's feeling that he should serve in both capacities were perfectly sound, and if we insisted upon Mr. Raskob's retirement he himself would retire and we did insist upon it, and he retired as well as Mr. Raskob.

Q. Mr. Sloan, to what extent was your position based upon the fact that Mr. Raskob was the chairman of the Democratic Party, rather than the Republican Party?

A. Well, we had a divided house on that account, Mr. Hurd. We had Democratic representatives on top management, [fol. 2848] as well as Republican. For instance, Mr. Knudsen who was an important executive at that time, and was general manager of our largest division, was a Democrat; Mr. John Pratt was a Democrat; Mr. James Mooney, in a very important executive position, in charge of our overseas operation—he was a Democrat; Mr. John Thomas Smith who was our chief counsel in the organization was a Democrat.

I don't know if there were any more Democrats or not, but the point I want to make is that we had a divided house on the political question. It was not a question of partisanship, Mr. Hurd, it was a question of principle:

I don't believe a corporation should permit itself to get into politics, and that is all there is to it.

Q. Well, was the fact that he was representing one party rather than the other—

A. That had nothing to do with it at all. I would have felt the same about it exactly, if the political side of it had been reversed. It was particularly important to us because the consumer can discriminate very easily against General Motors products. That was the danger, outside of the broad principle involved.

Q. When Mr. Wilson was appointed Secretary of Defense, what, if any, position did you take?

A. We took exactly the same position.

Q. And he retired from the company?

A. He retired completely from the company, the corporation.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 17, and ask you if that is the letter that you wrote Mr. Irenee du Pont regarding this Raskob incident?

A. Yes, I recall that letter.

Q. Is General Motors Exhibit No. 18 for identification, [fols. 2849-2850] Mr. Irenee's reply?

A. Yes, that is Mr. Irenee's reply to my letter.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 17 and 18.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 17 and 18.)

[fols. 2851-2852] By Mr. Hurd:

Q. Do you know what the other resignation was that Mr. Irenee referred to?

A. The only other resignation involved in the episode, Mr. Hurd, was Mr. Pierre du Pont's, that I have dealt with already.

Mr. Hurd: (Reading)

> "Not that anyone blames him for wishing to 'let down', but the step is because of loyalty to a friend

rather than necessity of the case. Perhaps no one could influence him more than John Raskob, himself, for he at least cannot be considered selfish by advocating a withdrawal of the communication."

If the Court please, I also offer in evidence General Motors Exhibits Nos. 19 and 20, which are an exchange of correspondence between Mr. Coleman du Pont and Mr. Pierre S. du Pont.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 19 and 20.)

• • • • • • • •

[fol. 2853] By Mr. Hurd:

Q. Mr. Sloan, I show you Government Trial Exhibit 188, a letter from Mr. Lammot du Pont to you, dated December 24, 1928.

I would like to call your attention to the first paragraph:

> "Dear Alfred:
>
> "I had a long talk with John Raskob last Thursday and with Pierre on Friday and have definitely come to the conclusion that there is no hope of inducing either of them to return to their former positions with General Motors. I don't think it is necessary to go into the reasons for my arriving at this conclusion or for their taking the stand which they appear to me to take. You have urged from time to time that something should be done in the matter, and I am convinced that the time to act has arrived, so that henceforth you have my full support in this matter."

Mr. Sloan, after this date did Mr. Pierre du Pont ever return as Chairman of the Board of General Motors?

A. No, he did not.

Q. Did Mr. Raskob ever return as Chairman of the Finance Committee?

A. He did not.

Q. Mr. Sloan, I now turn to another subject, that is, the membership of the top committees in the General Motors Corporation.

First, the Executive Committee which was in existence [fol. 2854] until May, 1937. I show you a document which has been marked General Motors Exhibit No. 21 for identification, and call your attention to the date of May 10, 1923.

That is the date of your becoming president of General Motors?

A. I believe it is, Mr. Hurd.

Q. I call your attention to the names of the people on the Executive Committee of that date: Haskell, Sloan, P. S. du Pont, Raskob, F. J. Fisher and Mott.

Then in the year 1924 you will note that Bassett, Brown, C. T. Fisher, L. P. Fisher and Pratt were added.

Q. At whose suggestion were those gentlemen added to the Executive Committee?

A. They were added at my suggestion. I was president at that time, and I was also Chairman of the Executive Committee. It would be my responsibility to make recommendations, although the suggestions might come otherwise, but generally the suggestions came from me. These particular ones came from me.

Q. Then if you will drop down to 1929, Mr. P. S. du Pont resigned, and Mr. Knudsen and Smith were added. At whose suggestion were Knudsen and Smith added?

A. My suggestion.

Q. 1930, Mr. Lammot du Pont was added. Whose suggestion was that?

A. Again at my suggestion.

Q. Was this the point at which Mr. Lammot du Pont became Chairman of the Board?

A. No, he became Chairman of the Board in the latter part of 1928, perhaps early in 1929; I think in 1928.

Q. That was after the resignation of Pierre du Pont?

A. Correct, Mr. Hurd.

Q. As of this date, 1930, can you tell us how many repre- [fol. 2855] sentatives of the du Pont Company were on the Executive Committee?

A. In 1930?

Q. Yes.

A. I haven't got the list before me, but at that time Mr. Lammot du Pont was the only representative of the du Pont Company on the Executive Committee.

Q. Then I call your attention to 1934, when Mr. Bradley was added. At whose suggestion was Mr. Bradley added?

A. My suggestion. Mr. Bradley was a very important executive on the financial end of the business. He is now Chairman of the Financial Policy Committee.

Q. The same year, Mr. Lammot du Pont resigned. After his resignation, how many representatives of the du Pont Company were on the Executive Committee?

A. Nobody.

Q. In 1935, Mr. Grant, Mr. Mooney, Mr. Hunt, and Mr. Wilson were added. At whose suggestion were they added?

A. At my suggestion. They were all operating people.

Q. At the bottom of the page, under date of May 3, 1937, there is set forth the personnel of the Executive Committee at the time that it was terminated. How many representatives of the du Pont Company were there on the Executive Committee at that time?

A. There were no representatives of the du Pont Company at that time.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 21.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 21.)

By Mr. Hurd:

Q. Turning to the Finance Committee, Mr. Sloan, I show you a document that has been marked General Motors Exhibit No. 22 for identification. It contains similar information regarding the membership of the Finance Committee. [fol. 2856]

It shows the personnel as of May 10th, 1923, when you became president of the corporation. Will you tell us how many representatives of the du Pont Company there were on the Finance Committee as of that date?

A. There were six.

Q. Who were they?

A. I have not included in that, Mr. Hurd, Mr. Brown, because the way we looked upon him was as operating executive with General Motors. He spent his entire life with General Motors, but he came from du Pont in the early days and that question comes up. If you include him as an operating executive of General Motors, which I contend you should, there would be six members.

Q. Who are the representatives of the du Pont Company that you have included in that six?

A. Mr. Pierre, Mr. Raskob, Mr. H. F. du Pont, Mr. Irenee, Mr. J. A. Haskell, Mr. Lammot du Pont.

Q. That is six out of a total of eleven?

A. That is right.

Q. In 1924, this document shows Mr. F. J. Fisher and Mr. Whitney were added. At whose suggestion were they added?

A. Mr. Fisher was added at my suggestion. I don't remember just who did suggest Mr. Whitney, Mr. Hurd.

Q. Will you turn to the year 1925. It shows Mr. Morgan added. At whose suggestion was he added, if you recall?

A. I don't recall. I might presume, Mr. Hurd, that it was Mr. Raskob as he was chairman of that committee at that time, and would naturally make such a recommendation.

Q. In 1927, Mr. Carpenter was added. Do you recall at whose suggestion that took place?

A. I don't recall who recommended him.

[fol. 2857] Q. After Mr. Raskob resigned, who became chairman of the Finance Committee?

A. Mr. Donaldson Brown.

Q. In 1929, it shows that Raskob was returned to the Committee and that Mott was added. At whose suggestion was Mr. Raskob brought back as a member of the committee?

A. At my suggestion. Likewise the same answer to Mr. Mott.

Q. In 1933, Mr. Bradley was added. At whose suggestion was that?

A, I don't know, Mr. Hurd. I don't remember whether it was Mr. Brown or myself. It was one or the other of us.

Q. Now, if you look at the list at the bottom of the page, bearing the makeup of the Finance Committee as of the time it terminated, will you tell us how many representatives the du Pont Company had there at that time?

A. There were five apparently members of the Finance Committee at that time who represented the du Pont Company.

Q. Would you name them, please?

A. Mr. P. S. du Pont, Mr. Raskob, Mr. H. F. du Pont, Mr. Irenee du Pont, Mr. Lammot du Pont.

Q. Over in the righthand column, you see the name of Carpenter.

A. Oh, yes, Mr. Carpenter.

Q. Was he a representative of the du Pont Company?

A. Did I say five? Apparently there were six.

Q. There should be six out of a total of fourteen?

A. That is right.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 22.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 22.)

[fol. 2858] By Mr. Hurd:

Q. Turning now, Mr. Sloan, to the policy committee. That was the top committee during the period from 1937 to 1946, I believe you testified?

A. That is correct, Mr. Hurd.

Q. I show you a document marked General Motors Exhibit No. 23 for identification, which purports to show the makeup of the Policy Committee during its existence.

Will you look at the names appearing under the date of May 3, 1937, and tell us how many representatives of the du Pont Company there were on the committees as of that date?

A. Two: Mr. Carpenter and Mr. Lammot du Pont.

Q. How was the makeup of the Policy Committee determined at its origin?

A. You will recall, as I testified here before, there was a great deal of discussion with regard to the plan that went into effect at this time. Naturally it carried with it a discussion of the best selection of those who should serve. Out of that discussion came this list. It was not a list that any one person picked out. It comprised the judgment of the group as a whole that these particular individuals had served the corporation in this particular capacity the best.

Q. Under date of 1940, this exhibit shows Mr. Hunt was added. At whose suggestion was he added to the committee?

A. Mr. Hunt was added at my suggestion. He was a very important executive in the technical area. He was at that time a top executive, a top technical executive.

Q. And calling your attention to the date of June 3, 1946, which is the last date of the operation of the Commit- [fol. 2859] tee, the names under that date, will you tell us how many of the men on the Policy Committee were representatives of the du Pont Company when the Committee terminated?

A. Mr. Carpenter, Lammot du Pont—two out of nine.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 23.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 23.)

By Mr. Hurd:

Q. Now, Mr. Sloan, turning to the Operations Policy Committee, I show you a document marked General Motors Exhibit No. 24 for identification, purporting to set forth the personnel of that Committee from its origin in June, 1946, to date.

Looking at the names appearing under the date of June 3, 1946, will you tell us how many of the members of the Operations Policy Committee at its beginning were representatives of the du Pont Company?

A. There were no representatives of the du Pont Company on the Operations Policy Committee at that time, and it may save time by my testifying to the fact that there never have been any representatives of the du Pont Company on the Operations Policy Committee in the history of the Operations Policy Committee from June 3rd, including today.

Q. How were the original members of the Committee selected?

A. They were selected by recommendation of the president of the corporation, Mr. Wilson. He, in administering the business, recommends the advancement of the executives, and when they reach the point where they [fol. 2860] are eligible for the Operations Policy Committee, and he thinks they should serve, we go over them together, and I recommend them to the Board of Directors in such cases—I don't consult with other members of the Board as I do in a normal case because these men serve only because they are operating people, and they are to serve on the Board in order that the authority that the Board gives to the Operations Policy Committee may be preserved under Delaware law.

Q. Will you look at the date of 1948, Mr. Sloan.

You see Mr. Burke and Mr. Godfrey were added. At whose suggestion were they added?

A. The president of the corporation.

Q. Under date of 1951, Gordon, Kindl, Klingler, Osborn and Skinner. At whose suggestion were they added?

A. The recommendation of the president of the corporation.

Q. That is Mr. Wilson?

A. Mr. Wilson.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 24.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 24.)

By Mr. Hurd:

Q. At the time the Operations Policy Committee was formed, you also formed a Financial Policy Committee, did you?

A. That's right.

I show you a document marked General Motors Exhibit No. 25 for identification, which purports to be a list of the members of the Financial Policy Committee from its origin in 1946 to date.

[fol. 2861] Looking at the list under date of June 3, 1946, will you tell us how many representatives there were on the Financial Policy Committee at that time representing the du Pont Company?

A. There appears to be only one, Mr. Carpenter, but that gets us into the position of Mr. Brown.

If you include Mr. Brown who was retired at that time, in that case there would be two members of the Financial Policy Committee who might be considered representatives of the du Pont Company.

Q. That is two out of the nine?

A. That's right, two out of the nine.

Q. And in 1947, Mr. Echols was added. At whose suggestion was he added?

A. He was a du Pont representative.

Q. Do you recall who suggested him?

A. I think they must have suggested him. It might have been Mr. Bradley who was Chairman of the Committee. I cannot recall, to be sure, Mr. Hurd.

Q. Mr. Sloan, I will show you Government's Exhibit No. 228, which is in evidence, which is the letter from you to Mr. Carpenter.

I call your attention to this exhibit. It is dated September 30, 1947, and I call your attention to the top of the second page, the statement, "Technically, you already have two members—Don and yourself, but Don is not active in the du Pont organization and perhaps you might think you would rather have somebody who was more active.

"For instance, Echols, or perhaps Henry du Pont."

Do you recall that letter? Does that refresh your recol- [fol. 2862] lection as to who suggested Mr. Echols?

A. Apparently it does.

Q. What is your recollection?

A. I recollect that letter, and that he substituted on the committee some years afterwards.

Q. Now, referring again to General Motors Exhibit No. 25 for identification, the year 1949 shows Mr. Carpenter resigned and Mr. Copeland was added.

At whose suggestion did Mr. Copeland come on the Financial Policy Committee?

A. I think that must have been a recommendation of the du Pont Company. Mr. Copeland was a du Pont executive.

Q. In 1950 Mr. Alexander was added. At whose suggestion was Mr. Alexander added?

A. Mr. Bradley asked that Mr. Alexander, who in the meantime became director, become a member of the committee.

Q. In 1951, Mr. Curtice was added. At whose suggestion was that done?

A. That was at the suggestion of Mr. Wilson. Mr. Wilson was the only operating man on the Financial Policy Committee. He could not be at all the meetings. It was thought wise to add Mr. Curtice to give a broader basis for discussion of such problems in which the operating manager was involved, therefore Mr. Curtice was added to the committee.

Q. In 1952, Mr. Clay was added. At whose suggestion was that done?

A. General Clay was recommended by Mr. Pratt. You notice that Mr. Pratt retired at the same time, and he sug- [fol. 2863] gested that Mr. Clay substitute for him, and come on the Board and be added to the Committee, and that was done in January, 1952.

Q. Then will you look at the list at the bottom of the page showing the current makeup of the committee, and tell us how many representatives there are of the du Pont Company?

A. Mr. Copeland, Mr. Brown and Mr. Echols.

Q. Including Mr. Brown as a du Pont representative.

A. There would be three.

Q. Three out of a total of ten?

A. That is correct.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 25.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 25.)

By Mr. Hurd:

Q. Mr. Sloan; I wish to turn to a new subject, the subject of reciprocity. Are you acquainted with the term reciprocity?

A. Do you mean the technical definition or a practical definition?

Q. What is your understanding of the term as used in business?

A. Well, the technical definition is mutual action and reaction. I suppose from a business point of view, you get something and you give something. That is about the best definition I can offer, Mr. Hurd.

Q. As used in business, as businessmen understand the term, how would you give us a practical definition?

A. I would say if you buy from me, I will buy from you. That perhaps expresses it a little better.

[fols. 2864-2866] Q. Do you recall to what extent, if any, reciprocity was in the practice of business in the 1920's?

A. Well, I cannot answer that, specifically, except in a very general way. My impression is that it was quite generally used in that time area.

Q. Did General Motors have occasion to look into the subject?

A. No, we did not look into it at all on our own account. We never believed in reciprocity, and were dead set against it, all of us were.

Q. By all, who do you mean?

A. The whole management.

Q. Mr. Sloan, I show you two documents, one marked General Motors Exhibit 66 for identification, and the other 67 for identification, dealing with correspondence between yourself and Mr. Ingals on the Central Tube Company, and yourself and Mr. Knudsen. Do you recall that correspondence?

A. Yes, sir, I recall that.

Q. Looking at General Motors Exhibit No. 67 for identification, the last paragraph, will you tell us whether or not that expresses your attitude towards reciprocity?

A. It does express my attitude.

Q. To what extent has that been your attitude throughout the years?

A. My attitude has not changed over all the years.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 66 and 67.

[fol. 2867] By Mr. Hurd:

Q. Now, Mr. Sloan, do you recall that the subject of reciprocity came before the General Purchasing Committee of General Motors?

A. I do.

Q. What were the circumstances of that subject coming up, and about when was it?

A. To the best of my recollection, Mr. Hurd, it came up two or three times, and the General Purchasing Committee passed resolutions or adopted a policy against reciprocity. They took the same position that I did in the letter you just read.

Q. Do you recall who it was that brought up the subject?

A. Well, I may have to be corrected on this, Mr. Hurd, but my best recollection is that it came up in two ways. One was that the members of the Purchasing Committee were being solicited by representatives of the du Pont Company to give them information involving reciprocity, and they refused it, and said it was against General Motors policy.

Then another incident was, there was a man named Kerr in the du Pont Company. He was promoting reciprocity from the du Pont point of view, and according to my best recollection, he took it up with me at the request of somebody of the du Pont Company, perhaps Mr. Irenee du Pont, and I think I referred that to the General Purchasing Committee because I had no jurisdiction as such over it.

That is my best recollection.

Q. I show you, Mr. Sloan, two documents, Government's Trial Exhibit No. 531 and Government's Trial Exhibit No. [fol. 2868] 532. No. 531, while it does not appear on the document is, I understand, a letter from Mr. Pierre du Pont to you. It is dated April 7th, 1924.

A. This refers to the Kerr episode I just testified about.

Mr. Hurd: I would like to read, if the Court please, this Government's Trial Exhibit No. 531, which I believe is a letter from Pierre du Pont to Mr. Sloan.

> "I am informed that a number of companies have established a file on reciprocity and that this file is continually referred to in placing orders in order to insure that as much trade as possible is thrown to those who use the product of the corporations in question. The other day one of our representatives was with the Bethlehem Steel people and happened to see their file card in which they classified du Pont and General Motors as one. The du Pont Company is now looking into the advisability of establishing a system of this kind, and Mr. George Kerr has already carried out the preliminary work. I should be glad to have him explain the details to General Motors people, if you approve."

And your reply, Government's Trial Exhibit No. 532:

> "I have your letter of April 7th and will be glad to have Mr. Kerr send me a memorandum of what he has

in mind. I certainly think this is a very constructive thing to do."

[fol. 2869] By Mr. Hurd:

Q. What is your understanding of what you are referring to in the last sentence:

"I think this is a very constructive thing to do."?

A. It is always constructive, Mr. Hurd, to listen to anybody who has got a proposition. You do not have to agree to it. When that came in, I was diametrically opposed to reciprocity. I still am, but still, I have the additional responsibility to listen to what Mr. Kerr had to say.

Q. Did you confer with Mr. Kerr?

A. I believe I did. I believe he sent me a memorandum.

Q. I believe you said you referred the matter to the General Purchasing Committee?

A. My best recollection is that I sent it to the General Purchasing Committee because I had no jurisdiction as such in the matter. I delegated that authority to them.

Q. I show you a document marked General Motors Exhibit No. 68 for identification, and ask you if that contains the statement as to the position taken by the General Motors Purchasing Committee at that time?

A. This appears to be an extract from the minutes that refers to the letter of April 30th from Mr. Kerr to myself, which recites the policy of the General Purchasing Committee with respect to that.

* * * * * * *

[fol. 2870-2871] ADJOURNMENT

[fol. 2872] The Court: Proceed.

ALFRED P. SLOAN, JR., called as a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand, was examined and testified further as follows:

Direct examination (Continued)

By Mr. Hurd:

Q. Mr. Sloan, at the conclusion of the session yesterday, I was showing you a document marked General Motors Exhibit No. 68 for identification.

Is that the resolution that was adopted by the Purchasing Committee in July of 1924?

A. As far as I recollect, it is, Mr. Hurd.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 68, and I should like to read it.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 68.)

Mr. Hurd: This is from the minutes of the General Purchasing Committee held July 2, 1924, under the subject, "Reciprocity":

> "Letter of April 30 from Mr. G. H. Kerr of the du Pont Company to Mr. Sloan suggesting advantages to be gained through tabulating the suppliers to and the quantities of purchases made by General Motors Divisions for use in securing sales on a reciprocity basis was read. A discussion of this matter emphasized the fact that the products of our business go largely to individuals. While it is recognized that there are cases [fol. 2873] which might be profitably dealt with on the reciprocity basis, there are so many complications and difficulties involved in attempting to treat the situation as a whole, it was agreed best to stand on our own equities and require our suppliers to do so. Divisions of course are at liberty to treat individually such cases as any situation might require."

By Mr. Hurd:

Mr. Sloan, following this resolution of July, 1924, did the subject of reciprocity come up again before the Committee?

A. I believe it did, Mr. Hurd.

Q. Was that shortly after the first resolution?

A. I think it was shortly after that.

Q. Do you recall under what circumstances the subject came up the second time?

A. As I recall it, the different divisions of General Motors were being solicited by representatives of the du Pont Company for information regarding our purchases from different parts suppliers, and it was quite an embarrassing thing, because, from the standpoint of policy, the corporation was against reciprocity.

So that that was what brought it up at some later time. My best recollection is that it was very shortly afterward. I might not be correct on that.

Q. I show you Government's Exhibit No. 537, which is in evidence, and ask you if that is a resolution adopted the second time the subject came up before the Committee?

A. I believe it is, Mr. Hurd.

Q. I should like to call your attention to certain portions of this, it reads, under "Reciprocity," dated September 5, 1924:

> [fol. 2874] "This subject considered at meeting on July 2nd was again discussed as a result of requests from the du Pont Company for information regarding volume of business done by General Motors with various suppliers who are prospective customers of the du Pont Company. The matter was discussed at great length.
>
> "It was believed that the possession by du Pont salesmen of information regarding volume of business done by General Motors' Divisions with any suppliers would per se indicate a relationship between the two Corporations which would influence the supplier in the placing of his business. It is further believed that our buying position would be prejudiced in that suppliers who had been influenced to place business with General Motors might reasonably expect our divisions to place business with them.

> "Finally it was agreed that as a practice General Motors could not undertake to supply information showing the volume of business done with any suppliers to the du Pont Company but that in special cases, upon request by the President of the du Pont Company to the President of General Motors, the situation would be properly dealt with."

Mr. Sloan, do you recall the purpose of this president resolution?

A. Yes, I do recall it.

Q. What was it?

A. I think I misunderstood you, Mr. Hurd. Will you repeat the question?

Q. The purpose of the portion of the resolution that says the president of one company may communicate with the president of the other.

A. Well, as I have testified here before, it is undesirable [fol. 2875] to lay down hard and fast rules because circumstances frequently develop that interfere with what ought to be properly done.

In this case it was thought desirable to leave it to the presidents of the two corporations to use their discretion when any problem arose that required special consideration.

Q. Now, I want to call your attention to the remainder of the resolution:

> "and that if the du Pont Company were to furnish to General Motors a list of suppliers whom it is desired to favor with inquiries, our divisions would endeavor to meet their wishes in this regard."

What was your understanding of that portion of the resolution?

A. As I recall, that was not in the area of reciprocity. It was simply in the area that if du Pont had some suppliers and they wished to submit them to us, we would be glad to favor them with inquiries. That was no different than a normal practice because General Motors was always glad to have lists of people who could supply them with whatever they needed under proper conditions.

Q. Following the passage of this resolution, did it become a practice for you as president of General Motors to exchange information with the president of du Pont relating to reciprocity?

A. No, it was not a general practice. In fact, there was only one case of that kind, and I am not sure it is in the specific area we are talking about. One case did arise, but only one case.

Q. Do you recall what that case involved?

A. Mr. Lammot du Pont, I think, was probably president [fol. 2876] of du Pont at that time,—I am not sure of the date—wrote me to the effect that the Bethlehem Steel Company, I think it was, was using reciprocity, and that they had lumped together the purchases of du Pont and General Motors as a basis of that sort of activity, and Mr. du Pont asked me if I was willing to give them information relative to our purchases, the understanding being that it was not to be used to solicit business or to get more business. It was simply to be used from a factual point of view to protect the business that they had. I didn't interpret that as relating to reciprocity though perhaps it was.

I simply considered it from the standpoint that an unfair advantage was being taken, and facts should be available to protect against anything of that kind.

Q. I show you a document which is in evidence as Government's Exhibit No. 543, and turning to the third page, I ask you whether that is the inquiry from Mr. Lammot du Pont about which you have testified?

A. That appears to be the letter about which I testified a moment ago. I notice, though, that it is not the Bethlehem Steel Company. It was the Jones & Laughlin Steel Company. I was confused.

Mr. Hurd: If the Court please, I should like to read portions of Government's Trial Exhibit No. 543, on the third page, a letter dated January 18, 1928, to Mr. Sloan:

> "Our Explosives Department is confronted with the prospect of losing explosives trade in the Lake Superior district through a competitor taking its customers away in what is generally known as the 'reciprocity' argument.
>
> "In order to combat this competition we desire to put before the Jones & Laughlin Steel Company interests [fol. 2877] and the Inland Steel Company interests the

facts as to what of their products the du Pont Company and its affiliated companies buy from them. For this purpose could you have someone send me a statement of the 1927 purchases by General Motors Corporation and its subsidiaries from the Jones & Laughlin interests, as represented by their subsidiary companies.

"Also purchases from the Inland Steel Company, as represented by their subsidiary companies.

"It is, of course, understood that in presenting these figures to our customer it will be for the purpose of retaining trade now enjoyed. There will be no promise or assurance that these purchases will continue or that the du Pont Company's efforts in the past have caused G.M. to place this business. We simply want to be in a position to place before the steel companies the actual facts as they have existed. This is very important trade to us and I would greatly appreciate the assistance you can render by giving us this information."

By Mr. Hurd:

Q. Did you furnish the information, Mr. Sloan?

A. I authorized it to be furnished, and I presume it was, Mr. Hurd.

Q. As near as you can recall, was there ever any other instance of your supplying information to the du Pont Company with respect to the subject of reciprocity?

A. I am very certain there was never any other instance except the one we have just discussed.

[fol. 2878] Q. Mr. Sloan, I should like to call your attention to certain portions of the amended complaint in this case.

First, paragraph 82:

"Shortly after du Pont Company acquired control of General Motors, the two companies entered into an understanding under which General Motors provided du Pont Company with detailed information as to the companies which were suppliers of General Motors and the amounts and the volume of goods which such suppliers sold General Motors."

Do you know, Mr. Sloan, of any instance to that effect?

A. I never heard of it, and I am sure if there was one, I would have had to know about it because I was the one who would administer it.

Mr. Hurd: (Reading):

> "Later this general arrangement between du Pont and General Motors was formalized under an agreement between the two companies which provided that whenever a high executive of du Pont desired information concerning suppliers of General Motors the request for such information should be directed to a designated high executive of General Motors who would secure the specific information and furnish it to du Pont Company."

By Mr. Hurd:

Q. Mr. Sloan, do you know of any agreement between the du Pont Company and General Motors that that would take place?

A. I don't know of any such agreement, Mr. Hurd.

[fol. 2879] Q. Then paragraph 83:

> "The du Pont Company made it known to suppliers in various ways that if they desired to continue to do business with General Motors, it would be advisable for such suppliers to buy from du Pont Company those materials manufactured by du Pont Company which were needed in connection with the manufacture of the products which the suppliers produced."

Do you have any information that the du Pont Company ever represented to suppliers that they would have to deal with du Pont if they wanted to get business from General Motors?

A. I have no knowledge of any such thing, Mr. Hurd.

Mr. Sloan, I now wish to turn to a new subject, and I show you a document that is marked as General Motors Exhibit No. 69 for identification, and ask you if you recall receiving that letter?

A. Yes, I recall that letter, Mr. Hurd..

Mr. Hurd: If the Court please, I offer General Motors Exhibit No. 69 in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 69.)

Mr. Hurd: I should like to read it.

It is a letter dated January 7, 1922, from Mr. H. M. Craig, Acting General Sales Manager, of the Samson Tractor Company of Janesville, Wisconsin, addressed to Mr. Sloan:

> "Our Branch Manager at Minneapolis has sold to [fol. 2880] the E. I. du Pont de Nemours & Co., Hartley Building, Duluth, Minnesota five (5) Three-quarter ton Sampson Trucks for immediate delivery subject to the O.K. of the home office at Wilmington.
>
> "As I understand it, the du Pont office at Duluth may suggest a preference for a certain truck but the home office at Wilmington can buy or ship them any truck that they deem advisable.
>
> "It seems that Mr. Orr, the Manager of the du Ponts at Duluth, is very anxious to get the Samson Trucks and, as you know, we need the business. Therefore I was just wondering if you knew any way to influence the home office at Wilmington to O.K. the preference of their branch manager at Duluth. If you can do any thing on this I certainly will appreciate it."

By Mr. Hurd:

Q. What did you do, Mr. Sloan, about that, if anything?

A. I simply referred the letter to the president of the du Pont Company, without recommendation.

Q. I show you a document marked General Motors Exhibit No. 70 for identification, and ask you if that is the letter to which you referred?

A. That is the letter to which I just testified.

Mr. Hurd: If the Court please, I offer General Motors Exhibit No. 70 in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 70.)

Mr. Hurd: I should like to read it. It is a letter from Mr. [fol. 2881] Sloan to Mr. Irenee du Pont dated January 13, 1922, about a week after this prior document:

"I am enclosing herewith copy of a letter received from our Samson Tractor Division, which is self-explanatory. Anything you can properly do in connection with the matter will be greatly appreciated."

By Mr. Hurd:

Q. Then, Mr. Sloan, I show you a document in evidence as Government's Exhibit 523, and ask you whether or not that is the reply you received from the du Pont Company?

A. Yes. I recall that letter, Mr. Hurd.

Q. Mr. Sloan, will you state what your purpose was in sending that letter to the du Pont Company, the letter from your own branch manager?

A. It was sent to them without recommendation for any action that they thought they could properly take.

Q. Was that an unusual act for you to do that?

A. No, I don't think it was. I would be apt to take the same action with respect to anybody I knew. Under certain circumstances, I might take that action. I didn't ask for any consideration. I simply submitted it to them for such action that they might properly take.

Q. Mr. Sloan, I wish to call your attention to the complaint, paragraph 56, starting about the middle of the paragraph:

> "It was further understood and agreed that du Pont Company in buying cars or trucks or other products produced by General Motors would buy all or substantially all of such goods from General Motors, and refrain, in whole or in large part, from purchasing such products from General Motors competitors."

[fol. 2882] By Mr. Hurd:

Q. Have you ever heard of an agreement by General Motors and du Pont that the du Pont Company would buy from General Motors products made by General Motors which the du Pont Company could use?

A. I never heard of such an agreement.

Q. Did you send that letter from your branch manager to the du Pont Company because you thought there was some agreement between the two companies?

A. I certainly did not.

Mr. Harsha: I object to that question, your Honor.

The Court: Read the question.

(Question read by the reporter.)

The Court: What is the basis of the objection?

Mr. Harsha: I think the letter speaks for itself, what he thought I do not think is relevant or pertinent.

The Court: I think it is proper for him to state the facts. He may answer.

By Mr. Hurd:

Q. You may answer.

A. No, I did not send it for that purpose at all. I sent it as a matter of business. I knew of no such agreement, and therefore I could not send it having that agreement in mind.

Q. I also call your attention to paragraph 58 of the complaint:

> "The du Pont Company, from in or about 1917, has purchased all or substantially all of its requirements [fols. 2883-2884] of cars and trucks and other items produced by General Motors from that company or its dealers."

By Mr. Hurd:

Q. Do you know whether that statement is true?

A. I know nothing about it at all.

Q. Mr. Sloan, I now wish to turn to the subject of the General Motors Bonus Plan.

While you were with United Motors, did you have occasion to hear anything about the General Motors Bonus Plan?

A. To the best of my recollection, Mr. Hurd, I did.

Q. Do you recall what the circumstances were?

A. The circumstances were something like this: As I have already testified here, United Motors was consolidated with General Motors towards the end of 1918, and just previous to that—I think it was in the summer of 1918—I received a letter from a vice president of General Motors submitting a bonus plan and asking for my criticism of it, and to pass on to him any comments that I had to make.

Q. Mr. Sloan, I show you two documents marked General Motors Exhibits Nos. 26 and 27 respectively, and ask you if that is correspondence passing between yourself and Mr. Haskell in 1918 regarding the subject of General Motors bonus.

A. That is the correspondence, Mr. Hurd, to which I have just testified, both Mr. J. A. Haskell's letter to me, and my reply to Mr. Haskell.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 26 and 27.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 26 and 27.)

[fol. 2885] By Mr. Hurd:

Q. Mr. Sloan, did this bonus plan go into effect shortly after that date, do you recall?

A. Yes, it did, Mr. Hurd. It went into effect, applying, if I recollect correctly, to the year 1918.

Q. What was the basis for your statement in the letter that you considered something like this very necessary?

A. Well, I was having difficulty in keeping my organization satisfied. My reference there was to the United Motors, because it was not consolidated with General Motors at that time. I am a great believer in incentive to get the most out of an organization, and I think the nearer we can come to the old proprietor form of management, the better off we are. Therefore, anything that gave the organization an additional incentive to do an additional job for the corporation, I was thoroughly in accord with.

Not only that, but it contributed to the stability of the organization by giving people a chance to look forward to something in the future, and therefore they were more likely to continue to serve General Motors rather than to be influenced by competitive opportunities.

Q. Now, do you recall whether or not at this time—this is 1918—there were employment contracts in existence between managers of divisions and General Motors?

A. There were such contracts, Mr. Hurd, I believe, between a limited number of general managers in charge of the more important operations. I am not acquainted with those, the terms of those contracts. I didn't participate in them so far as I recall, and I had nothing to do with drawing them up, so I cannot testify as to the details of such agreements, but such agreements did exist.

[fol. 2886] Q. After Mr. Pierre du Pont became president of General Motors, do you know whether or not the General Motors' bonus plan continued?

A. To the best of my recollection it continued at the option of the holders of the contracts, but in view of the considerable number of changes in the organization, when changes were made the contracts were not renewed, and the incentive of those particular executives was entirely through participation in the regular bonus plan.

I believe there was one general manager that continued his contract into 1922, something like that, but generally speaking, with the introduction of the bonus plan, those contracts terminated in a very short space of time.

Q. That is the employment contracts?

A. I am speaking of the employment contracts.

Q. They continued for a short period of time only?

A. Yes.

Q. Now, did the bonus plan that had been adopted under Mr. Durant, did that continue after Mr. Pierre became president?

A. That continued after Mr. Pierre became president. As a matter of fact, Mr. Hurd, it has continued right up to date with certain changes. The principles involved have not changed.

Q. Mr. Sloan, do you recall the organization of Managers Securities Company, and the Managers Securities Plan in the early 1920's?

A. The ~~Managers~~ Securities Company Plan was adopted in 1923. I am familiar with it, Mr. Hurd.

Q. Do you know who originated the idea of the Managers Securities Plan?

A. I am not too certain as to where the original concept came from, but my personal opinion is that it was Mr. [fol. 2887] Donaldson Brown who at that time was vice president in charge of finance of General Motors. He collaborated with Mr. Raskob who was chairman of the Finance Committee of General Motors, and between the two, the details of the plan were worked out.

Q. What did you consider to be the purpose of the Managers Securities Plan?

A. The Managers Securities Plan was a component part, in a way, of the bonus plan. The bonus plan was based upon allotting to the different executives, based upon their performance in any one year, a certain portion of the Bonus Fund. They made no capital investment, and it was a year-to-year proposition. The Managers Securities Plan was quite different. In that case the executives, to whom the allotments were made, made an investment in the Managers Securities Company and back of the investment, subject to the indebtedness of the company, there was a very large block of General Motors stock, so really in principle the executives were buying an interest in a sort of a speculative investment. If the stock went up and the business was profitable, there was quite a multiplying power between their investment and the ultimate benefits that they would receive at the termination of the plan.

Q. What was your position with respect to the plan? Were you in favor of it, or against it?

A. I was strongly in favor of it for the same reasons that I testified a minute ago on the bonus plan. I thought it was a thoroughly sound and desirable thing to do.

Q. So far as you know, did the plan have any purpose other than to develop incentive in General Motors?

A. I don't see how it could have.

Q. Would you give us a brief outline as to how the [fol. 2888] Managers Securities Company Plan operated?

A. Including how it was formed, Mr. Hurd?

Q. Yes.

A. A corporation called Managers Securities Company was formed and it had class "A" stock to the extent of $5,000,000 par value and class "B" stock to the extent of a million and a quarter par value.

The Managers Securities Company bought from General Motors Securities Company a 30 per cent interest in General Motors Securities Company. That was equivalent to 30 per cent of seven and a half million shares of General Motors common stock owned by General Motors Securities Company.

General Motors Securities Company had no assets or liabilities other than the seven and a half million shares of General Motors common stock.

Managers Securities paid for the interest in General Motors Securities Company $5,000,000 in cash and

$28,750,000 in 7 per cent preferred stock, which was guaranteed by a corresponding amount of 6 per cent bonds.

General Motors Corporation made an agreement with Managers Securities to pay into Managers Securities Company year by year 5 per cent of the General Motors' earnings after 7 per cent in the invested capital was deducted.

General Motors agreed to pay into the Managers Securities Company a minimum of $2,000,000 a year, irrespective of the 5 per cent. The 5 per cent that General Motors paid into Managers Securities Company was charged to the bonus fund.

The bonus fund contemplated a setup of 10 per cent of the earnings of the corporation after 7 per cent was de- [fol. 2889] ducted, so half of that, or 5 per cent was allocated to Managers Securities Company.

Managers Securities Company organization didn't cost the stockholders anything more than was contemplated under the bonus plan. It was simply an allocation of half of that amount.

General Motors also subscribed to the $5,000,000 of stock, to which I have already testified, and in turn General Motors sold the stock or substantially all of it to the principal executives of the corporation on a basis of an allotment determined by a special committee of the Board of Directors that was designated for that purpose.

That, in general terms, without going into details, Mr. Hurd, will explain the setup and the purposes and how it worked.

Q. Did the people who participated in Managers Securities participate in the bonus plan?

A. No, they did not, in principle, Mr. Hurd. That was not intended. But the earnings of the corporation developed so rapidly, the business expanded so rapidly, that the cost of the "A" stock and the corresponding "B" stock by the year 1926 reached a point where the executives couldn't afford to buy it, so in that case a bonus was allotted to some, supplementing their allotment in Managers Securities Company in order to preserve the equities.

I might add, to make the matter clear, I hope, that the General Motors Corporation did not allot all the $5,000,000.00 par value of stock to the executives. There was a reserve, and to the extent that the General Motors therefore participated in the five per cent payment that went back to [fol. 2890] the bonus fund. So in the subsequent years the allotment to Managers Securities Company was thus reduced below five per cent, and the balance went to the bonus fund.

Do I make that clear, Mr. Hurd?

Q. I have a few questions regarding it that I want to ask just to be sure that I understand what you have testified to.

Under the bonus plan as it existed originally, did it provide for a fund of ten per cent of the earnings of General Motors after seven per cent had been earned on invested capital?

A. That is correct.

Q. This original basis of the bonus plan, did that continue throughout the operation of the bonus with the exception of the portion that went to Managers Securities?

A. It continued all during that period. As a matter of fact, Mr. Hurd, it has continued up to now.

Q. So that when you formed Managers Securities Company, you used only the same amount of money that had been used, set aside, before for bonus purposes, but half of it went for bonus and half of it went to Managers Securities, is that correct?

A. That is correct, subject to the fact that where part of the five per cent payment came back to the corporation, because the corporation was a stockholder in Managers Securities, that in turn went back to increase the bonus, so that in later years the allotment to Managers Securities Company was less than five per cent.

Q. Less than half of the total ten per cent?

A. The ten per cent remained the same over the years, Mr. Hurd. That didn't change.

Q. And the executives who participated in Managers Securities, in effect, then received their bonus through [fol. 2891] Managers Securities as a general proposition rather than getting it direct as a bonus?

A. That is correct.

Q. You have referred to a committee existing for the purpose of determining who should participate in this Managers Securities Plan. Who was on that committee?

A. There was a committee of three appointed by the Board of Directors to deal with this matter specifically. Mr.

Pierre du Pont was the chairman. Mr. Arthur Bishop and Mr. Seward Prosser were the other two members of the committee. Of course, they were all directors.

Q. Mr. Sloan, I show you a document that is marked General Motors Exhibit No. 28 for identification. It purports to be a report from Mr. Raskob, I believe, to the Finance Committee of General Motors, dated October 2, 1923.

I ask you if the plan which is attached to the report was the General Motors plan that you have described?

A. I am not sure that this is the form of the plan, Mr. Hurd. This contemplates four million Class "A" and one million Class "B". I am sure that the Class "A" was five million. I think that in general this was the plan, but I think there were some details changed. I would expect there were some modifications later on. I don't think this is correct.

Q. Does this set up the general principle of the plan?

A. The general idea is correct. For instance, it says that the amount of stock shall be equivalent to two million. I am sure the amount of stock Managers Securities Company bought was 30 per cent of General Motors securities, and that was 30 per cent of 7,500,000 shares.

That would not agree with this, so I am sure there was a later submission by Mr. Raskob to the General Motors Finance Committee changing some of the details, but not the principle.

[fol. 2892] Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 28.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 28.)

Mr. Hurd: I should like to read two portions from the letter. This is a report to the Finance Committee of General Motors dated October 2, 1923, from Mr. Raskob, subject "Managers Securities Company."

Reading from the first page:

> "On August 9, 1923, the Board of Directors of your Company considered the plan of the Managers Securities Company and adopted the following resolution:
>
> "'Resolved, that the Board of Directors approves in principle the plan with regard to the pro-

> posed Managers Securities Company recommended by the Finance Committee in its report of August 7, 1923, and refers said plan back to the Finance Committee to be worked out in detail and submitted to the stockholders for ratification, provided the du Pont Company is willing to enter into the arrangement outlined in said plan.' "

Q. What was the participation of the du Pont Company in this plan, Mr. Sloan?

A. They had nothing to do with it, Mr. Hurd, except to authorize General Motors Securities Company to sell to the Managers Securities Company a thirty per cent interest in General Motors Securities Company, which I have already testified held seven and a half million shares of General Motors common stock as then existing, and to [fol. 2893] take in payment thereof $5,000,000.00 in cash and $28,750,000.00 in seven percent preferred stock secured by bonds.

Mr. Hurd, those figures I have just testified to do not agree exactly with the memorandum you gave me. There is some discrepancy.

Q. The du Pont Company was in effect making available indirectly to the executives of General Motors some of the stock which it had in General Motors, is that correct?

A. That is correct. That was equivalent, Mr. Hurd, to 2,250,000 shares of General Motors common stock.

Q. Continuing on with the document:

> "As the result of long negotiation between the officers of the two companies, the officers of the du Pont Company are willing to recommend the plan to the du Pont Board with the following modification."

I won't read the modifications. But coming to the last paragraph of the report, at the bottom of page 2:

> "In the opinion of the writer—"

that is, Mr. Raskob—

> "—the plan as now drafted will be to the advantage of General Motors Corporation and it is recommended that the amended plan be adopted by the Finance Com-

mittee and submitted for appropriate action thereon to the stockholders at a special meeting to be held on November —, 1923, and that a record of stockholders entitled to vote thereat be taken at the close of business on October —, 1923."

The Court: Court stands recessed for ten minutes.

(A recess was here taken.)

[fol. 2894] By Mr. Hurd:

Q. Mr. Sloan, was the proposed Managers Securities Plan discussed with you before it was put into operation?

A. Yes, at some length.

Q. And do you recall whether or not you made any suggestions with respect to taking the plan up with other people in General Motors?

A. When the plan was pretty well finalized, so far as its operation was concerned, I took it up with a representative group of the executives in the corporation to get their reaction as to whether they thought it was a sound and desirable plan, the same as I do in all matters that come up in the corporation.

Q. Did anyone else take the plan up with a representative group in General Motors?

A. Who were they?

Q. No. I say, did anyone else take the plan up with the representative group, so far as you know?

A. No, it was my province entirely, because I was chief executive officer of the corporation at that time, Mr. Hurd.

Q. Mr. Sloan, I show you a document which has been marked General Motors' Exhibit No. 29 for identification, which purports to be a memorandum from you to Mr. Raskob in October of 1923.

Do you recall writing that memorandum?

A. I do, very definitely, yes.

Q. Do you recall whether the suggestions contained in your memorandum were carried out?

A. I think they were in a large part.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 29.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 29.)

[fol. 2895] Mr. Hurd: I should like to call attention to a few portions of the document, on the first page, the last paragraph, the second sentence:

> "I firmly believe that any plan that puts any man in business for himself is a constructive one, but due to the magnitude of this thing and the number of men we are taking in, I think we ought to be more than certain that the work-out is going to be entirely satisfactory."

And referring to the second page, at the top:

> "Without going into a lot of discussion about the various angles there are to it, I would suggest a procedure substantially as follows:—
>
> "1. I believe that the Finance Committee is the best body of men possible in our situation to judge as to the future"—

By Mr. Hurd:

Q. What future outlook do you refer to there, Mr. Sloan?

A. The future outlook of the General Motors Corporation. That is related to the fact, Mr. Hurd, as I have already testified, that we were asking these men to make a substantial investment in the stock of Managers Securities Company.

Mr. Hurd: (Reading)

> "—and to measure the hazard"—

By Mr. Hurd:

Q. What hazard was there involved?

A. Well, it seems rather ridiculous now, but looking back [fol. 2896] thirty years at the position of General Motors at that time, it was a hazardous investment from the standpoint of some people—not from my point of view, but from the point of view of others.

Mr. Hurd: (Reading)

> "—and to properly weigh the present situation of the industry and the future earnings of the Company; also the relation between the future market value and the

book value and the many other uncertain elements connected with the situation which are all a matter of judgment and perspective. If they feel that from those standpoints the risk is a good business risk, then I think they should take the position that we should go ahead on some such plan, but we should not definitely determine at least as to the magnitude of the plan but solely that it is one which they can take the responsibility of at least offering to the organization.

"2. The next step would be that the officers of the Corporation would discuss the plan in detail with either those men who are to participate or a representative group of those men."

By Mr. Hurd:

Q. Is that the action that you testified to?

A. I have already testified to the fact that that was done. Then turning over to the third page, Paragraph 3:

"3. I believe if the first step is taken, followed by the second, then we could safely go ahead, feeling that [fol. 2897] we had done everything possible to do the right thing by this particular group of men in giving them the opportunity of profiting through the development of the Corporation and that we at least could feel morally satisfied that if it did not turn out as we honestly felt it would that we had done nothing that we could in any way regret.

"4. While I do not think it has any bearing upon my position toward the plan as an officer of the Corporation, my position as an individual toward the future of the Corporation is fully evidenced by the fact that I have practically everything that I have in the world in General Motors, and not only that, as you know, I have recently made a very large commitment at the present market increasing my interest still further and have incurred a very heavy obligation, for me at least, for that purpose."

By Mr. Hurd:

Q. Mr. Sloan, did you have anything to do with the determination as to who would participate in this plan, and the extent to which they would participate?

A. No, not directly, but I made recommendations. In other words, indirectly.

Q. Will you explain what part you did take?

A. The allotments were made and determined by this special committee. I testified to that before, and it determined how much of an investment each executive should be offered. After that was determined by the special committee, they took it up with me, because I was at the time the chief executive officer of the corporation, and I gave it a great deal of consideration and made some recommendations [fol. 2898] in the way of changes in the allotments that were presented to me by the special allotment committee.

In terms of generalities, my recommendations were to reduce the number of executives participating, and to increase somewhat the allotments, to make it a greater incentive for a limited number of people more in the high echelon of authority as it existed at that time.

Q. What did the committee do with respect to your recommendations?

A. The committee in general accepted my recommendations.

Q. Do you recall any exceptions?

A. No, sir, I do not.

Q. Mr. Sloan, I show you a document which has been marked General Motors Exhibit No. 30 for identification.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 30.)

Mr. Hurd: It is a letter from Mr. Pierre du Pont to Mr. Prosser and Mr. Bishop, and which has attached to it certain tabulations.

By Mr. Hurd:

Q. Do you recall that document?

A. Yes, I do, Mr. Hurd.

Q. Will you turn to the second page under the heading: "Central Office Administration and Heads Divisions."

You notice in the first column a list of names; in the second column, the positions; the third column, salaries; and the fourth column is headed "P. S. du Pont Allotment."

Do you know what that represents?

A. That was the original allotment that the committee made.

Q. Before they were submitted to you?

A. That is correct.

[fol. 2899] Q. The next column is headed "Final Allotment." Do you know what that represented?

A. That was the final allotment after receiving the recommendations from myself.

Q. Do the figures under this column, "Final Allotment" represent, so far as you can recall, the suggestions you made as to the allotments?

A. Almost exactly the same, Mr. Hurd.

* * * * * * *

[fol. 2900] Q. Mr. Sloan, after you became president of the corporation, in May, 1923, what, if anything, did you have to do with the administration of the bonus plan?

A. According to the terms of the bonus plan, the fund that was set up according to the formula that I previously [fol. 2901] testified to was distributed as far as administration is concerned, by the chief executive officer of the corporation.

I was that officer at that time as president.

However, I might add that the recommendations of the chief executive officer went before the Finance Committee for approval. They had the final authority in the premises.

Q. Did the Finance Committee change your recommendations in any instance that you can recall?

A. I don't remember any such instances, Mr. Hurd.

Q. At a later date did the recommendations go before a Bonus and Salary Committee, do you recall, instead of the Finance Committee?

A. Yes. Beginning with 1937, the submissions of the chief executive officer went to the Bonus and Salary Committee.

Q. You were still the chief executive officer at that time?

A. I was between 1937 and 1946, and then in 1946 Mr. Wilson became chief executive officer. From 1946 on, he made his recommendations to the Bonus and Salary Committee, who had the final jurisdiction.

Q. During the period that you submitted recommendations to the Bonus and Salary Committee, were there any changes made in your recommendations that you can recall?

A. I don't recall that there were any. If there were, Mr. Hurd, they were completely insignificant.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 31 for identification. Do you recall whether that contained your recommendations for the year 1924?

A. I recollect this, Mr. Hurd.

Q. This document sets forth a type of procedure for the handling of the bonus.

How long did you continue to handle the bonus in a man- [fols. 2902-2903] ner similar to that set forth in this document?

A. The broad principles have continued right up to date. There have been some changes in details due to the impact of time and changes.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 31.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 31.)

* * * * * * *

[fol. 2904] By Mr. Hurd:

Q. Mr. Sloan, was your proposed procedure approved by the Executive Committee, do you recall?

A. I presume it was, Mr. Hurd. They didn't have any jurisdiction. As I said in the report itself, I submitted it to them for information.

Mr. Hurd, may I add something, simply to clarify the point, so there will be no misunderstanding?

That is this: although the chief executive officer had jurisdiction, so far as the higher executives of the corporation are concerned, their compensation came through the Manager Securities Company. Therefore I made no allotments to the higher officers of the corporation because that was automatic and was determined by the Special Allotment Committee.

Q. Without going into any of the details of the plan, or the procedure, contained in Exhibit No. 31, can you tell us, Mr. Sloan, in general how the plan operated?

I am particularly interested in whether or not you undertook to measure the value of each man's service who received a bonus.

A. You are talking now about the operation of the Bonus Plan, I take it, Mr. Hurd?

Q. That is right.

A. Naturally in such a large operation the chief executive officer, the president in this case, who had the responsibility could not determine the allotments in [fol. 2905] the lower echelon of authority. Therefore the plan prescribed that the aggregate fund, which was 10 per cent of the profits after 7 per cent of the capital employed was deducted, would be divided up into, you might say, component parts.

For instance, a certain amount was allocated to a division. The chief executive of that division was the responsible agent in distributing the bonus within that division.

Naturally, the chief executive officer couldn't be expected to know so many people, let alone have any contact with them, the necessary contact to judge the performance in any one year upon which the incentive plan was based.

Q. Mr. Sloan, following the Managers Securities Plan, was there another plan on a similar basis as Managers Securities, used in General Motors?

A. Yes, as I have already testified here, the corporation expanded so rapidly, that the cost of the "A" stock and the "B" stock which should have been allotted to the executive staff became too expensive, and as the corporation expanded younger men came into the picture and other executives were added, so that we felt that something had to be done to broaden the scope of the plan.

The plan as originally contemplated was an eight year plan. When 1930 came along, due to the conditions I have just mentioned, it was thought wise to terminate the plan. That was done, and a settlement was made with the stockholders, and in effect January 1, 1930 a new plan was developed which was known as the General Motors Management Plan, General Motors Management Corporation. That was a seven year plan and continued in effect for the full seven years.

After that terminated no further plans of the kind of [fol. 2906] Managers Securities Company or General Motors Management Corporation have developed, and the incentive has continued along the original purposes of the Bonus Plan as it was established back in the year 1918.

Q. Mr. Sloan, I wish to call your attention to the amended complaint in this case, paragraph 55, and I am reading the last sentence in the paragraph:

> "As an inevitable and intended consequence of the operation of the bonus plan, General Motors executives have responded readily to the influence and desires of the du Pont Company."

Mr. Sloan, to what extent, if any, was the bonus plan intended to induce General Motors executives to respond to the influence or desires of the du Pont Company, as far as you know?

A. Of course, not. On the face of that, it was an impossibility. No such thing existed.

Q. Do you know whether or not the Managers Securities Plan was intended in any respect to induce General Motors executives to respond to the wishes of the du Pont Company?

A. The same answer. As a matter of fact, the Managers Securities Company provided a wonderful incentive to the organization and had a great deal to do with expanding the earnings and the business of the corporation, all of which rebounded to the profit of the du Pont Company, but there was no such thing as indicated in that charge.

Q. What is the situation with respect to the Management Corporation?

A. The same thing.

Q. Mr. Sloan, in suggesting participation in any of the plans, what consideration, if any, had you given to the purchasing practices of the participants?

A. Will you repeat that, please?

[fol. 2907] Q. In suggesting participation in any of these plans, in suggesting who should participate in the bonus plan, to what extent have you considered what the purchasing practices were of the prospective participants?

A. I have given no consideration to it at all. That was out of the picture in every way, form, or manner.

Q. To what extent had you given consideration to the purchasing practices in making suggestions for participants in the Managers Securities or the Management Corporation Plan?

A. The same thing.

Q. What consideration have you given to the attitude of the participants toward the du Pont Company?

A. None, because I never knew what their attitude was. It didn't add anything to the picture in any way, shape or form.

Q. As far as you know, have any of these plans been for the purpose of making anybody in General Motors subservient to the du Pont Company?

A. It is a ridiculous thing to contemplate. It didn't exist at all.

Q. To what extent do you consider that the Managers Securities Plan and the Management Corporation Plan have contributed to the growth and the development of General Motors Corporation?

A. Mr. Hurd, I think they have had a tremendous influence in contributing to the development of General Motors. I don't think their influence can be over-estimated. I testified several days ago when explaining to the Court the organization setup, the importance of the decentralized system of management, and if I were asked, as I often am asked, as to what has contributed to the general and outstanding success of General Motors, I would say it was the decentralized system of management, supported by the incentive plans.

[fol. 2908] Q. Mr. Sloan, I now wish to turn to a new subject, and that is Fisher Body Corporation. Did you have anything to do with the original investment by General Motors in Fisher Body in 1919?

A. Nothing whatsoever.

Q. Are you informed as to the purpose of that investment, as far as General Motors is concerned?

A. Well, at that time it was recognized that the industry was moving very rapidly into closed bodies. Everybody began to recognize that the automobile couldn't take its proper place in the scheme of things with people out in the weather protected by all kinds of grotesque protection, and General Motors had, in 1919, no capacity for producing closed bodies, and it was considered desirable by Mr. Durant to meet that issue through purchasing a substantial interest in the Fisher Body Corporation.

Q. Do you recall whether contracts were given to any of the Fisher brothers at the time of the investment in 1919?

A. I recall that there were, but I didn't participate in them or never saw any of the contracts.

Q. Do you recall whether or not a contract was entered into at that time between Fisher Body and General Motors regarding the production of closed bodies?

A. Yes, there was a contract made. I never saw the contract, but my understanding is that it was a cost-plus contract. In other words, General Motors paid Fisher the cost of production, plus a profit, and subject to correction, I have always understood that that profit, the profit so established, was 17½ per cent over cost.

Q. In 1924, I believe some of the other exhibits show that several of the Fisher brothers took a position on General Motors top committees, that is, Fred Fisher was elected to the Finance Committee in 1944.

[fol. 2909] Do you recall that?

A. Yes, I do, Mr. Hurd.

Q. And Charles Fisher was elected a director and member of the Executive Committee in 1924. Do you recall that?

A. I recall that.

Q. And Mr. L. P. Fisher was elected a director and member of the Executive Committee in 1924; do you recall that?

A. Yes.

Q. Do you recall the circumstances under which they were brought into these positions?

A. Well, the three Fisher brothers that you have mentioned withdrew from Fisher Body, as far as the executive positions are concerned, and the direction of Fisher Body was turned over to the remaining three brothers, Ed, Will and Alfred Fisher, and Lawrence, Fred and Charles came into General Motors as operating executives.

Q. What was the occasion of their coming in?

A. Simply because they were very capable people and we needed men of talent, and they had distinguished themselves in developing a very fine enterprise, and Fisher bodies were recognized as outstanding in quality, and we needed that kind of talent in General Motors at that time, and needed it badly, and I was very anxious to have them come in and help us in the broader problems of General Motors, feeling satisfied that our interest in Fisher Body would be properly taken care of by the remaining three brothers.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 32 and 33 which are letters passing between Mr. McGowan and Pierre du Pont in 1934.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 32 and 33.)

[fol. 2910] Mr. Hurd: I should like to read a portion of the first document, General Motors Exhibit 32. It is a letter from Mr. Pierre du Pont, Chairman of the Board of General Motors Corporation to Sir Harry McGowan.

Turning to the second page of the document, the fourth line, at the end of the line:

> "In turn, Messrs. Fred and Lawrence Fisher agreed to sever their connection with the Fisher Body Corporation and become members of the General Motors executive committee, for the purpose of acquainting themselves thoroughly with General Motors operations and difficulties, without any allotment of specific duties. This I believe is a step forward. As it has not been possible for Alfred Sloan to give personal attention to all of the ramifications of the Corporation, I think the Messrs. Fisher are especially well adapted to assist him in ferreting out troubles promptly and applying remedies."

By Mr. Hurd:

Q. To what extent did the Fisher Boys do that, after they joined the company?

A. They did that in a very outstanding manner.

Mr. Hurd: General Motors Exhibit No. 33 is Mr. McGowan's reply to Mr. Pierre du Pont dated November 7, 1924:

> "I have your letter of 21st ultimo, which I have read with very great interest indeed, and I congratulate you and your associates on being able to arrange such a contract as to bring the Fisher boys into more active [fol. 2911] participation in the activities of the General Motors Corporation. I am sure this is all to the

good, as it has been obvious to me on my recent visits that Alfred Sloan is somewhat over-burdened; in addition, it cements the relationship for all time with the Fisher Corporation, to which we all attach great importance."

By Mr. Hurd:

Q. Mr. Sloan, did you have any part in the acquisition by General Motors of the remaining forty percent interest in the Fisher Body?

A. I had no part, Mr. Hurd, in the working out of the financial consideration involved. Mr. Donaldson Brown and Mr. Raskob handled that. My part of the acquisition was to put all the pressure I properly could put on Messrs. Raskob and Brown to consummate the arrangement as soon as possible because it was of vital importance to General Motors that the consolidation take place.

In the intervening years between 1919 and 1924, the industry had moved forward to the point where it was almost an exclusively closed body as compared to the open bodies which was the practice before 1919.

The contract relationship between Fisher Body Corporation and General Motors Corporation being cost plus and profit, it became burdensome. The increased turnover reflected in return on capital resulted in cost and selling prices that were no longer competitive, which we could not adjust because we always had to respect the forty percent outstanding interests. If our foresight was as good as our hindsight, which it never is, the smart thing to have done was to take over the whole Fisher Body in 1919. The delay [fol. 2912] was very costly, but when we reached 1926, that consolidation was made, I believe. It is not a question of anything but a must. We just had to have that forty percent interest. It was unrealistic to think that an operation of the magnitude of General Motors could continue an operating arrangement such as I testified to here, and buy a substantial part of its bodies or all of its closed bodies under such circumstances.

We had to have an integrated operation.

Outside of those considerations, without going into detail, there were problems of assembly which were very significant, and to make a long story short, the acquisition of that forty percent in 1926 was a must. We just had to have it irrespective of any other considerations.

My participation in the arrangement was to impress upon Mr. Raskob and Mr. Brown, who were not on the operating side, the importance of getting the job done as soon as possible.

Q. You mentioned you had a problem of assembly. To what do you refer?

A. What I meant by that was that we were establishing throughout the country assembly plants, because it was an economical method of production, and where we had a chassis assembly plant, we had to have a Fisher Body assembly plant, but the Fisher Body Corporation was unwilling to put in an investment in these assembly plants. That handicapped us considerably.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 34 for identification which purports to be a letter from you to Mr. Raskob.

Do you recall sending Mr. Raskob that document?

A. Yes. This is a letter dated February 13, 1926. It [fol. 2913] reflects my point of view as to the urgency of making the consolidation of which I just testified.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 34.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 34.)

Mr. Hurd: I would like to read the first paragraph. It is a communication from Mr. Sloan to Mr. Raskob, dated February 13, 1926.

> "I do not know whether I am butting in or not, but the time has come when the future developments of our plan and the protection of our competitive position requires that we make the most determined effort possible to work out Fisher Body situation along more constructive lines to the end that proper co-ordination can be effected. This is not only the development of the lumber situation which perhaps could be handled in some other way, but relates more intimately to general operating phases of our activities. In my judgment we will very soon reach the point where we are

absolutely blocked on certain important things; in fact, we are in that position in one instance today, as I think you recognize."

By Mr. Hurd:

Q. Now, Mr. Sloan, to what extent were you motivated, if any, in urging the acquisition of the remaining interests in the Fisher Body by a desire to have the Fisher Body purchase products from the du Pont Company?

A. Mr. Hurd, that took no part in my business judgment of the necessity for it whatsoever. As a matter of fact, in my work with General Motors, I never considered anything of [fol. 2914] that kind. I always considered the facts and circumstances and dealt with them from the General Motors' point of view to the best of my business judgment.

Q. Did you hear of anyone else in General Motors who had been advancing, as the reason for the Fisher Body purchase, the necessity of getting the Fisher Body business for the du Pont Company?

A. I never heard of such a thing.

Q. Mr. Sloan, I now wish to turn to another subject which will probably occupy us most of tomorrow.

This is the subject of tetraethyl lead. Are you acquainted in a general way with the studies conducted by Mr. Kettering before he joined General Motors in 1919 with respect to the discovery of an anti-knock?

A. Yes, sir, Mr. Hurd.

Q. What is your understanding as to what Mr. Kettering was trying to accomplish, his purpose in making this study?

A. I first came in contact with the man in some detail in 1916 when I was with the United Motors, where I had the responsibility over the Dayton Engineering Laboratories Company, which was Mr. Kettering's company before it came into United Motors.

It was a visit in connection with that responsibility that I became familiar with what he was doing with anti-knock materials. I think his work went back to 1912 or 1913 when he first became interested in the problem.

Q. Do you know what stimulated his interest?

A. Mr. Kettering was a man who is always interested in finding out all he can about anything. I guess that was one thing, but more importantly, I believe—he never told me this, but that is the way it looked to me—in the development of the electric self-starter, there arose a problem of superseding the magneto, which was used at that time to ignite [fol. 2915] the mixture in the car by what we called battery ignition. In other words, the electric self-starter and battery ignition came into the engineering picture of the industry about the same time.

He had great difficulty in selling battery ignition. When there was a knock in the engine, they always blamed it on the ignition. We did not understand much about those things anyway, so Mr. Kettering was more or less on the defensive. He had to prove it was not battery ignition that provided the knock, but it was something else. So that led him to intensify his interest in developing all about the knock that he could, and I think he started in on that in 1912 or 1913.

Q. Now, after General Motors acquired the Dayton Metal Products Company in 1918, do you know whether or not Mr. Kettering continued his experimenting on this subject?

A. He did. He continued his experimental work on anti-knock compounds.

Q. Was General Motors interested in this research in any respect?

A. General Motors was very greatly interested in a development of that kind.

Q. What was their interest?

A. Simply because it would contribute enormously to the efficiency of the automobile from the standpoint of the design of the engine; from the standpoint of fuel consumption by the car.

Q. Was General Motors interested in part in finding a new product for General Motors to sell?

A. No, that was not the primary interest. In my relationship with the development of tetraethyl lead, it has always been a secondary interest. I have been concerned with the significance and importance of tetraethyl lead as an anti-knock compound in improving economy from a user's standpoint, and likewise its impact on the engineering of the chassis.

[fol. 2916-2917] Q. Do you recall approximately when tetraethyl lead was discovered?

A. Tetraethyl lead was discovered in December, 1921.

Q. Prior to that time, had there been any other anti-knock compounds that Kettering had developed?

A. There had been certain other compounds that were claimed to be anti-knock compounds. One was benzol, which is a by-product of steel industry. It had very significant anti-knock qualities.

In addition to that, I know of none that were scientifically sound. There were some, I might say, fake compounds on the market which lasted a short time, but outside of benzol and tetraethyl lead at that time and since then, there has been no anti-knock compounds developed and sold or put on the market.

Q. When tetraethyl lead was discovered in December, 1921, what was your attitude as to whether or not a better anti-knock compound would later be discovered?

A. Well, I had no definite knowledge of that, Mr. Hurd, but of course in the tremendous technological developments that was taking place all the time, one always has much reason to believe it won't be long before something comes up that is competitive or even better. That was always in our minds in the evolution of tetraethyl lead.

Adjournment.

[fol. 2918] Alfred P. Sloan, Jr., a witness on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (Continued)

By Mr. Hurd:

Q. Mr. Sloan, you told us yesterday about the discovery of tetraethyl lead in December, 1921. From General Motors' standpoint, what was their interest in this new discovery?

A. What was what, Mr. Hurd?

Q. What was General Motors' interest in the new discovery?

A. General Motors' interest in the discovery of tetraethyl lead was to permit a more efficient relationship between the engine and fuel, and to make a better automobile, put it that way, from the standpoint of technological progress.

Q. To what extent has tetraethyl lead reached the result you hoped for at that time?

A. From the standpoint of results over the years?

Q. Yes.

A. Well, I would say without reservation that tetraethyl lead, both directly and indirectly, has made an enormous contribution to the automobile industry, both from the standpoint of the user and in other ways. Although it is not as dramatic as some gadgets that have been added, yet, from the fundamental point of view, it has made an enormous contribution to progress. The efficiency of the automobile engine is importantly influenced, among other ways, by what we call the compression ratio. As the compression ratio increases, the efficiency of the engine increases, and the limitations on the increase in the com- [fol. 2919] pression ratio is the ability of the fuel to burn without knocking, which is detrimental to the engine, and disagreeable to the operator.

The development of anti-knock fuel enabled us to raise the compression, and it has resulted not only in increasing the economy of the engine, but if the engineer desires, he can safely increase the ratio to secure more power in the engine without changing the size of the engine.

The result through the years that have passed since the introduction of tetraethyl lead is that the efficiency of the automobile from the standpoint of fuel consumption has been enormously increased.

The compression ratio, as I said before, as measured back in 1921 and 1922, was about four and a half to one. It has moved up to eight and a half to one, and notwithstanding the tremendous gains through those years, there is a possibility of further increase of mileage with respect to gasoline consumption by 25 or 30 percent. In other words, we can move up our compression ratios from eight and a half to one, where they are now, generally speaking, up to 12, which would give us a tremendous gain.

In addition to that, tetraethyl lead made a very important contribution from the standpoint of standardization of fuel. It opened up a complete new vista of accomplishments from the standpoint of better co-relation between the engine and fuel. It has completely revolutionized the oil industry. I think it can be said that that is true of the automobile industry as the result of the development of anti-knock fuels.

It has changed the oil industry from the point it was in 1920 and 1921. When Mr. Walter Teagle was president of the Standard Oil Company, he said the idea in the oil in- [fol. 2920] dustry was to pump it out of the ground and send it to the customers. It has changed all that. The oil industry, through the incentive of standardization, has developed a very revolutionary cracking process. Tetraethyl lead has increased the ability of the engine to accept, and operate satisfactorily on higher compression. The evolution from the beginning of tetraethyl lead to now may be called operation leap-frog; that is, I mean the engineer would move up the compression, and the oil industry would move up the anti-knock fuels to meet the compression, and that is how it moved gradually, but it was a very great gain to both consumers and to the fundamental engineering of the chassis over the thirty years that have taken place.

I could go into greater detail, but I think that is sufficient to answer your question.

Q. When tetraethyl lead was discovered through Mr. Kettering's organization, do you recall whether or not any problems were encountered in making it useable?

A. Three problems arose, Mr. Hurd.

One, it was soon discovered after tetraethyl lead was discovered, which you will recall was December, 1920—

Q. 1921.

A. It was soon discovered that the injection of tetraethyl lead as an anti-knock compound in the fuel had a very deteriorating influence upon the engine. It fouled the spark plugs; it developed a deposit in the engine which the engine could not accept, and the use of tetraethyl lead would have been impossible unless ways and means were developed to eliminate that difficulty.

That was the first problem that arose, and that problem [fol. 2921] was undertaken from the standpoint of investigation by the General Motors Research Division.

The second problem involved ways and means to manufacture the material. Of course, you could not sell it unless you manufactured it. The third problem was, what was the best way of introducing tetraethyl lead as an anti-knock compound into the fuel to be purchased by the customer through the oil industry at their various stations throughout the United States.

Q. I think you said it was discovered in December, 1920. You mean 1921?

A. I am sorry. It was 1921. I stand corrected.

Q. Now as to this first problem, the effect upon the engine, you said that General Motors Research and Mr. Kettering's organization worked on that?

A. They undertook the research work necessary to clear the difficulties with the spark plugs to which I referred a moment ago.

Q. What was done with reference to the manufacturing problem?

A. The first thing that was done occurred in February, 1922, a couple of months after tetraethyl lead was discovered, when our Research, Mr. Kettering, made an agreement with the Massachusetts Institute of Technology to develop processes for manufacturing tetraethyl lead, and to investigate the whole subject. That was the first step that was taken.

Later in the year, in May or June, I think it was, Mr. Kettering put the problem up to the du Pont Company to make a similar investigation, of what was the best method of production. When tetraethyl lead was first discovered as an anti-knock compound, in December, 1921, what little we made was on a laboratory basis, and we used iodine as an aid.

[fol. 2922] Research continued to study on its own account the production problem, and early in the spring of 1922, they developed the bromine process. When that was discovered, later in the year, in May or June, Mr. Kettering asked the du Pont Company to make a Research study as to the production processes involving the use of bromine as an agent.

Q. Do you recall at whose suggestion this request was made of the du Pont Company?

A. Mr. Kettering did that on his own responsibility.

Q. What, if anything, was done regarding your third problem, your problem of distribution?

A. Well, the distribution problem came later. In early 1923, and into the beginning of 1924, General Motors made contracts with four oil companies and gave them the right to the use of tetraethyl lead in their respective territories. One was Standard Oil of New Jersey, and the other was Standard Oil of Indiana, and the other was the Gulf Oil Company, and the fourth was the Louisiana Standard Oil Company, I think; anyway, it was a subsidiary of the New Jersey Company.

Mr. Hurd: If the Court please, I should like to call attention to Government's Exhibit No. 610 which is in evidence, which is the report from Mr. Pierre du Pont to Mr. Irenee du Pont, dated March 24th, 1922, and which discusses the discovery of tetraethyl lead.

I should like to call attention to the second page of the document, the third paragraph:

> "In order to start the use of this material, Kettering proposes that Cadillac design a new cylinder head, increasing compression (this is now being done). Every [fol. 2923] Cadillac car equipped with this new head will be provided a gas tank containing in a separate compartment two metallic bottles, each containing a quart of lead ethyl. These bottles will be sealed with a metallic seal, which will be punctured automatically when the bottle is placed in position for use. A small hand pump will deliver a charge sufficient for five gallons of gasoline at one stroke, so that as the gasoline tank is filled, one stroke of the pump to each five gallons will supply the necessary dope. An over-supply does not result in any injury, and an under-supply would quickly be shown in the knocking of the engine, so that mistakes would not be serious. The two flasks would run a Cadillac car 7,500 miles, so that the recharging feature would not be serious.
>
> "Without dope the car could be operated successfully at half throttle, i.e., would not be useless. With the dope, the car would have an additional 29% horsepower and gasoline consumption would be materially reduced."

The Court: 25 per cent instead of 29 per cent.

Mr. Hurd: Is it 25 per cent?

The Court: That is what my copy says.

Mr. Hurd: It may be. It is very hard to read.

The Court: I don't think it is material anyway.

Mr. Hurd: I don't think they did it anyway.

The Witness: They didn't, your Honor.

By Mr. Hurd:

Q. Mr. Sloan, I would like to ask you in connection with [fol. 2924] this, whether or not this procedure of putting a metallic bottle of this fluid in the gas tank was ever used? A. That was never done, Mr. Hurd, but the contracts made with these oil companies, as I mentioned a minute ago, that contemplated the same type of thing only at the service station, but that was used only to a limited extent, but that particular process was not used at all.

Mr. Hurd: The next paragraph:

> "In order to make this program effective, a plant of 100 gallons daily capacity should be erected. The next step in the program would be to try to introduce the dope as a commercial article supplied with the gasoline. It would require about 4,500,000 gallons per annum to dope the entire gasoline supply.
>
> "Kettering would like to take up the question of manufacture with the du Pont Company representatives at an early date."

Then I would like to refer to a document which is marked du Pont Exhibit No. 65. If you have no objection, I will offer it with that designation, but as a General Motors exhibit. I thought it was in evidence. It is a memorandum of a conference between Mr. Kettering, Mr. C. S. Mott, and Mr. P. S. du Pont, dated July 12, 1922.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 65.)

Mr. Hurd: I would like to call attention to certain portions of this document. The first paragraph is:

> "Kettering proposed that the manufacture of dope [fol. 2925] be started as soon as possible by the du Pont Company in order to produce 100 gallons per day or thereabouts, possibly working up to greater production, leaving to the future the determination of building of large plants capable of producing 8,000,000 gallons per annum, sufficient to dope all gasoline fuel in the United States.

> "The Standard Oil people would like to get the first production, in order to dope fuel at Baltimore, Scranton and other points where trouble is experienced with existing fuels."

By Mr. Hurd:

Q. Which Standard Oil Company would that be, Mr. Sloan?

A. New Jersey.

Mr. Hurd: (Reading)

> "Another alternative is to use the first dope in manufacture of pills to be used in Cadillac cars. These pills, made out of para toluidine, covered with paraffin, would be about 1" in diameter for a 5 gallon charge of gasoline."

By Mr. Hurd:

Q. Was that pill procedure ever adopted?

A. No, it was not, Mr. Hurd.

Q. Do you recall whether or not the du Pont Company did undertake to duplicate the laboratory experiments that Mr. Kettering had conducted?

A. Yes, they did, Mr. Hurd, and they developed, as I recall, a recovery of bromine pretty much what we had accomplished in Research which I think was 85 per cent, which I think was a very good record.

[fol. 2926] Mr. Hurd: If the Court please, I would like to offer in evidence General Motors Exhibit No. 71 which is a report from Mr. Clements, Director of Research, to the Executive Committee of General Motors, dated August 2, 1922.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 71.)

By Mr. Hurd:

Q. Was Mr. Clements the Director of Research of General Motors?

A. Yes, he was the first assistant to Mr. Kettering.

Mr. Hurd: This document dated August 2, 1952, is headed, "Report of the Research Laboratories for the Month of July."

The sub-heading is, "Fuel Research Section":

> "The month's efforts have been confined to semi-works production of lead tetra-ethyl. The entire process has been studied intensively, to eliminate cost. The du Pont organization has been brought into the work and they have duplicated our semi-works production very readily. Just now, we are counting upon the du Pont organization to collaborate with us on this new compound. This is the logical procedure, due to the fact that they have equipment and floor space suitable for this kind of work. The question of stability has been satisfactorily solved. Some of the other difficulties encountered, such as corrosion of spark plugs, [fol. 2927] are being very carefully considered. The results obtained during the month show reasonable progress."

I should like to call attention to Government's Trial Exhibit No. 615 which is another report by Mr. Clements, of the General Motors Research. It is dated September 5, 1922, addressed to the Executive Committee, and headed, "Report of Research Laboratories for the Month of August."

Under the heading "Fuel Research Section" there are several paragraphs. It is paragraph three that I would like to read:

> "Production work on a small scale, using our sodium-lead and ethyl bromide process, was begun at the dye works of the du Pont Company. They are now producing about a gallon of lead tetraethyl per day."

Turning to the second page, paragraph No. 6:

> "In view of the satisfactory progress that is being made on the production program and of certain problems incident to the use of lead compounds as anti-knock materials, it has been decided to drop production, as well as research on production here. Production will be continued at the du Pont Company, and research on methods of production will be actively

continued at the Massachusetts Institute of Technology. The research work at this laboratory will be concentrated on the solution of the spark-plug and exhaust-valve troubles that have been experienced in the use of lead compounds as anti-knock materials."

Then I would like to offer in evidence General Motors [fol. 2928-2929] Exhibit No. 72, a letter from Mr. Harrington to Mr. Kettering, which is dated September 12, 1922.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 72.)

* * * * * * * *

I should like to offer General Motors Exhibit No. 73, which is a report from Mr. Clements, of General Motors Research, to the Executive Committee of General Motors.

* * * * * * *

[fol. 2930] By Mr. Hurd:

Q. Mr. Sloan, after the du Pont Company had reached this point in the manufacturing process, what, if anything, was done regarding the future manufacture of tetraethyl lead?

A. A contract was made between the du Pont Company and General Motors shortly after that. The contract was suggested by Mr. Kettering and was really required from the standpoint of equity for the du Pont Company because they were involved in expense of development work and they had no arrangement with us.

That contract was for what we call in industry a pilot or a semi-works plant, experimental plant, in other words. That contract carried the date of October 6, 1922. It contemplated the manufacture of 100 gallons a day of tetraethyl lead.

The contract further provided that the production processes were not to be released until further information had been obtained with respect to the spark plug difficulty that developed here.

Q. That is, you were going to defer the actual construction of the plant temporarily?

A. That is correct, Mr. Hurd. That release took place in about February of 1923. At that time the du Pont Company constructed the plant on the basis of the October 6, 1922, contract.

Q. Mr. Sloan, who handled the negotiation of this 1922 contract?

A. The details of the contract were developed in this way: When it was agreed to make the contract, Mr. McEvoy, who was our patent counsel in Detroit, in collaboration [fol. 2931] with another executive in his department, Mr. Morrison, went down at my request to Wilmington and worked out the details of the contract with the people in Wilmington, I presume Mr. Harrington, who had charge of such matters in du Pont at that time.

They agreed substantially on the details of the contract. There were certain changes made, as I recall it, from the original draft developed by Mr. McEvoy.

Mr. McEvoy brought the contract to New York and I went over it in detail, and it seemed to me a satisfactory form of contract, though I recognize it was purely a pilot contract, and as a result of my approval of it, the contract was adopted by General Motors.

That was the first contract involving the production of tetraethyl lead; and incidentally, the last and only contract made between du Pont and General Motors. Further contracts were made later under different auspices.

Q. Did Mr. Pierre du Pont participate in the negotiations in any way?

A. My best recollection—it is awfully hard to go back 30 years and answer these detailed questions—I don't think he did, Mr. Hurd. I don't think he entered into the negotiations at all. He left those matters to me.

I remember I went into it, but I don't think he entered into the details of it at all. As a matter of fact, the whole contract was really formalized in Dayton under the conditions that I have outlined. My consideration of it was more or less perfunctory.

Q. Mr. Sloan, I show you Government's Trial Exhibit No. 618, and ask you if that is the contract to which you have been referring?

A. According to my best recollection, Mr. Hurd, this [fol. 2932] is the contract of October 6th, 1922, to which I have just testified.

Q. You notice that Mr. Pierre du Pont signed the contract in behalf of General Motors Corporation.

A. Yes. Well, I don't think that is inconsistent with what I have just said. I remember dealing with it in detail and recommending it to him. He probably signed it as a matter of corporation procedure.

Q. Do you recall who set up the meeting for the negotiations of the contract, the meeting between Kettering's representative and your legal advisor and the du Pont's?

A. That was at my initiative, Mr. Hurd.

Mr. Hurd: I would like to call the Court's attention to Government's Trial Exhibit No. 617, which is a letter from Mr. Sloan to Mr. Kettering, dated September 27, 1922, the first paragraph and a portion of the second:

> "My dear Ket:—
>
> "I was just talking over the telephone with Mr. Irenee du Pont and he believes it would desirable, as I think you do as evidenced by our discussion in Detroit week before last, that a more definite arrangement be made between the du Pont Company and ourselves relative to the work that they are doing.
>
> "Mr. du Pont asked me when you were going to be in New York next and knowing you had promised to be here Friday of next week, October 6th, I have taken the liberty of making an appointment with Mr. Irenee du Pont and Mr. Huntington"—

Should that be Harrington?

[fol. 2933] The Witness: It should be Harrington. He was the executive in du Pont in charge of that type of thing.

Mr. Hurd: (Reading):

> "I believe it is, here in my office at 12 o'clock on Friday."

I should like to offer in evidence General Motors Exhibit No. 74, which is a letter from James McEvoy to Mr. J. W. Morrison, Delco Light Company, dated September 27th, 1922.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 74.)

Mr. Hurd: The first paragraph:

> "I did not hear anything from Mr. Sloan about the proposed trip to Wilmington until today when he called me up to say that he desired us to be in Wilmington on next Wednesday morning, October 4th; that he thought it would be necessary to spend about two days there and then close the matter at New York in his office on Friday, at which interview he expected Mr. Kettering would be present."

By Mr. Hurd:

Q. This is the Mr. McEvoy that you had work on the negotiations?

A. That is correct.

Q. And he was from your Legal Department?

A. Correct. He was in the Patent Department in Detroit. Mr. Morrison was his assistant in the Detroit area.

Q. Mr. Sloan, did you approve of having the du Pont Company manufacture tetraethyl lead?

A. I certainly did.

[fol. 2934] Q. What was the basis of your view on the subject?

A. In the first place, I recognized that the General Motors organization had no competence whatsoever in chemical manufacture. We were mechanical people dealing with metal processing. We had no knowledge of chemistry. When I say that, that statement must not be confused from the fact that our Research had developed tetraethyl lead, and that might indicate a considerable amount of competence. But that was a Research problem. It was quite different having a technician familiar with such matters working with it as a Research problem and discovering something from the ability to manufacture that something after it becomes a reality.

In my operations with General Motors over the years, I have always taken the position against our stepping too far out of those things in which I felt we had competence. I felt there was plenty of opportunity in General Motors in the areas in which we normally operate.

So when this question arose, it seemed as if it was something we should not contend with. It was only indirectly related to the motor car industry anyway. It didn't involve the manufacture of the motor car itself, so I took the position that we should not engage in that sort of thing, and I felt that the du Pont organization was completely competent to do so.

I had a full realization at the time, but not as full a realization as I had later, of the very great dangers in the manufacture of this material. I am not a chemist. I am not qualified to discuss chemistry. But I was informed that this process of making tetraethyl lead involved what we call a metallo-organic compound which had never been made in manufacture in the United States.

[fol. 2935] It was an entirely new venture, and I thought the du Pont Company had demonstrated by their wonderful war work their ability to deal with the problems involving dangerous materials, such as dynamite; and their well organized Research offered the best opportunity for us to produce tetraethyl lead and to put it on the market.

It must be appreciated that my interest in tetraethyl lead was to make a better and more efficient motor car. It was a by-product from my point of view, and in contact with the problems over the first few years, until it got thoroughly started, I always had in mind the importance of tetraethyl lead from the standpoint of the operations of General Motors.

Naturally, when you are investing capital in an enterprise, as we did in tetraethyl lead, you are entitled to a reasonable profit, but the profit that had been made in the manufacture of tetraethyl lead, however, it may be looked upon, from my point of view is entirely inconsequential. You can't ignore profit even if it's a nickel, but relatively it was inconsequential compared with the tremendous effect it had in broadening the automobile industry from the standpoint of technological progress involved in the better correlation between the engines and the fuel.

It is very difficult to one who does not understand these things, not seeing it from an understanding point of view, to realize how much the discovery of an anti-knock material has meant in the evolution of the automobile industry.

Q. I believe you testified that the corrosion problem was solved some time in 1923.

A. That is correct, Mr. Hurd. I have already testified [fol. 2936] that was one of the problems that arose, and it took about a year to do that. I think it was in February, 1923, that we released du Ponts on the experimental pilot plants.

Q. I show you a document which has been marked General Motors Exhibit No. 75 for identification, and ask you if that refreshes your recollection as to when the du Pont Company was asked to proceed?

A. It was March 29th, a little later than I thought. This is the official notification to the du Pont Company to go ahead on the anti-knock production as contemplated by the October 6, 1922, contract.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 75.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 75.)

Mr. Hurd: This is a telegram dated March 29, 1923, from Mr. Midgley to Mr. Harrington of the du Pont Company.

> "It was officially decided this morning to go ahead with the anti-knock program as rapidly as possible. (Stop) Consequently this constitutes official notification that you are to get out one hundred gallons of tetraethyl lead per day as soon as possible. (Stop) Expect to see you Monday afternoon next week."

By Mr. Hurd:

Q. Now, you have already referred to entering into contracts with the oil companies. About how long after production was started by the du Pont Company did you start making contracts with the oil companies, if you recall?

A. To the best of my recollection, we began making the [fol. 2937] first four contracts quite early in 1923. I think quite a period of time elapsed before the fourth contract was made; according to my best recollection, it was made at the very beginning of 1924.

I may be corrected on that, Mr. Hurd. I am not too certain about the date.

Q. Mr. Sloan, I show you documents that have been marked for identification General Motors Exhibits 76, 77, 78, 79, and 80, and Government's Trial Exhibit 620, and ask you if those are the contracts which were made for the distribution of the fluid?

A. Those are the contracts about which I previously testified, Mr. Hurd.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 76 to 80, inclusive.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 76 to 80, inclusive.)

Mr. Hurd: The first document, Exhibit 76, is a contract dated September 29, 1923, between the Standard Oil Company of Indiana, and General Motors Chemical Company.

By Mr. Hurd:

Q. Mr. Sloan, what was General Motors Chemical Company?

A. It was an organization that was developed, the purpose of which really was to exploit tetraethyl lead commercially, but it never amounted to very much. It was soon liquidated, and that problem was taken over by other auspices in General Motors.

Mr. Hurd: Government's Exhibit 620 is the next document in order of time. It was an agreement between Stand- [fol. 2938] ard Oil Company of New Jersey and General Motors Chemical Company, dated January 7, 1924.

General Motors Exhibit No. 77 is another agreement with the Standard Oil Company of New Jersey, but is an agreement by General Motors Corporation merely guaranteeing the chemical company agreement.

General Motors Exhibit No. 78 is a contract between General Motors Chemical Company and the Standard Oil of Louisiana; and General Motors Exhibit 79 is the guarantee of that Louisiana contract.

General Motors Exhibit No. 80 is a contract between General Motors Chemical Company and the Gulf Refining Company. It is dated January 26, 1924, the latest date of the group.

By Mr. Hurd:

Q. Following the making of these contracts, were any requests made of the du Pont Company regarding changing their capacity?

A. Yes. In January, 1924, recognizing that in the meantime we had made these contracts, I instructed the du Pont Company to increase the capacity of the pilot plant, which was originally contemplated for 100 gallons a day. I have forgotten, Mr. Hurd, how much I increased it.

Q. Mr. Sloan, I show you Government's Exhibit,—Government's Trial Exhibit No. 625, which is in evidence here, and ask you if that is your instruction to the du Pont Company regarding increasing their capacity?

A. That is correct. This increase, Mr. Hurd, is measured in pounds. I referred to the capacity as measured in gallons. A gallon is equivalent to 13 pounds.

[fol. 2939] Mr. Hurd: I would like to call the Court's attention to the fact that the document is dated January 12, 1924.

By Mr. Hurd:

Q. Is that about the time—

A. That is the authorization to increase the capacity as originally contemplated by the October 6, 1922, contract.

Q. Mr. Sloan, subsequently, was any consideration given to the formation of a joint company to be owned by General Motors and the oil companies?

A. Yes, that involved a problem you asked me about at the beginning, the distribution problem, and there was some discussion that took place about making an agreement between the various oil companies. We were under some pressure by the Standard Oil of Indiana, and likewise by the Gulf people to let them into the thing, so to speak, but upon consideration, it was thought desirable for various reasons that an arrangement of that kind was not either feasible or desirable.

Q. Mr. Sloan, I show you Government's Exhibit in evidence No. 665, which is a resolution from the minutes of the General Motors Executive Committee, and ask you if that subject dealt with in that resolution is this joint program you have just described?

A. That is the same matter to which I just testified.

Mr. Hurd: If the Court please, I should like to refer to the first paragraph of that agreement, Government's Exhibit No. 665. This is from the minutes of the Executive Committee of General Motors, held February 27th, 1924, under the subject of Tetraethyl Lead.

> "The President brought up for general discussion the question of our future policy in the development and marketing of Tetraethyl lead.

[fol. 2940] "The Committee was advised that in view of the enthusiastic reception of this material by the Oil Companies, it might be possible to work out a plan whereby a company could be formed to control our patents and the distribution of the material which would be jointly controlled by the large oil companies and ourselves."

By Mr. Hurd:

Q. Now, following the last of that program, was there anything further done regarding the formation of a company between General Motors and any of the oil companies?

A. Yes, Mr. Hurd. In 1923, the fact was developed with the Standard Oil of New Jersey. They had some studies made by a consulting chemist with respect to the production of tetraethyl lead, and as a result of the efforts of that expert, there was developed a process of manufacturing which contemplated the use of chlorine instead of bromine as a principal aid.

The Standard Oil of New Jersey got a patent on that, and in due course of time, it was demonstrated that that process was far more economical than the bromine process that was developed by General Motors Research in 1922, the spring of 1922, after the original concept of production based upon iodine was eliminated. That put Standard Oil of New Jersey in a very important position with respect to the manufacture of tetraethyl lead.

There was another consideration involved of important significance, and that is that it was recognized that the bromine was in short supply, and it looked for a time there [fol. 2941] as if the manufacture of tetraethyl lead would be limited because bromine was a bottleneck.

That was another reason why the development of the chlorine process by this expert of the Standard Oil of New Jersey was a very important thing in the development of the tetraethyl lead problem.

Q. What ultimately happened?

A. As a result of that, and discussions that took place around that point, it was suggested, and I think, according to my best recollection, that Mr. Frank Howard made the suggestion—and I define Mr. Howard as the chief technical officer of Standard Oil of New Jersey—Mr. Howard suggested that General Motors and Standard Oil of New Jersey get together, and that idea or suggestion was very thoroughly discussed, and it appealed very much to me, because although it is hard to realize, considering all that had happened in the intervening three years, but at that time the whole subject of anti-knock materials was—it was not yet demonstrated.

The whole thing was in an evolutionary stage, and the material had to be accepted by the oil industry, and incidentally the public, and I thought we could take in Standard Oil Company of New Jersey as a partner.

The fact that they were in the thing in an important way would give the stamp of approval of the biggest oil company on the material; it would give us enormous prestige. In addition to that, they had this fundamental patent, or a patent which was pretty near fundamental on account of the cost factor, which put them in a good trading position —put it that way.

To make a long story short, in August of 1924 a corporation was formed which was called "The Ethyl Gasoline Corporation." That corporation was formed for the pur- [fol. 2942] pose of promoting the development of tetraethyl lead as an anti-knock compound.

That was the next step that was taken in the evolution of tetraethyl lead, Mr. Hurd.

Q. How was the stock of that corporation divided?

A. The stock was divided fifty-fifty, but previous to earnings applicable to stock, the General Motors Corporation had a royalty arrangement which gave them a certain royalty, on the material that was sold, ahead of the distribution of any remaining earnings on a fifty-fifty basis to the common stock.

Q. What was done with the patents that General Motors had?

A. All the patents that General Motors had, and all of the patents that Standard Oil had, which were a very considerable number, principally involving the ethyl chloride process, were assigned to Ethyl Gasoline Corporation.

Q. Do you recall whether any agreement was entered into between General Motors and Standard of New Jersey regarding the formation of the Ethyl Gasoline Corporation?

A. Yes, preparatory to the organization of the corporation itself an agreement was made between Standard Oil of New Jersey and General Motors, outlining the general terms, the purposes, and general concept of what was contemplated to be undertaken when the corporation was formed.

Q. Who conducted the negotiations leading up to the agreement?

A. Well, I conducted the negotiations in a general way. The royalty arrangements, the formula, and so forth, were worked out by others in General Motors.

Q. And who from Standard Oil was in on the negotiations?

A. To the best of my recollection, Mr. Hurd, that was conducted by Mr. Howard and Mr. E. M. Clark. At that [fol. 2943-2945] time Mr. Bedford was Chairman, and Mr. Teagle was President. I don't think they had any part in the negotiations, according to my recollection.

Q. Did any representatives of the du Pont Company participate in the negotiations?

A. No, they had nothing to do with it. In fact, according to my best recollection, we didn't submit it, didn't submit the thing to them. It was our problem. We worked it out, and I don't think we even informed them of what we had in mind, according to my best recollection.

The Court: The Court stands recessed for fifteen minutes.

(Recess taken.)

The Court: Proceed.

By Mr. Hurd:

Q. Mr. Sloan, I show you a document that is in evidence as Government's Trial Exhibit No. 668.

Is that the contract which you entered into with Standard Oil of New Jersey for the formation of the Ethyl Corporation?

A. This is the contract to which you refer, Mr. Hurd.

Mr. Hurd: That is dated August 1, 1924.

* * * * * * *

[fol. 2946] By Mr. Hurd:

Q. Mr. Sloan, did you have any discussion with the Standard Oil Company of New Jersey with regard to the possibility of their manufacturing tetraethyl lead under the chloride process?

A. The answer is no, from the point of view of exactly as you frame the question—manufacture. The point was raised by the Standard Oil of New Jersey that they would like very much to set up a pilot plant, an experimental plant, of a very limited capacity to make tetraethyl lead under the chloride process that they developed, as I explained in my previous testimony.

Q. What was your position with reference to that?

A. Well, I felt it was an undesirable thing to do because I did not feel that the Standard Oil of New Jersey at that time had the competence to undertake a thing of that kind. As a matter of fact, at the time we are talking about, the Standard Oil of New Jersey was just organizing a research activity. They had no research at all previous to that time except a very limited activity that dealt with refining processes rather than scientific chemical work of this type.

Of course, since then, they have become very chemically minded through the development of things. However, it has always been my practice never to turn down anybody that wants to find out something about something.

Therefore, I agreed that the Standard Oil Company should set up an experimental plant of a limited capacity [fol. 2947] to try out the ethyl chloride process, because I thought whatever came out of it we would probably learn something; and as a matter of fact, we did.

Q. When was it approximately that you agreed that they might do this?

A. That must have been shortly after the Ethyl Gasoline Corporation was formed. It must have been in the summer of 1924 or thereabouts, Mr. Hurd.

Q. Mr. Sloan, I show you Government's Exhibit 622, which is in evidence, which is a letter from you to Mr. Irenee du Pont, in January of 1924, and I call your attention to the second page, the last sentence—

Mr. Harsha: Don't you mean June, Mr. Hurd? Is that 662?

Mr. Hurd: No, 622.

By Mr. Hurd:

Q. On the second page, the last sentence reads:

> "If it develops that these people have a process which, due to the nature of same, it should be cheaper from the standpoint of manufacture, I personally would much rather obtain a license from them, pay for it and get the du Pont Company to use it in reducing the cost than I—"

Does that refer to Standard Oil of New Jersey?

A. That is correct.

Mr. Hurd: (Reading):

> "—would to deal with the Standard Oil as a manufacturer."

Q. Does that correctly state your views as of that date? [fol. 2948] A. Yes, it does, and the background of that I have dealt with just previous to that question.

Q. Mr. Sloan, I show you Government's Exhibit No. 623, which is Mr. Irenee du Pont's reply to this letter, and is dated February 2, 1924. I call your attention to the first page of the document, particularly the second paragraph which is in quotes, and which is Mr. Irenee's suggestion as to what should be written to the Standard Oil Company.

It reads:

> "We have contracted with E. I. du Pont de Nemours & Company for our estimated requirements of ethyl lead, believing that they are the best equipped company to handle complicated organic chemical problems. We, therefore, suggest that you get in touch with them to see if they are in anywise interested in your proposed method for the manufacture of that compound."

By Mr. Hurd:

Q. Did you follow Mr. Irenee's suggestion contained in that letter?

A. No, I did not.

Q. Did you have the du Pont Company negotiate with the Standard Oil regarding the process?

A. They did not.

Q. Mr. Sloan, I show you Government's Trial Exhibit No. 624, which is a letter from you to Mr. Irenee du Pont in reply to the previous exhibit, 623, and which has attached to it copy of your letter to Mr. Senior of the Standard Oil Company of New Jersey. Does that represent the action which you did take at that time with reference to [fol. 2949] the Standard Oil Company of New Jersey?

A. That is correct, Mr. Hurd. That is my answer to the letter in which I did not agree with du Pont and took quite a different course.

Q. Now you have already testified that you did agree, in the summer of 1924, to Standard putting up a pilot plant. Is that what you called it?

A. Yes.

Q. What did you understand to be the reason for the construction of that plant?

A. I thought the reason was—I don't know that there was any specific reason that I could testify to. I think the purpose was they wanted to do it. There was no reason why they should not do it. I was against it in principle because I did not think they had the competence to deal with such matters, as I testified before.

I always took the position that as long as it is in the area of an experiment, let us go ahead and try and find out something.

Q. Did you understand that this plant was to be a permanent plant?

A. It was not contemplated in any way, shape or manner that it was to be a permanent plant. As a matter of fact, it was set up in temporary quarters that were allocated temporarily for the purpose, at the Bayway plant of the Standard Oil of New Jersey.

Q. Mr. Sloan, I call your attention to a document marked for identification as General Motors Exhibit No. 81.

Does this document relate to the proposed plant to be constructed by Standard Oil of New Jersey?

A. That appears to be the formal arrangement entered into, Mr. Hurd.

Q. You will note, Mr. Sloan, on the front page at the [fol. 2950] upper right-hand corner, the words "Tetraethyl Lead Plant, Bayway."

Was that the location of the Standard plant?

A. That is correct, Bayway, New Jersey.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 81.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 81.)

Mr. Hurd: I should like to call attention to the first paragraph. This is a letter from Mr. Howard of the Standard Oil of New Jersey to Mr. Mittnacht of the Ethyl Gasoline Corporation, dated September 29, 1924, and refers to the Tetraethyl Lead Plant, Bayway:

> "Dear Mr. Mittnacht:
>
> "This manufacturing plant is operated by the Standard Oil Co. (N. J.) for the account of the Ethyl Gasoline Corp. The approximate cost of construction of the plant when completed will be about $50,000.00. The plant has an estimated capacity of 100 gallons of tetraethyl lead per day. Purchase contracts for materials have been made on the basis of six months' operation, beginning Sept. 15th, 1924. In view of necessity for using the space for other purposes, this should be regarded as the limit of life of the plant."

Turning now to the last page, paragraph 4:

> "When the plant is shut down, on or about March 15th, complete statement will be made up and an ad-[fol. 2951] justment reached of the accounts between the Standard Oil Company and the Ethyl Gasoline Corporation.
>
> "The above proposals have been taken up separately with Mr. Maxwell, Mr. Kettering, and Mr. Midgley, all of whom approve of this method of handling the operation of this plant."

By Mr. Hurd:

Q. Mr. Sloan, you have referred to the fact that you still had some misgiving about Standard carrying on this experiment.

Q. I want to show you Government's Exhibit No. 661 which is a letter from you to Mr. Irenee du Pont dated June 27, 1924, and I call your attention to the second page, paragraph No. 3, which reads:

> "For psychological reasons we should permit the Standard Oil Company of N. J. to expend $35,000 or $40,000 of their own money to experiment with the 100 gallon a day outfit in one of their plants, I believe in Bayway, in a building which they could use temporarily for the purpose."

Does that correctly set forth your views as of that date?

A. Those were my views. That is correct, Mr. Hurd.

Q. To what extent were you motivated in disapproving of Standard's manufacture because you wanted to obtain business for the du Pont Company?

A. It had nothing to do with it whatsoever, Mr. Hurd.

Q. Mr. Sloan, as a result of your concern about the intention of Standard to go into production, did you make any suggestions with reference to taking medical precau- [fol. 2952] tions?

A. Yes. I made the suggestion that a medical committee be appointed, consisting of the chief medical officer of du Pont, Standard Oil of New Jersey and General Motors, and also Ethyl Gasoline was in it, for the purpose of making such surveys as they could make, making such suggestions and recommendations as they were able to make as a result of such survey, so we would have a better understanding as to the health hazard and could do what was the right thing to do, the best thing to do, to minimize such hazards.

Q. I show you a document marked General Motors Exhibit No. 82 for identification, which purports to be a letter from you to Mr. Kettering, dated June 23, 1924, and ask you if that contains your suggestions regarding the appointment of a medical committee?

A. That is correct, Mr. Hurd, except I stand corrected. I didn't recall the date. Ethyl Gasoline was not in it because Ethyl Gasoline was not formed yet.

The medical committee was confined to Standard Oil of New Jersey, du Pont and General Motors.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 82.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 82.)

* * * * * * *

[fol. 2953] Then I would like to offer in evidence General Motors Exhibit No. 83, which is a letter from Mr. Harrington of the du Pont Company to Mr. Sloan, dated June 30, 1924, seven days after the prior letter.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 83.)

* * * * * * *

[fol. 2954] I also offer in evidence General Motors Exhibit No. 84, which is a letter from Mr. McKnight of the Standard Oil Company to Mr. Howard of the Standard Oil Company, dated June 24, 1924.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 84.)

* * * * * * *

[fol. 2955-2956] By ~~Mr. Hurd~~:

Q. Mr. Sloan, do you recall whether or not the du Pont Company tried out the chloride process that Standard Oil had?

A. I believe they did.

Q. Do you recall at whose suggestion they tried out that process?

A. I think that was made at the suggestion of Mr. Howard of the Standard Oil of New Jersey. That is according to my best recollection.

Q. Mr. Sloan, I would like to show you a document marked General Motors Exhibit No. 85 for identification, which purports to be a letter from you to Mr. Howard, dated May 6, 1924.

Do you recall that letter, Mr. Sloan?

A. I do recall that letter, Mr. Hurd.

Q. Does that deal with the subject of having the du Pont Company investigate the chloride process?

A. That is correct, Mr. Hurd.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 85. This is a letter from Mr. Sloan to Mr. Howard, dated May 6, 1924.

(Said document, so offered and received in evidence was marked General Motors Exhibit No. 85.)

[fol. 2957] By Mr. Hurd:

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 86 for identification, which purports to be a letter from Mr. Howard to you, and ask you if that is the reply you received to your letter of May 6?

A. What was your question—with respect to identification?

Q. Is that Mr. Howard's reply to your letter of May 6?

A. That is correct, Mr. Hurd.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 86, which is a letter dated May 8, 1924, from Mr. Howard to Mr. Sloan.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 86.)

Mr. Hurd: I should like to read the last paragraph:

> "In the meantime, I hope that Mr. Harrington, of the Du Pont Company, will be able to make a full investigation of our chloride method of manufacture; and I have given instructions to our Research Laboratory to see that he gets complete information on this, in the event that he is unable to begin on the matter until after my departure on Saturday."

By Mr. Hurd:

Q. Mr. Sloan, in the contract that was entered into between Standard Oil and General Motors before formation of Ethyl Corporation, I believe there is reference to the erection of an additional 1,000 gallon plant by the du Pont Company on the chloride process.

Do you recall whether you had any discussions with the [fol. 2958] Standard Oil representatives regarding the du Pont Company constructing a new plant to use the chlorine process?

A. To my best recollection, Mr. Hurd, that suggestion came from Mr. Howard of the Standard Oil of New Jersey, that they erect a thousand gallon plant.

Q. That the du Pont Company erect the plant?

A. Yes. I am quite certain I am correct in that.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 87, which is a communication from Mr. Howard to Mr. Moffett and Mr. Clark.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 87.)

By Mr. Hurd:

Q. Who was Mr. J. A. Moffett, Jr.?

A. Mr. Moffett was vice-president of the Standard Oil of New Jersey in charge of what they call "marketing." We call it "distribution."

Q. Who was Mr. E. M. Clark?

A. Mr. E. M. Clark was a director of Standard Oil of New Jersey. He was serving as—what is the date?

Q. June 26, 1924.

A. He was an executive of Standard Oil of New Jersey, on the technical side. He subsequently became a Director of Ethyl Gasoline Corporation, representing Standard Oil of New Jersey.

Q. I would like to call attention to the third page of the document, paragraph No. 2:

> "100-gallon plant, chlorine process, to be installed at the Bayway refinery for the account of the Foundation Company."

[fol. 2959] What was the Foundation Company?

A. That was the name he used to indicate the Ethyl Gasoline Corporation. It had not been organized yet, and it had no name, so we called it the Foundation Company.

Q. And that was the plant that Standard was putting up at Bayway Refinery?

A. That's right.

Mr. Hurd: Then dropping down to the next paragraph:

> "This 100-gallon chlorine process plant has a double purpose: first, to afford the experience basis for future construction on this process; and, second, to provide

an additional 100 gallons of tetraethyl per day for the end of the peak season, September and October, and for as much additional time as may be required in view of the market.

"3. Two additional large-scale chlorine process plants should be laid down as soon as possible, to be ready to begin operations before the gasoline season opens in 1925. It is suggested that one of these plants, of 1000-gallons daily capacity, be located at Penns Grove, to be operated by the du Pont Company, and that the second plant, of 500 gallons daily capacity, be located at some other point determined by a study of freight relationships, to be erected and operated by the Foundation Company."

By Mr. Hurd:

Q. Mr. Sloan, after the formation of the Ethyl Corporation in the summer of 1924, what became of the 1922 contract between du Pont and General Motors?

A. That contract was cancelled by agreement, and a new [fol. 2960] contract was made carrying the date of October 10, 1924, which contemplated the further production of tetraethyl lead on a considerably different basis.

Q. I show you Government's Exhibit No. 675, and ask you if that is a copy of the October 10, 1924, contract with the du Pont Company?

A. This appears to be the contract of October 10, 1924, to which I just referred.

Mr. Hurd: If the Court please, I should like to call attention to the fact that this contract is between the du Pont Company and the Ethyl Gasoline Corporation, and that it is not an exclusive contract.

By Mr. Hurd:

Q. Mr. Sloan, when the Ethyl Corporation was formed, did it have any business head or business executive heading up the company?

A. No, it didn't. Mr. Kettering was the head of it, and the president, and he, of course, was a scientist. I think Mr. Midgley was vice president, and he was a scientist.

There was another individual, a man by the name of Maxwell. He was a sort of assistant to Mr. Midgley. I am not certain what his background was. I think he was more on the business area. I am not certain of that.

Q. Did you do anything to have a businessman or business head for the company?

A. Well, I was very much dissatisfied with the setup from an organization point of view because I realized that Mr. Kettering and Mr. Midgley had their responsibilities, and they needed somebody around during the operation of the newly formed corporation, the Ethyl Gasoline Corporation, in a businesslike way.

I raised that question, and upon doing so, Mr. Kettering was quite antagonistic to it, so I let the thing go along [fol. 2961] for some while. It is generally my custom, when I get some resistance, to back out of it and try to do a selling job rather than force the issue. Early in the next year, that would be 1925, I took it up more vigorously, and consulted Mr. Teagle of the Standard Oil Company of New Jersey, president at that time. He agreed with me that we ought to have a business executive. To make a long story short, I suggested a candidate, a man by the name of Webb. Mr. Webb was counsel of General Motors in Detroit, and I presented Mr. Webb's name. Mr. Webb went to see Mr. Teagle, and after considerable discussion and conferences, the Standard Oil Company of New Jersey agreed that Mr. Webb was a desirable candidate for the presidency of the Ethyl Gasoline Corporation, and Mr. Webb became president of that corporation around about April 1st, 1925.

Q. Had Mr. Webb ever been connected with the du Pont Company in any way?

A. No relation to the du Pont Company.

Q. Did you also send Mr. Webb to see Mr. Irenee du Pont before he was elected president?

A. I think I may have done so because Mr. du Pont was a director of the Ethyl Corporation at that time, and picking out a president was quite an important thing, and I may have submitted his name to him. I don't recall, Mr. Hurd, whether I did or did not.

Q. Mr. Sloan, I call your attention to Government's Exhibit No. 678, which is a letter from you to Mr. Irenee du Pont, dated March 28th, 1925, and ask you if that refreshes your recollection as to whether you had Mr. Webb call on Mr. Irenee du Pont?

A. This appears to be a letter involving——

[fol. 2962] Q. I call your attention to the last paragraph:

> "I want you to know the above for two reasons:—First, because we have taken on a matter which I feel sure you have realized should have had attention before and, second, because Mr. Webb will call upon you in due course and I would appreciate it if you would discuss with him frankly with all the cards face up on the table, exactly what you think as to the whole situation so that he can get the benefit of all the atmosphere preparatory to submitting his recommendations."

Do you recall that?

A. I recall that. As a matter of fact, I should perhaps have testified before when I submitted Mr. Webb's name to Mr. Teagle, Mr. Teagle suggested that Mr. Webb make a survey of the situation, and make a report as to how he viewed the thing, and that last reference was to get the atmosphere, such as was available, of Mr. Irenee du Pont.

Q. How he viewed what thing?

A. Pardon me?

Q. You said you wanted to find out his recommendations and how he viewed the thing. What "thing" do you refer to?

A. Mr. Irenee and Mr. Webb? Mr. Webb?

Q. Mr. Webb.

A. I don't recall, Mr. Hurd, the report that he submitted in line with Mr. Teagle's point of view, but I think he must have submitted the report.

Q. I think you misunderstood my question.

A. I am sorry.

Q. I understood you to say that you wanted Mr. Webb to make a report showing how Mr. Webb viewed the thing. [fol. 2963] I wondered what you meant by "the thing."

A. The outlook of the possibilities of the business, and how he thought it should be conducted, and any observation he might make in the premises. I again repeat, that was Mr. Teagle's suggestion.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 88 for identification, and ask you if you:

recall receiving this letter from Mr. Irenee du Pont, after he saw Mr. Webb.

A. I recall that letter. This is really an approval of Mr. Irenee du Pont as to the appointment of Mr. Webb as president of the Gasoline Corporation.

Mr. Hurd: I offer in evidence General Motors Exhibit No. 88, this exhibit.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 88.)

* * * * * * *

[fol. 2964] By Mr. Hurd:

Q. Referring again, Mr. Sloan, to the Bayway plant which the Standard Oil put up, approximately how long did that run?

A. Not more than thirty days, Mr. Hurd.

Q. And what happened at that point?

A. Well, somewhere within the thirty days, a very serious accident happened in which five of the operators were killed, and the rest of the men concerned with the operation were very seriously affected health-wise, to the extent that —well, you might say they went crazy under the influence of tetraethyl lead.

They were sent over to Bellevue Hospital in New York, and it was a very bad situation that developed.

Q. Do you recall whether or not the Department of Labor of the State of New Jersey took any position with respect to the future operation of the plant?

A. Yes, the New Jersey Department of Labor forbade the operation of the plant, and not only that, but the health authorities of New York City forbade the use of tetraethyl lead. There was a professor, I think at Yale University, who came out with an attack against it, and the Gulf Oil Company, or the Gulf Refining Company, which was one of the oil companies that were distributing the product, came out [fol. 2965] with an announcement that they discontinued the distribution of leaded gasoline, as we used to call it, until the health hazards had been satisfactorily taken care of.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 89 and 90, which are respectively communications from the Commissioner of Labor of New Jersey to Doctor Johns of the Standard Oil Company, dated November 19, 1924, and a letter dated December 2nd, 1924.

* * * * * * *

(Said documents were so offered and received in evidence were marked General Motors Exhibits Nos. 89 and 90, respectively.)

Then General Motors Exhibit No. 90, a letter from the Commissioner of Labor of New Jersey to Standard Oil dated December 2, 1924 * * *.

* * * * * * *

[fol. 2966] By Mr. Hurd:

Q. Mr. Sloan, I want to call your attention to Government's Trial Exhibit No. 709, which is a letter from you to Mr. Irenee du Pont dated December 4, 1924, particularly to the last paragraph appearing on the second page which contains the statement, "I think they have changed their viewpoint.".

Whom do you refer to as "they"?

A. Standard Oil of New Jersey.

Q. (Continuing):

> "—about an independent source of supply anyway, for which I am very gratified."

Going to the last sentence:

> "Now that they have tried it and are satisfied, we can go on with the next thing."

I also want to call your attention to Government's Trial Exhibit No. 710, to the second paragraph, the second sentence which reads:

> "duPont will always be the manufacturing agent of Ethyl Gasoline Corporation whether we make tetraethyl lead or whatever we make, now or in the future."

Will you state what your purpose was in making that statement?

[fol. 2967]. A. Well, I was, as I already testified here,—I had great confidence in the du Pont Company's competence in a thing of this kind, and I felt that General Motors would be much better off dealing with them on account of their technical ability, and I was satisfied that they would, through their technical ability and competence—that they would always be able to make a price that was reasonable.

Q. What happened with respect to the continued manufacture of the lead by the du Pont Company after the Bayway catastrophe?

A. Well, production of tetraethyl lead by the du Pont Company was continued through the balance of 1924 and into 1925, up to May 3rd of 1925, at which time a meeting of the directors of Ethyl Gasoline Corporation took place, and the directors adopted the policy of discontinuing the manufacture and discontinuing the distribution of tetraethyl lead from that time on, and production ceased at the du Pont Company in accordance with the policy laid down by the directors at that date.

Q. At whose suggestion was the manufacture of lead terminated at that time?

A. It was practically the unanimous opinion of the board of directors of Ethyl Gasoline Corporation that that was the only thing to do. Mr. Irenee du Pont was a director at that time, and he did not agree with the policy, but outside of Mr. Irenee du Pont's point of view, it was the unanimous decision that was reached at that time, and no further tetraethyl lead was manufactured as a result of that decision.

Q. Mr. Irenee du Pont wished to continue the manufacture of it?

A. He wished to continue the manufacture of it. As a matter of fact, the business, although Ethyl Gaso- [fol. 2968-2969] line Corporation continued to sell ethyl gasoline during the period between the Bayway accident on May 2nd or 3rd, 1925—the business was falling off very rapidly due to the adverse publicity that had taken place in the meantime, to which I have already testified.

The action of the Gulf Oil Company and so forth, and Ethyl Gasoline Corporation was accepting a heavy monthly loss as a result of the diminution of the business, and it was clear in the early part of May that something had to be done about it, and what was done was indicated by the action of the directors discontinuing the whole operation as of that time.

Q. Did I understand you to say that all of the directors were in favor of the close down except Mr. Irenee du Pont?

A. Except Mr. Irenee du Pont, that is correct.

Q. And you did close down?

A. We did close down.

Adjournment.

[fol. 2970] ALFRED P. SLOAN, JR., called as a witness on behalf of the defendants having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (Continued)

By Mr. Hurd:

Q. Mr. Sloan, at the conclusion of yesterday's session you had stated that the manufacture and sale of ethyl gasoline were terminated in the spring of 1925. Following that was any investigation made regarding the hazards incident to the manufacture, sale and use of the ethyl gasoline?

A. There was, Mr. Hurd.

Q. Who conducted that investigation?

A. The Surgeon General of the United States.

Q. Do you know what Mr. Irenee du Pont's attitude was towards having the Surgeon General look into this matter?

A. I think it was quite favorable. We were all favorable to it.

Q. Mr. Sloan, I show you a document that is in evidence as du Pont Exhibit No. 99-A, which is a letter from Mr. Irenee du Pont to you dated December 6th, 1924. Do you recall receiving that letter?

A. I don't know if I do recall receiving that letter, but it appears to be authentic.

Q. This December, 1924, is prior to the date of the close-down?

A. That's right.

Mr. Hurd: If the Court please, I would like to call the Court's attention to the third paragraph of this letter from Mr. Irenee du Pont which states:

> "From the point of view of manufacture of tetraethyl lead I would say that it is imperative that a competent man see the Surgeon General at once."

[fol. 2971] By Mr. Hurd:

Q. Mr. Sloan, do you know whether or not the du Pont Company did anything to indicate to the Surgeon General the procedure followed by that company in the manufacture of tetraethyl lead?

A. They did, Mr. Hurd. There were conferences arranged with the Surgeon General in which Mr. Harrington of the du Pont Company was present, Mr. Kettering of General Motors, and Mr. Frank Howard of the Standard Oil, for the purpose of presenting the facts and circumstances to the Surgeon General.

Q. Mr. Sloan, I show you two documents that are marked General Motors Exhibits Nos. 91 and 92 respectively for identification, which are excerpts from the minutes of the Executive Committee meeting of General Motors, the first one in June, 1925, and the second one in October, 1925.

Will you look at Exhibit No. 91 and tell me whether the Surgeon General's investigation that is referred to in that document is the investigation of the manufacture and use of tetraethyl lead to which you have referred?

A. That represents the action I have just testified to.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 91, and I would like to—

The Court: What number?

Mr. Hurd: 91.

This is from the minutes of the General Motors Executive Committee on June 23, 1925, under the heading, "Ethylized Gasoline":

"The President—"

[fol. 2972] By Mr. Hurd:

Q. That would be yourself at that time, Mr. Sloan?

By the Witness:

A. Correct, Mr. Hurd.

Mr. Hurd: (Continuing):

"The President told the Committee of the action of the Ethyl Gasoline Corporation in withdrawing ethylized gasoline from the market as a result of the publicity campaign conducted by the New York World regarding the question of possible injury to the public health from the use of this compound.

"As is already known to the Committee, arrangements have been made with the Surgeon General of the United States to conduct an investigation as to the effect of this compound on the health of the public. The President expressed himself as being very hopeful that as a result of this investigation we shall very soon be permitted to resume the sale of ethylized gasoline and that its use will rapidly increase."

(Said document so offered and received in evidence was marked General Motors Exhibit No. 91.)

Mr. Hurd: I offer in evidence General Motors Exhibit No. 92, which contains excerpts from the minutes of the Executive Committee of General Motors on October 21, 1925, after the Surgeon General had been operating for some time.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 92.)

[fol. 2973] Mr. Hurd: Under the heading "Tetraethyl-lead—Ethylized Gasoline":

"The President reported that progress is being made by the U. S. Surgeon General's Committee appointed to investigate the question of injurious effects of ethylized gasoline. This Committee has visited the du Pont Company's Plant at Deepwater, New Jersey, and apparently was very favorably impressed by the precautions taken in the manufacture of this compound"—

By Mr. Hurd:

Q. Mr. Sloan, subsequent to this, was a report made by the Surgeon General?

A. A report was made by the special committee appointed by the Surgeon General, to him, in the very early part of the next year which would be 1926, submitting their conclusions, and in relation thereto certain recommendations as to what might properly be done which would permit the continued use of tetraethyl lead as an anti-knock compound in gasoline.

Q. And did the manufacture and sale of Ethyl gasoline resume shortly after that?

A. That is correct; shortly after that a contract was made to continue the production and Ethyl gasoline continued the sale of tetraethyl lead in accordance with the recommendations of the Surgeon General.

Q. At the time of the shut-down did you have a contract? Did Ethyl Corporation have a contract with the du Pont Company for the manufacture of tetraethyl lead?

A. We did.

Q. Do you recall whether you also had a contract with the Dow Chemical Company at that time?

A. We did.

[fol. 2974] Q. What happened to those contracts?

A. Those contracts were liquidated by negotiation.

Q. Who conducted those negotiations?

A. Ethyl Gasoline Corporation.

Q. And do you know what individuals?

A. More particularly Mr. Webb, the president. It was his responsibility. He was assisted particularly by Mr. Frank Howard and Mr. E. M. Clark, directors of Ethyl Gasoline Corporation.

Q. Did you participate in the negotiations?

A. I had very little to do with the negotiations. I knew about the general trend of them, but I didn't participate directly in the negotiations with the du Pont Company.

Q. Did you have any reason for not participating in those negotiations?

A. Well, in the first place I have never had much respect for my own ability as a negotiator. I am too apt to look at two sides of the question. On the other hand, Mr. Frank Howard was a very expert negotiator and I thought Ethyl Gasoline Corporation was in better hands if it was conducted by Mr. Howard, and Mr. Clark than myself. In addition to that Ethyl Gasoline had just been formed, and I was not particularly well acquainted with the Standard Oil executives that were on the Board.

Naturally, the du Pont side of it were friends of mine. I thought it would be better for them to conduct negotiations than that they might think that I was prejudiced. I wanted to put myself in a completely unprejudiced position. As years passed, I don't think I would have taken that position, because I think the Standard Oil Company would not have possibly looked at it that way, but I feared that they might under such circumstances.

[fol. 2975] Q. Now, Mr. Sloan, the Government has introduced certain letters from you or to you.

I refer particularly to Government's Trial Exhibit Nos. 680, 691, and here is another one, 692, in which there was some reference to possible embarrassment to you, if you participated in those negotiations.

What was the embarrassment that was referred to in those documents?

A. That in negotiating with du Pont, Standard Oil of New Jersey might think they were friends of mine, as they were, and I might better leave it to them rather than to take the responsibility myself.

Q. You said that after you had an approval from the Surgeon General, a new contract was made with the du Pont Company?

A. A new contract was made, Mr. Hurd, early in January, 1926, after the report was submitted.

Q. To refresh your recollection, I will show you Government Exhibit No. 706, and ask you if that is the contract to which you are referring?

A. That is correct. That is the contract to which I referred.

Q. Will you look at the date of it?

A. The 31st of March, 1926.

Q. I believe you said it was January.

A. Well, it is a good deal to ask or expect of me to remember dates thirty or so years ago.

There was only one contract in that time area. There couldn't be any confusion about the contract.

Q. And that is Government's Exhibit No. 706?

A. That is correct.

Q. Did you negotiate that contract?

[fol. 2976] A. No, that was negotiated by Mr. Webb, who was president of the corporation, assisted by Mr. Howard and Mr. Clark.

Q. Subsequent to this, do you recall whether or not Ethyl Corporation had other contracts with the du Pont Company?

A. It had a series of contracts, Mr. Hurd, extending from the year 1926 up to—I think the last contract that was made was January 1st, 1938.

Q. Did you participate in the negotiations of any of those contracts?

A. Very, very little. Most of those negotiations were very complex. They involved to an increasing extent chemical problems, with which I was not familiar, and I felt Ethyl Gasoline Corporation was in good hands in having the responsibility attached to Mr. Webb, the president, who was a lawyer and well qualified to deal with such matters, assisted by Mr. Clark and Mr. Howard, who were technically qualified to deal with the technical side of it.

My relationships with Ethyl from that time on were rather limited to that of a director and a member of the Executive Committee. I considered the contracts from that responsibility as they were presented to the Executive Committee of the Board, but I had practically nothing to do with the details that led up to a recommended agreement.

Q. Mr. Sloan, do you recall a problem arising in Ethyl Corporation with respect to whether the Ethyl fluid would be sold in bulk or whether it would be sold to the oil companies with requirements for maintaining certain standards?

A. That question came up through the discussions relating to the formation of Ethyl Gasoline Corporation. One of the objectives laid down in the agreement between Standard Oil of New Jersey and General Motors that led to [fol. 2977] the formation of the corporation was the idea that we should press forward for standardization.

I think I testified yesterday that in seeking a name for Ethyl Gasoline Corporation, Mr. Howard and I, who were very much interested in standardization, tried to think of some name that would involve standardization, but that was given up. But the question of standardization from the standpoint of the motor car industry and the oil industry together seemed very important to us.

Q. What do you mean by standardization?

A. Having a definite rating of anti-knock qualities that the engineers could work to from the standpoint of the compression ratio of the engine, so that they could be synchronized rather than working in the dark without any standardization.

Q. Did you follow the practice of having some standardization?

A. That system was followed. In the early days the standard was set at what we called 40 per cent benzol blend. Benzol was an anti-knock agent, and that established the standard.

Later on, through further development, a system was evolved which was finally termed octane rating. Today that is used almost exclusively. So that when an octane rating is mentioned, the engineer who designs the engine from the standpoint of the compression ratio knows exactly what he can do to synchronize the compression ratio of the engine with the available fuel. We continued that right up to today.

Q. To be sure that this is clear, did you require that the gasoline in which the ethyl fluid was used contain a certain amount of ethyl fluid in order to be sure that it would perform according to a certain test?

A. No, Mr. Hurd. It didn't work that way. We specified [fol. 2978] that the fuel that was sold under Ethyl brand should have certain anti-knock qualities, which was established by the octane rating of the fuel.

As I think I testified the other day, octane rating at the inauguration of the use of tetraethyl lead, was around 45, and we worked it up until now it is about 85 or 90.

Those who have a license to use tetraethyl lead were required to work to a certain octane rating, and that octane rating was moved up as the higher anti-knock fuels were available.

Q. Did the octane rating depend upon the amount of tetraethyl lead in the gasoline?

A. Both, Mr. Hurd, that and also the base fuel. In other words, as we moved up the octane rating and moved up the compression ratio to get the efficiency resulting from the octane rating, the oil industry developed revolutionary methods of cracking in which the base fuel was increased in octane rating, irrespective of the amount of tetraethyl lead. But when tetraethyl lead was added, it always gave an additional octane rating and enabled the engineer to use a higher compression ratio, resulting either in fuel economy or more power for the same size engine.

Q. What was Mr. Irenee du Pont's attitude on this subject, if you know?

A. Mr. Irenee took a different viewpoint. His idea was that we should sell tetraethyl lead as a commodity to the oil industry, subject of course to the rulings of the Surgeon General, and that the oil industry should do as it pleased and establish its own ratings, irrespective of any standardization by Ethyl Corporation.

Q. By saying you would sell it as a commodity, you mean you would sell it the way you would so much coal, or something of that type?

A. That is right.

[fol. 2979-2984] Q. And leave it up to the oil industry to use it as they pleased?

A. That is correct, Mr. Hurd.

Q. What position did you take?

A. I took the position that we should go the standardization route; Mr. Howard, technician for Standard Oil Company, felt the same way.

We both felt there was a great deal to gain in establishing ethyl as an anti-knock agent associated with a certain high rating, a higher rating than normal, of octane.

Q. Which route did you follow?

A. That is correct.

Q. I say which route did you follow?

A. We followed the—I am sorry—we followed the route of standardization.

Q. Do you recall having any correspondence with Mr. Irenee du Pont on this subject?

A. I think there was probably considerable correspondence because he was quite an aggressive individual, and he had a different point of view.

Q. Mr. Sloan, I hand you documents marked General Motors Exhibits Nos. 94 to 103, both inclusive, and ask you if that is the correspondence you had with Mr. Irenee or Mr. Lammot du Pont on this subject?

A. Just looking through them hurriedly, Mr. Hurd, it appears to be the correspondence relating to the standardization to which I have just testified.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 94 to 103, inclusive.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 94 to 103, both inclusive.)

[fol. 2985] By Mr. Hurd:

Q. The outcome of this dispute, I understand you to say, Mr. Sloan, you continued with the standard?

A. We continued with the standardization up to today.

Q. Mr. Sloan, at any time after 1926, when your manufacture and sale were resumed, did you give any consideration to what would happen to the Ethyl Corporation after the expiration of its patent?

A. Yes, I did, Mr. Hurd.

Q. About when was it that you started considering that [fol. 2986] subject, if you recall?

A. Sometime in the very early part of 1930, the idea came to me, and I wrote a letter to Mr. Webb, who, you will recall, was president of the Ethyl Gasoline Corporation, stating my position in the matter, and making certain suggestions.

Q. I show you Government's Exhibit No. 748, and ask you if that is the letter to which you are referring.

A. That is the letter to which I just referred.

* * * * * * *

[fol. 2987] By Mr. Hurd:

Q. Now, Mr. Sloan, following this, do you know whether anything was done by the Ethyl Corporation to protect itself after the expiration of the patents?

A. The contract, Mr. Hurd, that was made with du Pont by the Ethyl Gasoline Corporation for the protection of tetraethyl lead, which would start on a year-to-year basis, and I think some later contracts were for more than one year—those from that time on were directed towards protecting the long term future of the Ethyl Gasoline Corporation from the point of view of providing that the du Pont Company, under certain conditions, would provide the know-how for Ethyl to manufacture if it so wished. It was provided in such contracts, as I recall it, that were negotiated after the 1930's that continued until the end of 1937; a new contract was made at that time, coming into effect January 1st, 1938, and the point of that contract, du Pont retired as a principal in the manufacture of tetraethyl lead, and became an agent of the Ethyl Gasoline Corporation under the terms specified in the contract.

Ethyl Gasoline Corporation provided the capital, and leased the plant at Deepwater which they were using in the manufacture of tetraethyl lead at that point.

Then the fees, and so forth, were provided for by a formula, and that formula was suggested to us of the Gaso-[fol. 2988] line Corporation by Mr. Frank Howard of the Standard Oil Company whom you will recall was a director of the Ethyl Gasoline Corporation.

From that time on, the Ethyl Gasoline Corporation manufactured tetraethyl lead themselves, using du Pont as the agent to conduct the manufacturing operation.

Some years subsequent, five or six years, Ethyl took over the manufacture of tetraethyl lead at Baton Rouge, which was the second source of supply, and continued it from that time on its own responsibility.

Q. Do you recall about when it was that the patents expired?

A. The patents expired on or about the end of 1937.

Q. '47?

A. '47, I am sorry.

Q. Since that time do you know whether or not the Ethyl Corporation has itself engaged in the manufacture and sale of ethyl fluid?

A. Ethyl Gasoline Corporation, beginning January 1, 1948, has conducted on its own account the manufacturing operations at Baton Rouge, Louisiana, and the du Pont Company has continued the production of tetraethyl lead at its plants at Deepwater.

Q. When these contracts were being negotiated in the middle 30's, leading up to Ethyl getting the know-how for manufacture, preparatory to its manufacturing itself, do you know what Mr. Lammot du Pont's position was as to whether Ethyl should manufacture ethyl fluid?

A. I think Mr. Lammot du Pont was very much against Ethyl manufacturing on its own account. I am quite certain he took a very strong position on that point.

Mr. Hurd: If the Court please, I would like to call the Court's attention to Government's Exhibit No. 781.

[fol. 2989] This is a letter from Mr. Lammot du Pont to Mr. Webb, President of Ethyl Gasoline Corporation, dated March 6th, 1936, and it shows at the top that a copy went to Mr. Sloan, Mr. Donaldson Brown, and Mr. Teagle.

Referring to the third page of the document, the last paragraph:

> "I have told you on many occasions, have told Mr. Sloan and Mr. Brown on several occasions, and have told Mr. Teagle on at least one occasion, that it is my carefully considered opinion that Ethyl Gasoline Corporation would make a very grave error in undertaking the manufacture of tetraethyl lead. I wish to repeat that statement now and to make it a matter of record; and I am therefore sending a copy of this letter to the three gentlemen above mentioned."

By Mr. Hurd:

Q. After receiving a copy of this letter, what position did you take with reference to whether or not Ethyl should itself manufacture tetraethyl lead?

A. It didn't change my point of view at all. I thought they should manufacture tetraethyl lead.

Q. Therefore did you approve of the contracts providing for their manufacturing it?

A. I did.

Q. Mr. Sloan, you referred earlier to having a contract with the Dow Chemical Company which was liquidated during the period of the shutdown of the manufacture and sale of tetraethyl lead.

A. That is correct.

Q. What material is purchased from the Dow Chemical Company?

A. Bromine.

Q. And what was the position of bromine in connection with the manufacture of tetraethyl lead?

[fol. 2990] A. Well, it will be recalled that the first process for making tetraethyl lead after the iodine process was washed out, in the early part of 1922, we went to bromine, and bromine was in very short supply, and to make the situation worse, the so-called tetraethyl lead fluid which consisted of tetraethyl lead plus certain added parts to counteract the corrosive action of tetraethyl in the spark plugs of the engine, it was found that the best means of covering that point was bromine, so we had bromine required for the manufacture and for the use.

Bromine was used in the manufacture, and was recovered to a considerable extent, but the bromine that went out in the tetraethyl lead was not recovered. Bromine being in very short supply, it looked as if at one time it would be the bottleneck in our ability to produce tetraethyl lead. We were buying substantial quantities from Germany, and in this country the Dow Chemical Company was the only source of supply. They were operating up in Michigan and they were taking chemicals out of deep wells that they were operating at that point.

Q. Do you recall whether or not the Dow Chemical Company subsequently discovered a procedure or process for getting the bromine out of sea water?

A. That is correct. They developed a process. In 1933, I think it was, Ethyl Gasoline Corporation and Dow Chemical Company formed a corporation called the Ethyl Dow Corporation, the purpose of which was to develop plant capacity for extracting bromine out of sea water.

Q. How was the capital stock of the Ethyl Dow Corporation divided, do you recall?

A. It was divided fifty-fifty. I think Ethyl Gasoline Cor- [fol. 2991] poration at the beginning took some preferred stock in addition to its fifty-fifty interest. The common stock was divided fifty-fifty.

Q. Was the du Pont Company consulted with reference to whether it was satisfactory for Ethyl to form this corporation with Dow Chemical Company?

A. They had no part in it. As a matter of fact, I don't think that they knew what was to be done until after it was done.

Q. Mr. Sloan, do you have any connection with the Ethyl Corporation today?

A. Not since the end of December, 1947.

Q. Were you a director up until December, 1947?

A. I was a director from the beginning up until that date, Mr. Hurd.

Q. You have had nothing to do with the corporation since?

A. Nothing to do with it.

Q. Mr. Sloan, I should like to refer to the amended complaint in this case, to Paragraph 70, the sentence which reads as follows:

> "It was agreed among du Pont Company, General Motors and Standard Oil that the latter, in considera-

> tion for receiving a 50 per cent stock interest in Ethyl, and thereby securing a right to one-half of the profits involved in the distribution of the ethyl fluid, would withdraw its demand to share with du Pont Company in the manufacture of tetraethyl lead."

Do you know of any agreement to that effect between General Motors, Standard Oil and du Pont?

A. I not only know of no such agreement, but the contract between Standard Oil and General Motors that led to the formation of Ethyl Gasoline Corporation specifically prescribes that Standard Oil shall have a right to manufacture.

[fol. 2992] Q. Has there ever been an agreement, to your knowledge, that Standard would not manufacture tetraethyl lead?

A. No such agreement whatsoever.

Q. Was there any understanding of any type that if Standard were permitted to have a 50 per cent stock interest in Ethyl Corporation that the du Pont Company could do all the manufacturing?

A. No such understanding.

Q. I now wish to refer to Paragraph 64 of the Complaint—

We seem to have a little competition.

The Court: This may be a good time to declare a recess. The court stands recessed for fifteen minutes.

(Recess taken.)

The Court: Proceed.

By Mr. Hurd:

Q. Mr. Sloan, I now wish to call your attention to certain portions of Paragraph 64 of the Complaint in this case:

> "Du Pont Company entered into an agreement with General Motors to the effect that the latter would refrain from the manufacture of chemicals."

Have you ever heard of an agreement to that effect?

A. No, I have not.

Q. Continuing on with this paragraph:

"It was further agreed between the two companies that when General Motors made discoveries in the chemical field, it would inform du Pont Company of the findings and grant the du Pont Company exclusive [fol. 2993] development, production and exploitation with respect to such discoveries.".

Do you know of any agreement between the two companies that if General Motors made discoveries in the chemical field, it would inform the du Pont Company of those discoveries and permit the du Pont Company to exploit them?

A. I know of no such agreement.

Q. I didn't get your answer.

A. I know of no such agreement.

Q. "It was also understood that if any of said General Motors discoveries were useable in General Motors operations, the du Pont Company would, after their development, make them available to General Motors Company for use upon an exclusive and preferential basis."

A. I never heard of such an agreement.

Q. "It was further understood that if du Pont Company made a discovery in the chemical field which might be of use in the production of automobiles, du Pont Company would promptly inform General Motors of its findings, and grant General Motors preferential rights with respect to such discovery."

A. I never—I know of no such agreement.

Q. Mr. Sloan, let me ask you, did General Motors itself ever go into the manufacture of tetraethyl lead?

A. Will you repeat that question, Mr. Hurd?

Q. Did General Motors itself ever go into the manufacture of tetraethyl lead?

A. No, they did not.

Q. You have previously testified that after tetraethyl lead was discovered, you elected, at the suggestion by Mr. Kettering, not to have General Motors manufacture tetraethyl lead, and I believe you gave three reasons at that time in your testimony.

[fol. 2994] One was that General Motors was interested primarily in the engine improvement made possible by this discovery, rather than in the product itself.

Second, as I recall, was that the manufacture of tetraethyl lead would be a business foreign to the type of business conducted by your manufacturing operations; and third, that General Motors, you considered, was not competent to manufacture a dangerous chemical such as tetraethyl lead.

Now, Mr. Sloan, was there any other reason in your electing not to have General Motors manufacture tetraethyl lead?

A. Absolutely none.

Q. Were you influenced in any way by any feeling that there was some understanding between General Motors and du Pont that General Motors was not to go into the chemical field?

A. Absolutely not.

Q. After the discovery of tetraethyl lead, you have testified that you did ask the du Pont Company to manufacture the product, you answered, at the suggestion of Mr. Kettering, I believe you said.

A. That is correct.

Q. And as I understood your testimony, you gave two reasons for selecting the du Pont Company; first, because you considered them an outstanding chemical company; and second, because of their unusual experience in the handling of dangerous chemicals.

I now want to ask you whether there was any other reason for your selecting the du Pont Company to manufacture tetraethyl lead?

A. No other reason whatsoever, Mr. Hurd.

Q. Did you ask the du Pont Company to manufacture tetraethyl lead because you wanted to favor that company over any other chemical company?

[fol. 2995] A. Certainly not. I was interested in General Motors. My responsibility was General Motors. I had a large interest in General Motors, and my position as an industrialist entirely depended on General Motors, and nothing else. In all my life, I really lived General Motors.

Q. In making this decision not to manufacture in General Motors, and second, to permit the du Pont Company to manufacture, were you motivated by any interest other than what you thought was for the best interest of the General Motors Corporation?

A. No other interest than the interest of General Motors Corporation while my responsibility existed.

Q. Mr. Sloan, I now wish to turn to a new subject, that of automobile finishes. We have had some testimony in this case regarding the problem of finishing automobiles, in the pre-"Duco" days. I believe Mr. Lawrence Fisher testified to that. I wonder if you would tell us briefly what your own understanding was, and as to the problem of finishing automobiles before "Duco" was used?

A. Well, in the early 1920's, I adopted a practice from time to time to make extended trips throughout the territories, and contact in those trips a very large number of dealers, General Motors dealers, of course, the purpose being to get, directly, knowledge of what was going on in the field so that I could direct the administration of General Motors in the way of progress and development.

Naturally, in those field trips, in contacting the dealers, I was interested in all the limitations and difficulties that existed with respect to our products, and our general relationship with the distribution end of the business.

In those days, the most important problem we faced, [fol. 2996] from the standpoint of the quality of the car, from the consumer's point of view, was the finish of the car. People who bought the cars, especially the higher priced cars like the Cadillac, and paid several thousand dollars for them, could not understand why, after they had them a short time, that the finish would break down, and we would constantly be required to make good on the finishes, and at considerable expense to the dealer and incidentally ourselves.

Naturally, they did not realize that it was quite different a proposition between the working out of the finishes on an automobile compared with the same finish which we were using in the carriage days in the way of finishing fine carriages. Many differences in the operation arose which made the problem quite difficult.

It was probably a most significant question and annoying question from the standpoint of the consumer acceptance of our product that existed at that time.

We also realized its importance, and we had sort of dreamed, you might say, or hoped that some time, something would come along which would be permanent, whereby cars could sit out in all kinds of weather without deterioration.

Of course, we had little realization when the time would come when that would be accomplished to the extent of the use to the point we have reached now.

The second significant point was the matter of production as distinguished from consumer satisfaction. In those days, we used finishes which came down from the old carriage days, and it took something like three weeks to finish a car throughout, with all the processes that it had to go through, and often when it was finished after three weeks, it was found defective, and the job had to be done again. [fol. 2997] If the weather was bad, with high humidity, it took longer.

It was a great burden, because it was a great burden on inventory, and naturally, we were seeking ways of improving it.

For instance now, today in General Motors, it might be said that we have a capacity of turning out 15,000 cars every 24 hours, and if you figure that it took twenty days of processing in the pre-"Duco" days, you see we would have something like 300,000 bodies in process, and I figured out the other day that if those were put end to end it would mean a line something like 600 miles of bodies in process before they could be shipped.

So the problem of automobile finishes at that time was highly important from the standpoint of consumer acceptance, and it was also highly important from the standpoint of the economics of the manufacturing process, and in addition to that, at that time cars in the low-priced field—I mean by that the Chevrolet and Ford type of thing—were always finished in black enamel. Why we could only make enamel black, I don't know, but anyway they were all black. Cars above that point were coming in colors, and of course it was only a question of time when the low-priced cars must come in colors too, which would exaggerate our problem, so it was one of the most important problems that faced us from those two counts, economic and sales acceptance.

Q. Well, what materials were used at that time for the color or finishes?

A. Just paint and varnish as we used in the old carriage days.

Q. What, if anything, did General Motors do in an effort to remedy this situation?

[fol. 2998] A. Well, at the end of December, 1921, at the suggestion of Mr. Clements who was Mr. Kettering's principal assistant in General Motors Research, a committee was set up to study the matter and see what might be done to develop or find other finishes that would give us a better result.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 104 for identification which purports to be minutes of the meeting of the Car Division Managers with the Executive Committee on December 1, 1921, and call your attention to the item appearing on the second page under the heading "Study of Enamel and Varnish Drying."

Is the committee there referred to the committee that you have mentioned that you caused to be set up, or that was set up?

A. That is correct, Mr. Hurd.

Q. And I show you a document marked General Motors Exhibit No. 105 for identification which purports to be a communication from Mr. Bassett to Mr. Kettering under date of December 29, 1921, and ask you whether or not the committee personnel there named were the personnel to be on this committee that was created?

A. That is the appointment of the members of the committee to undertake the study of enamels, varnishes, paints and so forth.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 104 and 105.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 104 and 105.)

Mr. Hurd: Referring now to General Motors Exhibit No. 104 which is the minutes of the joint meeting between Car Division Managers and the Executive Committee, De- [fol. 2999] cember 1, 1921, the second page, under the heading "Study of Enamel and Varnish Drying":

> "There was presented to the meeting a letter from Dr. F. O. Clements of the Research Division, as to the advisability of the Research Corporation undertaking

a study of enamel and varnish drying. After discussion, it was unanimously
RESOLVED, That this report be received, and the Advisory Staff requested to have a study of this kind made, limiting it to dope finishes, improved enamels, and methods of heating the ovens, the work to be carried on under the direction of an organization to be determined by Mr. Mott, as Head of the Advisory Staff, in conjunction with Mr. Kettering, and progress reports to be rendered to the Car Division Managers bi-monthly."

By Mr. Hurd:

Q. Mr. Mott was the head of the complete Advisory Staff at that time?

A. He was head of the Advisory Staff at that time, Mr. Hurd.

Mr. Hurd: And General Motors Exhibit No. 105 is a letter from Mr. Bassett to Mr. Kettering, dated December 29, 1921:

"Regarding the Committee that was to be appointed by Mr. Mott for the study of Enamels, Varnishes, Paints, etc.:

"It has been decided after conferring with you to appoint the following Committee,—

[fol. 3000] "F. O. Clements, Chairman,
E. L. Bergland"—

By Mr. Hurd:

Q. Who was Mr. Bergland, Mr. Sloan?

A. Mr. Bergland was on the Advisory Staff and he had charge of one of the divisions of the Advisory Staff.

Mr. Hurd: (Continuing):

"Mr. Rogers, Oakland
Mr. MacQuaid, Chevrolet
Mr. Weckler, Buick

"It was understood that Mr. Clements, of course, would have charge of the work for the General Motors

Research Corporation and would call on the other members of the committee as he requires them.

"The resolution as passed by the Car Division Managers at meeting held in Detroit on Dec. 1st calls for progress reports to be rendered to the Car Division Managers bi-monthly."

By Mr. Hurd:

Q. Do you know what Mr. Rogers' position was with Oakland at that time?

A. I can't say by recollection, but by assumption I imagine he was the man there that had charge of this type of thing.

Q. Do you know what Mr. MacQuaid's position was at Chevrolet?

A. The same answer.

Q. Do you know what Mr. Weckler's position was at Buick?

A. Mr. Weckler was in charge of manufacturing at [fol. 3001] Buick. He was a very important executive of the Buick Motor Division at that time.

Q. Mr. Sloan, do you recall whether or not you followed the work of this committee?

A. Yes, I followed it up from time to time because from my point of view, as I have already testified here, it was a very important thing for General Motors, and I was anxious to promote the problem and see what might be done to relieve the difficulties which I previously testified to here.

Q. Do you know whether or not this committee became known as the Paint and Enamel Committee?

A. It did so become known.

Q. At the time this committee was formed in December, 1921, did you know anything about "Duco"?

A. I don't think I did.

Q. Do you have any recollection as to when you first heard about "Duco"?

A. My recollection is not very strong, Mr. Hurd. I think it must have been sometime in the year 1922 that it first came to my attention.

Q. Do you know whether there were any problems involved in the use of "Duco" as it first existed?

A. Well, naturally, any product of that kind, Mr. Hurd, has to go through a development stage.

The first samples we got, as I recall it, were brittle. Sometimes they were not durable.. All kinds of difficulties always arise that have to be worked out by collaboration between the producer of the material and the user. That is a normal process in all such development projects.

Q. Do you know whether or not "Duco" came to the attention of the Paint and Enamel Committee?

[fol. 3002] A. According to my best recollection, the Paint and Enamel Committee started to make a survey of the existing practices, hoping that they would find something that would contribute to our needs.

I also recollect that Mr. Kettering, who was naturally in contact with it, made the suggestion that a different type of material might be available, a quick-drying material. The committee, in its investigations of what was offered in the market, made inquiries of existing paint and varnish manufacturers as to whether they had anything in the line of synthetics along Mr. Kettering's suggestion.

In contact with the du Pont Company, the committee found that they had under development a product which looked as if it had possibilities. Samples were developed and collaboration was brought about between the du Pont Company as producers and our divisions as users in order to work out the development difficulties in the hope that sooner or later we could use that material as a substitute for paint and varnish.

Q. Do you recall when "Duco" was discovered?

A. "Duco" was discovered, Mr. Hurd, according to my best recollection, as a chemical reaction on July 4, 1920.

Following that, of course, it had to be developed into a material, and then it had to be adapted to certain specific uses, of which the automobile was a very special use.

In many things where we are developing new materials or new processes, we can make a test and get an answer very quickly, but the difficulty here was that they had to subject our samples to weather conditions and temperatures, cold and hot, humidity, and so forth.

It was quite a problem to bring "Duco" to the point where it was satisfactory, not only as a finish but also that [fol. 3003] fact was recognized by our division managers who had the authority to use it in their product.

Q. Do you recall whether or not Dr. Clements ever became convinced "Duco" was the answer to the finish problem?

A. Dr. Clements was following the matter up. He was chairman of this committee that we discussed a minute ago, and I think that early in the year 1923, Dr. Clements became convinced that we had in "Duco" what we were looking for.

Q. Mr. Sloan, I show you a document that is in evidence as Government's Exhibit No. 1228, and ask you if you have any recollection of receiving this letter from Mr. Clements? It is addressed to you.

A. That is the letter from Dr. Clements in which he indicates his conviction that we had what we were looking for.

Q. Do you recall whether or not you had any knowledge of the existence of "Duco" before this letter?

A. Oh, yes, I think I did. This was February 1923. I think I knew about it some time in 1922.

By Mr. Hurd:

Q. This is a letter dated February 22, 1923, from Mr. [fol. 3004] Clements, Director of General Motors Research Corporation, to Mr. Sloan:

* * * * * * * *

Q. Mr. Sloan, I show you Government's Exhibit No. 383, and ask you if that is the report which is referred to in this letter of February 22nd?

A. That is correct, Mr. Hurd.

[fol. 3005] Then, if the Court please, I should like to offer in evidence General Motors Exhibit No. 106.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 106.)

[fol. 3006] Mr. Hurd: This is a letter from Dr. Clements to Mr. Beardslee.

By Mr. Hurd:

Q. What was Mr. Beardslee's position?

A. He was secretary of the Executive Committee.

Mr. Hurd: It is dated March 10th, 1923:

"We have your letter, acknowledging our report on the 'Duco' Enamels.

"This report was prepared simply to stir up increased activity in the experimental work that still lies ahead. We surely believe to the uttermost in this material and believe that it will work out to our benefit from the standpoint of durability. You understand that our sole reason for paying so much attention to this material is that we are anxious to get greater durability of finishes. Thus far, we have not been able to quite equal the costs of the paint materials, this is quite a detriment in the eyes of our various car units. However, great durability is worth something.

"I am glad that our report has awakened your interest."

By Mr. Hurd:

Q. Mr. Sloan, you have stated that you were interested in this problem of finishes, and also interested in "Duco". Do you know whether or not Mr. Pierre du Pont was concerned to any extent with the problem of finishes that you [fol. 3007] have described?

A. He was because he was familiar with the needs of it just as I was.

Q. Were you interested in the "Duco" because it was a du Pont product?

A. No, Mr. Hurd. I was not interested for that reason at all. I certainly testified here as to the urgency of getting something better, and that was the sole consideration that actuated me in taking an interest in the development of "Duco". The fact that it was a du Pont product was purely incidental.

Q. Do you know whether or not Mr. Pierre du Pont was interested in this from a du Pont's products standpoint or General Motors?

A. I think you had better ask him, Mr. Hurd.

Mr. Hurd: We have a document from him that I think may answer our question.

If the Court please, I offer in evidence General Motors Exhibit No. 107, which is a letter from Mr. Pierre du Pont to Mr. Kettering, dated April 12, 1922.

(Said document so offered and received in evidence was marked as General Motors Exhibit No. 107.)

Mr. Hurd: (Reading):

"My dear Kettering:

"Has the Laboratory done any work on the finishing of sheet metal without the use of paint? For instance, could we secure a coating of lower oxide of iron on sheet metal, this coating to be used as a permanent finish? This lower oxide is, I believe, not easily oxidized, is of good color and may be used for an acceptable finish. Might it not be possible to accomplish something in this way. Also would it be worth while experimenting on [fol. 3008] various qualities of iron and steel in an effort to find a grade that would not rust (such as Steelite)? For the moment, this method of procedure would appear almost as promising as the development of a satisfactory paint, varnish or enamel finish."

By Mr. Hurd:

Q. This is dated April, 1922. This is approximately two years after the discovery of "Duco"?

A. That is right.

By Mr. Hurd:

Q. Now, Mr. Sloan, I show you a series of documents; Government's Trial Exhibit No. 385, General Motors Exhibit for identification No. 108; General Motors Exhibit for identification No. 109; General Motors Exhibit for identification Nos. 110, 111, and 112.

These are all documents passing between yourself and Dr. Clements dealing with the general subject of automobile finishes and particularly "Duco".

Will you look at these and tell me whether or not you recall this exchange of correspondence?

A. These are various communications between Dr. Clements and myself relating to the progress that was being made of working out the "Duco" problem.

I indicate in these letters my very great interest in it for reasons I have already testified.

Q. Was there any occasion for this exchange of correspondence other than your interest in the problem of getting a better finish?

A. Certainly not, Mr. Hurd.

[fol. 3009-3011] Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 108 to 112, inclusive.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 108 and 112, inclusive.)

By Mr. Hurd:

Q. First, before referring to them, I should like to call attention to Government's Exhibit No. 385, which is the first one of these documents.

Government's Exhibit No. 385 is a letter from Dr. Clements to Mr. Sloan dated April 18, 1923, and I call your attention to the first paragraph:

> "I wish to thank you for your participation in our Enameling and Paint Committee conference yesterday morning. It was a great pleasure for us to discuss the points involved, having you with us to counsel and help formulate our future program."

Then referring to the second paragraph:

> "The boys suggested that you discuss with Mr. Irenee du Pont the question of keeping this development for the General Motors Corporation exclusively. Really, I do not believe that this need concern us very much."

By Mr. Hurd:

Q. Mr. Sloan, do you recall whether you did anything about asking for an exclusive on "Duco"?

A. No, I don't think I did.

[fol. 3012] By Mr. Hurd:

Q. What was this problem with respect to varnish, Mr. Sloan?

A. Well, the idea at that time was, after the "Duco" was applied, we had an additional coat outside, but upon further study it turned up that we couldn't get any varnish that would last. The varnish broke down, and the final program was to eliminate the varnish and use the "Duco" entirely without the varnish as an outside finish.

Q. The varnish was merely the top over the "Duco"?

A. Over the "Duco", Mr. Hurd, that is correct.

Mr. Hurd: And in General Motors Exhibit No. 111, Mr. Clements replied to Mr. Sloan's inquiry about the varnish under date of July 3rd, 1923:

> [fol. 3013] "You make inquiry about better varnishes. We do have materially better varnishes than those now used, to apply over 'Duco', that will add to the durability of the finish, but these more durable finishing varnishes require a longer time for drying and, up to date, the men at the plants have considered this extra time as prohibitive. Another objection to the use of finishing varnish over 'Duco' is the fact that no varnish will last as long as 'Duco', itself, and the time comes when the varnish begins to crack and fail and the appearance of the car is very poor."

By Mr. Hurd:

Q. Ultimately did you say they gave up the idea of putting varnish over "Duco"?

A. That is correct, Mr. Hurd. That is the present practice.

Mr. Hurd: The last letter in this series is General Motors Exhibit No. 112. This is Mr. Sloan's reply to Mr. Clements' last letter, dated July 20th, 1923:

> "I thank you very much for your letter of July 3rd which is indeed very interesting. By all means keep me advised as to how this thing develops. It is very important, more so I think than perhaps any of us realize."

Q. What was the importance to which you were referring there, Mr. Sloan?

A. I have already testified that the significance of the [fol. 3014-3016] problem affected both the acceptance of the cars from the point of view of users and the cost of production on account of inventory and for other considerations.

Q. Now, Mr. Sloan, I show you a document marked General Motors Exhibit No. 113 for identification which is the report of the Paint and Enamel Committee on August 22, 1923. Do you recall receiving a copy of that document?

A. Yes, I remember this.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 113.

This document more or less traces the development of the work of the Paint and Enamel Committee, that that committee conducted.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 113.)

[fol. 3017] By Mr. Hurd:

Q. Mr. Sloan, do you recall whether there was any reluctance upon the part of any of the General Motors divisions to switch from their old varnish type paints to the use of the "Duco" or lacquer type paint or finish.

A. Well, I wouldn't say, Mr. Hurd, there was any reluctance because I think that all the division managers and other executives appreciated the significance of the problem just as much as I did.

It is hard to separate reluctance from responsibility. Responsibility of the general manager of a division is very great, and while he wants to make technological progress, and improve his product, he has got to be pretty careful that any decisions he has made lead to that end. For instance, a while ago we substituted a non-operative part of a car material to assist the war effort after the Korean war had developed. We worked it out and we thought in an entirely satisfactory manner, and it was generally approved, and it didn't work out just as we figured, and in the meantime we got quite a number of cars out, and we had to set up a reserve of $15,000,000.00 to protect our service in correcting the difficulty.

I merely mention that because of the great importance of being sure you are ~~right and at the same time to develop~~ a proper balance with that, and technological progress, and to capitalize the progress just as soon as you can. I think all of our division managers had that very much in mind. Naturally, when you have several individuals as division managers, they think somewhat differently in dis-

[fol. 3018] charging that responsibility, but I wouldn't say there was any reluctance as such. It was caution and conservatism while at the same time wanting to adopt something that had been demonstrated not only much better, but it really had become a must for General Motors at that time.

Q. Mr. Sloan, I want to call your attention to Government's Exhibit No. 384, which is in evidence.

This is a letter from Mr. Rice of Cadillac. What was Mr. Rice with Cadillac?

A. He was general manager of the Cadillac Motor Division, Mr. Hurd.

Mr. Hurd: This is to Mr. Clements, and it is dated February 28, 1923.

I want to call attention to the third page of the document, second paragraph on that page:

> "I am not lacking in faith that 'Duco' will be a great help to us. When it comes to paint, we should put it to every test possible including the alkali districts of the country and your statement that you are anxious to make all possible speed as you owed it to the du Pont Company who are besieged with requests for this material from various motor car companies makes me feel that the whole paint question is likely to be approached from the wrong point of view because of the apparent urge for a decision.
>
> "I sensed that when we were called upon by Mr. Allen and others from the du Pont Company, the other day.
>
> [fol. 3019] "I am heartily in accord with any of the divisions putting out a reasonable number of test jobs and keeping them under observation, as well as shipping them to all different parts of the country to see what will happen when in the hands of the public when exposed to alkali, mud and other troubles. But I think our committee should not permit itself to make its recommendations until we are quite sure and I believe the report by Mr. Mougey of February 21st. is sufficient to show that this policy should be followed."

By Mr. Hurd:

Q. Do you consider that that is consistent with the statement you made as to the position of the general managers?

A. That is a good illustration that the general manager has to exercise more caution in adopting a new product of this type.

Q. Do you recall whether or not the Buick organization had a similar approach to the subject?

A. I do.

Q. I show you a letter from Mr. Mougey to Mr. Allen dated November 26, 1923, which is marked General Motors Exhibit No. 114, and I offer the document in evidence, if the Court please.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 114.)

By Mr. Hurd:

Q. Mr. Sloan, I should like to call your attention to the second page of the document, the paragraph at the middle of the page:

> [fol. 3020] "At the Buick I had a very long talk with Mr. Weckler and Mr. Brown, Superintendent of their Body Department."

Then turning over to the third page, in the middle of the page:

> "Mr. Weckler and Mr. Brown both stated that, if 'Duco' were to be adopted by Buick either entirely or for part of their production for the 1925 model, it would be necessary for them to immediately start through a small production of at least twenty cars a day, so that the method of handling the material could be worked out, operators trained, and then a new line-up made for handling the 'Duco' in the factory. They feel that if it requires as long a time to obtain material as has been spent in trying to obtain this 'Duco' ordered on October 5th, the source of supply is too unreliable to warrant their interest in 'Duco' for the 1925 model; but, if 'Duco' can be obtained upon short notice and if

> the situation in regard to the raw materials and manufacture of 'Duco' is in such shape that they can be guaranteed prompt delivery of the desired amounts, both now and in 1925 production, they feel that it is very desirable to seriously consider 'Duco' for at least a part of their 1925 production.
>
> "The other factor in their interest in 'Duco' hinges on how high a lustre they can obtain on the "Duco', since they feel that a high lustre-job is absolutely necessary.
>
> "Will you please let Mr. Clements know whether [fol. 3021] you believe that the situation in regard to 'Duco' is such that it is desirable for us to continue our efforts to interest Buick for the 1925 production."

Then follow five questions which Mr. Mougey asks Mr. Allen of the du Pont Company with reference to this ability to supply the product regularly.

To what extent is it important in the automobile industry to be sure that your supplier can keep you supplied with a particular paint material when you need it?

A. Well, the automobile industry differs from other enterprises very strongly on that point. For instance, you take a store like here in Chicago, Marshall Field's. They buy men's shirts and they don't get the right quality or the right delivery, it has little effect on their business, but the automobile business, industry and production-wise is a continuous operation. You cannot ship the car unless the car is complete, and any serious shortage of materials stops the whole plant operation, and is a very consequential thing to consider, so that in developing supplies in the automobile industry, the question of reliability of the supplier to deliver the goods at the right time and in the right quantity and of the right quality is generally speaking—I don't want to ignore the question of price—but it comes before price, Mr. Hurd, because the material must be there when it is needed.

When I was selling Hyatt bearings to Ford, I used to have a crew of men running freight trains from Newark to Detroit when I was short of production, and if I once held the Ford Motor Company up and shut down the busi- [fol. 3022-3023] ness, I might as well jump in the lake.

They would give me no further consideration. It is of vital consequence.

ADJOURNMENT

[fol. 3024] The Court: Proceed, please.

ALFRED P. SLOAN, JR., called as a witness on behalf of the defendants, having been previously sworn, resumed the stand and testified further as follows:

Direct examination (Continued)

Mr. Hurd: If the Court please, the last document we dealt with yesterday was General Motors Exhibit No. 114, which was a letter from Mr. Mougey of the General Motors Research to Mr. Allen of the du Pont Company, dealing with the subject of "Duco".

In that letter, Mr. Mougey requested Allen to answer certain specific questions regarding the ability of the du Pont Company to make deliveries of "Duco".

He also called attention to the fact that the Buick organization was disturbed about their inability to get "Duco" at the time they wished it.

In connection with that, Mr. Sloan explained that that dealt with the reliability of the supplier and his ability to deliver when the product was needed, which he said was the most important element in determining whether one could deal with a supplier, based on his experience at Hyatt.

The next document I wish to offer in evidence is General Motors Exhibit No. 115. This is the reply by Mr. Allen of the du Pont Company to Mr. Mougey's letter. It is addressed to Dr. Clements, who is Mr. Mougey's superior.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 115.)

By Mr. Hurd:

Q. Mr. Sloan, I show you what has been marked General [fol. 3025] Motors Exhibit No. 115. You will note at the top of the document that a copy went to you.

A. That is correct, Mr. Hurd.

Q. Do you recall the occasion for Mr. Allen sending a copy of his reply to you?

A. I rather think that was done, Mr. Hurd, because Mr. Allen and everybody else knew that I was interested in getting better finishes for automobiles, and I was doing everything I could to promote better finishes.

At this time it was recognized that du Pont met the objective of a technically better finish, so of course I was anxious to have it adopted as soon as possible, and any information he might have bearing on the thing, I think he thought it would be worthwhile sending to me.

Mr. Hurd: The last paragraph of the letter from Mr. Allen to Dr. Clements states:

> "I trust that the above information will give you the assurance which you require as to our ability to meet all of the conditions involved in the use of 'Duco' by any or all of the units of the General Motors Corporation."

The letter specifically sets forth answers to the various questions that had been presented to him in Mr. Mougey's letter.

The next document which I wish to offer in evidence is General Motors Exhibit No. 116.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 116.)

[fol. 3026] Mr. Hurd: This contains the minutes of the Paint and Enamel Committee of the meeting held on January 22, 1924. The document itself is dated January 25, 1924, and it recites that the reply of Mr. W. P. Allen of the du Pont Company to a list of questions submitted by us was read.

The next document I wish to offer in evidence is General Motors Exhibit No. 117, which is a letter from Mr. Clements to Mr. Sloan, dated January 26, 1924, four days after the meeting of the committee.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 117.)

By Mr. Hurd:

Q. Mr. Sloan, do you recall receiving that letter?

A. I don't know as I do, in detail, Mr. Hurd, but it is very evident that I must have received it.

Mr. Hurd: I notice in the first paragraph of the letter that copy of the minutes of the Paint and Enamel Committee was enclosed. That would be General Motors Exhibit No. 116.

I would like to call the Court's attention to the second paragraph of this letter. This is a letter from Dr. Clements to Mr. Sloan:

> "You will note that we have been promised adequate quantities of 'Duco', sufficient to meet any 1925 production demands."

Then turning to the second page, the bottom of the page:

> "Buick has asked that all the various finishes in [fol. 3027] 'General Motors' be again 'cost accounted', so that we can determine the progress that has been made in reducing costs; for we are trying to secure a much more durable finish at less cost, if such be at all possible. Unquestionably, it has proven possible in the case of the Oakland."

Then the next paragraph:

> "I noticed at the Detroit Show that Marmon had a number of cars finished in 'Duco' and there was another car on exhibit, finished by the Egyptian Lacquer Company, using a material of the same general nature as 'Duco'."

The document to which I wish to refer is Government's Exhibit No. 386, which is a letter from Mr. Sloan to Mr. Allen.

By Mr. Hurd:

Q. Mr. Sloan, do you recall writing Mr. Allen on this occasion?

A. I have read the letter, Mr. Hurd. What was your question again?

Q. Do you recall writing Mr. Allen?

A. Yes, I do.

Q. I would like to call attention to certain statements in this letter, Mr. Sloan.

Reading from the top of the letter:

"I have your letter of January 11th—" That refers back to the letter to Mr. Clements, General Motors Exhibit No. 115, copy of which went to Mr. Sloan—

> "and thank you very much for the information therein contained. I personally am very much interested in [fol. 3028] your 'Duco' finish and without any disrespect to the very excellent people we have dealing with the matter, it is impossible to get a thing of this kind across without there are more or less objections and difficulties in the way of selling it to people who do not take kindly to making changes and who are liable to consider the always present first difficulties of insurmountable character and for that reason let me inject a little psychology into the situation which I hope will be helpful.
>
> "Regarding Cadillac, they are a very conservative organization. I personally do not agree with them at all in the necessity of having a higher finish than they now obtain with finishing varnish. That might have been an argument a year ago but the Oakland Company blew it to pieces and it is no longer an argument to any reasonable person. I will see what I can do toward helping the situation along."

By Mr. Hurd:

Q. Do you recall, Mr. Sloan, what, if anything, you did to help the situation along with respect to Cadillac?

A. I don't remember, Mr. Hurd, this specific incident, but as I have already testified here, I was trying to help it along every way I could, and that simply reflects my general attitude toward the urgency of having a better finish and the fact that we had reached the point in early 1924 when it was generally agreed by Research and otherwise that "Duco" was the finish that would meet the objection.

Mr. Hurd: Referring to the second page of this letter, Mr. Sloan; the middle of the page:

[fol. 3029] "Regarding Buick, I think it would be very desirable if you could contact with Mr. Bassett of the Buick Company. I think it would help the matter along very much. They are used to contacting with the man that is at the head of the institution they are dealing with and although Dr. Clements and Mr. Mougey are doing excellent work in promoting this thing, at the same time I think a little atmosphere from you to Mr. Bassett direct would be helpful. I only make this as a suggestion."

Then going to the last paragraph:

"To sum up the situation, you realize as well as I do that if we are going to be extensive users of 'Duco' on increased lines for the season beginning August first, we ought to be right in it now and there ought to be a very complete understanding with all our Divisions as to the possibilities in the case and to my mind this should come directly from you who are the responsible agent in the matter rather than through a third party. I think also it would be helpful if you yourself could get the opinion of our different Divisions on the various subjects confronting them and if you care to do this and will then advise me what your impressions are, I shall be very glad indeed to do anything I can to push the matter along."

By Mr. Hurd:

Q. Mr. Sloan, this reference to the season beginning August 1st is for what purpose? What occurred on August 1st?

A. Well, at that time, Mr. Hurd, the automobile industry was in a model year. For instance, it was [fol. 3030-3031] talked about 1924, the model year in 1924, that a car would have to be in production in the late summer or early fall of the year before, 1923.

Therefore, the decision with regard to the various components of the car, finishes and so forth, would have to be dealt with in the early summer or late spring in order to adequately arrange for the production processes.

Q. Do you recall, Mr. Sloan, whether you ever heard as to whether Mr. Allen followed your suggestion of contacting the Buick management?

A. I rather think he did, Mr. Hurd. I am not too certain about it.

Q. I will show you a document marked General Motors Exhibit No. 118 for identification, which purports to be a letter from Mr. Allen to you dated January 31, 1924, three days after your letter to him.

Does that refresh your recollection?

A. This letter indicates very definitely that he did accept the suggestion. He said he was following this, and he would make the contact. I had forgotten that incident.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 118.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 118.)

[fol. 3032] Mr. Allen replied to Mr. Sloan under date of March 5, 1924, General Motors Exhibit No. 118-A, which I offer in evidence.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 118-A.)

Now, this is a letter from Mr. Allen to Mr. Sloan, dated March 5, 1924.

I wish to call your attention to the last paragraph beginning on the first page.

Mr. Allen states to Mr. Sloan:

> "I wish to thank you very much for your sympathetic interest in this whole problem because it is very easy for those of us who are most directly concerned to become over-enthusiastic about a product which we make ourselves, and it is very re-assuring to have our own enthusiasms confirmed by the dispassionate judgment of others who have no direct interest in the matter."

Mr. Sloan did not reply immediately to that letter, but his secretary did, which is General Motors Exhibit No. 118-B which I offer in evidence.

[fol. 3033] (Said document, so offered and received in evidence, was marked General Motors Exhibit No. 118-B.)

Mr. Hurd: General Motors Exhibit No. 118-B is a letter dated March 20, 1924, from the secretary of Mr. Sloan addressed to Mr. Allen, general manager of the Cellulose Products Department of du Pont.

Referring to the last paragraph of the letter:

> "He—"

That is Mr. Sloan.

> "—is very much interested in the subject—"

The subject being "Duco" as shown in the first paragraph.

> "—and especially in Buick's attitude toward 'Duco' which he considers a very important matter. Will you be good enough to keep him advised of your negotiations with Mr. Basset. He will appreciate very much your doing so."

The next letter which I offer in evidence is General Motors Exhibit No. 119.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 119.)

Mr. Hurd: This is Mr. Allen's reply to this letter from Mr. Sloan's secretary. It is addressed to Mr. Sloan, and turning to the first page, about half way down the page, the sentence beginning with "I believe."

> [fol. 3034] "I believe that the whole Buick organization are convinced that the public will demand a more durable finish before long and it is Mr. Bassett's intention to begin the use of 'Duco' Finish on the new Light Six. His feeling is that it would be very unwise in the case of Buick to take hold of this matter in the way that Mr. Hannum took hold of it, as he still feels that some sales resistance may be encountered on account of the absence of a high varnish lustre."

By Mr. Hurd:

Q. Who is Mr. Hannum, Mr. Sloan?

A. He was general manager of the Oakland Division. Oakland used the "Duco" completely on their 1924 models.

Mr. Hurd: Government's Exhibit No. 394 is Mr. Sloan's reply to Mr. Allen four days later, dated March 25, 1924. Mr. Sloan states to Mr. Allen of the du Pont Company:

"I have your letter of March 21st and have carefully noted contents of same. I am glad that you have seen Mr. Bassett and have gone into this matter so thoroughly. Mr. Bassett, I appreciate, undoubtedly has a better measure of the situation than I have, but my personal feeling is that there is plenty of evidence in the way the public is taking the Oakland finish to warrant the feeling that Buick could get away with it equally satisfactorily. Certainly, it is impossible to assume that if Cadillac can do it and Oakland can do it that Buick can not do it.

"I will make a note to discuss this matter at the next meeting of our Operations Committee with a [fol. 3035] view perhaps of developing a little more atmosphere in the mind of Mr. Bassett."

By Mr. Hurd:

Q. Do you have any recollection, Mr. Sloan, as to whether you did discuss it at the Operations Committee meeting?

A. I do not recollect specifically, Mr. Hurd.

Mr. Hurd: I should like to offer in evidence General Motors Exhibit No. 120, which is a letter a few weeks later from Mr. Bassett, President and General Manager of the Buick Company to Mr. Mott.

Mr. Mott, the Court will recall, is the man who appointed the Paint and Enamel Committee and who was head of the Advisory Staff of General Motors.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 120.)

Mr. Hurd: This letter from Mr. Bassett to Mr. Mott is dated April 18th, 1924, and the first paragraph states:

> "Mr. Allen, General Manager of this department"—

referring to "Duco" Department—

> "from Wilmington, came to Flint a couple of weeks ago and we requested samples of paint from him in colors nearer to what we would like to use for 1925. We again asked Mr. Allen to come up here and be here today if possible, but he could not come and sent his assistant, Mr. Moosmann."

[fol. 3036-3037] Then dropping down four lines into the next paragraph at the end of the line:

> "***we were advised by Mr. Moosmann not to attempt to go to all models on 'Duco' at one time."

Then turning to the back page of the letter, the first paragraph:

> "Personally I fee lthat 'Duco' is a good thing and has come to stay, but I think we have all got to learn a little something about the proper method of handling it on cars that run into more expensive list prices."

The last document I wish to refer to in connection with this series is General Motors Exhibit No. 120-A for identification, which I offer in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 120-A.)

Mr. Hurd: General Motors Exhibit No. 120-A is the report by Mr. R. C. Williams of the du Pont Company to Mr. Flaherty, Director of Sales of the du Pont Company, and it deals with the subject of "Duco". It is dated May 2, 1924, but refers to "Report ending April 30, 1924."

[fol. 3038] By Mr. Hurd:

Q. Mr. Sloan, you have referred to the fact that Oakland was the first division to go to "Duco". Approximately when was that, do you recall?

[fol. 3039] A. That was in the early part of the year of

1924, which means they would have to take the position in the spring of 1924 and begin production in the late summer or early fall of 1924, to make it applicable to 1925, the following year.

Mr. Hurd: I offer in evidence, General Motors Exhibit No. 121 which is a letter from Mr. C. S. Mott, the man who appointed the Paint Committee. It is addressed to Mr. Rice and Mr. A. B. C. Hardy. It is dated August 31, 1923.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 121.)

Mr. Hurd: It states:

> "I am enclosing herewith copy of report of Paint and Enamel Committee, which I presume will be self-explanatory.
>
> "The Oakland is going to 100% 'Duco' for open cars, and I think that the idea has been sold to Mr. Fred Fisher and it is likely that Oakland will go to 100% 'Duco' on closed jobs. The matter is very important to each Car Division that they post themselves thoroughly regarding the advantages to be derived. It was suggested that this report be gone over very carefully. A representative of this Committee will undoubtedly attend the next Car Division Managers' meeting here in Detroit to be held in a couple of weeks, at which time the subject can be further discussed.
>
> "In the meantime, Mr. Hannum"—

who was the Oakland manager—

> [fol. 3040] "—has expressed his willingness and desire to cooperate with other Divisions desiring information and without doubt he would be very glad to have you and any of your experts visit his plant so that you may be satisfied as to the quality of work that he is producing and of any advantages that he can show you."

By Mr. Hurd:

Q. At that time Mr. Rice was the manager of the Cadillac Company?

A. Correct, Mr. Hurd.

Q. And where was Mr. Hardy?

A. Mr. Hardy was general manager of Olds.

Q. And what was the attitude of the public towards the "Duco" that Oakland tried out in 1924?

A. Very favorable.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 122 which is a letter from Dr. Clements, Director of Research, to Mr. Sloan, dated October 29, 1923.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 122.)

[fol. 3041] By Mr. Hurd:

Q. Did "Duco" become generally adopted in General Motors at a later date?

A. Yes, Mr. Hurd. It was generally adopted, well, quite universally adopted in the fall of 1924 applicable to the 1925 model year.

Q. Whose decision was it as to whether "Duco" would [fol. 3042] be adopted?

A. That would be entirely up to the general manager of the division, Mr. Hurd. I would have no position as far as decision in the matter. It had to be sold to the general manager of the division. He could use it or not as he saw fit, to the extent that he saw fit, and in the way he saw fit.

Q. Did you give any orders to the division managers with respect to going to "Duco"?

A. I did not. As a matter of fact, Mr. Hurd, I don't ever remember giving an order in General Motors, anyway. My technique was a selling technique.

Q. Do you know of anyone else in General Motors ordering the division managers to go to "Duco"?

A. Mr. Hurd, nobody in General Motors could give an order to the general manager of a division except myself or, of course, the executive committee. The executive committee didn't deal with such matters.

Q. You have testified that you did undertake to encourage divisions to go to "Duco". I believe one of the letters referred to your saying that you would be glad to try to push it.

Did you consider that you did push the use of "Duco"?

A. I did it simply by—the pushing referred to following it along, trying to eliminate the bottle-necks, trying to accelerate proper evaluation of the quality and advisability of adopting it as time passed on, and to do everything I could to accelerate the time when it could be used because after the research division had taken the position—I think it was the beginning of 1923—I was convinced that it was technically sound.

I have already testified to the great significance of it from the standpoint of customer satisfaction, and the value [fol. 3043] of it from the standpoint of a more economic setup of bodies, from the standpoint of cost, and also from the standpoint of capital investment.

Q. What, if any, reason did you have for pushing "Duco" other than your interest in improving the General Motors product?

A. I had no interest whatsoever. My effort was concentrated on delivering a better car to the consumer, better finish, at the right kind of a price.

Q. Mr. Sloan, was it unusual for you to take an interest in purchasing something that you thought would give General Motors a better product?

A. It was quite a common practice, Mr. Hurd, for me, if the problem involved the corporation as a whole. We all were doing that in General Motors.

We were all trying to push forward new things and new ideas as technology advanced, and I was no exception to the rule. My concept of my responsibility was not only to do what I could to develop a proper administration of the business, but also to do what I could in promoting the advancement of our products so that they would have greater acceptability on the part of the public.

As things of that kind came to my attention, I pushed them, put it that way—that is in the record here—simply because I was anxious. I realized that advancement of the corporation depended largely upon the advancement of the technological position of its products.

Q. Can you recall any other items that you have pushed in General Motors from the standpoint of improving the product?

A. Well, in the '20's—afterwards, too, but more particu- [fol. 3044] larly I am referring to the '20's—it was my duty to go abroad occasionally in connection with the foreign operations of the corporation.

When I did so, naturally I tried to keep my eyes open for any new things that applied to the automobile industry.

In or about the summer of 1924 on one of those trips, I think it was 1924, I am not too certain, I came in contact with certain developments over there involving front wheel brakes.

At that time the braking of our cars was only on the two rear wheels, and of course in an emergency the brakes were applied on the two rear wheels only, and the car was likely to skid, especially if the balance wasn't exact.

I became convinced that four wheel brakes was a technological improvement, and when I came back I brought with me an engineer who had had a good deal of experience with that sort of thing over there in a development way.

I presented the project to the General Technical Committee, samples were made, tests were made. The general managers of the divisions were so impressed with the advancement that they almost immediately adopted front wheel brakes as a part of General Motors' cars, and we took the leadership in adopting that particular improvement.

A year or two later, on a similar trip, I came in contact with work that was being done in the way of front wheel springs, independent springs on the front wheels.

It will be recalled that at that time the springs of our cars were entirely on the rear wheels. I also brought back a technician who had done considerable development work in order to present all the facts to our technical people.

As the result of that, samples were built, conferences were held with our general managers, and General Motors went to independent springs on the front wheels, and we were the first producer to offer that to the public.

[fol. 3045] In 1926 or 1927, I became interested in the broad use of six cylinder cars. At that time cars in the low priced field—I mean Ford and Chevrolet type of thing—used four cylinder engines.

We had reached the point in the evolution of the motor car at that time where vibration had to be eliminated. Smooth riding, a smooth engine, became highly desirable.

Mathematically it is very difficult to balance a four cylinder car. It could be done but it was complicated and expensive. We had to do something with Chevrolet.

So I took a particular interest in the matter, developed all the facts and circumstances, and had some samples made. When the problem arose as to what Chevrolet would do, —I think I am talking now about the year 1926, but it might be 1927—I presented all the facts to Mr. Knudsen, who was general manager. Mr. Knudsen agreed that Chevrolet should go to a six cylinder car.

You will recall the pie chart we showed last week. In the year 1921, Chevrolet had five per cent of the business and Ford had fifty-five per cent of the business.

The change from the four to six cylinder engine and the leadership that it brought to General Motors completely reversed Ford's position, and Chevrolet has led ever since. As a matter of fact, Ford was out of business for two years, changing his model to meet the Chevrolet competition.

Another thing—I don't want to lengthen the record any more than you want me to, Mr. Hurd—an incident might be mentioned of a particular interest I took in an engineering development. I am confining myself to engineering.

In 1925 or 1926 I became interested in a diesel engine as a primary source of power. I knew, of course, of the en- [fol. 3046] gineering efficiency as compared with that which we used on motor cars.

I went to see Mr. Kettering and asked him why the diesel engine was not in greater use in view of its clearly demonstrated efficiency. He said it was because the engineers persisted in making it in a way that nature didn't intend to have it operate.

I said, "Well, if you tell us how to operate it, how it should be designed, we will go into the diesel engine business." We went into that, and with the development that ensued, as most everybody knows, in twenty years we put the steam locomotive out of business.

One other instance I might mention, and I think that will be sufficient, Mr. Hurd.

Some of us will remember that back in the '20's the gear shift consisted of a lever sticking out of the middle of the car, and you had to move it back and forth. It was very awkward, and prevented passengers moving across the front seat.

So I went to one of our engineers and asked him to make me a car with the gear shift under the wheel, as I thought it ought to be. He did so.

I presented it to our General Technical Committee, and it was immediately adopted, and since then you haven't seen a gear shift in the middle. It is all under the wheel.

Still another thing I will mention because it is important. In the latter part of the 1920's I was interested in an automatic transmission. My conception was that the operation and transmission ought to be taken out of the consciousness of the driver, and I started an engineering [fol. 3047] development in the United States, one in England, and one in Europe, for research that might lead to the solution of the problem and in about 1940 we brought out an automatic transmission for the first time, and ever since that we have had the leadership in automatic transmission.

Now I want to mention the fact, Mr. Hurd, I am not mentioning those things to expand my responsibility or contribution to General Motors because I want to emphasize that the type of thing was going on through the whole corporation on the engineering side, and that is why we accomplished what we did.

My participation was just limited to a comparatively small number of things, which I contacted, and which I took a personal interest in.

My position in the development of "Duco" and tetraethyl lead was exactly the same thing. I was concerned with the interests of General Motors. I recognized as a technician what it meant in the future of the car and in popular application of the car if we could do those things, and that was my sole interest in promoting them.

Q. Mr. Sloan, once the divisions went to a lacquer as a finish, did you pay any attention thereafter to the source of supply that they used to obtain their lacquers?

A. No, I had no responsibility at all, Mr. Hurd, in such activity. My position was confined to other areas of administration.

The purchasing was always up to the general manager of a division, just the same as the engineering, accounting, and everything else was. My contact stopped really at the general managers.

Q. Mr. Sloan, I now wish to turn to another subject, [fol. 3048] one dealing with production forecasts. Has there been any practice in General Motors with reference to keeping in touch with suppliers or advising them as to what your production forecast would be?

A. Does your question relate to the relation between incoming material from suppliers and production forecast of the corporation?

Q. Yes.

A. Well, that is something like this, Mr. Hurd. There is no direct relationship between the production schedule and the incoming materials released by the purchasing department to the various suppliers. I have already remarked here that the industry is on a model year. That probably means when we start a model, we must create an inventory; we must maintain an inventory with relation to production through the year, and as the model year closes, we must liquidate our inventory with the objective of having practically no inventory on hand when we change the model, assuming the inventory is limited to that model.

The result is when we start on a new model, we have to release materials equivalent to the production for the current month, and three months beyond that. That is our practice. In addition, we have to release materials to create what we call a "float." A "float" is an inventory that has to be on hand to maintain a proper balance. The "float" varies tremendously, depending on the kind of material it is. If it is steel that is involved, with a long process in manufacture before it gets to the assembly stage, the "float" has to be bigger.

Not only that, but as we proceed through the model year with production schedules, it is very important because the automobile business is on a seasonal trend. In December and January, we have to build up large inventories [fol. 3049] of cars in the hands of our dealers, because the purchase of cars by the consumer is many times not until April and May: while we are doing that, we have to increase the "float" to protect the higher inventory, the higher production schedules.

As we move into the spring months, our production falls off, and when our production falls off, our "float" falls off.

Finally, when we come to the liquidation of a model, we have to reduce the incoming materials from our dealers, much below the product productions schedule that is forecast, because we have to eliminate the "float" when the model is terminated, so that sequence of operations follows through every year.

There is no relationship, or a limited relationship between our production schedule and the releases of our suppliers for income material to support that production schedule.

Here is another factor which is very important, and that is the scrappage, or the loss in material as we proceed through the model year. That affects incoming material from the supplier, but it has no effect upon the production schedule.

Still another thing that is very important is the service requirement. If we have a large number of cars out in the field, it is very important to have the service requirements which have to be recognized in relation to the incoming material, but it has nothing to do with the production schedule.

I have testified here when I was supplier for the Ford Motor Company, the question of service was one that was— When I was short of production, to keep Ford going, I [fol. 3050] would sometimes make a special trip to Detroit, using my influence with my friends to hold back on the service, and to support the production plants so I would have an opportunity to get more material into the plant.

All these factors have to be taken into consideration; as we go on an upward trend and more cars are being sold, we increase the inventory, and that increases the "float." All these things had to be taken into consideration in releasing incoming materials of our suppliers. It does not relate to specific production schedules.

I am sorry that I had to make such a complicated story, but your question suggested it.

Q. Well, your production schedule is merely one factor, as I understand it then, in determining when you want to receive a product from a supplier?

A. That is correct.

Q. What do you do to keep your suppliers informed as to what your requirements are?

A. That relates to the question you asked me last week, what we did to improve Mr. Durant's technique. One of the first things we tackled was that very problem and it was finalized after a good deal of development work by having a record three times a month of the unsold cars in the hands of our dealers. That was the foundation of the reconciliation or coordination of production with the needs in the field.

As that information became available, it would have an influence on our production schedules and our production forecasts—that was one factor that involved or determined the releases of incoming material from our suppliers. In addition to that, there was a further consideration which was important, and that was we were constantly studying the trend of consumer sales, and as the trend moved up, it had an influence on our production schedules. It had [fol. 3051] a corresponding influence on incoming materials from our suppliers.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 125 for identification, which contains statements taken from the General Purchasing Committee minutes, re Production Schedule Forecast, and ask you if these are illustrations of the type of thing you referred to, Mr. Sloan? Your purchasing agents were informed as to the production needs of General Motors?

A. Yes, sir, Mr. Hurd. That is simply a formal statement of what I have been trying to say.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 125.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 125.)

Mr. Hurd: This says that the subject was dealt with several times. The first one on April 18th, 1924, and Mr. Sloan is advising as to the procedures that have been set up.

Then again on July 2, 1924, he describes the indices that were set up.

And turning to the second page of the document, the top of the page:

> "These indices would be used as a guide in setting production schedules from which the Purchasing Agents could reliably deal with suppliers as to quantities required."

The matter is dealt with again September 5th, 1924, and in February, 1925.

[fol. 3052] By Mr. Hurd:

Q. Mr. Sloan, the Government has introduced certain exhibits, showing correspondence between you and Mr. Lammot du Pont in 1926, in which Mr. Lammot du Pont inquires or points out that his paint people are uninformed as to the trend of letting down of production and inquiring as to whether you have any objection to his showing them some production forecasts that he has received as a memorandum of some General Motors committee.

These are Government's Exhibits Nos. 363, 365, 366, 367 and 369 which I will show you, and ask you if you recall this incident?

A. Yes, I recall the incident, Mr. Hurd, of all of these letters referred to.

Q. It starts with 363, October, 1926. What was that incident, Mr. Sloan?

A. Pardon me?

Q. What was that incident?

A. Well, Mr. Lammot du Pont wrote me stating that he couldn't reconcile the information he had which involved production, with the incoming releases from our divisions for "Duco" material, and he gave me a lot of materials, and showed me why he couldn't reconcile it. Of course, I knew, as I testified here, that there was no way of reconciling one with the other, because a number of factors were taken into consideration by the divisions in making up the releases, which had nothing to do with the production schedule, but I tried very hard to develop a system that kept the closest possible correlation, as I have explained before and won't repeat, between the sale of the cars to consumer, production, and our supplier, and as a result of what he said, although I knew there was no reconciliation, I told him I [fol. 3053-3060] would look into the matter, and my idea was to make a check to see how the system was working.

I did that, and I found there were no complaints from suppliers on the point, so I didn't do anything more about the matter.

Mr. du Pont also wanted to know whether he could release the information he had to Mr. Allen, I think it was, and I told him that that was all right in this particular case because I was not giving him any advantage at all; and in fact, as a supplier with my experience as a supplier, I was putting him at a disadvantage, because if he tried to reconcile his production with the figures that he had, and develop his production of "Duco" from that point, he would be misled, because there were so many other factors that didn't enter into it.

[fol. 3061] Q. Mr. Sloan, I wish to turn to the subject of synthetic rubber. Do you recall General Motors being interested at one time in the possibility of making synthetic rubber?

A. I do.

Q. Do you recall about when that interest occurred?

A. In 1925 to '26 according to the best of my recollection, Mr. Hurd.

Q. Under what circumstances did that subject come up?

[fol. 3062] A. The problem arose from the standpoint of research. Mr. Midgley who had developed tetraethyl lead in collaboration with Mr. Kettering, was interested in the possibility of synthetic rubber, and he approached me on the subject, and I felt that while knowing very little about the technical possibilities of producing synthetic rubber, as I stated here before, I have always been intrigued with research practices because so frequently you find out something that is of value, so to make a long story short, I authorized Mr. Midgley to proceed and devote time to an investigation of the fundamentals of synthetic rubber. That was done.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 128 for identification which purports to be a letter from you to Mr. Kettering dated January 18th, 1926, and ask you whether or not that is your authorization to Mr. Midgley to proceed with this work?

A. This letter deals with the incident to which I have just referred.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 128.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 128.)

By Mr. Hurd:

Q. Mr. Sloan, do you recall whether your patent attorney, Mr. McEvoy, took any position on the subject?

A. Mr. McEvoy was a patent attorney at that time, and he was rather negative to the proposal of Mr. Midgley. He felt that Mr. Midgley—well, to make a long story short—[fol. 3063] didn't know anything about it, and he thought that it was an unwise expenditure of funds. I disagreed with him, and I went ahead and authorized Mr. Midgley to spend —I made him a grant to spend $60,000.00 on investigation of the possibilities of synthetic rubber.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 129 for identification which purports to be a letter to you from Mr. McEvoy, your patent attorney, dated March 11th, 1926, and ask you if that letter states the McEvoy position as you recall it?

A. That appears to be a letter indicating Mr. McEvoy's position, to which I have just testified..

Q. And you permitted Mr. Midgley to go ahead, notwithstanding Mr. McEvoy's objections?

A. I did.

Mr. Hurd: I offer in evidence, if the Court please, General Motors Exhibit No. 129.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 129.)

By Mr. Hurd:

Q. I show you a document marked General Motors Exhibit No. 130 for identification, which purports to be a letter from you to Mr. McEvoy dated March 15, 1926.

Was that your reply to Mr. McEvoy's criticism?

A. That is correct. That was my position when I received Mr. McEvoy's letter.

Mr. Hurd: I call the Court's attention to the second paragraph of this letter:

> "I think, considering Midgley's past performances [fol. 3064] and the confidence that we all hold in his research ability, that we ought not to dictate too closely because it is important to keep up his morale and all that sort of thing."

By Mr. Hurd:

Q. Now, do you recall whether or not Mr. Lammot du Pont took any position on the subject?

A. Yes, Mr. Lammot du Pont got into the picture, and he wrote me a letter criticizing my position in authorizing Mr. Midgley to spend $60,000.00 on synthetic rubber. As I recall his position, he stated that du Pont was doing something in that line, although his investigation was limited to rather a narrow area, whereas he said so far as his information went, General Motors was attacking the subject along a broad front, and he made the point that one of us was wrong and that in general was the position Mr. Lammot du Pont took with regard to the $60,000.00 expenditure.

Q. And what did you do about it?

A. I wrote him and said that I didn't agree with him at all, that if I had told him seven or eight years ago that General Motors Research was investigating the possibility of finding some material which would be added in small amounts to gasoline that would improve tremendously the relationship between the engine and the fuel, that he would have said probably the same thing, that we didn't have a proper chemical research, and that nothing would come out of it, and that I felt sure that that would be his position, that I felt that Mr. Midgley's outstanding contribution to the corporation and to the industry in the form of discovery of tetraethyl lead justified giving him an opportunity to see what he could do in the production of synthetic rubber which [fol. 3065] was a very important factor of cost in the production of General Motors cars.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 130.)

Q. Now Mr. Sloan, I show you Government Exhibits 888 to 890, inclusive, and 892 to 894, inclusive, and ask you if that contains the correspondence regarding Mr. Lammot du Pont's objections that you have just referred to?

A. This appears to be the correspondence to support my testimony on the subject.

Q. Do you recall whether or not Mr. Midgley at any time raised the question with you as to whether some outside chemist should look into his work?

A. Well, a couple of years more passed, and Mr. Midgley was working on the question of synthetic rubber in accordance with the grant that I had made him. About two or three days later, he wrote to me and said that he thought it would be wise if I would have him submit the work that he had done for evaluation, either to the du Pont Company or to some chemist, in order to verify or pass judgment on the progress that he had made in synthetic rubber up to that date.

I declined to do so because I told him that a chemist in commercial practice or perhaps the du Pont Company wouldn't have the imagination and sympathy with the forward project of that kind that he had, and I preferred to leave the determination of what we did to his own judgment supported by Mr. Kettering.

Q. Mr. Sloan, I show you a document marked General Motors Exhibit No. 132 for identification, which purports to be a letter from you to Mr. Midgley dated March 8, 1927. I ask you if that is your reply to Mr. Midgley to which [fol. 3066] you have referred, refusing to send the matter——

A. That is the letter to which I referred, Mr. Hurd.

Q. Do you recall whether or not Mr. McEvoy's position changed—Mr. McEvoy, your patent attorney?

A. No, I don't think it did, according to my recollection.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 132.)

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 131, which is a letter from Mr. McEvoy to Mr. Pratt, dated December 3rd, 1927.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 131.)

Mr. Hurd: I should like to call attention to the last paragraph:

> "I feel exactly about this development of Mr. Midgley's as I have felt about his experiments in connection with synthetic rubber, namely, that he knows nothing whatever about the subject except what has been disclosed by other people and I would strongly urge, as I did over a year ago in connection with the synthetic rubber activities, that the whole operation be terminated."

By Mr. Hurd:

Q. Was the research that he was conducting for General Motors terminated at any later date or did it continue on?

A. It continued for some time. The research was conducted by Mr. Midgley through a research organization in Dayton, called the Thomas something company—the last name I have forgotten.

[fol. 3067] Q. Hochwalt?

A. Yes, that is right, and continued there for some time. Finally the principles of that research went into industry. Mr. Thomas became subsequently president of Monsanto Chemical Company, and Mr. Midgley carried on research in rubber on his own account with that change.

As far as I recollect, he continued that private venture until he died in 1944.

Q. Mr. Sloan, I show you two documents marked respectively General Motors Exhibits Nos. 135 and 134.

The first document, Exhibit No.135, being a letter from Mr. Midgley to you dated April 5th, 1928, and Exhibit No. 134 being a letter from Mr. McEvoy to you, attaching a draft of a contract.

I ask you whether these documents reflect the termination as far as the General Motors was concerned of this synthetic rubber research?

A. Yes, they do.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 135 and 134.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 134 and 135.)

By Mr. Hurd:

Q. Mr. Sloan, do you recall the price of rubber in 1925 and 1926 when Mr. Midgley undertook this investigation?

A. I do.

Q. About what was it then?

A. Well, the price of rubber went up to over a dollar a pound as a result of what was known as the Stevenson Act at that time.

The Stevenson Act was promoted by the British government, perhaps in collaboration with other governments, and [fol. 3068] the purpose of it was to maintain a high price for natural rubber. As a result of that, as I just stated, the price rose to over a dollar a pound and caused a good deal of commotion among users of rubber and also on the part of the United States Government.

Q. By 1928 when you finally terminated this research, what happened to the price of rubber?

A. The price had gone down very sharply. I have forgotten whether the Stevenson Act blew up or what happened, but anyway the price went down from something like $1.10 a pound to something like 40 cents.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 133.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 133.)

Mr. Hurd: Exhibit No. 133 is a chart showing the monthly average of cotton and rubber wholesale prices from 1923 to 1932. It shows that in 1925, the price of rubber went up to a little over a dollar a pound, remained approximately at that point in early 1926, then dropped down to around forty cents a pound, where it remained until about the first quarter of 1928 when it dropped down.

By Mr. Hurd:

Q. After Mr. Midgley was given whatever accomplishments he had made in his research on this subject through this contract, did he continue on, on his own, with this Thomas-Hochwalt concern, looking for the solution?

A. I think he did. I am a little uncertain about that. I [fol. 3069] think he did for a while, up to the time that concern was dissolved, as I previously stated, when the two principals went into industry. I think after that Mr. Midgley conducted research on his own account.

Q. Did Mr. Midgley advise you from time to time after this as to what he had accomplished?

A. Just as a matter of general interest.

Q. I show you General Motors Exhibit No. 137 for identification, which purports to be a letter from Mr. Midgley to you, dated September 5, 1928, and ask you if that is the report you received from him after he ceased for General Motors on this project?

A. That is the progress report of what he had accomplished as of September 5, and there are other unrelated matters there.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 137.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 137.)

By Mr. Hurd:

Q. As far as you know, did Mr. Midgley ever succeed in solving the problem?

A. He didn't succeed, Mr. Hurd, but he made—between the time that we are talking and his death in 1944—he made some very outstanding contributions to the evolution of synthetic rubber.

I think perhaps he made as important and outstanding contributions as anybody but he didn't live long enough to make it an accomplished fact.

Mr. Hurd: If the Court please, I offer in evidence General [fol. 3070] Motors Exhibit No. 136, which is a letter from Mr. McEvoy, the patent attorney, to Mr. Pratt.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 136.)

Mr. Hurd: I refer to the second page of the document, where Mr. McEvoy quotes from a theme of Mr. Midgley's speech at proceedings of the Institute of Chemistry held at Evanston, Illinois.

The first paragraph, back page, quotes his theme:

> "The quest for synthetic rubber may be compared to the quest for the Golden Fleece, the Fountain of Youth, or the Philosopher's Stone, in so far as the objective appears exceedingly unlikely of attainment, but the quest has been very fruitful in secondary results for the general improvement of rubber technology and scientific knowledge."

By Mr. Hurd:

Q. Mr. Sloan, I would like to ask you a few general questions.

If the Court please, some of these questions may slightly overlap some I have asked in the past. They relate to the complaint. I have asked some questions as to specific allegations, and I should like to ask these in the interest of having the examination complete.

Mr. Sloan, the complaint in this case charges in substance that approximately thirty-six years ago, a conspiracy was entered into, or an understanding, or an agreement, between the du Pont Company and General Motors Corpora- [fol. 3071] tion, pursuant to which General Motors Corporation was to favor the du Pont Company by giving the du Pont Company its business on such products as the du Pont Company made, and that General Motors could use.

Have you ever heard of such an agreement?

A. I never heard of such agreement whatsoever.

Q. Or understanding or conspiracy?

A. Or understanding or conspiracy.

Q. Have you ever heard of anyone giving business to du Pont and General Motors because of the feeling that there was an obligation to favor the du Pont Company?

A. I never heard of any such thing recognized by anybody in the operation of General Motors Corporation, and certainly it was never recognized by myself.

Q. Have you ever known anyone in General Motors favoring du Pont Company?

A. I did not.

Q. The complaint also charges that approximately thirty-six years ago, this conspiracy or understanding or agreement provided that General Motors Corporation would refrain from going into fields, particularly the chemical field, in which the du Pont Company was engaged.

Have you ever heard of such a conspiracy, understanding, or agreement?

A. I never heard of any such understanding, Mr. Hurd. I don't know too much about conspiracies, so I cannot answer that.

Q. Do you know anything about General Motors refraining from going into any business because of a feeling that the du Pont Company was going into that business?

A. Absolutely not.

Q. In terminating the synthetic rubber business, were you in any way influenced by a feeling that the du Pont [fol. 3072-3076] Company objected to your work?

A. Certainly not, Mr. Hurd. As a matter of fact, I think you are mistaken that I terminated it. It was terminated on the judgment of Mr. Kettering and Mr. Midgley. The record shows very clearly that I left the determination to them.

Q. In determining not to go into the manufacture of Ethyl, were you in any way influenced by a feeling that it was a duty of yourself, as a member of the General Motors management to refrain from manufacturing something that the du Pont Company was manufacturing?

A. You said lacquer. Absolutely not.

Q. No, I said tetraethyl lead.

A. Absolutely not.

As a matter of fact, outside of the experimental contract that was made under date of October 10, 1922, for the initial production of tetraethyl lead, which I have referred to as a pilot plant, the determination of that was up to the Standard Oil Company of New Jersey through our partnership relationship with the Ethyl Gasoline Corporation to the same extent that it was up to us.

Q. Have you ever known of any understanding or obligation upon General Motors to divide any field with the du Pont Company?

A. I never heard of such a thing.

[fol. 3077-3078] Cross-examination.

By Mr. Harsha:

Q. I say, does Mr. Raskob's statement of the relationship existing between the du Pont Company and General Motors, as appears here, does that accurately describe the relationship?

A. Well, he says:

> "My feeling is that the financial interests of both companies were so closely interwoven."

I would not say that represented the position at that time. I say the financial interests of the du Pont and General

Motors Companies were quite separate. Each stood on its own basis of facts. So far as the importance of having an executive who had the competence, I certainly subscribe to that.

[fol. 3079] By Mr. Harsha:

Q. I am directing your attention primarily to the last sentence I read, and I ask you if it is not true that the du Pont Company's practical control of General Motors [fol. 3080] stems from its ownership of seven and a half million shares or 38% of the G. M. common stock at that time?

A. Well, I don't know whether the 38%, even recognized at that time, is an important percentage, or would necessarily be practical control. I think it would depend upon the circumstances upon which the test was made.

Certainly, whatever position they had comes from the 38 per cent, or the seven and a half million shares, whatever it is, to which you referred.

Q. It is true though, isn't it, that immediately after purchasing Mr. Durant's stock, the du Pont Company requested Mr. Pierre du Pont to take the presidency of General Motors?

A. I wouldn't agree with that. As a matter of fact, nobody was more anxious to have him take the presidency than I was. I have already testified to that effect. Other people interested in the corporation felt the same way. The whole organization on which our success was dependent, felt it was essential that we have a man of Mr. Pierre du Pont's importance and standing, because it gave great confidence to the organization and the public at a rather critical time, so I would say that Mr. Pierre du Pont's coming into the presidency was the unanimous call of everybody interested in the business.

Q. Isn't it true that after Mr. du Pont took the presidency of General Motors in late 1920, that the Executive Committee of General Motors was almost immediately changed, reorganized?

A. Yes, that is true. It had to be, because, you see, the Executive Committee as it existed previous to Mr. du Pont's coming in as president, comprised the divisional executives.

and you are familiar with that, and I don't need to elaborate on that.

And Mr. du Pont didn't know, and I didn't know, as to [fol. 3081] the loyalty of those men who had been on the Executive Committee with respect to Mr. Durant. They were all protegees of Mr. Durant. They profited importantly by their association with Mr. Durant, and we felt that it was necessary, not knowing either the capacity from the standpoint of performance, or the loyalty, that it was necessary to make a complete change and start all over again.

Q. Pardon me. Go ahead.

A. Furthermore than that, there was a feeling on the part of Mr. du Pont, myself, and others, that it was unwise to have division managers on the Executive Committee, and if you refer to the record you will see that in the whole history of General Motors there have only been two cases where division managers had been on the Executive Committee, so for all of those reasons it was thought desirable to have a new setup.

I call your attention further to the fact that coincident with the organization, the reorganization of the Executive Committee, there was an Operations Committee organized, and the men who had served on the Executive Committee became members of the Operations Committee.

Furthermore than that, the record shows that very shortly after Mr. Pierre du Pont became president, there were a number of changes among the personnel that constituted the Executive Committee before Mr. Pierre du Pont became president. The record has been disclosed on that, and I needn't repeat it again.

Q. You referred to a question about the loyalty of some of the car division managers. I gather that the issue was whether they were loyal to Mr. Durant or the new management headed by Mr. Pierre du Pont?

A. No, I would say loyalty to General Motors Corporation. You will recall that Mr. Durant, shortly after he [fol. 3082-3083] retired from the presidency, started a competitive activity, Durant Motors, and one or two of the former members of the Executive Committee retired from General Motors and associated themselves with Mr. Durant.

Q. When did Mr. Durant start Durant Motors, do you recall?

A. Very shortly after he retired from General Motors. I couldn't—I am sure it was within a year.

Q. Within a year after?

A. I am quite certain. I might have to be corrected on that.

Q. Do you recall how shortly after Pierre du Pont assumed the presidency that the Executive Committee was reorganized?

A. Almost immediately, within thirty days.

Q. Do you recall the members of that Executive Committee as originally reorganized by Mr. du Pont?

A. Who were they?

Q. Yes.

A. Would I repeat them?

Q. Do you recall the names?

A. Yes, I do.

Q. Would you state them?

A. Pierre du Pont as Chairman, president of the corporation; Mr. J. A. Haskell was on the committee. He was a vice president of General Motors; Mr. Raskob, and he was Chairman of the Finance Committee, and myself.

The Committee at that time was limited to four.

Q. And all of those men that you have named, other than yourself, had been associated previously with the du Pont Company?

A. That is correct.

Q. Now, during the time that you have been with General Motors, Mr. Sloan, isn't it true that the du Pont Company has been the largest single stockholder?

A. That is correct.

[fol. 3084] Q. I show you Government Exhibit No. 1307.

This is an exhibit, Mr. Sloan, which shows the percentage that the du Pont stock, voted at the annual General Motors stockholders' meeting, bears to the total stock that was voted at such meetings. You will note that the chart begins with the year 1928 and continues down to 1949, the date of the filing of this Complaint.

In the last column on the right hand side the percentages which the du Pont voted stock bore to the total shares voted at the annual meetings is set forth.

You will note, for example, that the top figure 1928 shows that the du Pont stock amounted to 52.3 percent, and [fol. 3085] that for the next four years, down through 1932, it was over 51 percent. Then dropping down to 1936, it was again 51.3 percent, and for the years following that you will note the percentage ranges from 46 down to 29 percent.

Addressing your attention to those first five years listed there, from 1928 to 1932, where you note the percentages run from 52 to 51 percent, wasn't that a block sufficiently large to control the stockholders' meetings?

A. I don't think I can answer that question because the du Ponts voted their number of shares, whatever it was, in favor of the management. I don't think you can tell what would happen if, we will say, there was a conflict.

Take the year, for instance, 1932. You see there were seventeen million shares which didn't appear in the meeting. Now, if there had been a conflict for directors, there would be a very much larger representation than twenty-six million shares.

I don't think anybody could tell how that larger representation would vote. I think it would largely depend upon the issue that caused the conflict.

I believe that in those years, and all the other years, that the stockholders would be guided by the records of General Motors Corporation, both with respect to its advancement of its position, its earnings, dividends, and so forth.

You go down, for instance, to the year 1947. There were fourteen million shares that didn't appear in the meeting. Du Pont's interest was ten million shares out of forty-four million. In other words, I think we are dealing with theoretical conditions concerning which nobody knows.

Q. Isn't it true that in many large corporations today, and I am speaking not only of General Motors, that you [fol. 3086] have this common phenomena that all the outstanding stock is not voted at the annual meeting?

A. I didn't intend to infer that the outstanding stock would all be voted. My point was that in the case of a conflict for directors, a much larger number of shares of the outstanding stock other than du Pont would appear at the meeting, and that would upset the whole thing.

This is merely an arithmetical deduction of certain facts, which I think are more or less unrelated to the subject of control, as I understand you are inquiring about.

Q. Now, assuming that there was no conflict as to the management slate of directors—as a matter of fact, you have never had a rebel slate of directors proposed, have you?

A. There has always been complete harmony. As a matter of fact our directors down through the years have been elected by a vote of the stockholders equivalent to about 99-plus.

Q. And the du Pont Company stock has always been voted in favor of the management directors, has it not?

A. Correct.

Q. And at least for these early meetings, from 1928 to 1932, and also in 1936, where apparently you have a large number of stockholders who are not voting, laying those aside, it is true that the du Pont stock alone was sufficient to elect the management slate of directors, was it not?

A. No, I don't think so. I don't think that if in any of those years there had been a conflict—I don't think I can testify to the fact that the large holding of du Pont would necessarily have elected a competitive board of directors.

I think you have got to know what the issue is, what the position of the corporation was, the attitude of the stock- [fol. 3087-3092] holders, how liberally they have been treated, the confidence they had in the management, and all of those things very definitely enter into it according to my best judgment.

Q. I want to make one thing clear so we don't misunderstand the import of this chart. This is not hypothetical in the sense it does show precisely how many shares were voted at each meeting?

A. I am sorry, I understand that fully. This is a factual statement.

Q. I believe you also stated that as a fact there had never been a rebel slate or conflict on choice for the management slate of directors over these years, is that right?

A. That is correct.

Q. So that there has been no conflict, and all I am asking you now is that in the absence of conflict, the du Pont block of stock in those years was sufficient, being over 51 per cent, to elect the management slate of directors?

A. I don't agree on that. It was over 51 per cent of the stock represented at the meeting, but it was not 51 per cent of all the stock. In case of a conflict you immediately—the interest you arouse and all that, and the issues that are put before the stockholders, would mean that a much larger percentage of the stockholders would come into the meeting, and that would dilute in a way the du Pont interest.

So I can't say just what would happen. It would depend, as I say, upon a lot of circumstances that I can't evaluate.

[fol. 3093] Q. Mr. Sloan, I show you Defendant's Trial Exhibit, General Motors No. 10. I believe we had some [fol. 3094] testimony regarding that. I would like to call your attention to the first page under the heading, in the left-hand column, "Management," directors, so-called.

And there we have a list with Mr. Pratt. That was Mr. John L. Pratt, is that right?

A. John L. Pratt.

Q. He had previously been with the du Pont Company in an executive position, had he not?

A. Many years before that. He came to General Motors in about 1919 or 1920.

Q. Then you will note the name Brown. Is that Mr. Donaldson Brown?

A. That is correct.

Q. Whom we have already discussed as being a director of both companies, isn't that correct?

A. Correct.

Q. Now, I direct your attention to this entire list of management directors on the first page.

Isn't it true all of those directors were on the Board of General Motors with the consent and approval of the du Pont representative?

A. Well, you are going back to before my presidency when I had practically nothing to do with it. I cannot answer that question about that time.

Q. How would you answer the question, Mr. Sloan, with regard to the management directors listed on the second page, in December, 1942?

A. I would answer the question in this way: I testified on direct that the Board of Directors—the changes in the Board of Directors, were on my nomination, as president and subsequently as chairman.

After considering the wishes of a representative group of the Board of Directors as to whether they would be acceptable as members of the Board from all points of view.

That having been accomplished, then I recommend them to the Board. Changes in the Board of Directors, according to our present practice, are made by the Board itself.

Then at the following stockholders meeting, the list is pre- [fol. 3095] sented to the stockholders who act on it. I would say in answer to your question that no director could be put on the Board of Directors without having the unanimous approval of the present Board of Directors, particularly the approval of those members of the Board who are serving in the management.

It must be the unanimous approval that a certain individual is desirable. That is the practice we have followed, and in all cases the recommendations that I made, after the study that I made, it was unanimously approved by the Board, including of course, the members of the Board that were there in representation of the du Pont interests.

Q. Was it common, Mr. Sloan, for you to have, shall we say, any dispute or argument with other members of the Board who were on the management of General Motors regarding the selection of a new director?

A. No, we did not have any argument or dispute, but when the names came up, they were discussed thoroughly, and sometimes questions would come up to say the individual was too old, or did not have business experience.

Q. I am asking now only of your management directors.

A. Oh, I am sorry.

Q. Yes. Management directors.

A. I am sorry. I didn't get your question.

No, there was no dispute at all. The management directors are elected by the Board on my recommendation without discussion with anybody else, because they have to be on the board to discharge their corporate duties.

So, in answer to your question, as I now understand it, no, there was no argument at all.

Q. If the selection of other directors were made, would you discuss placing a man from the management on the [fol. 3096] Board of G. M.? That would be through the group which have been listed here as du Pont representatives, or others, is that right?

A. That is correct.

Q. Directing, for example, your attention to the second page, 1942, the one we have been discussing, at that time you only had three other directors, so-called, under that heading?

A. That is correct.

Q. One of them I assume wasn't active at all, Mr. Harry McGowan?

A. That is right.

Q. The other two, I gather, were active, Mr. Whitney, from J. P. Morgan, is that right?

A. Correct.

Q. And Mr. Bishop?

A. I may say Mr. Bishop was not active. He was president of the First National Bank. He was not active in the sense I take your question.

Q. Now, when a management director leaves the employ of General Motors, he is usually dropped from the Board, isn't he?

A. No. A management director leaving or retiring continues on the Board. As a matter of fact, we just passed a rule January 1st, 1953, that they shall retire, but up to now they have continued. I am looking at page 2 here. There is a very considerable number of those who are out of management, and continued to serve on the Board of Directors.

Q. They are retired executives, is that correct?

A. They are retired executives, that is correct.

Q. But if a man has an executive position in General Motors, and then leaves General Motors, and he doesn't retire in the sense of going on pension, but assume, for example that he goes to another company; he would then go off [fol. 3097] the Board, wouldn't he?

A. Well, it would depend upon the circumstances. You asked me an academic question. That never happened, and I just tell you what would—I can't think of any. Maybe there are cases of that kind. They don't occur to me at the moment.

Q. Well, for example, let me show you this. This is called du Pont Exhibit No. 56. You will note that is an exhibit entitled "Members of GM Board and Governing Committees" from 1917 to 1952, and I would like to direct your attention to page 2.

A. Wait a minute, now, until I get it.

Yes, I have that.

Q. Now, if you will note the second name listed is Mr. W. P. Chrysler, and you will note that he remained a director through the year 1919, and then in 1920 there is a blank, and you will note the date. He retired apparently 3-25-20. Doesn't that coincide with the date he resigned?

A. Well, of course, he went into competitive business, and that was before my time, so I didn't associate that with the change. There might have been other changes, but—

Q. Well, you will note if you look at the column headed "1920"—do you have it, on page 2? Do you see that year 1920?

A. Yes, I see it.

Q. If you will drop down that column you will note E. Verlinden. He left the Board of GM at the time that he retired as executive officer, didn't he?

A. Yes.

Q. And the next name, Mr. F. W. Warner?

A. Yes.

Q. That is similar, isn't that correct?

A. That is correct.

Q. And then in the next bunch of names you will note F. W. Hohensee.

A. He retired. He was one of the executives that went with Mr. Durant when Mr. Durant organized Durant Motors.

[fol. 3098] Q. And the next to last name in that column, K. W. Zimmerscheid, he left in 1923?

A. Right. His health broke down. He had to leave. I think when you asked the question about changes, I think I answered wrong. I didn't think of the early changes. I was thinking more of recent years.

Q. I see. Isn't it true that during the period of time that you have been with General Motors, Mr. Sloan, that the du Pont Company could at any annual stockholders' meeting change the entire set of management directors if there was a serious enough conflict within the organization?

A. No, I don't think they could. I am of the opinion that with the record of General Motors—I will not elaborate on that—that if it came to an issue, the stockholders would support the management.

That is only an opinion, but of course it would depend a great deal on the then existing circumstances as to the status of the business. If the management let the business down, and the record was unsatisfactory, that might change it. I don't think you can deal with a case of that kind. It is too hypothetical, because you don't know the circumstances under which the issue would arise.

Q. Let me show you a letter, Mr. Sloan, that was written by Pierre S. du Pont in 1947. This is Government's Exhibit No. 1057 in this case, and it is addressed to Mr. Lammot du Pont Copeland. It regards the affairs of the United States Rubber Corporation, but I would like to call your attention to the second paragraph in which Mr. du Pont states:

> "I do not fear the result of the management group [fol. 3099] being in the majority. If such fear is real, we should change the management."

Didn't the du Pont Company have the same power to do that in General Motors?

A. No, I don't think they had. I have already testified to that effect. I think the record of the business, as evaluated by the stockholders, would determine whether the management's place was approved or an impending slate offered by the du Pont.

Q. I want to show you a government exhibit, Government's Exhibit No. 190, Mr. Sloan. If you direct your attention to the part that is penciled there, that is the part I wanted to read.

That is a letter written by Lammot du Pont, Chairman of the Board, to yourself in 1930, April 22nd, and it states in the third paragraph that:

> "I like very much your idea of doing away with the Operations Committee and electing to the Executive Committee the present members of the Operations Committee, who are not now members of both. This means Bradley, Grant, Hunt and Wilson would have to be elected to the Executive Committee, and presumably would have to be elected directors. They are all Vice-Presidents at present. I think this would be a good thing to do, the only objection being to adding numbers to the already large Board. This objection is trivial."

Now, in connection with that statement about this objection that there be more on the management directors, that that objection is trivial, would you say that the number of management directors was unimportant to the du [fol. 3100] Ponts, that were on the GM Board?

A. I don't see why it should be otherwise.

Q. Did Mr. Lammot du Pont or Mr. Pierre du Pont or Mr. Irenee du Pont at any time ever express any concern to you, Mr. Sloan, about the number of management directors on GM's Board?

A. I never heard of such a thing. I don't think they were interested or cared one way or the other about it.

Q. On direct examination you were shown Government's Exhibit No. 203, and over on the last page of that you will note in the last paragraph the sentence beginning "In the last paragraph of your letter you bring up the question of the so-called 'du Pont influence,' " and you were asked by Mr. Hurd, I believe, as to what you meant by the term, and your reply as set out in the transcript was that you felt when important significant problems of policy arose, "If we had in contact with those problems people who had a stockholder interest and they felt it was all right, I would stick to my conviction that it was the right thing to do."

Now, in connection with that policy, Mr. Sloan, wasn't one of your purposes to forestall any conflict or clash between the GM management and the du Pont representatives?

A. No, not that I know of.

Q. Weren't you trying to prevent a condition arising whereby the du Ponts might attempt to oust the management of GM?

A. No, if I understand your question, my previous testimony had reference to the fact that I felt that it would strengthen the hands of the management to have, when important questions of policy arose, to have the support and understanding of outstanding business people, [fol. 3101-3103] particularly in the case of Mr. Lammot du Pont who was—the fact that they were stockholders would help us that much.

My responsibility as chief executive of General Motors was very great, and I was anxious to have everybody understand what we were doing and how we were doing it, and get their support as to what policies were adopted. It was simply to strengthen the management, the administration of the business.

[fol. 3104] How is the number of the so-called du Pont representatives decided, do you know?

A. I think it is more accidental than otherwise. There is no rule or policy or understanding as to whether they should have any particular number, so far as my knowledge goes, and I think if there was any such understanding, I would have known about it.

Q. Is it correct to say that the du Ponts themselves determined the number of representatives they wanted on the Board of General Motors?

A. The question has never arisen, I don't know—there is no policy. It just kind of develops that way through a natural evolution of circumstances.

Q. Is it correct, then, to say that the du Pont people make the recommendations as to whom they want on the Board as being their "representatives" and those nominations are then accepted without question?

A. That is correct.

Q. Have you ever had the situation where the du Ponts wanted to have, say, ten or fifteen members as du Pont representatives on the Board of GM?

A. Such a situation has never arisen. There has never been any discussion as to that point whatsoever. As I testified before, I think it just sort of happened that way.

Q. Isn't this true, as you said, that in 1923 the du Ponts had 38 percent of the GM stock, and I believe today the figure is around 23 percent of the outstanding GM stock?

A. That developed because, you see, we had at that time the General Motors Securities Company, and that was liquidated in 1938, and that changed the picture.

Q. But the number of the du Pont representatives on the Board of GM has not been determined by the percentage of the General Motors stock which they own?

[fol. 3105-3109] A. Nothing of that kind at all. As I have said before, and I am quite sure I am right, it just happened that way.

[fol. 3110] Q. I say, through the power of making these appointments to these policy making committees of General Motors, the president of General Motors can influence heavily the operational policy of General Motors.

A. Well, the answer is yes, because he is the leader, but on the other hand, it depends on how he does it. In my case, I never made any appointments or adopted any important policies without all of the important factors in the management group being consulted and approving of it.

So my recommendations along the line that you inquire were the composite judgment of the management group as a whole rather than any particular influence I could exert as president of the corporation.

Q. And didn't you customarily consult with the du Pont representatives concerning these appointments to the Policy Making Committees of General Motors?

A. I consulted with all the directors, Management and otherwise, everybody that I thought could contribute to a better result.

I discussed such matters with the outside directors, such as Mr. Whitney, who has contributed importantly to our progress.

Again, I say that nothing was done except it was largely the unanimous opinion of the group as a whole, management and otherwise, that it was the right thing to do. Otherwise it wasn't done.

Q. Yes. If the du Pont representatives disapproved of a suggestion that a particular person in management be placed on a policy making committee, that appointment would usually not be made, would it?

A. Approved an appointment in management?

Q. Yes.

[fol. 3111] A. It depends on what the circumstances were. They might question something. I don't remember that they have particularly, but it would be argued out, and if they had good reason, why, it would not be done, just the same as if anybody else had a good reason.

We judged it by the merit of the proposition rather than the individual by whom the question was put.

Q. I would like to show you Government's Exhibit No. 205, which is a letter addressed to Mr. Lammot du Pont, written by yourself, in 1943. I direct your attention to the second paragraph, in which you state:

> "Do you think it would be helpful to increase the membership of the Policy Committee by one, and include Mr. Kettering in the group?"

Then you will note that opposite that there is a handwritten note "No," and at the top there is the notation, which apparently is "Answered verbally no 6/2."

I presume that is in the handwriting of the addressee, Lammot du Pont.

Mr. Kettering didn't go on the Policy Committee, did he?

A. No, because others thought the same as Mr. du Pont. As a matter of fact, when I considered it myself, I rather agreed with the point Mr. Lammot made.

Mr. Kettering was a large stockholder, and of course is a very eminent citizen, but we all agreed that if he came on the committee he would be telling us about all the wonderful things that were in the future, and we wouldn't have time to attend to the business of the corporation. That was one of the reasons.

Q. Yes. I note that the first paragraph of the letter indicates you are sending copies of this letter to Mr. Carpenter and also Mr. Whitney.

A. Yes.

Q. Whom I think we previously identified in the testi- [fol. 3112-3113] mony?

A. That is in accordance with my previous testimony that I tried to get the consensus of opinion of all those that would contribute to the final result.

Q. But at the time you wrote this letter, Mr. Sloan, isn't it fair to say that you had thought that Mr. Kettering's interests were now broader than merely technical matters, and that you thought it might be a good idea to have him on the committee?

A. Yes, but after consulting with the whole group, they differed with me, so of course I didn't go any further with it because, as I have already testified, in all these things you can't have a team unless everybody has confidence in everybody else. It is very necessary to work together to a common purpose, and to have everybody have complete confidence in all their associates.

Q. Would you say that this was a recommendation of yours which was vetoed by Mr. Whitney, Mr. Carpenter and Mr. Lammot du Pont?

A. I don't remember what Mr. Whitney's and Mr. Carpenter's point of view was, but I remember discussing it with the management, and after complete consideration it was decided it was not a wise thing to do.

[fol. 3114] Q. Let me show you a document which has been marked Government's Exhibit No. 1312 which is a syndicate agreement dated June 23, 1920, and if you will turn to the last page—

A. Yes?

Q. The fifth name listed there; is that your signature?

A. That is correct.

Q. And the amount of your participation in the syndicate is listed at $500,000. Is that correct?

A. That appears to be correct.

May I say that this syndicate is the only one that I can—is the one I referred to a minute ago. You will note this is the underwriting here, this 1,400,000 shares, and I think that that is related to the 3,200,000 shares which were sold at that time to bring extra capital into the business. I referred to that a while ago.

[fol. 3115] That is the only syndicate that I know of that I was ever connected with, and I don't think this has any relation to Mr. Durant's stock. I am confused on that.

Q. Yes. Well, now, isn't this syndicate, the agreement of which you have in your hand—wasn't this the predecessor to the July, 1918, syndicate?

A. The one you asked me about?

Q. Yes.

A. I don't know.

Q. You will note that the participants in the syndicate, the agreement of which you hold in your hand, lists your name among others with the du Pont Company and also Mr. Durant, I believe is the fourth name listed there.

A. That's right.

Q. Do you recall the circumstances under which this syndicate was organized? Was there a meeting of these people?

A. Well, generally speaking, an underwriting of that syndicate started, and then somebody takes the leadership. I think in this case it was J. P. Morgan & Company that had the leadership, and then they get people to subscribe to it, and the way I subscribed here or had a participation in the amount of $500,000, this doesn't mean that we buy that amount of stock.

It is an underwriting, so that if the stock in question is not taken up by the stockholders, then the underwriters would be responsible to have to take up the stock that wasn't taken. That is my understanding of it.

Q. Yes.

A. I don't think this has any relation to the question you asked me first about Mr. Durant's stock.

Q. No, I did not intend it to.

A. They are two separate things.

Q. That is correct. I was merely trying to inquire as to the relationship between the syndicate mentioned in this document here of July 16th, and the syndicate agree- [fol. 3116] ment of June 23rd.

A. You recall asking me some questions about the interest of the English people. The English people took up a considerable amount of this stock, too. That accounts for the difference between the one million, four, and the three million, two, to which I have testified before.

Q. Do you recall who approached you to become a member of this syndicate?

A. I don't remember it at all, frankly, and I don't remember how the syndicate came out, whether I made money or lost money. I don't think I could have lost very much, or it would have made an impression on me.

Q. I believe you testified that sometime during the summer, perhaps August of 1920, you took a trip to Europe, I believe you mentioned.

While you were in Europe, were you kept advised by the syndicate manager of any trading in this stock, pursuant to this agreement?

A. No, I don't—I was not advised. I was on a vacation trip.

Q. Were you ever informed by anyone in 1920 or 1921 that a very large block of stock held by a syndicate, or rather in July, this syndicate of 1920, had been sold on a declining market?

A. No, I don't remember anything about the transaction at all. I have a remembrance of the syndicate, but I don't remember what happened to it at all, and naturally the management of this was apparently in the hands of J. P. Morgan & Company. To what extent the participants were advised from time to time, I don't know. The whole thing has gone out of my mind, to tell you the truth.

Q. Now, I noticed that on your direct testimony you stated that after you returned from Europe, from this trip [fol. 3117] in August, 1920, upon your return to New York and your going into the offices of General Motors, you found that conditions were moving ahead very rapidly, and that as a result of that you decided to continue on with General Motors to see what might happen.

Did you have any intimation at that time, when you changed your mind about resigning from General Motors or selling your stock, that Mr. Durant was on his way out as president of General Motors?

A. I didn't know anything about it. As I said before, I knew Mr. Durant was operating in the market. I didn't know to what extent he was operating successfully or otherwise. I have already testified that I knew nothing about his personal affairs.

When I came back from Europe the most unusual thing was that Mr. Durant was on a vacation. He had never taken one before, and the impression I had that things were moving along, and I thought that I would wait and see what happened, exactly as I testified.

I had a tentative deal made to enter the banking firm in New York, Lee Higginson & Company. The time was not definite, so I thought I would wait and see what happened, and at the end of November, Mr. Durant retired. I had no knowledge at all—I thought, as a matter of fact, that he was in control of a large amount of stock, and I knew no reason why he shouldn't continue in the management.

Q. Can you tell us what were the facts upon which you based your testimony that conditions were moving ahead very rapidly?

A. Well, it was only an impression I had. I sort of felt it in the atmosphere. There was nothing particularly definite about it. I had no concrete knowledge of the facts. It was just an impression I had.

[fol. 3118] Q. Did you have a discussion at that time with anyone concerning the conditions of General Motors?

A. No, not particularly.

Q. Immediately upon your return from Europe—

A. At that time I thought the corporation had very heavy inventories, but that was a detail. They could be liquidated under proper management. I was not concerned with the immediate position of General Motors.

I was concerned, from my own point of view, with the long term position, because I didn't feel that the corporation was being managed in a way that was necessary to have it take a place in the industry and develop in line with the development of the industry itself.

Q. Did you have any discussion at all, upon your return from Europe, with either Mr. Raskob or Mr. Pierre du Pont or Mr. Pratt or Mr. Donaldson Brown concerning the position of Mr. Durant in the company?

A. No, I don't recall any discussion with anybody. I kept my counsel to myself.

Q. Did you have any discussion with either of these gentlemen concerning your own position?

A. Not at all. I never did. I don't think they knew what I had in mind.

Q. Then you testified concerning a meeting which you attended, I believe shortly after Mr. Durant resigned as president of GM, at which Mr. Pierre du Pont and Mr. Raskob were present, together with certain other unidentified persons, and apparently the subject-matter was the presidency of General Motors, and you stated that you urged very strongly that Mr. Pierre du Pont assume the presidency of General Motors, and that either then or later Mr. du Pont indicated with some reluctance that he would [fol. 3119] take it, so long as it was on a definitely temporary basis, and that it was understood that that was the basis.

Was there anything said at that meeting as to what his plans were in respect to how long he would remain with General Motors?

A. There was nothing said at all except that he made it very clear that he had retired. He didn't wish to get in active business again, and that if he took the presidency it would be very definitely a temporary thing in character until he could find somebody he felt was qualified to carry the responsibility.

Q. Do you recall whether there were any other persons at that meeting who had been either executives or directors of the du Pont Company?

A. I tried my best to put my mind back thirty years and answer that question, but I have not been able to clarify in my mind who the people were that were present. I am sure there were other people, but I cannot recall who they were. I know Mr. Pierre du Pont was present, and I think Mr. Raskob was present, but my memory stops right there.

Q. Was anything said at that meeting, if you recall, regarding your position with General Motors, or your future with General Motors?

A. Not at all; not at all. Nothing had ever been said to me, particularly, about my future in General Motors anyway.

Q. Was any suggestion made at that meeting as to who might be a possible successor of Mr. Pierre du Pont after he terminated his temporary office?

A. Not at all. He didn't go that far. I don't think there was any basis for any discussion of that kind.

Q. Now, I think we have already covered in a general way that your testimony in which you stated that one of [fol. 3120] the most important things that occurred immediately after Mr. Pierre du Pont's becoming president of General Motors, was this reorganization of the Executive Committee which was then composed of Mr. Pierre du Pont, Mr. Raskob, Mr. Haskell and yourself, and the former Car Division managers were then removed from that committee.

A. I want to add there, if I may, and that is that the Car Division managers were still in the counsels of the corporation, but they acted through an additional committee that was created, or the Operations Committee, and that has been the practice of the corporation down through the years.

Q. And that committee is inferior in power, isn't it?

A. That is correct.

Q. To the Executive Committee?

A. That is correct, it is.

Q. Do you know why so many persons were placed on the Executive Committee who had connections with the du Pont Company at that time?

A. No, I don't.

Q. Then you testified that in 1921 the Car Division managers of the Cadillac Division and the Oakland Division and the Olds Division were removed under various circumstances which we have already discussed, I believe, in this case. They were removed by Mr. Pierre du Pont, and that you then recommended to Mr. du Pont their successors who were, I believe, Mr. Hardy, to be the Division Manager of Olds, Mr. Wright to head up the Cadillac Division, and Mr. Hannum to head up Oakland Division.

Now, in connection with that, I would like to show you an exhibit, Government's Exhibit No. 421, which is a letter written by P. S. du Pont, President of General Motors, addressed to Lammot du Pont, Vice President of the [fol. 3121] du Pont Company, dated August 23rd, 1921.

A. Have I the right letter?

Q. I am afraid you don't.

Just let me read the part to you, and I will show it to you, if I may.

A. All right.

Q. This is the document in which Mr. du Pont states in the second paragraph;

> "With the change in management at Cadillac, Oakland and Olds, I believe that you should be able to sell substantially all of the paint, varnish and fabrikoid products needed; especially is this true of Cadillac."

I show you the exhibit, and I would like to ask you this question, after you have finished looking at it.

A. I have read it. Thank you.

Q. I would like to ask you whether you discussed with Mr. Pierre du Pont at the time this letter was written, or shortly before it, the attitude of these prospective heads of the three divisions towards the du Pont Company, and their policy toward purchasing the products?

A. I never had any discussion at all. ~~That sort~~ of thing never came into these considerations.

Q. You did have a discussion with Mr. du Pont, though, concerning these three new car division managers?

A. I recommended these appointments to Mr. du Pont, and these appointments were men already in the organization who had been in the organization for many years.

Q. If you know, Mr. Sloan, what caused Mr. du Pont to say that with the changes in these car divisions, the [fols. 3122-3123] du Pont Company should be able to sell them their entire requirements?

A. I have no idea what caused him to express that point of view, and I am frank to say that I did not have that point of view at that time in substance or in fact.

ADJOURNMENT

[fol. 3124] ALFRED P. SLOAN, JR., called as a witness on behalf of the defendants, having been previously sworn, resumed the stand and testified further as follows:

Cross examination (Continued)

By Mr. Harsha:

Q. Mr. Sloan, I should like to call your attention again to a document that we discussed very briefly, to another portion of it, this morning, and that is Government's Exhibit No. 207, and I should like to direct your attention to the second page, the paragraph which is marked "Third." Perhaps by way of introduction I should indicate that, in this letter which you wrote to Mr. Carpenter in 1943, you were discussing the organization of the Board of Directors of General Motors, and you were saying that you are going to use the following formula for determining recommendations to that Board, and these numbered paragraphs, I assume, are points in the formula which you are suggesting to Mr. Carpenter.

Number 3 reads as follows:

> "I think we must be careful to exclude those who represent interests that have relationship with General Motors, particularly in the buying and selling area."

Mr. Sloan, why did you recommend that suppliers of General Motors be excluded from the Directorship?

A. Well, this formula, as you called it, must be considered with respect to a lot of other discussions that have centered around it. It was not a complete formula in itself. My feeling is, that where there is a stockholder relation- [fol. 3125] ship, that the question of buying and selling areas doesn't enter into it. I feel that the ownership of property justifies a representation in the management of that property.

For instance, I am a large stockholder in General Motors, and I feel that, unless I should be persona non grata to the management, I am entitled to a position on the Board of Directors due to my large stock holdings.

Q. Well, now, absent the stock holdings, was it in your mind when you wrote this paragraph that a director who is also a supplier to GM might be open to the accusation that he was influencing the purchasing policies of General Motors with respect to that supplying?

A. Well, I think that is no qualification for a director, and that putting the man on the Board, and that director in turn was a supplier, and there was no other qualification, I would think it would be just as well to leave him off, because there would be no justification for putting him on.

But I feel again, that a substantial stockholder relationship with the corporation justifies a position on the Board of Directors.

I feel also that an individual of high standing in the community who contributes importantly to the welfare of the business, I think should be on the Board, and I would be inclined to waive other limitations because of these contributions to the progress of the business.

Q. Just one final question: Let me see if I understand now the reasoning employed in this letter. You did have, I gather—you saw a danger, if you had a director who was also a supplier?

A. Providing he had no other qualification. In other words, I wouldn't see any reason why he should be on the Board, but if he is an important stockholder, if he is a distinguished citizen, if he is an outstanding businessman, [fol. 3126] I would accept him because in my management, in the management of General Motors, I appreciate that we must have competence on all counts, or we cannot have a successful business. Therefore I rank that higher than anything else.

Q. Now, isn't it true, though, Mr. Sloan, that if the director is also a very large stockholder and a supplier, that the danger of his influencing the purchasing policies of General Motors is greater?

A. I don't think there is any danger there at all. I think any director who is a large supplier, granted he is a large stockholder, if he is an intelligent individual, knows perfectly well, if he goes to use his position as a director to advance his position as a supplier, that is just the way he is not going to get any business at all.

Q. Mr. Sloan, you were shown on your direct examination General Motors Exhibit No. 15, which is a schedule of the meetings of the Board of Directors of the du Pont Company for the years 1923 to 1948, and on this I gather that the thrust of this chart was to show that it was only on the meetings which bore an asterisk that you attended the meetings of the Board of Directors of du Pont.

Now, isn't it true that quite apart from these formal Board of Director meetings that you had many informal conferences with the du Pont representatives in Wilmington and in New York and other places?

A. As to the du Pont business?

Q. No, as to the General Motors business.

A. Well, the du Pont representatives on the Board of Directors, I was in contact with them more or less, not particularly in Wilmington, but more particularly in New York where we met, probably some in Detroit. That was their responsibility to General Motors, and my responsibility to [fols. 3127-3131] General Motors too, to have conferences wherever they involved the position of the business.

Q. And those conferences related only to General Motors business?

A. Only to General Motors business. I never have aided directly or indirectly, in any way of any of the problems involving the du Pont business. I know nothing about them whatsoever.

Q. I should like to show you again, Mr. Sloan, Government's Exhibit No. 207, which you have just testified about. You will notice the first paragraph of that states, "I have your letter of September 22, referring to the above matter, and also to our discussion at your finance meeting in Wilmington last Monday."

That is the Finance Committee of the du Pont Company, isn't it?

A. Correct.

Q. Did you attend that Finance Committee meeting?

A. No, I didn't. I have never attended a Finance Committee meeting of du Pont. I have never attended an Executive Committee meeting. I have never participated in any of the affairs of their business. This, I think, refers to the fact that once I went into the Finance Committee after the committee had adjourned.

[fol. 3132] Q. It was your opinion that General Motors should not undertake the commercial manufacture?

A. That was the position I took on the basis of lack of competence. Further, more than that, the manufacture of this particular material involved certain questions of danger in manufacture, somewhat analogous to tetraethyl lead, perhaps not so much, and I thought it was something we should not engage in. I told Mr. Pratt that.

Q. I would like to show you then, further carrying along this line of discussion, Government's Exhibit No. 840, which is a letter dated March 28, 1930, which was written approximately two weeks after the preceding document we have just examined. It is a letter by Mr. E. G. Robinson, General Manager of the Dyestuffs Department of du Pont, addressed to Mr. Pratt of General Motors.

It simply states that they are going to discuss fully the [fols. 3133-3138] question of the methods of manufacture of this product, and he states that:

> "We are arranging to have these men there at the earliest possible moment, since we understand this is your desire and we entirely agree with you that the possibilities of this proposition are such that we should proceed to cooperate with the least possible delay."

Prior to the writing of this letter, Mr. Sloan, did you communicate with someone in the du Pont Company on this Freon?

A. No, I had no communications with anybody at any time with respect to this proposition except Mr. Pratt, and having made my decision that General Motors didn't have the competence, in my judgment, to enter into the chemical manufacture, I asked Mr. Pratt to investigate the matter and develop a program which, in his judgment, seemed to be constructive within the rules that I laid down.

Q. Did he report back to you as to his plan?

A. He did in due course. He reported the plan that contemplated the organization of the company and the financial setup related thereto.

Q. Did Mr. Pratt inform you that he had undertaken negotiations with the du Pont Company for the Freon chemical?

A. I don't recall that he did, but there was nothing that required him to go to the du Pont Company. My position was General Motors was not competent to enter into the manufacture of chemicals.

Q. You didn't give him any recommendation as to who should undertake it?

A. No, that was an open field so far as he was concerned from my point of view.

[fols. 3139-3140] Q. I call your attention also to the eighth paragraph on page 3. Do you see the eighth paragraph where it states:

> "Du Pont agrees with respect only to the production of 'said products' specified in Paragraph First, that it will be responsible for the management of the New Company."

Then on the second page, you will note paragraph 3.

A. Wait a minute. What paragraph?

Q. Paragraph 3:

> "Upon the organization of the New Company, Du Pont shall subscribe for fifty-one percent (51%) of said total authorized capital stock and General shall subscribe for forty-nine percent (49%) thereof."

Isn't it true, that after Kinetic was set up, that the du Pont Company undertook to provide management for Kinetic?

A. I think that to a large extent is true, because they had the competence, and General Motors did not have the competence. That is the reason why we did not go into it in the first place, and they had people who were interested in the matter. According to my best recollection, the management was set up largely for that purpose.

[fol. 3141] Q. Do you know, Mr. Sloan, who in General Motors wanted to build up an independent chemical manufacturing activity?

A. I do not. I have no idea who that could be.

Q. Well, didn't Mr. Biechler, your general manager of Frigidaire, in that first communication that I showed you, indicate a desire to have the manufacture of fluorine in General Motors?

A. Maybe he did, but that wouldn't have anything to do with the policy from the standpoint of the general policy of the corporation. I made the decision that we were not competent in that, and that would have been governing. Whatever Mr. Biechler wanted to do, I don't know. I am inclined to think in the record there was some letter of that kind.

Q. Then turning to page 5, the first full paragraph states:

> "To summarize, as far as I am concerned I hope to see General Motors Corporation utilize to the fullest extent the chemical experience of the du Pont Company in manufacturing any chemical compounds that General Motors laboratories may discover, where there is a possibility of commercialization."

Did Mr. Pratt's statement typify the attitude of the top executives of General Motors at that time?

[fols. 3142-3143] A. Well, I don't think that I could say that it did, because I think it was a personal opinion of his. So far as I know, the question never came up as a matter of policy before the Executive Committee, which would have been the governing group in that connection. I have already testified in various ways in my examination here, that I don't think that any general rule could be laid down for any of these things. Each case must be determined on the basis of its individual merits.

Q. I note that you received a copy of this letter, Mr. Sloan. Did you have any discussion concerning this part of the letter with Mr. Pratt?

A. I don't recall that I did, Mr. Harsha.

Q. Do you recall receiving this letter?

A. I don't recall it, frankly.

[fols. 3144-3145] Q. Do you agree with this statements, Mr. Sloan, in the last paragraph where he states:

> "Personally, I would rather depend upon the du Pont Company for our chemical developments than for us to start an independent development of our own."

Was that your attitude, too?

A. That gets back to what I said before. If it came to a decision between our making the chemical development and someone else making it, I will always rule against our making it because I don't think we have the competence.

I called attention in direct examination to the fact that we must not confuse what we did in research with the ability to manufacture from a production point of view. As a matter of fact, all these things that have come up here for discussion in the chemical line were the productivity of one research man in General Motors Research. Outside of that, I don't know anybody in General Motors, unless it was Mr. Kettering, that had any chemical background whatsoever, either in research or in manufacture.

[fol. 3146] Q. Did you receive an opinion from your Legal Department, Mr. Sloan, regarding the unenforceability of Article Seven of the Kinetic agreement?

A. I don't remember any opinion from our Legal Department, but we did have a recommendation from the Legal Department that that particular condition should be canceled, and subsequently it was canceled, if I remember correctly.

Q. It was not canceled before the filing of this Complaint in June, 1949, was it?

A. I don't know whether it was or not.

Q. Next I show you Government's Exhibit No. 575—

Mr. Hurd: If the Court please, for the enlightment of the Court and counsel, I now say it was canceled a considerable number of years before the filing of the Complaint in this case.

By Mr. Harsha:

Q. This is a letter to the Executive Committee from the Chairman of the du Pont Company, signed by Mr. Lammot du Pont, and it is dated April 22, 1920.

I call your attention to the first paragraph:

> "At a conference April 22d, attended by Messrs. J. J. Raskob, C. F. Kettering, Irenee du Pont, Dr. Reese and other representatives of the Chemical Department, the question of the basis upon which the du Pont Chemical Department would undertake work for General Motors Corporation was discussed. As a result, Mr. Raskob made a suggestion which appears [fol. 3147] to be reasonable and which I recommend the Executive Committee approve, in principle, as follows:
>
> "2. General Motors will be free to call upon du

> Pont Chemical Department for any advice or work that General Motors desires du Pont to undertake. When so called upon, du Pont is obliged to undertake the work.
>
> "3. It is understood that General Motors Corporation will establish, at such of their plants as seem to be proper, chemical laboratories to handle their routine problems, in view of which it is not intended that General Motors Corporation will request the du Pont Chemical Department to handle any routine work."

Then you will note on the next page that there is a discussion of dividing research projects—

A. What is that?

Q. A discussion on dividing research projects into group 1, and group 2. Do you see that?

A. Oh, yes.

Q. Then I would like to pass over to the next page, beginning:

> "In all cases in Group 2, General Motors shall pay du Pont the actual cost of the work, including overhead, but no profit. The actual cost and overhead to be determined in the usual way according to accounting methods employed by du Pont Company. In such cases du Pont and General Motors will each have a fifty percent right in any information, processes, inventions or patents resulting from the work."

Did you receive any report regarding this conference from Mr. Kettering?

[fol. 3148] A. I don't recall that I did, but this question of cooperative effort between General Motor's Corporation and du Pont with respect to research came up at various times, beginning here, and continued for two or three years.

It was both unsound and undesirable. Personally, I never approved such an arrangement, and as a matter of fact, no such arrangement ever went into effect. It would be very undesirable for a corporation like General Motors to, you might say, turn its research work over to anyone else. Research must be confined within the organization involved.

I was very much against that, and as I said before, it was finally turned down two or three years later. There is a good deal of record in connection with the various steps taken in the meantime, but nothing ever came out of it.

Q. Did you have any connection with those negotiations, Mr. Sloan?

A. I don't think I did. I think most of it was between du Pont and Mr. Kettering. Mr. Kettering would be the natural agency in General Motors to deal with research problems of that kind.

Q. I show you Government's Exhibit No. 598, which is a memorandum for file, prepared by Lammot du Pont, who was then, I believe, vice-president of the du Pont Company.

He states that:

> "In conversation with Mr. P. S. du Pont he advised that it does not seem possible at this time to institute any plan for co-operation on chemical research work between General Motors Corporation, his feeling being that, as problems come up, special arrangements with reference to each should be made between the two Companies, rather than attempt now to make a general arrangement to cover prospective cases."

[fol. 3149] Did Mr. Pierre du Pont, who was then president of General Motors, inform you of this discussion and the decision which he had reached with his brother, Lammot du Pont?

A. I don't recall whether he did or not, but the fact is that the whole proposition was unsound. Mr. Kettering was against it. Everybody was against it. It couldn't be considered from the General Motors' point of view.

Q. You notice his language in the middle there, that "special arrangement with reference to each should be made between the two Companies"?

A. Well, it is very customary in conducting research activity to allocate certain special problems to people who have particular competence in those particular specific problems.

General Motors, you will recall, referred the early development of tetraethyl lead from the production standpoint to the Massachusetts Institute of Technology. That is quite customary, and there is nothing objectionable to doing that sort of thing, from an organizational point of view.

That is quite different from assigning all your research work to someone outside the organization involved. That is impossible, and could never have been approved by the General Motors' management.

Q. But isn't it true that on subsequent important developments in a chemical field that Mr. Midgley, and others in General Motors, conceded that the commercial production of those chemical developments were turned over in each case to the du Pont Company?

A. Well, I don't know what Mr. Midgley's point of view was, but you will recall, that after tetraethyl lead was discovered in December, 1921, shortly after, that Mr. Kettering took up with du Pont an examination of certain of the pro- [fols. 3150-3151] duction problems involved in the commercialization of tetraethyl lead.

Mr. Harsha: May it please the Court, yesterday in connection with questioning Mr. Sloan, I called to his attention and showed him the exhibit, the Syndicate Agreement of June 23rd, 1920, which was numbered Government's Exhibit No. 1312, and I omitted to offer it in evidence. I would like to do so at this time.

Mr. Hurd: No objection.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1312.)

[fol. 3152] Q. Now, I show you Government's Exhibit No. 618, which I believe you discussed on your direct examination. This is the agreement between the du Pont Company and General Motors, dated October 6, 1922. This was the first tetraethyl lead contract, isn't that right?

A. That is correct. When you use the word "contract," I just want to emphasize it was somewhat more like a development project, but it took the form of an agreement, and I think you very properly called it a contract. That was the only agreement General Motors ever made with respect to the manufacture of tetraethyl lead.

Q. Now, this contract, I assume, in the normal corporate organization in General Motors that then existed, was submitted and discussed and approved by the Executive Committee and the Finance Committee of General Motors, is that correct?

A. I am trying to think whether our procedure required the approval of the Finance Committee. I hardly think it did, because it was a purchase contract of certain materials at that time which did not involve any financial considera- [fol. 3153] tion except that was involved in payment for these materials. I am a little uncertain whether that would be considered as a matter for the Finance Committee or something that had to go before the Executive Committee. I would not think it had to go before the Finance Committee. I may have to be corrected on that. As I indicated in my answer, I am not too certain, but my belief is it did not require such approval.

Q. Weren't contracts that were signed by the president of the corporation usually discussed and approved first in the Executive Committee and Finance Committee meetings?

A. Not necessarily; depending upon what the nature of the contract is. I signed all kinds of papers as president of the corporation, which didn't go to either the Executive Committee or the Finance Committee.

Q. This was a rather important contract at that time, though, wasn't it, Mr. Sloan?

A. That wouldn't make any difference. It would depend upon the nature of it, not its importance.

Q. Next I should like to show you Government's Exhibit No. 622, which is a letter that you wrote to Mr. Irenee du Pont, president of duPont Company on January 28th, 1924, in which you state, at the beginning:

> "I have just had a talk with two or three of the high officials of the Standard Oil Company of New Jersey, covering our relations with them."

And then dropping down to the next page, the first paragraph states:

> "With the above atmosphere, which is given you in order to intelligently reach the point I want to make, the Standard Oil people are urging very strongly [fol. 3154] a deal whereby they want to capitalize the present exclusive contract by exercising the right they have to license competitors covering the use of tetra ethyl lead, thereby getting a broader distribution which they claim will be to our interest and in return for that

they want the right to manufacture for our account tetra ethyl lead at a price competitive with the du Pont Company.

"I feel, and have held right along, that in view of the fact that we are in the development stage we should not in any way discuss with these people anything to do with the manufacture of tetra ethyl lead. I question whether it will be good business from our standpoint for them to manufacture tetra ethyl lead and at the same time have such a large slice of the distribution on same."

Now these are the reasons which you express, Mr. Sloan, to the president of the du Pont Company regarding your viewing with disfavor Standard Oil's undertaking the manufacture of tetraethyl lead.

Aren't those reasons really commercial reasons for declining to have Standard Oil manufacture tetraethyl lead?

A. Well, there are really, as I see it, two questions involved in the reference you have made to this particular letter.

In the first place, it is always desirable in a development stage of any product where conditions are very rapidly changing, and there is a lot of uncertainty, to confine the problem as much as you can, and that is what I referred to in the development stage, that I preferred to confine it to one source, because it simplified the arrangement. Most [fol. 3155] development problems of this kind follow that course. We start on a limited basis, and we move on, and finally when the thing gets established and the uncertainties are largely resolved, we go on to somewhat different procedure.

The second question arises here in the quotation you have made, about the commercialization with relation to the manufacture. At that time, Standard Oil of New Jersey had exclusive arrangements for distribution of tetraethyl lead in their territory, and I felt that again, while we were in the development stage, it was unsound for them to consider at that particular time the manufacture, because it would have prejudiced their position with other suppliers in that territory. That is the reaction I get from what I said in this letter, particularly related to the quotations that you made from the letter.

Q. Yes. Directing your attention to the second sentence in that last paragraph I was reading to you:

> "I question whether it will be good business from our standpoint for them to manufacture tetraethyl lead and at the same time have such a large slice of the distribution on same."

Weren't you expressing there a purely commerical consideration that you didn't want them to be engaged both in the manufacture and the exclusive distribution of tetraethyl lead?

A. Yes, I thought they were in conflict with respect to other distributors of oil in their particular territory.

Q. And you felt "from your standpoint," you mean General Motors?

A. Absolutely. When I speak of "our" in all of these things, it is always General Motors.

[fol. 3156] Q. Then you go on to say that:

> "I feel that in the final analysis the du Pont Company can manufacture the material at the lowest cost plus a reasonable return and that under such a consideration there would only be a manufacturer's profit in it for the Standard Oil Company and that they could employ their capital to equal, if not better, advantage in their own business than in the manufacture of tetraethyl lead and that our permitting them to get into that manufacture will be a disturbing influence and would throw an uncertainty on the whole situation that would not be constructive."

Were you expressing here a fear that the Standard Oil Company, if it engaged in manufacture of tetraethyl lead, would be in competition with the du Pont Company?

A. No, I didn't care anything about that. What I was concerned with was that, in the development stage, it would involve a lot of confusion, and we might better wait until the development had moved farther along, and then we might take such action as subsequent experience justified.

Q. I note that, in that sentence, you state "There would only be a manufacturer's profit in it for Standard Oil" and that they "could employ their capital to better advantage in fields other than tetraethyl lead."

You were there expressing a view of yours that the manufacturer's profit would normally be a relatively small profit on capital investment?

A. No, I think my statement with respect to the Standard Oil was rather paternalistic, from their standpoint. I think they didn't need my help, but I thought the principle I was working with was that there should be a separation between [fol. 3157] the commercialization of it and the production. That is really the idea that runs through the whole paragraph.

Q. I notice that this letter is prefaced by your statement that you had a talk with two or three of the high officials of Standard Oil. In that discussion did you point out to the Standard Oil officials that at most they would have only a manufacturer's profit if they engaged in the manufacture of tetraethyl lead?

A. I don't recall any detailed discussion of what took place at the talk referred to. I think probably the best answer to that would be the letter itself.

Q. Next I show you Government's Exhibit No. 623, Mr. Sloan, which is the reply to this previous letter we have just discussed, written by Irenee du Pont, addressed to you, on February 2, 1924, and in the first paragraph, it is stated:

> "I have talked over your letter of the 28th with Mr. Harrington and find we are all in accord as to the proper course of procedure."

I presume that that refers to the last part of your letter in which you stated that:

> "I personally would much rather obtain a license from them—".

meaning Standard Oil—

> "—pay for it and get the du Pont Company to use it in reducing the cost than I would to deal with the Standard Oil Company as a manufacturer."

Is that a fair conclusion?

[fol. 3158] A. Well, I think that the conclusion is better defined by what Mr. Irenee says. This was Mr. Irenee's letter, wasn't it?

Q. Yes.

A. What Mr. Irenee says in the balance of the letter of February 2, 1924. He suggested that I write the Standard Oil Company along certain lines. I differed completely with the recommendation. I wrote Standard Oil along entirely different lines.

Q. Now, this refers, does it not, to the point that Standard Oil should be approached with a view of buying the license from them, rather than licensing them to engage in the manufacture of tetraethyl lead? Isn't that right?

A. I don't recall whether it was or not. I am a little confused on that. Perhaps if you say that again, I can answer it better.

Q. I am really paraphrasing your statement, your last sentence in the previous letter, which begins at the bottom of the page there, where you stated that you had personally——

A. Oh, yes, that is correct. In other words, in line with what I have already said, keeping the two functions, distribution and commercialism, separate.

If Standard Oil had a process, and it developed subsequently that they had, I thought it would be better for du Pont to take a license from them and pay for what it was worth. You are correct, if that was your question. I am sorry I was confused.

Q. In connection with this letter which you received from Mr. Irenee du Pont, who suggested that in effect you inform the Standard Oil people to get in touch with the du Pont people regarding this new process for tetraethyl lead, I believe on direct, and I think just a few moments [fol. 3159] ago, you stated that you disagreed with that suggestion and took an entirely different course.

Now, I show you Government Exhibit No. 624. This is in reply to the previous letter you received from Irenee du Pont, and is dated February 5, 1924.

You state in the first sentence:

> "Dealing with your letter of February 2nd, I note that we are all in accord with what should be done. In view of the nature of my conversation with the Standard Oil people of New Jersey, I think it might be best —and I believe you would agree with me if you had been in the conference—to write them along somewhat

different lines but essentially covering the same point."

Is this the letter to which you referred on your direct examination as expressing your disagreement with Irenee du Pont's proposal?

A. Yes, that is correct My recollection was, irrespective of what I said to Irenee, the letter I wrote to Standard Oil differs quite materially. I think there are other records that support that position.

Q. Yes, you are referring now, I presume, to the paragraph numbered 3 on page 4, where it is underlined:

> "As to your manufacturing tetra ethyl lead for our account. As I told you in our conference, we feel that the rapid developments of the plant that we have built for the manufacture of tetra ethyl lead and the fact that the whole picture is more or less in the development stage, makes it desirable to refrain from discussing this situation at the present time. You must appreciate, as I have no doubt you do, that the present price of tetra ethyl lead has nothing to do with the ultimate price and the ultimate price will be based [fol. 3160] upon the lowest possible cost that can be developed through large production and effective manufacturing means plus a reasonable return on the capital employed. In other words, a manufacturer's profit."

Now, is this your suggestion to Standard Oil, that all that would be in it for the manufacturer would be the so-called manufacturer's profit?

A. The manufacturer's profit is meaningless, so far as a term is concerned. Manufacturer's profit depends entirely upon the thing you manufacture.

The fact that a manufacturer's profit is interpreted by you as necessarily a small profit is not in any sense so. It might be a very big profit. On the other hand, it might be a narrow profit.

It depends on the project. If it [illegible] a development project, the profit would be large. If it was a highly competitive project, the profit would be small. You can't deal with the thing in terms of generalities.

Q. All I am asking you, was it your intention in this letter to convey to Standard Oil the impression that the manufacturer's profit would be a narrow profit.

A. I hadn't any intention at all. I didn't know what it was. That would depend upon circumstances. This quotation you make is in support of what I previously testified here, to the effect that the whole thing was in a more or less development stage and made it desirable to refrain from discussing this situation, and many other situations, involved at that time.

We had to work ourselves into a position where we knew more about it in order to act intelligently.

Q. Now proceeding along in that paragraph to the last sentence on the opposite page,—do you see that? Page 5. [fol. 3161] It begins, "We shall at all times." Do you have that?

A. Yes. I have it.

Q. (Reading):

> "We shall at all times, however, be glad to discuss with you the relative value of your process versus ours and after such analysis if it appears that your process has value, we shall be glad, in co-operation with you, to work out some plan which will be constructive and preserve all the equities in the case."

Now, in your covering letter to Mr. Irenee, you stated that you had written to Standard Oil along somewhat different lines, but covering essentially the same point as he had suggested.

Is this the sentence in your letter to Standard Oil that you had in mind?

A. Yes, it is. This statement, that we will be glad to discuss the relative values of their process, as you recall, took form shortly afterwards in the organization of the Ethyl Gasoline Corporation.

Q. This discussion relates to the so-called chloride process, doesn't it?

A. Chloride process was the process referred to that Standard Oil had, you are correct.

Q. Now, I believe in your previous testimony you stated that the Standard Oil people were rather interested in starting a small plant at Bayway. I think it had a rate of production of about 100 gallons a day of tetraethyl lead. Do you recall that?

A. Correct, by the chloride process.

Q. By the chloride process, and it was apparently not intended that that would be a permanent plant, is that correct? It was to operate for only about six months?

A. That is correct. Although I don't know as there was any policy along the lines that you have just stated, but the [fol. 3162] setup of a plant was such as to justify the conclusion that it would operate a short space of time. It would be a pilot or experimental plant rather than a plant designed for production purposes.

Q. But isn't it true that at this time it was intended by you and others in General Motors and in Ethyl that the du Pont Company was to be the only important manufacturer of tetraethyl lead?

A. My position on that was, that at the beginning, in the initial stage, considering the hazardous type of manufacture, considering the competence of the du Pont Company and their experience in this sort of thing, that it would be desirable to continue them as a single source of supply up to a certain point.

When all those factors were resolved and we knew more about it, and competent competition had come into the field that was certainly supported.

Q. Yes. Now I would like to show you in this connection Government's Exhibit No. 660, which is Irenee du Pont's letter to you, dated June 26, 1924.

I would like to turn to the last page, last paragraph, in which he states:

> "It is essential that work be started on a chlorine method plant at once if forecasts of the probable needs of tetra-ethyl-lead are even reasonably borne out and if you are convinced that a check on prices by an independent plant is desirable and you should go ahead at once with the hundred-gallon unit at Bayway, you should give us a contract for enough additional output so that we also could build at once a hundred-gallon plant by the chlorine method of Deepwater and add to it, as rapidly as experience determined desirable, 900 gallons per day of additional capacity."

[fol. 3163] Then I show you your reply to that letter, Government Exhibit No. 661, which is dated June 27, a few days later, and I draw your attention to the first page, in which you state:

> "We should immediately lay down a 1,000 gallon a day tetraethyl lead plant under your supervision at Deep Water, and make some sort of a deal concerning which I wrote you yesterday that is satisfactory to all parties—and there will be no difficulty as to this—which will serve to protect the capital you put into the enterprise and give you a reasonable return on the capital employed."

Then turning to the next page, paragraph 3, you say:

> "For psychological reasons we should permit the Standard Oil Company of N.J. to expend $35,000 or $40,000 of their own money to experiment with the 100 gallon a day outfit in one of their plants, I believe in Bayway, in a building which they could use temporarily for the purpose. This will serve to satisfy them from the psychological standpoint and it is certain that it will be impossible to operate such an experimental plant successfully when the larger units are running, but it will give them a means to work out their viewpoint which certainly can do us no damage when we approach it from the bigger way."

Now, when you refer there to approaching it from a "bigger way", don't you refer to the fact that du Pont could really do all the important producing of tetraethyl lead?

A. This is in 1924, and I had not reached the point yet [fol. 3164] where I felt that we were better off by confining the manufacture of this type of thing to the du Pont Company.

Q. Well, I draw your attention to the next paragraph, in which you state:

> "Any further thought of developing any real production other than under the auspices of the du Pont Company will be deferred until some later time."

Isn't it true you had no intention of having Standard Oil Company become the significant producer, that this was merely an experimental plant they were to operate?

A. My position was it was a question of competence, particularly from the standpoint of producing a dangerous material of this kind. My support of the project, the experimental project of Standard Oil Company in Bayway, indicated on page 3 of this letter, was because I always believed it is well to try anything that comes along in the way of a suggestion, because you always learn something. I still felt that the interest of General Motors—and at this time, it was really the Ethyl Gasoline Corporation—was better conserved by limiting production of Standard Oil from the standpoint of competence to which I have referred several times.

In the proposal in Point 1 of the letter of June 27th, I suggested to Mr. Irenee that plans be laid down for a thousand gallons a day. The suggestion came originally from Mr. Frank Howard, who was about to be associated with us in the Ethyl Gasoline Corporation, which association had been agreed to at this time, but not defined in a definite agreement or contract.

Q. Mr. Sloan, isn't it true that, at this time, you believed that, as long as the du Pont Company had a thousand gal- [fol. 3165] lon a day plant in operation, that the Bayway one hundred gallon a day plant, would be obsolete and of little value to Standard Oil?

A. The Bayway plant was of little value anyway. It was purely an experimental plant, and could have had no particular value, directly or indirectly, from a production point of view. I looked on the plant largely as a research development program.

Q. Is that why you referred to it; that is, "for psychological reasons," you let them work it out with Standard Oil?

A. Yes. They were about to become partners with Ethyl Gasoline Corporation. What happened after that would be determined by the facts that were established at that time.

Q. Next I show you Government's Exhibit No. 676, which is a memorandum of the meeting of the Board of Directors of Ethyl Gasoline Corporation, dated December

23rd, 1924, and I should like to call your attention to the first page, the second paragraph, which reads:

> "A lengthy discussion of the substitute for tetraethyl lead discovered by Dr. Bosch, of the National Anilin Soda Fabrik of Germany. During the meeting a cable was read indicating that a patent had been applied for by the Badische Co. on iron carbonyl; that Kettering stated he was sure that was the substance that had been shown him; that he found tests had been run on nickel carbonyl and iron carbonyl had been discussed as a possible anti-knock material a year or two ago; that it had been set aside because it was doubtful if the material could be produced commercially at a reasonable figure.
>
> "Discussing the patent protection it was thought [fol. 3166] likely that the general patents owned by the Ethyl Gas would not hold for all anti-knock materials. Opinion of an eminent patent attorney was read indicating that to be the case. The particular patent on nickel carbonyl covered other nickel salts but apparently did not cover other carbonyls. They would try to get this patent extended for that purpose. In the meantime a fight on the Badische patent on iron carbonyl would probably delay its use for a protracted period. It was felt that it would be desirable, however, to obtain patent on iron carbonyl from the Badische Company if it could be arranged."

Then turning to the second page; this is a report prepared by Irenee du Pont, and then he states:

> "At my suggestion the cable replying to Dr. Bosch was worded in a way that indicated lack of urgent interest and that the matter of negotiating with Badische had been referred to the du Pont Co. The objection of this was so that we could get a better deal for the Ethyl Gas Corporation on the one hand and give du Pont a better opportunity to deal with Badische on other questions."

Referring now to the first page, Mr. Sloan, why was is desirable to have the Ethyl Gas Corporation obtain the Badische German patent on iron carbonyl?

A. Well, it was considered at that time that it might develop as an additional or perhaps more effective anti-knock compound. Iron carbonyl had been used in Germany and had quite a fair record of acceptance. In all our tests it failed. The reaction of the wear on the cylinders and [fol. 3167] pistons and so forth was such that we could not use it.

Q. Isn't it true that the Ethyl Gas Company was interested in obtaining control over any and all substitutes which might arise, or new inventions which might arise as an anti-knock material?

A. Well, the Ethyl Gasoline Corporation was in the anti-knock compound business, and if any compound came into the picture that offered advantages towards efficiency, the Ethyl Gasoline Corporation, of course, would naturally want to use it because it would be to their interest to do so, as compared to the existing products of tetraethyl lead. That happens in any business.

Q. Yes. On your direct examination, if I recall, you stated that the interest of General Motors in tetraethyl lead was almost—well, was primarily and was very heavily, purely to increase the efficiency of the automobile engine that would be promoted by the use and introduction of tetraethyl lead?

A. I confirm that opinion.

Q. But that was not the sole purpose of the Ethyl Corporation which the General Motors Corporation had fifty percent interest in, isn't that true?

A. Well, it would be so to the extent that General Motors had a fifty percent interest.

Q. Well, I mean the Ethyl Gasoline Corporation did attempt to get control for use in North America of all substitutes for tetraethyl lead, isn't that correct?

A. Yes, but it was to the interest of General Motors that such development take place because that would improve the main objective of General Motors in the tetraethyl lead problem, to develop a better coordination between the engine and fuel, to increase the efficiency of the motor car, in which we were primarily interested.

[fols. 3168-3170] Q. Do you have any recollection as to whether there were any discussions in the meetings of the Board of Directors of the Ethyl Corporation which indicated that there was a fear that the German Badische would sell their iron carbonyl in this country in competition with tetraethyl lead?

A. I never heard of such a thing.

Q. Turning to the second page of the document, the part that I have just read, that paragraph stated that negotiations with the Badische Company were being turned over to the du Pont Company, and it says it would give to the du Pont Company a better opportunity to deal with Badische on other questions.

Do you know what the other questions were that the du Pont Company had with Badische?

A. No information whatsoever. I know nothing about the du Pont business directly or indirectly.

Q. So far as you know, they did not relate—those other questions did not relate to tetraethyl lead?

A. My impression is that there is no relation. I have already said I don't know, so I cannot really answer your question, but I am very sure that the du Pont Company had very important relationships with this German chemical company, and I am sure that this particular reference to other questions did not relate to anti-knock compounds.

Q. I gather this matter of having the du Pont Company handle the negotiations for Ethyl was the subject of discussion at this meeting of the Board of Directors of Ethyl in 1924?

A. I don't recall that it was, but that is Mr. Irenee's interpretation of it, and I have no reason to believe that he was misrepresenting. Of course, the idea of asking du Pont to conduct negotiations was it could get a better deal than Ethyl Corporation; that was the primary object in considering the problem at that time.

[fol. 3171] Q. It is true, is it not, that the du Pont Company had handled negotiations with the Badische Company for Ethyl, for this iron carbonyl?

A. I am a little hazy on that, but I think you are correct on that. I think eventually that agreement was made between Badische and Ethyl Gasoline Corporation which gave Ethyl Gasoline Corporation the right to use iron carbonyl, but nothing came of it, because iron carbonyl was an unsatisfactory product, so far as anti-knock quality, because it caused too rapid deterioration of the working parts of the engine. It has never been used.

Q. To clear up one or two statements in your testimony, let me show you Government's Exhibit No. 713, which is an abstract from the minutes of the meeting of the Executive Committee of General Motors, in which it states that the president advised that the du Pont Company is sending a representative abroad to negotiate with the Badische Company for this compound.

Does that refresh your recollection that that was actually handled by the du Pont Company?

A. Yes, I think it was. I think the patent agreement between Ethyl Gasoline Corporation and Badische was worked out, or du Pont took a considerable amount of leadership in it. Whether the eventual details were worked out by them, I am not prepared to say.

Q. I show you Government's Exhibit No. 723, and this is, I assume, the agreement to which you referred.

A. Yes.

[fols. 3172-3179] Q. That was entered into between I. G. Farben Industrie and Ethyl Gasoline Company covering this iron carbonyl substance?

A. This appears to be the agreement I referred to a minute ago. It is the first time I have seen it, but it appears to cover the point, according to my recollection.

There was such an agreement between the two corporations, Ethyl Gasoline and Badische Company.

Q. Do you know, Mr. Sloan, whether any efforts were made to try out this iron carbonyl, any efforts made by the Ethyl Gasoline Corporation to try out the commercial potentials of this iron carbonyl?

A. At that time, very important efforts were made by their research activities and those efforts continued over the years. A great deal of time and talent had been put in to try to make iron carbonyl effective, but the results so far have been unsuccessful.

[fol. 3180] Q. Yes. Was your recommendation that Mr. [fols. 3181-3183] Midgley be supplanted by a new man as president of the Ethyl Gasoline Corporation motivated at all by virtue of Mr. Midgley's position in the dispute of the amount of the du Pont claim?

A. Oh, no, not at all. It was clearly that we had to have an executive for business of that magnitude. Mr. Midgley, as you know, was a research man. He had no business experience. We had to have a business executive. It was clear to me right at the time we started, but there were certain objections so in line with my general policy, we let the thing develop until it became apparent to everybody, at which time Mr. Webb was appointed.

Q. And it became apparent to everybody that this was regarding the settlements of certain du Pont claims?

A. It happened to be coincidental, but one apparently had nothing to do with the other. Anybody that knows anything about business knows you cannot conduct a successful business without a capable executive, and Mr. Midgley was a research man, not a capable executive.

[fol. 3184] Now, I would like to show you Government's Exhibit No. 704, which you will note is dated February 8, 1926, which is approximately two weeks after the preceding document. This is a letter which you wrote to Irenee du Pont stating that:

> "I have your very kind letter of February 5th dealing with certain phases of the Ethyl Gasoline situation.
>
> "I have felt for some time that you were, in a way, out of harmony with the way things were developing and I do not know as I blame you. There are many things which I am out of harmony with myself. Your letter gives me an opportunity to sit down and discuss them personally.
>
> "First. I am not now in harmony, and never have been, with the discussion with your company regarding the cost of tetraethyl lead. So far as I am concerned, if you tell us what it should be I would be satisfied to accept it as being a proper and constructive price"—

Mr. Sloan, doesn't this indicate a change in position from your previous letter to Mr. Webb concerning the price charged by du Pont?

A. No, I don't think it does. I think we were trying to get the price down, but I was satisfied that the price that du Pont made would be a fair and equitable price. I only asked Mr. Webb to get into the thing and make an examination. At this time, the reason I say that, I was not perhaps concerned with the matter of price, because I had confidence that they would do the right thing, because they believed that if the price was reduced, the volume would increase.

[fol. 3185] Q. Was your position in this letter influenced at all by the protest you had received from Irenee du Pont regarding a reduction in the price of tetraethyl lead?

A. I don't get that. I think that letter was to refer to the settlement of the contract, Mr. Harsha. I am a little confused on that point. In that letter it spoke of the $1.66.

Q. Yes?

A. I think it referred to the price, but it meant the contract. I am confused on that.

Q. Isn't it true, though, at this time Irenee du Pont was maintaining in his negotiations with the Ethyl Company, that the price then charged by du Pont was as low as was reasonable to expect?

A. I wouldn't know that, because I was not in the negotiations.

Q. And passing to the next sentence, I direct your attention to the statement that:

> "On the other hand, you must recognize that I am essentially, or at least believe and hope I am, a member of the du Pont family and having, rightly or wrongly, formed this association with our friends the Standard Oil Company of N. J. and they knowing my position, it places me in a very embarrassing situation and I have felt, therefore, that I could help more in an indirect way by keeping my mouth shut."

Were you, in this letter, identifying yourself with the du Pont point of view?

A. No, I don't think so. What I did say there, that I was a member of the du Pont family, I was only a member of the du Pont family to the extent that the du Ponts were interested in General Motors. I used the expression "family" from the standpoint of community of interest.

[fol. 3186] At this time, and continuing up to the present time, we have used the term in our organization work, "the family" in terms of a community of interest, and I meant there, therefore, that we had a community of interest with the du Ponts to the extent that they were interested in General Motors. Outside of that I was not—the question was not involved.

Q. But didn't your position in this letter conflict with the interest of General Motors at this time?

A. No, I don't think it did, because the letter was a summary of the circumstances that had developed in the evolution of tetraethyl lead, and later on in the letter I registered considerable differences between Irenee and myself, like on the question of standardization, and so forth.

Q. Yes, but in this particular issue, the issue was whether du Pont should reduce the price of tetraethyl lead to Ethyl, and it was in the interests of General Motors to get as low a price as possible?

A. It was to the interests of General Motors to get as low a price as possible, and my letter to Mr. Webb was to make an examination to see if the price was as low as they would consistently make.

Q. And in this letter you are expressing to Mr. Irenee du Pont that you were not now in harmony with this discussion with du Pont, regarding the cost of tetraethyl lead, isn't that right?

A. Only to the extent that I had confidence in him that he would do the right thing.

Q. Then I show you Government's Exhibit No. 705, which is a reply to this last letter, written to you by Irenee du Pont, in which he says:

> "Thank you for your letter of the 8th."

[fol. 3187] And he states:

> "Admittedly I was somewhat ruffled at the lack of progress of the Ethyl Gas Corporation; also at their attitude on du Pont's proposition to make tetraethyl lead. We certainly have the hard end of the job, and questioning a few cents a pound, which means hundredths of a cent per gallon for our services, seems so very out of place compared with preemptory knocking off 50c or $1.00 a pound, equivalent to the price charged for Ethyl Gas."

This is the position of Irenee du Pont, that the price was perfectly satisfactory at that time, isn't it?

A. Well, I wouldn't say that. I think probably that is right. He pointed out that the difference in the price of tetraethyl lead in terms of the price of ethyl gas was inconsequential. That is the way I interpret the first paragraph of that letter.

Q. Now, I would like to show you Government's Exhibit No. 710, which is your letter to Mr. Irenee du Pont of December 12th, 1924, and I call your attention to the fact that this is your invitation to him to join the Board of Directors of Ethyl, and in the second paragraph, the second sentence, you state that:

> "Du Pont will always be the manufacturing agent of Ethyl Gasoline Corporation whether we make tetraethyl lead or whatever we make, now or in the future. I am sure of that. New anti-knock compounds in the natural course of events are bound to come up from time to time."

Did you ever intend to license any other company to manufacture tetraethyl lead for Ethyl?

A. No, because we made a contract in the formation of [fol. 3188] the Ethyl, in which we transferred our patents to Ethyl Gasoline Corporation, both the Standard Oil Company and ourselves, and it was up to Ethyl Gasoline Corporation to determine that point.

Q. And the General Motors Company had a half interest in Ethyl, and therefore had a voice in determining the policies to be determined by Ethyl, isn't that correct?

A. That is correct.

Q. Didn't this statement of yours indicate that you were placing the du Pont Company in a preferred position as to a supplier of tetraethyl lead, to Ethyl?

A. I already testified to the effect that in any new development of any new product—and this was a very important instance of this kind—the question of price and so forth is not necessarily important. We want the lowest price we can get, and so far as dealing with du Pont is concerned, my point of view was that I would prefer to deal with them exclusively for a while until the program had gotten far enough along to take a different position.

I was always willing and would have supported any recommendation on the part of Ethyl Gasoline Corporation for another source of supply farther along when I felt the hazard was under control and we were dealing with a responsible producer.

Q. Did the hazard point, was it ever conquered in the production of tetraethyl lead?

A. Only by experience and know-how.

Q. In fact Ethyl never did, during the ensuing twenty years, license anyone else, did it, to manufacture tetraethyl lead?

A. I don't think it ever did license the manufacture of tetraethyl lead. On January 1, 1938, the whole picture [fols. 3189-3192] changed, and Ethyl became the manufacturer with du Pont as the agent, and that might have involved the licensing arrangement, but I don't recall anything else, any other instance at this time.

[fol. 3193] Q. I call your attention to the last page, Item (c):

> "Leather Substitute—Rubber Coated Fabrics.
>
> "It was brought out that the Du Pont Company has enjoyed the larger portion of General Motors requirements of these items. That on account of constantly increasing consumption, sound judgment demands the maintenance of more than one source of supply. That the Du Pont Company has been afforded the opportunity of meeting competitive prices and that competitors now believe that no matter what price they put in they would receive no business."

Mr. Sloan, you indicated, I believe, that you first became aware generally of the car division operations when you became the operating vice-president of General Motors in early 1921?

A. Correct.

Q. During that time, up until the date of this meeting, which was in September of 1923, wasn't it true that the du Pont Company had obtained the larger portion of G.M.'s requirements in these products, leather substitute and rubber coated fabrics?

A. I would have no information on that point because of the fact that where purchases are made by the divisions, they are made under the auspices of the general manager of that division. Records never come above the general manager. That is his responsibility. He acts on his own [fols. 3194-3195] initiative, and I would have no information at all on anything pertaining to purchases when it is within the area of divisional activity.

Q. Does your answer also apply to the statement; the last sentence of that paragraph, where it is stated that:

> "That the Du Pont Company had been afforded the opportunity of meeting competitive prices and that competitors now believe that no matter what price they put in they would receive no business."

A. If I recollect right, that is, if you refer to minutes of the General Purchasing Committee, two or three meetings before, you will find that it is recited that it is the practice of the industry to give an opportunity to meet competition and du Pont was no exception.

I have already testified here in principle that the reason for that was that in purchasing materials for automobile production, the question of quality and reliability of supplies was more important than price. When a producer has a very satisfactory relationship with a supplier, and somebody else comes in, the tendency was at that time—and maybe now, I don't know so much about now—to give the old supplier a chance to meet, to a reasonable degree. That is what is referred to in this record here.

[fol. 3196] Q. Next I would like to show you Government's Exhibit No. 378. This is a communication addressed to you by Mr. P. S. du Pont, at the time he was president of the General Motors, dated October 19, 1922, stating:

> "Attached please find copy of letter to Mr. Irenee du Pont. Will you please instruct the several Divisions to give the du Pont Company some rough estimate of du Pont enamels that may be required by them. This business may prove to be a large one and will require the construction of additional facilities. If the materials develop successfully, no time should be lost in their introduction on all of our models."

Do you recall whether you carried out Mr. du Pont's instructions to obtain the estimates of the car divisions for [fols. 3197-3198] these du Pont enamels?

A. I don't recall that I did, but you will recognize that this was in the early days of the development of "Duco", the importance of which is already in the record here. Undoubtedly what Mr. Pierre was interested in was being sure that there was enough capacity to produce "Duco" at such times as General Motors began to adopt it on a quantity basis.

As a matter of fact, within a year after this or less than a year one of our important divisions adopted it exclusively.

Q. This reference up here to du Pont enamels is really a reference to "Duco", isn't it?

A. That is my assumption. I am not too certain about it. It looks so to me. That is the way we referred to it.

Q. Addressing your attention to the date of that, which is October 1922, wasn't this before "Duco" had received the approval of the General Motors Paint Committee?

A. We received the approval of the Paint and Enamel Committee in January, 1923, but it frequently happens in such cases that we know the approval is unofficial, perhaps, before that time. That might be written from that point of view.

I feel certain at that time we were convinced that "Duco" was a must so far as our production was concerned. I think Mr. Pierre's purpose, as I said before, was to insure capacity that would equalize demand.

[fol. 3199] I show you now Government's Exhibit No. 367, which is your letter to Lammot du Pont in this series, dated November 11th, 1926, in which you state:

> "Dealing with yours of the 9th and referring to my conversation with you this afternoon after the Board meeting, let me say that I have no objection to your giving our schedules to Mr. Allen confidentially, but I am only willing to do that because you are a member of our family, for under no circumstances would we wish our schedules to get into outside hands and the only modification is the argument that you are not an outside party."

Is this your letter to which you referred in your answer that I just read that you made on direct examination, Mr. Sloan?

A. Well, I have already stated on direct examination at length the fact that this information was not controlling [fol. 3200] because of the many adjustments that had to be made between the production schedules and inventory. I do not think I need to repeat that.

Q. No, it is not necessary.

A. It is already in the record.

Q. Yes.

A. But in releasing this to Mr. du Pont, he seemed to be very much upset and interested, and I simply released it to him in order that I might have an opportunity to look into it to see whether the schedules were properly arranged, and so forth, because on direct examination there was introduced a record of how we were trying to adjust our sales to consumer, our production with our inventory, in order to get the maximum efficiency. The only reason that I put it that way is I didn't want to have the official production records go out publicly because it was misleading to our suppliers. A supplier should be limited to the releases that the purchasing department gave to the supplier.

He speaks here in this letter about information and cooperation. Giving him the production records which he had would not help him along this line at all. The guide he should work to would be the releases from the Purchasing Department which considered the various adjustments that had to be made.

Q. You were not attempting to put the du Pont Company at a disadvantage or mislead them, were you?

A. As a matter of fact, look at it this way. The only way a manufacturer can make money is by producing something and selling it at a profit. Now, whatever information the du Pont Company had on production schedules had in no sense changed the amount of "Duco" we sold, [fols. 3201-3202] because the amount of "Duco" we sold would depend on the number of cars we sold. When a man buys a General Motors car, he does not buy it on the basis that Mr. du Pont had that information. He doesn't know anything about it. He buys it from an entirely separate consideration, and there were no economic advantages flowing to the du Pont Company in giving them this information.

Q. But you were treating the du Pont Company in a favored or preferential way, weren't you?

A. I don't think I was. I was giving them some information which I contend was of no value to them. I had been a supplier as well as a producer, and my contact with the Ford Company, and Ford was a large supplier, let me know what the Ford production schedules were. That meant nothing to me. What I was interested in, the Ford Company would get this information from the Purchasing Department.

[fols. 3203-3205] Q. Laying aside that particular paragraph, it says nothing about agreement, but says "From in or about 1917, has purchased all or substantially all of its requirements of tires and trucks and other items produced by General Motors" and this would tend to support that statement, would it not?

A. I do not think so. This is a decision on the part of the du Pont Company to buy from General Motors. That is not extraordinary. A lot of manufacturers are using cars and trucks in a big way with which we have exclusive contracts. That doesn't mean that there was an important agreement along the lines I was asked for in the direct examination, according to my understanding.

[fol. 3206] By Mr. Harsha:

Q. Next I should like to show you Government's Exhibit No. 276, which is a chart showing the membership of the Bonus and Salary Committee of General Motors during the years 1941 to 1948, and you will note that the first name listed is Mr. Walter S. Carpenter, Jr., who had been, I believe, in those years, president of the du Pont Company. That is during the years 1941 to 1943. You will also note that the next listed is Mr. John J. Raskob who also retained executive connections with the du Pont Company.

The next is Mr. Lammot du Pont, who was apparently chairman of the committee, and I believe previous to this had been president of the du Pont Company and was then chairman of its Board.

And following down, you will note the names of Henry B. du Pont and Angus Echols, all of whom were at that time connected with the du Pont Company.

Can you tell me, Mr. Sloan, why there were so many du Pont representatives on the Bonus and Salary Committee?

A. I don't know any reason for that. It just happened that way. The facts are that the bonus plan provides that [fol. 3207] the recommendations of the bonus allotments are entirely in the jurisdiction of the chief executive of the corporation, for the simple reason that they are not in touch with the operation of the business, and they cannot evaluate thousands of people so far as performance is concerned. Therefore they must rely on the chief executive officer. The function of the Bonus and Salary Committee is largely to review the distribution of the bonus.

Q. I believe on direct examination, you described the mechanics by which the recommendations were made, that they were made up usually from the division level and reviewed finally by the president, and then submitted to the committee.

My question on that is, isn't it true that the membership on this Salary and Bonus Committee would enable a member of that committee to learn a great deal about the personnel in General Motors?

A. Only to a very limited extent. There were at that time something like 10,000 executives. You can appreciate there can be very little intimate contact between members of the Bonus and Salary Committee and 10,000 people distributed all over the world.

Q. Just a few general questions, then I will be through, Mr. Sloan.

A. Thank you.

Q. The records in this case indicate that since about the end of 1917 the du Pont Company has held a very large block of General Motors common stock, that amount varying in percentage over the years from 1917 until the filing date of this complaint, and it ranged from around 23 per cent up to a high of 38 per cent, and I believe since the dissolution of the Managers Securities Plan, the stock has remained rather constantly at a figure of around 10,000,000 shares.

A. That is General Motors Securities?

[fol. 3208] Q. Yes. Would you say that during this period of time the relationship between General Motors and du Pont has been the ordinary arms length relation of buyer and seller with respect to the products that du Pont supplies to General Motors?

A. I would say absolutely so.

Q. Wouldn't you say that the du Pont's possession of approximately 10,000,000 shares of General Motors stock has necessarily affected the relationship between the two companies so that they have become, as you expressed it in one of your letters, one family?

A. You had better repeat the question. I lost the first part of it.

Q. Wouldn't you say that du Pont's ownership of this 10,000,000 shares of G.M. stock has necessarily affected the relationship between the two companies so that they have become, as you expressed it in one of your letters, one family?

A. No, I don't think so at all.

I have been asked on direct examination, and by your good self many questions along the lines as to whether there was any influence that affected the operation of General Motors Corporation. I can say with complete conviction that every decision that has been made by General Motors Corporation by myself, and so far as I know the other executives concerned in its operation have been entirely in the interest of General Motors, and of the stockholders. I am as sure of that as I am of anything in life.

Q. Nevertheless, it is true that du Pont's possession of these 10,000,000 shares of General Motors stock has resulted in the du Pont Company representatives being placed on the inner councils of the General Motors Company, and has given them representation on the General Motors board and on the General Motors committees so [fol. 3209] that they have had a powerful influence on the policy of General Motors, isn't that so?

Mr. Cox: I object to the form of the question. There are two or three questions, your Honor.

The Court: The question ought to be shortened. I sustain the objection.

The Witness: Am I to answer that?

Mr. Harsha: No. I will rephrase it.

By Mr. Harsha:

Q. I say nevertheless it is true that du Pont's possession of or ownership of these 10,000,000 shares of GM stock has resulted in representatives of the du Pont Company being placed on the General Motors Board, isn't that true?

A. They are entitled to that representation.

Q. And du Pont representatives have also been placed on the high policy committees of General Motors, isn't that true?

A. That is very true, but you are dealing now with policy matters at a very high level. You are not dealing with the operations of the business around which your other questions revolved.

Q. In one of your letters, you refer to the so-called du Pont influence. Wasn't that the influence that they were able to exert on the policy decisions of General Motors?

A. No, I referred to the du Pont influence from this point of view; that was association. If I recollect the record, as you refer to it, I was anxious to have the cooperation of the du Ponts because they were able business people, and importantly interested in the operational side. I believe I testified to the effect that over the years, and I [fol. 3210] started in 1921 with the Executive Committee, as the years passed they have completely withdrawn from operations and their position even on the financial side of the business has been reduced. That is what I mean by influence. I mean cooperation in the business.

Q. You have also referred to it as a community of interest. Wasn't that another way of expressing it?

A. That may be.

Mr. Harsha: I think that is all, Mr. Sloan.

Redirect examination.

By Mr. Hurd:

Q. Mr. Sloan, I have a very few questions. First, I should like to show you General Motors Exhibit No. 35, which is a chart showing the relative positions of the various automobile manufacturers in the year 1921, also General Motors Exhibit No. 36, which is a chart reflecting the information contained on General Motors Exhibit No. 35. In your cross examination, you were asked whether or not 1921 was a normal year, and I believe you answered that it was subnormal. I would like to ask now what you meant by your answer that it was subnormal.

A. I meant that there were conditions, economic conditions prevailing at that time that reduced business. I think on direct examination I stated that the price levels were being adjusted, and prices were falling, and that discouraged the purchase of cars. The first quarter of 1920 was a very good quarter. After that, there was a decline, and that continued till 1921, and 1921 was a subnormal year both for General Motors, and, although I have not seen the [fol. 3211] record from other producers, the economic conditions being what they were, it must have been reflected through the whole industry.

I venture to say that if the facts were available, 1921 would be a subnormal year on the part of all producers.

Q. Now, I wish to call your attention to Government's Exhibit 850, which is the contract for the formation of Kinetic Chemicals entered into in 1930, and I call your attention to paragraph Seventh which appears on the third page, in the middle of the paragraph:

> "—it being further agreed that future chemical developments, (other than those relating to 'said products') originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company—".

That is the Kinetic Chemicals; the New Company was Kinetic Chemicals?

A. That is correct.

Q. (Reading):

> "—on such terms as may be mutually agreed upon."

Mr. Sloan, was there any chemical discovery by General Motors or any of its subsidiaries ever transferred to the New Company under this paragraph of the agreement?

A. No.

Q. One last document, Mr. Sloan. On your cross examination, you were asked about iron carbonyl.

A. Yes, sir.

Q. As an antiknock?

A. Yes.

Q. I believe you were asked as to who it was who conducted the negotiations with the German concern over the patents relating to iron carbonyl which finally resulted in Ethyl Corporation taking a license from the German concern with respect to iron carbonyl, and as I recall your answer, you said that those negotiations were conducted by [fol. 3212] the du Pont Company. I would now like to show you Government's Exhibit No. 722 which is a letter from Dr. Abel. That appears on the second page, to Mr. Howard of the Standard Development Company. Does that refresh your recollection regarding who it was that conducted the negotiations that finally culminated in Ethyl taking a license for iron carbonyl?

A. Yes, sir, it does, Mr. Hurd. It appears that while du Pont was concerned with it up to a point they finally retired from the situation, and the matter was taken up by the Ethyl Gasoline Corporation, Mr. Frank Howard.

Mr. Howard conducted the negotiations, and the license agreement that I think du Pont developed otherwise was worked out by Mr. Howard in the interest of the Ethyl Gasoline Corporation.

Q. Mr. Sloan, on your direct examination you testified in substance that as far as you knew there was never any agreement or understanding between the du Pont Company and General Motors that General Motors would favor the du Pont Company as a supplier.

Has there been anything in your cross examination to cause you to change your mind as to that?

A. There has not. So far as I know, and as far as the record discloses, to my mind, there has been no change. I still maintain the strongest conviction that all transactions were at arm's length based upon the interest of all the stockholders in General Motors, and no other consideration entered into it so far as business judgment goes.

Q. You also testified on your direct examination that there was no agreement or understanding between the du Pont Company and General Motors pursuant to which [fol. 3213] General Motors would give to the du Pont Company any chemical discovery.

Has there been anything in the cross examination to change your mind as to that?

Mr. Harsha: I object to that, your Honor. I think it is calling for a conclusion of the witness. He has already testified regarding the change in his testimony on direct.

The Court: Read the question, please.

(Question read.)

The Court: Overruled.

Mr. Hurd: You may answer.

The Witness: I may answer. Will you repeat the question, please?

The Court: Read the question.

(Question read.)

By the Witness:

A. No, no change at all, Mr. Hurd. I just want to say, however, on that account that in my examination I was under a year ago, I was asked a similiar question, and as far as I know the answer is no. The Kinetic Company comes into the thing.

When I was asked yesterday, I was a little confused as to whether that was a contract, and I interpreted that it was not a contract; that it is not involved in the contract question.

That was a special arrangement whereby General Motors turned over a certain chemical discovery to a company in which du Pont and General Motors were interested for [fols. 3214-3217] exploiting the invention in the interest of General Motors. I want to make that distinction to avoid any confusion.

By Mr. Hurd:

Q. You are referring to Government's Exhibit No. 850 that I showed you a moment ago?

A. Yes.

Q. You are referring to the transfer of the Freon patent to Kinetic Chemicals?

A. That is right.

Q. But as far as you know, was there ever any understanding that any discoveries in chemicals would be turned over to the du Pont Company?

A. I know of no such understanding whatsoever.

Mr. Hurd: That is all, if the Court please.

[fol. 3218] Mr. Hurd: Mr. Pratt, will you take the stand, please.

JOHN LEE PRATT, called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Hurd:

Q. Mr. Pratt, will you please give us your full name?

A. John Lee Pratt.

Q. Where do you live, Mr. Pratt?

A. Fredericksburg, Virginia.

Q. Where did you secure your education?

A. I graduated in civil engineering at the University of Virginia.

Q. In what year?

A. 1905.

Q. Where was your first employment?

A. My first employment was with the du Pont Company.

Q. What year did you go with that company?

A. July 1st, 1905.

Q. Briefly, what were the circumstances of your going with the du Pont Company?

A. Well, I had been asked to teach at the University of Virginia, but I told the professor I owed money, and I did not think I would make enough money to pay my debts if I did, and I asked him to assist me in getting some names I might write to, and one of the companies that he gave me was the du Pont Company, and told me to write to Mr. H. M. Barksdale. That resulted in my getting a job with the du Pont Company.

Q. What was the type of work that you did when you first started with the du Pont Company?

A. When I first went there, I had just miscellaneous surveying and drafting work for about three months. [fol. 3219] After that, I went to Parlin, New Jersey, where I built a sewer about two miles long to take acids away from the plant.

Q. What plant did the du Pont Company have at Parlin?

A. It was called the International Smokeless Powder & Chemical Company at that time, but they have recently purchased it.

Q. Did anything happen in that plant while you were working there?

A. Yes, while I was there, in October, they had an explosion that killed four men who were working in the pyroxylin plant. That impresed me pretty much of the danger I was in.

Q. Do you recall whether the plant was shut down or not?

A. Yes, that particular part of the plant was shut down.

Q. What was your next work with the du Pont Company?

A. My next assignment was assistant engineer in building a dynamite plant out in the State of Washington.

Q. How long were you on that job?

A. I went there about the 1st of April, 1906, and left at the end of August, 1908.

Q. What do you mean by saying you left? Did you finish your job there?

A. No, I resigned from the du Pont Company.

Q. How long were you away from the du Pont Company?

A. About fourteen months.

Q. Briefly, what were the circumstances of your leaving the du Pont Company at that time?

A. Well, we had a misunderstanding, I suppose you would call it, about my expenses being paid. My agreement with the du Pont Company was that when I was away from Wilmington, all my expenses should be paid. I had no refunds on expenses from about the 1st of April, 1908, until [fol. 3220] the end of July, when they wrote me that they had changed their plans and were not allowing expenses, and they attempted to make it retroactive to April 1st, and I could not agree to it.

Q. What were the circumstances of your going back to the du Pont Company?

A. Well, some of the top fellows of du Pont wrote me that they would like to have me back as assistant chief engineer, or top man in the civil engineering, and I had tried a number of jobs and I decided I would like to go back to the du Pont Company, and I buried the hatchet and went back.

Q. This would be in 1909?

A. Yes, I went back in October, 1909.

Q. What was the nature of your work with the du Pont Company after you went back?

A. I was sent back to the Parlin plant in New Jersey. My job was to build a new pyroxylin plant, machine shops and things of that sort.

Q. This was the same plant—

A. Yes; the same location, same territory. It had not been rebuilt for four years.

Q. After that, what did you do?

A. I then went to Joplin, Missouri, to build a dynamite plant. I went there in March, 1910, and I stayed there until April, 1911.

Q. What happened at that time?

A. I was then assigned to different work. I was put in as the head of the civil engineering department of du Pont. That meant supervising other civil engineers, and we built a dam down in Oklahoma for water supply for plants; we built a dam up in Maine for a power plant to produce wood pulp.

We located a powder plant in Hopewell, Virginia, a dynamite plant, and another dynamite plant in Utah. That was quite a variety of jobs.

[fol. 3221] Q. How ~~long~~ did this take?

A. Well, I was on that work until the end of December, 1913.

Q. What did you do after that?

A. After that I made an agreement with the du Pont Company to go to Chile for two years to study the nitrate industry.

Q. Did you go to Chile?

A. Yes, I went to Chile in January, 1914.

Q. When did you return?

A. I got back in New York in October, 1914. The first World War had commenced and we could not do much down in Chile. We were not able to do the things we hoped to do, and they had me come back to help build powder plants to take care of the Allies in Europe.

Q. Did you go ahead on the work of these powder plants when you returned?

A. When I returned, I went down to Hopewell, Virginia. We were building a very large gun cotton plant. I was very familiar with the water supply in that territory, and they sent me down there to get the layout, and I was supposed to build the plant. In Chile, I had lived a very hard life. The water was very bad, and the food was poor, and my health failed soon after I came back, and I had to go to the Battle Creek Sanitarium for about four months. That took me over into 1915.

Then I came back and took charge of the civil engineering works for the year 1915. At the end of 1915, I had typhoid fever and I was again out for three months. When I came back to the du Pont Company, they realized the bad situation in this country, depending on Chile for nitrate, because while I was down there in Chile some German war ships had raided the West Coast, and run all of the English ships off of the West Coast. That was one of my troubles. We came back in a boat that had no refrigeration.

[fol. 3222] Q. After your recovery from typhoid, what did you do?

A. Why, the du Pont Company had organized the American Nitrogen Company for the purpose of seeing whether we could not use a process that had been developed in Norway for the fixation of the atmosphere. Mr. Barksdale headed that outfit.

I went in as assistant to him and had the job of making the study of water power that might be available for fixation of nitrogen.

Q. How long were you with the American Nitrogen Company?

A. Well, I was active with or in the American Nitrogen Company until about July or August, I guess, in 1917. After that, why, we had gone into the war ourselves, and I don't know, I think somebody down in Washington had the idea that we had plenty of military powder capacity in the country, but we went to war, I think in April, and in September, they realized that if we were going to put additional troops in the field, we would have to have additional supplies, then I was detailed back to the Engineering Department—I think I was still on the American Nitrogen payroll—to help locate the plant for the Government for smokeless powder.

Q. And did you locate any plants for the Government?

A. Yes, we located—had about five locations which we allowed the Government to choose from, one at Charleston, West Virginia, which was number one choice, and that was built by the Hercules Powder Company, I think they built that plant for the Government, and another one at Nashville, Tennessee, which the du Pont Company built starting about January 1st, 1918.

Q. Did you have anything to do with the building of that plant?

A. All I had—I had the duty to lay the plant out; that [fol. 3223] was, place the location of the buildings on the ground and get the railroad siding in, and then I became engineering contractor with the Government on their explosive plants.

Q. How long did you continue with that work?

A. I guess I officially continued that work until December 1, 1918.

Q. What change did you make them?

A. Well, I had decided to go in the Army. The work was getting relatively distasteful to me. They had a lot of young fellows that came in, and they were trying to tell us what to do, and they didn't know what to do, and politics were in it, and they were trying to locate plants where it would be very unhealthy for men to work in that kind of plant, and I think I then talked about going in the engineering service of the Government.

I had had a need of a surgical operation for a hernia which I had contracted down in Chile, and I had gone to the hospital and was in the hospital on Armistice Day after an operation. I came out of the hospital the latter part of November.

Q. 1918?

A. 1918.

Q. Then what was your next work?

A. Well; I went to Wilmington, and I was approached by Mr. R. R. M. Carpenter, who was vice-president, and at that time he was head of the Development Department, and he told me that General Motors had reached an agreement with the Development Department of the du Pont Company that there would be a section of the Development Department to do work for General Motors, and he wanted me to head that work up.

Q. And did you do that?

A. I did that.

[fol. 3224] Q. For how long did you continue with that work?

A. I continued that work until November 30th, 1919.

Q. What change did you make at that time?

A. At that time I went with General Motors as an assistant to Mr. Durant.

Q. Before you worked with this motor development section, had you had any contact with Mr. Durant?

A. Back in the spring of 1917 I had met Mr. Durant.

Q. What were the circumstances of your meeting him?

A. During that time Mr. Barksdale and I—Mr. Barksdale was head of the American Nitrogen Company—and I was working for the American Nitrogen Company. We had to go to New York quite frequently on business, and after we got through with our business he had the habit—I know of at least twice, of going up and talking with Mr. Durant, and he always took me along.

Q. And did you do any work for Mr. Durant while you were with Mr. Barksdale?

A. Yes, Mr. Durant used to talk over his problems with Mr. Barksdale, and he seemed to have great confidence in Mr. Barksdale's judgment, and his ideas of management, and one day Mr. Durant said that he was worried about the capital that was going to be required by the automobile industry, that the industry was growing so rapidly, that after the war was over it would be very difficult to get sufficient capital, and one particular thing that was bothering him was the housing situation in Flint, Michigan, where General Motors' Buick and Chevrolet plant was located.

He told us that the citizens had organized a civic improvement company back in 1916 to build two thousand houses in Flint. The housing facilities were very bad there, but the thing had sort of bogged down. They had built very [fol. 3225] few houses, but they were sort of waiting for the corporation to get back of it, and he was very much disturbed by the possibility of the corporation having to get into the housing business, which he didn't want them to do.

Mr. Barksdale told them that I was the du Pont expert. I was not much of an expert on housing. I had had some experience and had followed what other industrial companies had done in housing, and Mr. Barksdale told Mr. Durant that he would be very glad to have me go up to Flint some week-end and size the situation up and inform him the best I could, and Mr. Durant asked me to go as soon as I could.

So the next Friday—I know I went on a Friday and stayed Saturday, Sunday and Monday, and came back.

He gave me letters to Mr. Walter P. Chrysler who was the manager of the Buick at that time. Mr. Chrysler was very much interested in the housing proposition, and gave me data on payrolls and things of that sort so that I could form some judgment as to what price houses they should be building.

I concluded that they were building houses too expensive for the men, and that was one of the reasons that they couldn't sell them.

Q. Did you make any report to Mr. Durant on that?

A. He asked me to make a personal report on my way back, and on my way back I came by New York and made a report. I told him that in my judgment the lots were too large because that meant excessive sewer lengths, water pipes, electric lines for each lot; that the utilities were quite a heavy charge with the way the town had been laid out.

I also told him that my examination of the payrolls at Buick showed that only about 150 men could afford to build [fol. 3226] houses, and they had planned to build two thousand. I told him if they had to build that kind of house they would have to subsidize them to get the men to buy them.

Q. Now, turning to the Development Section to which you have referred, how large a staff did you have in that section?

A. Well, I only had two men that reported to me there, but I had the use of other men in the Development Department, of specialists, and so on.

Q. And what was the general nature of the work that they carried on with this Motor Development Section?

A. Well, Mr. Durant was worried about shortages. He worried that they would build up a big automobile industry and there would be a shortage of petroleum, and there was another thing that bothered him and that was aluminum.

There was a monopoly in aluminum, and he had not been able to buy aluminum at the price he thought it ought to be bought, and he couldn't get it at times when he thought he should get it.

Q. What, if anything, did you do regarding these subjects?

A. Well, we made studies of them, aluminum studies. I had had experience in the American Nitrogen Company, and I knew pretty near all of the water powers in the United States and Canada, and power was the chief cost in the manufacture of aluminum, and you had to have very cheap power, and also you had to have a source of ore, Bauxite, and the supply in America was limited, and the Aluminum Company of America had owned all of those good supplies. They had been in the field a long time, and in addition they owned quite large tracts down in French Guiana. They also owned some pretty good water powers and rented other good water powers.

[fol. 3227] As a result of our study we concluded that we better try to make a deal with the Aluminum Company of America to take care of us, rather than to go in the business.

Q. Do you recall whether or not you made any report on that to Mr. Durant?

A. Yes, a report was made to Mr. Durant. It wasn't quite finished when I left, but it was finished and sent to him.

Q. Do you recall any other subjects that you looked into while you were with the Development Section?

A. Well, I might say that when I went to the section there were two jobs that Mr. Carpenter had agreed with Mr. Durant to look into. One was the aluminum job. That seemed to be the most pressing because he saw the automobile industry expanding very fast, and he thought aluminum might be one of the limiting factors. It was such a limiting factor that we designed away from it.

The other one that Mr. Carpenter had agreed on was printing. I think Mr. Durant thought that we were paying too much for our advertising printing. One of the men I hired was Mr. Boden, who was an expert on printing costs. He had worked for the Saturday Evening Post for a number of years.

The other man I hired was a graduate in law, who had never practiced law, but who had a very brilliant mind. I had known him since he was a boy.

We investigated plate glass. It looked like that was going to be something that was immediately important.

Q. At whose suggestion did you look into plate glass?

A. Mr. Durant's.

Q. What was your conclusion?

A. Well, there was an immediate shortage, it looked like, [fol. 3228] from the information we got. The Belgian glass plants had not been destroyed to the extent that we thought they had, and it looked like they would get back into production pretty quick.

There was another development at that time of heavy window glass that they thought we could use in the automobile industry. It wouldn't have to be ground like the plate glass we were using.

Q. With reference to the plate glass, what was the problem? What was the problem? Were you looking for sources of supply or considering manufacturing, or what?

A. Well, our study was mainly to find out just what the situation was, whether there was going to be a shortage. If there was a shortage, what steps should be taken to correct the shortage.

We never got into it far enough to determine who should attempt to make a plant or build a plant. In fact, we decided we thought the problem would solve itself by the Belgian plants.

Q. Do you recall any other subjects you looked into?

A. Well, I mentioned petroleum. I didn't look into that because I couldn't find a man. Mr. Durant, his question was, are we going to have a shortage of gasoline if we continue to build automobiles at the rate we are building, or if we continue to expand at the rate we were expanding.

The data on the oil fields that are today—all the oil people that we contacted, assured us that they would be able to take care of anything, but I never made a report on it because I never got much data.

Q. Do you recall whether or not you looked into the Hayes Wheel Company?

A. Yes, I did. Mr. C. B. Hayes had a plant at Jackson.

[fol. 3229] Mr. Durant asked me to go out and try to evaluate it and try to evaluate the business. I think it had been a suggestion by Mr. Hayes that he would like to swap his plant for some General Motors stock, and Mr. Durant was always willing to make that kind of swap if it was on the right basis.

Q. What was your conclusion with reference to that?

A. I concluded that we oughtn't to do it, because Mr. Hayes wanted to get out of the business, and usually when a man wants to get out, why, you don't want the business.

Q. Do you recall whether or not you looked into the Varley Winding Machine?

A. Yes. That was a machine for winding coils for electric motors which we built for our starting and lighting business. Some friend of Mr. Durant's in Newark brought that to him.

We worked that out pretty well with the Remy Company down in Akron, one of General Motors' divisions, and I was not too positive, but I think we really took a license under the Varley machine.

Q. Do you recall whether or not you looked into the subject of storage batteries?

A. Yes, that was another one of Mr. Durant's ideas. The automobile industry bought storage batteries at $10 a car, but when someone had to buy a replacement battery, it cost $40 a car, $40 for the battery.

He thought that was too much spread, and he had the idea that du Pont being in the lead and paint business, that the two might fit together. We turned that down.

[fols. 3230-3231] Q. At whose suggestion did you leave the du Pont Company and go to General Motors?

A. Mr. Durant's.

Q. When did he first speak to you about that?

A. He first spoke to me in May, 1919—no, 1920. No, 1919. I was with the Motor Development Section of the du Pont Company. It would be May, 1919.

Q. You went with General Motors in the fall of 1919?

A. That is right.

Q. Mr. Pratt, I will show you a document that has been marked for identification as General Motors Exhibit No. 195, which is a letter from Mr. R. R. M. Carpenter to Mr. Pierre du Pont, dated February 18, 1919.

As of that date had anyone spoken to you about going with General Motors?

A. No, sir.

Q. Did you know anything about this document?

A. I never knew anything about it until this case came up and it was called to my attention.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 195.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 195.)

[fol. 3232] By Mr. Hurd:

Q. Mr. Pratt, I believe you said Mr. Durant first spoke to you along in May of 1919?

A. In May, yes.

Q. Where did this conversation take place?

A. It took place in his office in New York.

Q. Was anyone else present?

A. Not that I know of.

Q. What was the substance of the conversation?

A. Well, I might explain that my agreement with Mr. Durant, when I went in the Motor Section of the Development Department, was that I would come to New York twice a month, and he would go over with me things that he would like for me to study, and I would report to him as to what progress I was making on the things I was studying.

I remember being up there and meeting him about the middle of May, and he said to me, "This isn't going to work, trying to have my development work done down in Wilmington, and I would like for you to make arrangements to come up here."

Well, I didn't want to come to New York because all my friends were in Wilmington. I had just built a new home down there. I told him that I hoped we could make the arrangement we had work because I didn't like to move.

Well, Mr. Durant was always very kind to me after that, but I could see that he had lost interest in cooperating in trying to do the work in Wilmington.

Q. Did he ask you to investigate any further subjects after that?

A. Practically nothing on his own. What happened; it got noised around that we were doing development work

for General Motors, and a lot of people that had something to patent or some new apparatus that they wanted to sell to General Motors would come down to see me.
[fol. 3233] They would be the things that I would take back to Mr. Durant and ask him whether he was interested. Well, once in awhile he would say you might work on this one, and after awhile he got to saying, well, you use your own judgment, work on the ones you think are all right.

Q. He didn't initiate projects for you after this?

A. After May, no.

Q. When did you next have a talk with him regarding going with General Motors?

A. That would be about the last of October, 1919.

Q. Where did this conversation take place?

A. It was in Mr. Durant's office in New York.

Q. Who was present?

A. No one, so far as I know, but Mr. Durant and myself.

Q. What was the subject of that conversation?

A. Well, I will have to go back a little bit. I had worked with the du Pont real estate man in acquiring property at Nashville, Tennessee for the smokeless powder plant that was to be built there.

When we went there, one of the things that took us to Nashville was because there was plenty of housing. That town had not been close to any war activity, and a lot of people had moved away and gone elsewhere to get work, and most of America was crowded, so that was one of the factors that decided us to go there.

When we went there and started our activities, the town had a real boom. I didn't know anything about it until later—in about July, 1919, the du Pont real estate man, Mr. Caulfield, came to me and said, "I have got an invitation for you and myself to go to Mexico from the governor of one of the states down there."
[fol. 3234] And it came about this way. This governor's daughter had married an insurance man in Nashville, and this insurance man had been very much impressed about how Nashville boomed after Mr. Caulfield and myself located the plant there. He gave us all the credit. He did not give the United States Government or anybody else credit for the money that was spent there.

So he wanted us to come down to Mexico to see what we could do for Mexico, and I told Mr. Caulfield I would go as soon as I could get a vacation.

Along in October, Mr. Durant, not giving me much to do, I figured I would take a vacation, and he and I went down there early in October, to Mexico.

There we were met at the border by this governor and his son-in-law who had gone down ahead of us, and they took us through Mexico and showed us the natural resources that needed money to develop, and they showed us the forests, and they showed us the sugar cane land and they showed us the grass land, and I did not see anything that interested me until we got down to the Panuco River near Tampico.

At the time we arrived there, there was low tide, and this river was, at the estuary about three miles wide. On either side of it back about a hundred feet from high water, there was a line of oil wells as far as you could see. Then there was a space of three miles that there were no oil wells.

I asked the governor why that was, and he said it was because of the old Aztec law that Spaniards thought was good law and followed, that the state could not take away from the people the land that was covered with water, that the people could always have the right of access to the river for the purpose of fishing, bathing, and washing their [fol. 3235] clothes, and this land belonged to the state, therefore nobody could take the oil out.

Well, I pointed out to him that he was being misled, because the oil wells on either side were draining the oil from under the river and the state was sustaining a loss.

Well, it appealed to him very much, so he took us up to Mexico City and had us call upon Caranza who was then president of Mexico. The idea appealed to Caranza very much, and he offered us, Mr. Caulfield and myself—Mr. Caulfield was the principal—a franchise which enabled us to drill for oil on the land covered with water. The beautiful part was we did not have to do any exploration work. The other fellow found the oil, and we could go along and drill on the land where the wells were on either side.

When I went back, remembering this petroleum thing was one that Mr. Durant was interested in, I took a trip up to New York and told him what we were able to do, that there was a lot of land undeveloped down in Mexico, and this land was covered with water, and they could not drill on it, and I was a party to a franchise that we hoped to get for the purpose of allowing us to drill on this land.

This agreement was worked out, and Caranza signed it, then we learned that his signature did not mean anything unless it was approved by the Senate, and the Senate did not meet until the following March, and this was in October.

So Mr. Caulfield stayed down there and got hold of an engineer and tried to find out how much developed land, oil developed land would be covered by the franchise, and plotted it out on maps.

Mr. Harris: If your Honor please, I do not want to interrupt. I find nothing that is material to the issues in the last ten minutes.

[fol. 3236] The Court: I am assuming that he is leading up to it.

By Mr. Hurd:

Q. You explained this to Mr. Durant?

A. Yes, I did.

Mr. Harris: I do not see the materiality of it, your Honor. I think counsel should state what the materiality is.

Mr. Hurd: This is a part of a conversation he had with Mr. Durant which resulted in his being invited to go to General Motors.

Mr. Harris: I think there is no dispute that he was invited to go to General Motors, and I do think we ought to shorten the record.

Mr. Hurd: There is a dispute as to why he went. The Government charges he was sent over there as a stooge of General Motors, and I think we will show there was no reason——

Mr. Harris: I submit there should be a limit to it.

The Court: I think counsel is about at the end of his exploration into oil.

Mr. Hurd: Yes.

By the Witness:

A. I told Mr. Durant about this, and he merely said, "Well, why are you fooling around with oil? I have got a wonderful job for you up here."

Well, I renewed my objection about coming to New York. He said, "I am going to be busy for the next hour." This was about eleven o'clock. "You come back here." I went back to see him, and when I came back he invited me out to lunch at Columbus Circle, New York, at Childs Restau- [fol. 3237] rant, and he sold me on the idea that I should come to General Motors, that I had a great opportunity to come there as an assistant to him.

I told him that I would come, but that I would have to go back to Wilmington to talk to my wife, that she had something to say about it.

Q. Was there any discussion as to the nature of your work at General Motors?

A. He said he wanted me as a general assistant to him. He had one assistant at that time, and he told me that he had hired another one, a Mr. Wagner, and he said he would work out our duties.

Q. Purely as a matter of interest, did your franchise ever go through down there?

A. No. Mr. Caranza was assassinated before the Senate met, and the new president gave the franchise to the existing oil company.

Q. Then how long after this conversation with Mr. Durant was it before you started to work for him?

A. I started to work for him December 1, 1919.

Q. Now, what type of work did you do for Mr. Durant?

A. Well, he first had me travel with him to get acquainted with the plants. He told me he wanted me to get acquainted with the organization of General Motors, that he knew the general manager, but he did not know too well the fellows down below, and he wanted me to know the purchasing agent, the engineers, the works managers, and so on.

Q. Did you carry out those instructions?

A. It was one of my duties. He also had me sit in on the Executive Committee. I was not a member of the Executive Committee, but he wanted me to be informed.

A little later on, he organized the Appropriations Committee and made me the Chairman. His hope was to have us get some control on the appropriations.

[fol. 3238] Q. Did you investigate any potential businesses for him while you were working under him?

A. Yes, a lot of people were friends of Mr. Durant and wanted to become part of the General Motors' family. I remember I hadn't been there for two days, and I would have to investigate a screw machine plant up in the Bronx.

Soon after that he sent me to Toronto, Canada, to investigate an oil burner which was a new development at that time. I did not recommend the acquiring of either of them.

Q. Do you recall any other businesses that you investigated for Mr. Durant?

To refresh your recollection, was there a threshing machine plant investigated?

A. Yes, Mr. Durant was creating a farm implement plant, and he had a good idea that has been done now by combines; but he knew that farmers had to wait for a custom machine and quite often lost their wheat because it got wet and sprouted, so his idea was to have a small threshing machine so that every farmer could have his own.

There was a little outfit down at Doylestown, Pennsylvania, and Mr. Hardy and I went down there, and he bought that as part of the Samson Tractor.

Q. Did you recommend that he purchase the plant?

A. No, I was not very strong for it.

Q. Who was Mr. Hardy?

A. He was a gentleman that had been working with Mr. Durant since the horse and buggy days, since Durant was in the buggy business.

Q. Was that A. B. C. Hardy?

A. A. B. C. Hardy.

Q. You mentioned something about appropriations, I believe. What was that activity?

A. Well, no one knew just how much money had been appropriated, and there was no control of how much money [fol. 3239] was being spent. Mr. Durant, fortunately, was somewhat to blame for that himself. His Executive Committee consisted of the plant general managers, and when one of them had a project, why he would get the vote of his fellow members; if they would vote for his product, he would vote for theirs. It was sort of a horse trading.

In addition to that, if they didn't get enough money, Mr. Durant, when he visited the plant, would tell them to go on and spend what money they needed, without any record of it being made.

We found that during Mr. Durant's regime we were never able to get the thing under control.

Q. Was any committee formed to work on it?

A. I thought I mentioned that there was an Appropriations Committee consisting of Mr. Hardy, Mr. Warner and myself.

Q. Who was Mr. Warner?

A. That was Mr. Tom Warner. He was the man whom Mr. Durant bought the Muncie Products Company from.

Q. Did you have any connection with Frigidaire while you were working under Mr. Durant?

A. Yes, that was later on, about July. Mr. Durant——

Q. Of what year?

A. 1920.

Mr. Durant—I would spend the week end with Mr. Durant, and coming back on the train one Monday morning he told me the story of Frigidaire. It was the first time I had heard it.

He said it was purchased to have something that the car divisions could manufacture if they were stopped on the manufacture of automobiles, which at that time were considered a luxury; that the refrigerator could save food, and he thought it could be manufactured during the war [fol. 3240] and could be sold by the dealers and it would keep his dealers alive.

He bought it for that purpose. It had never been much of a success. The job hadn't been properly engineered nor properly manufactured, and he told me to go out to Detroit and liquidate it, that it was just losing money and taking money that was needed in the automobile industry.

Q. And did you do that?

A. I went to Detroit, and the problem that I saw at first was that they had sold about 200 in Detroit, and it was the service problem.

If you liquidated, somebody had to take care of those machines, or General Motors would have a black eye from the service standpoint.

So I got in touch with the service manager and talked to him on the problem, and he was very much chagrined to think that there was any thought of liquidating Frigidaire, and he persuaded me to go out and call on a number of the Frigidaire owners, because he said, notwithstanding all the trouble they had had, that they were all very loyal to it, and I found that to be the case, that women said they would rather give up anything they had in the kitchen than the Frigidaire, because it kept the dirty ice pan out of the kitchen.

They sold me on it, and I came back and told Mr. Durant. I told him I thought anything that had that much appeal would make a good business if you had a really good job.

He said, "If you think that way, we won't close it up." He said, "It is your responsibility."

And it was my responsibility for about eighteen years.

Q. Now, did you participate in any efforts to control inventories while Mr. Durant was president of General [fol. 3241] Motors?

A. Yes, that was getting along later in the year. I think it was in October that Mr. Durant wanted an inventory committee.

Q. Who was on that committee?

A. Well, there was Mr. E. F. Johnson and Mr. Barton and myself.

Q. Who was Mr. E. F. Johnson?

A. Mr. E. F. Johnson was a former du Pont man who had been hired by Mr. Chrysler.

Q. Who was Mr. Barton?

A. Mr. Barton was an old man, head of the mechanical staff of General Motors, who had been there quite a number of years.

Q. What was the inventory condition in General Motors at this time?

A. Well, they had been running on expanding business for about two years, and everybody was afraid there was not enough material to go around, and they tried to protect themselves by taking more material than they could fabricate, and also making heavier commitments than they could ever use. The condition was very bad, and by October we had too many finished cars in inventory.

The demand for cars had started to slacken up in mid-summer, and we had cars that had been shipped to dealers all through the Midwest, and we had to take them back into our own inventory and store them.

Q. What, if anything, did this Inventory Committee do?

A. Well, we would give them almost powers of receivership. We could tell the divisions—our job was to examine into their inventories and if they had, in our judgment, excessive inventories, they couldn't buy any more material, take any more material in on their commitments until they had reduced that inventory to the amount we worked out with the divisions as a fair amount.

We also had control of their payrolls—that is on productive labor—and the changing of material into cars or [fol. 3242] parts of cars. The labor had increased the inventory, so we would keep the raw material until we could use it. What we were trying to do, the corporation was running short of cash, and we were trying to preserve the cash.

Q. Where was your office with respect to Mr. Durant's office?

A. My office was up on the same floor as Mr. Durant, on the diagonal corner of the building.

Q. To what extent did you have contacts with him during the last part of 1919, and through October of 1920?

A. Oh, I had frequent contacts with him. Quite often he would want some special job done, and he would send for me, and we would talk it over, and try to find out what he wanted done, and try to do it.

Quite often he would call me and have me in the evening to work on something he had in mind.

Q. Mr. Pratt, I would like to have you give us a brief description of General Motors as it existed under Mr. Durant, from an organizational standpoint.

A. Well, Mr. Durant had no one between him and the general managers of the larger divisions. Mr. Sloan was between him and the managers of the accessory divisions, but the car divisions, Mr. Durant insisted on dealing direct with them. He had brought Mr. Chrysler in about a year before to be sort of a general manager, but he and Mr. Chrysler could never agree on the division of the responsibility, because Mr. Durant didn't want to give up the direct dealings with the general managers. That was one of his faults, I think, was that he wanted to deal with everyone.

I suppose he had forty or fifty individuals who could go direct to him for decisions.

Q. During Mr. Durant's presidency, while you were [fol. 3243] there, to what extent, if any, was there a correlation of activities between the various divisions?

A. There was no correlation. Maybe there had been a little bit at one time in the purchasing, but that had about died out, I think, during Mr. Nash's administration of General Motors, before Mr. Durant got back to General Motors. He had set up sort of a correlation committee there, but there was nothing I could say practically in the way of correlation.

Q. To what extent was there a research activity in General Motors under Mr. Durant while you were there?

A. Well, there was practically none. Mr. Kettering's company had been purchased during 1920—1919 or 1920, I don't know exactly, but it never had gotten to function.

Mr. Durant, unfortunately, would have more impractical men—he would like the men that would come up as some of the automobile men had by working in the shop, and really producing something with their own hands. They had done it by gut and try, and some of them did a very good job; a lot of them didn't.

Q. Did the divisions themselves have research departments at that time?

A. No. At that time there were very few research outfits.

Q. You refer to some of the division men. Do you recall who the division manager was of Cadillac under Mr. Durant?

A. That was Mr. Collins.

Q. Where did he come from, do you know?

A. Mr. Collins had been with Buick as sales manager, and previous to that he had been in the buggy business—no, in the farm implement business. The farm implement companies usually sold to the same dealers as the buggy companies, and Durant met him through that channel.

[fol. 3244] Q. Who was the head of GMC Truck?

A. That was Mr. Day.

Q. Where did he come from?

A. He came direct from the farm implement field.

Q. And who was the head of Oakland?

A. Mr. Fred Warner.

Q. You referred to him before?

A. No, that was Tom Warner. There were two different ones.

Q. Where did Mr. Fred Warner come from?

A. I think Mr. Fred Warner had been a buggy salesman, and worked for Mr. Durant.

Q. Who was the head of the Chevrolet?

A. Mr. Fred Hohensee. Mr. Hohensee was a great driving force, but he had no technical education. His great forte, I would say, was his ability to get work done, but he didn't care too much how well it was done.

Q. To what extend was he close to Durant?

A. Well, he was very close to Durant. He would do anything Mr. Durant told him, and never question it.

Q. Who was the head of Samson?

A. That was Mr. J. A. Craig.

Q. Where did he come from?

A. Mr. Craig came from Janesville. He had owned a small implement plant at Janesville, which Mr. Durant had bought to make the nucleus of the Samson Tractor Works.

Q. Who was the head of Buick?

A. Mr. Harry Bassett.

Q. What was his origin?

A. Well, he had been in the parts business. He came up with Mr. Mott, from the Mott Company. They were manufacturers of axles, independent manufacturers of axles, but Buick had bought the company out, and Mr. Bassett moved up as assistant manager to Mr. Chrysler, and later [fol. 3245] when Mr. Chrysler left, he became general manager.

The Court. The Court stands recessed for fifteen minutes.

(A short recess was here had.)

Mr. Hurd:

Q. Mr. Pratt, I would like to show you General Motors Exhibit No. 1, which is an organization study of the General Motors Corporation with an attached organization chart. Did you have any contact with this document while you were working under Mr. Durant?

A. Yes, Mr. Hurd. This is the report that Mr. Sloan made, and I think I saw it early in October, 1920.

Q. What were the circumstances of your seeing it?

A. Well, Mr. Sloan talked to me about it, and he asked me if I would like to take it in to Mr. Durant's office for him, and I did. Mr. Durant glanced at it, and he said it would take some time, and so far as I know, that was the end of it.

Q. Did anything ever come of it so far as you know, Mr. Pratt, while Mr. Durant was there?

A. No.

Q. Mr. Pratt, did you ever have any contact with Mr. Durant in connection with any stock market operations?

A. Yes, there was one occasion that I remember. I would say it was the latter part of February.

Q. Of what year?

A. Of 1920. He asked me what I was doing one evening, and I said nothing. He asked me would I come down and help him at the office for awhile. When I got down there, why, he told me to get a large sheet of paper, and directed me to divide it up into three broad columns and label them A, B, and C, then draw another line under the A, B, [fol. 3246] and C, leaving room for the name, address, and number of shares. He had the stockholders' list.

Q. Of what company?

A. Of the General Motors Corporation. He told me that he would go over the list, and call out names and addresses and the number of shares, and told me where to place them, under A, B, or C, which he did. It took us quite a little while, and I handed the sheet to him. He glanced over it, and added up the number of shares, and then rang for his secretary, Mr. Murphy. He told Mr. Murphy to send out telegrams, I cannot remember the exact wording, but something on this basis that those who were listed under "A", "there will be something happening in our stock, don't sell yours until you get in touch with me."

And under "B" he said:

> "Things look very favorable to our stock. Buy all you can afford."

And under "C," he asked those people under "C" for an option on their General Motors stock at the market.

Q. At about this time, do you recall whether or not there was any change being made in the General Motors stock?

A. They were issuing ten shares of new stock of par value ten for the old stock of par value one hundred; for one share of the old stock, they were issuing ten shares of the new.

Q. Now, to which of these stock issues did these telegrams refer, the old or the new?

A. Well, the telegram did not say, as I remember it, at all.

Q. Do you recall whether the new had been issued at that time?

A. I don't think so.

Q. Now, a few weeks subsequent to this, do you recall what happened to the General Motors stock on the market?

A. Yes. The old stock became very active, and it [fols. 3247-3252] advanced as much as thirty or forty points a day, sometimes, I think. It would go up twenty-five or thirty points and go back ten or fifteen, but the whole trend was a very rapid advance.

Q. How long did that continue, Mr. Pratt?

A. I would say three or four weeks. I don't know exactly.

Q. What happened then?

A. Well, there was talk of a corner having been created on the old stock, and that was taken up in the Stock Exchange, the New York Stock Exchange, and they ruled that the new stock would be a good delivery on the old stock.

Q. What happened to the market after that?

A. The market went down.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 195-A and 195-B.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos 195-A and 195-B.)

[fol. 3253] By Mr. Hurd:

Q. Mr. Pratt, did you ever have any discussion with Mr. Durant regarding his attitude towards short sales on the market?

A. Yes, I have heard him remark a number of times that he thought there should be a law against short selling. He didn't think it was right for anyone to sell something that they didn't have, and appreciate the other fellow's problem.

Q. Later on, in 1920, did you have any further contact with the matter covered by these telegrams that you referred to earlier?

A. Yes, in a small way. I think it was—pretty hard for me to fix a date. I think it was in early October.

Q. 1920?

A. 1920. I was in Mr. Durant's office. I remember on three different occasions I was there, and the gentleman would be announced, and when the man came I would get [fol. 3254] up to go and Mr. Durant would tell me, "Sit still, John, I want you to hear this."

Q. Do you remember the names of any of these three men?

A. Yes, I remember, I think, two; one was a man by the name of Smith who lived either in Saginaw or Bay City, and the other was a man by the name of Black, and I don't know whether he lived in Bay City—I mean in Saginaw, or Flint. They were old friends of Mr. Durant's.

The reason I place them was that he sat and talked about having bought a plant from them at one time, which was then part of Chevrolet's plant.

Q. Was anyone else present, besides you and Mr. Durant, and Mr. Smith or Mr. Black, or the other gentleman?

A. No, no one else.

Q. Well, what was the conversation?

A. Well, the gentleman came in and said, "Mr. Durant, do you remember back in February you advised us to buy General Motors stock, and we bought. The stock has gone down, and now we are facing ruin."

I remember in one case Mr. Durant—I believe it was the case of Mr. Smith—and Mr. Durant said, "How much did you buy?" and Mr. Smith told him, and he said, "Could you afford to buy that much?"

Well, Mr. Smith said, "It proved that I couldn't."

He said, "Well, that is all right. Who is your broker?"

And he said, "I will take the stock over from your broker, if you want me to do it."

Mr. Smith told him the name of the broker, and he was gotten on the phone, and Mr. Smith got on the phone and said that Mr. Durant was going to take over his holdings [fol. 3255] in the brokerage office, and then Mr. Durant would get on the phone and confirm it.

I saw that in three different instances.

Q. In all of these three cases Mr. Durant took over the——

A. Took over the stock. I was informed afterwards by Mr. Zimmerschied who was an assistant to Mr. Durant—when we talked about things Mr. Durant told us that seemed to be private I never told Mr. Zimmerschied, and he never told me, until after Mr. Durant had left—that one of them was Mr. Robert Smith, and that on several occasions that had happened.

Q. Did Mr. Durant have any discussions with you regarding his leaving General Motors, before he left?

A. No, I never knew that Mr. Durant was leaving until about, I think the day before he left, two days before he left.

Q. And did you have a conversation with him?

A. I had no conversation with him, but he invited quite a number of us to his house for dinner on the night of the 30th of November, 1920.

Q. Do you recall who was there?

A. Well, I can recall a number. I don't know that I can recall everybody. There may have been some there that I don't remember. But I do know that Mr. Collins was there; Mr. Bassett was there; Mr. Day was there; Mr. Fred Warner and Mr. Tom Warner were there; Mr. Hohensee; Mr. Zimmerschied; Mr. Hardy; and myself.

There may have been others, but I know they were there.

Q. Were any of the du Ponts present?

A. None of the du Ponts.

Q. Was Mr. Sloan there?

A. No.

Q. What happened on this occasion?

[fol. 3256] A. Well, we had a nice dinner. After we were through dinner, Mr. Durant got up and told the boys—he called them "his boys"—that he wanted to tell them directly what had happened to him.

He said, "I was trying to support General Motors stock in the market, and I became over-extended."

He said, "I am telling you this because you will hear rumors that the du Pont Company took advantage of me and forced me out, and you will find possibly some people will show resentment in General Motors because I am out. But I want you to know that the du Pont Company treated me as fine as anybody could treat me."

He said, "If they hadn't gone out and borrowed money to the extent," I think he said, "of $35,000,000.00 to take over the brokerage holdings, General Motors stock would have gone to practically nothing. I would have been broke and you boys who have your money in General Motors would have been broke."

He said, "I don't want any resentment toward the du Pont people because I am getting out. I want you to remain with General Motors and support the du Pont people. Mr. P. S. du Pont is coming in as president, and I want you to support him just like you did me."

That is about all I remember, but that was the tenor of his address.

Q. Do you recall whether he said anything about his future?

A. Well, yes. He said, as I remember it, that he was 60 years old, and in the settlement it left him about $6,000,000.00, and that was enough for a man 60 years old; that he and his wife were going to enjoy life; that he had worked hard all his life.

Q. Did he say anything about whether or not he was [fol. 3257] going back in the motor industry?

A. He told us he was through with the automobile industry.

Q. Mr. Pratt, to what extent, if any, did this talk that Mr. Durant gave that night influence your subsequent activities in General Motors?

A. Well, I think it had considerable influence on me, and my dealings with the du Pont Company. I sensed—I couldn't put my finger on it—but I did sense there were at times a certain amount of resentment toward the du Pont Company. People down the line hadn't heard Mr. Durant talk, and the boys hadn't gone back and told them what Mr. Durant said. I tried to smooth those things out at times.

For a number of years it had quite an effect on me in my relationship to the du Pont Company.

Q. Did you have any discussions with Mr. Durant subsequent to this dinner regarding his future activities?

A. Yes, sir. I think it was in February, 1921. I was in Detroit then, and Mr. Durant came to my office and told me that he found he was wrong when he said he was getting out of the automobile industry; he was too deeply wed to it. He couldn't get out of it.

He had made up his mind to just build a real good little car and call it the "Durant." He had named the car for himself, and this was going to be a good car. He was going to limit his production to 50,000 automobiles a year.

His trouble had been that he expanded too far, and he couldn't look after the business. But he thought he could manage a production of 50,000 a year.

He asked me to go with him, but I was deeply interested then in the job I was doing. With the two other men, we were practically the receivers of General Motors from the standpoint of the work we were doing. It was very interesting and I thought very constructive. I thought it was the most constructive job I ever had in my life, to get General Motors or help get General Motors on a sound operating basis from an inventory standpoint.

[fol. 3258]

Q. Did you go with him?

A. No, I did not.

Q. Did he go ahead with his project?

A. Yes, and he never held it against me that I didn't go. He and I were friends up to a few years before his death. I didn't see him for a few years before he died.

Q. Did he confine this new company to just the limited operation?

A. No, he just repeated the same things he had done before. He got the Durant going well, then he started the Star. That was to compete with Ford and Chevrolet and Plymouth.

Later on he started another new car, the Flint. For a while it seemed he had a great success. He was able to sell a lot of stock, built a lot of plants, sold a lot of cars.

He was fairly successful until the next depression came along, and he was over extended again, and at that time he went out of the automobile industry and his cars all went out of business, too.

Q. After Mr. Pierre du Pont became president, do you recall what the first thing was that he did?

A. Yes, I think the first day he called together all the general managers. They had all been there the night before to attend Mr. Durant's dinner, and he called a good many of the staff in, and had a general talk about what ought to be done for General Motors.

Q. Mr. Pratt, I will show you a document marked General Motors Exhibit 196 for identification, which purports [fol. 3259] to be the minutes of a meeting between the president and plant managers of General Motors held on December 1, 1920.

Was this the meeting to which you have referred?

A. That is the meeting, yes, sir.

Q. Referring to the first page, reference to "Inventories Committee," do you recall what the problem was with reference to that?

A. Well, yes. There were only three of us on the Inventories Committee previous to this, and we had to work with the treasurer of General Motors because none of the divisions—I shouldn't say none of them, but divisions like Oakland and Olds, their outgo of cash was greater than their income of cash, and they had to call on the treasurer of General Motors for money.

So it was decided that the treasurer would be put on the committee so he would know first-hand what the situation was. The controller was put on the committee, that is, the controller of General Motors, so that he could see the problem there that General Motors faced, and see whether he could help to work out controls that would prevent the same thing happening again.

Q. The next item on this document is, "Future Sales." Do you recall what that problem was?

A. Of course, that was about the only way we could get rid of inventories, that was by selling the product. As I remember it, we had considerable carry-over of cars that had been manufactured in 1920, that were in storage, and the Executive Committee wanted to be advised as to the movement of those cars.

Q. The next item is "Future Commitments for Materials"; what was that problem?

A. Well, in the situation that we had there—it came to a head in October, I think—we found that the divisions, [fol. 3260] back in the spring of 1920, when they thought there was going to be a great shortage of material, had gone out and contracted for excess materials in order to protect what they thought their production was going to be.

That refers to a better understanding of the problem.

Q. At the bottom of page 3 in reference to "Inventories Schedule." To what does that refer?

A. Oh, yes, I was talking about that last time. You were talking about Future Commitments for Materials, I guess. That is right.

Well, each division under the Inventories Committee had made a schedule of their inventories. Some of the division managers felt that the Inventories Committee was tying them down too tight and didn't let them buy enough. It came up for discussion, and they asked for a study, and, if necessary, reallotment of inventories.

Q. On the next page is a reference to having new products checked by Mr. Kettering. Up to this time had there been any coordination between Mr. Kettering's research and General Motors products?

A. No, Mr. Kettering was just getting organized, really, down in Dayton to serve General Motors.

Q. On the next page, there is reference to the production of Sheridan cars. What was the problem with respect to Sheridan cars?

A. The Sheridan car was a new car. It hadn't been in the General Motors line previously. It had been designed by Mr. Burke, who was the general manager of it, and was to be manufactured at Muncie, Indiana.

There was the question whether General Motors needed additional cars in its line. A lot of the cars were competing with each other in General Motors.

Q. What did become of the Sheridan car?

A. It was liquidated.

[fol. 3261] Q. I won't go into the other portions of the document, but will you state whether or not you considered that this dealt with the emergency problems in General Motors as of that date?

A. Yes.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 196.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 196.)

By Mr. Hurd:

Q. Now Mr. Pratt, I show you Government's Exhibit No. 178, which is a document relating to General Motors organization with a chart attached.

Will you look at that and tell us whether or not that is substantially the type of organization that Mr. Sloan had submitted to Durant?

A. Yes, this is practically the same thing. There were some changes. Mr. du Pont was president rather than Mr. Durant. But this is the form of organization chart that Mr. Sloan had prepared the previous fall.

Q. Do you recall this being adopted shortly after Mr. Pierre became president?

A. Yes.

Q. What happened to your Inventories Committee, Mr. Pratt?

A. Our Inventories Committee continued to function, I think, through April, or maybe May, 1921. By that time, I think April and May businses began to pick up, and we were able to convert a good deal of inventory into product and sell it.

In the meantime there had been controls worked out, what they call the "ten day reports," and it was recog- [fol. 3262] nized that if those controls worked, the Inventories Committee would not be necessary.

So the Finance Committee adopted the controls that had been worked out, and the Inventories Committee was discharged.

Q. You have referred to the Sheridan car project being liquidated. Were there any other divisions liquidated in this early period that you recall?

A. Yes, the Samson Tractor was started on liquidation quite soon. I would say in the early spring of 1921.

Scripps-Booth was a car division that had just been purchased a couple of years before, I think back in 1918 or 1919. That was liquidated maybe in 1923 or 1924, but it was in the general trend of liquidation.

Q. Do you recall whose project the Samson Tractor had been?

A. That was Mr. Durant's.

Q. What about the Sheridan car?

A. I couldn't say positively that Mr. Durant originated that. He was back of it and took a great interest in supporting it.

Q. What about Scripps-Booth operation?

A. Well, that happened before I came in the picture. I wouldn't know how it came about.

Q. During the early period, the first year after Mr. Pierre du Pont became president, do you recall what, if any, changes were made in the division managers?

A. Yes. Mr. Durant, of course, had been president and general manager of Chevrolet. He had Mr. Hohensee as Works Engineer—Works Manager, I guess it was, not engineer.

When Mr. Durant left, or soon after Mr. Durant left, I would say about the 1st of February, Mr. Hohensee retired.

Mr. du Pont had become president of Chevrolet, and he [fol. 3263] made Mr. Zimmerschied General Manager of Chevrolet. Mr. Zimmerschied had been an assistant to Mr. Durant.

Q. Did Mr. Zimmerschied make any changes in the Chevrolet organization?

A. Yes. He made some of the most constructive moves that were made in General Motors. He recognized what the weakness in Chevrolet was. It was lack of good engineering and poor manufacture.

He went out and hired Mr. O. E. Hunt, who was with, or formerly engineer with Packard. I don't know whether he had left Packard or not. Mr. Hunt became chief engineer of Chevrolet, worked on up and retired a couple of years ago after becoming director of engineering in General Motors.

Also Mr. K. T. Keller had been brought down to Detroit from Buick by Mr. Chrysler. Mr. Chrysler was trying to come in and take over the operating management of the car divisions in General Motors, and he had brought Mr. Keller from Flint as his assistant. Mr. Keller was one of the outstanding men who stuck for quality, and Mr. Zimmerschied persuaded him to come to Chevrolet in charge of manufacture.

Q. Is that the Keller who was subsequently president of Chrysler Corporation?

A. Yes. He is chairman of the board now.

Q. Was there any change in the Chevrolet product after these changes?

A. Oh, there were great changes. In a very few months you noticed the change.

Q. What was the change?

A. Well, I couldn't tell you the detail, but I would say they tightened up the nuts and got the thing to really stick together.

Q. Do you recall any other changes in the management of the divisions that occurred in the early days?

A. Yes. A little later—I am not good on dates like Mr. [fol. 3264] Sloan is, so don't expect me to remember the dates but—oh, I would say in a matter of months, Mr. Collins was relieved of the general management of Cadillac and Mr. VerLinden relieved of the general managership of Olds.

Mr. H. H. Rice was made general manager of Cadillac and Mr. A. B. C. Hardy, who had been with Mr. Durant a great many years, was made general manager of Olds.

Q. As far as you know, had any of these men ever been connected in any way with the du Pont Company?

A. None of them. I answered that pretty quick. Mr. Rice may have been, but I doubt it. I don't think he was, but I don't know positively that he was not. But I know the others weren't.

Q. After your Inventories Committee had completed its work, which you said was about three months, I believe, in 1920, what did you do?

A. Then I began to try to help Mr. Sloan some by taking over some of his duties in the accessory division. I don't think they were assigned to me for quite some time after that, but for all practical purposes I carried on the duties that he had previously carried on in the accessory division.

Q. Do you recall in late 1922 you became vice-president in charge of the accessories group?

A. Somewhere along that time.

Q. Prior to that time had you conducted that work?

A. Yes.

[fol. 3265] **John Lee Pratt**, a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand, and testified further as follows:—

Direct examination (Continued).

By Mr. Hurd:

Q. Mr. Pratt, were you a member of the General Purchasing Committee of General Motors Corporation?

A. Yes, sir.

Q. During what period?

A. Oh, I think from the time it was organized until about 1929.

Q. Did you act as Chairman of the committee during part of that period?

A. Yes, when Mr. Sloan retired, I was Chairman, I guess, in 1926 or 1924.

Q. 1924, I believe.

A. 1924 to 1929.

Q. And you remained Chairman until about 1929?

A. That is my recollection.

Q. Are you a member of the Board of Directors of General Motors?

A. Yes, sir.

Q. When did you go on the Board, if you recall?

A. I went on the Board in 1923.

Q. Have you been a member of the Board ever since that time?

A. Yes, sir.

[fol. 3266] Q. From whom did you hear of your election to the Board of General Motors?

A. Mr. Harry Bassett.

Q. Did you have any discussion with any of the du Pont representatives before you went on the Board?

A. No, sir. I did not know I was going on the Board until Mr. Bassett told me.

Q. Were you a member of the Executive Committee of General Motors?

A. Yes, a few months after I went on the Board, I was put on the Executive Committee. I do not have the dates in my mind.

Q. How long did you remain on the committee?

A. I remained on the Executive Committee until in 1935. I think the records show I was there later, but what happened was the boys did not think I was going to make a successful retirement and they gave me a leave of absence. They didn't pay me anything on my leave.

Q. Were you a member of the Financial Policy Committee?

A. The Financial Policy Committee, yes.

Q. That was formed in 1946?

A. I was on it from 1946 until December, 1951.

Q. Were you ever on the Finance Committee of General Motors?

A. I was never on the Finance Committee.

Q. Or on the Policy Committee of General Motors?

A. Not on the Policy Committee.

Q. Or on the Operations Policy Committee?

A. No.

Q. Referring briefly again to your work as the man in charge of the accessory group, will you tell us in general what divisions that covered?

A. Well, it covered—if I would start east and go west, I think I would get it better. It was New Departure, Hyatt, Harrison Radiator, Brown-Lipe-Chapin, Harrison Radiator, Dayton Engineering, Delco Light, Frigidaire, Inland [fol. 3267] Manufacturing Company, Remy, Jackson Rim. I guess that is about it.

Q. When you took charge of these accessory divisions, did you make any changes with reference to the closing down any of the divisions or combining any of the divisions?

A. Well, over a period of years, that was a constant thing. I left out Klaxton Horn in there. That was one of the first ones we combined. We combined Klaxton Horn with Remy, then we later combined Dayton Engineering, and the starting and lighting business with Remy, then a few years later, we divided Remy up into three companies, Remy, Guide Lamp and Delco Products. There was a constant change of things as the business changed. We liquidated Steel Products along about 1925 or 1926, and later we liquidated Jackson Rim.

Q. You say "we" did those things. Whom do you mean?

A. Well, I mean General Motors. I was the one that was directing it.

Q. It was done under your supervision?

A. Yes.

Q. Whose decision was it to make those changes?

A. Well, I guess I made the final decision. The manager sometimes would come up about a consolidation trouble and we would look into it and we usually had good managers, and I would usually approve what they suggested.

Q. Did you make any change in the managership of those divisions pretty soon after you took charge of them?

A. Yes. The change was made quite often, because Mr. Sloan knew the boys in the accessory divisions, and when he had a big job he wanted to do in the car divisions, he reached down in the accessory divisions and got them, and I had to find somebody else. He took Mr. Cotha away from Hyatt, and I hired Mr. Forsythe.

[fol. 3268] Q. Where had Forsythe been?

A. Mr. Forsythe had been with the du Pont Company. He was manager of their machine shop. He was a practical fellow who had come up through the ranks as a machinist, and one of the fellows that I knew could do a good job, and we needed a fellow like that.

Q. Was he recommended to you by someone in the du Pont Company?

A. No, sir, I picked him out myself.

Q. What other changes did you make, if any?

A. Well, at the [illegible] Horn there was a man by the name of McConnell, general manager there, when I took over. Mr. Sloan had a man by the name of Mr. Sweet. We put Mr. Sweet in with the combined Klaxton and Remy, and did away with the other job very early in the picture, and Mr. Sloan reached into the Remy and got Mr. Mooney, who was a general manager, and made him general manager of the General Motors Export Company, and a year or two afterwards he reached in and got Mr. Reuter who had been made General Manager, and put him at the head of Olds because Mr. Hardy retired after being there for years.

Mr. Reuter was preceded by Mr. Wilson, who was quite a young fellow there, about thirty-one or thirty-two.

Q. Who picked Mr. Wilson?

A. Mr. Wilson was already in the plant, but I took him as general manager.

Q. Is that Mr. C. E. Wilson who later became president of General Motors?

A. Yes, sir.

Q. Did you make any change in the Delco Light?

A. Yes. We had Mr. R. H. Grant as president of Delco Light. Mr. Sloan took him and made him general sales manager of Chevrolet, and he made Mr. Biechler, who was sales manager of Delco Light, the general manager of Delco Light.

[fol. 3269] Q. Had Mr. Biechler been connected with the du Pont Company?

A. No, sir.

Q. Had Mr. Wilson been connected with the du Pont Company?

A. No, sir.

Q. Mr. Pratt, I would like to turn briefly now to the subject of the General Purchasing Committee.

Did you have anything to do with the original formation of that Committee?

A. No, that was Mr. Sloan's idea.

Q. Did you discuss it with Mr. Sloan before it was created?

A. Yes, we used to discuss things of that kind in riding back and forth on the train from Detroit. We made the trip there every week.

Q. What was your position?

A. I was in favor of the committee.

Q. What did you consider to be the purpose or purposes of the General Purchasing Committee?

A. The first thing I looked for was standardization on supplies that the various divisions used so that they could buy in greater volume than we were buying.

I also looked for coordination of our purchases. Where a material was used by more than one division, I looked for a general contract, that is, a General Motors contract to cover at least a part of the purchases of that material.

Q. Were you in favor of centralized purchasing?

A. No, sir. The strong thing that General Motors had was decentralization, and I always fought for that.

Q. Mr. Pratt, we have some exhibits in this case that show that the General Purchasing Committee entered into a good many so-called quantity discount contracts or sliding scale quantity discount contracts.

[fol. 3270] Do you recall these contracts?

A. Yes, sir.

Q. Do you recall who initiated the idea of the General Purchasing Committee entering into such contracts?

A. I think it was Mr. Lynah, the Executive Secretary.

Q. And the exhibits also show that there were a number of so-called multiple item contracts, contracts that would cover various products made by a particular supplier.

Do you recall who originated the idea of the multiple item contracts?

A. I believe that was Mr. Lynah also.

Q. Do you recall that the Purchasing Committee dealt with the subject of whether there should be one or more suppliers for a particular product?

A. Yes, sir.

Q. What was the position taken by the committee on that subject, just briefly and generally?

A. Well, I think the position was that we should have more than one supplier where it was possible, and that we should give a larger part of the volume, not in excess of 80 per cent to one supplier, and give the remainder, not less than 20 per cent, to a second supplier.

We didn't believe in splitting it. Steel you can split up in a good many companies, but a lot of the stuff we didn't want too many suppliers on.

Q. Do you recall who originated this idea of having more than one supplier?

A. Well, I don't know. I know I was for it myself, and Mr. Knudsen was very strong for it. Mr. Sloan I don't think was too strong for it at times.

Q. Do you know what the basis for it was, of Mr. Knudsen's position on that?

A. Mr. Knudsen's was based on his experience at Ford. He had been manager of all Ford's assembly plants before he came to General Motors.

Q. What, if anything, do you consider that the General [fols. 3271-3281] Purchasing Committee accomplished?

A. Yes, they did a great deal of good work in standardization of supplies. They also got a better spirit, cooperative spirit, among the purchasing agents of the various divisions by working together through a committee, and they got to know each other better.

Q. While you were chairman of the committee, to what extent were you active in the participation of the activities of the committee?

A. No, I was not. I was sort of an umpire. I tried to express what I thought was a General Motors' policy on things that came up.

[fol. 3282] By Mr. Hurd:

Q. Mr. Pratt, I now wish to turn to the subject of reciprocity.

Do you recall the subject of reciprocity coming before the General Purchasing Committee?

A. Yes, sir.

Q. Do you recall the action that that committee took?

A. Yes, sir, they took the position that the General Motors business—we could not benefit much by reciprocity due to the fact that our purchases were in large volume and our sales were in small volume, in dollars per car. That would be letting reciprocity influence us on a great many dollars, and we could not benefit from reciprocity only on a very few dollars.

Q. I want to call your attention to Government's Trial Exhibit 537, which sets forth the resolution of the General Purchasing Committee adopted on September 5, 1924.

Is that the action taken by the Committee that you recall, to which you are referring?

A. No, I refer more to the advantage of reciprocity in General Motors. It seems to have been reciprocity by du [fol. 3283] Pont based on the volume of business with General Motors.

Q. Do you recall the subject that is referred to in Government's Exhibit No. 537 coming before the Committee?

A. Yes.

Q. Does that set forth the action, do you recall, that was taken?

A. That is correct.

Q. Now, what was your personal attitude towards the subject of reciprocity?

A. Well, I did not have any ironbound rule. We could never make an ironbound rule in General Motors, but in general, we could not recognize the principle of reciprocity for the reason that I stated before that our purchases were in large volume and our sales in small volume.

Q. Now, I want you to look at Government's Exhibits 527 and 528. 527 is a letter from you to Mr. R. R. M. Carpenter, dated April 13, 1923, in which you state:

> "It has recently come to our attention that a number of the automobile companies outside of General Motors Corporation are looking on their purchases from the various General Motors Accessory Divisions and from the du Pont Company as purchases from one interest."

Do you recall this particular incident?

A. Yes, I recall that.

Q. And yet, in this letter, you inquire as to whether Mr. Carpenter can obtain any information as to their business with the automobile field?

A. Yes.

Q. And Government's Exhibit No. 528 is the answer which you received to this inquiry?

A. Yes, sir, that is the answer by Mr. F. B. Davis, Jr., who was the assistant general manager.

[fol. 3284] Q. Tell us how this subject came up, and what happened to it?

A. Some of the accessory division managers called my attention to the fact that they were being told about the du Pont volume, and that it ought to be lumped together and they get reciprocity. I was interested to know what the volume of business was that they were talking about, and that is the reason I wrote to Mr. Carpenter and asked him would he send me that information. He sent it to me, and I found that it was nothing to really think about. I think the Ford Motor Company was just $135,000.00, but we had ~~very little~~ business with Ford. We had no business—Ford never asked us about any reciprocity, so far as I know. I never heard of any such thing in the Ford Company.

Q. Did you do anything further?

A. We did nothing about it, just received that information.

Q. Now, that was in 1923. It was in 1924 that this resolution was adopted by the General Purchasing Committee. Do you recall whether the subject of reciprocity again came up before the General Purchasing Committee?

A. I think it came up several times by people wanting to consider reciprocity.

Q. I show you General Motors Exhibit No. 199, for identification, which is the minutes of General Purchasing Committee September 30, 1926, also August 16, 1927.

The first item refers to General Motors Truck Division. Do you recall what that incident was?

A. Yes, the General Motors Truck had an opportunity sometimes to make sales based on reciprocity, and they were anxious to get General Motors' purchases, and I requested the Purchasing Committee to make up such a list and let us take a look at it to see what it meant. I think once in a [fol. 3285] great while we let General Motors Truck practice reciprocity if it was to their benefit.

Q. Was that tied up in any way with the du Pont Company?

A. None whatever.

Q. And when you look at the second item, the August '27 minutes purport to refer to Mr. E. N. Johnson. Do you recall that incident?

A. Yes, Mr. E. N. Johnson had been manager of our Lancaster Products which we liquidated, and when he was with Lancaster he was a great believer in reciprocity in General Motors.

I gave him a job to make a study to find out whether or not General Motors had been penalized by not using reciprocity, and this was a report on that.

Q. Subsequent to that did the Purchasing Committee ever go into the practice of reciprocity?

A. No, the Purchasing Committee never practiced reciprocity.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 199 which is the excerpts from the 1926 and 1927 minutes.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 199.)

By Mr. Hurd:

Q. After that resolution was adopted in 1924 relating to the du Pont Company, do you recall that at that time the Resolution Committee turned it down except the communications might come from the president of the du Pont to the president of the General Motors?

A. That is right.

Q. Subsequent to that did you receive any requests from [fol. 3286] the people in the du Pont Company for information to enable them to practice reciprocity?

A. Yes.

Q. And in general were those requests from the top management of du Pont?

A. No, they were usually from young fellows that were just trying to make a place for themselves in du Pont.

Q. Generally what did you do with those requests?

A. Well, if it was one I thought that we could help them on. I would try to help them, if I could help them without injuring General Motors.

Q. Now, I want to call your attention to Government's Exhibit No. 541 and 542. Exhibit 541 is a letter from Mr. Grubb to you dated September 11th, 1924, and it states:

> "For your personal and confidential information, advise we are very desirous of securing the acid contract of the Bethlehem Steel Co., for their Steelton, Pa., Plant, and I was wondering if you would object to telling me what the prospect is of the G. M. placing any business with the Bethlehem Co. in the near future."

Do you recall that incident?

A. Yes.

Q. And is Exhibit No. 542 your reply?

A. Yes, that is my reply.

Q. That states:

> "Your letter of Sept. 11th, in regard to General Motors' business with Bethlehem Steel Company, received.
>
> "Our Lancaster Steel Products Corporation, Brown-Lipe-Chapin Division, and other divisions from time to time place orders for steel with Bethlehem or some of its subsidiaries. With the present state of the steel [fol. 3287] market we are buying steel from hand to mouth. In fact, with the inventories we have, we are purchasing a very small amount of steel. Our steel purchases are made after securing quotations from the various steel companies. Some months the order will go to Bethlehem or some of the other independent com-

panies; other months the same requirements will go to the Steel Corporation's plants.

"It is practically impossible for me to give you any information as to where our steel requirements will be placed from month to month, as our Purchasing Agents in the various divisions do not know themselves until a day or so before the order is placed.

"Our Brown-Lipe-Chapin Division were buying quite extensively from the Bethlehem Steel Company during the first six months of this year, and will continue to buy from them according to their needs if the Bethlehem's price and quality continue to be favorable in comparison with other companies.

"The above is about all the information I can give you on this subject."

Will you state whether or not this is a fair example of the treatment you would give of such request?

A. I think it is fair. I tried to sometimes—at least sometimes anyhow—to be polite and give them an answer.

Q. Did you consider you were giving any information that would in any way be detrimental to General Motors?

A. No, I don't think there was any information they could use to General Motors' detriment.

[fol. 3288] Q. Now, I want to call your attention to Government's Exhibit No. 543.

On the third page of this document is a letter from Mr. Lammot du Pont to Mr. Sloan::

> "Our Explosives Department is confronted with the prospect of losing explosives trade in the Lake Superior district through a competitor taking its customers away in what is generally known as the 'reciprocity' argument.
>
> "In order to combat this competition we desire to put before the Jones & Laughlin Steel Company interests and the Inland Steel Company interests the facts as to what of their products the du Pont Company and its affiliated companies buy from them. For this purpose, could you have someone send me a statement of the 1927 purchases by General Motors * * *"

The second page contains Mr. Sloan's first reply to Mr. Lammot du Pont, and he says; "I have your letter of January 18th. I will get the necessary data together and advise you in due course."

Now, I also want to show you in this connection, Mr. Pratt, General Motors Exhibit No. 200 for identification. Do you recall Mr. Sloan referring this matter to you?

A. Yes, with this letter in front of me, I do.

Mr. Hurd: if the Court please, I offer in evidence General Motors Exhibit No. 200, which is a communication from Mr. Sloan to Mr. Pratt.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 200.)

[fol. 3289] Mr. Hurd: It says:

> "Attached is original letter from Lammot du Pont with copy of my reply.
>
> "On general principles, I am not very keen—as I do not believe you will be—in developing things of this kind but this is the first time it has happened and it really is not very important for the reason that I do not believe we are buying to any great extent from any of these people unless it is the Inland Company."

Then, Mr. Pratt, I want to show you a document marked General Motors Exhibit No. 201 for identification, which purports to be a letter from you to Mr. Sloan dated January 21, 1928. Is this your reply to Mr. Sloan?

A. Yes, it is.

Mr. Hurd: if the Court please, I offer in evidence General Motors Exhibit No. 201.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 201.)

Mr. Hurd: This relates to the inquiry by Mr. Lammot du Pont as to General Motors purchases which he might use as a matter of reciprocity. It states:

> "I am in receipt of your memorandum of January 20th, enclosing letter from and copy of your reply to Mr. Lammot du Pont in regard to our supplying him with the amount of our purchases from the Jones & Laughlin Steel Company and the Inland Steel Company.
>
> "I think we buy very little from the Inland Steel

[fol. 3290] Company direct. We do buy considerable cold drawn steel from the LaSalle Steel Company, who in turn buy their base product from Inland.

"We buy a great deal from Jones & Laughlin Steel Company. In fact, we have had under consideration a general requirement contract for them to supply a considerable portion of our cold drawn and cold rolled steel.

"This instance may be the first that Mr. Lammot du Pont has requested information of this kind from you, but we have had a great many similar requests from the du Pont organization in the last three or four years. This position I have taken as Chairman of the Purchasing Committee has been invariably to refuse to give the du Pont Company any information which they might use in any way to influence their customers to think that the du Pont Company in any way could influence General Motors Corporation in buying their materials and supplies because the particular customer bought from the du Pont Company. Personally, I think it is very necessary that we have a very definite policy in this respect, especially in connection with our dealing with the du Pont Company (who are working on the principle of reciprocity while General Motors is not), as I am afraid there are instances where du Pont salesmen have implied that they could influence General Motors' purchases. Nothing could be more detrimental to the morale of our Purchasing Agents, and to the general interests of our Corporation, than for any supplier to believe that anything can influence General Motors in choosing its sources of supply other [fol. 3291] than the three fundamentals of purchasing, namely—quality, service and price. I know you realize that as soon as any supplier feels that he can use collateral influence he is not as apt to give the utmost he can in quality, service and price to the one that deserves same, namely—the purchaser.

"In refusing to give the du Pont Company such information as requested by Mr. du Pont, I have been guided by the following considerations:

"(a) The du Pont Company in fact has no more right to such information than any of the other 60,000 stockholders in General Motors. We would not consider giving Mr. Cohen, the druggist—who might own five shares of General Motors stock—the amount of purchases General Motors made from Jones & McLaughlin Steel Company in order that he might sell Mrs. Jones face powder. (This is far-fetched but it is the same principle.)

"(b) If we supply the du Pont Company with the amount of our purchases from any company they wish to sell, and their salesmen are allowed to display this information to their prospective customers, it necessarily follows that the impression would be made upon the customer that General Motors wishes that particular supplier to consider in dealing with General Motors its relationship with the du Pont Company, or otherwise General Motors would not supply the du Pont Company with the information.

"(c) The principle of reciprocity must imply that you are giving something in order to get something. If the du Pont Company, in getting business, implies [fol. 3292] reciprocity on the part of General Motors' purchases, what does General Motors get? It would seem that in such reciprocity we are doing the 'giving' and the du Pont Company the 'getting.' If there is anything to be gotten our position should be to see that it is gotten for General Motors Corporation, rather than the du Pont Company.

"(d) If our Purchasing Agents know that we are willing to allow the du Pont Company to use our purchases to influence du Pont sales, can we expect them to always resist giving weight to other considerations than the best interest of General Motors in placing their orders?

"(e) I think that we are all pretty well agreed that we could not afford to use the principle of reciprocity in General Motors' purchases. If that is true we certainly cannot allow anyone else to imply that they can use General Motors' purchases for the purpose of reciprocity.

"In the particular case under consideration I see no difference in Mr. du Pont using the information he has requested in order to retain business than for him to use same to get business. In my judgment, if the du Pont organization are not able to retain the business they have through the quality of their goods and the service they render, then they should not be allowed to retain it because General Motors purchases goods from that particular customer of the du Pont Company. The steel companies must know the amount of business [fol. 3293] they are doing with General Motors Corporation, and if being reminded of this volume of business by the du Pont Company results in the steel companies being willing to do something for the du Pont Company that they would not have done without such reminder, then we in General Motors are not getting all we should from the steel companies.

"I am perfectly willing in this instance that this information be gotten together and given to Mr. du Pont, as you have promised, but I do think that it is a very bad precedent to establish—unless I am wrong in the position I have been taking with the du Pont Company for the past three or four years, in regard to not allowing them to display to their customers any figures of General Motors as to the volume of our purchases from suppliers who are now or prospective customers of the du Pont Company.

"If you think I am leaning backward in matters of this kind and trying to maintain an impractical idea in our purchasing relations, please frankly say so as this is a very important matter and one in which I would like to be guided by your better judgment."

Mr. Pratt, did this fairly represent your attitude toward this matter?

A: It did. I might explain why I seemingly have a different attitude with Mr. du Pont than I did with some of the small men in the du Pont organization that wrote to me about reciprocity.

That was because I felt that when we dealt with Mr. du Pont, we were establishing policy. I felt when I dealt with Mr. Jones, whom I had know as a boy in the du Pont Com- [fol. 3294-3295] pany, to help him, I was dealing with an individual and not the du Pont Company.

That was the fundamental difference that I always kept in mind in writing to the officials of the Du Pont Company.

Q. Did your position toward the policy General Motors should have with respect to the du Pont Company as set forth in this document ever vary, ever change?

A. As far as I know, it did not.

ADJOURNMENT

[fol. 3296] JOHN LEE PRATT, a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination—(Continued).

By Mr. Hurd:

Q. Mr. Pratt, yesterday you testified that you had been on the General Purchasing Committee from its inception until, I believe you stated, 1929?

A. Yes, sir.

Q. You were Chairman of that Committee from 1926 to 1929?

A. Yes, sir.

Q. Mr. Pratt, will you state whether or not it was customary for the Committee or members of the Committee to receive inquiries from suppliers, or potential suppliers as to General Motors requirements of different times?

A. Yes, quite often.

Q. Did any of those requests ever go to you?

A. Yes.

Q. Mr. Pratt, I show you Government's Exhibits 350, 351, 352 and 353. The first one, Government's Exhibit No. 350 is a letter from Z. Phelps, dated May 1, 1926, in which he states:

> "We are again looking into the possibility of manufacturing oilcloth and it will be of much interest to us to learn the approximate quantity of oilcloth and black enamels which is now used annually by the General [fol. 3297] Motors Corporation. If you can conveniently get this information for us, it will be very helpful and greatly appreciated."

Who was Mr. Phelps?

A. Mr. Phelps was a young man in the Development Department of the du Pont Company whom I had known when I was with the du Pont Company.

Q. You had known him when you were with that company?

A. Yes, sir.

Q. Do you recall receiving this document?

A. Yes, I recall receiving this.

Q. Now, can you tell us what you did with the inquiry?

A. I sent it to Mr. Lynah of the General Purchasing Committee and asked him if he could conveniently and readily get the information; if so, to do so.

Q. Government's Exhibit No. 351 is the transmitted letter of this inquiry?

A. That is my letter.

Q. Did Mr. Lynah obtain the information?

A. He did.

Q. Government's Exhibit No. 352, is that a reply that he gave you regarding this?

A. Yes.

Q. What did you do with the information?

A. I sent the information on to Mr. Phelps in Government's Exhibit No. 353. That is a copy of my letter.

Q. Mr. Pratt, I want to call your attention to the last sentence in Government's Exhibit No. 353, which is your transmittal letter to Mr. Phelps. The last sentence states:

> "The above figures do not include Fisher Body—of these purchases we do not keep any statistics."

Will you explain that situation?

A. What I should have said there is that the Fisher Body did not participate in the Purchasing Committee, there- [fol. 3298] fore the statistics were not available to the Purchasing Committee.

Q. Did the Purchasing Committee keep statistics as to purchases of all the General Motors divisions, of all products?

A. No, they only kept statistics on general contracts that the Purchasing Committee had made.

Q. You consider that this incident was of an unusual character?

A. No, I think we had a great many of them.

Q. Were these limited to the inquiries of the du Pont Company?

A. No. We probably had more from the du Pont Company than anybody else, because the du Pont Company had a special department, the Development Department; they were always developing new industries that they might be interested in.

Q. Now, I want to show you Government's Exhibit No. 315, which is a letter to you also from Z. Phelps dated August 27, 1924.

He states:

> "It will be of much interest to us if you can conveniently find out the total quantity of ethyl alcohol which will be consumed annually by all of the General Motors units combined. Confidentially, we may in the near future consider a proposition to produce alcohol for the du Pont Co.'s requirements and if we should have a small surplus it would be much more desirable for us to find an outlet for this alcohol by turning it over to the General Motors Co. rather than attempting to sell it in the open market."

Do you recall this incident?

A. Yes, this is similar to this Development Department [fol. 3299] trying to develop its business.

Q. I show you Government's Exhibit No. 423. Is that your reply to Mr. Phelps with respect to this inquiry?

A. Yes.

Q. I want to call your attention to the second paragraph of Government's Exhibit No. 423:

> "In addition to the above, the Fisher Body Corporation—in which, as you know, General Motors has a controlling stock interest but does not control from a management standpoint—has a requirement of approximately 50,000 gallons per year."

Will you explain to what you were referring in that sentence?

A. Mr. Phelps' letter spoke as if he expected to sell excess alcohol. What I meant to tell him here in this letter was that General Motors was not making contracts for Fisher Body's requirements, and there were 50,000 gallons additional in Fisher Body's.

Q. If they wished to obtain the Fisher Body business, what would be the procedure?

A. He would have to get the records of the Fisher Body organization.

Q. Mr. Pratt, you have also testified yesterday that you were in charge of the General Motors accessory divisions for a great many years, starting in 1921, I believe, taking over from Mr. Sloan unofficially, then later officially, as vice-president.

In each of these divisions, will you state whether or not you received inquiries from potential suppliers of these accessory divisions?

A. Yes, sir. The accessory divisions were not covered by the General Purchasing Committee unless there was [fol. 3300] an exceptional supply, that they used a lot of, so quite often requests came to me.

Q. What procedure did you follow when you received requests concerning the accessory divisions?

A. I usually asked the accessory division involved for information that would enable me to answer the inquiry.

Q. Did you take any position with reference to whether that division should or should not deal with the inquirer?

A. I think not.

Q. Now, I want to call your attention to a document which has been marked General Motors Exhibit No. 202 for identification, and also 203 for identification, and Government's Exhibits No. 311, and No. 313.

First, as to General Motors Exhibit No. 202 for identification, do you recall the incident to which that refers?

A. Yes, sir.

Q. What was that situation?

A. This was where Mr. McGregor, who is another gentleman I used to associate with in the Development Department—he is now at this date in the Paint Department—trying to make a contract with the Hyatt Roller Bearing Company in order to get them to use the du Pont paint and varnish.

Mr. Hurd: If the court please, I offer in evidence General Motors Exhibits Nos. 202 and 203.

(Said documents, so offered and received in evidence were marked General Motors Exhibits Nos. 202 and 203.)

Mr. Hurd: Exhibit No. 202 is the first in this series, a [fol. 3301] letter from Mr. MacGregor to Mr. Pratt dated October 23, 1922, from the du Pont Paint Department, and states:

"I was talking with Mr. Coyne the other day relative to our Paint and Varnish Division getting a share of the up-keep paint for the Hyatt Roller Bearing Company and he advised me that you were the man with whom I should take up the matter. Our New York representative, Mr. Clause, has called on Mr. F. Weiss and while we have been pleasantly received we do not seem to get any business. Would be glad to hear from you as to whether there is anything further we can do."

By Mr. Hurd:

Q. Who was Mr. Coyne?
A. Mr. Coyne, when I was at the du Pont Company, was in the Sales Department. He was an elder statesman, I think possibly, of the du Pont Company at this time.
Q. At this time was Hyatt Roller Bearing Company one of the accessory divisions under your jurisdiction?
A. Yes, sir.
Q. General Motors Exhibit 203, is that your transmittal letter of this inquiry to the Hyatt Roller Bearing Division?
A. Yes, sir.

Mr. Hurd: This is a letter dated November 1, 1922, from Mr. Pratt to Mr. Forsythe:

"I am enclosing herewith copies of correspondence with Mr. F. S. MacGregor in regard to paint requirments of Hyatt Bearings Company.

"Will you please inquire into this subject and see just what the situation is."

[fol. 3302] By Mr. Hurd:

Q. Will you look at Government's Exhibit No. 311. Is that your letter to Mr. MacGregor in reply to his inquiry?

A. Yes, sir.

Mr. Hurd: That is dated November 1, 1922, and refers to Mr. MacGregor's letter and states that Mr. Pratt is writing Mr. Forsythe to look into the situation. Then it continues:

"Are you really making a good paint today, and something that we can conscientiously recommend to General Motors divisions? I personally know that two or three years ago the paint that you turned out was not of such a quality that I personally would like to recommend. What I have in mind is the Harrison paint that was used at Wawaset, and from the experience that I had there I have not felt that I could, in justice to General Motors' interests, urge the use of Harrison paint.

"If you have positively corrected what I suppose were your manufacturer's difficulties, and now have a paint that is of equal quality, and from a price and service standpoint you can meet other paint makers, I will gladly recommend the use of Harrison paint to those divisions of General Motors Corporation that I come in contact with, but I would like to have some assurance that you have accomplished the above before taking any definite position in this regard."

By Mr. Hurd:

Q. I want to call your attention to the words in that last paragraph: "'I will gladly recommend the use of Harrison's paint'".
[fol. 3303] What was the occasion for your making that statement?

A. Well, it had only been a couple of years since Mr. Durant left and asked us to help the du Pont Company, to see that they were not dealt unfairly with, that they had a square deal. I think that was the motive that made me do that.

Q. Now, will you look at Government's Exhibit No. 313, which is a report from Mr. Weiss to Mr. Forsythe. Mr. Weiss was in the Hyatt Division?

A. Yes, he was a purchasing agent of Hyatt.

Q. And at the last two lines he says, "I will purchase

Du-Lite Mill White, as I feel it will serve our purpose equally as good."

Now, will you look at the next page and tell us about how much was involved in this whole transaction from a dollar standpoint?

A. Well, I think the maximum was around $1500 a year of maintenance paint.

Q. This is maintenance paint?

A. Yes.

Q. Now, Mr. Pratt, I want to show you another series of documents, a document marked General Motors Exhibit No. 204 for identification, Government's Exhibits No. 340, and General Motors Exhibit No. 205 for identification.

I believe the first document in this series in point of time is General Motors Exhibit No. 204 for identification, a letter from Jim Elms to you dated January 9, 1926. Do you recall this incident?

A. Yes, sir.

Q. Will you explain what it was, and what happened?

A. Mr. Elms was head of the paint companies at that time, and this letter, Exhibit No. 204, is the letter to me telling me that the Delco Light Company, which was one of the accessory divisions, had given his paint company [fol. 3304] an order for a carload of paint, and then had cancelled it. That's about it.

I then was talking to Mr. Biechler who was head of the Delco Light Company and told him about this occurrence and asked him to look into it, and the result of that is Government Exhibit No. 339, a letter from Mr. Biechler to me in regard to what he found the situation back of this order that Mr. Elms was complaining of.

Q. What was your understanding as to what that situation was?

A. The situation was that the Delco Light Company were attempting to put in some new methods of painting, dipping, and they found that the paint that they had been buying didn't do the job. They went, then Delco Light went to the Chevrolet Company who they knew were using this process of dipping, and the Chevrolet people told them that the du Ponts had some experts that could help them out.

They got in touch with du Pont Company and du Pont sent some experts down there and showed them how the job could be done, and that was followed out by the Delco Light Company giving the paint section of the du Pont Company an order for a carload, that carload that Mr. Elms was complaining about.

Later the old supplier came in and after du Ponts had shown how it was done, why, he was able to get some paint that would also do the job, and after that they canceled the du Pont's order, and resumed business with the old supplier.

Well, personally, I didn't think that was too fair to have a company come in and do a job for them and show them how to do the work, and then give that company an order, [fol. 3305] and then later cancel that order because the old supplier had found out how the job could be done.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit Nos. 204 and 205,—204, which is the first letter in this series, is a letter from Mr. Elms to Mr. Pratt.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 204 and 205.)

Q. Who was Mr. Elms?

A. Mr. Elms was the head of the Paint activity of the du Pont Company, and a long standing personal friend of mine.

Q. The first paragraph states:

> "I have always promised myself that I would not add my name to the long list of people who are constantly asking favors from you for one thing or another."

Is it true that there had been a long list of people asking favors from you?

A. Yes, I think the correspondence shows that.

Q. Then Government's Exhibit No. 339, which is the second letter in this series, that is Mr. Biechler's reply to you after you had discussed the matter with him verbally?

A. Yes. I think I even showed him or read to him that part of Mr. Elms' letter complaining of what seemed to be unfair treatment.

Mr. Hurd: The first paragraph states:

> "You read a letter to me from a du Pont official regarding an inquiry and order we had received from [fol. 3306] us for black enamel. Since my return, I have gone into the situation thoroughly, and the picture is something like this."

And he sets forth what it is. The next to last paragraph:

> "I find, however, that our manufacturing, chemical and purchasing divisions feel that we would be in better hands possibly by dealing with du Pont than with Lowe Brothers. We will know sure about this within a few days, at which time we will communicate with du Pont, and will also advise you."

Then Government's Exhibit No. 340, is that your reply to Mr. Biechler after receipt of his letter?

A. Yes, sir.

Q. In that you state, skipping the first paragraph:

> "I am glad to know that your manufacturing, chemical and purchasing divisions feel they would be in better hands possibly by dealing with du Pont than with local companies. From a business standpoint no doubt your organization would be influenced to give the business, under equal conditions, to the local concerns. However, I think when General Motors divisons recognize the sacrifice that the du Pont Company made in 1920 and 1921, to keep General Motors Corporation from being put in a very bad light publicly—the du Pont Company going to the extent of borrowing $35,000,000 on its notes when the company was entirely free of debt, in order to prevent a large amount of General Motors stock being thrown on the open market—they should give weight to this which in my mind more than over-balances consideration of local [fol. 3307] conditions. In other words, I feel that where conditions are equal from the standpoint of quality, service and price, the du Pont Company should have the major share of General Motors divisons' business on those items that the du Pont Company can take on the basis of quality, service and price. If it is pos-

> sible to use the product from more than one company I do not think it advisable to give any one company all of the business, as I think it is desirable to always keep a competitive situation, otherwise any supplier is liable to grow slack in seeing that you have the best service and price possible."

Now, Mr. Pratt, I would like to know, in stating here that you felt the du Pont Company should be given the major share of General Motors business, other things being equal, were you expressing what you understood to be a General Motors policy?

A. No, sir. It was my own personal feeling.

Q. Upon what was it based?

A. Well, it was based on a long association with General Motors, and knowing really how much General Motors owed the du Pont Company for stepping into a very bad situation there when Mr. Durant got into financial difficulties.

Q. I call your attention to the last paragraph of the same letter:

> "I have expressed my own personal sentiments in this letter to you in order that you might have my point of view, but I do not wish to influence your organization in any way that would be against your own good judgment, keeping in mind that above all the prime con- [fol. 3308] sideration is to do the best thing for Delco-Light Company, and that considerations in regard to the du Pont Company or other concerns are secondary, and I am sure this is your feeling."

To what extent did you carry out the policy you have expressed in that last paragraph that your personal sentiments were not to control, it was up to the manager to make his decision?

A. That was carried out in every instance, so far as I know.

I might explain, Mr. Hurd, that Mr. Biechler had been in the Delco Light Company, maybe a year or more than a year, and had been made General Manager. He knew nothing about the things that had happened in the past, and that was one of the reasons I thought it advisable to give him some of the background and history of General Motors.

Q. The last document in this series is General Motors Exhibit No. 205, which is Mr. Biechler's letter to Mr. Pratt, in reply to Government's Exhibit No. 340.

I would like to call attention to the third paragraph:

> "I think you will be glad to know that the du Pont paint can be secured at a better price than we can secure paint locally, so aside from helping the general situation, we are also lowering our costs."

Mr. Pratt, I now wish to show you another series of documents. These are Government's Exhibits 371, 372, 373 and 374.

The first one in this series is a letter from you to Fred G. Hughes, General Manager of the New Departure Manufacturing Company.

[fol. 3309] Was that another one of the accessories divisions under your jurisdiction?

A. Yes, sir.

Q. It states:

> "Some of my friends in the du Pont Company called me today in regard to the fact that their subsidiary, The National Ammonia Company, were losing the ammonia business which they had formerly enjoyed with the New Departure Manufacturing Company. They tell me that their price and service is in every sense competitive.
>
> "If this is true, I would be interested if you would look into this and advise me of the reason why it is desirable to give your ammonia business to others than the du Pont subsidiary; namely, The National Ammonia Company."

The next letter, Government's Exhibit No. 372, is Mr. Hughes' reply to you, dated December 10, 1934, the subject: "Ammonia Requirements."

Skipping the first paragraph:

> "When we began to use National Ammonia for bright annealing our separator blanks, we had considerable trouble with water in their anhydrous ammonia which ruined the product.

> "We had no such trouble with that from the Barrett Company. In the meantime, the General Motors Fleet Sales Company called our attention to the fact that the Barrett Company were large users of General Motors trucks and that anything we could do to help them would be greatly appreciated.
>
> [fol. 3310] "In view of the unsatisfactory quality of the National product, and the Barrett ammonia being more satisfactory, and also that our business would be helpful to the Fleet Sales Company, we changed to the Barrett Company as supplier. We did not know that the National Ammonia Company was a du Pont subsidiary, but I do not believe that under the circumstances it should have made any difference."

Then the next document, Government's Exhibit No. 373, is your letter to Mr. McClellan of the National Ammonia Company.

In the first paragraph you state that you are sending along a copy of Mr. Hughes' letter, which is Government's Exhibit No. 372.

The second paragraph, you state:

> "Don't you think it would be desirable for your organization to contact more closely with General Motors Divisions that you hope to interest in your product from two standpoints: first, see whether or not your ammonia really is suitable for the work in our division (note second paragraph of Mr. Hughes' letter); and second, that you might inform the management of your relationship to the General Motors Corporation.
>
> "And now, you will pardon me if I get a little personal, and advise that last week I was four nights on the sleeper and four nights this week, and suggest that it might do some of the desk warmers in the du Pont Company good to get around once in a while. What do you think?
>
> [fol. 3311] "Please call me any time that you think I can be helpful."

Now, Mr. Pratt, I want to call your attention particularly to the last part of the second paragraph:

> "Second, that you might inform the management of your relationship to the General Motors Corporation."

What did you mean by that statement?

A. Well, what I had in mind, I think, was prompted by the fact that the du Pont division competition, the Barrett Company, had gone out and found someone in General Motors to tell them, to tell New Departure, that the General Motors Truck would be interested in their giving the business to Barrett.

Mr. Hughes' letter shows that the du Pont people had not even contacted—they didn't know that the ammonia was not satisfactory. I really thought that Mr. McClellan, or someone in his organization, should go up and tell the New Departure Company the many fine things that the du Pont Company had done for the General Motors Corporation, such as helping develop not only General Motors Corporation, but in fact the whole automobile industry, because New Departure depended on the automobile industry for its business.

Its prime business was supplying bearings to the automobile business, and it would be easy for anyone to make a good sales point by showing what the du Pont Company had done for the automobile industry.

They had helped in developing tetraethyl lead, and were very helpful with "'Duco", two things which enabled the automobile industry to expand very much.

They could also have done some sales effort in connection with du Pont by pointing out that the du Pont Company [fol. 3312] had great research facilities, and if a company got in trouble with their products, through those research facilities, the companies could be helped.

Q. Did you instruct this division to change to a du Pont subsidiary?

A. No, sir, I did not.

Q. The last document in this series is Government's Exhibit No. 374, a letter from you to Mr. Hughes, dated December 14, 1934. This is a reply to Mr. Hughes' letter to you of December 10th?

A. That is correct.

Q. It states:

> "Please accept my thanks for yours of December 10th in regard to your ammonia requirements.
>
> "The reasons given for your purchase of ammonia from the Barrett Company are entirely satisfactory. However, I have suggested that a du Pont representative call on you and see if they cannot make their product satisfactory to your requirements."

Did you take any further action with reference to it?

A. So far as I know, none.

Q. I now wish to turn to another division, Mr. Pratt, the A C Spark Plug Division, and I show you a series of government's Exhibit Nos. 343 to 347, inclusive.

The first one from the point of time is 343, which is a letter dated April 16th, 1926, from Mr. Champion to you. He states:

> "I am attaching herewith memorandum I have received from one of our Experimental Engineers, which is self-explanatory.
>
> "The reason I am bringing this to your attention is [fol. 3313] because naturally we want to do business with the du Pont Company and I thought perhaps you would know whom to approach who would see that we receive proper attention, not only in supplying material on the basis that other firms are able to do, as there is no doubt but what du Pont should be in a position to do the same as other firms, but also that we are given the proper service."

Now, this is from the A.C. Spark Plug Company. Was that one of the accessory divisions under your supervision at that time?

A. Yes, sir.

Q. Who is Mr. Champion?

A. Mr. Champion was a very interesting character. He was a Frenchman. He had been the champion bicycle rider in France at one time. He came to America, and he was known as Albert the Champion. In addition to being a professional bicycle rider, he had had some experience in ceramics, and in spark plug manufacture.

He met Mr. Durant in the early days, and Mr. Durant was attracted by him. Mr. Durant organized a company with a capital of $100,000.00. Mr. Durant put in $75,000.00 for capital, and the other $25,000.00 of the capital was issued to Mr. Champion.

He built up the company and had great energy, but one thing that he was as proud of as anything was that he was a Frenchman, and I think that he looked on the du Ponts as Frenchmen. He loved to deal with Frenchmen.

We had a great deal of trouble with him, and later he wanted to build some plants in France to show his compatriots how he could manufacture things. I didn't think it was wise, but finally I let him do it, and it turned out to be a great success. He ran the company with great success [fol. 3314] until his death about 1928.

Q. In this second paragraph of this exhibit, 343, he says:

> "The reason I am bringing this to your attention is because naturally we want to do business with the du Pont Company."

A. I think that was the natural thought of a Frenchman. He did want to.

Q. Had you encouraged him to do business with the du Pont Company?

A. I don't know as I did. There is no reason why I should because I did not know of any possibility of doing business with the du Pont Company.

Q. Now, will you look at Government's Exhibit No. 344. That appears to be a letter from you to Mr. Moosmann. Who was Mr. Moosmann?

A. Mr. Moosmann was in the Enamel, I guess the "Duco" section of the du Pont Company, the Paint Department.

Q. Had you known him?

A. I had known him for a great many years.

Q. That letter transmits Mr. Champion's letter to you. The second paragraph states:

> "Won't you please indicate to me the kind of a reply we should make, and return this letter to me in order that I may reply to same.""

In Government's Exhibit No. 345, a letter of Mr. Moosmann to you, dated April 20, 1926, in which he states, in the third paragraph:

> "You may assure Mr. Champion that this condition will be corrected immediately—."

[fol. 3315] Government's Exhibit No. 346, a letter from you to Mr. Champion, transmitting the letter from Mr. Moosmann.

And Government's Exhibit No. 347 is Mr. Champion's letter to you dated April 23, 1926. He said:

> "I am in receipt of your letter of the 21st and certainly appreciate your taking up with the du Pont Company, the trouble we have been experiencing, and am glad to know that they will see that we get satisfaction."

Now, Mr. Pratt, I want to show you another series of documents, which is Government's Exhibits No. 348 and No. 349.

Government's Exhibit No. 348 is a letter from Mr. Knight to Mr. Champion, dated July 12, 1926.

Who was Mr. Knight?

A. I don't know Mr. Knight, but from this correspondence, I assume he was an experimental engineer of the Champion Company.

Q. This states, down below, on the first page, below the tabulations:

> "On April 11th Mr. Champion wrote Mr. J. L. Pratt with reference to the service we were receiving at that time. Mr. Pratt took the matter up with Mr. J. J. Moosmann, Divisional Manager, Chemical Products Division, and since that time the action we have been securing has been very much better, though from our standpoint it could be greatly improved.
>
> "There seems to be too much lost motion, for instance the matter is taken up through the Flint office and then sent to the Detroit Office and then to Parlin."

[fol. 3316] Now, will you look at Government's Exhibit No. 349, which is a letter to you from Mr. Champion, dated July 14, 1926.

And it says, at the beginning of it:

> "Referring to correspondence I had with you some time ago regarding material we purchased from du Pont I am sending you copy of memorandum which shows the difficulty we still have."

Then dropping down several lines, from the bottom of the page:

> "When we were doing some development work it would be very much better if we could establish direct contact between Pyralin and ourselves. It is expensive to du Pont and to us and neither of us can get results."

I assume that means Parlin?

A. Parlin.

Q. (Reading):

> "We would appreciate it if you could take that up with the person in authority and see what you can do for us regarding this matter."

Do you remember this incident, Mr. Pratt?

A. Yes, I remember this.

Q. What did you do, if anything?

A. Well, I think I took it up to Mr. Moosmann and asked him to try to straighten the situation out.

Q. What did you understand to be the problem involved here? A. As I understand the problem, the du Pont paint representative they sent to the Champion Company was not a technical man acquainted with the "Duco" enamels which [fol. 3317] they were trying to use. He had been a man in the old paint and varnish business, and the trouble was really a technical one. They needed someone out there in the A. C. Spark Plug Division who had the technical knowledge to help them out with their problems, their problem being in their development work.

Q. Do you recall whether or not Mr. Champion's request to short-cut this was worked out?

A. Yes, I think it was worked out by putting a man with the proper knowledge in closer access to the A. C. Spark Plug Division.

Q. I show you five documents which have been marked General Motors Exhibit Nos. 206 to 210, inclusive, for identification; are these the letters relating to this particular transaction?

A. Yes, sir.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit Nos. 206 to 210, inclusive.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 206 to 210, inclusive.)

Mr. Hurd: The first one is a letter from Mr. Pratt to Mr. Moosmann dated July 16, 1926. He states:

> "In April we had some correspondence in regard to the service your Company was rendering our A. C. Spark Plug Company. In connection with this I am handing you copy of memorandum that has come to my desk today."

Would that be the memorandum from Mr. Champion?

A. Yes, sir.

[fol. 3318] Q. (Reading):

> "I don't know whether or not the suggestion of direct contact with the Parlin plant on experimental work, on the part of the A. C. Spark Plug Comany, is practical. I know that certain things have to be done in a certain way for proper organization, and I do not wish to disorganize you to do what our A. C. Spark Plug Company thinks they must have.
>
> "Won't you please write me frankly how far you think you can go in meeting the wishes of the A. C. Spark Plug Company for somewhat more direct and prompt action than they are getting under present conditions?"

207 is Mr. Moosmann's original reply to Mr. Pratt dated July 23, 1926;

General Motors Exhibit No. 208 is a further reply on July 29, 1926;

General Motors Exhibit No. 209 cleans up the matter, and is Mr. Moosmann's letter to Mr. Pratt dated August 17, 1926.

And the last document, General Motors Exhibit No. 210

is a letter from Mr. Pratt to Mr. Moosmann dated August 20, 1926. He says:

> "Please accept my thanks for your letter of August 17th about arrangements which have been made to give Mr. Albert Champion the kind of service he thinks he should have."

Q. Mr. Pratt, in addition to inquiries, requests for information or assistance that came to you as part of the [fol. 3319] Purchasing Committee or as head of the Accessories Divisions, do you recall whether or not you also had inquiries and requests from friends because they happened to know you?

A. Yes, a good many of them.

Q. Was that confined to the du Pont Company?

A. No, sir.

Q. Well, were—

A. Could I interrupt, Mr. Hurd?

Q. Certainly.

A. I might say that I had made a great many inquiries myself when I was down at the du Pont Company from friends and other people trying to get information from them to help me do my job down there.

Q. That is friends in concerns other than the du Pont Company?

A. Yes.

Q. I want to call your attention to Government's Exhibits Nos. 455 and 456. Government's Exhibit No. 455 is a letter from Mr. Harrington to you, dated March 22nd, 1924.

Who was Mr. Harrington?

A. Mr. Harrington was a gentleman in charge of the dyestuffs department, I think, at Wilmington, Delaware, at that time, of the du Pont Company.

Q. Did you know him?

A. Very well.

Q. How long had you known him?

A. Oh, eighteen or nineteen years.

Q. Had he been in the du Pont Company when you were working there?

A. Yes, I think he was at the du Pont Company ahead of me.

Q. Now, this exhibit, 455, in the second paragraph states:

> "What I wanted to see you about was to ask your advice on a particular subject, so I am writing you now so that I may get your advice anyhow. I have [fol. 3320] noticed considerable trouble with fading of the upholstery in my Cadillac closed car. I was wondering if you would think it possible for us to offer service to the Fisher Body people as to dyes to be used in making their upholstery which would be fast, and whether, if we could offer such service, the Fisher Body people would specify the type of dyes to be used,—not necessarily ours. Of course, if we could get them to specify ours we would be delighted, but I realize that would be difficult. This business should be very large and I do not believe we are enjoying a very large quantity of it at the present time.
>
> "I realize this is a delicate subject and one on which I would like to have your advice as to whether it is an angle which we could approach at all, and if it is, what is the proper method of approach."

Government's Exhibit No. 456, your reply to Mr. Harrington, dated March 26, 1924, as to that I call your attention to the second paragraph:

> "As you have probably sensed, the Fisher body outfit is pretty difficult to deal with and I hardly know how to advise you to approach them on this subject."

What was the basis for that statement?

A. Well, the Fisher brothers have built up a wonderful business in closed bodies. They were very proud of their product quality, and I thought it would be rather difficult to go to them with a complaint that the fabric they were putting in was fading.

That is what I meant by a "difficult thing," so the normal approach would have been to the Cadillac Company, and let [fol. 3321] the Cadillac Company take it up with Fisher Body, but if I did that I was afraid Mr. Harrington would make very little progress with the Fisher Body, if they knew he was complaining about the kind of product they had. So it was a rather delicate problem.

Q. Do you recall whether or not you did anything further?

A. I think I did. I used to follow these things through. I promised I would see Mr. Fred Fisher, and follow through with him, but I don't think I would do anything to help Mr. Harrington on that.

Mr. Hurd: Now, I show you another series of documents, also dealing with this problem of fabrices of Fisher Body, and that is Government's Exhibit No. 544, General Motors Exhibit for identification No. 211, Government's Exhibit No. 545, and General Motors Exhibit for identification No. 212.

The first one in this series is Government's Exhibit No. 544 which is another letter from Mr. Harrington to you in 1929, January 29, 1929, and the first paragraph states:

> "I want to ask your advice. In our efforts to sell dyestuffs through our various contacts with the mills that supply fabrics to General Motors, we find that there are considerable rejections by General Motors for quality of fabric, the rejections largely having to do with the color and fastness character which really come back to the quality of dyestuffs used. Your Company obviously buys materials on rigid specifications, where tests are susceptible of being applied to the product as received, etc. This type of specification purchase is all right, but when it comes to the question of the purchase of fabrics which goes back to the question of the quality [fol. 3322] of the dyestuffs used, I am not so sure but what there is a little lack of detailed technical information.
>
> "I am wondering if we could be of any help to General Motors by offering the services of our laboratories as a place for certain people from the Inspection Division of General Motors, who have to do with the inspection of fabrics, to visit and let us give them all the information that we have in common with the properties of dyestuffs."

And passing down to the last paragraph:

> "I ~~really believe that~~ we can be helpful and I am just wondering if you see it in the light that I have attempted to present it and if you do, whether you

would advise who would be the person for us to get in touch with to see whether we could sell this idea of the possibility of helpfulness on our part. I believe my idea is sound. If you do not think so, I would appreciate your telling me so."

Q. Do you recall what you did with this matter?
A. Yes, sir, I sent it to the man who was the head of the Fisher Body at that time, Mr. Ed Fisher.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 211 and 212.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 211 and 212.)

By Mr. Hurd:

Q. Is Exhibit No. 211 a letter to you from Mr. Ed Fisher [fol. 3323] dated January 31, 1929, is that your transmittal letter?
A. Yes, sir.

Mr. Hurd: This states:

"I am enclosing herewith a letter from Mr. W. F. Harrington of the E. I. du Pont de Nemours & Co., which I think is self-explanatory.

"If you think anything constructive can be done along the lines of what Mr. Harrington is thinking, I would be very glad to put him in contact with anyone in your organization that you might suggest."

And Government's Exhibit No. 545, Mr. Pratt's acknowledgment of Mr. Harrington's letter, in which he says:

"My own reaction is that it would be a very constructive thing."

And General Motors Exhibit No. 212 is a letter from Mr. Ed Fisher to Mr. Pratt, and I wish to call attention to the first page, about eight lines from the bottom:

"If we attempted to dictate in any way to the manufacturers of fabrics, as to the kind or quality of dyes they use, I think that every time something came up that was wrong they would pass it on to us and say that we specified this or that and that we should be held responsible. I am sure that I or anyone else in our organization would not care to accept this responsibility. If we had this trouble with only certain manufacturers and it could be traced back that they all used the one make of dye, then there might be something worthwhile looking into regarding the quality of dyes [fol. 3324] used; but I am sure that they are all using different makes of dyes and it cannot be attributed to that.

"We are very thankful for du Pont's offer and appreciate it very much."

Q. Mr. Pratt, I now show you Government's Exhibits Nos. 546, 547 and 548.

Exhibit No. 546 is a letter from Mr. Fitterer, Manager of Cellulose Acetate Sales, to you, dated August 30th, 1934.

Had you known Mr. Fitterer before this?

A. I had known Mr. Fitterer since 1905, when he was a clerk at the Parlin plant and handled the payroll.

Q. This letter, Exhibit No. 546, states:

> "We are interested in expanding our market for Cellulose Acetate and recently learned that one of the rubber companies, who are one of our smaller consumers, use our acetate in an acetone solution as an 'anti-stick' on the metal parts of rubber motor mounts where they do not want the moulded rubber to adhere.
>
> "I assume that General Motors are purchasers of these rubber motor mounts and wonder if I could trouble you to send me the names of your sources of supply so that we might approach them for what material of our manufacture they could use.
>
> "It has been a long while since I have run across you and I hope you are well and happy."

Exhibit No. 547 is your reply to Mr. Fitterer, dated August 31st, 1934, in which you state:

> "General Motors produces its own rubber motor [fol. 3325] mounts in its Inland Manufacturing Company, at Dayton, Ohio."

Was that another one of the divisions under your jurisdiction?

A. Yes, that was one of the Accessory Divisions.

Q. (Reading):

> "If your organization has not contacted with Inland on this problem, we would be glad for you to have someone tell them just what you know about same.
>
> "Our Inland boys are working very close with the du Pont Company on their synthetic rubber, and I am sure you will have no trouble in getting a hearing for your cellulose acetate.
>
> "It was indeed a pleasure to hear from you, because I have often wondered where you were."

Exhibit No. 548 is Mr. Fitterer's acknowledgment to Mr. Pratt.

Do you recall any incident, Mr. Pratt, where people from concerns other than the du Pont Company have made inquiries from you as to how they could get business from General Motors, asking your help?

A. Yes. There were a great many of them, but I can't pick them out of the air. I would have to refresh my memory. It goes back a great many years.

There are a few I remember. American Woolen Company was one who appealed to me to help to try to get them on a better basis with General Motors.

It is pretty hard for me to pick things out of the air like that, but I know there were lots of them.

[fol. 3326] To refresh your recollection, do you recall any inquiry from Mr. Stettinius after he left General Motors for help?

A. Yes. Yes, he came to me and wanted to know how U. S. Steel could get more of General Motors business. They had lost position very much with General Motors because they had not been making the right type of steel. I gave them all the assistance I could.

Q. Mr. Pratt, I am going to show you General Motors Exhibits 213, 214, 215, and 216, for identification.

Do you recall this incident?

A. Yes. That is another instance of this kind.

Q. The first one of these exhibits, Exhibit 213, appears to be a letter from a Mr. Mason? Who is Mr. Mason?

A. Mr. Mason was a contractor who worked in New York, but he lived down in Kentucky. He and I had been friends for a great many years. We had one thing in common, that is, we were both born on the same day, the same age.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 213 to 216, inclusive.

(Said documents so offered were received in evidence were marked General Motors Exhibits Nos. 213 to 216, inclusive.)

By Mr. Hurd:

Q. Exhibit No. 213, the first one in the series, is a letter from—is that Silas B. Mason?
A. Silas B. Mason.

Mr. Hurd: This is a letter to Mr. Pratt, dated September 28, 1931:

> "Dear John:
>
> "Attached hereto is a letter from Guy Van Sant which is self-explanatory.
> [fol. 3327] "I believe from what he has told me that he has on hand some Appalachian Oak of good quality, and if you or any of your subsidiary companies are in the market for this material, he is prepared to sell at satisfactory prices.
> "If you think it worth while, I will very much appreciate it if you will put him in touch with the proper men."

The Court: What is Appalachian Oak?
The Witness: That is oak that grows in the Appalachian Mountains in Kentucky, West Virginia, and Virginia. It is like white oak.
The Court: Was that used in the frames?
The Witness: No, it was used in automobile bodies. At this time Fisher Body built a composite body, the frame of the body, the supports of which were oak.
The Court: It was used in body frames?
The Witness: Body frames, yes.

By Mr. Hurd:

Q. And General Motors Exhibit No. 214 is your reply to Mr. Mason, dated September 30, 1931:

> "I have your letter of September 28th, enclosing one from Mr. Van Sant, and I am enclosing herewith copy of letter today written to Mr. E. F. Fisher—"

Is this the same Ed Fisher that you sent the du Pont inquiry to?

A. Yes, sir.

[fol. 3328] Q. (Reading):

> "—who is responsible in the Fisher Body organization for their lumber requirements.
>
> "I am under the impression that there is a good deal of distress lumber on the market at present and that we have been able to buy our recent requirements at very attractive prices."

General Motors Exhibit No. 215 is Mr. Pratt's letter to Mr. Ed Fisher, dated September 30, 1931.

> "I am enclosing herewith letter from the Appalachian Lumber Company, of Lexington, Kentucky, which was passed on to me by a friend, Mr. Silas Mason, in regard to dry white oak lumber which the above company has for sale.
>
> "If you are going to be in the market in the near future for any additional white oak lumber I would appreciate it if you would give the Appalachian Lumber Company an opportunity to bid on same."

General Motors Exhibit No. 216, the last one in this series, is Mr. Fisher's reply to Mr. Pratt, dated October 16, 1931:

> "Your letter at hand with letter attached from the Appalachian Lumber Company of Lexington, Kentucky. I am afraid that the location of this company will be to their disadvantage, owing to shipping to the plants where we are using oak generally.
>
> "However, I have turned your letter over to Mr. Claude Crusoe and have asked him to show them the

[fol. 3329] courtesy of letting them figure on some of our releases."

Q. Who was Mr. Crusoe?

A. Purchasing agent for the Fisher Body Company.

Q. Mr. Pratt, have any of these letters dealing with the du Pont Company been from any of the top executives of the du Pont Company?

A. I don't remember any.

Q. Did you ever have any request from any of the top management of the du Pont Company for help in getting the General Motors' business?

A. No. Mr. Harrington came to pretty near top management, but he wasn't top when he was writing to me.

Q. He later on became part of the top?

A. Yes.

Q. How about Mr. Lammot du Pont or Pierre du Pont or Irenée du Pont?

A. I have no recollection of their ever writing me or discussing that with me.

Q. Now, I want to show you Government's Exhibit No. 470. This is a letter from Mr. Lammot du Pont to Mr. Sloan, dated October 28th, 1926.

It deals with a new pyroxylin surfacer.

> "Our Paint Department tell me they have developed a pyroxylin surfacer for automobile bodies which has been adopted by some important automobile manufacturers, and which in the opinion of our men, produces better finish than the ordinary surfacers.
>
> "General Motors and Fisher have not adopted this new surfacer, apparently because it is somewhat more expensive than what they are using. Our men are perfectly sure that they can prove that wherever Fisher builds a new plant for body finishing it is more eco- [fol. 3330] nomical to use the new surfacer than that now used, simply because the new surfacer does not require as expensive an installation in ovens, etc.
>
> "Recalling the difficulty that was had in 'selling' 'Duco' to the General Motors units, I am impelled to drop you a line in this case, feeling that the same inertia is acting against this pyroxylin surfacer as delayed the adoption of 'Duco'."

Now, I show you, Mr. Pratt, Government's Exhibit No. 471, which is a letter from you to Mr. du Pont.

Do you recall that this matter, covered in the previous exhibit, 470, was referred to you in Mr. Sloan's absence?

A: Yes, I usually handled matters of this sort when Mr. Sloan was away.

Q: The inquiry had not come to you? It had come to Mr. Sloan?

A: It had come to Mr. Sloan.

Q. This second document, Government Exhibit No. 471, Pratt's reply to Mr. Lammot du Pont's letter to Mr. Sloan, states:

"In Mr. Sloan's absence your letter of October 28th in regard to the new pyroxylin surfacer for automobile bodies has been referred to me.

"I think the reason General Motors and Fisher have not adopted this new surfacer is because they believe our Research Department have developed less expensive thinners and pyroxylin mixtures that will be perfectly satisfactory for automobile finishes than the du Pont Company are now supplying and, naturally, they resist the effort of your organization to sell them on [fol. 3331] something that from a cost standpoint instead of being less is more expensive.

"There is an unfortunate feeling in our organization that the du Pont Company never takes the initiative in bringing costs down. All lowering of cost has to be initiated by us through bringing in competition. This is not the case with most of our suppliers, who, recognizing that the increased volume of automobile business has been largely developed through lowering cost of the automobile, are always working with us and quite frequently on their own initiative give us price reductions through methods that they have developed in lowering their own costs. The impression in our organization in this regard toward the du Pont Company may be unjust, but, nevertheless, it exists and I think some real effort should be made in your organization to counteract this impression.

"Notwithstanding the above, I am calling the new development to the attention of Mr. Ed Fisher, who has charge of the installation of equipment in the Flint Body plant, as indicated by the enclosed letter."

Then Government's Exhibit No. 472. Mr. Pratt's letter to Mr. Fisher, dated October 29, 1926:

"I have learned for the first time that the du Pont people claim to have a new type of 'Duco' that produces a better finish than their present 'Duco.' They also claim that this new 'Duco' does not require as expensive an installation in ovens and other equipment for application and that in a new plant the installation could be so much simpler than the present installation [fol. 3332] for application of 'Duco' that notwithstanding that this new "Duco" will cost more money it will be more economical to use and will produce a better finish than that at present used.

"I do not know whether this has been brought to your attention, but thought if it had not, you would be very glad to know of it so that if the claims of the du Ponts can be substantiated, you would like to take advantage of anything that it offers in the new plant which you are now equipping at Flint."

Now, Mr. Pratt, while you stated that you don't recall receiving requests from the top management of du Pont for assistance in getting business for the du Pont Company, do you recall whether or not you had requests from the top management with respect to other matters? Requests to help out their friends, or anything of that sort?

A. No, I don't think I did—yes, I did, too. Yes, there were cases. I remember there were two or three cases.

Q. I want you to look at two documents that have been marked for identification as General Motors Exhibits 217 and 218.

Do you recall these documents?

A. Yes. Since these were brought to me, I remember several cases.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits 217 and 218.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 217 and 218.)

By Mr. Hurd:

Q. These deal with the M. A. Hanna Company. What [fol. 3333] was the relationship between the M. A. Hanna Company and General Motors at this time?

A. M. A. Hanna Company was the supplier of pig iron, and we had a contract that Mr. Durant had made back in 1920, a ten year contract, and we were still operating under it.

Q. You were still operating under that ten-year contract?

A. Yes.

Q. What was your attitude towards this contract?

A. Well, the M. A. Hanna Company was one that had not given us too good service. There were a lot of companies on long term contracts that were made in the 1920 period that recognized that conditions had changed, and were willing to modify their contract.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 217 and 218.

(Said documents so offered and received in evidence, were marked General Motors Exhibits Nos. 217 and 218.)

Mr. Hurd: First, General Motors Exhibit No. 217 is a letter from Pierre du Pont to Mr. Pratt, dated May 27th, 1926:

"Dear Mr. Pratt:

"Some days ago I had a visit from Mr. Charles N. Hickok of the M. A. Hanna Co., of Cleveland, Ohio. While Mr. Hickok devotes his time to the ore end of the business, he inquired as to how he and Mr. Hanna might get in touch with those of the General Motors corporation who are interested in pig iron. Mr. Sloan refers me to you in this matter. Therefore, if Mr. [fol. 3334] Hickok or Mr. Hanna should call upon you, I hope that you may be able to give them the information that they desire. As a matter of fact, I believe that their chief interest is to become personally acquainted with the General Motors crowd."

General Motors Exhibit No. 218 is Mr. Pratt's reply to

Mr. Pierre du Pont, dated June 8th, 1926.

"I have your letter of May 27th in regard to the visit you had with Mr. Charles Hickok of the M. A. Hanna Company of Cleveland, Ohio.

"I do not know whether Mr. Hickok advised you that the M. A. Hanna Company are now receiving practically all of our business in pig iron except high silicon iron. This is under contract made during Mr. Durant's regime in 1920, for a ten year period, and is a contract which I think we will be very glad to cancel as it has worked very much to our disadvantage.

"I will be very glad to see Mr. Hickok or Mr. Hanna at any time."

Mr. Pratt, I show you another series of documents which have been marked for identification as General Motors Exhibits Nos. 219, 220, 221, 222 and 223.

These deal with the American Brass Company.

By Mr. Hurd:

Q. Do you recall what the incident was to which these refer?

A. Yes, we dealt quite extensively with the American Brass Company, and in some cases they were very good suppliers, and in other cases they were not too good. [fol. 3335] I think this refers to when we considered going into the manufacture of brass tubing. It says we were concerned over that tubing, and we were thinking of going into the manufacture of tubing.

Q. What was your understanding as to the attitude Mr. Lammot du Pont took?

A. Mr. du Pont thought that we should make satisfactory deals with the American Brass Company.

Q. What position did you have?

A. We were not very happy with the way they handled their tubing business. At that time, as I remember the American Brass Company supplied to a lot of small manufacturers who were involved in making the tubing that we used. We used a great deal of it in Frigidaires and a great deal of it on the automobiles for gas lines and things of that sort, a small tubing, a quarter of an inch. The American Brass Company supplied a large tubing to the other manufacturers that they cut down into the small tubing that we used.

Q. Did you comply with Mr. Lammot du Pont's request? A. No, I don't think we did.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 219 to 223 inclusive.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 219 to 223, inclusive.)

Mr. Hurd: The first one of these, General Motors Exhibit No. 219, is a letter from Mr. Lammot du Pont to Mr. Sloan, dated September 16, 1926:

> "In one of the reports considered at the last meeting of the Finance Committee, there was mentioned an [fol. 3336] investigation now being made into the manufacture of copper tubing—it being stated that it was found impossible to secure satisfactory assurance of our supplies.
>
> "Mr. Grubb has recently been negotiating with the American Brass Company, for the sale to them of our Everdur business. He reports that in conversation with Mr. Weaver, Vice-President of the American Brass Company, in charge of sales, Mr. Weaver states that he understood General Motors Corporation was concerned over their supply of tubing, and that General Motors Corporation could rest assured that the American Brass Company would take care of their requirements at any time desired, indicating that they were perfectly willing to build whatever additional capacity might be required."

The second document, General Motors Exhibit No. 220, is Mr. Sloan's reply to Mr. du Pont, dated September 20, 1926.

He says that:

> "Mr. Pratt knows more about this than I do and I have referred the matter to him—"

General Motors Exhibit No. 221 is Mr. Pratt's reply to Mr. Lammot du Pont, dated September 28, 1926.

The second paragraph:

> "We have no doubt but that the American Brass Company are in position to take care of our requirements, but at a price satisfactory to the American Brass Company."

[fol. 3337] General Motors Exhibit No. 222 is Mr. Lammot du Pont's reply to Mr. Pratt.

General Motors Exhibit No. 223, the last one of these documents, is Mr. Pratt's final letter to Mr. Lammot du Pont, dated October 1, 1926.

Reading from the third paragraph on the first page:

> "In regard to the American Brass Company, they are in production of small size tubing in a small way and I understand would like some guarantee from us before they would be willing to put in equipment to take care of part of our requirements. It now looks as though our present suppliers will be able to take care of our requirements for the next couple of years, and we do not feel we should make any overtures to the American Brass Company in order to get them actively engaged in copper tubing, which would seem to be naturally a branch of their business."

Now Mr. Pratt, I would like to show you another series of documents marked General Motors Exhibits Nos. 224 to 226, inclusive.

These relate to fire brick from the General Refractories Company.

By Mr. Hurd:

Q. Do you recall this incident?

A. Yes, I remember that.

Q. What did this involve?

A. Oh, this refers to some boilers that we were installing down at Anderson, Indiana, and the question was raised by some of Mr. du Pont's friends that a General Refractories [fol. 3338] Company had not received proper treatment by the management at Anderson in connection with the purchase of the firebrick.

Q. And what did you do about it?

A. Well, I took it up with the boys down at Anderson and found that they had handled it alright, in my judgment, and wrote to Mr. du Pont accordingly.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 224 to 226, inclusive.

(Said documents, so offered and received in evidence were marked General Motors Exhibits Nos. 224 to 226, inclusive.)

Mr. Hurd: The first one of these, General Motors Exhibit No. 224, is a letter from Mr. Lammot du Pont directed to Mr. Pratt, and dated September 22, 1926:

"Dear John:

"I am enclosing letter from Jack Sproul of the General Refractories Company, dated September 20th, also letter dated September 11th by A. A. Wedderspoon, both in regard to the possibility of the General Refractories Company receiving some orders for firebrick from the Remy Company, Anderson, Ind. These letters were sent me through Mr. T. C. du Pont."

By Mr. Hurd:

Q. The Remy Company was one of your divisions?
A. One of the accessory divisions.

Mr. Hurd: (Continuing)

"Jack Sproul is the son of Governor Sproul of [fol. 3339] Pennsylvania, who is a good friend of ours, and we would greatly appreciate it if some business could be turned his way. We, of course, do not ask that he be given any orders for firebrick, or anything else, without justification, and feel that we are justified in asking that the General Refractories Company, which is a well known concern, of good reputation, be given an opportunity to bid, and receive some consideration if prices, quality and service are at least on a par with their competitors.

"We will greatly appreciate anything that can be done."

General Motors Exhibit No. 225 is a letter from Mr. Pratt to Mr. Lammot du Pont, dated October 2, 1926, acknowledging the previous document, and states, in the second paragraph:

> "I am having this matter investigated but I do not believe the information given in his letter—that they do not have a look-in on General Motors' business—is true. Mr. Sproul's approach of trying to bring influence to bear in order to get business from General Motors Corporation will not work. If this Company can satisfy our Divisions that they have a product competitive from the standpoint of quality, price and service, I know our Divisions well enough that if the General Refractories Company's representatives go after the business they will have an opportunity to quote, and while I do not claim that our Purchasing Departments are 100% pure, I do believe we have a spirit in our Purchasing Departments of always attempting to get the best as they see it for General [fol. 3340] Motors Corporation. For this reason we have always hesitated to suggest any firm for special consideration.
>
> "We believe it is the duty of the supplier to establish the merits of his product to our Corporation, and not our duty to ask our Purchasing Departments to give special consideration to any firm."

General Motors Exhibit No. 226 is Mr. Pratt's letter to Mr. Lammot du Pont.

By Mr. Hurd:

Q. Was this written after you had checked the situation?
A. Yes, sir.

Mr. Hurd: And the last paragraph:

> "From my check-up I do not believe that the General Refractories Company has any right to complain of their treatment by General Motors' divisions, and I think the greatest assistance you can give the General Refractories Company will be to impress on Mr. Sproul the necessity of his organization working closely with

our organizations to help them determine what fire-brick will give General Motors Corporation the best results for the money expended."

There is one other incident. I believe we have a few minutes, and I believe I can cover this before adjournment time.

The Court: Yes.

By Mr. Hurd:

Q. I show you General Motors Exhibits Nos. 227, 228, and 229 for identification, Mr. Pratt. These relate to the oil burner business. Do you remember this matter covered by [fol. 3341] these documents?

A. Yes.

Q. What was that situation?

A. Well, we were experimenting and building, planning to go into the oil burner business to help out a lot of dealers that we had out in the country that would have been put out of business selling Delco Light plants. They were to supply electricity. The power companies had extended their lines out into the country so there was very little business for the Delco Light plants, and we were looking for other products that we could put in there. Oil burners was one that we were considering, and it had gotten rumored around that we were carrying on our experiments at Rochester, New York, and it got rumored around to the Anthracite Coal region that we were going into the oil business quite seriously, and they took it up with Mr. Belin who was president of the E. I. du Pont Company of Pennsylvania, protesting General Motors going into the oil burner business.

Q. And do you recall the position Mr. Lammot du Pont took?

A. Yes, Mr. Lammot du Pont thought it would harm the du Pont Company, and that it might be better for us to consider manufacturing something that Anthracite Coal could use.

Q. What position did you take?

A. I took the position I thought we ought to go ahead, and go into the oil burner business if our experiments looked like we could build a successful business for ourselves and our dealers.

Q. And what happened?

A. We went on with the business.

Q. Are you still in the business?

A. Yes, sir.

The Court: You don't make stokers, do you?

The Witness: No, we don't make stokers. The trouble with stokers, Judge, is that people still have to take the ashes out.

Mr. Hurd: If the Court please, I offer into evidence General Motors Exhibits 227, 228 and 229.

[fol. 3342]

> (Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 227, 228 and 229.)

Mr. Hurd: The first one of these is a letter from Mr. Lammot du Pont to Mr. Pratt, dated January 29, 1931, and states:

> "I have just had a talk with Mr. G. D'A. Belin, President of E. I. du Pont de Nemours & Company of Pennsylvania, supplying the anthracite district with explosives, and with Mr. J. W. McCoy, General Manager of our Explosives Department, regarding the attitude of the anthracite coal companies toward General Motors' prospective move into the manufacture and sale of domestic oil burners.
>
> "From what I now learn, the anthracite coal companies are very much wrought up on this subject. It is beyond my understanding how they can consider the matter so seriously in view of the number of oil burners already in the market, but nevertheless I am assured and am satisfied that they are so wrought up.
>
> "I am convinced that the outlook for du Pont business in the anthracite field is jeopardized seriously and am equally convinced that du Pont cannot dictate to General Motors with respect to their going into the oil burner business, nor can the advantage or disadvantage to du Pont be considered at all as a factor by General Motors in reaching a decision.
>
> "As a General Motors man, I would like to point out the following factors which seem to me to have a bearing on the case."

[fol. 3343] Then he sets forth certain reasons why General Motors should not go into the business.

General Motors Exhibit No. 228 is Mr. Pratt's reply to Mr. Lammot du Pont.

By Mr. Hurd:

Q. I notice this is addressed to Mr. Lammot du Pont as Chairman of the Board of General Motors Corporation, dated February 6, 1931. Was Mr. Lammot du Pont Chairman of the Board of General Motors at that time?

A. I think so. I feel sure he was, due to the fact that I addressed him that way.

Mr. Hurd: Now, turning to the second page of this:

> "In the past we have had sufficient courage to recognize mistakes and abandon developments which it seemed impossible to make profitably, and I hope the management of General Motors Corporation can be counted on to follow the same policy in regard to the oil burner. On the other hand, if the oil burner can be manufactured and marketed at a profit, and it will supplement those utilities the Corporation is undertaking to market, that will make life more comfortable, I think we would be cowardly in abandoning same at this time because a poorly led association of coal producers did not recognize that the world progresses, and that any company that hopes to succeed has to take part in progress.
>
> "The agitation among the anthracite coal producers in regard to oil burners is nothing compared with the agitation we had a few years ago from ice manufacturers associations against Frigidaire, and a great many threats were made that ice manufacturers would not buy General Motors products if we continued with the development of Frigidaire. At that time we took [fol. 3344-3345] the position that if household refrigeration was an improvement over ice boxes General Motors would not reap any permanent ill-will by proceeding on sound business lines to promote iceless refrigeration. We believe the same line of reasoning holds in the case of oil burners, and while we do not believe in doing anything to stir up antagonism of any

portion of any industry, we do believe that if any industry takes an unsound position in regard to any activity of the Corporation that is no reason for us to discontinue that activity."

And General Motors Exhibit No. 299, is the letter to the Executive Committee of the General Motors Corporation on January 21, 1932, and shows a report which was received from Vice President Pratt, dealing with the question of General Motors' position in the household appliance field, "and particularly recommending that the Delco Appliance Division be permitted to go ahead with the manufacture and sale of oil burners in a small way, with the understanding that no substantial investment will be required.

"Upon motion, this report was accepted and the recommendations contained therein approved."

By Mr. Hurd:

Q. Did you ultimately go into it only in a small way?

A. No, we are not the largest manufacturers of oil burners, but we have quite a business there, and I might add that I don't think it hurt the du Pont's business in the anthracite coal region.

ADJOURNED

[fol. 3346] The Court: Proceed, please.

JOHN LEE PRATT, called as a witness on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (Continued).

By Mr. Hurd:

Q. Mr. Pratt, I want to call your attention to a series of government exhibits, Government's Trial Exhibits Nos. 363 and 364, and Government's Trial Exhibits Nos. 367 and 368.

The first one, Government's Exhibit No. 363, Mr. Pratt, is a letter from Mr. Lammot du Pont to Mr. Sloan, dated October 28, 1926. I would like to call your attention to a few passages in the document.

It starts out with the statement:

> "Our Paint Department recently has been considerably upset because of the difficulty in getting accurate information as to the probable requirements of the various General Motors units for 'Duco'."

Then skipping two sentences:

> "Personally, I am mystified, because the forecast schedules submitted to the Finance Committee do not seem to agree at all with the dope that our Paint Department gets from its representatives in Flint and Detroit.
>
> "I have always considered the General Motors Finance Committee reports as strictly confidential. Do you see any objection to my giving our Paint Department [fol. 3347] ment such forecast figures as are included in these reports?"

Mr. Pratt, do you recall this document?

A. Yes, Mr. Hurd.

Q. Did you have anything to do in connection with it?

A. Yes, I replied to Mr. du Pont's letter in the absence of Mr. Sloan.

Q. Is Government's Exhibit No. 364 your reply?

A. Yes, sir.

Q. I call your attention to the first two paragraphs:

> "Referring to your inquiry of October 28th as to giving your Paint Department the General Motors forecast figures included in the Finance Committee reports.
>
> "We prefer you to continue to consider the production figures given in the finance forecast as confidential and not make them available to your various operating departments."

Mr. Pratt, will you tell us what the basis was for your attitude in connection with this matter?

A. Well, the main thing was that the financial forecast of production did not reflect requirements for paint. There was a difference between production schedules and requirements.

The production schedules were the number of cars that we expected to produce. The requirements were issued monthly to the supplier with estimates of what we would use in the following months.

The requirements would be different from the production schedules by the fact that we might be getting to the end of a model. This year looked like we should normally be starting the new model, but I don't know what the situation was. [fol. 3348] But when you start a new model, your requirements are a great deal more than your production schedule because you are building up stock.

When you are towards the end of a model, your requirements are very much less because you are using up what we call the "float," the stock that it is necessary to have on hand. So it was very bad practice for any supplier to think that he could judge our requirements by our production schedules.

Q. Now I call your attention to Government's Exhibit No. 367, which is a letter from Mr. Sloan to Mr. Lammot du Pont, dated November 11, 1926, in which Mr. Sloan states, in the first paragraph:

> "I have no objection to your giving our schedules to Mr. Allen confidentially."

Did that come to your attention?

A. Yes, sir.

Q. Do you recall what position you took?

A. Well, I took the position that we should not give them to the du Pont Company because I felt that we were really doing them harm rather than good, to let them pass on production schedules to their various divisions that were our suppliers.

The divisions that were supplying us should have close enough contact with our divisions that they would deal with the purchasing departments and find what our requirements were from month to month rather than being guided by any production schedules on which financial forecasts were based for financing it.

Q. Calling your attention to Government's Exhibit No. [fol. 3349] 368, which is a letter from you to Mr. Sloan, a few days after his letter to Mr. Lammot du Pont, in the course of this letter you state, starting at the beginning:

> "I note from your letter of November 11th to Mr. Lammot du Pont that you have no objection to Mr.

du Pont giving our schedules, as shown in Finance Committee reports, confidentially to Mr. Allen, head of the du Pont Paint Division.

"Personally I think this is wrong, as I do not feel the DuPont Company should be put in any different position whatever than other suppliers from whom General Motors is buying many times the amount we are purchasing from the DuPont Company. In taking this position it is not primarily from a General Motors' standpoint but because I feel that the DuPont organization will be a better organization for us to do business with when they realize they must stand on their own and expect to get business and hold same from General Motors Corporation on the same basis that we try to treat all of our suppliers—three considerations —namely, quality, service and price."

Then turning to the second page, the first full paragraph:

> "I can not help but feel that if the DuPont Company could be made to thoroughly realize that they can expect no special consideration except what they earn through service to our Divisions, they would have established—through their contact men in Detroit—a relationship with our Divisions that would enable them to have information which would be better to guide [fol. 3350] them, from a production standpoint, than any information that could be gleaned from the reports of the Finance Committee, which may be anywhere from ten to forty days behind the true conditions at our plants."

Then turning to the last paragraph on the third page:

> "For us to make it possible for the DuPont organization to get this information otherwise, in my judgment is doing the DuPont organization more harm than good, and is placing us in the position of not dealing evenly with all of our suppliers."

Now, did that letter correctly express your attitude toward this problem at that time?

A. Yes, sir.

Q. Mr. Pratt, I would like to have you state on what basis, if any, you decided what your attitude would be toward requests made by people from the du Pont Company?

A. Well, my attitude was based on who made the request, that is, what his position was in the du Pont Company.

In the case of these exhibits, it was from the president of the company, and any action that we took would be one of establishing policy that he could pass on to his organization.

I thought that policy should be the same with the du Pont Company as for every other supplier of General Motors. There were cases where men down the line; a great many of them old time friends of mine, who came and asked for favors, wanting this information or that information. In that case, if it was something that I could give them, without, in my judgment, doing injury to the General Motors Corporation, I usually gave it to them.

[fol. 3351] Also, there was another matter that influenced me somewhat in that I had been one of the, what was called, Mr. Durant's "old boys," and I remembered Mr. Durant telling us that he wanted us to deal fairly with the du Pont Company; that the du Pont Company had been of great assistance to him when he was in very great trouble.

That was an influence with me for quite a number of years in my dealing with the boys down the line in the du Pont Company. But I did try at all times to differentiate between doing a favor for a friend and doing something that would set policies for the corporation.

Q. Mr. Pratt, it is charged in substance, in the Complaint in this case that there was some understanding or agreement or conspiracy between the du Pont organization and General Motors Corporation that du Pont was to be favored as a supplier of General Motors, favored over its competitors; did you ever know of any such understanding or conspiracy or agreement to that effect?

A. Mr. Hurd, I never heard of it.

Q. In your dealings with the du Pont Company did you ever undertake to favor them because you thought there was some right on the part of the du Pont Company to have favored treatment?

A. Never.

Q. Did you consider that because of the du Pont Company stock interest in General Motors it was entitled to treatment preferential over its competitors?

A. Never.

Q. Now, Mr. Pratt, I wish to turn to another subject, the subject of refrigerants. Before the discovery of Freon, what chemicals were used as refrigerants in household refrigerators?

A. Well, the one that had the most common acceptance was SO_2, sulphur dioxide. Some manufacturers used methyl [fol. 3352] chloride; others use butane, and the large refrigerators used ammonia. Some machines where ammonia was dangerous, they used carbon dioxide. There was quite a variety of refrigerants, but they all had some drawback, and were dangerous.

Q. Do you know whether or not the Frigidaire ever considered using methyl chloride?

A. Yes, they talked about it for awhile. They were to build a new machine, and they thought the methyl chloride might be a satisfactory refrigerant, or sulphur dioxide, but I don't think that machine was ever put in production.

Q. Now, I want to show you four documents, Government's Exhibits Nos. 358 and 359, and General Motors Exhibits for identification Nos. 230 and 231. The first one in this group is Government's Exhibit No. 358, which is a letter from Mr. Harrington of the du Pont Company to you, dated August 4, 1926. He states:

> "Mr. Robinson—"

Who was Mr. Robinson?

A. Mr. Robinson was Mr. Harrington's assistant in the Dyestuffs Department of the du Pont Company.

Q. (Reading):

> "Mr. Robinson tells me that you called last Friday to find out surely who it was that I suggested to you as a source of supply for Methyl Chloride."

Do you recall what the circumstances were of making this inquiry of Mr. Robinson?

A. Yes. We were developing a new refrigerator and we were considering using Methyl Chloride, and I had talked to Mr. Harrington as to who would be a good source of that material, and this is a letter—well, I talked to [fol. 3353] Mr. Robinson. I went to see Mr. Harrington—no, let me see. I had talked with Mr. Harrington about the source for Methyl Chloride, and I had not heard from Mr. Harrington, and I called Mr. Robinson about it.

Q. Do you recall the circumstances of your having called on Mr. Harrington for this particular information?

A. Yes. We had called on him previously.

Q. What was your occasion for calling on him rather than on other chemists or some other chemical company?

A. Well, I called on him for the information because I knew him well, and I thought he would know who would be the best supplier for Methyl Chloride.

Q. Then the letter continues:

> "I believe he told you that Dow seemed to be the best possibility, and as I recollect it that is the name I previously gave you. At the present time, the only manufacturer in this country is the Roessler & Hasslacher Chemical Company. However, we feel Dow undoubtedly could make it."

That is Mr. Robinson.

> "I find that Dr. Chambers has been talking to your Mr. Williams regarding possibility of your use of Methyl Chloride."

Do you recall who Dr. Chambers was?

A. Yes. Dr. Chambers was an official of the du Ponts—he had been with the du Pont Company for a long time, and one of their oldest chemists. He had been a plant manager.

Q. And it continues:

> [fol. 3354] "If you have decided definitely to go into the use of this product, we would like very much to be given the opportunity to be considered as one of your suppliers."

Then the next document, Government's Exhibit No. 359, a letter from you to Mr. Harrington, dated August 10th, 1926, approximately a week after Mr. Harrington's letter to you, in which you state:

> "Referring to your letter of August 4th, it is true we have about decided to use Methyl Chloride in a new

> electrical refrigerator that we expect to shortly put on the market.
>
> "Mr. Robinson told me that you were considering the manufacture of Methyl Chloride along with Ethyl Chloride, so I have asked our Delco-Light Division to make no contracts for Methyl Chloride for a period greater than one year so that we would be in a position to deal with you, if you should later decide to enter into the manufacture of this product."

Mr. Pratt, do you recall what the practice was of the corporation at this time, 1926, with reference to contracting for more than a year for products?

A. We had a rule in the Executive Committee that we could not contract for more than a year without getting special permission.

Q. Was that limited to any particular supplier?

A. No, it covered all suppliers.

Q. Now, I call your attention to General Motors Exhibits for identification Nos. 230 and 231.

[fol. 3355] Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 230 and 231.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 230 and 231.)

Mr. Hurd: General Motors Exhibit No. 230 is a letter to you from Mr. Harrington dated August 12th, 1926, apparently in reply to your letter which is Government's Exhibit No. 359.

He states:

> "With reference to your letter of August 10th, regarding Methyl Chloride, our Dr. Frei, who is a former Badische man, is now with us here and tells us that he is quite familiar with the process used by the Badische Company for making Methyl Chloride. We have also carried out some laboratory work on this process and believe that we are in a good position to go ahead with the manufacture of this product. We would therefore appreciate it very much if you would give us an opportunity to bid on your first year's business rather than have to wait for a year before we can expect to obtain any share of it."

Now, the last document in this series is General Motors Exhibit No. 231, your reply to Mr. Harrington on August 13th, 1926, in which you say:

> "I have your letter of August 12th on Methyl Chloride and if you have definitely decided to manufacture Methyl Chloride, and you are sure that there will be no hold up in deliveries to us due to lack of ex- [fol. 3356] perience, I have no objection to your organization contacting with our Delco-Light Company at once, and quoting on supplying them with a part of their Methyl Chloride."

By Mr. Hurd:

Q. Mr. Pratt, was there anything unusual with reference to your treatment of this subject with the du Pont Company in your opinion?

A. No, sir.

Q. Do you recall whether or not you had occasion where you dealt with other suppliers in a smiliar manner?

A. I am sure we had.

Q. Did anything ever come of this?

A. As far as I know, we never went into the manufacture of the refrigerator requiring Methyl Chloride.

Q. Do you recall whether you ever contracted with anyone for Methyl Chloride?

A. No, I have no knowledge of it.

Q. What was the refrigerant in use by the Fridigaire prior to the discovery of Freon?

A. Sulphur dioxide.

Q. Do you know whether or not you purchased any of that from the du Pont Company?

A. I think in the latter years we did. We had a great deal of trouble getting good sulphur dioxide. A lot of it carried moisture, and we could not use a moist product. It would corrode the machinery of the Frigidaire.

Q. Now, I want to call your attention to three exhibits, Government's Exhibits Nos. 360, 361 and 362.

Government's Exhibit No. 360 is a letter from Mr. Harrington to you dated September 23rd, 1925. He states:

> "It is our understanding that in the manufacture of your refrigerating machines in the Delco System you

> [fol. 3357] are using Liquid SO_2 as a refrigerating agent. We are interested to know if it would not be possible for you to purchase this from us as we have an available supply, and if so, to whom we should write to get the information regarding containers, etc. for its sale."

Government's Exhibit No. 361 is your reply, and you state:

> "You are correct in your understanding as expressed in your letter of September 23rd, that we use liquid SO_2 in our Frigidaire machines, and if you are in position to supply SO_2 of the quality we require and at the right price I know of no reason why you should not be able to obtain the business. You might address the Purchasing Agent, Mr. F. L. Riehle, Delco-Light Company."

Then you go on to state:

> "However, I would like to impress on you that it is necessary for us to have an exceptionally pure and dry SO_2 gas and I would not like you to consider supplying us unless you can promise an absolutely uniform product. We have had some unfortunate experiences in the past in attempting to use du Pont acid in connection with our pickling operations at Lancaster, and I would not like to take chances on repeating this by trying to use SO_2 gas. Therefore, please don't put forward the use of your SO_2 gas unless you are absolutely sure it will meet our specifications."

And Government's Trial Exhibit No. 362 is a letter from Mr. Biechler—

[fol. 3358] By Mr. Hurd:

Q. Was he the general manager of your Delco-Light Company at that time?
A. Yes, sir.

Mr. Hurd: (Continuing):

—to Mr. Harrington, stating:

> "We will be very glad to have you get in touch with us regarding this subject."

Now, I also wish to call your attention to General Motors Exhibit No. 232 which I offer in evidence.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 232.)

By Mr. Hurd:

Q. This is a letter from you to Mr. Foster, dated December 29, 1925, which is approximately three months after the prior correspondence, and it states:

> "Referring to our telephone conversation this morning, we will be very glad if you will arrange that Mr. Minor or Mr. De Blois, of your department, go to Dayton, Ohio, and inspect the installation recently made at our Delco-Light plant, from a risk standpoint, for charging Frigidaire machines with SO_2 gas.
>
> "Also, while there we would like them to inspect the installation made in our Moraine plant of the Delco-Light Company for spraying Frigidaire cabinets with Duco.
>
> [fol. 3359] "We are anxious to assure ourselves that everything practical has been done to remove hazards of fire and health in the use of Duco and SO_2 gas. We would appreciate very much any suggestions by whoever you send as to ways or means that might make these installations more satisfactory."

Mr. Pratt, what was your problem from a safety standpoint in the use of SO_2 gas?

A. Well, SO_2 was a very dangerous gas to inhale; it was poisonous; it was a fire risk. Mr. Foster was the service manager of du Pont Company. He had men who serviced all of their divisions, things like fire protection, dangerous operations, and things of that kind. I had talked with him, and he offered to send Mr. Minor, his fire expert, and Mr. DeBlois, his safety man. Here was something of a service that we could get that I thought we should have and avail ourselves of, and have an inspection. The "Duco" thing was sort of dangerous from a fire standpoint in spraying it, and I wanted to see that we had taken every precaution in our plant in protecting the men that we could take.

Q. Do you recall whether or not you received any assistance from the du Pont Company in improving your safety record in the handling of this refrigerant?

A. Well, I can't say that we did—we had never had much difficulty, but we just wanted this as an added precaution. I don't remember that we had any difficulty before or after, frankly.

Q. And you mentioned that none of the gasses that were in use before Freon were satisfactory. In general, what was the difficulty with those, other than SO_2?

A. Well, ethyl chloride was a poisonous gas; butane was [fol. 3360] a great fire risk, and maybe also poisonous; ammonia was poisonous, and also required very high pressure to operate under, and SO_2 required very high pressure to operate under.

Q. Do you recall what the circumstances were that led up to the discovery of Freon?

A. Yes, we were undertaking to develop a new centrifugal compressor, and we also were very much—didn't want to use any of these refrigerants that had dangerous properties if we could find a better refrigerant.

So the Research Division was called in, Mr. Kettering, down at Dayton, and I was down there and we talked over with the engineers the problem to see whether we couldn't —we tried to find out what was wrong with all of the refrigerants and then to see if we could find a refrigerant that didn't have all of those troubles.

Mr. Kettering undertook to write the specifications of what we really wanted, and we sort of put the job up to him to get the proper chemist and see whether he couldn't develop something that would be more satisfactory than anything that existed.

The Frigidaire Division was to pay all of the expenses of the development.

Q. Was the research work to be done by Frigidaire chemists?

A. No, sir, it was really done by chemists, one of whom had worked for us in previous years, who had a little chemical organization, Mr. Midgley, the man who had discovered, with Mr. Kettering, tetraethyl lead, and Mr. Kettering put the job up to him on Freon.

Q. Do you recall whether he conducted his experimental work—

A. He conducted his experimental work in a small laboratory in Dayton.

[fol. 3361] Q. Was it connected with the Frigidaire plant?

A. No, it was not part of the Frigidaire plant. It was independent.

Q. Do you recall approximately when it was that Freon was discovered?

A. No, I wouldn't know the definite date. I think it was somewhere between 1928 and 1930, along in there.

Q. Just what was Freon?

A. Well, Freon was a combination of flourine and chlorine. Chlorine was a gas that everyone considered very dangerous, and I don't think it had been used very largely in manufacture. Hydrochloric acid had a small use. Fluorine had been used, but was considered a dangerous gas to handle.

Q. When this combination of chlorine and fluorine was discovered which became known as Freon, what was the nature of the ultimate gas, the Freon, from a risk hazard standpoint?

A. Well, it turned out to be better than anyone else could imagine could be produced. It had none of the disadvantages of the other refrigerants. It was a perfect refrigerant.

Q. Was it toxic?

A. No.

Q. Was it inflammable?

A. No, it had all of the characteristics we wanted in a refrigerant without any of the disadvantages.

Q. Now, I want to call your attention to two documents that have been marked General Motors Exhibits Nos. 233 and 234 for identification, and ask if you recall these documents and the subject that they deal with?

A. Yes, I am familiar with this.

Q. At this point had Freon been discovered?

A. Yes.

Q. The first one of these documents is July 31, 1929? [fol. 3362] A. Yes. Mr. Biechler in his letter of July 31, is writing about Freon.

Q. At this time were you in charge of the accessory divisions including Frigidaire?

A. Well, I was in charge of Frigidaire. I don't know whether I still had charge of all the accessory divisions. I think Mr. Wilson came up to the central office in 1928, and I turned over to his supervision those accessory divisions which applied to automobile manufacture, and looked after those myself which were concerned with manufacturing household appliances.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 233 and 234.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 233 and 234.)

Mr. Hurd: Exhibit No. 233 is a letter from Mr. Biechler to Mr. Pratt, dated July 31, 1929, and states that it relates to the new refrigerant.

Referring to the third paragraph of the document, Mr. Biechler states to Mr. Pratt:

> "You know much more about chemical manufacturing than I do, but I have been thinking about this for some little time, and we are of the opinion here that what we should do is put up a shack on some of our property at Moraine and put a few chemical men there, along with enough equipment, so that we can make this new refrigerant ourselves for the practical experience. At the present time, we are makng about three pounds a day, but this of course is too small an [fol. 3363] amount. We feel since the matter is in the experimental stage, that it would be foolish for us to let the manufacturing get out of our hands, particularly when we believe we could get ready to do this for a reasonable amount of money. Mr. Midgley, in connection with Mr. Williams, Dr. Kehoe and others will work out a project, and I hope the entire subject would stay within a scope of $50,000;"

Then referring to the next paragraph:

> "Please bear in mind we are open minded on the subject, and want to proceed in the most practical, sensible and economical manner."

By Mr. Hurd:

Q. Do you recall what position you took regarding the suggestion that Frigidaire put up a small shack to experiment in manufacturing Freon?

A. Yes, I told Mr. Biechler to go ahead with his plan.

Q. Is General Motors Exhibit No. 234 your advice to Mr. Biechler?

A. That is right.

Q. General Motors Exhibit No. 234, a letter from Mr. Pratt to Mr. Biechler, dated August 2, 1929, two days after Mr. Biechler's letter, referring to the second paragraph, states:

> "By all means I think we should make a set-up to produce sufficient of this chemical to prove its cost and availability for use in refrigeration machines. As to whether or not we should eventually manufacture same, in my judgment should depend a great deal on the [fol. 3364] sources of the ingredients from which it is manufactured."

Then the last paragraph:

> "We would certainly look with favor on the expenditure of sufficient money to prove out what we have so far developed—as a refrigerant that would accomplish what I understand we hope to be accomplished by this particular refrigerant—would be very valuable for Frigidaire."

Do you recall whether or not this experimental plant was erected?

A. Yes, sir.

Q. Was it?

A. Yes, it was.

Q. Then I want to call your attention to two Government's Exhibits, Nos. 838 and 839.

Exhibit No. 838 is dated March 11th, 1930.

Do you recall whether or not by this time Frigidaire was satisfied that this new product Freon was a feasible refrigerant?

A. Yes, I think, as I recollect, they were satisfied that this was a satisfactory refrigerant.

Q. In this first document, Government's Exhibit No. 838, which is a letter from Mr. Biechler to you, Mr. Biechler states:

> "There is one specific thing, though, we would appreciate your giving a lot of thought, because we need a decision fairly soon, and that is, the manufacture of our new refrigerant."

Now, was this before or after this test plant had been put up?

A. This was after the test plant.

Q. (Reading):

> [fol. 3365] "We want to get into that as quickly as possible, and from our standpoint might say we feel that we would like to see it done by us, meaning either the Frigidaire Corporation or General Motors, or some Division you might want to set up; in other words, we feel a great deal would be gained if we would control this rather than let some chemical company do it.
>
> "I do not know whether you have heard it or not, but we have direct information from the du Pont Company that they are launching a plan to investigate new refrigerants themselves, and we understand they are working somewhat with the same chemicals from which we have developed our new refrigerant. Because of our seeking a detector for this new refrigerant, the du Pont Company have learned somewhat of the chemicals we ourselves are using."

What is a detector for a refrigerant?

A. I think I can explain it better by telling you this refrigerant was so perfect it had no odor, and you really need an odor in your refrigerant, so if it leaks the housewife knows her machine is leaking. So we had to find something that could be put in to the refrigerant that would do it no harm and would have an odor.

Q. This thing that would have an odor would be what you call the detector?

A. That would be the detector.

Q. In other words, it is a detector for leaks?

A. That is right.

Q. Had you taken up with the du Pont Company this matter of seeking a detector?

A. No, I had not.

[fol. 3366] Q. Had you told the du Pont Company anything about this investigation at this time?

A No, I had not. I didn't know until I got this letter that the du Pont Company was working on anything for Frigidaire.

Q. The next document, Government's Exhibit No. 839, is your reply to Mr. Biechler, dated March 15, 1930. In that you state:

> "In regard to the manufacture of the new refrigerant, I am of the opinion that this should be made at Dayton in the plant adjacent to the Frigidaire plant. Whether or not it should be made by one of General Motors subsidiaries or divisions I have not just been able to determine in my own mind, and shall discuss same with Mr. Sloan, who will return in a few days."

Did you have a discussion of this matter with Mr. Sloan?

A. I did.

Q. Was it shortly after the date of this letter?

A. Yes. He was away, I think, on one of his trips.

Q. Was anyone else present when you had this discussion?

A. I wouldn't remember, but not necessarily would there be anyone.

Q. Do you recall where it took place?

A. It would have taken place in Mr. Sloan's office.

Q. In Detroit, or New York?

A. In New York.

Q. What was the substance of that discussion?

A. We decided it would be best, on account of the material used in the manufacture of this refrigerant being such dangerous materials, especially the fluorine which no one knew anything about, that we had better find a manufacturer in whom we could have dependence and that could make it and not have the experience that we had previously [fol. 3367] had with the Standard Oil Company attempting to manufacture tetraethyl lead.

Q. What position did you take on this subject?

A. I agreed with Mr. Sloan. While I had had nothing to do with tetraethyl lead, I had been around and knew of the great troubles we had, not only in manufacture but then what we got involved in in merchandising on account of that accident.

Q. In this conference was there any discussion as to who you might approach to manufacture the Freon?

A. No. As far as I know there was no discussion. I know I felt that I had that responsibility to find somebody that I thought was satisfactory.

Q. I want to refer to the second paragraph of this letter, Government's Exhibit No. 839, in which you state:

> "It is quite a fundamental step for us to start General Motors in chemical manufacture. Up to this time we have more or less elected to confine ourselves to the mechanical side of manufacture and I do not want to depart from this until very thorough consideration has been given to all the factors involved."

When you were referring to "more or less elected" in what instances had you elected to stay out of the chemical business prior to this time?

A. Well, we had never gone into it. The only one I can think of now was the tetraethyl lead. As far as I know, we only had two chemicals in my experience in General Motors that were worth considering manufacturing on our part, tetraethyl lead and Freon.

[fol. 3368] Q. And the last sentence that I read,

> "—very thorough consideration has been given to all of the factors involved."

What are the factors involved to which you refer?

A. Well, the factor that I gave most consideration to was the danger of chemical manufacture in this instance.

The other factors would be raw materials, know-how, experienced men. I would say danger and lack of experienced men would be the two principal factors that would influence me.

Q. Did you give any consideration to the possible disapproval by the du Pont Company of General Motors manufacturing chemicals?

A. No, that was never a factor in our consideration.

Q. What decision did you make as to who you would have manufacture Freon?

A. I decided I would like to see whether I could interest the du Pont Company in joining in a company with us to manufacture—joining in a company with General Motors to manufacture.

Q. Did you discuss that with anyone in General Motors?

A. Yes,—in General Motors? I can't say that I did. Those kind of things I went along and tried to work out, and then came back with what I had worked out.

Q. What was the final outcome of this?

A. The final outcome of it I went to Mr. W. F. Harrington, who was in charge of the Dyestuffs Division of the du Pont Company. He was the man who had successfully worked out the manufacture of tetraethyl lead, so that it was a comparatively safe material to work with and knowing his experience, I talked to him to see whether he would be interested in having the du Pont Company join General [fol. 3369] Motors in organizing a company to manufacture Freon.

Q. What was the basis for your selecting the du Pont Company rather than some other chemical company to join with you in the formation of this new company?

A. Well, it was their experience in handling dangerous chemicals. That was the prime thing.

Another thing was I knew the people. People are very important. If you know the right people to do a thing, I think the natural thing is to go to those people and not look around much to find someone else.

Q. Was a company finally formed?

A. Yes, sir.

Q. What was it called?

A. Kinetic Chemical Company.

Q. I want to call your attention to Government's Exhibit No. 842. This is a letter from you to Mr. Robinson of the du Pont Company dated June 12, 1930, about three months after your first document we dealt with, your letter to Mr. Biechler. I want to call your attention to the second paragraph under the heading, "Name of Company."

> "We do not think the name of the company should be tied up solely with fluorine. We take this position because of the possibilities of other chemicals being developed in General Motors laboratories which we might desire to manufacture in this proposed company and which might have no relation whatever to fluorine."

Then also the following paragraph under the heading, "Purpose", next to the last line on the page:

> "In addition I would like to see the charter provide that the company could manufacture any chemicals that [fol. 3370] might originate in the laboratories of General Motors Corporation."

Now, will you explain the basis for these statements; first, that the name of the company should not be limited, and second, that the purpose should not be limited?

A. Well, my idea was that here we were creating a product in which we would have a large stock interest, but that we would not have the responsibility of. And if it was satisfactory to manufacture Freon or any of the other chemicals, we wanted to have manufactured, and that the Freon Company could manufacture, why, I wanted to put them in the company for General Motors instead of having a lot of different activities.

The letter has reference to the du Pont Company's principal business being chemicals, and I wanted the charter drawn so that there would be a clear distinction that the du Pont Company had knowledge of chemicals, and to put nothing else in the company except those that involved fluorine.

Q. As to General Motors, what was your position?

A. General Motors' position was to put anything that Kinetic could or wanted to manufacture—they would be offered to Kinetic Chemical Company.

Q. Now, I want to show you Government's Exhibit No. 850 which is an agreement for the formation of the Kinetic Chemical Company.

Will you please turn to the second page, in the center of the page, paragraph third:

> "Upon the organization of the New Company, du Pont shall subscribe for fifty one per cent (51%) [fol. 3371] of said total authorized capital stock and General shall subscribe for forty nine per cent (49%) thereof."

At whose suggestion was the stock to be split in this manner?

A. It was my suggestion, so far as I know. It may have come out of a general discussion, but it was what I was for.

Q. What was the basis of your being in favor of this kind of split?

A. Well, the du Pont Company had the chemical knowledge. We were organizing this company to get the benefit of their chemical knowledge. I wanted to put in people who had knowledge to have the responsibility. We had no knowledge of chemical manufacture.

Q. Now, will you refer to the next page of the same document, at the top of the page, paragraph Seventh, and drop down in that to about the middle of it, in the clause beginning:

> "—it being further agreed that future chemical developments, (other than those relating to 'said products') originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, then General shall be free to dispose of the same elsewhere."

Do you recall at whose suggestion that clause was inserted in the agreement?

A. I think it was my suggestion because I wanted this company to be a successful company. If it was going to be a chemical company, I wanted people who knew the chemical business to have the power to decide whether they wanted to undertake the manufacture of anything [fol. 3372] we should develop in General Motors, any chemicals.

Q. Do you know whether or not anything was ever turned over to the Kinetic Chemicals pursuant to that clause?

A. Not while I was active in General Motors, and I have never heard of anything since I have not been active.

Mr. Hurd: I call the Court's attention to the footnote on this same page. It states:

> "Note: Penciled note '6-26-45 Cancelled per. attached JCD' is appended at mark before 'it being further agreed' in middle of Paragraph Seventh with closing mark at end of paragraph."

That was the cancellation of the clause referred to last week.

By Mr. Hurd:

Q. Now, Mr. Pratt, do you recall whether you ever gave consideration to having the Kinetic Chemicals manufacture anything besides Freon?

A. Well, I think there was a certain item that came up that I wrote Mr. Harrington about, lithium chloride, that we had not invented at all, but it looked like we might require large quantities of, and I asked him whether the du Pont Company would be interested in manufacture, because the existing manufacturing facilities were in just one company, and if we went in and developed a machine we were planning, it would require a great deal more than this company had the capacity for, and we wanted another source. I told him I did not think it was a thing I wanted to put in Kinetic, because it was not an invention [fol. 3373] of ours at all. It was just a material that we might need.

Q. Did you have some correspondence regarding this matter?

A. Yes, we had some correspondence.

Q. I would like to call your attention to General Motors Exhibit No. 235 and No. 236 for identification, also Government's Exhibit No. 852.

Is this the correspondence to which you refer?

A. Yes, this refers to the lithium chloride.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 235 and 236.

> (Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 235 and 236.)

Mr. Hurd: General Motors Exhibit No. 235 is a letter from Mr. Biechler of the Frigidaire Division to Mr. Pratt, dated September 28, 1931.

The first page:

> "I am enclosing herewith certain information on lithium minerals about which you and I have talked several times.
>
> "If Dr. Bichowsky's report is correct, it would seem that, relatively speaking, there is rather a limited supply of lithia mined at the present time and, accordingly, if our lithia system proves to be successful, based upon the fact that there are 50 pounds of lithia required for each 'radiator,' facilities would have to be provided for someone to make more lithia available at reasonable prices."

[fol. 3374] Then General Motors Exhibit No. 236 is a letter from Mr. Harrington to Mr. Pratt dated October 6, 1931, a week later.

> "Robbie passed on to me the other day your suggestion as to our possible interest in the manufacture of Lithium Chloride. I have passed this along to Grasselli as I believe that Grasselli would be the one best suited to manufacture a product of this character."

Then the last document in this series, Government's Exhibit No. 852, a letter from Mr. Pratt to Mr. Harrington, October 10th, 1931, and states in the first paragraph:

> "I wish to thank you for your note of October 6th, in regard to Lithium Chloride.
>
> "In order that you may have a little atmosphere on this subject, I would like to tell you confidentially that we are working on an air conditioning system which involves the use of Lithium Chloride. If this system is acceptable it will require about 600 pounds of Lithium

for the average home. If we are able to sell 1,000 of these systems a year it will mean 600,000 pounds of Lithium, 5,000 systems will mean 3,000,000 pounds.

"According to the best information we have, the total Lithium production is now in the hands of the Maywood Chemical Company, who are able to produce about 1,200,000 pounds per year. Our people some time ago attempted to get some Lithium compound from your R. & H. Company. R. & H. Company I believe acts somewhat as a selling agent for Maywood, and of course if we were going to have to deal solely with Maywood there would be nothing gained by going through [fol. 3375] one of your subsidiaries to purchase material. Our people have a direct contact with Maywood.

"The thing we do not like to do is develop an industry which may take several times the amount of a given material that is now being produced and have only one source for that material. In approaching you we are hoping to be able to develop a second source for the material. Some of our people feel that we ourselves should go ahead and develop this source. Personally, I would rather depend upon the du Pont Company for our chemical developments than for us to start an independent development of our own. It was my idea that in organizing Kinetic Chemicals we could put all of our developments in that company, but it does not strike me that we ought to complicate the Kinetic picture by asking them to develop Lithium Chloride."

By Mr. Hurd:

Q. Mr. Pratt, what was the basis for your attitude that you would rather depend upon the du Pont Company for your chemical developments?

A. Well, I knew them and knew the personnel. I think that was the main reason I had.

Q. What was your reason, if any, for not having General Motors go into that business as was apparently suggested by someone?

A. Well, it was a business—it was not a new development by any means. It was a business that required mining, and just a complete new business that wasn't in line with anything we were doing.

Q. Did anything ever come of this?

A. No, nothing came of it.

Q. Did you ever use Lithium Chloride in your machines? [fol. 3376] A. We made one or two—this was an air conditioning machine, and Lithium Chloride was used to absorb the moisture of the air in the room, and then the water was evaporated out of the Lithium Chloride, and the Lithium Chloride returned to the room and absorbed more water.

It was a means of taking water out of the room, and I think we made one or two installations, but it didn't turn out to be a business, so we never asked du Pont or anybody else to make any for us because there was enough for our requirements being made by the existing sources.

Q. Now, I would like to refer back again for the moment to the contract on the formation of ethyl, and call your attention to the sixth page of the exhibit, the paragraph 12 at the center of the page.

A. Mr. Hurd, this is Freon. You said "ethyl."

Q. Yes, I appreciate your correcting me. The contract for the formation of the Kinetic Chemicals, the sixth page, in the middle of the page, paragraph 12.

Do you find that?

A. Yes, sir, I have it.

Q. (Reading):

> "It is agreed that the license to the New Company under the inventions, processes, patents and patent rights of the General Motors Corporation, and/or The Frigidaire Corporation, hereinabove referred to, shall be upon the condition and understanding that the New Company shall pay to the Frigidaire Corporation a royalty equal to five per cent (5%) of the selling price of all 'said products'."

Now, is that a royalty to Frigidaire for the process patents that it is turning over to the new company? [fol. 3377] A. Well, we had a patent on using Freon in refrigeration. I don't know whether we had any patent on the manufacture of Freon.

Q. What was the royalty to cover?

A. That royalty was to cover the invention on Freon.

Q. Do you recall what your intention was as to the sale of Freon to other manufacturers?

A. Well, I don't know at this time that we had made that decision, but later on we made the decision that Freon should be sold—that is F-12 Freon—which is the one we are talking about here now—should be sold to the refrigeration industry in general.

The Court: The Court stands recessed for fifteen minutes.

(Recess taken.)

By Mr. Hurd:

Q. Mr. Pratt, do you recall whether or not this contract for the formation of Kinetic Chemicals was submitted to the Executive and Finance Committees of General Motors?

A. Yes, sir.

Q. Was it?

A. Yes, sir.

Q. Now, I show you documents marked General Motors Exhibits Nos. 237 and 238, and ask you whether or not those are the minutes of the two committees with reference to the contract?

A. Yes, sir.

Exhibit No. 237 is the action of the Executive Committee, the eighth day of August, 1930, approving the contract.

Exhibit No. 238 is dated the 8th day of September, 1930, and is the action of the Finance Committee approving the contract.

[fol. 3378] Q. Were you present at both meetings?

A. Yes.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits Nos. 237 and 238.

(Said documents so offered and received in evidence were marked General Motors Exhibits Nos. 237 and 238.)

Mr. Hurd: With respect to Exhibit No. 238, I would like to call attention to the second page, third paragraph. This is the minutes of the Finance Committee of General Motors approving the agreement for formation of Kinetic Chemicals.

It states:

"'It was felt that because of the experience of the du Pont Company in the chemical field that it is to the interest of General Motors Corporation to arrange with the du Pont Company for the commercial development and production of these chemicals rather than for us to undertake the organization of the necessary personnel, technical staff, etc. for their production; and in order to give the du Pont Company an incentive for the most efficient development of these chemicals it was considered mutually advantageous that the du Pont Company should have the right to subscribe to 51 percent of the stock of the Kinetic Chemicals, Inc. Under this agreement a royalty will be paid to General Motors for the right to use the inventions transferred to Kinetic Chemicals, Inc., as covered more fully in the agreement."

[fol. 3379] By Mr. Hurd:

Q. Mr. Pratt, after this contract was made, do you recall whether any difficulty was encountered in connection with the use of Freon?

A. Yes, sir. We had a very difficult time in 1931. There were some people whose interests weren't the same as ours, who in our judgment did not have the interest for the best of the country in mind, the people who wanted to use refrigeration.

They set up an experimental demonstration for the Fire Department in New York City where they took a charcoal brazier of very hot charcoal and poured some Freon on heated charcoal, which caused it to disassociate and make two dangerous gases of chlorine and fluorine.

This resulted in the Fire Department withdrawing their approval of Freon as a material to use in refrigerators in the City of New York.

Q. What, if anything, was done to obtain permission to sell Freon and use Freon?

A. Well, through the du Pont organization and the Fire Underwriters Association, why, it was demonstrated that this test was a very unfair test.

In a burning house, you would never build up the temperatures that was in this brazier of charcoal, and after working on it—oh, it must have been almost a year, maybe more, I don't have the length of time in my mind—why, it was approved by the Underwriters and the Fire Department, and was reinstated as a safe refrigerant.

Q. What was the type of Freon known as which was in existence when Kinetic Chemicals was formed?

A. It was F-12.

Q. What was meant by F-12?

[fol. 3380] A. Well, I might explain it as it was explained to me. In these two chemicals, by using methane and ethane with the chlorine and fluorine, we had a series of refrigerants that had different boiling points and different pressures to enable you to have most any kind of refrigerant you wanted for any purpose you wanted, but the boys who made the invention thought that the F-12 was the best for the refrigeration units.

Q. Were these all different combinations of chlorine and fluorine?

A. Yes, sir, all of them. Some of them had methane and some ethane.

Q. What was the pressure characteristic of F-12?

A. Well, I do not remember the figures at all, but it was what they thought was the best, that the ratio between the pressure and temperature was the best for a refrigerant.

Q. What position, if any, did you take with respect to making F-12 available to your competitors?

A. Well, previous to the bad experience in New York City of condemning it as a refrigerant, we had decided that we should make it available to our competitors. We recognized we could not make all the refrigerators, and since Freon had such a great value from a health standpoint it should be available for refrigeration in schools and hospitals.

In fact, I think it had been approved by some of the schools and hospitals before this unfortunate situation in New York.

Q. Was F-12 made available to the competitors of Frigidaire?

A. Yes, sir.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibits No. 239 and No. 240, which I do not intend to read at this time.

[fol. 3381] (Said documents so offered and received in evidence were marked General Motors Exhibits No. 239 and 240.

By Mr. Hurd:

Q. Mr. Pratt, the Government has introduced a series of documents marked Government's Trial Exhibits Nos. 853 to 857, inclusive, dealing with the subject of F-114. What was F-114?

A. The machine that we had under development at the time Freon was discovered, we started to use at first the F-12 in it, and we found that the machine we had was not satisfactory with F-12. It had a pressure higher than we were developing, so we got the same chemists who had invented the F-12 and asked them to develop a special refrigerant out of this series they told us was available to fit this particular machine that we had so that we could go on and sell that machine while we developed a machine to be satisfactory for the F-12.

The F-12 had too high a pressure for the machine, and knowledge we had in developing the machine at that time.

Q. These exhibits relate to the dispute as to whether or not F-114 should be made available to competitors of Frigidaire. Do you recall that dispute?

A. Yes, sir.

Q. What position, if any, did you take with reference to it?

A. Well, our position was that here was a machine that we had developed. F-12 did not fit it, and we had a machine, and had at our own expense got a chemist to develop a refrigerant that fitted our particular machine, and we thought that the material should not be sold, the F-114, to competitors until our machine was perfected, and until [fol. 3382] we had some time to really benefit from our research work that we had done.

There were times—in one instance, I remember very definitely that a competitor wanted the F-114. Well, we objected to Kinetic Chemical Company selling the F-114 because it would enable the competitor to just duplicate our machine.

We had no patents on what we were developing. It was just a question of mechanical development, and our position was we should not, or Kinetic should not, give the competitors the advantage by supplying them with F-114. We felt that if the competitive machine was not able to handle the F-12, it was up to the competitor and Kinetic to work out something that was different for his machine rather than just taking the gas that would enable him to duplicate our machine.

Q. Were F-12 and F-114 the only two possible kinds of combinations of these two gasses?

A. No, there was F-11 and F-21; there were a great many. It was my understanding there was an indefinite number that could be made, and the F-114 was developed specifically for our machine.

Q. Do you recall what position the du Pont Company took with reference to the dispute?

A. Well, I don't know that the du Pont Company took any definite position, but the du Pont directors, on Kinetic, I think, recognized our position.

It was a problem that came up pretty near at every director's meeting. I was director on Kinetic for a number of years. As long as I was there, that position was taken.

Q. What ever became of F-114?

A. When we got our machine later perfected, why, we obtained the F-114, and afterwards we went to the F-12. Before that, or about that time, I think [fol. 3383] F-114 was made available by Kinetic to the general chemical, or the general refrigeration industry, and the companies that we were having a quarrel with about it, it was offered to them and they did not want it.

Q. That is, F-114?

A. F-114. F-12 was a better refrigerant and cost less money.

Q. That was the refrigerant that you recommended be made available at all times?

A. At all times, yes.

Q. Now, Mr. Pratt, I wish to call your attention to certain portions of the Complaint in this case; first, paragraph 64 of the Complaint, in that paragraph the charge is made that in connection with the du Pont Company's expansion:

> "The du Pont Company entered into an agreement with General Motors to the effect that the latter would refrain from the manufacturing of chemicals."

Do you know of any such agreement? Have you ever heard of any such agreement?

A. I never heard of such an agreement.

Q. It further states:

> "It was agreed between the two companies that when General Motors made discoveries in the chemical field, it would inform du Pont Company of the findings and grant to du Pont Company exclusive development, production, and exploitation rights with respect to such discoveries."

Do you know of any such understanding?

A. I never knew of any such understanding.

Q. It further states:

> [fol. 3384] "It is also understood that if any of said General Motors' discoveries were usable in General Motors operations, du Pont Company would, after their development, make them available to General Motors Company for use upon an exclusive or preferential basis."

Do you know of any such understanding?

A. No such understanding, as far as my knowledge.

Q. Now, I wish to refer to paragraph 77 of the complaint which deals specifically with refrigerants.

Paragraph 77 reads as follows:

> "General Motors, pursuant to the understanding it had with du Pont Company, promptly advised du Pont Company of the discovery of the new refrigerant."

Now, you testified that you did advise the du Pont Company of the discovery of the new refrigerant. Was that pursuant to some understanding that you thought existed?

A. There was no understanding that I knew of, and this action was not in regard to any understanding.

Q. This further states:

> "Du Pont Company thereupon advised General Motors that as the discovery was in the chemical field, it

should be handled by du Pont Company rather than by General Motors."

Did the du Pont Company make any such advice?

A. We had no advice from the du Pont Company.

Q. It further states that:

"The latter company acceded to du Pont Company's demands."

[fols. 3385-3392] Were you acceding in any way to the demands of the du Pont Company?

A. The du Pont Company made no demands, and we acceded to no demands.

Q. In recommending that Kinetic Chemicals be formed, to be owned jointly by the du Pont Company and General Motors, in the manufacture of Freon, were you motivated in any respect by any feeling that there was a right of the du Pont Company to have any development General Motors might make?

A. I recogni-ed no right that the du Pont Company might have.

Q. Were you motivated in any way by thinking that you should do that as a result of the stock ownership that the du Pont Company had in General Motors?

A. Nothing influenced me but the fact that I thought it was good business for General Motors to do, a good business act, and there was no outside influence at all.

Mr. Hurd: If the Court please, that completes the direct examination.

Mr. Harris: May I proceed with the cross, your Honor?

The Court: You may proceed.

Cross examination.

By Mr. Harris:

[fols. 3393-3396] Q. You felt, did you not, when Mr. Durant left, at least a friendly feeling toward him?

A. I did.

Q. Now there were some people, were there not, in the organization at that time who, if we may put it this way, remained loyal to Mr. Durant and were not particularly happy about the change of administration?

A. Well, yes. I think I could mention two, if I had to, that occur to me, that left on account of loyalty to Mr. Durant.

I am sure there were quite a few people who were very sorry Mr. Durant left.

Q. There were people, were there not, who owed their positions as heads of divisions to Mr. Durant?

A. Yes.

Q. When Mr. Pierre du Pont came in, I take it they would not know whether they would be continued in their positions or not; that was true, wasn't it, when there was a change of administration?

A. I think that it would be the natural one, but it was not called to my attention, any conversation. Some of them did leave because Mr. du Pont came in.

[fols. 3397-3406] Q. Wasn't it your opinion too, that other things being equal, price, quality, service, du Pont should get the major share of General Motors' purchases?

A. That was my personal opinion as I expressed it several times, I guess, to individual managers, where I did not think General Motors—where that particular general manager was not giving du Pont a fair shake in the business.

Q. What would you call a fair shake?

A. Well, I felt that they should be sure that the supplier that they were dealing with was giving as low a price as they could get from du Pont. That is one thing.

Q. I thought you said they weren't giving du Pont a fair shake. I am talking about du Pont, not General Motors.

A. I would say——

Q. What would you say was a fair shake for du Pont?

A. I would think it was a ~~fair shake for du Pont~~ if they were giving good service, as good quality and equal price, that they should have some of the business.

Q. They should have the greater part, shouldn't they, Mr. Pratt?

A. In some instances, if it was a thing they were especially equipped to supply.

Q. Well, if it was paints and varnishes, pyroxylin finishes?

A. Well, pyroxylin finishes, I would say yes; paints and varnishes, I don't think I took any position on that.

[fol. 3407] By Mr. Harris:

Q. Calling your attention, Mr. Pratt, to Government's Exhibit No. 470, this is a letter from Lammot du Pont, who, on October 28, 1926, signed as president of the du Pont Company, and at the same time was director and Finance Committee member of General Motors.

He addresses his letter to Mr. Alfred P. Sloan, President of General Motors.

He tells Mr. Sloan that:

> "Our Paint Department tell me they have developed a pyroxylin surfacer for automobile bodies which has been adopted by some important automobile manufacturers, and which, in the opinion of our men, produces better finish than the ordinary surfacers.
>
> "General Motors and Fisher have not adopted this new surfacer, apparently because it is somewhat more expensive than what they were using. Our men are perfectly sure that they can prove that wherever Fisher builds a new plant for body finishing it is more economical to use the new surfacer than that now used, simply because the new surfacer does not require as expensive an installation in ovens, etc.
>
> "Recalling the difficulty that was had in 'selling' 'Duco' to the General Motors units, I am impelled to drop you a line in this case, feeling that the same inertia is acting against this pyroxylin surfacer as delayed the adoption of 'Duco'."

[fol. 3408] Now, that is the president of du Pont writing to the president of General Motors about a du Pont product. That letter was referred to you, was it not, Mr. Pratt?

A. Yes, the record shows that.

Q. You have before you Government's Exhibit No. 471, which is a letter from yourself to Mr. Lammot du Pont, and you give him reasons, "because they believe our Research Department have developed less expensive thinners and pyroxylin mixtures."

Then you say:

> "There is an unfortunate feeling in our organization that the du Pont Company never takes the initiative in bringing costs down. All lowering of cost has to be initiated by us through bringing in competition."

What does that mean, Mr. Pratt?

A. Well, I think that refers to the fact that we had been able to buy thinners at a lower cost than the du Pont Company had been selling them to us.

Q. And did you permit the du Pont Company to meet that price?

A. No, I don't think we did.

Q. Do you know?

A. I think—no, I don't know off-hand right now, but I think the Purchasing Committee records will show that we gave Industrial Alcohol an order.

Q. You gave them a six month contract, Mr. Price. I don't know if you know of the letter in which one of the du Pont people said that they in effect had served their purpose in bringing down the price, and the next six months they didn't get the contract, their price was too high.

Mr. Cox: What letter are you referring to?

[fol. 3409] Mr. Harris: I will get it, sir.

Mr. Cox: I think the witness should be shown the letter. That is the usual way.

Mr. Harris: All right. Let's withdraw it, if he doesn't recollect.

The Witness: No, I don't recollect the letter.

By Mr. Harris:

Q. Now, is it a fact, Mr. Pratt, that you did use competitors to bring down the price of du Pont products and permitted du Pont to meet the lowered price?

A. No, I don't think that was our policy.

Q. I don't ask whether it was your policy. Was it done?

A. I can't answer that. I don't know what every division did in General Motors.

Q. I am speaking now from your position as Chairman of the Purchasing Committee, which was concerned with the making of general contracts. That is right, isn't it?

A. Yes. It was not a policy of the Purchasing Committee.

Q. Would you say it was not done?

A. No, I can't say it was not done.

Q. Now, I call your attention to the last paragraph of this letter:

> "Notwithstanding the above, I am calling the new development to the attention of Mr. Ed Fisher, who

has charge of the installation of equipment in the Flint Body plant, as indicated by the enclosed letter."

So that to that extent you complied with the request, did you not, of the president of the du Pont Company?

A. Well, I would have done that for any company.

[fol. 3410] Q. You did it for them, however?

A. Yes, but I would have done it for any other company, if there were something we were missing a guess on and I wanted our divisions to know about it.

Q. Then you wrote, if you will look at Government's Exhibit 472, to Mr. Ed Fisher and talked about this product to him, and sent a carbon copy to Mr. Lammot du Pont, president of the du Pont Company.

Now, I call your attention to Government Exhibit No. 475, and that is a letter from Mr. Sloan to Mr. Lammot du Pont, president of the du Pont Company. Mr. Sloan is telling Mr. du Pont about the same matter that is the subject of this correspondence.

He is talking about "Duco":

> "It is a case of selling most everything and it gets most discouraging at times. I sometimes come to the conclusion that a big organization like General Motors can not lead due to the fact that there is so much inertia within itself. However, that is not going to cause us to put forth any less effort to overcome the resistance."

Now, would you say from this that Mr. Sloan is telling Mr. Lammot that he will help him sell "Duco" for thinners?

Mr. Hurd: I object.

The Court: Sustained. You are asking him to interpret the letter.

Mr. Harris: Yes, your Honor.

By Mr. Harris:

Q. Now, let us take the last paragraph:

> "I have gone over Mr. Pratt's reply and hope the proper department in your organization will go into [fol. 3411] the matter and if, with all the facts before you, you still feel that there are any bets we are overlooking, I would appreciate it if you would write me

a letter stating exactly the picture as you see it and I will endeavor, in a proper way, to work it along in the hopes that we can, as soon as possible, capitalize any suggestions that you may have to make."

Now, Mr. Pratt, did you report to Mr. Sloan that you had written the letter to Mr. Fisher?

A. It doesn't show that I sent him a copy, but I should have sent him a copy. I don't know whether I told him or not.

Q. Well, you would know,--and I am asking you now for your knowledge—from your knowledge of Mr. Sloan, and from your knowledge of the practices in General Motors Company, what Mr. Sloan would mean by endeavoring in a proper way to work along with the suggestions of Mr. Lammot du Pont?

Mr. Hurd: Objection, your Honor. He is asking for his opinion.

Mr. Harris: I think he has a right, if your Honor please, to say, with his close contact with Mr. Sloan, and this being a part of the same correspondence, what he would expect Mr. Sloan to do in the taking care of the business of General Motors.

The Court: Objection sustained.

Mr. Harris: All right, sir.

By Mr. Harris:

Q. Mr. Pratt, calling your attention to the next letter, [fols. 3412-3481] which is Government's Exhibit No. 476, Mr. Fisher replied to you on November 12, 1926, and told you what the trouble was, did he not?

A. Yes, sir.

Q. And then you forwarded that information, did you not, to Mr. Lammot du Pont on the 15th of November, 1926, Government's Exhibit No. 477?

A. Correct.

Q. And you stated that there was some trouble on the surface, did you not?

A. Yes, sir.

Q. And you wanted to know if other companies had that trouble?

A. That is correct.

Q. And Mr. Lammot du Pont wrote to Mr. Allen, Government's Exhibit No. 478, on the same subject, did he not, for information as to the trouble with pyroxylin under coatings, is that right?

A. The exhibit would indicate that.

Q. Then on December 17, 1926, Mr. Lammot du Pont wrote to you, Government's Exhibit No. 479, that there were no difficulties that he could find in other companies, and he went on to say:

> "I am convinced that G. M. is making a mistake in not adopting pyroxylin undercoatings, and hope that you or someone else will see that the matter is given careful consideration."

Did you do anything about the request of the president of the du Pont Company to give that matter careful consideration?

A. The only consideration I gave it was to send the matter to Mr. Fisher, and Mr. Fisher's reply to me. As far as I was concerned, I do not think I had anything more to do with it.

[fol. 3482] Charles F. Kettering, called as a witness on behalf of the defendant General Motors Corporation, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Carpenter:

Q. Where do you reside, Mr. Kettering?

A. Dayton, Ohio.

[fol. 3483] Q. Will you tell the Court when and where you were born?

A. I was born on August 29th, 1876, at Loudenville, Ohio.

Q. You have been a Director of Research of General Motors for some years, up until your retirement, have you not?

A. Yes, sir.

Q. When did you retire?

A. About seven years ago.

Q. Will you tell the Court where you attended school and college?

A. Ohio State University.

Q. And before that?

A. I went to the public school at Loudenville.

Q. And do you recall the date that you were graduated from Ohio State University?

A. I think it is 1904.

Q. What degree did you obtain?

A. A degree of mechanical engineering.

Q. And in the course of your studies there, did you take courses in chemistry?

A. Yes, I did.

Q. In physics?

A. Yes.

Q. After graduation, where did you first seek employment?

A. I went to the National Cash Register Company.

Q. In what capacity?

A. As an engineer in charge of their electric development.

Q. And was there anything that you accomplished there that was different from what had been accomplished before?

A. Well, we put out the first electrically operated cash registers, and that was a problem because of the fact that they had to go all over the world, and we had a lot of different kinds of current; so to get as near a universal motor as could be without effecting the speed of the cash register was quite a little problem.

[fol. 3484] Then I later developed a lot of their present line of registers.

Q. I should ask you if you are a member of any learned societies.

A. Well, quite a lot of them.

Q. Well, would you name some of them?

A. Well, the American Society of Automotive Engineers, chemical societies, physical societies, civil engineers—well, a dozen or more of them, I guess.

Q. I see. Have you received any honorary degrees in the course of your career?

A. Yes, I have a few.

Q. Do you recall how many?

A. No, I imagine twenty-five or thirty.

Q. Now, after you worked at the National Cash Register Company and developed their electrically operated cash registers, what did you do then?

A. Well, I left there and started a little organization of my own for the purpose of putting self-starters on automobiles.

Q. Where did you do that work?

A. I did that in a barn.

Q. Down in Dayton?

A. In Dayton, yes.

Q. And did you perfect the self-starter?

A. Yes, we developed it.

Q. And do you remember when that was first put on an automobile?

A. We put that on in the fall of 1911. That was for the 1912 model. I have forgotten just what—it was, I imagine, around in October of 1911. It was called a 1912 model.

Q. Model of what car?

A. Cadillac.

The Court: Keep your voice up a little higher, Mr. Kettering.

[fol. 3485] The Witness: Yes, sir, thank you.

By Mr. Carpenter:

Q. Prior to the self-starter being put on cars, they were all started with a crank, were they not?

A. Yes, that was the only way you had to start them.

Q. How did you come to get your self-starter on the Cadillac car first?

A. Well, Mr. Leland who was then president of the Cadillac Company had a friend by the name of Carter who had—who was the developer of a friction drive automobile, and he was driving across the Belle Isle Bridge and a lady, driving a Cadillac, stalled her car and Mr. Carter got out to crank the car, and the starting handle hit him in the jaw and broke his jaw. He was a great friend of Mr. Leland's, and so much so that Mr. Leland felt he had to get starters on the car. And he was on the market so far as to take a look at the self-starter.

Q. And after he took a look at it, did he put it on?

A. Yes, we put it on in the fall of 1911.

Q. Did you have any difficulty getting the self-starter adopted by other makers of automobiles?

A. Not too much, because Cadillac made 12,000 cars the first year and they were pretty good for a new device and then our business improved terrifically on the strength of that because—so we didn't have too much difficulty, no.

Q. You also developed, did you not, the battery ignition for automobiles?

A. Well, that had to go along with the self-starter, because we had to take the place on the automobile where the magneto was usually put for the self-starter; so the battery ignition was almost imperative, if we were going to have a self-starter at that time, because the engineers didn't want to change the car or change the engine, so we had to get on the best we could.

[fol. 3486] Q. Now, the magneto was manufactured by whom in this country?

A. Well, there were several American manufacturers, but the leading magneto at that time was the Bosch magneto made in Germany. They may have had an assembling plant in this country.

Q. Did you have any difficulty getting your battery ignition and self-starter out into the public because of the magneto?

A. Well, there was a lot of discussion at that time about magneto ignition being better than battery ignition, because the only battery ignition they had before this time was dry batteries, which had not been very good. We had more trouble with the engineers on the ignition than we had with the self-starter, because at that time nobody understood the ignition at all. There were all sorts of ideas. The electrodes and different spark plugs were made out of different materials, and one wanted a red spark plug and one wanted a blue spark, and one wanted a green spark, so that was simply a function of the spark plugs.

The next thing is that they had the idea that you couldn't get as much power out of the battery ignition as you could out of the magneto which we had proven many, many times wasn't so, and so we had all of the prejudices and everything against the old battery ignition, and that carried over into ours.

~~Q. When did you first observe the knock in an operating~~ engine?

A. We first observed the knock in the first engines in the Cadillac—well, we didn't observe it. It was brought to our attention here in Chicago.

A paint company had bought several Cadillacs with self starters on them, and they were using painter's naphtha for fuel. It is a material they use for thinning paints. [fol. 3487] Of course nobody knew then, but they attributed it to the fuel as having something to do with the knock in the engine. We came up here and saw what they were using, and got them to use a better grade of gasoline, and that took that out.

Q. Did you have any opposition from the magneto manufacturers?

A. Well, they tried to say that the reason that the knock came in about that time was due to the fact it was battery ignition. We had to make a lot of demonstrations to show that that was not so.

[illegible] Do you recall any in particular?

A. Well, we had one case in Pittsburgh. I believe it was the McAllister Brothers, who were the dealers in Pittsburgh. They were going to cancel their contracts for Cadillac cars if we didn't put magnetos on them.

Of course, everybody was very much worried about that; so we went down there. They drove these tests. They had a magneto on, had improvised a magneto on this car, and in the forenoon they drove up these hills all right on the magneto and failed every time on the battery.

So, while they went out to lunch, I reversed the wires on the switch, and in the afternoon the fellow drove up just as well, but always the lever had to be on the magneto side. When it was, he went up, and when it was on the other side, he didn't go up.

So they wanted to know what we were going to do, and we said we couldn't do anything because it was purely in the driver, and not in the car. Then we found out later that some of these fellows were paid to try to discredit the battery ignition, but this completely washed it out.

Q. You mean, you switched the wires?

A. I switched the wires while they were at lunch so when [fol. 3488] it indicated that he was on magneto, he was on battery, and when he was on battery, he was on magneto; and he drove up just as well when the lever was on the magneto side in the afternoon as he did in the forenoon.

Q. Did you ever do any work on the lighting of farm houses and so forth?

A. Yes, we developed what is known as the Delco light.

Q. Where was that developed?

A. That was developed in Dayton. We set up a little separate company for that, and that was brought about we had no intention of going into that thing, but after the first Cadillac cars were out on the market, we began to get calls for duplicate sets. They wanted to buy a complete self-starter set, and we found a good many of these people had fishing camps, and they would light their tent from the automobile. But if they drove to town with it, they didn't have any lights, so they wanted a little engine to run a little generator to make lights when they were there.

So we said if they really wanted a light that was about the poorest way to do it, because that device had been designed entirely as an automotive thing.

So we designed a little engine generator and built many thousands of them.

Q. They were sold all over the United States, were they not, before they had electrification throughout the farm areas?

A. I think it was one of the predecessors of the present rural electrification.

Q. Now, when you made these small engines for the Delco light business, with what fuel were they operated?

A. We started on gasoline and then the insurance people ruled against it, especially if the engine was in a house. [fol. 3489] They ruled against the gasoline, and so we modified them slightly to run on kerosene because that was permissible in a house.

Q. Did you make any observations as to the operation of those engines when you used either gasoline or kerosene?

A. Well, they wouldn't start, of course, on kerosene so we devised a little priming, just an old fashioned oil can, primed them a litle bit with gasoline to get them started.

One of the most interesting things we observed was that, where the engines were not in the house, but, say, outside, subjected to the cold, at that time there was a theory that you could not run a kerosene engine without super heat on the intake manifold.

We found the first winter we had these out that they ran better when it was cold than they did when it was warm, and that seemed to us to be rather a paradox because everybody thought of it the other way. But you remember this was a single cylinder engine, so the question of distributing the materials was not involved, and of course the engines would knock some in the summertime, but in the wintertime they did not. That was really the thing that started us on trying to analyze the cause of so-called knock or detonation in engines.

Q. Did you buy or get any instruments with which to attempt to measure the knock?

A. Well, I had some instruments that I had bought about, I imagine, 1912 or 1913. A friend of mine had come over from England, and brought over an engine indicator. It was called Dobie & McGinnis manograph.

It was a type of modified indicator that they had developed for gas engines, and I used that, started to do some work on it, and our business grew so rapidly that I had to put the whole thing aside. So I put the manograph, the [fol. 3490] papers and the test data that I had taken myself, put them in a box and screwed a lid on it, and set it in the closet.

Q. Did you make any public addresses on this subject of the fuel knock you had observed with your Delco engines?

A. Well we may have, yes. In other words, we weren't trying to keep it a secret, at least.

Q. I call your attention, Mr. Kettering, to defendants' Exhibit No. DP 93, a letter from you to Mr. Frederic W. Kurtz of the du Pont Company, dated April 20, 1916, in which you refer to a talk which you had given at Cleveland, and you said, the second paragraph:

> "We are doing a little investigation work here on quite a number of types of fuels, but have nothing which would be of any definite value to anybody. I will be very glad to keep you in touch with this thing, and any time we get anything of interest we will be

glad to give you the benefit of it. We are doing this more from the standpoint of acquainting ourselves with the problem, than with the idea of commercializing either the apparatus or the fuel."

What did you mean by saying if we get anything of interest we will be glad to give you, the du Pont Company, the benefit?

A. You see, we weren't in the fuel business. We were in the engine business, and we were trying to get anybody that would help us on the fuel end of it to get whatever help we could. That talk—I think that was made before one of the engineering societies in Cleveland, and you see, what we were trying to do then, it is pretty hard to realize today with all of our information and interest in fuels, that at that time nobody regarded gasoline as being anything but gasoline, and it was all on specific gravity.
[fol. 3491] As I say, gasoline was gasoline. Kerosene was kerosene. That it had any other factors or any other properties was not known. This was the first time that we began to evolve that these fuels did have other properties of much greater importance than the specific gravity or heat units.

Q. At the time of the writing of that letter, were you in the employ of General Motors?

A. No, I was employed in General Motors in that I was running the Delco plant, but this work was not done in Delco. It was done in the Delco Light Company which was not associated with General Motors.

Q. Now, did you determine somewhere along about this period to set up a research organization to make a study of this fuel problem?

A. Yes, I set it up in this way: in building the Delco Light, one of the things that was desirable was an easy way for a man to tell whether he was right, and we had worked out a little scheme of balls of different densities. We set it up with the idea of the three in there, that is, one would drop when the battery was one-quarter discharged; another would drop when it was half discharged, and the third would drop when it was three-quarters discharged.

And we finally compromised by having two, one dropping after a third discharge, and the second dropping when it was two-thirds discharged.

We needed to do some work, and we got Thomas Midgley, who did work with one of my associates, and we got him because we had been working on hydrometers in Columbus, Ohio. We got him to take this problem up, and I had it in pretty good shape, and it took him only a few months to finish it up.

[fol. 3492] Q. By the way, was Midgley a chemist?

A. No, he was a mechanical engineer from Cornell.

Q. He graduated from Cornell?

A. Yes.

Q. What followed his employment in working on the hydrometer?

A. After we finished that up, I think it took a couple of months, then he came to me and said, "I have got that job done. What do you want me to do now?"

In the meantime, while we were working on this, I had talked to him about this fuel thing, because it looked to me as though it was a very important thing, and I said, "If you go over in my office in the Delco, there is a box there. You get the box out, and open it up, and you will find in there some instruments and some tests that I ran and some printed material. I wish you would take a look at that to see what you think of it."

I said, "I think we ought to find out what makes an engine knock."

So that was the beginning of the so-called fuel research, and we took one of our little engines; he got a new head made for it so that he could put this indicator on it. I had used a beam of light by which you could observe, but we wanted to get a picture of that thing, so we built like a little telephone booth in the corner of the room and a kind of material known as beaver board, and I rigged up a tomato can and we put little pieces of plaster lath with shingle nails, and we wrapped a piece of sensitive paper around it and got our first picture of what detonation or what knock was. Of course, it was a great surprise to everybody because nobody had thought of it.

Q. What did that picture you got from operating the engine show?

A. It showed that it was not the pre-ignition, as everybody thought it was, but it came off quite a bit after the [fol. 3493] spark had gone across the spark plug, and the fuel had started to be burned. Then after it burned a little bit, it took on a second rate of burning which was about 100 times faster.

Q. Could you illustrate on a sheet of paper what that looked like? I have one of the cards here, but it is not very plain. And it does not show.

A. I am trying to think how I can show this without getting into any technology. As your piston goes up, it compresses the mixture. The compression goes up like this (indicating), and somewhere in there the spark goes across, then this pressure rises. This would be a normal card, then it goes right back down like that.

Now, this is the engine knock. It goes up the same way, then in about here (indicating) the pressure rises very rapidly, and then it comes back down, and goes a little lower than that the second time. Sometimes it would be shortly after the spark and sometimes very late. We have had some cases where it went through the top center before this second rise of the pressure came in.

It was an entirely unexpected thing so far as we were concerned, but we later on found that it was fairly well known in a number of places in the world. In the mining industry, they had the mine explosions, and they had observed the same thing, that a mine explosion starts up very slowly, then it develops very rapidly.

Q. Prior to the time you took the picture of an operating engine, what had been the theory about what caused the knock?

A. Well, they always figured that it was due to the carbon getting hot, and igniting the engine before it got—

Q. You mean igniting the fuel.

A. Igniting the fuel, yes.

[fol. 3494] Q. Is that called pre-ignition?

A. That is called pre-ignition, but the idea was that the ignition was normal; the combustion started out normal.

Q. That showed that the knock occurred after the spark entered the engine?

A. Not before.

Q. And that caused the hammering that everyone is familiar with?

A. Of course, we proved very much later it was the impact of the gas in the cylinder that was causing the knock. It sounded like a hammer on the inside of the engine.

Q. Now, following the taking of the picture, or a series of pictures, what did you and Midgley do?

A. Well, when we saw that, we wondered if it would be possible to add something to the fuel that might modify it. We had a theory, and every time an engine knocked, we had a little puff of black smoke out of the exhaust.

When the fuel started to burn, there were little particles in there, and they could not evaporate fast enough; consequently you burned the hydrogen part of the fuel, but not the carbon, so I thought it would be a good thing if we colored the fuel red, because red absorbs light very much more rapidly than the clear material; so we colored some of the kerosene red with elemental iodine.

Q. Why did you use elemental iodine?

A. It was the only thing we had. This was on Saturday, and I spent most of my Saturdays on this job; so we got in some elemental iodine, and it went into solution very well, and it helped the knocking tremendously; so then on Monday morning when I came downtown, I stopped at a big wholesale drug company there and got a lot of aniline dyes and we added that to the fuel, and that did not help [fol. 3495] any. Then we found that it was the iodine itself and not the coloring that was important. Then we made some iodine compounds which we called ethyl and methyl iodide. They were perfectly clear materials, but they seemed to help.

That was really the first time we had anything that modified the combustion.

Q. About what time was that, Mr. Kettering? Was that before or after or during World War I?

A. I think it was just before World War I.

Q. During World War I, did you continue your studies of the knock?

A. We were doing something in connection with the Air Force in trying to get them some fuel, and we also were on this job of developing the first one of these aerial torpedoes. They call them guided missiles now. So I had to put most of my group on that, but we did continue to work in connection with the Naval Consulting Board of which

Thomas A. Edison was the head and Dr. Bakeland was vice president.

Q. By the way, did you succeed in perfecting an aerial torpedo?

A. Yes, we did. General Arnold, who was the head of the Air Force in the last World War, was commissioned to take it to Europe. He got sick on the way over: I think it was pneumonia. By the time he got there, the Armistice was signed.

Then he went to see General Pershing, and he told him to go back and keep up that project, keep it alive, because it was a good thing to do.

Q. Did you have anything to do during the first World War with the liberty engine?

A. Yes. We developed the ignition and the electric system for it.

Q. Now, following World War I, Mr. Kettering, did you continue your research on the knock in your laboratories?

A. Yes, we started in again. Of course, as I say, we had [fol. 3496] been working somewhat on it during the war, because we were very much in need of a better fuel for aviation engines, and we had heard, by the grapevine that the Germans were using a material which a chemist recognizes under the name of cyclohexane, and another name that the chemist uses for it would be hydrogenated benzene, and they had attempted to make that at Columbia University, I believe, and had not succeeded very well, so we talked to Dr. Bakeland one day. He said nobody in this country could make that material. We said we would not worry about that; that we thought we could make it. He said, "I don't think you fellows know enough about the thing to even try it."

So we set up a little operation and it worked just the way he said it would. It would start out very nicely and within an hour, it would completely stop. So we said there must be something in the benzene itself that is causing the trouble; so we set up a little experiment which we were going to run all night. We had a fellow watching that experiment by the name of Shorty Wells. He was volunteering his services for work during the war. Shorty took a few readings. Then he went to sleep, because the thing ran all night. It didn't make any racket at all, and that little hydrogenation apparatus was in a place, I should say, about the size of four telephone booths; I should say, about six by six, perhaps six feet by six feet. The next morning when we opened the door, we could smell this hydrogen sulphide, that is, the smell of rotten eggs; so we said to Shorty "you have done a wonderful thing", because when we opened the door, we recognized there was some sulphur compound material in this benzene.

[fol. 3497] So then we made up a new hydrogenation apparatus and put that barrel of fuel running during that night through a new furnace or through a new hydrogenation tube, and that went very very well. That went with something like 96 per cent efficiency. That was quite simple.

All we had to do was put two or three of these things in a series and pass the benzene through one and then through the other. We took out the sulphur first, and the fresh catalyst that we had was always protected by going through several of the others. Doctor Bakeland said he would give us a medal if we could produce a liter of cyclohexane; so, when we opened the Engineers Club at Dayton, we gave him a quart of the material, and we said, "This is a quart out of 300 barrels." It was a very much better fuel than anything they had had.

Q. Did you make a synthetic fuel or put one on the market about that time?

A. Yes, that was just for the Air Force. Now, the trouble with the hydrogenated benzene was that it would solidify at about 30 degree Fahrenheit, but if you took 60 per cent of that material and 30 per cent of the original benzene, you got a material that would not solidify, I guess, until quite a little bit below zero; and we gave that a name called "Hector."

And that was used experimentally by the Air Force. But you should remember at that time nobody understood what the fundamental requirements of a fuel were, and the idea that crude oils from different parts of the country could produce a more suitable fuel for aviation was not known. We recommended two or three different types of fuel made from different crude oils. The Government thought we must have been interested in those particular things, but later they found out we didn't have an interest in it; but now everybody knows that.

[fol. 3498] That is so common now that you wouldn't even mention it.

Q. Did your laboratory make any other discovery or discoveries, or discover another anti-knock compound following iodine?

A. Well, as I say, we had been working with benzene, and then there was a lot of derivatives of benzene, like xylidine and pyridine, and so forth.

We tried those out, and some of them were pretty good.

Q. What was the next compound?

A. The last we tried was aniline which was a modification of that same material, and that was pretty good.

Q. Did you have any instruments by which to measure the effect of the fuel?

A. Well, we had a Dobie & McGinnis manograph, and we had modified that, but we had a pretty good way of calibrating the same.

Q. And did Midgley produce any instrument?

A. Well, he modified the Dobie & McGinnis manograph into a thing we later called the Midgley indicator, but the difference between the original indicator and Midgley's was that his was built with a light-tight box so you could put in a roll of photographic film and take a number of exposures.

Q. Did you, in the year 1919, deliver a paper entitled, "The More Efficient Utilization of Fuel"?

A. Yes, I did that before the Society of Automotive Engineers.

Q. And in that paper you told about the discoveries when the knock occurred in the fuel?

A. I had discussed it a little bit the year before at the corresponding same meeting, and I believe that meeting was at the Astor Hotel in New York, and so then I was asked by the Society to present it as a formal paper, and that was in 1919.

Q. Following that paper, did you have a call from anyone?

A. Yes, we had Mr. Frank Howard, who was then with [fol. 3499] Doctor Burton here at the Standard Oil of Indiana, and he came down and they had read the paper, and they were quite upset about it, because Mr. Howard said, "I want to be perfectly frank with you."

He said, "Doctor Burton wanted me to come down and see you and find out whether you ought be in an insane asylum or in jail."

Q. By the way, who was Doctor Burton?

A. Doctor Burton was then head of the Standard Oil of Indiana, and the man who developed the first cracking system, I believe, or was among the first.

Q. That was called the Burton-Clark cracking process, was it not?

A. Yes, and Mr. Clark later went to the Standard Oil of New Jersey.

Q. When Frank Howard came down and told you that, what did you do?

A. Well, I had to go to Springfield that day because the Robbins & Meyers in Springfield were making a lot of electrical equipment for us, because, you remember, I was trying to make self-starters, and I say that business was growing very fast. So I turned Mr. Howard over to Mr. Midgley and told him to show Mr. Howard what we were doing. We had a couple of these little Delco light engines running. When I got back about 3:00 o'clock in the afternoon, I said to Mr. Howard, "Have you decided which place I am to go?"

And he said, "You are working on things that the oil industry knows nothing about. This is entirely a new point of view."

So I didn't go to either place.

Mr. Carpenter: Now, if your Honor please, I offer a letter from Frank A. Howard to Mr. E. M. Clark dated April 16, 1919, General Motors Exhibit No. 242.

(Said document, so offered and received in evidence, was [fol. 3500] marked General Motors' Exhibit No. 242.)

Mr. Carpenter: As I said, this is dated April 16, 1919, and I will read just a little of it:

> "For some time automobile engineers have been discussing the investigations which are being carried on in the laboratory of the Delco Company, at Dayton, Ohio, on the performance of various motor fuels. As Mr. Wiles and I told you some time ago, it was reported that the Delco Company had discovered that the so-called 'pre-ignition knock' in gas engines was in

reality a detonation which might occur some time after the piston had actually passed top dead center; in other words, that it was not pre-ignition at all.

"In the April number of the Journal of the Society of Automotive Engineers which just reached me yesterday, I find a paper by Kettering, President of the Delco Company, giving the high spots of this work which are briefly as follows:"

Then he states the high spots and says this, on page 3, paragraph 2:

> "I am bringing this to your attention at the earliest moment because I think that unless the fuel producers themselves get into this work of investigating the properties of their fuels, there is a good chance that they may have to pay tribute to others. I believe that a gasoline which, by the addition of a few per cent of some agent, such as the ethyliodide found by Kettering, would not knock in a dirty motor, would easily [fol. 3501] bring five cents per gallon above the market and that there would be such an insistent demand for it that any oil producer who had exclusive rights could absolutely dominate the entire motor-fuel market."

And two paragraphs below:

> "I also believe that these developments indicate the supreme importance of proceeding with the establishment of an experimental engineering department capable of attacking this problem."

Q. Following Mr. Howard's visit—

A. We showed everything we had up to that time.

Q. Did any other Standard Oil representatives come to see you?

A. Yes, I think they did. I imagine from that letter of Mr. Howard's a couple of fellows came up from Standard Oil of New Jersey. Mr. Howard was still in Chicago at that time.

Q. Did you show these men from the Standard Oil of New Jersey what you had and what you were doing?

A. Sure.

Q. Do you remember their names, what their position was?

A. No, I do not.

Q. One was their chief chemist and the other chief engineer, were they not?

A. Yes, but I don't remember their names.

Q. Mr. Meacham and Feike?

A. Yes.

Mr. Carpenter: I hope you don't mind my leading the witness, Mr. Harsha.

Mr. Harsha: Not at all.

By Mr. Carpenter:

[fol. 3502] Q. Following that visit, do you know what the Standard Oil Company did?

A. Well, I think they got Mr. Howard to come down from Chicago and start a research laboratory which was later know as the Standard Development Company. You see, they had research in the oil industries as to production, but there had been very little work done on the utilization, which this was. This was a new phase of the oil industry or gasoline industry.

Q. Do you remember delivering an address on "Consumption—the Automotive Industry" that was printed in the bulletin of the American Petroleum Institute in December, 1920?

A. Yes.

Mr. Carpenter: I would like to offer G.M. Exhibit No. 241, which is an excerpt from that address.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 241.)

Mr. Carpenter: I only wish to read a small portion of it. Paragraph 2, page 1 reads:

> "In order to get to you this problem as we see it: here is what happens: If we try to burn the present-day fuel which is sold at the average filling station in a high compression engine, we will say, like an automobile engine, we cannot do it—"

The Court: Like an airplane engine.

Mr. Carpenter: Like an airplane engine. Thank you, sir.

> "we cannot do it. We cannot fly. It is almost impossible to get off the ground if you have to fill your [fol.3503] machine with ordinary automobile gas. The reason is that we get that awful knocking in the motor. Most people call it a carbon knock. I will tell you what it is a little later on."

The concluding paragraph on page 5:

> "If you can raise the compression of your motors you can do a lot of things. You can increase the economy. You can do things to keep out crankcase dilution. You can do things for distribution. You can do a lot of things that we cannot do now. But it is such a big task because of the fact that we cannot do these things that we want to do in the automobile engine until we get the proper fuel work done, and we have difficulty in getting the fuel work done until we can get the engine to do it. So we have to carry this movement on together as a coordination between the American Petroleum Institute, the automotive industry and the chemical societies, because it is possible, and we know enough today in a good many ways to help this situation out."

By Mr. Carpenter:

Q. Following that, Mr. Kettering, did you have any contacts with the chemists of the du Pont Company?

A. Well, yes, we had had some contact with the chemists of the du Pont Company during the war in furnishing of dopes and things like that. Of course, we knew them as members of the American Chemical Society.

Mr. Carpenter: I now offer a letter—the signature isn't here—but it is addressed to Mr. John Marshall, manager of Miscellaneous Division, Eastern Laboratories, du Pont [fol. 3504] Company, Chester, Pennsylvania, dated August 15, 1919, as Exhibit GM 243.

The Court: It would be more helpful if you would give the exhibit number first before identifying it.

Mr. Carpenter: Thank you, sir, I will do that.

(Said document so offered and received in evidence was marked General Motors' Exhibit No. 243.)

Mr. Carpenter: I will read just a little of this. The first paragraph:

"Dear Mr. Marshall:

"I am enclosing herewith a list of the materials which have been tried in this laboratory for their effects in suppression or elimination of the kerosene knock. It seems best for us at this laboratory to make a thorough study of the effects of the homologues of aniline on knocking fuels.

"The materials that we want to study immediately are as follows—"

And he lists fifteen.

"We shall appreciate it if you will send us as many of these materials as you may find it convenient to obtain. Any information you may be able to supply about the best method of preparing such of the compounds as you do not have available or intermediates for the preparation of such compounds will be of very great assistance to us."

[fol. 3505] Then, next to that, is a long list of materials, some 120 in number, seven of which stopped the knock; 33 had no effect; 2 stopped the motor; and others induced the knock.

By Mr. Carpenter:

Q. Do you recall, Mr. Kettering, who signed that letter? A. I think Mr. Midgley signed that letter—either Midgley or Dr. Clements.

Q. Do you recall an incident that happened just before that letter was written?

A. I think some of the du Pont boys came out to look at this work that we were doing. So we took advantage of that by asking them to help on the thing.

Q. At whose invitation did they come, or how did they happen to come to your laboratory?

A. I think we asked them to come out.

Q. Do you remember who the men were?

A. No, I do not.

Q. Was this John Marshall one of them?

A. Yes, he could have been.

Q. Now, at that time, the time of the writing of the letter, was your company a part of General Motors?

A. No, nor was our laboratory a part. Our laboratory was not a part of General Motors.

Q. You were doing this as the Dayton Metal Products Company, weren't you?

A. Yes. I think you should know that shortly after we started this work, it was transferred from the Delco Company to the Dayton Metal Products Company.

Q. About what year was that?

A. I imagine that was around 1916 or 1917, because that is when the military work started, and the Delco Company didn't want to do that, and so we transferred it. It [fol. 3506] was taken over by the Dayton Metal Products Company.

Q. So that this work on all of these compounds that are listed on the sheet annexed to that letter which I read were tested in the laboratory of the Dayton Metal Products Company?

A. Yes. And they were tested on the small Delco light engines. We had quite a number of them.

Q. Why did you call and invite these du Pont chemists out to see what you were doing?

A. Well, because we were not interested in trying to get the fuel as a product. We were trying to get the fuel as a part of an engine, and consequently we invited anybody that we thought could help us.

Q. You thought that these two chemists might be able to give you some help?

A. Yes.

Q. Did you get these materials or some of them?

A. Some of them we did, yes.

Q. How long did the work that you were doing on those compounds, which were all aniline derivatives, were they not?

A. Yes.

Q. How long did that work continue, Mr. Kettering?

A. I think it continued up to around 1920 or 1921.

Q. Did you ever get to the point where you considered putting aniline on the market?

A. Yes. We were going to try it out locally, at least. Of course, it has some very, very serious disadvantages. It had a bad odor, and it was a good paint remover, so you had to be very careful.

We had one old car there that we had raised the compression of the engine so as to get some advantage of this aniline, and it was a very good performer but it smelled [fol. 3507] so bad and climbed the hills so well we called it "the goat."

That was about the first road test that had ever been made on a modified engine.

Q. What did you decide to do about aniline?

A. Well, we decided not to do it then because the quantities weren't available to any great extent, so we dropped that. I believe it was about that time that our boys felt that they had exhausted this entire field, and they came to me and said, "Now, we want to quit; we want to get off this job."

Q. Before we get into that, Mr. Kettering, I would like to ask you this: Following that letter that you wrote to John Marshall about those aniline compounds, were you approached by Walter Chrysler with a proposition?

A. Yes.

Q. What happened?

A. You see, Walter was with General Motors at that time, and of course I knew him. I had worked with him when he was at Buick, and he was Mr. Durant's assistant at that time.

So he came down and talked to me about the probability of—you see, I was chief engineer of three companies in Dayton, and I had a part interest in them. He wanted to know if it wouldn't be possible that he could buy us out and I would take the top men of these different organizations and start what was later General Motors Research Company.

Mr. Carpenter: I offer in evidence now Neneral Motors' Exhibit No. 244, a letter from Mr. E. H. Kelly of General Motors Legal Department, to Mr. W. C. Durant, New York City, dated December 23, 1919.

(Said document, so offered and received in evidence, was marked General Motors Exhibit ~~No. 244.)~~

[fol. 3508] Mr. Carpenter: This Exhibit reads:— "Re: Dayton Metal Products Company, Dayton Wright Airplane Company."

> "The transaction for the purchase of 60,000 shares of the Dayton Metal Products Company was consummated at Dayton on December 19th, 1919. At that time there were delivered to Harry E. Talbott, representing himself and associates, common and debenture shares of General Motors Corporation stock as per list attached.
>
> "There was received certificates of stock of Dayton Metal Products Company in the number of 60,000 shares, issued to General Motors Corporation."

By Mr. Carpenter:

Q. Were you one of the associates that Mr. Talbott referred to there?

A. Yes, sir.

Q. Following the consummation of the merger, did you become an employee of General Motors?

A. Yes. I was a part employee of General Motors when I was still running the Delco plant. There were three companies involved, in the last merger; Dayton Metal Products, Dayton Wright Airplane, in which Mr. Talbott and myself were the owners, and then the Delco Light Company, in which Colonel Deeds and I were the principal stockholders. That came into General Motors at the same time these two did, so that all of the interests that I had then, the independent interests in Dayton, were taken up by General Motors, and we organized then the General Motors Research.

Q. When you came into the employ of General Motors [fol. 3509] following that merger in December 1919, what position did you have with General Motors?

A. Well, I was Director of Research.

Q. As Director of Research, did you come in contact with Mr. Durant?

A. Yes, I did.

Q. Did you make any investigations of any other General Motors properties for him?

A. Yes, a few of them.

Q. Can you tell me whether you investigated the Samson Tractor Company?

A. Yes, that was up here at Janesville.

Q. Tell his Honor what you discovered?

A. Well, the Samson Tractor Company, I believe, was its division name. Mr. Durant used to go out to California in the winter time, and of course, there are inventors around every place, and he had bought several tractor patents.

They were making two kinds of tractors up there. One was known as the Samson Tractor, which was not materially different in structure to what our farm tractors are today.

Then they had another one called the "Iron Horse" which was a specialized tractor that you could hitch to any horse-drawn vehicle, and you drove it with a pair of reins the same as you did a buggy.

They had claimed a lot of things for it. The engineering had not been very well done. The manufacturing wasn't too good. So we recommended the discontinuance of the manufacture of tractors.

Q. Did you have any experience connected with Kansas City in connection with that tractor?

A. Well, we couldn't understand how the thing could be done so poorly. One Sunday night I had a telephone call from Kansas City. One of my old boys who had been with me in the early self-starter business was a serviceman [fol. 3510] for the Cadillac in Kansas City, and he called me up and said: "Two men came in here and gave me $100.00 and ten telegrams to be sent to Mr. Durant, one each day for the next ten days." He said, "I don't know what to do about it."

I said, "Well, you send the telegrams, but send me copies."

These copies, these telegrams, were pre-reports to Mr. Durant of what was going to happen at Wichita, Kansas, tractor test, and these men never went there. So when Mr. Durant came out to Dayton the next few days, I got on the train with him and we started back to New York, and I said I have got something here you ought to know about, and I showed him these telegrams ~~that had already~~

been sent Monday and Tuesday, you see, or this might have been Wednesday when we were going back.

I said, "You ought to know I have got these copies." He said, "Well, I am very, very much interested in how you could get copies of personal telegrams sent to me."

I said, "That isn't important, but what I have got to show you is important. Here are the ones you are going to get for the next four or five days."

Unfortunately it had rained out there, and they hadn't been in the field to plow. So I told him I don't see how you can possibly, with as good judgment as you may have, take information like that—and that made for a very, very bad state of affairs in our tractor operations.

Q. Following that, did you and Mr. Durant go to Janesville to look over the operation?

A. Yes. Mr. Durant, Mr. Sloan and I went up there.

Q. You, Mr. Durant and Mr. Sloan?

A. Yes.

[fol. 3511] Q. Did the three of you look over the operation?

A. Yes.

Q. Did you discuss the matter with the engineers?

A. Yes.

Q. What conclusion after that did you have?

A. We came to the conclusion, Mr. Durant and Mr. Sloan, we agreed that the thing ought to be taken off the market, and then the next morning at breakfast, Mr. Durant had changed his mind, so we had to go over it again.

The thing had been a very unsatisfactory operation. I think the corporation lost about $27,000,000.00 on it, and the reason was because we had no coordinated information, no coordinated engineering on it, at all.

Q. In the course of your research work, did you have any contact with the inventory situation of General Motors from 1920?

A. Very much. We were furnishing apparatus through the Delco Company to a great many of the divisions, and I had a man in Detroit that contacted these concerns. We kept our own inventory because it was not an uncommon thing in those days to have the Purchasing Department wire us to ship apparatus by express when they would have two or three hundred of the devices in some warehouse they didn't know about.

I mean, the record system at that time was very, very poor.

Q. How about other inventory?

A. Well, that was equally true. I mean, they would have inventory sometime for a year's production of one thing, and four or five days' of another.

Q. Now, upon taking charge of the Research Department of General Motors in the winter of 1919, December and January, tell his Honor what kind of research organi-[fol. 3512] zation General Motors had.

A. Well, they had very little. I think that they had a contract with the—I can't think of the first name, the Little Company up in Boston, to do some work for them, and Mr. Carl Zimmerschied had a little laboratory in Detroit, and that was about the sum total.

Arthur D. Little is the right name.

Q. How many dynamometers were there in the corporation?

A. We had none. They had no method of testing engines of any importance at all, but we had a dynamometer in Dayton. We used to loan that to the divisions once in awhile when they had to have one.

Q. For some years after your merger with General Motors, where was the General Motors research activity centered?

A. It was centered at Dayton, Ohio, and we had taken one of the buildings that we had built for manufacturing the Delco light. That building had been taken over by the Government for manufacturing the Dayton-Wright airplane.

When that was released, we used part of that building for the first General Motors research.

Q. Did you shortly after coming with General Motors have any contact with the du Pont Company concerning the research work that you were doing on fuel?

A. Well, we had told them whatever we were doing, as we did everybody else. We had contacted them at various times.

Q. I show you a letter, Du Pont Defendant's Trial Exhibit No. 94.

I don't know, Mr. Cox, whether that has been offered by you people or whether you are going to offer it.

Mr. Cox: It has been offered.

Mr. Carpenter: This is a letter ~~to Mr.~~ Kettering dated [fol. 3513] February 2, 1920, from Mr. C. M. Stine, assistant director of the du Pont Company, addressed to you at the Dayton Engineering Laboratories Company.

> "I have asked the Eastern Laboratory to recapitulate the motor fuel work with a view to giving me the present status of the whole problem."

On page 2:

> "I have called Mr. Midgley's attention to the fact that the supply of aromatic amines will be determined largely by the demands of the dyestuff and rubber industries for these materials."

Then he says, on the next page, page 3:

> "There are so many obvious factors involved in the possibility of preparing diamines from hydrocarbons produced by cracking that I feel this work should be urged forward with all possible speed and I have instructed the Eastern Laboratory accordingly. I have already prepared patent applications on the use of diamines in motor fuels."

By Mr. Carpenter:

Q. Did this work that Doctor Stine refers to result in the obtaining of an anti-knock compound?

A. No. Not directly, no.

Mr. Carpenter: I now offer GM Exhibit No. 245, a letter dated April 8, 1920, signed by Dr. F. O. Clements.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 245.)

[fol. 3514] Mr. Carpenter: This shows on the first page that you had a special research division of eight personnel, and on the second page, I read under the head of "Fuel Work":

"The rise in price of gasoline has made some of our fuel work look considerably better from the commercial standpoint. Our proposed procedure now is to keep motors of different varieties and types operating on a refinery product that will increase the available fuel supply at least 100 per cent. We are counting upon taking a crude and distilling off 50 per cent of its volume and calling this a motor fuel of the immediate future. This fuel will include the light materials, gasoline, kerosene and the early portions of the fuel-oil cuts. By adding the anti-knock material to this distillate, we count upon being able to increase the compression of the motors some twenty or thirty pounds. This increased compression will help us burn fairly clean and, at the same time, will help the vaporization. Carburetion and distribution problems will have to be solved, also.

"This is such an enormous program that it seems advisable to permit the du Pont organization to handle the production problems that pertain to the anti-knock material. Furthermore, it would be desirable to have a three-cornered connection, whereby we could have one of the national independent fuel companies also affiliated on the problem at hand."

By Mr. Carpenter:

Q. What did you mean by that expression "to permit the du Pont organization"——

[fol. 3515] Mr. Harsha: I object, your Honor, if I may, because I don't believe this is a letter written by the witness.

Mr. Carpenter: I think that is well taken.

The Court: It is signed by Dr. Clements.

Mr. Carpenter: That is right.

By Mr. Carpenter:

Q. At that time, who made the decision to that effect, Mr. Kettering?

A. To what effect?

Q. To permit the du Pont organization to handle the production problems.

A. That would be done by the laboratory.

Q. Dr. Clements is dead, is he not?

A. Yes. He was the director of the laboratory.

Q. Did you discuss this matter with him before he wrote this letter?

A. Yes.

Q. Now, at that time, April 8th, 1920, was the du Pont Company doing some work for your laboratory at your request?

A. Yes. We asked them to do some work. They, of course, were very expert on explosives, and they had methods of determining explosive pressures. We made a deal with them to burn some fuel in the same kind of bombs that they had tested explosives, and using some indicators that I think we furnished them on them, because we wanted to see that if this second order of burning, this thing we called detonation, would happen in a closed vessel without a piston or another part of the engine.

They did that work for us, and it came out exactly the same way as using the engine.

Q. Now I wish to refer to Government Trial Exhibit [fol. 3516] No. 575, a report from Mr. Lammot du Pont, Chairman, to the Executive Committee of the du Pont Company, dated April 22, 1920. This was about four months after your merger with the General Motors.

> "At a conference April 22d, attended by Messrs. J. J. Raskob, C. F. Kettering, Irenee du Pont, Dr. Reese and other representatives of the Chemical Department, the question of the basis upon which the du Pont Chemical Department would undertake work for General Motors Corporation was discussed. As a result, Mr. Raskob made a suggestion which appears to be reasonable and which I recommend the Executive Committee approve, in principle, as follows:"

I won't attempt to point out all of the eleven paragraphs, except to read the one at the top of page 2:

> "It is understood that a representative of the du Pont Chemical Department will be appointed a member of any Experimental Board or Board for the control of chemical experimental work of General Motors

Corporation. The salary of this representative may be included in charges to General Motors corporation in either Group 1 or Group 2."

By Mr. Carpenter:

Q. Do you remember that conversation, Mr. Kettering?
A. Yes.

Q. Did a representative of the du Pont Chemical Company ever sit on any board of your research organization?
A. No, they did not.

Q. Did you have any representative of the du Pont [fol. 3517] Chemical Company associated at all in your laboratory?
A. No.

Mr. Carpenter: Now, I wish to refer, if your Honor please, to a series of five letters that were written by Mr. Lammot du Pont to Mr. Kettering concerning the execution of an agreement submitted by the du Pont Company to Mr. Kettering for signature, commencing June 15, 1920.

Government's Exhibit No. 580 transmits a copy of this proposed agreement from Mr. Lammot du Pont to the Executive Committee. A copy of a contract is attached.

In Government's Trial Exhibit No. 581 of October 10, 1921, Mr. Lammot du Pont refers to that agreement and asks Mr. Kettering to sign it.

Again, Exhibit Government's Trial Exhibit No. 583, dated October 24, 1921, in that Mr. du Pont urges the agreement be signed.

I now offer another in the series which is Defendants Trial Exhibit General Motors No. 246 of November 19th, 1921, which is dated November 19th, 1921, written by Mr. Lammot du Pont, vice chairman, to Mr. Kettering. I said it is dated November 19th, 1921.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 246.)

Mr. Carpenter: This is dated November 19th, 1921, and in it he says:

> "It appears to me that we are talking about different things."

[fol. 3518] Referring to a letter of Mr. Kettering of November 5th.

> "My principal interest is in seeing a general agreement whereby any kind of experimental chemical work can be undertaken by du Pont Company for General Motors without having to make up a special agreement on each subject."

Next is a letter from Mr. Lammot du Pont to Mr. Kettering and it is Government Trial Exhibit No. 589 of March 27, 1922; and another is Government Trial Exhibit No. 591 of April 1, 1922, and a final one is Government Trial Exhibit No. 593 of April 14, 1922. Mr. Kettering's replies to those letters have been marked in evidence, and they are as follows: Government Trial Exhibit No. 582 of October 21, 1921; Government Trial Exhibit No. 584 of November 5, 1921; Government Trial Exhibit No. 590 of March 29, 1922; Government Trial Exhibit No. 592 of April 3, 1922; and Government Trial Exhibit No. 594 of May 8th, 1922.

By Mr. Carpenter:

Q. Mr. Kettering, did you ever sign that agreement that was submitted by Mr. Lammot du Pont to you, and about which he wrote you so often?

A. No, we did not.

Q. Why did you not sign it, Mr. Kettering?

A. Well, his last letter there says:

> "We are talking about different things."

and that was the principal thing.

You see we had started this work way back about 1916, and the du Ponts came into this thing much later, and they were thinking in terms of what you might say was current [fol. 3519] chemistry. We were thinking of the chemical as a part of the automobile. I mean, to us a molecule of fuel was just as much a part of the engine as the piston gear, and it would be impossible with that background of our engine experience, to have carried the thing out in the direction in which we wanted to go, and I have often felt that, supposing the thing had been reversed, and supposing that General Motors had bought into the du Pont Company and found them working on automobiles, and we naturally would have felt that there should be at least cooperation. I think that is what Mr. du Pont is thinking of, but he was thinking of it in terms more of current chemistry rather than in the long range thing that we were thinking about. So I didn't sign it for that reason, because——

Q. Did he understand the problem from the standpoint of you as a manufacturer or builder of engines?

A. Yes, at the end, I am sure he did, because the correspondence was dropped there when he said that we were talking about different things.

Q. Now, those letters were written partly during the time you were working on aniline. Did you come to a point where you gave up the work on analine?

A. Yes, the boys came to me and said, "Now, there is no use to go ahead with this because we have completely exhausted this subject, and I wish you would give us another job."

And so I was getting ready to go to New York for one of the board meetings, and so I said, "Well, now, wait until I get back from New York."

The boys were very much worried. They felt that I had them in sort of a blind alley there, and when I went home I told Mrs. Kettering about the thing and I said, "The boys [fol. 3520] want to quit," and I said, "I know they are wrong because I know there is something down this road someplace," and while she was going along with me I said, "While we are down there to New York, I have got to get another line of approach so that we can talk to them."

I think we were in New York two days, and I hadn't thought up anything yet, but we started back on the train, and we had a drawing room, and like any Pullman car coming out of New York, the berths have newspapers in them, and when we asked the porter to make up our drawing room we sat in the berth part of the car, and I picked up any newspaper—I picked up any newspaper, and there was a little frame about maybe an inch or an inch and a half which said, "University professor discovers universal solvent."

Well, normally, I don't think I would have thought of that if I hadn't had this little story which we used quite often as an illustration of thinking a thing both ways.

The little story was this, that the old farmer was driving into town and he had a blow-out right in front of a small building, so he went in and asked if he could use the telephone to telephone down to the garage, and they said he could, and then he said, "Can I wait here"—it was in the wintertime—"until the garage man brings a tire out?"

They said, "That is perfectly all right."

So he said to them, "What are you gentlemen doing here?" and they said, "Well, we are chemists, and we are working on a tremendously important thing. In fact, it is the most important thing in chemistry."

And he said: "What is that?"

He said, "We are working on a universal solvent."

[fol. 3521] And he said, "I don't understand what you mean by that."

He said, "Well, we are developing here a liquid that will dissolve anything that you will put it in."

And he said, "My God, what are you going to keep it in?"

Because I knew that little story, we read this, and this particular chemical was known as selenium oxychloride, and I believe it was at the University of Wisconsin, the man that developed it.

So I cut that out and put it in my pocket, and I said, "Now, I know there is something that the boys have not tried," because we had tried almost everything that we knew.

So I got back the next morning and went down, and I called them in, and I said, "Now, here is a material you have not tried."

Well, it happened that one of our boys knew the professor that had done the work, and I said, "See if you can get a little of that material," and, well, they said, "We don't think it will have any effect on the knock because it has oxygen in it," and that selenium oxychloride had oxygen and chlorine in it.

Now, both of those materials we had proven by a previous experiment made the fuel knock worse, but they got a sample of this thing, and it was almost a universal solvent. I mean, it was terrifically corrosive, but even with the oxygen and chlorine in there it helped the knock; I mean it knocked less.

So the only thing we could attribute that to was the selenium, and selenium as you know, is a metal that is rather—I wouldn't say a rare metal; so then we immediately made up some compounds of selenium with alcohol [fol. 3522] into diethyl selenide, and that was a pretty good material. As I remember it, it was about five times as good as aniline. But you must remember that all of these materials were requiring, in the per cent order, two or three per cent, and two or three per cent of the material had to be added to the fuel. So this was about ten times, I think it was, something like that, better than aniline. This was all before we had the so-called octane rating. We had to rate everything in aniline equivalent—it was so many times better than aniline.

Well, we ran those tests, and that was a switch from pure organic material to what was called organic metallo-compounds. Well, the selenium thing showed up pretty good. The boys made a related material known as tellurium. It was about twenty times as good as aniline, but of course, that was a tremendous step because that changed our whole perspective as to the future research in relation to aniline. It was opening up an entirely new field.

Q. In other words, you dropped the whole series of compounds of nitrogen and switched over to the metallo compounds?

A. Yes, because we had at least 20 or 30 times as good as——

Q. Could you use the selenium and tellurium?

A. Well, they had very bad odors, and that material used to get into your clothes, and it was a very disagreeable odor. It would get into your skin, too. Our boys used to want to go to motion pictures, and were afraid to go in there because everybody would look at them. So they would stand outside, and if they saw some kind of disreputable fellow going in, they would go in and sit down beside him. But it would take months and months to get [fol. 3523] that selenium out of your system. It was a rather peculiar problem.

Q. Now, having these two compounds that were better anti-knocks than you had ever tried before, that is, selenium diethyl selenide and tellurium, what did you do next in your laboratory?

A. We began to run a series of tests using different metals, and we set up—I believe it was around that time, we set up a so-called peg board.

Q. When were selenium and tellurium discovered, Mr. Kettering?

A. I have forgotten exactly the date, but they came very quickly after I came back from New York. Events followed very rapidly then.

Q. Will you tell his Honor about the peg board?

A. What we were trying to do was get a material or rating of these different materials so that you could look at the thing and see the whole picture. We had an associate or friend in the Massachusetts Institute of Technology, Dr. Robert Wilson who happens to be president of the Standard Oil of Indiana now. He had the well known atomic table which chemists use, taking these different materials like oxygen and hydrogen and so forth, and arrange them in an orderly way; that is a sort of alphabet of every chemist's education. He had taken that and reorganized it along another certain point of view. Now, theoretically, we laid that on a table and where each element was mentioned, we would put a pin, and that pin, I think, was about three inches long.

Now, that represented zero. If the material being tested had no effect, then we left the pin that high. If it increased the knock, we cut the pin off, so it gave you a chance to go below the pin. If it was anti-knock, we made the pin longer.

[fol. 3524] So every time we made a test of these materials, we would put a peg in the board; then you could just look at that and see what the whole thing was.

Well, after we had made a lot of tests, after we put pegs in there, we could see right away this thing warping down towards the heavy metal end of this table.

Q. The periodic table, according to the Robert Wilson arrangement?

A. Yes. So then we said why don't we go down through lead, that being way down in the corner. Then we found out nobody knew how to make the material from lead that was soluble in gasoline.

Q. You had to get a method of converting the metal into a material that was soluble in gasoline?

A. Soluble in gasoline, yes. It was no good if it was not. If it was going to be dissolved in gasoline, it had to be soluble.

Q. Who devised the method for making these materials out of these various metals?

A. Mr. Midgley and his boys worked on it. Nobody had any idea what the effectiveness of the lead would be, but we developed a little process which the chemists would know, or what was known as the zinc ethyl method, and we got a couple of spoonfuls of the material that way.

Then we could try it out on a little test engine. It was so infinitely better than anything we had ever seen—in other words, one-fifteenth of one percent—that meant that one gallon of tetraethyl lead would anti-knock 1500 gallons of fuel, but we didn't know how to make it.

It was a very difficult process, and as I say, the zinc ethyl method was completely impractical because zinc ethyl takes fire on exposure to the atmosphere, so that came in in the most difficult way.

[fol. 3525] Q. Was that zinc ethyl way of making it referred to in the literature, or was that devised by your boys in the laboratories?

A. I think we devised it. There was one little item that we found in the chemical literature, maybe about a half or three-quarters of an inch longer. The fellow said if you had certain things it would be possible to make these materials.

Q. Do you remember the date of the discovery of tetraethyl lead?

A. I think sometime in 1921, as I remember it. Have you got the date there?

Q. December 9, 1921, according to your laboratory records.

Q. How long before that, generally how long before that had you discovered selenium and tellurium?

A. About eight months, as I remember it. It was about eight or nine months after we started on these metallo organic materials.

Q. During that period, from the discovery of selenium and tellurium to what led to the discovery of tetraethyl lead, did you call upon the du Pont Company or any of their chemists for any help on that line of materials called the metallo organic materials?

A. I think we did. As I say, we did not try to keep it a secret.

Q. You kept it a secret?

A. I say, we didn't try to keep it a secret.

Q. Did they produce any metallo organic compounds for you?

A. No, they did not.

Q. Were any metallo organic compounds made in this country at that time by anybody?

A. No, not that I know of.

Q. This was the first metallo organic compound ever produced in this country, so far as you know?

A. Yes, sir.

[fol. 3526] Q. Well, after having discovered this material, and you found its greater effectiveness, what did you do next?

A. Well, we tried to get a process for making it, and I think we asked a du Pont chemist to come down and take a look at it, because we were not interested in the manufacture of it. We looked upon the fuel as a part of the engine rather than anything else that we would be interested in.

Q. I want to show you a letter, Mr. Kettering, which is in evidence, Government's Trial Exhibit No. 610, March 24, 1922, written by Mr. P. S. du Pont to Mr. Irenee du Pont.

On the back page is a memorandum "Re: Doping of Fuel. Detroit, March 24, 1922."

This says:

> "Mr. Kettering stated that his new doping compound, Tetra-Lead-Ethyl, may be used effectively in the proportion of one gallon to 1,000 or 1,500 of gasoline."

Then it says:

> "The use of this dope will result in a saving of at least one quarter of the gasoline ordinarily consumed in an engine, and will permit of increasing compression very materially."

And then:

> "The compound is made by preparing ethyl iodide from alcohol and iodine, permitting this to be acted upon by zinc dust plated with copper, the plating being necessary to produce the reaction. Zinc-ethyl is formed and is distilled off. Zinc-ethyl is highly in- [fol. 3527] flammable when exposed to the air, but Kettering believes no more dangerous to work with than hot oils. Zinc-ethyl is brought into contact with dry lead chloride, which forms zinc chloride a compound $Pb_2 (C2H5)_4$. This compound further breaks down into metallic lead and tetra lead ethyl $Pb(C2H5)_4$. Lead ethyl is a colorless liquid of sweetish odor, very poisonous if absorbed through the skin, resulting in lead poisoning almostly immediately. In practice Kettering recommends that the material be made ill-smelling through the addition of some pungent material."

And then dropping down:

> "Kettering would like to take up the question of manufacture with the du Pont Company representatives at an early date."

Did you tell Mr. P. S. du Pont at that conference that you wanted to take up the manufacture with the du Pont people at an early date?

A. Yes.

Q. Now, at that time had you discovered—this was three or four months after the discovery of tetraethyl lead. Had your boys in the laboratory been working on other methods to produce tetraethyl lead?

A. Yes. I think the first one we tried was using ethyl iodide and sodium lead chloride.

Q. Had you done that at the time of this memorandum?

A. I cannot remember the exact chronology of it. It was right in there because we were working very feverishly trying to get a process.

Q. Had you taken the matter up with any educational institutions?

A. Yes, we made a deal with Bob Wilson who was then an instructor in organic chemistry at M. I. T.

[fol. 3528] Q. Did they work on it?

A. Yes, they worked on two or three different methods of making tetraethyl lead. You see, Bob Wilson and Midgley had been very great friends for many, many years, so when we talked about getting some outside assistance, Midgley said; "I am sure Bob will be a good fellow to go to."

Q. When did you discover that tetraethyl lead was a hazardous material?

A. Well, I think we knew it just because we knew something about lead as a poison, and I think very early in the thing, we made arrangements with the University of Cincinnati. I had known Doctor Martin Fisher for many years. He was head of the Department of Physiological Chemistry.

He had a young assistant by the name of Robert Kehoe so we very early got in touch with them and had them as our advisors.

Q. After the discovery of the material, did you try it on engines?

A. Oh, yes. That was the only way we had to try it, on a little engine.

Q. Had you, at the time of this memorandum from Mr. P. S. du Pont of March 24, 1922, discovered any troubles or difficulties?

A. Yes. We put the tetraethyl lead in the fuel. Of course, it stopped the knock, but when that lead burned, it caused lead oxide; lead oxide happened to be a very good flux for dissolving the electrodes of the spark plugs; also it dissolved the glaze off of the spark plugs, so after you drive a couple of thousand miles, you don't have any spark plugs any more.

Q. Had you completed the 2,000 miles test at that time?

[fol. 3529] A. No, I don't think so at that time. It was very early in the thing. So then we suggested that we put carbon tetrachloride in; that is the ordinary material that is used in a fire extinguisher, in correct proportions, because chlorine has a very much higher affinity for the lead than oxygen.

So we added a little carbon tetrachloride to the material and it burned through. That saved the spark plugs completely, but the lead chloride left a deposit on the exhaust valves. It was a sticky material when it was hot, and that would break off in chunks, and you would burn out your exhaust pipes, so we were not much better off than we were before.

Mr. Carpenter: Now, I offer in evidence, if the Court please, a General Motors Exhibit No. 246-A, which is a patent number 1,787,419, issued December 30, 1930, which was Mr. Midgley's patent for method of using motor fuels.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 246-A).

Mr. Carpenter: I only want to refer to a little of it. This shows that the application for patent was filed April 15, 1922. That is the important date. The invention relates to fuels such, for example, as kerosene and gasoline employed in the operation of the internal-combustion engines, and to the art of burning the fuels in an engine.

His claim is:

> "1. A method of utilizing a low compression motor [fol. 3530] fuel which comprises forming a combustible mixture of the fuel and air, and burning the mixture under a relatively high compression in the presence of vapors of a compounded metalic element."

Now, I want to refer to Government's Trial Exhibit No. 611, a letter of Mr. Midgley to Dr. Stine of the du Pont Company, which says, in the second sentence, the second paragraph, "It becomes my very pleasant privilege to tell you about the new anti-knock material which we have recently discovered."

Mr. Kettering, I show you now a letter from Mr. Irenee du Pont to you of July 10, 1922, and I should have said that this is Trial Exhibit 612 for the Government:

> "Am just dropping you a line to thank you for the very pleasant time I had while visiting your laboratories on Thursday last. The visit was certainly most interesting and instructive."

Do you remember Mr. Irenee du Pont coming to your laboratory that day?

A. Yes, I remember it.

Q. How did he come?

A. Well, I asked him to come out because we were very anxious to get somebody interested in trying to help us make this material, because it looked as though it was going to go.

Q. He says in the third paragraph:

> "Am looking forward to a visit from you next week. I am trying to arrange it so that you will meet some of our men in the Dye Division as well as those in our Research Department. When you come, will you bring your latest information on the production of 'dope' by the bromine method."

[fol. 3531] Will you tell us what that reference in the letter is for "the production of dope by the bromine method?" Will you tell us what that is?

A. I say we had tried, we had made some tetraethyl lead by the iodine method, and that was impractical, because you couldn't get iodine in anything like the quantities we needed, so we naturally moved to the next.

You see, the bromine, iodine, chlorine and fluorine are a group of materials that are related in their chemical properties. Now, we said with iodine that we couldn't get that material, so we moved up to the next one which was bromine, and we made ethyl bromide to react with sodium and lead.

Q. And did you have any trouble making that reaction go?

A. Yes, we had trouble. When we put it together, it didn't go. I think we used a little pyridine as a catalyst in the thing. We got it to going after a relatively short time.

Q. By the way, in the course of working on those compounds that you have just mentioned, ethyl iodine and ethyl bromide, did you have an occurrence in your laboratory?

A. Yes, we were working, trying to nitrate some material, and we had sat around the table and talked about it before we tried it. We knew that the pressure rise was likely to be pretty fast, and we had a safety valve on the job that you could pull, but when the pressure rose, before the boy could get his hand on the safety valve, the apparatus blew up, and that blew out the windows and busted all the glass in there.

[fols. 3532-3533] That was about the only explosion we ever had there, and it worried us a lot.

Q. Did that occur while this work was going on, trying to devise a better method of making tetra-ethyl lead?

A. Yes.

ADJOURNMENT

[fol. 3534] The Court: You may proceed.

CHARLES F. KETTERING, a witness on behalf of the defendants, being previously duly sworn, resumed the stand, was examined and testified as follows:—

Direct Examination (Continued).

By Mr. Carpenter:

Q. Mr. Kettering, Mr. Irenee du Pont, in his letter to you, Government Trial Exhibit No. 612, dated July 10, 1922, invited you, as we saw yesterday, to bring with you when you came to Wilmington your latest information on the production of dope by the bromine method.

Du Pont Exhibit No. 65, dated July 12, 1922, reports a conference that was held between you, Mr. C. S. Mott and Mr. P. S. du Pont.

Mr. du Pont at that time was president of General Motors Corporation, was he not?

A. Yes, he was.

Q. And Mr. Mott was what?

A. He was vice president and member of the Board.

Q. This states that:

> "Kettering proposed that the manufacture of dope be started as soon as possible by the du Pont Company in order to produce 100 gallons per day or thereabouts, possibly working up to greater production, leaving to the future the determination of building of large plants capable of producing eight million gallons per annum, sufficient to dope all gasoline fuel in the United States."

[fol. 3535] What was the concensus of opinion after you made that proposal—the opinion of those present, you and Mr. Mott and Mr. du Pont?

A. Well, I think they were willing to go along with it.

Q. Government Trial Exhibit No. 613, dated July 12, 1922, is a memorandum from Irenee du Pont to Dr. Stine, and Mr. Harrington, and Dr. Reese of the du Pont Company stating that you would be in Wilmington on a Thursday, July 20.

Do you recall being there at that time?

A. Yes, I do. That was the first time I was ever there.

Q. Can you tell the Court what you did at that time; whom you met; what was done?

A. I met a number of their men—Dr. Stine, Mr. Harrington, Dr. Reese, quite a number of the others—I think Colcott and Bolton.

Then we went over to the Deepwater plant, the dye plant of the du Pont organization, and took a look at the various processes, and I think they had a building there that wasn't in use at the time that they suggested we might use for this preliminary setup.

Q. Did they show you their various chemical apparatus with which they made various compounds?

A. Oh, yes. They took me through a lot of the different sections of the dye plant there.

Q. Do you recall anything that you said to them that was of particular importance in this case?

A. I don't remember right this minute.

Q. Was anything said about their producing tetraethyl lead or trying to produce it?

A. Yes. We wanted them to try to produce it.

[fol. 3536] Q. I now refer to General Motors Exhibit No. 71, dated August 2, 1922, a report by Dr. F. O. Clements, Director of Research of General Motors Research Corporation to the Executive Committee.

Note: Exhibit GM-71 put in evidence at page 5178 of of Stenographers Minutes.

This reads as follows:

> "The month's efforts have been confined to semi-works production of lead of tetra-ethyl. The entire process has been studied intensively, to eliminate cost. The du Pont organization has been brought into the work and they have duplicated our semi-works production very readily. Just now, we are counting upon the

> du Pont organization to collaborate with us on this new compound. This is the logical procedure, due to the fact that they have equipment and floor space suitable for this kind of work. The question of stability has been satisfactorily solved."

What was the question of stability, Mr. Kettering?

A. Well, if you didn't get this tetraethyl lead fairly pure, especially in the presence of light, it tended to decompose. But we found out what the impurity was in it, and we got that out.

Q. (Reading):

> "Some of the other difficulties encountered, such as corrosion of spark plugs, are being very carefully considered. The results obtained during the month show reasonable progress."

[fol. 3537] Who was it who decided to bring into the work the du Pont organization?

A. Well, myself and Mr. Midgley were the fellows who first approached them on it.

Mr. Carpenter: I now offer in evidence, if your Honor please, General Motors Exhibit No. 247, which is a telegram from Mr. Midgley to Dr. E. K. Bolton, Chemical Section of the du Pont Company.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 247.)

By Mr. Carpenter:

Q. This is dated August 23, and reads:

> "When may we expect shipment of anti-knock material stop Need it for races stop Please wire at once."

What races does that refer to, Mr. Kettering?

A. I think that was Uniontown.

Q. Uniontown, Pennsylvania?

A. Uniontown, Pennsylvania, yes. They had a speedway there.

Q. Had the du Pont Company promised to produce some tetraethyl lead and ship it to you so it could be used at those races?

A. I think they had. That was between Midgley and the boys, I think, because Midgley was very much interested in trying this out in a spectacular way, like a racing car.

Q. Do you recall what the result of the race was?

A. I think our cars—I think we entered a great many cars in it, and if you get enough of them in, you are bound to get a winner, you know.

[fol. 3538] Mr. Carpenter: If you Honor please, I offer General Motors Exhibit No. 248, which is a telegram from Mr. W. F. Harrington of the du Pont Company to Mr. Midgley, General Motors Research Corporation, dated August 24, 1922.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 248.)

By Mr. Carpenter:

Q. This reads:

> "Shipping you seventy pounds anti-knock five-hundred by express today."

What was anti-knock 500?

A. Well, I imagine it was tetraethyl lead.

Q. That was the number you gave to the product?

A. Yes.

Mr. Carpenter: I offer now, if your Honor please General Motors Exhibit No. 249, a telegram of August 25, 1922, from W. F. Harrington to Midgley.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 249.)

By Mr. Carpenter:

Q. This reads:

> "Shipped for six pounds antiknock five-hundred today by express."

Mr. Kettering, I now refer to Government's Trial Ex-[fol. 3539] hibit No. 615, which is a report by Dr. Clements of your Research organization to the Executive Committee of General Motors, and call your attention to item 3:

> "Production work on a small scale, using our sodium-lead and ethyl bromide process, was begun at the dye works of the du Pont Company. They are now producing about a gallon of lead tetraethyl per day."

That was of course, a report for the month of August, 1922.

Also Item 6 on page 2, which reads:

> "In view of the satisfactory progress that is being made on the production program and of certain problems incident to the use of lead compounds as antiknock materials, it has been decided to drop production, as well as research on production here. Production will be continued at the du Pont Company, and research on methods of production will be actively continued at the Massachusetts Institute of Technology. The research work at this laboratory will be concentrated on the solution of the spark-plug and exhaust-valve troubles that have been experienced in the use of lead compounds as antiknock materials."

What was the next thing that was done, Mr. Kettering, if you recall, following that report?

A. Well, we had this problem—I think we mentioned it yesterday—of the lead, burning lead oxide and corroding or dissolving the spark plugs, and we wanted to get rid of the tetraethyl lead as soon as we could because we had the utilization. You see, we had very little utilization on this thing at that time. We wanted to get cars on the road, get them running, and get our road tests under operation.

[fol. 3540] Q. I now refer you, Mr. Kettering, to Government's Exhibit No. 617, which is a letter from Mr. Sloan to you, dated September 27, 1922, which states:

> "I was just talking over the telephone with Mr. Irenee du Pont and he believes it would be desirable, as I think you do as evidence by our discussion in Detroit week before last, that a more definite arrange-

> ment be made between the du Pont Company and ourselves relative to the work that they are doing."

Do you recall having a discussion with Mr. Sloan in Detroit prior to that letter of September 27?

A. Yes.

Q. Do you remember what was said between you?

A. Here was the thing. You see this was just hearsay between du Pont and us. We got Mr. Harrington and some of the boys down there, and they were trying to find out, to see whether the process we developed would work or not, but there was no agreement, nothing between the two companies so far as how to proceed on the prices or, the contracts or anything else.

Q. What did you propose to Mr. Sloan?

A. I told him we ought to make a contract with them so that we could have a definite understanding, so that they could prepare for a fixed production, and get the thing going in a more commercial way.

Q. Now, Mr. Kettering, I call your attention to Government's Trial Exhibit No. 618, which is an agreement made on the 6th day of October, 1922, between the du Pont Company as the manufacturer and General Motors Corporation as the purchaser.

[fol. 3541] I call your attention to the third paragraph which reads:

> "Whereas, the Purchaser is desirous that said compounds be manufactured for and sold to it by the Manufacturer, and the Manufacturer is willing so to do in accordance with the following terms and conditions."

I wish you would tell his Honor who was the instigator of the preparation of that contract?

A. Well, I was.

Q. What did you do about having it prepared?

A. Well, I don't remember who prepared it; whether it was Mr. McEvoy or some of the boys, but I asked them to get something together.

Q. Were you present in Mr. Sloan's office on the 6th of October when that agreement was signed by Mr. Irenee du Pont?

A. I don't know whether I was or not, Mr. Carpenter

Q. What did you have to say, Mr. Kettering, about the price of $2.00 a pound that the du Pont Company fixed on that product or that was fixed, or included in the contract?

A. I thought it was quite all right, because this thing was so uncertain, so experimental. They said that would be enough, if they only made a few thousand pounds, to amortize at least the equipment that was put into it.

Q. What have you to say about the provision that this was to be a continuing contract?

A. Well, we thought it would be some incentive to the du Pont Company if we didn't just make it a 1,000 gallon contract and say that was the end of it, because they were preparing to make additional amounts. They were going to continue to make it after the first batch.

[fol. 3542] Q. Had you ever, in your experience before this, negotiated or executed a contract of that nature?

A. Well, I always did that in the development of all the industries I had anything to do with, after we got beyond what you might say was the experimental model. I always made a contract. I did that with my self-starter, the Delco light, and even when I was with the Cash Register Company.

I contracted that out because I never had enough money to do it myself, so I always had to have people do it for me.

Q. That is what you did in this case?

A. Yes, sir.

Mr. Carpenter: If your Honor please, I offer General Motors Exhibit No. 250, which is a letter written under date of November 13, 1922, by Norman Roberts to Thomas Midgley, Jr., General Motors Corporation.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 250.)

Mr. Carpenter: It reads:

> "The enclosed is my attempt at carrying out my orders from Washington. I am enclosing it to you in case you have time to look it over and correct errors, etc.";

Next to that is a copy of the report by Mr. Roberts to the Surgeon General of the United States Public Health

Service dated November 13, 1922. I want only to read a little bit of it. The first paragraph reads:

> "I have the honor to report that I have accomplished the purpose of the following Bureau telegram to the Chief Medical Officer:.
>
> [fol. 3543] "Direct Surgeon Norman Roberts attend meeting American Chemical Society Rumford Hall Fifty Two East Forty First Street New York City November Ten Eight PM report on address by Thomas Midgley 'Gaseous Detonation and Its Control' period Services interest is in possible poisonous effects of lead compound in gasoline."

I do not think it is necessary to read that report, but he reports on what Midgley stated in that letter.

I now offer, sir, General Motors Exhibit No. 251, of November 18, 1922, written by Mr. Midgley to Dr. Norman Roberts, Quarantine Station, Staten Island, New York.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 251.)

Mr. Carpenter: In it, he says:

> "I think you have gotten the situation remarkably well and I have no comments or corrections to make."

By Mr. Carpenter:

Q. Were you familiar, Mr. Kettering, with the fact that the Public Health Service was at that time looking into the question of tetraethyl lead?

A. Yes. I think we had asked them to look into the thing because we had recognized that there was a hazard in the use of the lead as everybody knew; the storage battery people knew, and the paint people knew it and had known it for years and years, but nobody had ever worked with lead in its organic form, so we thought it was necessary to have the whole thing re-studied.

Q. I don't think I asked you to tell the Court just what [fol. 3544] tetraethyl lead is. If I did, your Honor, I wish you would call it to my attention. I think I did not.

The Court: No, it has not been discussed.

By Mr. Carpenter:

Q. What is tetraethyl lead?

A. Well, tetraethyl lead is a liquid in which we have one lead molecule and four of the ethyl group.

Now, the organic chemists, when they say methyl, ethyl, propyl, butyl, they just say 1, 2, 3, 4 and 5 and so forth. Now, the ethyl gro› › are the ones that have the two carbon atoms, so if you could imagine a circle here which would be representative of lead, then there would be four groups around each of the two carbons, and five hydrogens. Now, there are many forms of this, organic forms of lead. You use the methyl group, the ethyl group, the propyl group and so on, but the ethyl were the ethyl carriers. That is the best one for the anti-knock.

Q. You have told us what it is from the standpoint of a chemist. Now, suppose his Honor would look at a vial of it. What would it look like?

A. It is a clear material with a rather sweetish odor. It would be very heavy. You see, water weighs eight pounds to the gallon, and tetraethyl lead weighs thirteen pounds to the gallon, so you could tell, when you picked it up, it is heavier.

Q. What is its characteristic as to solubility in water or gasoline?

A. It is insoluble in water, and it is soluble in gasoline, because that was the important thing.

Q. Is it an oil?

A. It is more of an oil, and the maximum amount we use of it is about a ' aspoonful per gallon. That is the maximum. The ordinary gasoline of today uses about, I [fols. 3545-3546] suppose it would average about, a half a teaspoonful per gallon.

Q. Now, will tetraethyl lead evaporate in the air? Is it volatile?

A. Yes, it evaporates.

Mr. Carpenter: Now, if your Honor please, I offer in evidence General Motors Exhibit No. 252, which is a report by Thomas Midgley of the Fuel Section to C. F. Kettering, entitled, "Summary of Present Situation on Antiknock Material."

(Said document so offered and received in evidence was marked General Motors Exhibit No. 252.)

* * * * * * *

[fol. 3547] I now offer, if the Court please, General Motors Exhibits Nos. 253 and 254, which go together.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 253 and 254, respectively.)

* * * * * * *

[fol. 3548] I next offer General Motors Exhibit No. 255 which is a letter from Mr. Midgley to Mr. Kettering, dated February 2, 1923, and the subject is Sale of Antiknock Gasoline:

(Said document so offered and received in evidence was marked General Motors Exhibit No. 255.)

[fol. 3549] By Mr. Carpenter:

Q. Mr. Kettering, can you tell me why it was that although this contract was made with the du Pont Company on October 6, 1922, that you first placed this product on sale not until February 2, 1923?

A. I think that is when we were pretty sure that we had the spark plug difficulty out of the road and we had quite a number of test cars, and while we were very anxious to see what the public thought about it, this is the first time we felt safe in putting it out—I mean, from the standpoint of the spark plug difficulties.

Q. I now refer to General Motors Exhibit No. 75, dated March 29, 1923, a telegram from Midgley to Mr. W. F. Harrington of the du Pont Company, reading as follows:

Note: Exhibit GM-75 put in evidence at page 5198 of Stenographers Minutes.

> "It was officially decided this morning to go ahead with the anti-knock program as rapidly as possible. [fols. 3550-3551] (Stop) Consequently this constitutes official notification that you are to get out one hundred gallons of tetraethyl lead per day as soon as possible.

(Stop) Expect to see you Monday afternoon next week."

By Mr. Carpenter:

Q. Now, Mr. Kettering, up to that time where had you been getting tetraethyl lead that you were placing in the gasoline?

A. Well, we had been making a little bit ourselves, in our own little semi-works plant, and I don't know if we were getting it from the little semi-works plant that du Ponts had or not.

Q. Well, the telegrams——

A. Indicated they were shipping us some.

Q. They shipped you a little?

A. Yes.

Q. But you had no large production?

A. We had no large production, but we had been making a little, and they had been making some, so we had the two sources.

Mr. Carpenter: I next offer, with the Court's permission, General Motors Exhibit 256, which is a report by T. Midgley, Jr., Chief Engineer, Fuel Section, dated April 9, 1923, which reports Midgley's visits on the first page, to Atlantic Refining Company concerning the marketing, their marketing of tetraethyl lead, and on page 2, to his visit to the Tide Water Oil Company.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 256.)

* * * * * * *

[fol. 3552] By Mr. Carpenter:

Q. Did you receive that report in due course?

A. Yes, I received that.

Q. How did you regard the report that Standard Oil had a patent?

A. Well, we felt it would be an advantageous thing, be- [fol. 3553] cause as I say, this was so new that you could hardly expect the first shot at it would be the right one, so if anybody else came along with something it was just another link in the chain.

Q. Were you at that time looking on tetraethyl lead as a product from which General Motors would make a lot of money as a product?

A. Well, we never thought of tetraethyl lead as a product, as an end product. We thought of it always as a means to an end.

We were thinking in terms of what we could do with engines, if we could get rid of the knock.

As I say, we started that way back before we had any connection with General Motors in the development of internal combustion engines. I think I mentioned it yesterday, that the whole interest in the think got started off with the idea that gasoline was a drug on the market, and therefore nobody paid any attention to motor efficiencies, and we thought we knew what had to be done if you were ever going to get out of the gasoline anything like what you should expect from it.

Mr. Carpenter: I now, offer, with the Court's permission, General Motors Exhibit No. 256-A, which is a copy of a patent granted January 1, 1929, No. 1,697,245, to Charles A. Kraus and Conral C. Callis, of Worcester, Massachusetts, assignors to Standard Oil Development Company.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 256-A.)

Mr. Carpenter: Calling your Honor's attention to the [fol. 3554] fact that the application for this patent was filed April 5, 1923, which was just a day or two following Mr. Midgley's visit to Mr. Howard.

I call your attention to Claim 1 of the patent:

> "The improvement in the art of preparing lead tetraethyl, which comprises alloying lead with about 10% of sodium, subdividing the alloy while substantially avoiding oxidation, and reacting upon the alloy with ethyl chloride at a temperature of 35-70° C."

By Mr. Carpenter:

Q. Do you know, Mr. Kettering, whether your laboratory, Massachusetts Institute of Technology, and the du Pont Company, had prior to this tried to react sodium lead alloy with ethyl chloride?

A. Well, I don't think—we may have tried it, but we were trying to keep the pressures low, you see. But I think that everybody suspected that it would react with ethyl chloride, and apparently the one thing here that somebody had tried and found was that you had to have a very small amount of sodium in the thing before it would work. That was the fundamental thing.

Q. And it had to be done under pressure?

A. Under pressure, and fairly high temperatures, too.

Q. Mr. Kettering, would you tell whether General Motors made any other attempt to market tetraethyl lead, what you further did in contacting the oil companies to see whether they would be interested.

A. Well, I think that Midgley went around and saw a lot of the oil companies, to see whether they were interested in it or not, because we were getting enough quantity now that we could open some more stations.

We tried to get Standard Oil of Jersey to take a look at [*fol. 3555*] it, and I think they sent some men down to take a look after we had these tests. We had several stations open, one at Middletown, Ohio, I think, and one at Cincinnati.

Q. Did your people contact the Standard Oil of Indiana?

A. We contacted Standard Oil of Indiana, yes. I think Bob Wilson had left Massachusetts Institute of Technology and gone down there then to head up a research organization for them.

Q. What was the attitude of Standard of Indiana?

A. They were interested in it, but they didn't see how they could do it very well, because they were marketing just one grade of gasoline, and most of their filling stations had just one pump, and to put on another grade of gasoline meant a duplication of an enormous amount of expensive equipment.

Then we developed what was called an ethylizer so that you could use the one pump. This was a little device that if you bought five gallons of gasoline and you wanted ethyl, you turned this five shots, and then you pumped the gasoline through the hose, and that dumped the tetraethyl lead into the hose, and then when you ran the gasoline pump that pumped it in.

In other words, it was local ethylization.

Q. Gasoline ran from the tank into the tank of the automobile?

A. Of the automobile, that is right.

Q. And as it went the tetraethyl lead was fed into the hose?

A. Well, I said we usually put it in five gallon chunks. We turned this five times, each turn was a gallon, and ran that amount of tetraethyl lead into the hose, and when you washed it through, when you pumped the gasoline, it washed it out into the automobile tank.

[fol. 3556] Q. Did your laboratory devise the ethylizer?

A. Oh, yes.

Q. How much tetraethyl lead would the ethylizer hold?

A. Well, I think those cans held two liters.

Q. Two liters? That is about two quarts?

A. Well, about that, yes.

Q. Roughly two quarts?

A. Yes.

Mr. Carpenter: I next refer, your Honor, to General Motors Exhibit No. 76—I am not sure that it has been offered, but if not, I offer it now. It is a license agreement dated the 29th of September, 1923, between General Motors Chemical Company and Standard Oil Company of Indiana, which was a license to the Indiana Company for a period of eighteen months from the 1st of October, 1923, for the exclusive sale of Ethyl gasoline in the States of Illinois, Indiana, Kansas, Iowa, Michigan, Minnesota, Missouri, North Dakota, South Dakota, Oklahoma and Wisconsin.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 76.)

By Mr. Carpenter:

Q. I notice, Mr. Kettering, that in this contract it is provided in paragraph 6, that:

> "The price charged by the Buyer to the public or consumer for all gasoline sold by it and treated with said anti-knock mixture shall be the prevailing price of its untreated gasoline plus an amount not greater than three cents for each gallon of such gasoline so treated."

Why did you put that limitation of three cents a gallon? [fol. 3557] Mr. Harsha: I object, your Honor. I think the contract speaks for itself. I don't think this is relevant at all to the issues in this case.

The Court: Oh, he may state why. Objection overruled.

The Witness: Why, we didn't want to get the price of these premium gasolines up so high that people wouldn't buy them. We wanted to hold it down as low as we possibly could. We weren't interested in gasoline. We were interested in the automobiles and engines, and the lower we could get the material down, why the better.

Q. At that time, what premium was being charged for the benzo-blend, do you recall?

A. I think it went up as high as seven cents a gallon.

Q. This was an attempt on your part to hold the premium down?

A. That was all.

Q. Do you know why it was that that license agreement was not executed until approximately a year after that contract with the du Pont Company?

A. Well, I think we were simply waiting until we were sure we would get production enough to take that much business on. I think that was the whole thing.

Q. After they got the plant in production and you got some assured production, then you made these first license contracts?

A. Yes.

Q. Following that, what was the attitude of Standard of New Jersey?

A. Well, they were just a little bit divided among themselves. Their sales organization wasn't too keen about the thing, although some of their people, their technical people, were. So they didn't want to make a contract, although this brought the thing up again.

Q. What did you do to induce them?

A. Well, we knew some people that had written in to us [fol. 3558] about the thing that were Standard Oil agents, if you want to think of them as such. One was Spears and Riddell, I believe, down in Wheeling, and so we made a contract with them.

We made a contract with four or five of the Standard of Jersey distributing organizations.

The great argument of the sales department of Standard of New Jersey was that people wouldn't buy it; they wouldn't pay a premium. Spears and Riddell had two stations, and they began to expand rapidly and to buy up other filling stations, and that was really the thing that brought it about. That was a demonstration to the home office that people would buy it.

Q. They were sort of drawn in by the back door?

A. We went in by the back door, sort of.

Mr. Carpenter: I now offer General Motors Exhibit No. 257, dated November 26, 1923, which is a report made by J. H. Senior, A. Clarke Bedford, and Dr. C. O. Johns to Mr. E. M. Clark and Mr. J. A. Moffett of a report of a committee of the Standard Oil officials of New Jersey who visited in Dayton, Hamilton and Cincinnati with a view to making an intensive study of the results being secured in the marketing of the General Motors product known as ethyl gas and reporting their findings.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 257.)

By Mr. Carpenter:

Q. I think it is unnecessary to read what they found, but it is all stated here if anyone is interesting in looking at it.

[fol. 3559] Did you know, Mr. Kettering, that this committee from the Standard Oil was coming out to visit your stations, or had been there?

A. Well, they came out to see us, but we didn't know they made the trip there to Hamilton and Cincinnati. We showed them what we had in Dayton, but we didn't know that they went beyond that at that time.

Q. Mr. Kettering, who were Mr. J. H. Senior, Clarke Bedford and Dr. Johns?

A. Well, Mr. Senior was one of the vice presidents in charge of marketing of Standard Oil. Mr. Clarke Bedford was—I am not sure—their president at one time was named Bedford. I think this was a son of the former president. Dr. Johns was one of their head research men.

Q. Who were Mr. E. M. Clark and Mr. J. A. Moffett to whom this report is addressed?

A. J. A. Moffett was the sales manager of Standard of New Jersey, and Mr. E. M. Clark, I think, was the manufacturing vice president at that time.

Q. I now refer to Government's Trial Exhibit No. 620 which is a license agreement from General Motors Chemical Company to the Standard Oil Company of New Jersey, dated January 7, 1924, and also to General Motors Exhibit No. 78, which is a copy of the license agreement from General Motors Chemical Company, the same date, to Standard Oil Company of Louisiana, each of those being for the respective territories in which those two companies sold gasoline.

I call your Honor's attention to the fact that they are for limited periods of time, and also that the premium is limited to 3 cents a gallon as in the Standard Oil of Indiana contract.

General Motors Exhibit No. 77 is an agreement from the [fol. 3560] General Motors Corporation guaranteeing performance of those contracts by General Motors Chemical Company.

Likewise General Motors Exhibit No. 79, also dated January 9, 1924, the guarantee of the Standard Oil of Louisiana contract.

By Mr. Carpenter:

Q. Mr. Kettering, will you state what the General Motors Chemical Company was?

A. Well, our research laboratory was on a very definite budget. We never tried to run our research on a profit and loss basis at all.

When we began to get into these operations, we either had to organize a separate company or throw our research accounting over on a profit and loss basis. So I suggested organizing the General Motors Chemical Company, which would take over the commercial side of this material and keep it out of our research bookkeeping. This was an entirely different kind of accounting because we got all of our money for operating the laboratory on the appropriation basis, and this now was going to have some income coming in other than appropriations.

So this was my device for getting the two things separated from the accounting standpoint so each one would stand on its own feet.

Mr. Carpenter: If your Honor please, I now refer to General Motors Exhibit No. 80, which is another license agreement from General Motors Chemical Company to the Gulf Refining Company for the sale of ethyl gas in Pennsyl- [fol. 3561] vania, Delaware, and the territory served by the Gulf Oil at that time.

By Mr. Carpenter:

Q. Were you familiar, Mr. Kettering, with Mr. Sloan's letter to Mr. Irenee du Pont, known as Government Trial Exhibit No. 625, dated January 12, 1924, in which Mr. Sloan requested the du Pont Company to increase their production to 1,100,000 pounds of tetraethyl lead?

A. I think I was familiar with it because we had discussed with him that we needed to increase the production.

Q. And that was due to what?

A. Due to making these new contracts that we had. Our business was expanding quite rapidly.

Q. I now call your attention, Mr. Kettering, to Government Trial Exhibit No. 622, dated January 28, 1924, which is a letter from Mr. Sloan to Mr. Irenee du Pont, which says in the first paragraph:

> "I have just had a talk with two or three of the high officials of the Standard Oil Company of New Jersey, covering our relations with them; i.e., their relations with the General Motors Chemical Company, with reference to this tetra ethyl picture, dealing with distribution here and abroad and various other phases of the matter that they wanted to discuss. In connection with the situation I would like to pass on to you the following in order that you might consider it and I might profit by your reaction.
>
> "There apparently has been more or less discussion [fol. 3562] between Mr. Kettering and these people in the past month regarding the manufacture of tetraethyl lead. They say—whether they are right or not I do not know—that six or seven months ago, in discussing this particular point with Mr. Kettering and Mr. Midgley they were encouraged to see what they could do in developing a process for making tetra-

> ethyl lead, hoping thereby to discover something that would result in a much lower cost of production."

Had you talked with any of the Standard Oil officials, Mr. Kettering, about manufacturing under their process?

A. Yes, we talked to them about it. In fact, we had encouraged them to go ahead. I think a letter you read there indicates that we suggested they try to make a hundred gallons a day.

Q. And at that time do you know whether the Standard Oil had tried out their process except on a laboratory basis?

A. I don't think they had, no. I think it simply was a very small quantity they had made in the chemical laboratory.

Q. I call your attention, Mr. Kettering, to Mr. Sloan's letter to Mr. Irenee du Pont, of February 5, 1924, in which he enclosed a copy of letter he had sent to Mr. Senior, dated February 4, 1924. Those are both Government's Exhibit No. 624.

The last paragraph of the letter to Mr. Senior says:

> "Mr. C. F. Kettering will be in New York some time the latter part of this week and I have asked him to see you in connection with various operating matters connected with the workout of the present agreement."

[fol. 3563] Did you have a talk with Mr. Senior?

A. Yes, I had talks with him.

Q. Can you state what those were?

A. Well, the first talk I had with Mr. Senior, he was very anxious to have the export gasoline ethylized, and we were trying—we talked about that before we had a general contract with Standard because he said regardless of whether the domestic people wanted to go ahead with it or not, he would like to go ahead with it for the export.

We discussed methods whereby we set up a contract on that.

Q. Now, then, following this January 28 letter, did you have another talk with Mr. Senior?

A. Yes, because he had been one of the men who came out to Dayton, if you remember, and we did have another talk with him. There is where we began to work out the formulation of the agreement or the formation of the Ethyl Corporation.

Q. Did you in that discussion propose to him a plan whereby General Motors and Standard Oil might be able to come together?

A. Yes, I did. Of course, when you have an important material like this that is not a physical thing, where you can count it by units, the question of royalty agreements or how that would be set up, and I suggested that since we were going to have varying amounts in different kinds of gasoline that you would set up the system on this basis: That you would take the 20 best operating companies in the United States and get their return on capital, and that if this new company was organized, that they should get a nominal return on capital as shown by those figures before the General Motors Chemical Company got anything. [fol. 3564] Then if they made more than that, that we would get 25 percent of what you made more than a normal operating business as royalties. That got rid of all complicated bookkeeping and everything of the kind.

Q. Did Mr. Sloan or you carry on the negotiations with Standard Oil Company that led to the formation of the Ethyl Gasoline?

A. I think I may have had a little something to do with it, but I think Mr. Sloan did more of that than I did. He was in New York, and they were in New York, and I was out in Dayton, and I am not a very good contract maker, anyhow.

Q. Did you have anything to do with the decision to permit the Standard Oil Company of New Jersey to put up a 100 gallon per day lead plant that was actually put up?

A. Well, I think we talked about it, yes.

Q. But the decision to permit them to manufacture was made by somebody else?

A. Well, I think maybe Mr. Midgley and Mr. Sloan made the final decision on that.

The Court: The Court stands recessed for fifteen minutes.

(A short recess was here taken.)

By Mr. Carpenter:

Q. Mr. Kettering, in the spring of 1924, did you have any trouble out in Dayton in the work you were doing on tetraethyl lead from a health hazard?

A. Yes, we had, because we had great difficulty in trying to teach the people that this material was dangerous, and this was a different kind of lead than the doctors had been dealing with. It would absorb very rapidly. If you ever had one of these blood pressure implements on your arm, and you put a drop, one drop, of tetraethyl lead on a glass plate, and put your finger on it, in a few seconds, in thirty [fol. 3565] or forty seconds, you would see a shift in the blood pressure, showing how rapidly it would absorb, which was a new phase to the medical people.

Of course, we had had these tests being run at the Bureau of Mines. We had Doctor Kehoe from the University of Cincinnati—we had had the very best advice that we could get, and we could not get the thing across to the boys that you might say was bothering this stuff—we put watchmen in at the plant, and they used to snap the stuff at each other and throw it at each other, and they were saying that they were sissies. They did not realize what they were working with.

We had great difficulty in getting them to realize what it was.

Q. I refer you, Mr. Kettering, to Government's Trial Exhibit No. 657, a telegram that you sent to Mr. Sloan on June 5th, 1924, reading as follows:

> "To inform you on ethyl gas situation stop Organization here in excellent shape stop We are unable to get sufficient lead from the du Pont Company to meet our requirements stop Whole program is being prejudiced on this account stop Can you get in touch with me if they are unable to meet schedule we will change our program relative to ethylizer."

Do you recall the incident, and the occasion for it?

A. Yes. We were building these ethylizers to go on these Standard of Indiana pumps. If we were not going to get a certain program, we were going to change our rate. We had the boys working overtime to get this material out.

[fol. 3566] Q. That was the occasion of that telegram?

A. Yes, sir.

Q. And the report you got is in evidence.

A. They had a lot of bad sodium.

Mr. Carpenter: I now refer to, if your Honor please, General Motors Exhibit No. 82, which is a letter from Mr. Sloan to Mr. Kettering dated June 23, 1924, and I wish to read from the first paragraph:

> "I have been thinking over at considerable length certain of the points which were raised at the last conference we had with the Standard Oil Company of N. J. group in connection with the proposed partnership arrangement and I have been particularly concerned with the point that they brought up relative to the hazard that is being brought into the premises by proceeding along the proposed lines."

And in the third paragraph, first page, he says:

> "Therefore, in connection with this particular matter; i.e., the hazard involved in this development, it would appear to me that it would be most constructive to do perhaps to some extent what we have already done but in a little different way; viz., that our new partners the Standard Oil of N. J. should appoint their medical man; the du Pont Company should appoint their medical man and you should appoint whoever you wish, and that those three men should be a board of experts who would deal with the question and should submit a report to both the Standard Oil Com- [fol. 3567] pany of N. J. and ourselves, dealing with the matter as they saw it after contributing to the picture what knowledge they themselves had and what judgment they could formulate after listening to the evidence and consulting such experts as they might care to consult in the premises."

Did you appoint your expert, Mr. Kettering?

A. Yes, sir, we had Dr. Kehoe from the University of Cincinnati. That is K-e-h-o-e.

Q. And did that committee of experts go to work on the matter?

A. Yes, we appointed them and they got together and made some reports, but we had had Dr. Kehoe almost from the beginning on this thing.

Q. And you had had the Bureau of Mines conduct research on tetraethyl lead. What kind of work had they done?

A. Well, what they did, they took the exhaust from engines. I believe you mentioned that here a while ago—and they had used dogs and used some goats and various things like that, animal experimentation, and had been very thorough, and they found that there was no danger from the exhaust even in a very concentrated place like 42nd and Broadway in New York which was one of the best concentrations we got, and we had like a little flower delivery truck in which we had the apparatus so that we could sample the air. We could drive up the street and take a sample of air, so we had what you might say was the most concentrated form that we could get of exhaust gas, and we knew the proportion of that, and we could interpret that, and they had worked it out very, very [fol. 3568] thoroughly and found there was no health hazard at all with the exhaust.

Q. The trouble that you had had in your——

A. Well, that was contact with the material itself, in manufacturing and processing and bottling and handling it.

Q. That is putting in the tetraethyl lead that the du Pont Company manufactured, into the ethylizers that you shipped to the oil company?

A. That's right. Of course, later on that ethylizer thing disappeared.

Mr. Carpenter: If your Honor please, I offer in evidence General Motor Exhibits Nos. 258 and 259.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 258 and 259.)

Mr. Carpenter: I will not refer to them otherwise, but simply have them in the record.

I also offer General Motors Exhibit——

Mr. Harsha: Pardon me, Mr. Carpenter. Could we have an identification as to the author of these memoranda?

Mr. Carpenter: Yes, No. 258 is a memorandum made by Mr. Frank Howard of the Standard Oil Company. This was sent to me—I got it from their files.

The memorandum of June 18, 1924, is a memorandum by Mr. Edward M. Clark of the Standard Oil Company. That is Exhibit No. 259. These are two Standard Oil documents.

Mr. Harsha: Thank you.

By Mr. Carpenter:

Q. I now refer you, Mr. Kettering, to Government's [fol. 3569] Exhibit No. 631 of September 8th, 1924, which is a letter you wrote to Mr. Sloan, and I will read this part:

> "We went over to Pomeroy last week to investigate the possibilities of securing bromine and had a very profitable trip so far as getting a real understanding of the bromine situation. Our boys here at the Laboratory, are devoting their entire time to studying methods of extracting bromine from low percentage brine and we feel that, once this problem is out of the road, we are in shape to go ahead in very good style with the Ethyl Gasoline Corp."

And then the third paragraph:

> "I thought you would be interested in knowing just what we were doing along this line because I am sure if the bromine problem is solved that the Ethyl Gasoline proposition can go ahead in good shape."

Now the Ethyl Gasoline Corporation had been formed in the middle of August, 1924, just before this, had it not?

A. Yes.

Q. And you were elected president?

A. Yes.

Q. And Mr. Midgley and Mr. Howard were vice presidents?

A. That's right.

Q. And there was another Standard Oil man that came in, Mr. Maxwell?

A. Yes, he was sales manager.

Q. What was the first thing you did after becoming president of the Ethyl Gasoline Corporation?

A. Well, I started to get in this bromine proposition which was one of our very difficult things.

Q. At that time what was the world production of bro-[fol. 3570] mine?

A. The world production of bromine was about 800,000 pounds of bromine per year, and, if you took a long range look at our problem then, we had to have something like 50 million or 60 million pounds a year, incidentally last year, I think we produced 125,000,000 pounds. So that this bromine proposition was a limiting factor. It was a plus bottleneck almost.

Q. Now, may I ask, who were the producers of bromine in this country?

A. Well, the Dow Chemical Company were the principal producers, and the brines up around Midland had a pretty good percent of bromine. I had gone up there and got Mr. Dow to drill new salt wells, bring the brine out and pump the brine down into some other salt wells several miles away, because they didn't want to lose the brine in order to strip off this little bit of bromine. Then we discussed with them the possibility of taking the bromine out of sea water.

Now, there is one pound of bromine in ten tons of sea water, so it is rather a thin mixture, and if you are going to take large quantities out, you have to be prepared to handle large quantities of sea water. And that process was later developed, and the main plant is at Freeport, Texas.

Q. Well, that is today it is there?

A. That is today. That is known as the Ethyl-Dow.

Q. But in 1924, you say that Dr. Dow told you that—

A. Well, I said, he thought that if we were going to get these large quantities, we would have to go to the sea, despite the fact that there was only one pound in ten tons of sea water.

Q. And what did he say about the percentage of bromine in the Michigan brines, as compared with the percentage of bromine in the sea water, if anything?

[fol. 3571] Mr. Harsha: I object, if your Honor please. It seems to me that counsel is unduly leading his witness.

The Court: Well, he should state the conversation. Proceed:

By the Witness:

A. Yes, the percentage of bromine in the brines, that was mentioned here before, I think it was ten times as much as in the sea, and I think some of the brines around Midland were up to one-half of one per cent. I have forgotten exactly, but it was very rich in bromine compared to the sea water.

By Mr. Carpenter:

Q. Did your laboratory in Dayton do any work on the sea water?

A. Yes, I had 25 barrels of sea water sent up from Atlantic City just before I went to Europe to investigate the possibilities of getting bromine from over there, and our boys had started the process of extracting the bromine from the sea water as developing a principle.

Q. Had anybody up to that time ever before extracted bromine from sea water?

A. No, not that I knew of. We couldn't find a reference to it.

Q. You said something about going to Europe. Did you go to Europe in the fall of 1924?

A. Yes, I went over there with two things in mind, the brines of the Dead Sea which have quite a lot of bromine in them, because I think the surface of the Dead Sea is 125 feet below sea level, and the water has evaporated down to the point, forming tremendous quantities of sodium chloride. That is common salt, and that is precipitated out. [fol. 3572] Also, the French had a bromine plant down in North Africa where they had made a lot of bromine during World War I for tear gas, and I went over there to investigate both of those, and to see if we could do anything to accelerate this production of bromine.

You see, the bromine in these cases were both from naturally evaporated sea water. You get an automatic concentration from evaporation of the sea water from the sun. There were great salt flats down in the Mediterranean Sea, and if you dug a well in the salt flats you would get about one pound of bromine per barrel of water.

Q. And did you go to the Dead Sea?

A. No, I didn't. We got someone to go over there for us. I have forgotten who it was right now.

Q. From what company was he?

A. I think from the du Pont Company.

Q. Do you remember his name?

A. No, I don't. Mr. Chase was the man who got him for me. He was one of the European representatives, and he spoke French very fluently, and he went along with me down to Tunis.

Q. From Tunis, where did you go?

A. We came back to Paris from Tunis, and we made a very thorough survey. You could get any quantity of bromine that you wanted down there. You see, there is a flow of sea water into the Mediterranean of about three or four miles an hour, and consequently the concentration of salt in the Mediterranean or any of those seas is higher than it is in the open ocean, and down along the Mediterranean Coast there you have these shallow bays, and you get as much evaporation as two or three inches a day in the water, and finally they get filled up completely with salt, and I say if you dug a well in that, there is where you get the [fol. 3573] rich bromines, because bromines are the last materials to be crystalized out.

Q. When you were in Paris did you get an invitation to go and visit Germany?

A. Yes, we went over to the Badische Aniline and Sodium Fabric Company and we went over there to see Dr. Bosch who was the head of that, and who was very much interested in discussing with us anti-knock materials as they felt they had a material over there that was better than tetraethyl lead.

Q. Had you ever met Dr. Bosch before?

A. No, I hadn't, and we went there and had a very interesting disussion, and he naturally was very much interested as to how we would be in the chemical business at all, and he told me that I had done him a very great favor because I had put his uncle, Robert Bosch, out of business in the United States and he said, "I never did like him," but he said, "I cannot understand what you are doing in chemicals," and he said, "The thing that worries me is how you fellows stumbled onto this tetraethyl lead."

Now, I said, "You being one of the great chemists of the world, how would you set the hurdles for people to stumble over?"

He said, "That is what worries me."

I told him how we did it with the atomic table and pin board.

He said, "That might work in America, but I could never get my fellows to do it that way."

And the thing they had to propose was a thing known as iron carbonyl.

Q. Did he tell you what his material was?

A. No, he wouldn't tell me, but he let me try some of it [fol. 3574] out on an engine, and we, knowing the characteristics of these different elements, we were sure—he said, "There is no use to tell you because you wouldn't know," but then he said that it would infringe one of our patents, so I couldn't understand why we wouldn't know if it would infringe one of our patents.

It was a metallo organic compound of iron.

Q. Did you tell him you knew——

A. I told him before I left that it was iron carbonyl, and about two days after that they announced in a German technical paper that that is what it was. It didn't work out because there was the same difficulty that we had when we burned out the lead oxide. That particular iron oxide was a very fine rouge, so it acted as a lapping compound in that part of the engine.

Q. You said that the iron carbonyl burned to a lead oxide?

A. No, I said it burned to an iron oxide, and red rouge, that they use in lip sticks, and that kind of stuff is all very largely iron oxide.

Q. And what did that do to the engine?

A. I say, it lapped out parts of it, and particularly in the chains that were used in the front end, they used to go bad in just a couple of thousand miles and it would be lapped out.

[fol. 3575] By Mr. Carpenter:

Q. Now, Mr. Kettering, when you were in Europe on this bromine search, did you get news of anything happening in this country?

A. Well, we got the news they had had a very bad ex- [fol. 3576] plosion in the Standard Oil Company's Research Department, where they were trying out this new process of making tetraethyl lead.

Q. You said "explosion." Is that what the newspaper reported?

A. I think they called it an explosion.

Q. And did the newspapers in Europe tell the story of——

A. Yes, the paper in Paris said—what is it, the Tribune? —it is a small American newspaper published in Paris. They had word of it there, and then Mr. Sloan sent me a cablegram regarding it.

Q. When you returned from Europe, do you remember when it was?

A. No, I imagine it was the latter part of November, perhaps, when I got back.

Q. Had your boys in the laboratory succeeded in their work on sea water?

A. Yes, we had. As I say, I sent up 25 barrels, and we had developed a method of extracting bromine fairly satisfactorily.

Q. How did you take it out, in what form?

A. Tribromanalin, I believe it was, and it was a method of reacting bromine with aniline, and then filtering the sea water away from it.

Q. And who put that process, if anyone, into a semi-works plant?

A. Well, we made a semi-works plant. We had this twenty-five barrels, and then we made some surveys, and then later on we developed—well, I think it would be more of a semi-works plant—the Steamship "Ethyl," which we worked out with the du Pont people. In other words, here was a steamship where you put a complete recovery thing, where you could go out and anchor and stay in this particular kind of water, and while the sea water is relatively uniform when you get close to the coast it is modified considerably by organic materials from the sewer drainage from the coast.

[fol. 3577] Q. Who built the chemical factory into the steamship?

A. The du Pont Company.

Q. And who operated the steamship?

A. The du Ponts.

Q. For which company did they do that?

A. They did that for General Motors Chemical.

Q. That, or the Ethyl Corporation?

A. Well, it was the Ethyl Corporation then, yes.

Mr. Carpenter: I just wanted to get the sequence.

Q. Was the operation of the chemical factory in the steamship on the ocean a success?

A. Yes, it worked out very good. We recovered quite a lot of bromine that way, and proved that the thing could be done.

Q. Now, following the operation of the Steamship Ethyl, was there a large plant built to produce tribromanalin?

A. No, there was not.

Q. What happened about that time?

A. Well, we were delayed for some reason, then the Dow Chemical Company composed a modification of the process.

Q. That was several years later, was it not?

A. Yes.

Q. I want to keep you right down to the sequence. What happened?

A. There was quite a little delay between the Steamship Ethyl and the actual making of the sea water recovery plant.

Q. Do you recall the time when the Ethyl Corporation shut down its business?

A. Oh, yes, very well.

Q. That was when?

A. Well, I have forgotten exactly when it was, but that was right after, or shortly after, the Bayway difficulty.

[fol. 3578] Q. Now, you were president of the Ethyl Corporation, the Ethyl Gasoline Corporation, up until what time?

A. I think up until about—I think it was about four or five months was all.

Q. After you got back from Europe?

A. I think it was, yes.

Q. What have you to say about the sales of ethyl after the Bayway disaster?

A. Well, it was taken off the market in every place but Ohio, the State of Ohio, because they had to keep some control, some sense of control, and it was taken off the market and a commitee was appointed by the Surgeon General.

Mr. Carpenter: Right there, I would like, if the Court please, to offer General Motors Exhibit No. 261, which is Public Health Bulletin No. 158.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 261.)

Mr. Carpenter: This is the proceedings of a conference to determine whether or not there is a public health question in the manufacture, distribution or use of tetraethyl lead gasoline.

This was prepared by direction of the Surgeon General.

I will only refer to the fact that in this bulletin it lists the organizations, industrial agencies and Government Bureaus represented at the conference, many universities, public health authorities, and labor unions, and so forth.

I will read from page 7, the first paragraph:

> "The meeting was called to order at 10 a. m., May 20, 1925, at the Bureau of the United States Public [fols. 3579-3581] Health Service (Butler Building, Third and B Streets S.E.), Washington, D. C., by Surg. Gen. H. S. Cumming, presiding."

Mr. Harsha: Pardon me, Mr. Carpenter. We have no objection to the introduction of that document, your Honor, but you will note it is merely an excerpt from this report as indicated on the last page.

I do not wish to insist that the whole document be placed in evidence. I would like to ask that the Government be given an opportunity to see the complete document.

Mr. Carpenter: Well, we could have furnished it before had they made a request; we will be very glad to make it available to you, Mr. Harsha.

Mr. Harsha: Thank you.

Mr. Carpenter: You see, these documents are out of print, but one of them I had and the second one I shall offer is a very difficult one to find.

Mr. Harsha: Suppose we discuss it after court?

Mr. Carpenter: We [illegible]ve here a statement by Mr. Kettering, President of the Ethyl Gasoline Corporation. A statement by Mr. W. F. Harrington, General Manager of the du Pont Company, and I will not burden your Honor with reading those statements or anything from them, but they just explain why the Ethyl Gasoline Corporation was formed, and why the work was done on tetraethyl lead, and what was hoped to be accomplished.

I now offer, of your Honor please, General Motors Exhibit No. 262, this being Public Health Bulletin No. 163, published in June, 1926, by the Surgeon General.

[fol. 3582] By Mr. Carpenter:

Q. Mr. Kettering, following the report of the Public Health Committee on the adoption of the rules and regulations by the Surgeon General did the Ethyl Gasoline Corporation resume business?

A. ~~Yes~~, it did.

Q. You remained a director of the corporation, did you not?

A. Yes.

Q. Until how long?

A. Well, I am still a director of it.

Q. You resigned as president just before the Surgeon General's investigation, did you not?

A. Yes, I did.

Q. Did you not?

A. Yes, I did.

Q. Did you attend the meetings of the Board frequently after that?

A. I did for quite awhile, and then we got busy on some other things, and there were a few years in there I didn't attend very often. Maybe five, six or seven years ago I started back on the Board again pretty regularly because we were coming along with these new engines, and the importance of anti-knock gasoline had been given another very great boost.

[fol. 3583] Q. May I interrupt to ask you this: How did the two partners of the Ethyl Corporation, Standard Oil of New Jersey and the General Motors Corporation, the two corporations that owned all its common stock, how did they accept the Ethyl Gasoline as a product?

A. Well, they accepted it as a modifying agent, of course, in the making of better and more useful fuel gas.

Mr. Harsha: I would like to object to that, your Honor. I just don't understand what that question means.

The Court: Sustained.

By Mr. Carpenter:

Q. May I ask this question: Did you have any trouble in the early days of having the divisions of General Motors adopt ethyl gasoline?

A. Yes, we did. I think General Motors had in every one of its instruction books that the guarantee was off the car if they used ethyl gas, and, of course, Standard Oil of New Jersey wouldn't make and sell any of it.

Mr. Carpenter: I now offer, if your Honor please, G. M. Exhibit No. 93, a letter from E. A. Rudigier to G. W. McKnight, on Standard Oil Company of New Jersey letterhead.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 93.)

By Mr. Carpenter:

Q. This reads:

> "Replying to your telegram of today, we wish to ad- [fol. 3584] vise as a matter of record that beginning this afternoon our shipments of ESSO from Baltimore to our entire territory will contain lead."

That is dated March 9, 1929.

Prior to that date, Mr. Kettering, had the Standard Oil product contained lead for some time?

A. I think it had some, I don't know, but not very much. This was the first public announcement of it.

Mr. Carpenter: I now offer in evidence, if your Honor please, G. M. Exhibit No. 266, which is the chart behind you, Mr. Kettering.

I wish you would tell his Honor what has been accomplished for the automobile in the intervening years from the date of tetraethyl lead going on the market until the time covered by that chart.

Mr. Harsha: Pardon me, Mr. Kettering.

Your Honor, I think the Government would like to object to the introduction of this document.

It is headed "Trends in Passenger Car Engine Design," apparently over a period from 1920 to 1950. It has to do with the horsepower per cubic inch displacement, the maximum brake horsepower and compression ratio; all of which have to do with characteristics relating to the engines, and I fail to see any relevance of this document to the issues in this case.

It certainly is not in dispute that tetraethyl lead and its use has resulted over the years in certain changes in automobile engines, but I fail ~~to~~ see how it goes to any of the merits or substantive charges in this litigation.

Mr. Carpenter: If your Honor please, I would like to point out that from the testimony of Mr. Sloan, the testi- [fol. 3585] mony of Mr. Irenee du Pont and Mr. Kettering, the purpose of the General Motors Corporation in working on this compound was to improve the motor.

They have said the purpose of General Motors was not to use tetraethyl lead as the ultimate thing. They were not concerned with the profit in it. They were concerned with its effect on motors, the desirability of building a better motor and a better car for the benefit of the public.

I think the testimony is relevant and material for the purpose of showing whether or not they have accomplished what was designed, which will corroborate the story or the testimony that General Motors' purpose was not to make a profit out of tetraethyl lead, but to produce the results which are partly shown on these charts.

The Court: I think it is admissible. The objection is overruled.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 266.)

* * * * * * *

[fol. 3586] By Mr. Carpenter:

Q. Mr. Kettering, just before court recessed, you were going to give us some explanations about the chart, GM Exhibit No. 266.

Will you explain what compression ratio means; what it is?

A. Well, compression ratio—supposing we took a cylinder here that was a foot long, and we moved the piston up six inches. That would be two to one compression ratio. Now, if we moved it up, say, until eleven inches had been taken up, that would be 12 to 1.

It is a ratio of the total volume that you start with to what you have left when the piston is at the top. That is very important because it is the basic principle in producing economies in the use of gasoline.

[fol. 3587] Q. Now, will you tell his Honor what the compression ratio was when you started putting tetraethyl lead in gasoline?

A. Well, as I mentioned before, in the early part of the industry people were not particularly interested in the economics of engines, so when we started in 1925, the compression ratio was four and one. Of course, the economy wasn't very good.

Now all that this chart shows you is that we have continually climbed up. If we had the last one, it would be up in about here.

Q. In other words, for today's cars, what is the average compression ratio?

A. I think it must be about half a compression ratio above what it shows here. This is 7.18. I think you could say safely 7.6 or 7.7.

Now that is only an indirect measure of the economy of engines. These other things came along more or less as a matter of course.

The reason that I wanted to show you this chart is not for the technology that is involved in it, but here is what we were thinking of when we started down here that could be done. The important thing is the result of that.

This chart shows you that by virtue of raising the compression ratio we save the equivalent of all the gasoline used in these Western states as of the date of 1926. I mean that if we were working on the same rate as 1926 today, here is what that result would be in savings.

This is the main thing that we were thinking of in that specific industry of tetraethyl lead. This is what we were working for.

Mr. Carpenter: I now offer the chart, which is GM Exhibit No. 263.

[fol. 3588] Mr. Harsha: I would like to object to its introduction in evidence, your Honor, the same objection as to the preceding chart.

I fail to find any relevance at all to the issues in this case. It seems to me it is completely irrelevant that 25 billion less gallons of gasoline will be used in 1952 than would have been used in 1925 to do the same amount of driving.

I fail to see any connection to this case. It is not in dispute that the addition of tetraethyl lead as an additive to gasoline acted as an effective anti-knock, and if that is all that this is offered for, it seems to me it is a rather cumbersome method of going about it.

Mr. Carpenter: It seems to me, your Honor, that what Mr. Harsha says is true to the extent that you know that tetraethyl lead has improved gasoline. We think it important to our case to show just what that means.

We have shown here graphically by this chart that savings of gasoline have resulted from this invention which amount to the gasoline consumed by all the vehicles in 25 of the western states shown on the map. We think it is quite important to show what Mr. Kettering was aiming at; what Mr. Sloan was aiming at, when he supported his work—that was the result that we have depicted here on this chart. It completes the picture of this research that I think should be before the Court.

The Court: Objection overruled. It is received.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 263.)

[fol. 3589] By Mr. Carpenter:

Q. Mr. Kettering, I would like to ask you this: Have the maximum results been obtained up to this time by the use of tetraethyl lead in gasoline?

A. Not yet. I suppose we have maybe 25 or 30 percent improvement yet that will take a matter of maybe four or five years before you get in position where that final, say, 25 or 30 percent can be utilized. That is making very great progress with the fuel companies and the motor companies, everything.

Q. How do you account for the fact that this rise in compression ratio has been gradual and you did not jump to it immediately upon the discovery of tetraethyl lead in the building of your engines?

A. There were innumerable reasons why that couldn't be done. You had the mechanical thing; you had the distribution of the fuel; you had all sorts of obstacles to overcome in that.

Q. When you increase the compression ratio suddenly, does that affect the other parts of the engine?

A. Oh, yes. Unless the engine is built for it, you can't change the compression ratio; so it meant an entirely new design of engines from top to bottom.

Q. Prior to the year 1925, which is shown at the bottom of that chart, were any statistics kept by any of the manufacturers of automobiles as to what the compression ratios were?

A. I don't think so. I don't think our records show very much of anything.

Q. Did you not look for that in the technical work in your laboratory in preparing this chart?

A. Yes. There wasn't anything. There have been no records of it. I say nobody had thought in the terms of the economics of fuel usage.

[fol. 3590] Q. Mr. Kettering, in going to the du Pont Company and asking them to make tetraethyl lead by the process you had developed, and in making the contract with them of October 6, 1922, to what extent were you actuated by the fact that the du Pont Company was a stockholder in General Motors?

A. Not at all.

Q. Did you give any thought to that?

A. No, sir.

Q. Why did you go to them at that time?

A. Well, because we had worked with them a little bit and they were the best chemists that we knew of in the country. We knew the men from chemical associations, and so forth.

Q. When did you first meet either P. S. du Pont or Irenee du Pont or Lamont du Pont?

A. I met Mr. P. S. du Pont first when he became president of General Motors.

Q. Had you before that known either Mr. Irenee du Pont or Mr. Lamont du Pont?

A. No, I had not.

Q. You did meet them after?

A. Quite a little bit later, yes.

Q. Had you known, prior to Mr. P. S. du Pont becoming president of General Motors, any of the outstanding chemists of the du Pont Company?

A. I had known Dr. Reese who was then head of the Research, and Dr. Stine.

Q. Dr. Stine, what was his position?

A. I think he was assistant director there.

Mr. Carpenter: We will now leave the subject of tetraethyl lead, if your Honor please, and address Mr. Kettering's attention to the subject of "Duco" and paints.

At this time I would like to refer Mr. Kettering to General Motors Exhibit No. 105 which is already in evidence, for the purpose merely of fixing the date regarding this report to Mr. H. H. Bassett, vice-president.

[fol. 3591] By Mr. Carpenter:

Q. Vice-president of what, Mr. Kettering?

A. He was vice-president of the Buick Motor Company.

Q. I wish you would tell the Court, Mr. Kettering, when your attention was first directed to the problem of painting automobiles.

A. Well, I imagine it was about 1914, or 1915, or 1916, in there some place.

I had recognized if you were going to go to closed bodies — now, we were not a part of General Motors then—that we would have to do something about the method of painting, so I hired a fellow by the name of Mougey who was then a chemist of the Lowe Brothers Paint Company in Dayton to come over and work with me in this little laboratory we had for the sole purpose of studying the question of the increased drying rate of paint, because that was the thing that was in the road. The paint dried very slowly.

Q. What company were you speaking of before?

A. From the Lowe Brothers Paint Company of Dayton, Ohio.

Q. He became an employee of what company?

A. I think it was the Dayton Metal Products. It became a part of the Dayton Metal Products.

Q. Hadn't you, at that time, had occasion to apply paints to anything outside of your self-starters?

A. Well, no, we were not thinking of that. We were thinking of the paint as a long range problem.

Q. Had you ever, in any of your work, used any lacquers?

A. Well, we used it in the airplane business because in those days, we manufactured a lot of airplanes, and of course, in those days, all airplanes were covered with a fabric, and you put this dope on, and it shrunk the fabrics and made them waterproof.

[fol. 3592] Q. What did you put on top of the fabrics, what material?

A. It was either nitrocellulose or cellulose acetate, a dope that they called lacquers.

Q. Were there any pigments?

A. They did not have any pigments in them at all.

Q. What company of yours was it that manufactured airplanes in the First World War?

A. It was the Dayton-Wright Airplane Company.

Q. When you came over to General Motors in the winter of 1919, December I believe it was, did you give any further consideration to the painting of automobiles?

A. Oh, yes.

Q. What was the problem at that time?

A. What we wanted to do was increase the drying rate. I think the Cadillac was using something like 32 or 33 days to finish a Cadillac automobile. Buick and Chevrolet took about 12 or 14 days. The paint was just exactly like the paint that was on a piano. They were not very durable outdoors, anyhow, and we were extremely interested in a paint that could be put on an automobile in a much shorter time, because we were getting ready to go into closed bodies, just starting closed bodies, and it was impossible to see how you could use that paint unless we got a paint that could be used in the line, that is, as these bodies moved down the line they could paint them.

Q. You are speaking of the assembly line?

A. Yes, the assembly line.

Q. Did you take this matter up with any paint manufacturers?

A. Yes, we had a meeting of a number of paint—I suppose there were a half dozen different paint companies and paint applicators, that is, foremen of the paint departments and paint chemists. We had a meeting in Dayton.

[fol. 3593] Q. Do you remember when that meeting was with reference to the date of December 1921?

A. No, I do not.

Q. Was it before or after that?

A. I think it was before.

Q. What took place at that meeting?

A. We explained to this group of paint people what our problem was, why we wanted to talk to them and get their interest in the thing, and greatly reduce the time it took to finish an automobile.

Q. How long did that meeting last?

A. Well, it lasted almost all day. So they agreed, the paint manufacturers agreed it might be possible to take three days off of the Cadillac time, and take two days off of the Buick to finish them, but they did not see how you could do much more than that. And just as our meeting broke up, I told them that was not good enough. So they said, "Well, how long do you think it ought to take to finish an automobile?" And I said, "One hour."

Of course, I cannot say here what they said, but they thought it was a perfectly preposterous point of view. We said that was not arbitrary, the figure we had. It looked as though if we could get that, it would be ideal.

Q. At that time, what space was required in your plant to store the cars during painting?

A. You could see what you had to do, if it took 14 days to finish an automobile. You had to have storage facilities for 14 days, and in addition to that, you had to take some certain number of them out every day and put on other coats, so it was not very good. A paint job was a perfectly enormous undertaking in those automobile companies at that time.

Q. Now, following the meeting when the paint manufacturers told you something that you cannot repeat, what [fol. 3594] did you say?

A. I said it does not make any difference what you gentlemen think about it, we still have this problem, and I began to look around for something.

Now, we knew that the lacquers on airplanes dried fairly fast. We would just spray the stuff on and it dried very quickly. I was down in New York one day, and I was walking up Fifth Avenue; I think it was in Tiffany's window—now, none of these lacquers had color. They simply dried. I saw a little pin tray that looked like it had lacquer with pigment in it, so I went in and got one, and I found where the tray was made, and I went to that manufacturer. He said he had gotten this lacquer over in New Jersey, in Newark, I believe it was, so I went over to see the fellow who made it.

He had a little shop in the back of his residence, and I told him I had the pin tray and I wanted to know if he could make me a quart of that material.

He said no, he had never made that much at one time. He had been subsidized by Warner Brothers Picture Company to see if he could not find a use for their old films. So he said, "What do you want with a quart?"

I told him I wanted to finish an automobile door. He said, "You cannot do it."

I said, "Why?"

He said, "This stuff dries so fast, it will dry before it gets to the door, and the pigment will blow away in dust."

And I wanted to know if he could slow it down. He said he didn't think he could.

So there I had in one case the old paint that could not be accelerated, and a new paint which could not be slowed down, and that is what we started with when we began [fols. 3595-3597] work on the thing that finally ended up in the so-called "Duco."

Q. What did you do after you were confronted with that problem? Here you had a lacquer that dried too fast. What did you do?

A. Well, I came back, and went to one of our boys, and we tried to get some of the paint companies interested in it, to manufacture it.

We succeeded in getting the du Pont people interested in it, to try to make some of this stuff.

Q. Had they made some of the lacquers you had used?

A. Yes, they had made some of our lacquers.

Q. That were used in the first world war on planes?

A. Yes, they were familiar with it. The lacquer thing was well known. The difficulty had been to get these lacquers to hold the pigment so that you could use different colors.

To put a colored lacquer on, a lacquer that had color in it, that had been a difficult problem.

Mr. Carpenter: If the Court please, I offer in evidence General Motors Exhibit No. 267 which is a part of the factory correspondence written by Mr. Mougey to Dr. Clements.

By Mr. Carpenter:

Q. Mr. Kettering, following your visit to the man in Newark, and Mougey getting in contact with the du Pont Company, did they show any interest in helping you out on this problem?

A. Yes, they did.

Q. Did they report to you that discovery Mr. Sloan and Mr. Irenee testified about on the 4th of July, 1920?

A. Yes.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 267.)

[fol. 3598] By Mr. Carpenter:

Q. Now, Mr. Kettering, following that report, what did you do?

A. Why, we had a paint and varnish committee appointed to look into it. We also got in touch with the du Pont people to see if they could change these things. One of the difficulties we had was the so-called primer or undercoat that would absorb from the top coats, and it would crack, but we immediately started to set up a program that would cover every phase of this finishing business, because it did look as though we could get what we had started out to ask for, if we set up an organized method of procedure.

Q. Well, what were the first materials that du Pont furnished? What were their characteristics?

A. Well, some of them cracked; some of them didn't carry color too well, and well, it was just like you should expect on the first of anything; I mean this was all new to everybody.

Q. Did you have any difficulty in your own General Motors divisions in having this new material put on?

A. Oh, quite a lot. I mean—you see, the paint techniques had not been changed for a great many years, and had been drafted as the highest standardized procedure [fol. 3599] of anything that had been used, and when we tried to get some of our divisions to try some of the new paints, they wanted to put them over the other coat. You see, the bodies used to be made by Fisher, and then they were given a priming coat. That was sort of a—well, some called it primer, and some called it lead. It was a reddish brown coat that they put on for protection of the metal, and if you tried to put some of these new lacquers on top of that, it wouldn't adhere, and it fell off, so it was necessary—and Mr. Mougey mentioned this there in his report—it was necessary to get some way or some undercoat that would stick to the iron or steel on one side, and also would bond satisfactorily with the color or coats that went on top.

Q. Could you have put this lacquer on top of regular paint, old type paint?

A. No, we couldn't do that at all. That is where we had a good bit of our difficulty. We had so much difficulty in trying to get experimental cars, that one of our divisions had made more of a certain kind of body than it needed at the end of the run; and they had scrapped about maybe fifty or a hundred of them and thrown them in an old stone quarry at Pontiac, Michigan; and we took some of those out of the stone quarry and straightened them up, and sand-blasted them, and put on a proper priming coat and proper finishing coat, and that is the way we interested our divisions to see what you could do if you would forget the old primer coat.

Q. And prior to that time what condition had the bodies come in from the Fisher Body Division?

A. They had the regular primer coats on. That had been a practice all the time.

[fol. 3600] Q. And those primer coats had to be removed before you could successfully apply the new "Duco"?

A. Yes, and the way we convinced them that that had to be done was by starting out with bodies that we could sand blast and build right up from the metal.

Q. Did your organization or your research organization do all of that work alone on the paints, or did you have this cooperation with the du Pont men as mentioned in Mr. Mougey's report?

A. Yes, we had the cooperation, because we were trying to push this thing just as hard as we could, because it was a very important thing.

Q. Now, following the du Pont Company getting out a satisfactory grade of "Duco," was it adopted by your divisions?

A. Yes, some of them.

Q. Do you remember the year when the General Motors cars all adopted "Duco"?

A. No, I don't. We had contacted some of the other paint companies, the Rinshed-Mason Company, and I knew Mr. Mason and have known him for a long while in some other connections. And we got them in, and I believe we also did some work with the Forbes Paint & Varnish Company.

Q. They later on developed lacquers, did they?

A. Yes.

Q. And some of your divisions, one or two bought those?

A. Yes.

Q. From that time forward, Mr. Kettering, have you conducted any research on paint?

A. Yes, I put in a laboratory down in Florida, about twenty-five or twenty-six years ago, and we have had continuous work on this ever since, and tremendous improvements have been made, and it was through these laboratories that we had down there that I developed the complete set of instrumentation that we used there, that we have found out a lot of things, and that has been a constant improvement over the twenty-five years.

[fol. 3601] Q. Constant improvement in what?

A. In these paints.

Q. So is the "Duco" that is on the market today the same "Duco" that was on the market in 1925?

A. The same general principle, but there have been a lot of changes made all the way through.

Q. Has your research conducted over this 25 year period contributed at all to that?

A. I imagine so. We published everything we found on that, and so everybody had the use of it.

Q. What have you to say about these competing products? Do all automobile manufacturers use "Duco"?

A. No. There is another material known as Dulux, and I imagine there are all sorts of combinations there. But we have always felt that we were set up to handle the "Duco" type thing better than we could the Dulux, although our whole Canadian output is finished in the Dulux, so we haven't been partial to the thing at all.

Q. From a research standpoint and as part of an organization that has made a study of these various coverings on automobiles over the years, what have you to say as to the quality of the "Duco" used by General Motors as against other compounds?

A. Well, of course, you can get all sorts of opinions on that, but we have run every year, in two or three cities, a check of test of, say, 1,000 or 1,500 cars, in a city like Chicago.

The committee that we have on that is four or five paint manufacturers, four or five of the applicators, that is, paint foremen and paint chemists and so forth.

We come into a city like Chicago, go to the Police Department and get permits to go into the used car lots and take a [fol. 3602] look at these cars, and we present our credentials to the used car lot man so he knows we are not trying—and we have examined about three or four thousand cars a year under that system.

We still feel that the "Duco" paint is better. Now these paint manufacturers that we have make both kinds, so they don't care which kind we use. But it shows up that it is still very good, if not the best thing there is.

Q. Did you have a competitor speak to you one time about the quality of General Motors paints as against his?

A. Well, he said that he was always interested to know why the two cars, his and one of ours, that had exactly the same specifications, sold at practically the same price, and if you gave them exactly the same use, you could still get more for our car in a used car lot than you could for his.

He said, "What do you think the reason for that is?"

I said, "I think one of the reasons is the paint."

Q. Mr. Kettering, I want to call your attention to the subject of refrigerants.

When did you first start to work on a refrigerant?

A. We started way back—I would say I started with what is now Frigidaire back about 1914, 1915, in there, getting some of the early refrigerating machines.

We used what everybody used for these refrigerating gases, and the particular one we were working with was sulphur dioxide. It is a pretty satisfactory refrigerant, but it is very nauseating if it escapes.

The Dayton Metal Products' main offices were in a house down on Ludlow Street. In fact, we had two houses there. One was our laboratory. I took the wallpaper off the dining [fol. 3603] room and papered that with white paper, and we laid off what they call the table of critical pressures and temperatures of all the known refrigerating gases.

Right where we would like to work, there wasn't any. So Midgley and I were talking about it one day, and we said "If we ever get a chance, we would like to make a refrigerant gas that would fit right into the middle of that place there, but it ought to be a non-toxic, non-irritating material." But we weren't able to get to it at that time because we had these fuels and all that kind of stuff coming along.

Q. Why was your interest in fuel greater than it was in the refrigerant?

A. Well, here is the thing: You use about the weight of your automobile in gasoline a year, and that was the thing that was limiting our automobile development. We were interested in getting that started first.

We had a limited number of men, and we tried to rate our projects in terms of what they could do. In other words, we kept the paint and fuel at about the same parity. Then we had refrigerants, and we had some synthetic rubber study.

We rated those in terms of their values and took them in order, depending upon the commercial importance.

Q. Now you have told us that occurred when you were with Dayton Metal Products Company, that was before you went with General Motors, therefore before December, 1919. When again was your attention called to the need of a refrigerant?

A. Well, it wasn't so much the need of a refrigerant, but there had been an accident up in Danbury, Connecticut. Somebody had punched a hole, used an ice pick—which was quite common in those days—into a refrigerating tube in a mechanical refrigerating machine. The gas had leaked out and killed some people.

[fol. 3604] I used that then as a means of going back to our refrigerating outfit and saying, "Here is another indication of why it is so essential," because we had talked to them quite often about it.

Q. Whom did you talk to in the Frigidaire Corporation?

A. The chief engineer, and also Mr. Biechler, who then happened to be general manager.

Q. What did they say to you?

A. Well, they——

Mr. Harsha: Your Honor, may we have some identification as to the period of time we are discussing here? Counsel seems to be making a point.

Mr. Carpenter: This was about 1927 or 1928, was it not, about then?

The Witness: 1927 or 1928, yes.

Mr. Carpenter: That agrees with the date in your complaint.

Mr. Harsha: Thank you.

By Mr. Carpenter:

Q. What did Mr. Biechler say?

A. He said they thought they needed a new refrigerant. They were going to Germany and get a chemist the next year and see if they couldn't do something about it.

Then I recalled to him what we had done previously in setting up these studies and that we felt that we knew how to do the thing. He said, "Who will you put on the job?"

And I told him I would put Mr. Midgley and Dr. A. L. Henne on the job.

He said they wouldn't be acceptable to them because they would come to work in the middle of the night, and all that sort of thing. So I said, "We can fix that."

[fol. 3605] So I built a lean-to outside of the fence, at the Moraine City plant, and brought the services, like gas, electricity, and water, to that, and put them on a special budget so they didn't have to go into the refrigerating plant, didn't have to go through their guard system, or anything like that.

It was entirely an outside thing to which we made an appropriation, I think something like $10,000, $15,000 a month, and that was O.K.'d by the Frigidaire, and that was as far as they had to be disturbed about it.

I think it took about eighteen months after we started that before we got what is now known as F-12. I think that was one of the first ones.

Q. F-12 is called Freon, is it not?

A. Yes.

Q. What materials was that made of?

A. Theoretically you could start out with natural gas. Natural gas is one carbon—consider this a ball of carbon here, and four hydrogens on that.

Q. Could you illustrate that on a chart? I think this might help the court in understanding this, if you will put it up there. I think it can be done very quickly and will be helpful.

A. (Demonstrating) Say that represents the carbon, and you have four hydrogens on here like this. That is the fundamental of natural gas.

Now, these hydrogens can be substituted with other materials. One of the common refrigerants that we had, we took off say one of the hydrogens and put a chlorine on there, the symbol being Cl. That is known as monomethylchloride. Two on is called dimethychloride, and that was one of the ones that was in that Danbury machine.

Now, if you put three chlorines on here that is chloroform. If you put four on them, that is carbon tetrachloride, which is a fire extinguisher.

[fol. 3606] So what we did in the work on Freon was to substitute fluorines in place of some of these chlorines, and the rather complicated technical name they have for F-12 is difluorodichloromethane. Natural gas is called methane. So that is all it comes out to be. It is just the carbon of a natural gas molecule having two fluorines and two chlorines substituted for the hydrogens.

Q. Mr. Kettering, had anybody before ever used, to your knowledge, any fluorine compound in any manufacture?

A. Well, they had used hydrochloric acid and things like that, but in an organic combination like this, so far as I know, we were the first people to use it. Every kid knew about fluorine as hydrochloric acid, and knew it would etch glass, but people were rather afraid of it, whether there was any reason for it or not, but so far as I know this was the first attempt to use fluorine in organic combinations.

Q. And you used it in combination with chlorine?

A. It wouldn't make any difference whether it was with chlorine or not, because they had been using chlorine in substitution products, as you can see there, for quite a long while.

Q. Was chlorine a poisonous compound?

A. Yes, it is. It is usually the basis of all your insecticides.

Q. Now, after the method of making Freon was discovered down there at Dayton at the Moraine City plant, did you bring anybody in consultation on the manufacture?

A. Yes, we got in touch with some of the boys down at du Pont.

Q. Who invited them up?

A. I did, or Mr. Midgley invited them up at my request.

Q. Did you consult with them?

A. I was there at the first meeting.

Q. Do you remember what you said to them?

A. Well, I don't remember exactly what I said to them, [fol. 3607] but what we wanted to do was get their opinions and see whether they could manufacture this for us.

Q. As a result of that, Kinetic Chemicals was formed and manufactured the Freon?

A. Yes.

Q. Now I would like to ask you, Mr. Kettering, whether you ever did any work in your laboratory at Dayton on synthetic rubber?

A. Yes, we did some work before. Along about the war time, we made a study of synthetic rubber and did a little bit of work on it. As I say, we figured, oh, between 25 and 50 pounds of rubber per year per car, and there were a lot of good rubber companies, so that was really the least important one that we had.

Then, I imagine, it was around 1927 or 1928, there was a Russian by the name of—I think it was Ostromilinski—wrote a paper. It was published over here, and in it he said that he did a certain thing, which we had tried once and couldn't get to work.

We picked the thing up under special appropriation and tried that out, using some of the techniques that we had used in the fuel. But that was as far as it went.

Q. Was the manufacture of synthetic rubber or the devising of a method of making synthetic rubber ever a research project in General Motors Research organization?

A. No, not as such.

Q. Where was Midgley's work done on that?

A. Well, I don't remember just exactly which laboratory it was done in at that time.

Q. It was not done in your laboratory?

A. No, it was not done there.

[fol. 3608] Q. Did you ever hear, until this suit was brought, about a letter written by Mr. Lammot du Pont to Mr. Sloan objecting to Mr. Midgley doing any work on synthetic rubber?

A. No.

Q. To your knowledge has the du Pont Company ever objected in any way to the research work you were doing?

A. No.

Mr. Carpenter: You may cross-examine.

Cross-examination.

By Mr. Harsha:

Q. Mr. Kettering, you have been a director of the General Motors Company since December, 1920, I believe, according to the records in this case. Does that correspond with your recollection?

A. Roughly so, yes. I couldn't say exactly when it was.

Q. According to the record we have, you became a director December 30, 1920, and continued up until the filing of this complaint, as a matter of fact, up until 1952 as a director. Are you still a director?

A. Yes, sir, I am.

Q. In your direct examination, Mr. Kettering, you touched upon a number of companies located, I gather, principally around Dayton, Ohio, with which you had some connection.

Would you state exactly with what companies you had a connection either as an officer or as a stockholder in the period, say, 1919?

A. Well, it went back before that. The first one in Dayton, the old Delco Company, that was the lighting, starting and ignition. Off of that we branched out into the Delco Light Company, which was farm lighting. They made the farm lighting equipment, and it was in that organization that we started the refrigeration work.

[fol. 3609] Then I also was interested in the Dayton Metal Products Company, which manufactured airplane parts and fuses and things of that sort, and the Dayton-Wright Aeroplane Company, which manufactured airplanes for the Government.

Q. Now, did you ever hear of the Dayton Engineering Laboratories Company?

A. That is the Delco.

Q. That is the same thing as Delco?

A. The Delco, Dayton Engineering Laboratories Company, that is the initials of that.

Q. Now, was the Dayton Engineering Laboratories or the Delco Light Company also known at one time as the Domestic Engineering Company?

A. The Delco Light Company was known as the Domestic Engineering Company.

Q. And the Dayton Engineering Laboratories Company, was that a part of Delco Light?

A. No. The Dayton Engineering Laboratories Company was the original company that we started for the manufacturing of automobile equipment. That is the Delco lighting, starting and ignition.

Q. Which was the company that was purchased by United Motors, do you recall?

A. The Delco. That was the automobile parts business that was purchased by them.

Q. That was purchased approximately in the middle of 1918, was it not?

Pardon me. Strike that question.

A. I don't remmeber the date when that was. But that was before—I thought it was earlier than that.

Q. Yes, you are right. I made a mistake. The Delco was merged into United Motors first, was it not, about 1916?

A. Yes, that is more nearly right.

Q. Then later on United Motors was acquired by General Motors in 1918?

A. That is right, sir. That is right.

[fol. 3610] Q. And you remained during those periods with United Motors, during the period 1916 to 1918, did you not?

A. Well, as general manager of the Delco Company.

Q. And then in 1918 when United Motors was acquired by General Motors, you went then into the General Motors organization, did you not?

A. That is right, yes, sir.

Q. What was your position in 1918 after this acquisition?

A. I went in as general manager for Delco.

Q. Now, during the period prior to December, 1919, did the Dayton Metal Products Company have any sort of arrangement, formal or informal, with General Motors?

A. No.

Q. Did the Dayton Metal Products Company keep General Motors informed as to the research work which it was doing on fuel?

A. Well, only through me. I mean it was not any formal thing because nobody was interested in it yet. Really the Dayton Metal Products was not interested.

For the first three years I paid for the research out of my own pocket.

Mr. Harsha: Will you show Mr. Kettering Government's Exhibit No. 599, please.

By Mr. Harsha:

Q. Mr. Kettering, I draw your attention to Government's Exhibit No. 599 which is a letter written to Mr. C. M. Stine of the du Pont Company in October, 1919, signed by K. W. Zimmerschied, Assistant to the President.

You will note that in the first paragraph he states:

> "With reference to the matter of fuel investigations, I have discussed the situation with Mr. Durant and [fol. 3611] Mr. Kettering at length. Replying to your letter of October 2nd, to Mr. Durant, and referring to your memorandum of September 27th to the Eastern Laboratory, I find that the Dayton Metal Products Company is arranging to send you immediately a single cylinder engine and indicator, as covered in your

> discussion of a plan for carrying out your fuel investigation, with Mr. Kettering. The Dayton Laboratories will continue the broad subject of fuel utilization in internal combustion engines, and your people will take up the development of chemicals which may be added to undesirable fuels for the purpose of converting them into usable products. I believe it is Mr. Kettering's idea to produce, if possible, something that may be added at slight expense in small quantities, in a convenient form."

Do you recall this letter, Mr. Kettering?

A. No, I do not.

Q. This letter was written, was it not, prior to the acquisition of the Dayton Metal Products Company by General Motors?

A. Yes, sir, it was, because I knew Mr. Zimmerschied very well. I had known him for years. He had charge of what corresponded to the General Motors research, and they had a contract with the Arthur D. Little Company of Boston to do a lot of their work.

Q. Would you say that General Motors, as evidenced by this letter, was interested in fuel research at that time?

A. I think it might have been, yes.

Q. I call your attention to the second paragraph in which it is stated:

> "It is presumed that the marketing of this chemical will be a matter of interest to the du Pont organization, [fols. 3612-3614] and that the expense of developing it will be borne by your Research Department."

Do you recall at this time General Motors recognized that du Pont would be interested in the manufacture of any chemical useful in this fuel research?

A. No, this is all new to me. I never saw this before.

Q. I would like to direct your attention to the last paragraph on the other side of the page which states:

> "For your information, Mr. Kettering has been appointed Director of all our technical and engineering developments and research work."

This was prior to the time that the Dayton Metal Products was acquired, was it, by GM?

A. It could not have been because I had nothing to do in General Motors Research until after our interests were acquired.

Q. Do you have any information, Mr. Kettering, why this letter refers to you as Director of Research, in October of 1919?

A. I haven't the slightest idea, because I was not. I had nothing to do with General Motors Research until after our properties had been acquired.

[fol. 3615] Q. I show you Government's Exhibit No. 580, and I believe this is the unsigned agreement to which you referred on your direct testimony, isn't it, the one you were asked to sign and you declined?

A. Yes, sir.

Q. Then you testified on your direct examination that there were a series of letters passing between you and Mr. Lammot du Pont in which he was urging that you sign the agreement, and that you were not very anxious to do so. And that it was finally dropped, as I recall your direct testimony, but wasn't this matter finally submitted to the president of General Motors, Mr. Pierre du Pont?

A. I would not know whether it was or not.

Q. I show you Government's Exhibit No. 594, and this is your final letter, I believe, to Mr. Lammot du Pont, in which you point out in your second paragraph of the letter that you considered that this contract is entirely outside of the range of the research laboratory, and you are therefore turning the matter over to the head of your corporation, [fol. 3616] and I show you now Government's Exhibit No. 595, which is your transmittal letter to Mr. P. S. du Pont, dated May 2, 1922, in which you state that you are enclosing a copy of the contract, together with a letter from Mr. Lammot du Pont and a copy of your letter to him.

Do you recall having any conversation with Mr. Pierre du Pont concerning this contract?

A. Well, we talked it over, I am sure, because I was——

Q. What was Mr. Pierre du Pont's attitude on this matter?

A. Well, I think Mr. Pierre du Pont's attitude on it was that he understood my point of view very much better than Mr. Lammot du Pont did because *he* had been in the motor car business long enough to realize what these problems were that we were working on.

Q. Do you recall anything further in that conversation?

A. No, I do not.

Q. I show you Government's Exhibit No. 598, which is a memorandum prepared by Mr. Lammot du Pont in November of 1922, in which he states:

> "In conversation with Mr. P. S. du Pont he advised that it does not seem possible at this time to institute any plan for cooperation on chemical research work between General Motors Corporation, his feeling being that as problems come up special arrangements with reference to each should be made between the two companies, rather than attempt now to make a general arrangement to cover prospective cases."

Do you recall Mr. Pierre du Pont informing you of this decision?

A. Not particularly, no, but I remember when this was brought up because it was—it bore out exactly what we had been standing for, that you couldn't make a general contract because our applications of chemicals to the automotive [fol. 3617] industry did not conform with what you might say the conventions of the chemical industry were.

I mean, ours was a special application to a rather little understood industry at that time, because the automobile business had not developed into what it is now.

Q. As a matter of fact, in this letter written contemporaneously with the discussion with Mr. Lammot du Pont, by this time General Motors had already entered into a special arrangement with du Pont on tetraethyl lead, hadn't it?

A. Well, yes. What day is this?

Q. This is dated November 6th, 1922, and your contract with the du Pont Company was dated October 6th, 1922?

A. Yes. Well, that was for the manufacture and the controversy came out, and the difference came out between what you might say was the development of the model into which we didn't want to get involved—the experimental work we didn't want it to get involved with what you might say was the production phase of it.

Q. So that your objection was not that the du Pont Company would become the manufacturing agent of the General Motors?

A. No, we had no objection to that, because we wanted somebody to manufacture it, but we didn't want to have an agreement in which we would have the complication of two organizations in the experimental and developmental work.

Q. Now, I would like to go back to one of the letters in the series of correspondence between you and Mr. Lammot du Pont.

I will show you, Mr. Kettering, Government's Exhibit No. 582, and I draw your attention to it. This letter is dated October 21, 1921, and you state:

> [fol. 3618] "I found after my visit to Wilmington, in which this contract was discussed"—

"This contract" is referring to this general chemical research contract again?

A. Yes.

Q. (Continuing):

> —"that the then Executive Committee of the General Motors organization was quite antagonistic to this proposition and asked us to delay signing the agreement. However, since the change in our organization, our problem, as we now see it, is entirely changed from what it was at that time."

Now, Mr. Kettering, in your first sentence when you are referring to the then Executive Committee of General Motors, you are referring to the Executive Committee of General Motors as it was constituted when Mr. Durant was president, weren't you?

A. Well, I am not sure.

Q. And aren't you referring to the change in your organization, to the fact that by this time Mr. Pierre du Pont was president of General Motors, and that the Executive Committee had been reorganized?

A. I don't know about that. I wouldn't know.

Q. You do recall, however, that this matter of this general chemical agreement continued from 1920 up to 1922, don't you?

A. Yes, quite a long while in there.

Q. And that this matter did, of this chemical agreement, did come before General Motors back in 1920, didn't it?

A. I think it did.

Q. The change in top management in General Motors occurred in late November or December of 1920, did it not?

[fol. 3619] A. Yes, but the question whether we signed that contract or not had been left entirely to me as to whether we did or whether we didn't sign it.

Q. Can you explain what you mean in your sentence that states that after your visit to Wilmington you say that:

> "The then Executive Committee of General Motors organization was quite antagonistic to this proposition."

Doesn't that indicate that the matter had been taken up in the Executive Committee of General Motors?

A. Well, it was taken up, but not by me. That is, I think Mr. Sloan, or somebody, told me about that, because I didn't have anything to do with the Executive Committee at that time.

Q. Now, how did the change in your organization, that you refer to in the second sentence, affect the problem? You say that it has been entirely changed from what it was at that time?

A. I don't know whether that was changed in General Motors organization or in our research organization.

Q. You refer to General Motors only in the first sentence, don't you?

A. Yes.

Q. Wasn't there a feeling in General Motors at this time that because Pierre du Pont was now president of General Motors that it was unnecessary to have a formal type of contract between General Motors and du Pont?

A. No, we never felt that way.

Q. On the manufacture of——

A. No, we never felt that way. We always felt you had to have a formal contract.

[fol. 3620] Q. Wasn't it well understood at this time, however, that the du Pont Company was to be the manufacturer of whatever chemicals came out of——

A. Not necessarily, at all.

You see, the Dow Chemical Company always made our bromine for us, so it was not a——

Q. I show you, Mr. Kettering, Government's Exhibit No. 610.

On your direct examination you were shown this document, Mr. Kettering. Were you informed at the time this memorandum was written or subsequent to this, that Mr. Pierre du Pont had sent this information to Irenee du Pont?

A. No.

Q. You had told Mr. Pierre du Pont, however, that you would like to take up the question of manufacture of this new material with du Pont, isn't that correct?

A. Yes.

Q. Did he tell you that he was going to take steps along that line?

A. He didn't. I just told him that I was going to——

Q. What was the first information you received that du Pont had become informed about the discovery of tetraethyl lead?

A. Well, I think we told them about it, Midgley or I told them about it.

Q. About the same time the patent application was filed, wasn't it, that Mr. Midgley wrote to the du Pont Company?

A. I think it is in there some place. I know we were not trying to keep the thing a secret.

Q. Is it customary to inform any other company about a discovery, a chemical discovery, which is patentable, before you file for a patent application?

A. Oh, it often is, yes.

[fol. 3621] Q. Don't you run the risk——?

A. Yes, you do, but then it is—but I have done that quite often.

Q. I show you General Motors Exhibit No. 256, and I would like to call your attention to the third page, the second paragraph. I believe you testified concerning that.

That is just the report, I believe, of Mr. Midgley's visit to the various companies including Standard Oil, in which I believe Mr. Midgley suggests that the Standard Oil Company undertake the erection of a 100-gallon plant for the manufacture of tetraethyl lead, and I would also like to show you in connection with this Government's Exhibit No. 622.

Did you talk to Mr. Sloan after you or Mr. Midgley had had this discussion with Standard Oil regarding the manufacture of tetraethyl lead? Did you keep Mr. Sloan informed of that order?

A. I am sure we did.

Q. Did you know that Mr. Sloan was not favorable to it, of having Standard Oil as the manufacturer?

A. No, I didn't.

Q. I call your attention to the second page of Government's Exhibit No. 622 in which he states, in the last paragraph:

> "I question whether it will be good business from our standpoint for them to manufacture tetraethyl lead and at the same time have such a large slice of the distribution on same. I do not say that I fear we will not get a square deal, but that naturally comes into my mind. Anyway, I do not think it is constructive. I feel that in the final analysis the du Pont Company can manufacture the material at the lowest cost plus a reasonable return and that under such a considera- [fol. 3622] tion there would only be a manufacturer's profit in it for the Standard Oil Company and that they could employ their capital to equal, if not better, advantage in their own business than in the manufacture of tetraethyl lead and that our permitting them to get into that manufacture will be a disturbing influence and would throw an uncertainty on the whole situation that would not be constructive."

Did he ever inform you, did Mr. Sloan ever inform you of his attitude on his part?

A. No, he did not. The only time that Mr. Sloan had evidenced any negative attitude, so far as I could see, was on this hazard business.

Q. On the what, please?

A. On the hazard, the health hazard business. You see, we were all worried about that, and it did get them into trouble a little bit later———.

Q. I show you now Government's Exhibit No. 624, and I direct your attention to the fifth page of this document. I believe this was called to your attention on your direct examination. You will note that the statement is made that Mr. Kettering "will be in New York sometime the latter part of this week, and I have asked him to see you in connection with various operating matters connected with the workout of the present agreement."

Did you discuss with the Standard Oil people at this time the licensing under their new process for the ethyl chloride process?

A. No, I don't think so. I don't remember. I really didn't handle that license business personally with the Standard Oil.

Q. Did you have any negotiations with them outside of the licensing feature?

A. Just a little bit, but I think that Mr. Sloan and some of the attorneys handled that.

[fol. 3623] Q. I call your attention to paragraph 3 of this letter that is found on page 4. Do you see that, the paragraph numbered 3?

> "As to your manufacturing tetraethyl lead for our account—"

If you will just read that to yourself first.

A. Yes, sir, I have read it.

Q. You received a copy of this letter, did you not, according to the carbon copies listed?

A. Yes, I did.

Q. Did you get the impression when you saw this letter that Mr. Sloan was not particularly anxious to have the Standard Oil people undertake the manufacture of the tetraethyl lead?

A. Well, I suppose you could gain that from this.

Q. I believe you stated on direct examination that you were made president of the Ethyl Gas Corporation when it was organized in 1924, I believe, and that you only remained president for four or five months?

A. A few months, yes.

Q. By whom were you succeeded?

A. Mr. Earl Webb.

Q. He succeeded you as president?

A. Yes. You see, I had been president of the General Motors Chemical Company, and this moving over was——

Q. I would like to show you now Government's Exhibit No. 676.

You stated on direct—pardon me, you can go ahead and look at that first.

This relates to the matter of the iron carbonyl. I believe you stated on direct examination that on one of your [fol. 3624] visits abroad you had been shown this substance by Dr. Bosch.

A. Yes.

Q. Of the German firm?

~~A. Yes, the~~ I. G. Farben.

Q. And did you subsequently, after you came back from your trip, file an application for a patent on this substance?

A. No, that was included in one of our earlier patents, and we didn't file particularly on this, so far as I know, but it was covered in the fundamental basic patent on metallic organic compounds.

Q. Now, you had negotiations extending over a period of two or three years, did you not, with I. G. Farben regarding the obtaining of a license independent from iron carbonyl patents?

A. Yes, they sent us some of their chemists and some of their material over, and we spent quite some time going over that with them.

Q. Were you on the Board at that time as a member of the Board of Directors of Ethyl, were you not?

A. Let's see, what time was this?

Q. Well, 1924 to 1927.

A. Yes, yes, I had been on the Board of Ethyl ever since it was organized.

Q. And this Government Exhibit No. 676 is a memorandum of one of the meetings of the Board of Directors in which this matter arose for discussion?

A. Yes.

Q. Why was the Ethyl Company so interested in obtaining a license under iron carbonyl?

A. We weren't particularly interested in obtaining a license on it as the I. G. Farben Company was in selling it to us.

Q. These negotiations were continued for several years before you finally consummated an agreement?

A. Yes, but not so much negotiations as there were road tests and an attempt on the part of the Farben Company to overcome some of the difficulties that had come up in the road tests.

[fol. 3625] Q. Am I to understand that I. G. Farben was trying to interest you in taking a license under this?

A. Oh, yes, yes, they sent for me when I got back to Paris, when I was out on the bromine search. There was a telegram or cablegram awaiting me when I got back to get in touch with Dr. Bosch.

They were taking the initiative of trying to sell to us, rather than our buying from them.

Q. Then why was the du Pont Company called in to handle the negotiations of I. G. Farben?

A. Because they had a European office, and they knew these people and had done a lot of business with them, and I was a perfect stranger.

Q. As a matter of fact, wasn't the Ethyl Gasoline Corporation trying to obtain a license under any patent at this time related to a substitute for tetraethyl lead?

A. We are still interested in trying to get anything——

Q. Any chemical substance which might be competitive?

A. Oh, yes, we still are.

Q. And wasn't that the reason why you took this license under iron carbonyl?

A. I don't know whether we took the license or not, but it was covered primarily by our initial patents, and I think that the only license that could have been there was the specific method of making it, because the basic usage thing was covered in one of our patents.

In fact, Dr. Bosch told me that it was.

Q. Well, I draw your attention to the first sentence in the third paragraph of this exhibit, on the first page. You have Government's Exhibit No. 676 before you, Mr. Kettering, have you not?

A. Correct, I have.

[fol. 3626] Q. You will note:

> "Discussing the patent protection it was thought likely that the general patents owned by the Ethyl Gas would not hold for all anti-knock materials. Opinion of an eminent patent attorney was read indicating that to be the case."

Then in the last of the paragraph it states:

> "It was felt that it would be desirable, however, to obtain patent on iron carbonyl from the Badische Company if it could be arranged."

Wasn't this really, this negotiation, undertaken on behalf of the Ethyl by the du Pont Company to try and get a very good deal, if possible for Ethyl, and to obtain a patent license under any material which might be competitive to tetraethyl lead?

A. No, I don't think that was it. I think we tried to get something better. You must remember that this was right back in the time when we had a lot of discussions about health hazards and everything else, and it is hard to appreciate now what the negative attitude of the whole chemical industry and everybody else was towards these lead compounds.

Q. I show you Government's Exhibit No. 710. This is a letter written by Mr. Sloan to Mr. Irenee du Pont, and I draw your attention to the second paragraph of that letter in which it is stated:

> "I was talking to some of the Standard Oil people today and they feel that it would be a very constructive thing if you would come in with us on this proposition. Du Pont will always be the manufacturing agent of [fol. 3627] Ethyl Gasoline Corporation whether we make tetraethyl lead or whatever we make, now or in the future. I am sure of that."

Did Mr. Sloan ever express this attitude to you?

A. No, sir, he did not.

Q. You never heard him express anything of this sort at the meetings of the Board of Directors of Ethyl?

A. No, I did not. Of course, they have not always been the manufacturers of tetraethyl lead, because we are——

Q. du Pont had not?

A. No, we went into our own manufacturing of it near the expiration of the patents.

Q. But at the time this document was written, in 1924?

A. Oh, that was, yes, but the part that—the question, the fact we said, "And they always will be", but that didn't work out that way.

Q. It continued in that fashion, however, did it not, from the time the patents exired?

A. Yes.

Q. I show you Government's Exhibit No. 899. You testified regarding the development of the fluorine compounds, Mr. Kettering, and you were aware, I believe you so stated on your direct examination, that there was an agreement entered into between General Motors and the du Pont Company covering the manufacturing of fluorine compounds?

A. Yes.

Q. And there was the creation of another company, Kinetic?

A. Yes.

Q. Jointly held by the two companies?

A. That's right.

Q. I would like to call your attention to the third paragraph on the third page of this letter written by Mr. J. L. [fol. 3628] Pratt. Incidentally, was Mr. Pratt your superior?

A. Not at this time. He was at one time. You see, he was my superior but not at this time.

Q. Had he been your superior previous to this? This is dated 1931.

A. Yes, yes, he had. You see, he used to have charge of some of the accessory groups and in that respect he was my superior because I was general manager of the Delco Company, and that is the one that made the lights and starting ignition for the automobiles.

Q. I draw your attention to the fact that it is indicated that you received a copy of this letter, if you will note the last page, where it indicates a copy to you and Mr. Sloan, and I would like to call your attention now to the third paragraph on the first page in which he says:

> "I agree fully with practically all you have said in the third paragraph of your letter, in regard to lack of experience of General Motors in the development of chemical manufacturing processes and the operation of plant to carry out same. This was fully recognized when we entered into the agreement, under date of August 27th, 1930, with the du Pont Company for the formation of Kinetic Chemicals, Incorporated. Clause 7 of that agreement reads as follows:
>
> "* * * it being further agreed that future chemical developments (other than those relating to 'said products') originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually

agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments then General shall be free to dispose of the same elsewhere.' "

[fol. 3629] Then he goes on to state:

"This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity."

Were you aware of such a tendency or attitude in General Motors?

A. Well, we had one or two men, Mr. Biechler of the Frigidaire, who wanted to get exclusive on this thing, and perhaps manufacture it as a part of Frigidaire because he wanted to keep it as exclusive because of the tremendous effect it would have on the Frigidaire business.

Q. It was a very valuable invention, was it not?

A. Oh, very.

Q. And it had great commercial potentialities, didn't it?

A. Well, not too great. I think the maximum business done in Kinetic is only $21,000,000.00 or $22,000,000.00 a year, but its multiplying factor in the refrigeration business is tremendous.

Q. Yes, as an adjunct to the refrigeration game it is an important invention, isn't it?

A. Yes, very, very. Of course, it made air conditioning in hospitals and that sort of thing possible, which we had never had before.

Q. Did you ever state to Mr. Pratt, after you received a copy of this letter, that you disagreed with this statement that I just read to you?

A. Well, John and I talked it over and I was interested in this, and of course, there are two things in that paragraph you read, sir.

Q. I am referring to the part that says, "This clause is [fol. 3630] placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity."

A. I say, the only one I know is the one that Mr. Biechler brought up in Frigidaire. This is the only thing that I had ever heard. But there is another——

Q. Do you know why this agreement was couched in terms to cover all future developments by General Motors?

A. It is not that. That should be "future chemical developments" in this particular line.

Q. No, I believe not, Mr. Kettering, because it states "other than those relating to said products." I think if you—pardon me.

Mr. Carpenter: I want to suggest that the witness had not completed his answer when he was interrupted.

Mr. Harsha: Very well. I wasn't aware I cut him off.

The Court: You may complete your previous answer.

By the Witness:

A. We had discussed this with—the interpretation I make out of that paragraph is this, that the products that we were interested in here were refrigerants. Now, there was a tremendous lot of other fluorinated compounds that we were interested in.

For instance, you take in installations for electrical machines and all of that sort of thing. We felt that all those ought to go through this particular Kinetic Chemicals, because the Kinetic Chemicals were only set up to manufacture chlorinated compounds.

[fol. 3631] Mr. Harsha: Is it your pleasure, your Honor, to have a recess?

The Court: Yes.

The Court stands recessed for fifteen minutes.

(A short recess was here taken.)

Mr. Harsha: Mr. Kettering, as I understood your testimony a few minutes ago, regarding this iron carbonyl patent, it was the I. G. Farben who was trying to sell you on the idea of taking a license, was that your position?

A. Yes, that was my understanding of it at the time.

Q. Now, I would like to show you Government's Exhibit No. 715, which is a letter written by Mr. Irénee du Pont to Alfred P. Sloan in June, 1926, and I call your attention to the second page of the document, the second paragraph, which states:

> "Apart from this it is very important that the relations between the Badische Company, the greatest chemical manufacturer of Europe and even the world, and the du Pont Company, one of the great chemical

companies of the world, should be friendly, not only for du Pont's sake, but also for the sake of General Motors."

And then skipping over to the third page, the statement is:

"I don't altogether blame Badische for feeling sore. They know that Kettering saw a sample of iron carbonyl though they didn't disclose what it was and that they told him that material was a very good anti-[fol. 3632] knock. He was keen enough to recognize what the material was, return home and file a patent application thereon. Without knowing the prior history that appears to them to be rather sharp practice, though it would have been avoided if the Badische Company had been quite frank at the time and told Kettering that it was iron carbonyl, under pledge that he would not attempt to apply for patent on it."

Doesn't that truly state the situation, Mr. Kettering?

A. I don't think it does, no, because we knew that the I. G. Farben Company had made iron carbonyl long before I went over there, and we had written them months before. We had suspected that iron carbonyl was an anti-knock compound, and we had written them long before I went to Europe for samples, and they did not even answer our letters, but I do not remember of personally ever having applied for a patent on the use of iron carbonyl as an anti-knock.

Q. How about the last sentence of that paragraph I have just read to you:

"Also, from the Ethyl Gas side is it not wise to encourage improvement in anti-knocks knowing that they have a basic patent and are in control of the situation and due to improvement can get in the saddle more easily."

Isn't that precisely what Ethyl was trying to do to cure these improved patents on motors that might be suitable for tetraethyl lead?

A. No, this was not an improvement. The improvement mentioned in here was an improvement in the use of iron carbonyl because it was not a separate method at all.

[fol. 3633] Q. At the time of this correspondence in 1926, you did not know whether iron carbonyl would be a successful substitute for tetraethyl or not, did you?

A. No, I don't think we did, but we knew it was an antiknock material from our analysis of it, and as I say, we had written for samples before I went to Europe and saw the Badische people.

Q. You didn't know whether it would ultimately prove commercially successful at this time, is that correct?

A. We were pretty sure from what we had seen over there that, as it was being used, it would not be satisfactory.

Q. Now, I would like to show you Government's Exhibit No. 717, which is a letter from Mr. Lammot du Pont to Mr. Sloan, July 24, 1926, and I call your attention to the second paragraph of that letter in which he states:

> "My personal feeling is that negotiations with Badische on iron carbonyl should be conducted by us, for the reason that not only will our relations with Badische be improved thereby, but I believe we will actually secure a better deal, due to the fact that du Pont Company has more lines of connection with Badische than either General Motors, Standard Oil or Ethyl Gasoline Corporation."

Wasn't this the reason why du Pont offered its services to conduct the negotiations with the I. G. Farben or Badische?

A. They had been doing business with the Badische Company for quite a long while, as I understand it.

Q. Now, you testified that after the discovery of tetraethyl lead, you had several conferences or visits both in Dayton, I believe; and also in Wilmington, with various officers or employees of the du Pont Company preparatory [fol. 3634] to interesting them in the manufacture of tetraethyl lead. Do you recall that?

A. Yes, sir.

Q. You did not find the du Pont Company very hard to interest in this matter of undertaking the manufacture of tetraethyl lead, did you?

A. I did not find them very enthusiastic, either. I mean, they were not rushing us for business. I mean, we had to convince them it was the right thing to do.

Q. I would like to show you Government's Exhibit No.

613, which is a memorandum written by Irenee du Pont to three of the employees of the du Pont Company, in which you will note he states that he is anxious for them to sell General Motors on the ability of du Pont to undertake the manufacture of this tetraethyl lead.

In your subsequent negotiations with these men, did they evidence any reluctance to undertake it?

A. No, not any reluctance, but they wanted to be paid for the thing.

Q. They wanted to be paid for it?

A. Yes.

Q. Now you were shown a Public Health Bulletin, G. M. No. 262, which was entitled, "The Use of Tetra Ethyl Lead Gasoline in its Relation to Public Health."

Are you acquainted generally with this report?

A. Fairly so, yes. I knew Dr. Cumming, and of course Dr. Fellingham, and those fellows who did the work for us at the Bureau of Mines. I knew their work very well.

Q. In this report, which I gather was prepared by the direction of the Surgeon General of the United States, there were certain regulations proposed.

Do you know whether those proposed regulations were adopted or became binding in any way?

A. Well, I know a series of regulations came out of that [fol. 3635] which have been used ever since. One was, the maximum amount of automobile gasoline can't have over three cc's of lead in it.

Q. You are acquainted with the fact that there was a set of regulations issued covering the manufacture, the distribution and the use of tetraethyl lead. Do you recall that?

A. Yes, but I don't know what those were or whether they have been subsequently changed.

Q. Now I show you, on page 20 of this document, which is headed, "Proposed Regulations for the Manufacture of Tetra Ethyl Lead."

Those are the proposed regulations which are to be followed by any company undertaking the manufacture of tetraethyl lead, am I correct?

A. Well, I imagine. As I say, I don't know whether these were finally adopted or not.

Q. Well, these or others slightly modified were finally adopted, is that correct?

A. As far as I know, they were.

Q. Was the import of these regulations that if these regulations were followed, then tetraethyl lead could be manufactured safely in the opinion of the Surgeon General?

A. The Surgeon General and his committee, yes.

Q. And this report does not confine, does not single out just the du Pont Company as being the only qualified one to manufacture this substance, isn't that correct?

A. No, I don't think so.

Q. These are of general import?

A. That is right.

Q. I believe you also stated on your direct examination that in your research projects in General Motors that you graded, if you will, the various research projects to be undertaken by men under your supervision, and you arranged them according to their commercial significance or [fol. 3636] importance to the automobile industry or to General Motors, more precisely.

Am I correct?

A. It had to be for the industry because we couldn't do a thing like tetraethyl lead for General Motors alone. It had to be for the whole industry.

Q. Yes. And I think you said that in ranging them in importance that the development of a pyroxylin finish or a "Duco" finish and invention of tetraethyl lead were of the same relative magnitude of importance, is that correct?

A. Yes, that is right.

Q. Now, isn't it also true that any company who obtained the manufacturing rights for these two compounds, namely, a "Duco" type finish and the tetraethyl lead, would have a very important segment of business in relation to the automobile industry?

A. Oh, I imagine they would, yes.

Q. You referred to this committee, I believe, that was composed of certain paint manufacturers?

A. Yes.

Q. And paint chemists, et cetera, who have done over the years certain testing on the durability of paint finishes?

A. Yes.

Q. And you say that it has been your conclusion that a "Duco" finish is probably among the best?

A. Yes.

Q. And now in using the term "Duco" there, you were referring to "Duco" in a generic way, were you not?

A. Exactly, yes.

Q. You were not referring to the trade name?

A. The du Pont Company "Duco," no.

Q. Now, you also stated, I believe, on direct, that you did not become acquainted with Mr. Pierre du Pont until [fol. 3637] after he became the president of General Motors, which I believe the records show at the end of 1920, and that you didn't know Irenee du Pont or Lammot du Pont until perhaps sometime after that.

A. This is right, as I remember. That is right.

Q. Do you recall, Mr. Kettering, that you were a participant in the syndicate agreement for the buying and selling and supporting of the value of General Motors stock in June of 1920, in which the du Pont Company and Mr. Irenee du Pont were parties?

A. I wouldn't have been in that at all because Colonel Deeds and Mr. Talbott handled all that for me. I never had anything to do with the stock end. It was handled by those two men.

Q. But you recall you were a signatory, were you not, to that agreement?

A. I imagine I was, but I never attended any meetings.

Q. Now, I gather that on your direct examination you stated that apparently in late 1923 and perhaps in early 1924, you had some contact with people in Standard Oil regarding their manufacturing or their new process for the manufacture of tetraethyl lead, and then you stated that most of the negotiations with Standard Oil were later on conducted by Mr. Sloan.

A. That is the contractual relationship that led up to the formation of Ethyl Corporation.

Q. And after Ethyl was formed, did you have much in the way of negotiations with Standard Oil regarding this tetraethyl lead?

A. Not too much, no.

Mr. Harsha: I think that completes my examination, your Honor.

Mr. Carpenter: If the Court please, I have a few questions on redirect.

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Vol. IV

TRANSCRIPT OF RECORD

(Pages 1619 to 2298)

(TRANSCRIPT OF TESTIMONY)

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET. AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

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[fol. 3638] Redirect Examination.

By Mr. Carpenter:

Q. Mr. Kettering, you said on cross-examination something to the effect that the du Pont Company continued to manufacture tetraethyl lead for the Ethyl Corporation until the patents expired.

I call your attention to Government's Trial Exhibit No. 799, which is the manufacturing service agreement between the Ethyl Gasoline Corporation and the du Pont Company, dated January 1, 1938.

I ask you whether that refreshes your recollection as to when the Ethyl Corporation commenced to operate its own plants and had the du Pont Company as its agent manufacturing for Ethyl at Deepwater?

A. This had to to with the plant down at Baton Rouge and Deepwater both.

Q. That is right.

A. I didn't know just exactly when that was because it was during this period right in here that I didn't go to very many of the Ethyl Board meetings. I was developing the locomotive engines and high compression automobile engines, so I didn't attend many of these meetings.

Q. Does that refresh your recollection?

A. Yes, it does.

Q. That from that date forward the Ethyl Corporation was the manufacturer and du Pont was the agent for them?

A. Well, that I didn't remember.

Q. One other thing I wish to cover. You were referred to a letter of Mr. Zimmerschied, dated October 28, 1919. I think it was Government's Exhibit No. 599.

I ask you if that was before the merger actually took place between General Motors Corporation and Dayton [fol. 3639] Metal Products Corporation. I show you now a paper dated September 25th, 1919—I will give you a copy, Mr. Harsha. I have sent for some and they will be here in a few moments.

I ask if this is not the resolution of General Motors Corporation, Board of Directors, dated September 25th, 1919, which gives the date that the merger agreement between Domestic Engineering Corporation and General Motors, the Dayton Wright Corporation and General Motors, and Dayton Metal Products Corporation was approved by the Board of Directors of General Motors?

Mr. Harsha: Are you introducing this?

Mr. Carpenter: I will give you a copy.

Mr. Harsha: Your Honor, it seems to me this is rather irregular procedure. We have all operated throughout this trial under the terms of the pre-trial order, and I think both sides thus far have tried to give counsel on the other side copies of whatever documents are being introduced. It seems to me we are departing from the framework of that order.

The Court: If this is something that counsel has overlooked previously——

Mr. Carpenter: We did not think it would be material, but since that letter indicates the doubt in the mind of Mr. Kettering as to when he first went into General Motors and when he would have first been connected with that, I think it is important.

The Court: If it is being introduced, the Court will reserve its ruling until counsel has had an opportunity to study the document.

[fol. 3640] Mr. Harsha: I might also add that on direct examination the testimony was elicited that this merger took place of Dayton Metal Products with General Motors in December of 1919——

Mr. Carpenter: That is correct.

Mr. Harsha: And now we have a document which indicates it is sometime earlier than that. If that was known to counsel, it seems to me we are being somewhat prejudiced here.

Mr. Carpenter: No. The merger was negotiated as we set forth when the stock was transferred or exchanged December 19, 1919, but the agreement to merge was made September 25, 1919.

By Mr. Carpenter:

Q. Where were you when Mr. Zimmerschied's letter was written?

A. I was in Europe. I was over there on certain work, and all that was done while I was away.

Q. Who carried forward the negotiations?

A. Mr. Talbott and Colonel Deeds. I never did any stock business or anything like that.

Q. In other words, the business was transacted by your associates when you were in Europe?

A. That is right.

Mr. Carpenter: That is all.

Recross Examination.

By Mr. Harsha:

Q. Mr. Kettering, on cross examination I showed you this document written by Mr. Zimmerschied, and you said the document was wrong, if I recall, which showed that you [fols. 3641-3643] were then, in September or October of 1919, acting as a Director of Research for General Motors. Would you like to correct your statement as to that question?

A. No, I wasn't wrong. I was in Europe. That was written after I had left America, and I knew nothing about that. Nobody ever said anything to me about it, and they didn't until I got back.

Q. When were you appointed Director of Research?

A. I was appointed Director of Research after this deal was consummated when we came in, when all my interests had been taken over by General Motors.

Q. Is this the September date we now hear about or was this the December date?

A. No, no, it was not.

Q. Which was it, sir?

A. December.

Q. The December date?

A. Yes. What he should have said was that I was to be appointed, and then he would have had it all right, because I knew nothing about that letter at all.

Mr. Harsha: That is all.

Mr. Carpenter: That is all, sir.

(Witness excused.)

[fol. 3644] Mr. Carpenter: Mr. Webb, will you take the stand?

EARL W. WEBB, called as a witness on behalf of the defendants, having been first duly sworn, testified as follows:

Direct Examination.

By Mr. Carpenter:

Q. Mr. Webb, will you state your name?

A. Earl W. Webb.

Q. Where do you reside?

A. 290 Park Avenue, New York City.

Q. You were the president of the Ethyl Gasoline Corporation from about 1925 until your retirement in the spring of 1948, is that not right?

A. That is right, from April 1, 1925; I retired as chairman of the board in 1948.

Q. Where were you educated, Mr. Webb?

A. Well, I spent three years at Trinity College in North Carolina. I transferred to the University of Michigan.

Q. You transferred to the University of Michigan?

A. Yes, sir, in 1902.

Q. After that did you practice law?

A. Yes. I went to New York and worked for the American Tobacco Company at 111 5th Avenue in 1902 for three or four months, then I went to the New York Law School and was admitted to the Bar in November, 1904.

Q. And from then on?

A. Well, I spent a year in an investment banking house on Wall Street. Then I became a clerk in a law firm.

Q. Did you practice law there?

A. I practiced law until August, 1922, when I went with General Motors.

Q. Were you engaged in the general practice of the law, trying cases and so on?

A. Yes, sir.

[fol. 3645] Q. From General Motors' New York office where did you go?

A. I did not get that question.

Q. From General Motors' New York office, where did you go?

A. I was never in General Motors' New York office. I had no connection with General Motors at all until I was employed as a general attorney of General Motors in charge of their Detroit office.

Q. Were you assigned to the sale of surplus real estate as mentioned in a letter written to Mr. Sloan by Irenee du Pont?

A. It so happened at that time the Legal Department and the Real Estate Department were combined, and I was head of both. I don't know that I ever sold any real estate for General Motors, I bought some for them.

Q. Did there come a time, Mr. Webb, when you were invited to accept the presidency of General Motors Corporation?

A. Yes, sir.

Q. Who asked you to do that?

A. Mr. Sloan.

Q. How long was that, Mr. Webb, before Ethyl discontinued its business or shut down?

A. Well, I say Mr. Sloan asked me. He asked me to come on to New York after I had made a survey of the Ethyl situation for about three weeks. And I went to New York and Mr. Sloan said that Mr. Teagle, who was then head of the Standard Oil Company of New Jersey, had agreed that he should select the president of the Ethyl Corporation, and he thought of me. Mr. Teagle had never seen me. He asked me to go downtown to see Mr. Teagle, and I did, that day.

Mr. Harsha: Your Honor, may I——

The Witness: So that when I came back, Mr. Sloan told me that I was the new president of Ethyl Corporation.

The Court: I think there is an error here.

[fol. 3646] Mr. Harsha: Yes, I am completely confused by this line of testimony. He was asked whether he was asked to become president of General Motors, then he was talking about Ethyl.

The Witness: Oh, I thought he was asking about the Ethyl Gasoline Corporation.

The Court: Yes, sir. I think there was an error there.

Mr. Carpenter: I think I am the one who led him down the wrong road.

By Mr. Carpenter:

Q. What was the first job you had, Mr. Webb, as president of the Ethyl Gasoline Corporation?

A. Well, I had learned, during this investigation covering about three weeks, some of the problems, and to me the most important one was the health situation. There had been adverse comment on it, which created unfavorable publicity about the problem.

Q. They called it "looney" gas, did they not?

A. The New York World did.

Q. Do you remember the recommendation you made to the Board of Directors at the first meeting you attended?

A. I did not make any recommendation at the first meeting I attended.

Q. Do you remember making a recommendation concerning the continuance of the business?

A. About ten days afterwards, I think it was, on the 4th or 5th of May.

Q. And as a result of that recommendation, and the Board adopting it, what did the company do?

A. I would not say that it was the result of my recommendation. I would say at the time I recommended it, I had the feeling that the Board felt the same way I did [fol. 3647] about it, and the resolution was passed suspending the sale of lead to be used in gasoline.

Q. Following that came the Surgeon General's investigation into the subject, did it not?

A. At that time, I think it was at the same meeting, I was requested by the Board to write a letter to the Surgeon General of the United States telling him what action we had taken, and requesting that an investigation be made if one had not already been decided upon by him, and stating that we would be very happy to render any services we could in such an investigation.

Q. Now, at that time, Mr. Webb, did the Ethyl Gasoline

Corporation have outstanding any contracts for the manufacture of any of the products used in its business?

A. Yes.

Q. Who had those contracts?

A. The principal ones were the Dow Company and the du Pont Company.

Q. Did you negotiate the settlements of those contracts?

A. Yes.

Q. Did you succeed in settling those contracts?

A. Yes.

Q. Now, after the Surgeon General's conference, and the appointment of his committee and the filing of their report, which was in favor of the sale of gasoline containing tetraethyl lead in certain limited quantities, did you negotiate a new contract for supplies with the du Pont Company?

A. Yes, sir.

Mr. Hargha: Your Honor, I object to the form of the question. I think he is putting in statements of fact to the witness.

The Court: Sustained.

[fol. 3648] Mr. Carpenter: The contract is in evidence. That is the reason I put it that way.

By Mr. Carpenter:

Q. What did you do, Mr. Webb, towards the resumption of business after the Surgeon General's Committee had filed its report?

A. The two most important things, as I recall it, was the production of the product, and we tried to get the oil companies to accept it.

Q. What did you do towards getting production of the product, namely ethyl fluid, or tetraethyl lead into which ethyl fluid was mixed?

A. I carried on negotiations, as I remember now, chiefly with Mr. W. S. Harrington, who was general manager of the Dyestuffs Department of the du Pont Company.

Q. That resulted, did it not, in the contract which is in evidence, three contracts, or two contracts dated March 31, 1926?

A. I don't know whether they are in evidence, but I know the contract was dated that date.

Q. I will give you the numbers, if counsel wishes.

Now, you said the second thing you had to do was to contact the refiners and see if they would use your product?

A. Yes, sir.

Q. Do you remember a trip that you made to the West in the spring of 1926?

A. Yes.

Q. Do you remember contacting or coming in contact with a situation in Denver?

A. Yes, sir.

Q. What was that?

A. I went to Denver to see the Continental Oil people who had not been handling or using ethyl, and before going there I had been informed that a product supposed to [fol. 3649] be tetraethyl lead was being distributed to retail outlets in the city of Denver.

While talking about the possibility of Continental using our products with Mr. Ed Karstedt, he was vice president in charge of sales, sometime during the course of the conversation either he or I brought up the subject about the distribution there in the city, of leaded gasoline.

Q. Did you get in contact with the people who were making or selling that product?

A. Yes, through Mr. Karstedt.

Q. And what was the name of the product they were using?

A. They called it Rethyl, R-e-t-h-y-l, and it was colored red the same as ethyl had been colored.

Q. And your product was ethyl gasoline, and they were using the name "Rethyl" gasoline?

A. Yes, they put the "R" before the "e" and that was the only difference.

Q. Did you have a conference with those people?

A. Yes, sir.

Q. Did you ascertain how they were manufacturing and selling your product?

A. Well, they told me—there were two of them, Mr. J. N. Huff, and a Mr. Proffitt—I think it is P-r-o-f-f-i-t-t.

Mr. Huff told me when I met him at the Brown Hotel that he was the president of the American Serum Company in Denver, and they manufactured a serum for hog cholera, and that Mr. Proffitt was a chemist, and either he or Mr.

Proffitt told me about the production of tetraethyl lead by them.

I told him that I had heard about the fact that they were selling it to some retail oil stations in Denver.

I asked him how they were handling it.

He said they mixed it in ordinary containers and took [fol. 3650] it around to the filling stations and left it there, and let the filling stations mix it as they saw fit.

I asked him if those were the only precautions he was taking, and he said yes. I asked him how he manufactured it, and where he manufactured it, and he said as a part of the hog serum laboratory on the edge of town.

He then told me that he was manufacturing it under what was known as the Grignard process—I think it is spelled G-r-i-g-n-a-r-d, using magnesium instead of sodium.

I asked him how many men were employed, and he said oh, just a few, five or six, I think he said.

I asked him what precautions were taken in the manufacture, and he said none whatever.

I said, "Do you wear hoods or gloves or anything of that kind; rubber aprons or anything?"

"No," he said, "we handle it like we would any ordinary product."

I said, "It is surprising that someone hasn't died in your outfit."

I think he said they had been doing this for about a month. I said also, I think, "It is not a very businesslike thing for you to practically appropriate our name, as well as the color of our product."

Q. As the result of that, Mr. Webb, what did they agree to do?

A. I told him I was going to California, that I had made an appointment with Mr. Karstedt to come back and see him.

Q. As a result of that did you see him on your return to Denver?

A. They told me before I left that they would discontinue the manufacture of tetraethyl lead, and they wouldn't [fol. 3651] sell any more of the product to any of the oil people in Denver until I returned from California.

I was away, I think, maybe a week on that trip to the West Coast, and when I came back I saw these gentlemen, and I am pretty sure at that time I saw Mr. Healy, their lawyer. I don't remember his first name.

And they said that they had not manufactured any since I left, and they had delivered none.

Q. As the result of that did you come to an agreement with them of any kind?

A. I told them at that time that I had discussed the manufacture of tetraethyl lead with the Dow Chemical people covering quite a period of time during the period of suspension of our business, and that they had told me if they went into the business they were going to use the Grignard process, and of course, use magnesium.

Incidentally, they had told me they got their magnesium from Dow, so far as I know the only magnesium being produced in the United States was produced by the Dow Chemical Company. They seemed to think, however, that they could make this product and sell it to us, make a profit on it by selling it to us at 90 cents a pound.

We had just made a contract with du Pont at one dollar a pound.

So, of course, that was interesting to me, and I wanted to encourage their interest in it and let us have an opportunity to find out whether or not there was anything valid in it. So we made a contract. I cannot tell you who drew that contract. I believe Mr. Healy did what you would normally call the legal work on it.

I think I cooperated in its preparation. But our side must have been executed in New York, in the New York office, because just in the last few days I have been shown this contract, and I saw Mr. Mittnacht, secretary and [fol. 3652] treasurer of our company, signed it also.

Q. Is he alive or dead?

A. He is dead. And he attached the seal, so I know he wasn't in Denver. At least, I never heard of his being there at that time.

Q. By the way, Mr. Webb, was that a firm contract for manufacture or——

Mr. Harris: If the Court please, we object to any statement as to the contents or nature of the contract unless it is produced or accounted for.

The Court: The contract is the best evidence.

Mr. Carpenter: That is right.

The Court: Sustain the objection.

By Mr. Carpenter:

Q. Mr. Webb, following the preparation of that contract, did you have a further conference with these gentlemen?

A. Yes; sir.

Q. With Mr. Huff?

A. Yes.

Q. Where was that conference held?

A. In Chicago.

Q. Following that conference, what did you do?

A. Mr. T. B. Huff, a brother of this first gentleman, J. N. Huff, and Mr. Proffitt, and I met at the Blackstone Hotel.

We had a further discussion, and I talked again about the Dow people having a process using magnesium. I said, "If your process should be used, you would have to get magnesium from Dow because nobody else makes it."

So I suggested we go over to see the Dow people, if it was agreeable to them. They said that was perfectly all right, and I called up Dr. Herbert Dow, who was the [fol. 3653] founder and then president of the Dow Chemical Company, and made an appointment with him for the next morning.

So we went over from Chicago to Midland, Michigan. Mr. T. B. Huff, Mr. Proffitt and I spent all the forenoon there, had lunch together, and these two gentlemen, Dr. Herbert Dow, his son Willard Dow, who was quite young in those days, a Dr. Britten, Mr. Bennett, who was the treasurer of the company, and Gilbert Carrie, who was the counsel for the company, and myself.

At the conclusion of the meeting, Mr. Huff, who by the way had stated to me that he was the man who was financing this Denver operation so far as tetraethyl lead was concerned, stated to me that he thought it was rather foolish for them to think of going into the manufacture of this product, because it was quite evident the Dow people had a great deal more experience than they had.

As a matter of fact, they hadn't had any in the chemical field. It was his suggestion that we cancel that contract.

Q. Whose suggestion?

A. Mr. T. B. Huff.

So we just called it off, and then we went over and spent the afternoon playing golf together, the four of us.

Mr. Harris: May we have the date of this conference?

Mr. Carpenter: It appears in the Dow depositions as June 25 or 26, 1926.

Mr. Harris: Thank you.

Mr. Carpenter: I now offer, if the Court please, General Motors Exhibit No. 268, a letter of June 15, 1926, from Mr. Webb to J. N. Huff, American Research Laboratories, Inc., Denver, Colorado.

[fols. 3654-3655] (Said document so offered and received in evidence, was marked General Motors Exhibit No. 268.)

Mr. Carpenter: This reads as follows:

> "Very glad to get your report on laboratory yield.
>
> "As I understood it you were not to make any definite commitment for equipment until after there had been the opinion by Mr. Morrison on the question of novelty, and therefore, I have not expected to receive the plans referred to in your letter of the 9th until after Mr. Morrison's opinion.
>
> "In other words, it was not intended that you should undergo any expense by way of preparation until there was to be performance of contract."

I now offer, if the Court please, General Motors Exhibit No. 269, a letter dated June 15, 1926, to Mr. Gilbert A. Currie, Dow Chemical Company, Midland, Michigan.

The Court: What is the number?

Mr. Carpenter: GM 269.

(Said document so offered and received in evidence, was marked General Motors Exhibit No. 269.)

By Mr. Carpenter:

Q. Did you send that letter to Mr. Currie, Mr. Webb? Your signature does not appear to be on it.

A. Will you give me time to read it?

Q. Surely.

A. Yes, I recall that letter.

[fol. 3656] I now offer, if your Honor please, General Motors Exhibit No. 270, a letter from Mr. E. W. Webb the witness, to Mr. T. B. Huff, Secretary of American Research Laboratories, Inc., Denver, Colorado, dated June 30, 1926.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 270.)

[fol. 3657] I now offer General Motors Exhibit No. 271, a letter from the American Research Laboratories by T. B. Huff to Mr. E. W. Webb, president of Ethyl Gasoline Corporation, dated July 9, 1926.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 271.)

[fol. 3658] By Mr. Carpenter:

Q. Does that, Mr. Webb, that series of letters that I have just read, show the confirmation in writing of the cancellation of this contract that you had?

A. Mr. Carpenter, did you purposely omit the second paragraph in your reading?

Q. Yes, I wanted to shorten it.

Did you, at the meeting in Midland, Michigan on June 21st, referred to in the last letter, speak to the Dow Chemical Company concerning their manufacture of tetraethyl lead?

A. I don't recall going into it at any length. I do know that on quite a number of occasions I had discussed with Dr. Herbert Dow the possibility of their manufacturing tetraethyl lead for us.

These conversations occurred during the period I was trying to adjust our commitments with them, during the suspended period, and I met them fairly often during that period in connection with the cancellation.

Q. Did they ever ask you for a contract to manufacture lead?

A. They did not ask for a contract to manufacture. I told them we would be very much interested in their going into the matter of manufacturing if they felt they could do it at prices that would warrant our making such a contract, primarily from a price standpoint.

[fol. 3659] Q. What was their decision? What was the decision of the Dow Chemical Company towards the manufacture of tetraethyl lead?

A. Dr. Herbert Dow told me that his chief concern was what they could produce magnesium for if they got into large quantities. He seemed very much concerned as to whether he could make it at a cheaper price than using sodium. He said he felt that they were ideally situated to manufacture tetraethyl lead because they were large manufacturers of ethyl chloride which is a very important product that goes into the manufacture of tetraethyl lead. There is about nine-tenths pounds of ethyl chloride to every pound of tetraethyl lead, which product was a necessary mixture to be added to the tetraethyl lead to make ethyl fluid.

I told him it would be very practical to us because we had an exclusive contract with the Standard Oil of Indiana to run for several years, and I told him, as I recall it now, that the Standard of Indiana operated in thirteen of the Midwest States, and if we could have a plant nearer to their operations, it would probably be very helpful from the standpoint of freight, both incoming and outgoing, and also, I had confidence from what I had known of the Dow Chemical Company in their ability to handle the manufacture of quite a number of products in the chemical field. I had no reservation in my own mind that Dr. Dow would not take on an operation that he did not feel he could perform satisfactorily. That was my impression of the organization.

Later on he said they decided not to go in, and as I remember it, their primary reason was the hazards involved in the manufacture of the product.

[fol. 3660] Mr. Carpenter: I now offer, if the Court please, General Motors Exhibit No. 272, a letter dated August 26, 1926, from Mr. Webb, the witness, to Mr. T. B. Huff, Secretary, American Research Laboratories, Denver, Colorado.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 272.)

[fol. 3661] I now offer in evidence General Motors Exhibit No. 273, a letter from the witness, ~~Mr.~~ Webb, to Mr.

Harold H. Healy, of Lee, Loughbridge & Healy, Foster Building, Denver, Colorado, dated October 7, 1926.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 273.)

[fol. 3662] By Mr. Carpenter:

Q. Was the decision, Mr. Webb, that you made to cancel the agreement wtih the American Research Laboratories affected in any way by Irenee du Pont or any objection that he made to that contract?

A. Not in the slightest.

[fol. 3663] Mr. Carpenter: If the Court please, I now offer General Motors Exhibit No. 274, which is a letter by Frank A. Howard to Mr. William Benham, Department of Justice, Washington, D. C., dated April 21, 1927, entitled "History of the Ethyl Gasoline Corporation."

(Said document so offered and received in evidence was marked General Motors Exhibit No. 274.)

Mr. Carpenter: The first paragraph says:

> "In accordance with your request, I am giving you herewith statement of the history of the Ethyl Gasoline Corporation. I think this will be clearest if reduced to narrative form."

By Mr. Carpenter:

Q. Mr. Webb, I show you Government's Trial Exhibit No. 716. It is a letter from J. E. Crane to Mr. Irenee du Pont, dated 6-25-26, and annexed to it being the suggested form of a letter from the Ethyl Gasoline Corporation to I. G. Farbenindustrie A.G., Ludwigshafen an Rhein, Germany.

Did you ever see that letter before this suit was filed, or ever send such a letter to the I. G. Farben?

A. You will have to pardon me. I never saw this letter, the parts that I have read up to now. I never saw this document until I took the witness stand.

Q. I see.

A. There is nothing in this letter I ever read before coming from Mr. Crane, coming to the I. G. Farben Industry. I never saw this letter before.

Q. Thank you very much.

Now, Mr. Webb, the record shows that the Ethyl Gaso- [fol. 3664] line Corporation made a series of contracts with the du Pont Company from 1926 to January 1st, 1938, or a little prior to January 1st, 1938. Who negotiated those contracts for and on behalf of Ethyl Gasoline Corporation?

A. I did.

Q. Those I referred to were for the production of tetraethyl lead by du Pont for the Ethyl Gasoline Corporation year by year?

A. I think there were two or three of them that ran for two or three years.

Q. A couple of the earlier contracts, and also there were a couple of contracts for the du Pont Company to blend tetraethyl lead into ethyl fluid?

A. Yes, sir. I didn't negotiate those contracts, Mr. Mittnacht did.

Q. Then there were four contracts that were put in evidence between the Ethyl Gasoline Corporation and the du Pont Company dated January 1, 1938. One was called the manufacturing and service agreement, and the other the license agreement, and the other was a lease agreement, and the other a financing agreement.

Who negotiated those contracts with the du Pont Company?

A. Well, the negotiation of those contracts covered a period of two years. I remember one case where Mr. Frank Howard was present. On all other occasions that I can remember, in direct negotiation, Mr. John Schaffer and Mr. Mittnacht accompanied me to Wilmington. I was reporting whatever progress was made during that period of negotiating to Mr. Frank Howard, primarily, and not to the same extent but in the high spots to Mr. Sloan, because they and I constituted the Executive Committee of the Ethyl Gasoline Corporation. It was our job to carry through the deal, and if we could, then submit it to our Board of Directors.

[fol. 3665] Q. Did you give us the date, Mr. Webb, when the Ethyl Gasoline Corporation first commenced to operate its own plants for the manufacture of sodium, ethyl chloride, and tetraethyl lead?

A. We began right away, January 1, 1938.

Q. That is through the du Pont Company as agent for Ethyl?

A. Yes, sir.

Q. But did there not come a time when the ethyl——

A. I beg your pardon. I don't believe the du Pont Company had anything to do with the operation of our ethyl chloride plants at Baton Rouge.

Q. That was a process that was not a du Pont process, was it not?

A. Well, at one time we did produce some of the ethyl chloride, I believe, under the du Pont process, but we soon abandoned that, because we were getting ethylene gas from the Standard Oil Company of Louisiana, which was next door, and we purposely located our plant so it would be next to that refinery in order to be able to get the spent gases from the refinery to make ethyl chloride.

Q. Who selected the location of your plant which was later located at Baton Rouge?

A. Well, I went down with Mr. John Schaffer who had been with us from the beginning, and had been located at the Deepwater plants for the du Pont Company since we had been in business there. He was a chemical engineer, and a graduate with an M. S. degree from MIT, and we went together. He knew the problems from an operation standpoint, I felt, very well.

Mr. Harris: May we have the date of this?

Mr. Carpenter: The date?

[fol. 3666] The Witness: It was, I think, in 1936. That is my best recollection. It may have been 1935. We were told by the general manager of the Standard Oil Company of Louisiana that he thought a site just to the north of theirs would be a good location, particularly if we were to get any advantages from being near their refinery. He introduced me to Mr. Knox who owned the property, and I negotiated with him and bought the property for the Ethyl Gasoline Corporation. I think it was two hundred acres.

By Mr. Carpenter:

Q. Mr. Webb, by the end of December, 1947, how large was the Baton Rouge plant, the operation there?

A. We had put in $36,000,000 or $37,000,000 there. We had a plant under construction that cost $6,000,000, which would be about $44,000,000.

During the month of December our Executive Committee recommended to our Board, which approved it, the first week of January, 1948, the expenditure of an additional $27,000,000 or $28,000,000.

Q. At Baton Rouge?

A. Baton Rouge.

So we had built and under construction and approved expenditures forty-four plus twenty-seven, or $71,000,000.

Q. When did you first learn that the du Pont Company intended January 1, 1948 to go into the business of manufacturing and selling tetraethyl lead in competition with the Ethyl Gasoline Corporation?

A. I can't answer that. I had the feeling all along that they were going to do that, but I think about a year before the expiration of our agreement with them an announcement was made by the du Pont Company that they were going in the business.

[fol. 3667] Q. Was their entry into the business of manufacturing and selling tetraethyl lead in competition with the Ethyl Gasoline Corporation because of any agreement, arrangement or understanding with the Ethyl Gasoline Corporation?

A. None whatsoever.

Mr. Harris: I object to that unless he states whether he knows about it. The question should be asked as to his knowledge.

Mr. Carpenter: He was president of the company, Mr. Harris.

Mr. Harris: That doesn't make any difference.

The Court: I think the form of the question is proper. Overruled.

By Mr. Carpenter:

Q. Have you ever heard of any such arrangement, understanding, or agreement between the Ethyl Gasoline Corporation and the du Pont Company, such as is charged in the complaint in this case?

Mr. Harris: It doesn't appear that he has read the complaint. I object to the form of the question unless he has.

The Court: Sustained as to that portion of it.

By Mr. Carpenter:

Q. Have you read the complaint in this case, Mr. Webb? Are you familiar with the allegations of the complaint in this case?

A. I wouldn't say too well; I remember reading a copy that was sent to me about two or three years ago when the thing started, but I haven't seen it since, so I can't say that I know what the complaint is.

Q. Well, I will put it this way: Have you ever heard of [fol. 3668] any contract, agreement or arrangement of any kind between the Ethyl Corporation on the one hand, and the du Pont Company on the other, to the effect that when the Ethyl Gasoline patents expired, the du Pont Company should be set up in competition with the Ethyl Corporation having assigned to it an allocated portion of the business?

A. No.

Mr. Harris: If the Court please, I object to the form of the question. If counsel is going to recite from the complaint, he should recite that portion which he is asking the witness about.

Mr. Carpenter: I made it broader than the complaint.

The Court: As I understand the question is not based on the complaint.

Mr. Harris: Oh, all right.

Mr. Carpenter: I didn't attempt to quote the allegations of the complaint. I made it broader than the complaint.

Mr. Harris: I assumed that is what counsel was doing.

The Court: That is the Court's understanding. Overruled.

By Mr. Carpenter:

Q. Mr. Webb, did you do anything, following the du Pont public announcement that it intended to go into the business of manufacturing and selling tetraethyl lead, to get ready for the competition you anticipated commencing January 1, 1948?

A. I didn't get the first part of your question.

[fol. 3669] Mr. Carpenter: Will you read the question, please?

(Question read.)

By the Witness:

A. I do not believe there was any connection between their announcement and what we did. Realizing that they were going to be in competition, we built a terminal near Wilmington, Delaware, to take care of what we termed tank truck shipments of tetraethyl lead, and also the probable handling of tank car shipments of tetraethyl lead.

We had been delivering to small refineries in Pennsylvania, New York, and eastern Ohio tetraethyl lead in tank trucks. It is a very expensive product, and a good many of these small refineries couldn't afford, at least they didn't feel they could, to take a tank car of the fluid.

I may be wrong about this, but my impression is that a tank car of fluid costs around $15,000.00 or $17,000.00, somethink like that. As I say, I may be wrong about that because it has been quite a while since I had occasion to think about that.

This terminal was designed primarily to take care of tank truck deliveries to refineries, feeling on our part that we would be so far away, Baton Rouge was, from those small refineries that I have just referred to, that we would be unable to make tank truck deliveries to them in competition with Deepwater, which was only a few miles away from the terminal we built.

Just south of Los Angeles, right in the oil refining area, we built another terminal.

By Mr. Carpenter:

Q. When were those built, those terminals, Mr. Webb?

A. Well, I think they were completed before the end of [fol. 3670] 1947, but I am a little bit hazy about that, Mr. Carpenter.

Q. During the war had it been possible, and up until sometime in 1947, to get materials because of the war endeavor and limitation on materials for Ethyl to increase its plants at Baton Rouge?

A. We took complete possession of the plants at Baton Rouge in September, 1945, shortly after VJ Day. I don't believe at that time or for some time immediately after that that the need for additional plants was imminent because we had been bursting at the seams at Deepwater and Baton Rouge, the du Pont Company and ourselves, exerting, I think, the best effort each organization could put forth to produce enough tetraethyl lead for the armed forces, particularly the Air Force.

So that in 1944 and 1945 the major portion of our business went to the armed services. The moment that business stopped, I think the year following, in 1946, our sales were one hundred million pounds or nearly one hundred million pounds less than they had been during the years of 1944 and 1945.

So the question of materials, availability of materials for plants at that particular time I don't think was an important item with us.

Q. Now, following January 1, 1948, has the Ethyl Company increased its manufacturing and selling capacity at places other than at Baton Rouge? You told us about $71,000,000.00 appropriated for Baton Rouge.

A. Well, to date—when I say to date, this was up until a week ago. I got figures from the Ethyl Corporation—I am still a director of the company—showing that they put in $92,000,000.00 altogether in Baton Rouge.

They have built since a new plant 15 miles out of Houston [fols. 3671-3672] on the Ship Canal, and the first phase of it has been completed at a cost of $41,000,000.00.

Q. What can you say about any competition that has existed between the du Pont Company and the Ethyl Corporation since January 1st, 1948?

Mr. Harris: I object to the form of that question as to what he can say about it.

The Court: Sustained as to the form.

Mr. Carpenter: I didn't want to ask a leading question.

By Mr. Carpenter:

Q. Mr. Webb, can you state whether or not since January 1, 1948, the Ethyl Corporation has been in competition with the du Pont Company for the business of the refiners of this country?

A. My feeling is that we are doing everything that we know how to do to get all the business that we can.

Q. Have there been any ties of any kind to your knowledge between the du Pont Company and the Ethyl Corporation since January 1, 1948?

A. No, sir.

Q. Has there been any agreement of any kind between the two companies to your knowledge for the division of the business of manufacturing and selling tetraethyl lead?

A. No, sir.

Mr. Carpenter: You may cross-examine.

Mr. Harris: May we have a recess before cross-examination, your Honor.

[fol. 3673] Cross-examination.

By Mr. Harris:

Q. Mr. Webb, calling your attention now to your testimony about the visit to Denver, where you had a discussion with Mr. Huff, as you recall?

A. Yes, sir.

Q. When was that visit?

A. Well, it was, I think between the 10th and 15th of April, 1926.

Q. Now, before that time, had you discussed with Dow the possibility of there being a second source for tetraethyl lead?

A. Yes, sir.

Q. Now, when was your first discussion with Dow?

A. Well, I am sure that the discussions—some of them took place in the year 1925.

Q. Yes.

A. After we closed down.

Q. Now, you became president in April, 1925?

A. Yes, sir.

Q. How soon after you became president, did you have discussions with Dow as to being the second source for tetraethyl lead for the Ethyl Gasoline Corporation?

A. Well, we had talked in that direction in the event we resumed business, but I think most of our more serious discussions were after the Surgeon General's report in 1926.

Q. Yes. It was not the intention, was it, Mr. Webb, to have Dow supply tetraethyl lead during the shut-down?

A. Oh, no.

Q. Now, what was the composition of their tetraethyl lead solution?

A. Well, the three products used in the manufacture of tetraethyl lead, we will say, was pig lead, ethyl chloride and metallic sodium.

I might state here, if you wish to have the information, ther was substantially seven-tenths of a pound of pig lead [fol. 3674] for each pound of tetraethyl lead, and about nine-tenths of a pound of ethyl chloride for each pound of tetraethyl lead, and I think .35 pounds of sodium for each pound of tetraethyl lead.

To answer further your question——

Q. Thank you.

A. So far as I know, I certainly am not even a high school chemist, but the primary difference was they were going to use magnesium instead of sodium and use ethyl chloride, of course.

Q. Now, the magnesium would take the place——

A. Pardon me. I don't know whether they used ethyl chloride or not, but I assumed they did.

Q. The new element was magnesium, was it?

A. That is right.

Q. Had you had a discussion with them in 1925 about using magnesium?

A. Well, I didn't have much to do. I had a job, but I had nothing particularly to do except to try to clean up the old contracts. I did not know whether we were coming back into the business or not.

I think I did a lot of talking with Dr. Dow about many things in connection with the possible resumption of this, and it was during that time that he mentioned to me the fact that they might be interesed in the manufacture of tetraethyl lead using magnesium.

I did not bring up the subject in the first place.

Q. I see. Now, which Dow was that?

A. Dr. Herbert Dow.

Q. It would be your understanding, would it, Mr. Webb, that Dow would have to use a different solution? He would [fol. 3675] have to have different elements than the solution, or whatever it is that was being used by Ethyl Corporation, would he not?

A. I understood that the principal difference that he was emphasizing was the use of magnesium instead of sodium.

Q. Yes, and that was a Grignard process, was it?

A. That is right.

Q. Were you satisfied that that would not be an infringement of the Ethyl patents or of the Standard Oil and General Motors' patents?

A. Well, it didn't make any difference to us if he was willing to make a contract with us, and we were satisfied, we owned the patents. It didn't make any difference whether they infringed it or not.

Q. You mean Ethyl owned it?

A. Yes.

Q. And before you came to these discussions, did you have any discussion with either, any of the du Ponts, anyone from General Motors, or anyone from Standard Oil about Dow becoming a second source of supply and using magnesium?

A. I think I discussed the matter primarily with my associates in the Ethyl Corporation, at 25 Broadway.

Q. Who, for instance?

A. Well, Mr. Midgley was vice president and Mr. Frank Howard was a vice president, and Mr. Art Maxwell was a vice president, and Mr. Mittnacht was secretary and treasurer. And we used to sit around our offices there with nothing particularly to do and talk about both the possibilities of the future and they became interested in it when they heard that Dr. Dow had broached the subject to me. I became much more interested in it when we got the favorable report from the Surgeon General, and knew we were going to renew business.

Q. With respect to that favorable report of the Surgeon General, how long before you went to Denver had that come in, if it had come in? [fol. 3676]

A. I think the report was made in January, 1926. I don't know whether it was published then, but the report was in then.

Q. And you were then in Denver in April?

A. In April.

Q. Now, before you went to Denver, this was simply to get another customer, to get Continental Oil as a distributor?

A. That was the purpose, my main purpose in going to Continental Oil.

Q. Now, had you discussed with any of your associates the possibility of your finding another source out west of tetraethyl lead?

A. No, I can't remember any such discussion.

Q. As a matter of fact, when you got to Denver and having the talks that you had, you learned for the first time of this American Research Laboratories, did you not?

A. I heard of it for the first time, of the name, but I heard of the product being distributed to retail stations in Denver beforehand.

Q. Was that before you went to Denver?

A. Yes, sir.

Q. And was that what caused you to go and see the American Research Laboratories?

A. That was the only reason.

Q. Did you have in mind getting a second source for tetraethyl lead?

A. I didn't have in mind having those people do it at that time. That thought didn't occur to me.

Q. Well, you had in mind, Dow, didn't you?

A. Yes, distinctly so.

Q. Had you had in mind anybody else but Dow?

A. I don't know what any of us had in mind.

[fol. 3677] Q. I am speaking of your mind.

A. No, I don't think so.

Q. Now, let's get through this American Research Laboratories. What was the occasion of your going there? Did you call up and make an appointment?

A. Someone connected with the Continental Oil Company arranged it.

Q. All right. Whom did you see when you went there, or ~~did~~ you go there, or did they come to you at Continental?

A. No, they didn't come to me at Continental. They came to me at the Brown Hotel. It was an evening appointment with Mr. Huff and Mr. Proffitt:

Q. Give us that conversation as near as you can recall it.

A. Well, I remember Mr. Huff stating that he was the president of the American Serum Company, and they were engaged in the business of producing a serum for hog cholera. He introduced Mr. Proffitt to me as a chemist, and I don't know whether he said they stumbled on this tetraethyl thing or not, but he mentioned the fact that Mr. Proffitt was responsible for it.

Q. Did you discuss then the process by the name of the Grignard process?

A. He mentioned it to me.

Q. And was there any discussion there of possible patent infringement of any other process?

A. I can't remember whether on that occasion I mentioned to him the Midgley patent.

Q. Yes, and did you talk with him about Dow?

A. Yes, he told me he was getting his magnesium from Dow.

Q. And had he told Dow, if you know, what he was doing with the magnesium?

A. I don't know.

Q. Then will you go on from there to the making of the contract. Just tell us the next step, how the conversation [fol. 3678] went on to the making of the contract.

A. I don't think there was any discussion at that time of the making of the contract at all. I was very much concerned about the health hazards in connection with it. I readily appreciated the fact that if they had a catastrophe in Denver we would have a repetition of what we had in Bayway.

Q. Well, what did they do?

A. The way they were handling it was a very careless way from my viewpoint.

Q. What did they do to set your mind at rest before you signed the contract?

A. Well, I told them I was going out to the West Coast to call on the oil companies out there. They had never used ethyl. I told them when I got through with my trip I intended to come back and see the Continental people. They wanted to think over what I had talked over with them about using it, so I arranged to come back, and see them, and they said, "Well, we won't manufacture any of this stuff, and won't distribute any of it until you come back" so we didn't talk about a contract in that first period.

Q. No, I would like to get to the contract, however, what led up to the making of the contract. What talks did you have or what letters did you write?

A. That is after I came back.

Q. All right. What did you do after you came back about getting a contract?

A. Well, as I said before, they stated that they felt competent that they could manufacture and make a profit, a decent profit, and sell us lead at 90 cents a pound.

Q. Ten cents under du Pont?

A. That is right. I don't think I mentioned what we were paying du Pont. I think they mentioned that they [fol. 3679] could sell it for 90 cents a pound to us and make a profit.

Q. I say, which was ten cents less.

A. Which was, yes. I didn't want to leave a situation like that cold. This was a new venture we were in, the Ethyl Gasoline Corporation. Nobody had ever been in anything like it before.

Q. You mean it was a new venture that Ethyl was in?

A. Yes, the making of an anti-knock compound to improve the anti-knock quality of gasoline. It was someting new, and we had run into a lot of difficulties which have already been referred to, yesterday particularly by Mr. Kettering, on the health end of it.

I was keenly alive to the fact that if we could get a process that might not be as hazardous as the process that had been employed where the trouble occurred that would be a very important accomplishment.

I did get the impression when I talked to Dr. Dow on several occasions, he said under the Grignard process, as I remember it, there was not the same vapor pressure that you had under the process that we had used at Bayway and the du Ponts had used at Deepwater.

Q. Do you mean by that that it wouldn't be necessary to take the same precautions in the manufacture under the Grignard process as you would under Ethyl's tetraethyl lead process?

A. Well, I think he didn't at all minimize the importance of caution. But he rather felt that maybe there was a chance that it could be manufactured under the process that he was thinking about without the hazard that was associated at that time with the use of ethyl chloride and sodium.

Q. I see. Well, then did that in your mind sort of [fol. 3680] relieve your fears about the hazards of the manufacture in this Denver laboratory?

A. I think when you get the contract you will find there is set up in there precautionary measures covering that point.

Q. Before you got to the contract stage, Mr. Webb, did you receive a written communication from American Research Laboratories offering to supply this mixture at 90 cents a pound?

A. The contract so provides.

Q. No. I am asking you before the contract was entered into, did you get an offer in writing?

A. No.

Q. What did you get in writing before the contract, if anything, or how did they convey to you that it would be 90 cents a pound?

A. In the second conversation that I had with them, the one when I returned from the coast to Denver.

Q. Did they tell you anything about their capacity for production?

A. They didn't go into that very much in detail. They said they were making it in a very small place attached to their serum plant, and there were only four or five men engaged in it, and I didn't figure it was much of an operation.

Q. Did you, at that time, talk to their lawyers?

A. Yes, Mr. Healy.

Q. Did they bring Healy to you or did you go to Mr. Healy's office?

A. I can't remember that.

Q. All right, sir.

Do you remember what further discussion, if any, there was before the drafting of a contract.

A. Oh, I spent a lot of time in talking to them and Mr. Healy about the troubles that we had experienced and the importance of the care that should be exercised, not only in the manufacture but the handling of the concen- [fol. 3681] trated material.

The contract provided that any plant they built—it was to be a small scale operation, as I remember it, to produce 35,000 pounds a month—and it is agreed in the contract that they will follow the rules and regulations of the Surgeon General which had then been issued, and that they would follow all the rules and reasonable recommendations made by our Medical Department.

Q. That satisfied you, didn't it, that it would be reasonably safe to let them go ahead?

A. I felt that we controlled that situation under the terms of the contract.

Q. Now, who drew the contract?

A. We could cancel it at any time by paying $10,000.

Q. Who drew the contract?

A. I think Mr. Healy was the lawyer who drew the contract, and I must have assisted him. In reading the contract, he has names in there that I don't think he would know anything about unless I told him.

I mentioned the fact that they were to make a patent application and that was to be approved by the firm of Church & Church.

Q. Who were patent attorneys, I assume?

A. Patent attorneys, or Mr. Joe Morrison, who was then patent attorney for General Motors.

Q. Did that contract come to you by mail?

A. Why, I think it did. I know they didn't come to our office at that time, and the contract is signed by our secretary and treasurer and our seal attached.

Q. What I wanted to get at was, when you first saw the contract in its completed form, did it bear the signatures of the American Research Laboratories?

A. Yes.

Q. So that it probably came to you by mail, from Denver, in that form?

A. I think so.

[fol. 3682] Q. Now, when it did come to you, what did you do with it?

A. Well, I don't know exactly what you mean.

Q. Well, what I meant was, what did you do towards further completing, that is, towards the completion, that is towards the signing of it? Did you take it up with anyone in your firm, or did you see any lawyers, or what did you do?

A. The application was prepared, as I remember it for a patent, and was sent to Mr. Joe Morrison who is in the Patent Department of General Motors, and who had handled all the anti-knock applications made by Mr. Midgley or by anyone in General Motors relating to anti-knocks, and he was loaned to us by General Motors.

Q. That is, loaned to Ethyl?

A. That is right, that is for consultation.

Q. Yes?

A. And as I remember it, that patent was sent to Mr. Morrison.

Q. Before you sent——

A. I mean the application.

Q. Yes, that is the application for the patent?

A. That is right, yes.

Q. And he was to look it over to see whether there was any infringement on what they already held, is that right?

A. Yes.

Q. Before you sent that to Mr. Morrison, with whom, if anyone of General Motors, did you talk about this contract?

A. Oh, it was taken up by either our Executive Committee or our Board and approved.

Q. Now, the Executive Committee of Ethyl consisted of whom at that time?

A. I am not sure that at that time we had an Executive Committee.

Q. So it would not be taken up with them, would it?

A. I say I am not sure. We may have had at that time, but I am not sure. Shortly after—I would not say shortly [fol. 3683] after, but not long after the resumption of business, the Board set up an Executive Committee consisting of Mr. Howard, Mr. Sloan and myself.

Q. Mr. Sloan was from General Motors; Mr. Howard was from Standard Oil, and you were from Ethyl?

A. That is right.

Q. As a matter of fact, most of the decisions of any importance that were made after that, were made by the Executive Committee, were they not?

A. That is right.

Q. You do not recall, however, whether this contract was submitted to your Executive Committee, do you?

A. Well, I know that Mr. Sloan knew about it.

Q. That is what I would like to know. How did Mr. Sloan come to know about it?

A. I think the records will show that Mr. Sloan was present when it was favorably acted upon, that contract.

Q. Was it favorably acted upon by the Board?

A. I have already stated I do not know whether it was by our Board or our Executive Committee, and I don't know whether we had any Executive Committee in April of 1926.

Q. Did you sign it?

A. Oh, yes, I signed it.

Q. Did you have to have the authority of the Board before you signed it?

A. I don't know whether I had to have it, but it was the sort of thing that I would ask the approval of the Board before I would sign it.

Q. So that can we understand, so far as you and your associates in Ethyl were concerned, that contract was satisfactory to them?

A. That is correct.

Q. And as far as Mr. Sloan of General Motors was concerned, did you record any objection by him?

A. Subsequently I knew that there was an objection by [fol. 3684] him. That came through Mr. Irenee du Pont.

Q. Yes. But at the time you first told him about it, was there any objection by him that you recall?

A. No, I don't think so.

Q. Had there been, you probably would not have gone ahead, would you?

A. If Mr. Sloan had objected to it, I am sure that we would not have gone ahead, and I believe if any other director had objected that we would not have gone ahead, any active director.

Q. Was Irenee du Pont a director at that time?

A. He was not at the meeting. I know that.

Q. So that he was not there to register an objection, if he had any?

A. That is right. He was not there.

Q. Now, after the contract was signed, what did you do with it?

A. I just stated some of the things we did.

Q. No. After it was signed by you people, what did you do with the contract then? Did you send an executed copy to the American Research Laboratories?

A. I assume so. I have no recollection on a thing of that kind.

Q. Now, did you have a further conversation or communication from the American Research Laboratories from the time you signed that contract until June 2, 1926, if you know?

Will you give the witness Government's Exhibit No. 711, a letter from Mr. Irenee du Pont to you.

A. Yes, I have seen this letter.

Q. My question was, before that letter came to you, had there been any further movement in this matter of the American Research Laboratories?

A. I don't think so. I believe the American Research Laboratories' contract was signed only three or four days [fol. 3685] before this letter was written. I think April 30th was the date of the contract.

Q. Now, Mr. Webb, Irenee du Pont, in this letter of June 2nd, 1926, addressed to you, of which a copy was made and sent to Mr. Sloan, and a copy to Mr. Harrington——

Who was Mr. Harrington?

A. Mr. Harrington was the general manager of the Dyestuffs Department.

Q. Of du Pont?

A. Of du Pont.

Q. Yes. I call your attention to the first paragraph:

> "Referring to the minutes of the Executive Committee, covering their meeting of May 27th, paragraph 3, copy of which Minutes were returned to you signed under cover."

Would that indicate to you that there had been a meeting of the Executive Committee?

A. Yes, that clears up this doubt that was in my mind as to whether we had an Executive Committee at that stage.

Q. So that the Executive Committee apparently from these minutes—we don't have them there—but I assume had acted favorably on this contract, and that Executive Committee was composed of Mr. Sloan, Mr. Howard and yourself?

A. That's right.

Q. Now, Irenee goes on:

> "Notwithstanding that I am in an embarrasing position by reason of the fact that the du Pont Co. supplies you with tetraethyl lead, I am obliged to go

> on record as disproving in principle of the placing of orders for that material with the American Research Laboratories for the following reasons."

And he gives his reasons as:

> [fol. 3686] "1st—They avoid a pressure reaction by using ethyl bromide and to that extent are on the same ground as our old bromide method of manufacture, which condition we agreed was undesirable because of the shortage of bromine."

Now, this magnesium, I take it, would go along with the ethyl bromide. It would indicate that wouldn't it?

A. Mr. du Pont thought so, but it was not true.

Q. It was not true?

A. No. Paragraph 1, I think, in my reply that Mr. Sloan wrote me about this letter, and you have probably got it in the record, and I stated that he was in error regarding that. I understood there would be no ethyl bromide used in that process. That is my recollection.

Q. So objection No. 1, in your opinion, was not valid, was it?

A. I don't think so, as I remember it now.

Q. (Reading):

> "2nd—They"——

that is the laboratory——

> "evidently are not conversant with the true dangers from poisoning and are using make-shift apparatus where poisoning becomes not only likely but almost a certainty."

Now, if you know, how did Mr. Irenée du Pont learn what apparatus the American Research Laboratories was using?

A. Well, it must have been just a general impression on his mind.

Q. Well, you mean that any concern that competed with du Pont would be using those methods?

A. No, I think he would assume, and I was very skep- [fol. 3687] tical at the time I was having these negotiations with this concern——

Q. Yes?

A. (Continuing)—about their ability to perform, and I think when you read the contract it indicates very clearly that I was not convinced——

Q. But you had protected yourself, hadn't you?

A. We did in the contract.

Q. That's right.

A. And I would say just offhand, Mr. du Pont or anyone else familiar with tetraethyl lead at the time would have thought that its production in a hog serum plant was not a very good place to produce the product.

Q. True, but you were willing——

A. And he knew that at that time.

Q. But you were willing to take a chance, weren't you, and the Executive Committee of Ethyl was willing to take a chance, weren't they?

A. Not at all on having it—it was to be a works plant built.

Q. Oh, yes.

A. And approved by us and the plants were to be furnished by us for the building, and the building and supervision of everything in connection with it was to meet the approval of our Medical Department.

Q. That was provided in the contract?

A. Yes.

Q. And that contract was available to Mr. Irenee du Pont to look at, wasn't it?

A. It certainly was.

Q. (Continuing):

> "If another disaster happens in Colorado no amount of explaining will excuse our directors for having encouraged novices to undertake such a dangerous operation."

[fol. 3688] Had it, if you know, in the opinion of Mr. du Pont, been expressed to you at any time that only the du Pont Company could make this material safely?

A. No.

Q. He had not said that to you?

A. No.

Q. (Reading):

> "This seems doubly undesirable in view of the fact that the substitution of lead sulphase for metallic lead

> cannot occasion any material saving in cost of manufacture and the substitution of magnesium for sodium would be expected to yield no saving whatsoever."

Now, Mr. Irenee du Pont was being concerned, was he, in this, that the Ethyl Corporation should not enter into a financially unprofitable contract? Would you say that?

A. No.

Q. What would you say about Mr. Irenee du Pont's objection? Was it to the fact that a competitor was on the horizon?

A. Well, I think what he is trying to point out here is—I don't know whether he got this information through the patent application that was sent in to us or not——

Q. I was about to ask you that.

A. I don't know where that information came from. He is talking here as a chemical manufacturer——

Q. Yes, sir?

A. About certain constituents that go in the manufacture of tetraethyl lead——

Q. That's right.

A. —and trying to point out, as I take this letter, to Mr. Sloan that it cannot be done any cheaper by this process than the one we were then engaged in or had been.

Q. Yes, but they were willing to do it in the American Research Laboratory, and as far as you were concerned they were going to charge you ten cents a pound less?

A. Yes, and that was the thing that made it attractive [fol. 3689] to me, and also to our Executive Committee.

Q. (Continuing):

> "Consequently the method they are using should not be inherently any better than the bromine method, which has been supplanted at Deepwater Point; and consequently there is no financial advantage for Ethyl Gas and the Research Corporation jointly over the alternate supply by du Pont and Ethyl Gas jointly."

Well, now, wasn't Mr. Irenee du Pont in error on that, as far as Ethyl Gas was concerned, there was an advantage of ten cents a pound, wasn't there?

A. There was an advantage. I don't know how long that would continue, but there was then set up a ten cents a pound difference.

Q. And if American Research couldn't manufacture at that figure, that was their hard luck, wasn't it?

A. They had a way out of the contract. They were not very responsible people financially.

Q. No?

A. I had had them looked up between the time I went to the coast and came back, and their rating was not awfully good.

Q. Was that before you signed the contract, Mr. Webb?

A. Oh, yes.

Q. You went ahead and signed anyway?

A. No, we knew that they were not a very strong concern. They were rather weak financially.

Q. But you were taking a chance, weren't you, to get that extra ten cents a pound?

A. It wouldn't have made any difference to me if some- [fol. 3690] body walked in my office with a process that seemed to be attractive in the manufacture of tetraethyl lead, whether the fellow had ten cents or ten million dollars.

We would have been happy to look into it, and see whether or not it had something better than we knew anything about.

Q. Right.

"But even if there were,"——

he says, if they did have a financial advantage,

> "—the risk of a serious catastrophe of poisoning is too grave to be considered."

Now, as a matter of fact, Mr. Webb, you and the Executive Committee of Ethyl had considered, had you not, the danger of poisoning and had provided for safety methods under the regulations of the Surgeon General's office in your contract?

A. You mean which contract?

Q. The contract with the American Research Laboratories.

A. Yes, we provided for it.

Q. He says:

> "I hope that you will understand that it is only my feelings of the seriousnes of such a move that causes me to put myself in an embarrassing position of refus-

ing to acquiesce in the Executive Committee's judgment."

Now, at that time Mr. Irenee du Pont was a member of the Board of Ethyl—wasn't he?

A. Yes, sir.

Q. And he had, in a fashion, a sort of veto or at least a right to make an objection as a director of the corporation?

A. He certainly did.

[fol. 3691] Q. Now, after you had received the objection of Mr. Irenee du Pont, what, if anything, did you do about this contract with the people in Denver?

A. Well, we had the meeting to which I have referred in Chicago, and went to Midland, so that they could compare notes, so to speak, with the Dow people who had stated to me that they could produce lead using magnesium under the Grignard process.

Q. Well, what I would like to know is how did they come to come to Chicago? Did you write them, wire them, telephone them, tell them there was any trouble about their contract?

A. Well, I think what has gone in evidence shows that —I mean today——

Q. Yes, sir.

A. —that the Dow people had, in response to a communication I made with them, either by letter or telephone or telegram, to put me at liberty to disclose anything that they had mentioned to me regarding their process.

Q. That was to disclose that to your board?

A. No, no, to these people.

Q. To the American Research?

A. The American Research, yes.

Q. Yes, sir?

A. And since they were both using magnesium, presumably under a fundamental Grignard process, which, by the way, I don't know what that means, but I had heard that it is an old chemical process that has been used for, oh, I don't know how long, but for many, many years before lead was thought of—tetraethyl lead—and since they were using the same process and they were buying their magnesium or had been buying it from the Dow people, I had the definite feeling it would be a very good idea for these people to get together and see whether or not [fols. 3692-3693] the Denver people had a process that was more attractive than the one Dow had, and vice versa.

Q. Now, this was after the contract was signed, wasn't it?

A. Oh, yes.

* * * * * * * * *

ADJOURNMENT

[fol. 3694] Cross-examination (Continued).

Mr. Harris: Mr. Hoyt, will you show the witness, please, Government's Exhibit for identification No. 1313.

By Mr. Harris:

Q. I show you now for identification Government's Exhibit No. 1313, and ask you if you will look at the facsimile of the signatures on the last page but one, and tell us if that is a facsimile of your signature?

A. It is.

Q. Have you seen this document before, the original?

A. Yes, sir.

Q. Can you say whether this is a true copy of the contract that was signed by you and by Huff on the date it bears?

A. Well, if this exhibit is the same as the contract that Mr. Carpenter showed me within the past few days, I would say it is the same.

[fol. 3695] Mr. Harris: Can we agree on that, Mr. Carpenter?

Mr. Carpenter: Yes, we can.

Mr. Harris: Then I offer in evidence Government's Exhibit No. 1313, the contract in question.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1313.)

By Mr. Harris:

Q. Mr. Webb, will you look at that contract, and I call your attention to the first paragraph on the first page, that:

"Whereas, the Research Company represents that it is the owner of a secret process for the manufacture of tetraethyl of lead for which it is about to make application for letters patent of the United States."

Now, that was the process that you have testified to, wasn't it?

A. Yes, sir.

Q. With the use of magnesium?

A. Yes, sir.

Q. Now, I call your attention to page 3, and the fourth and fifth paragraphs on the page, and without reading them you will agree, will you, that these paragraphs provide for safety precautions?

A. Yes, sir.

Q. I call your attention now to the paragraph on page 4, the sixth paragraph, and this provides, does it not, for the production in the first instance of 17,500 pounds of tetraethyl per month?

A. That is correct.

Q. Then going over——

A. May I say that I apparently was in error yesterday. I said I thought it was 35,000. This is accurate.

[fol. 3696] Mr. Harris: That is all right, sir.

By Mr. Harris:

Q. Then on page 5 the price is shown of ninety cents a pound, and then on page 7 there is a provision for the mutual cancellation of the contract after a certain period of performance, with a graded penalty from $7500 down—for the various units of installation.

Now, there was also a provision, I believe, that the contract could be terminated almost immediately on paying $10,000.00. That is in the sixth paragraph on page 4—at any time during the period of eight months Ethyl should have the right at its option to terminate the contract on giving thirty days' notice, and in consideration of the option it should pay to the Research Company $10,000.00.

Now, you testified, Mr. Webb, that Mr. Huff asked you to terminate the contract.

Can you recall now the conversation, just what was said by him, what was said by you, and when this was?

A. It was in the building, the offices of the Dow Chemical Company in Midland on the occasion when I said a group of us met there in Dr. Herbert Dow's office.

Q. That was about June 29, 1926, wasn't it?

A. I think that is correct.

Q. Who was present then when Mr. Huff either asked you or suggested that you cancel the contract? Who heard that?

A. I cannot answer that question. I heard it.

Q. Oh, yes, sir.

A. Who else heard it, I don't know.

Q. Now, tell us what he said.

A. Well, he told me, as I remember it—it would be rather silly for them to attempt to go ahead in view of what he had heard that day.

Q. And then did he say to you—well, give us the rest [fol. 3697] of it, about the cancellation of the contract.

A. Well, he said, "I think we ought to cancel the contract", and I said, "I think so, too."

Q. Now, when you went up to Dow in Michigan, you took him along with you, or did they come there and you come afterwards, or how was that? Did you all meet there?

A. No, we left the Blackstone Hotel, and got on the train or whatever it was that night and went to Saginaw.

Q. Had anything been said before you went to Michigan about the cancellation of the contract?

A. I don't think so.

Q. Will you search your memory on that, please?

A. Well, it wouldn't help me any.

Q. Now, Mr. Huff was present, I take it, at the meeting

Q. He was?

A. He was present?

in the Blackstone? Mr. Huff was present?

A. Yes, Mr. Huff and Mr. Proffitt, that is Mr. T. B. Huff.

Q. Was Mr. Proffitt present at the time when Mr. Huff said, "We better cancel the contract"?

A. My best recollection is that he was present.

Q. Now, Mr. Webb, what was it, if you know, that induced Mr. Huff to volunteer the cancellation of this contract?

A. Well, I can only draw my own conclusions.

Q. Yes, sir.

A. I think he appreciated the fact that he didn't have anything very novel as a result of the conversation that had taken place in Dr. Dow's office.

Q. So that he learned——

A. And also—may I continue?

Q. Oh, yes, I am sorry, sir.

A. Also the fact that he appreciated that it would be necessary to get the basic raw materials, magnesium, from Dow.

[fol. 3698] Q. Yes, sir. Wouldn't that be possible? Wouldn't that be possible?

A. Oh, yes, I am sure Dow would have sold anybody magnesium at that time.

Q. Well, did Dow discourage him?

A. I don't think Dow took the position at all either to encourage or discourage.

Q. Then how did he come into the frame of mind to want to cancel the contract?

A. I cannot answer that question.

Q. I see. Now, I call your attention to General Motors Exhibit No. 268. That was a letter of June 15, 1926, to Mr. Huff.

Now, on June 15, 1926, you had not made any suggestion to Mr. Huff, that the contract might be cancelled?

A. I am very sure that I had not.

Q. You had not?

A. No.

Q. What was the report that you then got on laboratory yield? Do you know what the report was?

A. May I have that question again? I was reading.

Q. Yes. I was wondering if you knew what the laboratory yield was on June 15, 1926, that they reported to you.

A. I don't recall that.

Q. Now, the question of novelty of the application was still pending before Mr. Morrison, your patent attorney, wasn't it, as appears from this letter?

A. Yes, sir.

Q. Did you ever get an opinion from Mr. Morrison on novelty?

A. I don't remember.

Q. Certainly not before the cancellation of the contract, did you?

A. I don't believe I did.

Q. I call your attention now to General Motors Exhibit No. 269, which is a letter from you to Mr. Currie, of the [fol. 3699] Dow Chemical Company, June 15, 1926, in which you tell him that you have shown a copy of his process to the people with whom you were negotiating in Denver who believed they had something new.

Now I call your attention to the next paragraph,

> "I have made an arrangement with these people which might develop to the point of someone manufacturing tetraethyl lead by their process."

And you sent a copy of the application.

When was it after that letter of June 15 that you asked the Denver people to come to Chicago?

A. I can't answer that question, the exact date.

Q. When you asked them to come to Chicago, did you have in mind their going up to Dow with you?

A. I am not quite sure about that, Mr. Harris. In the first place, I think our meeting in Chicago was a convenience for Mr. T. B. Huff as well as myself.

Q. Why?

A. Well, Mr. T. B. Huff was living in Sioux City. He was a prominent man there. He was the Mayor of the City.

We compromised on the meeting place. We agreed on Chicago, and we met at the Blackstone Hotel. Whether I had in mind going over to Midland at that time, I do not remember.

Q. What was the purpose of his coming to Chicago then?

A. Well, I wanted to talk over the whole matter with him.

Q. That was after you had received Mr. Irenee's letter?

A. Mr. Irenee's letter had nothing in the world to do with it.

Q. I say, it was after you had received Mr. Irenee's letter.

A. I think it was after June 2nd.

[fol. 3700] Q. And after you received Mr. Irenee du Pont's letter that we have in evidence here, Government's

Exhibit No. 711, did you talk to Mr. Irenee du Pont about the subject of this contract?

A. I don't believe I talked to Mr. Irenee du Pont. I talked to Mr. Sloan about it.

Q. All right. When did you talk to Mr. Sloan?

A. Well, I went in quite some detail into the context of the contract that is now in evidence with him.

Q. Yes?

A. I tried to convince him that proper safeguards, I thought, would be thrown around such a small prdouction as we had in contemplation under the contract.

He knew, of course, I would rely upon Dr. Robert Kehoe, who then was and is today, I believe, the outstanding and recognized man on lead poisoning in the world.

The du Pont Company and ourselves relied upon him implicitly. Apparently the Surgeon General of the United States, not only then but ever since, has recognized him as such. He was the man who was going to look after this operation. It was to be run under his supervision.

He had been down to Deepwater and knew about what the situation was there. He had been to Bayway after the occurrence. Mr. Midgley brought him in from the University of Cincinnati, at the time, I believe, of the existence of the General Motors Chemical Company.

Q. Well, you told Mr. Sloan that with Dr. Kehoe examining these people and these processes, everything would be all right. Is that what I get from your answer?

A. No, I never assured anybody everything would be all right handling lead. I haven't done that even today.

Q. Do I understand that you are telling us that you told Mr. Sloan that Dr. Kehoe would look after the safety pre- [fol. 3701] cautions?

A. Well, I think, I am quite sure I mentioned that, as the outstanding thing.

Q. Now, what did Mr. Sloan say about the contract and Mr. Irenee's letter?

A. I don't know other than the fact he seemed to be disturbed about it.

Q. Yes?

A. And I discussed it with my associates in the office and with Mr. Howard, and we were convinced that Mr. du Pont was unduly alarmed about the matter. We wanted to go ahead with it, and we did pursue the subject after the agreement to cancel and its actual cancellation.

Q. What did Mr. Sloan say about getting rid of the contract?

A. He never suggested we should get rid of any contract.

Q. What did he say, if anything?

A. I don't know that he said anything. I can't remember his comments.

Q. When he expressed his disturbance, what was he disturbed about?

A. He was disturbed—and yesterday when you asked me whether or not I thought if Mr. du Pont or any other director had objected to this contract, whether we would have entered into it, I said I thought we wouldn't have entered into it because we had been through an awful lot of trouble. I think everybody was quite frightened, and maybe I was a little bit too bold in making this contract.

I felt, however, it could be handled safely. I really believe if Mr. du Pont had been present at a board meeting or any other director and had interposed serious objection to our making such a contract, the board would not have approved it. But we made the contract, and so far as I know we have never gone back on any contract we ever made.

Q. Did you offer Mr. Huff any other proposition in lieu [fol. 3702] of the contract that he voluntarily surrendered?

A. Nothing was said that I can recall at Midland about that, but it seems to me somewhere along the line after that conversation the question came up that if they really did have something, and I think we sent one of our top chemists out there to examine their product in August, that we might consider a royalty arrangement.

I am not sure of that, but that is the best impression I have today.

Q. I call your attention now to General Motors Exhibit No. 271. What was Mr. Huff referring to in the first and second paragraphs:

> "This is to confirm the verbal understanding reached at Midland, Michigan, Friday, June 25th, and which is set forth in your letter to us, June 30th."

I don't appear to have that letter.

> "We still feel the plan adopted in Michigan is the only feasible one, and we will be ready for Dr. Calingaert, August first."

Now, what was that plan?

Mr. Horsky: The letter of June 30th is General Motors Exhibit No. 270.

Mr. Harris: Thank you very much. I have it now.

By Mr. Harris:

Q. What was the plan?

A. As I recall it, we were to send one of our men out to Denver to look into their process.

Q. Now, was it on that understanding that the contract was mutually canceled?

A. No, that had nothing to do with it. It was mutually [fol. 3703] canceled quite regardless of that. I wish you would let me finish my previous answer.

Q. I am sorry.

A. We also stated that the same man would go to the Dow Chemical Company and investigate there and make a report to us. That is my recollection.

We certainly followed up, and sent Mr. Calingaert, who was the director of our chemical research, to Denver, and he got a sample, and you have in the record yesterday a report of what he found.

Q. Now, I call your attention to General Motors Exhibit No. 270, which confirms the cancellation of the contract, in the first paragraph, which provides for Calingaert witnessing a demonstration, and then I call your attention to the last paragraph on the first page, which is the second page here:

> "If we should decide to adopt your method, then an agreeable royalty basis is to be worked out between us."

Was that statement or suggestion made to these people before they canceled the contract?

A. I don't think it was. I think, however, it may have been discussed at Midland. I do know that we thought of some sort of a royalty arrangement with them in the event we should find there was some value to it.

Q. With that in view, Mr. Webb, what was the occasion or necessity for canceling the contract?

A. Well, I think the occasion for canceling the contract was fairly well covered in my previous testimony, that here was an outfit that had never had any experience in this kind of business, going into a venture about which they knew nothing, because, apparently, they were manufacturing what they thought was tetraethyl lead, but it did not turn out to be that. They realized, of course, when they went to Midland and saw the Dow plant, which covered almost half of the town, it would be rather foolish for [fol. 3704] them to venture into anything of this kind.

I think it was more convincing to Mr. Huff, who impressed me as being a very able business man.

I think at that time he had just a serum plant in the middle west. That is my impression.

Q. I call your attention to the same paragraph, the last sentence:

> "Needless to say, it is of prime importance to first ascertain whether your process has any advantages over those already known to us and we believe, as expressed by you in our last interview, this can best be done by following out the plan above outlined."

Did you tell them that if their process did have these advantages, they would go on with the work for you?

A. No, I did not tell them that. I do recall they made the statement that they thought that they had a special catalyst. What it was, I don't know.

Q. Well, with the prospect, Mr. Webb, of their process turning out the way it was suggested it might turn out, what reason was there, other than what you have given us, for the cancellation of the contract?

A. I know of none.

Q. Now, let us go to another subject, Mr. Webb, I am going to call your attention quite rapidly to a series of contracts, most of which were, as you have stated, negotiated by you.

I first want to call your attention to Government's Exhibit No. 678, which is a letter of Mr. Sloan to Mr.

Irenee du Pont, March 28th, 1925, discussing the present [fol. 3705] situation in Ethyl, and making the suggestion it would be necessary to put in a good businessman.

Now, Mr. Sloan mentioned you, Mr. Webb, as being his candidate for the presidency, and I would like you to tell us, please, why did he send you to Irenee du Pont?

Mr. Cox: I object to that, your Honor.

Mr. Harris: If you know.

The Court: He may answer if he knows.

By the Witness:

A. Mr. Sloan never sent me to Mr. Irenee du Pont. I never knew of this letter of Mr. Sloan to Mr. du Pont until this trial started. I had never seen it. Mr. Sloan asked me, about the 20th of March, if I would make a survey of the Ethyl Gasoline Corporation, and make a report to him as soon as I could.

Well, I told him I was pretty busy at that time, but if he would allow me about a month so that I could devote about two weeks of the time to the survey, and two weeks to attend to the office duties in Detroit, I would be very glad to undertake it, and I did.

I immediately started at that time to visit all the plants that were involved. I went to Dayton. Of course, I had seen the operation there before, but I went again, in the laboratory of Kettering there. I discussed the matter at considerable length with the Standard of Indiana people who were the largest distributors of the product then.

I am not sure whether I discussed it with Mr. Wilson at the time, but I knew him.

Q. You are now speaking of Mr. Wilson, who became president of Standard or was then president of Standard?

A. Yes, sir, president of Standard.

[fol. 3706] I discussed it with a number of the men.

By Mr. Harris:

Q. And you are discussing now your proposed presidency?

A. No, I was discussing the survey that I made.

Q. Oh.

A. And in time I landed at Deepwater, New Jersey, and I went over and went to the plant. Of course, I am not a scientific man at all, but they took me around and showed me the operation and explained it, I think, as well as they could, for a lay person to understand. They took me around to their research laboratory there and showed me the entire setup. In the course of that trip, I met Mr. Irenee du Pont for the first time.

Q. Now, Mr. Webb——

A. It had nothing to do, so far as I knew, about my presidency. As a matter of fact, I did not even know that I was considered for the presidency until about the 15th of April.

Q. I am going to call your attention to this statement in Mr. Sloan's letter to Mr. Irenee du Pont, on the second page, second paragraph:

> "The question then came to appointing a man and it just so happened, through force of circumstances which I need not to annoy you with, we have a man who has headed up our Legal and Real Estate Departments in Detroit. He is a lawyer by profession but a good business man as well. He has the confidence of our organization and I feel sure that when it comes to sound judgment and an orderly method of handling things, recognition of all the factors that enter into [fol. 3707] a decision, he will amply fill the bill. I discussed this matter with Mr. Teagle."

Now, who was Mr. Teagle?

A. He was then president of the Standard Oil Company of New Jersey.

Q. (Reading):

> "—and subsequently arranged for Mr. Webb to meet Mr. Teagle, also Mr. Howard. Mr. Howard feels that Mr. Webb has a training that should qualify him for the job. Mr. Teagle feels likewise except that he has a natural reservation for any man who is legally trained entering into a proposition requiring more or less business administration."

Now, when you went to see Mr. Teagle, which was before this time, were you there in the capacity of a prospective candidate for the presidency?

A. I was not a candidate at that time. I didn't want the job, but I went to see Mr. Teagle anyway.

Q. Did you go to see Mr. Teagle with the understanding that Mr. Teagle would size you up to see whether you were satisfactory for the job of president of Ethyl?

A. I think that was the purpose, at least, of our meeting together.

Q. Now, I call your attention to General Motors Exhibit No. 88, and by the way, Mr. Webb, it was suggested, wasn't it, by Mr. Teagle or someone, that before you take up your duties as president, that you make a survey, and you make a report, and they judged you on that report?

A. I only learned that since this trial started. I did not know that Mr. Teagle had suggested it to Mr. Sloan.

Q. Now, General Motors Exhibit No. 88. I show you that and will ask you to read it.

A. Yes, I have read this.

[fol. 3708] Q. Now, General Motors 88 says—and it is a letter from Irenee du Pont to Alfred Sloan, and it is dated April 10, 1925, and says you have been in Wilmington, and went to inspect the tetraethyl plant:

> "I had an opportunity of talking with him. It was short but decidedly re-assuring."

Can you give us any idea of what you talked about that would re-assure Mr. du Pont?

A. I haven't the slightest recollection of that conversation. I could not tell you. I am glad I made a good impression on him, but I do not know anything about it.

Q. What I am interested in, Mr. Webb, is whether you made a good impression on him as a prospective candidate for president of Ethyl, and whether anything in your conversation would indicate to you that he was sizing you up.

A. Not at all. I previously answered that question. When I saw him I had no idea in the world that I was being or would be considered a "candidate," as you refer to it, of the presidency of the company.

Q. I call your attention to his statement:

> "The job——"

and I take it he means president of Ethyl——

> "—needs somebody with reasonably forward vision and plenty of courage, coupled up with enough commercial instinct to obtain the profit which the traffic will bear."

Would you now, in the light of your experience, be able to tell us what traffic and what profit he was talking about?

[fol. 3709] Mr. Cox: I object, your Honor. There has been no foundation laid for that.

The Court: Sustained.

By Mr. Harris:

Q. Now, had you discussed, after you came into the presidency of Ethyl—had you had occasion to discuss with Mr. Sloan the policy of more than one supplier of tetraethyl lead to Ethyl?

A. I am sure that subject never came up during the survey that I was making.

Q. Oh, I didn't mean that, no, no. After you became president.

A. Did I ever do what?

Q. Did you ever discuss with Mr. Sloan the policy of two or more suppliers of tetraethyl lead?

A. Oh, yes, a number of times.

Q. What was Mr. Sloan's position on that subject?

A. He was very favorable to it.

Q. You say he was?

A. I certainly do.

Q. Didn't Mr. Sloan express to you at any time the idea that du Pont should be the sole supplier?

A. Never.

Q. Were you familiar with the situation that arose when Standard Oil wanted to produce tetraethyl lead?

A. Not at all.

Q. When did you become president?

A. I became president April, 1925.

Q. Now, at that time was there in existence—oh, this was after Bayway, was it?

A. Yes, sir.

Q. Did Mr. Sloan ever tell you that he had never been in favor of Standard Oil producing tetraethyl lead?

A. No.

[fol. 3710] Q. I am calling your attention now to the first of the series of contracts that were entered into between the Ethyl Company and du Pont.

Now, I take it that you are familiar, or you were familiar with the background of the supply situation and the formation of the Ethyl Corporation when you got into the saddle in Ethyl Company, weren't you?

A. I had had a little experience before, because I organized General Motors Chemical Company, and I was on the Board just as a nominal unworking member of the Board, or non-working, I guess it would be.

Mr. Harris: Will you show the witness Government's Exhibit No. 668?

By Mr. Harris:

Q. That, Mr. Webb, is the agreement of the 1st of August, 1924, which envisages the creation of the Ethyl Company.

Are you familiar with that document?

A. Yes, sir.

Q. You say, "Yes, sir"?

A. Yes.

Q. I call your attention to page 5 of the document, paragraph 8:

> "The Ethyl Company shall purchase tetraethyl lead or other anti-knock agent in the open market at the lowest price at which it is offered and, to permit competitive bidding, shall offer to instruct and license any bona fide probable supplier, including the STANDARD COMPANY; provided, however:
>
> "Purchases shall be made from E. I. du Pont de Nemours & Company under the existing contract between it and GENERAL MOTORS, copy of which is [fol. 3711] attached hereto (Exhibit D), until the expiration of said contract or until a substitute therefor is made direct with the ETHYL COMPANY."

You were familiar with that provision, weren't you, when you became president?

A. Yes, after I became president I saw this document.

Q. Now, I will call your attention to Exhibit D which begins on page 31 of the contract, and particularly to the Sixth Provision on page 41 of this document:

> "It is understood that this agreement is to be a continuing one, and is subject to cancellation by the Purchaser only in the event of the Manufacturer failing to perform its obligations——"

So until du Pont failed, would you say there wouldn't be a look-in for anyone else, would there?

A. I don't know how you might interpret that. I think men might differ as to the—I am not prepared to answer yes or no to your question.

Q. All right, sir. The facts remain, however, do they not, that the du Pont Company was the sole supplier of tetraethyl lead until 1947—that is, first as an independent seller, and later, after 1938, as the manufacturing agent, is that right?

A. That's right.

Q. Now, I call your attention to Government's Exhibit 675, and that provides for the construction of a plant, and I call your attention to paragraph 8 on page 5:

> "The Seller——"

That is du Pont.

> [fol. 3712] "—agrees that it will not manufacture tetraethyl lead for any other person, firm or corporation"——

other than the Ethyl Company.

I call your attention to Government's Exhibit No. 703, which is a letter from Mr. Sloan to yourself, dated January 26, 1926, discussing in the first paragraph the very great importance that the cost of tetraethyl lead concentrated as received from the du Pont organization would assume in the operations of Ethyl Gasoline Corporation.

Now, did you encounter difficulty, Mr. Webb, in learning the costs or the basis of the price that was charged by du Pont to Ethyl?

A. Your word "difficult" is one that is rather difficult also for me to answer.

Q. Would another word be easier?

A. I can answer it this way: That we did not get the cost from the du Pont Company of this material they were manufacturing and selling to us.

Q. That would be rather important for you to know, wouldn't it?

A. Well, of course, it is important to every purchaser, but I never knew—I didn't ask Dr. Dow how much it cost them for the bromine that they sold us, never in my life. I didn't ask anybody else that we bought stuff from how much it cost them. I don't think that is customary in commerce.

Q. Well, let's put it this way. You got a price from du Pont. Now, out in Denver you got a price which was ten cents lower a pound.

It would be possible, would it not, during the years from 1925 to 1947 to have obtained prices from other companies?

A. I don't know.

[fol. 3713] Q. Did you ever try?

A. No.

Q. I call your attenion to Government's Exhibit No. 705, and that is the letter from Mr. Irenee du Pont to Mr. Sloan, dated February 10, 1926.

This is the second paragraph:

> "Admittedly I was somewhat ruffled at the lack of progress of the Ethyl Gas Corporation; also at their attitude on du Pont's proposition to make tetra-ethyl lead. We certainly have the hard end of the job, and questioning a few cents a pound, which means hundredths of a cent per gallon for our services, seems so very out of place compared with preemptory knocking off 50¢ or $1.00 a pound, equivalent to the price charged for Ethyl Gas."

Does this refresh your recollection, Mr. Webb, as to whether or not you had tried to get du Pont to reduce its price?

A. Oh, yes.

Q. And did they reduce it?

A. Yes, they reduced it right along.

Q. Yes. I am speaking now of this time. We will come to the reductions later. But did they do anything in the way of a reduction that would reach the quarter of a cent on gross sales that is being talked about, if you know?

A. I don't know.

Q. All right, sir. I call your attention now to Government Exhibit No. 706. This is the agreement of the 31st of March, 1926, and provides for the preparation of 600,000 pounds per month of Ethyl as shown on page 2, III.

I call your attention to page 7 of this exhibit, which pro- [fol. 3714] vides for a payment of $1.00 a pound. That is the 31st of March, 1926.

Did you attempt, if you know, to have du Pont reduce its price from $1.00 a pound at that time?

A. I don't think I did, because the contract that had been canceled as a result of the suspension of business provided for the dollar a pound, and we were simply reinstating in March, 1926, the price that existed at the time of the cancellation and suspension of business.

Q. All right. Let's come to the next contract, which is the 31st of March, 1925, Government Exhibit No. 745, and the price as appears on page 2, III, is $1.00 a pound.

However, turning to page 4, you will find a graduated reduction for quantity down to 75 cents a pound.

Now, Mr. Webb, did you have any basis at the time that you entered into this contract for the Ethyl Corporation as to whether that dollar a pound and that graduated scale was a fair price for what you were getting?

A. Well, I don't think we questioned the unfairness of it at that time on the volume involved. You will note on increased volume the price gradually went down from 93 cents to 75 cents. The volume had a great deal to do with cost.

Q. Yes. When did you first learn, if you ever learned, of the formula that the du Ponts used in making their price?

A. I never heard of their having a formula for making their price.

Q. I call your attention now to Government Exhibit 747 which is a contract dated August 26, 1929, and you have again a graduated scale which brings it down, as you will see on the last page but one, to 60 cents a pound when you reach 1,300,000 pounds.

May I assume that you still had no standard as to the [fol. 3715] fairness of unfairness of this price.

A. We thought we were making progress.

Q. Yes.

A. At that time, in a period from 1926, when we resumed business, to August, 1929, to have gotten the price down from one dollar to sixty cents a pound as our volume increased. We felt we were headed in the right direction.

Q. Yes, and the only way you got that price down, I suppose, as I see it, would be by ordering more material?

A. That was the primary reason for the price.

Q. There was never any suggestion that a competitor could do cheaper than du Pont, was there?

A. Well, we had quite a few chemists in our organization. We didn't go into the cost of the du Pont Company. We knew the materials that went into the manufacture.

All of them, excepting sodium, were products that industry knew as a whole. That is, pig lead was a large volume. That was bought on the open market. Ethyl chloride, the Dow people were large producers of that. Their price was well known at the time.

Sodium was manufactured by the du Pont Company, and we didn't know what those costs were.

Q. It is fair to assume, isn't it, that during all of these years, Mr. Webb, you were continually trying to get the du Pont Company to reduce their prices?

A. I certainly did the best I knew how to do that.

Q. Did you ever take up this question of price with Mr. Sloan to see what he could do?

A. No, I never asked Mr. Sloan's help at all in any of the negotiations I carried on with du Pont. I thought if they didn't have enough confidence in me to carry on negotiations properly, they ought to get somebody else for the [fol. 3716] job that I had. I never asked his assistance. I carried on negotiations alone, excepting I had the treasurer of our company, Mr. Mittnacht, who died in April, 1936, and after his death I had Mr. John Shaeffer, whose name I mentioned before, and his qualifications as chemical engineer, along with me.

Q. You didn't at any time call on Mr. Sloan, then?

A. Not for assistance. I reported to him and I reported to Mr. Howard.

There is one name that hasn't been mentioned that I should mention. In the minutes creating the Executive Committee of our company, there was provision that in the event of the absence of any member of the committee, the absentee could appoint a substitute to act for him, and a gentleman by the name of Clark, Mr. E. M. Clark, substituted for Mr. Frank Howard.

He was vice president of the Standard Oil Company of New Jersey. He was on the Board. He was on our Board from its beginning until his retirement. First he retired from Standard Oil Company of New Jersey some time in the thirties, and retired from our Board in 1943.

Q. Yes.

A. He was the outstanding man on our Board on refining. He is the gentleman whose name partially bore, that is Dr. Burton and Mr. Clark, I believe, the first well known cracking process, and Mr. Clark was brought up as a refiner with the Standard Oil Company of Indiana, and then he went with Standard of New Jersey.

He was the outstanding man on our Board as to refining costs in the oil industry. At least, we thought so. He [fol. 3717] acted, not infrequently, because Mr. Howard was in Europe quite a bit.

Q. Now the contracts, before they were signed on behalf of Ethyl, were submitted, were they not, to the Executive Committee, consisting of Sloan, Howard and yourself, or this substitute?

A. I think in every case.

Q. Then did they go to the Board?

A. Not always. I might say that the Executive Committee really ran the business for quite a number of years. At that time we were simply a selling organization.

Our total investment, I guess, until we built the plant at Baton Rouge, didn't exceed a million dollars. We were marketers. We didn't have many Board meetings.

Q. Now I am calling your attention to Government Exhibit No. 762, which is a letter dated July 17, 1931, from Mr. Sloan to Mr. Lammot du Pont. He is discussing the question of price.

I call your attention to the second paragraph:

> "As you know, there is considerable excess capacity for tetra-ethyl lead due to the progress that has been

> made in increasing the productivity of the plant. The question arises, therefore, how can we put this extra capacity into profitable employment? The matter comes up at this time because Mr. Webb tells me that he is about to begin negotiations with your organization with regard to renewal of the contract, which terminates at the end of this current year."

He goes on:

> "My thought is, that we ought to give consideration to the betterment of our overhead position, if it is a [fol. 3718] factor in a thing of this kind, by seeing just what we could make by your giving us a reduction on a reasonable assumption of increased business—we in turn passing that on to the trade with perhaps a certain contribution added to it——"

Now, it would appear, would it not, that at this conference with Mr. Sloan you had discussed this question of price?

A. Well, the only thing it says about me is that he is about to begin negotiations "with your organization" with regard to renewal of the contract.

It must have been that I did discuss price with Mr. Sloan at that time, or else I don't think he would have written what he did later on.

Q. That is right, sir.

Now he goes on, and this will confirm it, the last paragraph:

> "I have suggested to Mr. Webb that he urge upon the du Pont organization this phase of the question——"

That is undoubtedly the reduction of price.

Then there is a reply to that by Mr. du Pont, which is Government Exhibit No. 763. I am not going to read this letter except the bottom paragraph on page 1, where they are talking about this quarter of a cent on gross sales.

Mr. du Pont says:

> "Out of that quarter cent received by du Pont must come the cost of the raw materials, cost of manufac-

> ture and du Pont's general expenses. If these figures are even half way correct, it seems futile to look for a reduction in the three cent premium through a cut down of the quarter cent paid to du Pont"——

[fol. 3719] So that Mr. du Pont feels that any reduction apparently that should come in price should not come in his.

You make that out of that, don't you?

A. I think any of us can draw our own conclusion about it.

Q. Which would be the same, wouldn't it?

A. I don't know whether it would be the same or not.

Q. Would you look at it then as a lawyer and tell me?

Mr. Cox: Your Honor, I object.

The Court: Sustained.

By Mr. Harris:

Q. Mr. Sloan then writes to Mr. du Pont, July 28, 1931, Government's Exhibit No. 764, and apparently is still trying to get a reduction. He says that he shouldn't have butted into it.

I call your attention now, Mr. Webb, to Government's Exhibit No. 753, which is the contract of 1931, and call your attention to the fact that that year the price is down to 47 cents.

Now, I think we might come to the formula I asked you about in Government's Exhibit No. 766. This is a letter of February 25th, 1932, written by Mr. Lammot du Pont as chairman of the board and "chairman of the board" is crossed out, to Alfred Sloan:

> "You know I have always been somewhat concerned with respect to the price for tetra-ethyl-lead charged Ethyl Gasoline Corporation by du Pont."

Then they discussed that reduction in price from 56 to 48 cents. Now, if you will turn to the other side of the letter, the last paragraph:

> [fol. 3720] "I have always felt that, because of the difficulty of comparing the earnings of General Motors and du Pont from this source, on the basis of 'return

> on the investment,' it is reasonably fair that du Pont earnings should be about one-half of Ethyl Gasoline Corporation's earnings; i.e., General Motors, Standard Oil and du Pont should participate equally;"

subject to the royalty.

That meant, did it not, that maybe it was felt, and I take it, used in making the price that the manufacturing profit should equal one-half of the selling profit. That is right, isn't it?

A. That is what I gather from this paragraph.

Q. When did you first learn of this formula?

Mr. Carpenter; I object, if your Honor please.

The Court: Overruled.

By the Witness:

A. My best recollection is the first time I ever heard of the profit sharing, as you might call it, arrangement, such as referred to in the last paragraph of Mr. du Pont's letter to Mr. Sloan was when I began negotiating with du Pont. I think it was in 1935.

By Mr. Harris:

Q. Yes. Now, then——

A. About an arrangement which was concluded in the making of the four documents dated January 1st, 1938.

Q. When this price was recognized, is that right?

Mr. Cox: I object to that. The document speaks for itself.

[fol. 3721] Mr. Harris: Yes, the document will show.

The Court: Sustained.

The Witness: I would like to tell you one thing.

Mr. Harris: Please, yes.

By the Witness:

A. Mr. Lammot du Pont told me, and I think Mr. Howard was present on this occasion—it was in Mr. du Pont's office in Wilmington, Delaware, that he had noted that either that year or the preceding year that the earnings of the du Pont Company were one-half of the earnings of the Ethyl Corporation after deducting royalties.

By Mr. Harris:

Q. When was that, sir?

A. I think it was 1935. It may have been 1936, but my best recollection is 1935.

Q. And you never sought to ascertain, did you, whether that price arrangement was the best price that Ethyl could get either from du Pont or anybody else?

A. Well, the only thing I knew was this. Mr. Howard and Mr. Clark, two members of our board, who were employees of the Standard Oil Company of New Jersey, and Mr. Clark, vice president, and Mr. Howard, president of the Standard Oil Development Company, told me in the very beginning of my job that the best estimate they were able to make was that eventually with enough volume and improvements that might be made in the manufacture of tetraethyl lead, that it could be manufactured at 37 cents a pound.

That always seemed to stand out in my mind, that with a big volume, we might come to that figure.

[fol. 3722] Q. When did you reach it, if ever?

A. Oh, we reached it, and got down to 26 cents a pound.

Q. When?

A. Well, I think the 26 cents a pound was the year prior to the January, 1938, agreement.

Q. Was it ever figured what the price per pound of tetraethyl lead cost you on this arrangement that came in later, and I will call your attention to an arrangement for a certain share of the profits. Did you ever figure out what that cost you?

A. The actual cost of the lead?

Q. Per pound.

A. Of the lead?

Q. Yes.

A. I may be off two or three cents, but I think it was 18 or 20 cents a pound.

Q. That was worked out, was it?

A. How is that?

Q. Was that worked out, that figure of 18 or 20 cents a pound?

A. I think my best recollection is that we—after we began to be manufacturers with du Pont as our agent, the cost, I believe, got down to 18 or 20 cents.

Q. Well, do you know, was anybody else manufacturing tetraethyl lead at that time?

A. No, sir. You see how difficult it would have been to have brought another manufacturer in, a prominent manufacturer to begin with. Within three years after the first contract we made with du Pont, they had at Deepwater immediately adjoining or in that dyestuffs area, ethyl chloride plants. They had an ethyl alcohol plant out of which came ethyl chloride.

They owned, so far as I know, the only sodium plant in the United States, at Niagara Falls, and so that any other company to have gone into this picture would have involved a very, very large investment, and we would have had to pay for it in cost of the materials we had bought from them, and we were getting such good results from the du Pont Company on the health end of it, their production [fol. 3723] and their decreases in price to us, cooperating so that we could decrease our price to the industry, and we were very well pleased with the situation, and there was no occasion to try to get anybody else to do it.

It would have been at our expense and our——

The Court: Have you completed your answer?

The Witness: Maybe it was a little longer——

The Court: No, I just wanted to know.

The Witness: Yes, your Honor.

By Mr. Harris:

Q. All right. Now, what was your idea in going then to Denver?

A. All of this occurred subsequent to my trip to Denver.

Q. Yes, I know, but what was the idea of going to Denver?

A. Well, I think that going to Denver first was to see the Continental——

Q. No, I ask you whether it was "to get another supplier." You had the idea that it would be the best thing for du Pont—for Ethyl, to get another supplier.

A. Yes, at that stage I felt that way about it. That is the reason I talked to Dr. Dow about it.

Q. And it was possible for you, wasn't it, to make the same kind of arrangement that you finally made, to manufacture the stuff yourself—you had the patents, didn't you?

A. Yes.

Q. Long before you did it?

A. I doubt it.

Q. All right.

[fol. 3724] I call your attention to a letter by yourself, Government's Exhibit No. 749, to Mr. Sloan, dated April 3, 1930:

> "About a month ago while carrying on negotiations with the du Pont Company relative to a fourth lead plant, I told them I felt the time had arrived when we should be giving thought to conditions that might exist on the expiration of the Midgley patents——"

I drop down now to the end of the first page:

> "* * * I made the following suggestion"——

That is to Robinson, the du Pont general manager of the Dyestuffs——

> "—as the minimum we would expect—to be made a part of the contract relating to the fourth plant and as a consideration for our making it, viz; That inasmuch as the lead now being manufactured by du Pont was and had been manufactured under a process, the patent for which is controlled by Standard Oil Company (and through same we have the exclusive right to license others), and du Pont was the only concern—by reason of being our exclusive supplier—that had had the chance to make improvements or refinements in connection with the process, that if we have continued to purchase at least fifty per cent of our requirements of lead from them, for each year, up to January 1, 1938, then du Pont is to disclose fully to us any improvements they may have made in the art of manufacture——"

And then I call your attention down to the last paragraph:

> [fol. 3725] "Certain objections have since been made by du Pont Company to entering into such an

> arrangement, and I have told Mr. Robinson that unless we get some such provision I could not sign any agreement until the subject had been fully presented to and passed upon by our Executive Committee. That it was something that had not been heretofore submitted to the Executive Committee but I felt confident the proposal was so reasonable that if it was not accepted we would be strongly tempted to seek another supplier (for a substantial percentage of our requirements) right away, licensing such other supplier under the same patent with conditions perhaps more favorable as to future patent rights than we were presently requesting of du Pont."

That, Mr. Webb, was April 3, 1930. And as a matter of fact, in subsequent contracts, Mr. Webb, they did put in that provision, didn't they?

A. It was put in. I don't know whether they put it in. Both of us put it in.

Q. And that was on the understanding that you would buy at least fifty per cent of your requirements?

A. That is correct.

Q. And as a matter of fact, you bought all of them, didn't you?

A. Yes.

Q. Under those contracts?

A. Yes.

Q. Now, I call your attention to a letter, Government's Exhibit No. 770, from Mr. A. E. Mittnacht to Mr. Robinson of du Pont.

Who was Mr. Mittnacht?

A. He was secretary and treasurer of our company.

[fol. 3726] Q. It is dated September 19, 1933. Will you look at that letter, just the first page, so as to get an idea of the subject, and see if you can tell us whether you had discussed the matter with Mr. Mittnacht before he wrote Mr. Robinson?

A. This——

Q. "Mutualization."

A. This letter of September 19, 1933——

Q. Oh, that is before your time, isn't it?

A. No, I had been there nine years, or rather eight years.

I do not recall ever having seen this letter until this week.

Q. Oh, you had seen it before you came on the stand?

A. Yes, sir.

Q. All right. I call your attention to paragraph 1:

> "We have promised our customers to present to them a plan for the mutualization of the Ethyl Gasoline Corporation."

What does that mean?

Mr. Cox: I object, your Honor. There is no basis for asking this witness that question.

The Court: No, overruled. He ought to answer.

By Mr. Harris:

Q. It is an operation?

A. Well, I think what Mr. Mittnacht had in mind was the possibility of the oil industry owning the Ethyl Gasoline Corporation. I think that is what he had in mind.

Q. Yes. Well, now, we will pass from that.

A. I don't recall his ever discussing the contents of this letter with me.

Q. (Continuing):

> [fol. 3727] "We do not feel that we can present any such plan until we have put our relations with your Company on a permanently sound basis. Under the present set-up, the Ethyl Corporation is not in control of its own business. The du Pont Company is the sole supplier and we estimate that physical limitations might prevent the development of any competitive source of supplies for at least two years. A two-year shut down of its business would be fatal to the Ethyl Gasoline Corporation."

Are these statements in accord with the facts?

A. I doubt it. It certainly doesn't express my view on the subject. I don't know why in the world Mr. Mittnacht ever wrote a letter like that.

Q. So that when he comes to the second page in the top sentence and says:

> "These are the plain facts of the situation,"

you would say they were ~~not~~, is that right?

A. Well, I wouldn't say that Mr. Mittnacht ever purposely made a misstatement. He was a very high class man, and he worked his head off for us, but I do know, and I was the man responsible as manager of the company, that we never made a commitment of any kind or description to mutualize our company.

Q. I am not talking about that.

A. With anybody, but he says that in this letter that we had.

Q. I am talking about the condition that Ethyl found itself in on September 19, 1933, which Mr. Mittnacht says was one where du Pont was its sole supplier and Ethyl wasn't in control of its own business, and he goes on to [fol. 3728] say—which has nothing to do at the moment with mutualization—as follows:

> "A relationship which grew up and existed only because of the feeling of mutual confidence between the parties has finally produced a situation which is an economic absurdity and appears plainly as such when it is viewed from the standpoint of selling the business to a complete stranger."

Would you agree with that statement?

A. Absolutely not. We were going awfully well at that time. Our profits were very, very fine indeed, and the directors were perfectly satisfied with it, and I don't see how he could have said that it was an economic absurdity. The contracts that are in evidence just—that shows the relationship between du Pont and ourselves, and any comments made by Mr. Mittnacht are his own views on that subject.

Q. Isn't it a fact, Mr. Webb, that about five years after this letter was written an arrangement whereby Ethyl took over the manufacture on paper of tetraethyl lead, and du Pont became the agent of Ethyl, really corrected the situation in some measure that Mr. Mittnacht is talking about?

A. Well, you will have to compare this letter with those contracts, so I cannot answer your question specifically. Our relationship is clearly outlined in those contracts.

Q. We are coming to them.

Now, I call your attention to a letter which is Government's Exhibit No. 779, and is dated December 19, 1935, by you to Mr. Lammot du Pont, and you are discussing in this letter what I have called the formula, or the profit-sharing [fol. 3729] between du Pont Company and Ethyl, in the form there of a price for tetraethyl lead.

Now, how long before December 19, 1935, approximately, had you begun to consider this profit-sharing arrangement as it affected your future contracts?

A. As I said before, I don't remember whether those negotiations began in 1935 or 1936. I don't know whether they began prior to this letter or not.

Q. Well, this is December 19th——

A. I might say this: any number of proposals were submitted during the time the negotiations went on, trying to arrive at a basis where we would be in control of our business both in the manufacturing and the selling end of it. That was our aim, absolutely, beginning back in the contract of August, 1930, where this 50 percent clause has been in there.

Q. That was something that Mr. Mittnacht had in mind when he wrote the letter?

Mr. Cox: I object to what somebody else had in mind.
The Court: Sustained.

By Mr. Harris:

Q. I call your attention, Mr. Webb, to the second page of this letter of yours to Mr. Lammot du Pont:

> "Therefore your suggestion of having the du Pont Company participate in the profits derived from the manufacture and sale of tetraethyl lead on the basis of one to two is altogether unacceptable to us."

Now, that was the basis of one to two, that is the basis that we have just discussed, isn't it?

A. That is right.

Q. And they had been on that basis for a long time unknown to you, had they not?

[fol. 3730] Mr. Cox: I object to that question. How could he answer that, if it was unknown to him?

Mr. Harris: Well, he said he first learned of the formula in 1935, isn't that right?

Mr. Cox: Mr. Harris is asking the witness in fact what the basis was, and then I suggest, your Honor, that the witness is not supposed to be competent to answer. He said he didn't know the basis.

The Court: Sustained.

By Mr. Harris:

Q. I call your attention now, Mr. Webb, to your letter of February 27 of 1936 to Mr. Lammot du Pont.

Mr. Carpenter: What exhibit is this?

Mr. Harsha: Government Trial Exhibit No. 780.

By Mr. Harris:

Q. (Reading):

> "Dear Mr. du Pont:
>
> "I had hoped that we would be able to arrive at a mutually satisfactory partnership arrangement with you for the manufacture of tetraethyl lead embodying the basic principles outlined in my last proposal, but I feel confident this will not be accomplished in view of your statement that you will not subscribe to any arrangement of this character that does not give your company the absolute control of the suggested subsidiary company."

[fol. 3731] What was this arrangement, Mr. Webb?

A. I think at that time the suggestion was made by me that perhaps we might form a company and call it either "The du Pont-Ethyl" or "Ethy-du Pont Company" and take over the Deepwater plants, and have that company operate the du Pont plants as a subsidiary, you might say, of Ethyl Gasoline Corporation.

Q. And that was unacceptable to du Pont unless it had absolute control of the du Pont Ethyl Company, is that right?

A. Mr. du Pont had told me, not once but several times, Mr. Lammot du Pont and Mr. Irenee du Pont that they would not have an outside concern operating any plant that formed such an integral part of the dye stuffs at Deepwater as the lead plants did.

Q. I call your attention now to Government's Exhibit No. 781. This is a letter from Lammot du Pont to you dated March 6, 1936, where you are discussing royalties, and apparently are not in agreement.

I call your attention to the last paragraph:

> "I have told you on many occasions, have told Mr. Sloan and Mr. Brown on several occasions, and have told Mr. Teagle on at least one occasion, that it is my carefully considered opinion that Ethyl Gasoline Corporation would make a very grave error in undertaking the manufacture of tetra ethyl lead. I wish to repeat that statement now and to make it a matter of record; and I am therefore sending a copy of this letter to the three gentlemen above mentioned."

Did Mr. Lammot du Pont ever give you any reason why it would be a grave error for Ethyl to manufacture tetra- [fol. 3732] ethyl lead?

A. Yes. He said he thought that their organization could do a better job than we could, and he thought it would be a mistake for us to go into the manufacture of tetraethyl lead, not having any background on the subject.

* * * * * * * *

RECESS

[fol. 3733] By Mr. Harris:

Q. Mr. Webb, I addressed the question to you before the recess as to two sources of supply, and called your attention to a document in which you suggested that if the du Ponts didn't come to the arrangement that you had suggested in the document, you would seriously consider a second source of supply.

Do you recall that?

A. Could you fix the time?

Q. 1930. Well, I am only recalling to your mind what is in the record. If you don't remember it, that is perfectly all right.

This is something that came up this morning.

A. I happen to remember in 1929 a meeting with Mr. [fol. 3734] Sloan and Mr. Howard, about the expansion of the manufacturing at Deepwater, to take care of our anticipated requirements over several years which would necessitate the building of a fourth lead plant at Deepwater, and we came to the conclusion, the three of us, that if we couldn't make some sort of an arrangement with the du Pont people in reference to the know-how and the patent situation——

Q. That's right.

A. —in the very near future, why, then we would have to consider a second source of supply.

Q. Yes, sir.

Now, I call your attention to Government's Exhibit No. 750——

The Court: What number is that?

Mr. Harris: That is No. 750, your Honor.

By Mr. Harris:

Q. This is the letter of Alfred P. Sloan to you dated April 5, 1930. It speaks of your letter of April 3rd and that letter is with reference, I believe, to this know-how or exchange of know-how:

> "You say in your letter that a certain agreement might be looked upon with suspicion as an effort to perpetuate a patent monopoly beyond the life of the patent. Be that as it may, or rather assuming that is true, I see no reason why we should not proceed in exactly that direction."

Then Mr. Sloan proceeds to discuss the business aspect of continuing patent protection as long as you can.

> "Perhaps I do not get your idea fully"——

[fol. 3735] this is the second page——

> "but the point I want to make is—that I think it is perfectly all right to perpetuate the patent as long as we can; that it is not only morally right but that it is our duty to our interests to do that very thing. I might add further that I should feel quite strongly on this point in the absence of any argument that might

> modify my opinion of course but, naturally, in this particular case in view of the fact that we are dealing with the du Pont Company, with whom we are associated, I recognize that irrespective of how the contract might be worded that their interests will surely be and must be to protect any position that seems equitable to us."

Was that also your point of view, Mr. Webb?

A. Not necessarily. I don't know that I subscribe to that last sentence to the same extent that Mr. Sloan expressed it. I might have if I had had his point of view before he wrote such a letter.

Q. Yes, sir:

> "The second point is—that I have no objection to making a contract to purchase 50% of our requirements of lead from du Pont indefinitely because I think they are entitled to that consideration and, frankly, I would rather see them get the business if they can as I believe they can and will make us a price as low as we can purchase for elsewhere."

And then Mr. Sloan finishes in the last paragraph with an agreement with you for the position held by you that the Ethyl Company should get the know-how if they are going to give orders for 50 per cent.

[fol. 3736] I call your attention to a letter of Mr. Sloan to Mr. Lammot du Pont on April 18, 1930, which is around about the same time, in which he tells Mr.——

Mr. Harsha: Government Exhibit No. 751.

Mr. Harris: Government Exhibit No. 751, I am sorry.

By Mr. Harris:

Q. (Continuing)—in which he tells Mr. du Pont that you had come in to see him to discuss various matters regarding the operating problems facing Ethyl, and among other things the relations with the du Pont Company.

Then he goes on to discuss the desirability of protecting the patent position.

And then calling your attention to the second page of this letter, the first paragraph:

> "I mentioned this to Mr. Webb"——

that is the exclusive privilege of prolongation——

> "I mentioned this to Mr. Webb and thought there would be no harm in mentioning it to you so that everything could be done to throw protection around such processes as you are developing. It also seems very essential that the manufacturer be confined to one source of supply."

Do you take from that he means that the Ethyl Company should be confined to the du Pont Company?

A. Well, I rather draw that inference, but I certainly wasn't attempting to do my job in the company on that basis.

There is that one sentence:

> [fol. 3737] "It also seems very essential that the manufacturer be confined to one source of supply."

I cannot say that I was sold on that idea completely.

Q. O.K., thank you.

Now, I call your attention to Government Exhibit No. 799. There is just one thing on Government Exhibit No. 783 first. Just keep that other one there, if you please.

This is a letter, Mr. Webb, Government Exhibit No. 783, from you to Donaldson Brown, Clark, Farish, Howard, Sloan and Teagle, dated March 12, 1936.

Who were these gentlemen?

A. Mr. Donaldson Brown was, I believe, at that time he was the vice president in charge of finance of the General Motors Corporation.

Q. Was he on your board, on the Ethyl board?

A. Yes, he was in the beginning.

Q. Were these other gentlemen on the Ethyl board?

A. Mr. W. S. Farish was president of the Standard Oil Company of New Jersey; Mr. F. A. Howard was president of the Standard Oil Development Company, and Mr. Teagle was the president—I think he was chairman of the board at that time of the Standard Oil Company of New Jersey. They were all on our board.

Q. Yes, that is what I thought. You are discussing with them in this letter your proposal to Mr. du Pont that we had up this morning, that there should be a joint company formed, and it had stumbled on the rocks of du Pont's insistence on their controlling that joint company.

I call your attention to page 7 with reference to——

A. Page 7?

Q. Yes, sir, with reference to this question of profit that was discussed this morning, and the proposed royalty asked by du Pont of ten cents a pound for the new com-[fol. 3738] pany to pay, and you say that you don't know the profits of the du Pont Company on their raw materials, and you go on, and this is page 6:

> "I think it is a fair assumption that the reason why we have been unable to make headway in our negotiations with the du Pont Company is because of the very handsome profits that they have been and are making on the manufacture of tetraethyl lead. The question obviously presents itself, what can we do about it * * * *"

Now that was in 1936, and in 1938 you made the new agreement, did you not, which for the first time put Ethyl in as the manufacturer, and du Pont as the agent to do the actual manufacturing?

I call your attention to Government Exhibit No. 799.

A. Mr. Harris, I think you are asking me a question, are you?

Q. Well, I just said this was the origin of this document.

A: I would say this: The first part of your question indicated that du Pont insisted upon controlling the entire enterprise in the event there was an agreement regarding the three companies.

Q. No, I thought——

A. I got the impression from the exhibit you showed me that they insisted upon controlling the subsidiary company.

Q. That is right.

A. Which was the manufacturer.

Q. That is right, the joint company, the du Pont-Ethyl Company.

A. Yes.

Q. That is so, sir.

[fol. 3739] Now, if you will look at Government's Exhibit

799, that is the 1938 contract, which in Article I employs du Pont to make these various chemicals, and finally to make tetraethyl lead.

I call your attention only to page 22, Article VII, which is the compensation to du Pont Company under the 1938 agreement as follows:

> "100 percent of gross manufacuring profits of Ethyl Company from manufacture, purchase, and sale of tetraethyl lead and/or mixtures thereof with other substances up to an aggregate amount of 53,000,000 pounds."

Then thirty per cent of the gross manufacturing profits over and above 53,000,000 pounds.

Then sixty percent of the gross manufacturing profits of Ethyl for the manufacture, purchase and sale of antiknock compounds other than tetraethyl lead.

Finally, an amount whose ratio to the amount received by Ethyl as dividends on the common stock of Ethyl Dow Corporation is the same as the ratio of the aggregate payments to the du Pont Company under sub-paragraphs 1, 2 and 3 to twice the gross operating profits of Ethyl Company.

Now, that compensation continued, did it not, until 1947?

A. I don't think that you should end there. I think you should read, which is the most important part of it, the top of page 23.

Q. All right, sir:

> "It is understood and agreed that for the purpose of this Article, the term 'gross manufacturing profits' shall be deemed to mean thirty-three and one-third per cent of gross operating profits of Ethyl Company [fol. 3740] and the term 'gross selling profits' shall be deemed to mean the balance of said gross operating profits."

As a matter of fact, that was the arrangement, was it not, that du Pont considered the manufacturing profit its share and the selling profit their share, that is, General Motors and Standard Oil share? That is all that has to do?

A. I think what this is doing is in effect saying that du Pont's compensation under these agreements shall be one-third of the gross operating profits.

Q. That is right, as a measure of the manufacturing profits——

Mr. Cox: Let him finish.

Mr. Harris: All right, sir.

By the Witness:

A. After, but not including the royalty due to General Motors.

By Mr. Harris:

Q. That is at 25 percent royalty?

A. That is correct.

Q. Yes, that is similar——

Mr. Cox: Let him finish.

The Witness: Let me finish, will you, please?

On the first 53,000,000 pounds of tetraethyl lead, you see.

By Mr. Harris:

Q. That is what we said.

A. And anything in excess of 53,000,000 pounds shall be ten percent of such profit.

Q. I think it is thirty percent, but you are saying thirty [fol. 3741] percent of thirty-three and a third. That is what you are saying, aren't you?

A. That is good. You may say so.

Q. Don't let's misunderstand each other, Mr. Webb.

A. There isn't any misunderstanding as far as I am concerned.

Q. What I am talking about is that in this proposition they are embodying what they have been doing all along, and they are simply taking the measure of manufacturing profit as thirty-three and a third of operating profit, and operating profit includes selling profit.

Mr. Cox: I object to the form of that question, if it is a question.

Mr. Harris: Well, it isn't. It is an argument.

Mr. Cox: Thank you.

Mr. Carpenter: I move to strike it.

Mr. Harris: No objection.

The Court: It may be stricken.

By Mr. Harris:

Q. Anything further, Mr. Webb?

A. I only want to say this: That Mr. Frank Howard is the man who told me he thought this basis would be the one that we should try to obtain from the du Pont Company, particularly the 10 per cent on the excess over the 53,000,000 pounds.

It was that idea which I endeavored to negotiate and conclude successfully for quite a period of time before it was concluded.

Q. Now I call your attention to Government's Exhibit No. 811, and this is a statement by Mr. F. G. Donner, general [fol. 3742] assistant treasurer of the General Motors Corporation, dated July 31, 1939.

Its subject is: "Ethyl-du Pont Profit Sharing Arrangement."

I call your attention to the last paragraph:

> "In the preliminary negotiations, the du Pont Company stated that its billing prices, from year to year, had been predicated on the basis of du Pont enjoying a manufacturing profit equal to approximately one-half the total profits being enjoyed by the Ethyl Company (operating as a selling company). In other words, the du Pont Company had assumed that the manufacturing profit should approximate one-third of the total profits resulting from the manufacture and sale of tetraethyl lead."

That statement refers, does it not, Mr. Webb, to the entire period of the contract?

A. Well, he says from year to year.

Q. Yes.

A. I never saw this in my life until right now.

Q. All right, sir.

A. What he had in mind, in the back of his head, I don't know, but that is what he says in the last paragraph:

> "In the preliminary negotiations, the du Pont Company stated that its billing prices, from year to year,

had been predicated on the basis of du Pont enjoying a manufacturing profit."

The first time I ever heard of it was when I told you in the talk with Mr. Lammot du Pont in negotiating the January 1st, 1938, contract.

Q. All right.

[fol. 3743] Now, I call your attention to Government Exhibit No. 833.

This agreement was signed on the 19th day of August, 1947, which was the time, I believe, Mr. Webb, that you were parting company with du Pont on this manufacture of tetraethyl lead.

A. I wonder if I have the right exhibit.

Q. Government Exhibit No. 833.

A. Yes, I have that.

Q. You will find, Mr. Webb, the date of the execution on the very last page, the 19th day of August, 1947, executed by Mr. Kaley.

What was your position in the company at that time?

A. I think I was president until the 7th of August and then the position of Chairman of the Board was created by the Board of Directors, and I was elected to that position in anticipation of my retirement the following March 1st.

Q. All I wanted to know was did you have anything to do with the negotiation of this agreement?

A. Oh, yes, I had a lot to do with it.

Q. Yes. Now this agreement then provided that—I am not going to go over it; we won't take the time—but it provides for the transfer or licensing of the patent, the transfer of know-how between the two companies, does it not?

A. Yes, sir.

Q. So that you both started out, as far as the technique of the thing was concerned, equal, did you not?

A. That is correct.

Q. Now, your operating staff, after the division, who operated for Ethyl? What people were they?

A. We had on September—some time in September, 1945, taken over all the plants at Baton Rouge.

[fol. 3744] Q. Did they carry an operating staff?

A. I think some of the du Pont men down there left and came back to Wilmington. I don't know how many, but substantially all of them remained.

Q. That is it, so that you were able to go on, were you?

A. Yes, sir.

Q. Now, did that result in a loss of capacity, that is, of production capacity for Ethyl?

A. Not at all.

Q. I understand then that du Pont set up new plants for its production, after the separation, and distribution?

A. I never heard of any.

Q. Where did du Pont get its requirements?

A. From the plant at Deepwater which had been constructed prior to the January 1st agrement, 1938. So far as I know, they never built any additional plants.

Q. They didn't go over to Ethyl then?

A. No.

Q. Before the separation, were the Deepwater plants producing for Ethyl?

A. Yes, sir, after the January 1, 1938 agreement.

Q. After that, they ceased to produce for Ethyl?

A. They never produced anything for us after December 31, 1947, at any time.

Q. Do you have any idea what your production was after 1947, as compared with the 1938 period in terms of percentage?

A. You mean when you say "our," are you talking about the Ethyl Gasoline Company?

Q. Yes.

A. It was all our production after January 1, 1948.

Q. Perhaps I am not making myself clear. In the 1938-1947 period the Deepwater plants were producing, were they not?

A. Yes, sir.

[fol. 3745] Q. And that was sold to Ethyl, wasn't it?

A. No, it was not sold to Ethyl.

Q. Oh.

A. They were our agent in running the Deepwater plant from January 1, 1938, until December 31, 1947.

Q. All right. Now, after 1947, what about the Deepwater plant? Did they continue to operate them as your agents?

A. Oh, no; we had nothing to do with them.

Q. Now, what was th production of the solely operated Ethyl plant, if you know?

A. They were all at Baton Rouge.

Q. What was their production that first year?

A. It so happens I have in my pocket a memorandum on that subject, if you want me to refer to it.

Q. Thank you.

A. At least, I think I have.

Q. Thank you very much.

A. It would be more accurate, I think, than my statement.

Q. All right.

A. In November, 1947, we had five plants.

Q. Does that include the Deepwater plant?

A. No, you asked me about Baton Rouge.

Q. Well, I don't know the date.

A. You asked me about 1947, the end of 1947.

Q. That is after the separation, is it? I am speaking now after the separation.

A. After the separation?

Q. Yes.

A. Well, we had the same number of plants there after the separation.

Q. Yes.

A. We had five lead plants, and the normal annual capacity of those plants was 194,000,000 pounds.

Q. Yes. Do you know what the capacity of the Deepwater plant was?

A. This is production rather than capacity.

[fol. 3746] Q. Oh, yes.

A. I can give you the production.

Q. Thank you, the production is what I am asking for.

A. Rather than capacity?

Q. Yes.

A. The production, you want to know in 1947?

Q. That same comparable figure, if you please.

A. Well, it cannot be the same, because you asked me what our capacity was, and what the arrangement with du Pont was. That is the figure I gave you.

Q. Have you got the figure for Deepwater?

A. I haven't got anything at all on Deepwater, because I don't know anything about it.

Q. Can you give me Deepwater before?

A. Yes, 1947, 41,000,000 pounds.

Q. What was Baton Rouge then? Can you give me Baton Rouge?

A. Yes, a total of 198,000,000 pounds at both plants.

Q. So the Ethyl Corporation started out with a production of about 150,000,000 pounds, is that right, on the separation?

A. That is what we were producing, but the capacity——

Q. No, let us have the production only.

A. Yes, the production was 157,000,000.

Q. And the Deepwater was about 40,000,000, is that right?

A. Yes.

Q. And those were the only plants, were they, that du Pont had, if you know?

A. Yes, but I might say here that at Deepwater, they were only operating for our account two of the lead plants.

Q. I see.

A. So the '47 production does not at all represent the capacity.

[fol. 3747] Q. Thank you.

A. You see, it would be about half. I should say the capacity would double '47 anyway.

Q. Thank you very much. After the separation, did Ethyl continue to buy from du Pont any of the components of tetraethyl lead?

A. I never heard of their buying anything from du Pont since December 31, 1947.

Q. Now, from where, if anywhere, did you buy those components, or did you manufacture them yourself?

A. We are an integrated company at Baton Rouge. We manufacture ethyl chloride, and we manufacture sodium. We buy pig lead in the open market, and the other materials are available to us, so that, so far as I know, we have not bought five cents worth of anything from du Pont beginning January 1, 1948 to date.

Mr. Harris: Thank you, sir. That is all, Mr. Webb.

Mr. Carpenter: I would like to ask Mr. Webb, with the Court's permission, just one or two questions.

The Court: You may.

Redirect Examination.

By Mr. Carpenter:

Q. Mr. Webb, the figure of 53,000,000 pounds, mentioned in the contract of January 1, 1938, Government's Exhibit No. 799, I believe it was; what was that figure? What production did that represent in your contract?

A. That represented the then estimated productive capacity of the plant at Deepwater owned by du Pont.

Q. What was the average profit that du Pont made on the operation of the Ethyl plants between January 1, 1938, and December 31, 1947?

A. The first percentage is 27 point something, 1938; I [fol. 3748] think the next year it was 22 per cent plus a fraction, and for the following eight years, it was always less than 20 per cent, under the contract of January 1, 1938, which was extended to December 31, 1947, the percentage was 15 point something. The aggregate—I might say the reason why I can quote these figures fairly well is because I asked for them just before I came to Chicago from the Treasury Department of the Ethyl Corporation. For the ten-year period, the ratio of du Pont compensation to the earnings of the Ethyl Gasoline Corporation was 18.88 per cent, for the ten-year period.

Mr. Carpenter: Thank you, sir, that is all.

Recross examination.

By Mr. Harris:

Q. Is that gross earnings?

A. Well, yes, that is all they got out of the operation.

Q. I see. When you are talking of percentages, what is the basis of your percentage?

A. Under the formula—under the finance agreement which you read to me, the only agreement we have had with du Pont.

Q. When you are speaking of 18 per cent, you are speaking of 18 per cent of what?

A. Of the earnings of the Ethyl Corporation.

Q. What do the earnings of the Ethyl Corporation consist of?

A. I think they consist of earnings just like any other company.

[fol. 3749] Q. Sales, is it? Sales of what?

A. Well, it represents the profit of your business.

Q. I say, what does the Ethyl Corporation sell?

A. Well, it sells anti-knock compounds.

Q. Is that all it sold?

A. I am not sure whether in 19—well, I do know we sold salt cake which is not an anti-knock compound.

Q. What is that 18 per cent in millions of dollars, if it reaches a million dollars?

A. Well, the way you present it, the only thing I can say is this, if the Ethyl Corporation earned $100,000, 18 per cent would be $18,000.

Q. We are agreed on that part of your arithmetic. I am talking about what it represents in money, what figure you are talking about. Did you bring the dollar figure as well as the percentage figure in your head?

A. No, I did not ask for that. I asked them for the composite during that period of time.

Q. Now, I show you Government's Exhibit No. 811 and call your attention to the third paragraph, and call your attention to the third page. I will ask you to look at those profit figures.

Now, I call your attention to the fact that this exhibit shows total profits distributed between Deepwater, and the Baton Rouge plants on the basis of volume, and it is for the year 1938, and here are the profits:

> "As a result, for 1938 du Pont received approximately 82% of the total manufacturing profits, as shown in the following calculation."

And they set up the calculation which shows the volume in dollars, the total manufacturing profits of $6,600,000, of which du Pont compensation took $4,425,000.

[fol. 3750] I have nothing further, your Honor.

Mr. Cox: Was that a question?

The Witness: You have made a statement, but I don't know what you are driving at.

By Mr. Harris:

Q. Do you agree with that, or do you want to comment on it?

A. The only thing I want to comment on, Mr. Harris, is this, that the financial agreement was very plain and very simple and understandable, I think, by an ordinary business man, and the figure that I gave you of 18.88, according to the Treasury Department of our company, was the profit or the compensation which the du Pont Company received from the Ethyl Corporation for a period of ten years under the agreement of January 1st, 1938.

Q. You cannot give us the dollar volume, can you?

A. I unfortunately haven't got the dollar volume. It was quite substantial, that is, we were doing a very good business, and we were growing quite rapidly. We started out with eight chemists, and today we have 330 graduate chemists, and physicists and engineers in our organization, and our business went right along with the whole works, not only with the physicial properties but what we call the human features.

Mr. Harris: Thank you.

Mr. Carpenter: That is all, sir, thank you.

(Witness excused.)

The Court: Any further evidence today?

Mr. Carpenter: If your Honor please, we took some [fol. 3751] depositions at the Dow Company at Midland, from their chemist, Dr. Britton, and Chairman of the Board, Mr. Bennett. We would like to read those depositions.

We are prepared to go through with them if you like to go to the end of the day.

The Court: Yes, until 4:00 o'clock.

Mr. Carpenter: Yes, whatever your Honor wishes.

The Court: The court will recess for ten minutes.

(Recess taken.)

Mr. Carpenter: If your Honor please, with the Court's permission I shall now read the depositions taken at Midland, Michigan, September 25, 1951, of two witnesses. The first is Edgar Clay Britton, who, after being first duly sworn, testified as follows:

Excerpts From Deposition of Edgar Clay Britton

"Q. Dr. Britton, where do you reside? A. I reside in Midland, Michigan.

"Q. By whom are you employed? A. I am employed by the Dow Chemical Company.

"Q. What is your position? A. My position is Director of Organic Research Laboratory and Vice Chairman of the Executive Research Committee.

"Q. How long have you been in the employ of the Dow Chemical Company? A. Since 1920.

"Q. And you are an organic chemist? A. Yes, sir.

"Q. —by profession? A. Yes, sir.

"Q. You also have very recently received a very high honor in your profession, have you not? A. Yes, sir.

[fol. 3752] "Q. And that is what? A. President elect of the American Chemical Society.

"Q. What was your position with the Dow Chemical Company in 1924? A. My position was organic chemist in the Organic Research Laboratory with Dr. Hale, William J. Hale as Director of the Laboratory.

"Q. In 1924 did you do any work on the synthesis tetraethyl lead? I show you a paper entitled lead tetraethyl process 316 and ask you, can you identity that as a photostatic copy of the report you made at that time? A. This is a photostatic copy of the report which I wrote at that time and was filed with the Dow Chemical Company's reports.

"Q. Can you tell us the occasion of your preparing that report? A. The preparation of this report was written as a result of my research work in the production of tetraethyl lead by the so-called Grignard process.

"Q. At whose request did you do that work and prepare the report? A. This work was assigned to me by Dr. Hale, and I did the work myself and ran the reactions and prepared the report.

"Mr. Carpenter: I now offer this report in evidence."

This was marked as Exhibit No. 1 for identification by the notary, and is attached to the deposition:

"Q. Dr. Britton, I notice on page 9 of this report that you say that 'this plant is peculiarly fitted to attempt the Grignard Synthesis of lead tetraethyl. In the first place this plant produces magnesium and does it fairly cheaply. Second: By a simple modification of [fol. 3753] temperature the ethylene plant can produce ether very readily and in good yield. Third: This plant can manufacture ethyl bromide or ethyl chloride. Fourth: The chlorine for lead chloride is produced here and lead chloride can be produced cheaply. Fifth: If a process involving bromine recovery were used, the Dow Chemical Company could do it better than anyone.' Did Dow Chemical Company at that time produce these various substances that you have referred to here? A. They produced ethyl bromide. I can't state positively whether they produced ethyl chloride, but I think we did produce ethyl chloride at that time from ethyl alcohol and hydrochloric acid.

"Q. You produced magnesium? A. We produced magnesium, yes.

"Q. Was this process that you described in this report one that in your opinion as a chemist was an efficient process for the production of tetraethyl lead? A. I considered it so, yes.

"Q. Did you after that time, 1924, did you do any further work on tetraethyl lead? A. Yes, I did some further work on tetraethyl lead, which is the subject of a further report.

"Q. I show you now a report marked Tentative Process For Tetra Ethyl Lead by E. C. Britton, bearing No. 406 and dated June 22, 1926, and ask if that is the report that you just referred to? A. Yes, sir, I am sure this is the report I referred to, a photostatic copy.

"Q. A photostatic copy of it. A. I might say these numbers, 406, are the numbers assigned by our so-called File A report.

[fol. 3754] "Q. It is your own company's report number? A. It is our own company's number. This

No. 406 is our own company's number identifying this report.

"Q. And briefly what does that report show? A. Well, this report shows a further consideration of this process from the basis more of cost than the other one shows in that I go through the process and point out some of the factors involved in a large scale plant, size of equipment and matters of that kind concerning the process. The other report is more of a laboratory report.

"Q. Now, I call your attention to this statement at the top of Page 1, The Tetra Ethyl Lead Report, No. 316—that is Exhibit 1 offered today, give experimental details for the process which have since been changed to include several new features. A. Yes.

"Q. We are considering the production of lead tetraethyl and, in going over the details of plant construction, it would seem advisable to use the following procedure: Was your company at that time, as this states, considering the production of lead tetraethyl? A. It had been, as I understood it, considered by the management, I was assigned the job to propose a process.

"Mr. Carpenter: I now offer this report in evidence."

Exhibit 2 was marked for identification by the notary, and is attached.

"Q. Were you invited into a discussion of the subject of the Dow Chemical Company manufacturing tetraethyl lead with any other chemist or executives of [fol. 3755] the company at or about that time? A. Yes, I talked with Dr. Dow and Dr. Hale about the process."

"Q. Dr. Dow was Dr. Herbert H. Dow? A. Yes, Dr. Herbert H. Dow.

"Q. Who died in the Fall of '30? A. '30, that is right.

"Q. And he was the head of the company at that time? A. He was the President, General Manager and so on of the company.

"Q. Do you recall whether you at that time recommended to Dr. Dow that the Dow Chemical Company go into the business of manufacturing tetraethyl lead? A. Well, I recommended that the Dow Chemical Company go into the manufacture of tetraethyl lead mainly because I thought we had produced a satisfactory process. There are other considerations though.

"Q. What were those considerations? A. There was the consideration which we had to face in this process here, first the hazardous character of lead tetraethyl, which in the earlier report had not been fully understood, that is the hazardous character of lead tetraethyl had not been fully understood in 1924, but after 1924 sometime, I can't remember when it was, the poisonous character of lead tetraethyl had been imminently proven by accidents with it, plus the consideration of disposal of waste materials which had to be overcome before the process could go into operation in Midland.

"Q. Just to amplify that a little, what do you mean by the hazards or difficulties of waste disposal? A. Well, in the first place in this reaction product, when [fol. 3756] the reaction is run ethyl chloride is reacted with magnesium, and then lead chloride is reacted with this reaction product of ethyl chloride and magnesium and it produces magnesium chloride, now, although this magnesium chloride is the chemical from which we produce magnesium it is just one of our starting materials, this magnesium chloride must be pure enough to be electrolyzed and handled and mixed. Lead tetraethyl and residues and things of that sort we couldn't get them into a proper shape for further electrolysis or cheaper than we could extract magnesium chloride from our own brine. This way the only thing that could be done with it was to throw it away and dispose of brine continuously down the Tittabawasee River here containing lead tetraethyl and residuous matters of that sort, something we couldn't even think of it.

"Q. Could you have burned that residue? A. No, we can't burn residue.

"Q. Why not? A. Well, in the first place if you start to burn the residue than the product you get out would undoubtedly be a mixed magnesium chloride which would be disposed of, plus lead and the volatile products of organic nature in that material.

"Q. Those fumes, would they be noxious fumes? A. I would judge them to be noxious fumes, yes.

"Q. And you couldn't push them up in the atmosphere where a lot of people are? A. No.

"Q. But at that time was the Dow Chemical in its other processes producing many of the materials that would be used in the process of making tetraethyl lead? A. Well, at that time we were producing ethyl [fol. 3757] chloride, magnesium; we are not producers of ether; the process required for lead chloride, we were not producers of lead chloride but the process is not too complicated to make lead chloride from lead oxide with hydrochloric acid; toluene, were not producing toluene here so at the time we were talking we were producers of magnesium——

"Q. Ethyl chloride? A. Ethyl chloride——.

"Q. Did you produce hydrochloric acid? A. And hydrochloric acid, yes."

Mr. Carpenter: Now I skip over to the first third of page 9:

"Q. Did you have any part in the making of the decision of the Dow Chemical Company whether or not to go into the business of manufacturing tetraethyl lead? A. No, I don't think I did.

"Q. That was a matter for management? A. That was a matter for management, I was only a chemist, had no official position except as a chemist with the Dow Chemical Company.

"Q. I see that report is dated June 22, 1926. A. Yes.

"Q. I now hand you a copy of United States letters of Patent 1,805,756. Inventor, Edgar C. Britton, assigned to Dow Chemical Company, and ask you if you had filed an application on a process for making tetraethyl lead on November 16, 1926? A. Yes, sir, this patent was filed for me by the Patent Department.

"Q. Of the Dow Chemical Company? A. Of the Dow Chemical Company.

"Q. The patent was issued by the United States [fol. 3758] Patent Office on what date? A. It was issued May 19, 1931.

"Q. As the number I have given? A. As the number you have given.

"Q. That covers the process covered by your report? A. In general, yes, I should say it covers the patentable features of my report."

Mr. Carpenter: I now offer this patent in evidence.

Mr. Carpenter: That patent is annexed as an exhibit, and I will read a line or two from it to the Court so that the Court will understand what it was. It is entitled:

> "Method of making metal alkyl compounds."

and states:

> "The present invention relates to methods for preparing metal alkyl compounds, more especially lead alkyl compounds, e.g. tetraethyl lead."

and it is annexed as an exhibit to this deposition. I won't read the patent.

This is at the beginning of page 11 in the book:

"Q. Dr. Britton, did the Dow Chemical Company thereafter, or at any time, enter the business of manufacturing tetraethyl lead? A. No, sir.

"Q. Can you give us the occasion for your writing this report or this estimate rather, of the costs in April 1931, in which it showed cost of 31.3 cents per pound for material? A. Well, I can't tell you the exact reason for making that, I have no recollection of it, but I have a feeling that I probably wanted to review [fol. 3759] this thing again to see if it could be revised and did it myself.

"Q. Did you attempt in 1931 to revive the question of whether Dow Chemical Company should manufacture tetraethyl lead? A. Yes, I always had it in my mind for quite a few years.

"Q. Did you speak to the officials of the company about it on many occasions? A. Yes.

"Q. By the way, did you ever speak to any officials of the Ethyl Gasoline Corporation about the manufacture of tetraethyl lead? A. Not that I recall.

"Q. But you did repeatedly bring it up in your own company? A. Yes; that is right.

"Q. And the decision was what? A. The decision was not to manufacture it."

Mr. Carpenter: You may read the cross examination, Mr. Harsha.

Mr. Harsha: I won't cross examine this witness, but I will read a section from the cross examination by Mr. Hotchkiss beginning on the middle of page 20 of the deposition:

"Q. Now, I believe that you have testified that you as a chemist recommended to your superiors in the Dow Chemical Company that they embark on the production of tetraethyl lead? A. Yes, sir.

"Q. You made that recommendation notwithstanding the fact that you knew that there were certain hazards involved in the production of the tetraethyl lead, is that correct? A. I made the recommendation, yes, in face of those because I presumed the Dow Chemical Company might be able to erect a plant in [fol. 3760] some other place in the United States.

"Q. And you felt on the basis of your knowledge of the subject and the knowledge of your association in the Dow Chemical Company, that the Dow Chemical Company could overcome these various difficulties and hazards and could produce tetraethyl lead? A. I presumed that the Dow Company could, if the du Pont Company could, why I think we could, yes."

Mr. Harsha: That is all.

Mr. Carpenter: That is signed by the witness.
This is the deposition of Earl W. Bennett.

"EARL W. BENNETT, a witness named in the annexed notice, being of lawful age, and being first duly sworn in the above cause, testified on his oath as follows:

"Direct Examination.

"By Mr. Carpenter:

"Q. Where do you reside, Mr. Bennett? A. Midland, Michigan.

"Q. Are you an officer of the Dow Chemical Company? A. I am.

"Q. what is that position? A. I am a Vice President and Chairman of the Board.

"Q. How long have you been in the employ of the Dow Chemical Company? A. Since March 15, 1900.

"Q. You started in with the company in what position, what capacity? A. Accountant, including janitor, carrying the mail——

[fol. 3761] "Q. The company was pretty small in those days, I take it? A. Very small, yes.

"Q. And you stayed with the company all these years, have you? A. I have.

"Q. Who was the guiding genius of the company in those years from 1900 up until say 1930? A. Dr. Herbert H. Dow.

"Q. He was the founder of the company, was he not? A. He was.

"Q. Now, the year of 1923, coming down to that time, who were the executives that actually ran the company? A. Dr. Herbert H. Dow was the President, and of course, the Board of Directors had considerable to say about it because actually at that time the Board of Directors really represented the financial backing of the company, but there were only two officers in Midland, Dr. Dow, and at that time I was Assistant Secretary and Assistant Treasurer of the company, we were the only two officers in Midland.

"Q. You were the only two executive officers in Midland? A. Yes.

"Q. The Board of Directors were rather absentee Board of Directors, mostly from Cleveland? A. Mostly from Cleveland.

"Q. What were the principal products of the Dow Chemical Company back in the year '23 and '24? A. The principal products at that time were bromides and the salts of the bromides and chlorinated solvents, that is, the hydro-carbons.

"Q. As a matter of fact bromine was one of the first products the Dow Chemical Company produced, [fol. 3762] was it not? A. I would have to qualify that by stating that Dr. Dow had prior to the Dow Chemical Company, which was incorporated in 1897, with practically the same stockholders and the same Board of Directors to a large extent, although they weren't exactly the same, also operated the Midland Chemical Company, which Dr. Herbert H. Dow had founded and they were making the bromides at that time and in 1900 the Dow Chemical Company and the Midland Chemical Company came together because of the economy of things, that is, there were difficulties, the brine was being pumped in, the Midland Chemical Company took the bromine out and Dow took the salts out——

"Q. But you combined the operations of both companies in about 1900? A. 1900.

"Q. From then on the Dow Chemical has been the chief producer of bromine, in fact, in the United States? A. That is right.

"Q. Did you ever meet Charles F. Kettering and Thomas Midgley, Jr.? A. Yes, I did.

"Q. Do you recall when you met them? A. Well, not the exact date, but I forget what they called it, it seems to me the Dayton Laboratory, something like that, had been buying bromine——

"Q. Dayton Laboratory, Dayton Research Laboratory, something like that? A. I think we had been selling them some sodium bromide and bromine, both, at that time we didn't know exactly what they were doing with it but later on when Mr. Midgley, I think he came first, and both talked with us about using large [fol. 3763] quantities, and later on Mr. Kettering came into the picture.

"Q. Do you remember the occasion when they came up here to see Dr. Dow about supplying bromine? A. Yes.

"Q. Do you know what year that was? A. Oh, it might have been '22, '3, along there.

"Q. '22, '3, along in there? A. Yes.

"Q. Did you participate in the conference that they had with Dr. Dow? A. I did.

"Q. Can you tell us what the subject of their coming here was? A. Why the principal subject was to see if we could supply them with what we considered very enormous quantities of bromine, and I think at that time they were endeavoring to convince us they were really going to require it and needed and wanted us to prepare for it.

"Q. And what answer was given? A. Well, we could produce here in Midland up to certain quantities but the quantities they were inquiring about were just too large for us to produce here from this field, the principal thing being that while we could drill enough wells and produce enough bromine we wouldn't be able to dispose of the waste brine in the river.

"Q. Were you at that time having difficulty with the disposal of brine in the Tittabawasee River? A. Yes, ever since 1900."

Mr. Carpenter: Now I shall jump over to the next page, and one-third down:

[fol. 3764] "Q. Did you ever hear of Mr. Kettering going over to Europe and to North Africa and look for sources of bromine? A. We understood that they were just scouring the whole face of the earth, practically speaking, including the Dead Sea.

"Q. And did you ever hear that Mr. Kettering devised, or the Ethyl Gasoline Corporation had invented a way of taking bromine from the sea in the form of tribromaniline—— A. We knew of the Good Ship Ethyl and I don't know that we were told exactly but I think we had figured out that tribromaniline would be the easiest way they could get it.

"Q. So you knew it was possible that the removal as tribromaniline would be the easiest way to get bromine out of sea water? A. Yes..

"Q. Well, when you heard that the Ethyl Gasoline Company, in cooperation with the du Pont Company, or the du Pont Company in cooperation with Ethyl had built a chemical factory aboard a ship named Ethyl and set it cruising in the Gulf Stream and taking out bromine in the form of tribromaniline what, if anything, did you people do up here? A. First we took our waste brines and started to work on this and found out we could get it at a fair cost, the bromine that was left in our waste brine, and by the way we thought we knew quite a lot about bromine and we were satisfied it would be cheaper to get bromine out of our brine than trying to extract tribromaniline, so we proceeded largely on that line. In other words, we pursued the same course as du Pont Company did, apparently, and I assume it was Midgley, or how many of them there were I don't know, and then we made synthetic sea water, that is, duplicated it as far as pos- [fol. 3765] sible by adding salt or taking salt out, I don't know which right now, so we would have about the same condition as the ocean, we then had, of course, in the meantime we had samples of ocean water from various points.

"Q. How did you get those? A. We sent men out to check those up, it was largely hoping that we would find, maybe an inland bay where the content of the bromine would be greater than in the ocean.

"Q. How big a search was that? A. Well, we didn't make a big search at that time, the big search we made came later on, but we are talking about the earliest conversation, at different times we had I think at least three tank cars of ocean water shipped in here, in the meantime we had built this pilot plant which we were using on our own brines and on the synthetic ocean water, not knowing exactly everything that was in the ocean, might be minute quantities would be there not in the synthetic and we wanted a trial run on the real ocean water and we found out our process worked very well on that, and as a matter of fact it was our ability to use instruments and very careful control of the added chemicals to release the bromine that made a success of our venture into ocean water.

"Q. You said you sampled ocean water at various points, how did you do that in the ocean? A. Well, I think, as I recall it over a period of perhaps eighteen months, or perhaps—I doubt any longer, although we sent them back once or twice to check but we had a man traveling wherever the boats travel, trying to [fol. 3766] get ocean water from various depths in the ocean, particularly with reference to the Gulf, and Atlantic Ocean, of course, and then wherever there were big bodies of ocean water, where the water is shallow, there are larger quantities of bromine in shallow water.

"Q. Was this research you were conducting over a period of several years made known to General Motors, the Kettering Laboratory, or Ethyl Corporation or du Pont, or did you do that very quietly on your own? A. Well, there wasn't any systematic information or any arrangement, but whenever we met with them why we brought them up to date, I am sure, on our efforts. I know we did.

"Q. You did what? A. We brought them up on our efforts.

"Q. I see. A. But there wasn't any regular method of reporting, or anything like that, casual conversation.

"Q. Now, after the pilot plant was built and operated by you in Midland and proved that your process was feasible, I ask you what, if anything, did you do then? A. Well, our next step was to make arrangements and build a pilot plant down near Wilmington, North Carolina.

"Q. Who selected that location? A. We selected the location on our own. Before the selection, I don't just remember who went from the Ethyl Gas Corporation but somebody had also looked it over.

"Q. You notified the Ethyl Gasoline Corporation then that you had developed and perfected a process for taking bromine out of sea water and asked them if [fol. 3767] they were interested and took them down to this place near Wilmington, North Carolina? A. Yes.

"Q. Showed them a site you picked out for a plant? A. Yes.

"Q. As a result of that did you have any contractual relationship with Ethyl about that time? A. There was a tentative agreement, I don't recall everything in that tentative agreement, there was an agreement——

"Q. What was the subject of that tentative agreement? A. We were to have a joint venture and build a plant, presumably at that site, but not necessarily so.

"Q. Now, in what form did the bromine come out of the sea in your operation as you developed it and planned to use in the plant you contemplated building in North Carolina? A. Bromine.

"Q. The form of pure bromine? A. Yes.

"Q. The plant that they operated for Ethyl took it out in the form of tribromanaline? A. I misunderstood you, I don't know about that.

"Q. What is the difference between, if you can tell us, between tribromaniline and bromine? A. Bromine is an element and tribromaniline is an organic compound. I am not a chemist.

"Q. I understand that. One is a liquid and the other a solid, crystal, is it not? A. Yes.

"Q. As a result of the operation of the pilot plant at Wilmington, North Carolina, or near Wilmington, did Ethyl Gasoline Corporation and the Dow Chemical Company form a corporation? A. They did.

"Q. That is called the Ethyl-Dow Corporation, is it? A. Ethyl-Dow.

[fol. 3768] "Q. They took it out in the form of bromine, do they sell it as bromine? A. No.

"Q. What happened? A. Well, we had a plant for the manufacture of ethylene and combined the ethylene with the bromine to make ethylene dibromide, I have always called it ethylene di bromide, I don't know the difference——

"Q. In other words, in the same plant you would convert the bromine into ethylene di bromine and ship to the Ethyl Gasoline Corporation to blend into the ethyl products? A. Yes.

"Q. Is that plant still operating? A. No, it is not.

"Q. Tell us what happened. A. Why, during the war large quantities of ethylene di bromide were required, particularly for tanks and airplanes and so the government requested us to build a large plant. In the meantime, in 1939, we had started the erection of a plant at Freeport, Texas, in which we were taking the magnesium out of the ocean water and converting it into magnesium metal, and we were also making chlorinated solvents at that time so we had quite a large plant and when the request came to provide facilities for large production of ethylene di bromide—at that time the submarine menace on the Atlantic Ocean had become real bad and the Government wanted us to select a second site and so inasmuch as we were already producing chlorine at Freeport, Texas, and also pumping in the water to manufacture magnesium metal we conceived the idea we could produce ethylene di bromide cheaper there than we could [fol. 3769] at Wilmington where we were shipping in by barge the chlorine and sulphuric acids and other materials and shipping out by barge and then shipping by rail again, which made a rather expensive proposition, so we didn't build a larger plant at Wilmington. By the way, we never operated at full capacity down there for a long time after the war and have been producing so much cheaper at Freeport; the Wilmington plant was put in a partial stand-by condition, which remains there today in that same condition.

"Q. So all the ethylene di bromide produced by Ethyl-Dow Corporation is produced in Texas? A. That is right.

"Q. And just as a matter of interest, is it a fact that the Dow's process for taking bromine out of sea water was a step in the development of taking magnesium out of sea water? A. That was the thing that turned our attention to the sea water, the manifest possibilities, taking magnesium out of sea water."

Now we will skip over to page 35, about eight lines down:

"Q. Is there any reason why from 1923 to date, or particularly from 1925 to date, when the Ship Ethyl operated, had, particularly the du Pont Company, or any other company, wanted to go in the business of taking bromine from the sea water or from brines, was there any patent reason why they couldn't do so? A. No, there was no patent reason.

"Q. You had no monopoly of that at all? A. No.

"Q. Now, I shall turn your attention to another matter, Mr. Bennett, do you recall in 1926, particularly on or about the 25th of June, Mr. Earl W. Webb, Presi- [fol. 3770] dent of the Ethyl Gasoline Corporation coming to pay you a visit here in Midland? A. Yes, I do.

"Q. I show you a memorandum and ask you if you can identify that memorandum. Just the first page. A. Yes, I have seen this before.

"Q. Did you see it shortly after that meeting was held that day? A. Yes, within several days.

"Q. And do you know who prepared the memorandum of that conference? A. Mr. Gilbert Currie.

"Q. Who is Mr. Gilbert Currie? A. He was our general attorney at the time.

"Q. General Counsel of the Dow Chemical Company? A. Yes.

"Q. Was he present at the meeting with Mr. Webb? A. Yes.

"Q. Do you know whether Dr. Herbert Dow was present? A. Dr. Herbert Dow was present.

"Q. Do you recall whether anybody else was present? A. I don't think so.

"Q. Did you read that memorandum shortly, that Mr. Currie had prepared, shortly after that meeting was held with Mr. Webb? A. Yes, I did.

"Q. Did you find that that correctly stated what was said by Mr. Webb and to Mr. Webb? A. It did, yes.

"Q. So you would say it was an accurate memorandum? A. Yes.

"Q. What was the occasion of Mr. Webb coming to you on June 25, 1926? You can use that memorandum to refresh your recollection if you wish. A. Yes. He brought two men with him who had stated that they developed a process for the manufacture of lead tetraethyl, and as I understand he also stated [fol. 3771] they had an agreement, and also at the same time we talked with Mr. Webb about the possibility of Dow manufacturing lead tetraethyl.

"Q. Did he express any wish on his part concerning Dow? A. Yes, he wanted us to go into the manufacture.

"Q. For whom? A. For Ethyl Gasoline Corporation.

"Q. Did he give any reasons why you should do that, or what did he say? A. Well, he stated that he just had to have two sources of supply.

"Q. Did he give any reason why, any particular reason why he wanted you to do it? A. Well, he thought we could do it because, and I can't tell you just how he worded it, but he understood that we were working on a process for the manufacture of lead tetraethyl and that we had been rather successful in our development, experimental work, he wanted to talk that over, and to go into the manufacture of lead tetraethyl.

"Q. Did he refer to the Standard Oil Company of Indiana in that conversation? A. Well, he stated that the principal, I believe the principal use of lead tetraethyl was in the Standard Oil of Indiana's District, or wherever they were principally operating, which was in the middle west at that time, and therefore it would be rather logical to manufacture and blend the lead tetraethyl at a point near-by to consumption.

[fol. 3772] "Q. And Midland is rather close to the Standard Oil of Indiana's territory? A. Yes.

"Q. Much closer than New Jersey is? A. That is right.

"Q. Had you prior to that, do you recall, ever discussed with Mr. Webb the Dow Chemical Company's manufacture of tetraethyl lead? A. No, I hadn't, and I don't know if anybody else in particular had, but when he came up I knew at that time that he knew we had a rather good process.

"Q. He knew, did he, that tetraethyl lead could be made from magnesium? A. Yes, he had been so told by us and I presume by others.

"Q. Well, chemically it is well known that it can be made from magnesium? A. Yes.

"Q. Do you recall whether your company thereafter considered seriously going into the business of manufacturing tetraethyl lead? A. Well, I would say at that time we very seriously considered it.

"Q. Did you ever see Dr. Britton's report made in 1924, and his report made in 1926, marked respectively D-1 and D-2, of his process for making tetraethyl lead out of magnesium, the first one, I think is— A. Well, I will say that I saw them but about all I gave consideration to was his cost figures, I wasn't interested in anything else.

"Q. Not being a chemist you didn't know how the reaction would work? A. No.

"Q. While we are here at this point, I see Dr. Britton's second report, Exhibit 2 of this day, on his tentative process for tetraethyl lead, dated June 22, 1926, which appears to be three days before Mr. Webb was [fol. 3773] here, was a copy of this to your knowledge shown Mr. Webb?" A. I really couldn't say.

"Q. Following Mr. Webb's visit here on June 25, 1926, in which he urged you to manufacture lead so he could have a second source of supply, did you have a conference with any executives or chemists in your company about the subject? A. I will put it this way, I knew we did, but I was just trying to figure when that was.

"Q. Was there a memorandum of that prepared, or did you help prepare a memorandum, which I now show you of that conference? A. I know very well about this and I certainly misunderstood your question.

"Q. I see. A. This is very vivid in my memory.

"Q. Let me first mark the first sheet. A. Afterward, the Doctor has got a later report than 1926.

"Q. He has got a cost sheet? A. That is what I was thinking of, I had my mind on the cost; I knew about this one, too."

Mr. Carpenter: I will first offer this at this time this memorandum of June 25, 1926. They are fastened together I had better separate them, I think, because we will want to use the other two here. I now offer the memorandum of June 25th.

"(Exhibit 5 marked for identification by the Notary).

"Mr. Carpenter: I now show you a memorandum of June 28, 1926, and ask you if you have ever seen that before? A. Yes, I helped prepare this.

"Q. And when was it prepared? A. We were in conference, Dr. Dow and myself, I know that there was [fol. 3774] one other present but I can't remember who that one other person was.

"Q. What was the occasion of the conference? A. Well, that was following Webb's visit and the matter was very hot, that we were going to go into the manufacture of lead tetraethyl, we practically had to make up our mind very quickly if we were going in, if not, we really had plenty of business to put all the money we had into; and we were going ahead with either some of our work or possibly take up tetraethyl, that was the purpose of this conference on this day.

"Q. Could you tell us what was discussed that day between the three of you, you and Dr. H. H. Dow and this third man you can't recall? A. Well, after discussing at considerable length I started out writing down the reasons why we should manufacture lead tetraethyl, the reasons why we should not, now I don't recall—I was supplying both the changes that were brought out in that conference there and what was suggested, why we should and why we shouldn't, putting them down on paper it could be a little better evaluated, and I know that from this that first, 'uncertainty of the business', I was very much concerned about that because having known that the lead tetraethyl had become a cropper at one time, our plants had been shut down, and always that possibility.

"Q. By the way, you refer to the time following the Bayway disaster when a number of men were killed and injured, from breathing the fumes and by absorption of the tetraethyl lead, and following which in 1924 the Surgeon General started an investigation and Ethyl shut down business completely in 1925, is that [fol. 3775] what you refer to? A. Yes. At that time our contracts were all canceled and while we made a perfectly good settlement with them and they with us, both fair, we were out considerable amounts of money, and so were they, and that was the reason why uncertainty of business came in. And in 1926 it still had not been firmly established, as I recall, even the Standard Oil of New Jersey, who were partners in the business, we understood, we don't know to what extent or anything about it, they were partners in the business, they hadn't started to use it again and that was my principal concern and then Dr. Dow—I would say that was the reason I put that up at the top, and Dr. Dow was more concerned with the hazard of the business, I presume he knew more about that than I did.

"Q. What did he say about the hazards, in the meeting, Mr. Bennett? A. Well, he had grave doubts we should go into any line of business that had as much hazard as that business.

"Q. What kind of hazard was he referring to? A. We were a small company, certainly anything happen to us like happened to Standard Oil of New Jersey might sink us.

"Q. I see, you were thinking about the poison hazards? A. The poison hazards.

"Q. You don't refer here to the hazards from dumping wastes into the river? A. That was part of it, it would be a hazard where men work in the plant, or disposal of the waste in the river, which as everybody knows Saginaw is drinking the water, their natural supply of water, and farmers on down the line here were driving their cows here to pasture right on the [fol. 3776] river and their cows would go right down to the river and drink, we had already settled some damage claims on that account.

"Q. Then continuing with the third item here, interference with other lines, what do you mean by that, what was developed in the conference about that? A. Well, we have had a pretty strong policy and it still is the policy, we determine whether the thing is in our line of business or not, or whether we should, or should not go into that line of business because what we considered our own line of business at that time had great possibilities and that is hydrocarbons and production of materials from brine, and we just knew that we had a big job there and we thought we could do a better job by concentrating on certain fields rather than try to pick up some chemical that might be in demand at the time and make some money but we still might prove we couldn't probably compete on account of the raw material supply or other items.

"Q. The fourth item here is shortage of power. What did you have in mind? A. Well, our business was growing very rapidly, I am quite certain, although I am not sure, I think we were buying power at that time from Consumers Power and supplementing our own power, so if we had to manufacture a large quantity of magnesium metal for lead tetraethyl that would call for building of a power plant and everything that goes right through, we would have to start from the ground up.

"Q. The fifth is, lack of capital. That was considered as a reason why you should not. What was the discussion on that subject? A. Well, we thought [fol. 3777] we could better employ our capital elsewhere, our other products were growing rapidly at that time.

"Q. All right, did you think you could employ your capital better in other products than this? A. We knew the field we were in and we were making profits and we could see where we could increase those profits by doing a better job, and there didn't at that time appear to be a limit, it looked pretty rosy on other products.

"Q. How about the sixth, any casualties would to some extent injure our good name. What did that discussion lead to? A. Well, that just referred, we would have a casualty, were rather proud of our record at that time, up to that time we had a very good record in regard to injuries and I think probably placed too much emphasis on that, but we still feel pretty strong about anything happening in our plants."

"Q. That was looking towards the health and safety of your employees? A. Yes, we go to extreme lengths for safety and health.

"Q. Now, you state in this same memorandum various reasons why Dow should manufacture tetraethyl lead and without specifying all those in detail, they are all stated here, did you gentlemen, you executives in conference about this subject on the 28th of June, consider both the pros and cons of this question? A. We did, yes.

"Q. Do you recall whether at that same conference you had before you Dr. Britton's reports on his method to make tetraethyl lead? A. Yes.

"Q. You knew what his material costs were? A. Yes.

[fol. 3778] "Q. Had you received from Mr. Webb any intimation about what he was willing to pay you for tetraethyl lead? Or anything about prices? A. I rather imagine, now I just can't state that, but I rather imagine we were discussing that, perhaps the selling price would have to be around a dollar a pound to make it of any interest, and I think it rather looked as if, of course, we were fishing for information and Webb wanted us naturally to make it as cheap as we could, I think we rather understood around a dollar a pound that price might be attractive to Ethyl Gasoline Corporation.

"Q. Now, as a result of this conference when you consider both these reasons for and against Dow Chemical Company going into the manufacture of tetraethyl lead, what was the decision made? A. Why, we practically on that June 28th, we did not decide not to go into it, but certainly the opinion was we would have to take another good look at it before we wanted to decide, but to all intents and purposes, I think as they kept on with some of their development work, I don't believe we stopped that, or anything, but unless there was something more positive come up that would induce us to go in we weren't going to go and the reason I think that is because, while Dr. Britton has reduced the cost, we never got any further than thinking what it would cost to build a pilot plant and we never asked the engineering department to make us an estimate of the cost to produce quantities Webb wanted so I know, we rather felt we weren't going to go into it.

"Q. Did Webb ask you to produce very large quan-[fol. 3779]tities of tetraethyl lead? A. Well, commercially they would be large, yes; but nohow to compare since.

"Q. Did you ever get to the point of accurately determining what your costs would be in either a pilot plant or a full scale manufacture? A. No.

"Q. Now, Dr. Britton in his report there, No. 2 of June 22, 1926, gives his estimate of the cost per pound of 72.58 cents, the chemicals 60 cents, the factory expense, depreciation and maintenance, estimated cost 72.58 cents per pound. Did you gentlemen have that figure before you? A. We did, yes.

"Q. Did you attempt at that time, or later, to determine what you would have to add to that for construction of plant and capital investment and profit? A. Well, just off-hand in our business a dollar in plant will quite often produce a dollar in sales, we don't always average that but we try to so just knowing that and starting in on a new thing like this and building a plant and taking all the risk, I know in my own mind I would just take about fifty percent of that and add to that as the selling price. Now, before you make a price like that you would probably make a price because prices are always a matter of negotiations, so you start in from that, so I did arrive at a dollar but before we could do that accurately we would really have to know what the cost of the plant would be because after all it is your investment you are going to make profits on and not sales.

"Q. I will show you now this paper you mentioned awhile ago, Dr. Britton's estimated cost of materials to make lead, April 1931, Exhibit No. 4, did you see that after Dr. Britton made that estimate? A. Yes, [fol 3780] I am sure I did, but I don't recall there was any conference on that and I just can't recall that, probably Dr. Willard Dow asked him to, probably Willard had talked with Webb, I don't know as he did, but, I mean, that might have come about from that, that is the only thing I can think of.

"Q. Do I understand that up to this date, which was April 1931, your company had not finally decided whether you would go into the business of making lead, you were keeping an eye on the situation, were you? A. As far as I was concerned it was dismissed and I knew of the sentiment and I think probably the rest of them felt the same way about it, but you know

1931 was rather a depressing period and I think we were going over the files and every where else to see if we overlooked anything we should get into because of the slow moving of the rest of our products.

"Q. Did Mr. Webb, on more than one occasion speak to you and urge you to go into business making lead or just on that one occasion? A. Why the matter was referred to several times, yes, but was never seriously discussed at any time later and Webb did inquire if we made any further progress, it looked any better, and I think the answer was always 'no.' I say I think, I know it was."

Mr. Carpenter: Mr. Gribbon now takes the witness. Do you want me to read his questions?

Mr Cox: We would be obliged to you if you read it.

Mr. Carpenter: Mr. Gribbon of the du Pont legal staff asks these questions:

[fol. 3781] "Q. (Mr. Gribbon) Mr. Bennett you testified, I believe, that the proposal from Mr. Webb to the Dow to manufacture tetraethyl lead received serious consideration by the Dow Chemical Company? A. Yes.

"Q. Was a reason for it receiving serious consideration the fact that Ethyl had put the proposition up to you? A. We did give it more serious consideration by reason of Ethyl having put it up to us because they were a good customer of ours and we would like to accommodate them if possible.

"Q. Was the du Pont Company at that time considered a good and large customer of yours? A. They were a customer, I don't recall a large customer.

"Q. They were not in the same category as the Ethyl Gas? A. No.

"Q. What had been the Dow Company's experience in the manufacture of poisonous or hazardous chemicals around about 1926? A. Well, we had made and manufactured mustard gas and had had a bad experience with mustard gas.

"Q. How was that? A. Pardon?

"Q. What was that experience with mustard gas? A. Well, we had rules and regulations laid down, the mustard gas was manufactured in a large tumbler and we had rules and regulations laid down when that tumbler had to be cleaned out, which it did occasionally, and actually our men were in momentary charge of the manufacture, but the Government had a detail of officers here and at that time the mustard gas was badly needed and it was being shipped to Europe, and as I understand it it was the only mustard gas manufactured here that ever did reach the battlefields over [fol. 3782] there, naturally there was a great push for the output, but from our working on how to handle this mustard gas and how long it contaminated the equipment we knew that a certain number of hours had to elapse before anyone could go in there and our man in charge of the operation had had to close the plant down to clean out and after it was cleaned out they used various things to absorb all the gas, including use of blowers and so forth and so, then this detail, we also had a detail of soldiers there, and our men were instructed not to go into the plant until a certain number of hours had elapsed and we determined that by analysis, and the detail of soldiers decided they needed the mustard gas worse than anything else and if our men didn't clean it out they would. They went in and several of them were killed and a good many injured.

“Q. That was during the first World War? A. Yes.

“Q. You ceased manufacture of mustard gas immediately after the war? A. Yes.

“Did your normal line of chemicals and other fluids include and poisonous and hazardous chemicals? A. Well, both chlorine and bromine are toxic, generally there is not much effect, usually if they come in contact with it they will get out, in other words, it isn't intense, but we have had chlorine poisoning and some accidents from bromine but nothing ever very serious and so we are pretty strict on our rules and we had considerable experience with poisonous gas and handling of gases and we wouldn't look for a line that brought us into more hazard.

[fol. 3783] “Q. Were you present at the conference which Mr. Currie has recorded in the memorandum that has been identified as Defendant's Exhibit 5, that is the conference with Mr. Webb? A. As of 1926?

"Q. Yes. A. I was.

"Q. You were present and were a party to the talks? A. Yes.

"Q. With Mr. Webb that were recorded in that memorandum? A. Yes.

"Q. Would you refer please, to the memorandum of June 28th, which has been marked as an exhibit and refer especially to Point 3 there, interference with other lines. Would you look at Point 3 of the reasons why we should manufacture tetraethyl lead and tell us whether that Point 3 was intended to be in response to the Point 3 at the top of the page? A. In other words, 3 of why we should?

"Q. Yes. A. All growth interfered with normal operation, but in the end had paid——

"Q. Yes. A. Well, it costs money to construct a building, in the course of building plants your normal operations are interfered with and made more expensive, now, that is by reason of overhead and attention being paid to the new plants by superintendents, everybody is interested in the new plant coming and nobody is interested in the old plant, that is just where you run around——

"Q. Do you recall whether quantities of magnesium would have been required in the process Dr. Britton proposed? A. Yes, that is what I was told.

"Q. What effect would that have upon your ability to sell magnesium for other purposes? A. Well, I [fols. 3784-3795] don't think that would have any effect at that time, being at the start, because actually we were not selling all the magnesium we were producing but if we had gotten into the lead tetraethyl we would have had to build more magnesium plants because the surplus we were not selling was not large, so the immediate output at that moment wouldn't effect it at all, in the long run it would have if we hadn't built a plant."

* * * * * * *

[fol. 3796] Willis F. Harrington, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Horsky:

Q. Mr. Harrington, will you state your full name and [fol. 3797] your address for the reporter?

A. My name is Willis F. Harrington. I live in Wilmington.

Q. Are you a director of the du Pont Company at the present time?

A. I am.

Q. Do you occupy any other position with the du Pont Company at the present time?

A. I really do not hear you very well, Mr. Horsky.

Q. I will try to speak a little louder. Do you occupy any other position with the du Pont Company at the present time, or are you retired?

A. Am I what?

Q. Are you retired?

A. I am retired, yes.

Q. Mr. Harrington, I would like to go into your history a little bit. Where were you educated?

A. I was educated first at what is now the University of Delaware, and subsequently at the Massachusetts Institute of Technology.

Q. What year did you graduate from the Massachusetts Institute of Technology?

A. 1905.

Q. Then did you go to work for the du Pont Company?

A. I did.

Q. In what capacity?

A. I went to work as a chemist in the laboratory at the dynamite plant at Barksdale, Wisconsin.

Q. How long did you remain in that position?

A. Well, I remained at Barksdale as a whole for almost five years, but I did not remain in the chemistry department all of that time. I occupied a great many jobs during my stay at that plant, including acting as superintendent of the plant before I left there.

Q. Where did you go from there?

A. I went to du Pont, Washington, which is the State of Washington.

Q. In what capacity?

A. The company had just built a dynamite plant out there, and they sent me out there to start it in operation.

[fol. 3798] Q. Did you do that at du Pont Washington?

A. I did.

Q. How long were you at that position?

A. I stayed there until the latter part of December, 1914.

Q. Then where did you go, sir?

A. I was recalled to Wilmington to go into the smokeless powder activities which had developed to a considerable extent by that time.

Q. In what plant?

A. In Carney's Point, the smokeless powder plant.

Q. Where is Carney's Point? In Delaware?

A. Right directly across the Delaware River from Wilmington in New Jersey.

Q. In what capacity did you start at Carney's Point?

A. I started as assistant manager of that plant.

Q. What were you when you left there?

A. I was manager of the plant, later, and when the war terminated, I was still manager of the plant.

Q. Can you give us some idea generally about how big a plant that was?

A. Well, we had about 10,000 employees, and we made almost a million pounds of smokeless powder a day.

Q. When you left that plant, Mr. Harrington, where did you go?

A. I went to Wilmington, and became a part of the so-called miscellaneous manufacturing department.

Q. In what capacity were you in that department?

A. I have forgotten exactly what my title was. I think I was supposed to be a sort of assistant to the assistant general manager.

Q. What was the miscellaneous manufacturing division at that time?

A. It was made up of a number of manufacturing activities which the du Pont Company was in, which included dye stuffs and organic materials, "Pyralin," "Fabrikoid," and "Parlin" products.

[fol. 3799] Q. How long did you remain in that position, in that department, I mean?

A. Well, that department was broken up in the middle of 1921. The Dyestuffs Department was taken out, and I became assistant general manager of the dyestuffs department.

Q. How long did you remain in that position?

A. I think I was made general manager of the Dyestuffs Department in July, 1924.

Q. Did you continue in that position for a number of years?

A. I remained in that position until, I think, it was 1929 when I was made vice president, and became a member of the Executive Committee.

Q. Of the du Pont Company?

A. Of the du Pont Company.

Q. How long did you continue in those capacities?

A. Until the first of August, 1947, when I retired.

Q. You remained a director after that?

A. Yes, I remained a director after that.

Q. Now, I would like to turn your attention, Mr. Harrington, to the subject of tetraethyl lead. When was it, in your work with the du Pont Company, that you first came to contact with what I might call generally the anti-knock problem?

A. Well, I would say it was somewhere in the neighborhood of 1920 or 1921.

Q. How did it happen that you heard about it? What were the circumstances?

A. I knew that Mr. Midgley was visiting Wilmington frequently, chiefly talking with Dr. Stine who was assistant director of the Chemical Department at that time, and Mr. Midgley was talking over his problems in connection with the work he was doing in trying to find a suitable anti-knock for gasoline.

Q. Did he talk to you personally?

A. At times, he did, but only in the latter period of [fol. 3800] time.

Q. Do you know whether he had been coming to Dr. Stine before you transferred to the miscellaneous products division?

A. Yes, sir, he had been coming there quite some time before that.

Q. Do you recall, Mr. Harrington, the occasion when Mr. Midgley asked du Pont,—either Mr. Midgley or Mr. Kettering, asked du Pont to produce aniline for them?

A. Yes, I do.

Q. Did someone request you, in that connection, to consider the matter?

A. Yes.

Q. Who was it, Mr. Kettering or Mr. Midgley?

A. I think it was Mr. Midgley so far as I was concerned.

Q. What was his proposal, as you remember it?

A. Well, his proposal was that we should establish additional facilities for the manufacture of aniline so that the product could be sold as an anti-knock additive to gasoline.

Q. What was your position with respect to that request?

A. Well, our position at that time was it was too speculative. In the first place, we did not think that they had arrived at the last word in connection with the finding of an anti-knock chemical. We also realized that the amount of aniline that they would want to anti-knock gasoline would be a stupendous amount. It required quite a substantial amount of aniline for a gallon of gasoline to accomplish the anti-knock properties that they desired.

The tremendous investment that would have been involved to put up facilities to supply the company with aniline was just beyond what we thought was reasonable.

Q. I would like to refer you, Mr. Harrington, to Defendants' Trial Exhibit du Pont 95, which is a memorandum [fol. 3801] from Dr. Stine. Would that be the Dr. Stine you mentioned Mr. Midgley talked to?

A. Yes.

Q. To Lammot du Pont, dated May 1, 1920, and I would like to read the second paragraph on the first page.

A. On the second page?

Q. On the first page:

> "There are many angles to this question of whether the du Pont Company would be interested in enlarging its capacity for the production of aniline to serve as a knock suppressant. First is the question of what advantage could accrue to the du Pont Company

> through making the considerable expenditures necessary to produce largely increased amounts of aniline. This involves the question of the nature of the patents which the General Motors Corporation may have taken out or may contemplate taking out covering the use of aniline and similar aromatic amines as knock suppressors. It involves not only the validity of these patents but also the question of whether someone is likely to get something much better than aromatic amines to serve the same purpose in the near future."

Is that substantially as you recall the situation?

A. Yes, sir.

Mr. Horsky: I would like also to refer your Honor to Defendants' du Pont Exhibit 96, which is the reply to Government's Trial Exhibit 602, which is referred to in the first paragraph as the letter of August 14th. It reads:

> "My dear Mr. du Pont:"——

The Court: Pardon me, which one are you referring to now?

[fol. 3802] Mr. Horsky: Du Pont 96, a letter from Mr. Kettering to Mr. Lammot du Pont, dated August 17, 1920. I put it in the volume I handed to you.

The Court: which paragraph are you reading?

Mr. Horsky: I have not started reading it. I put it in the volume with the other exhibits so you don't have to go to the bound volume.

The Court: Which one is that?

Mr. Horsky: It is entitled Examination of Mr. Harrington, I believe.

The Court: I see.

Mr. Horsky: It may make it more convenient to follow it.

The Court: All right, I have it now.

Mr. Horsky: (Reading):

> "I am in receipt of your very kind letter of August 14 and note what you say.
>
> "I should, of course, anticipate that if the manufacture of aniline could not be done with profit it would not be a success as a commercial venture. The thing I should like for you to do for me is to tell me what ani-

line would cost in large quantities and in what quantities it would have to be produced in order to make it a profitable investment for you. In other words, if we were to undertake the distribution of it, in what quantities would you have to make it and at what price?

"If you will advise me on this matter I think I can tell you directly whether such a thing would be practical or not."

[fol. 3803] Do you know, Mr. Harrington, whether after Mr. du Pont expressed his reluctance as indicated in your testimony, that Mr. Kettering went to any other company to ask them to produce aniline?

A. Any other company, you say?

Q. Yes.

A. Not that I know of.

Q. Is aniline an organic chemical?

A. Yes.

Q. Were there other companies in the United States to which he might have gone in search of aniline at that time?

A. Yes, there were, I suppose, eight or ten manufacturers of aniline in the country at that time.

I would say, however, that probably there wasn't more than one of them that had the resources that would be necessary to approach such a program as this, and that would be the Allied Dye & Chemical, besides ourselves.

Q. Were you familiar with the organic chemicals manufactured in the early 1920's?

A. Yes.

Q. Did you know the technical staffs and managerial staffs?

A. Well, I knew their managerial staffs better than I knew their technical staffs. Of course, I knew the technical staff by their reputation through the managerial staff.

Q. Did you know the reputations of the companies both among themselves and with the people whom they supplied?

A Yes, I knew them quite well.

Q. What was the reputation of the du Pont Company, if you can state it, early in 1920 as an organic chemical producer—in the early 1920's, I should say?

A. I would say that the du Pont Company would be looked upon as one of the top manufacturers of organic chemicals and dystuffs at that time. I don't know that I would say it was the real top, but certainly it was among [fol. 3804] the top manufacturers.

Q. What happened to this aniline project, Mr. Harrington, finally?

A. It was dropped because they found something better in a very short time.

Q. Let me refer you to du Pont Exhibit No. 97, Mr. Harrington. This is a letter from Mr. Midgley to Mr. Stine dated April 15, 1921, and I would like to read a part of the first paragraph, skipping the first sentence:

> "I know you will be interested in hearing that we have recently discovered an antiknock material which is twenty-four times as strong as aniline, volumetrically. The material looks very, very practical, and I feel sure that this is going to radically change our previous plans, obsoleting the injector; in fact, obsoleting the use of aniline, or coal tar products, in any way, shape, or form, except, possibly, as carbon removers."

Do you know now, Mr. Harrington, what substance it was that was referred to in this letter that they had discovered?

A. I think they probably referred to the compounds of tellurium and selenium.

Q. Did those compounds have utility as antiknock materials?

A. Yes, they were quite good.

Q. Was du Pont ever asked to assist General Motors in the production of those?

A. No.

Q. Do you know why they were given up by Mr. Kettering and Mr. Midgley?

A. Well, they had to be given up almost as soon as they were located, because of the fact that the terrible odor was involved in the exhaust gases when the products were used, and in addition to that the quantities of tellurium and selenium in the country were very, very scarce.

[fol. 3805] Q. They are rare?

A. They are very rare, yes.

Q. This is April, 1921, Mr. Harrington. Were you familiar with a request made by Mr. Midgley for some additional research to be done by the du Pont Company on antiknocks in the fall of the year, in the fall of 1921?

A. I only learned about it in a general way. I knew that such a subject had been discussed, yes.

Mr. Horsky: I should like to offer, your Honor, some documents on that subject at this point, in order to keep the chronology straight, if I may.

I would like to offer du Pont Exhibit No. 109, and I suggest, your Honor, that you refer to that black volume, and they will carry along in that. They ought to be in order, beginning at the beginning.

The Court: Well, the exhibits beginning with 95?

Mr. Horsky: Yes. I have referred to those already.

The Court: The next is what?

Mr. Horsky: Exhibit No. 109. It ought to be about the third or fourth document.

The Court: It jumps from 86 to 115.

Mr. Horsky: You are too far, your Honor.

The Court: Oh, I see. The numbers are not consecutive.

Mr. Horsky: That's right. I ~~am~~ putting them in the order in which I refer to them.

The Court: Oh, yes, all right.

Mr. Horsky: Do you have it?

The Court: Yes.

[fol. 3806] Mr. Horsky: This is a memorandum from Charles L. Reese, the Chemical Director, to the Executive Committee.

By Mr. Horsky:

Q. What was he Chemical Director of, Mr. Harrington?

A. He was the Chemical Director of the Central Chemical Department of the du Pont Company at that time.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 109.)

Mr. Horsky: This is dated November 3rd, 1921 and it reads as follows:

> "Mr. Midgley of the General Motors Research Corporation was here last week, and asked us to under-

take some work for them at an expenditure to be not over $12,000. He wishes this work done aside from the general agreement which is now being taken up between Mr. Lammot du Pont and Mr. Kettering, and has asked us to draw up a contract embodying the ideas included in the contract, copy of which I am enclosing herewith.

"This matter has been drawn up practically by the Legal Department, and I am sending same to you for your approval. I might say that we have very definite ideas as to how to undertake this problem, provided it meets with your approval."

Then I should like to refer to Government's Exhibit No. 584 which is the next document dealing with this topic which is dated two days later, November 5, 1921, from Mr. Kettering to Mr. Lammot du Pont.

It reads:

[fol. 3807] "My dear Mr. du Pont:—

"I have delayed answering your letter of October 24th because our Mr. Midgley was going to make a trip to your plant and he has just returned from there this morning.

"I understand that a very good understanding is now being worked out between the two companies and there is reason to believe that the matter will be settled to our mutual satisfaction in the near future."

Then I should like to offer du Pont Exhibit No. 110, which is dated November 30th, 1921, which is approximately three weeks following this prior exchange.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 110.)

Mr. Horsky: This is an excerpt from the minutes of the meeting of the Executive Committee of the du Pont Company held on November 30th, 1921. It is entitled "Agreement with General Motors Research Corporation Covering Work on Development of Non-Knocking Fuels:" and it reads:

"Letter was received from the Chemical Director dated November 23, 1921, referring to this Committee's action of November 9, 1921, in approving an agreement with the General Motors Research Corporation for work at the Experimental Station on the development of non-knocking fuels. The Chemical Director enclosed a revised agreement containing certain modifications suggested by Mr. Midgley of the General Motors Research Corporation. These modifications were ex-[fol. 3808] plained to the Committee personally by Dr. Reese, and after discussion the following resolution was offered and unanimously adopted:—

"RESOLVED, that the revised agreement between E. I. du Pont de Nemours & Company and the General Motors Research Corporation re development of non-knocking fuels, as presented to this meeting by Dr. Chas. L. Reese, Chemical Director, be and the same is hereby approved, and the President or any Vice President, together with the Secretary or any Assistant Secretary, be and they are hereby authorized to execute same on behalf of this Company."

Then I should like to offer, by way of showing what happened to this agreement, du Pont Exhibit No. 111, which is a letter from F. B. MacNab, the business manager of General Motors Research Corporation to Dr. Charles L. Reese, Chemical Director of the du Pont Company.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 111.)

Mr. Horsky: This is dated January 28, 1922, approximately two months later:

"Dear Mr. Reese:

"In conference with Mr. Midgley, regarding copy of contract forwarded by you with your letter of December 6, 1921, it has been decided that for the time being we would not be interested in entering into the forementioned contract.

"The reason for our reaching this decision is that [fol. 3809] our work at the Laboratories along fuel lines has taken an entirely different turn from what we expected."

Then as showing what happened with Standard Oil at the same time I should like to offer du Pont Exhibit No. 112, which is a letter about six weeks later from Mr. Midgley to Mr. Frank Howard.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 112.)

Mr. Horsky: This exhibit is dated March 18, 1922, and I will read just the first part:

"My dear Mr. Howard:

"I have indeed, been wondering just why I have not heard from you and probably should have written you without waiting, but as matters are developing I could see really no harm in this delay and really was glad that you were responsible for it and not myself.

"Very shortly after seeing you in Chicago, our research work took a very sudden turn in a direction that would indicate that it would be a mistake both on your part and on ours to enter into an agreement such as we discussed at that time. I must naturally apologize after the trouble that I put you to in the expectation that this problem would be solved at the refinery."

By Mr. Horsky:

Q. Now, Mr. Harrington, what was the next anti-knock development of which you heard?

A. Tetraethyl lead was the next one.

Q. Did du Pont have any part, so far as you know, in [fol. 3810] the discovery that tetraethyl lead was an anti-knock?

A. No, the du Pont Company had had no part in that development at all. That was entirely a development on the part of Kettering and Midgley.

Q. When did you hear about the discovery? When was it you heard about the discovery, about what time?

A. I think it was sometime in March, 1922, the latter part of March.

Q. Do you recall from whom you heard about it?

A. Well, I think I heard it at first through Mr. Irenee du Pont. I heard of it just shortly after that from Charlie Stine.

Q. Let me show you Government's Exhibit No. 610, Mr. Harrington, which is a memorandum from Mr. P. S. du Pont to Mr. Irenee du Pont, dated March 24, 1922, enclosing a report on tetra ethyl lead.

Does that date correspond with your recollection about when you would have heard of it?

A. I think I heard about it shortly thereafter, yes.

Mr. Horsky: Let me also offer du Pont Exhibit No. 113. This is a memorandum from Doctor Stine to Mr. Lammot du Pont, dated May 15, 1922.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 113.)

Mr. Horsky: I should like to read only the first and last paragraphs:

> "I am returning to you herewith the letter from Mr. C. F. Kettering dated May 8th to you. I am also enclosing our correspondence file from January 1st to date which contains the very limited exchange of letters that there has been between the Dayton crowd [fol. 3811] and ourselves. Will you please return this to our files when you have had an opportunity of reading it."

Then after summarizing some of the material in the correspondence file, it concludes:

> "The foregoing, then, together with the attached correspondence file covers our relation with the Dayton people since January 1st, 1922. I believe that Mr. Midgley has purposely refrained from asking any advice or assistance from us since the first of the year."

By Mr. Horsky:

Q. What did you do, Mr. Harrington, after you heard about this discovery of tetraethyl lead as an anti-knock from Mr. Irenee du Pont or Dr. Stine?

A. We did nothing except make a literature study, which we would naturally do.

Q. Why did you do no more than that?

A. There was no request on us to do any more. There was no reason particularly why we should do more than just make a research study.

Q. May I ask you to look again, Mr. Harrington, at Government's Exhibit No. 610, and refer you to the last paragraph on the second page. It says:

> "Kettering would like to take up the question of manufacture with the du Pont Company representatives at an early date."

Do you recall whether Mr. Irenee du Pont told you about that as well?

A. Yes, I was told about that just a little bit later after I first heard about tetraethyl lead.

Q. There is in the record already, Mr. Harrington, the [fol. 3812] fact that Mr. Irenee du Pont went to Dayton on July 6, 1922, to see Mr. Kettering. Do you recall that trip?

A. Yes.

Q. Did Mr. du Pont tell you when he returned what had occurred at Dayton?

A. Well, he didn't tell me anything particularly about the details of what happened there except to tell me that Mr. Kettering wanted to come and call on us very shortly to talk about the subject of manufacture.

Q. Did Mr. Kettering come?

A. Yes.

Q. The record indicates that he came on July 20; does that correspond with your recollection about, say, two weeks after Mr. Irenee du Pont's trip?

A. Yes, that is right.

Q. Did you see him when he came to Wilmington?

A. I did.

Q. What occurred on the occasion of his visit, if you remember so far as you remember?

A. When Mr. Kettering came, we discussed the subject in Wilmington.

Q. What subject?

A. As to the possible manufacture and possible facilities for the manufacture and process of manufacture, and so forth. Then we went over to the dye works and took Mr. Kettering over there, and I took several of our research men along with us.

We showed Mr. Kettering the possibilities that we had over there for the manufacture of tetraethyl lead.

Q. What were they?

A. We had a building over there which had sufficient height and which was unoccupied at that particular time, in which we had thought that we could put assembled apparatus to make tetraethyl lead.

You see, since this request that Mr. Kettering wanted us to think about the manufacture, such as reported in this [fol. 3813] last document, we had given some thought, not only to the laboratory process, but what kind of equipment would be necessary to assemble to do a job of manufacturing tetraethyl lead.

At that particular time when Mr. Kettering came, before he had come, we had given quite a bit of thought to this so that when he did come we were in position to show him the facilities and the type of equipment that we thought would be suitable to do the job.

Q. How much assistance did you get from the literature at that time as to how to manufacture tetraethyl lead?

A. Oh, very little from the literature as to how to manufacture it. The only thing we could get at that time was that it was a product that had been known years before.

Q. Was there any literature on anybody having manufactured it before, commercially?

A. Not commercially, I don't recall that.

Q. What did you understand that Mr. Kettering wanted when he came to Wilmington to see you? What was the purpose of his visit?

A. Mr. Kettering came to see us to appraise our value to him as to a possible source of quick manufacture of tetraethyl lead.

Q. How important was speed to him?

A. I think he thought speed was tremendously important at that time.

Q. What was your impression of the effect that your demonstration had on him? Did you think you had sold him?

A. Well, we thought we had made quite an impression as to our ability to assist him, because he asked me to immediately come out to Dayton to call on him and to see what he had out there so that we could better visualize the conditions between the two of us.

Q. Did you go to Dayton then?

A. I did.

[fol. 3814] Q. How long after Mr. Kettering's visit to Wilmington was it that you went to Dayton?

A. Two or three days after.

Q. Who went with you, if anyone?

A. I took Dr. Bolton, who was head of our Research Department, and also Dr. Calcott from the Jackson Laboratories.

Q. What occurred at Dayton when you were there?

A. Well, they showed us around, showed us all the things, all the stuff they had been thinking about, all their ideas, all that kind of stuff. The fact is they actually gave us one demonstration in the laboratory of how they had tried to make tetraethyl lead. That particular process got entirely out of hand and spewed all over every place, and we had to get out.

Q. Was that process that you were shown at Dayton a process that was a commercial manufacturing process?

A. No, not by a long shot.

Q. Let me refer you, Mr. Harrington, to Defendants' Trial Exhibit No. GM 71, which is a memorandum from F. O. Clements, Director of Research of General Motors Research Corporation to the General Motors Executive Committee, dated August 2, 1922.

It is a report for the month of July. I would like to read the first eight or nine lines:

> "The month's efforts have been confined to semi-works production of lead tetra-ethyl. The entire process has been studied intensively, to eliminate cost. The du Pont organization has been brought into the work and they have duplicated our semi-works production very readily. Just now, we are counting upon the du Pont organization to collaborate with us on this new compound. This is the logical procedure, due to [fol. 3815] the fact that they have equipment and floor space suitable for this kind of work."

May I ask you, Mr. Harrington, when this report uses the words "semi-works production," in view of what you saw at Dayton, what does "semi-works production" mean in this document?

A. What would it mean then, you mean?

Q. Yes.

A. Well, it was a very small activity, just a little bit beyond the test tube laboratory stage. That is what they were doing out at Dayton.

Q. What happened after you went to Dayton? What did du Pont next do with respect to its tetraethyl lead development?

A. We came back home and assembled in the Jackson Laboratory semi-works area a small set of equipment which was suitable for the manufacture of tetraethyl lead in small quantities, say, a gallon or so a day.

Q. Would that be larger now than what you saw at Dayton?

A. Yes.

Q. Considerably, or just how would you compare them?

A. Oh, well, as I said, theirs was a little bit more than test tube stage, and this was represented as about a gallon a day, and there is quite a difference between those figures.

Q. How long was it, Mr. Harrington, before you started producing and sending tetraethyl lead to Dayton with this equipment?

A. I think we made the first shipment of a gallon of tetraethyl lead to Dayton about the 15th of August, which would be about two weeks after I came back from Dayton.

Q. Let me show you General Motors Exhibit No. 247, [fol. 3816] Nos. 248 and 249, Mr. Harrington. These are telegraphic exchanges between you—the first one is from Mr. Midgley to Doctor Bolton, and the others are telegrams from you to Mr. Midgley, in which you state that you are shipping 70 pounds of anti-knock on August 24 and 46 pounds anti-knock on August 25.

Does that correspond about with your recollection as to what you were doing at the time?

A. Yes.

Q. Does it mean that you were shipping about that amount every day or was this an unusual shipment?

A. No, you see in one of these cases they shipped a little less than five gallons and the other they shipped a little less than three gallons. The shipments were a bit intermittent, but nevertheless that was the type of scale on which we were producing and shipping at that time.

Q. Did you have any difficulty in adapting the process that you saw at Dayton to your Jackson semi-works operation?

A. Yes, we had quite a lot of difficulty. I think probably the most fundamental difficulty was that the recipe that they had given us from Dayton indicated a desirability of using a tetra sodium lead.

When we attempted to use and make tetraethyl lead from that particular type of alloy, it was soon evident that that particular product had too much sodium in it because we simply couldn't control the reaction. It would run away from us.

Q. What do you mean by that, that it would run away from you, you couldn't control it?

A. Well, it just developed such high pressures and it would get entirely out of hand. We just couldn't hold it in the reaction vessels. It would develop inordinate pressures.

We reduced the sodium content from a tetra sodium lead to a little less than a di-sodium lead, and by that process [fol. 3817] we arrived at a method that we could keep control of, and could successfully produce tetraethyl lead.

Q. Do I understand that this is the normal difficulty in taking a laboratory process into a semi-works or was it peculiarly difficult in this respect?

A. I don't know that anybody can ever determine the question of normalness, what is normal between a test tube and a semi-works. But if this was the actual normal, then it was a little bit on the high side of normal, I would say, because we had a tremendous amount of difficulty with it.

Q. What were the arrangements at this time, Mr. Harrington, by which du Pont was being paid for this production, if there were any?

A. We had no means of receiving pay at that particular time, and as I recall we weren't receiving pay. But we were sufficiently concerned and interested in the subject for the purpose of rendering service that we were willing to take our chances that we would get paid.

Q. You ultimately did work out a contract?

A. What is that?

Q. You ultimately did work out a contract?

A. Yes, we ultimately did work out an agreement.

Q. Mr. Kettering testified, Mr. Harrington, that he was, I think, in favor of having a contract. Did you favor having a contract at this time?

A. Oh, yes, I did; very much so.

Q. On what basis?

A. We had done a lot of work in the laboratory, a lot of research work; we had done a lot of work in the process of producing the amount of tetraethyl lead we sent out, and we didn't know what the future was going to be. We did not know whether General Motors was really using us at the early stages, and then was going to jump off some [fol. 3818] other place, or had a manufacturing program so we wished to see what the future was to be.

Q. Was there any patent problem involved, any problem on patents?

A. Yes, there were a number of patents involved, that we thought should be involved, because in the process of our work in developing the Jackson laboratory semi-work stage, we had run into a number of ideas that we thought were patentable, and I wrote Mr. Kettering a letter calling his attention to that particular thing and suggesting that we should get together and make sure we were properly protected, that is the process of manufacturing, be patented.

Q. Let me show you, Mr. Harrington, Defendants GM Exhibit No. 72. Is that the letter to which you refer?

A. Yes.

Q. I call your attention to the second paragraph. It says:

> "It is our feeling that the whole Tetra Ethyl Lead manufacturing process should, insofar as possible, be protected by patent, but before doing anything of this character I felt it was entirely necessary that the subject be discussed with you,—therefore my telephone conversation with you this morning."

What was the response to that letter, if you recall?

A. Mr. Kettering was definitely very much interested in the subject, because he immediately came to Wilmington to see me about it.

Q. What did you decide to do at that time, if anything?

A. We decided that there should be a grant back clause to the General Motors in the contract which at that time we were doing the early stages of negotiations on.

Q. Who suggested that procedure?

A. What is that?

[fol. 3819] Q: Who suggested that, you or Mr. Kettering?

A. Mr. Kettering suggested that, but that was following my letter, and Mr. Kettering was quite anxious about that particular point, because he felt that he had been abused in the past by a manufacturing company along the lines of not being willing to grant back to him, and he wanted to protect himself against that unfair treatment the next time.

Q. Did you agree with him?

A. I did.

Q. What did you do to bring this about?

A. I wrote a letter to the company and asked for permission to put such a clause into the contract whereby General Motors would have the grant back rights on those patents which we had developed in connection with the early work.

Q. Let me show you, Mr. Harrington, Defendant du Pont Exhibit No. 98, which is a resolution of the du Pont Finance Committee, dated September 18, 1922, just about a week following your letter to Mr. Kettering, and ask you if that is the resolution that you requested?

A. Yes.

Q. It reads:

> "The following resolution was offered and unanimously adopted:
>
> "WHEREAS, this Company is engaged in some chemical research work for the General Motors Corporation in connection with the production of Tetra-Ethyl lead; and
>
> "WHEREAS, in the conduct of such work this Company may develop secret processes and processes subject to patent which will involve our taking out patents for the protection of our customer, namely, the General Motors Corporation;

> "RESOLVED, that it is the sense of this Committee [fol. 3820] that all patents so taken out and all secret processes so developed are the property of the General Motors Corporation, and that such patents should be assigned to and such secret processes should be turned over to the General Motors Corporation;
>
> "RESOLVED FURTHER, that the President or any Vice President of this Company, together with the Secretary or any Assistant Secretary be and they are hereby authorized to execute the necessary papers to carry the above into effect."

The first contract that is in the record, Mr. Harrington is dated October 6th, 1922. That is Government's Trial Exhibit No. 618. Is that the first contract you had with General Motors relating to tetraethyl lead?

A. Yes, sir.

Q. Who negotiated that contract?

A. Who what?

Q. Who negotiated that contract?

A. Well, I did for du Pont with the assistance of the legal people in connection with the legal phraseology.

Mr. Horsky: Do you wish to have a recess at this time, your Honor?

The Court: The Court stands recessed for fifteen minutes.

(Recess taken.)

By Mr. Horsky:

Q. Mr. Harrington, at the time the contract of October 6, 1922, was executed, what was your belief as to whether you were satisfying the demands of General Motors with respect to production of tetraethyl lead at this semi-works [fol. 3821] plant?

A. Well, we were only producing a small quantity, but they only wanted a small quantity at that particular time, because they had found themselves in difficulty in using tetraethyl lead in the cylinder of the engine because of the fouling of the spark plugs and the difficulty that was involved with the valve stems and valves.

Q. Did they give you any impression that they were dissatisfied with your performance to date, as of 1922?

A. Not at this time, no; in fact, they seemed to be very well pleased with it.

Mr. Horsky: I would like to refer, your Honor, to Defendants' Trial Exhibit General Motors No. 73 which is a report of Mr. Clements, the Director of Research, to the General Motors Executive Committee dated October 3, 1922, and read just the last paragraph:

> "The Semi-Works preparation of tetraethyl has been left to the du Pont Company, who are operating at their Dye Works plant. They have succeeded with their part of the problem in a very admirable manner. The yields obtained are within 85 to 90% of theory, which is exceptionally good. The du Pont Laboratory is to be congratulated upon this result."

I should also like to refer to General Motors Exhibit No. 252 which is the report by Mr. Midgley to Mr. Kettering dated about a month later, a month and a half later, November 20, 1922, which is a summary of the present situation on anti-knock material, and paragraph numbered 1 reads:

> "Production. This phase of the tetraethyl lead problem seems to be pretty well solved and we have the assurance of the du Pont Company in the form of a [fol. 3822] contract that they will produce tetraethyl lead at a price that renders it quite commercial."

By Mr. Horsky:

Q. Mr. Harrington, you have the contract in your hand there, Government's Exhibit No. 618?

A. Yes.

Q. I notice that this is not signed by you, although you said that you negotiated it.

Can you explain why it was signed by Mr. Irenee du Pont?

A. Well, it was the practice of the du Pont Company at that time, and in fact it still is, that an officer of the company has to sign a contract, has to sign these contracts, unless an individual is specifically specified and permitted to sign by action of the Executive Committee.

I was not actually specifically designated as the authorized signer at this particular time, so it had to be signed by an officer.

Q. Who picks the officer that signs it?

A. Well, the Secretary of the Committee usually will take it to the particular officer who probably knows the most about the subject, and in this particular case it was taken to Irenee, I believe, by the Secretary of the Committee, and Irenee signed it.

Q. Now, you recall that this contract, Mr. Harrington, this 1922 contract, was the one in which du Pont was to build a plant to produce 100 gallons of tetraethyl lead daily upon four months' notice, and the one which provided that the patentable inventions would be turned over to General Motors.

The price is $2.00 a pound.

[fol. 3823] Let me call your attention to paragraph 6 on page 4 of this contract.

I would like to read the second paragraph of paragraph 6 which begins "Should the purchaser desire"—

Do you find it?

A. Yes.

Q. (Reading):

> "Should the Purchaser desire to discontinue the use of anti-knock compound during the first year of this agreement, it may cancel the same but should it do so, it shall take over, at cost, such materials as may have been provided by the Manufacturer for the purpose of complying with its obligations hereunder and shall purchase all such finished product as the Manufacturer may have produced at $2.00 a pound. The Purchaser shall also pay the Manufacturer the portion of the cost of the plant constructed for such production as the unfilled portion of the order bears to the total order."

By Mr. Horsky:

Q. Do I correctly interpret that to mean that this contract was to amortize in one year the cost of the plant you were to build?

A. Yes.

Q. Was that a provision which you regarded as abnormally or unusually favorable to du Pont?

A. No, I would think it would be a perfectly normal thing for us to have in respect to a product of this character, which was so uncertain as to the future.

Q. Do you know whether du Pont has had similar contracts for other commodities?

A. We had a great many. I suppose the best illustration was the smokeless powder contracts in World War I. [fol. 3824] Q. They were on this basis?

A. Yes, all of them—that is, all the earlier ones, I should say.

Q. After the execution of this contract, Mr. Harrington, which was October 6, 1922, do you recall how long it was before General Motors gave you notice to begin the construction of the plant, the 100 gallons a day plant?

A. They didn't ask us to proceed with the construction until some time in the latter part of March, 1923.

Q. If you know, what was the reason why they delayed?

A. Their departments were involved with a solution of finding a suitable chemical which would enable tetraethyl lead to be used with success in an internal combustion engine. In other words, they had to find a means that would stop all this fouling of spark plugs and valves.

Q. Is that what they call a scavenging agent?

A. Yes.

Q. Do you know whether General Motors at this time had arranged any distribution system for tetraethyl lead?

A. Well, they had tried out in Ohio, in certain specified locations such as Dayton, I think, Cincinnati, and so forth, and they had found that their early progress and acceptance on the part of the public was quite good.

Q. Let me show you, Mr. Harrington, Defendants' Trial Exhibit GM 75, which is a telegram to you from Mr. Midgley, dated March 29, 1923.

It reads:

> "It was officially decided this morning to go ahead with the antiknock program as rapidly as possible. (Stop) Consequently this constitutes official notification that you are to get out one hundred gallons of tetraethyl lead per day as soon as possible. (Stop) Expect to see you Monday afternoon next week."

[fol. 3825] Is this about the time, as you recall it, that you were given this notification?

A. This is a notification, a copy of it.

Q. What did you do when you got this telegram?

A. Proceeded as rapidly as we could.

Q. Let me show you du Pont Exhibit No. 114.

Mr. Horsky: I should like to offer du Pont Exhibit No. 114, which is a telegram from Mr. Harrington to Mr. Midgley, dated March 31, 1923.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 114.)

By Mr. Horsky:

Q. It reads:

> "Your telegram on antiknock received. We are working as rapidly as possible to get executive committee permission to proceed."

Did you send that telegram?

A. Yes.

Q. Now, I take it you did go ahead and build a plant, is that correct?

A. Yes.

Q. Where did you build it?

A. At Deepwater Point.

Q. Is that where the dye works is?

A. Yes.

Q. Where is that geographically? Where is Deepwater Point?

A. Geographically it is directly across the Delaware River from Wilmington, in New Jersey.

Q. When was that plant finished, do you recall?

A. I think we started deliveries in August, 1923. I would say probably around the middle of August.

Q. When you had completed that plant in August of 1923 for 100 gallons a day, did that prove to be a sufficient amount of tetraethyl lead?

A. Unfortunately for us the General Motors program of [fol. 3826] sales had stepped up faster than they thought it was going to do and faster than we thought it was going to do, so they were on our necks for the product all the time.

Q. Did there come a time when they asked you to build another plant?

A. By January, 1924, they asked us to triple the size of this first plant.

Q. These plants were all, as I understand it, under the bromide process, is that correct?

A. Under the ethyl bromide process, correct.

Q. Let me show you Government's Trial Exhibit No. 628, Mr. Harrington, which is a memorandum from Irenee du Pont to the Executive Committee of the du Pont Company dated January 14, 1924. It reads:

> "Gentlemen:
>
> "This is simply to report that I have orally assented to an arrangement with the General Motors under which we are to build two additional tetraethyl-lead units of 200 gallons per day each, and the General Motors in consideration thereof have modified the quantity in our present contract increasing it to 1,100,000 lbs., price to remain as today—$2.00 per lb.
>
> "Mr. Harrington will shortly bring in a rush appropriation for this work which must be done as quickly as possible."

Do you know what it was, Mr. Harrington, that caused General Motors to ask you to triple your facilities at this time; what had happened on their side?

A. They were making better progress on sales than they thought. They thought in the first instance that they would find a considerable amount of opposition on the part of [fol. 3827] the big oil companies to accept tetraethyl lead in their program, and they found that was not correct. Some of the large companies desired to put tetraethyl lead in their program, and the result of that situation was that the demand for tetraethyl lead came along faster than it could be supplied.

Q. How long was it, if you recall, before these plants that are referred to in this January authorization were producing?

A. I would say about the late spring, they were in production. Maybe it was about June, I am not sure.

Q. They raised it to about 600 gallons per day, or 600 pounds per day, which is it?

A. 600 gallons.

Q. 600 gallons per day?

A. Correct.

Q. Can you state, Mr. Harrington, in as non-technical form as possible just what was the bromide method of production of tetraethyl lead? How did those plants we are talking about work?

A. I think maybe the first thing I should do is to describe all the equipment, tell what the equipment is, and the sequence of equipment, and then after arriving at an understanding of the sequence of the equipment, tell you how it would function.

The raw materials that were required were an alloy of lead and sodium. This alloy was prepared in an annex to the main building. We also required, as a raw material sodium bromide,—I mean ethyl bromide, and we used sodium bromide as the source of the ethyl bromide. That also was done in an annex of the building.

Now, the men set up all the equipment, and we had put into this building what we called reaction vessels which were agitated cast iron vessels with a cover and above was a reflux condenser.

[fol. 3828] Q. What is that?

A. Well, a reflux condenser is a bundle of coils in an outside casing in which the product you want to condense goes through the coils, and water surrounds the coils in the casing. The temperature will condense the ethyl bromide in this case, what we wanted to condense, and reflux back into the reaction vessel.

Q. Drain it back into the reaction vessel?

A. Yes.

Q. Is that what you mean by reflux?

A. When you reflux back, it means you drain it back.

Q. Yes.

A. The next piece of apparatus was an agitated still which was located in the floor below the reaction vessel. From there, attached to the still was another condenser that was there for the purpose of condensing the tetraethyl lead. Then there was a receiver below that which would receive the residue of the still which had been distilled.

Now, the process as it operates was that the alloy of lead and sodium had been ground to suitable size, probably about the size of a pea and charged into the reaction vessel which was agitated with a revolving arm. The ethyl bromide was fed in there under controlled conditions both with respect to the speed of the flow and the reaction of the reflux condenser.

The reaction, once completed, the whole mass was dropped down to the still below, which was agitated and charged, in which the tetraethyl lead was distilled from the reaction mass, the tetraethyl lead going to the condenser, and being recovered, and the residual mass being dropped down into a water receptacle in which the lead was allowed to settle.

The water was decanted, pumped through filters for the purpose of recovering the sodium bromide which was in [fol. 3829] the residual material. The other mass was taken out, and at that early stage of the game, put on a dump pile and ultimately sent to the smelter for recovery.

Q. Did you have any trouble in getting the process working after you had once successfully done it at the Jackson semi-works?

A. Well, I am not sure that we did not have a little more than the usual troubles going from the Jackson Laboratory semi-works to the full scale plant. We had considerable trouble going to the Jackson Laboratory scale, and I think we had a little more trouble at this time.

You see, when you go to a larger producing capacity, all of the problems and impurities and so forth that are in the raw materials become highly exaggerated, and we had a great deal of difficulty in keeping the ethyl bromide free from water and residual alcohol, and of course, when the water was allowed to remain as an impurity in the ethyl bromide, and that ethyl bromide was charged into the reaction vessel, we have like fireworks, because it was just the same as putting water on metallic sodium.

If you want a real Fourth of July, put water on metallic sodium.

Q. Well, let me refer you, Mr. Harrington, to Government's Trial Exhibits 657 and 659. The first one is a telegram from Mr. Kettering to Mr. Sloan. I don't need to read all of it, but let me read portions from the middle:

"We are unable to get sufficient lead from the du Pont Company to meet our requirements. (Stop) While program is being prejudiced on this account. (Stop) Can you get in touch with me if they are unable to meet schedule we will change our program relative to ethylizer."

[fol. 3830] The next one, Government's Exhibit No. 659 is a letter from Mr. P. S. du Pont to Mr. Alfred Sloan, and without reading it, it sets forth a schedule of the amounts delivered, the amounts called for in the contract then in existence, and the shortage, with some information about what du Ponts' plans were for the immediate future.

Does this reflect, Mr. Harrington, these documents, do they reflect the difficulties you have just described? A. Yes, they reflect the difficulty of our being able to get started, because of the difficulty in translating from a small semi-works to a full scale operation.

Q. Were you disturbed by this record in June, 1924?

A. We were quite disturbed because we are always disturbed when we are criticized by failures of this particular type, but we thought we could almost see our way out by that time.

Q. Did you after this keep up the schedule?

A. We kept up the schedule, but you notice also that Ket wanted more than we had agreed to give him.

Q. You refer to the sentence "Harrington expects to meet the schedule, though Kettering wants 700 gallons per day immediately"?

A. Yes.

Q. Now, Mr. Harrington, did the bromide process have disadvantages other than the manufacturing problems which you mentioned?

A. Well, we had already run into the fact, evidence of the fact, that the program, if it were to be expanded by the ethyl bromide process, it was definitely going to get into the position of shortage of sodium bromide in the country or in the world.

The quantity of sodium bromide available in the world was quite limited in the first place.

[fol. 3831] Q. You say sodium bromide? Is that the same as ethyl bromide?

A. Sodium bromide is what you make ethyl bromide from.

Q. I see. Had there been any other calls for bromide in connection with tetraethyl lead besides the manufacturing process?

A. Well, General Motors, you know, had solved their difficulties in their internal combustion engine of spark plugs and valves and so forth by the use of ethylene dibromide which was another call for bromine.

Q. That is the scavenging agent?

A. Yes.

Q. Does the use of tetraethyl lead require substantial quantities of ethylene dibromide?

A. Yes, it requires substantial quantities to put into gasoline to make it suitable for engine use, and of course that bromine was all lost.

Q. What happened to the bromine you used?

A. Well, the bromine was used in the process of developing the reaction, but was not part of the finished product so that that was recoverable, and we did recover probably somewhere between 80 and 85 per cent which we used in the bromine process of reaction.

Q. Is ethylene dibromide still used as a scavenging agent, do you know?

A. It is.

Q. Did there come a time, Mr. Harrington, when a process was developed or discovered for eliminating the need for bromine in the manufacture of tetraethyl lead?

A. Yes. Standard of New Jersey developed a process for making tetraethyl lead by the ethyl chloride process rather than the ethyl bromide process.

Q. When did you first hear about that?

A. I think it was in the spring of 1923.

Q. Did you know at the time whether it was a feasible [fol. 3832] process?

A. I didn't know whether it was or wasn't, but we had no reason to believe it wouldn't be.

Q. Did you try to use it?

A. At that early stage when we first heard about it, we didn't try. All we did was to go to the literature and see what we could find.

Q. Did you learn whether it was a patented process or not at that time?

A. Yes.

Q. What did you learn?

A. We learned it was a patented process and the patent was owned by Standard of New Jersey.

Q. Did there come a time, Mr. Harrington, when you were requested, or when du Pont was requested, to make a cost appraisal on something more than a laboratory basis, of the ethyl chloride process?

A. Yes, General Motors, or General Motors Chemical, asked us, in the late spring of 1923, to make such an investigation.

Q. Are you sure it was not 1924?

A. 1924, I mean. I am sorry. Yes, it was 1924.

We first learned of it in 1923, but they didn't ask to do this until 1924.

Q. Let me refer to General Motors Exhibit No. 85 which is a letter from Mr. Sloan to Mr. Howard dated May 6, 1924.

I would like to read, beginning with the second paragraph:

> "With regard to your suggestion relative to a conference of your technical people, the du Pont technical people and Mr. Midgley relative to a better understanding as to the possibilities of the chlorine method, would advise that I feel a little anxious in the premises because the patent situation is so thoroughly undetermined. I have been informed that we have application for quite a number of processes which may or may not [fol. 3833] interfere with your applications. I do not know enough about the details to say whether they do or whether they do not and the last thing I would want to have happen would be to have some conflict or interference arise which would lead you to believe that we had taken advantage of anything you had disclosed to us. Therefore, in agreeing to your suggestion which I think will be helpful, I do so on the basis of your assurance, given over the telephone, that your patent situation is absolutely established to your entire satisfaction and that you are satisfied that there is nothing that your people can disclose to our people that would in any sense cause any confusion or inject any mis-

understanding or unpleasantness into a picture that is getting along so nicely.

"You appreciate, of course, that we would not in any sense take advantage of or permit anybody in our organization to take advantage of anything. It is not that—but what I want to avoid is the possibility of what might be an honest conflict of claims being interpreted as a lack of good faith on our part.

"In view of the fact that you say that you are satisfied I have written Mr. Midgley asking if he will take the matter up with you and advise you when an arrangement can be made, or in the event that he sees some reason why it is not advisable at this time that he communicate with you promptly."

Then I should like to refer to General Motors Exhibit No. 86 which is dated two days later, and is addressed to Mr. Sloan from Mr. Frank Howard, and read only the last paragraph:

[fol. 3834] "In the meantime, I hope that Mr. Harrington, of the du Pont Company, will be able to make a full investigation of our chloride method of manufacture; and I have given instructions to our Research Laboratory to see that he gets complete information on this, in the event that he is unable to begin on the matter until after my departure on Saturday."

Then I should like to offer du Pont Exhibit No. 115, which is a letter from Mr. Harrington to Mr. Thomas Midgley, General Motors Chemical Company, dated June 14, 1924, approximately a month later.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 115.)

By Mr. Horsky:

Q. Did you write this letter, Mr. Harrington?
A. Yes.
Q. I should like to read the first paragraph:

"We have made an examination of the Standard Oil Company of New Jersey's process for the manufacture of Tetra Ethyl Lead by the Ethyl Chloride method and have been able to duplicate their accomplishments. The process followed is essentially the same as their process. After having accomplished the same yields as claimed by them, a comparative cost has been made of the Ethyl Chloride and the Ethyl Bromide processes, with the following results for material costs only. The Standard Oil Company of New Jersey's Ethyl Chloride process—approximately 48c; the Ethyl Bromide process, with what we look upon as reasonable goal yields and recoveries—approximately 52%."

[fol. 3835] That should be 52 cents?

A. That means 52 cents as is shown on the next page.

Q. (Reading):

> "A detail of the make up of these cost calculations is attached."

Then turning to the last page, the last paragraph:

> "We are giving this information to you with sufficient extra copies for you to transmit the same to the Standard Oil Company of New Jersey, or to use it in any other way that you see fit."

At the time you made this appraisal, Mr. Harrington, did you know that General Motors and Standard of New Jersey had agreed to form a new company?

A. No.

Q. Did you have any intimation from any source that General Motors and New Jersey were negotiating to form a new company at this time?

A. I don't recall that I had any information at all about that.

Q. What was your reaction when you learned about the formation of Ethyl Gasoline Corporation?

A. I was quite surprised.

Q. Did you have any idea at that time that du Pont would be asked by this new corporation to become the manufacturer for it?

A. You mean by ~~the ethyl chloride~~ process?

Q. By either process.

A. Well, it was perfectly evident that because of their present demands that we would have to continue to run the plants by the ethyl bromide process to make tetraethyl lead for a while, but whether they were going to call on us to manufacture via the ethyl chloride process, we had no information whatever.

[fol. 3836] Q. When did you first learn about what Ethyl's plans were with respect to du Pont's production under the ethyl chloride process?

A. Frank Howard came to see me in Wilmington. We went to the dye works.

Q: Can you date this approximately?

A. I think that was in the latter part of June, 1924, and he indicated to me or told me in fact—he didn't indicate; he told me—that they were planning to put down two plants, one of a thousand gallons a day and one of five hundred gallons a day, and that they would expect du Pont to put down this thousand gallons a day plant at the dye works, and they were considering as to whether they would put the five hundred gallon plant some other place.

Q. To be operated by du Pont or to be operated by someone else, the five hundred gallon plant?

A. The five hundred gallon plant was to be located some other place, and it wasn't stated at that time whether it would be du Pont or somebody else, but the implication was that it would be by somebody else.

Q. Did he mention at that time the manufacturing operation by Standard of New Jersey?

A. Yes, he told me that they had arrived at any arrangement with General Motors whereby they would put in an experimental one hundred gallon a day plant at Bayway.

Q. What position did you take on these proposals, if you recall, with Mr. Howard?

A. I took a very definite position in discussion with Mr. Howard in connection with the 1,000 and 500 gallon a day plants that they should be at that stage of the game at one place, and one management and under one control because of the hazards involved in the manufacture.

[fol. 3837] Q. And whom did you think should control them? Whom did you think should control them, du Pont?

A. Well, I thought at that time that probably we were the best ones qualified to deal with the situation from a safety point of view.

Q. What position did you take on the 100 gallon a day plant at Bayway?

A. I didn't take any position on that. I had nothing to do with it. That was already accomplished.

Q. Let me refer you, Mr. Harrington, to General Motors Exhibit 87, which is a memorandum by Frank Howard, entitled "Status of Lead Tetraethyl Manufacture," dated June 26, 1924.

I would like to call your attention to the part on page 3 which is a summary. Skipping the first sentence:

> "It is suggested, therefore, that the following manufacturing program be agreed upon."

Do you find it?

A. Yes.

Q. (Reading):

> "1. Present 900-gallon per day plant to be continued at full capacity for the present."

That would be the bromine plant, I take it, is that right?

A. Yes, sir.

Q. (Reading):

> "2. 100-gallon plant, chlorine process, to be installed at the Bayway Refinery, for the account of the Foundation Company—estimated cost, $25,000 to $50,000, exclusive of building, which is now available. Equipment is to be of a type which can be salvaged substantially completely for removal to other plants."

[fol. 3838] Then skipping down to paragraph 3, at the bottom of the page:

> "Two additional large-scale chlorine process plants should be laid down as soon as possible, to be ready to begin operations before the gasoline season opens in 1925. It is suggested that one of these plants, of 1000-gallons daily capacity, be located at Penns Grove, to be operated by the du Pont Company; and that the second plant, of 500 gallons daily capacity, be located at some other point determined by a study of freight

> relationships, to be erected and operated by the Foundation Company.
>
> "Plans should be begun on both of these plants at once.'"

Is that substantially as you recall Mr. Howard's proposals to you at that time?

A. Yes.

Q. Now, after Mr. Howard came to Wilmington, did you begin negotiations looking toward the erection of this 1000-gallon a day plant under the chlorine process?

Did you begin negotiations for a contract, I should say?

A. Yes. We had already done a certain amount of evaluation work, semi-works-wise, as per the instructions from General Motors the early part of the year, and then at that particular time we started to establish a contractual relationship whereby we should proceed to set up this plant.

Q. Who conducted these negotiations?

A. I did.

Q. I should like to refer, your Honor, to Defendants Exhibit No. 99, du Pont 99, and just read the first and last sentences. This is dated September 3, 1924, and is an excerpt from the minutes of the meeting of the Executive Committee of du Pont. It states:

> [fol. 3839] "Mr. W. F. Harrington, General Manager, Dyestuffs Department, appeared before the Committee and stated that he was negotiating a contract with the Ethyl Gasoline Company."

At the bottom of that page:

> "After full discussion, it was moved and unanimously carried that Mr. Harrington be authorized to proceed with negotiations with the Ethyl Gasoline Company along the lines indicated above."

While these negotiations were going on, Mr. Harrington, were you also giving attention to the details of the physical construction of this plant; how you would build it?

A. Well, this contract was signed—I believe it was signed in October, about October 10th, I think, and of course we had to arrive at an early conclusion as to what type of equipment we should put into that plant. Based upon our work we were trying to develop our ideas as to the equipment that should be installed.

Q. Can you give us, without being too technical about it, what kind of equipment you planned to use?

Mr. Harsha: Your Honor, I would like to object to this line of questions which involves a detailed chemical analysis, portions of the factory, and so forth, devoted to this. It seems to me entirely too technical for the issues involved in this case.

The Court: I think some of the details could be eliminated.

Mr. Horsky: This will be a general statement, your Honor, not detailed.

By Mr. Horsky:

Q. Will you state in general, without going into details, [fol. 3840] what kind of system you were planning for this plant, Mr. Harrington?

A. Well, we were planning to put in the type of equipment which would give us as near a closed system as we knew how to do at that time, and we felt we might approach that.

Q. What do you mean by a closed system?

A. I mean whereby you put the alloys in an autoclave at the start of the process, and you come out at the other end with tetraethyl lead, and you don't have any openings or breaks in the process at all.

Now that first job that we did and our first effort, we did not succeed in having that complete. We had two or three openings in the system that caused us trouble.

Q. You are referring to the ethyl bromide process?

A. Now I am talking of the ethyl chloride process.

Q. The first ethyl chloride process?

A. Yes.

Q. Was there any controversy with the Standard Oil people about the kind of process that you were to adopt?

A. Yes, we had a great deal of controversy on that. The fact is, I personally, I guess, was very highly criticized by

Standard of New Jersey because of what they called—I think they probably went so far as to say I am pig-headed.

Q. What was their objection?

A. Well, they thought they had designed a process, type of equipment to go along with the manufacture of tetraethyl lead by the ethyl chloride process, and their equipment involved an autoclave that could revolve on trunnions and be removed from one place to another.

We on the other hand didn't like that approach. We elected to set up a system which would have the autoclave in a stationary position, horizontal, internal agitation, and [fol. 3841] which would have the opportunity of not being moved from one place to another but give us a much better approach to a closed system.

Mr. Horsky: I think we have come to a convenient place to stop.

The Court: The Court stands recessed.

(Whereupon a recess was taken until 2:00 o'clock p. m. of the same day, Monday, April 13, 1953.)

RECESS

[fol. 3842] The Court: Proceed, please.

WILLIS F. HARRINGTON, a witness called on behalf of the Defendants, having been previously duly sworn, resumed the stand, was examined and testified further as follows:

Direct Examination (Continued).

By Mr. Horsky:

Q. Mr. Harrington, before luncheon you were telling us of a dispute which you were having with the Standard Oil representatives with respect to the design for the construction of the ethyl chloride plant.

How was that dispute resolved?

A. Well, we were asked to go to Bayway to see what Standard of New Jersey had at Bayway so that that could convince us of the type of equipment that we should put in.

Q. Did you go?

A. We did.

Q. Alone?

A. No. I took four chemists and two engineers with me.

Q. Will you describe what the circumstances were of the trip, and what happened?

A. We went up to Bayway and the Standard of New Jersey people took us through the operation. It was then in operation. They took us through and showed us how the job was done, and all about it.

[fol. 3843] Q. In very simple language, and without any details, what was their process?

A. Their process consisted of an autoclave which was of boiler plate, with conical ends, each end covered with a cover plate over the manhole. It revolved on trunnions, dipped into a bit of water, and also had water on the surface.

The reaction—the sodium lead was put into the autoclave with steel balls. When it was revolved, ethyl chloride was introduced through one of the end manhole plates. The reaction being completed, the manhole plates on both ends were taken off and refitted with other manhole plates with other type of accessory equipment.

The whole thing was picked up by traveling crane, inverted 90 degrees, and taken over to the side of the room, and placed on a rack where it was connected up with a still, connected up with steam, and the steam distillation process took place.

I said connected up to a still. It was connected with a condenser, I mean, and the tetraethyl lead was distilled and condensed in the condenser and recovered.

The autoclave then was picked up again and taken over to another portion of the room where it had the bottom cover plate taken off and the whole residual mass was dropped down onto a grid that was in the floor.

The grid was sufficiently narrow so that the balls wouldn't go through, but the material was a bit gummy and sticky, and so forth, so it wouldn't readily go through the grids, and manpower had to put it in with shovels, rubber gloves and rubber boots, and so forth, to try to put the material through into containers below and recover the balls for subsequent use in another charge.

[fol. 3844] Q. What was your evaluation of this process? Yours, personally?

A. I personally thought it was too dangerous a process for us to use.

Q. What was the opinion of the other people? Did you determine the opinion of the other people that went with you?

A. On the way home I took each one of the six fellows aside individually and asked them their opinion of the process, and I got a perfectly unanimous agreement with my opinion to the effect that the process was too dangerous for us to use, and that we ought to continue and proceed and insist on putting in the type of apparatus which we were considering and thinking about at the time, and which was the one that we were thinking about as being as near as possible to being a closed system.

Q. Did you inform Standard of New Jersey of that decision that you reached?

A. We did, after we got home.

Q. How did you do this, by letter or by telephone call, or what?

A. Oh, I think I telephoned them right away that we just couldn't use that process. You see, we were rather in a position of being urged and rushed at that time, so we couldn't waste the time of sending a lot of letters back and forth. We had to talk things out on the telephone.

Q. Did you thereupon get permission to construct a plant in your design?

A. We got permission from Ethyl Gas for us to go ahead and construct the plant that we were prepared to operate in our own design. They allowed us, permitted us to do as we pleased in the design.

Q. When did you actually start constructing this plant?

A. Well, actually we started driving piles, I think, on the 2nd of September.

[fol. 3845] Q. When was it completed.

A. On the 28th or 29th of December.

Mr. Harris: What year?

By Mr. Horsky:

Q. What year is this, Mr. Harrington?

A. 1924.

Q. I call your attention to Government Trial Exhibit No. 675, Mr. Harrington, to the contract dated October 10,

1924. Was the construction started before the contract was signed?

A. Yes, sir.

Q. And this is the contract, is it not, which provides for du Pont production by the ethyl chloride method?

A. Yes, sir.

Q. During this period, by the way, was the bromide plant also operating?

A. It was still operating.

Q. At capacity?

A. Yes.

Q. This contract, Mr. Harrington, is also signed by Irenee du Pont. I think you said earlier, before luncheon, that you negotiated that, is that correct?

A. That is correct.

Q. Can you explain why this contract was also signed by Irenee, rather than yourself?

A. The same reason applied to this one that I gave you on the other one.

Q. There has been some testimony about the Bayway disaster in this case already, Mr. Harrington. But briefly how much of a contribution did the Bayway plant make to production at this time?

A. Oh, I have forgotten. I would say 40,000, 45,000 pounds of tetraethyl lead.

Q. How long did it operate, do you know?

A. I think it operated five or six weeks.

Q. Then, in a word, what happened?

A. Then they had the big accident, and the Standard of New Jersey closed it down and never re-opened it again.

Q. So that we all understand what we are talking about, [fol. 3846] what was the accident you speak of?

A. Well, the whole crew of employees that were working with the ethyl chloride process manufacture in the Bayway plant became poisoned and a number of them died.

Q. During this period in late 1924 and early 1925, did du Pont continue to produce tetraethyl lead?

A. Yes.

Q. Did it increase its production or decrease its produc- if you recall?

A. No, we increased the production because we were producing all we could in the bromide plant at that time, and then about in the first week of January, 1925, we put the ethyl chloride plant in operation.

Q. Was the bromide plant continuing to operate at that time?

A. Yes, the bromide plant was still operating.

Q. Did there come a time when the publicity from the accident at Bayway caused a slow-down in production?

A. Yes, immediately after the first of the year, we were advised to withhold and slow up on our deliveries of tetraethyl lead to Ethyl, because sales had been so affected by this Bayway disaster that they did not know what to do with the tetraethyl lead if we sent it to them.

Q. Let me come to the matter of the hazard of this. Did du Pont Company have fatalities in connection with its production?

A. It what?

Q. Did the du Pont Company have fatalities from its working force in producing tetraethyl lead?

A. Yes, unfortunately it did.

Q. Were the accidents at du Pont at that time similar to the accidents that they had at Bayway?

A. Well, I would say that they were not similar in the sense they did not occur in a mass reaction at one time, but it occurred one at a time over a period of about a [fol. 3847] year and a half, something of that order.

Do you want me to give you the details of those accidents which resulted in deaths?

Q. No, I do not need the details of the individual accidents, but generally, what did du Pont do to try to prevent it?

A. What we did, every time we had a mishap, whether it resulted in death, or whether it resulted in only lead poisoning, we attempted to modify the apparatus there by changing the apparatus or improving the apparatus in a certain way to try to get rid of the danger.

The fact is in the early part of 1925, after we got the chloride plant in operation, we had to shut the whole thing down for quite a long time for the purpose of trying to correct an error that we had discovered.

Q. Did there come a time when you were told by Ethyl to cease production?

A. Yes, in the early part of May, 1925, we were ordered to shut everything down.

Q. By that time, did you believe that you had about solved the problem how to make tetraethyl lead, or how to manufacture it safely?

A. Well, I thought I had arrived at that conclusion at that particular time, otherwise I could not have done some of the things that I did later. We visualized at that particular time that we were going to make a completely closed system out of the tetraethyl process or the ethyl chloride process from the start, from the time the alloy went in until the time the tetraethyl lead came out.

Q. Let me ask you, Mr. Harrington, was the ethyl chloride process essentially safer, or essentially more dangerous a process than the bromide process?

[foll. 3848] A. It was essentially far more dangerous a process than the bromide, because the bromide worked at atmospheric pressures, and the chloride process had to work at somewhere in the neighborhood of 125 pounds pressure.

Q. Inside the autoclave?

A. Inside the autoclave.

Q. Now, Mr. Harrington, the record shows that early in December, the Surgeon General of the United States had written, presumably to General Motors, and perhaps to du Pont, expressing his interest in the matter of the sale and manufacture of tetraethyl lead.

In or about December, did you have any contact with the Surgeon General?

A. Yes, Frank Howard and I went to see him personally.

Q. Where was that?

A. In Washington.

Q. Can you recall his name?

A. Doctor Cumming.

Q. What was the nature of your conversation with him?

A. Well, we thought that the ethyl lead situation had gotten into a very much confused situation, and it was our desire that we would like to have the Surgeon General accede to the public demand of a hearing and investigation and so forth for the purpose of definitely developing the facts that were involved in the manufacture and distribution and sale of tetraethyl lead.

We primarily went to see the Surgeon General to encourage him to try to call that particular investigation, or call a meeting for an investigation. We also wished to ask him if he would not, at that particular time, delay his call for a hearing until such time as the work that was going on at Columbia University, also at the Bureau of Mines, could be reported out as to their findings, so that the in- [fol. 3849] formation that was available at the time of the hearing would be just as complete as possible.

Q. Did he agree to do that?

A. He did, yes.

Q. Then there came a time, as the record indicates, in May of 1925, when there was a hearing. Do you recall that?

A. Yes.

Q. You attended that, did you?

A. I did.

Mr. Horsky: I would like to refer your Honor to General Motors Exhibit No. 261, which is an excerpt from the proceedings of the conference to determine whether or not there is a public health question in the manufacture, distribution or use of tetraethyl lead gasoline.

The bulletin is dated August, 1925, and it refers to the meeting that took place as indicated on page 7, on May 20th, 1925.

By Mr. Horsky:

Q. Did anybody else from du Pont Company go down with you, Mr. Harrington?

A. What was that question?

Q. Did anybody else from the du Pont Company attend this meeting in May of 1925?

A. Yes, I think Mr. Irenee du Pont attended the meeting.

Q. Was there anyone there from General Motors?

A. Yes, I think that General Motors was represented by Kettering there, and I think Midgley was there, and I think Doctor Kehoe was there.

Q. And Mr. Howard was there from Ethyl?

A. Yes, Mr. Howard from New Jersey was there.

Mr. Horsky: I would like to read from page 8 of this, your Honor, beginning about the third full paragraph. [fol. 3850] Those are remarks by the Chairman, Surgeon General, H. S. Cumming. He says—

The Witness: What page is that?

Mr. Horsky: Page 8, at the bottom of the page.

> "The Public Health Service, particularly through its division which has to do with the study of problems relating to industrial medicine, has long been interested in lead poisoning in the industries and has made some investigations along this line. We were therefore interested two years ago when we learned that one of the large corporations in this country in its endeavor to increase the efficiency of fuel used in internal combustion engines was experimenting with certain lead compounds to be used in commercial gasoline.
>
> "A little later on the question of an investigation as to the effect of these compounds came up, and after a conference with representatives of the Bureau of Mines it was determined, in view of the fact that the Public Health Service had no funds available for the purpose, that the investigation should be made by the Bureau of Mines.
>
> "Early in the winter I received letters from several gentlemen who had been interested in the matter, inviting attention to the potential dangers in the general use of tetraethyl lead and suggesting that a conference be called to consider the matter. After correspondence with everyone engaged in such investigations, so far as we could ascertain, it was determined that a conference at that time would be some- [fol. 3851] what premature in view of the fact that none of the investigations had been completed.
>
> "Upon completion of the preliminary report of the Bureau of Mines, and after a conference with Doctor Sayers and the staff of the Hygienic Laboratory, I decided that it would be advisable to hold a conference as soon as practicable, and found that the report of the medical committee working at Columbia University, together with other reports would be available about the middle of May. I therefore took the liberty of requesting you to be present at this time.

> "It seems unnecessary to inform you that this is in no sense a legal hearing; in fact, there are no Federal laws which authorize the Public Health Service to take jurisdiction regarding the interstate shipment of substances such as tetraethyl lead, even should it be determined that they are injurious to public health. On the other hand, it is the duty of the Public Health Service to investigate such questions and to inform the public as to the result of its investigations, restrictive measures being part of the police power of the several States and municipalities."

Q. Now, Mr. Harrington, did you make a statement on the manufacturing problems at that conference?

A. Yes, I did.

Q. I refer you to page 16, and I should like to read what Mr. Harrington said. It is quite brief, your Honor, and I think it is pertinent.

Statement by Mr. Harrington, representing the E. I. du Pont de Nemours & Company.

> [fol. 3852] "Mr. Chairman, ladies and gentlemen, I understand that what you want first is the question of information as to whether in our opinion tetraethyl lead can be manufactured safely.
>
> "The Chairman: We would like to have that.
>
> "Mr. Harrington: I imagine this is the most important factor of discussion, and it is the manufacturing factor which I am prepared to discuss right now. The tetraethyl lead desired by the Ethyl Gasoline Corporation has been manufactured by the du Pont Company. We were called upon to manufacture, and we proceeded with the effort to determine a method of manufacture because at the time that this work was started no method of manufacture was well-known; the product was almost a laboratory curiosity. The research work had to be conducted in the laboratory and carried into the semi-works for further experience, and finally manufacture was started in the newly constructed plant. I am prepared to say now, after the experience that we have had in the last two years in the manufacture of tetraethyl lead by the ethyl chloride and the ethyl bromide processes, that tetraethyl

lead can be safely and properly manufactured. I believe that I can also give sufficient evidence to prove the correctness of such an assertion. We started out originally to manufacture tetraethyl lead by the ethyl-bromide process. We got into trouble. We did not have a background necessary to prevent some of the difficulties which are always incumbent upon manufacturing operations when going from the laboratory [fol. 3853] scale into plant scale of manufacture. We had fatalities. The last we had in the manufacture of tetraethyl lead by the ethyl-bromide process was in July, 1924.

"Up to that time we had manufactured approximately 400,000 pounds of tetraethyl lead. Since that time in the plant we have manufactured something like one and three quarters million pounds of tetraethyl lead without any serious mishaps. The fact is that in this plant we have not even had any man very seriously sick, and yet we have had, as is always to be expected, certain mechanical mishaps, so-called messes, which are the result of mechanical failures and which have had to be housecleaned. About a year ago it was realized that bromine had to be used with tetraethyl lead in making ethyl gas. There was not a sufficient supply of bromine in sight at that time to treat the ethyl gas. At about this time a process for the manufacture of tetraethyl lead via the ethyl chloride route was developed. This process seemed to be simpler than the ethyl-bromide process and attended with no more hazards of manufacture. Here again a long laboratory experimentation was carried out followed by long experimentation in the semiworks. A plant was then designed and constructed according to the most modern ideas as to industrial safety and ventilation. No expense was spared to insure safety of operations. However, we did err in our calculations in the design of this plant, with the result that difficulties were encountered when the plant was started and fatalities occurred. The plant was closed down, the difficulties in [fol. 3854] ventilation and operation was corrected and manufacture was resumed on March 25 of this year. Until the closing down on the first part of this month, when at the request of the Ethyl Gasoline Corporation the manufacture was discontinued, we have manufactured successfully some 50,000 pounds. No men at all in this plant, since we rectified errors and resumed operation in March, have shown any physiological symptoms of poison, so that I can say, and I thing I can say with correctness and conviction, that tetraethyl lead can be safely manufactured. I say that for the du Pont Company, and I think that the du Pont Company has a right to a conviction as to what can be done in the way of manufacture of dangerous chemicals. That has been the experience of the du Pont Company almost through its whole period of existence—first, the manufacture of black powder, then the manufacture of dynamite, smokeless powders, detonators—all these products have been manufactured successfully. If there is any question of doubt I refer to the statistics. More recently we have manufactured organic chemicals also of a dangerous nature. Truly we have had a background in the manufacture of various chemicals which has been of inestimable assistance in assuring safe performance. We have, moreover, manufactured successfully such products as aniline, nitrobenzol, dinitrobenzol, nitro-chlorbenzol, etc.

"One seldom nowadays hears of an aniline poisoning case coming from a plant where aniline is manufactured. Nitrobenzol falls in the same class as a poisonous article. Dinitrobenzol is even worse, and nitro-chlorbenzols, in my opinion, are still worse. We are successful manufacturers of every one of these [fol. 3855] products. We have no doubt at all from a manufacturing point of view that tetraethyl lead in proper hands, in the proper plant design, and under a proper discipline can be manufactured successfully."

By Mr. Horsky:

Q. Mr. Harrington, did anyone else speak on the question of manufacture?

A. What is that?

Q. Did anyone else speak on the question of manufacture?

A. No.

Q. Did you get any questions addressed to you at the conclusion of your remarks?

A. No, there was a great silence.

Q. Referring to this report again, Mr. Harrington, there is an indication—no, I should refer you to General Motors Exhibit No. 262, which is a subsequent bulletin of the United States Public Health Service which indicates at page 4 that a resolution was passed at the conclusion of the first meeting in May of 1925, without reading it, and at the top of page 4, that a medical committee should be appointed to investigate, and you will notice on page 4 the names of the seven doctors who were members of the committee.

Was that a distinguished group of doctors, in your judgment?

A. I think that was one of the most distinguished groups of doctors that you could possibly pick out in the United States at that time.

Q. Did these doctors visit Deepwater?

A. Yes.

Q. Did you meet them at the time?

A. Yes.

Q. Will you describe the circumstances of their visit?

A. Well, they came to Wilmington to investigate the manufacturing process and the manufacturing problems [fol. 3856] with respect to tetraethyl lead.

Q. Could I ask you to indicate this before we go further, the date?

A. I think it was in July, 1925.

Q. Very well.

A. I explained the whole situation to them, and the whole process to them, and our ideas and all of that kind of stuff in Wilmington, and then I took them over to the dye works and took them through the plant, and showed them the changes that we proposed to make, and the changes—and the conditions under which the processes would operate after the changes were made.

They seemed to be quite agreeable with our suggestions as to the changes and improvements and so forth.

They made some additional suggestions and improvements which we thought were good, and also incorporated into our subsequent changes in the plant.

Our idea at that time, which we tried to demonstrate and explain to them, was that we started out with the idea of perfecting a closed system. We failed to do the job with respect to a fully closed system at the start, but we had at that time developed the ideas as to how we were going to have a completely closed system, and we showed that particular type of approach to them, and they seemed to be entirely satisfied with that as a means of manufacturing tetraethyl lead.

Q. You say at the conclusion of their visit their attitude seemed to be favorable towards your proposals?

A. It seemed to be, yes.

Mr. Horsky: I would like to refer, your Honor, to General Motors Exhibit No. 92, which is an excerpt from the minutes of the meeting of the Executive Committee of [fol. 3857] General Motors in October, 1925, in which it is reported, the president reported that:

> "Progress is being made by the U. S. Surgeon General's Committee appointed to investigate the question of injurious effects of ethylized gasoline. This Committee has visited the du Pont Company's plant at Deepwater, New Jersey, and apparently was very favorably impressed by the precautions taken in the manufacture of this compound and so far as we know the Committee has seen nothing which would justify its taking the position that the sale of tetraethyl lead involves a hazard any greater than many other manufacturing operations. The President said that he feels quite confident that the Committee's report will not be unfavorable to our continuing production of this compound."

By Mr. Horsky:

Q. Did there come a time when the medical committee reported?

A. Yes, they reported to the Surgeon General in a meeting which, as I recall, was held in January, 1926.

Q. Did they report favorably on manufacture, on the continuation of manufacture?

A. They reported favorably on the ability—or they reported favorably on the propriety of marketing and selling tetraethyl lead which included the manufacture of tetraethyl lead, though they made very little remarks in their report on the question of manufacture, except to provide a suggestion as to precautions to be taken medically.

Q. Let me refer you, Mr. Harrington, to General Motors [fol. 3858] Exhibit No. 262. Is that the volume you have in your hand?

A. 262.

Q. Yes.

A. Yes.

Q. Will you turn to page 20 of that bulletin?

A. Page 20, I have it.

Q. This is entitled "Proposed Regulations for the Manufacture of Tetraethyl Lead and the Blending of the Latter to Make Ethyl Fluid."

Mr. Harrington, do those regulations tell you how to make tetraethyl lead safely?

A. No, they told you the medical precautions to take in connection with the manufacture, but they didn't tell you how to make it.

Q. Did they tell you anything about the process of manufacturing tetraethyl lead?

A. As I have read it, in the past, they don't tell you anything whatever about the manufacturing process.

Q. Did du Pont abide by these regulations?

A. How?

Q. Did du Pont abide by these regulations?

A. We tried to adhere to them very strictly.

Q. Now, what happened with respect to the resumption and sale of tetraethyl lead following this report? Was this report the signal for the resumption of manufacture and sale?

A. Well, that relieved any restrictions with respect to the manufacture and marketing and sale of tetraethyl lead, but Ethyl Gas had to decide whether it was going to resume the marketing or whether it wasn't.

Ethyl Gas had voted, back in May of 1925, that it would discontinue its whole process of manufacture and sale.

Q. Did it make a decision? Did it then make a decision as to whether it would proceed?

A. Yes, after a considerable amount of discussive effort between Mr. Teagle and Mr. Sloan they decided that they [fol. 3859] would proceed with the sale of tetraethyl lead and that meant they would proceed with the manufacture of tetraethyl lead.

Q. Were you present at those discussions between Mr. Teagle and Mr. Sloan?

A. I was.

Q. Where did they occur?

A. They occurred in a hotel in Washington on the night of the day that the Surgeon General's report came down saying that there should be no prohibition on the sale, or the marketing, of tetraethyl lead.

Q. Can you recall some of the circumstances of some of the discussion that evening?

A. Do I recall what?

Q. Any of the details of the discussion that went on that evening?

A. Well, all I know is that after the Surgeon General's report was propounded, that afternoon the representatives of Ethyl Gas telephoned to Mr. Sloan and to Mr. Teagle and got them to come to Washington so that that evening the whole subject was discussed over a long period of time, really up to the middle of the night, before they arrived at a conclusion that they would go ahead and take up the sale again.

Q. Did they at that time give du Pont instructions to get ready to resume manufacture?

A. Well, they did within a few days after that, yes.

Q. What did you have to do to get ready to resume?

A. Well, we had to do quite a lot of things to the plant in order to bring it to this so-called closed system that I had been talking about which meant some very extensive mechanical changes and which taxed the ability of the designing engineers extensively, but nevertheless they succeeded in doing the job.

Q. Did you have to get permission from New Jersey, the State authorities in New Jersey?

A. Yes, we had to get permission from the State of [fol. 3860] New Jersey manufacturing authorities. After we had modified the ventilating system to a very considerable extent and done all of the rest of these jobs we got the State of New Jersey to send their personnel down to investigate the job.

They did come down and investigate the job and gave the approval for the resumption of manufacture.

Q. Did these regulations which we looked at a moment ago from the Surgeon General's committee come out at the same time in January as the report?

A. Well, it took quite some time to get most of those regulations formulated. I would think that it was—before all of them were out, so far as the marketing condition was concerned, it was several months later.

Q. What I am getting at is did you have to wait to resume manufacture until the regulations of the Surgeon General came out?

A. We didn't have to wait on account of the regulations. We had to wait until we got the plant in shape to go ahead which meant we didn't resume manufacture until early in June.

Q. Did you then in June resume manufacture by the chloride process, is that it?

A. That's right, but not by the bromide process.

Q. There are in evidence, Mr. Harrington, in Government's Trial Exhibit No. 706, three contracts between du Pont and Ethyl Gasoline, all dated March 31, 1926.

The first one in order in that exhibit is a blending contract; the second is a manufacturing contract; and the third one is a contract by which du Pont agrees to devote exclusively to Ethyl for a period of years its facilities for manufacture at Deepwater.

[fol. 3861] Who negotiated these contracts?

A. I did.

Q. Let's take these up in this manner. Let's take up the exclusive rights contract first, the one that begins at page 12 of that exhibit you have in your hand, and goes over to page 14.

Mr. Harsha: Which number is that?

Mr. Horsky: They are all Exhibit No. 706. There are three contracts in the same exhibit. This is page 12.

By Mr. Horsky:

Q. In general, what did this contract deal with, and what did it dispose of?

A. Well, when the tetraethyl lead activities were discontinued back in May, 1925, under the terms of the contract du Pont was permitted to be reimbursed for its expenditures in putting up the ethyl chloride plant, and so forth.

There was a big argument as to what the settlement should be. Our Treasurer's Department, in connection with the terms of the contract, sent a bill to Ethyl Gas. Ethyl Gas highly objected to some of the bills, and a great many of them were settled, but the question of the ownership of the plant on our property at Deepwater, that really never was settled until after this resumption of manufacture—I mean after the new contracts were made which were in March of 1926.

The point was that Ethyl took the position that they ought to own the plant if they paid for it. We were willing to give them the salvage value of the plant if they wanted it, and all that kind of stuff, but we could not have them own the plant in the middle of our activities over there which might seriously interfere with our activities. The [fol. 3862] plant was no good for anything except the manufacture of tetraethyl lead.

Now when manufacture was resumed, all this difficulty and argument washed out, and everything came around to the point where I was able to make a deal with Mr. Webb as to putting the plant back into operation, and so forth, and all of our differences and so forth were settled.

Q. Where was the ethyl chloride plant built?

A. This chloride plant was built on the dye works property about the middle of the plant on the Delaware River side of the plant.

Q. Is that where the bromide plant had been or adjacent to it?

A. That had been a bit north of that, but not too far away.

Q. Is that where du Pont still manufactures tetraethyl lead, at that same location?

A. Yes.

Mr. Horsky: I would like to offer du Pont Exhibit No. 116.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 116.)

By Mr. Horsky:

Q. I call your attention to a paragraph in that, at the bottom of page 7, Mr. Harrington, beginning at the last three lines: This is Mr. Webb, writing to Mr. Sloan and Teagle, to bring them up to date on negotiations for adjustment of the lead contract, and is dated August 6, 1925:

> "Inasmuch as Mr. du Pont was adamant in his position about salvage or conversion value of the plant, and stated that his position on the subject would re- [fol. 3863] main unchanged no matter how long I urged our contention, and realizing that there was no hope of he and I reaching an agreement, I told him that we might be stirring up trouble over a matter which may be of no particular importance after the decision of the Surgeon General; for if the decision is favorable and we make another contract with them this salvage problem will have answered itself, and therefore, suggested that it be left to await the decision of the Surgeon General's Committee; and that meanwhile we will not make any further payment; that if subsequent to the Committee's report we should decide not to make another lead contract we then attempt to agree upon the balance due from the standpoint of our having or not having any interest in the plant, with the understanding that we agree now upon the Power, Riverside Club and Research items. However, I told them I personally felt that our Board would be willing to let the entire subject go over until after the Committee's report.
>
> "This suggestion was not acceptable to Mr. du Pont, who stated that there was no reason why the whole matter could not be disposed of at this time."

I would like to ask you, Mr. Harrington, if Mr. Webb's solution was the one that was finally adopted?

A. Yes. It wasn't settled. It remained until after the making of this contract in March, 1926.

Q. Which was after the Surgeon General had reported?

A. Which was after the Surgeon General's report.

Q. Now let's turn to the second contract, which is in [fol. 3864] this Government's Exhibit No. 706, Mr. Harrington, the one which begins at page 6. This is also dated the 31st of March, 1926, and provides for the production of tetraethyl lead by the chlorine method with the price of $1.00 a pound.

I notice that this contract contains no provision which grants back to Ethyl any patents or improvement processes that you might develop, which had been in the 1924 and 1922 contracts.

Can you explain why that was omitted in this contract?

A. Well, I would say probably the chief reason that it was omitted was because we had recognized the fact that it didn't give us any incentive towards research and development of the programs, processes, and so forth, so that when this contract was written and the thing was resumed, that question of patents was left out.

Q. Why did it not give you any incentive? Can you explain a little bit why it didn't give you any incentive?

A. Well, if we spent money on work on the manufacture of processes and the ideas, and developed ideas, and so forth, they all had to be granted to Ethyl Gas, and the tendency was for us not to spend money on that type of work where we should have been spending money on it.

Q. Do you recall whether there was any particular argument or controversy about the omission of this clause in the 1926 contract?

A. I can't remember we had any discussion or any argument on it at all.

Q. Would you turn, Mr. Harrington, to page 9 of that exhibit, and refer to paragraph VII, at the bottom of page 9. That paragraph reads:

> "In view of the obligation of the Buyer to be responsible for the liquidation of stocks of, and com- [fol. 3865] mitments for, raw materials purchased for use in fulfilling this contract (as set forth in paragraph V) it is provided—because of the peculiar circumstances connected with Ethyl Chloride—that the Buyer——"

The buyer was Ethyl, was it not?

A. Yes.

Q (Reading):

> "—that the Buyer shall have the right to disapprove any contract to be made by the Seller covering

> Ethyl Chloride, but on the understanding that if the Buyer shall fail to approve any such contract, and shall fail to provide Ethyl Chloride from some other source on terms equally satisfactory to the Seller as to quality, price and deliveries, then the Seller shall have the option to terminate this agreement with obligation on the Buyer to make reimbursement as in said paragraph V provided."

At whose request was that paragraph inserted, Mr. Harrington, if you recall?

A. As I recall, Mr. Webb's.

Q. Do you remember what the circumstances were which led to the inclusion of that paragraph?

A. Well, as I recollect, I think Mr. Webb had been in discussion with Dow about that time.

Q. With whom?

A. With Dow Chemical Company, about some other things, and he sort of had an idea that he ought to have the right to supply the material if he wanted to, and we said, "O. K."

Mr. Horsky: In that connection, I would like to offer, your Honor, du Pont Exhibit No. 117, which is a letter to Mr. Harrington from Mr. Mittnacht, dated March 30, 1926, [fol. 3866] which is the day before this contract we have just been referring to was signed.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 117.)

Mr. Horsky: It reads as follows:

> "Confirming this morning's telephone conversation Mr. Webb wired from Saginaw that he has closed a contract with the Dow Chemical Company for our requirements of Ethyl Chloride. He suggests that a clause be included in the lead contract which we are negotiating with you to the effect that before you make any other commitments for Ethyl Chloride, you first undertake to inform us the price of such expected commitment and all Ethyl Chloride purchased shall be at the price so advised, unless we elect to supply it on better terms, in which case the du Pont Company agrees

to purchase it from us or our nominee. As I see it, he is probably pretty well agreed with Dow on price and he doesn't want you to have the right to make further commitments with anyone else until we have had a chance to meet the price of bids from other parties. We hope you are agreeable to such a clause."

By Mr. Horsky:

Q. Does that refresh your recollection that that was the circumstance?

A. I think that was the circumstance.

Q. Now, this contract, Mr. Harrington, this production contract which we are examining, runs, as I remember, for two years. Was it followed by subsequent production contracts?

A. It was followed by many other contracts.

[fol. 3867] Q. How many of them did you personally negotiate?

A. I was the negotiator until the time I left the Dyestuffs Department and became a member of the Executive Committee, which was in July, 1929. After that Mr. Robinson, my successor, was the negotiator.

Q. Do you recall generally whether these contracts were at the same price or whether the price changed as you went along?

A. I think almost every contract succeeding the previous one was at a lower price.

Mr. Horsky: Your Honor, I think the contracts are all in evidence with one exception, and I should like to offer du Pont Exhibit No. 118, which is a letter contract dated September 29, 1933, signed by Mr. Robinson, and addressed to the Ethyl Gasoline Corporation, which is the only one omitted of which we are aware.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 118.)

Mr. Horsky: That would mean that these production contracts in order are Government's Trial Exhibit No. 706, which is the one we have been discussing, Government's Exhibit No. 745, 747, 752, 753, 754, du Pont Exhibit No. 118, Government's Exhibit No. 757, 758, and 759.

I should also like to offer, your Honor, in this connection, du Pont Exhibit No. 119, which is a table of the average prices and the sales volume of tetraethyl lead for the years from 1926 through 1937.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 119.)

[fol. 3868] By Mr. Horsky:

Q. Mr. Harrington, perhaps you will help me correct what I think is a misprint on this exhibit. This should say, should it not, in millions or in thousands of pounds?

A. What is your question?

Q. Should the first column, which is the number of pounds sold, be in terms of thousands of pounds rather than simply 657 pounds, for instance?

A. It should be in terms of 657 thousand, and the rest of the figures should be in terms of millions.

Q. Yes.

Mr. Horsky: This shows, your Honor, that beginning in 1926, the average price paid by Ethyl for lead was $1.433, and by 1937 the average price paid had gone down to .264 cents.

It also shows in comparing the years 1930, 1931 and 1932 that the price was decreasing, notwithstanding the fact that the volume was also decreasing.

Q. What was the cause of that, Mr. Harrington?

A. What was the cause of the reduction in price?

Q. Why should the price go down and the volume also go down?

A. Well, we had demonstrated that we could get far more out of our equipment than it was originally designed for. We had been able to reduce our cost, not only from the point of view of increased volume, but from the point of view of increased manufacturing quantity per unit of tetraethyl lead manufacture, and therefore we felt entitled to give tetraethyl—to give Ethyl Gas the benefit of a part of the savings.

[fol. 3869] Q. With whom did you negotiate? Who was the negotiator for Ethyl Gas while you were negotiating?

A. Mr. Webb.

Q. Was he an easy man to negotiate with?

Mr. Harsha: I object to that, your Honor.

The Court: Sustained.

By Mr. Horsky:

Q. Was Mr. Webb a good negotiator in your opinion?
A. How is that?

Mr. Harsha: I object.
The Court: Sustained.

By Mr. Horsky:

Q. Did you regard the Ethyl Gas negotiations as easy negotiations?

Mr. Harsha: I object. The results will show.
The Court: Sustained.

By Mr. Horsky:

Q. What formula did you use for determining the price at which you would sell lead to Ethyl while you were negotiating, Mr. Harrington, if any?
A. Well, while I was there, I simply negotiated with Mr. Webb at an arm-length basis, and I tried to get what I considered a reasonable return for us.

Mr. Harsha: That, I move to strike. He was asked if there was a formula.
Mr. Horsky: I said, "if any."
Mr. Harsha: It is a self-serving statement to modify the negotiation.
[fol. 3870] The Court: Overruled.

By Mr. Horsky:

Q. What was Mr. Webb seeking to do?
A. What was what?
Q. What was Mr. Webb seeking in his negotiating with you to do?

Mr. Harsha: I object, your Honor. How could he state what was in somebody else's mind?
The Court: Sustained.

By Mr. Horsky:

Q. Were there occasions, Mr. Harrington, when du Pont decreased the price at which it sold tetraethyl lead to the Ethyl Gasoline Corporation while a contract was in effect?

A. There were many cases.

Mr. Horsky: I would like to offer, your Honor, Defendant du Pont Exhibits 120; I would like to offer three of them, du Pont's 120, 121 and 123, I think it is,—no, du Pont's 123, 124 and 125.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 123, 124 and 125.)

Mr. Horsky: The first one is a letter from Mr. Robinson to Mr. Mittnacht, dated June 14, 1934, Mr. Mittnacht being addressed as secretary and treasurer of the Ethyl Gasoline Corporation. It states:

> "Following our conversation in Wilmington last week, we have studied the basis of our agreement under which we agreed to make a price reduction to [fol. 3871] you on Tetraethyl Lead if it should prove that you would buy at the rate of 42,000,000 pounds per annum after the "E" Plant was completed and put into operation. This proviso was covered by our letter to you of September 29, 1933.
>
> "We are agreeable to interpreting this proviso so as to make the price of 34 cents a pound, referred to in said proviso, effective from and after June 1, 1934 and until December 31, 1934, even though we may not operate the additional unit for the manufacture of tetraethyl lead, which is now being completed; provided that between June 1, 1934, and December 31, 1934, you shall purchase tetraethyl lead from us at not less than the rate of 42,000,000 pounds per annum.
>
> "Adjustment to said price of 34 cents per pound in such event shall be made in the form of a rebate of one cent per pound to be credited on the December bill if, as of the end of the year 1934, the above conditions have been fulfilled.
>
> "If this is satisfactory will you please sign and return the attached copy of this letter."

And the exhibit indicates it is signed and accepted by Ethyl Gasoline Corporation by Mr. Mittnacht.

Du Pont Exhibit No. 124 is another letter from E. G. Robinson to Mr. Mittnacht, secretary and treasurer of the

Ethyl Gasoline Corporation, dated November 2, 1934, and it states:

> "I am enclosing herewith our regular monthly invoice covering sales to you of tetraethyl lead, dyes, service, etc., for the month of October.
> [fol. 3872] "You will note that on this invoice tetraethyl lead has been billed at 32 cents instead of 34 cents, which is the price that has been in effect. We have made this reduction in accordance with our desire to make our prices of lead to you commensurate with costs of manufacture. As a result of the progress which we have made in the manufacturing operation and the quantities which you have taken, it seems to us after consideration of our figures that this reduction is justified and accordingly we have the pleasure of making it effective as of the first of October.
>
> "It is our expectation that we will bill you on the same basis for the months of November and December as well."

The third exhibit, which is du Pont No. 125, is a memorandum, or excerpt from the minutes of a meeting of the Executive Committee of du Pont, November 6, 1935, a year later, and it states:

> "Modification of Tetraethyl Lead Contract:
>
> "The following resolution was offered and after discussion was unanimously adopted:
>
> "Resolved, that the informal action heretofore taken by this Committee in authorizing the Organic Chemicals Department to modify the existing contract with Ethyl Gasoline Corporation by reducing the price of Tetraethyl Lead to 28 cents a pound, effective as of October 1, 1935, be and it is hereby approved, ratified and confirmed."

[fol. 3873] It is indicated, your Honor, in Government Trial Exhibit No. 757 that the price prior to the reduction was 32 cents. The reduction therefore, was a reduction of four cents a pound.

By Mr. Horsky:

Q. Was that a practice, Mr. Harrington, which was unique with respect to Ethyl? Was this a common practice in du Pont?

A. I think you would say it was a common practice.

Q. It happened with other customers?

A. It happened at other times on other products, and under other circumstances.

Q. Let me turn to the third of the contracts which is in this Government's Trial Exhibit No. 706, which is the blending contract. First, in a word, what is blending?

A. Blending is that process by which tetraethyl lead is mixed with halowax oil and coloring matter and ethylene dibromide and so forth. So it is a product which is finally used by the oil companies to put into their gasoline which is to be marketed.

Q. This contract, I believe, is the first contract under which du Pont did blend for Ethyl. Can you explain why du Pont undertook that at this time?

A. At the Surgeon General's January meeting, it was recommended that the blending be done adjacent to the point of manufacture. This, in effect, you see, would cut out two exposures, two breaks in the continuous system, therefore to make the thing as continuous as possible, they suggested that the thing be carried up clear through blending rather than have the tetraethyl lead be shipped to [fol. 3874] somebody else to be blended.

Q. Was Ethyl agreeable to that procedure?

A. Yes.

Q. Let me call your attention to the first page of Government's Trial Exhibit No. 706, the second whereas clause:

> "WHEREAS, the Seller is willing to undertake the carrying out of this operation, being particularly fitted to do it in view of the fact that the Surgeon General's recommendation is that this operation, known as blending, be conducted at a point adjacent to the point of manufacture of Tetraethyl Lead."

Is that what you are referring to?

A. Yes.

Q. Did you continue to blend for Ethyl Gasoline Corporation up through 1937?

A. Yes.

Q. Do you recall whether the prices remained the same as they are in this contract?

A. No, after the amortization of the cost of the first plant—after it was amortized, then the price was reduced, and generally speaking, after we amortized a plant, and the amortization was completed, we tried to put the plant in operation on as near a cost basis as we could.

Q. Do you recall, Mr. Harrington, whether in this case likewise there were occasions when during the time of a contract du Pont would reduce the price?

A. Yes.

Mr. Horsky: I should like to offer, your Honor, in that connection two documents, General Motors Exhibit 277 and du Pont Exhibit No. 126, which is an exchange of correspondence between Mr. Cesare Protto, assistant general manager of the Organic Chemicals Department, and Mr. Webb, president of the Ethyl Gasoline Corporation.

[fol. 3875] (Said documents so offered and received in evidence were marked General Motors Exhibit No. 277 and du Pont Exhibit No. 126.)

Mr. Horsky: The first letter, dated July 2nd, 1936 states:

> "We are now charging you 19c a 100 pounds, with an additional drumming charge of 50c a drum, for blending tetraethyl lead for your account under our agreement of May 29, 1930 and the supplement thereto of December 22, 1933.
>
> "We are happy to say that we find, on the basis of present operations in the blending plant and the handling of more than six million pounds of fluid per month, that we are able to operate more economically and, therefore, believe that we are justified in making a reduction in this charge from 19c as above mentioned to 11c a 100 pounds for bulk material, the drum charge of 50c bein unchanged. All other conditions of our agreement will, of course, remain in effect.
>
> "As pointed out above, the new rate is based on present operating conditions and costs and will continue only so long as there is no change making a higher charge necessary.
>
> "If this is satisfactory to you, we will make the new rate of 11c effective beginning with our bill for July 1936. Probably this letter will be sufficient for your

records without rewriting the present agreement, but if you have any other thought, we shall be glad to draw a new agreement incorporating the change in rate."

[fol. 3876] Du Pont Exhibit No. 126 is the reply from Mr. Webb stating:

"We very much appreciate the contents of your letter of the 2nd instant regarding the reduction of the blending charge from 19c a hundred pounds to 11c, for bulk material, the drum charge of 50c being unchanged."

By Mr. Horsky:

Q. Now, Mr. Harrington, are you familiar with the events leading up to the change in the relationship between du Pont and Ethyl Corporation which occurred on January 1, 1938?

A. Yes, I am somewhat familiar with it though I was partially involved with some of the negotiations.

Q. Do you recall when the negotiations began which finally resulted in the agreement of January 1, 1938, the manufacturing service agreement?

A. I think they began as early as 1935.

Q. As you recall it, what was the occasion which started these negotiations? What brought them about?

A. Well, Ethyl Gas got a bit concerned about the fact that their time was running out on their patents and they became conscious of the fact that they had one source of supply for manufacture only, and they felt that they should get themselves in position to have an ability to manufacture tetraethyl lead themselves, before the patents ran out.

Q. And Mr. Webb presented this point of view to du Pont?

A. Yes.

Q. And you say that began about 1935?

A. I think so.

Q. I would like to call your attention, Mr. Harrington, to [fol. 3877] Government's Trial Exhibit No. 785 which is an agreement or memorandum of an agreement between Ethyl Gas and du Pont, dated July 31, 1936, under which, as I read it, du Pont agreed to build some plants at Baton Rouge.

Do you remember the circumstances under which this agreement was arrived at?

A. Generally, yes.

Q. What were they, sir?

A. Well, this was the starting point for them to get themselves into position to ultimately be a manufacturer under their own right, and they asked us to build tetraethyl lead plants for them at Baton Rouge, which we proceeded to do.

Q. Was this agreement part of the general pattern of negotiations which led up to the January 1, 1938 agreement, ultimately?

A. Well, this is part of the process leading up to it, yes.

Q. This agreement provides, reading at the bottom of page 1, paragraph No. 3——

A. Page what?

Q. Page 1, at the bottom, paragraph 3:

> "Du Pont shall build on the above site—"

which is described in the previous paragraphs as being in Baton Rouge——

> "—one tetraethyl lead plant of the same size and capacity as its existing lead units, together with a blending plant of such size as is fixed by agreement between du Pont and Ethyl, du Pont to assume full responsibility and authority for design and construction of said lead and blending plants, and to have the right to take a sublease from Ethyl, if in its opinion, such a sub-lease is necessary to safeguard its position and responsibility under these conditions."

[fol. 3878] Paragraph 4 goes on to say:

> "Before the completion of the plant constructed as above, the parties shall endeavor to reach an agreement covering a permanent basis for the ownership and operation of all lead plants, or shall arrive at an agreement covering the permanent relationship between them as regards the operation of the plant in question and extensions thereof.
>
> "In the event of failure to reach any agreement as contemplated in (4) above, then Ethyl shall take over

the plant on January 1, 1938 provided for in this agreement at the cost thereof to du Pont, including interest on the capital invested in the construction and du Pont agrees to assist and license Ethyl for the manufacture of tetraethyl lead therein, subject to the existing contract provisions between Ethyl and du Pont, except only that the date of the license from du Pont to Ethyl and the accompanying disclosure of 'know-how' and technical assistance shall be moved forward as regards this plant or extensions thereof from January 1938, as provided in the existing contract, to the actual completion date of the plant in question."

Was this plant built, Mr. Harrington?

A. Yes, sir.

Q. Now, I call your attention to Government's Exhibit No. 790 which is an agreement dated the 2nd of March, 1937, which is about nine months later.

This agreement provides in the first paragraph:

> "WHEREAS, the above-mentioned parties and Standard Oil Development Company, a corporation of Delaware, have entered into a certain Memorandum of Agreement dated July 31, 1936, which agreement [fol. 3879] among other things, provides for the construction by du Pont of a tetraethyl lead plant or unit together with a blending unit, on certain property situate in the Parish of East Baton Rouge, State of Louisiana."

Then skipping down to paragraph No. 1 at the bottom of the page:

> "DuPont shall construct a manufacturing unit for the production of tetraethyl lead of approximately the same size and capacity as the present tetraethyl lead unit now undergoing construction by du Pont on certain land owned by Ethyl in the Parish of East Baton Rouge, Louisiana, said unit to be constructed on the same land as the present unit is being constructed by du Pont."

And skipping about five lines:

> "In addition thereto du Pont shall further construct a blending unit for the manufacture or production of

> compounds containing tetraethyl lead and other ingredients on the aforesaid land of approximately the same size and capacity as the blending unit which is now under construction by du Pont on said land. It is the intent and purpose hereof that du Pont shall double the production capacity of the present tetraethyl lead unit and blending unit, which at the time of the execution of this agreement, are under construction by du Pont by virtue of that certain Memorandum of Agreement dated July 31, 1936, referred to above."

Then over on page 3, paragraph 4:

> "Legal title to the tetraethyl lead unit and blending [fol. 3880] unit described herein shall remain vested in du Pont until January 1, 1938, or until such time as the construction work thereon shall have been finally completed, at either of which last said dates or prior thereto, the parties hereto shall endeavor to reach an agreement with respect to the legal ownership and operation thereof as provided for in Paragraph 4 of the aforesaid Memorandum of Agreement dated July 31, 1936. In the event of failure to reach any agreement as set forth in Paragraph 4 of the above said Memorandum of Agreement of July 31, 1936, then legal ownership of said tetraethyl lead unit and blending unit shall be transferred in accordance with Paragraph 5 of the said Memorandum of Agreement of July 31, 1936."

Was this plant also constructed, Mr. Harrington?

A. Yes.

Q. Now, as the record shows, you did agree, on January 1, 1938, that Ethyl Gas take over production of tetraethyl lead with du Pont as the manufacturing agent. Do you recall that agreement?

A. Yes.

Q. Do you recall what the rate of compensation was, speaking generally, that du Pont got as manufacturing agent under that contract?

Mr. Harsha: It seems to me, your Honor, that the contract speaks for itself.

Mr. Horsky: I am just asking in order to get a background for further questioning.

The Court: As a preliminary question, he may answer.

[fol. 3881] By Mr. Horsky:

Q. You may answer.

A. What was your question?

Q. In general, what was the basis of compensation to du Pont under that contract?

A. It was to be paid a percentage of the profit of the Ethyl Gasoline Corporation.

Now, the first 53,000,000 pounds of manufacture, it was to receive, I think, about 33⅓ per cent of the manufacturing profit, and about 10 per cent of the profit on the balance of the production which was performed at Baton Rouge.

Q. Do you recall why the distinction between the first 53,000,000 pounds and the balance?

A. Well, the first 53,000,000 pounds was that particular portion of the capacity which could be manufactured by du Pont at the Dye Works, and that was considered on one basis, and the balance of it was considered on another basis.

Mr. Harsha: I would like to renew my objection because I don't think this was a preliminary question, as it has been carried out, and furthermore, I think the analysis of the contract has been incorrectly stated by the witness.

Mr. Horsky: I will be glad to debate that question with you.

The Court: Well, of course, he cannot testify to the contents of the contract, but the witness may state what he understood as far as he understood.

Mr. Harris: I think perhaps unwittingly that the witness has misstated the compensation for the first 53,000,000. I believe the contract says 100 per cent of the manufacturing profit.

The Court: Will you point it out, which page that is on?

[fol. 3882] Mr. Harris: I have not the copy here, but that is my recollection from yesterday.

Mr. Horsky: Would you show Mr. Harrington the contract to look at? It is Exhibit No. 799, page 22.

By Mr. Horsky:

Q. Mr. Harrington, I call your attention to the top of page 23 to begin with, to the first four or five lines, which says:

> "It is understood and agreed that for the purpose of this Article, the term 'gross manufacturing profits' shall be deemed to mean thirty-three and one-third per cent ($33\frac{1}{3}\%$) of gross operating profits of Ethyl——".

Now, I call your attention to the paragraph numbered 1 on page 22 which says that Ethyl Company agrees to pay du Pont Company a sum equal to the following:

> "1. 100% of gross manufacturing profits of Ethyl Company from manufacture, purchase and sale of tetraethyl lead and/or mixture thereof with other substances up to an aggregate amount of 53,000,000 pounds of total tetraethyl lead content in the subject calendar year;"

By Mr. Horsky:

Q. Would you tell me, in the light of those two paragraphs which I have read to you, what is your interpretation of the percentage of gross operating profits of Ethyl which du Pont receives for the first 53,000,000 pounds?

A. My interpretation of it is that you get one-third of the profits on the first 53,000,000 pounds.

Q. Let me call your attention to paragraph No. 2 on page 22, which provides that du Pont shall be paid a sum [fol. 3883] equal to 30 percent of gross manufacturing profits of Ethyl Company from manufacture, purchase and sale of tetraethyl lead and/or mixtures thereof with other substances over and above 53,000,000 pounds of total tetraethyl lead content in the subject calendar year.

In looking at that paragraph in connection with the one at the top of page 23, what percentage of the gross operating profits of Ethyl does du Pont get for the amount over 53,000,000 pounds?

A. A third of this figure or 10 per cent.

Q. Is that what you said——

A. That was my understanding of it.

Q. Is that what you said earlier, as you remember it?

Is that what you said earlier in your testimony as to your interpretation of this contract?

A. I say that is my interpretation, that you get 10 per cent.

Q. I am asking you is that what you had testified to earlier when you answered the question before?

A. Yes.

Mr. Harris: I object. I think the record speaks for itself. The witness said manufacturing profit, and not operating profit, and that is where we have the dispute.

The Court: Sustained.

Mr. Horsky: Very well.

I would like to offer, your Honor, in this connection du Pont Exhibit No. 122, which is composed of two pages.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 122.)

By Mr. Horsky:

Q. On the back page there is a compilation of the number [fol. 3884] of pounds of lead produced pursuant to the manufacturing service agreement from January 1, 1938, through December 1, 1947.

Perhaps I should ask you, Mr. Harrington, this particular exhibit which you were looking at only goes to 1944. Was it subsequently extended?

A. Yes, it was subsequently extended through 1947.

Mr. Horsky: The exhibit shows that the excess over 53,000,000 pounds produced during some of the years reached a figure as high as 188,000,000 pounds.

That reflects itself in terms of the calculation of the profits on the first page, which shows that although in 1938 du Pont's profit as a percentage of Ethyl's profit, both of them before taxes and bonus, was about 24 per cent, and when the production went up to very large figures, it went down to about 14 per cent; that is, when a great deal of the production was at the one-tenth rate rather than at the one-third rate.

By Mr. Horsky:

Q. Now, under this contract, Mr. Harrington, do you recall whether du Pont built any additional plants for Ethyl at Baton Rouge?

A. Yes, I think they did.

Q. During the term, I mean to say, from 1938 through 1947?

A. Right.

Mr. Horsky: I would like to offer, your Honor, General Motors Exhibit No. 278, which is a letter from Mr. Webb, to the du Pont Company, dated February 8, I believe, 1938.

(Said document so offered and received in evidence was marked General Motors Exhibit No. 278.)

[fol. 3885] Mr. Horsky: It is to the attention of Mr. Robinson and Mr. Rykenboer: It says:

"Dear Sirs:

"In line with the conversation of yesterday with Mr. Robinson, we hereby request you to erect, for our account, on our property at Baton Rouge, Louisiana, two additional tetraethyl lead plants of the same size and capacity as those previously erected. The erection and operation of these plants is, of course, fully provided for under the terms of the agreement between our respective companies as of January 1st, 1938.

"We also request you to construct, for our account, a plant for the production of metallic sodium at Baton Rouge, this plant to have a normal operating capacity of twenty million pounds of sodium per year. The increased capacity of this plant from the figure of ten million pounds per year mentioned in the agreement between our companies, will necessitate some supplemental agreement on the matter of guaranteed price and we will appreciate hearing from you on this point. There would appear to be no particular reason why the provision made in the existing contract for the guaranteed price should not apply to the twenty million pound plant as well as to a ten million pound plant, but the matter should be definitely covered."

Did you build a metallic sodium plant for Ethyl at Baton Rouge, Mr. Harrington, in accordance with this request?

A. I didn't hear what you said.

Q. Did du Pont build a metallic sodium plant for Ethyl [fol. 3886] at Baton Rouge in accordance with the request in this letter?

A. Yes.

Q. The letter continues:

> "We are desirous of having you construct, for our account, a plant at Baton Rouge for the manufacture of ethyl chloride. There is, of course, no provision in the present contract covering either the construction or operation of such a plant, but we feel that it is to the best interest of both companies that such a plant be built. Apparently the type of plant to be built would be one in which hydrochloric acid is produced by burning hydrogen and chlorine and the ethyl chloride made by your process. The capacity of this plant is perhaps still open to discussion. To be in balance with the lead and sodium plants, it would appear that a unit should be built adequate to consume all of the chlorine produced at the above-mentioned sodium plant. On the other hand, it may not be necessary to invest the entire amount of capital for this project at this time if the capacity is available at existing plants. Certainly, enough ethyl chloride on the most favorable economic basis should be in sight to operate all tetraethyl lead plants by the time they are completed."

May I ask you, Mr. Harrington, whether in accordance with this request you built ethyl chloride plants for Ethyl at Baton Rouge?

A. I understand so.

Q. The letter continues:

> "We will appreciate hearing from you on this point both as to the question of the supplemental contract [fol. 3887] covering the erection and operation of ethyl chloride plants and also as to the available capacity of ethyl chloride, time necessary to erect ethyl chloride units of this type, and any other pertinent information."

What has been the situation, Mr. Harrington, since December 31, 1947?

A. Well, that patent ran out at that time, and we discontinued being a service agent of Ethyl Gas. They continued to manufacture and sell their own products, and we, in du Pont, manufactured and offered for sale in competition on the open market, tetraethyl lead.

Mr. Horsky: This is a convenient place to stop, your Honor.

The Court: The courts stands recessed for fifteen minutes.

(A short recess was here taken.)

By Mr. Horsky:

Q. Mr. Harrington, I have one or two more questions relating to the tetraethyl lead before we turn to another topic.

I would like to call your attention and read to you a portion of paragraph 71 of the complaint of this case. It reads as follows:

> "In the years following the organization of Ethyl, the du Pont Company and General Motors entered into numerous contracts, agreements and understandings which (a) gave to and insured to du Pont Company the exclusive right——"

[fol. 3888] and I skip a bit.

> "to supply exclusively the basic ingredients such as ethyl alcohol, caustic soda, sodium, and other products which entered into the production of tetraethyl lead."

Have you ever heard of an agreement which gave to du Pont the exclusive right to supply the basic ingredients such as mentioned?

A. No.

Q. What was the arrangement, or what was the basis upon which raw materials were acquired for production?

A. We tried to get them at the cheapest place we could.

Q. When you say "we", you mean du Pont?

A. The du Pont Company, yes.

Q. Can you give me a little detail of the specific ingredients? What were the principal ones?

A. Well, we bought lead——

Q. Where did you get it?

A. We bought lead on the open market.

Q. That is pig lead you are speaking of?

A. Pig lead. We bought some ethyl chloride and some ethyl bromide from Dow. We subsequently produced some ethyl bromide and some ethyl chloride ourselves. We bought salt on the market for the manufacture of the ethyl chloride; we bought the sodium bromide on the market for the manufacture of ethyl bromide. We bought the alcohol usually from du Pont, but it was always put in at the regular standard market price. It was convenient for du Pont to get it and supply it because it was from the same plant, no freight involved.

We also did the same thing with sulphuric acid, and for the same general reason, we put it in at the market when we supplied it, and there was involved the location, and no freight, and so forth and so on.

[fol. 3889] Q. What about sodium?

A. Sodium we bought from R. & H., first, and later from du Pont.

Q. And I think you indicated——

A. We also bought sodium—du Pont bought sodium from Ethyl Gas during the manufacturing and service agreement, and used it in the manufacture of tetraethyl lead.

Q. Did you buy any ethyl chloride from Standard of Louisiana?

A. Yes, we bought quite a lot.

Q. What were the circumstances of that?

A. Well, Ethyl Gas and Standard of Louisiana had had some sort of an arrangement whereby they provided ethylene which is a by-product from the Standard of Louisiana plant, and they put in a plant facility for manufacturing by synthesis from ethylene to make ethyl chloride.

Q. Was this at Baton Rouge?

A. This was at Baton Rouge.

Q. Now, those were the products the raw materials, as I understand it that made tetraethyl lead. Are there some additional raw materials when you come to make ethyl fluid?

A. Yes.

Q. Now, how did you acquire the raw materials that go into that?

A. We had to put in a number of ingredients into tetraethyl lead to make the ethyl fluid, but those ingredients were all purchased by the Ethyl Gas and supplied to us in quantities required. Du Pont never bought any of those products.

Q. What were those products?

A. That is bromine, halowax oil and some coloring matter, and some substitutes, and so forth.

Mr. Horsky: Your Honor, before I leave the subject of lead, I would like to offer du Pont Exhibits 120 and 121, letters from Mr. Irenee du Pont to Mr. Sloan, dated February [fol. 3890] 5th, 1926, and from Mr. Harrington to Mr. Webb, dated February 25th, 1926.

I will not read from them. I will just offer them at this point.

(Said documents so offered and received in evidence were marked du Ponts Exhibits Nos. 120 and 121.)

Mr. Horsky: I would now like to turn to another topic, the topic of Freon and Kinetic Chemicals.

There is in the record the fact that in 1928 Mr. Midgley discovered that F-12 was a good refrigerant, and that subsequent thereto in 1930, a corporation was organized called the Kinetic Chemicals, Incorporated, and there is evidence of the operations of that company for a considerable period of time thereafter. Let me fix you on that time sequence.

By Mr. Horsky:

Q. In 1928, what was your position in the du Pont Company?

A. I was general manager of the Dyestuffs Department at that time.

Q. What was the name of the Dyestuffs Department later changed to?

A. It became the Organic Chemicals Department.

Q. About when was that change, if you recall?

A. I think it was probably around 1929 or 1930.

Q. What official position, if any, did you have with the Kinetic Chemicals, Inc., the corporation that was organized?

A. After 1929——

Q. No, I am only talking about your position with Kinetic.

A. I was a director of Kinetic, and chairman of the board.

[fol. 3891] Q. From what period in Kinetic history to what period?

A. From the time Kinetic was formed until I retired from the du Pont Company in 1947.

Q. And you were chairman of the Board continuously throughout that period?

A. Yes, sir.

Q. There is considerable evidence in the record, Mr. Harrington, but so that we will be aware of what we are discussing, what were the refrigerants in use at the time that Freon was discovered for household refrigeration?

A. Chiefly sulphur dioxide and methyl chloride. There were a few others, but they were used in very much smaller quantities. These were the ones that were chiefly used in household refrigeration.

Q. That is what I mean. Was Freon and F-12 substantially an improvement over the other refrigerants?

A. Very great improvement.

Q. In what way?

A. Well, it was a very excellent refrigerant, in the first place.

In the second place, it got rid—it had no corrosive character such as sulphur dioxide had, and it did not have any poisoning characteristics such as both sulphur dioxide and methyl chloride had. Methyl chloride had an additional disadvantage from the fact that it was very poisonous, and it had no odor. If you had a leak of methyl chloride in your house, you might be overcome with methyl chloride and never know it was there.

Q. Was Freon flammable?

A. No.

Q. You say it was nontoxic?

A. It is nontoxic and it is not flammable, and it has no odor. The fact is it has a lot of excellent characteristics, which make it a very good refrigerant for household refrigerating machines.

[fol. 3892] Q. Now, let me come to the organization of the corporation which became known as Kinetic Chemicals. Can you tell me with whom the idea of having a jointly owned company, owned partly by du Pont and partly by General Motors originated? Who thought of that idea? Who first proposed it?

A. Mr. John L. Pratt first proposed it to me.

Q. Did you have a meeting with Mr. Pratt about this matter?

A. Yes, he came to see me about it.

Q. Did he tell you why he wanted to have a jointly owned company?

A. Well, he told me that he wanted to have a company in the chemical industry in which General Motors would have a stake, and yet have the company operated by somebody who would have the responsibility.

Q. Did he tell you why General Motors did not want to make it itself?

A. Well, he felt that the materials which were necessary for the manufacture of F-12 were dangerous, and he had seen what had happened in the tetraethyl lead, and he didn't feel that General Motors had the personnel with the competence to go ahead and pick up that dangerous performance without having some sort of a mishap occur.

Q. Were the materials that go into Freon dangerous in fact?

A. Yes, hydrofluoric acid is dangerous, no question about that.

Q. How about chlorine?

A. Chlorine is dangerous, but the people have learned how to use that over a great many years.

[fol. 3893] Q. Is the manufacture of Freon, speaking generally, a complicated chemical process, or a simple one?

A. No, it is very complex.

Q. Well, at the time that the record indicates the du Pont was invited to go out to Ohio and see the Dayton semi-works, the date was about March, 1930, did you become acquainted with the nature of the operation which Frigidaire had out there at that time?

A. Yes, I heard about it.

Q. What kind of a process was it, in general?

A. Well, it was a batch process which was an adaptation of an idea from the literature that had come from the Belgian chemist who first discovered Freon and its chemical name years before.

Q. We are still talking about F-12, are we not?

A. That's right, F-12.

Q. Which is——

A. Difluoro-dichloro-methane.

Q. Was the Frigidaire process that was in existence at the time that we are speaking of in March or April of 1938, a commercial process, if you know?

A. We didn't think it was.

Q. What did du Pont do about that process after it was first invited out to—I think it was Moraine City, was it not, or Dayton?

A. Well, they asked us to send a man out there to run it for them for a while after we had formed this organization.

Q. Did du Pont assign people to work on the problem?

A. Yes.

Q. Do you know whether they worked out a different [fol. 3894] method than the one that Frigidaire had originally worked up itself?

A. I don't think I understood your question.

Q. I say, do you know whether du Pont ultimately evolved a different method of production than the one Frigidaire had?

A. Yes, we did. It was quite a different process. As soon as we learned of the Frigidaire process, we assigned a group of chemists to the job to make a study and make an analysis of how Freon could be made, preferably by a continuous process, and they, after a very short time of study evolved or came out with a process which ultimately turned out to be practical.

Q. Did du Pont then build a plant for that; for the use of that process which it had evolved?

A. Yes.

Q. Where was that plant ultimately built, do you recall?

A. At the Dye Works.

Q. At Deepwater?

A. Yes.

Mr. Horsky: I would like to offer, in that connection, du Pont Exhibit No. 128.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 128.)

By Mr. Horsky:

Q. Would you tell me, Mr. Harrington, this is a report signed by L. C. Holt of the Jackson Laboratory, to Dr. H. W. Elley.

Who was Mr. Holt, and who was Doctor Elley?

A. Doctor Elley at that time was the director of the Chemical Research Department and the Organic Chemical Department, and Doctor Holt was a chemist in the Jackson Laboratory which was the laboratory in which the re- [fol. 3895] search work was conducted.

Mr. Horsky: I would like to read just the first page of this, your Honor. It is entitled, F-12-Difluoro-Dichloromethane and F-21—Fluorodichloro Methane."

> "Attached find memorandum which we have drawn up covering a proposed process for the production of the above two fluorine derivatives.
>
> "This memorandum is being written at the present time in order to place on record, outside of our laboratory notebooks, a clear statement of the work which we are doing. If you compare this memorandum with the application for Part No. 1 of the project for difluoro dichloromethane (J-30-60), you will notice that our line of attack has completely changed since we began on this work. The method outlined in the above mentioned preliminary statement before beginning our work was identical with the method now being carried out on a semi-commercial scale by the Frigidaire Corporation. Soon after beginning our work we became aware of the disadvantages in the original Swarts method as now being carried out by the Frigidaire Corporation, and therefore sought to develop another method of attack which would overcome the difficulties incident to the Swarts method. The attached memorandum sets forth in general terms our present ideas of a process for manufacturing the desired fluorine derivatives. We may find that this process must be altered considerably before our experimental work is [fol. 3896] completed, but up to date we have carried out no experiments which indicate that the process in general is other than practical."

By Mr. Horsky:

Q. Did you run into difficulties that this indicates that you might, with the commercial production?

A. We ran into plenty of them.

Q. Did you have a staff working on the problem, of chemists, or engineers?

A. Yes.

Q. Who was in charge of the operation, if you recall?

A. At the Dye Works?

Q. No, at the plant of Frigidaire, which was where the work was originally done, was it not?

A. You mean at the plant located at the Dye Works?

Q. Yes.

A. Bob Laird was.

Q. There was also a plant located at Moraine City, or Dayton, was there not, which Frigidaire was operating?

A. Well, Bob Laird had operated that prior to this time also, and then when we were getting our plant in operation he dropped that work over there and came back to the Dye Works.

As a matter of fact, I think that plant disappeared.

Q. Who was Mr. Laird?

A. He was one of our chemical engineers. He was a graduate from the University of Pennsylvania. He had been in charge of one of the areas at the Dye Works, the one in which indigo and some other products and so forth were manufactured, and we had detached him from that work and assigned him to the work of looking after this job.

Q. Did you have problems of raw materials in connec- [fol. 3897] tion with the process?

A. Yes, our process required anhydrous hydrofluoric acid, and the process that they had attempted to use out at Frigidaire didn't require anhydrous hydrofluoric acid.

Q. Was there a problem about obtaining anhydrous hydrofluoric acid?

A. There was practically no manufacturer of anhydrous hydrofluoric acid in the country at that time. The only fellow we found that would even make an attempt at it was a little fellow up in eastern Pennsylvania known as the Sterling Products Company which had attempted to supply us with small quantities of anhydrous hydrofluoric acid, in the early stages of our work.

However, the deliveries were very inaccurate. We couldn't at all depend on them, and in addition, the quality of the product was not up to the specifications we required.

Q. What did you do about that?

A. We had to go into the manufacture of hydrofluoric acid ourselves, and then produce the anhydrous hydrofluoric acid from that.

Q. Did Kinetic develop its own process for making anhydrous hydrofluoric acid?

A. Yes, for making anhydrous, yes.

Q. Who did that, if you recall?

A. That was a process evolved by Jim Lawrence.

Q. Who was he?

A. He was one of our engineers, and I believe he subsequently got a patent on it, if I remember correctly. It was James C. Lawrence.

Q. Is that L-a-w-r-e-n-c-e?

A. Yes.

Q. Was the manufacture of this anhydrous hydrofluoric acid a complicated manufacturing operation?

A. Yes, it was quite complicated and quite difficult. We had a tremendous amount of equipment difficulty. I mean [fol. 3898] that hydrofluoric acid is tremendously corrosive, you know. We had a lot of difficulty that developed in the process of developing that operation.

Mr. Horsky: I would like to offer, your Honor, at this point, du Pont Exhibit No. 129. This is a letter from Mr. Biechler, president and general manager of the Frigidaire Corporation, to Mr. E. G. Robinson, manager of the Dye Division of du Pont, dated May 6, 1930.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 129.)

Mr. Horsky: It reads:

"Dear Mr. Robinson:

"I just wanted to drop you a line to say I was mighty happy to meet you and all of your associates, and I feel we are well on our way to getting the new refrigerant matter on a basis where it will be mutually advantageous to all concerned.

"Everybody here in Dayton is happy you will send an operator to take over our present semi-works plant. The sooner the better, and I will be happy to know who the man is and when he will be here, because we will receive him with open arms.

"Yours very truly,

"E. G. Biechler."

[fol. 3899] By Mr. Horsky:

Q. Do you know who the operator was that was sent, Mr. Harrington?

A. Yes, Mr. Bob Laird.

Mr. Horsky: I would like to offer, then, your Honor, du Pont's Exhibit No. 130, which is a holographic letter from Mr. Robert F. Laird to Mr. E. G. Robinson, dated August 3, 1930.

(Said document so offered and received in evidence was marked du Pont's Exhibit No. 130.)

Mr. Horsky: It reads as follows:

> "Immediately on my return to Dayton, July 31st, as you suggested I discussed the results of our Wilmington conference in detail with Mr. H. M. Williams."

Do you recall who Mr. H. M. Williams was, Mr. Harrington?

A. He was one of Biechler's assistants.

Q. (Reading):

> "After this discussion, Mr. Williams said that he would call a meeting of those concerned and endeavor immediately to let you have a schedule of their present and future demands for both F-12 and F-21.
>
> "It was also decided that we would keep our expenditures down to a minimum, and endeavor to meet this present requirement with the equipment now on hand.
>
> "I feel that I have convinced Mr. Williams that a plant erected here and based on this process, for the [fol. 3900] production of 3000 pounds per day would be highly impractical.

> "In fact he made the statement that they were not chemical manufacturers and that he would be glad when du Pont's could satisfy their needs.
>
> "We are proceeding with what equipment we have to get all the information and maximum production possible. This production is now divided between F-12 and F-21. We are producing about fifty pounds of F-21 and thirty pounds of F-12 per day.
>
> "Should any changes in our present procedure arise I will advise you at once."

This was signed by Mr. Robert F. Laird.

I should also like to offer du Pont Exhibit No. 131, which is an annual report of the Kinetic Chemicals, Inc., 4/19/31.

Mr. Harris: To which we object, if the Court please. There are 27 pages of purely technical material. It has nothing to do with the contracts. It tells the story in very involved language of the development of this product.

We don't think the record should be burdened with it.

The Court: What is the materiality of it?

Mr. Horsky: The materiality of this, your Honor, is to show that this was a complicated, difficult manufacturing operation which General Motors was not competent to undertake, and which required the services of an expert chemical company, such as du Pont, to undertake, and [fol. 3901] therefore explains why General Motors should turn to du Pont for the production.

Mr. Harris: I submit, your Honor, it doesn't explain it either to Court or counsel. The witness or an expert could tell the story in a few words. This is absolutely not understandable by a non-technical man.

The Court: I haven't read it. I will have to reserve my ruling. What number is it?

Mr. Horsky: No. 131.

The Court: The annual report?

Mr. Horsky: That is right. I should like to read a small portion of it at this time.

The Court: If it is in support of your argument for its admission, you may read it.

Mr. Horsky: If you prefer not to have me read it until you have ruled——

The Court: I think it would be more practical to reserve my ruling, let me read it, and I will rule on it later.

Mr. Horsky: And have me reserve my reading?

The Court: Yes, do not read it at this time.

Mr. Horsky: All right.

By Mr. Horsky:

Q. Mr. Harrington, I would like to call your attention to Government's Trial Exhibit No. 850. If you will hold [fol. 3902] that for a little while, I have several questions I would like to ask you about that.

This, your Honor is the contract of August 27, 1930, between General Motors Corporation and du Pont, which agrees to the formation of Kinetic Chemicals, Inc.

Did you negotiate that contract, Mr. Harrington?

A. No, I didn't negotiate it. Mr. Robinson really did more of the negotiations than I did.

Q. Did he keep you informed as to the results of his negotiations from time to time?

A. Yes.

Q. Did you have anything to do in your earlier conversations with Mr. Pratt in setting the pattern of these negotiations?

A. I think we did pretty much agree on the set of the pattern which ultimately came into agreement.

Q. I notice, Mr. Harrington, that this contract on page 8 is signed by you as vice president of E. I. du Pont de Nemours and Company:

Can you explain why you should sign this contract when Mr. Robinson negotiated it?

A. I was an officer of the company at that particular time. The Executive Committee had approved the document as it stands, and it was brought to me by the secretary as probably knowing most about the subject as an officer, and so I signed it.

Q. This is for the same reason as Mr. Irenee du Pont signed the early lead one?

A. Exactly.

Q. I should like to refer you to the paragraph third on page 2 of this exhibit. It reads:

> "Upon the organization of the New Company du [fol. 3903] Pont, shall subscribe for 51 per cent of the total authorized capital stock and General shall subscribe for 49 per cent thereof, which subscription shall

> be payable at par in cash to the New Company from time to time at such times and in such amounts as the Board of Directors of the New Company shall determine."

Did you and Mr. Pratt discuss that issue as to the 51-49 per cent division of the stock?

A. Yes, we did.

Q. Who suggested that du Pont have 51 percent and General Motors have 49 percent?

A. If I recall properly, Mr. Pratt made the suggestion of the 51-49. We had been discussing 50-50, and we both agreed that a fifty-fifty company was nothing. It didn't give the responsibility to either party, and our object was to place the responsibility on the people who seem to be most competent to be able to do this job.

Q. Did you agree with Mr. Pratt that du Pont should have 51 percent?

A. Yes.

Q. For what reason?

A. Because, as I have just said, I thought that du Pont was to have the responsibility and it should have the say with respect to the conduct of the business.

Q. Let me call your attention to paragraph 6, Mr. Harrington, which is at the bottom of page 2. It reads:

> "The Board of Directors of the New Company shall be composed of five members to be elected by cumulative voting under a charter provision providing for the same."

[fol. 3904] Does that mean that du Pont had three directors and General Motors two? Is that the way it worked out?

A. That is correct.

Q. What was the reason for that division?

A. The same reason that I expressed a minute ago, to place responsibility for the running of the company on the du Pont Company.

Q. Let me refer you now, Mr. Harrington, to paragraph 7 which is on page 3 of this contract, and to the last portion of that paragraph, beginning with the numeral 2.

> "It being further agreed that future chemical developments, (other than those relating to 'said prod-

> ucts') originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon and if after six months the New Company shall elect not to exploit such new chemical developments, then General shall be free to dispose of the same elsewhere."

Did you and Mr. Pratt discuss that clause?
A. No.

Mr. Horsky: Let me offer du Pont Exhibit No. 132, and ask you about that, Mr. Harrington.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 132.)

Mr. Horsky: This is a memorandum entitled, "Outline of Organization and Operation of Proposed Fluorocarbon [fol. 3905] Products Corporation." It is signed by J. Warren Kinsman. He is listed as Director of Sales, Organic Chemicals. Was that his position at the time?
A. Yes, he was director of intermediate sales for the Organic Chemicals Department at that time.
Q. Would you state what this document is?
A. Well, it is Warren's personal idea of how this organization should be set up.
Q. It is dated May 27, 1930, and it contains, your Honor, a statement of the purpose of the corporation, but first it states what the purpose of the memorandum itself was. It says,

> "The following paragraphs embody an outline of the purpose, structure and operation of the proposed new company to be organized by the General Motor Corporation and E. I. du Pont de Nemours and Company for the immediate purpose of manufacturing and marketing certain chemicals useful as refrigerants."

And then, in defining the purpose, Mr. Kinsman states:

> "The corporate purpose of the company, as should be set forth in its charter, shall be the manufacture, use and/or sale of halogenated methane or ethane in which at least one hydrogen atom is substituted by a fluorine atom."

Now, Mr. Harrington, will you hold that document, and also look at Government's Trial Exhibit No. 842, which is a letter from Mr. Pratt to Mr. Robinson, dated June 12, 1930, approximately two weeks after the date of Mr. Kins- [fol. 3906] man's memorandum. Would you say whether in your opinion Mr. Pratt's letter is a reply or is a comment or a series of comments on Mr. Kinsman's outline as expressed in du Pont Exhibit 132?

Mr. Harsha: I object to that, your Honor, unless there is some showing that the witness actually received Mr. Kinsman's report. There is nothing in document Government's Exhibit No. 842 to connect it that I can find.

Mr. Horsky: I will withdrew the question, Mr. Harsha. Your Honor, Government's Exhibit No. 842, which is a letter from Mr. Pratt to Mr. Robinson, starts by saying:

> "Referring to the proposed organization of the company to be owned by the du Pont Company and General Motors, for the manufacture of certain chemicals to be used as refrigerants, and possibly other chemicals that may be developed in General Motors laboratories. Taking the proposed outline of organization you submitted when I was recently in Wilmington, I will review same in order of the sub-captions:"

Then follows in Government's Exhibit No. 842, there is a comment on each of the captions contained in du Pont Exhibit No. 132. I will ask you, Mr. Harsha, don't you agree to that?

Mr. Harsha: My objection—perhaps I am being hypertechnical.

Mr. Horsky: I withdraw the question.

[fol. 3907] Mr. Harsha: Yes. The point I was referring to, you hadn't laid any foundation indicating Mr. Kinsman's report had gone to Mr. Robinson.

Mr. Horsky: Well, it does not indicate just exactly how it got to Mr. Pratt whether through Mr. Robinson, but otherwise, I am confident that Mr. Pratt's letter is a comment on Mr. Kinsman's proposal.

Mr. Harsha: If you say so, that is good enough for me.

Mr. Horsky: Q. In Mr. Pratt's letter, Mr. Harrington, if you refer to Government Trial Exhibit No. 842, he says, in commenting on the clause entitled "Purpose" at the bottom of page 1:

> "We recognize from the du Pont standpoint the necessity for limiting the kinds of chemicals manufactured in which the new company should embark. From General Motors' standpoint I think it would be satisfactory to have the purpose of the new company to manufacture fluorine with a fluorine atom substituted for at least one hydrogen atom of halogenated methane or ethane. In addition I would like to see the charter provide that the company could manufacture any chemicals that might originate in the laboratories of General Motors Corporation, and exclude any chemicals that originated in the du Pont developments except du Pont developments that flowed out of General Motors developments."

So far as you know, Mr. Harrington, was that the first [fols. 3908-3911] time that clause was proposed?

A. So far as I know, it was.

Q. What was the attitude of the du Pont Company, or your own attitude, if it was different, towards Mr. Pratt's suggestion?

A. I thought it was perfectly all right from my point of view, and from the du Pont's point of view if that was his desire.

Q. Did du Pont following its initial suggestion by Mr. Pratt urge it as a part of the contract, do you recall?

A. No, the du Pont Company did not urge it. It was sort of automatically put in because Mr. Pratt had suggested it.

Q. Do you recall, Mr. Harrington, whether or not it was ever invoked?

A. Yes, it was.

Q. I say whether that paragraph was ever invoked?

A. Yes, I say it was revoked.

Q. Invoked, I thought you misunderstood me.

A. Oh, I thought you said "revoked." I am sorry I misunderstood your question. Was it ever invoked? Was that your question?

Q. Yes.

A. No.

Q. Was it ever canceled?

A. Yes, sir, it was canceled.

Mr. Horsky: I would like to offer, your Honor, the agreement canceling the contract, which is du Pont Exhibit No. 133.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 133.)

[fol. 3912] Mr. Carpenter: If your Honor please, without objection by the Government, I would like to read the following statement which has been submitted to counsel.

At page 3747, the witness, Earle W. Webb, stated, in answer to a question by Mr. Harris:

> "... So far as I know, we have not bought five cents worth of anything from du Pont beginning January 1, 1948 to date,"

and

> "I never heard of their buying anything from du Pont since December 31, 1947."

The witness, Mr. Webb, following his return home, wrote Mr. Carpenter a letter, calling his attention to the above statement and saying.

> "Part of my examination related to the constitutents that composed the manufacture of tetraethyl lead, viz., pig lead, ethyl chloride and sodium. When Mr. Harris asked the question, I had in mind in replying that he was referring to those constituents, as I stated we were an integrated company except for pig lead."

Mr. Webb states in his letter that, while returning to New York, he recalled that the Ethyl Corporation has been buying dyes from the du Pont Company, which made his answer incorrect. He then communicated with Vice President Schafer of the Ethyl Corporation and was advised by him that, while the Ethyl Corporation has made no purchases of tetraethyl lead, pig lead, ethyl chloride or sodium [fol: 3913] from du Pont since December 31, 1947, it has purchased from the du Pont Company a small amount of general chemicals and a small amount of dye which it uses to color its ethyl fluid. He requested me to bring this matter to the attention of the Court to the end that his testimony be corrected accordingly.

The Government agrees that this correction may be made.

Thank you very much.

The Court: With reference to the Government's objection to Defendants' Exhibit DP 131, I have glanced through it, and it contains many pages of highly technical detail, and in view of the witness' testimony, I think the subject matter is pretty well covered now.

Mr. Horsky: Yes.

The Court: And I think there is merit to the objection. The Court sustains the objection.

Mr. Horsky: Perhaps the Government will agree with me that, without further examination, the manufacture of "Freon" is a technical process, and that du Pont did have great difficulty adapting the Dayton process to the commercial manufacture.

Mr. Harris: I think the matter is clearly stated in the document, in the history, and it is very clearly stated, and I was only reading it over this morning and it seems to me it is fully covered, and I would rather not stipulate.

The Court: Are there any additional questions you wish to ask the witness on that subject? If so, you may.

* * * * * * *

[fol. 3914] Direct Examination (Continued).

By Mr. Horsky:

Q. Mr. Harrington, with reference to the initial period, first developing the reaction by which "Freon" was made at Dayton to the commercial reaction in the plant that was ultimately built by du Pont, can you state whether or not du Pont had difficulty in adapting what it learned from the Frigidaire people to a commercial process?

A. Well, we had to adopt practically their new reaction.

Q. Was it a complicated matter?

A. Yes, it was quite complicated. We used different materials, too.

Q. Was the matter of adapting the laboratory process, and the Dayton semi-works process to a commercial process, more or less difficult than you would expect in the ordinary course of any development from the laboratory and semi-works to full commercial production?

A. We found that we had a great many difficulties. In fact, it seemed to be unusually difficult to get into a satisfactory, smooth-running, continuous process in the reaction for the manufacture of "Freon".

Mr. Horsky: Your Honor, may I also ask you to look at the proferred exhibit, du Pont No. 131, and I should like, with your Honor's permission, to offer, on page 6 of that document, the text that appears on page 6, and the latter part of the paragraph that appears at the top of page 7 which I think summarizes the factual development.
[fol. 3915] I will not offer the balance of the document.

Will you object to that, Mr. Harris?

Mr. Harris: No objection.

The Court: It is received, that is the top of page 6, ending with the first paragraph on page 7.

Mr. Horsky: I will omit a bit of that because it is too technical, but I will read what I propose to offer.

Mr. Harris: Very well.

Mr. Horsky: This is the text from the annual report, 1931, entitled, "Dichloro Difluoro Methane (F-12)."

It says, at the top of the page I propose to read:

> "F-12 Yearly Report
>
> "The manufacture of F-12 originated from the desire of the Frigidaire Corporation to equip their electrical refrigerating units with a more desirable refrigerant than SO2. In July, 1928, active research was started on this problem in Dayton, and certain fluorine compounds, difluoro dichloro methane (F-12) and mono fluoro di chloro methane (F-21) were prepared in the laboratory. Samples of these two products were tested for toxicity, inflammability, corrosion, etc., indicated that they far surpassed any known refrigerant and that di chloro difluoro methane, in particular, approximated the properties of the 'ideal' refrigerant. A plant for the manufacture of these products was erected and started operating in Dayton in October, 1929. The process consisted of treating antimony trifluoride with carbon-tetrachloride (or chloroform) in the presence of a catalyst—antimony pentachloride.

[fol. 3916] The reaction was a batch process, carried out in an autoclave. In June, 1930, a still with a packed column, brine condenser and separate receivers was installed and with certain other changes in operating conditions, the Dayton plant was brought up to a capacity of about 5,000 lbs. per month of F-12 or F-21. In a plant of this size and with the process used, the cost of the product was prohibitive—being in the neighborhood of $2.50 a pound.

"In the early part of 1930, research work was started in the Jackson Laboratory on methods of manufacturing these products and a continuous process developed involving the use of anhydrous hydrofluoric acid."

Then I will omit the next few sentences, and skip to the middle of the top paragraph on the next page:

"The continuous process developed at the Jackson Laboratory was considered sufficiently satisfactory and so superior to the Dayton process to warrant the erection of a plant at the Dye Works to manufacture F-12. This plant was designed to produce 3,000 lbs. of F-12 per day, though the transposition of the process from a laboratory to a plant scale rendered this figure uncertain. The erection of the plant was started in October, 1930, and completed in December, 1930."

(Said document so offered and received in evidence was marked du Pont Exhibit No. 131.)

By Mr. Horsky:

Q. Now, Mr. Harrington, at the conclusion of yesterday's session, we had just finished discussing the cancella- [fol. 3917] tion of Article VII of the General Motors-du Pont Agreement Du Pont Exhibit No. 133 establishing the Kinetic Chemicals by the agreement of June 26, 1945. I should like to ask you one or two more questions about that.

Do you recall who proposed that that part of Article VII be cancelled or revoked?

A. I think it was General Motors.

Q. What was du Pont's position on that request?

A. Our position was it was perfectly satisfactory with us to have it cancelled. It called for an agreement on the part of both parties, and so forth. If either party did not want to agree, the thing could not necessarily come to a head.

Q, Very well. Let me turn to another phase of this.

Mr. Horsky: Will you hand Mr. Harrington Governments's Trial Exhibit No. 850?

This is the agreement, your Honor, setting up the Kinetic Chemicals.

By Mr. Horsky:

Q. I should like to refer you, Mr. Harrington, to paragraph 8 of that agreement.

A. Paragraph 8?

Q. Yes. It is on page 3, running over onto page 4.

I will just read a few lines, and call your attention to what they are and what I wish to ask you about:

> "DuPont agrees with respect only to the production of 'said products' specified in Paragraph First, that it will be responsible for the management of the New Company and will make available to it the benefit of DuPont's experience in and knowledge of the manufacture and sale of chemicals, for which the New Company will pay DuPont a fee of Fifty Thousand Dollars [fol. 3918] ($50,000) a year for a period of five years beginning January 1, 1931:"

Do you recall whether you discussed that provision of this contract with Mr. Pratt in your original conversations with him?

A. No, I did not discuss that at all with Mr. Pratt in my original conversation, no.

Q. Do you know who proposed the $50,000.00 figure?

A. I don't know how that was proposed. It was set up in the process of developing the program.

Q. Do you remember, Mr. Harrington, whether, after the five year period had expired, which is specified in Government's Trial Exhibit No. 850, Paragraph 8, this management fee was continued?

A. Yes, it was continued, only on slightly different terms. It was felt, that at that particular time, it was far cheaper to have du Pont do this managerial job than it was to build an expensive overhead organization to conduct the business of Kinetic, and so that a program was set up considerably later whereby a specified fee—I think the fee from then on was $40,000.00 a year, plus a percentage of participation with respect to the total volume of business——

Q. Do you know whether General Motors objected to this arrangement?

A. No, they didn't object. We discussed the thing in a Board meeting, and there was no substantial objection to it.

Q. Did they object at the outset, if you know, to the officers of the corporation being from du Pont?

A. No, they wanted them from du Pont.

[fol. 3919] Q. Let me refer you to one more paragraph, Mr. Harrington, Paragraph 12. Paragraph 12 is on page 6.

Without reading that paragraph, let me call your attention to the fact that it provides that the new company, which was Kinetic, "shall pay to the Frigidaire Corporation a royalty equal to five per cent of the selling price of the products," which Kinetic was to manufacture and sell. Did you discuss the royalty figure with Mr. Pratt?

A. I discussed with Mr. Pratt originally the subject of a royalty, but not the amount.

Q. Do you know how this figure of five per cent was fixed?

A. I think it was arrived at in discussion and negotiation with Mr. Pratt and Mr. Robinson.

Q. Have you had experience, Mr. Harrington, with royalties paid either by du Pont or to du Pont in connection with patents on other organic chemicals?

A. I have had experience with respect to royalties paid on chemicals, organic chemicals, particularly in respect to du Pont, yes.

Q. Based on that, is this a high royalty or a low royalty figure in your judgment?

A. I think it is a reasonably good royalty figure. There are many, many royalties much below this, and not very many higher than this.

Q. Let me turn to another topic, Mr. Harrington, and you can return to that exhibit, if you will.

I should ask you one further question: Was this contract you have in your hand approved by the du Pont Finance and Executive Committees?

A. Yes.

Mr. Horsky: I should like to offer in that connection du Pont Exhibit No. 134, which consists of reports—reading them from the inside back toward the front—first, from Mr. Robinson, the general manager of the Dyestuffs [fol. 3920] Department, to the Executive Committee on July 14th, 1930; and then on the first page, the report from the Executive Committee to the Finance Committee on July 17th, 1930.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 134.)

Mr. Horsky: I should like to read only a portion of the report to Mr. Robinson, beginning on page 2:

> "The Frigidaire Corporation have developed a series of chemical compounds which are apparently particularly fitted for use as refrigerant liquids. These compounds apparently possess a combination of physical and chemical properties which make them more suitable for this purpose than any of the refrigerants at present in use. The General Motors Corporation have proposed that on account of our experience in the manufacture of chemicals, they and we should form a company to exploit them."

Now, moving down to another paragraph:

> "The plan, as you will observe from the agreement, contemplates the ultimate use of $2,000,000 of capital by the new company, to which the du Pont Company would subscribe 51%, or $1,020,000. It is not possible at this time to give any estimates of the profit which it is expected this company will ultimately make, since this will depend primarily upon the cost of manufacture which can be realized and the value of these products as refrigerants which will be developed by the experimental work to be conducted by the Frigidaire

[fol. 3921] Corporation. It is accordingly planned at this time to issue 10% of the proposed amount of stock involved, or a subscription of $102,000 from the du Pont Company and a corresponding amount from General Motors. This money will be used to reimburse the du Pont Company for research work which they have already done for the new company, to build a semi-works plant in which the manufacture of the products can be studied, and in which sufficient material can be produced for the experimental program on its application and to provide for the cost of operating the semi-works plant. Before additional money is required by the new company, it is expected that sufficient information will have been developed to enable us to determine whether, before proceeding further with the project, it is justified.

"It might be stated that the General Motors people are all very enthusiastic in their belief that these compounds, on account of their properties, are destined to replace all other refrigerants in domestic refrigerating machines and probably to find other important commercial uses."

By Mr. Horsky:

Q. Now, Mr. Harrington, what was the policy that Kinetic adopted with respect to the sale of F-12 to the competitors of Frigidaire Corporation?

A. It was decided that Kinetic would sell F-12 freely to all comers, so to speak.

Q. Was that policy successfully followed from the outset?

A. Yes.

Q. Did you have any troubles during the early period in obtaining an acceptance of "Freon" as a refrigerant from [fol. 3922] other companies?

A. We ran into very great difficulty about a year or a few months after the "Freon" was offered for sale, in that the code authorities in a number of cities made violent objection, or rather had violent objections brought to them, and the code authorities refused to approve the sale of refrigerating machines which contained "Freon-12" as a refrigerant in such cities as New York City.

Q. What was the argument that the people who opposed the use of "Freon" made against it at that time?

A. Well, they attempted to make an argument that it was dangerous because at that time somebody conducted a test whereby they threw a bit of "Freon" into open flame, and of course "Freon" going or coming in contact with open flames will decompose and you get a certain amount of fluorine and a certain amount of chlorine, and you also, just by happen-stance, get a slight amount of phosgene.

Q. Is phosgene poison?

A. Phosgene is quite poisonous.

Q. What did Kinetic, or Kinetic management do about that problem?

A. Well, Kinetic invited the various representatives of the City authorities and so forth, to come to the dye works and observe a demonstration or several demonstrations that were put on there for the purpose of demonstrating the safety of "Freon," and some of the claims that had been made were not realistic.

In addition to that, the Kinetic Company employed the Underwriters Laboratory here in Chicago to make a very exhaustive test of Freon for the purpose of telling us the full truth about the matter.

We thought we knew the truth, but we wanted somebody who was an authority outside of ourselves to state the [fol. 3923] truth, and they did make an investigation, made the report, and gave "Freon" a complete clean bill of health.

Q. Was "Freon" ultimately adopted as almost a universal refrigerant?

A. Yes.

Q. Do you know whether there are any companies now that manufacture domestic refrigerators that do not use "Freon"?

A. I don't know of any. There may be some, but I don't know of any.

Mr. Horsky: I would like to offer in connection with this last testimony, your Honor, du Pont Exhibits 135 and 136.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 135 and 136.)

Mr. Horsky: The first is a brief excerpt from the Monthly Report of the President to the Board of Directors of Kinetic Chemicals for January, 1932.

I should like to read only the third and fourth paragraphs:

> "While there have been many inquiries concerning the price and availability of our product no contracts have yet been negotiated. This is due to several conditions which must be corrected before we can expect to place many prospective buyers under contract.
>
> "The first in matter of importance is the code situation. Definite effort on the part of certain manufacturers of refrigerating equipment, using long established refrigerants, is being made to prevent 'Freon' from receiving the special classification to which it is entitled due to its superiority from the standpoint of [fol. 3924] toxicity and flammability. Vigorous attempts have been made to have Freon grouped with refrigerants such as SO_2 and ammonia, both in the A.S.A. and New York City codes. Every effort is being made by Kinetic to secure for 'Freon' the proper recognition by all public authorities interested in the regulation of its use. It is felt that definite progress has been made for the proper protection of 'Freon' in the codes, but, general sales will be adversely affected until this matter is finally settled.
>
> "The Sales Department has contacted many prospective customers during the month and has carried on a vigorous educational campaign which is creating a growing interest in our product."

Du Pont Exhibit No. 136 is a report in 1935 from the sales Manager, Mr. Rhodes, and I think the last paragraph indicates ~~what the fact~~ was at that time. It says:

> "The small manufacturers of refrigerating equipment mean very little to us in sales volume. 93.5 per cent of our sales of 'Freon-12' are made to a group of nine companies, 86.7 per cent to six companies, 63.3 per cent to three companies, 50 per cent to two companies, and only 6.5 per cent to forty-one other concerns. However, for the sake of open competition it is a wise policy to sell to the smaller companies."

By Mr. Horsky:

Q. Does that represent, Mr. Harrington, the sales policy of Kinetic at that time on F-12?

A. Yes.

Q. Who was Mr. Rhodes, by the way? Was he the sales [fol. 3925] manager?

A. Mr. Rhodes was the sales manager of Kinetic at that time.

Q. Now, Mr. Harrington, the evidence already in this record shows that there was also another "Freon" which was known as "Freon-114"; that it was invented by Mr. Midgley; and that, for a period of a number of years, Kinetic pursued a policy of selling it exclusively to Frigidaire.

Does that correspond with your recollection-

A. That is correct.

Q. Do you remember, Mr. Harrington, whether, with respect to F-12, Mr. Midgley had invented the product or invented the use of the product?

A. He had invented the use of it. He didn't invent the product.

Q. ~~How about~~ F-114?

A. I believe that was a product invention.

Q. When did you first hear of F-114?

A. Oh, I have forgotten—1931, I guess.

Q. In what connection did you hear of it?

A. Oh, in the connection that Frigidaire had developed this particular new product for the purpose of special use in the machine that they were attempting to develop at that time, which was a low-pressure rotary machine.

Q. Without being technical, what is the difference between F-12 and F-114?

A. You mean in terms of refrigerating capacity?

Q. Yes.

A. Not chemically?

Q. That is right.

A. In terms of refrigerating capacity, F-114 is a low-pressure refrigerant, and F-12 is a much higher pressure refrigerant. One has a much higher boiling point than the other.

[fol. 3926] Q. Was F-12 cheaper or more expensive than F-114?

A. It was much cheaper than F-114.

Mr. Horsky: In this connection, your Honor, I would like to offer du Pont Exhibit No. 137, which is a report from Mr. Newill of Frigidaire to Mr. Biechler of Frigidaire, explaining some of the difference between the two products and their use.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 137.)

Mr. Horsky: This is dated May 27, 1931. The first paragraph on page 1 states:

> "During our meeting yesterday with Mr. Robinson, at which time you requested him to progress rapidly on the expansion of the plant facilities at Kinetic Chemicals, the possibility of future use of F-114 in commercial equipment, instead of F-12, was mentioned. To be sure that we are making the right move in changing to the new refrigerant, and that we are changing to the correct refrigerant, I have reviewed this question rather fully this afternoon with interested members of the Engineering Department."

Then at the bottom of the page he gives a summary of the conclusions which have been reached:

> "It is not logical to assume that either F-12 or F-114 solves all of the problems for the different kinds of machines and the different applications. Therefore, we will probably have to have both of these refrigerants for a considerable time to come. The F-12 is [fol. 3927] particularly suited to slow temperature work because of its low boiling point (—22). It is also especially suited to piston type compressors where stuffing boxes are required. F-114 is less suited to piston type compressors because they cannot continuously and efficiently pump to the low back pressures demanded for low temperature work. The F-114 is not so well suited to compressors having stuffing boxes as F-12, because the former must operate below atmospheric pressure and thus any slight leaks will admit air to the system instead of permitting refrigerant to leak out of the system, thus causing high head

pressures, low operating efficiencies, and overloaded and burnt-out motors.

"Without any doubt, it will be necessary for us to use piston type compressors in our larger sizes for a good many months even though we make very rapid progress toward rotary units for commercial work."

Then skipping down a bit:

"The above considerations demand that F-12 be used in certain of our commercial jobs for the immediate present and for some little time in the future.

"On the other hand, F-114 is especially suited to our rotary type compressors and F-12 is very much unsuited to this type of compressor because of the higher pressure difference with F-12 between the high and low sides."

By Mr. Horsky:

Q. Mr. Harrington, what position did the representatives of Frigidaire or General Motors initially take with [fol. 3928] respect to the sales policy on F-114?

A. Well, when F-114 was first turned over to Kinetic for manufacture and sale, Frigidaire asked that, for the time being,—and I believe that the time we indicated as the time being was one year at that time—this product should be reserved specifically for sale to Frigidaire only in order to give them an opportunity to get their machine in shape to be marketed effectively and efficiently.

Q. What was the position of du Pont directors on Kinetic's Board to that request?

A. We thought that was a very reasonable request, and agreed to it for a year.

Mr. Horsky: Let me offer, your Honor, in that connection du Pont Exhibit No. 138, which is a letter from Mr. Biechler to Mr. Porch, the president of Kinetic Chemicals, August 9, 1932.

(Said document, so offered and received in evidence, was marked Du Pont Exhibit No. 138.)

Mr. Horsky: The fourth paragraph reads:

"Mr. Pratt and we are very much impressed with the possibilities we have in mind in connection with

> the use of F-114 in the machine you saw when you were here and, Mr. Pratt has expressed the wish, with which we concur, that F-114 be held exclusively for us for an indefinite period. We would very much appreciate it if you would handle the matter on this basis and this can be more definitely discussed at the next Kinetic Board meeting."

Then I should also like to call your Honor's attention to Government Trial Exhibit No. 878, which is a report from [fol. 3929] Mr. Porch to Mr. Robinson, dated March 6, 1944, being a history of the development of F-114.

On page 2, in the middle of the page, I should like to read the third and fourth paragraphs:

> "Kinetic began the production of 'Freon-12' January 1, 1931. At the fourth meeting of its Board, held November 13, 1931, the Kinetic management was advised of Frigidaire's possible interest in 'Freon-114'. An appropriation for the construction of a plant for the manufacture of 'Freon-114' was approved at a special meeting of the Board, held on September 29, 1932. It was at this meeting that the sales policy governing the future distribution of this new refrigerant was first discussed. This discussion resulted in the passage of the following resolution:
>
> "RESOLVED: That it is the sense of this Board that any commercial distribution or any effort toward commercial distribution of 'Freon-114' should be confined to the Frigidaire Corporation for the time being."

By Mr. Horsky:

Q. Mr. Harrington, was that policy changed after the year that you mentioned?

A. A number of years later it was, yes.

Q. How long did the exclusive policy continue, if you can recall approximately?

A. About seven or eight years, I think.

Q. We will come to the date later; perhaps that isn't important.

What was the attitude of the members of the Board of Directors representing du Pont with respect to this policy?

A. Well, the attitude of the members of the Board of [fol. 3930] Directors representing du Pont was that it was perfectly reasonable for Frigidaire to make the request for the first year or two years, and maybe even as much as three years, but we thought, after that, that Kinetic should be entitled to sell the product to anybody; that it should not be restricted to Frigidaire any longer.

Q. Did the du Pont directors on Kinetic make efforts to get a change in this policy?

A. Yes. We had a substantial argument every year, but General Motors was so urgent and so insistent on the thing that, rather than create the ruction that would be involved if we just completely overrode them, the du Pont directors went along and allowed the product, F-114, to be exclusive for quite a long time.

Q. Do you recall, Mr. Harrington, an incident in 1938, when Sears Roebuck made a particular attempt to obtain F-114?

A. Yes.

Q. Did the Board of Directors of Kinetic have any particular consideration given to the problem at that time?

A. Well, after Sears Roebuck's criticism on account of our refusal to sell them F-114, we had a special meeting of the Board of Directors of Kinetic in New York, at which the subject was discussed with General Motors people.

Q. Do you recall who attended that meeting from General Motors?

A. Well, the regular Board of Directors of Kinetic, and also Mr. John Thomas Smith and Mr. C. E. Wilson, and Mr. Pratt and Mr. Biechler, and, well, there were several General Motors people besides that.

Q. What was the result of that meeting?

A. The result of that meeting, General Motors was more vehement than ever that we should reserve the thing to them for a further length of time, and in order to keep [fol. 3931] peace in the family, we agreed.

Q. Was this policy, Mr. Harrington, applied strictly enough so that du Pont also was unable to get F-114?

A. I didn't hear your question.

Q. Was du Pont itself able to get F-114 during this period?

A. No. Du Pont was refused samples of F-114, the same as everybody else.

Mr. Horsky: I should like to offer, your Honor, in that connection, du Pont Exhibit No. 139, which is a letter from Mr. Rhodes to Mr. A. A. Levine of the du Pont Company, the R. & H. Chemicals Department, Niagara Falls, New York, dated November 24, 1933.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 139.)

Mr. Horsky: It reads:

> "Referring to your letter of November 20th addressed to the Jackson Laboratory for the attention of Dr. L. C. Holt, would advise that we can ship you 10 pounds of F-12 at any time, but through a ruling of the Board of Directors of our company there is not any F-114 available for sale or transfer. Consequently, we shall not be able to supply you with even a small amount of F-114."

I should also like to offer at this time du Pont Exhibit No. 140, which is an agreement dated the 18th day of September, 1939, between Kinetic Chemicals and General Motors, which transfers back to General Motors Corporation the exclusive use rights under the patent covering F-114.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 140.)

[fol. 3932] By Mr. Horsky:

Q. Do you recall this agreement, Mr. Harrington?
A. Yes, I do.

Mr. Horsky: In that connection, your Honor, I would like to refer you to Government Trial Exhibit No. 863, which is dated May 8, 1939, and is a memorandum from John Thomas Smith to Mr. Breech, both of General Motors. It begins:

> "Referring to the question as to the best way to protect Frigidaire in its exclusive use of F-114, I make no doubt that the surest procedure would be that suggested by you. If Kinetic Chemical Company were to sub-license Frigidaire exclusively, that would be an end of the matter. The decision as to its future use, viz., whether to give it to its competitor, and if so,

upon what terms, would rest solely with Frigidaire. This sort of protection would not be accorded by any resolution that the Board of Directors of the Kinetic Company might adopt."

Then the last paragraph on page 2:

> "Therefore, it seems to me that if Kinetic is willing to let Frigidaire be the exclusive user, it would really lose nothing, and gain much in relief against possible future pressure if it granted to Frigidaire an exclusive license converting a moral commitment into a legal relation."

By Mr. Horsky:

Q. Does that state, Mr. Harrington, as you recall it, the [fols. 3933-3934] purpose of the execution of the agreement of September 18, 1939?

A. Yes.

Q. Did the du Pont members of the Board of Directors oppose the making of that agreement?

A. We rather welcomed the idea of granting back this particular right to Frigidaire because we wanted to be relieved of the responsibility involved.

Q. Mr. Harrington, during the period that the policy was in effect, World War II came along. Was the policy modified at that time?

A. I didn't hear that.

Q. I say, during the time that this exclusive policy was in effect, World War II came along?

A. Yes.

Q. Did that result in any change in the policy?

A. Yes. There were a lot of special requests for substantial quantities of F-114 for large machines, and those requests were, on special consideration, granted by Frigidaire and the material was delivered.

Q. Was it also possible during that period to obtain this material for experimental use?

A. Yes—oh, wait a minute. During this particular period in which it was still granted by license, even for experimental use, it had to be permitted by Frigidaire.

Mr. Horsky: I should like to call your attention, your Honor, to Government Trial Exhibit No. 868, and offer in connection with that du Pont Exhibit No. 141.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 141.)

* * * * * * *

[fol. 3935] By Mr. Horsky:

Q. Mr. Harrington, I would like to show you Government's Trial Exhibit No. 880, which is an agrement between General Motors and Kinetic which cancels the agreement of September 18th, 1939, which is du Pont Exhibit No. 140, which you have just seen.

By reference to the date of this agreement, which is May 18, 1944, can you tell when the exclusive policy on F-114 was finally terminated?

A. It was terminated immediately when the rights on F-114 were granted to Kinetic Company.

Mr. Horsky: In connection with that termination, your Honor, there are several exhibits I would like to offer and read to you briefly.

Du Pont Exhibit No. 142 is dated October 20, 1943. It is from Mr. Porch to Mr. E. F. Johnson of General Motors.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 142.)

Mr. Horsky: It says:

> "In our meeting in Mr. Harrington's office on September 2nd the above subject was discussed. It was suggested that inquiry should be made to determine [fols. 3936-3939] whether Frigidaire is now in a position to release its control of this refrigerant so that Kinetic could offer it to the general trade without further restriction.
>
> "We are interested to know whether you have had an opportunity to look into this matter, and, if so, would appreciate your advising us at your convenience of its present status."

By Mr. Horsky:

Q. Mr. Harrington, had the du Pont directors continued, up to this time, 1943, to urge General Motors to change the policy?

A. I did not get your question, Mr. Horsky.

Q. Had the du Pont directors on the Kinetic Board, continued, up to 1943, to urge on General Motors a change in this policy?

A. Well, as long as this F-114 was still in the hands of Frigidaire with its special privileges and so forth, we did not have anything to do with it. It was only after it was granted back to Kinetic, that we had any concern about it.

As I said a minute ago, we started to sell it immediately. I recall I am wrong in that respect. We made arrangements with Frigidaire to take it back, but Frigidaire made some special request with respect to a special charge which we objected to, and after that thing was ironed out, in the course of a reasonably short time, then F-114 was sold by Kinetic.

Q. I think we will clear that up with these next exhibits.

Mr. Horsky: I would like next to offer, your Honor, du Pont Exhibit No. 143, which is a letter from Mr. Godfrey to Mr. Porch, about four or five months following the previous letter from Mr. Porch to Mr. Johnson.

• • • • • • •

[fol. 3940] In du Pont Exhibit No. 144, dated April 22, 1944 which I should like to offer, Mr. Johnson writes to Mr. Porch of Kinetic Chemicals, transmitting the contract which ultimately became Government's Trial Exhibit No. 880, canceling the agreement.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 144.)

Q. Does that refresh your recollection, Mr. Harrington, that sales did begin immediately upon the execution of the contract of May 18, 1944?

A. I say, the sales didn't begin until after we had settled this question of additional royalties, or additional fee that they had asked.

Q. But that occurred, as you will see in these documents, prior to May 18, 1944?

A. Yes, that's right.

Q. Do you recall, Mr. Harrington, that there came a time when du Pont purchased from General Motors its 49 per cent interest in Kinetic?

A. Yes.

Q. You continued on the Board of Kinetic until when?

A. 1947, when I retired on August 1, 1947.

Q. Did you retire at the age of 65?

A. I retired at age 65.

[fol. 3941] Q. And you are now going on 71?

A. I am 70 now, approaching too close to 71.

Q. Do you recall generally the circumstances of the purchase by du Pont of General Motors' interest in Kinetic?

A. Well, I know there was a long negotiation about the subject.

Q. Do you know whether the purchase was approved by the Department of Justice?

A. I was told so.

Mr. Horsky: I would like to offer in that connection, your Honor, du Pont Exhibit No. 145, which is a letter to the du Pont Company, dated November 30, 1949, and signed by Mr. Herbert A. Bergson, Assistant Attorney General, and it is to the attention of Mr. Haskell——

By Mr. Horsky:

Q. Who was Mr. Haskell?

A. Mr. Haskell was the head of our Legal Department at that time.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 145.)

Mr. Horsky: (Reading):

"Dear Sirs:

"I refer to letters from Mr. Horsky of October 13 and November 8, 1949, in which he advised me that an agreement has been reached whereby the du Pont Company is prepared to purchase all of the stock now held by General Motors Corporation in Kinetic Chemicals, Inc., and transmitted to me the minutes of the du Pont Executive Committee setting forth the details of the proposed transaction.

[fol. 3942] "This is to advise you that the Department does not object to the consummation of the agreement referred to. In the event that du Pont thus acquires the stock now held by General Motors, the Department will waive that part of its prayer for relief relating to Kinetic (Paragraph 17, page 69 of the Complaint) in United States v. E. I. du Pont de Nemours & Co., Civil Action No. 49 C 1071 (N.D. Ill.).

"It should be clearly understood, however, that the Department, if it deems it desirable and advisable to do so, is free to introduce evidence at the trial of the above action relative to history and background and all other aspects of joint operation and control by du Pont and General Motors of Kinetic."

By Mr. Horsky:

Q. In connection with F-114, Mr. Harrington, I forgot to ask you one question: Do you recall after it became available, whether Sears Roebuck purchased F-114 from Kinetic?

A. No, we offered it to them, but then they didn't want it.

Q. Coming back to this letter which I should perhaps have finished earlier, do you know, Mr. Harrington, whether the purchase by du Pont of General Motors' interest in Kinetic was made in reliance upon the approval by the Department of Justice as presented in this letter?

A. I was so told.

Q. Have you secured, at my request, some financial data with respect to the operations of Kinetic over the years?

A. Yes.

Q. Do you have them with you?

A. Yes.

Q. Will you refer to them, Mr. Harrington, and tell me [fol. 3943] what the purchase price for the 49 percent interest paid by du Pont to General Motors was?

A. Now, your question ~~is~~ what was the purchase price?

Q. That is correct.

A. $10,034,648.25.

Q. Read it a little slowly.

A. $10,034,648.25.

Q. Can you tell me, Mr. Harrington, the total amount of the royalties received by General Motors during the life of Kinetic?

A. $3,892,853.26.

Q. Can you tell me the total management fee received by du Pont during the life of Kinetic?

A. The total management fee, $1,101,366.40.

Q. Can you tell me the total amount of dividends received by General Motors during the life time of the commitment?

A. $6,746,810.00.

Q. Can you tell me what General Motors total investment was in Kinetic?

A. They subscribed capital stock to the extent of $980,000.00. They made a contribution to surplus to the extent of $1,127,000.00, or a total of $2,107,000.00.

Mr. Horsky: That is all from that exhibit.

The Court: The court stands recessed for fifteen minutes.

(Whereupon a fifteen minute recess was taken, after which the hearing was resumed as follows:)

By Mr. Horsky:

Q. Mr. Harrington, before I pass to another topic, I would like to ask you a series of questions about paragraph 64 of the amended complaint. It states:

> "Du Pont Company, following its acquisition of con- [fol. 3944] trol over General Motors in or about 1917, not only extended its operations into the manufacture of paints and varnishes and related products, but also began expanding into other areas in the chemical field. In connection with this expansion, du Pont Company entered into an agreement with General Motors to the effect that the latter would refrain from the manufacture of chemicals, including paints and varnishes and similar products, leaving this field, as between the two companies, exclusively to du Pont Company."

Have you ever heard of an agreement or understanding, or arrangement between the du Pont Company and General Motors to the effect that General Motors would refrain from the manufacture of chemicals?

A. No.

Q. It continues:

> "It was further agreed between the two companies that when General Motors made discoveries in the chemical field, it would inform du Pont Company of the findings and grant to du Pont Company exclusive development, production, and exploitation rights with respect to such discoveries."

Have you ever heard of an agreement to that effect between the two companies?

A. No, sir.

Q. Or an arrangement or understanding?

A. No.

Q. And I continue to read:

> "It was also understood that if any of said General Motors' discoveries were usable in General Motors operations, du Pont Company would, after their development, make them available to General Motors [fol. 3945] Company for use upon an exclusive or preferential basis."

Have you ever heard of any agreement to that effect between the two companies?

A. No.

Q. (Reading):

> "It was further understood that if du Pont Company made discoveries in the chemical field which might be of use in the production of automobiles, du Pont Company would promptly inform General Motors of its findings and grant to General Motors preferential rights with respect to such discoveries, and General Motors would aid in the experimental work on such discoveries."

Have you ever heard of an agreement to that effect?

A. No.

Q. Now, let me turn to another topic, Mr. Harrington, relating to safety glass. Were you a director of a corporation called du Pont Viscoloid Company?

A. Yes, I used to be.

Q. About what period did your term of office as director of that company cover?

A. I think it was about from the latter part of 1929 until the time that the corporation was dissolved which I think was about 1934.

Q. What was Viscoloid which the du Pont Viscoloid Company made?

A. It was the manufacture of a plastic known by either the name of "Pyralin" or Viscoloid. I have forgotten the other name.

Q. Celluloid?

A. "Pyralin", which is a form of celluloid. Chemically it is a mixture of nitrocellulose and camphor.

[fol. 3946] Q. Who owned the stock in the Viscoloid Company?

A. I think the du Pont Company owned the stock 100 per cent.

Q. When you became a director of Viscoloid in 1929, Mr. Harrington, did the Viscoloid Company own stock in a company called the Duplate Corporation?

A. Yes, sir.

Q. Do you recall how long it owned that stock?

A. I think it had owned it a couple of years before I became a director.

Q. How much of the stock of Duplate did Viscoloid own, what proportion?

A. I think it owned 50 per cent of the stock, 50 per cent of the outstanding stock.

Q. Who owned the other 50 per cent, do you know?

A. The Pittsburgh Plate Glass.

Q. What was the business of the Duplate Corporation?

A. Making safety glass.

Q. What was the safety glass that Duplate made at that time?

A. Safety glass is a product where two layers of plate glass are cemented together by an interlayer of pyralin in which there is a bit of cement material so as to make the glass hold together, and then if it is hit, it won't shatter like ordinary glass does.

Q. What was the reason why Pittsburgh Plate Glass and du Pont should form a corporation jointly of this sort?

Mr. Harris: If your Honor please, we object to further testimony or questions along this line. There has been no proof offered on safety glass in this case.

The Court: Is there any reference in the complaint to it?

Mr. Harris: I think not.

[fol. 3947] Mr. Horsky: This is an affirmative defense matter, your Honor. This goes to disprove the allegations of the complaint in an affirmative fashion.

Mr. Harris: We understand the purpose of the proof is similar to that which was meant in General Motors and in the Emich case, bringing in examples in the General Motors of non-coercion, and they could do it indefinitely, simply showing that they didn't do certain things, none of which is charged in the complaint, and of which no proof was offered.

The Court: If it is not in the complaint, what issue would this tend to support?

Mr. Horsky: This tends to refute the charge, your Honor, that du Pont exercised control over General Motors. The tendency of this proof, which I will elicit through this witness, and the exhibits I propose to offer, is that in this case du Pont had a product which it was manufacturing jointly with Pittsburgh Plate Glass which was of peculiar utility in the automobile industry.

It attempted to sell it to General Motors, it had some success, and thereafter General Motors decided to make the product for itself: and Duplate's success failed, and Duplate Corporation ultimately was sold out by du Pont.

It seems to me to be highly relevant to the issue as to whether du Pont did in fact control General Motors' purchasing policies, and it directly controverts the charge of the Government that it did so.

I think it is clearly relevant in this case as an affirmative defense on the part of du Pont.

Mr. Harris: Your Honor will see that it is entirely a collateral issue. We could go indefinitely into the reasons [fol. 3948] why this or that was not done. If we win this case, we will have to win it on the proof that we have offered or that has come out on cross-examination.

The Court: The Court of Appeals held in Emich General Motors that a matter very similar to this should have been received in evidence, if you recall.

Mr. Harris: That was because, if your Honor please, the other side had gone into it. If your Honor remembers, in the Emich case they balanced it,—I think it was 10 and 10;

10 dealers who said they had certain good treatment, and 10 dealers who said they had been coerced.

But in General Motors, the Court held that the principle was it should not be admitted, and it was only suggested in the Emich case because the Court had allowed a certain amount of proof to go in. That isn't the case here.

The Court: No, I think this is an analogous situation, and the Court will overrule the objection.

Mr. Horsky: Thank you.

By Mr. Horsky:

Q. Can you state, Mr. Harrington, why it was, if you know, that du Pont and Pittsburgh Plate Glass would jointly get together to form a corporation of this sort?

A. The Pittsburgh Plate Glass supplied the glass, and Viscoloid supplied the inner layer. Duplate put the stuff together and attempted to sell the product as Duplate.

Q. What was the principal market for safety glass at this time?

A. What was that?

Q. What was the principal market for safety glass?

A. Oh, in the automobile business.

Q. Did the Board of Directors of Viscoloid from time [fol. 3949] to time receive reports concerning the operations of Duplate Corporation?

A. Yes.

Q. Do you recall whether Duplate attempted to sell safety glass to General Motors?

A. Yes, I understood they did.

Q. Do you know what success they had, speaking generally?

A. Well, I think in the first couple of years of their existence they sold quite substantial quantities to General Motors, and then it had gradually dwindled down and down until it finally got down to almost nothing.

Mr. Horsky: I would like to offer, your Honor, in further support of this, a series of exhibits, du Pont Exhibits Nos. 160 through 171. I think they are in your Honor's book.

These are on safety glass.

Mr. Harris: To which we make the same objection, your Honor.

The Court: Objection is overruled.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 160 through 171, respectively.)

Mr. Horsky: The first one, du Pont Exhibit No. 160, is an excerpt from the monthly report of the president of Viscoloid for February, 1928.

It reads:

> "We have contacted and are working with the safety glass committee of General Motors in an effort to help them develop the safety glass proposition."

[fol. 3950] About six months later, in September, 1928, du Pont Exhibit No. 161 contains a further report of the president of du Pont Viscoloid Company.

It reads, under the title "Thin Plate Glass Industry":

> "The ultimate acceptance of safety glass will mean a revolution in the plate glass industry in order to provide the necessary quantity of thin plate glass to replace the heavy plate glass now in use. That the plate glass industry believes such a revolution is to be expected is clearly indicated by the tremendous construction program which is now being carried out by the glass manufacturers.
>
> "The Pittsburgh Plate Glass Company had adopted a construction program requiring the expenditure of $14,000,000. for the purpose of remodeling plants and machinery for the production of thin plate glass (⅛").
>
> "Libby Owens Sheet Glass Co., according to recent newspaper announcement, is spending $5,000,000 for similar improvements.
>
> "The National Plate Glass Co. is reported to be proceeding with the construction of a new plant for the production of 24,000,000 feet per year of the thin plate:
>
> "In a recent article in the Wall Street Journal of September 19, 1928, all of the above projects are mentioned and the statement was made that the Ford Plate Glass Co., the Standard Plate Glass Co. and the American Window Glass Co. are all engaged upon extensive construction programs because of the new safety glass development."

[fol. 3951] The following month, in du Pont Exhibit No. 162, the president reported further:

> "Considerable operating time was lot during the month of October because of lack of orders. This condition, however, is considered to be merely temporary as there are excellent prospects for largely increased sales as soon as the new models are brought out by the different automobile manufacturers. Both Hudson and Studebaker will adopt DUPLATE windshields; in addition Chrysler will continue to use DUPLATE windshields in Model 75, with the possibility o fadopting DUPLATE throughout this model. Chrysler will also continue using DUPLATE throughout on Model 80; Cadillac and LaSalle will continue to use safety glass throughout, although we understand that their requirements will be divided between DUPLATE and the product of other manufacturers."

In du Pont Exhibit No. 163, Mr. Brokaw reports to the Board of Directors of Viscoloid in February, 1929, which is about five months later, and gives a summary of the situation at that time.

He says:

> "To date Safety Glass has been adopted by the following manufacturers."

The General Motors cars on that list, your Honor, are the first two—Buick, in which it is noted that it is optional on the windshield only, and on all windows, and Cadillac-LaSalle, where it is used in all windows.

Going down the list, you will see that there are several cars which had adopted safety glass throughout under the [fol. 3952] "All windows" column with an X—Lincoln, Pierce-Arrow, Rolls Royce, the deluxe Ford, and there are several others which have it optional.

At the bottom of the page it is reported:

> "We are also advised by General Motors officials that if safety glass is a success it probably will eventually be adopted for use in the Chevrolet in competition with Ford, provided it would not increase the cost over $15 or $20 per car."

On the second page it says:

> "General Motors is installing experimental equipment for compositing safety glass which they hope will take care of Cadillac and LaSalle demands. When they have determined the best method of compositing they also expect to build a regular compositing plant at their subsidiary, the National Plate Glass plant at Ottawa.
>
> "National Plate Glass Co., Ottawa, Illinois, are building a plant for the production of 22,000,000 sq. ft. per year at a cost of three to four million dollars and expect to double this capacity after the compositing plant is completed."

Two months later, in April, 1929, the monthly report of the president, which is du Pont Exhibit No. 164, gives the forecast for next month's sales.

It states:

> "The forecast which had been made for May indicated sales of 200,000 square feet. It is now evident [fol. 3953] that this forecast will not be met as several of the automobile manufacturers have reduced output. Furthermore, a larger proportion of the safety glass for Cadillac and LaSalle is being produced by the Fisher Body Company. The progress which is being made by the General Motors and its subsidiaries in laminating safety glass indicates that the best prospects for the immediate future for Duplate sales depend upon manufacturers other than General Motors.
>
> "There is nothing to indicate that either Buick or Chevrolet will adopt safety glass in the immediate future."

Two months later the president reports again, in May, 1929, du Pont Exhibit No. 165. Under "Sales Comments" he states:

> "Shipments during the month of May were approximately 138,000 square feet. The volume of sales for May was disappointing and considerably less than the estimate made in last report. Solicitation has been carried on and quotations made with practically all of

the automobile and body manufacturers. There is a general interest but apparently each is waiting for the other to adopt safety glass. The increased cost of Duplate over plate glass per car is the greatest obstacle for making sales and it is quite natural that manufacturers hesitate to increase the cost of their car unless compelled to do so by competition.

"The adoption of laminated glass by any of the leading manufacturers in medium priced cars would do much to stimulate the demand. The manufacturers [fol. 3954] solicited state that there is a very small consumer demand and that they receive very few inquiries or comments from their agents with respect to laminated glass. When the general public begin to appreciate the safety glass factor of laminated glass and insist upon having their automobile equipped with it, the automobile manufacturers will be more receptive to our solicitation."

Then on page 2 he says:

"While Fisher Body is laminating glass in their own plant for Cadillac and LaSalle, Duplate is supplying part of their requirements. Fisher is making the Viking windshield.

"General Motors are not yet ready to consider the use of laminated glass in their cheaper models although they are of the opinion they will be forced to do so later on. They are going to postpone the adoption as long as possible in order to save the money that would be added to the cost of the car through the adoption of Duplate."

Then in September, 1929, about four months later, the president again reports in du Pont Exhibit No. 166:

"Sales prospects in automobile industry appear encouraging altho there are no important developments with General Motors units.

"Marmon previously reported as having adopted a combination of sheet and plate glass lamination, have reconsidered and will use Duplate throughout for their best models."

[fol. 3955] I don't think I need to read the last paragraph.

The next one is du Pont Exhibit No. 167, excerpt of minutes of meeting of Board of Directors of the DuPlate Corporation held on October 24, 1929, reports on sales prospects, six to twelve months:

> "Mr. Pitcher inquired as to the prospects for increased sales within the next period of six to twelve months.
>
> "It was stated that there was practically no prospect for Buick until July 1930, except for optional equipment, which is now running on a fairly large scale, but is being supplied principally by the Fisher plant. Chevrolet was also reported as being out of the question until 1930."

The following exhibit, du Pont No. 168, is an excerpt from the monthly report of the president of the du Pont Viscoloid Company for the month of December, 1929, and it, too, summarizes the situation for all of the cars as of that time.

The General Motors cars are listed on the first page under the title, under the description, "General Motors," and it is reported that, as to Buick it is optional, extra expense, made by Duplate or Fisher Body Corporation; as to Cadillac, and LaSalle, it is safety glass throughout, made by Duplate or Fisher Body Corporation, while the other cars, with the exception of the Viking "8" have no safety glass, but Viking has a windshield safety glass made by Fisher Body or Johnston Glass Company.

With respect to the other cars, however, you will notice there are a number of automobiles with which Duplate had successfully negotiated and was supplying:

[fol. 3956] The Chrysler, the Chrysler "80"; the Hudson, the Nash "8" and others that you see, going down through that list of companies, which Duplate was supplying with glass.

The annual report for 1929 for Viscoloid, which is du Pont Exhibit No. 169, summarizes the situation, and it says:

> "Competition became more severe during the year. In the latter part of 1929 the new factory of Libbey-

Owens Glass Company came into production with strong sales efforts being made to secure business. Fisher Body Company increased production with the result that they were able to supply practically all safety glass required for Cadillac and LaSalle, and with a consequent loss of this business which had previously been supplied by Duplate."

In March, 1930, another excerpt of minutes of meeting of Board of Directors of the Duplate Corporation, du Pont Exhibit No. 170, reports under the title "Sales Prospects":

> "Mr. Higgins states that there are no indications of any important changes in the sales situation. General Motors are contemplating no change in their policy. Cadillac and LaSalle production is very small and can easily be provided from the Fisher plant. Mr. Higgins thinks that Ford has for the present given up all idea of using Safety Glass throughout. Mr. Higgins thinks that Hudson may be the next to adopt Safety Glass throughout and quotes the President of the Hudson Company as saying that, in his opinion, Safety Glass should be required by law in all cabs and public conveyances."

[fol. 3957] Du Pont Exhibit No. 171, the last of these exhibits is an excerpt of addendum to monthly report of the President of the du Pont Viscoloid Company for August, 1930, which is another six months later and reports as to the status of the business with the various accounts. Under the title "General Motors" it states:

> "At the present time are producing in Fisher Plant No. 1 laminated plate that is used in such models as Cadillac and LaSalle, and for optional equipment in other makes. Until they decide to use laminated glass more generally the Fisher plant will undoubtedly be able to supply their entire requirements."

Then under the other companies, as you will see, Duplate was having some success. Pierce Arrow was continuing to use Duplate; Studebaker was using Duplate to the extent of 90 per cent of their requirements, and the Libbey-Owens-Ford Company will obtain about 10 per cent of their business. The Marmon and Peerless continued to use Duplate exclusively in the top models, and Hudson was using it in the windshields, and Reo decided to use Duplate, and will give them the bulk of its laminated glass business.

Packard and Graham-Paige were using Libbey-Owens-Ford laminated glass exclusively.

Franklin was using Safetee and Indestructo and are now considering other companies, and Duplate hope to get some of their business.

Under "Bus business" it is noted:

> "We lost the Checker Cab contract on account of our competitors quoting lower prices than ourselves. Are [fol. 3958] supplying some of the smaller cab and bus manufacturers with limited quantities."

By Mr. Horsky:

Q. What happened, Mr. Harrington, to du Pont's interest in Duplate Corporation? Perhaps I should say to Viscoloid's interest in Duplate Corporation?

A. We finally sold our interest in it.

Q. To whom?

A. When I say "our," I mean Viscoloid sold its interest in Duplate.

Q. To whom?

A. Pittsburgh Plate Glass.

Q. Let me show you du Pont Trial Exhibit No. 172, which is a copy of an agreement entered into between du Pont Viscoloid and Pittsburgh Plate Glass dated the 29th day of January, 1931. This copy, Mr. Harrington, is an unexecuted copy.

Do you know whether this contract was actually entered into?

A. Yes, the sale was made, and this contract was the basis of the sale.

I call your attention to the first paragraph, on the first page, the first "Whereas" clause. It says:

> "Whereas each of the parties hereto is the owner of five thousand (5,000) shares (par value $100 per share) of the issued capital stock of Duplate Corporation, a corporation of the State of Delaware, engaged

in the manufacture and sale of non-splintering glass in the United States and elsewhere."

And may I interrupt to ask you, do you recall whether the Viscoloid paid par value for its shares?

A. That is my understanding.

Q. Then it continues:

> [fol. 3959] "Whereas. Duplate Corporation is indebted to Viscoloid Company on open account in the total sum of Five Hundred Fifty Thousand Dollars, ($550,000) for moneys heretofore advanced from time to time by Viscoloid Company to Duplate Corporation for use as working capital."

Then I would like to call your attention to the paragraph, Roman numeral I, on page 2, which reads:

> "Glass Company hereby agrees to purchase and acquire from Viscoloid Company and Viscoloid Company hereby agrees to sell, assign and transfer to Glass Company, for the total sum of Two Hundred Twenty-five Thousand Dollars ($225,000) to be paid in cash or its equivalent, all of Viscoloid Company's right, title and interest in and to its claim of Five Hundred Fifty Thousand Dollars ($550,000) against Duplate Corporation; and it is further agreed that in consideration of the purchase by Glass Company of the claim aforesaid, Viscoloid Company will assign, transfer and deliver to Glass Company, without any further or additional consideration, all of the certificates, properly endorsed, for the five thousand (5,000) shares of the capital stock of Duplate Corporation now owned by Viscoloid Company."

Mr. Harrington, what does that mean in terms of whether du Pont made or lost money out of this venture?

A. Well, it means that du Pont—I think du Pont lost about $825,000.00.

Q. I understand du Pont put in $500,000.00 for stock?

A. That is right.

[fols. 3960-3969] Q. And advanced $550,000.00 to the company during its lifetime?

A. Yes, sir.

Q. And got $225,000.00 back on the sale?

A. Yes.

Q. Do you know whether the Duplate Company ever made any money in any year it was in operation?

A. As I recall, it did not.

Mr. Horsky: I would like to offer du Pont Exhibit No. 173, which is an advice of action dated February 3, 1931, which is an approval by the Finance Committee of du Pont of the sale of the du Pont Viscoloid interest in the Duplate Corporation to the Pittsburgh Plate Glass Company.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 173.)

Mr. Horsky: Finally, I offer du Pont Exhibit No. 174, which is a compilation of the sales by Duplate to General Motors Corporation and subsidiary companies from 1928 through 1931 inclusive.

You will notice that in 1928, on page 1 of the exhibit, looking at the first column, or, rather, the third column on the chart, the total dollar sales to General Motors was $1,155,000.00. In 1929, the sales went up to $1,343,000.00.

In 1930, they shrank to $67,000.00. And in 1931, for the entire year, they went down to $36,000.00.

* * * * * * *

[fols. 3970-3976] Cross-examination.

By Mr. Harsha:

Mr. Harrington, why was this 1922 contract "a continuing one"?

A. I don't know that we would have been willing to provide our manpower, the high class manpower, and go ahead with the efforts involved in the starting of the production of tetraethyl lead, if we weren't going to have an indication and opportunity to see and become a part of the future.

Q. Was it your understanding of that contract that at the expiration of that contract, it would be replaced by another contract in which——

A. If we could make satisfactory terms, we would have the opportunity. It wasn't a foregone conclusion.

Q. Would you have, in effect, the right of first refusal?

A. Well, I don't know whether it went that far or not, but we certainly had an opportunity to bid and make ourselves useful in the manufacture of tetraethyl lead for the future.

Q. Is it fair to say that the understanding of the contracting parties was that the du Pont Company was to be the sole supplier of this product?

A. Not in terms of the sole supplier. It would have the opportunity at that time to go ahead and be a provider of this business, but there was nothing in there at that time that said we would be a sole supplier.

Q. That provision was later incorporated in some of the contracts, was it not, with the Ethyl Company later on?

A. I think it was, in connection with the manufacturing and service agreement, yes.

* * * * * * *

[fol. 3977] By Mr. Harsha:

Q. You recall seeing this letter written by Mr. Sloan, do you not?

A. I don't know whether I have seen this particular letter. I have seen some letters from Mr. Sloan.

Q. Wasn't it your understanding Mr. Sloan was opposed to the Standard Oil undertaking the manufacture of tetraethyl lead?

A. Mr. Sloan was definitely very skeptical to have the Standard Oil of New Jersey start to manufacture tetraethyl lead because he doubted their ability to do the job successfully.

Q. Wasn't that attitude found in the next quoted paragraph of that report, in which he states:

> "'If it develops that these people have a process which, due to the nature of same, it should be cheaper from the standpoint of manufacture, I personally would much rather obtain a license from them, pay for it and get the du Pont Company to use it in reducing the cost [fols. 3978-3980] than I would to deal with the Standard Oil Company as a manufacturer'."

Mr. Horsky: I object. It calls for a conclusion, and an interpretation of the report.

Mr. Harsha: I will withdraw it then.

By Mr. Harsha:

Q. Did you agree with this opinion of Mr. Sloan?

A. Do you mean did I agree with Sloan that he should be skeptical of their ability to manufacture? Is that the question you asked me?

Q. No, I am asking you with regard to this paragraph of the letter by Mr. Sloan in which he states he would personally much rather obtain a license from Standard Oil and pay for it, and then get the du Pont Company to use it rather than have the Standard Oil embark on the manufacture.

A. I think Mr. Sloan exhibited rare judgment when he arrived at that particular conclusion.

Q. You agree with that?

A. I certainly do, because I think he had more faith in our ability to do the job successfully than he had in Standard Oil of New Jersey.

* * * * * * *

[fol. 3981] Q. Now, according to this report, the Bayway plant was only about a tenth of the size of the ethyl chloride plant which the du Pont Company had in operation; that is correct, isn't it?

A. Contemplated to be built, and put in operation?

Q. Yes, and a plant of that size, the Bayway plant, could not seriously compete with the du Pont plant, could it?

A. It couldn't in terms of economics, if it stayed in that ratio, but their idea obviously was to try to demonstrate their process so they wouldn't stay on that ratio.

Q. Did they ever so state to you? Did the Standard Oil people ever so state to you?

A. No, I wouldn't say that they so stated, but Mr. Howard indicated to me on a visit to Wilmington that he was looking forward to the foundation company, as he called it at that time, running another plant which they were contemplating putting down at that same time.

Q. Is this true that the Bayway plant, according to your understanding of the industrial setup at that time, was to [fols. 3982-3983] operate for only six months?

A. That was my idea. It was only an experimental effort for an experimental period.

Q. And then after that, Standard Oil would, if it proved successful at Bayway, build a 500 gallon plant?

A. There was nothing ever decided to that effect.

Q. Did they ever indicate that to you?

A. Mr. Howard indicated a desire for the foundation company to be considered as the operator of that other 500 gallon plant.

Q. Now, the foundation company, that was——.

A. Well, it turned out to be the Ethyl Corporation.

Q. Was that Ethyl?

A. Yes. But at the time he talked to me, he called it the foundation company.

* * * * * * *

[fols. 3984-3985] Q. Read the whole paragraph and perhaps that will refresh your recollection, beginning with; "In seeking to appraise—".

A. You have got to remember that Wescott was writing this particular report and putting his own interpretation on a lot of things and putting his own ideas into a lot of things, too. Don't forget that.

I don't know whether that entire extract is entirely accurate or not. I know we had eight losses of lives, in total, in the bromide and chloride processes.

I think Standard of New Jersey had either five or six. I don't recall exactly what the figure was, and I think that General Motors had two or three.

Maybe it was just two. Now, whether that comes out to the figure that you are expressing here, and Wescott is trying to express, I am not even trying to make an observation on, but I do want to make the observation that this whole report was written by Wescott from Wescott's point of view, and not necessarily from the point of view of reality.

Q. Point of view of what?

A. Point of view of reality. He put a lot of his own interpretations on it.

* * * * * * *

[fol. 3986] Q. Well, when you say a later date, how much later are you referring to?

A. Well, I made a contract for this five year standby position, which was made at the same time, in March, 1925-1926, I think it was. Also I was involved in some of the discussions that were brought up at a later date when they couldn't agree and when there was a very acrimonious disagreement between Webb and these people and so forth, and it finally came around to the point where I got involved in it.

Q. One of the major items of controversy was this question of who should own the plant, isn't that correct?

A. That is correct.

Q. And it was Mr. Webb's position that, if they paid for the plant, then they should take title to it, isn't that right?

A. That is right.

Q. And Mr. Irenee du Pont, I believe, opposed that position, did he not?

A. Very definitely.

Q. And I presume that that was your position, also?

A. Very definitely. We could not have a plant of this kind right in the middle of our dye works, where the title was in the other fellow, and whose method of operations may be wholly inconsistent with our situation, and he would also be dependent upon us for his service facilities, and all that kind of thing. Labor relations and all prob- [fols. 3987-3992] lems of that character would become totally impossible.

* * * * * * *

[fols. 3993-3999] I would like to show you in that connection Government's Exhibit No. 667, which is an extract from the minutes of the Finance Committee of GM for August, 1924. It deals with the formation of Ethyl, and you will note that the composition of that committee includes on it Mr. P. S. du Pont, Mr. Irenee du Pont, and Mr. John J. Raskob as chairman.

Did any of those men to your knowledge ever pass the word down to you regarding the formation of Ethyl?

A. I think the first information we had about the formation of Ethyl was when Mr. Donaldson Brown wrote an official letter announcing it.

Q. In answer to my question, did any of those men ever inform you?

A. I don't recall that they informed me before the time it was officially announced by Mr. Brown. The fact is I feel pretty sure on that because I was tremendously surprised when it happened.

* * * * * * *

By Mr. Harsha:

[fols. 4000-4002] Q. Now, did this discussion that you had with Mr. Pratt also involve a discussion as to the proposed split of ownership concerning this new company that was later known as Kinetic?

A. Yes, it did cover that.

Q. You did discuss that matter as to the mutual stock ownership by du Pont and General Motors?

A. We discussed the affair first on a suggestion of a 50-50 basis, then we discussed the fact that a 50-50 basis lacked control, and it was not very good, and after further discussion, he suggested we divide it 51-49.

Q. Now, was this all in the same meeting? Did this all take place in the same meeting?

A. This particular part of the discussion took place in the same meeting, yes.

* * * * * * *

[fol. 4003] Q. F-114 was an invention conceived by Mr. Midgley of General Motors, is that right?

A. That is correct.

Q. And it was covered by a product patent?

A. I believe so.

Q. Did it come to Kinetic pursuant to this provision in the contract that all future chemical developments of General Motors were to be first offered to this new company?

A. No, sir.

Mr. Horsky: I object. That asks for a conclusion, your Honor.

Mr. Harsha: I think we are entitled to find out about the operation of this agreement.

The Court: What is the basis of the objection?

Mr. Horsky: It calls for an interpretation of the contract as to why Frigidaire should assign this patent to Kinetic.

Mr. Harsha: I am trying to find out the operation.

The Court: Read the question, please.

(Question read.)

The Court: That involves a conclusion.

Mr. Horsky: It asks for an interpretation as to the legal basis on which Kinetic got this patent. It asks the witness to interpret this contract.

The Court: Overruled.

Mr. Harsha: You may answer.

[fol. 4004] By the Witness:

A. No, sir. It came as a part of the original field in which the Kinetic Chemical Company was set up.

Q. It was within the field?

A. It was one of those products where you had the replacement of the fluorine in the hydrocarbon.

Q. Now, the F-114 ultimately proved to be commercially more valuable than F-12, didn't it?

A. Oh, gracious, no.

Q. It did not?

A. No; no.

Q. Even in later years?

A. No.

Q. What is the product used today in household refrigerators, if you know?

A. F-12.

Q. F-12, still?

A. Yes. The fact is (I think you will find that/most of the uses that General Motors used to use F-114 for are now substituted by F-12.

Q. Did you personally consider that this provision contained in Article VII of the Kinetic contract, requiring General Motors to turn over all future chemical developments which it originated in its own laboratories to Kinetic, of value to the du Pont Company?

A. I didn't think it had particular value to the du Pont Company. I think it might possibly have some value to the Kinetic Company, and of course, through that, it would have value to du Pont. But we didn't look upon it with very much concern at that particular time because it was a suggestion that we were perfectly willing to accept.

Q. In your direct examination you read off a lot of figures, I think, that you had in your pocket concerning the financial returns on Kinetic.

I failed to hear you read anything, and I wonder whether you have the figures on the dividends which the du Pont [fol. 4005] Company received from the operation of Kinetic.

A. Yes, I have them. May I use this?

Q. Certainly.

A. Sure, I have the figures.

Q. Would you give us those figures?

A. I thought we read—no, we didn't read that because the du Pont Company would receive the equivalent of 51 versus the 49 shown on here for General Motors.

Q. Can you give me roughly what that amount was?

A. Well, General Motors' dividend, the dividend received by General Motors from Kinetic, was $6,746,810.

That would be 49 per cent of the total, and just a slightly larger figure than that would be 51 per cent—I mean, multiply that by two, this would be the 49 per cent and the other portion would be the 51 per cent.

So that du Pont would receive, oh, slightly more than this $6,746,000.

Q. It would be somewhere around $7,000,000, would that be roughly accurate?

A. I suppose it would be probably $6,800,000 and something. That is just a mathematical guess. I haven't tried to do the job in my head.

Q. Now, you touched on the restrictions concerning the use of F-114 which had been imposed by Frigidaire during the early '30's. Do you recall your testimony on that?

A. I don't think I heard you.

Q. I said you testified on direct concerning the restrictions which Frigidaire imposed on Kinetic regarding the free use of F-114. They wouldn't allow Kinetic to sell it to other persons, as I recall your direct?

A. That is correct.

Q. Would you show Mr. Harrington Government's Exhibit No. 857, please.

This is a letter written September 26, 1938, I believe—either 1938 or 1936,—to Mr. E. R. Breech of General Mo- [fol. 4006] tors, and it is signed by E. G. Robinson, president of Kinetic Chemicals.

I draw your attention to the third paragraph of that letter, which states that:

> "We have from time to time agreed in our Board meetings that we would restrict the sale of 'F-114' to Frigidaire, but this was also agreed upon as a temporary expedient with the reservation that it would be discussed again at a later date. This was also based upon Frigidaire's representation, which we at the time accepted, that the financial interests of both stockholders would be better served by such restriction in that du Pont, as well as General Motors, would make more money through their share in the profits Kinetic would obtain from a broader sale of the refrigerant—"

I am sorry, I left out a phrase.

> "—would make more money through their share in Frigidaire's increased profits than they would make in their share of the profits Kinetic would obtain from a broader sale of the refrigerant."

Isn't this one of the reasons, Mr. Harrington, why du Pont was willing to let Frigidaire have the exclusive use?

A. Mr. Harsha, I never agreed to that. I always thought that the products of Kinetic should be sold freely.

On the other hand, General Motors asked for restrictions with respect to F-114 in the early stages for the purpose of allowing them to get themselves in commercial position. The thing went on for quite some time, and that particular statement was made, but I never agreed with it.

[fols. 4007-4011] Q. Did Mr. Robinson express that opinion to you from time to time?

A. I don't think Mr. Robinson agreed with it either, though it was stated as he states there. But I don't think he agreed with it anymore than I did.

* * * * * * * *

[fols. 4012-4013] Mr. Horsky: I have one question, Mr. Harrington.

Redirect Examination.

By Mr. Horsky:

Q. Will you tell me, if you know, whether there are any present manufacturers of domestic refrigerators that use F-114 today?

A. Mr. Horsky, I cannot tell you that surely and exactly. I think we still manufacture a small quantity of it, and if we do, we must sell it, and presumably somebody must use it.

Q. Could it be possible that that would be replacements in the old Frigidaires?

A. It is possible.

Mr. Horsky: Thank you. That is all.

Mr. Harsha: Nothing further, your Honor.

[fol. 4014] The Court: Are counsel ready to proceed?

Mr. Horsky: Yes, sir.

Your Honor, in checking the transcript last evening, I discovered that inadvertently I failed to offer formally in evidence exhibits marked for identification as du Pont Exhibit No. 127, a letter from Mr. Robinson to Mr. Mittnacht dated September 25, 1933, and du Pont Exhibit No. 172, agreement between du Pont Viscoloid and Pittsburgh Plate Glass, dated January 29, 1931.

I need make no further reference to them, but I would like to offer them formally now.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 127 and 172.)

John R. Sabina, called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

Mr. Horsky: Your Honor, before I proceed with the examination, it might be appropriate to state simply that this witness and the next witness will be directed toward the situation which has existed since January 1, 1948, between the du Pont Company and——

The Court: Subsequent to 1948 or including 1948?

Mr. Horsky: Subsequent to January 1, 1948.

The Court: That includes 1948?

Mr. Horsky: That is right, but since the termination of the manufacturing and service agreement that we dis- [fol. 4015] cussed yesterday when the patents expired and those companies became free to proceed.

The Court: That is tetraethyl lead?

Mr. Horsky: That is right.

Direct Examination.

By Mr. Horsky:

Q. Mr. Sabina, will you state your full name and place of residence for the reporter?

A. John R. Sabina.

Q. And your residence?

A. Media, Pennsylvania.

The Court: Keep your voice up, please. Speak louder.

The Witness: Media, Pennsylvania.

By Mr. Horsky:

Q. What is your present position with the du Pont Company, Mr. Sabina?

A. Technical Manager of the Petroleum Chemicals Division of the du Pont Company.

Q. How long have you been in that position?

A. Since 1945.

Q. Will you state, Mr. Sabina, when you first joined the du Pont Company.

A. I joined the du Pont Company in 1937.

Q. In what position did you first work for the du Pont Company?

A. I worked first in what was then known as the Petroleum Chemicals Section of the Alcohol Division, and I worked in that group until 1945. For the most part I worked over in the dye works, across from Wilmington, as manager of the Petroleum Chemicals Laboratory.

Q. Did you work as a laboratory man during this entire period, as the manager of the laboratory?

A. For the most part. I worked as manager of the [fol. 4016] laboratory until 1944, when I transferred over to Wilmington to take charge of sales of the petroleum chemicals, that is, other than tetraethyl lead.

Q. Before you joined the du Pont Company, very briefly, Mr. Sabina, will you state where you had been, beginning with, say, your graduation from college.

A. I was graduated from the University of Pennsylvania in electrical engineering, and I worked with Baldwin Locomotive Works for about one year.

I transferred then to Atlantic Refining Company in Philadelphia, and worked in their research and development department. There I did work principally in semiworks operations, both design and operation of equipment, and also in other special type operations, such as dewaxing, et cetera.

Then because of my electrical background, I was asked to develop an electrical means for measuring detonation in internal combustion engines. After I finished that job, I asked to be transferred to the automotive laboratory of Atlantic to work on product application problems, both fuels and lubricants.

I became manager of that laboratory in 1936, and then in 1937 I transferred to du Pont.

Mr. Horsky: Can you hear the witness all right, now?

The Court: Yes.

By Mr. Horsky:

Q. What was the nature of your work when you first joined the Petroleum Chemicals Section of the Alcohol Division of du Pont in 1937? What were you assigned to [fol. 4017] do?

A. Well, my activity was to develop petroleum additives. When I first joined the company, they were engaged in a rather modest effort to do this. It wasn't too well coordinated.

This work, incidentally, was carried on in the Jackson Laboratory, and I was given charge of the development work. We built a laboratory and brought together a group of people, about six technical and about fifteen or sixteen non-technical men, to carry out this work.

Q. In a word, what are the petroleum additives that you speak of? They didn't go into tetraethyl lead at that time, I take it?

A. No.

Q. What are they?

A. The first group of products were the so-called gasoline anti-oxidants—chemicals which were added to gasoline in very minute traces to improve the storage stability of gasoline.

In 1939 we developed a new type of compound, which was known as a metal deactivator, which was designed to offset the damaging effects of minute traces of metal in gasoline. By using the metal deactivator, we were able to make a better end product for less money inasmuch as it replaced some of the gas anti-oxidants.

We also worked on lubricating oil additives, both phosphorus bearing compounds and sulphur bearing compounds.

In other words, we attempted to cover the entire range of petroleum products.

Q. Was du Pont selling these at that time or were you developing these for future sale?

A. They were selling them.

[fol. 4018] Q. Did you have anything to do with the selling activities with respect to these petroleum additives other than tetraethyl lead at this time?

A. In 1944 I was moved over to Wilmington to take charge of selling these products in addition to following the technical development. I might add, however, that the sales were a relatively small part of the over-all job. All those products were on alocation by the Government at that time.

Q. Did that work bring you into contact with oil companies?

A. Yes. I met quite a number of people in the petroleum industry. It also served to give me a broader background on refining problems and the problems of distribution and the marketing of petroleum products in general.

Q. Turning to tetraethyl lead more particularly, do you recall when it was that du Pont announced its decision to become a marketer as well as a manufacturer of tetraethyl lead anti-knock compounds?

A. That was in September of 1946.

Q. Do you know how long before that the decision to make that announcement had been made?

A. Well, it antedated that by a year or two, I imagine.

Q. When you recited your previous history, you took us up to 1945. What was your assignment ~~in~~ connection with this tetraethyl lead program, your first assignment?

A. My first assignment after appointment to technical manager in 1945 was to——

Q. What was your first assignment in the tetraethyl lead, what position did you occupy?

Let me put it this way, what position did you occupy in connection with the proposed plan to get into the marketing of anti-knock fluid?

A. My position was Technical Manager of the Petroleum Chemicals Division.

[fol. 4019] Q. At that time was the organization of the du Pont Company changed?

A. Yes. As I mentioned earlier, we were working in the Petroleum Chemicals Section of the Alcohol Division, and at that time the Petroleum Chemicals Section was given division status, and it became the Petroleum Chemicals Division, and I was appointed Technical Manager of the Division.

Q. Is that in the Organic Chemicals Department of du Pont?

A. Yes, sir.

Q. Mr. Sabina, at the time that this happened—when was this, approximately? What date are we talking about?

A. This is December, 1945.

Q. At that time what organization did du Pont have for the marketing as distinguished from the manufacturing of anti-knocks?

A. Well, it had practically no organization. We had a well rounded manufacturing organization under Mr. J. L. Stecher, who, incidentally, was made manager of the Petroleum Chemicals Division, but we had no organization for the distribution or sale of tetraethyl lead.

Q. Where is Mr. Stecher now?

A. Mr. Stecher is retired. As far as I know, he is living in Florida.

Q. Were steps taken beginning in December, 1945, to create a distributing organization?

A. Yes, under Mr. Stecher's direction there were groups set up to take care of the various services that would be necessary to market tetraethyl lead.

One of the groups was the operations group, which was charged with the procurement of tank cars and drums for distribution of tetraethyl lead. Also they set up a group for developing engineering services that might be required in the sale of the product. A safety program was organized and put under the direction of a physician who was experienced in this field. We also took on additional doctors to [fol. 4020] handle the medical examinations which would be necessary in the field.

Q. What was your assignment in this early period?

A. My assignment was to organize a much expanded research and development program, and also to develop the technical services that would be necessary.

Q. Were you familiar with the activities of all these groups that you have mentioned at that time?

A. Yes, sir. We were in very close touch with each other. Actually, the men in charge of these various groups met periodically to discuss their problems and their progress. In fact, you might call these weekly staff meetings.

Q. Did you have any connection with the group that was organized, the actual selling group, the salesmen's organization at that time?

The Witness: Will you repeat the question?

By Mr. Horsky:

Q. I say did you have any connection personally at that time with the group that was set up to do the actual selling, the sales organization?

A. Well, I was very closely associated with them. In fact, that was one of the first jobs I had in the division. It was to find a man to head up this sales organization.

Q. Why were you being assigned to that, if you know?

A. Well, I was practically the only man familiar with the petroleum industry in the group, and inasmuch as I was well acquainted, I was asked to find such a man, a man who was well known in the industry, who had a petroleum background, in fact, who would create a good impression with future customers.

I spent quite some time searching for this man, and I [fol. 4021] think it was in the spring of 1946 that I found Mr. R. E. Miller, who at that time was vice president and director of the Warren Petroleum Corp. I thought he was a good man and I recommended him.

He discussed the situation in Wilmington during the summer of 1946, and finally in September he joined the du Pont Company as sales director.

Q. That is the same date when du Pont announced its decision to go into the marketing? Were the two events related?

A. Yes, these two announcements were made simultaneously, Mr. Miller's appointment and the du Pont entry into the field of tetraethyl lead sales.

Q. Can you tell us a bit more about Mr. Miller, why you thought he was the man w-o would be most satisfactory for this position?

By the way, what title did he have in this group?

A. In our group?

Q. Yes.

A. Director of Sales of the Petroleum Chemicals Division.

Q. Can you tell us what his particular qualifications were that recommended to you, and the du Pont Company?

A. Well, Mr. Miller had been in the petroleum industry quite some time. I believe I learned that he had joined the Marland Oil Company in 1920. The Marland Oil Company later became the Continental Oil Co.

He worked for them in the capacity of personnel manager, and from 1925 to 1926, he managed the Petroleum Safety Council in Tulsa.

He returned to Marland after that, and was there in the capacity of safety director. In fact, I believe he was the first safety director in the petroleum industry in the southwest part of the country.

[fol. 4022] From 1928 to 1934, I think, six years, he was executive secretary of the Natural Gasoline Association, and in that capacity, he was able to meet a lot of the top echelon in the petroleum industry over the entire country.

In 1934, he joined the Hanlon Buchanan Company as Vice President in Charge of Sales. They were engaged in the production and distribution of light hydrocarbons. The Warren Petroleum Corp. took over the Hanlon Buchanan Company, and Mr. Miller joined the du Pont Company from Warren Petroleum.

With that broad background, plus the fact he was pretty familiar with the production, refining and distribution of petroleum products, also the fact that he enjoyed a very excellent reputation led me to conclude that Mr. Miller would be a good man for our job.

Q. Where is Mr. Miller now, Mr. Sabina?

A. Mr. Miller continues as sales director of the Petroleum Chemical Division, but he had a rather serious illness last year, and he is only working part time.

Q. Are you familiar, Mr. Sabina, with how Mr. Miller went about organizing his sales force, after he got there?

A. As I mentioned earlier, we had a small group in the Petroleum Chemicals Section. I am going back now to the Alcohol Division, which handled the sale of additives to the petroleum industry.

That small group, however, was entirely inadequate for all we had in mind, so Mr. Miller started out to hire salesmen for the new and expanded effort. He got these men from the petroleum industry, for the most part, and also from other organizations, engineering organizations of one type or another.

[fol. 4023] He also drew some of the people from du Pont who might be familiar with this type of work.

Q. Was there a training course set up by Mr. Miller?

A. Yes, we set up a training course to give these new men a thorough understanding of our problems and of our product.

Mr. Miller selected the sites for the various field offices. These offices were located in strategic areas in the petroleum industry. We also had district laboratories associated with these offices.

Another one of Mr. Miller's jobs was to set forth the terms under which tetraethyl lead would be marketed.

Q. Now, do you recall when it was that you first actually started to solicit business in anti-knocks, when du Pont first started to do it, to get anti-knock business?

A. Well, we were free under the Ethyl patents to start in 1948 but inasmuch as tetraethyl lead was sold on an annual basis, it was necessary for us to start the solicitation earlier than 1948.

Q. Did that make it the latter part of 1947?

A. Yes, we started in the fall of 1947.

Q. What method did you use for the solicitation?

A. Well, after we had our preparation pretty well in hand, we attempted to solicit 100 per cent of the industry to see if we could persuade them to buy our tetraethyl lead.

Q. Were those people that had in 1947 been buying from Ethyl Gasoline Corporation?

A. Yes. Tetraethyl lead had only been sold by the Ethyl Gasoline Corporation before that.

Q. Did you, yourself—I am speaking of you personally—attend any meetings with anyone of the oil companies [fol. 4024] in attempting to persuade them to buy from du Pont rather than Ethyl?

A. Yes, I accompanied Mr. Miller on many of his trips, and I think on some trips, some of the other men. Mr. Fanning, the Sales Manager, went along. In fact, Mr. Miller made an effort to contact all the major companies that he possibly could.

It obviously was impossible in the time available, so he had other people contact the other refineries. I went with Mr. Miller on many of his trips, and I remember going into the Pennsylvania oil group where I was well acquainted and Mr. Miller was not.

Q. Without going into all the details, Mr. Sabina, what in general were the arguments that you used or that you heard Mr. Miller use to persuade the oil companies to purchase from you rather than to continue to purchase from Ethyl?

A. Well, the argument that Mr. Miller used principally was the desirability of having two sources of supply. I also used that argument, as did the other people in our organization. We also thought it was necessary to convince these people that du Pont could supply the tetraethyl lead, and supply the services that go along with the sale of the product.

Q. Were you in a position in the fall of 1947 to make those assurances?

A. From the standpoint of technical services, and our safety program, yes, but with respect to supplying the product, we were somewhat less than 100 per cent certain.

Q. Why was that?

A. In 1947, there was a shortage of pig lead, which carried into 1948. Of course, that would have a direct bearing upon our ability to produce tetraethyl lead.

[fol. 4025] We also heard from our operations group they were having some trouble procuring the necessary tank cars and drums. This job was made a little more difficult by the Ethyl Corporation. They apparently knew about these troubles, and stressed the fact in their advertising, that they had never missed a delivery.

Q. Did you also use any literature, any folders or advertisements to announce du Pont's intentions and abilities in this respect?

A. Yes, we drew up pamphlets and descriptive literature to tell the petroleum industry the diversification we were going into with respect to services, research, safety program and so on.

Q. I show you, Mr. Sabina, two documents marked for identification as du Pont Exhibits Nos. 146 and 147. I would like to ask you whether these are the materials which you distributed at that time in an attempt to sell du Pont anti-knock compound?

A. Yes, sir, I think they are.

Mr. Horsky: I would like to offer them, your Honor. I will not reprint these. I would like to have these accepted as physical exhibits. They are in the folder on your desk under "du Pont."

The Court: Under "du Pont"?

Mr. Horsky: Yes, I think they will be the first two in that book, 146 and 147.

Do you find them?

The Court: I have them.

(Said documents, so offered and received in evidence, [fol. 4026] were marked du Pont Exhibits Nos. 146 and 147.)

Mr. Horsky: As your Honor will see, these are in the nature of advertising, and they state in each case, that beginning on January 1, 1948, du Pont will market tetraethyl lead compounds.

They announce the facilities and capacities of du Pont to do a job for the refineries which the refineries should find satisfactory.

They answer in du Pont Exhibit No. 147 a number of questions about whether there will be any technical problems about the use of du Pont's compound, what facilities the du Pont will make available to the refiners.

By Mr. Horsky:

Q. This also lists, Mr. Sabina, Wilmington, Chicago, Tulsa, Houston, Los Angeles as the field offices. Are those still the field offices?

A. Yes, sir, except that New York has replaced Wilmington.

Q. Were you, in general, successful in this solicitation? Did you get any business?

A. Oh, yes, we were successful beyond our expectations. In spite of all our drawbacks and our struggles to be ready in time, we had one great advantage, and that was that there was an over-all shortage of tetraethyl lead which led many of the refiners to seek two sources of supply.

Q. Now, let me go back. What, apart from accompanying Mr. Miller on these trips, what were your particular activities, let's say beginning in 1946 and carrying on through to the announcement, the beginning of sale, and so on? What was your specific job?

A. Well, my principal job was to organize a research [fol. 4027] program and a technical service program which we could offer the petroleum industry, we felt that what was absolutely necessary was to be able to convince the refineries that we were trying to back up our product with technical work; we felt that would be a great asset to the sales of tetraethyl lead.

Q. How did you go about this? Not in all detail, but in general, what did you do to do this job?

A. Well, a successful program depends on two things, having the necessary facilities, and second, having the personnel. So we started out by obtaining the personnel that we required, and also building temporary facilities so that we could get into the work quickly.

Now, as our staff grew, we were able to persuade management that they should have better quarters and more facilities, and we finally got the authorization for a laboratory that cost well over a million and a half dollars.

Q. What is that laboratory called?

A. That is the petroleum laboratory and it is located at

Deepwater. I was fortunate in finding an individual to head up that laboratory who was experienced, well known in the field, a man by the name of J. J. Mikita. He came from the Texas Company and is now director of the laboratory.

Q. The Texas Company is an oil company, is that right?

A. Yes.

Q. What does this petroleum laboratory do, again speaking generally? What are your functions?

A. Well, I suppose we could divide the laboratory into four groups: The first group is devoted to the development of fundamental information, in other words, that is information not bearing on any specific product development; [fol. 4028] the second group we might term Applied Research which is the development of new products for our field and for the improvement of existing products; the third group is a group that works with the refiner, helping him to solve some of his problems. In other words, it is a service group; and the fourth group is also a service group which works with the refiners in attempting to improve the application of our customers' product, in combination with ours.

Q. I think that is clear, but can you give us a little bit more detail on each one? In a word, what does the work that deals with the fundamental research do as an illustration?

A. This comes under Dr. Elley of our general research group in the department, the research group in Organic Chemicals Dept.

Q. In the Organic Chemicals Department?

A. In the Organic Chemicals Department. That group devotes its time to the development of basic information. In other words, we are doing work on the chemistry of flame reactions and the possible effect of contaminants that might be found in gasoline on these—such as sulphur and nitrogen compounds.

Q. Do you publish papers?

A. Yes, as soon as we get enough information we feel would be useful to the petroleum industry, we publish the results. In fact, we published quite a large number of papers.

Q. Is this supposed to help du Pont sell tetraethyl fluid? Is that the purpose of it?

A. Well, it is perhaps a little tenuous, but we think it does. What we are trying to do here is to impress on the petroleum industry that we are well developed and well rounded in petroleum technology of the product application type. In other words, we want to create an impression that [fol. 4029] we are preeminent in this field, and we feel by doing that we are expanding our area of acceptance in the petroleum field, and therefore influencing people to buy our tetraethyl lead.

Q. Have you had any evidence that this work is competent work? Have you had any awards for it?

A. Yes, these papers have been very well received, and in fact the various organizations are very anxious to have us present our papers before them. Two of them have received honors. The Society of Automotive Engineers bestowed the Horning Memorial Award on two as the best papers of the year dealing with fuels and lubricants—excuse me. It is just fuels.

Q. Let's turn to the second group, the group you said looked toward improvement in the product.

By way of illustration, what does that group do?

A. That group is working on the development of improved materials or on new products. A good illustration might be their work on du Pont tetraethyl lead fluid which is made up of tetraethyl lead plus a scavenging agent. Now, if we could improve the scavenging agent, we would certainly add to the value of our product, and I think that would have a direct effect on sales. The same applies to tetraethyl lead. If we can improve the efficacy of tetraethyl lead, it would be a big step forward.

Q. Is there much left to do in that field, after 35 years since Mr. Kettering and Midgley discovered it?

A. We think so. We are spending money on it. Since the early days of Mr. Kettering and Midgley, most of the work seems to have been done on the development of the best combination of scavenging agent with tetraethyl lead. In other words, the work has been directed to finding the optimum composition for specific gasolines and engines. [fol. 4030] Now, the tetraethyl lead aspect of it has not received nearly that much attention, and we feel that we have a good field there for improvement. As I mentioned before, if we could enhance the value of tetraethyl lead to refiners such as by offsetting the effect of sulphur on tetraethyl lead, which is quite harmful, we would be doing ourselves quite a good bit of good, both from a research angle as well as from a sales angle.

Q. Does the work of this group also come out in publications?

A. Yes. In fact, we have tried to publish work from all of our groups. We feel whenever we can bring our work to the attention of the petroleum industry, we stand to gain.

Q. All right. Let's turn to the third group you mentioned, which I think you said worked with the refiners themselves.

What, in a little more detail, do they do?

A. That work, or that group, would, for the most part, work with the refiners in attempting to improve the utilization of tetraethyl lead, perhaps by better blending of the refiners' stocks, or by using certain stocks for the premium gasoline versus the regular gasoline.

In fact, it is a direct service to the refiner groups.

We also do work with refinery gasolines, or customers' gasolines, in determining the road quality of the gasoline by rating them in cars that we have. After all, that is the criterion by which his customer is going to judge our customer's products.

Q. Now, what about this fourth group, the one you say works with the customers of the refiner—customers of your customers, is that correct?

A. That is correct.

[fol. 4031] This group is a group of engineers that will go out and work with the refiners' engineers whenever they run into a problem in the field. If, for example, we are called in to help them with an account that might be having trouble, we will send one of our men who might be qualified in that specific area, that specific field, and work with them.

A good example is that of one of our customers who ran into the loss of an account because of what his customer said was poor fuel. We went and worked with those people, with the refiner's men, and it developed it was not a question of poor fuel as much as a question of poor maintenance.

Well, that customer of ours got his account back again, and that is a very good argument, when we go around and try to persuade them to buy more tetraethyl lead.

Q. You have used the word, and perhaps I also, "customers." Do I understand these services are available only to people who purchase from you?

A. No, none of our services are limited to our customers alone. We feel that by giving service to potential customers, we improve our position.

Q. Where do the field laboratories fit into the picture? This group of five divisions.

A. The field laboratories are relatively small organizations which are on the spot to give spot service to our refiners. We have one located here in Chicago at 1025 South Wabash.

These are units consisting, for the most part, of one or two technical men with three or four or five nontechnical men which can give service to the refiners without, of course, going into the extensive background that we can provide at Wilmington.

[fol. 4032] Q. They work, by and large, either with refiners or the customers of the refiners, is that right?

A. That's right.

Q. Can you give me some idea, Mr. Sabina, as to whether this service that you described has expanded, remained the same, or shrunk since 1948, in either dollars spent or number of people employed, or some basis?

A. Perhaps the most convenient way of expressing that is in terms of personnel. When we started out in 1948—actually we started in 1947 to build up the organization—we had quite a small group, that is, a group devoted to petroleum chemicals other than tetraethyl lead.

Since that time we have increased our staff, until now we have approximately 290 to 295 people working in this field of petroleum chemicals, including tetraethyl lead.

As an indication of growth, I might say that in the last three years we have added approximately 90 people to the group.

Q. Let me ask you a question on a little different topic now, sir.

Do you know a substance called iron carbonyl?

A. Yes, sir.

Q. Does that retard knocking in internal combustion engines?

A. Yes, sir.

Q. It is an anti-knock?

A. It is what you might say a good anti-knock.

Q. Has anyone ever discovered how to use it commercially as an anti-knock?

A. Well, the Germans used it commercially on quite a limited scale a number of years ago, but the problem with iron carbonyl is that we don't know how to keep the iron carbonyl from going to iron oxide when it goes through [fol. 4033] the combustion phase. In other words, it turns up as rust in the combustion chamber.

Rust is a good conductor of electricity, so if the iron oxide deposits on the spark plug, you lose ignition. It shorts the engine in a very short time.

Rust is also a good lapping agent. In other words, the use of iron carbonyl leads to a very high rate of engine wear.

Those are problems that, so far as I know, no one has been able to overcome.

Mr. Horsky: In that connection, your Honor, I would like to offer one final exhibit on the iron carbonyl matter, which is a document marked for identification as du Pont Trial Exhibit No. 148, which is a memorandum of March 19, 1925, from Fin Sparre, director, to F. W. Pickard, vice president of du Pont.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 148.)

Mr. Horsky: Rather than have you search for it, I think I can read the first paragraph, which is the only relevant part. This, as I say, is in 1925:

> "Mr. Midgley of the Ethyl Gasoline Corporation comes into my office about once a week and each time I ask him how they are getting along with the test relative to the suitability of iron carbonyl. Each time Mr. Midgley tells me that iron carbonyl probably will be all right except that they have been entirely unable to overcome bridging of the spark plugs which necessitates the cleaning of the spark plugs in 400 miles and

[fols. 4034-4045] upwards. Mr. Midgley's opinion is that iron carbonyl will be of no commercial value unless this difficulty can be overcome. He has stated to me repeatedly and as recently as yesterday repeated that to date they have found no way to overcome this difficulty and they have not even any idea as to how it might be done, though they are working on the subject."

By Mr. Horsky:

Q. Mr. Sabina, one or two general questions.

Have you ever known of any agreement or understanding with the Ethyl Gasoline Corporation, or for that matter, with anyone else, which would restrict the ability of the du Pont Company to compete in the sale of anti-knock fluid?

A. No, sir.

Q. Do you know of any agreement that du Pont has with the Ethyl Gasoline Corporation of any sort?

A. No.

Q. While you have been with the Petroleum Chemicals Division over the period that you have described, have you ever heard anyone mention or discuss any agreement with Ethyl Gasoline Corporation?

A. No.

Q. Is it your opinion that you have been associated with the organization of the Petroleum Chemicals Division intimately enough so that if there had been an agreement, you would have heard about it?

A. I don't think there is any question about it. I have been in pretty close touch with the developments, and I am sure had there been any understanding or any restrictions of any kind, I would have known about it.

Mr. Horsky: You may have the witness.

[fol. 4046] JOHN F. DALEY, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

[fol. 4047] Direct examination.

By Mr. Horsky:

Q. Mr. Daley, your name and address for the reporter.

A. John F. Daley. I live in Wilmington, Delaware.

Q. What is your present position with the du Pont Company?

A. I am general manager of the Organic Chemicals Department.

Q. Will you tell us briefly what other positions you have held with du Pont prior to your present position?

A. Well, I started with the du Pont Company in February, 1915, in a plant manufacturing smokeless powder at Carney's Point, New Jersey.

I stayed at that plant until the production was suspended in February, 1919.

Q. Is that the same plant M Harrington was supervising at that time?

A. That is right, yes.

Between 1919 and 1925, I had supervisory jobs in various chemical operations at the du Pont plants, manufacturing paint, varnish, lacquer, aluminum sulphate, and so on.

In 1925 I was transferred to the Pigments Department plant in Newark, New Jersey, and I was manager of that plant until 1932.

In 1932 I was made production manager over all the plants in the Pigments Department, and I stayed in that job until 1940. At that time du Pont had received or been requested by the United States Government to build and operate the first ammunition plant which the Government wanted built in connection with supplying ammunition to the Allies in World War II.

I was sent down to Charlestown, Indiana, to be manager of that plant.

[fol. 4048] Q. Were you in the employ of du Pont or of the United States at that time?

A. That was du Pont. Du Pont had a contract to operate it.

I stayed there about two years and came back to the Pigments Department. I was there about three months when the Chief of Ordnance, the United States Army, asked me to take a job with the War Department in connection with the manufacture of ammunition.

At that time the War Department had a total of 55 Government owned contract operated plants, making ammunition of various types and ammunition components.

Those plants were supervised by an agency in the Ordnance Department, and I took the job as deputy field director of ammunition plants. I got a leave of absence from the du Pont Company and I stayed on that job for two years.

Then I came back to the Pigments Department again, I guess it was around the end of 1944, and shortly after that I became general manager of the Pigments Department. In June, 1948, I was transferred to my present job as general manager of the Organic Chemicals Department.

Q. Do I understand from that recitation correctly that your first contact with anti-knock marketing and production was in June, 1948?

A. That is right.

Q. What are your duties as general manager of the Organic Chemicals Department?

A. Well, I supervise the activities of the department. I am fully responsible for the results of the department.

Q. Will you state what the major products of the department are and how it is organized, briefly?

[fol. 4049] A. We manufacture a complete line of dyes, and a rather wide variety of chemicals for the textile industry.

We manufacture synthetic rubber, which we market as Neoprene, and a line of rubber chemicals.

We manufacture the refrigerant which we market as Freon, and we manufacture tetraethyl lead, and a supplementary line of petroleum chemicals, and a rather wide variety of other chemicals for the paper, drug, leather and soap industries, and so on.

Now the department is organized—we have a director of manufacture, who has full charge of our manufacturing activities.

We have a director of research. We have a separate director of sales for each one of the major commodities.

You might say that we have an organic chemicals business, and we are responsible to the Executive Committee of the du Pont Company.

Q. What is your relationship with the Executive Committee?

A. Well, du Pont Company is divided into ten separate operating departments, each one with a general manager.

Q. Of which organic chemicals is one?

A. Organic chemicals is one of them.

Now, each general manager has fairly complete authority to run his own business, subject to certain specific regulations, matters which he must take up with the Executive Committee.

For instance, in the investment of additional capital above a certain stipulated amount, he would have to refer that to the Executive Committee, and then there would be matters of over-all policy, something that might affect more [fol. 4050] than one department, and you would naturally take that up with the Executive Committee.

I would say that the things that you take up are quite major items, otherwise you run the department as the chief executive of the department.

Q. Do you report to the Executive Committee orally or in writing?

A. Everything that you take up with the Executive Committee, the rules of the company require you to submit it in writing.

Q. Do you report to any other officials in the du Pont Company apart from the Executive Committee?

A. No, the general manager has relatively complete authority and reports to no one else.

Q. Let me come more specifically to tetraethyl lead. That is one of the products, you say, which the Organic Chemicals Department markets, is that right?

A. That is right.

Q. And produces as well?

A. That is right.

Q. Do you delegate the responsibility within the Organic Chemicals Department for the tetraethyl lead operation to a single person or to a group of people, or how does that work?

A. Well, tetraethyl lead is handled like every other major commodity. We delegate the authority—well, the authority for manufacture is under the director of manufacture; the research work is under the director of research; and we have a separate director of sales.

Q. Mr. Sabina's position as technical manager bears what relation to the general director of research that you mentioned?

A. Well, there is necessarily a very close tie-in between research and technical manager of sales.

[fol. 4051] Q. Technical assistant to sales, I believe, is the term.

A. Technical assistant to sales. Mr. Sabina is in a liaison position between research and sales and the technical contact with our customers.

In other words, he takes men out of the research laboratory where that is indicated, men who might have contributed to a certain piece of work in which a customer would be interested. He is free to go and take those men out to the customer's laboratories or offices for technical discussions, and so on, and he brings back to research any work which he knows of which will guide them in their research work.

Q. Apart from manufacture and research, the balance of the tetraethyl lead operation is in the Petroleum Chemicals Division, is that correct?

A. That is right.

Q. Will you tell us briefly how the Petroleum Chemicals Division itself is broken down, is organized?

A. We have a Petroleum Chemicals Division Director of Sales, and an Assistant Director of Sales. Reporting to them is a Sales Manager.

Reporting to the sales manager are the five district managers, and reporting to them, in turn, are the field salesmen.

Now that is the direct line of selling. Going back to the director of sales and his assistant, in addition to the sales manager reporting to them, they have a number of specialists, men who are qualified in various activities which we consider necessary adjuncts to sales and are equipped to be of assistance to the salesmen and to the customers when called on.

I have in mind the manager of operations who is a refinery expert; the medical manager, the safety manager, [fol. 4052] the sales promotion manager, the advertising manager, and so on. They have quite a number of men there, and each one of those men has a staff of several assistants who are trained in the same specialized fields.

Q. What is your relationship to the Petroleum Chemicals Division and this group?

A. Well, I get routine reports from them. I have frequent discussions with them, and I am fully responsible for their results.

Q. At the time that you became the general manager of the Organic Chemicals Department in, I think you said June of 1948, was the organization the sa[illegible]s the way you have now described it?

A. No, it was not.

Q. What was the difference?

A. Well, at that time all of the personnel working on tetraethyl lead were in a separate division, with division manager and assistant division manager.

When du Pont started in, when they made a decision to start to market tetraethyl lead, the people who knew anything about tetraethyl lead had been the men who had been in charge of manufacture and had come up through manufacturing, spent all their working lives in manufacturing. They just tacked the rest of the organization onto those two men, the top men, and made them division manager and assistant division manager with a sales head, technical head, and so on, reporting to them.

Well, it seemed to me that our job——

Q. Do I understand that you changed that?

A. Yes, I changed it.

Q. Go ahead.

A. I didn't like it because our job was going to be very apparently a sales job.

[fol. 4053] Q. When did this change occur? Let me interrupt to ask that.

A. It occurred at the end of 1948, first of 1949.

We knew as much about manufacturing tetraethyl lead as anybody did. We had no worry on that score. We had an excellent research background and an excellent research director and personnel.

We didn't know anything about selling tetraethyl lead, and I figured we were up against a long established, firmly entrenched, and very capable sales organization who had very definite advantages over us. I didn't want anything in the way of a division manager who had grown up in production work to impede in any way our sales effort.

I wanted to put the sales responsibility right squarely on the men who were going to sell, and not to have them inhibited in any way, and hold them accountable for results. Give them free rein in the development of personnel, their policies, and so on, subject only to my own direction. That is what I did.

Q. I understand you to mean that you took manufacturing and research out from under, in other words, and put them under the general manager of production and manager of research of organic chemicals?

A. That is right.

Q. Let me ask you a few questions about the kind of selling arrangement you have.

You have two types of anti-knock fluids, is that right?

A. That is right.

Q. That is "Aviation Mix" and "Motor Mix"?

A. That is right.

Q. Those are the trade names that du Pont uses?

A. That is what we call them, yes.

Q. Does Ethyl Corporation also have two types of fluid?

A. Yes, they do.

[fol. 4054] Q. The composition of the fluid—let's take aviation first.

Is the composition of du Pont's aviation fluid identical with the composition of Ethyl's aviation fluid?

A. Yes, I would say so.

Q. How about on the side of the motor fluid? Is the composition of the two the same?

A. Yes.

Q. Is the color the same?

A. Well, you have the dye to begin with which can vary and probably does vary, for all I really know. There are certain changes made in certain dyes from time to time, but that is of small importance.

Q. Are the prices of the two products—let us take aviation fluid: Is the price of the du Pont aviation fluid the same as the price of the Ethyl aviation fluid?

A. Well, the unit price as quoted is different. The end price, in cost I would say to the consumer, is very close to being the same. The tetraethyl lead is a specific chemical compound, and you add very definite quantities of dibromide or dichloride. In the case of aviation gas, it is dibromide.

In other words, if you have a specific chemical compound which has guaranteed quantities of certain added materials, naturally the price of yours and the competitive material will have the same value and find the same price level.

The Ethyl Corporation, for some reason, priced their materials on the basis of the number of cc's in the fluid.

Q. Of what; of lead?

A. The number of cc's of tetraethyl lead in the fluid. Well, inasmuch as it is a guaranteed quantity of each one of the ingredients, it seemed to us to be rather unnecessary to go through all of that arithmetic, so we just price ours [fol. 4055] at so much a pound of fluid, but, as I say, the end result comes out to be practically identical.

Q. That is true likewise of the motor fluid?

A. That is right.

Q. Can you explain why the prices are the same?

A. Well, we are dealing with the same raw material. In general, the quality is guaranteed to be the same. It has to be the same if it is going to compete. It is rather foolish to believe that a purchasing agent will pay one man more than he will another man for the same product. There is a guarantee in our contract that our price will be competitive with competitive prices, and I think Ethyl has the same specification in their contract as to meeting competitive prices.

Q. Does the price level change from time to time?

A. Well, the price level in the past has changed quite a bit, particularly when you are in a period of fluctuation in the pig lead market. That is one of the major cost items. It changes as often as every three or four months.

When price restrictions were on, the changes, of course, were minimized. I think there were no price changes at all in 1952.

Q. How does du Pont ordinarily announce a price change?

A. Well, we have a specification or agreement in our contract with the customer that we will give him thirty days notice in advance of a price increase.

For that reason, when we make up our mind to make a price increase, we wire each customer.

Q. You mean something in advance of thirty days before the effective date?

A. That is right.

Q. Do the trade journals of the oil industry report that [fol. 4056] action generally?

A. Yes, the trade journals like to have news when it is fresh. If you don't notify—if we make any change which we know is of interest to the petroleum industry, if we don't tell the trade journals they are very much annoyed, and will say so; so we make it a practice to notify the trade journals in the petroleum industry when we make a price change.

Q. Do you send an announcement of your proposed price change to the Ethyl Corporation?

A. No, sir.

Q. Do you receive announcements of Ethyl's proposed price changes from Ethyl Corporation?

A. No.

Q. Is there any understanding or arrangement, or practice, Mr. Daley, by which either du Pont or Ethyl customarily makes the first announcement?

A. No, sometimes it would be one, and sometimes it would be the other.

Q. Is it customary or is it usual that if du Pont announces a price change that Ethyl likewise announces a price change? Let us say if you make one first, does Ethyl usually follow?

A. Well, when we make a price change, we do it for good reason.

Q. Let us take one going down. If you reduce your price, does Ethyl usually follow down?

A. Well, Ethyl would have to meet the competition.

Q. And if Ethyl reduces its price, do you usually go down?

A. Yes.

Q. Now, suppose you go up. Does Ethyl usually go up with you?

A. Well, they don't have to go up with us. They have no guarantee with the customer. What I started to say a minute ago was that the factors that dictated to us the justification or necessity for price increase, would be a change [fol. 4057] in the price of the pig lead or some other raw material. The thing that has affected us is bound to have affected the other consumer. It may be an increase in labor rates, and with the practice that has prevailed over these last few years, an increase in labor rates is no secret. If it happens in one area, it happens in another area.

When we come to the point of figuring that because of these changes in the cost conditions we ought to have a price increase, we can also make a pretty fair estimate that anyone else manufacturing this same commodity is going to feel the same way.

If we felt that the reasons that we wanted this price increase were peculiar to us, we would not change the price. It would be plain suicide.

Q. Have there been occasions, Mr. Daley, when you have announced the price increase which Ethyl has not followed?

A. Yes, there have been a couple of instances where price increases have been made. We have gone high, and we have had to back down to their level.

Q. Because Ethyl did not follow you?

A. Didn't follow, that's right.

Q. Have you ever consulted about prices with anybody in the Ethyl Gasoline Corporation?

A. No.

Q. Have you ever discussed prices with anybody in the Ethyl organization?

A. No, sir.

Q. Well, let me take a little different topic here:

How do you deliver your "Motor Mix" and "Aviation Mix" fluid to the customer? What form does the delivery take?

A. Well, most of the refineries are equipped with railroad sidings, and we deliver to them in tank cars. Now, there [fol. 4058] are some that are not so equipped. They are relatively few, but deliveries to them would have to be made by tank truck or by means of drums.

Q. Do the facilities that you offer to the customer by way of the delivery differ in any respect to that Ethyl offers by way of delivery?

A. Yes, I think there is a difference there. Our plant is in New Jersey, and our customers run all the way across the United States—Illinois, Michigan, Oklahoma, Texas, California and so on. Well, it could take as long as two weeks to get a carload of tetraethyl lead to some customers from our factory, and one of our men conceived the idea that it would be a nice stroke if we rented sidings from railroads at strategic locations.

We went ahead and did that. It gives an insurance of supply to the customer. He knows that stock is there, and he can get it if he needs it. We can deliver tank cars of tetraethyl lead to a Chicago refinery in six hours, if we have to.

Q. I don't think I understood you. You rent the sidings, and then park the cars there?

A. We store loaded cars of tetraethyl lead on those sidings right ready to go to the customer's refinery on call.

Q. Does Ethyl Corporation do that?

A. As far as I know, they do not. There is the question of the people who are not equipped with sidings. We install storage capacity out in California so that we can deliver in truck or even in drums to some customers.

Ethyl Corporation has such a storage near the Marcus Hook area just north of Wilmington, to supply the eastern customers.

We don't have any as yet on the Gulf Coast which is a [fol. 4059] very substantial outlet for tetraethyl lead. There are a lot of refineries down there, but we are projecting our next plant to be built down there on the Gulf Coast.

Q. Is there any difference in the facilities that you offer by way of truck deliveries from those offered by Ethyl?

A. Not except from those tank storage locations.

Q. Do you have any facilities that you can offer the refiner by way of mechanical equipment for his refinery, to get it from the tank car or the truck into his own tanks.

A. Well, we have rather recent developments there, relatively recent.

One of our men conceived the idea of using a flexible metallic hose for unloading. Previously they had used the pipe couplings which caused a lot of time—it was time-consuming—and the handling of various of those connections and couplings increased the lead poisoning exposure, and the simplified set-up that this man of ours developed was quite a boon to the refinery and had been quite appreciated. We have had expressions of appreciation for the job.

Q. Does Ethyl offer a similar hose?

A. I don't know.

Q. Do you both sell to the same classes of customers?

A. No, I don't think so, entirely. We took the position that anybody that qualifies properly as a buyer of tetraethyl lead, that we should sell him.

Q. What are the qualifications?

A. Well, we set the qualifications. Let's say he has to be financially responsible and he must be equipped to handle tetraethyl lead in a manner which is approved by our medical and safety council.

Now, there are jobbers of gasoline—people who buy in large volume and sell through a chain of stations—such [fol. 4060] people as those, if they can qualify from the medical and safety angles, we sell them.

It is my understanding of Ethyl's policy that they won't sell to anybody without a refinery.

Q. Does du Pont sell to some of these?

A. Oh, yes.

[fol. 4061] Q. Mr. Daley, I would like now to turn briefly to the topic of the sales techniques that du Pont uses in selling its Motor Mix and Aviation Mix.

Let me get a bit of the background. When you arrived in the Organic Chemical Department in June, 1948, had the sales program of du Pont with respect to its anti-knock fluid been successful up to that point?

A. I think the sales volume in 1948 was substantially higher than could reasonably have been expected for the first year of effort. They sold a total of 60,000,000 pounds, which was substantial.

However, there was a shortage question involved which probably influenced that to a considerable extent.

Q. Did that shortage continue?

A. That shortage was over by the end of 1948.

Q. Did the end of the shortage have any effect on du Pont's selling activities or sales?

A. Yes, it did. Certain customers who had gone to du [fol. 4062] Pont because of the fear of shortage were going back to the Ethyl Corporation.

Q. In the latter part of 1948, you told us that you reorganized the sales department—I mean, reorganized the Petroleum Chemicals Division to separate out from under manufacturing and research a sales organization with the sales manager or director of sales at the head of it, is that right?

A. That is right.

Q. Was that reorganization in any way caused or motivated by the fact that du Pont's sales were shrinking?

A. Yes, it was.

Q. Did it have an effect of bringing them back up again?

A. I think it had quite a good effect on bringing them back up again.

Q. Did the reorganization effect any change in the customer approach by the du Pont sales organization?

A. Yes, it had a very definite effect in that respect.

Q. Would you explain what the difference was, what the change was?

A. Well, you have to understand the difference as we found it between our past experience in selling chemicals and the policy which was being followed in the sale of tetraethyl lead.

In the sale of chemicals, you invariably sell to the purchasing agent or to the factory manager, the man who consumes the product and is responsible for the quality of his product in turn.

In the case of tetraethyl lead, to our surprise we found that in the oil company, that is the buyer of tetraethyl lead, the man who had a great deal to say about the purchase of tetraethyl lead and where it was bought was the vice-president in charge of marketing.

Now that stemmed from the fact that when Ethyl started to sell tetraethyl lead, they sold it on the principle that it [fol. 4063] could be used to increase the sale of gasoline, and the man in the oil company, who was interested in increasing the sale of gasoline, was the vice-president in charge of marketing.

They went after him, and he became the one who called the tunes on tetraethyl lead purchases in a great many cases.

We found that we had to get in there and work, expand our activities. We had to continue, of course, to sell the purchasing agent and the manufacturing department because we think that is the sound way to sell, but we also had to expand our activities to sell our services and build up our reputation with the marketing divisions. That is what we did.

Q. Was there any particular event or occurrence which brought the necessity for this change in approach to your attention?

A. Yes. At the end of 1948.

Q. What was that?

A. We had had one hundred per cent of the business of the Union Oil Company of California in the year 1948. When we went to renew this contract in 1949, we were given just half the business, instead of the whole business. The top man in that company told me personally that that was done on the advice of their marketing division, who said that they were being given substantial help in their marketing efforts by the Ethyl Corporation, and they thought it ought to be recognized with business. They were giving them much more help than du Pont was in that respect.

Q. Did you find that du Pont could organize a program of being of assistance to the marketing divisions of the oil companies?

[fol. 4064] A. Yes, and I must admit somewhat to my surprise. I didn't think it normal to expect that people who were marketing tetraethyl lead could be of any great assistance to people who had spent their lives marketing gasoline, but it did happen that way.

Q. Did you find that the existence of the Ethyl trademark was an obstacle in selling your anti-knock fluid?

A. The Ethyl trademark was very much of an obstacle.

Q. Why was that so?

A. Well, I would say it was the greatest obstacle that we have run into in marketing tetraethyl lead.

The Ethyl Corporation have what they call a trademark agreement, and they ask the refiner to sign this trademark agreement, and if he signs it he is permitted to use the word "Ethyl" in his brand name, for instance, or in his advertising or in signs about his filling stations and he has the privilege of using what is called the Ethyl emblem on his pump.

The refiner on the other hand commits himself in this agreement that any gasoline that is put through that pump on which the Ethyl emblem is displayed will contain only tetraethyl lead manufactured by the Ethyl Corporation.

Now that agreement applies to premium grade gasoline. It doesn't apply to regular grade nor does it apply to aviation grade. So you might say that those two sales fields are still open to us without any hampering whatever or any effect from this trademark agreement. It is true for aviation gas. We can compete and we do compete very successfully in the sale of aviation gas without harm from this trademark agreement.

But you will find a great number of refineries who have only one scale tank, storage tank for tetraethyl lead, and [fol. 4065] if they buy tetraethyl lead from two sources and mix them in that tank, they have had rulings from their legal departments that they are no longer in a position to carry out the commitment they have made in the trademark agreement because inevitably the tetraethyl lead will be mixed, and they will be putting gasoline through their premium pumps which contains something other than the Ethyl tetraethyl lead, and that would be a violation of their agreement, and their legal departments have told them that that wouldn't be proper.

Q. Just so we can be clear, there is some anti-knock fluid put in both regular grade gasoline and premium grade gasoline now, is there not?

A. Practically every gasoline sold today has tetraethyl lead in it.

Q. But the greater percentage of tetraethyl lead is in the premium gasoline, of course?

A. I believe in most cases that is correct, depending on the base stock that they start with.

Q. Now, could you describe for us, Mr. Daley, some of the techniques that du Pont has developed for assisting itself in the sale of its anti-knock fluid by helping the marketing organization?

A. Well, du Pont has developed quite a number of techniques. I can think of some outstanding ones. I think the one which has had the greatest effect and has been of maximum interest to our customers and prospective customers is the so-called fuel test fleet which we have inaugurated, and we started in 1950.

We equipped two automobiles with some very intricate instruments which measured the anti-knock properties of the fuel and measured the engine performance, and meas- [fol. 4066] ured the fuel efficiency and we equipped these cars with ten separate storage tanks for ten different fuels. You can sit in the front seat of that car, and you can change your fuel by pressing a button and instruments on the dashboard immediately in front of you show the anti-knock properties, the engine performance, the fuel efficiency, and so on.

It was a very extensive and a very elaborate set-up, and it had a very strong appeal to the marketing division of the oil companies. It was a tool which they immediately recognized that they could make excellent use of in selling to their customers and in demonstrating their product to their customers in a very simple, ready, and easy fashion.

We sent those cars 50,000 miles, I think it was, in the year 1950 demonstrating them to our customers.

Q. Did I understand you to say that these were made available to the oil companies so that they can show their gasoline to their customers, is that the purpose?

A. Well, they used them for several purposes. They used them for educational purposes for all of their personnel, and fuel station distributors, and they use them to make comparisons for their own benefit of their own and competitive fuels, and they use them as a sales aid to their customers.

Q. Let me ask you about some papers, Mr. Daley, which have been marked du Pont's Exhibits 149, 150, 151 and 152. Will you explain to the Court what those are?

Mr. Harris: If the purpose is to introduce them into evidence, we object at this time to their introduction. They are purely advertising matter.

Mr. Horsky: That is exactly what they are, your Honor. That is exactly the reason I am offering them here to show [fol. 4067] that du Pont is using a sales tool. I think the record should show how du Pont is trying to sell.

Mr. Harris: This witness has told the story. He is under oath, and I call the Court's attention particularly to three of these documents, Exhibits 150, 151 and 152. They are nothing but studies in road knock tests and octane numbers. It is the same kind of technical material that your Honor ruled on the other day.

The Court: Are you objecting to 148 and 149?

Mr. Harris: Well, I haven't 148 before me. 149——

147, if your Honor please, and 146, we have not objected to for the obvious reasons that they were announcements beginning in 1948 of the entry of the du Pont Company into the distribution of tetraethyl lead, and we felt they were proper.

These other exhibits are not in the same class at all. If your Honor will look at 149, it is a highly illustrated document, talking about the fuel test fleet which the witness has very simply described now.

Mr. Horsky: I have not offered No. 153. I have not asked the witness to look at No. 153.

Mr. Harris: I don't say you have.

He is talking about the fuel test now without any pictures. 153 is just a volume of pictures telling the story of the du Pont services to the petroleum industry.

We submit they cannot make in this record a glorification of the du Pont Company. They have to meet the issues we believe with other evidence.

[fol. 4068] Mr. Horsky: The issue, your Honor, in this case, as I understand this portion of the case is whether du Pont is competing with Ethyl, or whether du Pont is not competing with Ethyl.

The purpose of these exhibits, it will be explained in answer to questions, is to show how du Pont is competing with Ethyl. These are not to show what octane numbers are. These are introduced to show how du Pont marketed tetraethyl lead in an attempt to effectively compete, and I do not introduce them for the textual material, or the truth or falsity of the statements in them, but simply as an illustration which the witness cannot describe orally, of the material which du Pont uses.

Mr. Harris: I think the last statement of counsel puts him out of court. He said he is not putting them in for what is in them. The witness is telling the story.

Mr. Horsky: I am putting them in, Mr. Harris: I am trying to answer any statement that you may make that you cannot cross examine any witness.

The Court: Any evidence that shows competition is material.

Mr. Harris: I submit that is proper from the witness.

The Court: It seems to me if there is written material in these exhibits that tends to corroborate what the witness has said, that is further evidence.

Mr. Harris: Your Honor can see that there is no limit to that?

Mr. Horsky: I have not offered them yet.

Mr. Harris: Allow me to finish, please.

[fol. 4069] The other side of this is that you do not have before you what Ethyl is doing. It does not tell anything about the kind of competition that is going on.

Nobody is saying anything about Ethyl here. They simply come in and show you these books of pictures.

The Court: Of course, I cannot anticipate what is coming.

Mr. Harris: I say it does not come in, you do not get any picture of the kind of competition that is going on. I submit the proper way, your Honor, to prove it is the way they are doing it before they came to these pictures, and that is by witnesses who can be cross examined.

The Court: Well, if these exhibits tend to corroborate what the witness has said, they are additional evidence.

Mr. Harris: Would your Honor care to look at them before your Honor rules?

The Court: Yes, I will.

By Mr. Horsky:

Q. Will you explain what these documents are beginning with 149, 150, 151 and 152. Tell the Court first what they are; and second, what they are used for by du Pont in its selling efforts?

A. Well, I have stated we sent two cars out on the road, and the two of them made 50,000 miles apiece in 1950. They were scheduled to go across the United States. They went from refinery to refinery, and they demonstrated to the interested people who were present at that time, at that location what the cars could do. They supplemented the actual demonstration with this descriptive matter which explained what we were showing these people, this illustrated folder here.

[fol. 4070] Q. That is du Pont's Exhibit No. 149?

A. 149 shows the makeup of the instrument panel on the dashboard of the car that I mentioned. It also shows the ten separate storage tanks in the back of the car. It shows the number of fuels that can be demonstrated while the car is in operation.

Q. Are those widely disseminated throughout the oil industry, those folders you are holding in your hand?

A. Yes.

Q. Will you proceed with the other three booklets?

A. The other three are details of the explanations made by the demonstrators, when they took these cars around, what they told the people, how they explained the road knock instrumentation, and all the instruments that were in these cars.

If you just look at du Pont Exhibit No. 150 for a minute, and take just one page which is folded down, you can see, for instance, the wiring ~~system on~~ the car and how intricate it is. It is a hard thing to describe in a few words, but just looking at it, you can see that a very tricky and intricate job has been done in putting this together. After our men complete their demonstration, they leave these folders behind so that the people who have seen the demonstration can review it, and they can show it to other interested people who might have missed the demonstration.

Q. Are these pamphlets made available, these pamphlets du Pont Exibits Nos. 150, 151 and 152, made available to the companies for the purpose of allowing them to transmit them to their customers, the oil companies' customers?

A. Yes, they would serve that purpose. It gives them a better, thorough understanding of what the cars are for, and so they in turn can——

Q. Are these what you would call sales tools used by du Pont?

A. Definitely.

[fol. 4071] Mr. Horsky: I submit they are admissible, and I offer them in evidence.

The Court: That is which ones?

Mr. Horsky: Du Pont Exhibits Nos. 149, 150, 151 and 152. I have not come to 153 as yet.

The Court: Well, suppose you go ahead with 153, and I will read these others.

By Mr. Horsky:

Q. You were describing, Mr. Daley, some of the techniques which I asked you about that du Pont uses, and the first one you mentioned was this fuel test fleet.

Are there other techniques which du Pont uses to aid the marketing organizations of the companies, of the oil companies for the purposes of selling?

A. Yes, I have particularly in mind our quarterly national gasoline quality survey. Now, the quality of gasoline that is being marketed by the various companies all over the United States is of interest to every other company who competes with them. It is a matter that any manufacturer would want to keep up to date on.

We are organized to take about 700 samples of gasoline within a period of about forty-eight hours from every important distributing center in the United States. We are set up to get those samples to our laboratories, to have the analysis made, to have the results tabulated, to have them printed in rather attractive form, and on the desks of the petroleum refiners in a very short time while the information is fresh, while it is of maximum interest to them, and it has an added value in that it is a repetitive service. It happens every three months. And our name gets on those [fol. 4072] desks through this booklet which tabulates this information, and as I said, it is information they want and they appreciate it, and they have told us so a great many times.

Q. Is that continuing now?

A. Oh, yes, that has been in effect for a matter of years, and is continuing.

I could take, I could refer to another item:

When we decided we wanted to compete with the Ethyl Corporation in the service we gave to the marketing divisions of the oil companies, we had to find out what would interest the marketing divisions of the oil companies, and one item which we found concerned a number of them was sort of a growing conception on the part of a great many representatives of the public that the oil trucks used on the public highway hadn't received proper attention in the matter of affording adequate safety.

Well, we sent some engineers out to study just wherein these oil trucks were inadequate, to see if we could make a contribution towards improving them, and they came back after a very thorough analysis and said they thought that the oil companies had done an outstanding job in putting every possible safety precaution into those trucks.

Well, our people then decided to have a moving picture made which was to demonstrate that, and demonstrate the basic features that were built into the trucks, and worked out in such a way to show that they had every reasonable safety on the public highway.

We called that picture "A Pipeline on Wheels," and we sent it out to various refiners on sort of a scheduled basis, and the reception was such that we didn't have anywhere [fol. 4073] near enough prints. They all wanted it, and all wanted to show it to their organizations, to civic organizations, and church organizations, and so on, and we had to get out a great many extra prints to take care of the demand that came in for that picture.

We have another item which is more recent. We hired an outside organization to make a gasoline consumer buying-habit survey. It was a very complete job, a very detailed job, and it went into why people buy gasoline where they buy it, why they buy the brand they buy, what they buy while they are on the road, what type of station attracts them, the value of other merchandise sold in the station, and the thousand and one angles.

Well, our people have been able to take that and draw out of it, pull out of it, some very valuable information for use by merchandisers of gasoline.

Q. Have you made it available to them?

A Oh, yes.

Those are the illustrations I could think of at the moment for the type of service that we give.

Q. Do you know whether Ethyl Corporation has movies which it makes available to the oil industry?

A. Yes, I am pretty sure they do.

Q. Does du Pont also have a film library in addition to this "Pipeline on Wheels"?

A. Yes, we have a rather complete library, mostly on technical subjects and other types of demonstrations pertinent to refinery operations, and so on. The one I am speaking of is rather exceptional, "The Pipeline on Wheels" story.

Q. Do you know whether Ethyl gets out any printed material as an aid to its own selling?

A. Yes.

Q. In quantity?

A. Oh, yes.

[fol. 4074] Q. Can you illustrate, Mr. Daley, how any of these particular techniques have either gained you or retained you a customer, a particular customer?

A. Well, I have told you how we lost half of the Union Oil of California business because we weren't giving good relative service of this type.

Now, on the plus side I can think of the Ohio Oil Company. We had gone—we had been trying to sell tetraethyl lead to the Ohio Oil Company through the years 1947, 1948 and 1949, and we made a lot of friends. We did a lot of good work there.

We could sort of get men on base, but couldn't get a run in or get an order. That is about what it amounted to.

But along came the test fleet that I mentioned. Now, for some reason, that Ohio Oil, they wanted one of those cars, and they wanted it right now.

They recognized it as something that would be an important sales tool to them.

Well, we couldn't interrupt our fleet schedule, but they asked us if we would accept an order to equip a car in that way for them. We did accept the order, and they sent three men into our plant in New Jersey, and they watched or helped with the installation of the equipment and we instructed them in this operation so they could carry on on their own.

I don't say that is responsible. I don't think any one act is responsible for a contract. The contract is usually gotten by virtue of the last thing you do for somebody. It is sort of the straw that breaks the camel's back performance.

We had done all kinds of work for Ohio Oil, and had lots [fol. 4075] of association with them, but significantly after this one occurrence we got an order for a contract for part of their requirements for the year. This was 1950.

I can think of a similar occurrence with Sun Oil Company. Sun Oil Company marketed their gasoline line as Blue Sonoco. I believe at that time—which again was, I suppose, around 1950—the gasoline that we marketed, and I think Ethyl gasoline was, too,—was colored an orange.

Q. You mean the fluid you marketed?

A. The fluid, the tetraethyl lead, yes. It would give it a distinctive color as a warning for its toxicity properties. That aggravated the dyeing problem of the Sun Oil Company. They had to have dye to color the gasoline, and had to have dye to offset the orange dye that Ethyl had in their tetraethyl lead—not that we had, because we didn't have the business at that time.

One of our men—it sounds awfully simple now—one of our men conceived the idea of selling them blue tetraethyl lead which simplified a great deal this dyeing problem and enabled them to use less dye and significantly it happened just shortly after that we got our first contract for motor mix for the Sun Oil Company.

Q. Can you think of any other illustration?

A. Well, I can think of the Sinclair Refining Company. It is another case where we had a lot of good friends, we did a lot of good work, but the Ethyl Corporation was rather strongly entrenched in there.

I think it was in 1952 that I was talking to some——

Mr. Harris: If the Court please, we object to any statement [fol. 4076] as to 1952. They have gone up to 1950 and 1951. This is long after the filing of the complaint. The complaint was filed in 1949.

Mr. Horsky: I can't see any difference, your Honor, as to any period after the filing of the complaint. It has gone without objection to this point. I think it is still admissible.

Mr. Harris: I think we can make the objection at any time, and this is bringing it almost up to date.

The Court: Overruled.

The Witness: This was in 1952. I was talking to some of the top men in Sinclair Refining Company. At that time they were taking a rather important step.

They were going into the manufacture of petroleum chemicals, forming what they call their Petro Chemical Division. It was a field in which they had not had a great deal of experience. There appeared to be quite a lot of difference of opinion within their own organization as to their approach.

They had to start research in a field in which they had not previously researched. They had to build laboratories. They had to decide which avenue to start on. There is a wide variety of materials, of chemicals, which can be manufactured from petroleum materials.

Then they wanted to know—they were concerned about how many people had gone into that field recently, and what did the chemical industry want in the way of raw materials that they might more properly start on than to make up their own minds by scattered information wherever they could get it.

I told them I was not the authority on any of the angles [fol. 4077] they were talking about, but I suggested that we did have people in Wilmington who I would call expert in certain lines who could give them, I thought, very good information.

We had a brand new research center down there, a research center that cost a great many millions of dollars. It might not be the best research equipment in the world, but at least it is one of the newest ones and embodied what we thought were the newest and best features.

All in all, I suggested that they might very well send some people down to look at what we had, and to talk to different people in our organization about the different aspects of their proposed venture on which they were undecided.

They did that. They sent down ten of their top people, and they spent a full day with us, going over all of our facilities. They asked all the questions they wanted of the various people whom we thought were qualified to answer them, and they told us that they got a tremendous lot out of the visit.

It was a very short time after that that we got our first order from Sinclair Refining.

Q. I don't want to prolong this unduly, Mr. Daley, but you say, in effect, in getting business that it is doing the last thing, and getting over the hump, geting a man from third base to home.

Can you, without taking too much time, take a single account, any single account, and explain more or less from the beginning as to how you do get all the way around the bases?

A. Well, in preparation for coming out here, I reviewed a [fol. 4078] certain file that we have. We operate what we call a trade record system.

In the trade record system there is what we call a trade report which each salesman has to make out covering each call he makes on a customer, and high-spotting the important reasons for the call and the results, if any, obtained. In going through a half dozen of those of our major accounts or major prospects, the ones on which we devoted a lot of time and attention and work trying to get business, I was impressed with the file on the Standard Oil of Indiana.

It seemed to me to be quite a good success story,—success type of story. You will have to remember that Standard Oil of Indiana was one of the first and largest customers of the Ethyl Corporation. One time, I believe, they had exclusive right to the use of ethyl fluid in the territory in which they marketed. Ethyl was very strongly entrenched there.

Responsibility for that account with our company rested with our Chicago district manager. He maintains an office here and has about ten salesmen who work out of here, covering several states. He has a laboratory here, with several technicians and assistants in it.

Well, in a customary way they started their attempts to sell Standard of Indiana. We did have some kind of an entree there in that we had sold Standard of Indiana petroleum chemicals, the anti-oxidants or metal deactivators, and so on. So that we did have contact there and were able to get in and talk, at least. But we had no contact with the particular people who used and decided on the purchase of tetraethyl lead.

Nevertheless they kept at it, and our technical organization gradually assumed some prominence in the petroleum [fol. 4079] industry. They were doing some excellent work. They were presenting excellent papers, and they were being recognized.

There were a couple of those that had particular application to problems that Standard of Indiana were working on. They asked us to discuss it further. Mr. Sabina brought four or five of his men out here, sat down for one or two days' discussions with them, and we made our impression at practically every level of the organization.

The quarterly gasoline quality survey that I mentioned had begun to make its appearance and had begun to make its impression as a worthwhile service to them.

Q. Did you receive any letters or things from them so that you knew this at the time?

A. We did. At the end of 1949 we were able to get their aviation business, a contract for aviation grade tetraethyl lead. That is where the Ethyl emblem had provided no stumbling block for us.

We continued through 1950 with our efforts, of course, and at that time our fuel test cars came out, made their appearance.

We had a very difficult time getting those test cars out of Chicago. We had to fight to get them out of here because Standard of Indiana wanted to keep at least one of those cars here. But we had lined them up on a very definite schedule, and we couldn't disappoint everybody else. But we had to make immediate plans to equip two additional cars for the exclusive use of our Chicago district manager, so he could place at least one of them at the disposal of Standard of Indiana for the quite extensive program which they visualized they could put them to.

At the end of 1950, we got a contract for one of the five [fol. 4080] refineries operated by Standard of Indiana. That was the Wood River Refinery. It was quite a feather in our cap in that they had marketed that premium grade of gasoline there under the Ethyl emblem, and it meant a big change in their policy, and it was very important to us.

Q. Did that mean they would have to take the emblem off their pump?

A. Definitely. They had to take the emblem off several hundred pumps. I wouldn't know how many exactly.

The next year we continued the work. I mentioned our motion picture "Pipe Line on Wheels." I noted one of those reports showed a representative of Standard of Indiana had asked our man to accompany him to a showing of that picture, to an annual meeting before 700 fire marshals in the Chicago district. He wanted to acquaint them with just how the gasoline trucks were made, how they were put together, such as was all shown in this picture, and he was very appreciative of being able to show that particular audience that picture.

We had another rather lucky break at that time. The du

Pont Company has a weekly radio program called the "Cavalcade of America."

That is handled under the supervision of the advertising department of the company. They, in turn, select for each program, with the help of some qualified outside people, the topic for the program, an outstanding event in the history of our country or some outstanding development which has made quite a contribution to our way of life, let's say.

One of those they picked was a development of catalytic cracking of crude oil, and it happened that that particular invention was made in the laboratories of Standard of Indi- [fol. 4081] ana by two of their scientists—one was Dr. Burton, and I forget the other man's name.

Well, in putting on that broadcast, it is done very accurately. The principals, the actors and the producers and so on, all have to get a very accurate background of just what happened.

They had to pay many visits to Standard of Indiana's laboratories and talk with their officials, and so on.

The broadcast was made from New York. We invited the Standard of Indiana top officials into the broadcast, and the Standard of Indiana name was prominently mentioned several times throughout the performance, so that they got some very nice advertising out of it. They were most appreciative to us for that particular job.

We had a couple of other items about that time. Our lead safety clinic was inaugurated and that consists of some medical and safety men, sort of a team who go around and get together the employees at the refinery who are involved in any way in the handling of tetraethyl lead and giving them initial courses or refresher courses in the proper safety practices.

We showed that at one of the refineries of Standard of Indiana, and they immediately put in a request to have us do the same thing at their other refineries.

They thought it was a very excellent piece of work.

Q. And the result of all this was that you did get some business or did not?

A. The result of all that was that we got the second refinery, starting for the year 1952. That was the Sugar Creek refinery, they call it.

[fol. 4082] Q. Do you still have that?

A. That gave us two out of five, plus the aviation business, we thought we had made quite a success story out of the whole thing up until the end of 1952.

Q. Then what happened?

A. We lost the Sugar Creek refinery. That went back to the Ethyl Corporation the first of 1953.

It just means we have to get in there and pitch and do just a little bit more because they must have outdone us just a little bit in 1952. Maybe we rested on our oars, but anyway, we lost one of them, and we will have to get back in there.

Q. Now I would like to show you, Mr. Daley, a document marked for identification as du Pont Exhibit No. 153, and ask you if you will explain to the Court what this document is and what it is used for by du Pont?

A. This is a rather detailed description of our specific services which we offer to the refiners.

It starts off in the very first paragraph with naming the various compounds and dyes and lubricating materials and additives that we do have available.

Q. May I interrupt to ask you whether it is of assistance to du Pont in selling lead that it can sell also other petroleum chemicals?

A. It is quite a sales assets to be able to have a full line, that is, a product for practically every requirement of a chemical additive that is used in that refinery business. It is quite an important asset to us.

Q. Does Ethyl have a similar full line?

A. No, they do not.

Q. Very well. Go ahead.

A. Yes. This describes the field laboratory services which we have available; the motion picture library which we have available for customers in training of their employees and in their sales efforts,

[fol. 4083] It goes into quite a good deal of description of the fuel test cars which I mentioned, showing the panel instrument and the storage tanks.

There is a part on our lead safety clinic, the men who supervise tank cleaning and the equipment that they insist that the customers' men use in their work whenever they come in contact with tetraethyl lead.

It is a quite detailed description of our research facilities that are available for studies in which our customers would be interested.

In general, it is a complete description of the services that we offer all the way from the technical side, the safety side, the marketing side, and the refining side.

Q. Is the yellow sheet at the back a list of the technical papers that du Pont publishes that are available?

A. Yes, that is a complete list of the papers that are available representing the technical work that our men have done, and all of them are items which the refiners are interested in.

Q. Tell me, Mr. Daley, what is this used for? How does du Pont use this particular publication?

A. They bring to the attention of the people the services we are equipped to give them, and remind them of those services we have already talked to them about, and urge them to ask our advice in any problem that they may have, either in their own refineries or in their marketing problems or any other problems.

Q. Is this distributed widely to the oil industry?

A. Very widely, completely.

Mr. Horsky: Your Honor, is it appropriate now to renew the offer of those exhibits?

[fol. 4084] The Court: Well, it appears to the Court, since it appears that these exhibits were used in the sales effort, and since competition is an issue, it follows that these are proper, and the Court receives them.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 149 to 153, inclusive.)

By Mr. Horsky:

Q. Mr. Daley, did you find over the course of the four plus years now that you have been selling anti-knock fuels you sometimes gain and again sometimes lose business from the same company?

A. Oh, yes, that will happen. Sometimes you are up and sometimes you are down. The trick is to have more ups than downs.

Q. Have you generally been successful in your sales efforts in this period you have been in the business?

A. I think so. As I said, we have sold about 60,000,000 pounds the first year, which was higher than could reasonably have been expected in that initial year, influenced somewhat by the shortage, nevertheless we were able to increase every year since then, reaching a total of 140,000,000 pounds in 1952.

Q. Do you sell outside of the United States as well as inside of the United States?

A. Yes, sir.

Q. Does Ethyl also do so?

A. Yes, sir.

Q. Do you solicit the same customers abroad that Ethyl does?

A. Well, I suppose we do. In general, I know we do, and I think we ~~do~~ everywhere because we try to hit every major ~~refinery~~ in the world.

[fol. 4085] Q. Coming back to the physical setup, has there been an increase since 1948 in the number of people in the Organic Chemicals Division who are devoted to the manufacture of tetraethyl lead?

A. Oh, yes. As your sales normally increase, you have to put additional units in, and as you put additional units in, you have to man them.

Manpower and production goes up in the same definite relationship.

Q. Your plant has expanded, is that right?

A. Oh, yes.

Q. Has there been an increase in the sales force that has been selling tetraethyl lead?

A. Yes, there has been a greater relative increase than in production. When they started the sales organization, they had a nucleus of fifteen men. When I came in the department in 1948, they had expanded to forty. Now there are well over one hundred and fifty.

Q. Do you know of any agreement, Mr. Daley, that would prevent the du Pont Company from selling all the tetraethyl fluid which your salesmen can solicit contracts for?

A. No.

Q. Are there any restrictions that you know of that can be imposed upon the limit of your growth?

A. No, none whatever.

Q. If there were such agreements of that sort, would you know about it?

A. I cannot conceive of there being any without my knowing about it. I would have to know about it.

Q. Would it be consistent with the method of the operation of the Organic Chemicals Department since 1948, since [fol. 4086] you have been in there, that there be such an agreement or understanding, limiting the point at which you could go in selling?

A. I do not see how it could possibly be. As I said, we spent millions of dollars on research. We have one group working on the possibility of finding new anti-knock compounds, and if anyone is going to come out with a new anti-knock compound, we want to be the ones, and we have another group spending large amounts of money improving the properties of tetraethyl lead, the current anti-knock compound. We are doing it only to increase sales. There is another proposition. We have a sales organization we are quite proud of. They are definitely on the young side. They came to us from other companies because they thought they saw a better future.

Now, we have regular meetings with our individual salesmen. When are you going to sell this outfit? What kind of people are they? What can you accomplish? How many of them have you got on your side? What kind of service is it we are lacking here? What can we do to influence them, to impress them? And every once in a while we sell one of these people.

Now, are you going to tell the salesmen that is very nice, but we don't want that business? We would not have any morale left; we would not have any salesmen left. They would not stay. That is one of the conditions, I am sure.

Q. Are you building plants for the future, geared to what your salesmen think they can sell?

A. Yes, sir, we are building to meet forecasted sales.

Q. Let me draw your attention very briefly, Mr. Daley, to a different topic. Do you recall the occasion in 1949 [fol. 4087] when du Pont purchased from General Motors its 49 per cent of the stock interest in Kinetic Chemicals?

A. Yes, sir.

Q. What was your connection with that purchase?

A. Well, I was general manager of the Organic Chemicals Department, and the Kinetic Chemicals Company, and the operations of the Kinetic Company came under my supervision.

When the contract was negotiated, the Executive Committee appointed me as the du Pont negotiator, with the collaboration of a representative of the Development Department, who usually participated in such things.

In that particular case, Mr. H. E. Ford, who was the assistant director of the Development Department assisted in that.

Q. You did do the negotiating?

A. Yes, sir.

Q. Who was the General Motors representative? Who did you negotiate with?

A. Mr. O. E. Hunt, who was an executive vice president of General Motors Corporation, and he had with him Mr. Carl Kindl, as a consultant who stayed with him through all of the meetings that we had.

Q. When did these negotiations start?

A. Well, the authorization to negotiate was made in December, 1948 and we had our first meeting in January, 1949.

Q. How long did they last?

A. Well, we had a great number of meetings, and we never reached a satisfactory conclusion until about October of 1949, and the actual sale was consummated as of 1-1-50.

Q. That is January 1, 1950?

A. Yes.

Q. Now, without trying to state all of the discussions that took place, can you summarize the argument that went back and forth at these meetings?

[fol. 4088] Mr. Harsha: I would like to interpose an objection to this line of questioning. It is not at all in issue in this case. They already put in the Department's letter stating that we had no objection to the du Pont Company purchasing the 49 per cent interest of General Motors, and there is no allegation in the complaint whatsoever that du Pont purchasing General Motors' share of Kinetic Chemicals was any part at issue in this case.

Mr. Horsky: Do I understand, Mr. Harsha, that you will agree that this was an arm's length transaction?

Mr. Harsha: No, I am not interested in any stipulation on that, Mr. Horsky. The records in the case, it seems to me, speak for themselves, as to what the Department's position was on this purchase.

Mr. Horsky: Well, I am not trying to controvert the Department's position. I am interested in showing, and the purpose of this line of testimony, your Honor, was to show that this was an arm's length transaction carried out without any pressure from du Pont upon General Motors, or vice versa.

The Court. I think Counsel should be permitted to show that generally, without going into a lot of detail.

Mr. Horsky: The witness will be very brief.

By Mr. Horsky:

Q. Will you proceed with the answer to the question?

A. What was the question again?

Q. Give us a brief summary of the arguments that went back and forth in these meetings. What was at issue, and [fol. 4089] how did you resolve it?

A. We were willing to buy the General Motors interest at a reasonable price, and they were willing to sell at what they considered a reasonable price, and the trouble was that of arriving at a basis of valuation, which was agreeable to both of us.

Now, we had a number of meetings. We had the advantage of both sides having full information as to the earnings and the record of the growth of Kinetic Chemicals over a period of twenty years. Consistent with our usual practice we had our regular forecasts of the future, that is, the growth, the volume, the potential earnings and so on.

Mr. Hunt had Mr. Kindl with an accountant from General Motors go down to Wilmington to review with the Kinetic Chemicals management the basis on which they made their forecast, what factors they assumed for the future, and as we understood at the time, he was perfectly satisfied and we then arrived at what we considered then a basis for earnings for the future, and taking those expected earnings we tried to arrive at a satisfactory price.

The only trouble was that Mr. Hunt's idea of a satisfactory price was widely different from mine, and Mr. Hunt was quite a negotiator, I recall very definitely. That hasn't been so very long ago.

Mr. Hunt usually prefaced, when he wanted to give you a figure of what he thought was a good price they should get for their 49 per cent stock interest—he just had the habit of prefacing his remarks by reminding me that he was a corporate official of long standing and had carried on a great many negotiations, and I probably hadn't, as he put it, and the whole import was that I should take his evalutions, because he made them, and because he was Mr. Hunt, with [fols. 4090-4093] this background, and so on, and I didn't quite believe that. At least, I didn't accept it.

But it made the negotiation very difficult because he was holding out for a very high figure. We just had to stop negotiating for a few periods in there until somebody could come up with a possible new idea which might help to resolve the situation.

Q. Was the final figure, Mr. Daley, one that was up front your original offer, and down from theirs, or did you finally take theirs?

A. It was. They reduced their figure gradually, and we upped ours gradually until we got to a common meeting ground. I would say it took ten months.

Q. Did you, or Mr. Ford, ever urge du Pont stock ownership in General Motors as a basis for giving you a preferential position in the purchase of Kinetic?

A. No, indeed, that point never came up in our discussions.

Q. During the negotiations, Mr. Daley, did General Motors ever express any interest in purchasing du Pont's 51 per cent?

No, that never came up. They never indicated they were in any way interested in buying.

Q. One final question, Mr. Daley:

Do you know whether today any manufacturer of domestic or household refrigerators uses F-114 as a refrigerant?

A. No, they do not. F-114 would not be used in household refrigerators. It is not used.

Cross-examination.

By Mr. Harris:

[fols. 4094-4097] Mr. Harris: We offer in evidence the answer of the du Pont Company in answer to our Interrogatory No. 7(a) which answer was filed on March 7, 1952, and with your Honor's permission we will make copies of the answer and submit it to the Court and counsel.

Mr. Horsky: I have no objection.

Mr. Harris: That will be No. 1314, your Honor.

(Said document so offered and received in evidence was marked Government's Trial Exhibit No. 1314.)

[fol. 4098] Q. My question is now, do you know, or have you been told how du Pont got the customers that belonged to Ethyl in 1948?

A. Have I been told how they got them?

Q. Yes, sir.

A. Well, I had been told, let us say, in a general way.

Q. Perhaps you will tell us.

A. I have been told that they called on the customers. They stressed the value to the customers of having two sources of supply. They stressed friendship with people in certain accounts, people whom they happened to know, and won't you give me a little business, sort of approach, and I understand some of them did, and they stressed the potential of having du Pont as a supplier, and emphasized du Pont's general acknowledged technical ability, or at least they acknowledged it to themselves, and thought that du [fol. 4099] Pont was going to reach a point in the industry where they could make valuable technical contributions, and thought that they should be encouraged in the business.

Now, there were such angles as those I am told that were used in the selling.

Q. Were you told the principal consideration for the Ethyl customers to come to the du Pont Company was to obtain a second source of supply?

A. I don't know that I was told it was the principal one. I was told it was an important one.

Q. Now, by the way, what company is known as the E.S.S.O. Company? What company is that?

A. That would be the Standard of New Jersey?

Q. Standard Oil of New Jersey?

A. Yes, sir.

Q. The Esso Company?

A. Now, wait a minute—

Q. Just take your time.

A. They have got two or three names in Standard of New Jersey.

Then I believe there is Esso Standard.

Q. Esso Standard Oil Company?

A. Yes. I think that is a subsidiary of the parent company, Standard Oil of New Jersey.

Q. Is that the Standard Oil of New Jersey which owns half of the Ethyl stock?

A. I would say so, yes.

Q. Would you tell us how you got the Esso Standard Oil Company to buy 14,359,295.2 pounds of tetraethyl lead from du Pont?

A. I don't know that I could tell you how they got it. We accepted it with great gratitude.

Q. Yes, of course.

A. It was a very nice piece of business. I might throw a little light on this, if you wish.

Q. Please.

A. We very recently lost some "Freon" business that we had with Standard Oil of New Jersey. I say very recently. [fol. 4100] I mean the current year, because they told our salesmen of their express policy to try to have two sources of supply, and they gave some of the business which they had previously favored us with to a new supplier in the field.

Q. Well, if I understand your answer, are you telling us that it is your belief that ESSO—Standard Oil, which is Standard Oil of New Jersey, bought this tetraethyl lead from du Pont because it wanted a second source of supply to Ethyl which it half owned?

A. That is the only reason that I have heard expressed by the people working for me. I haven't had the first-hand contact with them.

Q. Do you know who, if anyone, got in touch with the Esso Company before they started giving orders to you after the separation of Ethyl?

A. I have heard that story. I am pretty sure it was Mr. Ray Miller.

Q. Mr. who?

A. Mr. Ray Miller.

Q. How many units were in operation in the Deepwater plant at the time of the separation?

A. The Deepwater Plant at the time of the separation was composed of four units. Of those four units, two were in active condition for complete operation. The remaining two units were being held in standby condition.

Q. Now, were you able to furnish the demands or the requirements of your customers during 1948 from your existing facilities?

A. Yes, sir.

Q. You were?

A. Yes.

Q. When did you increase, if you did, your facilities?

A. Well, I would have to look at the record there. The two units which were being actively used through 1948 would have had a capacity of, oh, say, 70 to 75 million pounds.

[fol. 4101] So that the minute we got up in that range of production, we would have to start a third unit into operation.

Q. Did you ever purchase any tetraethyl lead from Ethyl?

A. Not that I know of.

Q. Would you know?

A. I think I would know definitely since June, 1948.

Q. And you have no recollection of any such?

A. No, none whatsoever.

Q. All right. When did you start, if you did start, increasing your facilities?

A. Well, I would say we started in 1949.

Q. And in 1949, at the end of 1949, what number of units in operation did you have?

A. Well, if our sales at that time were not above, say, 105 to 110 million pounds, we had three.

Q. Now, in 1950, what is the story?

A. 1950? Again depending upon what sales level we happened to hit during that year, we would have had either three or four units in operation.

Q. Now, are the units—well, perhaps you will tell me now. How many units are in operation at Deepwater now?

A. All four of the original units are in operation.

Q. And?

A. And a fifth unit which we have subsequently built.

Q. When did you build it?

A. It was finished toward the end of 1952.

Q. How many units has Ethyl in operation, if you know?

A. I have no idea.

Q. You have no idea?

A. That is right.

Q. Not for any of these years?

A. I couldn't give you any accurate information as to how [fol. 4102-4109] many units Ethyl has or had. I know that when the separation was made, I was told that we were left with four units total available, and that Ethyl had five units.

Q. Yes. Do you know if it has any more?

A. Oh, Ethyl has made subsequent additions. At what rate they made the additions, and in what years they made the additions, I wouldn't know exactly, except for the most recent one to which they gave a great deal of publicity, when they constructed their entire self-contained new facilities near Houston on that ship canal down there.

Q. Yes.

A. I think they have rather widely advertised it as having 90 million pounds capacity.

Q. What is the capacity of these units that you are talking about per annum?

A. About 36 million pounds per year, each.

[fol. 4110] OFFERS IN EVIDENCE (DU PONT)

Mr. Horsky: Before we pass to another topic, there is one last matter. I would like to introduce a few exhibits. ~~The government~~ adduced in further support of the charges made in Paragraph 64 which relate to the "division of fields," a series of documents relating to what might be called the general research contract whereby du Pont unsuccessfully attempted to obtain a contract with General Motors to that effect.

I should like to complete the documentary story. It will not require any testimony. The documents I am going to refer to are in the last part of that book I handed to your Honor yesterday, if you care to find them there.

The Court: In the file, you mean?

Mr. Horsky: No, in the large book called "Harrington." There is a tab at the back that says "General Research Contract." It is the last thing in the book, I think.

The first document, chronologically, in this story is a letter which is Government's Trial Exhibit No. 599 from

Mr. Zimmerschied to Dr. Stine of du Pont, dated October 28, 1919. In it Mr. Zimmerschied refers to a meeting which had been held in New York relating to some work that du Pont was to do for General Motors in connection with fuel research, and the last paragraph, which is the beginning of the story, really, says:

> "It is presumed that the marketing of this chemical"—

which was to be discovered and then added to gasoline—

> [fol. 4111] "will be a matter of interest to the du Pont organization, and that the expense of developing it will be borne by your Research Department. We are glad to lend the mechanical equipment indicated above without charge for the purpose of this investigation."

The answer to that letter I should like to offer as du Pont Exhibit No. 154, which is a letter from Mr. Stine, chemical director, to Mr. Haskell of the General Motors, and it refers to the letter which I have just noted.

The last paragraph of that letter—the first paragraph says that du Pont will be glad to undertake the work—and the last paragraph on the second page states:

> "In connection with Mr. Zimmerschied's letter, I note the suggestion that the expense of developing some chemical which may be added to liquid fuel for the purpose of utilizing undesirable fuels in Internal Combustion Engines should be borne by the du Pont Company. As we have no funds available for research work of this character, it will be necessary to obtain an appropriation from some source for this work. Insofar as the question of the ultimate distribution of the expense of such research work is concerned, it seems to me that this can only be decided on the basis of the results of the work, since it is obvious that if the General Motors Corporation derives more benefit from such research than does the du Pont Company, the General Motors, rather than the du Pont Company, should ultimately take up the expenditures for work of this character."

[fol. 4112] That letter is dated November 4th, 1919.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 154.)

Mr. Horsky: About two months later, on January 12th, Government's Trial Exhibit No. 558 shows that the matter was considered by the Executive Committee of the du Pont Company. This is an Advice of Action of the meeting of January 12th, 1920, and in the middle of that paragraph it states, after having acknowledged the receipt of the report from the Chemical Director:

> "* * * the Chemical Department be authorized to continue with the work for the General Motors Corporation always provided that the full expense for such work will be borne by the General Motors Corporation."

That was the first solution that was proposed.

Then the matter goes along for three months, and the next document we have is April, 1920. This is Government's Trial Exhibit No. 575, dated April 22, 1920, and it is a report which has been referred to before, of a meeting between or among a number of persons, Mr. Raskob, Mr. Kettering, Mr. Irenee du Pont and Dr. Reese, and other du Pont representatives, and at which Mr. Raskob proposes the basis of a permanent arrangement to take care of this problem.

In Paragraph No. 2, on page 1 of the exhibit, part of the suggestion is:

> "General Motors will be free to call upon du Pont Chemical Department for any advice or work that [fol. 4113] General Motors desires du Pont to undertake. When so called upon, du Pont is obliged to undertake the work."

Then on page 2 and page 3 are given the details of the arrangement which, without reading them, are that any request be grouped into two categories, group 1 being those which will influence the operations of General Motors particularly and group 2 being those that might result in the production of a new product, either by General Motors, by du Pont or by someone else, and again over in Paragraphs 8 and 9 on page 3, in the case of the first category, a particular formula for compensation is prescribed, and in the case of the second category which may result in new products, it is provided that du Pont and General Motors should each have a half interest in any development, and that the expense of the work shall be borne by General Motors but without any profit to du Pont.

Then Paragraph 11 provides:

> "This agreement will be subject to cancellation by either party without notice with respect to work undertaken in future, but cannot be revoked by either party with respect to work previously taken up."

The results of this meeting were reported, as this letter indicates, to the Executive Committee on April 22, 1920. In fact, this document is a report to the Executive Committee.

That is April 22nd, and on May 4th, which is about a week later, the Executive Committee considered it, and I should like to offer du Pont Exhibit No. 155, which is the advice of action of the du Pont Executive Committee on that report.

[fol. 4114] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 155.)

Mr. Horsky: It refers to the report of April 22, which is Government's Trial Exhibit No. 575, and then states:

> "It was moved and unanimously carried that this report be accepted and ordered filed, and that the proposed method of handling chemical work for the General Motors Corporation be approved in principle, with the understanding that the final agreement will be submitted to this committee for approval before execution."

As a result of that action on May 4, Mr. Lammot du Pont gave instructions to Dr. Reese, which is contained in du Pont Exhibit No. 156 which I should like to offer, and it is dated the same day and is the memorandum to Dr. Reese from Mr. du Pont.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 156.)

Mr. Horsky: Du Pont Exhibit No. 156 states:

> "I enclose herewith copy of my report, April 22d, to the Executive Committee (No. 2900), which was approved in principle by the Executive Committee yesterday, with the further provision that any definite agreement executed with General Motors Corporation be finally submitted for approval.
>
> "You will note the correction at the end of the second line of the second paragraph of this report. This [fol. 4115] was not in the report when submitted to the Executive Committee, but was added afterwards at the suggestion of Mr. Irenee du Pont. If and when it seems desirable to make a definite agreement with General Motors, will you please proceed, as far as possible, in accordance with this report and submit the agreement for approval of the Executive Committee before execution?"

The correction at the end of the second line of the second paragraph of the report which was noted in du Pont Exhibit 156 is not contained in Government Trial Exhibit 575, but it is contained in Government Trial Exhibit No. 576, which is dated the same day as the meeting of the Executive Committee.

Mr. Irenee du Pont there suggests in a note to Mr. Lammot du Pont:

> "Think it would be well to insert at the end of the second line of the second paragraph—'which does not encroach on du Pont Company's business' in order to make perfectly clear that we would not of necessity undertake work for them to put them in a business which we already occupy."

On June 15, Government's Trial Exhibit No. 580, the Chairman of the Executive Committee, Mr. Lammot du Pont, submits to the Executive Committee a proposed draft of agreement, which is the formal statement of proposal contained in Mr. Raskob's memorandum—I mean the suggestion of Mr. Raskob—and also contains the changes that have been suggested.

The change recommended by Mr. Irenee du Pont is con-

[fol. 4116] tained on page 3; and it is the proviso which is added to paragraph First, which simply says:

> "Provided, however, that work on such problems shall at no time be permitted to interfere with work on du Pont Company's own chemical problems."

Then it sets out this division into Group I and Group II. At the end, in the last paragraph numbered Ninth, on page 7, the termination provisions are carried over as originally stated:

> "Either party hereto may terminate this agreement at any time by giving to the other written notice of its intention so to do; and after such termination, both parties shall be relieved from all obligation or liability hereunder except as to obligations or liabilities assumed or accrued prior to the date of such termination and except that such termination shall in no way affect any of the property rights which have accrued prior to such termination."

This is on June 15 when the report was submitted to the Executive Committee. On June 22nd, it was approved by the Executive Committee.

I should like to offer du Pont Exhibit No. 157, which is an excerpt from the minutes of the Executive Committee meeting of that date.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 157.)

Mr. Horsky: This states:

> "Resolved, that the form of proposed agreement between General Motors Corporation and the Chemi- [fol. 4117] cal Department of this Company, as submitted with the Chairman's letter of June 15, 1920 (#3220), be and the same is hereby approved and the President or any Vice-President of this Company together with the Secretary or an Assistant Secretary be and they are hereby authorized to execute said agreement on behalf of this Company."

That is June 22, 1920. The next I have which relates to this is a letter dated October 10, 1921, which is about fifteen months later. It is a letter from Mr. Lammot du Pont to Mr. Kettering, Government's Trial Exhibit No. 581. It shows what has happened in the meanwhile:

> "On June 22, 1920, the Executive Committee of du Pont Company approved a proposed agreement between General Motors and du Pont Company, covering chemical investigation done by du Pont Company for General Motors, and providing how the charges should be paid and how the rights to any inventions developed might be apportioned between the two companies.
>
> "As stated above, this agreement was approved by the du Pont Executive Committee, and the Chemical Department—which at that time was reporting to me as Chairman of the Executive Committee—took up with you, representing General Motors Corporation, the approval of the agreement on General Motors part. The Chemical Department call my attention to the fact that General Motors has never approved this agreement and it has not been executed. I further understand that a copy of the agreement was sent you and that, at least recently, your approval has not been se- [fol. 4118] cured, nor, have you mentioned any specific objection to the proposed form of agreement.
>
> "It appears to me desirable that this question should be settled and definite agreement between the companies executed. It would be preferable, in my opinion, if this were accomplished through the channels designated; namely, between you and our Chemical Department. However, if there is anything I can personally do to assist I would be glad if you would call on me."

That is dated October 10, 1921. Then at about that time, and in the next few weeks, there follows an exchange of correspondence between Mr. Kettering and Mr. Lammot du Pont, in October and November. These are Government's Trial Exhibits Nos. 582, 583 and 584.

In the second one, Government's Exhibit No. 583, Mr. du Pont states his understanding of why he wanted to have this agreement.

He acknowledges a letter from Mr. Kettering and says:

> "I have yours of October 21st in regard to agreement between General Motors and du Pont with respect to chemical experimental work.
>
> "It seems that the du Pont Company's position in this matter and the object of the contract has not been made clear, or else we have a misunderstanding of what we are expected to do for General Motors under present conditions.
>
> "Our understanding of present conditions is that we are expected to take up experimental chemical work for the General Motors Corporation when requested. [fol. 4119] We have taken up such work from time to time and have consulted and advised from time to time.
>
> "At present we have no definite authority for doing this and have no mutually-agreed upon basis of charging for the work or dividing the results in the shape of rights. The purpose of the agreement is to give the du Pont Company definite authority and a basis for charging, and either reserving or turning over to General Motors any rights, that may be developed. It seems to me that this purpose must be accomplished regardless of what arrangement is made with respect to any of the work, and that, therefore, the agreement should be executed at once."

Then I should like to refer to General Motors Exhibit No. 246, which is a letter from Lammot du Pont to Mr. Kettering in November, 1921.

This is the end of this particular series of exchanges at this time.

In it Mr. du Pont makes it clear that this agreement has nothing to do with the fuel work which was going on.

He acknowledges the letter from Mr. Kettering on November 5, and then says:

> "It appears to me that we are talking about different things. My principal interest is in seeing a general agreement whereby any kind of experimental chemical work can be undertaken by du Pont Company for General Motors without having to make up a special agreement on each subject."

Skipping a sentence:

> "You, I believe, are talking about the agreement with respect to work on motor fuel, and I agree that [fol. 4120] good progress is being made on this, but even if that agreement is drawn up and executed, it leaves the general agreement just where it was before."

That is November 19, 1921, and that concludes that particular exchange.

The matter then lapsed until early in 1922. I should like to offer du Pont Exhibit No. 158 to show how it came to life again.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 158.)

Mr. Horsky: This is a note from Mr. Fisher, the secretary of the Executive Committee, to Mr. H. F. Brown, vice-president of du Pont, dated March 24, 1922:

> "In accordance with your request at the last Executive Committee meeting, this merely to remind you to look up the present status of the proposed agreement between this Company and the General Motors Corporation with reference to chemical work."

Presumably sometime just prior to that date it had come up in the Executive Committee.

Following that suggestion, there is another exchange of correspondence which goes over another series of documents. These are Government's Trial Exhibits No. 589, 590, 591, 592 and 593, again between Mr. Lammot du Pont and Mr. Kettering.

In the first one, which is Exhibit No. 589, dated March 27, 1922—three days after this note from Mr. Fisher to Mr. [fol. 4121] Brown—Mr. du Pont again states the history of the delay and he ends up on the last page by saying:

> "Is there anything I can do to insure a mutually satisfactory contract being drafted and executed?"

Mr. Kettering made, I think it could be called a noncommittal reply, and on April 1st, Mr. du Pont again reviews what he thinks the problem is, and in the last paragraph of his letter says, and I think this makes his position clear:

> "The only reason I can see for not doing so is the decision by General Motors to establish their own chemical staff. If you have come to this conclusion, I have no objection as a representative of the du Pont Company, and have nothing more to say."

Then Mr. Kettering again replies in which he says he thinks that the du Pont Company can be helpful. On page 2 of Government Trial Exhibit 592, which is a letter from Mr. Kettering to Mr. Lammot du Pont on April 3, 1922, he says:

> "There has never been any question in my mind but that the du Pont organization could supplement the work of our laboratory to a tremendous degree and it has always been my desire that this should be done, but we have never been quite able to couple up, even though we attempted at one time, as you know, to get such an agreement through."

In response to that, in Government Trial Exhibit No. 593, Mr. Lammot du Pont again states why he thinks this [fol. 4122] agreement is important on the over-all basis. He says, in the last two paragraphs:

> "You will note that this contract does not refer to any specific problem: the fuel problem or any other, but provides a basis of handling any problems that may arise in the future, and applies only when, and if, General Motors requests the du Pont Company to take up any work, so that after the contract is signed, control of the work is entirely in your hands.
>
> "Won't you consider this matter entirely from the standpoint of the future? and advise me whether you do not approve executing a contract to accomplish the purposes we desire to accomplish, stating in what respects the contract enclosed is unsatisfactory and how it may be modified to make it satisfactory."

This is April 14, 1922.

Immediately thereafter, or the next month, Mr. Kettering washes his hands of the matter. In Government Trial Exhibits 594 and 595 are contained the correspondence in which he informs Mr. Lammot du Pont that he has turned the whole matter over to the president of General Motors who, at that time, was Mr. Pierre du Pont.

This took Mr. Lammot du Pont by surprise. I should like to offer du Pont Exhibit No. 159, which is his note to Mr.

H. F. Brown, referred to earlier, commenting on these letters.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 159.)

[fol. 4123] Mr. Horsky: This is a short note dated May 10, 1922. It says:

> "Please note the attached for your information. It seems to me a most remarkable position for the Head of the Research Corporation to take."

Then the final episode in the whole matter is in Government's Trial Exhibit No. 598, when the agreement was finally and conclusively rejected by General Motors, notwithstanding Mr. Lammot du Pont's entreaties. This is a memorandum for the files by Lammot du Pont, and it says:

> "In conversation with Mr. P. S. du Pont he advised that it does not seem possible at this time to institute any plan for co-operation on chemical research work between General Motors Corporation, his feeling being that, as problems come up, special arrangements with reference to each should be made between the two Companies, rather than attempt now to make a general arrangement to cover prospective cases."

[fol. 4124] Ralph J. Wirshing, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination

By Mr. Hurd:

Q. Will you please give us your full name, Mr. Wirshing?

A. Ralph J. Wirshing.

Q. Where do you live?

A. Detroit, Michigan.

Q. By whom are you employed?

A. The Research Laboratories Division of General Motors Corporation.

Q. Mr. Wirshing, where did you receive your college education?

A. I graduated from the University of Dayton in 1916 with a degree of Bachelor in Chemical Engineering.

Q. What was your first employment?

A. After graduation, I worked for two years for the Southern Chemical Laboratories in Chattanooga, Tennessee, as an analytical chemist.

Q. Following that, what employment did you have?

A. Following that, I went to work for Mr. Kettering in the Research Division of the Dayton Metal Products Company in Dayton, Ohio.

Q. How long did you remain with the Dayton Metal Products Company?

A. The Dayton Metal Products Company was taken over by General Motors a few years after I joined the Dayton Metal Products, and I stayed there until 1923 when I went to the Ternstedt Manufacturing Company.

[fol. 4125] Q. Then you were employed in Mr. Kettering's organization until it was taken over by General Motors?

A. That is correct.

Q. And then you continued on with General Motors until 1923?

A. That is right.

Q. When did you return from Ternstedt?

A. I worked for Ternstedt until January of 1925, then I went back to the Research Division of General Motors.

Q. How long did you remain with the General Motors at that time?

A. I am still there.

Q. You have been there continuously since 1925?

A. Yes, sir.

Q. What, in general, has been the nature of your work with General Motors since 1925?

A. I have been connected with what they call the Chemistry Department. In the beginning, I was working as an analytical chemist, and in 1934 I became assistant head of the department and in 1944, became head of the department.

Q. Has that department had anything to do with the matter of automobile finishes?

A. Yes, sir.

Q. What has it had to do with that?

A. We had examined and tested all paints and finishes that are used in painting automobiles or parts that go into automobiles.

Q. When had that work been done?

A. It was started around 1920 or 1921, and it has continued right up to the present time and is still being continued.

Q. Then it has been a continuous work of the Research Department?

A. That is correct.

Q. Are you acquainted with the type of automobile finish that was used by General Motors in 1925 when you started this work?

A. Yes, sir.

[fol. 4126] Q. What was that?

A. Since 1925 we have used a nitrocellulose lacquer for the outside of cars.

Q. Do you recall whose make of lacquer was in use by General Motors in the year 1925?

A. In 1925, the du Pont Company's lacquer.

Q. Is that known as "Duco"?

A. That is known as "Duco".

Q. Were you testing any other kind of lacquers other than "Duco" in 1925 and 1926?

A. Yes, sir. We tested many companies' makes of lacquers at that time.

Q. When, if ever, did your department approve of the lacquers made by competitors of du Pont?

A. Of course, I might say that we do not approve. That is not quite the right word. Our work consists of making examinations and tests and presenting the evidence of those tests to our various divisions, comparing them always with what they are using in production at the time the test is made.

Whether they may take our results and examine them, and take them as an approval, we never ask for approval.

We simply present the evidence we find as the result of our tests.

Now, along about the latter part of 1926 and 1927, we began to find other companies' materials of the lacquer type which were equivalent to what we were using at that time, which was du Pont's "Duco".

Q. Do you know whether or not any of the divisions adopted any of these lacquers made by competitors of du Pont in the latter part of the '20's?

A. Yes, sir.

Q. Did they or did they not?

A. They did.

Q. Take Fisher Body. Do you recall whether or not they adopted any lacquers other than the du Pont in the [fol. 4127] latter part of the '20's?

A. Yes, sir, they used lacquers made by Rinshed-Mason, and the Forbes Varnish Company, and the Jones-Dabney Company.

The lacquers made by these companies were used beginning about that time.

Q. Did they also use "Duco," do you know?

A. Oh, yes, they continued to use "Duco."

Q. How long did they continue to use the lacquers of these four suppliers?

A. They used the Jones-Dabney lacquer only for two or three years. The Jones-Dabney material was dropped because the other three suppliers, du Pont, Rinshed-Mason and Forbes, improved their material so that it was considerably better than that of Jones-Dabney, than they were able to furnish at that time, so Jones-Dabney materials were dropped.

Q. How about the other three?

A. The other three were continued.

Q. For how long?

A. They are still using them.

Q. What did Fisher Body use for its undercoating?

A. For the most part, Fisher Body used the Rinshed-Mason materials.

Q. How long has that been true?

A. That has been going on since 1925, or thereabouts.

Q. What about Chevrolet, what have they used throughout the years?

A. Chevrolet has used practically all du Pont materials throughout the years.

Q. Are you referring to the top finish or the undercoats, or both?

A. Both.

Q. Do you know what the basis is for their having used the du Pont?

A. Well, the Chevrolet plant originally was located in Flint, Michigan, and they were buying paint from the Flint [fol. 4128] Varnish Company which was located close by. The plant of the Flint Varnish Company was later on absorbed by du Pont, but in the meantime good relationship had been built up between the personnel of these two companies, and they continued to use that material.

Chevrolet then expanded, and began to build plants throughout the country in widely scattered areas, and the du Pont Company followed suit so that they could take care of Chevrolet's needs quickly.

They also had a very good service department which kept Chevrolet out of trouble. You always depend on your suppliers for service. They are a great help to you when you get into problems, and if they can come quickly and help you in those problems, you appreciate it.

Q. Do you know what the basis is for the use of the same undercoating from the same supplier as the top finish?

A. Chevrolet has always felt, or I should say they worked on the theory if you are painting an automobile, and you are using one company's materials from the metal out, then there is no cause for argument as to whose fault any troubles might be.

In other words, if they would use one company's undercoat and another company's top coat, if trouble came up, they would not know which of these companies to blame, and if you use one company's material, you do not get into these arguments.

Q. Do you know what the situation has been at Oldsmobile?

A. Oldsmobile has used the Rinshed-Mason materials, top coats, that is, for many, many years.

Q. About when did they start?

A. Probably 1926 or 1927, along about that time.

Q. Do you know what the occasion was for their going [fol. 4129] to Rinshed-Mason?

A. Well, at one time, they desired to use some different colors of a type that du Pont explained they could make, but they did not feel that they were quite as durable as the regular line of colors. Oldsmobile insisted on having these particular colors, and they asked Rinshed-Mason to make them. Rinshed-Mason came up also with the explanation that they did not think that they were quite as durable, but that they would make them. Du Pont refused to make them because they were not quite as durable as their regular line, and Rinshed-Mason said they were not as good, but if you want them, we will make them.

As a result, they began buying from Rinshed-Mason.

Q. This happened in the late twenties?

A. Yes, sir.

Q. And they continued with Rinshed-Mason ever since?

A. Yes, sir.

Q. Is Rinshed-Mason still the supplier of the top material?

A. Yes, sir.

Q. How about the under-coats of Oldsmobile?

A. The Oldsmobile buys their under coating from the Forbes Varnish Company. They got into that when they used what they called the dip primer, that is instead of spraying the paint, you take a large tank, and you dip the fenders and hoods into this paint. It is a rapid expedient, so that they requested these dip primers, and both du Pont and Forbes submitted dip primers.

They worked, they both worked, but du Pont was a little afraid that due to the large expanse of the paint material, which is exposed to the air, when you use these large tanks, they were a little afraid of oxygen being taken up from the air that would cause a jelling of this primer in these large tanks.

[fol. 4130] Forbes gave Oldsmobile assurances that their material would not jell in the tank, and for that reason, they took the Forbes material and had been using it ever since.

Q. Now, what does Pontiac use for its finishes?

A. Pontiac uses all du Pont material, almost exclusively.

Q. Is that true both of top-coats and undercoats?

A. No, undercoats, they do buy some undercoats from the Pontiac Varnish Company, and have used it from various people from time to time, but principally it is du Pont material.

Q. Do you know what the basis has been for their using du Pont?

A. There, again, they were close to the Flint plant, and got quick service from du Pont. Du Pont has a service man who stays right in Pontiac and gives them very quick service on all their problems.

Q. In the middle twenties, was Pontiac producing Pontiac, or was it Oakland that they were producing, or both?

A. Along in the middle twenties, they had a car which they called the Oakland, which was not going too well, and they were the first ones to adopt the lacquer of "Duco" for the top coating, and it did them so much good to come out with such a superior finish, that is, a finish so much better than they had been using, that that is another reason why they have continued to use the du Pont material over the years.

Q. And do you know what Cadillac has used throughout the years?

A. Cadillac uses Rinshed-Mason materials for top materials.

Q. How long have they been doing that?

A. Since the '20's. The reason for their using Rinshed-Mason materials almost exclusively is because the Rinshed-Mason plant is practically in their back yard, and all they do [fol. 4131] is just walk across the railroad tracks and they are in each other's plant, and there, again, the service angle enters into this thing.

Q. What does Cadillac use as a supplier for the undercoats?

A. Their undercoats have been purchased from a number of different companies, Rinshed-Mason, Ferbert-Schorndorfer, and a number of different paint companies.

Q. Has there been any principal supplier of undercoats for Cadillac?

A. I don't think you could call any of them a principal supplier. The change has been made so many times.

Q. Now, with respect to Buick, what do they use on their finish?

A. Buick has used du Pont materials almost exclusively and there, again, the close proximity of the du Pont plant being just across the street from Buick, that enters into the picture again.

Q. Do they use it for their undercoats also?

A. Yes, sir, they use du Pont undercoats.

Q. They use du Pont for both the top-coats and undercoats also?

A. Yes, sir.

Q. And they have throughout the years?

A. Yes, sir.

Q. Now, Mr. Wirshing, you have referred to having made tests of automobile finishes throughout the years. Would you tell us in general what these tests consist of?

A. Well, testing of automotive finishes becomes a very complicated problem. We receive samples of materials either from our suppliers, from other paint companies, or from someone in any one of our divisions, or we may even in scanning literature come across a reference to a material which we think might be of some help to us, and we request a sample direct from the company making it. [fol. 4132] After the samples are received, it is necessary to arrive at some idea as to where it might be used to advantage in the painting of our cars. When we have decided that, then the next problem is to get a sample of material which we think this new material might replace, and that is the sample of material that is being used in production and which we think the new material might replace, and then you begin to compare the two.

Generally the comparison starts by preparing test panels. These test panels are about four inches by twelve inches in size, and they are prepared as nearly as possible in a manner in which they would be prepared in production. That is, if the paint material is to be used over a phosphate coated steel panel, then our test panels would be phosphate coated before the test is started.

The first test is always to prepare the panels and expose them out of doors, generally in our test field in Miami, Florida. Then other panels are made and they are subjected to high humidity and high temperature in order to ascertain their resistance to blistering under high humidity conditions.

They are chilled to zero degrees Fahrenheit, and then bent quickly over a mandrel. That is a test for the adhesion of the material. They are subjected to salt spray tests and subjected to hardness tests, and also to resistance to thermal shock. Some finishes will crack if the temperature is suddenly changed either from cold to hot, or from hot to cold. That can happen, for example, on a very cold day and a man drives his car into a wash rack and they throw warm water on it very quickly. All of these tests have to be made to determine whether or not the material [fol. 4133] which we are examining has any advantages over what we have been using, bearing in mind that we always test against the material that is being used in production at the time we are making the tests of these materials.

Q. Do you use the ultra violet light test?

A. We used to depend upon the ultra violet test as an accelerated method of determining a resistance to dulling and cracking. However, we have found that that test is not reliable enough for us.

In other words, we can pick out, by that ultra violet light test, materials which are bad; in other words, anything that fails under there doesn't stand up outdoors. However, sometimes just the reverse is true, and therefore since we cannot depend upon it, we use our Florida test fields practically entirely for our test.

Q. If you find material that looks promising, what do you do about it?

A. We refer the materials and the results of the test to the men in the divisions whose job it is to paint the cars, and then it is up to them as to whether further testing is going to be carried on. If it is, then we continue with them.

Q. What does that further testing consist of?

A. Well, usually it consists first of painting maybe two or three cars, and maybe only two or three sets of fenders and hoods. That is to find out whether or not in the plant and under the conditions which the work has to be carried through, that is the temperature and the time that is allotted for curing the finish, to find out whether it will work under those conditions that exist.

After they find that out, if it worked well on two or three or five cars, then maybe a little while after that, [fol. 4134] maybe ten more jobs will be tried. After that maybe one hundred, and then that one hundred jobs might be distributed over the country to service people.

That is all sections of the country from the State of Washington to Florida, and from California to Maine, and every month the service man has to report on the condition of that finish. That is carried on for a year before any decision is made as to whether the material is going to be used.

Q. Have you ever, in the course of your experiments, found a material that you considered appeared to be better than the materials being used by the divisions?

A. Oh, yes.

Q. Can you give us any illustrations of those?

A. Well, back in the early 1930's, du Pont came up with a new lacquer which they called high solids materials. Now, it had the advantage of using less thinner for thinning it to spraying viscosity. That enabled us to spray the required film thickness on the car in fewer spray operations. That meant a money saving. We tried the material at the Chevrolet plant in Flint, and it worked, and was adopted for production.

Shortly after that, of course, the other suppliers, seeing what was going on, came up with the material that was just the same.

We got the same advantage. We tried their materials out, and if they worked they were adopted for production. Sometime about the middle thirties, du Pont came up with a material they called an anti-chalk lacquer. Now, chalking is a material which we use to indicate dulling of the finish, and [fol. 4135] that material had better lustre retention than our regular material that we were using in production at that time. That is, we proved that by our exposure panels.

Then we went to the Atlanta plant of Chevrolet and tried it on jobs there, and it worked satisfactorily and it was adopted. As before, it was not very long before our other suppliers had come up with a similar type of material, tested in through the same manner, and adopted it.

A few years ago Fisher Body presented to us a black lacquer made by Acme. We completed our test on that, and reported that it was not quite as good in lustre retention as the black they were using in production at that time. In spite of that, they put it in production, and it ran for awhile, but they soon discovered that the black's polishing properties, in other words, they could not polish it to as high a lustre as you could the black they had been using.

Not so long ago Forbes Varnish Company came to us with the material which they call "High Lustre Lacquer." It had the property of having a higher lustre when it was sprayed. As soon as it was dry, it had a higher lustre than the material we were using. That would enable us to do less polishing and would be a labor saving. We tested the materials on panels in the usual manner, and we found that not only did it have a higher lustre as it was sprayed, but it retained its lustre a little better than the material we were using.

About that time apparently Forbes discovered the same thing, and they came rushing to us and said, "Well, here is a little extra dividend for you, and it not only has a higher lustre when it is sprayed, and doesn't have to be polished so much, but it holds its lustre better than the other material."

[fol. 4136] The other suppliers, du Pont and Rinshed-Mason heard about this material.

Q. Did they hear about it from you?

A. No, sir. Du Pont came in with the material which sprayed with a higher lustre. Rinshed-Mason refused to make that type of material saying they didn't believe that it was durable; that they thought we would get into trouble if we used it.

However, our tests at first showed that the material, after it had been weathered for some time, was a little more subject to this thermal cracking, which I mentioned a short time ago.

Both du Pont and Forbes changed their formulation somewhat to overcome this difficulty of cracking after exposure. We painted approximately 200 cars with these two materials, and put them out, as I mentioned before, all over the country, and watched them for a year.

No trouble developed. Beginning with the 1953 production, Fisher Body and Chevrolet decided to paint a certain type commercial vehicle, which we called the "Pie Wagon," in one color with the Forbes high lustre lacquers, and in another color with the du Pont high lustre lacquers.

Now, that means that we will paint, only, maybe, ten jobs a week for the entire year to learn more and more about this material, and then we will also know that any complaints that come in on "Pie Wagons" that are painted one color, they will be du Pont material entirely, and with another color, they will be Forbes material entirely. So we can decide which is the better material, or if they are either one good enough to go into higher production.

[fol. 4137] Q. Is that testing procedure unusual?

A. No, sir.

Q. As far as General Motors is concerned?

A. No, sir.

Q. Have you tested paints from manufacturers other than the three suppliers you are referring to?

A. We are continually testing paints, wherever we can get them. If anybody has an idea that they have a paint that will be better than what we are using, we test them.

Q. Have you ever found a supplier with a substantial line of colors that seemed to be better than the three suppliers of General Motors at the present time?

A. Nobody has given us a line of materials which showed enough advantages to make it worth while changing.

Q. How many tests have you made throughout the years, these test panels?

A. Well, we have made literally thousands of test panels and tens of thousands of tests.

Q. How many tests do you have going on today?

A. Well, just as an example, at our test field in Miami, we have over 5,000 panels on exposure at the present time.

Q. Is that unusual?

A. No, sir.

Q. Mr. Wirshing, in the course of your work with the testing of the automobile finishes, have you ever been advised or heard that it was the policy of General Motors to use du Pont as a supplier of automobile finishes?

A. No, sir.

Q. Or that du Pont was supposed to be favored as a supplier?

A. No, sir.

Q. Have you ever favored du Pont in any respect?

A. No, sir.

Mr. Hurd: You may cross examine.

[fols. 4138-4139] Cross examination

By Mr. Harsha:

[fol. 4140] Q. You have given testimony indicating that various car units of GM have purchased from a number of sources that you have named. Are you basing your testimony upon your general recollection at the present time as to what had been those sources over the years?

A. Well, as I tried to point out to you, it has always been our policy, and we always use the material that they are using in production now as a control at the time we are testing a new material.

Therefore, it has always been necessary for me to find out what the division is using at that time, you see.

Q. Yes. Now, how do you know whether a particular car division is using, for example, more of du Pont paint than, say, Rinshed-Mason?

A. I don't know that.

Q. You don't know that?

A. No, sir.

Q. You don't have any idea as to what the relative proportion, for example, is that any car division is using of two types of makes of paint, is that right?

A. No, sir, I do not.

Q. All you know is that there is some quantity unknown Rinshed-Mason paint being used by this particular car division?

A. Correct.

Q. And that there is some quantity unknown of du Pont paint being used by that particular car division?

A. That is correct.

Q. You testified, I believe, that in respect to the Fisher Body, that during the time that you have been in this field, I believe you said that they had purchased from du Pont [fol. 4141] and Rinshed-Mason and Forbes Varnish and Jones-Dabney?

A. Yes, sir.

Q. And that Jones-Dabney dropped out after several years?

A. Yes.

Q. Now, you don't know with respect to Fisher's purchasers, do you, what the relative proportions were supplied by du Pont as opposed to Rinshed-Mason or Forbes Varnish?

A. No, sir.

Q. I believe you stated, though, that based on your information that the du Pont "Duco" and the du Pont undercoats have been used exclusively by Chevrolet, based upon your recollection, is that right?

A. So far as I know, yes, sir.

Q. I believe you stated that the Olds Car Division was purchasing its top-coat material beginning in 1926 or 1927 from Rinshed-Mason, is that right?

A. If my memory serves me correct, that is the correct date.

Q. And they have continued to be the sole supplier—Rinshed-Mason has continued to be sole supplier up to date based upon your recollection?

A. That is right.

Q. I would like to show you Government's Exhibit No. 460 in evidence in this case, which is a report prepared in the du Pont Company, addressed to Mr. Lammot du Pont, the president.

It is headed, "Sales to General Motors and Fisher Body," and it is dated January 25, 1927.

There is a listing there of materials which are supplied to General Motors and Fisher Body by others than du Pont. I call your attention to the second page of this, in which it states:

> [fol. 4142] "The above figures for Parlin do not mention General Motors car units. The reason for this is that Buick, Chevrolet and Olds purchased practically 100% of their requirements."

Do you have any explanation as to why, according to the du Pont Company figures, in 1926 du Pont was supplying all of Olds' requirements of paints.

A. No, sir, only that perhaps I am wrong by one year.

Q. You are not sure as to that?

A. That is right.

Q. I gathered from your direct examination that the Pontiac, which had previously, I gather, been known as Oakland, has used du Pont's "Duco" as its top material, to the best of your recollection, over the years?

A. That is right.

Q. And that with respect to the undercoats used in the Pontiac Division, that most of that has come from du Pont, although some, you say, was from Pontiac Varnish?

A. Some has been from Pontiac Varnish over the years.

Q. Is the Pontiac Varnish Company connected in any way with General Motors?

A. Not that I know of.

Q. I gather with respect to Buick that both the topcoats and the undercoats have been supplied by du Pont over the years, according to your best recollection?

A. That is right.

Q. You didn't mention General Motors Truck.

A. We have not had as close relationship in research with General Motors trucks as we have had with other divisions of the corporation. I do know that there has been a wide scattering of materials used on General Motors trucks. Some fleet buyers specify the type of paint that is to be used on their jobs that they buy.

[fol. 4143] Q. As I gathered on your direct testimony, you stated that you began the testing of lacquers which were competitive to the du Pont "Duco" back in the mid-twenties?

A. Yes, sir.

Q. And that by the latter part of 1926 or early 1927, according to your test, there were competitive lacquers to "Duco" which were equal to it in quality?

A. Yes, sir.

Q. Were any of the competitive lacquers superior to it in quality?

A. No, sir.

Q. You testified regarding certain improvements which have been made in paints over the years. Have you ever tested a particular lacquer made by a competitor of du Pont which you found in some respects to be an improvement or had better quality features than the comparable du Pont product?

A. Yes. As I tried to point out, the testing of automotive finishes is a very complicated thing. There are many factors that have to be taken into consideration.

While you might get a lacquer from a competitor which showed better blister resistance, it might not work in your plant because you might not have the time and temperature available to cure that thing properly. Therefore, while it would necessitate then that you revamp your whole plant, put in new ovens or new equipment to handle that particular material, and what you have to do on these automotive finishes is to make some sort of a compromise and pick out the material whose advantages you think are greater than the disadvantages of the new material, you see.

Q. In answer to my question—I lost it a little bit there —I was trying to find out whether there have been occasions over the years when you have found that a competi- [fol. 4144] tor's lacquer had incorporated in it some improvement over the comparable du Pont lacquer.

A. Well, that is what I was trying to explain. Maybe I didn't make it clear.

We have seen materials, for example, that might have better lustre retention, but they might be poor in blister resistance or might be poor in crack resistance, so that what you have to do is try to put all these factors together, you see, and come up with something that has some decided advantages.

You do not change your paint materials on a big operation like General Motors, just because it is a little bit better in any respect. When you are painting that many automobiles in a day, you don't have to be wrong very long before you have an awful lot of dissatisfied customers. So when you are not in trouble, you don't change.

Q. Now these reports, these studies, these tests that you have run over the years, to whom have they been sent?

A. They are sent to members of what we call our Paint Committee, which is composed of men in the various divisions whose job it is to oversee the painting of the cars.

Q. One time Mr. Sloan, while he was, I believe, president, was attending some of those Paint Committee meetings, was he not?

A. I don't know of Mr. Sloan ever attending the Paint Committee meetings at the level at which I attend them.

Q. When you compile a report testing, for example, some other paint, competitive to a comparable du Pont product, in which you find that there is at least an element, among many, in which that competitive paint is superior to the comparable du Pont product, is the du Pont Company informed as to those quality tests?

A. Yes. We make a practice of calling in our suppliers, [fol. 4145] laying out these test panels on the table in front of them, and saying, "Look here, this is what you have got to shoot at. These boys have got this little factor ahead of you. Can't you fellows improve this?"

That goes for du Pont, for Rinshed-Mason, Forbes, or anybody else whose paint material we are testing. We call them in and show them the panels. One thing they cannot get from us is a sample of the other fellow's material. They never get that.

Q. You were not active in this research on paints during the very early years when "Duco" was invented and first adopted by the General Motors units, were you?

A. No, sir. While I was working in the same laboratory and knew what was going on, I had nothing whatever to do with it.

Q. You didn't become acquainted until when?

A. The latter part of 1925.

Q. The latter part of 1925?

A. That is right.

Q. And by that time the du Pont Company was supplying a very large percentage of the car units' requirements of lacquers, was it not?

A. Those who were using it did. I think they were all using it by that time.

Q. And you don't really know under what circumstances the du Pont "Duco" had been adopted in the years preceding that time?

A. No, sir.

Mr. Harsha: I think that is all. Thank you.

Redirect Examination

By Mr. Hurd:

Q. Mr. Wirshing, you stated that you couldn't tell the [fol. 4146] extent to which material of one supplier was used where more than one supplier was taking care of the needs of a division.

I believe you also said that as far as Chevrolet was concerned, you did know that they were practically exclusively du Pont.

As far as Olds is concerned, do you know to what extent they are Rinshed-Mason?

A. So far as I know, it is practically 100 per cent.

Q. So far as Cadillac is concerned, to what extent is it Rinshed-Mason?

A. It is practically all of their material.

Q. One other thing, on this Olds transfer to Rinshed-Mason, the exhibit shown you, Government's Exhibit No. 460, as you noted, undoubtedly, was dated January 25, 1927. It refers to the year 1926, not the year 1927.

What was your testimony to begin with as to when Olds made the change?

A. I thought I said the latter part of 1926 or early 1927; I thought that is what I said.

Q. Is there anything about that exhibit to change that testimony?

A. No.

Mr. Hurd: That is all.

(Witness excused.)

[fol. 4147] Richard C. Williams, called as a witness on behalf of the defendant E. I du Pont de Nemours and Company, having been first duly sworn, was examined and testified as follows:

Direct examination

By Mr. Gribbon:

Q. Will you state your name?

A. Richard C. Williams.

[fol. 4148] Q. Where do you reside, Mr. Williams?

A. In Detroit, Michigan.

Q. Are you employed by the du Pont Company?

A. Yes, sir.

Q. What is your position with the du Pont Company?

A. I am manager of the Automotive Sales, Fabrics and Finishes Section.

Q. Fabrics and Finishes Department?

A. I report to the Fabrics and Finishes Department in Wilmington.

Q. Where is the Automotive Sales office located?

A: In Detroit,

Q. And how long have you held your present position?

A. Since 1943, sir.

Q. When did you first begin to sell automotive finishes?

A. In late 1923.

Q. Have you been continually engaged in the sale of automotive finishes since that time?

A. Yes, sir, I have.

Mr. Gribbon: At this time, your Honor, I would like to offer in evidence Exhibit No. DP 175, which is a statement of the positions held in the du Pont Company, held by the witness.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 175.)

By Mr. Gribbon:

Q. Where did you receive your college education, Mr. Williams?

A. I graduated at the University of Maryland in 1914.

Q. What degree did you receive?

A. Bachelor of Science in Chemistry.

[fol. 4149] Q. Have you had any higher education?

A. I graduated from George Washington University in Washington, D. C., with a degree of Master of Science in Chemistry in 1916.

Q. Now, Mr. Williams, would you explain for us the responsibility of the automotive sales office of which you are the present manager?

A. Yes, sir.

We are engaged with the responsibility of soliciting sales and servicing fabric and finishing materials, to all automobile manufacturers, truck manufacturers, and also the accessory divisions that produce component parts that go into the manufacture of a finished automobile.

Q. Now, are there any geographical limitations on your responsibility?

A. No, sir. We have coast to coast.

Q. Now, when was the automotive sales office that you now head up, first established?

A. In 1925.

Q. And has this responsibility remained essentially the same as it is currently?

A. The office responsibilities have essentially been the same, but my responsibilities have changed from 1925—when I was there as a demonstrator—I continued to serve in pretty much of a capacity of a technical man for a number of years after that.

Q. Did your responsibilities thereafter broaden out?

A. Yes, sir. I gradually accepted broader responsibilities until I have my present position.

Q. You have been in the sales office in Detroit continuously since it was established?

A. That is correct, sir.

Q. Referring to your description of the responsibilities of the sales office, let me ask you, does your office sell all of the divisions of the General Motors?

A. Yes, sir.

[fol. 4150] Q. Are there none of the divisions of General Motors that are engaged in activities sold by other offices of the du Pont Company?

A. Other than automotive, yes. In other words, we do not sell Electromotive. We do not sell Frigidaire, and we do not sell Packard Electric. They are handled by the industrial division of the Fabrics and Finishes Department.

Q. And you have no responsibility with respect to industrial sales?

A. No, I do not.

Q. Now, you have mentioned fabrics. For how long have you had the responsibility for the sale of fabrics to the automotive companies?

A. August, 1949.

Q. And prior to that time did you have any personal responsibilities with respect to fabrics?

A. No, sir, I did not.

Mr. Gribbon: At this time, your Honor, I would like to refer to Defendant's Trial Exhibit, DP 176.

By Mr. Gribbon:

Q. Would you take that, please, Mr. Williams. Was the material in this exhibit furnished by you?

A. Yes, sir.

Q. What does it purport to be?

A. It is essentially all of the materials that are used in finishing an automobile.

Q. Are these the materials that are used currently, or in the past?

A. Currently.

Q. Has there been significant change in the products used in the finishing system for automobiles?

A. There have been a lot of changes, but no significant changes. These materials have been used ever since the [fol. 4151] automobile industry has been in effect, with the exception of some improvements in the finishes that are listed here.

Q. You speak of since the automobile industry is in effect. Are you referring to the period when you first had contact with the automobile industry?

A. Yes, sir.

Mr. Gribbon: I offer in evidence Defendant's Trial Exhibit No. DP 176.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 176.)

By Mr. Gribbon:

Q. Now, Mr. Williams, would you, looking at this exhibit, tell us briefly the composition of each of the products mentioned here, and briefly the function performed by each in the finishing of the automobile.

Would you start with the Bonderite, the first item.

A. I will try to, sir. "Bonderite" is a trade name, Mr. Gribbon, and Bonderizing is a process. Now, the Bonderizing process is the last step in the cleaning process of both sheet metal, which we frequently refer to as hoods and fenders, and the body metal.

Q. So that the Bonderizing process is applied immediately before the coats of paint begin to go on?

A. That's right. Bonderizing has two functions. Essentially it deposits a phosphate coating which forms a very satisfactory base for the succeeding coats, and also it has a tendency to inhibit rust if the jobs are scratched in service. By that I mean that the rust will not spread. It will be held to the spot where the damage has been done.

[fol. 4152] Q. Would you take the primer, please?

A. Well, Mr. Gribbon, there are two types of primer, dip primer for sheet metal, and spray primer for bodies.

Again I refer to hoods and fenders when I say sheet metal, and spray is for bodies.

The reason for the development of the two primers is that it is impractical to dip bodies, and therefore we have to resort to the spray technique for bodies.

Q. What is the composition of the primer products?

A. Well, essentially they are a combination of oils and driers and pigments.

Q. Will you go on with the putty glaze?

A. Putty glaze is just about what the word implies. It is also a combination of pigments, oils and driers, but it is of such consistency that it can't be sprayed or brushed, and therefore it is applied with a putty knife, and it is used to fill up holes in the metal.

Q. At what point in the finishing process is it applied?

A. Usually right after the primer, because the primer has a tendency when it is sprayed to show up the defects that are on the body or the sheet metal.

Q. Will you turn to the surfacer?

A. Surfacer is also essentially—I will mention the composition first—a combination of oils, pigments and driers, but naturally the surfacer has appreciably more pigments in it because you depend on that to get the ultimate smooth surface from which you get the hold out of the succeeding top coat.

Q. What is the primer surfacer?

A. Well, the primer surfacer is a combination of the primer and the surfacer.

Now, we developed a primer surfacer in the hope of accomplishing two things: One is to eliminate labor in application, and the other is that we feel that with the [fol. 4153] primer surfacer and by incorporating the two properties in one material we can come up with a product that will give us better performance generally..

Q. You mean by one application you do the job of the primer and the surfacer?

A. Yes.

Q. For how long has that product been in use?

A. It is in recent years.

Q. What is the use of the next product mentioned, sandpaper?

A. Well, after you spray your surfacer on your job, naturally you have got to sand the job down to get a smooth texture on which to apply your top coat. The preferred method is to use sandpaper of various grit size and water.

Q. Is that ordinary sandpaper that you might use in the household?

A. Yes, sir, exactly the same.

Q. When is it applied, and how?

A. It is done by hand and also mechanically. In some areas of the job, the contours are such that you can't get in and out of the kinks on the jobs with the machine that they use, if it is machine operation, so then you have to resort to the hand.

It is pretty much a preference on the part of the paint superintendent.

Q. The next product is top coats, and I see you have in parentheses there lacquer or enamel mixed with thinner.

Will you tell us the two types of top coats?

A. The two types of top coats—lacquers are essentially a nitro-cellulose base, pigments, plasticisers, and solvents. Enamels are synthetic bases with pigments and solvents.

Q. Are thinners mixed with both types of top coats?

A. Yes, sir.

[fol. 4154] Q. Tell us then briefly the next product, rubbing compound.

A. Rubbing compound is a combination of various types of fillers that are used in making burnishing materials.

The texture of the material is designed so that it will polish the job down and give you the burnishing effect that you want to bring up the desired lustre of a job, and at the same time the ingredients used in it are not so severe that it would scratch the surface to the point that it would not be pleasing to the eye.

Q. When are the rubbing compounds applied?

A. After the top coats are on.

Q. Will you refer then to the next three products listed there, chassis enamel, motor enamel, and miscellaneous lacquers, and tell us briefly where they fit into this process of finishing the automobile?

A. At one time chassis enamel was a very important item. That was when a great deal of the chassis would show when you would look at the car in the street. But now, with the present design of cars, the chassis is almost out of sight, so you really don't require the same quality material because you don't have to have the appearance any more, and you use it strictly for a protective coating.

Q. You use essentially the same quantity of material?

A. Essentially the same quantity, but a different formulation.

Motor enamel is strictly an oil type product with pigment added, and it does two things: it has a decorative purpose because when a man opens the hood of his car he likes to see a nice looking, clean, motor.

Also, it has the tendency to absorb some grease that may [fol. 4155] be on the motor, that has gotten there through the foundry operation. Also it is a protective coating.

Q. Now, are the chassis enamel and motor enamel of a different composition than the top coats you mentioned above?

A. Yes, sir, they are.

Q. What about this product, Interior Enamels? How does that differ from the ordinary top coat?

A. Interior Enamels are for decorative purposes. You will find on all automobile moldings, on the interior, hardware, glove compartment doors, and instrument panels, we refer to those as interior enamels.

Q. Do they differ in composition from the top coats used on the exterior?

A. Yes, sir, they do, because the same quality is not required as is required for the exterior.

They are really for decorative purposes only, although they do form some protective coating.

Q. Now, taking the next two products, insulating varnish and cable lacquer. Does your office sell those products?

A. No, sir, we do not.

Q. Who sells those products?

A. They are handled by our industrial division.

Q. On what part of the car do they go?

A. They go on batteries, starters, ignition systems.

Q. Looking at the last product, would you explain to us the composition of the body sound deadener?

A. The body sound deadener is an asphalt type product made in very heavy consistency, and it is used to absorb shock and noises, both inside and outside the car.

They put a lot of body deadener on the inside, line the trunks with it, and also it is often used on the under-carriage.

[fol. 4156] Q. Which of these products in du Pont Exhibit No. 176 does du Pont Company manufacture and offer?

A. We offer and sell everything except Bonderite, sandpaper and body sound deadener.

Q. Other than those three products, you offer the rest of the products used in the finishing process?

A. A complete line of products, sir.

Q. Now, the products you have listed on du Pont Exhibit 176, which are ordinarily referred to by the name "Duco" when offered by du Pont.

A. Lacquers and top coats.

Q. Only the lacquers?

A. That is right, sir.

Q. Ordinarily is the mixture of lacquer and the thinner referred to as "Duco"?

A. That is right, sir.

Q. Mr. Williams, let me ask you first, when was your first experience with "Duco"?

A. I think it was the latter part of 1921 or very early in 1922.

Q. Would you tell us the occasion?

A. Well, I was working in the laboratory up to that time at Parlin, New Jersey, and Mr. Elms, who was manager of the division there then, asked me if I wouldn't get myself a pair of overalls and come up to the paint shop.

We had a paint shop there in which they were evaluating this "Duco" as a possible salable product.

At that time there had been appreciable work, I think, done in the refinish field, and they had some of the refinishers that had gotten interested in the material. I went to the paint shop, and it was essentially a training course for me.

[fol. 4157] There I prepared panels, sprayed them, learned the technique of using a spray gun, and learned something of the refinish application.

Q. "Duco" had been discovered at the time of your assignment to the paint shop?

A. Yes, sir, although I think we referred to it at that time as Viscolac.

Q. You had no part in the discovery or work that immediately followed the discovery of "Duco"?

A. No, sir, I did not.

Q. How long did you remain in the paint shop at Parlin?

A. Oh, a very short while. I participated in two or three demonstrations while I was there.

Our sales people would bring in some refinisher who was interested in a demonstration of "Duco," and it fell my lot to finish a couple of cars, or at least be instrumental in finishing a couple of cars.

That happened in early 1922.

Q. What is refinishing?

A. It is a car that has been finished once, and you want to finish it over again.

Q. Not an original manufacture?

A. No, sir.

Q. What was your next assignment?

A. Well, my next assignment was in Dayton.

Q. When did that assignment take place?

A. Mr. Flaherty, who was our sales manager at that time—although I didn't report to him at that time, I still reported to Mr. Callahan in the laboratory—told me that Mr. Mougey of General Motors Research had been to see him, and that they at the research laboratories in Dayton were interested in exploring "Duco" as a possibility for automobile production.

He told me to pack my things and get some demonstrable material and get out to Dayton and work with Mougey.

[fol. 4158] Q. Did Mr. Flaherty or anyone else at du Pont tell you that General Motors had agreed to use "Duco"?

A. No, sir.

Q. Now, what instructions did you receive at this time in the spring of 1922, as to the duration of your work in Dayton?

A. There was no time put on it whatever. I was to go there and counsel with them and work with them and try to develop whatever came out of the venture.

Q. With whom did you work at General Motors Research at Dayton when you reported there in the spring of 1922?

A. I reported to Mr. Mougey. There were several other boys in the laboratory at the time that were doing some of the foot work, just as I was.

Q. Who were they?

A. There was a gentleman by the name of Meacham, and also, I think one by the name of Chase. I don't recall the others.

Q. Was Mr. Mougey in charge of this work, so far as you were able to observe?

A. As near as I could observe, he was the inspection head under Doctor Clements who was director of research at that time.

Q. Did any of these men with whom you worked tell you they were under instructions to use "Duco"?

A. No, sir, they did not.

Q. Did any of them advise you as to what their instructions were with respect to finishes?

A. Mr. Mougey told me that he had been given the assignment to explore all finishes with two objectives.

One was to break the bottleneck in their plants, that the automotive industry was growing, and they expected to grow with it, and it was just impossible for them to produce cars at a growing rate with the type of finishes they [fol. 4159] were using at that time, and that if this production continued to grow as they anticipated it would, it either meant making over additional plants at a much larger capital investment, but they just could not produce as they were, and they would not have an opportunity to get their share of the market.

Q. Mr. Williams, the record at this stage discloses the existence of a Paint and Enamel Committee in General Motors at this time, 1922.

Did you know of the existence of that committee?

A. Yes, sir.

Q. Did you attend its meetings?

A. No, sir, I did not.

Q. You never attended a meeting of the Paint and Enamel Committee?

A. No, sir, Mr. Gribbon.

May I go back to where you asked me about what Mr. Mougey said to me?

Q. Yes, go ahead.

A. I only stated one objective. The other was that they were looking for a more durable finish. The old type of finishes that they were using then, which were largely varnish, not only impeded the progress in the plant, but they were being plagued with complaints from the field of failures, so we had two objectives.

One was to produce a better product, and the other was to get something that would shorten the finish time in their plants, which at that time was anywhere from a week to four weeks.

Q. So in the spring of 1922, under instructions of Mr. Flaherty of Parlin, you undertook to work with Mr. Mougey and his group at Dayton?

A. Yes, sir.

Q. Will you describe to us the course of your work with Mr. Mougey in the spring of 1922 and the months there- [fol. 4160] after?

A. The first thing we did was to prepare a series of panels. We prepared a lot of them.

Q. How do you mean, you prepared them?

A. We took 4" by 12" panels which were used for testing, and we cleaned them in every conceivable way we could think of, sand blasting, and sandpaper, and some just plain solvent cleaner, and so on.

Then, after we prepared the panels, we sprayed the "Duco" on the panels and we would observe its characteristics from the viewpoint of spraying, whether it laid down a satisfactory spray, whether it flowed freely, and many things.

Now, the object in making so many panels was to permit us to get the panels on the test rack as soon as possible to get the results of the durability of the product that we were testing, and I think I can demonstrate that by saying that we would have some panels in Florida; they may have had some panels in Arizona, and they may have had some panels in Seattle, and we may have put panels on the east coast where they would be subject to salt spray.

Now, the reason for many panels was so that we could bring them in at the end of every three months, and observe their performance under the various elements to which they were subjected.

And still leave some of the panels out so that would not break the continuity of the program.

Q. Was all of your work at Dayton confined to these test panels?

A. Yes, sir, it was.

Q. Did there come a time when you commenced to paint automobile bodies?

A. Yes, sir.

[fol. 4161] Q. Will you tell us when that was, and the circumstances of that venture?

A. Well, Mr. Mougey felt that we should parallel that work that we were doing for the laboratories and also in the plants, because while the laboratories could pass judgment on the material from the viewpoint of ultimate performance, it still had to be worked into the plants because the plants made the decision as to whether they will use the materials or not, so he thought well, we have got a new product here, and while we are running these tests in the field to get the ultimate durability we ought to also have some tests on cars, if we can get the Divisions to finish a few cars, we would get some idea of the growing pains that we would have to go through in making the material applicable to the car units.

Q. Did Mr. Mougey arrange for demonstrations at some of the car units?

A. Yes, sir, he did.

Q. Do you recall which was the first car unit on which you demonstrated "Duco"?

A. Yes, I have an indelible impression.

Q. Where was that?

A. Flint, Michigan, on Buick, in May, 1922.

Q. What did you do there on this occasion in Flint in May of 1922?

A. I had nothing to do with making the arrangements. Mr. Mougey made the arrangements, with Mr. Herman Weckler at Buick Motor. Mr. Weckler was the works engineer, and apparently he had been in contact with Mr. Mougey, and discussed this problem, and realized they had a problem, and something had to be done about it. He was very fair minded executive, and he was looking for something new also, and I think that Mr. Mougey thought because of Mr. Weckler's attitude, it would be a good place to start.

[fol. 4162] Q. Did you make a demonstration to Buick in May of 1922?

A. Yes, sir.

Q. How many cars did you finish on that occasion?

A. We finished two.

Q. Now, following this demonstration at Buick, did you make a similar demonstration at other General Motors units?

A. Yes, sir; we did.

Q. Could you tell us how long this demonstration period continued?

A. Well, it continued from May, 1922, well into the summer of 1923, as far as demonstrations were concerned.

Q. Did you supervise the demonstrations that were being carried on at these car units?

A. Mr. Gribbon, I did more than that. I sprayed every one of these cars personally.

Q. Were you also at Dayton during this period?

A. I was back and forth between Dayton and our Parlin plant. I was practically living out of a suitcase during that period.

Q. Did there come a time when you were changed from Dayton to some other place?

A. Yes, I was changed to Detroit in January, 1943.

Q. During the course of these demonstrations, Mr. Williams, were you assisted in any way by your superiors at Parlin?

A. Mr. Flaherty and Mr. Lackey and Mr. Callahan used to come out once in awhile to counsel with me.

Q. You have described Mr. Flaherty and Mr. Callahan. Who was Mr. Lackey?

A. Mr. Lackey was in the sales department in Parlin, also.

Q. Did any of the other of your superiors at Parlin come out to assist you in these demonstrations?

A. Mr. Moosman came out occasionally.

[fol. 4163] Q. Who is Mr. Moosman?

A. He was assistant division manager, I believe.

Q. Who was head of the department, responsible for "Duco" at this time?

A. At Parlin, Mr. J. W. Elms.

Q. Did he come out to the Detroit area to assist you in a demonstration?

A. He was in Detroit a couple of times. I did most of my work for Mr. Flaherty.

Q. Who was Mr. Elms' superior?

A. Mr. Allen, if I remember correctly, of Wilmington.

Q. Mr. W. P. Allen?

A. Yes, sir.

Q. Did he come out to Detroit to assist in the demonstration?

A. He was there several times.

Q. Now, in addition to the superiors who came out to work with you, did you receive any help of any assistants in the course of your demonstration?

A. Any assistants?

Q. Yes, the plural of assistant.

A. Oh, after we were fairly well established, and I got to the point where I could not make all the demonstrations we were being requested to, there were several other men that were assigned to it.

Q. During the period of your demonstrations with Buick, Mr. Williams, did you report to your superiors at Parlin?

A. Yes, sir.

Q. In what manner?

A. Oh, I wrote reports and telephone conversations, and I made trips back.

Q. What was the purpose of these reports?

A. To give them some idea of how much progress we were making, and what we had to do in the way of modifying our methods to meet the various conditions that would come before us in the plant.

Mr. Gribbon: At this time, your Honor, I would like to refer to exhibits which have been marked as Defendants Exhibits DP 177 through 185.

[fol. 4164] By Mr. Gribbon:

Q. Would you examine those exhibits, Mr. Williams, and will you tell me whether those exhibits are the reports that you sent back of your Detroit and Flint demonstrations to your superiors at Parlin?

A. Yes, sir, they are.

Q. I refer you in particular to Defendants' Exhibit DP 182, and I note it is signed by R. K. Cathcart? Who is Mr. Cathcart?

A. One of the boys that was assigned to our group from Parlin who came out to assist us.

Mr. Gribbon: I offer in evidence du Pont Defendants' Exhibit DP No. 177, 178, 179, 180, 181, 182, 183 and 184; and 184, by the way, carries no date at the top, but there will be noted a memorandum on page 3 which says that there is a received stamp dated November 19, 1923; and Defendants Exhibit DP 185.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 177, 178, 179, 180, 181, 182, 183, 184 and 185.).

By Mr. Gribbon:

Q. I also show you, Mr. Williams, an exhibit that has been previously marked and introduced in evidence as GM 120-A. Would you examine that document and state whether that is also a report to your superiors of your work in Detroit?

A. Yes, sir.

Q. Are these exhibits that I have shown you, Mr. Williams, a complete set of the reports which you filed from Detroit?

A. I think that there are more of them.

Q. How often did you write these reports?

A. At least once a week and oftener, if I had time, if there was anything I thought of to report.

[fol. 4165] Q. Did there come a time, Mr. Williams, when the General Motors Corporation ceased the demonstration and experimentation and adopted the "Duco" for use in production?

A. Yes, sir, but not as a group. It was all done by individual units and at different times.

Q. Were you ever advised that General Motors had made a decision that the entire corporation would use "Duco"?

A. No, I was not.

Q. Which of the divisions was the first to adopt "Duco" for use in production?

A. The Oakland Motor Car Company at Pontiac, Michigan.

Q. Had you made demonstrations at the Oakland plant?

A. Yes, sir.

Q. Do you know the circumstances of Oakland's adoption of "Duco"?

A. I think I do.

Q. Could you tell us briefly what they were?

A. Well, after we made Buick demonstrations, we made demonstrations at Oakland Motor, and Mr. Rogers who was the paint superintendent there was a very aggressive individual, forward looking, and he took the position that, as "Duco" was being tried at other plants as a substitute for color finish it was a mistake, because he felt that you weren't getting the full benefit of the material and there should be some way to use the product that showed the durable result that "Duco" did, to be used—some way to use it as a top coat.

Q. What was the objection to using "Duco" as a top coat at this time?

A. Why, it was flat as it was sprayed.

Q. You mean the appearance problem?

A. The appearance problem, yes, sir.

[fol. 4166] Q. What did Mr. Rogers do?

A. He developed a burnishing process that involved the use of the rubbing compounds that we talked about earlier, and by that burnishing process he was able to bring up a lustre that was very pleasing, and it was comparable to the lustre that you see on the lacquer jobs today, and he was successful in selling his management that they should pioneer the development of this finish with this rubbed appearance.

Q. Do you recall when Oakland decided to use "Duco" in production?

A. They went into production on the open car on the 1924 model which I think was in the summer of 1923.

Q. I refer you now to exhibits which have been marked DP 186 and DP 187, the first of which was a report from Mr. R. C. Williams to Mr. J. J. Moosmann, Director of Sales. I should like to read the first paragraph. This is dated May 1, 1923:

> "Enclosed you will find a memorandum given to me today by Mr. Rogers, Supt. of assembly and finishing at the Oakland Motor Car Co. This will give you an approximate idea of the amount of material the Oakland Motor people will use up to October 1st."

Skipping down to the second paragraph:

> "Again we wish to emphasize the importance of having the Operating Department seeing that this material leaves Parlin the best that we can make. Providing we encounter no difficulties with these three months supplies we feel that this order will be [illegible] a trivial one."

[fol. 4167] DP-187 is the memorandum referred to in DP-186, and states the Oakland's requirements in gallons for the period July 15 through September.

Do these exhibits reflect Oakland's decision to adopt "Duco"?

A. Yes, I think they do.

Mr. Gribbon: I offer Defendants' Exhibit No. 186 and No. 187.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 186 and 187.)

By Mr. Gribbon:

Q. You stated that this decision covered only Oakland's open car production?

A. That's correct, sir.

Q. Were you advised as to the experience Oakland had with the "Duco" finish on its open cars?

A. Will you kindly repeat that question?

Mr. Gribbon: Will you read the question, please?

(Question read.)

By the Witness:

A. Sure I was.

By Mr. Gribbon:

Q. What was that experience?

A. Well, naturally I was interested in pioneering "Duco," and I was doing everything I could to get it adopted, so as soon as the Oakland Motor Car put these cars in the hands of the dealers, I would make some quick follow-ups to see what the reaction was.

[fol. 4168] Q. What was the reaction?

A. The reaction was the dealers said to the Oakland Motor management, "Well, look, how come you give us this beautiful finish and more durable finish on the open cars? Our closed cars are the ones that cost more money, and why can't we give the people that are in the market for the closed car as good a finish as you have on the open car?"

Mr. Gribbon: I would like to refer to Defendants' Exhibit that has been marked as DP-188, which is a Promotion

Report for October from the files of the du Pont Company dated November 7, 1923, and would like to read, with the Court's permission, the paragraph that starts at the bottom of the page one under "Oakland Motor Company":

> "Oakland continues to use 'Duco' on all open models with increasing satisfaction, and a slight improvement in the quality of the jobs. Experimental batches with slightly increased softener content have given good results, and in November it is expected that four or five hundred cars will be put out with an Enamel containing a higher amount of softener than the standard 526. The most important development at Oakland was in reference to the use of 'Duco' on closed cars. There has been an almost unanimous demand on the part of Oakland distributors for 'Duco' on the closed jobs, because they say they are in an illogical position when they attempt to explain to a prospective Oakland purchaser why the Oakland Company uses a better finish on the cheaper open cars than on the more expensive closed models.'"

Now, I offer in evidence du Pont Exhibit No. 188.

[fol. 4169] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 188.)

By Mr. Gribbon:

Q. Where were Oakland's closed bodies being made at this time, Mr. Williams?

A. At Fisher Body, Pontiac.

Q. And shortly after this report, did Oakland turn out its closed bodies with finishes in "Duco"?

A. Well, first Mr. Gribbon, we had to sell the Fisher Body Division or Corporation that "Duco" would be acceptable to them.

Q. And this is later in 1923, is that right?

A. Yes, sir.

Q. Had you prior to this time done any demonstrating or experimental work at the Fisher-Body plants?

A. Yes, sir, we had.

Q. Had Mr. Mougey arranged for those demonstrations?

A. No, sir, he had not.

Q. Who had arranged for this?

A. Mr. Flaherty and myself.

Q. Would you tell us the occasion of your first demonstration at the Fisher plants?

A. I think I can, sir.

Q. Will you proceed?

A. Mr. Flaherty and I went to see Mr. Lawrence P. Fisher—

Q. Who was Mr. Lawrence P. Fisher?

A. He was general manager of Fisher Body at that time.

Q. Would you tell us the approximate date of this visit that you and Mr. Flaherty made to Mr. Lawrence Fisher?

A. I think it was sometime in 1922.

Q. Will you proceed?

A. Well, Mr. Fisher said that it was in order for us to arrange for a demonstration, after Mr. Flaherty and I visited him.

[fol. 4170] They had an experimental unit in Detroit, referred to as Plant 9, and he got in the paint superintendent, Mr. John Breslin, and told him to arrange for a demonstration and we did.

The day we finished that automobile, I did it, and Mr. Fred Fisher and Mr. Lawrence Fisher and Mr. E. F. Fisher and Mr. A. J. Fisher and Mr. C. T. Fisher and Mr. W. A. Fisher, the six Fisher brothers, all came over to see that demonstration.

Q. Was the demonstration successful?

A. Well, I sprayed the job, and I must admit that I trembled a bit, spraying this automobile for the Fisher brothers, but still it was successful to the extent that we did further work.

After we finished the job and the brothers had a chance to look at it, one of them said—I don't remember which one—but he said, "I don't know whether we could sell that or not. It is pretty flat, and whether we can work out the rubbing and polishing operation to make it acceptable on a closed car as it is on an open car, I don't know."

Mr. Fred Fisher, the dean of the Fisher brothers at that time, I will never forget his remark. He said to me, "Young man, don't pay any attention to these remarks and don't let them discourage you. I have seen lots of worse things than this get well."

So it was very encouraging, and that resulted in our setting up an experimental program at Fisher Body which was under the direction of Mr. Breslin, and he and I really did some intensified work in the Fisher plants from there on.

Q. Did the Fisher plant at Pontiac commence to put "Duco" on the closed Oaklands late in 1923?

A. If I remember correctly, Mr. Gribbon, it was early in 1924.

Q. Turning now to Chevrolet, what type of finish was [fol. 4171] Chevrolet using at the time that you were making "Duco" demonstrations, say, 1922, 1923, and 1924?

A. All their open jobs, and most of their output were in open jobs, was black japan.

Q. What is black japan?

A. It is essentially a high bake black enamel.

Q. What are the qualities of the japan finish?

A. Quite durable, but available only in black.

Q. Did you do experimental work at the Chevrolet plants?

A. Yes, sir, we did experimental work at the Chevrolet plants.

Q. Who was in charge of the experimental work at the Chevrolet plants?

A. Most of the work was done at Flint, and John McQuaid was the paint superintendent at that time, and he supervised it and arranged for most of the work that we did.

Q. Did Mr. McQuald advise you at any time as to Chevrolet's intentions with respect to "Duco"?

A. Well, he told me that they were quite satisfied with the black japan as a finishing material, but they knew that we were getting into an era where people were demanding color, and that if they had to go color, they would perhaps go to "Duco".

Q. Chevrolet ultimately did adopt "Duco" on its production, did it not?

A. That is right.

Q. Do you recall what your first success was at Chevrolet in getting them to put "Duco" into production?

A. If I remember correctly, their export jobs at that time were being varnished, and they were gray. They were having trouble with the varnish in shipments in export, and they [fol. 4172] decided to run a few export jobs in gray "Duco", which we did.

Q. When was that, do you recall?

A. I think that was in 1922, late 1922.

Q. I refer to your report that has previously been introduced in evidence, du Pont Exhibit No. 183.

Will you look at the third page of that report, headed "Chevrolet Motor Company," and see if that refreshes your recollection as to when you finished the Chevrolet export jobs?

A. I am a year off.

Q. What was the date?

A. 1923; August, 1923.

Q. Late 1923?

A. 1923, instead of 1922, sir.

Q. Did Chevrolet thereafter, Mr. Williams, adopt "Duco" on its entire production?

A. Yes, sir, they did.

Q. Did it place it on open and closed cars simultaneously?

A. No, sir. They went to closed cars first.

Q. Do you recall the circumstances of Chevrolet placing "Duco" on closed cars?

A. I think I do.

Fisher were making the closed bodies, and Chevrolet proper were making the open jobs. They were finished in black enamel, and Fisher was getting into "Duco" at that time, and they took the position—at least, that is what Mr. Breslin told me, he was the paint superintendent—that to attempt to use both "Duco", putting "Duco" on some jobs and varnish in the one plant, wasn't practical, and that they thought that "Duco" was the finish they should use, and therefore they were doing what they could to suggest to Chevrolet that they go along on the closed production.

Q. So as you recall the circumstances, Mr. Breslin of Fisher was instrumental in having Chevrolet change its [fol. 4173] closed production to "Duco"?

A. Mr. Breslin is the man that I had the contact with, and I think he probably took this up with his management, Mr. Lawrence Fisher, and perhaps the contacts were made from that point. Mr. Breslin is the man who told me that it would be difficult to run two finishes in one plant.

Q. Now, let's return to Buick for a moment. You have testified that your first automobile demonstration took place at Buick, and that was in May of 1922.

A. That is right, sir.

Q. How long was it before Buick determined to use "Duco" in its production?

A. I think that Buick adopted "Duco" or made the decision to adopt "Duco" in the spring of 1924, which meant that the 1925 model would be in "Duco".

Q. During that intervening period, did Buick cease to experiment with "Duco"?

A. Not by any means, sir. It is not at all unusual for these plants to experiment for one or two years or more before making a decision that involves as much as a decision like that would make.

Buick was producing a number of cars, and they had a fine reputation, and naturally they weren't going to jump into something unless they knew they had fully evaluated the material.

I think it may be well to point out that the average person has no realization of what is expected of the thin film on an automobile. When you think that you have got three mills, that is, three-thousandths of an inch, and realize what is expected of it, starting from the primer and surfacer, out, why I think these people should evaluate the materials for a substantial period, because if they should happen to start production without an evaluation and tie up the plant, and [fol. 4174] the dealers are out of cars, people are out of work, and the finish fails, it can be very costly.

So I think Buick's decision was a wise one.

Q. You have mentioned Mr. Herman Weckler. Was he in charge of Buick's consideration of "Duco"?

A. Mr. Weckler was the works engineer and all of the work was done under his direction. He was the one person that seemed to have the thing best in his mind. He felt that here was something that is a real opportunity, so we should take advantage of it, and all of our experimental work that we did was handled through Mr. Weckler.

Q. Who was the paint superintendent of Buick?

A. Mr. Mullin, Alex Mullin.

Q. Did Mr. Mullin engage in any experimental work with "Duco" during this period, say, between 1922 and 1924?

A. Well, not until late in the spring of 1924 because up to that time he showed little or no interest in "Duco."

Q. Did you ever speak to Mr. Weckler regarding Mr. Mullin's cooperation with respect to "Duco"?

A. Yes, sir, I did. I told him that I thought just as we had in some of the other units, that we would have to have the cooperative efforts of the paint superintendent before we could expect to produce jobs that were entirely satisfactory from the viewpoint of appearance.

Q. How was Mr. Mullin's refusal to try out "Duco" affecting your efforts to have it adopted at Buick?

A. Mr. Gribbon, if you go into an automobile plant and realize some of the things that have to be done in arranging for a test—it isn't like pressing a button and having the thing start.

In the first place, they are running a lot of automobiles [fol. 4175] and any time you go in a plant to make tests and interrupt any production whatever, you are impeding the progress of something.

While these people take the position that naturally they want to know of developments and they are willing to go along, they hate to interrupt production to do it. Now I go to a plant and want to finish an automobile, and I can't get any cooperation from the paint superintendent, why, the chances of my having an even flow as far as the demonstration is concerned are appreciably retarded.

Q. What was Mr. Weckler's reply to you when you told him of Mr. Mullin's failure to cooperate?

A. He said, "You are selling the stuff, you sell Mullin."

Q. Did you sell Mullin?

A. Well, I appealed to his vanity.

Q. Will you explain that, please?

A. Well, I knew he was a good paint superintendent, and I said to him, "Alex, we are not getting to first base around here unless you throw your weight behind the wheel. You know more about finishing an automobile in five minutes than I do, and you have had a lot more experience than I have. How about doing something about this?"

Q. Did he do something about it?

A. He said, "If you will take your baggage and get out of the plant, and take the long-haired chemists with you, I will see what I can do."

Q. Did Mr. Mullin thereafter finish the jobs in "Duco"?

A. Yes, sir, he did.

Q. When was that?

A. I think in the spring of 1924.

Q. Do you recall that the Buick officials made an examination of those jobs?

A. Yes, sir, they did.

Q. Was that the occasion of Buick's adoption of [fol. 4176] "Duco"?

A. I think that was instrumental in it. Mr. Mullin proved to them he could really produce the job, and he did.

Q. I would like to refer to General Motors Exhibit No. 120-A and read, with the Court's permission, the second paragraph of that exhibit:

This is a report from Mr. Williams to Mr. Flaherty, dated May 2, 1924:

> "Early in April Mr. Allen and the writer visited Buick and Mr. Bassett, General Manager asked us to prepare bodies in dark and light blue that he may show the sales department what we were capable of producing. You are familiar with the attitude Buick's Paint Supt., has always taken toward 'Duco' and in order to use his experience as a painter we had to attempt to do this work in an entirely separate division of the company. This move riled the Superintendent and he completed some jobs for spite and did exactly as we had planned, the results being very good 'Duco' jobs."

Does this refer to your appealing to Mr. Mullin's vanity?

A. I think so, sir.

Q. I would like also to refer to what has been marked as Defendant's Exhibit DP 189, which is a report in letter form from Mr. J. J. Moosmann, to Mr. E. Flaherty, dated May 12, 1924.

I will read, if the Court please, the third paragraph of that letter:

> "The workmanship as regards spraying, rubbing and polishing was very good, and it was evident that the men in charge of the preparation of these cars had really tried to turn out good jobs, with the exception [fol. 4177] that Browne had insisted on using only two coats of 'Duco'."

Is this a description of the jobs that Mr. Mullin had prepared at that time?

A. I think so, sir.

Q. I notice in General Motors Exhibit No. 120-A, in the third paragraph, it is stated that Mr. Moosmann discouraged Buick from putting its entire production into "Duco". Did Mr. Moosmann consult with you on that occasion?

A. Yes, sir, he did.

Q. Do you know what the basis of that recommendation by Mr. Moosmann was?

A. Well, Mr. Gribbon, when you introduce something that is as novel as "Duco" in any plant procedure, it is always wise to proceed with caution.

Now if Buick would turn their total production to "Duco" at one time, and they would run into some trouble, as I have stated previously, and not be able to get their production out, it would be a crucial situation.

So we took the position, and I believe rightly so, that there was still some growing pains in this, and that it would be safer if we took it in easy steps rather than trying to throw a production the size of Buick's into this type of finish overnight.

Q. Was Mr. Alex Mullin the paint superintendent at Buick fired?

A. No, sir.

Q. Did he remain an employee of the company?

A. No, sir, he was sent to Australia on a mission, and died en route coming back.

Q. Still in the employ of General Motors?

A. He was when he went to Australia.

Q. Did Mr. Herman Weckler remain in the employ of the company?

A. No, sir, he did not.

[fol. 4178] Q. What happened to him?

A. Mr. Weckler left the Buick Motor Company and went to the Chrysler Corporation, where, until just recently, he held the position of vice president and general operational manager. I understand he has just retired very recently.

Q. Did Mr. Russell Rogers, the paint superintendent at Oakland, remain in the employ of General Motors?

A. No, sir, he retired—resigned, I beg your pardon, and I think he went with a paint manufacturer.

Q. Not the du Pont Company?

A. No, sir.

Q. When did the Cadillac Company adopt "Duco"?

A. Mr. Gribbon, we first demonstrated "Duco" to Cadillac at the Buick plant in July of 1922, and after that time, why, we ran some jobs at Cadillac from time to time, but they were the last of the General Motors units to adopt "Duco."

They put out some roadsters, I believe, in "Duco" in 1924, I think, or 1925—I may have the date wrong, but it was within that area of time.

Then they offered "Duco" and also color varnish. They gave the option to the sales department. They could use either.

So, if I remember correctly, it was, oh, 1925 or 1926, before Cadillac was really in "Duco."

Q. Until that time they continued to put out some production in the color varnish?

A. Some color varnish, and they offered an optional finish.

Q. But they had not adopted "Duco" as the standard production finish during 1924?

A. No, sir, they had not.

Q. Mr. Williams, during this period that you were demonstrating and experimenting with "Duco" at the General Motors units, were you doing any similar work with other automobile companies?

[fol. 4179]

A. Yes, we were.

Q. When did such work commence?

A. In 1922.

Q. How long did it continue?

A. Until it was adopted by a good many of them.

Q. Which of the other automobile companies did you work with?

A. We worked with Franklin. We worked with Cleveland, Chandler, Hupmobile, Nash, Studebaker—practically all of them.

Q. Did you make demonstrations at these other automobile companies?

A. A great many of them I made personally. Some of them were made by the men who were assisting me at that time. We were spread so thin we couldn't cover them all.

Q. Could you tell us briefly the course of your demonstrating work at these auto companies other than the General Motors units?

A. We did it on very much the same basis as we did General Motors, except that most of these units didn't have research laboratories that were evaluating the material to the same extent that General Motors did.

Q. Did any other automobile company, as you recall, test "Duco" as exhaustively as Buick did?

A. No, sir, I don't think so.

Q. I would like to refer, please, to the exhibit that has been marked as DP 184.

This is one of the reports that you made to your superiors in Parlin during the demonstration period, is it not?

A. I am looking for the date on it.

Q. This is the one where the date is on page 3, stamped "Received November 19, 1923."

A. Yes, sir, this is one of my reports.

[fol. 4180] Q. I notice this is signed "Red." Is that you?

A. Yes, sir, that's me.

Q. Looking at the first page, which is in the nature of a status report, would you read the entries there that refer to work being done at car companies other than the General Motors units?

A. Lincoln, Ford—

Q. Would you pause on the Ford a minute? Did you make calls on Ford?

A. Yes, sir, we did.

Q. Did you make many demonstrations at Ford?

A. No, very few.

Q. Did Ford show an interest in "Duco"?

A. Very little, sir.

Q. Did Ford adopt "Duco"?

A. We demonstrated "Duco" to Ford, and they used some black "Duco" on their truck production during this time. Ford eventually adopted "Duco," I think it was in the late 1920's—lacquer, I should say. It was of their own manufacture.

Q. It was of their own manufacture?

A. Yes, sir.

Q. Would you continue down there reading off the companies that are not General Motors units?

A. Well, I have that page, Lincoln, Ford. Let's turn to the next page, Hupmobile, Paige, American Auto Trim.

Q. What kind of a car did they make?

A. They were body producers. If I remember correctly, I think they made the Marmon body.

Q. Who is Dolan, who is referred to alongside of these cars?

A. He was one of our servicemen at that time.

Q. Working under you?

A. A comparable position to Cathcart.

[fol. 4181] Q. Will you continue, please?

A. Maxwell, Wilson Body; may I make this notation on Overland. I think it must have been a refinish account, which was not under my jurisdiction. Dodge, Rickenbacker, Studebaker—

Q. Were those all names of cars at that time?

A. Yes.

Q. I notice the next entry says: "Will visit St. Louis in December."

Did you make those visits?

A. Yes, Moon, Marmon, and I will have to strike out Morris, because that does not register with me at all. I don't remember it.

Q. You ~~don't re~~member the Morris car?

A. No, sir. Chalmers, Reo, Lawson Body, Towson. They made a body.

Q. What did they make?

A. They made bodies.

Q. Do you know for what car?

A. No, I do not remember. The American Wood Rim, that was not an automobile manufacturer. They made a substantial quantity of steering wheels that were used on automobiles, and they were widely distributed. They were located in Michigan. And Packard.

Q. Is that the complete list?

A. Yes.

Q. Of the automobile companies with which you were conducting the experimental work from 1922 to 1925?

A. There may have been some others that I do not recall just at the moment.

Q. Now, referring to this entire period of experimentation with "Duco," will you state for us the nature of the problems that you encountered in your efforts to get the automobile companies to put the "Duco" into production?

A. Well, Mr. Gribbon, when we left Parlin, we had done an awful lot of research work, and there never [fol. 4182] was any question in our minds but what we had discovered and perfected a material that would produce results far more satisfactorily as a car finish than anything that had been seen at that time.

Q. What occurred during this protracted period of experimentation?

A. Well, when you get into the plant, you run into difficulties. You have got to modify your materials at times to meet various plant conditions, and as we started to demonstrate these materials, we found a number of things that we had to do some additional work on, not detracting from the fact that we had the original film forming ingredients there, but still they needed some modifications to fit the conditions under which they had to be used.

Q. What were those specific problems you encountered?

A. The first problem we ran into was the lustre.

Q. What was the nature of that problem?

A. The material was flat when it was sprayed on. It was not acceptable from the viewpoint of appearance. We had to have some way to get that lustre up so that it would be acceptable to the trade.

Q. Was it the burnishing process that you have described?

A. We are still experimenting. We are trying to improve the lustre of our product. We are trying to build a product which has the lustre built into it.

Q. That would eliminate the rubbing compound?

A. No, it would not eliminate it entirely, but it would reduce the amount of the rubbing compound, also reduce the amount of labor.

Also, we believe from preliminary results, if we build the lustre into the material, we will get better field performance. [fol. 4183] Q. What was another of the major problems you encountered during this period?

A. Adhesion.

Q. Will you tell us briefly what the adhesion problem was?

A. Well, at that time, as I stated, we were testing this material on panels, and most of the jobs were being cleaned, that is solvent cleaned. If you accelerate them or leave them out, you do not change the character of them. Your adhesion is a question.

So we had to find something which we could put on the job prior to the application of the top coat to secure satisfactory adhesion.

Q. Has that problem been eliminated in the use of "Duco" in auto finishes?

A. Yes, sir, it has.

Q. Was there a color matching problem?

A. Yes, sir, we had some trouble with matching colors, so when the units would decide they wanted a color, they would give us a color to match and sometimes we had some trouble but by and large that is behind us.

Q. Did you have other problems arising out of the pigmentation of your lacquers?

A. Yes, sir, we ran into some trouble in trying to improve the product from the standpoint of hiding power.

If you get too much pigment, you run into an erosion of the pigment which is like rust on a piece of metal.

Q. What would be the effect on the product?

A. It would be flat and dull.

Q. Now, Mr. Williams, let us turn to the operations of the automobile sales office. I believe you testified that that office was established in early 1925?

A. That is correct, sir.

Q. Where did the personnel for that office come from?

[fol. 4184] A. Well, we had with us about four men we had brought out from our Parlin laboratories at that time.

Q. And they were engaged in demonstrating "Duco" with you?

A. That is right.

Then we supplemented that personnel with the group that came in from Flint.

Q. From the Flint Varnish & Color Works?

A. Yes, sir.

Q. How many were in that group?

A. I think five or six.

Q. What had been the experience of the group?

A. Well, their experience was largely on old type finishes, and their experience was very valuable to us in pioneering and promoting the sale of undercoats, and we made a pretty good team by having these fellows, being thoroughly familiar with the undercoating situation, and the boys from our group that came out with us, being familiar with the topcoat situation, it worked out very well.

Q. Who was the manager of the office in 1925?

A. Mr. Walter J. Sohlinger.

Q. And had he come from Flint?

A. Yes, sir, he had.

Q. How long did he remain as manager of the office?

A. I think until 1928, sir.

Q. And by whom was he succeeded?

A. Mr. George A. Staples.

Q. And you succeeded Mr. Staples in 1943?

A. That is correct, sir.

Q. In 1949, which is the date of the filing of the complaint in this action, how many people were working full time in the Detroit automotive sales office that you managed?

A. Approximately forty.

[fol. 4185] Q. Now, is that the full extent of the help that you have in selling and servicing the automobile accounts?

A. Not by any means, sir.

Q. Will you explain what additional help you have?

A. Well, we have laboratories located at our various plants and I have men in those laboratories that are working on current problems that are always available for us if we need them for field problems.

Q. How many such men are there?

A. I think about thirty.

Q. Is there a name that describes that group of men in your sales activities?

A. We refer to them as field sales support.

Q. Sales support?

A. Yes, sir.

Q. Now, Mr. Williams, I want to direct your attention to the steps that du Pont has taken to maintain its position as a supplier of automotive finishes following the adoption of "Duco", and I would note that this morning Mr. Wirshing testified that General Motors, in determining the source of supply for finishes, looks carefully at the character of the service that is offered by a supplier.

Would you tell us what the major respects are in which service is a factor in supplying automotive finishes?

A. I think it is the outstanding factor in the solicitation and maintaining good will with our customers, service.

Q. More particularly, what are the factors of service that you must take account of?

A. You mean, what do they do?

Q. No, when you say "service", what do you mean?

A. I mean that we have men available to go in their plants [fol. 4186] on any type of problem that they have that would effect the ultimate performance of the finish.

Q. Does service cover deliveries as well?

A. Yes, sir, deliveries are a part of service. I thought you had reference to technical service.

Q. Does it cover ability to produce in volume?

A. Oh, yes, capacity is very important.

Q. How many plants does the du Pont Company have that manufacture automotive finishes?

A. I think there are seven.

Q. Could you tell us where they are located?

A. Oh, we have one in San Francisco; one in Fort Madison, Iowa; Chicago; Flint; Toledo; Philadelphia; and Parlin, New Jersey.

Q. Do you happen to know when the Parlin plant commenced to manufacture "Duco"?

A. Oh, back in 1922, I assume.

Q. And do you know when the Flint plant commenced to manufacture "Duco"?

A. I think it was in '24 or '25.

Q. Now, do any of these seven plants produce what you might call a full line of automotive finishes?

A. No, sir, they do not.

Q. But do they all produce some of the automotive finishes?

A. Yes, sir, they do.

Q. Now, in your experience in the sale of automotive finishes, has the number and location of your plants been an important factor?

A. Decidedly so, sir.

Q. Would you explain that further?

A. Well, if you have a geographical location, you are certainly in a much better position to render service as far as deliveries are concerned, as well as to supplement the deliveries with the technical service that goes along with it, [fol. 4187] Q. Following the delivery of your products to a manufacturer, does the du Pont engage in further service?

A. We service the car until it is on the street.

Q. Could you tell us the nature of those service activities?

A. Well, our men call on their plants constantly offering advice in connection with the product that is being used in any particular plant.

Q. Do you call on the plants only when you get a complaint or a call that there is some trouble in the plant?

A. Oh, no, sir, we make periodic calls.

Q. How often do you make these calls?

A. We try to make them once a week.

Q. On all of your accounts?

A. On all of the major accounts, yes, sir.

Q. Are these periodic accounts confined to the General Motors units?

A. No, not by any means; all car manufacturers.

Q. Now, could you tell the Court why you find it necessary to make service calls on the auto manufacturers that are using your products, after the sale has been completed? Why is it necessary for you to go back in their plants and make these unsolicited calls?

A. Because there are so many problems that come up in a plant from day to day that you cannot pinpoint. It is necessary for our boys to police them constantly to find out whether the materials are performing as we anticipate they will if properly handled.

Q. When you say "police them," what do you have in mind?

A. I mean going in a plant and checking the vari- [fol. 4188] ous operations to be sure that the mixtures are right and the viscosities are right, and that the right amount of air is being used with the gun during the atomizing process, and the temperature of the tanks where they dip enamel is kept normal, and many other things.

Q. Do these practices in the plant that you have mentioned have an effect upon the final appearance and performance of the finished product that you sell?

A. Very definitely so.

Q. Could you take for example the problem of thin undercoats that you mentioned and state how that has an effect upon the performance of the final product?

A. Well, thin undercoats, Mr. Gribbon, come from sanding too close to the metal. Now, all cars have contours, and they have some stresses or strains or file marks in them, and when you apply a primer and then a surfacer coat, and then sand them down to a smooth surface on which to apply your top coats, naturally there are going to be areas where you are going to cut through.

Now, unless those areas are taken care of before the car goes into top coat, it is entirely possible that when they get in some locality where the humidity is high, or rains are prevalent, that moisture will get through the film, and that being the weakest link, it will start a blister at that point.

Q. On the final finish?

A. It will show up in the final finish.

Q. Now, are you suggesting, Mr. Williams, that your service men and salesmen in these inspection calls supplant the foremen and the paint superintendents in the auto plants?

A. We have nothing to do with the operation whatever, [fol. 4189] but we are very welcome, the doors are always open. These paint superintendents welcome our boys coming in.

Q. Now, in addition to the routine service calls such as you have described, do you do any further service in the sale of your finishing products to the auto companies?

A. Yes, we do.

Q. Of what character?

A. Well, we have men that are available in our laboratories for specific jobs.

For instance, supposing we are going to test out a new primer surfacer in one of the plants, and that requires a man going into that plant and staying for an indefinite period. He might be there for three or four days, or a week. Well, we cannot afford to take our salesman who is responsible for a number of accounts, to take the time to go in there and sit that program out. Therefore, we take one of the boys out of our laboratory that I refer to as sales support, and put him in that spot.

There are other instances where we run into trouble in the plants that maybe you cannot pinpoint it by a five minute call. Sometimes it is necessary for us to keep the man in the plant for days or weeks to pinpoint the trouble. It may be having an effect on the ultimate performance of the product, or also the appearance.

Q. I wonder if you could give us an example of the kind of breakdown in the paint line that you might be called upon to go out and take extensive efforts to cure?

A. I think so.

Q. Do you recall the incident of the dip primer?

A. I think so, yes, sir.

Q. Would you tell us the occasion of your being called [fol. 4190] to give assistance?

A. Well, this happened in the late thirties, if I recall correctly. I had a telephone call from the manager of the Southgate plant at Southgate, California, to the effect that he had shut down his line, and he said the trouble seemed to be in the dip primer—and he asked me how soon I could get there.

Well, we have some men that are rather adept in assisting or in sizing up difficulties with respect to dip primer, and I put him on one plane and I hopped on another, because we couldn't get on one, and we flew all night and got out there the next morning, and when we got there it was true the line was down and the men had been sent home, and I knew right away that we had to take some action promptly to get them back in production.

So we had a little meeting, and I suggested to the manager that we set up an improvised line and start spraying. It was on the hoods, and the fenders where the trouble was in this dip tank and it had settled out to a point where the materials were ropey, and there was no flow, and it was just separated.

So we set up this spray line, and in a short time we were able to recall the men and had the production going, and even though it was inconvenient, we were getting the cars out.

When you shut down a plant and lay off three or four thousand men, it is pretty costly. The dealers are not getting the cars, the employees are at home, have been sent home from work, and it is a very unfortunate situation. It so happens that when I got there we set up this improvised line, we set up a laboratory right in the plant, and I got in touch with one of our laboratories, which shows again the advantage of geographical location, and I had the men come [fol. 4191] down with a few test-tubes and beakers, and we set up the laboratory and set out to find out what we could do to ~~save the tank.~~

They had 12,000 or 15,000 gallons of material that they didn't want to throw away, and that is costly, too. So after trial and error between the representatives that I got from the laboratory and myself, we were able to come up with a compatible mixture by taking some of the old stuff that was bad and adding new stuff with it, and adding richer solvents, and we saved the tank and got them back in production.

Q. How long did that take?

A. About two and a half or three weeks.

Q. Did you stay in Los Angeles during that entire period?

A. Yes, sir.

Q. What was the difficulty with the tank?

A. Well, we think, and I think this is correct, that they were adding solvents for thinner that had been purchased locally that were incompatible with the primer proper.

Q. Had you sold this plant the primer?

A. Yes, sir, we had.

Q. Had you sold them the solvents?

A. No, sir, we had not.

Q. Did you sell the solvents you used to cure the difficulty?

A. We sold them the solvent to cure the difficulties, but after that time we didn't sell it any longer. Just long enough to get it back in the stable state.

Q. Then you no longer sold them solvents?

A. Yes, sir.

Q. Did you put a charge on your services out there for putting the dip tank back to working order?

A. That is part of our service, sir; no charge.

[fol. 4192] Mr. Gribbon: Does your Honor want to take a recess?

The Court: The court stands recessed for fifteen minutes.

(A recess was here taken.)

By Mr. Gribbon:

Q. Mr. Williams, does the du Pont Company maintain laboratories for the development of finishing products?

A. Yes, sir, we do.

Q. How many laboratories does the finishes division operate?

A. Oh, we have a service laboratory in each of the plants.

~~Q. What is a service laboratory?~~

A. Well, in all of our plants where we are manufacturing a varied line of finishing materials, naturally you need some counsel with the chemist, and fellows who have actually been active in helping to formulate the material, and we refer to them as service laboratories. Wherever we have a plant location, we have a service laboratory.

Q. What is the character of the work that is referred to these service laboratories?

A. Well, if we are in trouble on a serious color matching trouble—maybe someone might give us a color to match that we would have difficulty matching, why, it is their problem. If we find that our viscosities are not in keeping with what we need for our standard practice, that is referred to them.

You may run into a blistering epidemic, something like that. That is referred to them to evaluate the finish on the same basis as it has to be used in factories and production units to see if they can correlate the result.

Q. Now, does du Pont do research on finish products [fol. 4193] other than in these service laboratories?

A. Yes, sir, we do.

Q. Where do you do that?

A. We have three laboratories where we do basic research.

Q. Where are they located?

A. Well, we have a laboratory at Flint, Michigan, which I think you could refer to as a basic laboratory, basic research laboratory, and we do most of the research work on undercoats and some top coats, particularly lacquers.

We have a research laboratory in Toledo, Ohio, and most of the research work there is confined to enamels.

We have a research laboratory in Philadelphia which is a sort of daddy of research. Any problems we cannot cope with in either of the other two laboratories will be submitted to Philadelphia, and also we get a great deal of information—a great deal of information emanates from the Philadelphia laboratory because they do research on all products, every conceivable combination.

Q. How does the character of the work done at the three research laboratories you have just described differ from that done at the service laboratories?

A. Well, theirs is more of a fundamental research. In other words, when we are looking for new developments. Suppose we are trying to develop a new primer or a new surfacer, or a new top coat, something of that sort, where there is a major improvement—if we are looking for a major improvement, we refer it to one of the fundamental research groups.

If it is something that needs minor modifications, it is handled by the service group.

Also, I think I should add, that the service group is of a great deal of assistance to the plant in the production of [fol. 4194] the materials. Naturally they run into problems from time to time that require counsel, and we use the service group for that.

Q. Now, Mr. Williams, since the introduction of "Duco", have there been improvements in the products used and methods used in finishing automobiles?

A. Yes, sir, we are constantly searching for new and effective improvements. Now, over a period of years, since the introduction of "Duco", there have been some very gradual improvements.

Now, it is rather difficult to point to something that is of great significance through these gradual improvements, so if you look at the "Duco" of today, I think you could parallel it with the car of today.

If you look at an automobile on the street of the 1920 vintage, and look at an automobile of today, there have been some tremendous improvements. We parallel our work on a good many products, and our research people have succeeded in making minor changes from time to time that we feel give us a much better merchandising product than we had when we started.

Q. I suppose that other suppliers of the finishes have been working towards improvements of their products?

A. Oh, very definitely, sir.

Q. Can you tell us of any contribution, significant contribution, since "Duco" that the du Pont Company has made to the automotive industry?

A. I can think of several.

Q. Can you tell us what they are?

A. Well top coats have been mentioned.

Q. What has du Pont produced that has significant advantages of top coats?

[fol. 4195] A. Well, we introduced a new line of lacquers to supplement our line of lacquers for "Duco", referred to as "Metali Chrome."

That is spelled M-e-t-a-l-l-i-c-h-r-o-m-e. Maybe I could describe just briefly what that means.

Chrome means or certainly is indicative of brilliance, and metal means there are metal particles added to it, so it is a compound word. "Metalli-Chrome" is a development that came out in 1945 which is if major significance, and it resulted from cooperative study between our pigments division and ourselves, our laboratories, that resulted in very much more brilliant shades being available, and particularly in certain groups of colors, the greens and browns particularly, and we not only—the cooperative effort not only gave us an opportunity to introduce something that had more brilliance, but we introduced something that was much more durable from the viewpoint of color checking and chalking, and so forth.

Q. What accounted for the increased durability of "Metalli-Chrome" lacquer?

A. It is the method of incorporating the pigment in the vehicle. During that intensive study, they found that by incorporating the pigments with the vehicle through some other means that had not been used prior to this time, they were able to accomplish these results.

Mr. Gribbon: I should like to refer to an exhibit that has been identified as Defendants Exhibit DP 192. I think in your Honor's book it is one or two beyond the place where you are now.

This is an excerpt from a report by the Fabrics and Finishes Department of the du Pont Company for April of 1946, dated May 22, 1946.

[fol. 4196] I should like to read, with the Court's permission, the first paragraph:

> "A new and patented finish, '"Duco" Metalli-Chrome,' was formally introduced to the automobile industry at an exhibit in the Masonic Temple in Detroit, Michigan, on May 8th. The latest models of eleven

new automobiles had been finished with the new product and were exhibited. Also on display was a car which had been finished with 'Duco Metalli-Chrome' about five years ago and had since been in constant use. The new models consisted of Buick, Cadillac, Chevrolet, Ford, Lincoln, Mercury, Hudson, Nash, Oldsmobile, Packard and Pontiac."

Skipping down to the last sentence in the next paragraph:

"About 250 representatives of competitive lacquer manufacturers viewed the exhibit on May 9th and were informed that licenses under the 'Duco Metalli-Chrome' patents would be offered in the near future.

"The exhibit aroused considerable interest in the new finish and indications are that it will be used extensively by the automobile industry."

By Mr. Gribbon:

Q. Have the "Metalli-Chromes" been used extensively by the automobile industry?

A. Yes, sir. They have been adopted very extensively.

Q. Have there been other improvements in finishing?

A. Yes, sir.

[fol. 4197] Q. That the du Pont Company has been responsible for since "Duco"?

A. Yes, sir.

Q. Would you explain?

A. We pioneered the dip primer process.

Q. That is the process that you explained where you were called out to Los Angeles, the process by which they finish the hoods and fenders, is that correct?

A. That is right, sir.

Q. Have you been successful in selling the automobile industry widely on dip primer?

A. We sell substantial quantities to many automobile companies.

Q. Do you sell to Oldsmobile?

A. No, sir, we do not.

Q. What was the date of the initial dip primer development?

A. It was in the thirties—

Q. Excuse me. Are you finished?

A. I was going to give the circumstances that led up to it.

Q. Would you give us those circumstances?

A. Very briefly.

Small parts were being dipped in the plants at the time that this idea was born, and somebody conceived the idea that if you could dip small parts, why not dip fenders and hoods.

So, with the cooperation of the Buick people we put in an 800 gallon tank and started in to develop a product which we would dip.

It is a very tricky process, because when you consider, if you take the hood off your car and stand it beside you it would be taller than you are, and I don't think anyone has realized that. When you dip that in a tank, the material has to be so designed that the film at the top is appreciably the same as the film at the bottom.

First you have to design a material that would take that [fol. 4198] flow so that you would have a homogeneous film, and have the same protective layer at the top as you have on the bottom.

We accomplished a lot by that development. In the first place, you don't have to under coat the back of the hood because that primer acts as a protective coating. Before that, you had to spray under that hood.

It gives you a continuity of flow of material in your plants. Once these materials come out of the cleaning tank and are hung on a chain, they remain there, go on through the tanks strictly automatic until it is taken off at the end of the line.

It is a very much cleaner operation because you don't have the spray dust all over the room.

Of course, there is the economy factor. All you do is hang them on the line and take them off at the other end of the line, so you don't need the necessary labor that it took to spray them previously.

Q. Have there been additional improvements on your primers since the initial introduction?

A. Of this type?

Q. Yes.

A. Yes, sir. We have improved them appreciably from the viewpoint of shock resistance.

At one time the primers would not stand much shock. I mean by that that if you were driving over a gravel road, and the front of your car was exposed to the gravel flying up from the man ahead of you, and it would hit, it would go all the way through to the metal. We have improved that now so the primer underneath will take up the shock, and the fracture will not go through to the metal and cause you any rusting areas at that point.

[fol. 4199] Mr. Gribbon: I should like to refer now to du Pont Exhibit that has been marked for identification as DP 191, which is an excerpt from the monthly report of the Fabrics and Finishes Department to the Executive Committee, for May, 1947, and dated June 27, 1947.

With the Court's permission, I would like to read the first paragraph:

> "A sheet metal primer is a vital part of the finishing system in an automobile plant. The primer is used in large tanks of eight to ten thousand gallons capacity and all of the sheet metal, including hoods, fenders, and miscellaneous parts, are primed by dipping in these tanks from a conveyor line. For some years, du Pont has been the principal supplier of this type of primer to the Automotive industry."

Skipping down a paragraph, to the third paragraph, first sentence:

> "During the past year the Flint Laboratory developed a new sheet metal primer that has improved our position in the field."

I should like to offer in evidence du Pont Exhibit DP 191.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 191.)

By Mr. Gribbon:

Q. I note this exhibit, Mr. Williams, states that the primer that you have described is usable on hoods and fenders. Is it possible to dip bodies?

A. There have been some efforts made, Mr. Gribbon, in [fol. 4200] the past to dip bodies. I think it has been tried in some other countries. Naturally when any attempts of that type are made, the people in this country, wanting to be abreast of any developments, took advantage of it and have made some observations. But so far no one in this country has found it practical to dip bodies.

Q. Has du Pont effected any improvements in undercoats for bodies?

A. Very definitely so.

Q. What is that?

A. We pioneered the primer surfacer, which is just coming into use. The primer surfacer composition is comparable to a combination of the primer and the surfacer that I testified to earlier.

The beauty of the primer surfacer is that it can be put on in one application, and we find by putting this on in one application you have a saving in labor. You can cut out a spray booth because you don't have a double operation. Also we find that putting it on in one operation we get a smoother flow and it lays down smoother.

It also has a tendency to hold the finish up, so that you have more depth in the final finish.

Now our objective, by introducing material like this, is a product that will not require any sanding. Perhaps the messiest job in an automobile plant is the wet sanding. Men stand up there, stripped to their waists, and have got this sand paper and water all over them, and oxide and water all over the floor, and it is a dirty, sloppy, mess.

I have been told many times by the managements of any number of car producers that the company that comes out with a non-sanding primer surfacer will certainly have a gem. Our efforts have been directed in that direction for a long time, our research efforts.

We have now gotten past the research stage, and are in [fol. 4201] the process of testing material. We actually have it used in some plants, and we hope the next jump will take us one step nearer to our ultimate goal.

Q. Do other finish suppliers now have a primer surfacer also?

A. Yes, sir.

Q. Has the primer surfacer been broadly adopted in the automobile industry?

A. I can't say broadly, but it is being used in a number of plants. I could name several in which it is now in use.

Q. Turning now to thinners, the element in the top coat and under coat family that you haven't yet mentioned, have there been any significant developments in thinners since the introduction of "Duco" back in 1924 and 1925?

A. I think so, Mr. Gribbon.

Q. Will you describe them briefly?

A. Well, we had so many other things that required the attention of our chemists and chemical engineers that for a long time thinner was considered just something that you turned the petcock on and let it run out like you would in a gasoline station. But that has proven not to be the case at all.

Thinner has the function of reducing material so it can be sprayed on the job, and it can't be applied so richly as to permit it to run off the job. On the other hand, it can't be applied so that it doesn't have the rich solvents that will make it flow and not set up too fast and look like concrete.

So it is a very delicate balance of properties.

In working out some of the delicate balance of properties, we have discovered some combinations of solvents that permit us to make what we now refer to as the high build thinners. Now what this high build thinner does essentially [fol. 4202] is to permit us to put the same film on with less strokes of the gun.

It lays down smoother. It requires less polishing. We get the economy of having less men put it on. We get the economy of having less men rub it. We also think it gives some advantage in the ultimate lustre.

Q. Has there been any milestone development in the case of thinners, comparable, say, to your "Metalli-Chrome" in the case of top coats?

A. I don't think that it has been that revolutionary.

Q. Just a gradual improvement over the years?

A. That's right, but I do think, Mr. Gribbon, that if we continue to direct our attention to thinners, that we haven't reached the Utopia by any means.

Q. Now, Mr. Williams, I would like to turn to a few questions regarding the extent of your success in selling these various finishing products, first to the General Motors car units, and Mr. Wirshing testified on General Motors' purchases with respect to top coats and undercoats, and I wish to direct your attention only to one product in those categories and that is the surfacer.

Leaving aside the primer surfacers, that you have just mentioned, what is the composition of the surfacer that du

Pont is currently selling to the automobile industry?

A. Well, it is a combination of oils and pigments, and driers, as I described earlier in my testimony.

Q. Now, does du Pont also offer a pyroxylin base surfacer?

A. Yes, sir, we do.

Q. Is that used in the automobile industry?

A. Not any more, sir.

[fol. 4203] Q. Was it used at one time?

A. Quite extensively, yes.

Q. Where is it used now?

A. Largely in the refinish business.

Q. Do you recall that at one time, or do you recall whether du Pont made an effort to sell a pyroxylin surfacer to the automotive industry?

A. Very definitely we did, sir.

Q. What was the approximate date of that, if you recall?

A. I think it was in 1924.

Q. Was it early in the days of "Duco"?

A. Yes, after we came out with "Duco" we tried to promote the sale of a pyroxylin surfacer along with the "Duco."

Q. The pyroxylin is the same base from which the "Duco" is made?

A. Essentially the same base, yes, sir.

Q. I would like to refer you to an exhibit marked DP-193.

This is an excerpt from a report of the Chemical Products Divisions to the Executive Committee of du Pont of March, 1926, dated April 19, 1926, and with the Court's permission I should like to read the paragraph at the bottom of the page under "Experimental":

> "A complete pyroxylin system for automobile finishing, including primer, putty and surfacer, has been perfected to a degree that we feel warranted in offering it to those manufacturers who need the extra speed of operation offered by such a system, and substantial orders have been received for these products."

Does this refresh your recollection, Mr. Williams, as to the approximate date of the commencement of your selling efforts on the pyroxylin surfacer?

A. I think so, yes, sir.

Q. Did you continue to attempt to sell pyroxylin sur- [fol. 4204] facer for the few years following?

A. Yes, and we were quite successful in selling it.

Mr. Gribbon: Before I go on, I would like to offer in evidence DP 193.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 193.)

Q. Would you refer to a letter that has been marked as Government's Trial Exhibit No. 470 which is a letter dated October 28, 1926 from Lammot du Pont to Alfred P. Sloan, the first paragraph of which reads:

> "Our Paint Department tell me they have developed a pyroxylin surfacer for automobile bodies"—

Did you know that this letter was written at the time, Mr. Williams?

A. No, sir, I did not.

Q. Did you urge any of your superiors to get in touch with Mr. Sloan or anybody else in General Motors with respect to this pyroxylin surfacer?

A. No, sir, I did not.

Q. I should like also to have you look, if you will, Mr. Williams, at a further series of exhibits reflecting correspondence on this pyroxylin surfacer. They have been heretofore marked in evidence as Government's Exhibits 471, 472, 475, 476, 477, 478 and 479. Were you familiar with this correspondence, Mr. Williams, at or about this time in 1926?

A. No sir, I was not.

Q. Were you attempting to sell pyroxylin surfacer to the automobile trade at that time?

A. Yes, sir, we were.

Mr. Gribbon: I would like to read, with the Court's per- [fol. 4205] mission, the last paragraph of Government Trial Exhibit No. 479, which is a letter from Mr. Lammot du Pont to Mr. John Pratt, dated December 17, 1926. It reads:

> "As far as we know, there are no companies using our pyroxylin undercoating which are having any serious difficulty. From such information as I can se-

cure I am convinced that G.M. is making a mistake in not adopting pyroxylin undercoatings, and hope that you or someone else will see that the matter is given careful consideration."

By Mr. Gribbon:

Q. Did you at or about this time in 1926 or '27 make any sales of pyroxylin surfacer to any automobile companies?

A. Yes, sir, we did.

Q. To which companies did you sell the pyroxylin surfacer?

A. Nash, Marmon, Chrysler.

Q. Did these companies use this pyroxylin surfacer in substantial amounts?

A. Very definitely, yes.

Q. What were the alleged advantages of the pyroxylin surfacers?

A. Quicker dry was the principal advantage. We thought there was some advantage in hold-out, and by "hold-out" I mean that the finish sat up on top of the surfacer better than it did in the old type.

Q. Did these companies, Chrysler, Nash and Marmon, subsequently discontinue the use of pyroxylin surfaces?

A. Yes, sir, they did.

Q. Do you know why that was?

A. I assume they found other materials that they thought would be just as satisfactory at lower cost.

[fol. 4206] Q. Did you ever sell a pyroxylin surfacer for use by Fisher Body for any of the General Motors units?

A. No, sir, we never did.

Mr. Gribbon: I would like to refer to your Honor to an exhibit which has been marked as DP-194, which is an excerpt from the monthly report of the Paint, Lacquer, and Chemicals Department to the Executive Committee of du Pont, dated June 20, 1927, and I would like to read the final paragraph of that excerpt on the second page.

I note the date of this is 1927, and it reads:

> "It has finally been decided by the Fisher Body Corporation not to adopt our pyroxylin surfacer as an undercoating material, but to continue the use of oil-type products purchased from competitors. They

claim its higher price results in a net increase in cost per body, after allowing for the savings due to faster production and elimination of high-temperature ovens. They also object to it on the ground of increased fire hazard."

I would like to offer in evidence DP-194.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 194.)

By Mr. Gribbon:

Q. Will you refer to an exhibit that has been marked Government's Exhibit No. 496, which is a series of excerpts from the report of the Fabrics & Finishes Department to the Executive Committee dated July 20, 1929.

Will you read the last paragraph of that excerpt? [fol. 4207] Is the pyroxylin product referred to in that paragraph a surfacer?

A. No, sir.

Q. What is it?

A. It is a ground coat.

Q. Where does a ground coat fit into this finish system?

A. At one time, during the finishing of automobiles with color varnishes and finishing varnishes, the hiding power of some of the coloring varnishes was very low, and to compensate for the low hiding power in the color varnish, they would put on what was referred to as a ground coat, which was a higher pigmented coat, and had the effect of hiding the undercoats.

When we got into "Duco", naturally we had some problems with respect to hiding in some colors, and to compensate for that, we developed and offered for sale a pyroxylin ground coat, which was, of course, compatible with the top coat that would go over it.

Q. Did you continue to sell that for any length of time?

A. Not for any length of time, because the art developed to a point where we had very little trouble as far as producing satisfactory formulas now that would give us adequate hiding.

Q. Did you, after the date of this report, July 20, 1929. —do you recall that you had ever been successful in selling to the Fisher Body pyroxylin surfacers?

A. No, sir.

Q. What has been the extent of your success in selling them any kind of surfacer?

A. We sold them a primer and surfacer for one plant.

Q. Was that in substantial amounts?

A. Well, not substantial in comparison with their total requirements.

Q. How many plants does Fisher operate?

A. I think approximately fourteen.

[fol. 4208] Q. I should like to turn now, Mr. Williams, to a few of the other products mentioned on that list, to DP 176 which were not mentioned by Mr. Wirshing in his testimony.

Looking at rubbing compounds, which is just underneath top coats, to what extent have you been successful in selling General Motors units rubbing compounds?

A. We make rubbing compounds and offer them for sale, but we do not sell them in substantial quantities, but they are used in very substantial quantities. There are two concerns that have spent a lot of time developing rubbing compounds that really enjoy the major share of the business.

Q. What was the occasion for the use of rubbing compounds in the finishing system?

A. Why, it was developed to bring out the lustre by the rubbing and burnishing process that I referred to earlier.

Q. Did you at one time sell substantial amounts of rubbing compounds?

A. Yes, sir, we did.

Q. Do you sell them now to any of the General Motors plants?

A. In small quantities, to a few.

Q. Who are the two companies to which you refer that have concentrated on rubbing compounds?

A. McAleer Manufacturing Company, and the Snow Flake Company, both of Detroit.

Q. Will you refer next to chassis enamel which is on that list, and tell us the extent to which you have been able to sell any significant amount of that to the General Motors units?

A. We sold very insignificant amounts of chassis black to General Motors units.

Q. Did you at one time sell a substantial amount of chassis black to General Motors units?

A. Yes, sir, we did.

[fol. 4209] Q. What has been your observation of the reason for that loss?

A. It is my opinion that other producers of chassis black have given them something that is better for the job at lower cost.

Q. What about the motor enamel? What has been the extent of your success in selling General Motors units motor enamel?

A. Not very good.

Q. I presume the car units are the ones that use the motor enamel, is that right?

A. That is correct.

Q. Do you sell any car units motor enamel?

A. We sell Buick Motor only.

Q. You sell to none of the others?

A. No, sir.

Q. Refer now, if you will, to the product, interior enamel. I believe you stated they are used for the finishings, moldings and hardware that go into the automobile?

A. That is right, sir.

Q. To what extent have you been successful in selling interior enamels to General Motors units?

A. Our success has not been very satisfactory up to the present time.

Q. Could you elaborate further on that?

A. Well, at one time the Ternstedt Manufacturing Company used most of the interior enamels.

Q. That is a division of General Motors?

A. That is a division of General Motors, for decorative purposes, and at one time when they were making moldings that were transparent, and had a grain effect, we succeeded in selling them a color "Duco" for top coats, but they have discontinued the use of lacquer, and went to a synthetic type of material some years back, and it was an economy move. We have only been partially successful in obtaining that business.

[fol. 4210] Q. Did you sell a significant amount of interior enamel?

A. Yes, we sold significant amounts. They had three plants.

Q. You sold at all three?

A. We sold some at all three.

Q. Will you refer further to DP-176. Which of the products listed there are the most important measured by the volume consumed in finishing an automobile?

A. The top coats would be one.

Q. Are there others?

A. Primers, too.

Interior enamels, surfacers, and rubbing compounds.

Q. Now, I take it you are referring in your assessment of the importance of these only to those products which the du Pont Company manufactures and offers?

A. That is right, sir.

Q. You are not referring to sandpaper?

A. We do not make that product.

Q. Now, of these products that the du Pont Company manufactures, which is the most complex from a manufacturing point of view?

A. Top coats, by all odds.

Q. Why is that?

A. Because you are involved with so many variables in the development of formulas for top coats that you are not involved in in some of the other items.

For example, we have in our files possibly eighteen or twenty thousands colors we have developed over the period of years, but we do not have enough range to suit the public, so we are constantly in search of new pigments that we can incorporate in these vehicles to produce new shades.

Every time you introduce a new pigment, you introduce a new problem. Making a lacquer is not just taking a little lamp black off the shelf and putting it into some vehicle and stirring it up.

[fol. 4211] You have a combination of pigments, and the degree of accuracy and care in which the research goes on prior to the introduction of any color is a very, very important and painstaking job.

Now, we find that you could use some pigments in a proportion that would throw the entire formula out of balance, and we have trouble with chalking and checking and a number of other things. It is very important, and by all odds it is the most important one.

Mr. Gribbon: If the Court please, I should like to offer in evidence Defendants' Trial Exhibit No. 195.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 195.)

Mr. Gribbon: If I may explain briefly how that fits in here, I should suggest that it be read in conjunction with Government's Trial Exhibit 504, a copy of which is in your Honor's book, and that exhibit has set forth the sales that the du Pont Company has made to General Motors Corporation for the years 1938 through 1947, and the first seven months of 1948, and the sales are broken down in accordance with the Department of the du Pont Company that made the sales.

Exhibit No. 195 takes the years 1938 to 1941, omitting the war years when auto production was down, and 1946 and 1947, and shows two things. It shows the dollar volume of the total du Pont sales to General Motors represented by all finishing products, and the dollar volume of the finish sales represented by "Duco."

[fols. 4212-4213] For example, for the year, 1946, it will be seen from Government's Exhibit No. 504, that the du Pont total sales to General Motors in that year were 15,082,-odd dollars. Now, of that $15,000,000.00, the Fabrics and Finishes Department of the du Pont Company accounted for $12,541,000.00 in sales.

Now, looking at the du Pont Exhibit No. 195, of the $12,541,000.00 in sales of the Fabrics and Finishes Department finishes accounted for $10,429,000.00. That is the total of all the finishes, and then of that $10,000,000.00 totals sales of finishes, "Duco" sales amounted to $6,911,000.00, or almost $7,000,000.00 out of the $10,000,000.00 sales of finishes.

This is a convenient time, your Honor, to adjourn.

(Adjournment)

[fol. 4214] Mr. Harris: If your Honor please, I am now offering Government's Exhibit No. 1314, which we spoke about yesterday. I said that I would give counsel a copy of the answer to the interrogatory, and this is it. Counsel now has a copy.

The Court: Are there any objections?

Mr. Cox: No objections.

(Said document so offered and received in evidence, was marked Government's Exhibit No. 1314.)

The Court: Proceed.

Mr. Gribbon: May I first offer in evidence at this time two exhibits which I referred to yesterday, du Pont Exhibits 189 and 192.

(Said documents so offered and received in evidence, were marked du Pont's Exhibits Nos. 189 and 192.)

Direct examination (Continued)

By Mr. Gribbon:

Q. Mr. Williams, yesterday afternoon we were discussing the du Pont efforts to sell pyroxylin surfacers to General Motors. I wish to clarify a portion of the transcript there. Were you ever successful in selling Fisher Body Com- [fol. 4215] pany the pyroxylin surfacer that du Pont put out?

A. No, sir, we were not.

Q. Were you ever successful in selling pyroxylin surfacers to any of the other units of General Motors that used surfacers?

A. No, sir, we were not.

Q. Now, at the close of yesterday's session we were referring to du Pont Exhibit 195, which reflected the dollar volume of du Pont sales of finishing products to General Motors.

Mr. Williams, do you know the total volume of General Motors purchases of finishing requirements?

A. No, I do not.

Q. You do know that General Motors is a substantial purchaser of finishing products?

A. Yes, sir, I do.

Q. You do know that General Motors purchases substantial quantities of finishing products from du Pont?

A. Yes, sir, I do.

Q. Does anyone in General Motors report regularly to you the General Motors volume of purchases of finishing products?

A. No, sir, they do not.

Q. Did anyone in General Motors ever report to you General Motors total purchases of finishing products over a given period of time?

A. No, sir, they never have.

Q. Do you know the percentage of General Motors total finish requirements that the du Pont Company supplies?

A. No, sir, I do not.

Q. Have you ever been advised by any du Pont officer or any of your superiors that there is an agreement between du Pont and General Motors that requires General Motors to buy all or substantially all its finishing requirements from du Pont?

A. No, sir.

[fol. 4216] Q. Has anyone in General Motors ever advised you of the existence of any such agreement?

A. They never have.

Q. Has anyone in General Motors ever told you that they purchased "Duco" or any other finishing product from du Pont because du Pont owns stock in General Motors?

A. No, sir, they never have.

Q. Have you personally ever urged anyone in General Motors to buy your finishing products because du Pont owned stock in General Motors?

A. I have not, sir.

Q. Have you ever urged your salesmen to make such arguments to General Motors?

A. Certainly not.

Q. Why not?

A. I think it would be a very poor approach, and I think it would be to our disadvantage to attempt to get business on that basis. As I know the managers of the car divisions and accessories divisions, they are primarily interested in quality and service, and I think if you went into one of the plants, and started to discuss that subject you have just called to my attention, they would say, "If you cannot sell your products on the merits, you had better get out."

Q. Have you ever recommended to any of your superiors in the du Pont Company that they attempt to urge General Motors or any General Motors' executive to buy finishes from du Pont because of du Pont's stock interest?

A. No, sir, I never have.

Q. Do you know that certain of the du Pont officials are directors of General Motors Corporation?

A. Yes, sir.

Q. Which officials do you know to be directors of General Motors?
[fol. 4217]

A. Mr. Walter Carpenter and Mr. Henry B. du Pont.

Q. Are those the only officials of du Pont that you know of to be directors of General Motors?

A. Yes, sir, as far as I know.

Mr. Harris: That is of now, Mr. Gribbon?

By Mr. Gribbon:

Q. As of the present time?

A. Yes, sir.

Q. Do you know Mr. Carpenter?

A. Yes, sir.

Q. Do you know Mr. du Pont?

A. Yes, sir.

Q. Have you ever urged either Mr. du Pont or Mr. Carpenter to help you sell finishing products to General Motors?

A. No, sir, I have not.

Q. Do you know Mr. Angus Echols?

A. Yes, sir.

Q. Do you know Mr. Lammot du Pont Copeland?

A. Yes, sir.

Q. Have you ever urged either of them to help you sell finishing products to General Motors?

A. I never have, sir.

Q. Turning, Mr. Williams, to the sales that you make or attempt to make to auto manufacturers other than General Motors, will you tell us whether you have sold finishing products in substantial volume to auto manufacturers other than General Motors?

A. Yes, sir, we have.

Q. To which ones?

A. Well, following the introduction of "Duco", as soon as the car units became interested, it was a matter of a very short time before the other car producers became interested, and we were very busy making demonstrations all over the [fol. 4218] country to the other car units, and we succeeded in getting "Duco" adopted by a number of concerns.

Q. Will you name some of them?

A. Yes, sir. Hupmobile, Cleveland Chalmers, Gardner, Franklin, Marmon, Chrysler and Nash.

Q. Did you thereafter sell your finishing products to those Companies?

A. A great many of those concerns went out of business, but we do continue to sell our products to a number of those concerns who are still in business.

Q. Which of those concerns have you continued to sell to?

A. We have continued to sell to Nash, Studebaker, Hudson, Packard.

Q. How about Willys?

A. We sell to Willys, yes, sir.

Q. Have you sold those concerns since the adoption of "Duco"?

A. Yes, sir.

Q. Continuously?

A. Yes, sir.

Q. Which are the finishing products you have been most successful in selling to these other automobile concerns that you have mentioned?

A. Top coats principally and some undercoats, too.

Q. Are those the same products you have succeeded in selling to General Motors in quantity?

A. Those that use lacquer as topcoats, yes; those that use synthetic enamel, yes.

Q. What has been your experience in selling your finishing products to the Ford Motor Company?

A. As I testified yesterday, Mr. Gribbon, in the '20's, we were successful in selling to Ford some material for trucks, but later, in the late '20's, Ford went into the manufacture of nitrocellulose lacquers themselves, and they adopted it and used their own manufacture as long as they used [fol. 4219] a nitrocellulose type of finish. In the early '30's, Ford switched from nitrocellulose finish to synthetic enamel finish, and we succeeded in selling them a substantial quantity of both undercoats and top coats.

Q. How long did those sales continue?

A. Well, near the end of the 1930's.

Q. What happened at that time?

A. We lost the business.

Q. Do you know the occasion of your losing the business?

A. Yes, I was calling on the Ford director of purchases, and he told me that Mr. Henry Ford had issued instructions that the Ford Motor Company was not to purchase any more material from the du Pont Company.

Q. Were you advised as to any reason for this instruction by Mr. Henry Ford?

A. No, sir, I was not.

Q. Did you ever thereafter sell any finishing products to the Ford Motor Company?

A. Yes, sir. When Mr. Henry Ford II started to take active participation in the management of the Ford activities, I called on him and I told him that I was unhappy about our Ford relationships. He said that he thought that the du Pont Company, with all of its research facilities and capacity, had something Ford could use, and he thought at the same time that Ford had something that we could use, which, of course, was true.

He said that he saw no reason why we should not start to submit samples to their purchasing department and their technical laboratories, and if we could give them proof we would be judged on our merits, and if we got the business, why, we would do it in the way that Ford would customarily do business with other sources.

[fol. 4220] Q. When did this conversation with Mr. Henry Ford II take place?

A. ~~I think~~, Mr. Gribbon, it was just about the end of the war.

Q. And did you thereafter succeed in making sales of finishing products to Ford?

A. Yes, sir, we have. We sell Ford very substantial quantities of top coats.

Q. You do it at the present time?

A. Yes, sir.

Q. Has Ford ceased to manufacture its requirements of finishing products?

A. No, sir, they still have a paint plant and manufacture very substantial quantities of paint requirements.

Mr. Gribbon: I should like to offer, your Honor, exhibit marked DP 196, an excerpt from the monthly report of the Fabrics and Finishes Department to the du Pont Executive Committee, dated August 23, 1946, and read, if the Court please, the first paragraph of that excerpt:

> "Further progress can be reported in developing better trade relations with the Ford Motor Company,

> which recently placed with us orders for more than $110,000 worth of DULUX for finishing cars. In tendering us that business Ford expressed the hope that such action would mark the beginning of long and pleasant relations between Ford and du Pont."

(Said document so offered and received in evidence was marked du Pont's Exhibit No. 196.)

By Mr. Gribbon:

Q. Mr. Williams, this excerpt that I have just read refers to "the beginning of long and pleasant relations" between Ford and du Pont. Would you say that is an ac- [fol. 4221] curate statement?

A. Yes, sir, our relations are very pleasant.

Q. And had you, prior to this time, sold Ford?

A. We had sold Ford in the thirties, as I indicated, and later started selling them after the war.

Q. Now, let me ask you, do Ford and the other auto manufacturers, that you have mentioned being substantial customers of du Pont, buy also from other finish suppliers?

A. Yes, it is customary in the automotive industry to have several sources of supply.

Q. More specifically, what do you mean by "several" in the case of Ford and these other companies?

A. Well, they will have three or four prime suppliers in addition to their own manufacture.

Q. Is Ford the only manufacturer of automobiles that makes his own paint materials?

A. As far as I know, sir.

Q. What, Mr. Williams, has been your experience in the sale of finishing products to the Chrysler Company?

A. Well, when we introduced "Duco" we were quite successful for a period, I think, through the twenties, and we sold Chrysler substantial quantities of both under coats and top coats, lacquer type. In the thirties—

Q. Would you date that a little closer?

A. The early '30's—I was called into Mr. Keller's office. As a matter of fact, I initiated the call because our sales were beginning to drop off.

Q. Who is Mr. Keller?

A. Well, he was, I think, assistant general manager in charge of operations at that time.

Q. At Chrysler?

A. Yes, sir.

Q. Would you tell us the circumstances of your visit to Mr. Keller?

A. Well, our sales were beginning to drop off at Chrys- [fol. 4222] ler, and I was concerned about it, and I went in to talk to him about it, and Mr. Keller told me that he thought the best interests of the Chrysler Division would be served if they could find some supplier that would look upon Chrysler as the customer, and he thought that they had just about lined up someone who could take care of almost their full requirements.

Q. Did Mr. Keller advise you that there was any complaint about your materials or service?

A. None at all, sir.

Q. What did he say with respect to those factors?

A. He said that our service and performance of our products was very satisfactory.

Q. Were you thereafter successful in obtaining any significant amount of Chrysler's business?

A. We sell Chrysler a substantial quantity of materials, but it is insignificant in relation, I would judge, to their total requirements.

Q. From your observations was Chrysler successful in carrying out the policy that Mr. Keller described to you?

A. As far as I know they have done so, sir.

Q. Yesterday, Mr. Williams, in describing the responsibilities of the Detroit sales office, you referred not only to the sale to auto manufacturers, but also to the accessory manufacturers.

Which are the accessory divisions of the General Motors Corporation to which your office sells?

A. Well, we sell Ternstedt, A. C. Spark, Delco Products, Delco-Remy, Guide Lamp, and we sell some materials to Inland Manufacturing Company.

[fol. 4223] Q. How about Harrison?

A. We have never been successful in selling them, sir.

Q. Are all of these divisions that you have mentioned users of finishing products in fairly substantial amounts?

A. Oh, yes.

Q. Which is the largest user among the divisions that you mentioned?

A. Ternstedt is appreciably the largest.

Q. Do the accessory divisions use the same type and quality of finishing products as the car units?

A. Mr. Gribbon, every unit has problems that are individual problems and you have to tailor-make the product to meet the conditions, and the things that control the conditions, and they are first, what is expected in the way of ultimate durability, and what is expected in the way of appearance, and also they have to be tailor-made to meet some peculiar conditions in the plant, as far as application is concerned.

Q. On the whole, are the performance requirements of the accessory divisions as rigorous as the car units?

A. Well, they are not subjected to the same variables that the car units are, because most of the materials are on the inside. They are under the hood or under the chassis. The interior enamels are inside the car, so consequently they don't get the same exposure, but still they have to be able to stand up under some pretty adverse conditions.

Q. And looking to the appearance demands of the accessory divisions, are they as rigorous as those of the car divisions?

A. I don't think they are quite as rigorous but still they insist on a good looking job. A man doesn't want a shabby looking steering wheel and a man doesn't want to lift up his hood and find a shabby looking oil filter or horn or horn button, or whatever the accessory happens to be.

[fol. 4224] Q. Are the problems of the application of the finish in production as difficult in the accessories divisions as they are in the car units?

A. Yes, sir, they are.

Q. Are they all of the same character?

A. Not by any means; some are spray, some dip, some automatic spray, and some hand spray. They vary appreciably in every plant.

Q. Let's look at some of these divisions.

Where is the A C Spark Plug located?

A. In Flint, Michigan, sir.

Q. What principal products does it make?

A. Primarily spark plugs. That is where they got the name A C Spark Plug, but I believe they are the largest producers of fuel pumps, and they make oil filters, air filters, and make dials for speedometers.

Q. What is the nature of the finishing products they use?

A. They use principally black.

Q. That is a black lacquer?

A. Some lacquer; some enamel; some designed to be sprayed on automatically, some dip. They also make diaphragms which require some finishing.

Q. Has du Pont been successful in the sale of its finishing products to the A C Spark Plug Division?

A. Yes, sir, we sell in substantial quantities.

Q. Where is your Flint plant located in relation to the A C Spark Plug plant?

A. Very close. It is within a mile.

Q. They are both in Flint, Michigan?

A. Yes, sir.

Q. How about the Delco-Remy Division?
Where is it located?

A. Delco-Remy has two plants: One in Anderson, Indiana, and one in Muncie, Indiana.

[fol. 4225] Q. What products do they manufacture that require finishing?

A. In the Muncie plant they build batteries in very large quantities. They use a battery paint that runs into considerable volume.

At Anderson they make, oh, different types of materials that go underneath the hood, like switches, horn buttons, and horns—just a variety of materials that go to make up a component car.

Q. What are the principal finishing products that they use?

A. Pardon me, Mr. Gribbon, they also use appreciable insulating varnish in connection with their motors that they make for General Motors Corporation.

Q. Is insulating varnish one of the products that you have attempted to sell the Delco-Remy Division?

A. Yes, sir, we have tried.

Q. What has been the extent of your success?

A. We haven't been very successful. Insulating varnish is a specialty item, and there are two concerns that have just about cornered the market on insulating varnish—Schenectady Varnish and Sterling Varnish.

Q. You still offer insulating varnish?

A. Oh, yes.

Q. Did you at one time sell Delco-Remy substantial quantities of the insulating varnish?

A. We sold them some, sir.

Q. What other finishing products does Delco-Remy use in quantity?

A. Black enamels and black lacquers.

Q. What has been your experience with respect to those products?

A. We have some sales, but we haven't been as successful as we would like to have been.

Q. Do you know whether that division buys in quantity from other suppliers?

A. Yes, I do, sir.

Q. What suppliers?

A. Well, there are a number of paint concerns in the [fol. 4226] vicinity of Dayton and Anderson and Muncie. I think Kay & Ess is the principal one. Lowe Brothers is there, Ault & Wiborg, Becker, and Thresher is located in that vicinity.

Q. Turning to Delco products, is that division located in Dayton?

A. Yes, sir.

Q. What are the products that it manufactures?

A. They make fractional horsepower motors, and they make shock absorbers. They use insulating varnishes and they use black enamel and lacquer type, both, on the shock absorbers.

Q. What has been the extent of your success with Delco Products?

A. At one time we had a substantial amount of Delco Products business, but at the present time we don't. We attribute that to the better service that they obtain from the other suppliers located there. Proximity means a great deal.

Q. Do you still attempt to sell Delco Products?

A. Yes, sir, we do.

Q. Do your salesmen call on them?

A. Yes, sir, regularly.

Q. What is the basis of your statements, Mr. Williams, with respect to the other suppliers that are selling quantities of finishing materials to these divisions? How do you know that?

A. Well, our men get in the plants and they see the materials on the line.

Q. The Inland Manufacturing Division, where is that located?

A. It is located in Dayton, sir.

Q. What are its principal products?

A. Steering wheels, and at one time they produced a tremendous volume of running boards. Now the cars don't [fol. 4227] have a running board. They have what you call a rocker panel, which has taken the place of the running board.

Q. What finishing products does Inland use?

A. Well, at one time they used large quantities of a black asphalt type of protective coating for running boards, and then when they made wood steering wheels they used lacquer types of the steering wheels.

Following the introduction of hard rubber wheels and the discontinuance of wood wheels, they used finishes over the black rubber wheels.

Now, plastic wheels have come into the picture, and after the hard rubber wheels were introduced and they started to use black over them in appreciable quantities, we got into an era of color, which we are still in, and a great many people demanded colored wheels so they would have some symmetry. So Inland got into the manufacture of colored wheels and almost discontinued manufacturing black wheels.

Q. Have you sold them the color to go on the steering wheels?

A. Not successfully, sir.

Q. How do you account for that?

A. The service problem is too great. As we understand from Inland, the color is about the last thing selected when a man is going to buy his car, so their time factor is very short from actually getting the orders from the car units for specific colors, and then getting the wheels made up and shipped to them in order to have the car delivered to the customer on time.

Before we could get samples of the colors desired and get them to our laboratories and get them matched and back to them, why, the horse is out of the barn. So they selected Thresher Varnish, who is located in Dayton, and [fol. 4228] they have done a very excellent job and have the business.

Q. What product does the Guide Lamp make that requires finishing materials?

A. Guide produces a very large volume of lamps for the automotive industry. At one time all lamps were in black enamel, high baked enamel.

Again with the advent of color we have had to find something that we could get on those lamps to be compatible with the color coat that was going to be sprayed on when the lamps were delivered to the car divisions; so Becker Varnish perfected a primer that was very satisfactory and they got the business and they have had it ever since.

Q. That is the R. A. Becker Company you are speaking of?

A. Yes, sir.

Q. Where is that company located?

A. In Cincinnati, I think.

Now, Guide Lamp makes directional signals, too, that require no finishes. Most of them are chrome. But there is another use for paint at Guide that is very important, and tends to point out a very specific accomplishment as far as research is concerned.

The present lamp no longer sits on the fender so you can see it. They are sunken in the fender, and of course, you have fo get your reflection from that lamp so as to get the light on the street.

Guide was looking for a product that would permit them to put a surface over that lamp so they could get this reflection. We worked on it for a long time, and I assume others did, too, and we came up with a product that was very carefully formulated.

It is a high baked black enamel. It has a brilliant lustre, and it is intensely smooth. The surface is almost like glass. [fol. 4229] That is sprayed on there and flowed out in the cone, and then after that is done, they take two little wires, and at the top of the wires they will put a nugget of aluminum. Then they put it in a vacuum and they explode that nugget and it disassociates and covers the entire surface of the black enamel uniformly, and you get a perfect mirror from your lamp.

That has been a real contribution, and I am sure that the Guide Lamp are very thankful for the fact that we were able to produce something like that.

Q. Have you been successful in selling that enamel to the Guide Lamp?

A. Yes, sir, we have.

Q. Turning to the Ternstedt division, which I believe you testified is the largest user of finishing products of these accessory divisions, do you recall that you demonstrated "Duco" at the Turnstedt division back in 1923 or 1924?

A. Yes, sir, I do.

Q. I refer to Defendants' Exhibit DP 185, which has been already received in evidence.

Will you look at that, Mr. Williams? Does this report a visit that you made demonstrating "Duco" at the Ternstedt division?

A. You are directing me to the last paragraph?

Q. On the first page, yes.

Did this constitute an effort on your part to interest the Ternstedt division to use "Duco" on interior moldings?

A. Yes, sir, it does.

Q. This is dated December 3, 1923. Did you thereafter make further demonstrations at Ternstedt?

A. We did.

Q. Were you successful in persuading Ternstedt to adopt "Duco" for use on its interior moldings?

[fol. 4230] A. Not at that time, sir. They remained with the black baking enamel, japan, as we refer to it.

Q. They continued to finish the moldings with baking japan?

A. Yes, sir.

Q. Did you sell them the baking japan for that purpose.

A. No, sir, we did not.

Q. Did there come a time when Ternstedt did decide to finish their moldings with a pyroxylin product in lieu of the japan?

A. Yes, sir. In the thirties when they discontinued the japan and went to a graining process.

Q. Did you succeed in selling Ternstedt at that time?

A. Yes, sir.

Q. Were you, to your knowledge Ternstedt's only supplier of "Duco" materials?

A. I don't think we were, sir.

Q. Do you know of any other companies that were supplying them?

A. I think Arco of Cleveland was enjoying a portion of the business at that time.

Q. And since that time have you continued to supply Ternstedt?

A. We supply them some of their requirements.

Q. Are there other suppliers who also supply them with interior enamels?

A. Yes, sir.

Q. At that time, Ternstedt was located in Detroit, was it not?

A. Yes, sir.

Q. Has it since located its plant in Columbus?

A. Yes, sir, they have two plants, one at Columbus, and one at Trenton, New Jersey.

Q. In the Columbus plant, will you tell us when that was constructed.

A. Well, following the war; I don't know the exact date.

Q. Have you been successful in obtaining the interior [fol. 4231] enamel business at that plant?

A. No, sir, we have not.

Q. Will you tell us the circumstances of your bidding for that business at the Columbus plant?

A. Well, General Motors research laboratories and some of their car units were working on the new process of applying paint films known as the electrostatic spraying.

Columbus thought sufficiently well of it that they introduced this process in that plant. What it amounts to is simply spraying the materials right in a charged field, and it attracts the finish to the material.

We have been competing for that business, and we are still trying to get it. Ferbert-Schorndorfer succeeded in producing a very satisfactory finish by that process, and they have been fortunate in holding most of the busin ss.

Q. Are you continuing your work to develop your methods of painting with the electrostatic process?

A. We certainly are.

Q. Now, you have mentioned the Harrison Radiator. Tell us, where are those plants located?

A. They only have one plant in New York.

Q. For what purpose do they use finishing products?

A. Well, they make all radiator cores, and a radiator core represents the cooling system of your car, or a substantial portion of the cooling system of the car, and they make radiators for the automotive industry. It runs into a tremendous volume of radiators.

Q. Are they a substantial user of paint to finish those radiators?

A. Yes, sir, they are. It takes a large volume of paint to finish these radiators, and they also make heaters on which they use substantial quantities of paint for protective coatings.

[fol. 4232] Q. To what extent has du Pont been successful in selling Harrison its requirements?

A. We have never been successful in selling them. They have purchased their entire requirements from two sources, as I recall, Jamestown Paint, which is located near the plant, and the Pontiac Varnish at Pontiac shares the business with them, according to our information.

Q. Have you continued to make efforts to get that business?

A. Yes, sir, we have.

Mr. Gribbon: I believe that completes the direct examination, your Honor. You may take the witness.

Cross examination

By Mr. Harris:

Q. Would it be a correct impression to obtain from your latest testimony that General Motors and its accessory divisions would buy from du Pont, as a general rule, unless there was some very special reason why they should not?

The Witness: I did not get your question, sir.

Mr. Harris: Will you read the question?

(Question read.)

By the Witness:

A. Not necessarily, sir.

By Mr. Harris:

Q. A long list of reasons for not buying from du Pont gives us close proximity to the plant, a very special product that du Pont either has not bothered to make or is still trying to make; I don't see price at the moment, but is there any other reason than those you have given of these various accessories and General Motors divisions not buying from du Pont? Is there any other reason that you can give us? [fol. 4233] A. I know of no reason except quality, price and service.

Q. Do you mean to say by that that the quality, price and service is better than du Pont?

A. In some cases, the quality is better.

Q. The service you refer to is mostly, isn't it, proximity to their plant?

A. That is a big factor, Mr. Harris.

Q. Yes, and the quality you refer to is usually, isn't it, some special product that you do not care to meet?

A. We make the effort to meet it.

Q. Yes, but you have not been successful, have you?

A. In some cases we have not, sir.

Q. Now, who is your largest customer for paints and varnishes?

A. General Motors.

Q. Do you know with reference to these other automobile companies what percentage General Motors takes of your annual production of paints and varnishes?

A. No, sir, I do not.

Q. Have you any idea?

A. No, sir, I have not.

Q. I show you Government's Exhibit No. 490 and call your attention to page 2. It is the report of the Paint, Lacquer and Chemicals Department to the Executive Committee of April 17th, 1928, and I show you the sales of colored "Duco".

Now, you will see that the General Motors units up to date, which was March, 1928, had taken 45 per cent of your colored "Duco" that year.

Would that give you an idea of about what percentage General Motors has been taking of your colored "Duco"?

A. Well, according to these figures, they took 45 per cent.

[fols. 4234-4235] Q. I am only trying to get your recollection, Mr. Williams. That is only three months, three or four months.

Now, does that give you an idea, from your knowledge of the purchases of General Motors over the years that you have been in this department, as to whether or not that is about the figure more or less?

A. Well, it is hard to tell, Mr. Harris, what General Motors' total requirements are. We do not sell all of their requirements, consequently we do not know what their total requirements are.

Q. I think the figure refers to your production, 45 per cent of your production. I am only talking about du Pont's production.

Could you tell us whether around 45 or 50 per cent of your production of paints and varnishes and finishes has gone through the years to General Motors?

A. I think that is about right.

[fol. 4236] Q. In May, 1922, there was some considerable question, wasn't there, in the mind of the car division purchasers, and their paint engineers and other engineers as to just this very thing, the question of high lustre and the question of durability and also of adhesion, is that right?

A. Yes, sir.

Q. So that you met, when you went out to these people, a considerable amount of—well, you might call it doubt as to your ability to sell a good finish which would meet these objections, did you?

A. Well, Mr. Harris, as I testified yesterday, there was never any question about the film forming materials being, in our opinion, durable, but as I pointed out, when we went into the plant we knew we would have some growing pains, and as each of these things came up we took whatever steps that were necessary to try to correct them.

Q. The fact that you had growing pains would, would it not, add to your difficulty in selling this product at that [fol. 4237] time?

A. That is what would hold it back until we would overcome those difficulties, yes, sir.

Q. Now, I call your attention to the document which has been marked DP-210 for identification. This is an excerpt from the monthly report of the Cellulose Products Department, which would be du Pont, to the Executive Committee, for April, 1922.

> "The most important promotion work was the further development of pyroxylin enamels for new automobiles. The General Motors Research men with whom we are working had asked us to concentrate first on the problem of adhesion."

Now, what was the extent of your cooperation with General Motors in the development of "Duco" and getting these bugs—if you might call it that—out of it? How many of you were working with General Motors at that time in the laboratory?

A. I was the only one in the laboratory working with General Motors at that time.

Q. Now, you gave the names, I thought, of other men yesterday. Were they engaged with you in some other laboratory, or in the sales effort?

A. The names of our own men or——

Q. Your own men, yes.

A. Yes, they were connected with me in the field work.

Q. Now, you were the only chemist from du Pont that was working with General Motors' chemists, is that right?

A. In the research laboratories?

Q. Yes, at General Motors Research Laboratory?

A. That is correct.

Q. Now, were there any chemists from any other chemical company working with General Motors in their research [fols. 4238-4239] laboratory?

A. I wouldn't know that, Mr. Harris.

Q. You didn't know that?

A. No, sir.

Q. None was introduced to you as such, I take it?

A. No, sir.

[fol. 4240] Q. Now, Chevrolet; Chevrolet, you say as to them, that your "Duco" will never as seriously compete with the black baked enamel finish because that is cheapest, but you were going to start to sell Chevrolet color.

A. That is the way we started.

Q. And you became very successful from Chevrolet because 100 per cent is taken from du Pont, is it not?

A. No, sir.

Q. I thought you said Chevrolet was 100 per cent?

A. I didn't make that statement.

Q. Well, I am wrong.

A. We sell Chevrolet substantial quantities, but we know they buy from other sources, but not knowing what their total requirements are, I couldn't tell you what percentage we have.

Q. Perhaps the testimony of Mr. Wirshing may have been a little different. Perhaps I was confusing your testimony with Mr. Wirshing's. We will check on that.

Do you know what percentage again of Chevrolet, "Duco" finishes or similar, are bought from other sources than du Pont?

A. No, sir, I do not.

Q. When you say "very substantial" or "substantial," could you tell us what you mean in terms of percentage of total requirements?

A. Well, it depends upon the unit.

[fol. 4241] Q. What would be the lowest percentage that you would say was substantial? Where does it begin to be substantial in terms of percentage?

A. I think you have to break it down more than that, Mr. Harris.

Q. All right, tell us how you would do that.

A. I have no way of knowing what the total requirements are of any of these divisions. Our sales are confined largely to the top coats and the undercoats. I could hazard a guess, but it would be a guess at best.

Q. I am only speaking to when you, in answer to a question say, well, it was substantial or very substantial, when we are talking about "Duco."

A. In some cases I would say 50 per cent was substantial.

Q. Were you familiar with the sales to Chevrolet, just while we are on that, in 1941?

A. I think so, sir.

Q. Do you recall a contract—I will show it to you. This is Government's Exhibit No. 503, of July 17, 1941, a request to consider contemplated sales contract.

I call your attention to the comments. The contract is for approximately 100 per cent of Chevrolet paint requirements for duration of contract.

Was that usual with Chevrolet?

A. That has been customary for Chevrolet to request a contract on that basis.

Q. That is 100 per cent?

A. But we know that they don't buy a hundred per cent of their requirements from us.

Q. And you don't know how much less than 100 per cent they don't buy from you, do you?

A. No, sir, I can't estimate that.

Mr. Harris: It is 11:30, your Honor.

The Court: The Court stands recessed for fifteen minutes.

(Recess taken.)

[fol. 4242] Mr. Harris: Just before we leave the question of Chevrolet, Mr. Williams, I want to call your attention to the testimony of Mr. Wirshing, transcript 7378.

Mr. Wirshing was asked by defense counsel the question:

> "Q. What about Chevrolet? What have they used throughout the years?
>
> "A. Chevrolet has used practically all of du Pont materials throughout the years."

By Mr. Harris:

Q. Would you agree with that?

A. Well, Chevrolet used du Pont materials in a very substantial quantity, but from my access to the Chevrolet plant, I know there are competitive materials being used by Chevrolet.

Q. Yes, that is what you said, but I am speaking now about practically all.

A. A very high percentage, yes.

Q. Would you agree with that, that they do get practically all from du Pont?

A. Well, I don't know how I could determine whether they get practically all, not knowing what their total purchases are.

Q. And not knowing what they buy from competitors?

A. That is right, sir.

Mr. Harris: That is all on that document for the moment, Mr. Williams.

By Mr. Harris:

Q. Now, at the time that you were working in the laboratory of General Motors, and were seeking to iron certain difficulties out in the composition of "Duco," do you know if other chemical companies, or paint companies were also trying to reach the same kind of varnish as you were or as du Pont was?

A. I don't know, but I assume so.

[fol. 4243] Q. Now, I am going to call your attention to four documents which are marked for identification DP 204, 205, 208 and 209.

Now, I call your attention first to DP 204, which is a letter from Pratt & Lambert to General Motors, September 27, 1922.

Who is Pratt & Lambert?

A. They are paint manufacturers.

Q. Are they paint manufacturers in a big way?

A. I have no means of stating whether they are or not.

Q. Well, do you know who your principal competitors were during the years that you have been in charge of this paint work?

A. Yes, sir, I do.

Q. Who are they?

A. Pittsburgh Plate Glass, Forbes Paint & Varnish, Rinshed-Mason; they are some of the bigger ones.

Q. Any other ones that you recall?

A. Ferbert-Schorndorfer.

Q. Was the Armitage Company?

A. I don't recall.

Q. Sir?

A. I don't recall them.

Q. Was the Tokiol Paint & Varnish Company?

A. I don't recall.

Q. You now have perhaps had a chance to look at these letters, and I won't go into them, but they indicate that Mr. Mougey was interested in the development of a similar finish to "Duco" from those companies named. Did you know anything about that?

A. No, sir, I did not.

Q. Now, after du Pont reached the place in this development of "Duco" that you were able to go out and sell it to the car divisions, was there any competing product which was of equal, shall we say value, or equal suitability to [fol. 4244] "Duco" at that time?

A. Not at the time we started out, sir.

Q. That is right. How long after was it that there came onto the market a finish that would be a competitor on fairly equal terms with "Duco"?

A. My best recollection was sometime in 1924 by the Forbes Varnish Company.

Q. Now, do you know who bought from Forbes?

A. Yes, I do.

Q. Who?

A. Fisher Body.

Q. Do you know whether the other automobile companies bought from Forbes?

A. I do not, sir.

Q. What other maker of a similar product to "Duco" was there on the market, if any, around 1924 other than Forbes and yourself, du Pont?

A. None that I recall, Mr. Harris.

Q. Has there been since then?

A. Oh, yes, sir.

Q. Can you give us the names of some of the other companies that has a product that is an equivalent to "Duco," that is competitive with "Duco"?

A. Rinshed-Mason.

Q. Who buys, if you know, from Rinshed-Mason in a big way?

A. Fisher Body.

Q. Yes.

A. Oldsmobile.

Q. Yes.

A. Cadillac, and Ford Motors.

Q. Anyone else?

A. Kaiser-Frazer.

Q. Yes.

A. That is as far as I can go now.

Q. Now, can you give us any others?

A. Mr. Harris, are you talking about topcoats or undercoats of finishing material for automobiles?

Q. Well, of course, I am not a technician. I thought I was talking about "Duco." When I am talking about [fol. 4245] "Duco," what am I talking about, can you tell me?

A. You are talking about lacquer, nitrocellulose.

Q. Thank you.

A. Then I should like to change my testimony to the extent that Kaiser-Frazer and Ford do not use nitrocellulose top finish.

Q. That is right. Now, what about Chrysler? What is the situation with Chrysler?

A. They use no nitrocellulose.

Q. No nitrocellulose, is that right?

A. That is right, sir.

Q. Now, did you by any chance sell any "Duco" to Packard?

A. Yes, sir.

Q. When did you sell to Packard?

A. I think around 1925 or 1926.

Q. Have you sold to Packard since that?

A. Some, yes, sir.

Q. Have you sold them recently?

A. Some of their needs, yes, sir.

Q. Not "Duco"?

A. Yes, sir.

Q. Do they buy "Duco," if you know?

A. They have bought it from time to time.

Q. I mean now in a big way, the same as General Motors does?

A. Oh, yes.

Q. From whom do they buy, do you know?

A. I think their principal supplier is Valentine.

Q. Valentine?

A. Yes, sir.

Q. So Valentine would be another competitor of yours, would they not?

A. That is right, sir.

Q. How long has Valentine been operating?

A. I could not tell you that.

Q. Have they been operating all the period of time you [fol. 4246] have been operating, say, from 1924?

A. I think it was after that date, sir.

Q. Do you know when they reached a product similar to "Duco"?

A. No, I do not.

Q. Now, it is a fact, is it, or I will just phrase that a little differently—at the time that "Duco" became salable or appeared as though it was about to become salable, did you hear that General Motors wanted to take the entire supply?

A. Yes, I have heard that they wanted to be the exclusive user.

Q. Yes. Now, I call your attention first to du Pont Exhibit No. 211, and I will ask you to look at page 2, the fourth sub-paragraph, which is the last paragraph. This is a report by Mr. Clements to the Paint and Enamel Committee of General Motors:

> "Mr. Clements, of the Dayton Laboratory, is to see Mr. Pierre du Pont, relative to an option on material for a reasonable length of time. This was deemed desirable and, at the same time, reasonable, due to the fact that we have put a lot of time upon this finish and have helped the du Pont Company to work out methods of application. It seems to us that we should have some rights that would prevent others from capitalizing on our research and adopting the material prior to ourselves."

Now, that didn't go through, did it, Mr. Williams?

A. No, sir.

Q. Who objected, if you know?

A. I am not in position to know. I don't know, sir.

[fol. 4247] Q. I call your attention to Government's Exhibit No. 379, the paragraph at the bottom of the page:

> "There is a rather well defined feeling in the General Motors Company that they would like to have us give the General Motors Company exclusive right to the use of this new finish. This first came to our attention through Mr. Irenee du Pont."

And then the first paragraph on the next page:

> "We have seriously considered"—

By the way, this is a report of October 13, 1922, from the Cellulose Department to the Executive Committee of du Pont:

> "We have seriously considered this whole matter, not only from our selfish standpoint, but also from the

> bigger standpoint of the ultimate best benefit to the du Pont stockholders, having in mind their very considerable stock interest in General Motors. After weighing all the factors we have come to the definite opinion that it would not be to our best interests, nor General Motors', to give them this exclusive right."

And they didn't get it, did they?

A. No, sir.

Q. Now, in view of the fact that General Motors at that time seemed so anxious to get the exclusive right to all of your product of "Duco," how do you explain the resistance that you undoubtedly received from the technicians, and from the paint technicians?

Just tell us the reason for that.

A. The paint technicians?

[fol. 4248] Q. I am talking about the men you talked about, like Mullen.

A. He is a paint superintendent.

Q. All right.

A. I cannot explain it. He just felt that he couldn't go along with that type of finish.

Q. Well, is it a fact as shown by the various reports that are in evidence here, that you encountered certain objections, one to changing their method of putting a finish on the car?

Wasn't that one of the principal objections that you ran into?

A. There are always objections from someone when you introduce a new finish.

Q. And why are there those objections?

A. It interrupts their continuity that they have been accustomed to.

Q. Yes?

A. And you have to sell them.

Q. Would that, in your opinion, be the case no matter whether it was du Pont or anybody else, Ford, or any of these people trying to sell a new product to the divisions?

A. It wouldn't have made any difference.

Q. So that the opposition you encountered, if you did, was something, was it not, to be expected?

A. Well, I had not had much experience at that time, Mr.

Harris, but if we start in with a new product now you would get opposition until you could convince the people that you had something which would be beneficial for them to use, in which case they would readily go along.

Q. Well, your statement conforms to that, which you made August 13, 1923, in the report to Mr. Moosmann, du Pont Exhibit 183 in evidence, and I call your attention to page 2. This is the second paragraph of page 2:

> "I assure you that we have done everything, even vary the undercoats and believe you will agree it is [fols. 4249-4253] to our advantage as much so as to Oakland's to put out 100% jobs. The defects would not be noted by the casual observer, but every Automobile Manufacturer and paint man is out to kill or pick flaws in the usual departure."

That you found to be the case as you went through the divisions, didn't you?

A. They had to be sold, sir.

[fol. 4254] Q. Do you know, Mr. Williams, whether there was any trouble at Cadillac in getting them to take "Duco"?

A. They were conservative, and they were the last to adopt it of the General Motors units.

Q. Yes. Now, did you hear any argument concerning finishing varnish?

A. No. I did not.

Q. Was there an argument—if you did not hear it, you don't know, but was there any objection made, if you know, by Cadillac that there was not sufficient lustre after the application of "Duco"?

A. When they first started, Mr. Harris, they put out some of the jobs with "Duco," using it as a color coat, and then putting a finishing varnish over it, and they had to sell themselves that it was a better lustre than was obtainable over the processes that were available at that time, over the burnishing process I previously described.

They were conservative; they were not going to rush into anything until they knew they had sales acceptance.

Q. Yes. They thought, did they not; if you know, it was necessary to have a finishing varnish?

A. No, sir they thought it was necessary to have a high lustre

Q. A higher lustre than you would get from finishing varnish?

A. You cannot get any higher lustre than you get from a finishing varnish.

Q. What were they going to do about it, if you know?

A. I don't know.

Q. Did they discuss it with you?

A. No, sir.

Q. Were you able to sell Cadillac eventually?

A. Yes, sir.

[fols. 4255-4262] Q. Do you know yourself whether Mr. Sloan had interposed with the Cadillac people?

A. I don't know, no.

Q. When did you begin to sell "Duco" to Cadillac?

A. I think it was in 1924, two models, sport models.

Q. Yes. And this, I call your attention, is January 28, 1924. It was after that, wasn't it?

A. I don't know whether it was after that or before, Mr. Harris.

Q. It could not be much before that, could it, because this was January 28?

A. That is right.

[fols. 4263-4267] Q. Pyroxylin surfacer, I mean.

A. Oh, we did not get pyroxylin surfacer accepted by Fisher, but we did sell it to other concerns.

Q. Did I understand you to say that you sold it for a few years?

A. Sold it a few years?

Q. Yes.

A. Yes, sir, we did.

Q. Is it being sold now?

A. It is being sold in the refinish trade, but not to the manufacturers of new cars.

Q. What happened to the process that did away with it?

A. The introduction of oil type undercoats modified with alkyd resins speeded up the drying of the undercoat sufficiently and gave us better hold-out and were less expensive.

Q. And so that the fact that your sales of pyroxylin surfacer fell off is no reflection on du Pont, is it?

A. I don't think so.

Q. It was a new process that did away with it, is that right?

A. That's right.

Q. And that is true with a number of these things, is it, like the enamel for a chassis? Wasn't there a chassis enamel that you had where you say there weren't many sales of chassis enamel?

A. Oh, it was a different design that required a different type of material.

Q. That's right. As a matter of fact, the latest design of car doesn't take chassis enamel, doesn't require enamel, does it?

A. Oh, yes, they use a lot of it, but not the chassis.

Q. Because it doesn't show?

A. That's right.

Mr. Harris: I think that is all of this witness, your Honor.

[fol. 4208] Edmund M. Flaherty, called as a witness on behalf of the defendant E. I. du Pont de Nemours and Company, having been first duly sworn, was examined and testified as follows:

Direct examination

By Mr. Cox:

Q. You are Edmund A. Flaherty?

A. Edmund M. Flaherty.

Q. Where do you live, Mr. Flaherty?

A. I live most of the year in Milford, Connecticut. That is my legal residence.

Q. Where were you educated?

A. Pardon?

Q. Where were you educated?

A. Worcester Polytechnic Institute. I graduated in chemistry in 1911.

Q. Do you hold any other degrees or degree other than you got at that time?

A. I have an honorary degree of Doctor of Engineering from that same institution awarded in 1951.

I am a member of the American Chemical Society.

Q. Will you try to keep your voice up, Mr. Flaherty, a little?

A. Yes.

[fol. 4269] Mr. Cox: At this point I would like to offer a document marked for identification as du Pont Exhibit No. 197, which is a record of the positions held by Mr. Flaherty in the du Pont Company. It is the first document in the black notebook.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 197.)

By Mr. Cox:

Q. Mr. Flaherty, du Pont Exhibit No. 197 shows that you retired from active service with the du Pont Company on August 1, 1946, is that correct?

A. That's correct, yes.

Q. What have you done since that time?

A. For two years I did nothing other than recover my health, and during the third year after my retirement I was asked by Mr. Paul Hoffman, Director of Economic Cooperation Administration of the Marshall Plan, to go to Paris and take charge of the Chemical Branch of the Marshall Plan organization in Paris for the sixteen countries who were members of the Marshall Plan.

After two years in charge of the chemical activity I was then asked to take over all of the industry of the Marshall Plan for all of Europe—electric power, coal, petroleum, transportation, and three or four others that I forget now.

Q. How long did you continue in that work?

A. Until the end of June, 1952, which is the originally scheduled ending of the Marshall Plan. I had always planned to come back home then.

Q. What did you do then?

A. Then I became a consultant on a part time basis for [fol. 4270] three European chemical companies, one Swiss, one Italian, and one French, and a consultant to the United States Government on chemical matters in connection with European recovery.

Q. Is your work as a consultant carried on in this country or in Europe, Mr. Flaherty?

A. It is carried on mainly in this country, but it requires an occasional visit to Europe to consult with the officials of the companies with whom I work.

Q. Is the du Pont Company presently now one of your clients?

A. No, sir.

Q. Now, du Pont Exhibit No. 197, Mr. Flaherty, shows that you went to work at the Parlin plant of the du Pont Company in 1913. Do you recall that?

A. Yes, I was transferred from another position in 1913 to Parlin.

Q. Now, what business was carried on at the Parlin plant at that time?

A. There were two main businesses, one the manufacture of smokeless powder for the United States Navy, and the other the manufacture of what was called pyroxylin solutions, lacquers, enamels, and materials known as "dopes."

Q. What part of the business did you work in in 1913?

A. The pyroxylin branch. I was brought there to be the research chemist. They never had one before.

Q. What were these pyroxylin solutions used for in 1913?

A. They were used mainly for the finishing of patent leather, split leather, lacquers, as they were then known, which are coatings mainly for metal, metal objects, such as pin trays and various fancy hardware, all kinds of hardware, really, and then there was one small branch of the business devoted to collodion, medicinal type collodion made for pharmaceutical companies.

Q. How were these solutions applied to the articles you mentioned?

A. They were applied by dipping. In some cases by [fol. 4271] spraying with an air gun, and in some few cases by large coating machines.

Q. Did these pyroxylin solutions have any advantages over the oil base paint type finish?

A. They had several advantages. They were very rapid drying, and they were quite durable.

Q. Why did they dry more rapidly than the oil base?

A. Oil base finishes depend for their drying upon oxidation of linseed oil usually, which is a slow chemical process. These pyroxylin solutions depend for their drying upon the evaporation of the solvents, which takes place very quickly.

It is a physical rather than a chemical operation.

Q. Did the pyroxylin solutions which are in use and were in use at that time, and I mean by that from 1913 to

1920—have any disadvantages as compared with an oil base paint finish?

A. Yes, they were limited in the amount of solids that could be incorporated in these solvents, and therefore, for most uses, a number of coats were required, and that raised the cost if these were used in place of oil paint and limited the market for them.

Q. Why was it that more solids could not be added to these solutions?

A. The main solid in nitrocellulose solutions is nitrocellulose, and nitrocellulose has the property of imparting a relatively high viscosity to the solution in which it is dissolved, and that viscosity soon becomes unworkable if you try to put much nitrocellulose in.

The solution is too heavy to brush or spray or dip.

Q. Now, when you first went to Parlin, was any other division or plant of the du Pont Company making pyroxylin solutions?

A. None other than our Newburgh plant which was [fol. 4272] manufacturing artificial leather and was making the jelly used to coat cloth which is the basis of artificial leather itself.

It received its nitrocellulose, however, from Parlin, and it consumed within the Newburgh plant all that it made. None was offered for sale.

Q. Did the Newburgh plant make anything that could be called a lacquer or enamel at that time, with a nitrocellulose base?

A. No, sir.

Q. Do you recall a company called the Arlington Company?

A. Yes.

Q. Do you recall the time came when it was acquired by the du Pont Company?

A. Yes.

Q. Do you know at that time whether the Arlington Company made any pyroxylin solution?

A. Yes. The main business at Arlington was celluloid, but they had a line of pyroxylin enamels, and at least one very popular clear lacquer which they made and sold in competition with us and the other lacquer manufacturers.

Q. After the acquisition of Arlington by the du Pont

Company, did Arlington continue to make these pyroxylin enamels?

A. Only for a rather short time. Within six months or so we took over that business at Parlin and carried it on completely. Arlington gave up that manufacture.

Q. From that time on, then, Parlin at least between 1913 and the early 1920's, was the only part of du Pont Company making pyroxylin solutions?

A. Yes, sir.

Q. You continued, Exhibit 197 shows, to be at Parlin through the First World War, Mr. Flaherty, is that right?

A. Yes, I was.

[fol. 4273] Q. Do you recall whether these pyroxylin solutions that you have described were used for any military purposes in the First World War.

A. They were used to coat the noses of shells in various colors to indicate the type shell, whether it was explosive or poison gas, or whatnot.

Then a great amount of solution was made at Parlin for the airplane industry, where it was used as a coating on the cloth wings which were used in airplanes of those days. Its function was to shrink, thereby tauten the cloth, and also give it some additional weather resistance.

Q. Was this pyroxylin solution or finish that was used to coat airplane wings the same kind of lacquer or finish that was subsequently known as "Duco"?

A. No, not at all.

Q. What would you say, briefly, was the difference between that solution and the lacquer that was subsequently known as "Duco"?

A. The main characteristic of the lacquer known as "Duco" was that in it was a nitrocellulose of a reduced viscosity made by a process we had developed and patented; whereas in the airplane dopes, nitrocellulose was used for exactly the opposite purpose. Its function was to shrink the cloth, and the heavier viscosity nitrocellulose, the only type available at that time, has that characteristic.

Q. You say at that time, you mean during the First Worl War?

A. Yes, sir.

Q. Now, what was your first job when you went to Parlin in 1913?

A. I was sent there to be the research chemist for this lacquer pyroxylin business.

Q. What was the first job you did as a research chemist?

A. I was given two problems to work on: one, the improvement in color of the nitrocellulose; and the other a re- [fol. 4274] duction in the viscosity of the nitrocellulose because it was known that if we could get a nitrocellulose of lower viscosity characteristics and still have the other desirable qualities, strength, resistance to weather, and so forth, the market for our products would be greatly broadened.

Q. Directing your attention to this second project, that is, the one for lowering the viscosity of nitrocellulose solution, did you have any success in 1913 in that project?

A. No, sir. I was able to reduce the viscosity, but never to get a durable film.

Q. Do you know whether anyone else in the period between 1913 and 1920, to your knowledge, had devised any way or method of decreasing the viscosity of the nitrocellulose lacquer?

A. I know of no one who had done that and retained the film strength.

Q. In this period that I have been questioning you about, which is roughly the period from 1913 to 1920, had any of these pyroxylin solutions that you have mentioned been used in the original finishing of automobiles in factories?

A. So far as I know, no.

Q. Had any of these pyroxylin solutions been used in any way to finish automobiles, if you know?

A. I spoke earlier of Pyralin taking over the lacquer business from Arlington. The enamels that we made by the Arlington process were used on the West Coast in a limited way in refinishing automobiles, the original finish of which had failed.

We also, some of our employees at Parlin, finished their own cars with these Pyralin enamels.

[fol. 4275] Q. Mr. Flaherty, you are now going to be handed a document which has been marked for identification du Pont Exhibit No. 198, and I ask you to look at it.

The Court: I neglected to advise counsel that it will be necessary for the Court to recess at 12:00 o'clock. Unless requested, there will be no recess this morning.

By Mr. Cox:

Q. Have you looked at Exhibit No. 198 for identification, Mr. Flaherty?

A. Yes, sir.

Q. Will you tell us what this document is?

A. This is a reprint of a paper I read before the Society of Automotive Engineers in Detroit.

Q. Did you write that paper yourself?

A. Yes, sir.

Q. Where did you get the information that you used in writing that paper, Mr. Flaherty?

A. The experience I had personally acquired during the years I had been working on this problem, with the exception of some information in one part of it which we got from the Oakland Motor Company.

Q. Did you personally get that information from the Oakland Motor Company?

A. I got permission to use it from them, yes, sir, personally.

Mr. Cox: At this time I should like to offer the document which has been marked du Pont Exhibit No. 198 for identification, and read a passage which occurs on the second page of the document.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 198.)

[fol. 4276] Mr. Cox: In the first column on the second page, the page being divided into three columns, the passage begins under the heading "Enamels for Car Finishing," and reads:

> "A number of years ago various investigators in the pyroxylin industry had the thought that the pyroxylin enamels, because of certain desirable properties they possessed in addition to the ease and speed of application, could be employed to advantage in finishing automobiles. A very high grade, expensive type of pyroxylin enamel, known as 'Pyralin' has been manufactured by the du Pont Company for many years, and the first commercial use in the automobile refinishing industry of pyroxylin products was the employment of these 'Pyralin' enamels in certain refinishing shops in California. It was found that these enamels, while not pos-

sessing much body themselves, could be used over a certain type of priming coat which was worked out especially for them, and by applying a sufficient number of coats a very satisfactory automobile finish was the result. This finish had the advantage of being easily cared for and would stand several years' hard service in the hot sun and alkali dust of the desert without appreciable deterioration, although other finishing materials would break down in a month or two under similar conditions. In addition, the finish could be cleaned with remarkable ease, since it was so hard it did not readily scratch, and dust, or even caked mud, could be wiped off with a dry cloth without injury. The finish did not have the high gloss of finishing varnish, but had a characteristic satin luster, which to many was even more attractive, especially as it was permanent."

[fol. 4277] By Mr. Cox:

Q. Mr. Flaherty, will you tell us, if you know, why it was that these pyroxylin enamels could be used to refinish automobiles, and they were not used in the manufacture of automobiles as an original finish?

A. They required too many coats. They had a very limited solid content because of the difficulty about viscosity to which I referred a short time ago, and therefore it would not be a practical finish in large automobile factories.

Mr. Cox: At this point, if your Honor please, I think I should also like to read another passage which follows closely after the one I have just read. In the second column on page 2, under the heading "Development of Covering Power."

It reads:

"This successful use of a pyroxylin enamel in the refinishing trade naturally focused attention on the possibility of adapting it to the original finishing of new automobiles in the factories, but the process had one serious drawback, which for a long time seemed insurmountable. Pyroxylin solutions at that time were mainly volatile solvents, the actual amount of pyroxylin or other solid materials in them being relatively small. This meant that to deposit from such a solution a film of sufficient hiding power to produce the solid built-up color desired, such a great number of coats was necessary that the process was not a practical one. The obvious answer seemed to be to put more solid matter into the solution. Now pyroxylin has the property of imparting a relatively high viscosity to solutions contain- [fol. 4278] ing only a small amount of it. When an attempt was made to increase the amount of pyroxylin in the solution, in order to give it more covering power, the viscosity increased to such a degree that the solution was too stiff to work."

Q. Now, Mr. Flaherty, I want to direct your attention to the year 1920, and to certain events that happened in that year that had a relation to this problem of viscosity of lacquer. You were still at Parlin in 1920?

A. Yes, sir.

Q. Do you recall what kind of experimental work you were carrying on at that time?

A. The du Pont Company decided to investigate the possibility of manufacturing motion picture film base as an outlet for nitrocellulose. We were charged with the responsibility of developing a process for making motion picture positive films, and after some laboratory work, we built a fairly good sized experimental plant.

We then proceeded to make films, the first operation being making the base which is celluloid, in large rolls, and then coating it in the dark with silver emulsion which had photographic properties.

After a great many failures we finally arrived at a fairly good positive film, and sent it out to the laboratories that process the films for the Hollywood producers for tests.

They printed pictures on it, and it worked quite well, the photographic qualities, but it had one failure, which in dry weather there would be a fogging of the photographic emulsion, and after some investigation we determined that was due to a building up in the film as it unrolled either in the camera or the printing machine, charges of static electricity. Therefore we turned our attention to the pos- [fol. 4279] sible means of eliminating or minimizing this tendency.

One of our chemists thought perhaps we should incorporate something in the film base that would keep it slightly moist, keeping a moist atmosphere around the film that we felt would give the static electricity a chance constantly to float off into the air before it became strong enough to affect the emulsion.

One of the chemicals we thought of trying was known as sodium acetate. It was selected because it crystallized at ten molecules of water. Therefore we felt that we would put in a bit of moisture producing material into the film base, and we put in one or two percent of the sodium acetate. We tried that and it was successful so we decided to make a large factory scale run to make enough to send back to some of the laboratories who had reported on the difficulty of our films, and I instructed the supervisor in charge of the plant to get fifty gallons of the base made, and cast it on the film on which the finishing base is produced as soon as he could.

He started on this program, but called me up the day that he made the run, after he had the material made, to tell me that he was having trouble with the power in the film plant. He could not operate the wheel that day. I think that was on Friday, and I told him to wait and do it on Monday.

So Monday he telephoned me that he could not use this material, that it dropped off in viscosity, and it was too thin to be used on the casting wheel, and I concluded that the sodium acetate idea was not going to be a good one because the film base from the very nature of it, had to be very carefully regulated. The viscosity of the solution [fol. 4280] is one of the most important factors because a slight variation in thickness of the film base, it does not run smoothly through the processing machine or the camera which is later used, but after giving further thought to that, it had occurred to me that perhaps this was a method of producing viscosity which might solve the unrelated problem in the lacquer field.

Q. Mr. Flaherty, so far as you know, who first had the idea that this event might have some bearing on the viscosity of lacquer?

A. As far as I know, I did.

Q. Was this material that was found in the drum on Monday a material that was "Duco"?

A. Oh, no, sir, it was a nitrocellulose base, and it contained some solvents of nitrocellulose and some camphor, not at all "Duco."

Q. What did you do after that in relation to pursuing the idea of lacquer?

A. Well, first we determined the concentration, and so forth, to reduce the viscosity sufficiently, and then made some film tests to see if we were retaining the strength in the film resulting from this viscosity reduction process. We had to get a film strength, and we used roughly three times as much nitrocellulose in the solution without raising the viscosity to the degree that made the product unusable.

We then again incorporated gum, resin and pigment into it and tried to make a kind of lacquer suitable for automobiles or other uses that we had always dreamed of but never could produce.

Q. Can you indicate in a general way what period in 1920 that this idea first came to you about the use of sodium [fol. 4281] acetate to reduce viscosity of lacquer?

A. Only to say that was in the summer.

Q. How long did you work after that before you developed a product that you regarded as showing possibilities of a lacquer?

A. Why, I do not think we had a product that we were willing to offer even for test purposes outside of our own laboratories for another six months.

Q. Now, when you got to that point, that is to say when you had everything you were willing to offer for test purposes, what were the basic ingredients of the product, if you can tell us?

A. Nitrocellulose, solvent, a softener, usually castor oil or a similar oil, resins, gums and pigments.

And in some of our early offerings, we did not put in pigments because we knew there was a probable market for what was called a clear lacquer.

Q. Was this six month period you have spoken of devoted to determining how properly to combine these ingredients in the mixture?

A. Yes, sir.

Q. Mr. Flaherty, did you file an application for a patent of this product?

A. Yes, sir.

Q. Did a patent issue, do you know?

A. Yes, sir.

Mr. Cox: At this point, I should like to offer a document which has been marked for identification du Pont Exhibit No. 199, which is a reissue patent No. 16,803.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 199.)

By Mr. Cox:

Q. After the patent first issued, did you apply for a reissue patent?
A. Yes, sir.
[fol. 4282] Q. Why did you do that?
A. It was found on rechecking some of the calculations in the subject matter of the patent, there had been some errors in translating one method of viscosity into another, and we asked for a reissue to correct those errors, which reissue incidentally limited us, or limited some of the claims we had made in the earlier patent.

Q. Do you remember when the original patent was issued, roughly?
A. About 1927, I believe.

Q. I think that is right. I point out, if it please the Court, that the patent, Exhibit 199 which I now offer, shows on its face that the application for the issue was filed September 19, 1927, and that the re-issue patent was reissued on November 29, 1927.

Mr. Flaherty, as a matter of law, of course, the patent will speak for itself, but for the information of the Court and counsel, can you tell us in a layman's language as the inventor, what, in general, was the invention you claimed?

A. The patent claims an invention of lacquer containing nitrocellulose with a reduced viscosity, according to the teachings of the patent and other necessary materials, gums, resins, and softeners, and of course, solvents to make it workable in many different branches of industry.

Q. Mr. Flaherty, was there any litigation involving the validity of this patent?

A. Yes. After the product made possible under this patent began to come to the market, it was received with considerable success, and a number of competitors began to infringe the patent, and the du Pont Company decided to test the validity of the patent, and bring a suit for infringement against two of these infringers to test it.

[fol. 4283] Can you tell us what happened in those suits?

A. The first suit was brought in Brooklyn, I think.

Q. That was the United States District Court for the Eastern District of New York?

A. Yes, and Judge Campbell held the patent invalid. An appeal was made to the Circuit Court in New York, and Judge Learned Hand wrote the opinion holding it valid and infringed. He repeated that opinion. Our opponents asked for a rehearing in the Circuit Court which was granted, and the patent was upheld.

Meanwhile, the second suit filed in Wilmington had come to trial, but before the verdict was rendered, the Circuit Court of New York had twice upheld the patent, therefore, our opponent gave up and asked for a settlement, and asked for licenses.

Mr. Cox: For the information of the Court, and the record, I may state that Judge Campbell's opinion holding the patent invalid was reported in 1 Fed. Sup. page 1007 under the name E. I. du Pont de Nemours vs. Glidden Company, and the opinion by Judge Learned Hand, both the first opinion and the opinion on rehearing, was reported in 84 Fed. 2d. 392, under the same name.

By Mr. Cox:

Q. Mr. Flaherty, thereafter did the du Pont Company grant licenses under the patent?

A. Yes, the du Pont Company granted licenses, as far as I know, to everyone who applied, and the number was between 250 and 300.

Q. Do you know whether anyone who applied was ever denied a license? Do you recall?

Do you recall any denial?

A. I recall that no one was ever denied a license.

[fol. 4284] Q. Now, I want to direct your attention to the beginning of the year 1921.

Was there any change in your duties at that time?

A. I was transferred to the Wilmington Office of the du Pont Company, first for a few months as assistant on operational matters, involving pyroxylin business of the company, and later in that same year there was a reorganization of the company, and I was made assistant director of sales for that branch of the business, and the sales department which included me then, was transferred back to Parlin, and its headquarters were from then on at Parlin for a number of years.

Q. Well, beginning in January, 1921, did you have any duties with respect to the commercial exploitation of "Duco"?

A. I was responsible for that, yes, sir.

Q. By the way, was this lacquer that was covered by the patent first sold under the name "Duco" or some other name?

A. It was first sold under the name "Viscolac," and the name "Duco" was adopted some two years later, I think, on the need for a shorter name.

Q. What did you do in 1921 to exploit this lacquer, commercially?

A. Well, first I attempted to take samples, personally to take samples to possible interested users, and get them to test it, specializing in the very beginning in the furniture field, in the manufacturers of such wooden objects as brush handles and pencils and things of that nature, and then as we began to find we could make products with color, and too, increase that to cover color finishes—particularly for the furniture industry in the beginning—and in the course of that work we, of course, ran into difficulties and would make a trip to Parlin to talk to the laboratory chem- [fol. 4285] ists on the difficulties we were encountering on field testing, and get them working on these matters or difficulties and improving our product; that went on in the entire year.

Q. You began by selling clear lacquers, is that right?

A. Yes, sir.

Q. And then developed the colored lacquers later?

A. That was a later development, yes.

Q. In 1921 had you engaged in this commercial exploitation work throughout the year?

A. Yes, sir.

Q. At any time during that year did you approach General Motors with a view to persuading them to use this lacquer?

A. In the year 1921, no, sir.

Q. Did you do anything with this lacquer in relation to its use as an automobile finish during ~~that~~ time?

A. We had some work going on in our Parlin plant, mainly on employees' cars.

Q. That was a refinishing operation?

A. That was a refinishing operation.

Q. Now, Mr. Flaherty, do you remember meeting a man by the name of Mougey at one time?

A. Yes, sir.

Q. Do you remember when you first met him?

A. I met him early in the year 1922 when I had been transferred back to Parlin. We received a telephone call from Wilmington one day saying he was in Wilmington and was trying to interest the du Pont Company in the development of a more quickly drying finish for automobiles, and they told him to come to Parlin and talk with me, which he did the next day. That was my first meeting with Mr. Mougey.

Q. What did he say to you in this meeting?

A. He told me that General Motors was seriously concerned about the production problem they were facing in [fol. 4286] their expansion program for increasing automobile production because of the slowness of the drying of the finishes they were using on their cars, and were seeking some method of improving that rate of drying.

Q. Did he say anything to you about lacquer as an automobile finish?

A. No, all he did was explain the problem to me and ask me if we had any suggestions.

Q. Did he say anything to you that indicated that General Motors had considered the use of lacquer at that time?

A. No, sir.

Q. What did you say to him, if you remember?

A. I told him it happened that we had a product part way developed that I thought might be successfully applied to automobile manufacture; and I showed him some of my tests on small panels that we had been making in the laboratories and also showed him some of the cars, employees' cars which we had refinished with lacquer as we were then making it.

He was interested and asked if I could send samples of the products I had shown him on the tests and information regarding them to him at the Dayton Laboratories where he was employed, which I did.

Q. In this conversation with Mr. Mougey, was anything said by anyone about du Pont's ownership of stock in General Motors?

A. No, sir.

Q. In this conversation with Mr. Mougey was there any reference by anyone to any agreement or understanding whereby General Motors was to buy some or all or any part of its automobile finishes from du Pont?

A. No, sir.

Mr. Cox: At this point, may it please the Court, I think I shall offer a document which has been marked as du Pont Exhibit No. 200.

[fol. 4287] (Said document so offered and received in evidence was marked du Pont Exhibit No. 200.)

Mr. Cox: Without reading the document I call the Court's attention to the fact that it is a letter from Mr. Mougey to Mr. Downs of the du Pont Company dated February 24, 1922, and in the second sentence refers to the recent—to Mr. Mougey's recent visit at your plant which would corroborate Mr. Flaherty's recollection of the date.

By Mr. Cox:

Q. What did you do to follow up your interview with Mr. Mougey, if anything?

A. After sending the samples to him I arranged for a visit to the Dayton Laboratories and asked permission to have Mr. Williams, who was a chemist beginning to specialize in this particular branch of our business—asked to have Mr. Williams come with me to Dayton.

Q. That is Mr. R. C. Williams who testified in this case last week?

A. Mr. R. C. Williams, yes, sir.

Mr. Cox: At this time I would like to offer a document marked du Pont Exhibit No. 201 for identification, a letter from Mr. Moosmann, and bears Mr. Moosmann's name in typewriting.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 201.)

By Mr. Cox:

Q. Mr. Flaherty, will you look at this document. Did you write this letter?

A. Yes.

Q. It is addressed to General Motors Research Corpo- [fol. 4288] ration attention of Mr. Mougey, and the first sentence states it is being arranged to have Mr. Williams and Mr. Flaherty call on Mr. Mougey at Dayton.

Did you, in fact, call on Mr. Mougey in Mr. Williams' company at Dayton?

A. Yes, sir.

Q. Do you recall what happened on that occasion?

A. He had already put into work in his own laboratory a testing program on the samples we had sent him. He had run into some difficulties, one being the adhesion of the lacquer we had sent, to the steel plates on which he was testing it. We were able to show him, so far as that particular test was concerned, the difficulty was due to improper cleaning of the steel, and that all that was necessary, again from the viewpoint of that particular test was to do a better cleaning job, and the "Duco" would adhere.

Then he began to explain to us that it was not feasible to finish an automobile by applying this color coat directly to the steel because the material is bought and is fabricated by automobile companies, and in the manufacture the automobile body necessarily has a great number of scratches and dents and even tiny holes in it which have to be filled up and smoothed before the top coats can be applied, or the appearance will be unsatisfactory.

Q. Did you meet anyone other than Mr. Mougey on this occasion and date?

A. I remember quite well meeting Mr. Clements who was Mr. Mougey's superior, and I think it was on my first visit to Dayton that I also met Mr. Kettering.

Q. Did you talk to Mr. Kettering?

A. I talked to him the first time I met him, at some length, about the problem. I think it was on the first visit.

Q. Do you recall anything about your conversation with Mr. Kettering, the first time that you did meet him?

[fol. 4289] A. He told me of his interest in a quicker drying finish for automobiles, and gave among other reasons for his interest in it that General Motors was planning to bring out a new Chevrolet, and they had the idea—he had already heard that we had a very durable finish in addition to a more quickly drying one, and if that were true, it could be advertised and sold as a garageless car because, since it didn't need water for a cooling system, there would be no freezing problem in the winter, and if the finish would really stand up in outdoor exposure, a man could leave his car out day and night and not worry about any troubles with it.

Q. At this first meeting in Dayton, Mr. Mougey and the other persons you saw at that time from General Motors, in your conversations was any reference made to du Pont stock ownership in General Motors?

A. No, sir.

Q. Did anyone from General Motors at that time tell you that they would adopt this new lacquer and use it in the manufacture of cars?

A. No, sir.

Q. What did they say, if anything, about the possible adoption of the new material?

A. They made it very clear that we would have to convince them by a testing program run under their own auspices that whatever we were offering would be suitable for a car finish, both from the viewpoint of manufacturing conditions in their factories, and appearance and service to the ultimate owner of the car.

Q. Was this the only time you visited Dayton?

A. I visited Dayton quite a number of times during the next twelve months.

Q. Did you go alone or with other persons from the du Pont Company?

A. Usually I went alone because Mr. Williams who was devoting all his time to this work, was staying at Dayton. [fol. 4290] I would go out and meet him, go over the work that had been done since my last visit with him, and Mr. Mougey.

On some occasions I think I went with Mr. Moosmann, and I believe on one occasion with Mr. Allen, who was general manager of our department.

Q. You say Mr. Williams throughout part of this period after 1922 was stationed at Dayton?

A. Yes, sir.

Q. Who was responsible for assigning him to that as his headquarters?

A. I was responsible for assigning him to it, and it resulted from a request from General Motors that they have a qualified chemist there on call all the time to help them with their program.

Q. What instructions did you give Mr. Williams when you sent him to Dayton?

A. Mr. Williams went there as one familiar with the properties of our lacquer, and particularly skilled in the methods of applying it. So I told him to do his part to impart all his knowledge to the General Motors' chemists who were working on the program, and in addition to make very careful note of the working properties of the various samples as we submitted them, and report back to us particularly any difficulties that might result from the use of them.

Q. Mr. Flaherty, at this time in 1922, were you aware of the existence within General Motors of a committee that was studying paint and enamel problems? Did you ever hear of that committee?

A. Yes. Mr. Mougey told me there was a committee studying drying of paint and enamel products.

Q. At this time did you know or have any knowledge whether that committee was considering other finishes besides your lacquer for possible use on cars?

A. Well, only by inference. I knew that the committee was appointed to study drying paint and varnish, so I would [fol. 4291] assume that they must be testing paint and varnish which we were not offering as well as a lacquer which we were offering.

Mr. Cox: At this time, may it please the Court, I should like to offer certain documents which relate to the activity of the Paint and Varnish Committee of General Motors.

The first one is a document which has been marked du Pont Exhibit No. 202 for identification, and I should like to read a passage that begins at the foot of the first page and continues to the second.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 202.)

Mr. Cox: These are the minutes of the second meeting of the Committee appointed to study enameling and varnish drying practices, dated March 22, 1922:

> "We will proceed with all expedition in exploiting the value of the two new materials that have come to our attention:
>
> "(1) The Westinghouse japans, in which the present volatile thinners are displaced completely by similar volatile thinners of the non-inflammable type. This type of material would do away with all fire hazard and would probably save thirty to forty per cent of the heat required, due to the fact that large amounts of air now have to be heated in order to keep a mixture in the ovens sufficiently lean so as not to be explosive in nature.
>
> "(2) Material proposed by the du Pont Company. Their chemist is now at the G.M.R.C. Laboratory, [fol. 4292] working in conjunction with our organization in determining the value of this product."

Then there is a discussion in the balance of the paragraph about the activities being carried on.

The paragraph ends:

> "The outstanding difficulties of the process at the present moment are whether the material will stick to the surface and not peel off and whether sufficiently high lusters can be obtained to withstand car plant inspection. Other details seem to be capable of satisfactory solution."

Then the next sentence:

> "These two methods will be pushed with all celerity; for they have great bearing upon the entire investigation."

I next would like to offer a document which has been marked du Pont Exhibit No. 203 for identification, which is a letter from Mr. Mougey to the Murphy Varnish & Co.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 203.)

Mr. Cox: I call the court's attention to the first paragraph of that letter, in which Mr. Mougey described the problem General Motors was working on; and to the last paragraph of the letter, in which Mr. Mougey said:

> "Does your company make any material which will enable us to finish automobiles and obtain a very much more durable finish than is now customary practice? [fol. 4293] If so will you please send us a quart each of color varnish and rubbing varnish, which you would recommend, together with a bill for same?"

This letter is dated August 22, 1922.

I should now like to offer the document which has been marked du Pont Exhibit No. 204 for identification, which is a letter to the General Motors Corporation from Pratt & Lambert, Inc., dated September 27, 1922.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 204.)

Mr. Cox: I shall not read the letter, but I call the Court's attention to the fact that the first paragraph of the letter indicates that a Mr. Gilligan, of Pratt & Lambert, had on one occasion conferred with someone of General Motors with respect to the difficulties experienced in the finishing of automobiles.

I next offer a document which has been marked du Pont Exhibit No. 205 for identification, which is a letter from Mr. Mougey to Pratt & Lambert, dated November 7, 1922.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 205.)

Mr. Cox: This letter reads as follows:

> "A short time ago you wrote to us concerning automobile finishes, and mentioned the fact that your Research Department has been doing some good work toward improving the durability of these finishes.
>
> "You also promised to send us some panels and samples showing some of the results you had obtained, [fol. 4294] since we also are keenly interested in these results as well as the entire problem of automobile finishes, we sincerely trust that you will continue to

bear us in mind when the samples are ready to be submitted."

I next offer a document which has been marked du Pont Exhibit No. 206 for identification, which is a letter from Mr. Mougey to Mr. Pulsifer, of Valentine & Company, dated February 23, 1923.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 206.)

Mr. Cox: I call the Court's attention to the first paragraph, which reads:

> "When you were here this week we discussed the matter of your preparing for us test panels showing the most durable finish which you can possibly prepare on a schedule taking the same number of coats and the same number of days as the present Cadillac schedule."

Then the last paragraph:

> "On receipt of this material we will try to arrange with the Cadillac Company to get a few cars finished with your material on your schedule."

I next offer a document, which has been marked du Pont Exhibit No. 207 for identification, which is a letter from Mr. Kavanaugh, R. S. Kavanaugh, of the General Motors Corporation, to Mr. Mougey, dated October 2, 1923.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 207.)

[fol. 4295] Mr. Cox: I point out to the Court, without reading it, the first three paragraphs of the letter relate to some work that had been carried on between the Ault and Weiborg Company and Oldsmobile with respect to automobile finishes.

I shall next offer, without reading, a document which has been marked du Pont Exhibit No. 208 for identification, which is a letter from Mr. Mougey to Mr. Armitage, the J. L. Armitage Company of Newark, New Jersey.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 208.)

Mr. Cox: This is dated November 19, 1923, and in this letter Mr. Mougey inquires about more durable finishes for automobiles.

I shall next offer a document which has been marked du Pont Exhibit No. 209 for identification, in which Mr. Mougey, writing to the Tokiol Paint & Varnish Company, of Philadelphia, inquires about an advertisement published by that company for a permanent high gloss, quick-drying varnish.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 209.)

Mr. Cox: I call attention to the last sentence in the letter, in which he says:

> "We are very much interested in material that will do what is claimed for your material and we would like very much to receive samples."

[fol. 4296] By Mr. Cox:

Q. How long did this work with General Motors, this testing work, continue, generally, Mr. Flaherty, if you remember?

A. I would hesitate to say that it ever ended. It continued.

Q. Was there a period between the time when you first talked to Mr. Mougey and the period of time when a division of General Motors first began to use the lacquer in a commercial way?

A. Yes.

Q. Roughly, could you tell us how long that period was?

A. Slightly over a year, from my first talk with Mr. Mougey and the time the Oakland Motor Car Company decided to adopt "Duco".

Q. During that time, what did you do personally, Mr. Flaherty, if you did anything to encourage General Motors to adopt "Duco"?

A. I visited their laboratories, observed their tests as frequently as possible, and whenever I felt I should make any suggestions to our own laboratory as to modifications in our products to make them perform better in General Motors' plants or in their testing laboratories, I did so.

I followed the work very closely all through the testing period.

Q. Did you receive reports from Mr. Williams about his activities?

A. Yes, reports, and I would ask him to come to Parlin as often as I felt a conference with him personally would be helpful to the chemists and to me.

Q. Did you ever visit any of the plants of General Motors as distinguished from a testing laboratory.

A. Yes, sir, I made a number of visits to the plants.

Q. On these visits, did you discuss "Duco" with representatives of General Motors?

A. Yes.

[fol. 4297] Q. Do you remember what you said in those conversations, in substance?

A. In general, I would simply repeat to them the properties that we had discovered in these products, the results of the tests we had made, and why we felt these products were approaching a point where they would be suitable for factory use by General Motors.

Q. In any of these conversations, did you mention du Pont's ownership in General Motors?

A. No, sir, never.

Q. In any of these conversations, did you mention any understanding or agreement whereby General Motors was to buy all or any part of its finishes from du Pont?

A. No, sir.

Q. Can you remember the names of any of the persons in the various divisions of General Motors that you talked to during this early period?

A. At Chevrolet, always with Mr. McQuaid, who was the general plant superintendent for Chevrolet.

At Buick, with Mr. Mullin, who was the paint superintendent; with Mr. Weckler, who was plant engineer; with Mr. Durham, who was, I believe, assistant general manager of Buick; and on one occasion with Mr. Bassett, who was general manager.

At Oakland, Mr. Russell Rogers and Mr. Hannum, I think his name was, who was his superior.

At Cadillac, I had one talk with Mr. Rice, and later ones with Mr. Larry Fisher, who succeeded Mr. Rice—Mr. Lawrence Fisher, pardon me.

Then I also talked with the paint superintendent in the course of their testing program.

Q. At Cadillac?

A. At Cadillac.

Q. Do you recall when you saw Mr. Bassett at Buick?

A. Sometime in the summer of 1923.

[fol. 4298] Q. Do you recall anything about that conversation?

A: I think I asked for the interview, and I think it was arranged through Mr. Weckler, whom I saw as a routine matter when I called there.

Mr. Bassett showed familiarity with the testing work that was going on, and with the success Oakland was having with the "Duco", and in general expressed himself as well satisfied with the way the program was proceeding, and that it looked as though "Duco" was going to be the finish that they wanted for their cars. They had not at that time adopted it.

Q. They had not at that time adopted it?

A. No, sir.

Q. Who was your superior at this time in the du Pont organization, your immediate superior?

A. Mr. Moosmann.

Q. Who was Mr. Moosmann's superior?

A. Mr. Richter and Mr. Allen. Those two gentlemen were in Wilmington, and respectively are assistant general manager and general manager of the department.

Q. Were you ever present when either Mr. Allen or Mr. Moosmann or Mr. Richter talked to any of the men in the different divisions of General Motors about this lacquer?

A. I made one trip with Mr. Allen during the course of which we visited most of the General Motors plants and talked with some of the top men. I made one other short visit with him to Mr. Sloan, in Mr. Sloan's New York office.

Q. Do you recall when that visit to Mr. Sloan took place?

A. Early in 1923. We were sure—we, I mean Mr. Williams and myself—were sure that General Motors was probably going to adopt "Duco" in a relatively short period, and I was concerned about our capacity to produce [fol. 4299] in volume if they suddenly adopted it for a great portion of their line of cars, and had been telling my

Wilmington superiors that it would become necessary for us to make some rather large investments in additional plant capacity.

I think Mr. Allen wanted to check my perhaps optimistic forecast by talking to someone in General Motors and trying to get some idea, at least, as to whether or not adoption was imminent, and how much the volume would likely be so we could decide how big a plant we needed to build.

Q. Were you present when Mr. Allen talked to Mr. Sloan?

A. Yes, sir.

Q. Can you recall what was said in that conversation?

A. Mr. Sloan showed familiarity with the work and the promise that "Duco" showed, but was quite clear in his statements to us that the car units were the ones who would make the final decision, and that we would see the heads of those units for the information that we wanted as to possible dates and possible amounts of "Duco" that they were going to require.

Q. In your presence did Mr. Sloan give Mr. Allen any assurance about the adoption of "Duco"?

A. No, sir.

Q. Did he make any statement to Mr. Allen about the amount of "Duco" that General Motors might require?

A. No, not at all.

Q. Mr. Flaherty, there have been introduced in evidence in this case a number of letters which were exchanged between Mr. Sloan and Mr. Allen in 1924—I believe those letters have now been handed to you. They are Government Trial Exhibits 386, Defendants' Trial Exhibit No. GM-118, Government Trial Exhibit No. 388, Defendants' Trial Exhibit No. GM-119, and Government Trial Exhibit No. 394. [fol. 4300] Will you just look at those letters, please?

A. Yes, sir.

Q. Do you now recall whether you saw those letters or copies of those letters in 1924?

A. In 1924, no, sir.

Q. Do you now recollect whether you knew at the time of Mr. Sloan's writing to Mr. Allen?

A. No, sir.

Q. Or Mr. Allen's writing to Mr. Sloan?

A. No, sir.

Q. Now, I should like to retrace our steps just a bit, and direct your attention to an incident that occurred in the autumn of 1922. This incident is reflected in certain Government trial exhibits, and has to do with requests made by General Motors for exclusive use of "Duco."

Do you remember that such a request was made?

A. I remember attending a meeting of the paint and enamel drying committee, and one of the General Motors men at that meeting said he felt that General Motors should have exclusive use of "Duco," and they would proceed to make a formal request for that.

Q. Was there any other representative of the du Pont Company present at this meeting, or were you the only representative?

A. I was the only one.

Mr. Cox: At this point, if the Court please, I should like to offer a document which has been marked du Pont Exhibit No. 211 for identification.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 211.)

Mr. Cox: This is the minutes of the meeting held of the Paint & Enamel Committee of General Motors, held on Thursday, October 5, 1922, and I call the Court's attention to a paragraph which appears on page 2, marked 4 in parentheses, which reads as follows:

> [fol. 4301] "Mr. Clements, of the Dayton Laboratory, is to see Mr. Pierre du Pont, relative to an option on material for a reasonable length of time. This was deemed desirable and, at the same time, reasonable, due to the fact that we have put a lot of time upon this finish and have helped the du Pont Company to work out methods of application. It seems to us that we should have some rights that would prevent others from capitalizing on our research and adopting the material prior to ourselves."

Were you present throughout that meeting of the committee, do you recall?

A. Yes, sir, I think I was.

Q. Now, did you make this suggestion that they should ask for exclusive right to use—

A. No, sir.

Q. Did anyone from General Motors in this committee meeting tell you at this time that General Motors was going to adopt "Duco"?

A. No.

Q. Do you recall generally what they did say at that time?

A. That the tests were proceeding in such a way that they were very much pleased, and they felt that most of the remaining difficulties could probably be overcome.

Q. I direct your attention in this question to your state of mind. Did you go away from that meeting feeling that it was certain that General Motors would adopt "Duco"?

A. Well, I went away from the meeting feeling very much encouraged.

Q. This meeting, Mr. Flaherty, I call your attention, was held in October, 1922.

Do you recall, roughly, how long after that it was before a car division of General Motors decided to use "Duco" [fol. 4302] commercially?

A. The first news I had, I think, came via telephone from Mr. Williams telling me—it must have been about March, 1923, telling me that Oakland was getting ready to adopt "Duco" on its next model, which was manufactured in the summer of that year.

Q. At this meeting of the Paint, Varnish and Lacquer Committee, which was covered by du Pont Exhibit No. 211, did you hear anyone refer to du Pont stock ownership in General Motors?

A. No, sir.

Q. Was there any discussion at that meeting of any agreement or understanding under which General Motors was to buy all or any part of its finishes from du Pont?

A. Not at all, no.

Mr. Cox: At this point, may it please the Court, I should like to offer another document which will complete this evidence relating to this matter for the request for the exclusive use of "Duco."

It is a document which has been marked du Pont Exhibit No. 212 for identification, and is a letter from Mr. Clements to Mr. P. S. du Pont dated October 16, 1922, and I should like to read the first four paragraphs.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 212.)

Mr. Cox: (Reading):

"This is to serve as a reminder of our conversation relative to the du Pont enamels, called 'Duco.'

"You were to discuss this matter with your brother, Irenee, to see whether we could not have some kind of [fol. 4303] an option on the use of the material, at least, until all methods of application were completed.

"As I told you, this material looks very promising, but we must be certain of every step. The production of the material and its utilization, go hand in hand and I am sure that the du Pont boys will admit that we have helped them very materially in getting the product ready for the market.

"It behooves both organizations to see that the material is right before the production proceeds very far. For that reason, we feel, that the du Pont Company should not negotiate with other companies relative to the use of this material, until a reasonable time has elapsed, permitting the assurance of high service which is necessary to the success of the finish."

By Mr. Cox:

Q. Now, Mr. Flaherty, the record in this case shows that this request was not agreed to by the du Pont Company. Do you recall whether your superiors in the company discussed the matter with you?

A. Yes.

Q. Did you have any views on the matter at that time?

A. I was opposed to the granting of exclusive right to General Motors or to anyone else for two reasons:

One: Naturally, I wanted to see our market as broad as possible; and the other, that realizing as I did that the finish was going to look different to the car buying public than high lustre varnishes to which they had become accustomed, therefore that might in itself create some sales resistance, and I honestly felt it was better for General Motors if other [fol. 4304] companies also came out with the same type finish at approximately the same time as General Motors did.

Q. Now, you have testified a moment ago that in March, 1923, you learned from Mr. Williams that Oakland had decided to use "Duco" commercially. Do you remember when Oakland in fact began to use "Duco" on its cars?

A. In the summer of that same year when they put that new model into production.

Q. Did it first use it on open cars or on closed cars?

A. Open cars.

Q. And did it thereafter use it on closed cars?

A. Yes.

Q. Now, did the other divisions of General Motors adopt "Duco" at the same time that Oakland did?

A. No, sir, not at the same time. They followed at varying intervals. I think Chevrolet was probably next, and then—

Q. Do you remember what the situation was in 1925, so far as concerns the use of "Duco" by the General Motors units?

A. By 1925 it was in use by all of the units except that Cadillac was using it only on request, a certain small percentage of their relatively small production went to "Duco".

Q. Do you remember whether in 1924 or 1925 the Fisher Body Company adopted "Duco"?

A. In 1924 Fisher began to use "Duco" on closed bodies it was making for Oakland. That was the start of Fisher's use.

Q. Prior to that time, that was the time when Fisher Body bought "Duco" from du Pont Company, had it bought any type of automobile finish from any part of the du Pont Company, if you know?

A. Yes, it had bought some materials from Flint Paint & Varnish.

Q. Do you know whether it bought those in substantial [fol. 4305] dollar amounts?

A. Flint, I am sure, didn't have all of their business, but I think it did sell them substantial dollar volume.

Recess.

[fol. 4306] The Court: Proceed.

Mr. Cox: I should now like to offer document marked du Pont Exhibit for identification No. 222, schedule of du Pont sales of finishes to Fisher Body and Fisher Body production for the years 1924 to 1927.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 222.)

Edmund M. Flaherty, called as a witness on behalf of the defendant E. I. du Pont de Nemours and Company, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (Continued)

By Mr. Cox:

Q. Mr. Flaherty, I am going to ask you to look at this exhibit in a moment.

Mr. Flaherty, do you know enough about buying practices of the automobile industry to tell us at what season of a [fol. 4307] calendar year the automobile companies in the period of time covered by this exhibit, customarily bought supplies for their next year's model?

A. It was customary in this period to start manufacturing the model for a particular year in the summer of the preceding year, and contracts for supplies for that model were normally made in the quarter immediately preceding or sometimes even earlier—in other words, in the first six months of the year.

Mr. Cox: I point out, in connection with du Pont Exhibit No. 222 that in the first two quarters of the year 1924 the du Pont sales of finishes to Fisher Body were $89,388.00, and $16,275.00 respectively, and the amount increased in the third and fourth quarters, and the amount for the third quarter being $200,698.00, and for the fourth quarter, $332,212.00.

By Mr. Cox:

Q. I take it from your previous answer that those purchases would have been made for use in the next year's model, is that right?

A. Yes, sir.

Q. Now, at this time which I was questioning you about before lunch, which was roughly in 1925, did other motor car companies adopt "Duco" besides General Motors, Mr. Flaherty, if you know?

A. Yes, sir, other companies began to use "Duco."

Q. Prior to the time these other companies began to adopt "Duco," had you or your assistants, to your knowledge, carried on any experimental and developmental work with these companies?

A. Yes, we did.

Q. Can you name some of the companies with which you [fol. 4308] did work of this kind?

A. Chandler, Marmon, Studebaker, Franklin, Nash—I think, I don't recall any more.

Q. Do you remember a car called the "Moon"?

A. The Moon, yes.

Q. Did you do any experimental work for the Moon?

A. Well, we had the Moon on our list, also. That was in Indianapolis. That was an assembled car.

Mr. Cox: At this point I would like to offer a document marked du Pont Exhibit No. 213 for identification, and read one paragraph on page 2 of the document.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 213.)

Mr. Cox: The document reads as follows:

> "As a result of visits to automobile plants in the Cleveland district, arrangements have been concluded for demonstrations as soon as the necessary material can be shipped. These demonstrations are scheduled for Jordan, Chandler, Cleveland, Peerless and Land Body Company (manufacturer of Lincoln bodies). In addition to these demonstrations already arranged, requests for demonstrations have been received from Reo, Lincoln, Apperson and Bay State."

This document, I should add for the record, consists of excerpts from the Cellulose Products Department monthly report to the Executive Committee for March, 1923, dated April 23, 1923.

I should also like to offer a document marked 214, du Pont Exhibit No. 214 for identification, which is again an [fol. 4309] excerpt from the monthly report of the Cellulose Products Department to the Executive Committee for September, 1923, dated October 27, 1923.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 214.)

Mr. Cox: I should like to read the third paragraph, the first page, which reads as follows:

> "Franklin, Chandler, Moon, Jordan and Cleveland are the most active companies (outside of General Motors) experimenting with 'Duco' at present. The prospects for selling Cleveland at an early date are good. Demonstrations at Hupp and Moon were successful and both have asked for assurance that an uninterrupted supply of 'Duco' in the required quantities is available."

By Mr. Cox:

Q. Mr. Flaherty, in this connection do you remember what motor car company it was that gave the first commercial order for du Pont for "Duco"?

A. The first commercial order was received from Franklin for 500 gallons of black.

Q. Now, by 1925 was there any large manufacturer of automobiles who was not using "Duco" on his car?

A. Ford.

Q. Was there any other?

A. Cadillac, only in small amount, if at all, by then.

Q. Well, apart from Cadillac and Ford, would it be accurate to say that substantially all of the other companies manufacturing automobiles had adopted "Duco" by some time in 1925?

A. Yes, I think it would.

[fol. 4310] Q. Do you recall, Mr. Flaherty, whether the du Pont Company ever carried on an advertising campaign for "Duco"?

A. Yes.

Q. Do you recall when this advertising campaign was carried on?

A. That started, I think, in the spring of 1924.

Mr. Cox: At this point I should like to offer a document which has been marked du Pont Exhibit for identification No. 215, which is an advertisement from the Saturday Evening Post, the issue of April 26, 1924, and I should like to have the witness look at that exhibit, if I may.

By Mr. Cox:

Q. Mr. Flaherty, I call your attention to the upper left-hand corner of this advertisement where there is a reference to the use of "Duco" by Cadillac, by Oakland, and also by Cleveland, Franklin, Lexington, Marmon and Moon.

Were any of those cars, Cleveland, Franklin, Lexington, Marmon and Moon manufactured by General Motors?

A. No, sir.

Q. Do you recall whether other similar advertisements were published in national magazines and in trade journals?

A. In trade journals, certainly. I don't recall in the magazines.

Q. In addition to the Saturday Evening Post?

A. Yes.

Q. Do you recall whether those other advertisements referred to these other cars that were not manufactured by General Motors?

A. Yes, I think they did. They followed the form of this very largely.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 215.)

[fol. 4311] By Mr. Cox:

Q. Now, Mr. Flaherty, I want to call your attention to another passage you wrote in the article in the Motor Vehicle Monthly.

This passage appears on page 3 of the exhibit in the second column, I believe, and begins at the foot of the column. The first words in the passage I am going to read are "Under the old paint schedule."

Do you have that? Do you find it?

A. Yes, sir.

Q. (Reading):

> "Under the old paint schedule it required 336 hours to paint an Oakland body, while with 'Duco' this time has been cut to 13½ hours. Labor time with conventional materials was 6.728 hours per body, which has been reduced to 5.715 hours with the 'Duco' system. The cost of materials was \$2.33 per body, and it has been reduced to \$2.26, using 'Duco'.
>
> "These are very important savings to a factory in large production, and it should be remembered that with them is produced a finish that in durability is decidedly superior than its more expensive predecessor. The saving in floor space resulting from the increased speed in which 'Duco' can be applied is also an important feature at Oakland. It took over 101,000 square feet of floor area to paint 300 bodies per day when paint and varnish were used, while with 'Duco' this has been reduced to about 73,000 feet; 2,400 bodies formerly were tied up in the painting department, while now only 600 bodies are going through at one [fol. 4312] time. Oakland's experience was that about 20 per cent of the daily production was rejected by the inspectors because of finishing trouble, but since 'Duco' has been adopted this rejection figure has been reduced to 2 per cent.
>
> "There is, therefore, a saving in direct cost, a saving in investment in finished bodies, and a saving in factory space required by the finishing department when 'Duco' is used in place of conventional materials. In addition, there is certainly an intangible good will rapidly built up among automobile users when they have no cause to complain on the finish of their cars."

Q. Mr. Flaherty, do you know whether other automobile companies experienced similar advantages from the use of "Duco"?

A. Yes, that was rather a characteristic report from all of them. There were variations naturally in their finishing methods, type of finish they applied, even in color, but in general they took that form.

Q. Now Mr. Flaherty, I should like to direct your attention to a subsequent period, that is, to a period—let me define the period for you, the period from 1924 to 1926. I think during that time you were assistant director of sales of the Chemical Division, is that correct?

A. Yes, sir.

Q. Later were you also director of sales, do you recall?

A. I don't remember when the change came.

Q. Du Pont Exhibit No. 197 shows that from January 1925 to February, 1926, you were director of sales also. Do you recall that?

A. Yes, that is right.

[fol. 4313] Q. Did your duties throughout this period from 1924 to 1926 require you to obtain any information about competing lacquers?

A. Yes, I was supposed to do that.

Q. Did you obtain such information?

A. Yes.

Q. How did you do that?

A. From reports of our salesmen, from personal visits to automobile factories—I sometimes was able to notice competitive products being tested or even being used. Sometimes at meetings of the Paint & Varnish Association I would hear other manufacturers speak of their own sales to automobile companies.

Q. Did you ever test any competitive lacquers in your Laboratory Department?

A. We did, whenever the opportunity offered, whenever we had samples.

Q. Now, after "Duco" was on the market, were competitive lacquers offered for sale to automobile companies, if you know?

A. Yes, sir.

Q. Do you know how the quality of those lacquers compared with the quality of "Duco"?

A. I don't recall in those early years that quality ever matched that of "Duco." We had quite a head start, with the background in the nitrocellulose industry, which most of the competitors lacked at that time, and our product did stay ahead in quality for a number of years.

Q. By that answer, do you mean that the companies who were selling these lacquers had had no previous experience in the manufacture of nitrocellulose?

A. That was true of most of them. Most of those who became prominent in the field of lacquer were the older paint companies to whom this was a new industry. The small number of lacquer manufacturers who had been in business earlier never made much of a success in automobile finishing.

[fol. 4314] Q. In the period before 1920, had the paint companies, of which you speak, sold pyroxylin lacquers, made and sold pyroxylin lacquers?

A. No, sir.

Q. Who carried on a business in the sale of pyroxylin solution in the period before the First World War if you know, Mr. Flaherty?

A. The companies that were in competition with us were the Egyptian Lacquer Company, the Celluloid Zapon Company, Maas & Walstein—I am sure there is one other, but I have forgotten the name. I think there were five in all.

Q. After you offered "Duco" as a finish on the market, do you know what steps, if any, the paint companies took to acquire knowledge about the manufacture of pyroxylin finishes?

A. Some of them resorted to the expedient of hiring men from du Pont. Several of the larger paint companies did that.

Then at a somewhat later date, they were aided greatly by the Hercules Powder Company, which went into the business in a large way of supplying reduced viscosity nitrocellulose, and with the information and help in the manufacturing of lacquers from their product.

Q. Did I understand you to say that some of these paint companies hired employees of du Pont who were familiar with nitrocellulose lacquer?

A. Yes, sir.

Q. Did any company ever try to hire you, Mr. Flaherty?

A. Yes.

Q. In this period from 1924 to 1926, was there any change towards the end of that period in the quality of competitive lacquers being offered?

A. Competitive lacquers began to improve toward the [fol. 4315] end of that period, and I would say it wasn't long after that they were substantially good matches for "Duco."

Q. In this period from 1924 to 1926, can you remember any company in particular that was making a lacquer that was comparable in quality to "Duco"?

A. The first one I recall that seemed to be successful was the Forbes Varnish Company. We found they were successful in selling a black that was a very good quality.

Q. At this time do you recall whether they sold that black to any of the divisions of General Motors?

A. They sold it to Fisher Body.

Q. Mr. Flaherty, let me direct your attention to a subsequent period, which I shall describe as the period from 1927 to 1930.

In that period would you still have any knowledge about comparative lacquers that were being offered in the market?

A. Yes.

Q. Did you obtain your knowledge the same way that you did in the earlier period?

A. Yes.

Q. Was there any change in this period in competitive conditions in the lacquer market?

A. Yes. They began to get more firmly established, even with some of the companies to whom we had originally been selling. The competitive lacquers were sold to Olds, to Cadillac—to mention two of our earlier customers—and some to Fisher.

Q. What about other automobile companies? I mean other than those that were part of General Motors. Was there increased competition for their business?

A. Yes.

Q. Can you name some of the companies who in this [fol. 4316] period from 1927 to 1930 began to sell lacquers that were comparable in quality to "Duco"?

A. Rinshed-Mason and Forbes Varnish. At a somewhat later date than those first two, Sherwin Williams Company, through its subsidiary Acme; also Ditzler and Glidden.

Q. Have you heard of a company called the Jones Dabney Company?

A. Yes.

Q. Did they make any lacquer which they sold to the automobile industry, if you remember?

A. They sold some. I don't recall any particular account they got, but they were active in the lacquer industry. My impression was they did more with the refinish end of it, but I am not sure.

Q. In this period between 1927 and 1930, if you remember, did the quantity of du Pont's sales of "Duco" to the automobile industry decrease?

A. I don't think the dollar sales decreased as competitive activity became manifest. That was because the industry was on the upgrade then, and perhaps we didn't have as high a percentage, but the volume dollar remained, or even grew, I think, larger than it had been earlier.

Q. When you say that the industry was on the upgrade, will you explain what you mean?

A. The automobile industry was making and selling more cars.

Q. Did du Pont Company take any steps to meet this increased competition in this period, 1927 to 1930?

A. We were compelled, not only, of course, to try to do everything we could technically to improve our quality, but we put in manufacturing capacity in areas other than Parlin and Flint, so that we could give better service, and ultimately we reduced prices.

[fol. 4317] Of course, competitive prices were lower in general than ours.

Q. You referred in your answer to the increase in capacity. Did you do anything at all about the capacity to produce "Duco" at Flint?

A. Yes. We started Flint in a modest way by making the finished product. The semi-finished product they shipped in bulk from Parlin, but as fast as we could put in the manufacturing equipment at Flint, we did it at Flint, so that in the course of a year, Flint was able to do the whole job of making lacquer..

Q. Do you recall when you first began to produce lacquer at Flint?

A. 1926 I would say.

Q. Do you recall when you made a substantial increase in production?

A. 1927.

Q. Your present recollection is that no "Duco" was produced in Flint before 1926, is that right?

A. That is my present recollection.

Q. Now, Mr. Flaherty, there is one more subject I should like to call your attention to. There is evidence in this case that certain contracts were made in the 1920's between the du Pont Company and General Motors covering the purchase by General Motors of pyroxylin finishes.

Do you recall generally that such contracts existed?

A. Yes, we had contracts.

Q. I should like to call your attention to Defendant's Trial Exhibit, GM 167, a contract dated January 2nd, 1925.

Perhaps at the same time, you might look at GM 179, which is a contract dated July 1, 1925, and GM 184 which is a contract dated January 1, 1926.

Now, if you will look, Mr. Flaherty, at GM 167, you will [fol. 4318] note under the heading of the contract: "Description and quantities:

> "Buyer's requirements of Pyroxylin finishes, including 'Duco' and 'Duco' Thinner."

Did you use that wording?

A. Yes.

Q. If you will look at GM 179, you will see at the same place on the contract these words:

> "100% of Buyer's requirements and 50% or more of Fisher Body Corporation's requirements of Pyroxylin Finishes, including 'Duco' and 'Duco' Thinner."

And similar language appears on the face of GM 184, which is a contract dated January 1, 1926.

Mr. Flaherty, did a time ever come when you were told or learned that General Motors had refused to renew or make similar contracts in that form?

A. Yes, I think the next year we no longer had a contract which called for 100 per cent, or as a matter of fact, any fixed percentage of our product.

Q. Will you look at GM Exhibit No. 186, which is a contract dated January 1st, 1927, and I call your attention to the fact that under the words: "Description and Quantities," these words appear:

> "Buyer's requirements of Seller's make of Pyroxylin Finishes, including 'Duco' and 'Duco' Thinner."

Is that the contract?

A. That is the one I meant, yes. That is really only an option.

Q. Do you recall how or when you learned that General Motors made the decision to make contracts in that form?

A. From a report from our office.

[fols. 4319-4337] Q. After the execution of the contract, which is GM 186, thereafter to your knowledge did any of the divisions of General Motors begin to buy pyroxylin lacquer from some of your competitors?

A. Olds did and Cadillac.

Q. Mr. Flaherty, one more series of questions, and I shall have finished. You have mentioned a number of men who were associated with you.

A. Yes, sir.

Q. In the early period when "Duco" was being experimented with by General Motors, and when it was adopted by General Motors. Those men included Mr. Allen, who was your superior at that time?

A. Yes.

Q. Is Mr. Allen now alive?

A. No, sir.

Q. You also mentioned Mr. Moosmann. Is Mr. Moosmann now alive?

A. No, sir.

Q. You also mentioned Mr. Richter. Is Mr. Richter now alive?

A. No, sir.

Mr. Cox: You may cross examine.

Cross examination

By Mr. Hoyt:.

[fol. 4338] Q. Let me follow you.

Beginning in 1933 "Duco" began a policy of reducing its prices?

A. No, the "Duco" licenses were granted then.

Q. But as you said, the "Duco" licenses forbade licensees from selling less than "Duco" prices?

A. Du Pont established minimum prices, yes.

Q. Well, of course, "Duco" was no higher than other companies? It was the same, wasn't it?

A. Yes.

Q. What happened subsequently, when the licenses expired, or with competing companies that were not licensed but sold "Duco"? There were such companies in 1933?

A. Selling? They couldn't sell.

Q. Everybody was under "Duco" in 1933?

A. They had to or violate the patent.

Q. There was no such thing as nitrocellulose lacquer?

A. Everything, they could compete on anything they want——

Q. There was no competitive price, is that what I understand, from 1933, or seventeen years thereafter?

[fols. 4339-4341] Mr. Cox: If it please the Court, I should like to inquire at this point whether the Government is attacking the legality of the licensing system?

Mr. Hoyt: Certainly not.

Mr. Cox: If so, I object on the ground that you tried that issue before a jury and lost.

Mr. Harsha: I think you opened the issue on this and you went into the licensing system, and we are entitled to bring out the details.

Mr. Cox: I have no objection to that, but I want to know if you are attacking it on the legality of the license.

Mr. Harsha: I think we have enough to try right here.

The Court: I think the question is proper. The witness may answer.

Mr. Hoyt: Would you read the question?

(Question read.)

By the Witness:

A. I started to explain that it was not seventeen years, but six or seven years of the life of the patent had already passed before the patents were validated, and before the licenses were issued, so in other words there were ten years left, and there was a minimum price that all licensees had to observe.

Q. Then, are you familiar with what happened after 1943 as to the——

A. From then on prices began to get lower.

[fol. 4342] Q. I call your attention to General Motors Exhibit No. 179 and 186. These are the contracts you testified to, and the one referring to the entire requirements, and the other refers to requirements of seller's make.

You are familiar with the difference, aren't you?

A. Yes.

Q. I just want to ask a couple of questions on that subject. Now, in 1925, the contract was 100 per cent of the buyer's requirements, was it not?

A. Yes.

Q. And in 1927 the buyer's requirements of seller's make?

A. Yes.

Q. What happened when this type of contract changed? Let's take the first contract, July 1, 1925. Let's take Chevrolet unit.

At that time, I take it, they bought 100 per cent of their requirements, didn't they?

A. Well, the contract said they did. I think—we always thought there was a small amount bought from other companies, but we got, I am sure, by far the major portion.

Q. When the type of contract was changed on January 19, 1927, what happened to the sales of Chevrolet?

A. I don't think Chevrolet changed materially.

Q. It still continued, didn't it?

A. Chevrolet, yes.

Q. For many years thereafter?

A. Yes, sir.

Q. What happened on the Oakland or Pontiac Division? What changes were there in their purchases under this type of contract?

A. I don't recall whether they changed as soon as that [fols. 4343-4351] or not, but the time came when we began to lose some of the business of all of the other units.

Q. Some?

A. Yes.

Q. I am talking about--how much of the business did you get of theirs?

A. I don't remember the figures. We no longer had it entirely.

Q. Well, did you have it 90 per cent?

A. I don't know.

Q. Two-thirds? Do you remember that?

A. No, I don't. I had no occasion to look it up.

Q. How about Buick?

A. Buick retained most of it.

Q. In other words, this change in the contract made no difference, at least in Chevrolet and Buick?

A. No, Chevrolet and Buick—

Q. You say it did in Pontiac, a little bit?

A. Yes.

Q. I now call your attention to Government's Exhibits Nos. 342, 343 and 344. They all deal with the same subject. Were you familiar with the A. C. Spark Plug Company?

A. They were a General Motors unit and bought some things from us, yes, sir.

Q. In 1926 you were director of sales, weren't you?

A. Yes, sir.

Q. So you would have jurisdiction of sales to that unit?

A. Some interest in it, yes, sir.

[fol. 4352] Mr. Cox: If you will go back to the stand for a moment, Mr. Flaherty, I have two or three questions.

Redirect examination

By Mr. Cox:

Q. Mr. Flaherty, on your cross examination you were asked some questions about du Pont Exhibits Nos. 203, 204, 205, 206, 207, 208 and 209.

Those are letters or communications from Mr. Mougey to other paint companies asking about various types of finishes.

I want to direct your attention in connection with these letters to the year 1922. These letters refer, among other things, to color varnishes. Were they being used to finish cars in 1922?

A. Yes, except for the cars finished in black, they all had color varnish.

Q. Was General Motors using color varnishes to finish its cars?

A. Yes, sir.

Q. There are also references in here to enamels, baking enamels. Were baking enamels being used in 1922 and 1923 as a finish for cars?

A. Ford and Chevrolet were using baking enamels for the entire finish, and many of the companies were using them on fenders.

[fol. 4353] Q. I believe that there is also a reference in one of these letters to a high gloss, quick drying varnish.

Was a varnish of that kind being used at this time, that is to say in 1922?

A. That word "quick-drying" is a little difficult because how quick? They were trying to get the varnishes to dry as rapidly as possible consistent with durability, and they were doing everything they could to speed up the drying, but it was still a matter of hours, not minutes as in the case of "Duco."

Q. Was a finishing varnish being used at that time as the last coat on the finish of a car, if you know?

A. Yes, sir.

Q. Now, it was in this period in 1922 and 1923 that you were trying to persuade General Motors to adopt "Duco", is that right?

A. Yes, sir.

Q. Did you know at that time that General Motors, while that effort was going on, was still trying to get the manufacturers of the old type finishes to improve their product?

A. I didn't know that.

Q. You know it since you have read these letters?

A. Yes, sir.

Mr. Cox: That is all.

(Witness excused.)

Mr. Neitzert: Your Honor, for the next several days our evidence will relate to the trade relations between the du Pont Company, General Motors, and others involving the purchase and sale of coated and combined fabrics.

Our evidence will be largely documentary. However, before presenting our documents, we will call a witness, with your permission, to describe the organization within the du Pont Company that manufactures and sells coated fabrics and to identify the type of fabrics involved and the customers [fol. 4354] and competitors of the Fabrics Division, and to describe how fabrics are sold and to explain the competitive situation that exists and has existed in this field—

all in so far, of course, as it is material and relevant to the issues involved in ~~this case~~.

This evidence, we feel, will expedite the presentation of the documents which will be done by another witness.

Our first witness will be Mr. Nickowitz, who is director of sales of the Fabrics Division.

I have placed in a looseleaf binder a copy of the few exhibits that will be referred to or offered in connection with the interrogation of this witness which I will ask the Clerk to hand to your Honor.

The exhibits are arranged in the order in which they will be offered or referred to during the examination of this witness.

Max N. Nickowitz, called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

Direct examination

By Mr. Neitzert:

Q. Mr. Nickowitz, will you please state your name and your address for the record, please?

A. Max N. Nickowitz, 281 Lake Avenue, Bridgeport, Connecticut.

Q. What is your position with the du Pont Company at the present time?

A. I am assistant division manager and director of sales of the Fabrics Division of the F&F Department.

[fol. 4355] Q. Where is your office?

A. New York City, Empire State Building.

Q. When did you first start working for the du Pont Company, Mr. Nickowitz?

A. I first started to work for the du Pont Company in the fall of 1919.

Q. Well, when was the first time you started?

A. Well, prior to that in the summer of 1916 when I was a freshman in college, I worked at the Newburgh plant as an inspector for three months.

Q. What was the nature of your duties during this summer you worked as an inspector?

A. I inspected coated fabrics of all types, but most of my time was spent in inspection of automotive fabrics which were being manufactured at Newburgh at that time.

Q. You inspected those fabrics before they were shipped out to the various customers in the automobile industry?

A. That is correct.

Q. Then you went back to college?

A. Yes, sir.

Q. And graduated with a degree in chemistry?

A. Yes, sir.

Q. And I believe you testified that then you started working for the du Pont Company again in 1919?

A. Correct.

Q. What university did you get your degree from?

A. Union University, Schenectady, New York.

Q. Have you been with the du Pont Company continuously?

A. Ever since, yes, sir.

Q. Will you please start with the first position that you worked with the du Pont Company in 1919 and tell us briefly what your duties were in that position, and any such subsequent position, or such positions you have subsequently occupied with the du Pont Company?

[fol. 4356] A. When I was first employed by the du Pont Company in 1919, I was employed in the Newburgh laboratory. That is the laboratory of the Fabrics Division where Fabrikoid was manufactured at Newburgh, New York.

In that assignment, my first assignment was that of a control chemist. My responsibilities included the development and specifications for raw materials, the testing of raw materials, the testing of materials in process and the finished materials, and the evaluation of competitive materials, and later I got into the field of research and development on coated fabrics.

I stayed at Newburgh until 1923, the fall of 1923, when I was transferred from there to Fairfield, Connecticut, where the second plant of our division was located.

At that plant, just before I came there, the chief chemist had resigned and I was asked to go over there until such time as a new chief chemist had been employed.

After I had been there for several weeks, I liked the job there, and was offered a position as chief chemist, and accepted. Shortly thereafter I was appointed chief chemist.

After that, in 1924, I was appointed technical superintendent. While at Fairfield as chief chemist and technical superintendent, I was in charge of all the control work and testing at the plant.

I supervised the research and development work; I supervised the compounding work on coating compositions, and I later instituted some research problems at our central laboratory in Wilmington.

Also one of the very important functions that I performed while in that position was that of technical sales service representative. I made frequent trips into the field [fol. 4357] for the purpose of interesting our customers in the purchase of our materials from a quality standpoint.

We conducted a very exhaustive test of the servicing performance of our materials and that of competition in all fields that we served from that location.

In 1927, I believe it was, I was appointed assistant plant manager, and in that capacity was responsible for the production and technical work.

Q. Did you continue at that time the technical sales service work?

A. Yes, I did, and shortly thereafter—well, in 1933 I was made plant manager, and continued in that capacity for approximately a year, when I was appointed sales manager and shortly thereafter my headquarters were moved to the Empire State Building in New York where I have been located ever since.

Q. Has your work been sales work since that time?

A. Yes, sir, it has.

Q. Now, since you have been doing sales work, which I believe you said started about 1925, what have been your duties, and what have you done with reference to calling on customers?

A. Well, I have made frequent calls to our more important customers in the various fields. I have spent a good deal of my time calling on sales representatives of our important accounts.

Q. What are your duties now as director of sales?

A. As director of sales, I am in charge of all the sales activities of the Newburgh Division of the F. & F. Department. I am responsible for the pricing, policy, promotional programs, advertising programs, and responsible for the administration of and the direction of our sales staff, and the sales line groups. By the line groups, I mean our district sales managers and our field salesmen.

[fol. 4358] Q. Do you still call on the more important customers?

A. I do.

Q. Will you please describe how the fabrics division fits into the du Pont organization as a whole?

A. Well, the du Pont Company has ten operating departments of which Fabrics and Finishes is one of the departments. The Fabrics and Finishes Department is composed of two divisions; the Finishes Division, which is charged with the responsibility of manufacturing and developing and sale of finishes.

The Fabrics Division, the headquarters of which is located in New York City is responsible for the manufacture, sale, and development of coated textiles. We also manufacture unsupported vinyl and rubber sheetings. We manufacture vinyl coated fabrics, pyroxylin, synthetic rubber coated fabrics, and synthetic rubber cement.

Q. Does your division have anything to do with the manufacture or sale of artificial fibers, such as nylon, dacron?

A. No, sir, we do not have anything to do with the manufacture of synthetic fibers or textiles per se.

Q. How important a part of the total du Pont organization is the Fabrics Division in terms of percentage to the total company sales?

A. The sales of coated fabrics represents approximately two per cent, two to three per cent of the total sales of the du Pont Company.

Q. That has been true all the years since you have been director of sales?

A. Approximately.

Q. What manufacturing plants operated by the Fabrics Division, and how many men are normally employed in those plants?

A. We have, as I said, two plants, one at Newburgh, New York, where we employ approximately 800 men; and the other at Fairfield, Connecticut, where we employ approximately 310 to 325.

[fol. 4359] Mr. Neitzert: If your Honor please, I offer in evidence Exhibit No. DP 228, which is a diagram showing the plants of the Fabrics Division of the Fabrics and Finishes Department, of the du Pont Company, together with the names of the types or kinds of products which are manufactured in each plant, and some of the uses made of those products.

The names of the products appear in the solid block just immediately below the names of the plants, and the uses of these products are indicated in the boxes that are formed by the dotted lines which are immediately below the names of the products.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 228.)

By Mr. Neitzert:

Q. Mr. Nickowitz, will you please describe very briefly the nature of each of the products shown in this exhibit, and indicate which are the more important of the several uses shown in the exhibit for each of the products.

A. Well, you notice in the boxes on the level under the plants a group of headings, namely, Fabrikoid, PX Cloth, Tontine, et cetera.

The first box on the extreme left, Fabrikoid, pyroxylin coated fabrics, the most important item in that grouping is book binding. The second most important is footwear quarterlining, sock lining, upper materials and platform wrappers.

The third is automobile trim, bindings and welts.

The fourth is furniture upholstery.

Q. How many dollars worth of Fabrikoid is sold normally each year?

A. That business is currently running, oh, between five and six million dollars annually.

[fol. 4360] The next heading is PX Cloth. PX Cloth is used in binding textbooks primarily, and is manufactured by impregnating usually a sheeting, but frequenly other fabrics, such as duck, with a pyroxylin solution.

The reason for that is to give you a binding material which is waterproof and verminproof, and which will accept the usual types of inks that are used in identifying books.

Mr. Neitzert: Excuse me a minute. I think your Honor may be interested in, and it may be helpful if I would show you some samples of Fabrikoid and PX Cloth which illustrates this material.

Both of these samples are book binding samples, and the samples illustrate the difference between an impregnated cloth and a coated cloth, which we shall have occasion to refer to later.

These samples have all been examined by the Government, but I don't contemplate offering them in evidence because of the number of copies, that are required, of exhibits.

By Mr. Neitzert:

Q. How many dollars worth of bookbindings in PX cloth are sold annually?

A. In the PX cloth grouping, we sell about $350,000 to $400,000 annually.

The next——

Q. Before you go to the next one, the type of Fabrikoid that is used for automobile trim and binding is a heavier type than that type that is included in the set of samples that I have handed to his Honor?

A. Yes, sir.

Mr. Neitzert: I have here a group of samples of the [fol. 4361] heavier type Fabrikoid which show the difference between that and the lighter type that is used for bookbinding.

By Mr. Neitzert:

Q. Will you proceed?

A. The next grouping is Tontine. That, like PX cloth, is also a pyroxylin impregnated fabric that we use in the manufacture of washable window shades.

This is construction that was first developed by the du Pont Company at its plant in Newburgh about 1920.

Q. Is that an important item in sales?

A. It is a comparatively important item. The sales run between three million and three and a half million dollars annually.

The next item in this grouping is Teflon Coated Fabrics. That is the polytetrafluoroethylene coated glass fabric, which has unusually good resistance to high ~~temperatures. It will withstand~~ temperatures as high as 600 and 700 degrees Fahrenheit. It is very inert. It is unaffected by most acids and alkalies, and has extremely good electrical properties.

In addition to the good electrical properties, it has the very unusual quality of not permitting very many things to stick to it, and we have been able to find many applications for which that use is important.

Q. What are the principal ones?

A. We are selling the material in the electrical industry for insulation purposes; to the chemical industry for diaphragms; to the electronics sealing industry where, well, you probably, if you do any shopping for meats in some of the larger meat markets, they will wrap your meat in a transparent film, transparent packaging material, which is [fol. 4362] usually sealed electronically. Teflon is used as a base for the electronic sealing unit because it won't stick to it.

Q. What do the sales run of that product?

A. The sales of that product are currently running about $800,000 annually.

The next grouping is Pre-Doped Fabrics, which is a pyroxylin coated and impregnated fabric used for covering the control surfaces of airplanes, ailerons, rudders, aircraft. It is not unlike the material that Mr. Kettering described during his testimony that was formerly used for covering the wings of aircraft.

The next grouping, Fabrilite, you will notice Fabrilite is manufactured at both our Fairfield and our Newburgh plants.

In that grouping, the most important item is automotive upholstery and trim.

The second most important, furniture upholstery. Third, folding door and partition enclosures.

Fourth, footwear.

Q. What is the base from which the Vinyl plastic that is used in coating Fabrilite fabrics made from?

A. Lime, air and water.

Mr. Neitzert: I have more samples of this product.

By Mr. Neitzert:

Q. This is the most important of your coated fabrics, Fabrilite, is it?

A. Yes, it is. Sales on that item are currently running about $10,000,000.00 annually.

Mr. Neitzert: Your Honor will be able to compare Fabri- [fol. 4363] lite in the group of samples I have just handed to the clerk with natural leather, if you will lay it beside the arms of the chair in which you are sitting.

I have also handed your Honor a sample of Fabrilite which is made up to look like cloth. Having been able to make cloth look like leather, they are now busily engaged in making leather look like cloth.

By Mr. Neitzert:

Q. Will you proceed with the description of the products?

A. The next item to the right is Fabrilite vinyl plastic sheeting without fabric.

That is used by us primarily to meet the requirements of the handbag and pocketbook industries and gun cases.

Other suppliers supply quantities of that to the furniture industry, and some small quantities to the automobile industry.

Q. The only difference between the plastic sheeting and the plastic coated fabric is that plastic sheeting does not have a cloth backing. Is that correct?

A. That is correct.

Q. How large are your sales of plastic sheeting?

A. About $900,000.00 annually at the current rate.

The next item is rubberized fabrics. That is a relatively small grouping with us now.

The most important item in that grouping is explosive powder bags. That is a rubberized fabric bag used for transporting powder in mines. The second most important item is protective clothing, work clothing.

The next grouping is Fairprene synthetic rubber coated fabric.

These materials are almost entirely used for industrial purposes, and are made by coating various types of fabrics, [fol. 4364] cotton, nylon, orlon, Egyptian cotton, with our neoprene synthetic rubber, and for some special applications, some of our special neoprenes or other synthetic rubbers.

Q. Is that an important item in dollar sales?

A. That is an important item, and one which is growing in importance. The biggest field that we are currently selling these materials in are for diaphragms and gaskets and curing bags, and that market currently runs about two and three-quarter million dollars annually.

The next item to the right of that is Fairprene industrial cements. We specialize in synthetic rubber cements primarily for use in conjunction with the products which we manufacture, that is, the coated fabrics and unsupported materials that we manufacture from synthetic rubbers.

The next grouping to the right of that is Fairprene synthetic rubber sheet stock. That grouping consists of compositions without fabric backing.

Our major markets there are gaskets and packings, and that is at this point still comparatively low, $250,000.00 annually.

The next item to the right of that is Rug anchor, which is a synthetic rubber and natural rubber combination made in the form of a thin sponge to prevent throw-rugs from slipping on highly polished floors.

We sell about $350,000.00 of that type of material annually.

The next item to the right of that is Fairprene P.A.W. tape, which is a protective and waterstop neoprene coated fabric, which we sell as a seam sealant to take up the unevenness of metal surfaces in watertight tanks, and is [fol. 4365] also used quite widely in the shipbuilding and aircraft industry to protect against galvanic action between two dissimilar metals; for example, where steel and aluminum come together, this prevents that action.

The next item to the right of that is Ventube, a rubberized flexible tubing, which we manufacture. We manufacture the completed tube in this grouping from rubberized fabrics produced in our Fairfield plant.

The Ventube is used primarily in the mining industry to afford ventilation, particularly from the obnoxious gases of the explosives used in coal and copper mining.

It is also used in tunnel work and cleaning tanks, and the final grouping on the right-hand side of the sheet is Teal.

That is a double texture material, that is two fabrics cemented together with synthetic rubber and is used exclusively for tops of sport type automobiles.

Q. What are your sales of Teal per year?

A. They are running about a half a million dollars.

Mr. Neitzerf: We shall have occasion, your Honor, to refer continuously or frequently to the difference between a coated fabric, and a painted coated fabric, such as Teal.

I should like to hand to your Honor a sample which will illustrate the difference in these two types of fabrics.

By Mr. Neitzert:

Q. Now, Mr. Nickowitz, what percentage of the total sales of fabrics division of these types of products is to the automotive industry?

A. Approximately 20 per cent.

Q. How long has that been true?

A. That has been true since I have been director of sales, since 1944.

[fols. 4366-4367] Q. Do you recall what the percentage was during the 1930's?

A. It was about 15 per cent in that period.

Mr. Neitzert: Your Honor, I would like to take up another subject now.

ADJOURNMENT.

[fol. 4368] Direct examination (Continued)

By Mr. Neitzert:

Q. Referring again for a few minutes to Exhibit DP 228, I have a few preliminary questions about the acquisition and early history of the Newburgh and Fairfield plants. [fol. 4369] When did the du Pont Company acquire the Newburgh plant?

A. The du Pont Company acquired the Newburgh plant in 1910.

Q. Of these products shown on Exhibit No. 228, which, if any, were then manufactured by the du Pont "Fabrikoid" plant?

A. Just the "Fabrikoid."

Q. "Fabrikoid" was an artificial leather?

A. That is correct.

Q. And the name, "Fabrikoid," was just du Pont's trade name for its artificial leather, is that correct?

A. No. It was called "Fabrikoid" prior to that.

Q. The company from which the plant was acquired also called the product "Fabrikoid"?

A. Correct.

Q. What uses were being made of artificial leather at that time?

A. It was being used for bookbinding, luggage covering materials, case covering novelties, and to a limited degree in the automotive industry for trim.

Q. You say to a limited degree?

A. Yes.

Q. Why was that?

A. The product wasn't adequate at that time for upholstery purposes. It had an unpleasant odor. The quality was not good. The simulation of leather from an appearance standpoint was inadequate. Primarily the film strength wasn't good enough for as important a use as automobile upholstery.

It was used for upholstery in cheap furniture at that time, but it just about got by.

Q. Do you know what, if anything, the du Pont Company did to improve the quality of "Fabrikoid" after it purchased this plant?

A. I know, that shortly after the du Pont Company had [fol. 4370] acquired the plant, that chemical projects had been started at the Parlin plant, where lacquers were made and nitrocellulose produced, and at the Experimental Station.

As a result of that work, an improved base was developed and better solvent compositions were formulated.

Prior to that work, the active solvents that were used in dissolving nitrocellulose were amyl acetate and acetone, and those solvents left a residual odor in the film. About that time, or shortly prior to that, the Government had removed the tax on industrial alcohol, which, with the resultant lowered cost of alcohol for industrial purposes, made it possible to use it in formulating solvent compositions in the conversion of guncotton to nitrocellulose dopes for application to fabric.

That went a large way toward improving the objectionable odor of "Fabrikoid."

Another accomplishment was in the elimination of the use of celluloid scrap. Many of the manufacturers of artificial leather in those days, in an effort to attain lower costs, had used celluloid scrap, film scrap, which was plasticized with camphor, and because of the camphor, had an objectionable odor.

It was decided in the "Fabrikoid" business to use virgin nitrocellulose and castor oil with low residual acid content, which gave a product with very little odor, and the odor that was present was masked with a masking agent that had been procured in connection with the research work that had been done, a substance called Russian leather odor, which imparted to the "Fabrikoid" a leather-like odor.

The fabrics that had been used in making heavy "Fabrikoid" at that time were rather coarse and harsh. Work had been done in the development of a construction which was called moleskin.

[fol. 4371] This was a heavy cotton fabric with three strands of cotton running in the warp or longitudinal direction, interwoven with two strands of slightly twisted cotton running in the horizontal direction.

That permitted the material to be scratched, that is, you could scratch up the surface of the cloth and give it a soft, pliable finish similar to good grades of leather.

The combination of these improvements resulted in a material which was better suited for automotive upholstery than anything that had previously been formulated.

Q. How was the new product accepted by the automobile industry?

A. It was enthusiastically accepted, and the first purchase was by the Ford Motor Company, I believe, in 1913.

Q. The du Pont Company was the first company to develop artificial leather that could be used extensively by the automobile industry?

A. I believe so.

Mr. Neitzert: Your Honor, I offer in evidence Defendants' Exhibit, DP 229, which is an excerpt from an organizational chart of the experimental station of the du Pont Company, and it is dated May 1, 1912, and it shows the number of chemists that were working on pyroxylin solvents and artificial leather in 1912, which was shortly after the Fabrikoid Company was acquired by the du Pont Company.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 229.)

Mr. Neitzert: I also offer in evidence Defendants' Ex- [fol. 4372] hibit DP No. 230, which is an excerpt from a letter from Charles L. Patterson, vice president, to the Executive Committee of the du Pont Powder Company, dated June 28, 1913.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 230.)

Mr. Neitzert: The name of what is now the du Pont Company was then the du Pont Powder Company, was it not, Mr. Nickowitz?

A. Yes, sir.

Mr. Neitzert: I will read the second paragraph of DP 230:

> "Sales of Fabrikoid for the month of May amounted to $118,760.34 as against $99,074.19 in May 1912 and $51,775.36 in the same month 1911. This business generally falls off during the summer season, but the prospects indicate that our increase over last year will continue to be considerable. Both the Hupp and Metz automobile people have been using our Heavy Goods for upholstering for six months past, and other large automobile manufacturers are considering doing so."

By Mr. Neitzert:

Q. Were the Hupp and Metz companies large manufacturers of automobiles at this time?

A. I don't know.

Q. Was the heavy goods for upholstery, which is referred to in this exhibit, the improved "Fabrikoid" that was made by the du Pont Company as you have testified?

A. I believe it was.

Mr. Neitzert: I offer in evidence Defendant's Exhibit DP 231, which is also an excerpt from a letter from Charles [fol. 4373] L. Patterson, vice president, to the Executive Committee of the du Pont Powder Company.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 231.)

Mr. Neitzert: This letter is dated August 2nd, 1913. I will read the second and third paragraphs:

> "Fabrikoid sales in June amounted to $120,574 as compared with $79,914 in June 1912 and $57,644 in June 1911. There has been some falling off in the sale of light goods, which we believe is due principally to the season."

By Mr. Neitzert:

Q. Mr. Nickowitz, was light goods used by the automobile industry at this time?

A. No, sir.

Mr. Neitzert: (Reading):

> "Heavy qualities are holding up well, and sales of combined goods are ahead of last year. Our total business for the six months 1913 is larger than the total business done during the entire year 1911.
>
> "The Ford Automobile people have indicated their intention of adopting artificial leather for their cars, if the trials work out satisfactorily, and we have on hand orders at the present time, and hope to get standing orders for a large part of their business in the near future."

I offer in evidence Defendant's Exhibit DP 232, which is an excerpt from the report of the Sales Department to the [fol. 4374] Executive Committee of the du Pont Company for the month of November, 1913. This report is dated January 2, 1914.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 232.)

Mr. Neitzert: This is dated January 2nd, 1914. The excerpt is as follows:

> "Business on light weight goods has fallen off to some extent, due almost entirely we feel to a general tendency to 'hold off'. Heavy goods business shows a very large increase due to the adoption of our goods by

> the automobile manufacturers for upholstering. We feel that we can count on gratifying sales of heavy goods for some months to come."

I also offer in evidence Defendant's Exhibit DP-233, which is an excerpt of the report of the Sales Department to the Executive Committee of the du Pont Powder Company, dated January 26, 1914.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 233.)

Mr. Neitzert: I will read the first three paragraphs:

> "'We are supplying Ford Co. with approximately 3500 yds. Fabrikoid per day, on orders that could be cancelled in 24 hours, have no contract with them.
>
> "'Policy of Ford Co. is not to contract for supplies unless they cannot be otherwise secured. We are advised that we have about 65% of Ford's business.
>
> [fol. 4375] "'Ford expects to turn out at least 250,000 cars this year and we understand Fabrikoid is entirely satisfactory, and they have no intention of making any change.'"

I also offer in evidence Defendant's Exhibit DP 234, which is an excerpt from the report of the Sales Department to the Executive Committee of the du Pont Powder Company for September, 1914, and it is dated November 24th, 1914.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 234.)

Mr. Neitzert: I will read the fifth paragraph, the last paragraph before the note:

> "We have renewed arrangements for 1914-1915 with the Ford Motor Co., have also secured some good business with the Willys-Overland Company, and have good prospects of regaining the Hupp Motor Company's trade, so that with other smaller new business prospects for heavy goods, the outlook is encouraging."

I offer in evidence Defendant's Exhibit DP 235, which is an excerpt from the report by William Coyne, Director of Sales, to the Executive Committee of the du Pont Company for the month of February, 1915.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 235.)

Mr. Neitzert: This report bears date March 31, 1915. I will read only the last paragraph:

> [fol. 4376] "Heavy goods trade, also, shows material improvement, and we look for continued increased demand. We have closed contract with the Willys-Overland Company, which will aggregate 300,000 yds. artificial leather and approximately 1,000,000 yds. of mohair per annum."

By Mr. Neitzert:

Q. Mr. Nickowitz, what is this fabric that is referred to here as mohair?

A. Mohair is, or was, rather, a double texture material used for open cars. By double texture material, I mean two fabrics stuck together with a rubber cement, or a pyroxylin-cement as was the case in this particular instance. Mohair was a mixture of cotton and camel hair to produce a silk-like surface. It was used for tops on open automobiles.

Q. Side curtains also?

A. Side curtains also.

Q. Was that one of the products that the du Pont Company developed at Newburgh to go with their artificial leather upholstery?

A. Yes, sir.

Mr. Neitzert: I offer in evidence Defendants' DP Exhibit No. 236, which is also an excerpt from the report from William Coyne, director of sales, to the Executive Committee.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 236.)

Mr. Neitzert: This report is for the month of March, 1915, and it was dated April 30, 1915.

I will read the first, third and fourth paragraphs:

> [fol. 4377] "Total sales for March, 1915, were $248,214.67 as compared with $176,685.83 in March, 1914, and $134,283.19 in March, 1913.
>
> "Heavy goods business shows a gratifying increase due principally to the suddenly increased demand from the automobile trade. Outlook for these lines very promising, and with return of normal business we expect to show steadily increasing sales.
>
> "On combined goods we are making good progress, due mainly to the large contract with the Willys-Overland Company for all their top materials for the years 1915 and 1916."

By Mr. Neitzert:

Q. The combined goods there referred to is what?

A. We had two types of combined goods that we produced at Newburgh. One was a pyroxylin coated material we combined with a cotton fabric, with a pyroxylin cement, and the other was a mohair type of material which I have described just a moment ago.

Q. Are both materials used for the same purpose?

A. Both materials are used for the same purpose.

Q. Was one of these materials sold under a trade name by the du Pont Company?

A. Yes, sir.

Q. Which one was it?

A. The pyroxylin surfaced material was called "Rayntite."

Q. Was the du Pont Company still selling these fabrics to Willys-Overland when you started working for the company in 1919?

A. They had discontinued manufacturing "Rayntite," — [fol. 4378] or mohair, rather, when I came with the company in 1919, and were in the process of discontinuing the manufacture of "Rayntite."

There was still some "Rayntite" material coming into the laboratory for routine control tests, but we were in the process of getting out of it.

Q. My question went rather to the question of whether or not Willys-Overland was still a customer in 1919.

A. Yes, sir.

Mr. Neitzert: Will you please show the witness a document which has been marked DP-237 for identification? That document, your Honor, contains excerpts from a schedule of accounts receivable of the Fabrikoid agency of the du Pont Powder Company, and it is dated July 31, 1913.

Q. Do you know what happened to the Fabrikoid business of the du Pont Company at that time, Mr. Nickowitz? A. Well, I know that at this particular time the du Pont Fabrikoid Company was formed and took over the Fabrikoid business from the du Pont Powder Company.

Q. This schedule of accounts receivable from which DP-237 is taken was found in the files relating to that transaction, was it not?

A. That is correct.

Q. Now, what do these excerpts from the schedule of accounts receivable of the Fabrikoid agency of the du Pont Powder Company show?

Mr. Harsha: Your Honor, in connection with this exhibit, the Government would like to interpose an objection. We fail to see anything relevant in this document, and, further, we find that it seems to us that it is entirely fragmentary.

[fol. 4379] It does not attempt to give any picture of the scope of the business over any particular period of time. It is merely the accounts receivable as of a particular date in 1913, and I don't think it has any relevance in either proving or disproving the issues in this case.

Mr. Neitzert: If I may address myself to this subject for the moment, it is alleged in the complaint in this case that, with the purchase of the General Motors stock, the du Pont Company acquired the coated fabric business of the General Motors Companies.

In the evidence which we shall offer, we will show that, prior to the acquisition of the stock of the General Motors Company, the du Pont Company already sold a greater percentage of the requirements of the General Motors Company of coated fabrics of the kinds then manufactured by the du Pont Company than it did during any other period after the acquisition of that stock, except possibly for one year.

Now, we are dealing here with a period which is still some time back. We have to use what evidence there is available to us, of course. I have been unable to find but one person that was intimately associated with the official group that were running the Fabrikoid agency at that time, and unfortunately he is past eighty years old, and although we gave his name to the Government, his condition is not such that he can testify.

So that, our case during this period must largely be based upon documentary proof.

We have brought forth such documentary proof as we have which bears on the subject, and one of the documents [fol. 4380] that we considered of particular value was this schedule of accounts receivable which was prepared in connection with the transfer of the business of the Newburgh plant to a separate corporation.

This accounts receivable schedule shows all of the customers of the du Pont Fabrikoid agency that owed any money to the company as of July 31, 1913.

It is true we may have had many other customers. On this list are only the customers that happened to have a balance outstanding, due us on that date; but we have present in court the original schedule, which we will be glad to show to the Government, if they want it. They have not requested it. This is an excerpt, so we won't have to put in the longer schedule which has been made subject to an agreement that we have had with the Government relating to the preparation of excerpts. It shows on page 1 a list of the customers appearing on the accounts receivable as owing the du Pont Company money on July 31, 1913. Your Honor will see that there appears on that list, among others, Cadillac Motor Car Company, a General Motors Company; the Oakland Motor Car Company, a General Motors Company; the Olds Motor Works Company, a General Motors Company, and possibly others, although I believe those are all of the companies.

On the second page is a list of companies that we are reasonably certain were engaged in the automobile business at that time, such as the Austin Car Company, although we cannot be absolutely certain of all of them, but we think that they were; and then the table on the third page shows the ratio between the number of customers both in and thought [fol. 4381] to be in the automobile industry, to the total number of customers that appears on the schedule of accounts receivable.

Now, in view of the ancient character of the evidence which is available to us at this time, it seems to me that this is not only valuable proof of the fact that we were serving the General Motors Companies at this time, but that we were, as the witness has testified, predominant in this field and were serving many other automobile companies.

The Court: Oh, I think it is competent. Overrule the objection.

Mr. Neitzert: Well, to make a long story short, unless the Government objects to it,—I have done so much testifying—I can cut this a little short by asking the witness if I have correctly stated the facts with respect to this exhibit.

Mr. Harsha: We have no objection.

By the Witness:

A. Yes, sir.

By Mr. Neitzert:

Q. What is your answer?
A. Yes, sir.

Mr. Neitzert: I call the Court's attention to the fact that on page 1 in addition to the names of the Cadillac Motor Car Company and the Oakland Motor Works and the Olds Motor Works, there appear the names of the Ford Motor Company and the Hupp and Metz Companies; and on page 3, if the Court please, it appears that there were a total of 820 names on the list of accounts receivable; 35 of them appear on page 1, and have been identified as companies engaged in the automobile industry; 58 of them appear on [fol. 4382] page 2, and we believe that they were also engaged then in the manufacture of automobiles, automobile parts or accessories; and 11.34 per cent of the total names on the schedule of accounts receivable are reproduced in lists A and B as shown on pages 1 and 2.

I offer in evidence the document marked DP Exhibit No. 237.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 237.)

By Mr. Neitzert:

Q. Referring more particularly to the three General Motors Companies shown on page 1—Cadillac Motor Company, Oakland Motor Car Company, and the Olds Motor Works—which, if any, of those three companies were receiving shipments of "Fabrikoid" that was being inspected by you in the Newburgh plant in the summer of 1916?

A. All three.

Q. Do you have any recollection as to whether or not large or small quantities were passing through the plant and being shipped to these three customers?

A. I am sorry. My recollection of that isn't too vivid. I know that it was in sufficiently large quantities that I remember materials going to them.

Most of the material that I inspected at that time was automotive. Some inspectors specialized in automotive fabrics, and others specialized in bookbinding and luggage materials.

I remember very distinctly materials going to them, [fol. 4383] and I remember more distinctly substantially larger quantities going to Ford, for example.

Mr. Neitzert: If it please the Court, I offer in evidence DP Exhibit No. 238, which is a letter from Vice-President Brown, of the du Pont Company, transmitting to the directors of the du Pont Fabrikoid Company a report of the Operating Department for the month of May, 1916.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 238.)

By Mr. Neitzert:

Q. Was Mr. Brown, in 1916, a vice-president of the du Pont Company or a vice-president of the du Pont Fabrikoid Company, if you know?

A. I believe he was a vice-president of the du Pont Company.

Mr. Neitzert: The second page of the exhibit is the report transmitted, which appears to have been prepared by one Frederick Kniffen, director of operations.

I will read only a few excerpts from that report, beginning with the first paragraph:

> "The conditions noted in previous months have continued, the output showing further increases. Expressed in standard units, the following figures are of importance:"

Then follows a table showing average daily orders for a period including the years 1914 to June, 1916, inclusive, and showing an increase in average daily orders from 7,600 units in 1914 to 43,000 units in 1916.

[fol. 4384] By Mr. Neitzert:

Q. What were the units referred to in this report?

A. I believe they were lineal yards, which was then and still is the unit in which we discuss production of coated fabrics.

Mr. Neitzert: The paragraph following the table is as follows:

> "Analysis of the orders received sheds some light upon the contract shown between the 23,000 received in May and the 43,000 received in June. The difference is due to three large automobile companies having placed in June orders for delivery from July to December. The orders from other sources averaged 16,600 per day. The average daily requirements estimated by the Sales Department for the four large automobile customers whom we are serving regularly (Overland, Ford, Chevrolet and Buick) are 16,200 units; making a total of 32,800 units per day representing the present rate of receipt of orders."

By Mr. Neitzert:

Q. Mr. Nickowitz, do you know when the du Pont Company first started selling coated fabrics to Chevrolet and Buick, who are mentioned as two of the four large automobile customers that the du Pont Company was serving regularly in 1916?

A. I do not.

Mr. Neitzert: I offer in evidence DP Exhibit No. 239, which is an advertisement from the du Pont magazine of February, 1916.

[fol. 4385] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 239.)

Mr. Neitzert: I will read part of the exhibit, beginning with the third paragraph:

> "Of the million autos that will be sold in 1916, 75% will be standardized cars selling for less than $1000.00 each. This remarkable American achievement is the result of standardizing motors, starters, carburetors, speedometers, ignition and lighting systems, transmissions, differentials, tires, wheels, axles, rims, bearings, etc."
>
> "Finally the upholstery has been standardized by the almost universal adoption of du Pont Fabrikoid Motor Quality.
>
> "40% of all 1915 cars sold were upholstered in this proved, guaranteed material, and in 1916 the total will be nearly 60%."

By Mr. Neitzert:

Q. When did the du Pont Company acquire the Fairfield Rubber plant?

A. In 1916, I believe it was in July.

Q. What product or products were manufactured at the Fairfield plant at that time?

A. The Fairfield plant manufactured rubberized auto topping.

Q. Was that a rubber coated material?

A. Yes, it was rubberized.

Q. To whom was the product sold?

A. Most of the output of the plant was sold to the Ford Motor Company.

[fol. 4386] Mr. Neitzert: I refer, if your Honor please, to Government Trial Exhibit No. 107, which is a report on the Fairfield Rubber Company from the Development Department of the du Pont Company, dated May 26, 1916, and a letter of transmittal dated May 27, 1916, signed by Mr. R. R. M. Carpenter, vice president.

With the Court's permission I will read two paragraphs toward the bottom of page 3:

> "The principal business of the Fairfield Rubber Company is the manufacture of rubber coated cloths

for automobile and carriage tops. Of recent years the Ford business has constituted the largest factor of their business and at the present time constitutes probably 60% of their total business. The Ford material is used on the flat part of the Ford tops, which receives the hardest wear. The rounded sides of the Ford top are made of a cheaper material inasmuch that does not receive the hard wear which the top does.

"In addition to the Ford business they sell to some other automobile manufacturers, but their sales are very largely through jobbing houses, and they are not acquainted as to just who uses their material."

By Mr. Neitzert:

Q. What was this single texture rubber coated top material called in the trade?

A. It was called Ford decking.

Q. Also sometimes Ford rubber?

A. Ford rubber.

Mr. Neitzert: I would also like to call attention to page 18 of the exhibit, the very last paragraph at the bottom of the page:

[fol. 4387] "Rubber tops for automobiles seem to be giving very good satisfaction, and we have lost many good accounts on automobile top goods because of the lower cost of rubber. Therefore, to have this plant would enable us to get at least our share of this business, which should be large."

On page 20, in a letter from Mr. Frederick Kniffen, to the Development Department, the first paragraph is as follows:

"Excluding Combined Mohairs, we now have Double Texture."

By Mr. Neitzert:

Q. Was that "Rayntite", that double texture?

A. Yes.

Mr. Neitzert: (Reading):

"Excluding Combined Mohairs, we now have Double Texture catering to the high class vehicle top trade, and Single Texture Fabrikoid, catering to medium to low class trade. By the possession of rubber coated fabric we would be able to cover the entire field; when thinly applied the rubber-coated goods would provide the cheapest type of cover, and when more thickly applied they would satisfy that portion of the trade, such as the Ford Motor Company, which requires something better than the very cheapest but insists upon a greater weight and thickness in the finished goods than possessed by our present Single Texture Fabrikoid auto material. In short, the proposed addition would enable us to cover the whole field."

[fol. 4388] By Mr. Neitzert:

Q. Do you know who Mr. Frederick Kniffen was in 1916?

A. Yes. He was director of production of Fabrikoid.

Q. Was it after the acquisition of the Fairfield Rubber plant that du Pont discontinued the manufacture of the top materials at Newburgh which you have described and which have been referred to in these exhibits?

A. Yes.

Q. Or before?.

A. After.

Q. I want to ask you some questions now about the present customers of the Fabrics Division.

What customers do you have in the automotive industry at the present time?

A. Fisher Body; Chevrolet Commercial; General Motors Truck; Ford Motor Company; Wayne Body Works; Cushman Body; Mid-State——

Q. Mid-State what?

A. Mid-States Body; Ionia Body; Mack Truck; Carter Carburetor; Electric Autolite; Delco-Remy, Anderson Division.

Q. Studebaker?

A. Studebaker.

Q. Checker Cab?

A. Oh, yes, Checker Cab.

Q. And International Harvester?

A. International Harvester.

Q. What is the business of the Detroit Gasket & Manufacturing Company?

A. Detroit Gasket & Manufacturing Company manufactures diaphragms from our Fairprene coated fabrics for use in automotive accessories. We also sell Trico diaphragm materials for use in automotive windshield wipers.

Q. Mr. Nickowitz, preliminary to a closer look at the situation in the automobile industry, will you please state [fol. 4389] who are your principal customers outside of the automobile industry, and what uses they make of your coated fabrics and your combined fabrics, and what percentage of the total requirements of some of these customers is purchased from the du Pont Company.

A. Fabric Leather is our New York distributor of handbag and upholstery materials to the furniture trade. They buy all of their requirements of both upholstery and handbag material from us. They do have a subsidiary, however, which buys a small quantity of handbag material from other sources, but their upholstery purchases are exclusively from du Pont and Fabric Leather's handbag purchases are exclusively from du Pont. They have been our exclusive distributors in that field for over twenty-five years.

Their business varies. It has exceeded a million dollars and——

Q. A million dollars per year?

A. A million dollars per year, and has been in recent years between three-quarters of a million dollars and a million dollars annually.

Another important distributor we had is the Phillips Premier Company, which specializes in shoe materials. They are located in Boston. Their purchases are in excess of a million dollars annually, and they buy our fabrics exclusively, and they buy no coated fabrics from anyone else. They have been our exclusive distributors for at least twelve years, probably a little longer. I am not absolutely certain as to the length of time.

In the book binding field we have the four leading distributors in the country. William J. McLaughlin Company, Philadelphia, purchases all its coated fabric requirements [fol. 4390] from du Pont, and its purchases are in the vicinity of about a half million dollars annually.

Slade, Hipp & Meloy, located in Chicago, buy about eighty percent of all their coated fabrics from us. They buy all of their coated fabric from us, but they buy some impregnated fabrics from one of our competitors. And they have been book-binding distributors of ours for in excess of twenty-five years.

Griffen, Campbell, Hayes & Walsh, which have offices in Boston, New York and Chicago, buy seventy-five percent of all of their coated fabrics from us, and their purchases are in excess of a half million dollars annually.

And the fourth one is Gane Brothers & Lane with offices in St. Louis, Chicago, Los Angeles and San Francisco, and they are currently buying in excess of seventy-five percent of their requirements from us. They buy all of their coated fabrics from us, but buy some impregnated cloth elsewhere.

In the furniture field, office furniture, we sell the General Fireproofing Company almost 100 percent of their requirements. The only purchases they make from others than du Pont are those which are specified by their customers, and that represents a very small portion.

Q. Is General Fireproofing Company the largest manufacturer of office furniture?

A. They are the largest manufacturer of office furniture.

The American Seating Company, which is the largest theatre and auditorium seat manufacturer buys almost all of their requirements from us. They buy all of their requirements from us except an occasional order where a theatre operator or a designer has picked some particular [fol. 4391] color that one of our competitors might have, but that is very infrequent.

The Economy Furniture Company at Austin, Texas, buys all of their coated fabric requirements from us, and many other furniture manufacturers.

Q. Generally, you supply all of the large furniture manufacturers with substantially all of their coated fabrics?

A. I would say that we supply many of the larger ones, not all of the larger ones.

Q. Mr. Nickowitz, you talked about the book-binding distributors. What about the large publishing houses?

A. We sell some publishing houses direct; for example, Crowell-Collier buy at least seventy-five percent of their requirements from us.

National Blank buys 100 percent of their coated fabrics from us. They are large manufacturers of looseleaf binders.

Q. What about the West Publishing Company?

A. The West Publishing Company buys all of their requirements from us. They buy "PX" cloth which is an impregnated book cloth. I guess I do not have to tell you lawyers about that. It is probably one of the largest publishers of legal books in the country.

The Court: The Court stands recessed for fifteen minutes.

(A recess was here taken.)

The Court: Proceed, please.

By Mr. Neitzert:

Q. Mr. Nickowitz, you were naming some of the more important customers of the Fabrics Division at the time of the recess.

[fol. 4392] Will you please continue?

A. Another manufacturer to whom we sell all of their coated fabrics requirements is the Singer Sewing Machine. They buy all of their upholstery fabrics for sewing machine stools from us. That business runs about $75,000.00 annually.

Anaconda Copper Mining Company——

Mr. Harsha: May it please the Court, I wonder if it is really necessary to burden the record with this detailed analysis of the non-automobile customers of "Fabrikoid". It seems to me, if the defense wishes to place in the record this type of information, it can be done much more simply merely by putting in the record some sort of an analysis of what their sales records show, rather than having the witness detail each one of the customers of the du Pont Company in this field.

Mr. Neitzert: If your Honor please, the purpose of this testimony is to show that the pattern of our sales, both with respect to the percentage of the requirements and size of the company served, outside of the automotive field is not unlike the pattern within the automotive field.

Now, as to the value of that type of proof unless the Government contends there is some type of combination and conspiracy that brings us our business outside of the automobile field, why, obviously there is the same natural cause for the pattern of our sales within the automotive field as there is outside of it.

I think it can best be presented orally by this witness, who states who our customers are outside of the automotive field, what the size of the sales to them is, what positions these customers occupy in their respective industries——

[fol. 4393] Mr. Harsha: Maybe I did not make myself clear. Our objection does not go to the competency of this evidence, but to the method of presentation. It seems to me that the Court and the record can be spared the burden of a long string of testimony on all these various customers if an analysis of some sort of the current accounts is brought in.

The Court: I imagine the evidence at this point is just about complete now, isn't it?

Mr. Neitzert: Yes, it is.

The Court: Proceed.

By the Witness:

A. (Continuing) Anaconda Copper Mining, which is one of the largest copper producing companies in the world, buy all of their rubberized fabrics for mine ventilations. For example, last year they bought over twenty miles of coated fabric for ventilating their mines in the Montana district.

Julius Resnick, Incorporated, New York, of New York City, are the largest manufacturers of popular priced handbags in the United States. They buy 95 percent of their requirements from us of the types of material we manufacture. L. C. Smith and Corona Typewriter Company buy all of their coated fabrics for their machine cover requirements. I want to correct that. They buy about 75 percent of their coated fabric machine cover requirements from us.

In the automotive accessory field—

Q. Before you get to the automotive accessory field, will you please comment upon the surgical tape industry [fol. 4394] and the window shade industry?

A. In the surgical tape field we sell three of the four largest manufacturers in the country, all of their requirements for coated fabrics: Johnson & Johnson, Bay Company, and the Seamless Rubber Company of New Haven.

Their total purchases are in the neighborhood of about $2,000,000.

The one company we do not supply is B&B—Bauer & Black.

The Andrew Dutton Company of Boston are a large distributor of our "Tontine" window shade materials and their annual purchases are approximately a half million dollars, and they buy all of their requirements of this type of material from us.

Q. Do you sell Sears Roebuck?

A. We sell Sears Roebuck the best qualities of upholstery material that they sell at retail, and we sell them, and have for the last fifteen or twenty years, all of their requirements of that type of fabric.

Q. Now, Mr. Nickowitz, who are the principal competitors of the du Pont Fabrics Division?

A. The Masland Duraleather Company, Federaleather Company, Textileather, Bolta Products Sales, United States Rubber Company, B. F. Goodrich Company, Goodall-Sanford, Vulcan-Proofing Company. They are about the chief ones.

There are numerous other small companies.

Q. Which of these companies compete with du Pont for the automotive business?

A. In the automotive field, the business is shared largely with du Pont by Federaleather, Textileather, Goodall-Sanford, Weymouth Art Leather, Landers Brothers, U. S. Rubber, and to a lesser degree by B. F. Goodrich.

[fol. 4395] Q. Is Haartz Auto Fabric——

A. Haartz Auto Fabric is the largest producer of sport auto topping. They don't compete in the other fields.

Q. What is your competing product?

A. "Teal."

Q. Returning now, Mr. Nickowitz, to your customers in the automotive industry, do you have any basis for determining the percentage of the requirements of supported combined fabrics in the automotive industry that are purchased from the du Pont Company?

A. Yes, we do.

Q. How is that information obtained?

A. It is very important in our particular industry that we get as much information on that subject as possible because historically many of the people in this industry have failed because of large inventory losses that they have had to take from time to time on textiles and rubber, two important commodities that we use in very large measure and two important commodities that fluctuate quite widely.

For example, in my own experience with the du Pont Company, I have seen rubber fluctuate from 60 cents a pound to $1.80 a pound.

I have seen 1.85 drill, which is a very popular fabric construction, fluctuate from 12 to 14 cents a yard to 80 or 85 cents a yard.

So that we have got to know quite a lot about our requirements, and consequently we set ourselves up to get as much information as we can about our requirements.

We forecast our sales and requirements quarterly for the ensuing twelve months, and these forecasts are based on information that we are able to get from the various purchasing agents and other people whom we contact in the trades we serve.

[fol. 4396] We also get statistical information from the two trade associations that serve our industry, the Rubber Manufacturers Association and Plastic Coating and Film Association.

We get statistics weekly from the Automotive News, which publishes the Ward compilation of automotive production data weekly.

At the time that automobiles are introduced at the beginning of the season usually the top executives of the automotive industry will forecast what they believe will be the production for the year. For example, just in this morning's paper, there is a comment by the president of Packard Motor Company who was addressing the Sales Executive Club, and made the observation that cars are currently being produced at the rate of, I believe he said, seven million cars annually and being sold at the rate of about five and one-half million cars annually.

So that by gathering all of these statistics and information that we are picking up from the purchasing agents, we are able to fairly well determine what percentage of the business we are getting.

Q. Do you have the number of yards of coated and combined fabrics used on each car?

A. I was coming to that. We also are able to get information from the automobile manufacturers as to their con sumption of material per car. Of course, we could get that anyway, but when the 1953 models were announced, it became obvious to us that they are using more coated fabrics than had been used the year prior, and we asked our Detroit representative to determine from our customers what the [fol. 4397] consumption of coated fabrics was on the new models, as compared to the 1952 models, and the consumption, the average consumption of coated fabrics in the General Motors line for 1953 is 2.75 yards per car as against 2.25 yards per car in 1951 and 1952.

Q. What are the statistics as to production that you obtained from the industry papers that you referred to?

A. Well, these statistics show the production of all of the different cars for the preceding week—for example, they will give the production of Ford, the production of Chevrolet, the production of Cadillac, the production of Lincoln and of Mercury, and so forth.

For example, the production of the Big Three, which is Chrysler, Ford and General Motors, has been running about 87½ per cent of the total.

Q. Now, Mr. Nickowitz, I want to take up each of your principal customers in the automotive industry now, and I want you to state what percentage of the requirements of each of these customers is now being supplied by the du Pont Company and has been supplied since you have been director of sales, and also to tell what efforts you have made, if any, to obtain a greater share of the business, and from what other sources these customers buy their requirements, if they have other sources.

Will you state how long you have been director of sales?

A. Since 1944.

Q. Will you please start with the Fisher Body Corporation, or the Fisher Body Division of the General Motors Corporation?

A. We sold—we have been selling Fisher Body Corporation since the end of World War II, about 35 to 45 per cent of their requirements of coated and combined fabrics. [fol. 4398] It varies. Some years we will get a little bit more, and some years we will get a little bit less.

Q. Do you know what percentage of the requirements of this customer came from the du Pont Company during the 1930's while you were sales manager?

A. In the thirties, it was approximately thirty percent.

Q. From what other company did the Fisher Body Division buy coated fabrics?

A. You mean presently?

Q. Yes.

A. They buy coated fabrics from Federaleather, Textileather, United States Rubber Company and Haartz Auto Fabric.

Q. Since you have been doing sales work, Mr. Nickowitz, have you made any effort with the Fisher Body to obtain a greater percentage of its requirements than the percentages you have mentioned?

A. We certainly have.

Q. What have you done along that line?

A. Over the years, I have constantly tried to get more business. After all, that is my job. Just as recently as last February, I recall a visit that I made with J. W. Richardson, our Detroit representative.

I called with him on Fred Walker, who is the purchasing agent of Fisher Body for coated fabrics. We called on Mr. Walker at his office, and Bill Dehm, his assistant, was present.

I pointed out to Mr. Walker that we were only getting then about forty percent of his requirements, and that we would like to get more.

We felt that we were entitled to more because of the lead- [fol. 4399] ership that we had displayed over the years in bringing out new and better coated fabrics.

In my experience on this occasion and other occasions, the General Motors people have always expressed a lot of admiration and a lot of appreciation for the leadership we have displayed in that direction.

Perhaps the strongest selling argument that we used, not only in the automotive industry, but in other industries, was just that we prided ourselves in desiring to make the best piece of coated fabric we knew how to make for the purpose, and that our research and development efforts are constantly directed in that direction.

Q. Go ahead and tell us the rest of the conversation with Mr. Walker and Mr. Dehm on this occasion.

Particularly I am interested in all of the arguments you gave them in support of your suggestion that they buy a greater percentage of their coated and combined fabrics from du Pont.

A. Of course one of the arguments we used was the fact that we had this extensive research program. Another thing was our production facilities.

For example, we are frequently called upon by General Motors to step up deliveries beyond what they anticipated to take care of the failure of others to deliver.

We pointed out to him at the time of our sixth and seventh releases—releases are normally issued by Fisher consecutively and are numbered from one on up to the end of the model, and at the time they placed these releases, they may extend from six to eight, and sometimes ten weeks.

[fol. 4400] When they placed their sixth and seventh release, their production had moved along faster than they anticipated, and I presume some of our competitors were not able to meet their stepped up requirements, so that we had to deliver in a period of eight weeks what we normally would have had to deliver in sixteen weeks.

And on this occasion, Mr. Walker was very voluble in his praise of the very excellent job which we had done in stepping up their deliveries.

We were able to do that because we have the facilities; we have the inventories; we have the business and capital that enables us to render that kind of service.

I also pointed out to him that, when they were in difficulties with their "Teal" fabrics at the time they encountered considerable shrinkage,—I believe it was, in 1949.

Mr. Vern Fisher told us that complaints on teal were running along at the rate of about $250,000 a year.

Q. You mean losses?

A. That is losses, because they had to replace these products. They placed that problem before us because we were the only company with adequate facilities to solve that problem for them.

Q. You say those were losses on "Teal." You mean they were losses on "Teal" and similar fabrics?

A. On "Teal" type fabrics.

Q. On "Teal" type fabrics?

A. Yes, that they were buying from another source, and I recall distinctly Mr. Fisher—I reminded Mr. Walker of this fact—Mr. Fisher said he just could not charge back the losses to the competitor involved, because it would embarrass that concern seriously financially.

[fol. 4401] Q. Who was Mr. Fisher?

A. Mr. Vern Fisher is the body engineer, trim and body engineer.

I reminded Mr. Walker of that, and he agreed with all of the arguments, but stated that it was their policy to have at least three sources of supply on coated fabrics, and that we were getting all the business that he could give us, and was actually giving us more than either of the two other sources for coated fabrics.

Q. Was this conversation with Mr. Walker typical of many conversations you had with him in your efforts to sell greater quantities of coated and combined fabrics to the Fisher Body Company?

A. It was.

Q. How often did you call on the Fisher Body Company in an effort to increase your sales in that division?

A. Oh, I went out there half a dozen times a year.

Q. Have you been able to increase your participation in the Fisher Body business as a result of any of your efforts along this line?

A. No, sir.

Q. Does the Fisher Body Company use any other product that is manufactured by the Fabrics Division, other than coated and combined fabrics?

A. I beg your pardon?

Q. Does the Fisher Body Company use any other product that is manufactured and sold by the du Pont Fabrics Division, other than coated and combined fabrics?

A. Yes, they use a weather-stripping cement made from synthetic rubber, which is used to apply sponge weather-stripping to the doors, and trunks, to prevent drafts and rattles.

We have been trying to sell Fisher Body that cement for, oh, a cement for that purpose, since about 1945, when we [fol. 4402] developed our "Fairprene" Cement-5115 which is a neoprene base composition designed to adhere rubber to metal surfaces.

Q. About how much of this weather-stripping cement does Fisher buy each year?

A. They are currently buying at the rate of about a million dollars. Their present model uses more of this than they used some time ago.

Q. Have you ever been able to get any of that business?

A. We have gotten a small amount starting in, I believe it was 1951, but our sales of that type of cement is in the vicinity of about three per cent of Fisher's total purchases.

Q. What efforts are you making to sell larger quantities of this cement to the Fisher Body Division?

A. Well, we are making a special effort to build our cement business, and since the automotive industry represents a large potential market for that type of cement, we have assigned a chemist, a full-time chemist, at our Fairfield plant to develop such a cement, and another full-time chemist to work with the Fisher Body Laboratories, with their semi-works experimental body unit, and with the production lines.

What he does is, he takes the cement specimen to the laboratory at Fisher Body, demonstrates the physical properties of the material. If the evaluation in the laboratory looks sufficiently promising, it is taken into the semi-works unit and tried on as many as fifty or one hundred bodies there. If no bugs develop, then it would be taken into the plant; if bugs do develop in the cement, that is, shortcomings in one regard or another, a matter of drying, a matter of adhesion, a matter of resistance to elevated temperatures, [fol. 4403] he will communicate with the chemist at Fairfield and work will be instituted to take whatever corrective measures seem to be indicated.

Q. Are these two men working full time trying to convince Fisher that they should buy your cement?

A. Yes, sir.

Q. Who supplies Fisher with the bulk of its requirements of this type of cement now?

A. The bulk of Fisher Body's requirements of this type of material is supplied by Armstrong Cork.

Q. And before Armstrong Cork?

A. Minnesota Mining.

Q. Do you run tests on your products and the products of Minnesota Mining and Armstrong Cork?

A. Yes, sir.

Q. What do they show as to the merits of the three groups?

A. We believe that our cement is at least the equal of the competitive ones.

Q. Have you shown those tests to Fisher?

A. Yes, sir.

Q. Have you still been unable to get any substantial part of that business?

A. Yes, sir.

The Court: I think it is time for a recess.

RECESS

[fol. 4404] The Court: Proceed, please.

MAX N. NICKOWITZ, called as a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued).

By Mr. Neitzert:

Q. Mr. Nickowitz, before the noon recess we were discussing your effort to sell cement to the Fisher Body Company. I think we had concluded except for one question.

What reasons did Fisher buyers give for refusing to buy any substantial quantities of cement from du Pont?

A. That there was no advantage in using our cement. Their present attitude is that none of the cements are entirely satisfactory for their purpose.

They have asked us to make a special effort to solve the problems, just as they have Minnesota Mining and Armstrong. I know all three companies are engaged in a mad rush to solve the difficulties.

Q. Did they find fault with your conclusions that your cement was just as good as your competitors'?

A. No, actually some of the plant managers liked our [fol. 4405] cement better, particularly if they follow the procedure that we outlined for them in the application of the cement. But as I said, they are still not satisfied that the cement is as good as they would like to have it.

Q. Have any of the plant managers gone to the central purchasing organization of the Fisher Body Company with the request that your cement be adopted?

A. I understand that following a visit by our technical sales serviceman, John Mammoth, the Purchasing Department was so advised by the manager of, I believe it was, the Atlanta plant.

Q. Let's now go to another General Motors Division, the Chevrolet Commercial Body Division. Is that division a customer of the Fabrics Division?

A. They are.

Q. What do they buy?

A. They buy heavy duty upholstery material for light weight trucks. We get approximately 30 per cent of their requirements.

We share their requirements on that particular construction with Federaleather, U. S. Rubber, Goodall-Sanford.

Chevrolet Commercial has several sources, approved sources of supply, and currently their requirements are being filled by ourselves, Goodall, and United States Rubber Company.

They also buy another construction from Weymouth Art Leather, but we don't participate in that construction.

Q. For how long a period have you had about 30 per cent of this business?

A. We have had about 30 per cent of this business since the formation—well, we have had about 30 per cent of it since about 1944.

Q. Have you attempted since 1944 to sell a greater per- [fol. 4406] centage of the requirements of the Chevrolet Commercial Body Division of coated fabrics?

A. Yes, we have.

Q. How often do you call on this customer?

A. Well, I usually call on them with our representative about twice a year. They place contracts in June, or sometimes as early as May, for the second half's requirements, and they may start negotiations in October or November for the first half's requirements.

Q. Is that when you call on them?

A. Yes.

Q. Whom do you see when you call on Chevrolet Commercial?

A. Mr. Carlin, the purchasing agent, and his assistant, Mr. Gleason.

Q. Is that L. J. Carlin?

A. Yes, sir; and Dan Gleason.

Q. Do you ever call on the director of purchases?

A. Yes. As a matter of fact, last June, I believe June, 1952, I made a trip to Indianapolis with Mr. Richardson, our sales representative. His headquarters are in Detroit.

We endeavored to get a larger share of the business from Chevrolet Commercial, and were advised by Messrs. Carlin and Gleason that they have a number of approved sources, and that it is their policy to buy the construction which they get from three sources.

In order for us to qualify for that business, our price has to be right because the quality of the other sources is adequate for their purpose.

We pointed out to them that we had done considerable work in improving the quality. We called to their attention the fact that when they were having difficulty with this material bagging and wrinkling on the laying tables that we solved that problem, and we were the first to solve the problem.

They requested that we help our competitors in solving it, [fol. 4407] and we refused to do it because we felt that we wanted more of that business and we didn't see any reason why we should teach them how to correct their difficulties.

Also, when they made the observation that they would like even better quality for their truck upholstery than then prevailed, we told them about a research project that we had undertaken on chlorosulphenated polyethylene plastic, which had unusual resistance to sunlight deterioration, which had an advantage over vinyl compositions in that it was not plasticized or softened with external plasticizers. The reason for that is that these external plasticizers massage out, and you wind up in time with a film that is brittle.

They were very much impressed with our accomplishments in that direction, but unfortunately we weren't able to solve the manufacturing difficulties, and, at least for the time being, that development has been shelved at a cost in excess of $100,000.00.

But while that work was going on, we also conducted research on plasticizers——

Q. Just let me interrupt a minute. I don't want you to get away from the reason that Chevrolet Commercial gave for not buying from you.

Are you still talking about the conversation about the sales?

A. Yes, I am pointing out the argument we used as to why they should buy more from us. In other words, we are doing a lot of research and development work way beyond what most of the people in the industry do, and we developed a composition involving the use of a polymeric plasticizer which is more tenaciously retained by the film.

[fol. 4408] We pointed out to Chevrolet Commercial our service tests which showed the advantages of that material. We are constantly contributing that sort of thing.

Another argument we advanced, we were frequently asked by them to step in and fill in where some of their regular sources have fallen down for one reason or another.

Q. You mean falling down on deliveries?

A. On deliveries. Sometimes it was quality, and sometimes it was something else, but they invariably came to us and, except during periods of extraordinary shortages, they know full well we were "Johnny-on-the-spot" and we took care of it.

In spite of all these arguments, Mr. Carlin said they were going to have three sources of supply, and that we got 30 per cent, and that is about as good as we could expect.

Then you asked me whether we had ever gone to Mr. Carlin's boss.

Following that visit in June, I went to Detroit and I asked R. C. Williams, who is our Detroit sales manager, if he would not arrange an appointment with Russell Ford, director of purchases, which we did, and we repeated to him the same story in essence that we had given to Carlin and Gleason, and had given them on many occasions, but to no avail.

They had the three sources, and we got about that percentage.

Actually, in the current contracts we are not going to get even 30 per cent because, on some of their construction, we were asked to bid on, our price was higher and we just do not get the business.

[fol. 4409] The Court: I would like to ask counsels' indulgence just a moment, please.

(After an interruption, the following proceedings were had:)

The Court: It will be necessary for the court to adjourn at 4:15 today, so there will be no recess.

Q. Were these conversations you have described with Chevrolet Commercial agents the only conversations you had ever had with those people?

A. I had had that type of conversation with them many times over the years that I have been going to Indianapolis to call on Chevrolet Commercial.

Q. Will you describe a little more in detail the Chevrolet Commercial buying plan?

A. Well, Chevrolet Commercial asks for bids on the various constructions of vinyl coated upholstery material which they used, and they get bids on the different constructions, and in recent years, they have got bids on two types, one type with the polymeric plasticizer, and another type with the monomeric plasticizer.

They purchased from the three lowest qualified bidders.

Q. When did you first hear of that plan from the Chevrolet people?

A. I first heard about it about—well, a little over ten years ago; I think it was about 1941 on a visit to Indianapolis. I was told that that was the buying procedure that they were pursuing in the purchase of their coated fabrics.

Q. So far as you know, they have used it during the last ten years?

A. So far as I know, they have continued to use that procedure.

[fol. 4410] Q. Now, Mr. Nickowitz, to go to another General Motors division, does GMC Truck and Coach Division buy coated fabrics from du Pont?

A. They do.

Q. What kind?

A. They buy material that is identical in construction with that purchased from us by Chevrolet Commercial, and they buy usually from the same sources that Chevrolet Commercial buys from. Their requirements are substantially under that of Chevrolet Commercial, and since they buy the same color construction, they usually buy it from the same sources.

Q. What percentage of the requirements of GMC Truck and Coach Division of light truck upholstery has been supplied by du Pont since you have been sales director?

A. Oh, we get approximately 30 per cent.

Q. Have you attempted to sell them a larger percentage of their requirements?

A. Yes, sir.

Q. Do you know what their buying plan is?

A. Their buying plan is the same as Chevrolet Commercial. They get bids—well, usually what they do, they buy from the same people that Chevrolet Commercial buys from, and when we get their contract, it is the same price as Chevrolet Commercial.

Q. They follow Chevrolet Commercial then as to suppliers and price?

A. That is right. They buy during the six month period, and buy from the lowest bidders.

Q. Does GMC Truck and Coach Division buy any types of coated fabrics other than the kind they use for the light truck upholstery?

A. They do. They buy a heavy duty construction, and have been buying that since about 1946. Following the war, there was a shortage of leather and, of course, there was also a shortage of textiles, and they came to us and asked us if we would supply them with our heavy duty upholstery. We [fol. 4411] just were not able to take care of that need, and their then needs for the lighter weight construction, and U. S. Rubber, who apparently had available sources, introduced a construction to them at that time, and they have had that business ever since, which, of course, is relatively small volume as compared to the light weight, and when we have gone to them for that business, they point out, "Well, you fellows did not take care of us when we needed relief on that, and this is a small volume, and we just are not going to divide this up."

Q. Have you actively solicited the business?

A. We certainly have.

Q. Prior to the time that they started buying this coated fabric from United States Rubber Company, what type of fabric did they use for their heavy duty truck upholstery?

A. They used leather.

Q. Does this division of General Motors use any other type of fabric?

A. Yes, the General Motors Truck and Coach Division uses coated fabrics in their interurban buses.

Q. For what purpose?

A. They supply buses on specification from the fleet owners as to whether the buses shall be upholstered in soft goods or the coated fabric on which the General Motors Truck and Coach have standardized.

In other words, if you were a fleet owner and you went to General Motors Truck and Coach to buy a fleet of coaches, one coach or several coaches, they would quote you on these coaches, upholstered either in soft goods—that is, fabrics—or Koroseal. Koroseal is the Goodrich trade name for their vinyl coated upholstery fabric.

[fol. 4412] Goodrich Company, like United States Rubber, at the time that the leather shortage developed, being a prime source of vinyl resins, had adequate resin supplies, and supplied General Motors Truck and Coach with Koroseal to take care of their shortage of leather.

Now, when I say they supplied General Motors Truck and Coach with Koroseal, that is not strictly correct. General Motors Truck and Coach don't use fabrics themselves. They contract with seating manufacturers who manufacture the seats for use in these buses; people like American Seating, Detroit Sunshade, International Seating, and they, in turn, buy the coated fabrics with which these seats are upholstered.

The Court: May I have your indulgence again for a moment?

(A short recess was here taken.)

The Court: You may proceed.

By Mr. Neitzert:

Q. What did General Motors Truck and Coach have to do with the source of coated fabrics that are used by the seating manufacturing companies in manufacturing seats for the buses and motor coaches that this division of General Motors assembles?

A. They specify the type of material to be used.

Q. Have you been able to sell any of du Pont's coated fabrics to the seating manufacturers for this purpose?

A. Very infrequently.

Q. What have you done along that line in your efforts to sell?

A. Well, we have talked with Mr. R. E. Welch, the sales [fol. 4413] manager of the Coach Division, on numerous occasions, and his suggestion was that we get the fleet owners to specify our material.

Well, you can get it that way, but you can see where that is a very long, arduous and tedious task. Then secondly, the seat owner is reluctant to do it, because he then accepts the responsibility for any failure that might occur because the bus is offered to him with Koroseal as standard equipment, and if he wants any other upholstery material in there, he has got to specify it, and there is always an out for the seat manufacturer or the bus manufacturer, who can say, "Well, we gave you this. You wanted it, and you have got to take the responsibility for it."

However, we have continued our efforts all along this line, brought the various improvements to the attention of Mr. Welch and the others in his organization. I know John Richardson brought it to the attention of Mr. Kyes, who was formerly general manager, and vice president, and our material has now been made an alternate standard material for buses of this type, so that in the future we expect to get a fair share of that business, a greater share of that business than we have had in the recent past.

Q. How long has it taken you to get your material put on the standard list?

A. Well, we have been at it now for seven years.

Q. During any of that period of seven years, have the G.M. Truck & Coach people ever indicated to you that they thought that your "Fabrilite" was inferior to Koroseal in quality?

A. No, sir, they accepted our material as satisfactory, and I believe now our tests indicate that we have got a better product.

[fol. 4414] Q. What reasons did they give heretofore for refusing to put "Fabrilite" on the list of standard materials?

A. They brought to our attention the fact that we didn't take care of that need when it first developed. Koroseal did, and therefore they were entitled to a continuation of that business.

We could get a portion of it if we got the bus fleet owner to specify our material.

Mr. Neitzert: Your Honor, I offer in evidence Exhibit DP-240, which is a letter from Mr. J. R. Owens to Mr. A. L. Brown, dated July 8, 1947.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 240.)

By Mr. Neitzert:

Q. What position did Mr. Brown hold with the du Pont Company in 1947, Mr. Nickowitz?

A. Mr. Brown was my assistant.

Q. Assistant director of sales?

A. Assistant to the director of sales.

Q. You are the top sales officer in the division and Mr. Brown is number two?

A. That is correct.

Q. Who was Mr. Owens at that time?

A. Mr. Owens was manager of our industrial products sales.

Q. I will read the letter:

> "When I recently called on American Seating Company they advised that the——"

It is supposed to be "they," I suppose, though it says "the."

> "—were still using Koroseal——"

[fol. 4415] That is a Goodrich product?

A. Correct.

Q. (Reading):

> "—Koroseal for bus seat upholstery on instructions from General Motors Truck. Further, they were not interested in evaluating 'Cavalon' 7561 unless requested by their customer."

Was "Cavalon" one of du Pont's competing products?

A. Yes, it was.

Q. (Reading):

> "Mr. Hugh Bersie of American Seating is the GM Truck contact man and although G. M. Truck had given him a sample of No. 7561, he was apparently not asked to consider our material.
>
> "Can you give me the status of our sales efforts with G. M. Truck on both 'Cavalon' 7561 and 'Fabrilite' 6036?"

Those numbers indicate a particular weight or——

A. Quality. That is a quality designation.

Mr. Neitzert: I offer in evidence DP No. 241, letted dated December 26, 1947, to Mr. T. A. Nalle, from A. L. Brown.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 241.)

By Mr. Neitzert:

Q. What position did Mr. T. A. Nalle hold with the du Pont Company in December, 1947?

A. He was our Detroit representative.

[fol. 4416] Q. This letter is as follows:

> "In a recent conversation with Stewart Hayes——"

Who was Stewart Hayes?

A. Stewart Hayes was the agent for our products and leather in the transportation industry. He specializes primarily in railroad and interurban bus upholstery sales.

Q. Is he an employee or independent salesman?

A. An independent sales agent.

Q. (Reading):

> "In a recent conversation with Stewart Hayes, who represents us in railway and the street bus field, he gave me the distinct impression that General Motors Truck is continuing to promote Koroseal for bus upholstery where the customer is interested in a substitute for natural leather. Mr. Hayes seemed to feel that it is their practice to submit a sample of leather and of Koroseal material with a price differential in favor of Koroseal. I may not have the facts straight but I am passing it

along to you for what it is worth with the hope that G. M. Truck and Coach may be willing to consider our 7150 material or 'Fabrilite' 6036 for this."

Did other instances such as this come to your attention in the last seven years?

A. Many others.

I talked with the transportation seating people at Troy Sunshade, in Troy, Ohio, very recently. We had one of our representatives go to the Public Service of New Jersey, who are getting a fleet of buses, and we had difficulty in getting them to specify "Fabrilite", because Koroseal at that time was the standard upholstery material in the coated fabric class on General Motors Truck and Coach coaches.

[fol. 4417] Q. Now, Mr. Nickowitz, let's go to another General Motors Division, the A. C. Spark Plug Company.

Does the A. C. Spark Plug Company use coated fabrics of the kind manufactured by the fabrics division?

A. They do.

Q. What type of fabrics are those?

A. They use the equivalent of about $2,000,000 worth of coated fabrics annually in the manufacture of fuel pumps. They have a multiple ply diaphragm that is made from an oil coated fabric, which they produce in their plant at Flint, Michigan, and that is used in the fuel pump diaphragm to pump the fuel to the motor.

Q. Have you attempted to sell your product to the A. C. Spark Plug Company for use for this purpose?

A. We have. We have attempted for many years to convince A. C. Spark Plug that they should buy their diaphragm material from us.

Starting back in 1939 we submitted a material which we prepared for that purpose, coated with one of the early synthetic rubbers manufactured by the Thiokol Corporation.

The advantage of that material was that it was resistant to hydrocarbon solvents. In tests conducted in our own laboratory on fuel pumps, we were convinced that we had a better product for the purpose than was being used by A. C. in the assembly of its fuel pump.

The thing that convinced us was the fact that so many people had difficulty in starting their cars in the wintertime. You probably recall in your own experience difficulty of that sort. The reason for it is that these oil coated fabrics freeze at relatively low temperatures.

Q. Those are the kind that were used by A. C. Spark Plug?

A. Correct, and we found that if a flexible or rubber-like [fol. 4418] material was used, which had a greater range of flexibility, greater temperature range of flexibility, that that difficulty would be overcome.

Then in 1941 we had still an improved material which we produced from neoprene. Neoprene had many advantages over Thiokol. The most important advantage was the fact that it had a much wider flexibility range than Thiokol.

Thiokol was better than oil, but neoprene was even better than Thiokol. We conducted many tests. We set up fuel pumps, A. C. fuel pumps in our own laboratory and ran them for thousands of hours constantly with various types of commercial automobile fuels, and found that this was really an outstanding material.

It is true that it was more expensive than the oil coated material. We finally succeeded in selling that product to A. C.'s largest competitor, the Chefford-Master Company of Fairfield, Illinois.

They competed with A. C. in the replacement field, and they sold two types of fuel pump diaphragms. One was an oil coated diaphragm manufactured by the Brunsene Company which was very similar to what A. C. had, and another type which we manufactured for them from Fairprene, which they called Airtex. They sold that at a premium, substantial premium, over the A. C. replacement diaphragm material. They were quite successful with it.

Later we interested Carter Carburetor, who are currently supplying Plymouth, Chrysler, and I believe Overland. I am not certain about that, but they too buy neoprene coated diaphragm material from us.

[fol. 4419] We also sell Electric Auto-Lite, which are using our neoprene in their fuel pump assembly.

Even as late as, I would say August, or late summer of 1951, I made a special trip to the A. C. plant with our division manager, our technical serviceman, C. D. Locke, John Richardson, and I am not sure whether our C. R. Williams was with us or not.

We had set up a visit with the plant manager, and the heads of the laboratory, and the engineering groups, and brought with us our tests on the various fuel pump constructions that we were selling.

For example, one of the constructions we were selling was on a nylon base. We sold it to the Holly Carburetor Company, who incidentally have a license to manufacture A. C. fuel pumps for Ford requirements, but they are required to use A. C. material in the assembly of that pump. Despite that, they use our Fairprene construction in aircraft fuel pumps which they manufacture.

But getting back to this A. C. visit, we were told at that time that A. C. would not buy its requirements of fuel pump material from us. They stated that they were going to continue to manufacture their own requirements and that, at best, even though our product is as good as we claim it to be, we would probably only share in a small portion of their diaphragm material business, if at all. Our success to date has been zero.

Q. Have you got a little business with them in connection with some of the Chevrolet work?

A. Yes, we have. We were called upon by the Chevrolet Motor Company—I don't remember exactly now whether that was the latter part of 1950 or early in 1951—to help them out with a serious problem that they had encountered [fol. 4420] in the design of their Power-Glide. That is the automatic drive used on Chevrolet cars.

They had started to use that drive, using the A.C. diaphragm in the assembly, and for some reason or other, they had difficulty. I am not too sure that I know what the cause of the difficulty was, but I presume it was probably caused by the influence of temperature changes.

However, after we had worked with them for a while and submitted a number of potential Fairprene constructions we had engineered for that purpose, they finally adopted one of our materials, and said it did the job very satisfactorily, that in the future we would receive orders for this material from A.C., who cut their diaphragms.

Q. From materials selected and specified by Chevrolet?

A. Yes.

Q. What part of the requirements of the competitors of A. C. Spark Plug is supplied by du Pont?

A. I don't believe I understand your question.

Q. What percentage of the requirements of diaphragm material of A. C. Spark Plug's competitors is supplied by your division?

A. We supply all of Carter; all of Electric Auto-Lite. We did supply all of Shefford-Master. We do not now. They have a competitive source for the lower priced diaphragms in their line.

There are a few, or a number of other small fuel pump manufacturers like Perfection Products and High-Grade. We have either all or most of their requirements. They are in the replacement field, however.

Q. Now, what about another General Motors division, the Electro-Motive Division. Do they use coated fabrics?

A. Electro-Motive Division uses some coated fabrics. [fol. 4421] They use synthetic rubber coated material for batten strips. That is a sort of gasketing in the motor platform.

We have attempted to get that business over a period of years, unsuccessfully. We do sell Electro-Motive's leading competitor, the American Locomotive Company, all of their requirements for that type of material.

Q. What about any other fabric that Electro-Motive uses?

A. They also use other rubber coated fabrics for insulating material, our men report, to an extent of about 75 to 100 thousand dollars annually, but we do not get any of that business. We supply material of that type to others in the industry, but we have never been successful in getting any business from Electro-Motive.

Q. Have you solicited the business?

A. We have.

Q. What reasons do they give for giving you none of their business?

A. Well, they say they are perfectly satisfied with their present sources, and they see no advantage in using ours.

Q. Did the Cadillac Motor Company use vinyl resin coated fabrics?

A. Cadillac Motor Company uses about 75, perhaps 80 thousand dollars worth of vinyl coated fabrics annually for seat covers. That business comes up periodically, and we have just never had it.

Q. Have you ever been given an opportunity to quote on that business?

A. I don't know of any instance where we have had an opportunity to quote.

Q. Does General Motors Overseas Division now use or has it used coated fabrics?

A. Yes, they have. They used to use quite a lot; during the war we used to supply almost all of their requirements. I guess we supplied all of their requirements for a while for South Africa.

[fol. 4422] During the war, they ran into some leather shortages, and started to buy their leather in England, and bought part of their coated fabrics over there during that period, and during the period after the war. Then, subsequent to that, they have been buying their requirements in South Africa, and we just don't get any of that business now.

Q. During the period when the Overseas Division was buying its coated fabrics in this country, about what percentage of the business did the Fabrics Division have?

A. I believe that varied. I think we got about half of it, as near as I can remember.

Q. Does the Delco Appliance Division use coated fabrics?

A. The Delco Appliance Division uses synthetic rubber-coated materials and sheet stocks, but we don't get any of that business.

Q. Do you know about how much that business runs per year?

A. Oh, it is around $75,000.00. We are making a special effort to get it now. I don't know how successful we are going to be.

Q. Have you tried in the past to get the business?

A. Yes, we are putting a special drive on now for our synthetic rubber business, but we just haven't been successful at that location.

Q. What is the situation at the Packard Electric Division of General Motors?

A. Packard Electric buy about half of their requirements of Teflon coated glass fabric from us. That material is used in insulating ignition wire for aircraft work. We have been getting about half of that business for about three years, and right now they are going at a much more substantial rate, and we expect the consumption of that material will be greater than it has been, but we get only half the business, [fol. 4423] and Continental Diamond Fiber get the other half. We try to get a larger share of it, but Packard's policy on that is to have two sources of supply. Actually they have only two approved sources of supply for that material currently. Whether other sources will develop or not, I don't know. Some of Packard's competitors use an unsupported "Teflon" that we don't make. It is a cheaper product, but they don't use any coated glass, and whether they will have to or not, I don't know.

Q. Does Packard use a vinyl sheet stock in their production?

A. Packard used a vinyl tape for insulating purposes. Their tape consumption runs about the same. I don't know whether I mentioned what their "Teflon" consumption was up to this point. It runs about $150,000.00 annually, and their consumption of this vinyl tape runs at about the same rate. We have asked for an opportunity to work with them on that, but they are satisfied with their current sources of supply, they tell us, and we have never been invited to —

Q. For how long a period have you attempted to get some of the vinyl tape business at the Packard Division?

A. I would say for about ten years, at least; probably a little longer than that. I recall that during the war when we were supplying neoprene tape for similar applications to others, we tried to interest them in that construction, but we were unsuccessful.

Q. Mr. Nickowitz, do you have sales representatives and technical men calling regularly on all of these General Motors Divisions?

A. Yes, sir.

Q. How many men, located with the Fabrics Division, are ordinarily employed in soliciting the automotive trade?

[fol. 4424] A. We have 19 industrial salesmen, and then we have a group of retail salesmen who don't call on that trade.

Q. Do you also have special technical men that are sent to a particular job like this job of trying to get the cement business at Fisher?

A. Yes, and in addition to that we have two technical sales service men who spend most of their time in the field solving problems of that type. The servicing that we are trying to do, that I described with A. C., and the sort of thing that we tried to do at Packard Electric are further examples. Actually, in the case of Packard Electric we have an electrical engineer who is assigned to call on them and on other electrical accounts where technical knowledge of electrical engineering would be advantageous in servicing the account.

Q. You mentioned the Ford Motor Company as one of your customers. Is Ford Motor Company an important customer of the du Pont Fabrics Division?

A. They are.

Q. What are your current sales to the Ford Motor Company?

A. Well, currently our sales at Ford Motor Company are running approximately at a rate of about three-quarters of a million dollars a year.

Q. Do you know what percentage of Ford's total requirements, coated and combined fabrics, is purchased from the Fabrics Division?

A. Of the fabrics that we supply—you see, Ford Motor Company manufacture most of their own requirements. They have been doing that since 1920 on pyroxylin and since the early 1930's on rubber. So when they come into the industry for requirements, it is either to supplement their own manufacture to take advantage of bulges or their own shortcomings, or to supply a need which they are unable to supply themselves, and currently we are supplying selected constructions exclusively for—that is, we are taking care of [fol. 4425] 100 per cent of their needs of these particular patterns in our elastic "Fabrilite" for Lincoln and Mercury, and I would say about 35 to 40 per cent on Ford.

Q. Over the years what coated fabric manufacturer has been Ford's principal source of supply, outside of its own factory?

A. I believe we have.

Q. Have you attempted in selling Ford Motor Company, to induce them to buy a greater percentage of their requirements of coated fabrics from du Pont?

A. Yes, sir.

Q. Has there been any difference in your method of soliciting this business of Ford than General Motors?

A. I couldn't say.

Q. What success have you had with Ford?

A. Well, our success varies. Of course, the opportunity isn't as great there, because of their own manufacturing facilities, but other than that, we have been successful.

Q. What recently has Ford told you about that?

A. Well, for example, on a material that we are currently supplying, we have been given an opportunity to develop special constructions for them for their new models, and we have been advised that we should reserve capacity for them because they expect to take more of that type of material from us in 1954 than they are taking in 1953, because they expect to use more. They are planning to make more convertibles and hard tops where this construction is used quite extensively.

Q. Mr. Nickowitz, since you have been director of sales, has Ford ever offered you any business that you declined to accept?

A. Yes, I would say that we probably have rejected more than we have accepted.

[fol. 4426] Q. Why is that?

A. Well, you see, when these large motor companies design their lines for the ensuing year, they pick certain patterns, certain colors, certain constructions which are unique for them. Their stylists want to give flair to their creative ability, and different stylists have different ideas, and if you don't equip with the proper engraved rolls for embossing or for printing the surface, you just cannot get that business.

In the sport-top construction, not all companies use the same width of materials. They have patterns that cut advantageously from 46 inch widths. Fisher Body has patterns that cut advantageously from 56 inch widths.

Well, now, we don't provide fabric ahead for somebody that doesn't forecast they are going to require these fabrics, because, as you recall, I mentioned this morning that the purchase of fabrics involves a terrific gamble.

I have seen us take tremendous losses due to these fabric inventories, so that we have to play that facet of our business very conservatively, and we just don't buy these fabrics.

Well, now, if Mr. Ford or Mr. Chrysler, or Mr. Joe Doakes, comes in with an emergency requirement for a construction that is not standard, he just cannot get it from us. Well, take for example, Ford's requirements for double texture. I would guess for that line we were called in on two or three occasions in the past three or four years when we were offered business.

I recall, oh, I guess it was in January, Ford wanted to buy some "Orlon Teal". We couldn't provide his requirements for "Orlon Teal" because we hadn't planned "Orlon Teal" [fol. 4427] production, and "Orlon Teal" sells for $6.00 or better a yard. We just don't carry any extra yards of that around.

Q. What percentage of Studebaker's requirements of coated fabrics are bought from you?

A. Well, last year we supplied Studebaker 100 percent of their "Orlon Teal" requirements, and we expect to supply approximately 100 percent this year.

Q. You also sell them substantial quantities of "Fabrilite"?

A. Occasionally. We haven't sold them any substantial quantities recently..

Q. What about the Mack Truck Company?

A. We sell Mack Truck, I believe, 100 percent of their requirements.

Q. What about the Checker Cab Company?

A. I think we sell Checker Cab 100 percent of their requirements.

Q. What about the Cushman Body Company?

A. I think the same is true there.

Q. What about the International Harvester Company?

A. Well, we don't sell them all of their requirements. I think we sell them all their requirements for their Bridgeport Works, which is fairly adjacent to our Fairfield plant.

Q. What about the Electric Auto-Lite and Carter Carburetor Companies?

A. We sell them 100 percent of their requirements for diaphragm materials.

Q. And the Detroit Gasket & Manufacturing Company?

A. We sell them substantially all of their requirements. I am not sure that we sell them 100 percent.

Q. Wayne Body Works?

A. We sell them all of their requirements.

Q. For whom does the Wayne Body Works manufacture bodies?

A. They make mostly school buses.

[fol. 4428] Q. They don't supply any of the automobile manufacturers?

A. No.

Q. What business is the Fabricon Products Company engaged in?

A. They manufacture arm rests for the automotive industry and we supply them about forty percent of their requirements.

Q. In what business is the Trico Products Company engaged?

A. They manufacture windshield wipers, and we supply them all of their coated fabrics.

Q. They are the biggest manufacturers of windshield wipers, are they not?

A. The largest manufacturers of windshield wipers.

Q. Is Fabricon Company the largest manufacturer of arm rests?

A. They are one of the largest. I believe that Fisher-Norwalk and Fabricon are approximately equal in size. We supply both, incidentally.

Q. 100 percent of both?

A. I don't believe we supply them 100 percent.

Q. That is right. You testified you did not.

A. I think it is about forty percent.

Q. Do you sell coated fabrics to the Chrysler Corporation?

A. Occasionally. We are not selling Chrysler very much now.

Q. Have you attempted to sell coated fabrics to this manufacturer since you became sales manager, about 1933?

A. Yes, sir.

Q. Do your sales representatives call on Chrysler regularly and solicit that business?

A. He still does.

Q. What reasons do the Chrysler people give for placing their business largely elsewhere?

[fol. 4429] A. Let me go back a ways to answer that. We used to sell Chrysler a lot of "Teal" and a lot of "Everbright" top material. When we noticed their sales beginning to diminish in the '30's, I recall several visits out there with James Tomlinson, who was our Detroit representative and who was responsible for the Chrysler account, and

J. Henry Smith, who was in charge of automotive sales of coated fabrics; Fabrics Division of the F. & F. Department in Detroit.

As usual, we would take our quality story to Chrysler, just as we had to many of the other automobile manufacturers. I recall one conversation with Harold Hunter——.

Q. Who was he?

A. He was the body engineer—he had a position similar to Vern Fisher's in Fisher Body—and Oliver Clark, who was, I believe, at that time, the chief engineer.

The essence of what they said to us after listening to our quality story and our demonstration of the superiority of our material, our ability to render service—the essence of what they said was, "Well, you fellows, you are a major source of supply for General Motors"—and at that time we were, too, for Ford—"we would prefer to deal with somebody who was going to be exclusively our major source of supply because we think they would be more apt to take care of us than you will".

We pointed out that we were the biggest people in the business. We had good products. They had never called upon us to render service that we weren't equal to. Actually, at that time, the requirements of the industry had shrunk considerably because, you will recall, we had been geared [fol. 4430] up to make 25,000, 30,000 yards of 64 inch top material a day at our Fairfield plant in the days when they used material that was 64 and 66 inches wide, and used two to two and a half yards to a car.

Then in those days, you probably recall that the auto top kept shrinking. The 64 inch got down to 40, and 42 inch, and the two and a half yard length got down to a yard. It looked like a postage stamp sticking up on top there.

So that we had a tremendous capacity, and yet we weren't able to make an impression. That has been our experience there. We just haven't been able to become an important source since then to Chrysler.

Q. Has that been Chrysler's attitude until very recently?

A. Yes. Of course there is nothing that succeeds in this selling game I guess like persistence. Mr. Richardson tells me now that he has pretty good assurance that if we gear up to give Chrysler the patterns that they want, and our prices are right, that we ought to get a fair share of their business next year.

Q. Is this assurance from Chrysler?

A. Yes. Actually, we have had more opportunities to quote Chrysler in recent months than we have had in a considerable period. Unfortunately, we are cramped this year by the problem that I outlined a moment ago when I said we had to gear up styling. We do not want to get the equipment and gear up at the tail end of a model. It takes a minimum of sixteen weeks to get a roll engraved, and my recent experience has been that, despite the fact that we have got a sixteen week promise, it turns out to be twenty or twenty-four weeks before you get it.

[fol. 4431] So that I am hopeful, if we gear up as we expect to in 1954, we will participate to a great extent.

Q. Mr. Nickowitz, how about some of these so-called independent automobile manufacturers, other than Studebaker, which you say manufacture about 12 or 15 per cent of the cars of the country—I refer more particularly to Nash, Hudson, Packard and Kaiser-Frazer. Do you sell coated fabrics to those people?

A. Well, their attitude is very much like that of Chrysler. While some of them answer the same way, some are more blunt about it.

I recall a visit quite a long time ago, and I cannot even recall the man's name, at Hupmobile. We sold Hupmobile some material back in the early days of our entry into the coated fabrics business, and this purchasing agent said that he just would not buy from the main source of supply of his competitors.

Q. Mr. Nickowitz, do you know why these smaller companies are, other things being equal, reluctant to buy from the principal source of supply of Ford and General Motors?

A. Well, I think that their problem, of course, is a lot simpler. Their needs are not so great in terms of yardage, so that they have a lot more people that they can depend on to take care of their needs. After all, there are not too many people in this industry who could take care of Ford's needs or General Motors' needs, and keep a continuity of flow.

One of the worst things in the world you can do in the automotive industry is to cause them to hold up the produc- [fol. 4432] tion line. We frequently have a situation where something goes berserk, and we have to ship stuff out by air express where the cost of transportation is several times what the value of the material is, and we do that because we have known the industry to appreciate it.

There is no industry that we serve that is quite as demanding as the automotive industry on service.

In these bigger operations, they just cannot take a chance. They have got to have sources of supply that are reliable; that can turn out the volume when they need it. With the smaller car manufacturers there are plenty of people in the industry who can take care of their needs because the volume is not so great.

Q. Well, you have explained why General Motors and Ford buy from du Pont, but I don't believe you quite answered my question why the smaller companies prefer to find their sources rather than to buy from the suppliers that supply General Motors and Ford?

A. Well, we have this, of course, that they take the same attitude that Chrysler did and then we have others who are not quite as—they are not quite as quality conscious, and if they can save a few cents a yard on something that perhaps looks just as good, they are going to do it, and they can get all the material they need from the other fellow.

Now, it may sound like we are bragging a little bit, but we try to make a material just as good as we know how to make it because there is not any coated fabric that I know of that is too good for its purpose.

Q. While we are on that subject, what sales methods did you use in soliciting coated fabric business and combined fabric business of the automotive trade?

A. We use exactly the same procedure I have described [fol. 4433] at General Motors, at Ford, or at any of our other customers—quality, service, and price.

Q. Do the research facilities and the technical services that are at your command in the du Pont Company play an important part in sales?

A. They are very important because, as I am emphasizing here, one of our main arguments is quality. We try to set up a standard of quality that is as good as we know how to accomplish, and once we set it up, we set up controls to insure uniformity of quality.

I believe that I can say in all modesty that du Pont has contributed more to the coated textile industry—to advancing the coated textile industry—than anybody in the business.

Q. Has that been of assistance to you in selling to General Motors?

A. It certainly has.

Q. Over the last thirty years, or for whatever period you have been familiar with the figure, what percent of General Motors requirements of coated and combined fabrics have been supplied by the du Pont Company?

A. Over the last thirty years?

Q. Within a period you may be familiar with the situation.

A. Well, I am more familiar, of course, with the period from 1930. We supplied about thirty percent of their requirements from 1930 to 1940.

From 1944 to the present, I would say it is approximately forty percent of their requirements.

Now, we are in and out. We have had a little bit more. Back beyond that period, it is my understanding that we had a larger percentage.

[fol. 4434] Q. Have the buyers for the various divisions of the General Motors Corporation that you supply with coated fabrics ever informed you why they buy from du Pont?

A. Yes, they have.

Q. Unless the Government wants you to, I don't want you to give us too many conversations of that kind; just state in general what reasons General Motors buyers give for doing business with du Pont?

A. Well, primarily they do business with us because they know our quality and service and dependability are superb. They have had that experience with us. They know that when they have a problem, a difficult problem to lick, that we can usually come through with the results.

Q. You mean that is when a technical problem is submitted to your research?

A. That is correct.

Take, for example, the experience we have had with the "Teal". When they called us in on that problem, they were having serious difficulties with it.

Q. This was not your product?

A. No. I am sorry, I am confusing you by saying "Teal". "Teal" is our trade name for combined goods.

I am talking about the combined goods that they were buying. And we called in our Dyestuffs Department and worked with them in designing a formulation that was very tricky, but produced excellent results from the standpoint of fading.

The next problem that Fisher Body ran into was a matter of shrinkage. I referred to that earlier in my testimony; [fol. 4435] when I said that Mr. Vern Fisher told us that the shrinkage on combined goods was costing them about $250,000.00 a year. Mr. Vern Fisher and Fred Walker both asked me if I would not get our division to start a research program on "Teal".

Very shortly thereafter we came up with an improved "Teal" that set the quality of shrinkage considerably below anything that Fisher had ever had before.

They probably brought, I would say, at least a dozen or more problems of that sort to us every year, problems of construction, design, cement, weather stripping. On the cement we were not even getting any business to speak of; three per cent of their business was certainly little enough, and I expect that we are going to solve this problem and give them what they want, and if we do, why, I expect we are going to get a share of that business.

Q. Do other divisions do the same thing?

A. Sir?

Q. Do other divisions and customers present problems to the du Pont research and technical staff?

A. Yes, sir.

Q. Can you give us some other examples of that?

A. I mentioned the diaphragm material that we supplied to Delco-Remy. They found that that material, although it was doing an acceptable job, was not adequate for some of their more advanced ideas in motor design, and they had to have greater heat stability. That problem was put before us, and we solved it for them.

We had a problem that was given to us by them a little over a year ago to develop a nylon dyed top material for use on an experimental car—you probably have heard of the LeSabre—in which was incorporated many of the advanced ideas of automotive engineering, and they wanted [fols. 4436-4437] a top that would be very flexible and attractive and easily compacted. We developed such a top for them for the LeSabre. That car has been on display.

ADJOURNMENT

[fol. 4438] The Court: Proceed, please.

MAX N. NICKOWITZ, a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued).

By Mr. Neitzert:

Q. At the time of the adjournment, Mr. Nickowitz, you were giving us examples of the technical and research problems that had been submitted by customers of the Fabrics Division to your technical and research staffs. I am not going to ask you to give any more examples, because I think your testimony discloses—your prior testimony discloses several instances in addition to the ones you gave.

Will you state, normally, how many technical and research problems, requiring a substantial amount of time and service from your Technical Department are submitted each year by your coated fabric customers in the automotive industry?

A. Oh, I will say 45 or 50, or probably even more than that.

Q. How many chemist technicians do you have spending full time on work presented to you, and on other research problems?

A. Well, at our Newburgh laboratory, where the research and products development work is done for the Fabrics Division, we have about 45 chemists and technicians.

At Fairfield where the work is done on synthetic rubber composition, we have fifteen. In addition to those, we have [fol. 4439] two full time men at the Central Research Laboratory in Wilmington.

Q. Do you also receive help on technical and research problems from other departments of the du Pont Company?

A. Oh, an infinite amount of help. That is one of our big advantages.

Q. Do any of your competitors have research and technical staffs comparable to yours?

A. I am sure that none of our competitors in the coated textile industry which cater to the automotive industry have near the facilities that we have.

Q. Were you at one time familiar with the research facilities of your competitors on coated fabrics?

A. Yes, sir.

Q. When was that?

A. Oh, when I was in the Research Department. At one time I was in charge of research and control at Fairfield.

Q. How did the du Pont research and technical plant compare to your fabric competitors at that time?

Mr. Harsha: May we have the date of this comparison?

By Mr. Neitzert:

Q. About what date now?

A. Well, in 1940.

Q. All right.

A. I would say that our research and technical facilities were greater than those of our leading three or four competitors—five competitors, who were manufacturing coated fabrics for the automotive industry.

Q. You mean the five leading ones combined?

A. Yes.

Q. You have referred in your testimony to contributions that du Pont has made in the way of new and improved [fol. 4440] fabrics in general terms. Will you please give us some examples of the fabrics which are now or have been widely used in the automotive industry that were developed by du Pont?

And in that connection, will you state what effect the development of these new fabrics has had upon your sales to the automotive industry?

A. Well, to go back to the early development of pyroxylin coated fabrics, shortly after the du Pont Company acquired the Newburgh plant in 1913, we developed the first really satisfactory pyroxylin coated material and there was a tremendous bulge in our sales of materials of that type, until competition caught up with us.

Following that, in 1918, when we developed our "Pontop" double texture top material, that was the first double texture rubberized top material that was found to be suited for outdoor open cars which were in popular use at that time. There again we had a wide bulge in our business.

Carried on with that development was the development of a single texture Pontop top material as distinguished from the old Ford rubber. The advantage of that material was that it had an extremely durable coating composition, and there again we had a bulge in our business until the depression or recession in 1920 came along, and competition used that period to catch up with the development work.

Following that, in 1925, we developed a rubberized glazed finish double texture top material for closed cars. Prior to that, the pyroxylin coated materials were used for that purpose, and were found inadequate because they leaked too quickly, and because of the fact that they became tacky due to the exudation of the platicizer when the material was exposed to direct sunlight.

[fol. 4441] We saw an opportunity there to bring the quality of the top material more closely in harmony with the improvements that had been made in the body finishes through the utilization of "Duco", and introducing, as I said, this "Glazed Pontop", again resulted in a bulge in our sales to the automotive industry. That was followed by a still further and more revolutionary change. That began in the latter part of 1926, with the introduction of our "Everbright" top material. The advantage of the "Everbright" top material was that it had all the virtues of the "Glazed Pontop", but had greater lustre and durability. The lustre of that finish was much more permanent, and that resulted in a tremendous bulge in our business. Actually, we at one time had 75 per cent of all the closed car top material business in the country.

In 1927 we developed another improvement in a top material which was referred to as "Sportop". That product was a double texture construction wherein the two fabrics were combined with a vulcanizing rubber cement, and the surface coated with a special nitrocellulose or pyroxylin composition, embossed and printed to look like fabric.

Now, the coating of this construction was a very light weight coating. The production and permanence of the weather-resistance or water-proofing properties, we obtained from the combining composition. That resulted in a bulge in our business in 1927 and 1928, and extended into 1929.

[fol. 4442] That particular construction did not remain as popular as long as some of our other construction.

Following that, in 1938—in 1937, the latter part of 1937, we developed a heavy-duty rubberized upholstery material.

Prior to that, we had been selling for most of the heavy-duty applications a heavy "Fabrikoid" construction. The difficulty with that material was that it did not withstand long continued flexing particularly at low temperatures, such as you would run into in a truck.

In order to meet that shortcoming we developed a product which we called "Cavalon."

"Cavalon" was a rubberized upholstery material compounded with ground leather, and finished with a very thin coating of shellac, which was subsequently brominated.

We gave the product a case-hardened surface. The advantage of that particular construction over other types of rubber material that appeared on the market was that we didn't have to put a colored lacquer on the surface such as, for example, like Textileather and Federaleather, and L. C. Chase.

They got their color and setting quality through the application of a surface coating of pyroxylin enamel, and that surface coating carried all of the disadvantages that you had in the pyroxylin film itself, whereas in our coating through this bromination process we produced a hard, horny surface on the rubber which was leather-like in "hand" and in resistance to abrasion.

Q. Did that result also in a bulge in your business?

[fol. 4443] A. That resulted in a very substantial bulge in our business, particularly from the trucking industry, and also in the theater seating and public seating trades where the properties that we had incorporated in "Cavalon" were very much sought after.

Q. I am not going to ask you to give any more examples of the new fabrics that du Pont Company has developed, but I do want to ask you whether or not any competitor of the du Pont Company in this field has developed anything like the number of new and superior fabrics as the du Pont Company has.

A. I know of none.

Q. And has a substantial part of the sales of your division been due to your preeminent development of fabrics of this type?

A. Yes, sir.

Mr. Neitzert: With reference to the other factor that you referred to yesterday as important to your customers, particularly the General Motors, and one of the sales arguments that you used, namely the production capacity of the du Pont plant and the ability of your division to meet emergency demands, I offer in evidence, your Honor, Exhibit DP 242, which is a letter from T. A. Nalle to Mr. Doremus, dated August 5, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 242.)

By Mr. Neitzert:

Q. What position did Mr. Doremus hold with the du Pont Company in 1940, Mr. Niekowitz?

A. Mr. Doremus was a correspondent located at Newburgh, and was responsible for correspondence duties on automotive materials.

[fol. 4444] Q. I believe you have already testified that Mr. Nalle was your automotive sales representative in Detroit.

A. Right.

Mr. Neitzert: This reads as follows:

> "Newburgh certainly did a fine piece of work in getting out all of the material scheduled for Fisher last week, some of it was in very short notice and some involving schedules which were advanced unexpectedly.
>
> "This is extremely good service and is greatly appreciated by the Fisher people who are responsible for getting the stocks on hand to take care of production,

which for some of the divisions was moved ahead in advance of the original planned starting date."

By Mr. Neitzert:

Q. Is this another example of the type of thing that you have testified to, namely where unusual demands have been made upon the du Pont Company for emergency deliveries?

A. It is.

Q. And in this letter I notice the first paragraph refers to deliveries made on very short notice, and also deliveries made under schedules which were advanced unexpectedly. Are there two types of deliveries referred to in this paragraph?

A. Yes. As I explained yesterday, I believe it was, after Fisher Body got lined up on their constructions for a new model, orders for the raw materials that we supply with which to produce those models are issued to cover periods of six to eight weeks, and they are called releases.

These releases are issued consecutively. Frequently we [fol. 4445] are asked to step up the delivery of a release by a week, two weeks or three weeks, and yesterday I cited——

Q. No; just a moment. Don't give any example here. You have been over this. I just want to identify what is referred to here in connection with what you previously testified to.

Now, these advanced schedules are one type of delivery referred to.

Now, what are the deliveries that are referred to in this letter that were made upon very short notice?

A. Well, occasionally one of our competitors may fall down on delivery for one reason or another, and we are frequently asked to step into the breach and fill that added requirement.

Q. That is the other type of delivery you referred to?

A. Yes.

Q. Are developments of the kind referred to in this letter unusual or are they very common?

A. They are quite common; quite common.

Q. And have the General Motors' buyers ever commented upon the importance of the du Pont service in such cases?

A. Yes, many occasions, and not only the buyers, but the body engineers. Mr. Vern Fisher, for example, told me specifically that du Pont is a very important source of supply to them, that they need du Pont—they need the facilities that we have. They need it because of our research facilities, and because of our production facilities, when problems of these types come up, and they have got to have somebody that is substantial in the industry, and [fol. 4446] they have many times told us that they just have to have a concern like ours to take care of their needs in this instance.

Q. In your testimony you have not referred to sales to Buick or Olds or Pontiac, and possibly some of the other General Motors divisions.

Do they buy some of these fabrics?

A. Very, very little. You see, since 1930 the automobile manufacturers in the General Motors units like Chevrolet, Oakland, Oldsmobile, et cetera, stopped making their own bodies and they have bodies that are manufactured for them by Fisher Body, and Fisher buys the coated fabrics.

Q. Have you covered in your testimony all of the automobile divisions that have coated fabric requirements?

A. Yes sir,—Fisher, General Motors Truck and Chevrolet Commercial.

Q. Mr. Nickowitz, it is alleged in the amended complaint filed in this cause that beginning in 1917 it was understood and agreed between General Motors and the du Pont Company that because of the latter's alleged acquisition of control of General Motors, General Motors would give preference to the du Pont Company in buying products for use in its operations.

Have you ever heard of any such understanding or agreement?

A. No, sir.

Q. It is also alleged in the amended complaint that it was agreed General Motors would purchase from du Pont all or substantially all of its requirements of products manufactured by du Pont, and would refrain in whole or in part from purchasing such products from competitors of du Pont.

[fol. 4447]. Have you ever heard of any such agreement as that?

A. No, sir.

Q. If there were such an agreement, and it involved the sale of coated fabrics, would it come to your attention as the director of sales of the Fabrics Division?

A. It certainly would.

Q. It is also alleged in the bill of complaint that beginning in or about 1917, General Motors has purchased all or substantially all of its requirements of artificial leather from the du Pont Company.

Is that allegation true or false?

A. It is false.

Q. It is also alleged that beginning in or about 1917, General Motors has purchased all or substantially all of its requirements in the fabrics field from the du Pont Company.

Is that allegation true of false?

A. False.

Q. It is also alleged that the original policy of requiring General Motors to purchase exclusively from du Pont products that du Pont was able to supply was subsequently modified to permit General Motors to purchase from 20 to 25 per cent of its requirements of the products du Pont manufactured which General Motors used from companies other than du Pont, leaving du Pont with 75 to 80 per cent of General Motors business.

Did you ever hear of any such agreement as that?

A. No, sir.

Q. Or anything like it?

A. No, sir.

Q. Or any understanding like that?

A. No, sir.

Q. Since 1922 have the General Motors companies as a group ever purchased 75 per cent of their requirements of coated and combined fabrics from the du Pont Company?

A. No, sir.

Q. It is also alleged in the amended complaint that [fol. 4448] General Motors is a protected market for du Pont from which its competitors have been substantially excluded, and that General Motors has provided du Pont with a substantial and highly profitable outlet for its products.

In your entire association with the du Pont Company, Mr. Nickowitz, have you ever seen or heard anything that indicated to you that General Motors was a protected market for du Pont fabrics?

A. Absolutely not.

Q. Have you ever heard of any agreement or understanding that General Motors or any of its divisions or subsidiaries would favor the du Pont Company in the purchase of coated or combined fabrics?

A. No, sir.

Q. Have you ever seen or heard anything that indicated to you that the General Motors Corporation or any of its divisions or subsidiaries have favored du Pont in any of these respects?

A. No, sir.

Q. Who, as far as you have been able to determine, checks the sources from which the General Motors divisions buy their requirements of coated fabrics?

A. The Purchasing Department and the Engineering Department.

Q. Of each division?

A. Yes, sir. You have got to get approval from Engineering, and then the purchasing agent buys from the approved sources.

Q. In your efforts to sell coated fabrics and combined fabrics to the General Motors Divisions, have you ever referred to the fact that some of the stock of General Motors Company is owned by the du Pont Company?

A. I certainly have not.

Q. To whom do you report?

A. I report to Mr. Walter F. Mattlage, Division Manager of the Fabrics Division.

[fol. 4449] Q. How long have you reported to him?

A. He has been Division Manager for just about a year.

Q. Who held that position before him?

A. Mr. J. R. Buckley. He was also located in New York.

Q. Have you ever asked Mr. Buckley or Mr. Mattlage or any other official of the du Pont Company to aid or assist you in obtaining business from any of the General Motors Divisions?

A. I have not.

Q. As far as you know, have you ever received any assistance from any of the officials or officers of the du Pont Company in that respect?

A. No, sir.

Mr. Neitzert: That concludes the direct examination, your Honor.

Mr. Hurd: If the Court please, I would like to have this witness withdrawn in order to permit me to put on a short witness.

I have taken it up with counsel for the Government and with Mr. Neitzert, and it is agreeable to them. Is that agreeable to the Court?

The Court: The Court has no objection.

Mr. Hurd: If you will step down for a short time.

(Witness temporarily withdrawn.)

Mr. Hurd: I will call Mr. Weckler.

I might explain to the Court that this witness is appearing out of order as far as the subject matter is concerned.

He deals with the subject of automobile finishes and logically it would have fit into the last week's testimony, but he was unavailable at that time. That is why we would like to put him on now.

[fol. 4450] Herman L. Weckler, called as a witness by the defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Hurd:

Q. Will you give us your full name, Mr. Weckler?

A. My name is Herman L. Weckler.

Q. Where do you live, Mr. Weckler?

A. I live in Grosse Point Park, Michigan.

Q. Is that near Detroit?

A. Yes, sir, it is immediately east of Detroit.

Q. Mr. Weckler, were you employed at one time by the Buick Motor Company?

A. I was.

Q. When did your employment begin?

A. In 1912.

Q. How long did you remain employed by the Buick Motor Company or the Buick Motor Division of General Motors Corporation?

A. Until 1932.

Q. Prior to your going with Buick in 1912, had you had any other employment?

A. Yes, sir.

Q. What was your first employment?

A. My first employment was the Jones Laughlin Steel Company at Pittsburgh, Pennsylvania, from 1904 until 1908.

Q. What employment did you have after 1908?

A. In 1908 I joined the American Locomotive Company at Pittsburgh, Pennsylvania, and worked there until 1912.

Q. What were the circumstances of your going with Buick in 1912?

A. While I was employed at the American Locomotive Company, Mr. Walter Chrysler joined that organization, some time in 1909 or early 1910.

In connection with our work we became quite friendly. Mr. Chrysler and I both felt that the locomotive industry [fol. 4451] did not offer as much opportunity for younger men as the automotive industry, and we began looking around to find some connection that would take us into the automotive industry.

We found such a connection at the Buick Motor Company.

Q. Did Mr. Chrysler go with Buick at the same time that you did?

A. Mr. Chrysler went with Buick at about the same time that I did as works manager of the Buick Motor Company.

Q. What was your position?

A. My position was termed as mechanical superintendent. I reported directly to Mr. Chrysler in that capacity.

Q. As mechanical superintendent, what was the nature of your duties?

A. The nature of my duties was to study the production output of the various divisions of the Buick Company and to determine the lowest production units.

After these lowest production units had been found, it was my job to devise means and methods of improving that production so that the entire production of the company could be raised.

Q. What do you mean by lowest production units?

A. Well, in case of a forge plant, you would study the output of a forge plant. They make axles and crankshafts and connecting rods, and many other different types of forgings, and your production schedule might call for the equivalent of 25 sets of forgings per day.

Now, if we found an item that was not up to the capacity of 25 forgings per day, that was the item that we tackled [fol. 4452] to bring it up to 25, and to also put the forge plants in position for increased production over the 25 per day rate.

Q. What were some of these low production points that you worked on in the early years of your employment by Buick?

A. Well, in the forge plant we had an example that we were getting just 40 front axles per day. We would have liked very much to have increased that to double that capacity.

Investigation of the forging situation, especially as it applied to the axles, the front axles, indicated that the crew who were operating the hammers had one furnace with which they heated the materials, and after the materials were heated, the forging crew put them through the hammers and made forgings of the billets, and then they were required to wait until the next heat had been placed in the furnace and was ready for forging.

In a case of that kind the solution of the problem was indicated as adding another furnace and another crew, so that while one crew was changing billets to forgings, the other crew was heating their billets so as to be prepared to operate their hammers, the same hammer after the other crew had finished their work.

So we really double the production of axle forgings by the addition of equipment.

Q. Was that something that you worked out?

A. That was one of the problems.

Q. What other type of problems did you encounter in those days?

A. There were many problems all through the various plants. At that time Buick was building its own bodies, making its own transmissions and its motors, its forgings, some of its castings, and they had a stamping plant or sheet metal plant and assembly and painting operations.

[fol. 4453] My work took me into all of those various activities of the car building industry.

Q. Now, how long did you have these particular duties?

A. I think that during my entire employment I was interested in that capacity, although, after I had been there a few years I was assigned, in addition to these regular duties, the duties of so-called plant engineer, and that gave me direct supervision and control of certain departments, such as the maintenance department, the distribution of services, the operation of power plants, the planning of new and additional building, alterations required to increase production, or to change models and that sort of work.

It had no connection with the actual production of the cars except through this other capacity of trying to bring up the low spots.

Q. Did these additional duties occur while Mr. Chrysler was manager, or was it before that?

A. The additional duties were added at about that time Mr. Nash was president of Buick, and moved on, and Mr. Chrysler became president.

Mr. Harris: May we have the year, please?

Mr. Hurd: Yes, I will try to get it.

Mr. Harris: Thank you.

By Mr. Hurd:

Q. When you went there in 1912, who was manager of the Buick business?

A. Walter Chrysler was the works manager and Mr. C. W. Nash was president.

[fol. 4454] Q. When was it that Mr. Nash ceased to be president of Buick?

A. I do not have the exact date.

Q. Was that at the same time that he left the presidency of General Motors?

A. Yes, sir.

Q. I believe the record shows it was about 1915.

A. Yes, about that.

Q. At that time, Mr. Chrysler became president?

A. President of Buick.

Q. Now, when Mr. Chrysler went into the central office, which I believe the record shows is around 1919, who became head of Buick?

A. Mr. Harry Bassett.

Q. Did your duties change at that point?

A. No, they continued on under Mr. Bassett.

Q. Was there any change in your duties in the 1920's?

A. In 1920?

Q. In the 1920's?

A. In 1924, I became assistant works manager which made me responsible for the actual production of the Buick automobile under Mr. Durham who was works manager.

Q. Were there any other changes made in your duties while you were with Buick?

A. In 1926, Mr. Durham retired and I took his position as works manager.

Q. Now, when Mr. Bassett became head of Buick, which I believe was around 1919 according to the records, to whom did you report?

A. Directly to Mr. Bassett.

Q. How long was Mr. Bassett head of Buick?

A. Until 1926.

Q. What happened at that time?

A. He died.

Q. Who succeeded him?

A. Mr. E. T. Strong.

Q. To whom did you report after Mr. Strong became head of Buick?

A. At the time Mr. Strong became president or general [fol. 4455] manager of Buick, I was works manager, and I reported directly to Mr. Strong.

Q. Now, to go back briefly to the 1912 period, Mr. Weckler, you have mentioned paint as one of the—painting cars as one of the matters that came under your general jurisdiction or consideration.

What was the situation with respect to the finishing of automobiles in 1912 and 1913 at Buick?

A. Well, at that time, the painting operations were not under my direct supervision, but in my capacity as mechanical superintendent it became one of my problems to find methods to improve, or increase the production of the painted bodies which were needed for our output.

Our first studies of the paint situation indicated very clearly we had assigned all the available spots to the painting operations, and that if we were to increase the production of Buick automobiles, it would be necessary either to develop methods which would shorten the time of the painting operation, or would require additional buildings, and we decided to concentrate on the increase of production in the existing plants rather than to build plants for that purpose.

At that time, the requirements, after a body had been completed and turned over to the Paint Department was approximately twenty-eight days, from the time it was turned over until it was ready to mount on a chassis, and large areas were used for the drying of the various coats of paint that were applied, and this drying at that time consisted entirely of large rooms, called "dark rooms," where the bodies were dried at approximately room temperature.

[fol. 4456] We soon found that the application of paints and varnishes to the bodies by hand, and by the means of camel's hair brushes, and things of that sort, was rather a tedious operation, and we began to explore the methods of spraying and flowing, to see what could be done to improve those operations.

At the same time, we studied as an experiment the installation of ovens with ~~heat to~~ accelerate the drying of the coats of paint throughout the operation.

This process, of course, continued over a period of some few years. While we were making progress in the development of better and faster methods of applying and drying of paints, we became conscious of the fact that the materials that were being used needed improvement, that the life of the undercoats and finish varnish were of such a nature that they did not last after the car was delivered to the customer.

In a short time, the customer had the problem of doing something about refinishing his car.

Both Mr. Chrysler and I felt that something should be done to see what could be done to lengthen the life of the painted automobiles, so we began to experiment with what might be done to lengthen the life of the coats of the various paints, and so on, and we soon became convinced that the materials that we were using, even if they could be improved even to the extent of doubling their life, still would not be considered by us as satisfactory as a long term automobile finish.

So we began to study the problem from that standpoint, and some time after that, in discussing the matter with Mr. Chrysler, I told him I thought that the problem was bigger [fol. 4457] than one division of the corporation's activities should encompass, and that I thought it would be wise to form a committee consisting of the members that were interested in the painting activities of the various divisions, and also bring in the Fisher Body Company which was becoming a very large supplier of bodies to the corporation, and take advantage of our research and development section of the corporation.

Q. Now, prior to that, had there been any coordination or cooperation between the divisions with respect to the paint problem?

A. Oh, there had not been any organized relationship, but naturally people interested in paint in the various divisions visited casually back and forth to see what the other divisions were doing, and pick up those casual improvements that might be made to their painting.

In talking generally of going to a radically different material for a paint finish, at different times I would talk to members of the General Motors research, but I felt that the committee of paint and varnish was rapidly passing out, and that some new materials were needed.

Q. Was a committee formed consisting of representatives of the various divisions such as you suggested to Mr. Chrysler?

A. The committee was formed late in 1921.

Q. Was that the Paint and Enamel Committee?

A. Paint and Enamel Committee.

Q. Were you a member of that committee?

A. Yes, sir.

Q. Who selected you as a member of that committee, if you know?

A. Mr. Bassett.

Q. He was then head of Buick?

A. Yes, sir.

Q. Did you work with that committee after its formation in late 1921?

A. Yes, sir.

[fol. 4458] Q. What, if anything, did that committee do with respect to this problem of finishing automobiles?

A. Well, the committee met, and a committee was organized, and discussed the task of contacting outside firms, and discussed the problem with them; that was assigned to the research and development section, and the various divisions of the corporation, the representatives of the paint committee agreed to do all they could to have a test and experiments done, and tried to develop a method of using the new materials that might work, or be worked up by the central section.

Q. Did the Research find any new materials?

A. Oh, yes, they found several materials, the most important one of which was the du Pont material.

Q. That is the dope that later became known as "Duco"?

A. That is right.

Q. Were any tests made of that material, do you know?

A. Various tests were made in the beginning. The tests were confined to the panels, that is coating the steel panels, and the wood panels, with that material, and set it out for exposure to see how it stood up in weather as compared to the paints and varnishes that were being used, and as the materials were developed and gave more promise of being successful, why, we begain experimenting with applying the paint to larger pieces and also to complete bodies.

Q. Did Buick participate in this experimental work?

A. Buick took the leadership, and most of the experimental work was done at the Buick plant.

Q. And under whose direction was that done?

A. Under my direction.

[fol. 4459] Q. About when was this that Buick was conducting these experiments?

A. Well, as I say, the Paint and Enamel Committee was formed late in 1921, and we immediately took up the work and carried on through until the material was finally adopted for finishing Buick cars in 1924.

Q. What did your early experiments at Buick with the du Pont lacquer indicate?

A. They indicated to us that we were on the verge of finding a material that would last indefinitely longer than the paints and varnishes that we were using, and that while we had some problems about the application of the material, its ability to stick to steel, its ability to withstand shock and withstand other problems that you have in paint, why, we felt very definitely that it was a material that could be developed into a satisfactory finish.

Q. In 1923 did Buick put any cars into production using this new lacquer?

A. We put—of course, we started out with one job, and we played with that, and then we applied the paint and took it off and put it on and so on, and I think that I drove probably the first car with the "Duco" material on it; and that was previous to 1923, but I don't remember the exact date, but by 1923 we had gotten to the point where we were painting cars for our executives so that we could have them under observation and test right in our own section.

Q. Did you ever reach the point where you personally considered that this "Duco" might be the answer to your paint problems?

A. Yes, sir, in 1923 I recommended to Mr. Bassett that the Buick Motor Company begin finishing its cars with "Duco".

Q. What position did Mr. Bassett take?

A. Mr. Bassett took the position at that time that to apply the finish to a small portion of the Buick production would [fol. 4460] create many problems of service in the field, and in the dealer organization and service organization which already had plenty of problems with the refinishing varnishes, and so forth, and he felt that the introduction of this new material at that time would create a problem of education and difficulty because of the different nature of its application and its behavior by application, and he felt it might be better at that time for one of the other divisions who did not have the volume and representation of Buick, to try out this material.

Q. Did he make any suggestion as to what division should try it out?

A. Well, at the time he discussed the matter he talked about the Oakland Division.

Q. And do you know whether or not Oakland tried it out?

A. Oakland did try it out. They went farther than trying it out, because they had been paralleling our experiments at

Oakland, and when they made the decision to go to this material they decided to put their entire production into it.

Q. When was that, approximately?

A. That was 1923.

Q. Would that be for the '24 model?

A. I am not certain whether they applied it to the new model. I would think they would, but I am not certain about that.

Q. And did they carry out this plan, do you know?

A. Yes, the Oakland Company began applying the "Duco" materials, and were very highly successful in doing it. By that I don't mean it was perfect material. They still had problems to work out and so on, but it was considered a very highly successful change in material.

Q. I believe you mentioned earlier that Buick went to "Duco" in 1924. Was that for the '24 model or the '25?

A. That was for the '25.

[fol. 4461] Q. That came out what time during the year of 1924?

A. Buick cars were usually announced the first Saturday nearest August 1st—I mean the Saturday nearest August 1st.

Q. Did you have any discussion with Mr. Bassett prior to Buick's going to "Duco" in 1924?

A. Oh, yes. Mr. Bassett was kept informed as to how we were getting along, and was interested in knowing how the thing was progressing, and was very much interested in our opinion as to how soon the thing would be ready for production.

Q. And what opinion, if any, did you give him?

A. I recommended the material, as I said before, before it was applied to the Oakland jobs.

Q. And who made the decision that Buick would go to "Duco" in 1924, do you know?

A. Mr. Bassett.

Q. And do you know on whose recommendation he did that?

A. On my recommendation.

Q. And did you ever meet with Mr. Allen of the du Pont Company and with Mr. Bassett to discuss "Duco"?

A. I was present at one meeting between Mr. Allen and Mr. Bassett in Mr. Bassett's office.

Q. Do you recall what the discussion was?

A. Well, the discussion was along the line that Mr. Bassett wanted the assurance of Mr. Allen as to their ability to supply themselves with the material necessary to make "Duco", that there were some problems to be worked out in the direction of improving the lustre of the material as we were using it at that time, and there were certain problems in colors, colors that were available in "Duco" at that time were not considered by Mr. Bassett as being of wide enough range to meet the Buick requirements, and problems of that sort.

[fol. 4462] Q. About when was this discussion?

A. Oh, that was previous to our adoption of the stuff in 1924.

Q. Would it be some time in the year 1924?

A. I would think so; in the early part of the year.

Q. Did Mr. Allen state to Mr. Sloan that he was interested in the new dope?

A. No, not to my recollection. At that time I thought I was the only one that was interested in it.

Q. Were you ever told that Mr. Sloan wanted Buick to go to "Duco"?

A. No, sir.

Q. Following the adoption of "Duco" at Buick in 1924, what did the other divisions do with respect to this material?

A. Well, one after the other they began to use either "Duco" or similar materials on their production.

Q. Began to use lacquers of some kind?

A. Lacquers.

Q. Did your paint committee terminate then, or did it continue on?

A. No, the paint committee continued to function.

Q. After the adoption of "Duco" do you know whether or not any experiments were conducted to find a competitive lacquer that would be satisfactory?

A. Yes, sir, the Paint & Enamel Committee was very much interested in continuing the study, and the various divisions of the corporation took up the testing and experimenting with materials other than "Duco."

Q. Did Buick participate in any of that?

A. Yes, sir.

Q. Do you recall whether or not the Research Division, in the latter part of the '20's, found any materials that they considered promising or satisfactory?

A. Well, at the Buick plant our experience was that we did not find any materials that were satisfactory as the "Duco" [fol. 4463] material, and we were progressing very well with the materials, and were reluctant to change our entire system, and in addition to that "Duco," the du Pont Company had a plant, the Flint Paint & Varnish Company, which was located very close to the Buick Motor Company at Flint, and we thought it was a decided advantage to have a plant in that location making material, because, as we say, all of the bugs had not been worked out of the thing, and this established a source of supply which was so convenient that in a few minutes we could work back and forth if we got into some sort of difficulty or if we had any questions, and we were very close together, and we thought with all of those advantages, we thought we might better go along with the material we were working with.

Q. When you went with Buick in 1912, where was Buick buying its varnishes?

A. Flint Paint & Varnish.

Q. The same outfit at Flint, Michigan?

A. The same plant.

Q. How long did they continue to do that?

A. Oh, we continued right through to buy from the Flint Paint & Varnish.

Q. What about the other divisions in the latter part of the '20's? Did they remain with "Duco" too, do you know, or did they go to any competitive materials?

A. I am not exactly familiar with just what the other divisions did, except in a general way I know that they did not all accept du Pont as their only source for materials.

Q. You left Buick in 1932?

A. That's right.

Q. Up to that time was Buick using the du Pont "Duco" practically exclusively?

A. Yes, sir.

Q. Whose decision in Buick—whose decision was it to [fol. 4464] continue on with du Pont, rather than to go with one of the competitive companies?

A. Mine, right along.

Q. Your decision?

A. Yes, sir. That is, I say it was my decision, but it was supported by the top management of the Buick Division.

Q. Mr. Weckler, it is charged in the complaint in this case that there was an agreement or understanding or conspiracy between du Pont and General Motors to the effect that General Motors would buy from the du Pont Company all or substantially all of its requirements of its products made by the du Pont Company.

Did you ever hear of any such agreement or understanding or conspiracy?

A. I did not.

Q. Did you ever hear that it was the duty of General Motors to buy substantial quantities of materials from the du Pont Company because the du Pont Company had a stock interest in General Motors?

A. No, sir.

Q. In making your recommendation to Mr. Bassett that Buick go to "Duco", were you motivated in any way by a feeling that there was an obligation to help out the du Pont Company or to buy from it?

A. No, sir, such an idea never occurred to me, and I never in all my experience at the Buick Motor Company, had any difficulty in buying any material from anyone at any time.

Q. In deciding not to go to any of the competitive lacquers later on in the latter part of the 20's or the early 30's, were you motivated in any way by a feeling of duty to favor the du Pont Company?

A. No, sir. I have just outlined here that we didn't find the material that was superior to the du Pont material. We were making good progress in the application and the experience that we had with it, and this plant being so close [fols. 4465-4467] to our activity—those were the reasons that we continued on with "Duco" while I was with Buick.

Q. When you left Buick in 1932, where did you go?

A. Chrysler Corporation.

Q. How long did you stay with Chrysler?

A. I am still with Chrysler until the 30th of this month, at which time I retire.

Q. What positions have you held with Chrysler?

A. When I first joined the Chrysler Corporation in 1923, Mr. K. T. Keller was general manager, and I went on Mr. Keller's staff, and about that time the activities of the NRA and so on became considerations in industry, and I did a lot of work along the line of NRA activity and so forth, under Mr. Keller's direction.

We also studied the labor situation during that period, and we had our problems of organizing workmen's councils and so forth, and in 1936, in addition to my other duties, I was assigned to putting the DeSoto Division into a home of its own, and I became general manager of DeSoto, and installed the DeSoto organization in the DeSoto plant at West Detroit.

In 1937 we had a strike, and most of the negotiations of the strike at that time were under my direction.

After 1937 we consolidated the work at the DeSoto plant and in 1940 I became vice president and general manager of the corporation.

Q. What position do you hold today?

A. The same.

Q. Vice president and general manager of Chrysler Corporation?

A. That's right.

Mr. Hurd: If the Court please, that completes the direct examination.

[fol. 4468] Cross Examination.

By Mr. Harris:

Q. The superintendent of the Paint Department was Mr. Mullen, was it?

A. Yes, sir.

Q. What would your relations be between yourself as a member of the Paint and Enamel Committee and Mr. Mullen?——————

A. The Paint and Enamel Committee was a sort of a service organization which had no direct activity in the actions of the Buick Motor Company or its representative on the committee.

So that Mr. Mullen had no connection whatever with the Paint and Enamel Committee of General Motors.

Q. If the Paint and Enamel Committee had decided to use, say, "Duco," would Mr. Mullen be interested in what the Paint and Enamel Committee had decided to do?

A. He would be interested only to the extent that the Buick Motor Company had decided to do it.

Q. And what would be the function of the superintendent of paint when you decided, as you did, to take over "Duco" as a finish. What would he have to do with it?

A. It would be his function to apply it.

Q. Would he discuss with you the methods of application?

A. Yes, sir.

Q. That was one of your problems, wasn't it?

A. I am not certain that I know what you mean by one of my problems.

Q. Well, I had just been listening to you for a half an hour, and I thought you were a sort of trouble shooter, among other things, and a solver of problems, is that right?

A. That is right.

[fol. 4469] Q. Then this application of "Duco" was one of the problems, was it not?

A. That is right.

Q. And a very serious one, wasn't it?

A. Yes, sir.

Q. And with that you were intimately concerned, weren't you?

A. I was.

Q. And so was Mr. Mullen, wasn't he?

A. Yes, sir.

Q. Now, calling your attention to the beginning of "Duco", as far as you were aware of it, when did you first know that there was such a thing as "Duco"?

A. About the time of the formation of the Paint & Enamel Committee. It was not known as "Duco" at that time. We called it a dope, and the dope eventually developed into "Duco."

Q. Before it became "Duco," it was called Viscolac, wasn't it?

A. Yes, something like that.

Q. Now, the use of the word dope in technical language, has one meaning, hasn't it? It has nothing to do with what you might call in slang as dope.

What is dope in technical language when you are talking about substances or materials?

A. Dope is any material you apply to some other material.

Q. Yes, as coatings and finishes?

A. Yes. Whitewash might be considered a dope.

Q. Now, when this matter first came up before the committee, in what form was it presented to you as members of the committee?

A. It was presented to us—the Research and Development Department had made many contacts, among which was this contact with the du Pont Company.

The du Pont Company was one of the top companies who were interested in exploring the situation of trying to develop an automobile finish.

Q. Was this representation made by Mr. Mougey to the [fol. 4470] committee?

A. I don't know all the details of this thing, but Mr. Mougey was very active in the committee, so was Dr. Clements, and certain other members of his staff.

Q. Had you been advised, if you remember, whether du Pont had been cooperating with General Motors in the development of this particular—let us call it dope.

A. Well, I was advised of their contacts with the Research and Development Division, certainly.

Q. Now, what was the thing that sort of sold it to you, because you, as I understood your testimony, were either the first, or one of the first, to accept "Duco." What was it that sold it to you?

A. As I stated here before, I had a continuing interest in finding a new finish for automobile bodies and automobiles entirely. That began really in the year of 1912.

Q. Yes.

A. And after we had exhausted what we could do in the way of improving the existing materials, we decided that it was necessary to find some new material, and when we found—I think I also testified to the extent that it was my suggestion that a paint and enamel committee be formed so that all the divisions of the corporation could participate, and we would have the advantage of the central research and development organization.

In my capacity, I would not have cared very much whether the research and development division had brought in some material, or from Joe Doakes or from du Pont or some other division of the corporation. We were looking for a material, and when we found something that seemed to have promise, we naturally took onto it, and took it into our plants and began cooperating with the makers of the material, trying to develop it as rapidly as possible to see if it were really [fol. 4471] the thing that we were looking for, and that was the first thing that we found.

Q. Now, as I take it, you were looking at it from the scientific point of view; that is, all you were interested in was to get a good finish for your company, were you not?

A. A lasting finish, yes; a good, lasting finish.

Q. Now, you, of course, were not interested in any pressures by salesmen, were you, at that time?

A. No, sir. The shoe was on the other foot. We were looking for materials.

Q. Now, were you aware at any time during this period, of pressure being put upon the heads of divisions, or purchasing agents to accept "Duco", and those pressures—let me finsh—came from very high sources in the du Pont Company? Were you aware of that?

A. I was not aware of any pressure being applied to anyone, including myself, in our organization, nor upon the Paint and Enamel Committee members, nor upon the Research and Development Section, nor upon the Fisher Body Section, because in my work in finding this thing, it was necessary that the Fisher Body use, for the painting of Buick bodies, which they were making, the same kind of material which we were using at Buick, because it is necessary to understand that the Fisher Body Company supplied a body, and that the Buick Motor Company and other divisions of the corporation supplied, in general, the rest of the sheet metal works which went into it.

Now, it would have been rather disastrous to apply a body by Fisher which was prepared with the ordinary paints and varnishes, and then have a company like Buick apply some more lasting and more durable material to the hoods and fenders and the running boards, and all the other running gear which also was painted.

[fol. 4472] So it was acknowledged then that there should be cooperation between the suppliers of an important part of the automobile like the body with the automobile building companies that found it necessary to match the durability and appearance of the bodies themselves, so it was not a matter of trying to jockey somebody else into position on this thing. It was a matter, if one of the divisions decided to use certain materials, it was imperative that the people who supplied other parts, especially a thing as important as the body to see that the paint be of the same nature.

Q. What I am asking is just your own knowledge of pressures.

A. I have no knowledge whatever of pressures. I have stated that.

Q. That is what I am asking you for.

A. Yes, sir.

Q. Now, did you become aware by any conversation with you whether any pressure was applied to Mr. Bassett by Mr. Sloan to accept "Duco" for Buick?

A. No, sir, I am not aware of it, and as I stated before, at the time that this event was supposed to have occurred, I think at that time I was the only one that was interested in having Buick accept it.

Q. Now, let us take the problem as it was faced by you when "Duco" came into your knowledge.

What was the finsh then being adopted by the Buick Motor Company? What was your finish?

A. I don't get you.

Q. Before "Duco," what did you finish your cars with?

A. Well, we applied a certain number of undercoats; a couple of coats of color varnish and a couple of coats of finishing varnish.

Q. That was lacquer or paint and varnish?

A. Paints and varnishes.

[fol. 4473] Q. Paints and varnishes?

A. Yes, sir.

Q. Now, what was the difference between "Duco" and the paints and varnishes which you theretofore had been using? What was the difference?

A. The difference was entirely a difference in mechanical construction. It would be just as impossible to compare in a non-technical discussion here the difference between "Duco" and varnishes as it would be to discuss the difference between pears and apples.

For instance, they belong to the same classification of automobile finishes, but they are not comparable. They are entirely different. "Duco" was entirely new material.

Q. Yes.

A. It was not a matter of attempting to improve the lasting qualities of the materials we were using. This was a revolution, trying out an entirely new concept of a paint.

Q. Now, in coming back to my question, could you tell a layman what was the difference in the use of this "Duco" from paint and varnish? Can you tell us a few of its qualities? Never mind about its composition.

A. Well, if we leave the composition out, the qualities of "Duco" at that time that we did not have in paints or varnishes were exactly those that we were seeking.

Q. What were they?

A. They were durability and lasting qualities, something that would preserve the appearance of the new car for years to come.

Q. Now, what was the difference, if any, in the application to the car of paints and varnishes on the one hand, and of "Duco" on the other?

A. Well, in the beginning of my experience with paints, [fol. 4474] I think I pointed out here today that one of the methods of application in 1912 was the use of camels hair brushes, and it was necessary to be very careful what we call working out the paint and brush so as to get an even application of it, and I also testified that part of our work in the early develpoment of these paint improvements was the changing method or type of paint application to spraying applications and to flowing applications.

Now, when "Duco" came along, we tried, and were successful in using the same spraying method that we used for paints and varnishes, but there was a difference in technique of the distance that you held the gun away from the work to be painted, the pressures which were applied, the amount of overspray which you had, the collection of the material that was over-sprayed; all those things were new problems, and also the matter of drying the paint, and drying the undercoats.

Different times were required, with different changes in temperature. There was a very decided revolution in the application of it. In other words, the men who applied the paints and varnishes had to be trained again about the methods of using "Duco".

Q. Did you find in Buick and of your own knowledge, as to other divisions, whether there was considerable or any reluctance on the part of the old paint superintendents, and those concerned with applying paint and varnish, to the introduction of this new material and the different methods of its application?

A. I am very familiar with the situation that existed at Buick.

Q. All right.

A. And to some extent I am familiar with the fact that [fol. 4475] similar situations existed in the other divisions of the corporation.

Q. Yes.

A. At the Buick Motor Company Mr. Mullin who was superintendent of paint, when we began to talk with him about the necessity for a new finish and so on, he thought it was just a waste of time, that the finishes that were being applied were competitive, and he didn't see why Buick should carry the torch in trying to work out new plans.

Now, Mr. Durham who was works manager of the Buick Motor Company at that time went along in the beginning with Mr. Mullin, and felt very much like Mr. Mullin did, that we had already spent years in trying to improve the thing, and our finishes were satisfactory as far as competition was concerned, we had a good working organization, and they were reluctant to overthrow all of this to bring in a new material.

Now, the resistance by Mr. Mullin to the application of this new material was so strong that I found it necessary to take men out of my plant engineering department and fence off a section of the plant and do the experimental work in that section, and we excluded Mr. Mullin from that section until we were ready to make the decision to go to it, and then we informed Mr. Mullin that that was the decision, to go to that material, and Mr. Mullin then, by that time, had seen the developments as they were going along, and so forth, and he was not at all resistant to putting it in the shop at that time, but during the developmental stage Mr. Mullin was very, very resistant to having it done at Buick.

Q. Yes: Now, what was the position, as far as you know, [fol. 4476] Mr. Weckler, of Mr. Bassett, the head of the division, as to this revolutionary change?

A. Mr. Bassett was in the position that he was hopeful that out of this experimentation something would come, and he relied entirely upon me to carry on the activity, to carry on our connection with the Paint Committee and its research departments and things of that kind, and he relied entirely on my judgment as to continuation of the experiments, the amount of money to be spent on it, and the direction of that activity.

Mr. Bassett was not opposed to the introduction of the material on Buick cars except to the extent that I explained this morning, that Buick's production was large, that it was a very important decision to make, and there were many problems that would follow in the field as the result of making the change at the factory, and that he counselled with me that he thought one of the other divisions of the corporation that would have not such a large volume of production, might try the thing, and if it failed, why it would save a great deal of embarrassment to Buick. On the other hand, if it came along, he thought we could adopt it in short enough time so that we would not suffer by having one of the competitors in the car divisions having a better finish than we did.

Q. Would you say, in the latter part of 1923, that Mr. Bassett was hesitating? Would that be a way to describe his attitude?

A. Well, I don't know the exact definition between "reluctant" or "hesitating."

Q. Well, "reluctant" will do.

A. But I think Mr. Bassett was a little reluctant to put Buick into the "Duco" finishes for the reason that I have just mentioned.

Q. Yes?

A. He wasn't opposed to it.

[fol. 4477] Q. No?

A. He was just a little reluctant, not because he doubted our recommendations to him, but because he felt that there were divisional problems that should be worked out at a level beyond the people that were recommending such a change, and I agreed very thoroughly with him.

Q. Now, by that you mean what,—"worked out at a level beyond the people recommending the change"? What does that mean?

A. Well, I think the decision to change from one finish to the other is the decision that must be made by the head of the division.

Q. Well, wasn't he the head of the division, Mr. Bassett?

A. But he was talking to me as a member of his staff who was recommending the change, and he thought that instead of me making that decision, that he should make it.

Q. Yes, but he would have to, wouldn't he?

A. That's right.

Q. And he would have the responsibility, wouldn't he?

A. That's right.

Q. And, as you say, he was a little reluctant?

A. Yes, but the "higher level" I referred to, is the difference between his station and mine.

Q. I see, sir.

When was it, if you know, that Mr. Bassett decided that Buick should take "Duco"?

A. That was in the beginning of 1924.

Q. Was that in time for the 1925 model?

A. Yes, sir, the decision was made at a time when it was still possible for our engineers, plant engineering forces, to make the necessary changes in the paint equipment so that "Duco" could be applied at the beginning of the 1925 models.

[fol. 4478] It is always considered good practice to make the changes radical as that, with the model change.

Q. Now, at that time what was the percentage of open car production as compared with closed car production, in Buick? This is the 1923 and 1924?

A. Of course, I have been in this business for forty some odd years, and of course the relative importance of one model to the other is something that I have never attempted to remember, but I can tell you in general that it was during this period when we were experimenting with this change that the preference by our customers for closed cars was increasing very rapidly, and Buick never did go into the business of manufacturing closed cars.

Buick's body plant was originally designed for roadsters and touring cars, and as our requirements for closed bodies grew, those requirements were satisfied by Fisher Body.

Q. Yes?

A. And so that during the period which you speak of, there were two changes taking place, one that the various sections of the wood body on the roadsters and touring cars were being replaced by metal outside surfaces on wood frames, and at that same time the volume of the production on the open cars was dropping off, and the volume on the closed cars was increasing.

Q. Yes, so that presented you with this problem, didn't it, that as far as the Buick open bodies—you called them "tourist cars"—were concerned, the application of the new product would be done by the Buick staff, would it not? That is, you, yourself, would do the finishing of the open bodies, is that right?

A. That's right.

[fol. 4479] Q. It meant too, did it not, that you had to convince Fisher Body that the new finish go on the closed bodies, isn't that true?

A. That is true.

Q. You had some difficulty there, did you?

A. Not particularly.

Q. Did you find Fisher took to the "Duco" as, shall we say, as eagerly as you did?

A. At the time of the beginning of the experiments, I think that I was probably the most enthusiastic person in General Motors promoting the development of the new material.

Q. Yes.

A. Now, as time went on and the results of these experiments became evident, the members of the Fisher organization visited all the plants that were doing experimental work, and there was an evolution in their thinking as they began to see the value of this new type of product, and so forth.

They realized that it was just a matter of time until it would be necessary for them to use the same material because, as I pointed out before, Fisher does not make the complete job. There is still quite a few pieces to be painted after the body is painted, and it is necessary that those pieces match up; that they have the same appearance, the same durability, and so forth.

So it becomes almost imperative that you use at least the same type of material, and preferably the same material.

Q. How long was it, if you know—I am speaking of the early days, Mr. Weckler—how long was it, if you know, before Fisher really adopted "Duco" for the closed Buick bodies?

A. We had no difficulty at all with Fisher coming along after Buick had made the decision to go into the 1925 model [fol. 4480] production with "Duco". We experienced no trouble whatever with Fisher.

Q. Were all your closed bodies, that is, the Buick closed bodies, in that year's model finished with "Duco"?

A. That is my recollection, yes, sir.

Q. Were you ever aware of any difficulty that Fisher found in applying "Duco"? Did that ever come to your attention at that time?

A. Well, it wouldn't surprise me because we all had difficulty. With a material as revolutionary as lacquer as compared to paints, you run into all sorts of problems.

You run into the problem of matching colors. The bodies that Buick was using were built by Fisher in Detroit, and it was necessary to transport the bodies from Detroit to the Buick plants, and all of those things were considerations because it was sometimes, because of the fading or changing of colors of a paint—and this applies to varnish as well as lacquers—that a couple of days difference in the application time makes a difference in the shade of the color. That difference may be very slight and not noticeable, but in other colors it may become very noticeable.

In the beginning of the application of lacquers, not near so much was known about the mixing of colors and the delicate shades. We had trouble in paint fading or bleeding in a few days, and things of that kind. Certainly Fisher had production problems, but so did everyone else.

Q. My question was only directed, Mr. Weckler, to whether you knew that the application problems of Fisher Body delayed the adoption of "Duco" in the closed bodies of Buick.

A. No, sir, I did not know that.

Q. I am only asking now for your recollection. Did it or [fol. 4481] did it not, or don't you recall?

A. I stated that I have no recollection of any difficulty whatever in Buick being supplied with closed bodies painted with this new material, when they changed the 1925 model.

Q. When Buick changed?

A. When Buick changed.

Q. Now let's look at Oakland for a minute.

Do you recall the situation in Oakland?

A. Yes, sir.

Q. Did Oakland go into a wider production of "Duco" finished bodies or cars than you did?

A. They went in before we did.

Q. Yes. What year was it they went in?

A. They went in in 1923, I think.

Q. Now; at the time that you were considering the use of "Duco" in Buick, you had before you, did you not, the example of Oakland?

A. Yes, sir, Oakland was following along the experiments that were being made at Buick through the Research staff, and depended largely on our experimental work. But when they made the decision to go into it, to use the material on their own application, they began to be very busy and trained their own organization and went into it in a big way. The only limitation that Oakland had as far as their policy of adoption was concerned was the limitation of colors. They weren't quite happy about the limited number of colors that they had, and I think that the most favored color was a blue color, and they concentrated on that and they had very, very good success with it.

Q. Just so that I get the picture right, when Buick or Mr. Bassett was trying to make up his mind to use "Duco" on Buick, he did have, didn't he, the example of Oakland before him? He could see what had been done by some other division, couldn't he?

A. Yes, sir. Mr. Bassett had before the decision of Oak- [fol. 4482] land, had my recommendation that Buick adopt "Duco." As I stated here before, it was because of certain other considerations that Mr. Bassett thought one of the other divisions should take it up.

Q. Hadn't Oakland taken it up?

A. Not at the time I am speaking of.

Q. Oh, I see. But they took it up——

A. Oakland took it up after Buick decided that some other division should take it up. Then Oakland came to the front and they put it on.

They had it in operation for a year or more before Buick actually went into production, and naturally we were very much interested. The Oakland people were very cooperative, and we learned all of the difficulties that they were having during their first year of operation and avoided them when we went into operation.

Q. Coming to the 1925 model, you have at that time the Oakland car finished with "Duco" and the Buick car finished with "Duco," don't you?

A. Yes, sir.

Q. What other of your cars was finished with "Duco" in that year's model?

A. My interest in the production was mostly Buick, and my interest in the Paint & Enamel Committee was largely one for Buick. I am not exactly familiar with what the other divisions of the corporation did because, except in a casual way, the problem of Buick was to get into production and solve their problems, and we concentrated on that. We had no interest whatever in whether Cadillac was going to follow us the next week, or the next month, or whether Olds was going into the picture, or whether they were going to use "Duco" or continue with varnish. We [fol. 4483] in Buick were interested in only one thing, and that was to get our production as near perfect as possible on this new material.

Q. What I am trying to get at, Mr. Weckler, is your general knowledge of conditions in General Motors at the time we are talking about.

[fol. 4484] Cross Examination (Continued).

By Mr. Harris:

Q. Now, at the time, in 1924, that Mr. Bassett was coming to a decision on "Duco", he had the experience, had he not, of Oakland before him? That is true, isn't it? Oakland had used the "Duco" for one year at that time, had it?

A. Approximately, yes.

Q. And there was a problem, was there not, as to finish? Oakland had a less high lustre, had it not, than your old finishes, is that correct?

A. That is right.

Q. That was one of the things, wasn't it, that he was considering?

A. That is one of the things that I was concerned about, and all of us working with the material were concerned about the same thing.

Q. Yes. Now, I would like you to look at Government's Exhibit No. 394. This is a letter of March 25, 1924, from [fol. 4485] Mr. Sloan to Mr. Allen, general manager of the Cellulose Products Department. Mr. Allen was the head man on "Duco", wasn't he, in du Pont?

A. Yes, sir.

Q. Now, I call your attention to the fact that he is writing to Mr. Allen, that is, Mr. Sloan is, acknowledging a letter of March 21, and saying:

> "I am glad you have seen Mr. Bassett, and have gone into the matter so thoroughly."

Were you present, if you recall, at a conference between Mr. Allen and Mr. Bassett about this time on "Duco"?

A. Yes, sir. I testified to that this morning.

Q. Well, that is all right. Was that the only conversation that you were present at with Mr. Allen and Mr. Bassett?

A. Yes, ~~sir~~.

Q. What time in March was that, if you know?

A. I don't know.

Q. What was said by Mr. Allen to Mr. Basset, if you know?

A. Mr. Allen gave Mr. Bassett assurances that the questions which Mr. Bassett had on his mind—and I think I have enumerated those generally this morning, were the matter of the improvement in the material, and the appearance of the material built by the du Pont Company, to supply them with sufficient raw materials to meet the Buick schedules, and improvements.

Q. Now, what was said particularly about finishing?

A. Finishing at about this time was that the finish of "Duco" was more of a satin finish, as compared to the bright lustre of the paints and varnishes.

Q. Yes.

A. And we were hopeful, and were bending our efforts in the direction of perfecting "Duco" material so that it [fol. 4486] would equal in lustre the other materials, and Mr. Bassett wanted an assurance from Mr. Allen that the du Pont Company would continue to improve the "Duco" appearance to be the equal of paints.

Q. Was Mr. Allen able to satisfy Mr. Bassett that he would, if you know?

A. Well, I know that Mr. Bassett, in his conversations with me later, felt that the du Pont Company would carry on as Mr. Allen had outlined.

Q. Now, isn't it a fact, Mr. Weckler, that the Oakland Company had a process known as the burnishing process by which they put this luster on?

A. Oh, there were many types of finishes under consideration and under experimentation at that time. Some went in the direction of trying to polish rather than burnish the material, using a polishing material, and also a regular buffing material, trying to buff a surface onto the "Duco." That was fairly successful.

Others of us were trying it with wax finishes, to produce a higher luster. At one time, we put a finishing varnish over the "Duco," itself, to get the luster.

At that time we were fairly well satisfied that we had made progress enough so that the appearance of the cars would improve as we got farther into it.

Experience in the laboratory of course accumulates rather slowly, but once you get into production and have a high volume, and are working with hundreds of bodies or pieces per day, your experience comes along much more rapidly than if you are concentrating in a laboratory on one or two pieces.

Q. What I am asking you, Mr. Weckler, is the elements [fol. 4487] that went to make the decision of Mr. Bassett, and I wondered whether you could tell me what inducements or what satisfaction Mr. Allen could give that the finish would be satisfactory to Mr. Bassett, in view of the fact that Oakland had an operation which made a finish satisfactory to them.

A. Well, you will find the competition among different divisions of an organization——

Q. Would you mind answering my question?

A. I am trying to.

Q. My question is, what did Mr. Allen say to Mr. Bassett. That is what I am asking about.

A. I have attempted to tell you what he had told me. I cannot quote him because I don't remember.

Q. All right, let us pass to the next sentence. It is before you.

> "Mr. Bassett, I appreciate undoubtedly has a better measure of the situation than I have, but my personal feeling is that there is plenty of evidence in the way the public is taking the Oakland finish to warrant the feeling that Buick could get away with it equally satisfactorily. Certainly, it is impossible to assume that if Cadillac can do it, and Oakland can do it, that Buick cannot do it."

Does that indicate to you, Mr. Weckler, at the end of this conversation Mr. Allen had not satisfied Mr. Bassett?

A. This letter, I did not see at the time it was written.

Q. No.

A. I haven't the least idea what was going through Mr. Sloan's mind or Mr. Allen's mind or Mr. Bassett's mind at the time this was written. I can give you only the results of my own observation, and they could be summed up to [fol. 4488] this extent, that as the result of Mr. Allen's visit, Mr. Bassett explored with him every facet of the problem, as I have tried to outline here.

Now, Bassett's decision was not, as I understand, based entirely upon his visit with Mr. Allen, but was based largely on the recommendations of myself, and of our other engineering and styling divisions, and so forth, and Mr. Allen's visit to the Buick Motor Company was an incident that was used in the process of finding out and satisfying the management of an organization that the supplier is really in a position to do the things that the customer expected him to do.

Q. Would you say, or do you now—I will put the question in this fashion: Do you know whether Mr. Bassett came to a decision in part because Mr. Sloan had talked to him about it?

A. I do not think for a moment——

Q. I am asking you whether you know, first, sir?

A. I don't know, because I had no discussion with him.

Q. Now, do you know whether Mr. Bassett was a member of the Operations Committee at that time?

A. Yes, sir.

Q. I call your attention to the last sentence:

> "I will make a note to discuss this matter at the next meeting of our Operations Committee with a view perhaps of developing a little more atmosphere in the mind of Mr. Bassett."

Did Mr. Bassett ever tell you that that had been discussed in the Operations Committee?

A. No, he did not.

Q. I call your attention to a letter of May 2, 1924, which [fol. 4489] is GM Exhibit 120-A. You will note that there was a conference at the Buick Motor Company at which Bassett was present and you were present, and at that time, May 2, 1924:

> "We learned Bassett had in mind turning the entire Buick production into 'Duco'."

Now, did Mr. Bassett, before this time, discuss with you the turning of the entire Buick production into "Duco"?

A. I had recommended it to him.

Q. I say did he discuss it with you?

A. Yes, during the time I made the recommendation.

Q. Well, when did he first tell you that was his intention to put the entire Buick production into "Duco"?

A. He never did tell me that.

Q. How did you know?

A. You are talking about his intentions.

Q. How did you know that the entire Buick production was going into "Duco," if you ever knew it?

A. Because Mr. Bassett, after we had several meetings on the matter, agreed that we should put the entire production into "Duco" and it was not a matter of intention. It was a matter of decision.

Q. All right. Was that after Mr. Allen had seen you?

A. I think so, yes.

Q. All right. Now, do you know what models of the Buick line were put into complete "Duco" for the 1925 season?

A. All of them.

Q. Sir?

A. All of them.

Q. Were the closed bodies put in?

A. Yes, sir.

[fol. 4490] Q. I call your attention to du Pont Exhibit No. 189. This is a report of May 12th, 1924, by Mr. Moosman, to Mr. Flaherty—they are du Pont people—and he reports in the second paragraph four sport models, two roadsters and two tourings in process of completion.

Now, do you know whether they were the ones that were put into the 1925 "Duco"?

A. Those were experimental jobs.

Q. All right. Did your closed bodies in that year take a "Duco" finish?

A. Yes, sir.

Q. Sir? They did?

A. Yes, sir.

Q. Now, Mr. Weckler, what about competitive finishes which were the equivalent of "Duco"? Were there any such, did you find in your experience?

A. I don't know what you mean by "equivalent."

Q. I mean by that, had the same qualities as "Duco" and would appear to you to be equally satisfactory for use in the Buick line?

A. Our test didn't indicate that we had found anything that was so satisfactory as the du Pont material.

Q. What time are you speaking of?

A. I am talking about the time that we went into production with "Duco," and for several years later.

Q. All right. When did you first, if at all, find a competing product to the du Pont product that was equally satisfactory with "Duco"?

A. Not during my term with Buick.

Q. You left in 1932?

A. Yes, sir.

Q. You went to Chrysler?

A. Yes, sir.

Q. What was Chrysler using when you came there?

A. Chrysler was using enamel on some, and some, "Duco," some lacquer.

[fol. 4491] Q. What was the type of finish Chrysler was using as compared with the du Pont "Duco"?

A. They were using enamels.

Q. Is that the same as "Duco"?

A. No, sir.

Q. All right. Did they ever put their line generally into finishes the same as "Duco"?

A. No, sir.

Q. Where did you get the material that Chrysler used? Where did you buy it from?

A. The enamel type of material is not at all comparable to the lacquer types of material.

Q. I appreciate that.

A. Just please let me finish.

Q. All right.

A. Now, it is just the comparison I made this morning, it is like trying to compare apples and pears; they are both fruit, but they are not comparable.

Now, at the time that we were going through the experiments at Buick, the Flint Paint & Varnish Company were experimenting with materials other than "Duco," and I, through the Paint and Enamel Committee of General Motors, was recommending that we continue our search for other materials. I was hopeful of finding a material in which the operator could just walk around the body and open his spray gun and continue to walk around until he had found a satisfactory amount of material on the job, and I think I was largely instrumental in keeping the interest of the Flint Paint & Varnish Company along lines of that kind, and before I left the Buick Motor, they had some success along that line.

When I came to the Chrysler Corporation in 1932 I found that they had already adopted a material of that sort and were using it.

Q. Now, were they buying it from Flint Paint & Varnish?

A. I am not certain, because as I said this morning, my [fol. 4492] first duties with Chrysler were in other lines of work, labor relations and so on, so I was not particularly interested in that.

Q. You were at no time interested in paint after you got to Chrysler?

A. I was interested in paints, but at that particular time I was not interested in the sources of the paint.

Q. Well, what is the kind of finish that Chrysler used at the time you came there?

A. They were using enamels.

Q. All right.

A. And they were also using lacquers.

Q. What was the finish that you got from Flint Paint & Varnish, was it for lacquer?

A. Enamel.

Q. Would you say that is comparable to "Duco"?

A. I just stated the materials are not comparable.

Q. Did Chrysler at any time adopt a finish that is comparable with "Duco"?

A. Not to my knowledge.

Q. Well, you would know, wouldn't you?

A. I think so.

Q. Are you familiar with the finishes used by other automobile companies?

A. Generally, yes.

Q. Are there any large automobile companies other than General Motors using a finish comparable to "Duco" and others who are using a finish comparable to enamel?

A. I couldn't enumerate them for you.

Q. Yes, please.

A. I say I could not.

Q. Could you name any company that uses a finish comparable with "Duco"?

A. I would be reluctant to do that because I am not familiar with their present operations.

Q. Well, we will ask you, please, to give us your best recollection.

A. Recollection of what?

[fol. 4493] Q. What company is using a finish equivalent to "Duco"?

A. I have no knowledge at the present time. I have no recollection.

Q. I thought you said that there were other companies?

A. I said there were companies using similar ones, but to enumerate the companies I am not in position to do that.

Q. Now, is the "Duco" known as a lacquer finish?

A. Yes, sir.

Q. What does Chrysler use, if it uses any, in the way of a lacquer finish? Whose lacquer finish does it use?

A. I don't know of any lacquer finishes that it uses.

Q. Does it use a lacquer finish?

A. Not that I know of.

Q. Do you know of any company that uses a lacquer finish other than General Motors?

A. Why, I would hesitate to say who is using what at the present time, because I haven't interested myself in that subject, and I am not competent to give testimony on that.

Q. Just give us your best knowledge on the subject.

Mr. Hurd: If the Court please, I object to further examination on this point of the witness, because the witness said several times that he has no knowledge.

The Court: Well, limit it to the present time. He said he has no knowledge at the present time.

By Mr. Harris:

Q. Well, before the present time.

A. Various divisions of General Motors used finishes other than "Duco".

Q. I am not speaking of General Motors, but only automobile companies.

A. I am certain that other automobile companies at different times have used finishes similar to lacquer, and some others have used finishes similar to enamel, but I am not in position to enumerate them, because I don't know at this moment.

[fols. 4494-4499] Q. All right. You know of the firm of Rinshed-Mason?

A. I know of them, yes.

Q. What product do they put out?

A. I know they put out paint finishes and varnishes.

Q. Do they put out lacquer finishes?

A. They have in the past. I am not sure of their product at present.

Q. As to Chrysler, did Chrysler ever use lacquer finishes from Rinshed-Mason?

A. Not that I know of.

Mr. Harris: That is all.

Mr. Hurd: If the Court please, there is no redirect examination.

(Witness excussed.)

Max N. Nickowitz, called as a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand and testified as follows:

Cross Examination.

[fol. 4500] Mr. Harsha: Now I would like to show the witness an exhibit which has been marked, perhaps prematurely, by the Government as Exhibit No. 1315.

[fol. 4501] I am not sure, there have been so many lists coming in, counsel, whether you have numbered that for your own use.

If it is agreeable, I will use that number, and if you wish to put it in later under your own number, it is all right with us.

By Mr. Harsha:

Q. Mr. Nickowitz, this is Government's Exhibit for identification No. 1315, and is headed "Fabrics Routine Trade Report."

Is that a type of report which has been used for many years in the Fabrics Division?

A. Yes, sir.

Q. As long as you have been acquainted with sales?

A. Yes, sir.

Q. To whom do these reports go?

A. These reports go to the industry sales managers and our trade analysis section and the correspondents.

You see, we have located in our New York office a group of correspondents who handle interchange of letters between the salesmen and the home office and correspondence between the sales office and the plant. So that the correspondents get a copy of this, and the trade record group, and the industry manager.

Q. Is this trade analysis section—is that what it is?

A. Yes.

Q. Is that a part of the Fabrics Division?

A. It is, sir.

Q. And they take information from these reports, do they?

A. Correct.

Q. Now I note on this document, if you will look at the small printing up there under the heading "Action needed," on the righthand side, you will notice the number 8, the last paragraph there. It says:

> [fol. 4502] "List any changes in consumption or mailing list data that should be made in the Master Trade Report."

What is the master trade report, Mr. Nickowitz?

A. This is a routine trade report that is written by a salesman every time he makes a call on a customer. Once a year, however, they are required to make a master trade report, which is a more complete report than this, but goes to the same people and is used for the same purpose.

Q. Let me see if I understand. The master trade report is prepared by the salesman?

A. By the salesman, yes, sir. It is a report very similar to this except that it covers the salesman's estimate of the customer's consumption and who gets the business—whether we get it, competition, whether we share it. It contains information of that sort.

Q. How long has the master trade report been a type of report maintained in the du Pont Company, to your knowledge?

A. I am not certain about that. Certainly several years.

Q. You became director of sales in 1944. Were they using it then?

A. We have had it since then, and it probably goes back before that period. I am not certain as to the date.

Q. You gave a good deal of testimony on direct concerning the percentages that you enjoyed versus some of your competitors with respect to sales to various, take for example units of General Motors?

A. Yes.

Q. Did you resort to the master trade report for such information to refresh your recollection?

A. Yes. That is a composite of information.

We get information on trade reports. We get information by trade gossip. We attend Rubber Manufacturers Association meetings or Pyroxylin Association meetings, and in the [fol. 4503] course of the meeting one of our competitors might drop a hint as to a piece of business that he got through the course of that conversation. This is a composite of all that information.

Q. Now I gather, as you have indicated, that there are many sources going to the type of information that is contained in this master trade report?

A. Yes, sir. For example, one other, our customers frequently tell us what percentage of the business we get.

Q. Isn't it true that regardless there may be some sources which you consider perhaps more reliable than others; that is, certain trade rumors and gossip, as you have indicated, and other things which are perhaps much more concrete, namely, what your customers actually told you is the division of business between you and certain other suppliers. But isn't it true that taken together the information that you obtain from those master trade reports you feel is sufficiently accurate to give you the information as to what percentage du Pont, for example, is supplying to that particular customer?

A. No, that is not so.

Q. Don't you rely upon those?

A. We do, and we go back to them, but it has been my experience over the years that our salesmen invariably overestimate. I don't know. Maybe they try to create the impression that they are doing a much better job than they are doing. But my experience is that they are inclined to overstate what percentage they get rather than under-state.

Q. What did you rely upon in your direct testimony for these various percentages which you gave for various customers?

[fol. 4504] A. What I told you. It is a composite of all these things, information that I get that is different from the trade reports.

Q. Now, is there any other type of formal report used in the du Pont organization which deals with this question as to the amount of percentage of business that du Pont is doing with any particular customer?

A. No, sir.

Q. Is it only the master trade report where you find the percentage statement?

A. It may also appear in a routine type of report.

Q. But I gather that is the source of material for the annual master's trade report?

A. No, the master's trade report is made up by the same man.

Q. I see.

A. It is made up by the salesman. We require each salesman to write a master trade report on his accounts once a year.

Q. Now, your trade analysis section, does your trade analysis section maintain any records showing a breakdown of the division of sales between du Pont versus some competitor of a particular user of the material?

A. Yes. You see, these statistics—you do not get as complete statistics on some competitors as you do on others.

For example, some of our competitors have an annual report. Now, when you get their annual report, you get their sales statement, and if our analysis of their trade indicates, as they invariably do, that the competitor is getting less than his annual report shows, that is another confirmation of the thing I am trying to tell you about.

Q. Now, what is the name of the report that the trade analysis section maintains that shows a percentage of business done by you and other competitors? [fol. 4505]

A. They do not maintain any other reports. They prepare this market analysis report that I referred to earlier. The way that report is prepared, they gather the statistics, and then before the report is submitted, it is discussed with each of our industry sales managers—with the manager of our trade analysis section. Beyond that, after they get through with all these preliminary discussions, then Mr. Brown and I get in on it, and we pit our judgment against their judgment, and if we want to make corrections in that report, which are based on our judgment, we make them, because we are responsible for the report.

Q. Now, you testified regarding the amount of sales that the du Pont Company made to the Fisher Body back in the thirties.

Upon what did you base that statement?

A. Upon an analysis of this type.

Q. Based on reports of the nature you have just described?

A. Yes, sir.

Q. Now, what are the Fabric Division sales cards? Can you tell me what sort of report that is?

A. Yes. We have sales cards for each customer in which we report the sales by the plant in yards and dollars, to each customer.

Q. To each customer?

A. Yes, sir.

Q. Have you maintained those records for a number of years?

A. Yes, sir.

Q. Do you know how far back those records go?

A. I do not.

Mr. Harsha: Would you show Mr. Nickowitz du Pont No. 228, please?

[fol. 4506] That is the accordion pleat exhibit. You testified about this exhibit on your direct, about which I have a few questions. Am I correct, from a reading of this chart that there are only two coated fabrics which are used by the automobile manufacturers for auto trim, or auto upholstery, that are produced by the Fabrics Division?

A. Well, no, there are two types. When you say two—

Q. I mean two types, and to be more specific——

A. Well, of course, also "Teal"——

Q. You do not consider that a coated fabric, do you?

A. No, that is a combined fabric.

Q. There is a reference to "Fabrikoid" in the extreme right hand box, and then "Fabrilite." Those are the two items which are used extensively by the automobile manufacturers as an auto trim and covering, is that right?

A. Yes, sir.

Q. "Teal"; how would you describe that, as a combined fabric?

A. That is a combined fabric.

Q. Is that what you mean by combined fabric?

A. Yes, sir.

Q. Do I gather from your testimony that speaking of at least today, I guess what you had reference to is "Fabrilite"; that is the largest seller in the automobile field?

A. Yes, sir.

Q. Now, this "Teal" that you have described, when the du Pont Company first started to make "Teal"—pardon me, strike that question.

There is just one other thing I want to touch upon. We will bring that back in a moment. There is one question I want to cover on this "Fabrilite" and "Fabrikoid" to make sure that I understand this chart.

I notice that "Fabrilite" is joined by black lines connecting up with both the Newburgh and Fairfield plants.

Am I correct in assuming that "Fabrilite" is made by [fol. 4507] both plants?

A. That is correct.

Q. Is there one plant that makes more "Fabrilite" than the other?

A. That would vary, and currently, the Newburgh plant is making more "Fabrilite" than Fairfield.

Q. Newburgh also makes "Fabrikoid"?

A. Yes, sir.

Q. But not at Fairfield?

A. No, sir.

Q. They do not make "Fabrikoid" at Fairfield?

A. No, sir.

Q. Now, regarding this "Teal", I want to ask you, when did du Pont first start to manufacture "Teal"?

A. I believe it was 1926 or 1927.

Q. In the mid '20's?

A. Yes, sir.

Q. Did they continue to manufacture "Teal" up to the present time?

A. No.

Q. Was there some time when du Pont discontinued the manufacture of "Teal"?

A. Well, we never discontinued it entirely.

Q. Well, I am not trying to be technical with you. I mean, generally speaking, it was not a widely sold item?

A. It was not a widely sold item, that is correct.

Q. Beginning at what period, would you say?

A. Well, about 1930.

Q. Did you sell much "Teal" from say 1930 up to the beginning of the second World War, 1941?

A. No.

Q. You didn't?

A. No.

Q. And then did you sell any "Teal" say immediately after World War II, say in the late 1945 or 1946?

A. I think we sold a small amount.

Q. But not much?

A. No.

Q. Was your production large of "Teal", say, in 1947?

A. Was it as large?

[fol. 4508] Q. No, I say was it large in 1947?

A. Reasonably so.

Q. Isn't it true, though, that in "Teal" you really didn't begin to manufacture the stuff in quantities until along about 1948?

A. That is correct.

Q. Now, to whom have you sold "Teal" in the General Motors units since, say, beginning in 1949?

A. Fisher Body.

Q. Only Fisher Body?

A. Yes. They are the only one that buys it.

Q. None of the other units buy the material?

A. No.

Q. Now, taking your combined sales—by "combined" I mean "Fabrikoid," "Fabrilite" and "Teal"—for say the year, 1948, who was the largest customer in the automobile field of the Fabrics Division?

A. General Motors.

Q. General Motors?

A. Yes.

Q. Approximately how large were their combined purchases of these three items? Would you say around $3,700,000?

A. Yes, about that.

Q. Who was your next largest customer for these three kinds of materials in the automobile field?

A. Currently, or before?

Q. No, I meant 1947. I think I addressed my first question to that, and I want to take the same time sequence.

A. I just am not certain on that.

Q. Well, about how much did you sell to General Motors, say last year, of these three materials?

A. Our sales to General Motors last year represented about 80 per cent of our automotive sales, and our automotive sales last year were just under $4,000,000.

Q. So that is it correct then that Ford, Chrysler, and all of the smaller automobile manufacturers and bus manufac-

[fol. 4509] turers and truck manufacturers account for the other 20 per cent of your automotive sales?

A. That is correct.

Q. Has that been generally true during the years, say, since the end of the war, World War II, say, beginning in 1945?

A. That is approximately right. Of course, you know, I am sure, from the testimony, that Ford manufactured the bulk of their own material, and when you eliminate the top three you only have 12 per cent of the automobiles that are manufactured by others.

So it is very small in relation to General Motors, which has over 40 per cent.

Q. Yes, a very small percentage of the total outlet for du Pont in the automotive field, isn't it?

A. That is correct.

Q. And you said that General Motors is around 40 per cent, approximately, of the automobile field?

A. Yes.

Q. And isn't it true that proportionately, from the standpoint of du Pont sales, General Motors represents even more than 40 per cent since Ford manufactures much of its own requirements?

A. That is correct.

Q. So that taking out that production which Ford manufactures itself—by the way, do you have any idea about how much Ford makes in these fabrics that you produce?

A. Oh, we estimate it—I don't recall that figure.

Q. Would it be a million dollars, do you suppose?

A. I don't recall the figure. I would hesitate to——

Q. Well, in terms of the total outlet available to du Pont for the sale of its fabrics, though, in view of Ford having manufactured the greater portion of its own requirements, would you say that General Motors represents, say, maybe [fol. 4510] half of the automobile field available for sales by du Pont in this field?

A. I would say so, yes.

Q. Now, I believe you testified that you sold relatively little to Chrysler, is that correct, of these fabrics?

A. Currently; of course we have sold Chrysler a lot of material in the past.

Q. When you say "currently" you mean in the last year?

A. Yes.

Q. What has been the situation, say, since the end of World War II, say from the end of 1945 on?

A. Well, we haven't sold them very much since then. We have had opportunity to come in on an emergency basis, but as you recall from my testimony earlier in the day, if you don't gear up, if you are not in at the time, if they don't contract with you at the time they are setting up their models, you just don't provide materials. You don't provide fabrics, and you don't provide grains, and you don't provide the prints, so that we have had to pass up a lot of our opportunities to meet the Chrysler situation.

Q. Dollarwise about what would you say your sales to Chrysler were last year in fabrics?

A. I don't know. I don't recall. I would have to look it up.

Q. Now, is it true that during most of the 1930's du Pont sold very little in the way of fabrics to Chrysler?

A. I don't recall specifically. I am sure we sold them some materials, and I don't recall how much.

Q. Now, I believe you testified—I have not been able to see the transcript on this, so I am not sure of the language that was used, but I got the impression that you were asked whether it was true that du Pont had ever, say, from 1917 on,—beginning with the alleged conspiracy charged in this complaint, whether du Pont had ever sold General Motors [fol. 4511] 100 per cent of its requirements of fabrics? Did you say "No" to that?

A. I don't believe so. I don't know.

Q. Do you know that at one time in the early 20's du Pont in fact did supply General Motors almost 100 per cent of its requirements of fabrics?

A. I don't know that.

Q. You don't know that?

A. No, sir.

Q. Have you ever looked at the old records of that?

A. Well, not with that in mind, I mean, I just have not had occasion to.

Q. What was your position in the Fabrics Division when Mr. Allen was general manager of the Chemical Products Department? Weren't you a part of that department in the early 20's?

A. Yes, sir, he was——

Q. What was your position during the time that he was general manager?

A. Well, he was general manager when I was at Newburgh, and he was general manager when I was at Fairfield as chief chemist.

Q. You were chief chemist then?

A. Yes, and technical superintendent.

Q. And did you ever see Mr. Allen's report at the time you were chief chemist on his visits with people in General Motors?

A. No, sir.

Q. Did you not?

A. No, sir.

Q. And did you ever see his reports made to the Executive Committee of du Pont Company regarding his visits with General Motors people?

A. No, sir.

Q. Now, isn't it true, Mr. Nickowitz, as an expert in this fabrics field, that the changes in automobile design have greatly influenced the field for du Pont in the sale of these [fol. 4512] fabrics over the years?

A. I don't believe I understand the question.

Q. All right, maybe it is too general.

As I understand it, though, you have been working in this field since the early 20's. Were you a chemist back in 1922, along in there, testing these materials?

A. Yes.

Q. I have in mind, for example, the change-over say from the open body to the closed body, from the closed body to the steel top. All those changes affected the quantities of "Fabrikoid" for example, that the du Pont Company sold in the automobile field, didn't it?

A. Yes, sir.

Q. And they had very vital effect upon the quantity sold, didn't they?

A. Yes.

Q. And when they went from "Fabrikoid" top to the steel top, why it eliminated quite a hunk of the market for you, didn't it?

A. Surely, but they didn't go from "Fabrikoid"; they went from rubber.

Q. I am sorry. Perhaps it is "Pontop," is that right?

A. Yes.

Q. Now, I believe you stated on direct that probably one of the most heinous crimes that could be committed by a supplier to the automobile trade was that of failing to have production and supplying the material at the time needed, so that a shut-down in production might occur, and that was the thing above all that was to be avoided by a supplier?

A. That is correct.

Q. Isn't that generally right?

A. Yes.

Q. Isn't it true that that was one of the principal reasons that the Fisher Body people have expressed to you their wish over the years to have more than one source of supply for their fabrics?

A. They never said that to me.

[fol. 4513] Q. They never said that to you?

A. No.

Q. Put it this way: Hasn't Fisher always followed the policy of having several sources of supply in this fabrics field?

A. Insofar as I know, they have.

Q. And have they ever indicated to you whether they were having two sources of supply merely for price reason, in order to check price, or to have an assured source or sources of supply in case one falls down, and the other can step up? Haven't they ever discussed that with you?

A. They never discussed that with me. Of course, they don't always follow that principle, either. After all, they bought combined goods from Haartz, and Haartz was the exclusive supplier on that. It depends on the material, I presume. J. C. Haartz Auto Fabrics were, for many years, their exclusive supplier.

Q. Of what material?

A. Combined.

Q. Of combined goods?

A. Yes.

Q. That is what you call "Teal"?

A. Yes.

Q. Was that during the years when du Pont wasn't making much of "Teal"?

A. Well, we were making some. It was during the period we were making some, too, and selling it to Chrysler.

Q. Back in the early or middle 1920's, you mean?

A. Yes.

Q. But the period during the middle thirties, isn't that when Haartz was exclusive supplier of Fisher?

A. Well, they were for many years and have been for many years of the other automobile companies.

Q. Am I right about the period of the thirties?

A. Yes.

Q. Mr. Nickowitz, looking at this report, Defendants' Exhibit No. DP-310, can you tell me whether this document [fol. 4514] relates to the Chevrolet Passenger Car Division, or is it the Chevrolet Commercial Body Division?

A. Well, I have not read the letter.

Q. I am sorry. Take your time.

A. Yes.

Q. Now, can you tell me which division this refers to?

A. This is Chevrolet Commercial.

Q. This is Chevrolet Commercial body?

A. Yes.

Q. That is the one that makes the light trucks, is that right?

A. Yes.

Q. I believe you testified on direct that du Pont had sold Chevrolet Commercial Body around 30 per cent of its requirements?

A. Correct.

Q. Now, I direct your attention to the fourth paragraph where it states, in the second sentence:

> "I am quite sure our percentage is a minimum of 50 with the balance being divided between U. S. and Textileather."

Does that affect the answer you gave?

A. I am quite sure this is incorrect.

Q. You are quite sure this is incorrect?

A. Yes. In 1946 we probably got a little bit larger share due to the extreme shortage of textiles, though we didn't get that much.

Q. This is with reference to what material, can you tell?

A. It is upholstery material.

Q. That would be Fabrilite?

A. Yes, sir.

Q. Now, I note that the last paragraph on the first page states:

> [fol. 4515] "You will remember that we ran into this multiple source situation during the war years, for a combination of reasons with which you are familiar. During the recent period of scarcity the purchasing agents have been working under instructions to maintain several sources for their own protection, and frankly I do not think we can expect an immediate change in that policy."

Were you acquainted with the reasons referred to here in this next to last sentence about maintaining the several sources of supply?

A. Well, I testified this morning that I was told as early as 1941 that they were going to have several sources of supply, and in all of the years that I have been sales director, and I am very intimately familiar with the Chevrolet Commercial situation, because I go there whenever their contract comes up, and they have had three sources of supply for the grade of material that we supply as far back as I can remember.

Q. Yes. Maybe I didn't make myself clear. The question I wanted to ask you, Mr. Nickowitz, was, do you know what the combination of reasons is for Commercial, for Chevrolet Commercial Body, having several sources of supply?

A. I don't know.

Q. You don't know?

A. No. I have argued against it unsuccessfully. I wish I knew how to get around it.

Q. When you went into the manufacture of "Teal" in a fairly big way—as a matter of fact, you were approached by Fisher, weren't you, sometime in the latter part of 1947?

A. Yes.

Q. To become a second source for Fisher on the production of this "Teal"?

A. Yes, sir.

Q. You had to go to another mill, was that right, to get [fol. 4516] your sources of this material?

A. Well, let me explain that.

Q. Your cotton goods?

A. Let me explain that to you.

The fabrics that are used for "Teal" are not standard commercial fabrics. I mean, you cannot go out and buy this fabric in the open market, so we had to develop a source of supply for a construction that was satisfactory, that is correct.

Q. This is du Pont Exhibit No. 292 for identification, and I would like to direct your attention to that second paragraph which states that the Fisher sport decking is now being supplied by Haartz, Mason—I believe that is—and Grower, who purchased the fabric from Nashua and Fisher which is the second source of supply, because they do not wish to be dependent upon Nashua alone.

Nashua is the mill that produces the fabric, isn't that right?

A. Yes.

Q. And it was necessary for you in the Fabrics Division to approach another mill to supply you with the fabric?

A. It was not necessary for us to. We would buy the fabric wherever we pleased.

Q. No, I do not mean anything invidious about that, but you had to make arrangements to get some mill to supply you if you are going to manufacture "Teal", is that right?

A. That is correct.

Q. Does that take a little while?

A. Yes.

Q. Now, in your dealings with the various units of General Motors, car units, over the years you have been connected with the Fabrics Division, have you been aware of the fact that from time to time the General Motors units have given to the du Pont Company the opportunity of [fol. 4517] meeting competitors' prices on some of these fabrics?

A. No.

Q. That is, if a competitor has submitted a low price, why, the du Pont Company will be given the opportunity to meet that price and get the business?

A. No, we are not given an opportunity to meet any prices because we don't know what competition they are quoting. We get the same kind of reaction from General Motors purchasing agents that we get from purchasing agents generally. Purchasing agents in the natural course of their duties are trying to buy as cheaply as they know how, and I never heard anyone that we ever dealt with say our prices are too low. They constantly tell us it is too high, and we attempt to find out how much higher it is, if it is high.

You cannot get any specific information on that. You guess at it. And we study our costs, and if we find we need a high price when the contract comes up, we go in and try to get it, and if we find that we can get a lower price—you see, these automotive contracts are large contracts, and we have got to get quotations on the market value at the time the contract comes up, and other raw materials.

Mr. Harsha: Show Mr. Nickowitz Government's Exhibit for identification No. 1316.

By Mr. Harsha:

Q. Mr. Nickowitz, from the Paint, Lacquer, and Chemicals Department reporting to the Executive Committee for July 1925, and I draw your attention to the second paragraph, which states:

> "For the first six months of 1925, our Fairfield sales were 27 percent lower than for the first half of 1924: [fol. 4518] This was due entirely to our lack of Chevrolet and Buick business over the first half of this year. This, it will be recalled, we had the opportunity of taking at competitive prices, but refused to take on an unprofitable basis."

Were you aware of that situation at the time you were with the Fabrics Division?

A. I don't know anything about it. I was not in the sales.

Q. Have you ever heard of this situation in any other circumstances?

A. No, sir.

Q. In selling to General Motors?

A. No, sir.

Q. Now, over the years, isn't it true that speaking generally du Pont has followed the policy in selling its fabrics to the automobile field of undercutting its competitors in price? You don't try to sell it on a lower price than that quoted by any other competitor, do you?

A. Well, we don't know. We go in and we bid based on our costs. Now, in the automotive industry, we have a different situation than you do in the furniture trade, for example, where you have an established price.

You see, in the automobile industry, each manufacturer uses a different construction. They all have their own peculiar ideas of what they want about these fabrics. Some want dyed backs, and some want different finishes, so you don't have any standard prices in the automobile industry.

Q. You do find out in the course of your dealings what your competitors are selling comparable products for?

A. We try to find out. We get it from the trade reports and things of that type.

[fol. 4519] Q. You are generally pretty well informed, aren't you?

A. I would not say so, no.

Q. You don't mean you don't learn of your competitors' prices until after the contract is awarded?

A. I cannot tell you right now what Fisher Body is paying Textileather for their material.

Mr. Harsha: Will you show Mr. Nickowitz Government's Exhibit No. 1317, please?

By Mr. Harsha:

Q. This is an excerpt, Mr. Nickowitz, from the report of the Fabrikoid—let me read you the first part, then I will let you see the document if you wish.

It is an excerpt from the report of the Fabrikoid Division to the Executive Committee for the month of January, 1927, and it states:

> "Many of our competitors show a tendency toward cutting prices. We attribute this condition to the fact that they are generally short of a fair volume of business."

Now, isn't that the type of information that you commonly obtained, Mr. Nickowitz, in this field?

A. Oh, you get it occasionally, but sometimes it is not reliable.

Q. Well, there is always a chance that somebody makes a mistake, certainly. But it certainly is, you feel, usually sufficiently reliable so that you can rely upon it in the operation of your business, isn't that right?

A. Well, I can't make a general statement like that. We get trade reports that—well, I will give you an example of the sort of thing that I mean.

[fol. 4520] A purchasing agent recently told one of our salesmen that our price was approximately ten per cent high on certain construction.

We checked up on it and we found out that we were supplying the customer with 44 inch material, whereas the competitive product was 40 inch material. We get information of that kind.

Q. I appreciate——

A. So that you have got to be specific. Now, we get—after we lose a contract our salesmen will report that we lost the business. Our price was five per cent high, ten per cent high, or two cents a yard high. That kind of information is the sort of information on which we set our prices.

Q. Now, if you have any doubt as to the reliability of the information that you have received, you don't usually incorporate that information in your monthly report to the Executive Committee of the du Pont Company, do you?

A. Well, I don't know about this report. I couldn't tell you about that. That is way before my time.

Q. I presume you would state the same as regarding examples occurring, say, in 1928? Was that before your time when you were acquainted with these things?

A. Yes, sir.

Q. Now, you mentioned a cement in your direct testimony, which apparently has been used, I gather, by Fisher Body as a weather-stripping material or to attach weather-stripping material, is that correct?

A. Yes, sir.

Q. Do you know when that cement was first made by anyone in the industry?

A. Oh, I don't know when it was first made. I am familiar with the fact that they have used cements of that type for many years. Actually we submitted samples to meet that situation back in, I think it was, 1945.

[fols. 4521-4523] Q. 1945?

A. Yes, when we developed our 5115 "Fairprene" cement.

Q. Do you know when Fisher Body first began using a cement for this weather-stripping process?

A. I don't know.

Q. Was it before you developed your cement in 1945?

A. I believe so.

Q. Was it sometime prior to World War II that you first began using it?

A. I don't know.

Q. Do you know how the price of your cement today compares with that quoted by your competitors to the automobile manufacturers?

A. I don't know. I know what our cement sells for.

Q. Who is the principal supplier of Fisher on this material now?

A. Armstrong Cork.

Q. Does Minnesota Mining sell any of that?

A. They sold some and I think our salesmen report that their cement was found to be inadequate.

Right at the moment I don't think they have what they consider an ideal cement for their purpose.

The Court: The Court will recess for fifteen minutes.

(Recess taken.)

The Court: Proceed, please.

Mr. Harsha: After reflection, your Honor, I have decided there is no further cross examination.

The Court: That happens very frequently after the recess.

Mr. Harsha: Mr. Neitzert has informed me that he has no redirect.

(Witness excused.)

[fol. 4524] AUBREY LEE BROWN, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Mr. Neitzert: Mr. Brown, I apologize for saying you are the oldest employee in the Fabrics Sales Department. I meant to say that you have been there the longest.

[fol. 4525] Direct Examination.

By Mr. Neitzert:

Q. Will you state your name and address for the record?

A. Aubrey Lee Brown.

Q. How long have you been assistant to the director of sales of the Fabrics Division, of the Fabrics & Finishes Department of the du Pont Company?

A. Since 1931.

Q. Will you please tell us when you started working for the du Pont Company, and give his Honor the names of the positions that you have had since that time, and briefly state what your duties have been in each one of those positions.

A. I entered the employ of the du Pont Company on August 1, 1917, as a sales correspondent in the Wilmington office, which was the headquarters at that time of the sales office.

As a sales correspondent my duty or duties consisted of corresponding with customers and with the salesmen, keeping the salesmen informed of what was going on in the Wilmington office, and in turn keeping the officials informed on what I was learning from the salesmen.

I continued in that work until early 1919 when I was made sales office manager, taking charge at that time of all of the sales correspondents. They reported to me beginning then, and I was sort of general assistant on anything that was turning up in the Sales Department. That continued until October 5, 1921, when my office was transferred to Wilmington. The entire Sales Department was moved to Wilmington, from Newburgh, New York.

I remained in the same position the rest of that year, and on January 1, 1922, I was made control manager of the Fabrikoid Division.

[fol. 4526] In that position I had charge of all of the accounting and clerical functions of the division which included, of course, orders and invoices and departments handling trade statistics. Also in that position I reported directly to the Division Manager, so that I prepared many statements for him; in fact, I made almost continual analyses of the business for him, and I prepared the drafts of the reports that he made regularly to his superiors.

In October, 1924,—I correct that to May 1, 1924—I was made assistant director of sales of the Fabrics Division. In that position I had charge of all of the activities of the Sales Department under the supervision of the director of sales.

I called on the customers, set prices, and made contracts, and in general handled the full sales activities, subject, as I say, to the supervision of the director of sales.

Six months later, in October, 1924, I was moved back to Wilmington as control manager of the Cellulose Products Department and continued in that position for six months.

On March 1, 1925, I returned to Newburgh as assistant director of sales. I continued until 1930. My title was changed to Assistant Sales Manager, and in 1931, to Assistant to the Director of Sales, which has remained until the present.

For a period there ending in about April, 1933, we had a separate automotive sales manager who reported to me, and at that time, in April, 1933, I took over his duties in addition to those I had previously handled, so that since March, 1925 I have been the staff assistant in the Sales [fol. 4527] Department handling contracts, orders, and making prices, signing those contracts, calling on trade, all in collaboration with and subject to the supervision of Director of Sales.

Q. Your responsibility has been particularly in the automotive field?

A. It has been particularly with reference to automotive pro[illegible]ts.

Q. I want to go back, Mr. Brown, to August 1, 1917, when you first came with the fabrics sales department, and try to reconstruct the situation as it existed at that time, the best we can.

First, tell us what kind of coated fabrics were manufactured by the du Pont Company when you went there, and where they were manufactured, and to whom they were sold?

A. In 1917 there were two plants in the Fabrikoid Division. The Newburgh, New York plant manufactured pyroxylin coated fabrics, single texture and double texture. Those products were sold in many industries. I would say thirty percent, approximately, went to the automotive industry. The balance went to the bookbinding accounts, furniture, luggage cases, railroad upholstery jobbers.

At the Fairfield plant we manufactured a single texture rubber coated product which was generally known in the trade as Ford rubber; perhaps 60 or 65 percent of the output of that plant went to the Ford Motor Company at that time. The balance went to carriages, and I recall we were selling Buick Motor Company, for instance, 1,000 yards a day during part of that period for special uses for them. Practically all of the output went either to the automotive industry or to the carriage trade.

Q. You referred to this sale of 1,000 yards of Ford rubber per day to the Buick Company. Were you also selling to other General Motors Companies and divisions in 1917? [fol. 4528] Let's take pyroxylin coated fabrics, first. What was the situation with respect to the sales of pyroxylin coated fabrics sent to the General Motors Companies and divisions?

A. In 1917, when I was starting in with the company, we were selling pyroxylin coated fabrics then to most of the General Motors Companies. In order of the importance of sales, I would say they were Buick, Chevrolet, Oldsmobile, Cadillac, Oakland and General Motors Truck.

Q. Were any of these companies buying their entire requirements of pyroxylin coated fabrics from du Pont?

A. Chevrolet and Cadillac bought all or substantially all of their materials from the Newburgh plant at that time.

Q. What about the rest of them? Did they have a substantial part of their requirements from the Newburgh plant?

A. They had a smaller portion. None of the others bought, I would say, more than half. They bought from a half to a third, the other units that I have named.

Q. At any time after 1917 when you came with the du Pont Company, was the Fabrics Division ever able to sell the General Motors Companies or divisions a greater percentage of their requirements of pyroxylin coated fabrics than was the case in 1917 when you came there?

A. Not until the year 1922. We, of course, endeavored to sell all we could at each time there was an opportunity, but we didn't increase our percentage until 1922.

Q. I am going to ask you some questions about what happened in 1922 in just a moment, but before I do that, what about sales of rubber coated fabrics to the General Motors Companies in 1917, other than the sales to Buick that you have referred to?

A. We were not selling any other rubber coated fabrics [fol. 4529] that I can recall. If we were, it was a very, very small amount at that time to General Motors units.

Q. Were you working on a new type or kind of rubber coated fabric at that time?

A. Yes, we were. The company purchased that plant in 1916, and as I stated, most of the production was going to Ford Motor Company.

It was a fairly inexpensive product. It was realized it was not very sound to have so much of the sales going to one spot, so developments were started both in the Fairfield laboratory and in the Experimental Station in Wilmington looking forward to producing a top material that could be sold to the higher priced trade.

Q. Did that later become known as Pontop when it was developed?

A. Later known as Pontop.

Q. Before we talk about Pontop let's pick up what happened in 1922. What were the events leading up to the occasion for selling a greater percentage of the requirements of General Motors Companies in 1922 than previously thereto?

A. In 1920 and 1921 there was quite a severe depression in the United States, an economic depression, and automobile sales dropped off very, very sharply in 1920.

As a result, General Motors units, some of them, found themselves very heavily loaded with inventories. We had very substantial contracts with them at the time, and they help up shipments, and later requested cancellation of those contracts.

We were not able to accept cancellations because in order to take care of a contract we had committed ourselves for the necessary grey goods and other raw materials, and we were unable to cancel with our suppliers.

[fol. 4530] So we made an arrangement with General Motors under which they were to pay a portion of the losses, of the inventory losses.

Before that arrangement was actually consummated, however, they asked that it be re-opened and re-negotiated.

That was done, and it wasn't until early 1922 that final settlement of those contracts was made.

Q. What was the settlement?

A. In the case of Chevrolet, they agreed to take out their commitments with deferred deliveries, which were satisfactory to us.

In the case of Buick, Oakland and Olds, we agreed to cancel the contracts in return for their commitments to purchase their requirements, their entire requirements, from us in 1922, of the different products that we were able to supply to them.

Q. That was fabrics requirements, not requirements of other products?

A. Of our division's requirements, yes.

Q. Did they do that?

A. Yes, they did. That was the arrangement, and as a result in 1922 we had a larger percentage of that business than we had had at any other time.

Buick, however, was using an uncoated combined material on a substantial number of their tops. We were not making that product at the time, so we didn't get that business.

Q. Following the expiration of those 1922 contracts, did Buick, Olds and Oakland continue to buy all their requirements of the type of fabrics that du Pont manufactured from du Pont?

A. No. In 1923 they more or less reverted to their previous custom of giving us a portion of their business.

[fol. 4531] Q. What happened to Chevrolet and Cadillac during this period? Did they continue to buy substantially all their requirements from du Pont?

A. Chevrolet, we continued all of their requirements through 1921.

Q. That is as far as I wanted to go. The same was true of Cadillac?

A. Cadillac, yes.

Q. Were there some General Motors' companies or divisions that did not buy their requirements of coated fabrics from du Pont during this period?

A. Yes, there were. We had not sold anything to Scripps Booth Company who manufactured the Scripps-Booth car. We sold very little, if any, to Sheridan Motor Company who were making the Sheridan car. I recall we had one contract with them, but I don't remember whether we delivered against it or not. It is the only one I remember with them.

Fisher Body Corporation, we were selling very little, if any. I don't recall we were selling any at that early stage in 1917. It was about 1922 when we had our first substantial order from them, although that was a very small part of their requirements.

Q. More specifically with reference to Chevrolet, what kinds of fabrics did Chevrolet buy from du Pont during this period from 1917 to 1922?

A. Chevrolet bought "Fabrikoid" for upholstery and trim for their open cars. They also bought their top material from us in 1917. That was a combined mohair product.

In 1917 we had decided to liquidate our mohair business. We didn't like this product. We felt that we had a superior product in our "Rayntite" double texture pyroxylin top material. Of course, we also had the rubber type at Fairfield. [fol. 4532] We attempted to sell Chevrolet to get them to change from mohair to "Rayntite," but they weren't prepared to do it. At the time we gave up mohair towards the end of 1917 we lost some Chevrolet business that year, and quite a lot of the Chevrolet top business in 1918.

They continued with mohair, which they bought from the Barrell Company of New York. In addition, they were testing such other materials as were available, and one of those that became available and later was available in 1918, was our Fairfield "Pontop," our new item.

Chevrolet was first offered "Pontop" by us in the sampling stage early in 1918, and they were quite pleased with it. About the middle of the year they were ready in fact to negotiate a contract, and we did write a contract for them for whatever requirements or whatever portion of their requirements we could fill during 1918. We didn't get into full production on the material until 1919.

Mr. Neitzert: Your Honor, I offer in evidence Defendants' Exhibit DP-243, which is the first exhibit in your book.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 243.)

Mr. Neitzert: This is a letter from Mr. Kniffen to Mr. J. A. Haskell, dated May 15, 1918.

For the present, I call attention only to the last sentence appearing on the first page of the exhibit, which is related to what the witness has been covering in his testimony. That sentence is as follows:

> [fol. 4533] "For several years Chevrolet has used no leather substitute for upholstery, other than Fabrikoid."

By Mr. Neitzert:

Q. Mr. Brown, this pyroxylin coated material you said was bought by Chevrolet exclusively from du Pont.

A. Yes, sir.

Mr. Neitzert: I also refer your Honor to Government's Exhibit No. 297, Trial Exhibit No. 297, which would be the second document in your book, and to the last page of that exhibit.

I call your attention to the large yardage purchases shown there to have been made from the Barrell Company.

By Mr. Neitzert:

Q. Are those the mohair purchases that were temporarily made from the Barrell Company when you attempted to discontinue the manufacture of the pyroxylin-coated "Rayntite" material?

A. They are.

Q. Now, would you just start and tell us about the work that had been done on "Pontop," and Chevrolet's adoption of "Pontop"? How did "Pontop" differ from other types of materials that were available to the trade in 1918?

A. The "Pontop" was an entirely different compound. It was much more durable to outdoor exposure and use, and the appearance was quite improved over our old Ford rubber type.

Q. Did you distribute samples of "Pontop" to other automobile manufacturers in addition to the General Motors Company during 1918?

A. Oh, yes, the product was widely circularized, and the salesmen presented it on the regular calls on all the automobile manufacturers they were calling on.

[fol. 4534] Q. What was the response of the automobile trade to "Pontop"?

A. It was very excellent. Our tests, information had been supplied to our salesmen and those tests indicated it was far superior to any other product that was then being offered.

The only thing that compared at all favorably was a product made by Hodgman Rubber Company. We felt that we were at least equal to Hodgman, and our price was lower than their price, so we were in a quite favorable position, and evidently the trade thought that because we had many inquiries, and supplied many test samples during that period.

Q. What are the names of some of the automobile manufacturers that adopted "Pontop" decking when it became available?

A. Several of the General Motors' units, Buick, Oakland, Olds and Chevrolet, all adopted "Pontop" during this period, and Cadillac a little bit later. They came in in 1920.

Hupmobile, Marmon, Reo; they are the ones I think of. Of course, Ford and Willys-Overland were the big ones outside of the GM units.

Q. Metz?

A. Metz adopted it at that time. I would say that most of the companies that we showed the materials to that were in the market would be buying from us if we were able to sell it. We did not have too much capacity.

Q. Did the introduction of "Pontop" increase your sales of top materials to General Motors' units as distinguished from pyroxylin coated upholstery? Did it result in increased sales to the General Motors Company?

A. Not necessarily, because "Pontop" was a replacement [fol. 4535] of other top materials that we had sold to General Motors' units earlier.

Mr. Neitzert: Your Honor, I offer in evidence at this time Exhibit DP 244, which is an excerpt from the report of the du Pont Fabrikoid Company to C. W. Phellis, General Director of Sales for the month of November, 1919. It is dated January 2nd, 1920.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 244.)

Mr. Neitzert: This reads as follows:

> "Our capacity at Fairfield is sold up. We are, therefore, making no quotations, although we did accept an additional order from Chevrolet Motor Company for

150,000 yards of Double Texture Rubber at current prices."

Reference is there being made to "Pontop"?

A. Yes, sir.

Mr. Neitzert: (Reading):

> "Indications for the year 1920 point to very good business in all lines. Fairfield Plant is now sold to capacity until June 30th, and a great deal of business is being offered to us which we are not in a position to accept."

By Mr. Neitzert:

Q. Where was "Pontop" manufactured?

A. Fairfield, Connecticut.

Mr. Neitzert: I also offer in evidence Exhibit No. DP 245, which is an excerpt from the report of the du Pont Fabri- [fol. 4536] koid Company to F. W. Pickard for the month of March, 1919, dated May 8, 1919.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 245.)

By Mr. Neitzert:

Q. Mr. Brown, what position did Mr. F. W. Pickard hold with the du Pont Company in March of 1919?

A. Mr. Pickard was vice-president in charge of sales.

Mr. Neitzert: I will read only about half of this exhibit:

> "Sales are gradually improving. In the case of Fairfield, the Plant is working as rapidly as possible to a capacity basis, but we have given them enough orders to warrant this. The present capacity of the Plant has been sold from July 1 to the end of the year. It should be noted that while heretofore practically all of the Fairfield material sold was of a Rubber Drill for Ford Motor Company, the sales we have recently made are of the high grade top material."

By Mr. Neitzert:

Q. Is reference there made to "Pontop"?
A. Yes, sir.

Mr. Neitzert: (Reading):

> "- and while the capacity of the Plant has been sold, we have no orders from Ford Motor Company."

By Mr. Neitzert:

Q. Did you later sell Ford some "Pontop"?
A. Yes, we sold Ford "Pontop" in the latter part of 1919.
[fol. 4537] Q. What were the circumstances that accounted for your not having received those orders from Ford in March of 1919?
A. We had discontinued the product we had been selling for quite a period. It was a cheap product, and Ford was not quite ready to jump into "Pontop," so they tried other materials for a time.

In the meantime, they were testing "Pontop," and by the middle of 1919, or shortly thereafter, they started to purchase single texture "Pontop".

Mr. Neitzert: Also, as further evidence of the development of the business of Fairfield, I offer in evidence DP Exhibit No. 246, which is an undated memorandum captioned, "Buick Motor Company."

Reference will be made to this exhibit at a later date. There is one short paragraph I wish to read now.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 246.)

By Mr. Neitzert:

Q. Can you state during what years the events referred to in DP Exhibit No. 246 occurred?
A. 1918.

Mr. Neitzert: The only part of the memorandum I wish to refer to now, your Honor, is at the bottom of page 2, and is as follows:

> "June 25, Stark wired——"

Who was Stark?

A. Stark was Mr. J. W. Stark; he was manager of the Detroit office.

[fol. 4538] Mr. Neitzert: (Reading):

> "—that Chevrolet had closed for all available top and curtain rubber material, and we had nothing in sight at present for Buick"——

Is reference here made to "Pontop" in that sentence?

A. Yes, sir.

Mr. Neitzert: (Reading):

> "—but that we would accept 21,600 yards of 4000 quality combined to 700 sheeting per arrangement with Wade,"—

Wade was the Buick buyer?

A. Yes, sir.

Mr. Neitzert: (Reading):

> "—provided it was accepted by close of business Saturday. (Buick had sent us a contract for 53,000 yards of this material which they wanted to take up to July 1, 1919. We were not in a position to offer them that quantity, but decided to negotiate on 21,600 yards)."

By ~~Mr.~~ Neitzert:

Q. Now, at the time that Buick and Chevrolet were attempting to buy "Pontop," were any of the other General Motors divisions evidencing any interest in "Pontop"?

A. Yes, sir, they were; Oakland, Oldsmobile and Cadillac had all expressed a very definite interest in it.

Q. Did you later sell them large amounts?

A. Yes, we later sold all of them.

Q. Now, did you have any conversation with anyone in the production department of the Fabrics Division about [fol. 4539] that time concerning the interest of General Motors Companies in "Pontop," and the interest of other companies in "Pontop"?

A. Yes, sir, we kept them—I had daily contact with Mr. Kniffen who was head of the production department, and his assistant, keeping them posted of the trend, so they could provide the necessary material and so on, and prepare for what was going to be offered, and for a large production of the new "Pontop".

Q. Do you recall what you told Mr. Kniffen or anyone in the production department about what percentage of General Motors business in the top materials was of the "Pontop" material?

Mr. Harsha: I object to that question. It is leading terrifically.

The Court: Sustained.

Mr. Neitzert: Very well.

Your Honor, I call attention to Government's Trial Exhibit No. 302, which is a letter from F. Kniffen to J. A. Haskell, and I particularly call your attention to the first paragraph which reads:

> "If we are ultimately to furnish all, or the greater part, of the top material for the Chevrolet and General Motors cars would it not be well for these several users to agree upon a uniform shade of drab for the back, or lining?"

Q. Did you have any conversation with Mr. Kniffen about any of the matters referred to in that paragraph, about this time?

A. Yes, I did.

[fol. 4540] Q. What were they?

A. I told him, as I said before, that from the inquiries we were getting, the type of inquiries, I felt that we were going to sell all of the General Motors their top material requirements. That is about the way the General Motors units' expression to us was, they were so pleased with this product that we could expect their business, and I informed Mr. Kniffen of that so he could prepare for it.

Q. Was that situation peculiar to the General Motors Companies or was that——

A. No, we had many other inquiries, and as I say, I was in daily contact. They were right down—right across the hall from me in Wilmington.

Q. Now, reference is made in this exhibit to uniform shade of drab for the back or linings.

Do you know whether the production department was having any difficulty with uniformity or shade of the top material for linings before this letter was written?

A. Oh, yes, we had in the beginning of 1916 and 1917—we had a real serious time with some of our customers, particularly Oakland and Olds because they complained of the non-uniformity of the backing that we were supplying to them. It was really quite a serious thing because when they made a top, you had to have the quarters and the top itself, and those parts had to be sewed together, so that in the inside, of course, it looked like a continuous piece, but if the colors were different on the quarters from the top, why, it was like having two parts of your suit sewed together that didn't have the same color. It was just very unattractive.

What happened, of course, was that due to the British blockade, the German dyes were not reaching this country. There was an extreme shortage here, and you couldn't buy enough dye stuff in one spot to carry the inventory. As a [fol. 4541] result, we were buying wherever we could, and we just were not able to make a uniform shade.

Q. Do you know whether or not being able to limit the number of shades simplified production problems and dyeing problems?

A. Oh, yes, the fewer the shades, of course the greater production you get from the dyeing house, and it would have some effect on lower costs.

Q. At this time did you know of any agreement or understanding between General Motors Companies and du Pont, or between the officials of those companies, that du Pont would furnish the greater part of the top material for Chevrolet and General Motors' cars?

A. No.

Q. Did you ever see or hear of any agreement or understanding that du Pont would supply all or the greater part of the requirements of Chevrolet and General Motors companies of any kind of coated fabrics?

A. I did not.

Q. Were you ever led to believe, told or led to believe, that General Motors would favor du Pont in purchasing its artificial leather and top materials?

A. No, sir.

Q. Now, did you sell any product to Chevrolet other than coated fabrics in these early days?

A. Well, I recall in 1920 we sold them coated panel boards.

Q. Tell us about that.

A. They approached us in the spring of 1920, telling us that in their opinion they were paying considerably too much for their panel boards from the panel board manufacturers, and asked us to see if we could develop a cheaper method of coating these boards, and we undertook to do that, and we were successful.

We found that by modifying our coating equipment, adding certain additional parts, that we could coat the board directly, and we did that, and as I recall it, our price was [fol. 4542] almost cut in half, the price they had been paying, that is, and we had that business all through that year.

Q. What happened them?

A. Well, by the end of the time the next model rolled around, the panel board boys had gotten their price down to compete with ours, and the business was placed with them again. We lost it.

Q. Now, what were your sales of coated and combined fabrics to the Chevrolet Motor Car Company during the 20's?

A. Coated and combined?

Q. Yes. Start with coated, first. Did you continue to supply Chevrolet with the coated?

A. Yes, we continued to supply Chevrolet through 1921, and on the "Fabrikoid" end, the upholstery and interior trim, we continued with all of that business without much of a problem.

The rubber coated business, however, the top material, we were not nearly as successful, not nearly so successful; in fact, between 1922 and 1925 we lost very large quantities of it. Sometimes we would get a contract and sometimes we wouldn't, but they bought a great deal from competition.

In that period rubber prices were being quoted by competition on products that we considered as definitely inferior to our product, but were very low, and Chevrolet was attracted by the low prices and placed considerable business with these competitors.

I recall that about 1925, I guess it was, we had none of their top business in the fore part of the year. We noticed from trade reports that they were having some difficulty with the products they were buying, and our Detroit salesman, Mr. C. E. McShane, talked to me in May of 1925 on the telephone, and told me that he had just had a session with Mr. Donald O'Keefe who was the purchasing agent, general purchasing agent of Chevrolet.

[fol. 4543] Mr. O'Keefe told him that they were in real difficulty, that the competitive top material that was then on the line was not proving strong enough, and in applying the tops quite a number of them were being torn because of weak tensile or weak tearing strength.

I asked Mr. McShane if we could get a carload out pretty quickly, for that was the question Pete (McShane) asked me. Well, I checked and found that we could get one out within two or three days, and Mr. O'Keefe gave us a confirming order. We supplied that carload, and later in that month he gave us a contract for their entire requirements of top material for three months beginning July—July, August and September.

Just about the time that the contract reached the office, the latter part of May, Mr. O'Keefe asked if we could start it in June rather than July, although they had contracts, of course, with competition for that month.

We did start in June and shipped substantial quantities in that month. As far as I remember we never lost any of their coated top material after that. Mr. O'Keefe stated that he had finally decided that athough the tops might cost him a little more on our material, that it would be cheaper for him in the long run to use it.

Q. This man you refer to as Pete, is he also the same man you referred to as McShane?

A. Yes, C. E. McShane. Charles E. McShane.

Mr. Neitzert: Your Honor, I refer to Government's Trial Exhibit No. 411, which is an excerpt from a report of the Cellulose Products Department, and to the third paragraph:

> [fol. 4544] "We find that 25% of Chevrolet's rubber business for July, August and September (some 96,000 yards) was placed with O'Bannon at 40¢ for July and 42½¢ for the balance. Our price since April 1st has been 55.6¢."

By Mr. Neitzert:

Q. Your price of 55.6 cents was for what kind of material?

A. Our "Pontop" product.

Q. Is that the same kind of material that Chevrolet was buying from O'Bannon?

A. No, the O'Bannon product was more the type of our former Ford rubber product. It was entirely different from "Pontop".

Mr. Neitzert: I also call your Honor's attention to Government's Exhibit No. 407, which is a letter from Vice-President Coyne to Mr. P. S. du Pont, dated July 18, 1923.

The first paragraph of that letter is as follows:

> "At our Directors of Sales meeting July 17th, in Wilmington, statement was made that for the last six months of 1923 we lost 25% of the Chevrolet top business, our price and quality being admittedly as good as our competitors."

By Mr. Neitzert:

Q. Is it your recollection that the quality of "Pontop" was as good as that of your competitors?

A. Oh, yes, no question about that. It was far superior.

Mr. Neitzert: I also offer in evidence, your Honor, du Pont Exhibit No. 248, which is an excerpt from a report of the Cellulose Products Department to the Executive Committee, dated November 23, 1923.

[fol. 4545] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 248.)

Mr. Neitzert: This reads as follows:

> "The Committee is aready acquainted in detail with the developments at Chevrolet resulting in the loss of 2,000,000 yards of Fairfield rubber over the first six months of 1924, and the writing of a contract with them for an estimated 1,000,000 yards of FABRIKOID over the same period on a requirements basis."

I also call your Honor's attention to Government Trial Exhibit No. 454, a report to the Executive Committee of the du Pont Company, dated July 24, 1925.

The last paragraph at the bottom of page 8 is as follows:

> "Fairfield's June billings show an increase of 60% over May and 10% over forecast. This is principally due to the Chevrolet contract, which was supposed to

cover July, August and September, but under which a considerable volume of releases was given us in June."

By Mr. Neitzert:

Q. Are those the releases that you referred to that were made by Chevrolet when they got in trouble with the competitors' products?

A. They were, yes, sir.

Q. (Reading):

> "For the first six months of 1925, our Fairfield sales were 27% lower than for the first half of 1924. This was due entirely to our lack of the Chevrolet and Buick business over the first half of this year. This, it [fol. 4546] will be recalled, we had the opportunity of taking at competitive prices, but refused to book on an unprofitable basis. Against the loss of volume and consequent impairment of current profits resulting from this refusal, we feel there is a substantial offset in the form of a somewhat improved general tone of the market in which we must operate."

What sales of uncoated fabrics did the du Pont Company make to the Chevrolet Motor Company during the 20's?

A. We made no sales of uncoated fabrics to Chevrolet until about 1927.

Q. What did they start buying then?

A. They then started to buy a product which we call "Teal".

Q. From what source had Chevrolet been buying its requirements of uncoated fabrics prior to 1927?

A. From the Haartz Company.

Q. What percentage of the business did you have after 1927?

A. After 1927 we had, as I recall, fairly small orders until 1929 or 1930. Chevrolet were making quite a large number of sport cars on which they were using the Teal type of product.

They were open cars, the same as the others, but on the sport cars they would maybe put two or three extra stripes on them and a little better top material, and perhaps a little more nickel. That type of car was quite popular.

They used "Pontop" on the balance of the open cars, and the "Teal" type product on the sport cars. About 1929—of course, the percentage changed from year to year, but by 1929 about half of the cars were going into the "Teal" type of product.

[fol. 4547] We didn't get any of that business at that time but in 1930 Chevrolet abandoned the coated product and put everything into the uncoated, and at that time we did get a substantial portion—I would say at least 50 per cent, perhaps somewhat more.

Q. During these years did you attempt to sell Chevrolet its requirements of uncoated fabrics?

A. Yes, we did.

Q. Do you recall any other product that was sold by the Fabrics Division to Chevrolet other than panel board and these coated and uncoated fabrics that were used for top, upholstery and interior trim?

A. I recall that they used a considerable quantity of winterfront material, and we tried to get them, of course, to specify our product.

I remember one year they did. I don't recall that they did that more than one year. But about 1936 I recall they particularly liked a product that we had at that time and did specify it.

Q. What was winterfront material?

A. Winterfront was a coated fabric that was attached to the grill in front of the radiator and was used in cold weather, and it would reduce the amount of cold air that could get against the radiator. This helped to prevent freezing.

Q. Did you try to get Chevrolet over the years to specify your materials for this purpose?

A. Yes. That was part of our regular sales program.

Mr. Neitzert: I offer in evidence DP Exhibit No. 249, which is a letter from A. L. Brown to T. A. Nalle.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 249.)

[fol. 4548] By Mr. Neitzert:

Q. Who was T. A. Nalle at that time?

A. Mr. Nalle was our Detroit sales representative.

Q. This letter is dated July 15, 1936, and the first paragraph is as follows:

> "It is certainly fine news to note in your pen and ink memorandum that Chevrolet has selected 2200-LBC Aluminum for their winter fronts on the new models."

Was that the type of cloth you were offering for that purpose?

A. Yes, sir.

Q. (Reading):

> "Congratulations on this accomplishment. Last year you will recall competitive rubber was used."

Do you recall whether you ever got the business again after 1936?

A. No substantial amount. That is my recollection of it.

Mr. Neitzert: Now, your Honor, I direct your attention to DP-250, which is a chart showing dollar sales of coated and combined fabrics by the du Pont Company to Chevrolet Motor Company for the years 1922 to 1935.

Except for the year 1922, all sales figures in the columns that are captioned "Newburgh Sales," "Fairfield Sales," and "Total du Pont Sales," have been taken from the Fabrics Division sales cards which are du Pont departmental records.

You will recall reference was made in cross examination to those cards yesterday. I have the Chevrolet card from which this material was taken in my hand here, a photostatic copy of it.

[fol. 4549] These figures show the dollar sales of Newburgh and Fairfield products sold to the Chevrolet Company for each of the years indicated, and then in the third column, under Total du Pont Sales, the total sales of both factories.

The column that is headed "Open Cars Manufactured" contains data which we obtained from the General Motors Corporation production records which have been supplied to us by General Motors Company.

The last three columns contain computed figures. They show the Newburgh sales per car manufactured and the Fairfield sales per car manufactured and the total fabric sales per car manufactured. They are arrived at merely by dividing the number of cars manufactured into sales.

The figures opposite the year 1922, as indicated by the footnote, are from General Motors Exhibit No. 151. I believe a copy of that exhibit is in your Honor's book.

You will recall that that is an exhibit which showed outside purchases—by that is meant purchases outside the General Motors group of companies. This is for 1922 by the Car and Truck Divisions.

One of the items is imitation leather. Another item is top materials in this exhibit.

Now for purposes of comparison, and also because it coincides with the locations of the plants where we manufacture those materials, we have placed total purchases of Chevrolet as shown by the General Motors exhibit for artificial leather under Newburgh sales, 1922, and total purchases of top materials, as shown by the General Motors exhibit, under Fairfield sales for 1922.

We have added them together and put them in total sales, which is the fourth column, and the other columns are prepared in the same manner.

[fol. 4550] Our sales card does not show our sales for 1922. The first year that we have any information for is the year 1923.

By Mr. Neitzert:

Q. What part of this exhibit did you have anything to do with preparing, Mr. Brown?

A. I gave you the notes beginning with Note No. 3, Notes 3 to 8. I had nothing to do with the balance of it.

Mr. Neitzert: That question explains why I am testifying rather than asking the witness, because this was prepared under my supervision from figures available to the government and can be checked.

This shows all of the sales to Chevrolet during the year 1922, all the purchases by Chevrolet during the year 1922 were purchases from du Pont except for the small purchases that are referred to by Government Trial Exhibit No. 441, which we have already referred to here this morning.

I have shown in footnote 2 that all of the sales under the captain "Fairfield" were not made by the Fairfield factory. I have indicated in the footnote that purchases from O'Bannon amounted to $37,500.00 but I can't find the document from which I got that figure.

Reference to Government Exhibit No. 411 would indicate that the purchases from O'Bannon by Chevrolet have been more nearly in the neighborhood of $40,000.00, a difference of nearly $2,500.00. But I think I will find the exhibit which is the source of my figure before we get through here.

Now, I call your Honor's attention particularly to the column at the very righthand side of the page, which shows the total purchases per car manufactured.

You will observe that in 1922 Chevrolet purchased $9.71 worth of fabrics per car manufactured.

[fol. 4551] Our sales cards are not complete for 1923. However, you will observe by looking at the Newburgh column that our sales cards show practically the same purchases of artificial leather per car manufactured in 1923 as in 1922. There is very little difference.

In 1924 there is a very great drop in the purchases of Newburgh materials per car manufactured.

By Mr. Neitzert:

Q. What is the explanation of that, Mr. Brown?

A. The only explanation I can give is that the open car production in 1923 was 266,000 cars. It was only 156,000 the next year.

I think probably that they had accumulated pretty heavy inventories, and part of the 1924 production was reducing the inventory.

Mr. Neitzert: If your Honor will refer to the Fairfield sales column, you will see the effect of the occasions when Chevrolet went outside of the du Pont Company for the purchase of its top materials.

As the footnote shows and as the witness has testified, the large quantities of top materials were purchased elsewhere in 1924 and 1925, and there was a great reduction in the dollars of top materials purchased by Chevrolet per car from du Pont Company as shown by that table.

By Mr. Neitzert:

Q. Now, Mr. Brown, in 1929, there appears to be again a decrease in the amount of top materials purchased from du Pont. What is the explanation of that?

A. That is a year that they had gotten up to one-half, at least a half of the use of uncoated materials for tops, and we didn't get any of it in 1929.

[fol. 4552] Q. Then there was a great increase in 1930. What is the explanation of that?

A. There we started to cut in on the uncoated material.

Q. That is when you started selling "Teal"?

A. Yes.

Q. Is "Teal" a more expensive material per yard than the coated top materials?

A. Yes, it was much more expensive.

The Court: The Court will recess for fifteen minutes.

(Recess taken.)

The Court: You may proceed.

By Mr. Neitzert:

Q. Mr. Brown, what kind of automobile bodies did the Chevrolet Motor Company manufacture during this period in the twenties?

A. Open bodies.

Q. Who built Chevrolet's closed bodies?

A. Fisher Body Corporation.

Q. When did Chevrolet discontinue the manufacture of open bodies?

A. Either 1933 or 1934.

Mr. Neitzert: Your Honor, I offer in evidence DP Exhibit No. 250.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 250.)

Mr. Neitzert: I also offer in evidence DP Exhibit No. 322, which is the next exhibit in your book, I believe, which shows the list prices of 6200 grade of 50 inch "Fabrikoid" during this period.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 322.)

[fol. 4553] By Mr. Neitzert:

Q. Mr. Brown, do you have records of the prices of any other coated fabrics used by the Chevrolet during this period?

A. We have no price list of the top material at that time.

Q. What did Chevrolet use the 6200 50 inch "Fabrikoid" for?

A. For trim.

Mr. Neitzert: Your Honor will note there is very little change in the price of this material.

By Mr. Neitzert:

Q. Would the range of price of this material be a fair measure of the range of price of other types of imitation leather?

A. Yes, sir, the price range would be representative of what happened in the pyroxylin coated fabric field. It also applied to the top material, insofar as fabrics were concerned. The top material price fluctuated much more than the trim material, because the nitrocellulose and items used in pyroxylin were fairly stable in price, whereas the rubber fluctuated.

Mr. Neitzert: I offer in evidence du Pont Exhibit No. 323, which is a chart showing the yardage purchases by the Chevrolet Motor Company from the du Pont Company over the same period.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 323.)

By Mr. Neitzert:

Q. After Chevrolet discontinued the manufacture of open bodies, did it have occasion to make any further purchases [fol. 4554] of coated fabrics or combined fabrics?

A. No, sir.

Q Now, I want to take up the history of the sales to the Buick Motor Company during the same period we have covered with Chevrolet. What was the situation with respect to the sales of coated fabrics to Buick when you became associated with the du Pont Fabrikoid Company in 1917?

A. In 1917, Buick was buying approximately one-half of their requirements of Fabrikoid for trim and of their top material from us. They used natural leather for upholstery.

Q. You have referred to the few yards purchased from the Ford Rubber. What was that being used for, if you know?

A. My recollection is that they used that to make top boots. It was a gadget when the top would collapse they would slip over to hold it in shape.

Mr. Neitzert: I offer in evidence du Pont Exhibit No. 251, which is a letter dated July 23, 1918, to Mr. Haskell from Mr. Chrysler which purports to show the purchases from du Pont by the Buick Company in 1917.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 251.)

Mr. Neitzert: I will read a portion of the letter:

> "In answer to your favor of the 5th instant concerning artificial leather furnished by du Pont Company, would advise that the amount of this material used by us in cars assembled in 1917 was as follows:
>
> "50 inch imitation leather; D Models, 16,188 yards; E Models, 140,025 yards; total, 256,213 yards.
>
> [fol. 4555] "36 inch Rayntite: D Models, 133,778 yards; E Models, 63,516 yards; total, 197,294 yards.
>
> "54 inch Rayntite: D Models, 165,270 yards; E Models, none; Total, 165,270 yards.
>
> "54 inch Dreadnaught: D Models, none; E Models, 65,975 yards; total, 65,975 yards.
>
> "Grand Total: 679,752 yards."

By Mr. Neitzert:

Q. Did the du Pont Company in fact manufacture Dreadnaught in 1917?

A. No, Dreadnaught was a trade name of the top material manufactured by L. C. Chase and Company. It was never made by du Pont.

Q. What happened to Buick's business in 1918?

A. In 1918 we lost some of their top material. We had decided Pontop had been fully perfected, that we would withdraw the "Rayntite" material, pyroxylin coated top material, and we urged Buick to accept "Pontop" for tops instead of "Rayntite".

We tried to get them to do that before we withdrew Rayntite, because in the previous year we had sort of a similar experience with Chevrolet where we had withdrawn our mohair before they were ready to accept our Rayntite.

We hoped to get Buick straightened out and using "Pontop" before we actually withdrew "Rayntite". However, they did not, the idea didn't appeal to them, and we lost some of their business at that time.

Mr. Neitzert: I refer the Court in that connection to Exhibit DP-246 which is the undated memorandum captioned [fol. 4556] "Buick Motor Company" which we previously referred to.

By Mr. Neitzert:

Q. This memorandum has at the end of it the initials, "H.A.L." Who was H.A.L., Mr. Brown?

A. H.A.L. was Henri A. Lindsey who was assistant director of sales of the Fabrikoid Division in 1918.

Mr. Neitzert: I am not going to read all of the memorandum unless the Court wishes me to do so. I wish merely to point out that the memorandum refers to a misunderstanding that developed between the Buick Company and the du Pont Company in 1918, involving the adoption of "Pontop" and the use of "Pontop" by Buick for test purposes on the road so that the du Pont Company could get some large quantities in use, and it ends up with an entry on July 30th and starts:

> "July 30th, Stark wires Buick placed order with unknown competitor and that he was writing fully."

By Mr. Neitzert:

Q. Is that the loss of business you have referred to?

A. Yes, sir.

Q. How did that situation eventually work out?

A. We had, as indicated here, an order from Buick for Pontop of 25,000 yards, but they wanted to extend deliveries over the entire last half of 1918, whereas we had a new product, and we wanted an order from them which they would get on cars and get on the road so we would have the advantage of that service experience before we got into full production in 1919, but they couldn't make up their minds to handle it that way.

[fol. 4557] In the meantime, Chevrolet came along and we sold out our limited capacity in 1918 to them. Buick didn't like it, and they had quite an argument with our Detroit people on it.

We have reported in late 1918 this controversy, and the fact that we had been unable to get Buick on "Pontop," and we were asked by Mr. du Pont—told by him, rather—that it was very important that Buick actually get "Pontop" on test and get it in the service, and we should try to sell them, even if we had to sell them at cost to get them to adopt this new product.

Actually, Buick did adopt the product in the spring of 1919.

Mr. Neitzert: I refer to Government Trial Exhibit No. 303 which is a letter from Charles L. Petze, Vice-President, to the Board of Directors of the du Pont Fabrikoid Company, dated November 18, 1919, and the second paragraph of the letter is as follows:

> "Our contract with the above Company, taken on April 17, called for the following materials:
>
> "525,000 yards Double Texture top material at 1.00 45¢ per yd.
>
> "950,000 yards Single Texture curtain material at 59.78¢ per yd.,
>
> "and 200,000 yards of Bow Lining at 34.055¢ per yd."

At the bottom of the page appears the selling price of the material described in the contract to have been $1,163,382.50.

[fol. 4558] By Mr. Neitzert:

Q. I call your attention, Mr. Brown, that this exhibit contains the following language on page 2, and I quote:

> "At the time negotiations were on, Mr. Pickard was familiar with the fact that on account of our relations with the General Motors Corporation, our competitors were naming abnormally low prices, either with the

> intention of taking the business which they had heretofore enjoyed, even at a loss or a small profit, or with the idea of making the business unprofitable to us"——

Now, what business had du Pont's competitors theretofore enjoyed with the General Motors companies that was going to du Pont in 1919?

A. Well, the Chevrolet top business, competitors had enjoyed for a period after we withdrew from the manufacture of mohair, and——

Q. That is just for the year 1918?

A. That was a part of 1918, and early 1919.

Q. What other business?

A. There was the Oakland and Olds business. We had lost portions of that at the time we were having an argument with them about color of the dyed backing.

Q. Was that only a temporary loss, or was there a loss over a period of years?

A. No, they were both temporary, because we had previously sold them their requirements of top material.

Q. Do you know of any other business that had gone to competitors that was going now, in 1919, to du Pont?

A. There was no other.

[fol. 4559] Q. Now, again directing your attention to Government's Exhibit No. 303, and continuing to read from page 2:

> "—and so informed Mr. du Pont who stated to him that he thought it was wise, in order that we might open business relations with the Buick Company for materials which we had not heretofore sold them, to go even as low as our cost price."

Now, what were the materials that you had not theretofore sold to Buick?

A. We had not sold them our new Double Texture Pontop, but we had previously sold them for their tops our Double Texture "Rayntite," pyroxylin coated product.

Q. All right. Now, what happened in 1920?

A. In 1920 we obtained a substantial contract for both top material and artifiicial leather. The top material contracts were for Buick, for about two-thirds of their requirements. At least that is the way it started.

We sold them originally 1,300,000 yards, but that contract was to run from July 1, 1920, until June 30, 1921. Before deliveries were started Buick requested we reduce the size of that to 780,000 yards, which we did, and which meant that we then had less than one-half of their requirements for that period, or their estimated requirements.

On the pyroxylin, we had about one-third of the interior trim business.

Q. That was in 1920 contracts?

A. Yes.

Q. What time in 1920 were those contracts made?

A. They were made in the spring of 1920.

Q. Were those contracts that were later involved in the contract dispute which resulted in the 1922 settlement, and Buick agreed to take care or to take all of their requirements from du Pont.

[fol. 4560] Mr. Harsha: I object to the form of the question. He doesn't have to let the witness—

The Court: Sustained.

Mr. Neitzert: I offer DP 252, which is a memorandum dated July 28, 1920, with the initials "CLP", and I will read——

By Mr. Neitzert:

Q. Who was CLP, Mr. Brown?

A. That was Mr. Charles L. Petze who was the director of sales of our division.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 252.)

Mr. Neitzert: This exhibit is as follows:

> "On the basis of 170,000 open cars production, which was the original estimate, we were originally given an order for 1,300,000 yards of deck and curtain material, and were told that this represented ⅔ of the total quantity required, which on this basis would be 1,950,000 yards."

By Mr. Neitzert:

Q. What contract does that have reference to?

A. A contract for rubber top materials.

Q. With what company?
A. Pardon.
Q. With what company?
A. Buick Motor Company.

Mr. Neitzert: (Continuing):

"This order was later on reduced to 780,000 yards, so that our competitor, Haartz, who received the order for [fol. 4561] the balance of the requirements, received an order for approximately 1,150,000 yds.

"We are now advised that in place of a production of 170,000 open cars the production will be approximately 135,000. Therefore the total yardage required on the reduced production would be approximately 1,500,000 yards.

"We are now asked to reduce our quantity from 780,000 yards to 353,000 yards. If we deduct the 353,000 yards from the estimated new requirements of 1,500,000 yards, we have approximately 1,150,000 yards, which is the estimated actual yardage contracted for with Haartz, indicating no reduction in his contract quantities."

Now, I will here also make reference to Government's Trial Exhibit No. 306, which sets forth the matters referred to in Exhibit DP 252 in a little more detail, and which also refers to the dispute which later developed about cancellation of this contract.

On that same subject, your Honor, I refer to Government's Trial Exhibits Nos. 307 and 308 which developed the events which occurred in the course of the dispute which arose at Buick about the cancellation of that contract.

I also offer in evidence DP Exhibit 253, which is an excerpt from the report of the Fabrikoid Division to the Executive Committee for January, 1922.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 253.)

[fol. 4562] Mr. Neitzert: This report is dated February 15, 1922, and it contains the following:

"During this month the old uncompleted 1920 Buick contract was finally adjusted—cancelled—and a new contract written under which they will buy their entire requirements of us in 1922, at a satisfactory price."

By Mr. Neitzert:

Q. Did Buick buy all of its requirements of artificial leather, decking and curtain materials from du Pont in 1922, Mr. Brown?

A. They bought all of their requirements that called for coated fabrics, but they bought a considerable quantity of uncoated fabrics from competition in 1922.

Q. What use did they make of these uncoated fabrics?

A. They were both used on open cars—that is, the Pontop type which we supplied, and the uncoated type. It was just some models specified the uncoated, and some the other.

Q. When did Buick start using this combined uncoated decking.

A. They may have started in 1921 in a small way, but 1922 was the first year of any consequence.

Q. What extent, to which extent did Buick use this uncoated fabric in lieu of our coated top materials which was covered by the contract to take all of their requirements from du Pont?

A. They were used very substantially, at least half, or perhaps more than half of their cars were covered with the uncoated material.

Q. Did you attempt to sell Buick this uncoated material?

A. We didn't at that time. We had not developed the item. We went to work on it and we had it ready for them the next year.

[fol. 4563] Q. When did you first start trying to sell that material?

A. In 1923.

Q. When did you first make any sales to Buick?

A. We first made sales of that type of product in 1926.

Q. Do you know what percentage of Buick's total requirements of coated and uncoated fabrics was furnished by du Pont during 1922?

A. In 1922 I estimate we had something better than fifty percent—perhaps sixty percent—as we had all of the trim and part of the top material.

Mr. Neitzert: I offer in evidence Exhibit DP 254, excerpt of report of Fabrikoid Division to Executive Committee for October, 1922.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 254.)

Mr. Neitzert: This is dated November 17, 1922, and contains the following paragraph:

"They"——

meaning Buick——

> "are looking for a top material of combined fabric which is faster to light than the material they are now using, which is khaki duck combined to drill and which will run into considerable yardage for 1923."

By Mr. Neitzert:

Q. Did you attempt to get any of that business?
A. We did not get it, no, sir.
Q. Did you attempt to get it?
A. Yes, we tried but were not successful.

[fol. 4564] Mr. Neitzert: I also offer in evidence Exhibit DP-255 which is a report of the Executive Committee for the month of March, 1943, dated April 23, 1923.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 255.)

Mr. Neitzert: Exhibit DP-255 contains this paragraph:

> "Negotiations are in progress with General Motors units regarding the supply of khaki top materials for sport jobs. During March shipments were made to Buick of about 3,000 yards which should result in a large yardage, if this shipment is satisfactory."

By Mr. Neitzert:

Q. Did you make further sales to Buick?
A. No, we didn't. We had that one sample order, but we didn't get the production order.
Q. Did you attempt to get the rest of it?
A. Yes, we did, unsuccessfully.

Mr. Neitzert: I offer in evidence Exhibit DP-256 which is a report or an excerpt from a report of the Fabrikoid Division to the Executive Committee for May, 1923.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 256.)

Mr. Neitzert: This report is dated July 2, 1923, and contains this paragraph:

> "A further attempt will be made to enter the field for Sport Top material, which is 1.22 drab duck com- [fol. 4565] bined to 1.85 Drab Drill. While this class of business is not very profitable, competitors continue to furnish Buick with it which might influence Buick to give them more desirable business in addition to the Sport Top material."

By Mr. Neitzert:

Q. Were you able to get any of Buick's business at that time?

A. Not at that time, no.

Q. Were you furnishing Buick with all of their requirements of what is here referred to as the "more desirable business" at that time?

A. No, we were not.

Q. Did you ever supply Buick after 1922 with 100 per cent of their requirements of the kinds of fabrics that you were manufacturing in 1922?

A. Never again did we supply Buick 100 per cent.

Q. What use was Buick making of the coated fabrics during this period?

A. Buick was using coated fabrics for trim of open cars, and they were using Pontop type on a portion of the tops manufactured.

Q. Did Buick manufacture closed bodies during that period?

A. No, they manufactured open bodies. Fisher made the closed bodies.

Q. How long did Buick continue to manufacture their open bodies?

A. Possibly 1933.

Mr. Neitzert: In passing, I call attention to Government's Trial Exhibit 454, page 9 of that exhibit, which shows that du Pont had none of the Buick top business during the first half of 1925.

By Mr. Neitzert:

Q. What happened during the period from 1922 until [fol. 4566] Buick discontinued the manufacture of open bodies? What happened to both your volume of sales to Buick, and also the Buick percentage of coated fabrics furnished by du Pont?

A. You say in 1932?

Q. No, from 1922 until they discontinued the manufacture of open cars, what happened to the volume of sales to Buick?

A. Well, it fluctuated there. In two years, we had the Teal business from them. I think it was in 1927 and 1928. We then lost it to the Haartz Company in 1929 and 1930. In 1931 we had some of it back again. In the coated fabrics business, we continued to get a portion of it, probably half. I would say about one-half right straight through the period. I never recall losing that contract entirely.

Mr. Neitzert: I offer in evidence Exhibit DP 257, which is an excerpt from the report of the Fabrics Division to the Executive Committee for March, 1929, which is dated April 19, 1929.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 257.)

Mr. Neitzert: The fifth paragraph reads in part:

> "Fairfield automotive prices remained unchanged during the month, but a slight increase in some of the raincoat numbers was made. We quoted Buick Motor Company on their Teal business for the last nine months of 1929 without success, the business going to the J. C. Haartz Company, as we understand it, solely because General Motors Export insisted on Haartz's material."

This refers to the loss of the Buick Teal business you [fol. 4567] testified about?

A. Yes, sir.

Mr. Neitzert: I also offer in evidence Exhibit DP No. 258, which is an excerpt from a report of the General Manager, William Richter for August, 1931, bearing date September 21, 1931.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 258.)

Mr. Neitzert: It reads as follows:

> "Buick has specified Fairfield teal (double texture topping for sport models) for the remainder of 1931. This business has been regained after a lapse of two years, during which competitive material was used. The special colors, and especially woven figured backings of the samples submitted, were instrumental in our receiving this business, as competitors did not have a similar product to offer."

Mr. Neitzert: I now offer in evidence Exhibit DP 259, which is a schedule of dollar sales of coated and combined fabrics by the du Pont Company to the Buick Motor Company over the years 1919 to 1933.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 259.)

Mr. Neitzert: If your Honor please, this exhibit was prepared in the same way as Exhibit No. 250, which is the Chevrolet schedule, with one exception—two exceptions.

The figures for the du Pont sales are from the du Pont accounts receivable ledger. We do not have the sales department card for Buick covering this period. It has been taken out of the files or lost, and is not available.

[fol. 4568] The data for the year 1922 and the Newburgh sales and Fairfield sales is from GM Exhibit 151, as in the prior exhibit. The figure is $711,821.00, under the caption, "Total du Pont Sales".

That is from the du Pont accounts receivable ledger.

Now, your Honor will observe if you add a sum of the sales of General Motors purchases in General Motors Exhibit No. 151, amounts the $1,356,150.00.

Of that, du Pont sold Buick only $711,821.00.

What does the difference of these two figures represent?

A. It represents combined and coated top material.

Mr. Harsha: May it please the Court, I must say the government has found this an extremely confusing exhibit, and I think in its present form it is quite misleading. I am not sure I even understand counsel's explanation.

If the Fairfield sales figures and the Newburgh sales figures indicated in this column are not in fact the sales made by those two plants to General Motors, it seems to me the figures are misleading because they have no business being in the columns indicated.

Mr. Neitzert: As I explained in connection with Exhibit No. 250, we have put those figures under those headings merely for purposes of comparison because top materials are manufactured at Fairfield, and imitation leather is manufactured at Newburgh.

We have put them in there so you could compare General Motors' total purchases as they reported with what they purchased from the du Pont Company, not only for 1922, but by looking over the sales per car in the last column, you can determine approximately what percentage of the Buick Motor's requirements were purchased from [fol. 4569] the du Pont Company during succeeding and preceding years.

Now there should not be any confusion about it. I am sorry if there is, but the footnote indicates very clearly that the figures that appear for 1922 under Newburgh Sales and Fairfield Sales were taken from General Motors Trial Exhibit No. 151, and include purchases of combined and uncoated fabrics from competitors of du Pont. They also show, by adding them together, how much these purchases were, some half million dollars.

Mr. Harsha: If that is the explanation then, Counsel, I would suggest that we would object to this chart on the ground that it takes unrepresentative figures because what they are doing is indicating for one particular year out of approximately fourteen years the figures for showing the total GM purchases from all sources, and then dividing them up in some fashion fairly arbitrarily selected.

Some of them are put under the Fairfield column and others under the Newburgh column.

For 1922 they are showing for that one year only what were GM's total purchases of this type of material. It seems to me if they are going to show the GM total purchases, so that you get a ratio here of du Pont purchases to GM's total purchases, then they should do it throughout, because these things can fluctuate from year to year, as all of these exhibits show.

Mr. Neitzert: Your Honor, I only wish that we had Buick's total purchases of the type of materials that are made by the Fabrics Division for all the years. But that information is not available, and the only thing that is available to us, and apparently that General Motors can [fol. 4570] produce, is what was purchased in 1922.

Now we have offered in evidence such data as we have showing that there has been very little change in the price of gray goods or in the price of pyroxlyin coated material during the period covered by this chart.

We also have in those cases where it is shown by our sales cards the actual number of yards purchased by each of these General Motors divisions from the du Pont Company covering all these years.

So you have a comparison of yardage per car, a comparison of the price per yard, and you have the total purchases.

Now if I could get General Motors' total purchases for each of the years, I would do it. But we only have 1922, and fortunately that is the year when we had contracts with the General Motors companies to buy all of their requirements of the kind of fabrics that we manufacture from them.

While the figures which are based upon that year for the following years are not necessarily mathematically 100 per cent correct, as is shown by an examination of the Chevrolet tables—and the reason I spent so much time on the Chevrolet tables is because we know exactly what Chevrolet purchased from others during the entire period, and the accuracy of our calculations there must have been very apparent, and to me they are very impressive.

If you will compare the purchases of the General Motors companies of coated fabrics per car in 1922, as shown in General Motors Exhibit 151, with the purchases from du Pont in that year, and in the following years, you have a basis for determining the percentages purchased from du Pont—not relying on the memory of man or upon speculation or upon wherever the government got the false information [fol. 4571] that is contained in the complaint. We have figures here from the permanent records of these companies by which it is possible to reach a fairly accurate estimate of what percentage of the General Motors' purchases during all of these years were made from the du Pont Company.

Now it is alleged in the complaint that beginning in 1917 and continuing thereafter for a period which is not specified, they bought all of their requirements of these fabrics from the du Pont Company.

The Court: Pardon me. If these figures are not accurate nor representative, as the government contends, the government will have an opportunity to show this on rebuttal.

So the objection is overruled, and the Court will stand recessed.

(Whereupon a recess was taken until 2:00 o'clock p. m. of the same day, Thursday, April 23, 1953.)

[fol. 4572] The Court: Proceed.

Aubrey Lee Brown, called as a witness on behalf of the defendant, E. I. du Pont de Nemours and Company, having been previously sworn, resumed the stand and testified further as follows:

Direct Examination (Continued).

By Mr. Neitzert:

Q. Mr. Brown, will you look at Exhibit DP 259 and state what part of that exhibit was prepared by you?

A. I prepared only the notes that are numbered 1 to 5, except the Note No. 2, which I did not prepare.

Q. I notice you do not have any note explaining the increase in the Newburgh sales per car manufactured in 1930 over 1929.

What is the explanation of that?

A. At that time Buick had a special model with a solid top on which they used a product developed at Newburgh which we called "Sportop". They brought it out for one year only, and it boosted our sales quite a bit at that time.

Mr. Neitzert: Now, your Honor, I wish to take up our sales to the Cadillac Motor Company.

[fol. 4573] By Mr. Neitzert:

Q. You have already testified, Mr. Brown, that in 1917 Cadillac was buying all of its imitation leather from du Pont. What about top materials?

A. Top materials, Cadillac was using a product called Pantasote manufactured by the Pantasote Company, an oxidized oil material which was considerably higher priced than our "Rayntite" and was regarded as a higher grade product.

Q. And what happened in 1917, what happened after that? What happened in 1918?

A. In 1918 we brought out "Pontop," and hoped to convert Cadillac to that. We sold them test quantities, and they purchased some Pantasote. I believe their main purchases that year were of Hodgman, another rubber type product. They continued their tests on several types of materials, but it was not until 1920 that they switched over to "Pontop," and at that time they told us that it had won out in a series of tests that they had conducted.

Mr. Neitzert: I refer to Government's Trial Exhibit No. 298 which shows that in 1917 Cadillac was buying artificial leather from du Pont, in 1917, 30,000 yards, and in 1918, 18,500 yards, and shows the amounts purchased from the du Pont Fabrikoid Company, Hodgman Rubber Company and Pantasote Company.

By Mr. Neitzert:

Q. What has been the history of Cadillac purchases of curtain and top materials and artificial leather since 1920?

A. After 1920 on top material we continued to sell them "Pontop," right straight through, as long as they built open [fol. 4574] bodies. On the trim material we sold 100 per cent of that, except this one year, 1924. I recall that we lost six months trim material to Textileather Corporation who were in there at a considerably lower price.

Q. What use did Cadillac make of coated fabrics?

A. Cadillac coated fabrics for tops.

Q. No, I mean on what type of body did Cadillac use coated fabrics, excuse me.

A. Well, on the open bodies, they built no closed bodies, and in 1924 they finished with open bodies, and thereafter Fisher Body built the open bodies as well as closed bodies.

Mr. Neitzert: I offer in evidence Exhibit No. DP 260, which is the schedule of dollar sales of coated and combined fabrics to the Cadillac Motor Car Company from 1921 to 1926.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 260.)

Mr. Neitzert: This exhibit was prepared in exactly the same manner as Exhibit No. 259, and the information was taken from the same sources; that is, the du Pont sales are from du Pont's accounts receivable ledger, and except for 1922, in which case we show the purchases for Cadillac, as disclosed by General Motors Exhibit No. 151.

Mr. Harsha: I would like to raise the same objection, your Honor, as I did to the previous exhibits. It is this using of combined du Pont and competitor figures and listing them below the heading "Newburgh" and "Fairfield Sales" which I think is misleading, and an attempt to introduce a comparative analysis, rather than a dollars and cents [fol. 4575] figure which is fragmentary, and I think also it is misleading.

The Court: What number are you referring to?

Mr. Neitzert: Exhibit No. 260.

This involves the same subject discussed before. They are absolute dollar figures there, and it is all that is shown by the records what we have, and what General Motors have, and have been disclosed to us.

As far as the first four columns is concerned they are absolute figures, and the other three columns are all computed figures, computed from the figures in the other columns.

The accuracy of the exhibit is shown by the fact that if you will compare, for example, the number of dollars per car purchased from du Pont in 1923 and 1924, you see it drops to almost half. That year, the witness testified, we lost a half.

The Court: I think it should be received, particularly in view of the fact that counsel will have an opportunity to show that they are not accurate, on rebuttal.

Overruled.

By Mr. Neitzert:

Q. Did Cadillac ever use any "Teal"-like or uncoated fabrics during the period that it made its own open bodies?

A. It did not. They used coated fabrics.

Q. Now, let's go to the Olds Motor Works. What contracts did the du Pont Fabrikoid Company have with the Olds Motor Works in the Sales Department in 1917?

A. We had contracts at that time, I am not sure of the amounts, but I do recall that we had their entire require- [fol. 4576] ments in the first half of 1917, and a study of the records and the conversations at the time of the other associates there, indicated that we had had all of Olds business from 1912—interior trim and top materials.

Q. What happened later, in 1917?

A. In 1917 we were having a controversy with Olds. The top material which they were buying, our "Rayntite," had an olive drab backing, and because of the scarcity of dye-stuffs we had shipped out material that varied somewhat in shade, and they became quite upset about that, and we couldn't straighten it out for some months until later when we were able to get dye stuffs, later in 1918.

We were able to get enough of one shade to practically guarantee that we could maintain that uniformity.

At that time they resumed part purchases from us, although in the meantime we had lost much business.

Mr. Neitzert: I offer in evidence DP Exhibit 261, an unsigned letter to the Olds Motor Works, dated April 10, 1918.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 261.)

By Mr. Neitzert:

Q. Do you know who wrote that letter?

A. Yes, I wrote it.

Mr. Neitzert: And I also offer in evidence Exhibit DP 262 which is a letter from Charles L. Petze, director of sales, to J. A. Haskell, vice president of General Motors Corporation, dated October 12, 1918.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 262.)

[fol. 4577] Mr. Neitzert: Both of these letters refer to the dispute relating to colors, your Honor, and I am not going to read them both, although they are both important.

I will read the du Pont Exhibit No. 262, because it is in print and easier to read.

> "You asked me sometime ago relative to various complaints from the Olds Motor Works on our Rayntite top material, where the drab back was not of a uniform color.
>
> "At the time these troubles were most in evidence, after June, 1917, we were having a great deal of difficulty in securing a sufficient supply of uniform dye. It was impossible to get our entire supply from one source. Consequently our material did not run uniformly in this respect—on the other hand, that of our competitors did not. The Olds Company made several complaints regarding off-color, especially in view of the fact that some of our shades were materially different than competitive material which they had, and in two instances during September and November, 1917, we took back from them some of these goods. Later our dyes became more uniform and on some later orders from Olds the plant actually did use some of the returned goods which corresponded very closey to our standard at that time. the Inspectors assuming there would be no objection on the part of the Olds Company.
>
> "At the present time our color is very uniform and we believe when we again have the opportunity of figuring with Olds or any of the other General Motors [fol. 4578] Units, we shall be able to satisfy them, not only as to the shade of drab, but the uniformity, and while our shade is lighter than some of our competitors, we feel it is a better shade and this has been proved by our having supplied the Chevrolet Company with large quantities of it to their entire satisfaction, and as a matter of fact they have changed their standard from

that heretofore supplied by the Chase Company to the Fabrikoid Standard."

Then I refer, if the Court please, to Government Trial Exhibit No. 296, which is a letter from Mr. Ver Linden to Haskell, dated July 11, 1918.

By Mr. Neïtzert:

Q. Who was Mr. Verlinden at that time, Mr. Brown?

A. I believe he was the president and general manager of Olds Motor Works.

Q. This shows that in 1917, 87,049 yards of imitation leather were purchased from du Pont, and 45,587 from Textileather, and shows quite a reversal of position in 1918. How did this controversy finally work out?

A. Well, in 1919 we regained their business, about one-half at that time.

Q. What happened in 1920?

A. In 1920 we again had a contract from them for top material and a smaller contract for trim—in 1920 the contract was for 100 percent of their requirements for top material. The trim material was, as I recall, about a third. I remember it was quite small comparatively.

Q. What happened to the 1920 contract?

A. That contract was held up because of the falling off, [fol. 4579] drastic falling off, of automotive sales in that year. They held up orders and then wanted to cancel, and it finally ended up in negotiation which involved cancellation in return for their purchasing all of their requirements in the year 1922 from us.

Q. Did they do so?

A. Yes, sir, they did.

Q. What happened after 1922?

A. 1923 they gave us about half of their business. It dropped off materially from 1922.

Mr. Neitzert: I offer in evidence DP Exhibit No. 263, which is a schedule of sales of the Olds Motor Works.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 263.)

By Mr. Neitzert:

Q. Take a look at du Pont sales per car and also total sales for the year 1923. And please state whether that refreshes your recollection as to what was sold by du Pont to the Olds Motor Works in 1923?

A. It fell off much sharper than I indicated, because our average sales dropped down very low. It looks like we might have had a third or less of the business in that year.

Q. What accounts for the increase in sales per car for the year 1924 and 1925?

A. In 1924 for the 1925 models, Oldsmobile got out a cheaper car, a light 6, and attempting to keep the price down, they used Fabrikoid for upholstering.

The same year we started selling them "Teal," so that in 1924 and 1925 we had a substantial increase in that business.

The "Fabrikoid" was continued only one year, however. [fol. 4580] At the end of that model year the sales department had decided that they needed the sales argument that their upholstery was natural leather, the same that was used on more expensive cars, and they went to leather at that time.

Q. How long did you have the "Teal" business?

A. We had the "Teal" business in 1924, 1925, and 1926. 1926 was the last year we had it.

Q. Were you able to sell Olds any more "Teal" or uncoated fabrics after 1926?

A. No. Olds purchased its entire requirements from others beginning in 1927 and we never did regain any of it.

Q. What type of body was Olds manufacturing at this time?

A. Open body, open cars only.

Q. Who manufactured the Olds closed body during this period?

A. Fisher Body Corporation.

Q. Did Olds later discontinue the manufacture of open bodies?

A. Yes. Olds dropped out of manufacturing open bodies in 1929, and had them manufactured for them by the H. J. Hayes Body Works.

Q. What part of this Exhibit DP 263 did you prepare?

A. I prepared nothing on the exhibit except the notes from 2 through 5.

Q. I notice that there is no explanation of the increases in the sales per car in 1928 over 1927.

Will you state why there was that increase?

A. Yes. Olds built a special model with a solid top made from our "Sportop," the same one which I just described that Buick also used. Olds used the same product but a different color. They kept it in the line one year only.

Q. Mr. Brown, on some of these tables it appears that the du Pont sales are from accounts receivable ledgers and [fol. 4581] in some cases they are from the Fabrics Division sales cards.

Have you looked for sales cards for the years where the data has been taken from accounts receivable ledgers?

A. Yes. We looked very carefully, and unfortunately the records are not complete back in those early days. Some of the cards, for reasons which I can't explain now, go back farther than some of the others.

Q. About what percentage of Olds' requirements of coated and combined fabrics were bought from the du Pont Company after 1923?

A. After 1923 we had somewhat less than half. I wouldn't be able to give you very accurate figures.

Q. Now, let's go to the Oakland Motor Car Company. When you went with the du Pont Fabrikoid Sales Department in 1917, what contracts did you have for the sale of coated fabrics to Oakland?

A. 1917 we had contracts for about a third of Oakland's requirements.

Oakland had been a customer for a long time, according to the records that I looked over there, from about 1913. Although their policy apparently was always to have three sources, we seemed to get about a third of the business.

Q. What happened in the latter half of 1917 with reference to this Oakland account?

A. We were involved with them in some disputes, the same type of disputes we were having with Olds on the question of backing, and we lost some of their business for a period.

Q. How long a period?

A. I think my—we were selling them again in 1919. I don't recall. I think that we had some of the artificial leather business in 1918, but the top business, I don't know that we had any of that in 1918.

[fol. 4582] Mr. Neitzert: I refer to Government's Trial Exhibit 300 which shows the sources from which the Oakland Motor Company bought its requirements in 1917 and 1918, which on page 3 contains a letter which shows the color troubles that the witness has described.

By Mr. Neitzert:

Q. What happened after this color difficulty was solved? A. After that was solved, they resumed buying from us about the same amount they had previously purchased.

Mr. Neitzert: I have been told that I did not offer DP Exhibit 263. I just discovered it. I do offer it now.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 263.)

Mr. Neitzert: Will you excuse the interruption, and proceed with your answer as to what occurred in 1918, 1919, and 1920, with respect to the Oakland account?

A. In 1919 we had a contract for top material, and another contract in 1920. In 1920 I think it was 180,000 yards, if I remember it.

Q. What happened to that contract?

A. That contract was held up by Oakland when the sales started to fall off shortly about the summer or a little later in the summer of 1920 because of the depression I have described earlier in the discussion. They wanted a cancellation which we were unable to accept because we had purchased the material. It ended up finally with our agreement to cancel in return for their agreement to purchase their 1922 full requirements from us.

Mr. Neitzert: I refer to Government's Trial Exhibit No. [fol. 4583] 309 and 310, which traces at least a part of the history of this dispute.

I offer in evidence Exhibit DP No. 264, which is a letter dated February 8, 1922, from the Division Manager of the Fabrikoid Division to Mr. C. O. Miller of the Oakland Motor Company, with reference to this settlement.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 264.)

Mr. Neitzert: This reads as follows:

> "Confirming conversation of today.
>
> "In consideration of the agreement as outlined below we agree to cancel any undelivered yardage on the contract you now have with us.
>
> "You agree to take from us during the year 1922, all of your requirements of whatever qualities you desire of top, curtain and upholstery materials, manufactured by us, paying therefore our current list of prices less a discount of 20 and 10 percent subject to the further regular cash discount which you are now enjoying and subject to your present term of settlement."

Did Oakland buy all its requirements of coated fabrics from the du Pont Company during 1922?

A. I believe so. We had their contract, and I am sure they did.

Q. Did any outside purchases come to your attention?

A. None, no.

Q. Then what happened in 1923?

A. In 1923 they reverted to their practice of buying from three sources.

[fol. 4584] Q. How long did they follow that practice of buying from three sources?

A. They did not change it so far as I recollect.

Q. How long did you continue to sell them a part of their requirements?

A. We sold them a part of their trim requirements as long as they built open cars. In 1926, I believe, they started using uncoated combined material which they bought from competitors. We never participated in that end of the business.

Q. Did you try to get that business?

A. Yes.

Mr. Neitzert: I offer in evidence DP Exhibit No. 265, which is a schedule of the sales of the du Pont Company to the Oakland Motor Company for the years 1922 to 1923, which are the years we have the data on in our sales files.

For the year 1922, from the General Motors Trial Exhibit No. 151.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 265.)

By Mr. Neitzert:

Q. What type of bodies did Oakland manufacture during this period?

A. They made open cars only. The Fisher Body made their closed cars.

Q. When did they discontinue manufacture of the open bodies?

A. Probably in 1933, maybe earlier. I am not sure.

Q. Were there any substantial sales of coated or combined fabrics made by the du Pont Company to the Oakland Company after it discontinued the manufacture of open bodies?

A. No, none whatever.

[fol. 4585] Q. What portion of Exhibit No. 265 did you prepare?

A. I prepared the notes that are marked "2" and "3."

Mr. Neitzert: I offer in evidence DP Exhibit No. 324, which is a tabulation taken from the Oakland sales card, which shows the same information with respect to yardage of goods purchased from du Pont as is shown in the preceding exhibit, DP-265, with respect to the dollar purchases from du Pont. As shown at the end of this exhibit, all data was taken from the sales files, except for the number of open cars manufactured, which was obtained from the production records.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 324.)

Mr. Neitzert: Now, your Honor, we wish to discuss the General Motors Truck business for a minute.

By Mr. Neitzert:

Q. Was the du Pont Company selling coated fabrics to General Motors Truck Company when you went into the Fabrikoid sales office in 1917?

A. I am not certain of that. They were customers, and

It is the summary report which was attached to the preceding exhibit.

I call attention to the percentage figures on the last column of this report, which show the percentages of the quantities of fabric and the manufacture of the principal makes of automobiles that were being supplied by the du Pont Company.

I am going to read, if your Honor please, the name of the automobile which is in the first column, and then read the percentage of fabric business secured by du Pont, which is in the last column.

[fol. 4607] By Mr. Neitzert:

Q. Let me ask you, Mr. Brown, the caption of the last three columns is, "Du Pont Sales, Fabrikoid Division." Did that include both Newburgh and Fairfield, or just Newburgh?

A. The division includes the two.

Q. That included all of the coated and combined fabrics we were selling?

A. Yes, sir.

Mr. Neitzert: The first is:

American Austin	15.2
Auburn Cord	None
Buick	53.2
Cadillac-LaSalle	57.0
Chevrolet	30
Chrysler	11.8
DeSoto	None
Dodge	None
Durant	5.1
Ford	19.1
Franklin	2.3
Gardner	None
Graham-Paige	None
Hudson-Essex	None
Hupmobile	None
Jordan	None
Lincoln	None
Marmon	29.1
Nash	4.4

[fol. 4608] Oakland	20.5
Olds-Viking	11.4
Packard	4.1
Peerless	None
Pierce Arrow	42.0
Plymouth	None
Reo	6.4
Studebaker	5.6
Willys	.4
General Motors total	31.5
Total Ford	19.1
Total Chrysler	2.9

Mr. Harsha: Mr. Neitzert, did you say "General Motors total, 31.9"? It looks like a 5 to me.

Mr. Neitzert: If I said "9" I misread it, or misspoke myself, because my record shows 31.5 also.

Thank you for calling that to my attention.

Of course, Your Honor will note that it is easy to get some idea about the size of these sales and the size of the requirements of the various automobile companies by looking at the yardage amounts which appear in the columns, between the two columns that I read.

By Mr. Neitzert:

Q. Mr. Brown, does the total Chrysler include Dodge and all of the other Chrysler companies that made up the Chrysler organization at that time?

A. The total at the bottom, yes. Yes, the total purchases there of the Chrysler Corporation.

Q. And the Chrysler above?

A. We have it itemized "Chrysler, DeSoto and Dodge," I notice.

[fol. 4609] Mr. Neitzert: I believe, your Honor, that all of the other data on the exhibit is self-explanatory: The figures are in yards except the production of cars, which are in units.

I might call attention to the three columns that are under the general caption "Yards of Potential to date 1930." Will you explain what those three columns indicate, Mr. Brown?

A. Well, the first column, "Where Fabric Now Used" is where they are actually using it at that particular moment.

The second column "Where Fabric Could be Used", it is our guess or our estimate of materials that could be substituted:

Q. Then this study shows that at the bottom of those columns there was something over eighteen and a half million yards of fabric being used, and Mr. Plank who made the study thought that fabric could be substituted for uses to add another 3,710,875 yards?

A. Yes, sir.

Q. What are some of those uses?

A. I think he probably explains in his letter here.

Mr. Neitzert: No, I think we have another exhibit that shows it.

I offer in evidence now Exhibit DP No. 282 which is secondary data report sheet which was attached to Exhibit 280; and which shows in greater detail the potential uses for the pyroxylin or rubber-coated textiles, brands of automobiles, and the sales for each such uses by the du Pont Company during the first eleven months of 1930.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 282.)

[fol. 4610] Mr. Neitzert: Your Honor will notice that exhibit is captioned "Potential existing in automotive field for use of pyroxylin or rubber-coated textiles as original equipment during the first eleven months of 1930."

I believe one of the notes indicates that one of the most important uses of these substitute fabrics was for leather.

I believe this exhibit is also self-explanatory, and I call attention only to the last four figures in the line of totals at the bottom of the chart, at the extreme lower right hand corner of the exhibit. It appears that the actual yardage of coated fabric used during the first eleven months of 1930 in the manufacture of automobiles, at least the automobiles whose names appear in the exhibit was estimated to be 18,635,083 yards.

There was estimated to be an additional potential of slightly over 3,700,000 yards.

Du Pont actually sold 618,806 yards of Newburgh fabrics, and 3,038,646 yards of Fairfield fabrics.

By Mr. Neitzert:

Q. At the time these exhibits were made, there was no change in the situation with reference to Fisher Body and who was making open bodies or closed bodies, different from what you have already covered?

A. No, sir.

Mr. Neitzert: I offer in evidence du Pont Exhibit No. 283, which is an excerpt of the Fabrikoid Division Monthly Report to Mr. William Richter, General Manager, dated October 19, 1931.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 283.)

[fol. 4611] Mr. Neitzert: The excerpt is as follows:

> "Fisher Body have allocated requirements through November for top material for the new closed models: Fairfield being awarded requirements for Buick and La Salle and a portion of Cadillac; also about one-half of the Chevrolet business, which was held by us 100% last year. Material for Oakland, Pontiac, (which we previously enjoyed) and Oldsmobile, has been awarded to competition,—we believe to Textileather Company. We have received Chevrolet's business on open car requirements for the first six months 1932, which business is placed direct."

I offer in evidence DP Exhibit No. 284, a letter from Mr. E. S. Nickerson to Mr. G. A. Staples, dated June 13, 1932.

By Mr. Neitzert:

Q. I believe you have already explained who Mr. Nickerson was, at this time. In case you have not, what was his position?

A. Mr. Nickerson was assistant division manager and director of sales of the Fabrikoid Division.

Q. Who is Mr. Staples?

A. Mr. G. A. Staples was division manager in Detroit.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 284.)

Mr. Neitzert: I will read a part of the letter only, your Honor, the last paragraph, beginning with the third paragraph——

I think, with your leave, I will read the three paragraphs [fol. 4612] which is perhaps better than I can do by questioning the witness.

It appears that efforts were being made by du Pont to hold the Fisher business.

> "In your current and future efforts to re-gain 100% of the Chevrolet business for us,——"

By Mr. Neitzert:

Q. Was that Chevrolet business at Fisher?
A. Fisher.

Mr. Neitzert: (Reading):

> "—it seems to me that the strongest argument we have in addition to the superior quality, favorable price, and our unequalled record of furnishing the automotive industry over thirteen million yards of material, practically without complaint, over the last few years, is the significance to the automobile manufacturer of having a fully responsible supply source. To drive this point home, we can unfortunately, quote actual figures from our own experience of eight years ago. In the years of 1924-1925 and 1926, we actually reimbursed Fisher Body Corporation to the extent of $120,000 to cover the replacement and damage resulting from defective pyroxylin top material."

By Mr. Neitzert:

Q. Is that "Pontop" or some other kind of material?
A. That is pyroxylin coated material.
Q. That is before you developed closed body "Pontop"?
A. Yes, sir.

Mr. Neitzert: (Reading):

> "The reason that this loss reached the size that it did; of course, was not the value of the top materials [fol. 4613] but the labor or replacement and the restoring of expensive upholstery, etc. Figuring approxi-

mately 2 yards per car, it would certainly seem to me that you could draw up a very strong story of the unwarranted risk which any automobile manufacturer would be assuming in buying top materials from any but the most responsible and financially strong source of supply, particularly where the saving in purchasing from others at the outside would probably not exceed 4 or 5 cents per car. Specifically, I have in mind, of course, the J. C. Haartz Company, who took half of the Chevrolet business away from us last fall,——"

By Mr. Neitzert:

Q. Is he still talking about Fisher?
A. Yes, sir.

Mr. Neitzert: (Reading):

"—despite the fact that at that time this company was literally on the auction block and has since been taken over on an optional management purchase basis, which leaves the ownership and responsibility very much in doubt. To make the situation even more unsatisfactory, the Hunter Mfg. Company are in serious financial difficulties, having recently been taken over by a group of Southern cotton mills.

"I realize that offsetting this, it can be argued that the Haartz material is apparently standing up satisfactorily; but as we know only too well, the manufacture of rubber products always involves substantial risks so far as ageing is concerned and even if it meant shutting down our plant we wouldn't consider taking the risks which Haartz are now incurring by [fol. 4614] stripping their technical organization, as we know they have done. They may get away with it, but if they don't, the future consequences would be very serious indeed to the automobile manufacturer using their top material.

"I appreciate, of course, it would be unfair and improper to use any of the above information specifically, but generally, having the best interests of the General Motors Corporation in mind, it is something to which their purchasing people should certainly give very serious consideration."

By Mr. Neitzert:

Q. About what percentage of the Chevrolet business did the du Pont Company have during the thirties, Mr. Brown?

A. Oh, about one-third.

Mr. Neitzert: Your Honor, this is a good time to recess.

The Court: The Court stands recessed for fifteen minutes.

(A recess was here taken.)

The Court: Proceed.

Mr. Neitzert: One of my associates suggested I might save your Honor and the Government time if I point out that in Exhibit 281, the percentages there in the last column are the percentages of total fabrics used that was supplied by du Pont, not the total percentages of potential business. Only the fabrics actually used by the automobile trade are included in those figures.

I offer in evidence DP Exhibit No. 285, which is a letter [fol. 4615] from Mr. Brown to G. W. Sherin of the Finishes Division, Wilmington, dated April 18, 1938, which comments upon the adoption of the steel top for the automobile industry.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 285.)

By Mr. Neitzert:

Q. What effect did the adoption of the steel top have on the fabric business?

A. It put it out, all of the top material business for closed cars. There was never any use for it.

Q. At this time what other uses were being made of coated fabrics other than for tops?

A. These cars used a certain amount of material for curtains, interior curtains. At one period the weather stripping on closed cars was made of a coated fabric such as we supplied, then there were some models that had a shelf behind the rear seat, which was covered with a coated fabric. It was purely miscellaneous use, and small uses of that sort.

Q. In the open body cars; what use was made of coated fabrics in that period?

A. In open bodies, Fisher was building convertible models, and in those cars generally the upholstery was natural leather and the trim on the seats was coated fabrics.

Q. How about the top?

A. The top material also was uncoated combined fabric.

Q. What was the single most important use of coated fabrics on both open and closed cars during this period?

A. Well, the most important use would have been in top material.

[fol. 4616] Q. Who furnished Fisher with all of their requirements ~~for~~ top material during this period?

A. Haartz.

Q. Did you try to get any of that business?

A. Yes, sir.

Q. Were you successful?

A. We were not successful during the thirties.

Q. I will come back to that subject of uncoated top materials a little later, but let us continue the story of trim materials. Up to the present date, what happened next in that field, after the discontinuation of the use of the fabric tops?

A. Well, there was very little coated fabric trim used in closed cars up until 1939. There was a trend towards coated fabrics, and it really became the style with General Motors in 1948.

Q. What were they used for?

A. Up until that time closed car interiors had used entirely soft fabrics, such as upholstery fabrics. That type of fabric for the entire interior trim of the car was used.

The engineers had noticed that particularly on the lower portions of the doors, where you are apt to kick it quite often getting in and out, that the soft fabrics were not standing up too well. They conceived the idea of putting a coated fabric on the lower portion of the door.

That fabric would have to be pretty abrasive resistant, and it was quite important that it be very attractive looking in order not to offend any of our potential customers who were used to seeing nothing but soft material there.

They actually found when they started to use this combination, the combination of a coated fabric with the uncoated actually enhanced the appearance.

That was just a natural for us because our product had [fol. 4617] always been rated well, both from the standpoint of quality and appearance. Even in the very early days when the high priced cars used coated fabric trim, we almost always had the business of Cadillac and Pierce Arrow. In addition, our business had been built really on improving the finish and appearance of the product.

During the 30's we had developed for instance, in the furniture trade a finish called the Cordoba finish, which was a modified method of applying a printing and embossing combination, which proved to be very attractive, and which competitors have not duplicated up until this day. It is still an important item with us. There are trick methods of working it out which they have just not been able to accomplish.

We also were the leading factor in the handbag industry, ladies' handbag industry, where appearance was the only thing really that sold the bag. We had, I would guess, at least 40 per cent of that business all during the 30's.

Therefore when Fisher started putting something inside the car, we were ready with a product, and they used our material very extensively. I think we had probably 60 per cent of the business at that particular time.

Q. You mean in 1940?

A. 1940 and 1941.

Q. What happened during the war years, 1942 to 1945?

A. Of course, during the war, General Motors practically abandoned the manufacture of cars, and engaged in war work entirely. They were not purchasing fabrics of our type. We sold them little, if anything—very, very minor up to the end of 1945.

Q. Then what happened?

A. At that time they resumed passenger car production again, and the supply situation was extremely acute. We sold them—or rather they took everything we could sell to [fol. 4618] them, and it still wasn't enough. Our other trade, it was simply the same way with them. There was a shortage.

GM did have a policy which helped them a great deal because instead of insisting on their regular standard specifications, they took almost any type of fabric that we could produce or could secure which we felt would be useful or be satisfactory for their purpose.

I don't recall any instance where we took anything out there that they didn't grab it with pleasure. We were careful, of course, of what we took out, but fabrics were very difficult to get, and there were lots of odd fabrics, surplus war fabrics coming on the market that ordinarily would never have been considered for this use, but which we were able to use and supply to them.

That continued in 1945. By the end of 1946 the shortage was pretty well over. In 1947 and '48, our percentage of Fisher business dropped back to 35 or 45 per cent—perhaps an average of 40 per cent.

Q. Where does it stand today?

A. It is still in the same position today, about 40 per cent.

Q. All right, let's go back to the uncoated fabric, combined uncoated fabric, of which your product was called Teal.

When did you first bring out "Teal"?

A. We first brought out "Teal" in 1925.

Q. When did Fisher start buying it?

A. Fisher started to use "Teal" in 1926. We always had the Cadillac, I remember. When they started to build the Cadillac, they adopted our "Teal" for that car.

[fol. 4619] Q. How long did you continue to sell "Teal" to Fisher before you lost the business?

A. Well, we sold, I would guess, half of their requirements from 1926 through 1930, and some of the requirements in 1931. But in 1931 Fisher requested their suppliers to give them a two year guarantee, the guarantee to apply if the cars were washed with gasoline, carbon tetrachloride, or similar cleaners.

We tested our "Teal" product with such cleaners and tested competitive products that we had that they were using. We didn't see much difference in cleanability, but our technical people were opposed to giving such a guarantee because they didn't have enough experience to feel sure of it.

For that reason we declined to give the guarantee. As a matter of fact, it was given only by the Haartz Company. Fisher placed all of the business with them, beginning in 1932.

Later on, in 1933, we had developed a combining medium we felt was much safer than the one we had formerly used, and at that time it was decided that we would offer Fisher the guarantee that they still insisted upon. We did in 1933 bid on their business, with the guarantee.

Q. Did you get the business?

A. No, we didn't get it.

Mr. Neitzert: I offer in evidence DP Exhibit No. 286, which is a request to Mr. H. S. Plank from A. L. Brown, dated January 16, 1934, for a study of du Pont sales of Teal by years 1929 to date, and a second page to the exhibit, which is Mr. Plank's report to Mr. Brown.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 286.)

[fol. 4620] By Mr. Neitzert:

Q. Is this the same Mr. Plank that made the other survey that was put in to evidence?

A. Yes, sir.

Mr. Neitzert: I call attention to the second page of the exhibit, your Honor, showing sales to Fisher: 28,478 yards in 1929; 26,608 yards in 1930; 25,864 yards in 1931; 10,481 yards in 1932; 706 yards in 1933.

As against that I call attention to the larger sales to a much smaller company, the Chrysler Corporation, during some of those years.

I also offer in evidence DP Exhibit No. 287, which is a letter from Mr. Brown to Mr. Staples, which is dated March 28, 1938.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 287.)

Mr. Neitzert: The first two sentences of the letter are as follows:

> "Thanks for your letter of March 23rd, which Mr. Nickerson has shown to me. For your information, the question of guarantee was covered in correspondence in 1933 and, for your current record, I am quoting below the decision made."

I don't believe it is necessary now to read the balance of the exhibit, but it contains a quotation from a letter dated August 14, 1933, from Staples to Nickerson, setting forth the guarantee offered to the Fisher Body Company in 1933, and the unsuccessful attempt to obtain Fisher's Teal business, which the witness Brown has referred to here. [fol. 4621] I also offer in evidence DP Exhibit No. 288, a letter from Mr. Brown to Mr. Cathcart whom I believe we have previously identified. This is dated May 15, 1939.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 288.)

By Mr. Neitzert:

Q. To be sure of that, who was Mr. Cathcart in 1939?
A. Mr. Cathcart was manager of our plant at Fairfield, Connecticut.
Q. This letter is dated May 15, 1939, and is as follows:

> "You have probably read Mr. Nalle's Trade Report of May 11th which indicates that for the first time in a number of years we have an opportunity to quote on Teal type material for Fisher."

This is 1939.

> "Mr. Nalle's report outlines the specifications and also the two year guarantee that Fisher requires.
> "For your information, the guarantee is the same one that was considered by us in 1933, and at that time we agreed to give the guarantee to Fisher as the result of the conclusions of the New Products Committee covered in Mr. Schildhauer's memorandum of August 11, 1933."

By Mr. Neitzert:

Q. Who was Mr. Schildhauer?
A. Mr. Schildhauer was technical superintendent of Fairfield.
[fol. 4622] Q. Did you make any further efforts to get Fisher's "Teal" business after 1939?
A. Yes, we did.
Q. What happened?
A. We quoted in 1940, and at that time Fisher told us if they gave us some business we would have to carry quite large stocks of fabric in order to avoid any possibility of

being unable to take care of their orders. However, they were not willing to make a commitment for these fabrics, and they were very special products used in that top material.

At that time the war was on and the fabric market was bad. We decided it would not be good business for us to give them, or to carry the stock that they had indicated they required. For that reason we did not get any of the business.

Q. What happened after the war?

A. After the war we made no attempt in 1945 to get that business because we didn't have the fabrics in stock, and they were simply not available under the conditions that existed at that time.

They approached us, however, in late 1946 or early 1947. Mr. Fred Walker, who was the buyer of this item for Fisher Body, visited Mr. Nickowitz and me at the New York office. He told us at that time that they simply had to do something about improving the top material on that convertible model.

Convertibles had been very substantially improved. They had a new method of raising and lowering the top, just by pressing a button. They felt that the one item in the convertible that had changed very little was the top material, and it was never too satisfactory.

The top material they were using, he told us, was not retaining its color very well. It faded very quickly when it was on the street, and also they were having quite a lot of [fol. 4623] complaints about shrinkage, where the top would shrink after it had been wet and dried a few times, and pull away, exposing the top; which made it unattractive.

He said that their source of supply, the Haartz Company, was simply not equipped to do research on this problem. They were a good supplier where they had a product they could make and sell, but for really going in and finding the answers to troubles, they were not equipped to do it.

Mr. Walker requested us to undertake a program that would give them a better top material. He told us that if we did and were successful, we would get a substantial portion of their business.

Mr. Nickowitz agreed to that, and we started to work on it. It wasn't however, until 1948 that we were able to really produce a product that was satisfactory to us and to them.

We did give them a very greatly improved product at that time.

Q. During this interim that you were working on the product, did you submit samples of what you had been able to develop to Fisher from time to time?

A. Yes, we did.

Q. What was the result of any tests you made on those samples you submitted as compared with any tests you made at the same time on samples of competitors' products?

A. Well, we had improved the resistance to sunlight. We had done very attractive work there with our dye stuffs experts, and they had come through with a method that did supply a dye that gave more fastness to light when the car was outdoors. The shrinking problem we licked at Fairfield by methods that were conceived there.

[fol. 4624] Q. My question was whether or not the samples that you submitted, which did not get you any business, whether your test showed them equal to what they were buying from Haartz?

A. What period?

Q. During this period——

A. In 1939 we submitted samples. For instance, we submitted samples for tests, but we did not quote because they were not satisfactory from an appearance standpoint. We knew that when we sent them out there, but we sent them for test only. They tested all right, but the appearance was not up to what their standard was at that time.

Mr. Neitzert: I offer in evidence DP Exhibit No. 289, which refers to the incident to which the witness has just testified.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 289.)

By Mr. Neitzert:

Q. This is a letter from Mr. A. L. Brown to T. A. Nalle, commenting upon the prices that then were quoted to Fisher in an effort to sell them "Teal".

Did you get any of the business at that time?

A. No, we did not get the business.

Mr. Neitzert: I also offer Exhibit DP 290 which is dated June 17, 1940, which is a letter from Mr. Nalle to Fisher Body Division, quoting prices on various fabrics.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 290.)

[fol. 4625] By Mr. Neitzert:

Q. What kind of fabrics are referred to in that letter, Exhibit DP 290?

A. The 4130 and 4132 quoted $1.30 and $1.20 were "Teal" items. That is double texture items, two different colors.

Q. Did you get any business at that time?

A. No.

Q. I also offer in evidence DP Exhibit 291, which is a letter from Mr. Nalle to Mr. Brown, dated January 20, 1947.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 291.)

Mr. Neitzert: I will read the last paragraph:

> "I hope that you will have good luck on working up the 'Teal' situation for Fisher, and quickly. They are running extremely close and are as anxious as I have ever seen them on anything, for us to get going quickly on it. Vern Fisher and I were talking about it Saturday afternoon and he remarked that Jess Hildebrand, Assistant Director of Purchases——"

By Mr. Neitzert:

Q. Of what company?

A. Fisher Body Corporation.

Q. (Continuing):

> "—had told practically everyone in the corporation that du Pont were going to help them out on the convertible top situation."

What does he refer to there?

A. Well, he is putting us on the spot, I guess, with the other executives. He just told them this problem is going to be licked now, we have du Pont Company really working on it.

[fol. 4626] Mr. Neitzert: I offer in evidence DP Exhibit 292, a letter from A. L. Brown to C. A. Alt, dated January 20, 1947, under the caption "Fisher Body Division—Convertible Top Material."

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 292.)

By Mr. Neitzert:

Q. The first sentence is as follows:

> "Mr. Fred J. Walker visited the New York office on December 5th and urged us to place ourselves in a position to supply them with sport decking material and Mr. Nickowitz agreed that we would endeavor to do so."

What does that refer to?

A. That was a conversation we had with Mr. Walker in which Mr. Nickowitz had agreed to make the effort.

Q. Did it ever come to your attention during this period that the reason the Fisher Body Company were asking you to develop a Teal for them was because of some combination or conspiracy growing out of the stock ownership in General Motors?

A. No, sir.

Q. The remainder of this letter, your Honor, refers to the specifications which Fisher had given du Pont and problems involved in developing a fabric to meet the specifications that Fisher was urging du Pont to use in developing a new type of Teal-like fabric. I won't read the rest of it.

I offer in evidence DP Exhibit No. 293, a letter from M. N. Nickowitz, to W. S. Lynch, dated January 24, 1947.

[fol. 4627] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 293.)

By Mr. Neitzert:

Q. What position did Mr. W. S. Lynch hold in the du Pont Company in 1947?

A. Mr. Lynch was a du Pont purchasing agent for fabrics.

Q. Mr. Nickowitz was then the manager of your division?

A. Yes. Mr. Nickowitz was assistant division manager and director of sales.

had been, according to the records, since about 1915, but I do not remember whether we had any contract at that particular time or not.

Q. Were they a customer using large or small quantities?

A. They were relatively small, very much smaller than any of the passenger car units.

Q. Do you know whether you ever supplied General Motors Truck all of its requirements of coated fabrics after 1917?

A. Not unless there was some short period. As a rule, [fol. 4586] they split their business. We had half of it on many occasions, but I have no recollection of ever having one hundred per cent of it.

Q. How long did you continue to sell on that basis to General Motors Truck?

A. As long as they were purchasing, which ran up to about 1925. At that time their purchasing was done for them by the Yellow Truck Company.

Q. Did you make any further sales to the old organization after 1925?

A. No, sir.

Q. Now, let us go to the Fisher Body. What business was the Fisher Body division engaged in during the years 1917 to 1930?

A. What business were they engaged in?

Q. Yes, what did they do?

A. They built automobile bodies. Their big business, of course, was closed bodies, but they did build some open cars in the early days, and on up for quite a number—in fact, they always built open bodies, because they got into convertible models which are open bodies.

Q. Who built open bodies after approximately 1930 for the General Motors car divisions?

A. The Fisher Body built the open bodies, after the old type touring car went out, about 1930 or 1931 or 1932.

Q. Over what period of time did Fisher Body build closed bodies for the General Motors car divisions?

A. They always built General Motors car bodies according to my understanding and recollection.

Q. What use did the Fisher Body make of coated and combined fabrics in the construction of these open and closed bodies?

A. Coated and combined fabric was a product they used to manufacture their tops.

Q. Did the du Pont Company sell any of Fisher's require- [fol. 4587] ments of coated and combined-fabrics when you were with the company in 1917?

A. I believe not at that time. It was always very small. It was not until 1922 that I recall we had a fairly good order, and not until two or three years later than that that we really had a big business with them.

Q. What happened about the time you began to get some important business from them?

A. That was in 1925. Fisher Body had used for construction of their tops a pyroxylin material which they bought very largely from Textileather Corporation.

In 1925, they decided to change from the pyroxylin type material to a rubber coated type material. Textileather were not making the rubber coated type material, so it gave a wonderful opportunity for those who were making it to get established. We had brought out just about that time an improved rubber coated Pontop which we marketed under the term "Glazed Pontop."

We submitted that to the Fisher Body, and this occurrence was taking place along about the middle of the year when the change was going to be made for the next season's models, and just about that same time, we had a letter from one of the Fisher Body officials recommending that we consider for employment in Detroit a friend of his, quite an old friend of his, Mr. J. Henry Smith. He said that Mr. Smith was a wonderful salesman, and just happened to be without work at that moment because of the discontinuance of his former connections, and he thought if we employed Mr. Smith it would be a big help in switching the automobile business, because he was very well acquainted throughout the industry.

[fol. 4588] We considered that at Newburgh and decided on interviewing Mr. Smith, which was done, and he was employed September 1, 1925.

Mr. Neitzert: Your Honor, in view of the defendants' explanation as to why they got the Fisher business, and why it differs very greatly from that of the Government, and in view of the fact that the Glazed Pontop enters very largely into our explanation, perhaps your Honor will be interested in a sample of the Glazed Pontop which was brought out by the du Pont Company at that time.

The Court: Does the Government have a sample?

Mr. Neitzert: The Government has seen a sample and expressed very great interest in it. Thy said they were very glad to have an opportunity to look at it.

If the Government wishes a portion, we can spare a piece off that. They have returned the piece without requesting us to keep part of it.

By Mr. Neitzert:

Q. Was Mr. Smith very successful in selling closed body "Pontop" type to the Fisher Body Company?

A. Yes, he was quite successful. He secured orders for 300,000 yards during the balance of 1925, that is the last three and a half months of 1925, which is about six times as much business as we had got from Fisher in previous years.

Q. How did your sales to Fisher during the last three and a half months period relate to their total requirements?

A. Well, it was a much greater percentage than we had ever had from Fisher.

Q. Did you ever have such a great percentage again?

[fol. 4589] A. Never again, unless it was in 1940, when we had a very large percentage.

Mr. Neitzert: Your Honor, I offer in evidence du Pont Exhibit No. 266, which is a letter from John T. Allmand to du Pont Company, attention of Mr. Henry Lindsey. It is dated July 6, 1925.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 266.)

By Mr. Neitzert:

Q. Mr. Brown, who was J. T. Allmand at this time, in 1925?

A. Mr. John T. Allmand was a vice president of Fisher Body Corporation.

Q. Who was Mr. Lindsey?

A. Henri Lindsey was the director of sales of the Fabrikoid Division of the du Pont Company.

Q. This letter provides that:

"It has just come to my notice that you recently have changed local representatives and as an old friend of mine, Mr. J. Henry Smith, son of the former Senator Smith of New Jersey, is in quest of a position of this nature. He has had wide selling experience, beginning with his father, and his last position was with the Pullman Car Company of Chicago.

"He is a well met fellow and a perfect gentleman and has entree to all the automobile manufacturers and accessory trade, and I think that he would be a very valuable man to you if you could place him in the Detroit territory. If you can consider this request, I would be very pleased to hear from you.

[fol. 4590] "Thanking you very kindly, I remain

"Yours very truly,

John T. Allmand."

Do you know what Mr. Allmand's particular field was as vice president?

A. I believe he was a financial man in Fisher Body.

Mr. Neitzert: I also offer in evidence DP Exhibit No. 267, a second letter from Mr. Allmand to Mr. Lindsey. This letter is dated July 17, 1925.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 267.)

Mr. Neitzert: This letter also contains Mr. Allmand's recommendation that the du Pont Company employ Mr. J. Henry Smith, and comments upon Mr. Smith's qualifications for the job.

I will not read the letter at this time.

I also offer in evidence, DP Exhibit No. 268, which is a letter from Mr. N. P. Wescott, Division Manager of the Fabrikoid Division of the du Pont Company, to Mr. J. Henry Smith. This letter is dated September 1, 1925, and arranges for Mr. Smith's employment with the du Pont Company.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 268.)

Mr. Neitzert: The second paragraph of the letter is as follows:

> [fol. 4591] "We understand that you will come promptly into the employment of our Company in the capacity of special salesman to the automobile trade for the products of this Division, including Fabrikoid and Rubbercoated fabrics, and that you will devote your time and energies exclusively to the work of selling, and in all practicable ways aiding us to sell, these products to that trade. In this undertaking, we understand you will make our Detroit sales office your headquarters, but that you will aim to cover the automobile trade generally, working directly with the important customers there and at other points, and working also thru and with the aid of our regular sales force in accord with the exact arrangements which we will later mutually agree upon as being best calculated to result in the largest obtainable volume of sales."

I offer in evidence DP Exhibit No. 269, which is a letter from Mr. Lindsey to Mr. Cathcart, manager of the Fairfield Plant. This letter is dated September 29, 1925, which is just twenty-eight days later than the preceding letter.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 269.)

Mr. Neitzert: This letter refers to an order that Mr. J. Henry Smith had been able to obtain from the Fisher Body Company in the interim.

The last part of the letter reads:

> "It goes without saying that these orders are very important due to the fact that they are the first real business we have received from the above customer calling for rubber deck material. We trust that you [fol. 4592] have the necessary raw material in stock and that you can make deliveries as specified."

I also offer in evidence DP Exhibit No. 270, which is a letter from J. Henry Smith to Mr. Lindsey, dated September 30, 1925.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 270.)

Mr. Neitzert: This letter is as follows:

> "I surely hope every effort will be made to make positive delivery by November 1st of the Rubber Pontop No. 554, now on order for Fisher.
>
> "I believe as soon as they see the goods in bulk we will obtain additional orders since many in their organization have at least informally expressed themselves.
>
> "They are having a great deal of trouble with Carr——"

By Mr. Neitzert:

Q. Is that another manufacturer?

A. Carr was a competitive manufacturer, making rubber top material.

Mr. Neitzert: (Reading):

> "—and I believe we can get a good share of this business. You can ship late in October and date bill November 1st.
>
> "We are working for additional orders before arrival of goods and hope we will be successful on that basis. [fol. 4593] "Mr. Allmand asked me to tell you we should have some one diligently watch our compound so we will have no trouble on these orders."

I offer in evidence DP Exhibit No. 271, which is a report to Mr. W. P. Allen, general manager of the Fabrikoid Division for the month of October, 1925. The report is dated November 20, 1925.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 271.)

Mr. Neitzert: On page 5 of the report is paragraph under the caption "Sales of Special Significance," which reads as follows:

> "Last month marked the beginning of rubber deck material sales to Fisher. This initial order was for 70,000 yards and sales totaling 110,000 have been made since. We have closed with Chevrolet for 1926 first quarter requirements for open cars. Anaconda has placed an order for a carload of Ventube."

If I neglected to state so, this is the report for October, 1925.

By Mr. Neitzert:

Q. Was Mr. Smith also successful in increasing your sales to other automobile companies, Mr. Brown?

A. May I hear that question again?

Q. Was Mr. Smith successful in increasing your sales to other automobile companies as well as to Fisher?

A. Yes, later on, when we offered a new product, the "Everbright Pontop".

[fol. 4594] Q. What happened with respect to the Fisher account in 1926 following the receipt of these large orders during the last three and a half months of 1925?

A. We continued to get very large orders in 1926. Fisher told us, in fact, that we had about fifty percent of their top business. We thought we had considerably more from our own calculations. It was very large yardage.

Q. Mr. Brown, to what do you attribute this sudden increase in your volume of sales of coated fabrics to Fisher?

A. Well, we had an outstanding product at the psychological moment when they switched over to "Glazed Pontop" material—to rubber top material.

Second, Mr. J. Henry Smith undoubtedly contributed materially in getting in there quickly.

Mr. Neitzert: I offer in evidence DP. Exhibit No. 272, which is also a report to Mr. Allen, General Manager of the Fabrikoid Division, a report for the month of May, 1926, dated June 22, 1926.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 272.)

By Mr. Neitzert:

Q. The first full paragraph on page 2 of the exhibit states as follows:

> "The proved superiority of our rubber deck materials backed up by special selling effort, has now apparently resulted in securing for Fairfield the major part of the Fisher Body business——"

Did you hear then, or at any other time, that the reason you started making sales to the Fisher Body Company was [fol. 4595] because General Motors Company had acquired some more Fisher Stock?

A. No, sir.

Mr. Neitzert: I also offer in evidence DP Exhibit No. 273, which is a letter from Mr. J. J. Moosmann to Mr. J. Thompson Brown. That letter is dated October 30, 1931.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 273.)

By Mr. Neitzert:

Q. Who was Mr. J. Thompson Brown, in October, 1931, Mr. Brown?

A. Mr. Brown was the vice-president of the du Pont Company and a member of the Executive Committee.

Q. Who was Mr. Moosmann?

A. Mr. Moosmann was the assistant division manager of our department—assistant general manager, pardon me.

Mr. Neitzert: I will read the second paragraph:

> "Prior to the employment of Mr. Smith we were unable to secure any Fabrikoid business from Fisher Body, and for a long time after becoming established as one of their sources of supply we were very largely dependent on him to hold a share of that business."

By Mr. Neitzert:

Q. Mr. Brown, did you see in any of the documents that passed over your desk during this time or in any other document, that any of the business obtained from Fisher was obtained by virtue of any acquisition by General Motors of stock in the Fisher Company?

A. No, sir, I never did.

[fol. 4596] Mr. Neitzert: I offer in evidence DP Exhibit No. 274, which is a letter from Hamilton Bradshaw, Assistant Chemical Director, to Mr. M. N. Nickowitz, dated March 25, 1926.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 274.)

Mr. Neitzert: This letter has reference to the superiority of "glazed Pontop," referred to by the witness.

I will only read the last paragraph:

> "Mr. Wescott also told me about some tests made by the Fisher Body Corporation of various rubber-coated top materials. He said that they placed du Pont and Duratex at the top and about on a par, du Pont being slightly better. Chase came next and considerably below these two. Then came Haartz, and lastly Carr. Have you any exposure tests that show any such quality for Duratex? It was my recollection that you placed Chase about on a par with du Pont or perhaps a little below it."

By Mr. Neitzert:

Q. Mr. Brown, we have here referred to "Glazed Pontop" and Mr. Nickowitz yesterday in his testimony referred to "Everbright".

Just what was the connection between those two fabrics, the difference between them?

A. The two products were very closely related. The compound and construction was about the same.

The entire difference was in the finish. "Glazed Pontop" had an all varnish finishing coat, whereas "Everbright [fol. 4597] Pontop" was a new development that had an asphalt type finish, which proved to have a much longer lasting quality on outdoor exposure. That is, the finish would remain bright over a long period of time without dulling to any appreciable extent.

Q. Did any of your competitors offer a product of equal lustre and durability to "Everbright"?

A. Not for several years. Not until 1929 did they approach it.

Q. To what automobile manufacturing companies did you sell your "Everbright" during this period?

A. We sold the Ford Motor Company, Fisher Body Company, Marmon, Studebaker, International Harvester, all the body companies. In fact, most of the automobile companies who were then making cars at one time or other bought "Everbright Pontop".

We never sold any appreciable quantity, however, to Hudson or Willys-Overland.

Q. What fabrics did this replace in Fisher's use of top materials?

A. A pyroxylin coated material.

Q. I mean what product they bought from us.

A. The Everbright Pontop?

Q. Yes.

A. That replaced our "Glazed Pontop".

Q. That was the top material that Mr. Smith continued to sell to Fisher for the next several years, was it?

A. That is right. The "Glazed Pontop" we brought out in 1925, and the "Everbright Pontop" was introduced in the middle of 1926. We put samples out somewhat earlier, but it was the middle of 1926 when we changed our production from "Glazed" to "Everbright".

Q. All during this period, what percentage of Fisher's requirements of coated fabrics were being bought from the du Pont Company? I mean during this period when you [fol. 4598] were selling "Glazed Pontop" and "Everbright Pontop".

A. Of the entire range of pyroxylin material and rubber top material?

Q. Yes.

A. We probably had well over 60 per cent of it.

Q. What percentage of the rubber top material did you have?

A. We had 80 per cent or more. At one stage there, I think it was in 1927, they bought rubber top material for the Oakland from competition although at that time our product was very distinctly superior. But they figured they needed to keep in another source of supply that could supply rubber top material.

Mr. Neitzert: Your Honor, I offer in evidence Exhibit DP 275, which is a letter to Mr. M. N. Nickowitz from Sales Manager T. A. Nalle, dated May 21, 1929.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 275.)

By Mr. Neitzert:

Q. Is that the Nickowitz that testified here yesterday?

A. Yes, sir.

Q. This letter is as follows:

"You will be keenly interested in the success and popularity which Everbright Pontop has attained. Since its development, and introduction in 1926, about six million yards have been put in service. In this time it has not been necessary to replace a single original top because of leakage or failure of the Everbright Finish.

"The Plant is now turning out an enormous daily volume. On one day a few weeks ago, something over thirty-seven miles of Everbright Pontop were shipped, [fol. 4599] in addition to the numerous other products manufactured at Fairfield, such as Hospital Sheeting, Leatherette, Gasket Material, Teal, etc. Additions and enlargements are just being completed which will provide increased capacity for new business, which will undoubtedly develop during the next few months.

"Visualize the following procession and you have a picture of the cars which are now being built with Everbright Pontop decks:

"On the road."

Then follows, your Honor, a list including Chevrolet, two models of Chevrolet; four models of Ford; Pontiac; Oldsmobile; Roosevelt; International Harvester; Indiana Truck; Buick; International Motor Company; Paramount; Studebaker; Yellow Cab; General Motors Truck, delivery wagons and cabs.

The following page, under the caption "In Production But Not Yet on Market," there is listed Buick, Marquette, three Studebaker models and three Ford models.

The letter continues:

> "We feel that all in the organization can take a just and pardonable pride in the place which Everbright Pontop occupies in the field of deck materials."

By Mr. Neitzert:

Q. By the way, what is meant by deck materials?

A. Deck means the top of the car, the roof, the top piece on the car.

Q. The deck isn't a deck at all. It is the roof, then, of the car?

A. Yes.

[fol. 4600] Q. (Continuing):

"and it is hoped that the above list will serve as a stimulus to the Sales Force to go out and add new names to it. Information has been received that several high-priced cars will shortly adopt Everbright Pontop. You will be advised as they get on the band wagon.

"Quality, Sales Pressure and Service, coupled with reasonable price, have been responsible for the results. Let us press home the advantage and line up further new accounts until the mill is forced to hang out the 'Sold up' sign."

By Mr. Neitzert:

Q. Which of these models included in the list shown in this letter were built by Fisher?

A. They built the Chevrolet, Pontiac, Oldsmobile, Buick, and Marquette.

Mr. Neitzert: Would your Honor be interested in seeing a sample of "Everbright"? It doesn't look as good to me as "Glazed Pontop".

The Court: Yes, I would like to see it.

Mr. Neitzert: Apparently it is better. Of course, I am not a top specialist.

By Mr. Neitzert:

Q. Now, will you give us the history of your sales to the Fisher Body Company over the years 1926, 1927 and on into the mid thirties?

A. Well, I testified on the latter part of 1925 and 1926. In 1926 we continued to have the bulk of that business. Early in 1927, Fisher decided to go back to pyroxylin on [fol. 4601] the Buick, which they did, replacing rubber, and we were given the pyroxylin business on the Buick.

A little later in the summer they returned a great many cars to pyroxylin finish, so by the end of the year the only cars using rubber were the Chevrolet and Pontiac on sedans and coaches, which business we had.

Of the pyroxylin business, we had somewhat less than 50 percent. Most of the top business they were giving to Textileather.

Then going into 1928, they returned again to rubber top material, except on Cadillac and Buick. The Buick business, we had part of the year on pyroxylin, but it was later taken from us, and we were told that that was being done because of the large volume we had on rubber.

In 1929, competition had begun to approach "Everbright" finish, so that Fisher then split the business among several competitors. We had about one-third of the top business at that time, and it remained that way thereafter until about 1935.

In 1935, of course, Fisher introduced an all steel deck, and by 1936 the entire General Motors line had all steel decks, so there was no top material left for them to purchase other than for convertible models.

Mr. Neitzert: I offer in evidence, if the Court please, du Pont Exhibit No. 276, which is an excerpt from report of Fabrikoid Division to the Executive Committee for the month of February, 1927.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 276.)

[fol. 4602] Mr. Neitzert: This report is dated March 27, 1927. It is as follows:

> "Information has reached us this week that Fisher has decided to use pyroxylin coated materials henceforth for Buick jobs. They have been buying approximately some 30,000 yards of 63" rubber material from us each month for this work and it is understood that they expect to begin to secure this business for Newburgh with apparently fair prospects of success."

By Mr. Neitzert:

Q. Did you actually get the business?
A. Yes, sir.

Mr. Neitzert: (Continuing):

> "Our business with Fisher on rubber materials for Chevrolet, Pontiac and Olds is apparently not threatened. There have been no complaints from Fisher Body that our rubber material has been defective in any way; and the loss of the business on Buick Models is primarily due to the belief of the Fisher Body engineers that pyroxylin is more desirable than rubber because of its stronger claims to lasting lustre."

Then I offer exhibit marked DP No. 277, an excerpt from the report to the Executive Committee of the Fabrikoid Division for March, 1928.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 277.)

Mr. Neitzert: It is dated April 21, 1928:

> [fol. 4603] "In the automotive field, our expectations have recently encountered a severe setback thru the loss to Textileather of probably the major part, and perhaps all, the business in pyroxylin materials for Buick bodies. This business was taken, according to our information, at an extremely low price (reported to be at least ten cents a yard under our quotation) evidently on the policy of sacrificing profits in order to become re-established in the enjoyment of this part of the Fisher business."

I also offer in evidence DP Exhibit No. 278 which is a report from the Fabrikoid Division to General Manager W. Richter dated July 24, 1929.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 278.)

Mr. Neitzert: The first paragraph states as follows:

> "Viewing the picture by separate selling field, the main points are as follows: (1) automotive sales of Newburgh products are substantially lower than a year ago. This decline is largely in sales to the Fisher Body Corporation, and results in part from their change from pyroxylin top materials to our Everbright Pontop, and in part from their decision to reduce the pyroxylin business given us because of the very large volume of rubber business that is coming to our company."

I offer in evidence Exhibit DP-279 containing excerpts from a report of the Fabrikoid Division to Richter for February 1929.

[fol. 4604] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 279.)

Mr. Neitzert: This report is dated March 20, 1929. I will read the first paragraph as follows:

"Recent indications are that the practical monopoly which we have for some time enjoyed on the rubber deck material of durable lustre, may in the future be considerably reduced. Naturally our competitors have been working very actively to overcome this handicap; and while our own tests still indicate a distinct margin of superiority for Everbright Pontop, yet Haartz and others have made substantial advances and the formerly wide gap between their products and ours is narrowing. As an apparent consequence of these improvements, the Ford Motor Company is now buying in small quantities from two competitors, while we are just informed (March 20th) that some part of the Fisher requirements at Cleveland for Chevrolet bodies will be drawn from Haartz. Both these have heretofore been our exclusive accounts on rubber decking for closed bodies. As against these invasions, however, we are fairly well assured of a minimum of 150,000 yards monthly over the next six months from Ford; while we are informed that the new Marquette model, and certain other Buick work (for the past year using Textileather-pyroxylin) will be turned to Everbright Pontop; so that our expectations as to total volume are not diminished, though the price factor may become more difficult. With the aid of the Chemical Department we are still vigorously push- [fol. 4605] ing further developmental work on Everbright, in the hope that we may widen the gap against competitors by further increasing the life of our product; and recent Laboratory results appear encouraging."

By Mr. Neitzert:

Q. While still on this exhibit, I might well call attention to the last part of this paragraph:

"Fairfield sales in February to leading automotive accounts included 156,000 yards to Fisher, 40,000 yards to Chevrolet, and 233,000 yards to Ford. A recent development of special interest is the sale to Studebaker of some 5,000 yards of our new type of colored rubber deck material."

Mr. Neitzert: Now, if your Honor please, I offer in evidence Exhibit DP-280, which is the report to E. S. Nickerson from Mr. H. S. Plank dated December 31, 1930.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 280.)

By Mr. Neitzert:

Q. Mr. Brown, what position did Mr. Nickerson hold with the du Pont Company in December, 1930?

A. Mr. Nickerson was the assistant division manager and director of sales in 1930.

Q. And what position did Mr. Plank hold?

A. Mr. Plank was a supervisor of our trade analysis section.

Mr. Neitzert: If your Honor please, this is an explanation of a trade survey that was made at that time to determine [fol. 4606] how much coated fabric and combined fabric business there was available in the automotive trade, and how much of it was going to du Pont.

I am not going to read this document.

The first document shows how the survey was made by du Pont's development department. It is an important document, but it goes merely to the mechanics of making the survey, and I am going to pass it for a short while, and go to the actual results of the survey.

I pass it only because it is rather long and is of interest only as a foundation piece of material. It will be in the record, if anyone wishes to consult it.

Now, I offer in evidence Exhibit DP 281, which is a tabular summary of a report which is referred to in Exhibit DP 280.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 281.)

Mr. Neitzert: This exhibit is captioned "Comparison of Passenger Car Production with Possible Potential in Auto Field, 11 months—1930."

Q. The second paragraph is as follows:

> "We are anxious to cooperate with Fisher in meeting not only their current expanded needs for sport decking but also in working out new improved constructions for their future consumption. We are not unmindful of the fact that considerable effort was expended in the past without success in procuring satisfactory fabrics to meet Fisher's sport decking needs. Our renewed effort, however, comes as a result of a special plea from Fred Walker, Purchasing Agent for Fisher, and Vern Fisher, Body Trim Engineer for Fisher Body."

Your Honor, I offer in evidence DP Exhibit No. 294, a letter from Mr. A. F. Schildhauer to Mr. Brown, dated March 25, 1947.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 294.)

By Mr. Neitzert:

Q. I believe you explained Schildhauer was in the devel- [fol. 4628] opment department?

A. Mr. Schildhauer was technical superintendent of Fairfield.

Q. The first and last paragraphs are as follows:

> "In compliance with your recent request, we have developed a suitable combining medium for producing a double texture teal construction for collapsible auto tops for Fisher Body. This is based on neoprene with which we get good adhesion to cotton and the durability will, of course, be very much superior to the old rubber used in pre-war days. Another feature of this combining would be its cleanability with gasoline as well as soap and water."
>
> "We are considering our part of this problem completed for the time being until fabrics can be obtained for preparation of a working sample for submission to Fisher Body."

Did this leave open only the problem of obtaining the proper grey goods to meet Fisher's specifications?

A. Yes, sir.

Mr. Neitzert: I offer in evidence DP Exhibit No. 295, which is an office trade report signed by Mr. Nickowitz, captioned, "Fisher Body Corporation, Detroit, Michigan."

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 295.)

By Mr. Neitzert:

I will read only the first and third paragraphs.

"Mr. Fred Walker of the Fisher Body——"

[fol. 4629] Who was he?

A. He was a buyer of textile products for Fisher Body.

Q. (Continuing):

> "—stopped in today to pay us a more or less routine visit, but also to urge us to equip ourselves as soon as possible to supplement their supply of sport top fabrics.
>
> "Mr. Walker told us that Landers had equipped themselves before the war to supply this type of material in competition with Haartz-Mason-Grower and that they have asked them, too, to help them in this instance. However, they would like for du Pont to at least share in this business and Mr. Walker believes that it should be attractive for the long pull."

By the way, your letter to Alt, which has been marked DP Exhibit 292, contains the postscript:

> "Based on the quantities estimated, the annual sales volume of this business would be in the neighborhood of $600,000.00 to $700,000.00."

Have you ever sold that much Teal to Fisher during any calendar or model year since that letter was written, and since you have obtained a part of the Fisher "Teal" business?

A. No, we have not. The sales in 1948, I remember, were about $150,000.00, and perhaps a little more than that the following year.

Q. About what percentage of the "Teal" business does that represent with Fisher?

A. Less than half. I don't know exactly.

[fol. 4630] "Q. Have you tried to get any more of it?

A. Oh, yes. We tried to get as much as we could of it.

Mr. Neitzert: I offer in evidence DP Exhibit No. 296, which is a letter to Mr. R. C. Williams, from A. L. Brown, dated October 10, 1949.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 296.)

By Mr. Neitzert:

Q. What position did Mr. Williams hold with the du Pont Company in October, 1949, Mr. Brown?

A. Mr. Williams was automotive sales manager of the Detroit office.

Q. I will read some excerpts from this letter, not the entire letter. This is Mr. Brown's letter dated October 10, 1949.

> "As you know, we did not plan to see Mr. Vern Fisher on the trip to Detroit last week. However, Dr. Vaala——"

Who was he?

A. Doctor Vaala was head of the laboratory at Fairfield at that time.

Q. (Reading):

> "—However, Dr. Vaala and I encountered him in The Coffee Shop and talked with him in the lobby after that for about half an hour."

Vern Fisher was the body trim engineer?

A. Of Fisher Body, yes, sir.

Q. (Reading):

> "No mention was made of price nor your current discussion with him and the Purchasing Department.
> [fol. 4631] "Mr. Fisher inquired about the run of rayon/cotton that we are making for him, and Dr. Vaala explained that this particular run would probably not provide any reliable information. It will not be completed at Fairfield within a few days and shipment made."

Skipping over to the middle of the next page:

"Mr. Fisher pointed out the large amount of time that he is spending on the top material problem and he mentioned that their present replacements are running at the rate of $250,000 a year. He said that if a top shrinks within one year they are replacing it if it is called to their attention."

Skipping the next paragraph:

"Mr. Fisher volunteered the information that our present construction is at the top of the list from the shrinkage standpoint at present and he commented that possibly he should recommend to Purchasing"——

What did he mean there, to Purchasing?

A. Recommended to their Purchasing Department.

Q. (Reading):

"—that we be given all of the business. He followed this up by saying that it would not be a good thing to make such a recommendation. He then said that possibly we should be given the principal part of the business and should tell the competitor what we are doing to control the shrinkage within such narrow limits."

Who did he refer to as the competitor that you are going to inform how to control shrinkage?

A. Haartz Company.

[fol. 4632] Q. (Reading):

"Of course we ducked an answer to that one.

"He mentioned that he had heard that Chrysler has had difficulty with Haartz material and has made a purchase from Goodall. He went on to say that he had tested Goodall material and found it unsatisfactory."

After that period of time, did your sales of "Teal" to Fisher increase?

A. No, they didn't increase in percentage. As a matter of fact, they became less a year or so later.

Q. I notice that you refer there to rayon cotton "Teal" for Fisher for use on higher priced cars. What does that involve? What did you do about it?

A. That was a special textile combination. The top fabric was a mixture of rayon and cotton. The rayon gave it a very pleasant sheen, and they asked us to develop such combination for them, which we proceeded to do.

By the time we had it, we found that they had also asked Haartz to develop the same item, and they were in first with it, and our offering did not prove to be of interest. We didn't get any of that business.

Q. After you had done the development work?

A. Yes, sir.

Q. What happened with respect to the other constructions, "Teal" constructions that you were supplying Fisher? That is, in these later years, when you say the business went down.

A. Well, we had at one time black and some of the tan, but in 1951 we were not given an opportunity to quote on the tan. We were given the black only. We think we have perhaps half the black, but none of the tan. So that our share was perhaps 33 per cent of the total, maybe a little less than that.

[fol. 4633] Q. That is still the situation at Fisher?

A. That is still the situation.

Mr. Neitzert: I offer in evidence Defendants' Exhibit DP 297 and 298.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 297 and 298.)

Mr. Neitzert: DP Exhibit 297 shows the dollar sales of coated and combined fabric to Fisher Body Company by the du Pont Company from the year 1923 to 1949, from the sales card.

All of the data on these exhibits are from the du Pont Departmental Trade records, which I have here in my hand and they are available to the Government at all times, and have been.

And that is also true of Exhibit DP 298 except in one exhibit there is shown the dollar sales and the other exhibit shows the yardage sales.

Of course one column on these exhibits contains data we have obtained from the General Motors Corporation. They told us it came from their production records.

Footnote 7 on each of the exhibits is as follows:

"Figures represent closed bodies only 1923-1930."

That was while the witness has testified that the automobile divisions were making their own open bodies.

"but represent all types of bodies, 1931-1949."

We were unable to obtain any further breakdown of this data from the General Motors Corporation.

By Mr. Neitzert:

Q. What parts of these two exhibits did you prepare, [fols. 4634-4635] Mr. Brown?

A. I had nothing to do with the exhibits except that I supplied the footnotes 1 through 7.

Q. 1 through 6, isn't it? You did not have anything to do with Footnote 7, did you?

A. No. Pardon me, 1 through 6.

Q. We can blame General Motors for that.

A. On the type of bodies, I have no information on that.

Mr. Neitzert: I don't believe it is necessary for me to call attention to any specific figures on here. They show the effect of the events the witness has testified about, both in dollars and in yards. Some of the events are referred to in the footnote. It is too late in the day to read a long series of tedious figures to your Honor unless some one asks me to do it.

Also, if it please your Honor, this completes the testimony of this witness relating to the sales of the car divisions, that is, to the divisions of General Motors that were engaged at one time or another in the manufacture of automobiles, either bodies or the entire automobile.

By Mr. Neitzert:

Q. Have we covered them all, Mr. Brown, all of the General Motors car divisions that buy coated fabrics?

A. Yes, sir, we have.

Adjournment

[fol. 4636] The Court: Proceed, please.

Aubrey Lee Brown, called as a witness on behalf of the defendant, E. I. du Pont de Nemours and Company, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued).

By Mr. Neitzert:

Q. Mr. Brown, I direct your attention back to your testimony of last week that in 1925 General Motors Corporation bought a 51 per cent interest in Yellow Truck Company, and at that time The General Motors Truck Company then discontinued buying fabrics for its own account and its requirements were bought by the Yellow Truck Company.

Now, prior to that time, which you placed as 1925, had you sold coated fabrics to the Yellow Truck Company?

A. Yes. When I first started in 1917, we were selling "Fabrikoid" to that company. However, at that time its name was the Walden W. Shaw Livery Company. That company manufactured taxicabs, trucks, and were starting to make passenger cars, and they also operated a taxicab service in the city of Chicago.

In 1919 they discontinued operating the taxi service, and the name was changed to the Yellow Cab Manufacturing Company.

About the same time or shortly thereafter, they formed an associated company, the Yellow Motor Coach Company, and we were selling some material to those companies. They were also buying part of their requirements from Chicago Decorative Leather Company.

[fol. 4637] Q. After 1925, what kinds of coated fabrics did you sell to the Yellow Truck Company?

A. In 1925, the company started moving into Pontiac, Michigan. That is the time GM had bought 51 per cent, I believe. The name was changed at that time to the Yellow Truck & Coach Manufacturing Company.

They started then to buy for the entire outfit, that is, their own operations plus the former General Motors Truck Company.

They were buying artificial leather for trim and using it also on some of the upholstery. In addition, they were using rubber-coated material on some of the tops.

We were selling them artificial leather right along. We didn't do so well on the rubber, as I recall it, until about 1928. We started then and had some of that business for a few years.

Mr. Neitzert: Your Honor, I offer in evidence DP Exhibit 299, which is an excerpt from a report of the Fabrikoid Division to the Executive Committee for April, 1928.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 299.)

By Mr. Neitzert:

Q. This contains the following:

> "During the month we secured an initial order at Fairfield from Motor Bodies, Inc., a body builder, for 1,300 yards, and we also secured 15,000 yards from General Motors Truck Company, which formerly had gone to competition."

Was General Motors Truck Company then a division of Yellow Truck?

[fol. 4638] A. General Motors Truck was a division of the Yellow Truck & Coach Manufacturing Company.

Q. What percentage of the business of that division did you get then after 1928?

Mr. Harsha: I would like to object to that question unless it is specified what materials they are talking about.

Mr. Neitzert: The same materials you have described in your next to last question and answer.

Mr. Harsha: My objection, your Honor, was that it was vague, and it is unstated in the question as to what materials they are talking about.

I think we should have some indication as to whether they are talking about top, trim, or what is the nature of the product.

Mr. Neitzert: I am talking about total fabrics sold by the Fabrics Division, which the witness in the question before has itemized.

The Court: Does that answer your question?

Mr. Harsha: No, because he indicated they were getting practically, as I understood it, all of the trim and upholstery material which would be a "Fabrikoid," and he said they didn't do so well on rubber.

He has introduced a document here which is also vague. It doesn't say they have gotten 15,000 yards—it doesn't state what it is at all, rubber, trim, or what.

The Court: Can the witness explain that?

The Witness: We were not getting all of their trim and upholstery business. We were getting about half, as nearly as I can say, and we were dividing it with a competitor called Chicago Decorative Leather Company.

We were getting none of the rubber business, so far as [fol. 4639] I can recall, until 1928, and the reference in the exhibit is to rubber material, 15,000 yards rubber material that had formerly gone to competition.

By Mr. Neitzert:

Q. Did you attempt to sell the Yellow Truck Company a greater percentage of its requirements of these materials during this period?

A. Yes. Yes, we tried to get all their business.

Q. With what success?

A. We had about 40 percent, I would say, of their trim business—perhaps a third of their total business at that time.

Q. Do you recall the trip you made to Pontiac in the fall of 1940 to try to increase the sales to this customer?

A. In 1940, I recall a trip in the fall of that year with Mr. T. A. Nalle, our Detroit representative. We called on Mr. E. H. Nelson, who was the purchasing agent of Yellow Truck & Coach.

At that time they were using our Cavalon on about half of their production light trucks. They were using an olive drab rubber material that they were purchasing from two of our competitors, L. C. Chase and United States Rubber, on military trucks.

We were attempting to get some of the olive drab business. I recall that Mr. Nelson told us that our price was in line with competition, but he felt it necessary to divide the business, and he was unable to give us any of that particular color.

Mr. Neitzert: Your Honor, I have a few more exhibits in volume 2 that I expect to offer this morning. The first one is DP 300, a letter from Mr. A. L. Brown to Mr. T. A. Nalle, dated March 7, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 300.)

[fol. 4640] Mr. Neitzert: It reads:

> "General Motors Truck & Coach.
>
> "For your information, we are attaching test cards showing results of tests on L. C. Chase, Olive Drab material, compared with 'Cavalon'."

By Mr. Neitzert:

Q. For what purpose were these tests made, Mr. Brown? A. The tests were made to try to help the sales department in the solicitation of that business.

Mr. Neitzert: (Reading):

> "These cards were requested in your trade report No. 41.
>
> "The competitive product is fairly good but the superiority of 'Cavalon' is readily indicated, particularly in the scrub test."

I also offer in evidence DP Exhibit 301, which is a letter from Mr. W. W. Kaminsky to Mr. T. A. Nalle, Fairfield, Connecticut, dated June 5, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 301.)

By Mr. Neitzert:

Q. Who was Mr. Kaminsky?
A. He was sales correspondent at Fairfield at that time.

Mr. Neitzert: The letter is dated June 5, 1940, and is as follows:

> [fol. 4641] "The attached samples showing results of Bomb Aging are supplementary to evaluation of U. S.

Naughahyde Olive Drab Material vs. 'Cavalon' #7030 which we previously submitted to you. The U. S. Naugahyde failed after fourteen days in the bomb whereas 'Cavalon' #7030 #704 Color withstood nineteen days."

By Mr. Neitzert:

Q. What was the purpose of those tests?
A. The same as I just described previously.

Mr. Neitzert: I also offer in evidence as DP Exhibit No. 302, a trade report from Mr. Nalle to the General Motors Corporation, and it is dated November 19, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 302.)

Mr. Neitzert: The body of the report is as follows:

> "Called with Mr. Brown and saw E. H. Nelson. He is interested in extending current 'Cavalon' contracts to August 1st and is anxious that the same price be continued. Mr. Brown agreed to take this up upon his return and advise. (In the meantime instructions have been received from him to extend the contract.)
>
> "The question of olive drab was also discussed and Nelson indicated that they had released so far this year approximately 70,000 yards of olive drab which is now coming from U. S. Rubber. He further stated that U. S. had agreed at the time of taking the contract to protect them on additional government business. This means that they will not be in the market as of [fol. 4642] January 1st for a new contract on this item we will be fortunate to secure any of this business."

I also offer Exhibit DP No. 303, which is a letter from Mr. A. L. Brown to Mr. Nalle, dated November 20th, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 303.)

Mr. Neitzert: It reads as follows:

> "Referring to our conversation with Mr. Nelson, it is satisfactory to extend the present 'Cavalon' contract

at the present price to the end of July next. Will you please let me know as soon as you have his final O.K.

"With the quantity of Olive Drab material that they are now using, which is running neck-and-neck with 'Cavalon' I hope you will be able to prevail on him to give us a carload or two of it. He can do so and still buy a good quantity from competition since he seems insistent on continuing an outside source of supply."

By Mr. Neitzert:

Q. Do those documents refer to your trip to Pontiac you testified about this morning?

A. They do.

Q. Are you offering this olive drab fabric that was being quoted by your competitors?

A. Yes, we quoted Mr. Nelson a price, and he told us he did not like it.

Q. Did you get any of the business?

A. No, we didn't get any of it.

[fol. 4643] Mr. Neitzert: I also offer in evidence, your Honor, DP Exhibit 304, which is a report from A. F. Schildhauer to F. J. Brannigan, dated December 20th, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 304.)

By Mr. Neitzert:

Q. What position did F. J. Brannigan hold with the du Pont Company?

A. Mr. Brannigan was office manager at Fairfield.

Q. I call your attention to the first two paragraphs which were comparative tests that had been made to show the comparison of the du Pont olive drab "Cavalon" to the Naugahyde, and then follows the results of the tests, and the last two paragraphs of the letter conclude:

"In general we would say this group of tests indicates that the Naugahyde material is of fairly good quality."

Who was making the Naugahyde?

A. United States Rubber Company.

Mr. Neitzert: (Reading):

> "There is one weakness in comparison to 'Cavalon' and that is on edgewear. Of course, we feel that this is an important weakness.
>
> "We do not have bomb aging tests completed although at this writing the Naugahyde has failed at the end of ten days. Our own material is not expected to fail until about twenty days or more have elapsed"——

[fol. 4644] By Mr. Neitzert:

Q. Now, was your olive drab "Cavalon" the fabric you were offering this customer in competition with Naugahyde?

A. Yes, sir, it was.

Q. What was the purpose of making the test referred to in Exhibit DP-304?

A. They were as an aid to the Sales Department.

Q. Did they result in getting any business?

A. No, they did not.

Mr. Neitzert: Now, your Honor, I offer in evidence Exhibit No. DP-305 and No. 306, which are schedules of sales of the du Pont Company to the Yellow Truck & Coach Company.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 305 and 306.)

Mr. Neitzert: They were prepared from the du Pont departmental trade records which have been supplied to the Government, and are now in their possession.

By Mr. Neitzert:

Q. I call your attention to the variation in the total sales.

Mr. Brown, could those variations be accounted for by a variation in the volume of production of trucks?

A. Only in a very limited extent.

Q. What accounts for the variation in sales in your opinion?

A. To me it would indicate that the Yellow Truck & Coach Company were giving us considerable more business during some years than they were in others.

[fol. 4645] Mr. Neitzert: I wish to state for the record, your Honor, I was unable to obtain General Motors' production records showing the number of units produced, due to the fact I am told that during this period General Motors was ~~only~~ the majority stockholder of this customer?

By Mr. Neitzert:

Q. Did the Yellow Truck Company use artificial leather for upholstery on any of its trucks in the period 1927 to 1943?

A. No. They used artificial leather on their light weight trucks, but on their heavy duty trucks, they used natural leather. They also used natural leather on buses where material of that type was required.

Q. What happened to that customer in 1943?

A. In 1943, there was another reorganization there, and it became consolidated into the General Motors organization. The name was changed to GMC Truck & Coach Manufacturing Company.

Q. Did you solicit the business of this new division?

A. Yes, sir.

Q. With what results?

A. We were getting about forty percent of the business on the medium and lightweight trucks, but the fact is we were not getting any of the business on the heavy duty trucks or on the motor coaches.

Q. From whom has this division bought its requirements of coated fabrics on heavy trucks and buses since it was formed in 1943 or 1944?

A. Well, at a period about either 1944 or 1945, they replaced natural leather with vinyl coated fabrics, and the heavy duty material, practically all of the heavy duty truck material, went to the United States Rubber Company, whereas the Goodrich Company received the business on the motor coaches.

[fol. 4646] Q. What was the name of the Goodrich vinyl coated fabric used on the motor buses?

A. Their trade name was Koroseal.

Q. Did you attempt to sell the GMC Truck & Coach Division a greater percentage of its requirements of upholstery on light trucks, and also its requirements of coated fabrics for heavy trucks and buses since 1944?

A. Yes, sir, we have solicited and attempted to get 100 percent of it, but we did not increase our percentage.

Mr. Neitzert: I offer in evidence DP Exhibits 307 and 308, which show the total dollar sales and the total yardage sales of coated fabrics by the du Pont Company to GMC Truck & Coach Division of the General Motors Corporation for the years 1944 to 1950.

These exhibits were prepared as have been the others of this series from the fabrics division sales cards, which are now in the possession of the Government, and truck production figures have been furnished by the General Motors Corporation.

I would like to add that these truck production figures show both heavy trucks and light trucks. We were unable to separate them.

Now, looking at Exhibit No. 307, Mr. Brown, will you state what is the explanation of the large purchases per units that were made from the du Pont Company for the years 1946 to 1947?

A. That was the period when coated fabrics were in very short supply, and during that period the division took all of the fabrics that we could supply to them, and they still hadn't enough.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 307 and 308.)

[fol. 4647] Q. Now Mr. Brown, were you selling coated fabrics in 1917 when you went with the Fabrikoid sales department, to any other company other than the Yellow Truck Company that also later became a part of the General Motors Corporation?

A. We were selling coated fabrics to the Martin Perry Corporation that later was purchased by General Motors.

Q. What was the business of that company, and what use did it make of coated fabrics?

A. Martin-Perry was a builder of bodies for trucks. They had plants at York, Pennsylvania, and Indianapolis. The Indianapolis plant in later years, say beginning sometime in

1920, concentrated almost entirely on the light type of bodies which were later known as commercial vehicles.

I don't remember too much about the sales in the early days. I remember we were selling them; and by 1922 we were selling Indianapolis 100 per cent of their requirements, and the material was used for upholstery, artificial leather for upholstery and trim, and some rubber type material.

Q. And how long did you continue to sell the Indianapolis plant 100 per cent of its requirements of these fabrics after 1922?

A. Right straight through until 1930 when they sold out.

Q. When they what?

A. When they sold out to General Motors.

Mr. Neitzert: Your Honor, with reference to the York, Pennsylvania, plant, I offer in evidence DP Exhibit 247 which is an excerpt from the report of the Executive Committee for November, 1922, the Executive Committee of the du Pont Company.

[fol. 4648] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 247.)

Mr. Neitzert: It reads:

> "A visit to Martin-Perry Corp. of York, Pa., reveals complete satisfaction with our goods, deliveries and service. We feel optimistic about securing their next year's business 100% which they forecast at a 50% increase over 1922 with possibilities of doubling 1922."

By Mr. Neitzert:

Q. Do you know whether you ever supplied that plant 100 per cent of its requirements of coated fabrics?

A. I don't recall whether we supplied York fully. We had a substantial part of their business, but I don't recall the percentage.

Q. What happened after General Motors bought the Martin Perry plant at Indianapolis?

A. Well, they started to build, or continued to build, light commercial vehicles at that plant, and the buying was done for quite a period, through 1935—the buying was done both in Detroit and to some extent in Indianapolis.

In 1935 or early 1936, the purchasing was entirely transferred to Indianapolis. We continued to sell them all of their requirements of artificial leather and some rubber material, the percentage of which I do not recall.

Q. What happened in 1937?

A. In 1937 the upholstery product was changed from artificial leather, "Fabrikoid," to a new rubber type upholstery which had been developed, and at that time we lost 10 per [fol. 4649] cent of the business to United States Rubber Company.

Q. What was the competing product that was purchased from United States Rubber?

A. They called that product Naugahyde.

Q. How long did you continue to have 90 per cent of the business of Chevrolet plant at Indianapolis?

A. It ran along that pattern until 1940 when Chevrolet brought in a couple more suppliers, the L. C. Chase Company, and the Cotan Corporation.

At that time we estimated that we were getting about 60 per cent, beginning in 1940.

Q. How long did you have 60 per cent of the business at the Indianapolis plant?

A. Right straight through until 1948, towards the end of 1948 when there was some more competition came in, and we lost still more of the business.

Q. Did you attempt to hold this business during these years?

A. Yes, we tried to hold it, tried to increase it, but in 1948, the latter part of November, back about the last of November, I remember Mr. Nalle telephoned that he was in trouble with his price quotation there, and it looked like we might not get any of the business that was then up for contract.

I recall going to Indianapolis and visiting Mr. Gleason and Mr. Carlin with Mr. Nalle, on December 2nd. We spent most of the day negotiating with them for this business, during which we reduced the price about 4 per cent, and also agreed to give them the December shipments at the new lower figure, and on that basis we were awarded a contract which, however, was only for 30 per cent of their requirements, so that we lost about half of what we had previously.

[fol. 4650] The Court: The Court stands recessed for fifteen minutes.

(Short recess taken.)

The Court: Proceed.

Mr. Neitzert: I now offer DP Exhibit No. 309, dated September 25, 1940, which contains reference to samples of competing products of U. S. Rubber, Chase, and so on, and quotes a trade report to Mr. Nalle.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 309.)

Mr. Neitzert: This contains the following paragraphs:

> "L. C. Chase who obtained the majority of the olive drab business when last contracts were placed have received orders for approximately 20,000 yards. Also Cotan was just recently given an order for 2,000 yards, although no deliveries have as yet been made.
>
> "U. S. Rubber have received orders for about 11,000 yards of the regular production material which is again being tried out on a suburban commercial job.
>
> "In connection with the recent complaint on rapid dulling of the knives in cutting 'Cavalon,' I find that it is not particularly serious. In fact, Mr. Baldauf said that he did not know Carlin had taken it up with us or else he would have headed it off."

Skipping the rest of the paragraph, the report continues:

> [fol. 4651] "I went into the plant and ostensibly to check this condition obtained samples of Naugahyde, Reddo and Cohyde which are being forwarded to Fairfield so that the laboratory can give them any going over they wish."

Following the quotation of Mr. Nalle's report, the letter continues, and I read one paragraph:

> "We suggest that the three samples attached be fully analyzed for the various characteristics or essentials for a good upholstery material alongside of corresponding qualities in 'Cavalon', results to be mounted on cards so that they can be submitted to Mr. Nalle with detailed comments for further discussion when next calling on Chevrolet-Commercial."

I also offer in evidence DP Exhibit No. 310, a letter from Mr. Nalle to Mr. Brown, dated May 9, 1947. This is captioned "Chevrolet-Indianapolis."

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 310.)

Mr. Neitzert: The fourth and last paragraphs of this letter are as follows:

> "I have been assured that so far we have not lost any business through color difficulties, and that we are still being given the same percentage as at the beginning of this model. I am quite sure our percentage is a minimum of 50, with the balance being divided between U. S. and Textileather."

[fol. 4652] By Mr. Neitzert:

Q. You said your estimate was 60 per cent, is that right?
A. Yes, that was my estimate.
Q. (Reading):

> "I understand that the material coming from these two sources is also no model of color uniformity, and I am sure they are having to use broken twills, etc. Although I do not know definitely, I am of the opinion that Textileather is not supplying too much, and it is my expectation that our percentage will actually increase as the model goes along.
>
> "You will remember that we ran into this multiple-source situation during the war years, for a combination of reasons with which you are familiar. During the recent period of scarcity the purchasing agents have been working under instructions to maintain several

> sources for their own protection, and frankly I do not think we can expect an immediate change in that policy."

As a matter of fact, Mr. Brown, when did you run into the multiple-source situation with Chevrolet Commercial?

A. We had had all their artificial leather or upholstery business from the time Martin Perry had the plant, on up until 1937.

At that time we lost part of the business to the United States Rubber Company, about 10 per cent of it. In 1940 we lost an additional quantity to other suppliers, L. C. Chase and Cotan Corporation.

I assume that is what he is talking about.

[fol. 4653] Q. He also refers to a period of scarcity of coated fabrics. How long did that period last?

A. That lasted well into 1947, from the latter part of 1945 to 1947.

Q. Then what happened, when that period of scarcity ended?

A. Well, when it ended, we ran into the 1948 period when there were either seven or eight approved sources, and we lost additional business in 1948, so our percentage then was down about 30 per cent, and it remains that figure as of today, still about that.

Mr. Neitzert: If the Court please, I offer in evidence Exhibits DP 311 and 312 which show the dollar and yardage sales of coated fabrics by the du Pont Company to the Chevrolet Commercial Division. These are from the departmental trade records of the Fabrics Division, except for the truck production figures which have been supplied by the General Motors Corporation.

Reference is made to the dollar sales per trucks manufactured shown in the last column of Exhibit DP 311, in connection with the witness's testimony about the development since the period of scarcity.

By Mr. Neitzert:

Q. Mr. Brown, will you please refer to DP Exhibit 312 and explain, if you can, the fact that there was an increase in the yardage per car purchased from du Pont in 1937 and

1938 in the light of your testimony that you lost ten per cent of the business during that period.

A. Well, there was a slack period ~~when they~~ changed from the pyroxylin coated upholstery material to the rubber-coated upholstery material. The rubber-coated material was [fol. 4654] much better suited as an upholstery. It would stand flexing many times the extent that pyroxylin would. As a result, there were certain portions of the cushion on which they had previously used pyroxylin on which they could now use the "Cavalon" successfully, and they did that.

Q. What was the result of that?

A. I beg your pardon?

Q. What was the result?

A. The result was to increase the average usage per truck.

Q. Did you mention the price of Cavalon as compared to the fabric formerly used?

A. I have not mentioned it.

Q. Will you do so?

A. "Cavalon" was a higher priced product than "Fabrikoid."

Q. I also refer you, Mr. Brown, to the same column of DP Exhibit 312 as to the years 1940, 1941 and 1942. Which of those years was the first full year that you received only 60 per cent of the business?

Mr. Harsha: I object to the form of the question.

Mr. Neitzert: He testified in 19.

Mr. Harsha: It is leading and suggestive.

Mr. Neitzert: I am not leading. I am just repeating what he testified to.

The Court: Overruled.

By the Witness:

A. 1941 was the first full year.

Mr. Neitzert: Your Honor, there is one typographical error in these exhibits, DP 311 and DP 312, which I did not catch when the exhibits came back from the printer. Note [fol. 4655] 1 on each of the exhibits starts out "From 1930 through 1939, Chevrolet Commercial used coated fabrics purchased by the parent Chevrolet Division."

The year "1939" is a typographical error. It should be 1935.

Q. Were there any other General Motors car or truck divisions that were using coated fabrics during the periods that have been covered by your testimony other than the ones that you have now referred to?

A. No, there were none.

Q. I have a few questions, then, to ask you about the sales to the Ford Motor Company. Were you selling coated fabrics to the Ford Motor Company from the Fabrikoid sales department in 1917?

A. Yes. We had at least half of the Ford business.

Q. How long did you continue to sell to Ford?

A. Well, we are still selling to Ford. In that period Ford decided, either in 1918 or 1919, to make their own coated fabrics, and we lost a substantial part of their business. Their plant had not got into operation, and they had started in operation in 1920 or 1921, and were probably in full operation in 1921 or 1922. However, we continued to get quite a good bit of the rubber top material and on occasions some of their artificial leather business. That went on through about 1928.

At that time, Ford adopted our "Everbright Pontop" for decks of closed cars, and we had their business 100 percent in 1929 and 1930.

(Said documents, so offered and received in evidence, was marked du Pont Exhibits Nos. 311 and 312.)

[fol. 4656] Mr. Neitzert: If your Honor please, I offer in evidence DP Exhibit 313.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 313.)

Mr. Neitzert: This is an excerpt from the report of C. W. Phellis, General Director of Sales for February, 1921, dated April 2, 1921. It refers to "a purchase of 900,000 yards of rubber by the Ford Motor Company bought early last fall."

I also offer in evidence DP Exhibit No. 314, which is an excerpt of a report to C. W. Phellis, General Director of Sales for April, 1921, dated June 8, 1921.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 314.)

Mr. Neitzert: The last sentence which refers to the previous portion is:

> "Ford will not be required to buy coated fabrics for some months as he is operating his own manufacturing plant to the full capacity, and he has taken in several hundred thousand yards of material from ourselves and others."

I also refer to Government's Trial Exhibit No. 417, a report to the Executive Committee, dated June 9, 1921.

This report is dated May 31, 1921. The first paragraph reads as follows:

> "April gave us the most encouragement we have had for months. This was chiefly due to Ford Motor Company orders, although exclusive of these there would [fol. 4657] have been some improvement over March conditions, March having in turn shown an appreciable improvement over February."

I also offer in evidence DP Exhibit No. 315, an excerpt from the report of the Fabrikoid Division to the Executive Committee for May, 1923, dated July 2, 1923.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 315.)

Mr. Neitzert: It reads as follows:

> "Ford Motor Company are now manufacturing at their own plant between 55,000 and 60,000 yards of leather substitute daily."

I offer in evidence DP Exhibit No. 316, which is a report of the Fabrikoid Division to the Executive Committee for September, 1928, dated October 20, 1928.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 316.)

Mr. Neitzert: It reads as follows, and I quote:

> "Ford Motor Company have approved Fairfield 'Everbright Pontop' for certain closed car work and we have induced the Ford Company to change a recently received 50,000 order for Pyroxylin Double Texture

> material to Fairfield 'Everbright Pontop' at a saving of $12,000 to them and an increase in profit to our company. We feel reasonably sure that we shall continue to receive a steady volume of business from Ford."

[fol. 4658] I refer your Honor to DP Exhibit No. 278, which has previously been received in evidence, which is a report to the General Manager, Richter, from Fabrikoid Division, dated July 24, 1929, and I will now read the second paragraph of that exhibit which has not heretofore been read.

> "At Fairfield, in the automotive division, the largest individual account, namely, Ford Motor Company, is apparently still on the upgrade. It may be interesting to note that we recently received all of the orders for Ford's closed car deck material placed for their regular July purchases. Other automotive accounts are holding up well, and it is expected that the July final billings will be slightly in excess of those for June, while August should show about a ten percent increase over July. Beginning with September, a gradual curtailment in automotive business is expected during the remainder of the year."

I also offer in evidence DP Exhibit No. 317, an excerpt from the report of the Executive Committee of du Pont Company for October, 1929.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 317.)

Mr. Neitzert: It is as follows——

Mr. Harsha: Pardon me, Mr. Neitzert. I wonder if you would read the last portion of DP 278 for the record.

Mr. Neitzert: I thought I did. I thought I did before.

Mr. Harsha: I don't know whether it is now in.

[fol. 4659] Mr. Neitzert: If it is not, I intended to read it previously.

Mr. Harsha: I will withdraw it.

Mr. Neitzert: (Reading):

> "An encouraging factor is our present enjoyment of the entire Ford business in black deck material; and we

are hopeful that Fairfield's automotive business for 1930 will be reduced by less than 25% from the 1929 volume."

I also offer Exhibit No. DP-318, an excerpt of the report to General Manager Richter for the month of November, 1929, this report being dated December 17, 1929.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 318.)

Mr. Neitzert: I refer only to two sentences, namely;

> "The Ford Motor Company's requirements are estimated at four carloads weekly, though just when shipments on this basis will begin is uncertain."

And the last sentence:

> "The Ford artificial leather plant is again being actively offered for sale."

I offer in evidence Exhibit DP 319, a report by C. W. Weaver to J. J. Moosmann, captioned "Mr. Richter's Letter of January 4 Sales Percentage 1929 - 1931".

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 319.)

[fol. 4660] By Mr. Neitzert:

Q. Mr. Brown, what position did J. J. Moosmann and C. W. Weaver hold with the du Pont Company, or what positions, with the du Pont Company in 1929, 1930 and 1931?

A. Mr. Moosmann was the assistant general manager of the department in Wilmington; Mr. C. W. Weaver was division manager of Newburgh, of the Fabrikoid Division.

Q. Who prepared this report, if you know?

A. I prepared it.

Mr. Neitzert: I only want to refer to one paragraph of the report, the one at the top of page 4 which is as follows:

> "Automotive volume at Fairfield declined 64% or $2,892,000. In 1929 Ford produced 1,946,000 jobs as compared with 725,000 in 1931. In 1929 we had the Ford business 100% as we had no real competition from the rubber industry on our Everbright finish. In 1931 Ford

did no buying after May. Up to that time we had about 50% of his business. General Motors volume dropped $918,000 due chiefly to drop in production but partly due to production of a satisfactory varnish finish by our competitors, resulting in Fisher, as well as Ford, splitting their purchases. In 1929 we sold 80% of all rubber deck material used by all manufacturers. In 1931 this percentage will be around 65%. As a result of the imitation of Everbright by competitors our margin of profit on this business has been substantially reduced. Recently we have secured Packard's business on Super-Everbright and are quite hopeful of securing some Studebaker business.''

[fol. 4661] By Mr. Neitzert:

Q. Now, what happened in the 1930's with reference to this Ford account?

A. By that time competition had products that were reasonably close to our ''Everbright Pontop'' and we lost part of the Ford business.

Q. Have you continued to sell some orders to Ford throughout the years, since 1930?

A. Yes, we have continued to sell Ford off and on. He, however, has made most of his own material. Since the war we have sold him a few orders too, and right now we are selling Ford 60 or 70 thousand dollars worth a month, right at the present time.

Q. I want to ask you a few questions about the Willys-Overland Company. Was the du Pont Company selling to that company in 1917?

A. Yes, we were selling very large quantities of the material in 1917, at least half of their requirements of both artificial leather for trim and top material.

Q. How long after 1917 did you continue to have that business?

A. Not too long in great volumes because in 1918 Mr Willys decided to make his own coated fabrics, and for that purpose either he or the Willys-Overland Company bought into the Duratex Company, and we lost a substantial part of the business. I do recall, though, in 1924 we still had about a quarter of a million dollars worth of business from Willys-Overland.

Mr. Neitzert: I offer in evidence Exhibit DP 320, an excerpt from the report of the du Pont Fabrikoid Company to F. W. Pickard for the month of January, 1919.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 320.)

[fol. 4662] By Mr. Neitzert:

Q. What position did F. W. Pickard hold with the du Pont Company in 1919, Mr. Brown?

A. Mr. Pickard was vice president of the du Pont Company in charge of sales.

Mr. Neitzert: This excerpt is as follows:

> "While actual sales at present are small, general conditions are good and appearances indicate that business is assumnig a proper basis. Inquiries are good in all lines. In January, we sold 30,000 yards to the Go-Cart trade, and this business is picking up very rapidly. In the automobile field, we sold 94,500 yards of Rubber to Oldsmobile; 10,000 yards to Auburn; 157,500 yards to Willys-Overland and have secured revival of old orders by Chevrolet to the amount of 623,000 yards of Fabrikoid and 300,000 yards of Rubber.
>
> "The general price conditions are very much unsettled. Duratex Company is being equipped for the manufacture of Rubber coated material and expect to produce this within the next six weeks. The Duratex Company is the first source of supply of Willys-Overland Company."

By Mr. Neitzert:

Q. Now, a few questions about Chrysler.

Has the du Pont Company sold any artificial leather or top materials to the Chrysler Corporation since you have been with the company?

A. Yes, we have. Chrysler Corporation was not formed until 1925 when Mr. Walter P. Chrysler merged the Maxwell Motor Company car with the American Body Company [fol. 4663] to form the Chrysler Corporation. Later on he added the Plymouth, DeSoto and Dodge, and some other elements. We have never sold them very much artificial leather, although in 1927 we had quite a bit of business, but we did sell them their top material beginning in 1925. We sold them our "Teal". We continued probably ten years to be an important supplier of that type of material to them.

However, in 1926 we lost part of the business when Haartz Company quoted—their price was running about 15 cents a yard under ours at the time, and we maintained the bulk of business, but did lose some of it in 1926, '27 and '28.

Q. I call the Court's attention in that connection to DP Exhibit No. 272, which has been received in evidence. It is a report to General Manager Allen, dated June 22, 1926, and I merely call attention to this sentence at the top of page 4:

> "The Haartz Auto Fabric Company has taken part of the Chrysler Teal business at a price 15 cents below ours."

Did you continue to sell "Teal" to Chrysler and have some of the business, although your price was 15 cents higher than the Haartz' price?

A. We did, yes, sir, for several years.

Q. Did the combined fabrics sold by Haartz differ from du Pont "Teal" in any respect?

A. Yes. It was inferior to "Teal" in that our product retained its color better on aging outdoors.

Q. I again refer to DP Exhibit No. 286, which has been [fol. 4664] received in evidence, and which is a report showing sales of "Teal" by du Pont Company to certain customers during the years 1929 to 1933 inclusive, showing the Chrysler sales at 36,194 for 1929, 18,672 for 1930; 23,366 for 1931; 30,111 for 1932; 8,326 for 1933, the sales on the average being considerably larger than the sales to Fisher.

A. I might say, sir, that those figures are yards. It would have been considerably higher than this figure in dollars.

Mr. Neitzert: Thank you.

I offer in evidence DP Exhibit No. 321, which is a schedule of dollar sales of coated and combined fabrics from the du Pont Company to Chrysler from 1925 to 1934, inclusive.

These data are from du Pont departmental sales cards.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 321.)

By Mr. Neitzert:

Q. Have you sold coated fabrics to Chrysler in any quantity since 1934?

A. Not in any substantial quantity. We have sold them an occasional order.

Q. Has the du Pont Company sold coated fabrics to automobile manufacturers other than the General Motors Companies, Ford, Chrysler, and Willys-Overland, since you have been with the company?

A. Yes. Since I have been with the company we have from time to time sold almost all automobile companies. I would say our largest sales have been to Ford and Willys-Overland and General Motors, Chrysler, Nash, Marmon, Packard, Paige, Pierce-Arrow, Reo, Huppmobile.

Q. Have any of these customers over this extended period of time bought as large a percentage of their requirements [fol. 4665] of coated and combined fabrics from the du Pont Company as has the General Motors Companies?

A. For short periods of time, yes, but over the entire period of 36 years, since I have been associated with the business, no.

Q. Mr. Brown, will you please state why you have sold over a long period of time a greater percentage of General Motors' requirements than the requirements of other companies?

A. Well, that is due to a number of circumstances. When I went with the company in 1917, the division was the largest manufacturer of coated fabrics in the United States. At that time we had established a very fine reputation for quality due, at least, partially, to the fact that the du Pont Company had for very many years been an important user of nitrocellulose, which is the basic coating ingredient used in Fabrikoid.

We were selling at that time to most of the automobile manufacturers, and I would suppose we were selling perhaps half of the material of coated fabric types being consumed in automobile manufacture.

Of course, the automotive industry then was quite different from the industry as we know it today. There were practically scores of smaller companies that were making a hundred cars a year or less, but there was emerging a group of large manufacturers, those being at that time—that is, before 1920—Ford, Buick, Chevrolet, Willys-Overland, and Metz.

Those companies had very large production because their management had been able to take advantage of the assembly line principle of manufacture. The success of the assembly [fol. 4666] bly line was dependent upon having very dependable sources of supply.

The companies had neither the space nor the capital to carry the very large inventories that would have been required unless they had a source of supply that could deliver material on schedule and material of a type that would pass inspection without rejection.

The du Pont Company had a reputation that fitted in with that program, and at that time we were the largest source of supply for the three companies who were making 100,000 cars a year or more, in 1917. They were Willys-Overland, Ford, and General Motors.

Those companies that were using the assembly line and producing large quantities were very insistent on the problem of keeping up to schedules. You just had to deliver material at the rates they said they were going to need it, and we knew that, and we did it.

They also were interested in purchasing from a company that they knew would keep up-to-date technically in its products. The product had to be right; the quality had to improve as it was possible to improve it; and the company had to do a certain amount of continual work in the matter of finishes, grains and colors to keep the line attractive—that kind of development work was especially important to the smaller manufacturers. Getting into the '20's, the three big companies that emerged, of course, were Chrysler, Ford and General Motors. They at that period, or not long after that, were supplying 85 per cent of the passenger car production in the United States, and still are.

A great many of these smaller concerns went out of business during that period. Those that remained tended to [fol. 4667] depend upon something distinctive or unique in the way of design as a competitive factor.

When Chrysler came in, in 1925, they selected independent sources of supply, different from those that were then selling to Ford and General Motors. The smaller concerns were not anxious apparently to purchase from the concerns that were supplying the Big Three, their big competitors, because they wanted concerns that would work pretty closely with them and perhaps were concerned that they wouldn't be taken care of in the event of scarcity.

Q. Did you receive reports through your salesmen from these smaller concerns that they would prefer not to buy from the principal supplier of Ford and General Motors?

A. Yes. That happened right along. We always felt that it put us in a rather difficult position because we were the principal supplier of both Ford and General Motors.

Q. What about Willys-Overland and part of the Ford business that you didn't get?

A. They attacked the problem in different ways. Ford Motor Company, as I testified, decided to make the bulk of their own material, which they did, beginning in the early twenties, about 1920.

Mr. Willys also went into the part ownership of the Duratax Corporation to take care of their materials.

Q. What reports did you receive concerning Chrysler?

A. Chrysler established independent sources, different from those that were supplying big competitors. At that period, General Motors were buying from the du Pont Company, also from Textileather Corporation, Federal Leather Corporation, and Haartz.

Ford was making most of their own, but depended also [fol. 4668] on the Cotan Corporation and on the du Pont Company.

Chrysler established as their principal sources the Standard Textile Products Company and the Zapon Company.

Q. Were either of those companies supplying Chrysler principal sources of supply to either Ford or General Motors?

A. They were not, no sir.

Q. You have referred to General Motors suppliers. Will you give us your best estimate of what percentage of the General Motors total requirements of coated and combined fabrics have been purchased from the du Pont Company over the years since 1917?

A. Well, the percentage since 1917 would run thirty to forty percent, in that neighborhood. We never had as much as fifty percent except in the years when Fisher Body sales were very heavy. Those were 1926, 1927 and 1928, and again in 1940 and 1941.

Over the long period, I would say we had about a third of that business.

Mr. Neitzert: Your Honor, I propose now to take up the one remaining subject that I have to discuss with this witness, and some Government exhibits. Do you wish to adjourn?

The Court: If it won't greatly inconvenience counsel, I would rather run until about to a quarter to one, and convene at a quarter past two.

Mr. Neitzert: That is very satisfactory.

By Mr. Neitzert:

Q. Mr. Brown, I call your attention first to Government Trial Exhibit No. 420, which is dated August 10, 1921.

[fol. 4669] I show you the following language appearing in that exhibit, and I quote:——

I might state, your Honor, this is a letter which appears to have been written by Vice President Lammont du Pont to Mr. P. S. du Pont.

The first paragraph of the letter is:

> "Sometime ago you inquired whether General Motors was taking its entire requirements of du Pont products from du Pont. My understanding at that time was that they were not. I have made inquiry and find the situation at present is as follows: (O. K. means that du Pont is enjoying all the business in their respective lines. Where I specify 'No reason,' there appears to be no reason for General Motors withholding the business from us. Where I say 'With good reason,' there is a logical explanation)."

Then follows a table with the list of the General Motors companies or divisions, and data as to purchases, using the symbols referred to in the preceding paragraph.

I call your attention particularly to the columns captioned "Fabrikoid" and "Rubber Cloth."

Did the du Pont Company hold any contracts with any General Motors companies or divisions providing for delivery of coated fabrics that were made during the year 1921?

A. We did not, unless a very small amount. We did not make any of the usual contracts calling for six months or a year during 1921.

Q. When were the last contracts made with the General Motors companies prior to the date of this letter, August 10, 1921?

A. In the spring of 1920.

Q. And over what period were deliveries to be made under these contracts?

A. Those contracts, some of them, called for delivery the [fol. 4670] last six months of 1920, and some ran from July 1st, 1920, to June 30, 1921.

Q. What was the situation when those contracts were made, Mr. Brown? I mean as to the situation of the buyers as far as coated fabrics was concerned?

A. The companies in general had over-estimated their sales in 1919 and had carried over quite large inventories. Despite that, their business was extremely good at that time. Commodity markets were very tight. Materials were tight. They thought there would probably be a scarcity, and for those reasons, in 1920, despite high inventories, they made very large contracts with us.

Q. What happened to those large contracts?

A. Those large contracts in general were delayed in delivery,—they were deferred because sales in early 1920 began to fall off sharply. By the middle of the year they were very far down.

Q. I refer now to Government Trial Exhibit No. 308, and to the following language on the second page. That is a letter from vice president Pickard of the du Pont Company to J. A. Haskell, vice president of General Motors, referring to the Buick 1920 contract.

The language I wish to read on the second page is as follows:

> "I understand from our conversation that the Buick people expect to begin almost immediately to order out material under the contract in question."

To what contract does that refer?

A. That contract was the one taken in the spring of 1920, and called for delivery beginning July 1, 1920.

[fol. 4671] Q. Now if, as appears in this exhibit, no deliveries had been made in July and August, or the first half of September, from whence had Buick obtained its requirements of these fabrics during that period?

A. They were still using the inventories accumulated from the 1919 contract.

Q. I also refer to DP Exhibit No. 314, which has already been admitted in evidence, and the following language:

> "Many of the automobile companies have used up practically all of the stocks on hand, and as a result are purchasing material, although in considerably less quantity than last year."

Now, what stocks on hand are there referred to?

A. They were the stocks left over from the 1919 contract.

Q. I call the Court's attention to the fact that this document is dated June 8, 1921, only two months prior to Government's Trial Exhibit No. 420, which is the subject matter of this examination.

The exhibit continues:

> "We have recently secured fairly large releases from the Chevrolet Motor Company, and some releases from Buick."

What releases are there referred to?

A. Those are the first releases against their 1920 contract.

Q. Exhibit No. 420 appears to indicate that Buick was buying all of its requirements of artificial leather from du Pont in August, 1921.

At that time did du Pont Company have a contract to supply the Buick Motor Company with all of its requirements of pyroxylin coated fabrics?

A. No, sir, we did not.

Q. What percentage of Buick's requirements of pyroxylin [fol. 4672] coated fabrics was covered by the 1920 contract?

A. The 1920 contract of pyroxylin, I believe I testified, was about one-third of their requirements of "Fabrikoid."

I have recently looked over a schedule of the actual contracts made in that period, and our pyroxylin contract with Buick amounted to about 180,000 yards, which was only a small portion of what they would have used even in a six months period.

Q. Your Honor, I call attention to Exhibit DP No. 295. This exhibit shows that in 1922, when Buick bought all of its requirements of artificial leather from du Pont, its purchases amounted to $4.20 per car; and that in 1921, its total purchases of artificial leather and top material from du Pont amounted to only $2.12 per car.

What do these data indicate to you, Mr. Brown, as to the percentage of Buick's requirements of artificial leather that were being purchased from du Pont in 1921?

A. Well, as we were making deliveries in 1921 against the rubber contract, it means to me definitely that we couldn't have been selling very much artificial leather at that time.

Q. Do you know whether the contract dispute that was settled in 1922 with Buick's agreement to buy all of its requirements of coated fabrics from du Pont also involved the "Fabrikoid" or artificial leather contract?

A. No, that contract was not involved. It was a small contract.

Q. I also refer to Government Trial Exhibit No. 306 and to Exhibit DP 252, which is Petze's memoranda which has been offered in evidence, relating to the Buick contract, and which contains the following language. This is dated July 28, 1920:

> [fol. 4673] ". . . an order for 1,300,000 yards of deck and curtain material, and were told that this represented ⅔ of the total quantity required, which on this basis would be 1,950,000 yards.
>
> "This order was later on reduced to 780,000 yards, so that our competitor, Haartz, who received the order

> for the balance of the requirements, received an order for approximately 1,150,000 yards."

Do you have any knowledge where the author of Government Trial Exhibit No. 420 obtained the figures or data that are in that exhibit?

A. No, I do not know, sir. It certainly is not an accurate statement.

Q. With reference to the statement that du Pont was supplying Buick with 60 per cent of its top material, what does Exhibit 252 indicate to have actually been the fact?

A. Well, they started off with supposedly two-thirds, but Exhibit DP-252 indicates definitely that we sold less than half really.

Mr. Brown, Government Exhibit No. 420 also appears to indicate that Oakland was buying all of its requirements of artificial leather from du Pont in August, 1921.

Did you have a contract in 1921 to supply Oakland with all of its requirements of pyroxylin coated fabrics?

A. We did not, no, sir.

Q. What percentage of Oakland's requirements of artificial leather were covered by your 1920 "Fabrikoid" contract?

A. The percentage was pretty small. I believe the actual contract was about 20,000 yards, and that must have been a small percentage of their requirements.

Q. Was that contract involved in the dispute with Oakland about the 1920 contract?

A. No, that dispute involved rubber contracts only.

[fol. 4674] Q. Now, Government Trial Exhibit No. 420 also indicates that General Motors Truck was buying all its requirements of artificial leather and rubber cloth from du Pont in 1921. Was that true?

A. I am not certain about the 1921 sales of General Motors Truck. I know we didn't sell them anything in 1922 at all, but I don't recall 1921.

Q. If sales were made, were quantities large or small?

A. They would have been fairly small, because their requirements were not heavy in that period.

Q. I refer to General Motors Trial Exhibit No. 151, which shows that no purchases were made of either type of material or imitation leather by the GM truck division during the year 1922.

Now Mr. Brown, will you please refer to Government's Trial Exhibit No. 460. You previously examined this exhibit in my office?

A. Yes, sir.

Q. Do you recall what is in it? If you don't, glance through it again.

A. Well, it is——

Q. No, I am not asking you to state what it is. I want you to be familiar with its contents, if you are not.

A. Yes, I saw it.

Q. Will you please state whether that exhibit contains a correct statement of your sales of coated fabrics to General Motors Company in the twelve month period ending June 30, 1926, which this exhibit purports to cover?

A. No, it does not contain correct information.

Q. In what respect is it incorrect?

A. Well, in the first place, it does not purport to show sales of combined uncoated material, and that type of material, [fol. 4675] I believe, was being consumed in large quantities at that time, and we did not participate to any extent in that volume.

Then under General Motors trucks it shows that they were taking all of the requirements of "Fabrikoid" and rubber. Actually in this period General Motors Truck was not making purchases, because after 1924 they were supplied on contracts placed by the Yellow Truck & Coach Manufacturing Company.

On Cadillac, the statement would indicate that we were selling everything that Cadillac was using in that period. Cadillac was not using anything because they discontinued manufacturing open cars in 1924.

Mr. Neitzert: If the Court please, I refer to Exhibit DP-260 which shows Cadillac total purchases in 1925 were $85, and in 1926 $41, from the du Pont Company.

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Vol. V

TRANSCRIPT OF RECORD

(Pages [illegible] to [illegible])

(TRANSCRIPT OF TESTIMONY)

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SUPREME COURT, U.S.

Supreme Court of the United States

OCTOBER TERM, 1955

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

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VOL. V

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By Mr. Neitzert:

Q. How about Olds, Oakland, and Buick?

A. Olds, Oakland, and Buick—this exhibit shows we were supplying all of their requirements of "Fabrikoid"—artificial leather. Actually, I do not think that could have been possible, based on the sales record figures which we had.

Mr. Neitzert: In that connection, I offer in evidence Exhibit No. DP-325, which is a summary of the figures of Exhibits DP-259, 263 and 265, which shows that in 1922, Oakland's total purchases were $5.39 a car.

Their purchases from du Pont in 1925 were $3.07, and for 1926, $3.91 a car.

It shows that Buick purchases of artificial leather, excluding large purchases of uncoated fabrics, amounted to [fol. 4676] $8.28 per car in 1922; $4.66 per car in 1925, and $6.11 per car in 1926.

Oldsmobile purchased $12.55 worth of materials, top and imitation leather materials per car, in 1922; $11.65 from du Pont in 1925, and only $7.37 from du Pont in 1926.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 325.)

This exhibit, Government's Exhibit No. 460, contains a statement, and I quote:

> "During the last half of 1926 Fisher Body placed the greater portion of their rubber business with Fairfield."

By Mr. Neitzert:

Q. What about that?

A. Well, that is true. As a matter of fact, they placed the greater portion of the rubber business during the entire year of 1926 with Fairfield.

Q. How about 1925?

A. 1925, the last three months, the greater portion was with Fairfield.

(Recess.)

[fol. 4677] The Court: Proceed.

Aubrey Lee Brown, called as a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand, was examined and testified further as follows:

Direct Examination (Continued).

Mr. Neitzert: Your Honor, I now refer to Government's Trial Exhibit No. 291 and Exhibit No. 292.

Government's Trial Exhibit No. 291 is a letter from a man named Silkman, who signs himself as a "Sales Agent," to J. A. Haskell, dated April 19, 1918.

It states, in substance:

> "We are to a great extent familiar with the various Companies, comprising the General Motors, but we are afraid we have not the entire list, and pursuant to a plan, or thought, which we wish to work out, which came up at a recent meeting,"——

Will you please give us the list?

The reply, which is Government's Trial Exhibit No. 292, lists Buick, Cadillac, Oakland, Olds, General Motors Truck, and Chevrolet.

[fol. 4678] By Mr. Neitzert:

Q. What position did Mr. Silkman have with the du Pont Company in April, 1918, Mr. Brown?

A. Mr. Silkman was sales agent in our New York office.

Q. What were his duties?

A. With one assistant he called on the bookbinding, luggage, handbaggage, case covering, railroad and jobbing trades in the metropolitan area of New York.

Q. Did he have anything to do with the sales of coated fabrics to the automobile industry?

A. He did not.

Q. Or to any General Motors Company, or division?

A. He did not.

Q. Do you know what is referred to in this letter marked Government's Trial Exhibit No. 291?

A. No, I haven't the least idea.

Q. Did you know of any plan or thought involving the sale of coated fabrics to the General Motors companies that came up about this time?

A. No, I didn't hear of any, and I am sure I would have heard if anything of that sort had been in the wind in the Wilmington sales office.

Q. Will you look at Government's Trial Exhibit No. 292, and please state whether du Pont was selling coated fabrics to any of the divisions listed in that exhibit in April, 1918?

A. Du Pont was selling to all of these, and had been for a great many years.

Q. Now, will you please examine Government Trial Exhibit No. 293, which is a memorandum to Mr. C. L. Petze, from William Coyne, dated May 22, 1918.

Will you please state what position Mr. Petze held with [fol. 4679] the du Pont Company in May, 1918?

A. Mr. Petze was director of sales.

Q. Who was Mr. Coyne?

A. Mr. Coyne was the vice president in charge of sales of the du Pont Company.

Q. I call your attention to the fact that the writer of this exhibit suggests that Mr. Haskell be supplied with certain information as to sales of coated fabrics to General Motors units.

Have you ever seen this exhibit before?

A. Yes, sir.

Q. When did you first see it?

A. I saw it in 1918, probably a very few days after the date that is on it.

Q. What happened on that occasion?

A. This letter from Mr. Coyne to Mr. Petze was given to me by Mr. Petze. I recall he remarked that evidently Mr. Haskell and Mr. Burckel thought that Mr. Haskell might be able to help us out in case we got into any difficulty with General Motors, and he told me at that time to go ahead and make this statement that had been suggested.

Q. Was anything further said at that time?

A. Nothing that I can recall.

Q. What did you do about it?

A. Well, I made a layout of the form that I thought we ought to use to report, and then asked Mr. Terpenning to take care of it.

Q. Who was Mr. Terpenning at that time?

A. Mr. Terpenning at that time was in charge of our order bureau at Newburgh.

Q. I show you Government Exhibit No. 297. Was that the form of layout that you prepared at that time?

A. Yes, sir, that is it.

Q. How did you get the information that is shown on this Government Exhibit No. 297?

A. The information on pages 2 and 3 would come out of our records at the order bureau, that is, of the yardage [fol. 4680] booked and the yardage shipped each month. The last page, the competitive sales, would simply be taken from the trade report sent in by our salesmen. Each quarter they made a trade report in which they showed the estimated purchases from competition on an annual basis. In preparing this statement, we took those reports and divided them by twelve and showed that as a monthly purchase.

Q. How long did you use this form, which is marked Government Exhibit No. 297, in making these reports?

A. Very few months. My recollection is that we started to abbreviate it a bit, and after a reasonably short period we discontinued entirely.

Q. Did you ever receive any reply from Mr. Haskell acknowledging the receipt of these reports?

A. I never recall any reply, no, sir.

Q. Do you know what use, if any, Mr. Haskell made of the reports?

A. I do not know.

Q. How many months do you think you made the reports, either in this form or in an abbreviated form?

A. I would say not over five or six months. By the end of that period nothing had been said further by Mr. Petze, and we had not heard from Mr. Haskell, so I just took a chance and cut it out.

Q. Do you know of any occasion at this time or after May, 1918, when Mr. Haskell assisted the Fabrikoid Sales Department in obtaining orders for coated or combined fabrics from any of the General Motors Divisions or companies?

A. I don't know of any such occasion, no, sir.

Q. Did you ever hear of any occasion when Mr. Haskell attempted to assist?

A. No, sir.

[fol. 4681] Q. If Mr. Haskell had assisted or attempted to assist your Sales Department in obtaining business from any of the General Motors companies or divisions, would that information have come to your attention?

Mr. Harsha: I object to that, your Honor, as calling for a conclusion, and hypothetical.

Mr. Neitzert: I am going to ask him the reasons for his answer, your Honor—if he knows whether it would come to his attention.

Mr. Harsha: He says "If." It is hypothetical.

Mr. Neitzert: If he doesn't know, he will say he doesn't know, I presume.

The Court: He may answer.

By Mr. Neitzert:

Q. Do you know whether it would have come to your attention?

A. I am sure it would have because I was working daily with the assistant director of sales, and director of sales, and a matter of that sort would certainly have come to my attention.

Q. Did any thing like that come to your attention?

A. It did not, no, sir.

Mr. Neitzert: Now, your Honor, I wish to refer to Government's Trial Exhibits No. 295, No. 296, No. 298, No. 299, No. 300, and No. 305.

These exhibits, if the Court please, are reports to Mr. Haskell by officials of the Car Division on their purchases from du Pont, in some cases from others, in 1917 and 1918.

Exhibit No. 295 is a request from Mr. Simpson for information of this type from General Motors, and one of the [fol. 4682] other exhibits is an acknowledgment of the receipt of such information.

By Mr. Neitzert:

Q. To what did these exhibits refer, Mr. Brown?

A. These exhibits refer to an effort by du Pont Company to establish in the Fabrikoid Division the same type of industry statistical record that has been in use for a great many years in our Explosives Department.

Q. What was the nature and content of the industry's statistical record that was kept in the Explosives Department and which you attempted to adopt in the Fabrics Department?

A. They kept a record on a monthly basis that showed the sales of each producer of explosives, and also the purchases of each consumer and the concern from whom they purchased the material.

Q. How was this information obtained?

A. Every explosive salesman who called upon a customer would be required to make a report containing this information. If the customer would not divulge, then the salesman was required to give his own best estimate based on whatever information he could secure and what he thought fairly reliable.

Q. What use was made by the du Pont Company of the statistical records?

A. The records were useful in locating plants and warehouses, in routing salesmen, and locating salesmen, and deciding where they ought to be sent, and the area they should cover; carrying on sales promotion campaigns, and carrying on advertising.

There was also a fairly good record of the buying habits of the customers, also of the progress that the competitors were making one way or the other.

[fol. 4683] Q. When was the work started on establishing such a system of records for the Fabrics Division?

A. Shortly after I came into the company in 1917.

Q. What do these exhibits have to do with your work, if anything, of establishing this system of records for the Fabrics Division?

A. Well, Mr. Simpson was borrowed from the *Explosion* Department.

Q. Who was Mr. Simpson?

A. Mr. Simpson was the man who operated the system in the Explosives Department. He sat it up in our division. His first job was to decide whether or not the information that was being received from our salesmen was sufficiently reliable to make a good record. If it was not, the record would be of no value. The only way he attempted to obtain this was by taking the report from our salesmen and attempting to secure from Mr. Haskell the actual facts from different General Motors units, and compare them with our reports.

Q. Is that what these letters are about?

A. Yes.

Q. Over how long a period did Mr. Simpson work on the job of establishing this statistical system in the Fabrics Department?

A. Until sometime in 1920. At that time, it had been determined that record would not have the same benefit in our division that they had in the Explosives Department. Also, we were in a pretty serious depression, and sales were very, very materially reduced. We were studying all the jobs in th office. On this particular job, we had two men engaged in doing nothing but reporting this information, under Mr. Simpson's supervision, and we decided at that time to eliminate the job and put the men in more productive work.

Q. Did this checking done by Mr. Simpson in connection [fol. 4684] with this work of the industrial statistical records of the Fabrikoid Division have anything to do with the reports you made to Haskell following receipt of Mr. Coyne's memorandum to Mr. Petze which is marked Exhibit No. 293?

A. They did not. It was an altogether different activity.

Mr. Neitzert: Your Honor, I offer du Pont Exhibits 326 and 327.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 326 and 327.)

Mr. Neitzert: The first is a letter from Mr. Haskell to Warner, General Manager of the Oakland Motor Car Company, dated July 5, 1918; and DP 327 is a letter from Haskell to Mr. E. VerLinden, General Manager of Olds Motor Works, also dated July 5, 1918.

The letters are exactly alike except for the information as to sales which is enclosed in the letters.

I will read the letter to Warner:

> "My dear Mr. Warner:
>
> "The du Pont Company are anxious to check their statistical records of 1917 and 1918 in the matter of production of artificial leather and have asked me to obtain for them the amount actually used by us in those years.
>
> "I am therefore writing to ask if you will have the following designations checked and see if they are correct as to number of yards purchased."

[fol. 4685] Then there is a table showing the purchase of yards of material in 1917 and 1918.

By Mr. Neitzert:

Q. Where did that come from?

A. That came from our trade records.

Mr. Neitzert: (Reading):

> "Trusting that it will not be too much trouble to have this looked up and appreciating any help you may give in the matter, I remain, Yours very truly."

And I also call the Court's attention to a series of replies which the Government offered in evidence, and to which I have already referred. They all refer to Mr. Haskell's letter of July 5, 1918.

By Mr. Neitzert:

Q. Now, Mr. Brown, will you glance at Government's Trial Exhibits Nos. 295 and 305, and state whether or not those exhibits also refer to this check-up on the accuracy of the Fabrics Division trade reports?

A. Yes, that is the same check-up.

Q. You also examined Government's Trial Exhibit 302, which is a letter from F. Kniffen to J. A. Haskell, dated July 3, 1918, which you have already referred to in your testimony, and which contains the language that if we are to furnish top materials for Chevrolet and General Motors cars—and did that letter to Mr. Haskell have anything to do with reference to any work done on the industrial statistical reports?

A. No, sir, it did not. This is an entirely different matter, and I think I went into that at some length in my testimony.

[fol. 4686] Mr. Neitzert: The last exhibit I will ask you to examine is Government Trial Exhibit No. 350, which is a letter from Z. Phelps of the du Pont Development Company to Mr. Pratt, vice president of General Motors, dated May 1, 1926.

It contains this language:

> "We are again looking into the possibility of manufacturing oilcloth and it will be of much interest to us to learn the approximate quantity of oilcloth and black enamels which is now used annually by the General Motors Corporation."

By Mr. Neitzert:

Q. Mr. Brown, will you state what procedures are followed by the du Pont Company before the Fabrics Division is permitted to enter a new field, either new products field or a new sales field, and state whether or not that procedure has any connection with this letter?

A. In any proposal of that type, our first job would be to examine the market potential, and determine whether or not there is anything that du Pont could contribute by going into that new field.

Q. How is that done?

A. In this particular development, we were talking about the possibility of going into the oil cloth manufacturing business, and the Development Department was assigned the job to make a survey and come up with the report. In any of these instances, the field is surveyed either by personal visit or by letter, and that is what was being done in this case.

Q. Do you know whether the companies using oil cloth, other than General Motors, were solicited by the Development Department in 1926?

A. I have no recollection of that but the fact is I am pretty familiar with this type of survey. We make a cross-section, [fol. 4687] a sufficient cross-section to become fully familiar with the subject. Now in doing that, we would generally approach the large users first because their consumption figures would play quite an important part in the picture, and second, because large companies are generally quite willing to supply information of this type so long as it is not to their competitive disadvantage, because they are continually making surveys of their own in their own fields.

Q. Can you give me just one or two examples, very briefly, of other surveys that have been made like this, in connection with the expansion of the Fabrics sales and products?

Mr. Harsha: I object to the question as being completely immaterial. He is asking for surveys made outside of this industry. I see no connection——

Mr. Neitzert: I don't know the purpose of the Government's Exhibit. I assume that the Government's Exhibit was offered for the purpose of showing that there was a combination and conspiracy between General Motors and du Pont to use all of the products that du Pont would manufacture, and that du Pont was seeing how that combination and conspiracy could be exploited.

This witness is prepared—although I only ask him to give a couple of examples,—he is prepared, if Mr. Harsha wants to hear it, to show from a few of these surveys that have been made, that if the position of the Government has any probative value we have hundreds and thousands of combinations and conspiracies going on all the time, because we are constantly making surveys such as the one here involved, [fol. 4688] and making them just like this one was being made.

The fact that they are constantly made seems to me to show that there was nothing sinister or peculiar or damning in this one which the Government picked out, which happened to involve the automobile industry, and offered it in this case in support of the allegations in the complaint.

Mr. Harsha: The only allegation in the case is the relation between General Motors and du Pont.

Mr. Neitzert: This certainly shows that there was nothing unusual about those relations.

The Court: Well, for the purpose of showing that the conduct was not any different in other instances than General Motors——

Mr. Neitzert: That's right.

The Court: That may be material.

Mr. Harsha: He has already testified to that fact.

Mr. Neitzert: Well, the Government will stipulate if that is true?

Mr. Harsha: I won't stipulate, Mr. Neitzert.

Mr. Neitzert: What is the nature of your objection?

Mr. Harsha: We have stated the nature of the objection.

The Court: Try to limit it as much as you can.

By Mr. Neitzert:

Q. Try to give it, as brief as possible, so as not to annoy Mr. Harsha.

A. We have three ways of making the surveys. Where there is a very big problem involving may be a lot of time [fol. 4689] and a lot of money, the chances are that the Development Department in Wilmington would handle it. Then we have other surveys made by a group in Wilmington called the Market Survey Group. The third way is that we make surveys on our own account, in our own Trade Analysis Division.

I remember last year we were thinking about entering the field of gas meter diaphragms. We knew that was quite a large market. We knew that sheepskin was being used mainly, and also that synthetic rubber product was being used.

We had heard that that product was not successful, so we asked the Market Survey Group in Wilmington to survey that field and find out what the potential was, and what the requirements were in full, for a successful product.

They found that there are only seven manufacturers that make the type of meters that required this diaphragm, and that three of those had more than half of the business, so they sent personal interviewers to see those three and get all of the information that we needed, and gave us the report that we wanted.

The people I interviewed were the American Meter Company, Sprague Meter Company, and the Rockwell Manufacturing Company.

Q. Is there anything unusual about this oil cloth survey?

A. Nothing whatever. It is just a usual circumstance.

Q. Did you ever hear of any understanding or agreement between General Motors and du Pont or between the officials of those two companies that General Motors would buy its requirements of oilcloth or any other product that du Pont manufactured, from du Pont?

A. Never did, no.

[fols. 4690-4698] Q. Or any part of its requirements?

A. No, sir.

Q. Or that it would favor du Pont in purchasing its requirements, products at the du Pont Manufacturing Company?

A. Never heard anything of the sort.

Q. Did you ever hear of any agreement or arrangement or understanding that if du Pont went into a new field and manufactured products the General Motors was using, that General Motors would buy its requirements or any part of them from du Pont in that new field?

A. No, I never did.

Mr. Neitzert: That concludes the direct examination, your Honor.

Cross Examination.

By Mr. Harsha:

[fol. 4699] Q. Will you show Mr. Brown du Pont Exhibit No. 325, please. You were shown this exhibit on your direct examination, Mr. Brown, and I would like to ask you a few questions concerning it.

Isn't it true that during the period of the 1920's that the various units of General Motors varied their specifications from year to year as to their requirements, say, of "Fabrikoid" for trim? Weren't there design changes that some years would eliminate or cut down on the volume of trim used?

A. I don't think so. Very, very seldom. They varied in color, perhaps, but the grades themselves would run pretty steadily true.

Q. You say the grades?

A. The grades of materials. That is what you are talking about, isn't it?

Q. I am asking also about the volume of material which would be used on a particular car design from year to year.

A. I wouldn't think that would change. Cars didn't change very much in size during that period.

Q. I don't mean in size. I mean in design. You might use a "Fabrikoid" for an upholstery as opposed to natural leather.

[fol. 4700] Mr. Neitzert: I object to the question unless he indicates whether he is referring to closed cars or open bodies.

Mr. Harsha: I am talking about all cars at this point.

Mr. Neitzert: I object to the question because this exhibit that you are asking about, this exhibit has reference only to open bodies.

Mr. Harsha: All right. I will strike the question. I will rephrase it.

By Mr. Harsha:

Q. Confining your attention to open bodies, isn't it true that some of the units of General Motors went from a "Fabrikoid" product for upholstery to a natural leather product during the 20's?

A. There is only one instance of that kind; and that was in 1925 when Oldsmobile used "Fabrikoid" for a period, and then discontinued it the following year.

Q. Would that increase the consumption of "Fabrikoid" used per car when they were using "Fabrikoid" for upholstery?

A. Yes, it would.

Q. How about top materials? Weren't there changes in the types of top materials used in the 20's?

A. Changes in types between the rubber-coated and the uncoated combined——

Q. Yes, and were there——

A. That was changing.

Q. Yes, and isn't there a price difference between the uncoated and the "Pontop"?

A. Yes.

Q. Isn't the combined fabric a much more expensive fabric than the "Pontop"?

A. It is more expensive, yes.

[fols. 4701-4705] Q. I remember you testified on direct about the change in auto trim design in the mid-30's where I believe you said that General Motors started to use a "Fabrikoid" product as a protective layer for the lower part of the car door.

A. Yes, sir.

Q. Did you ever have any trim design changes of that sort in open cars during the 1920's?

A. They didn't change.

Q. They stayed constant from year to year?

A. You see, they had leather upholstery as a rule, and the entire sides were artificial leather.

[fols. 4706-4708] Q. What does it mean?

A. Well, when they say "requirements," they generally say "100 per cent of our requirements," or "30 per cent of our requirements," which means they do not give you a specific amount. It fluctuates according to what they require.

Q. Does that mean you were the only one supplying that customer?

A. Yes, if it was 100 per cent of their requirements, we would presumably be the only one supplying them.

Q. Did you ever see documents of the du Pont Company where they said that the company is using its requirements of a certain product?

A. I do not recall that, no. I would not say definitely over a long period. They generally put in the percentage, a portion of our requirements. Very many of them do.

Q. Do the automobile divisions of General Motors release orders to you for a month's requirements? Is that the customary fashion of doing business?

A. Are you talking about now?

Q. No, say the '20's.

A. Generally we would have a long term contract, in 1920, for six months, and would give a month's release, a month or two months, in advance, to give time to prepare for it.

[fols. 4709-4714] Q. I direct your attention to the third paragraph of this letter, which states:

> "I gave Mr. Haskell a synopsis, presenting what I believe to be the full and true facts regarding our relations with the various automobile manufacturers, and it is Mr. Haskell's opinion that a continuation of our present policy should result in our securing practically all of the business of the General Motors Company

without jeopardizing our relations with other manufacturers."

By Mr. Harsha:

Q. Do you know what Mr. Haskell's position in General Motors was at that time?

A. Mr. Haskell was vice president, I believe, of General Motors.

Q. He was a sort of a liaison man, wasn't he, between du Pont and General Motors?

A. Not that I know of.

Q. You never heard of him referred to in that capacity?

A. No, I never did.

Q. Now, I believe you stated on direct that in 1922, Mr. Brown, the Buick Company bought considerable amounts of uncoated fabrics from competition. Isn't it true, though, in that year the du Pont Company was not manufacturing uncoated fabrics?

A. Yes, sir.

Q. They were not, is that right?

A. Yes, sir; they were not.

[fol. 4715] Mr. Neitzert: Your Honor, we have some excerpts from the deposition of one Charles MacShane which we would like to read, if we may, in the record at this time.

The Court: It may be read.

(The deposition of Charles E. MacShane was thereupon read into the record as follows:)

"Direct Examination:

"Q. Please state your full name.

"A. Charles E. MacShane.

"Q. Mr. MacShane, your residence is now near Leonardtown in St. Mary's County, Maryland, where this deposition is being taken.

"A. That is right.

"Q. When and where were you born?

"A. Well, that is a question.

"I was born on January 26, 1892; and when I went to work for the Government, I had to write to New York to get a birth certificate, and they said it was January 27th. So, all of my Government papers show January 27, 1892.

"Q. Where were you born?

"A. Beacon, New York.

[fol. 4716] "Q. What positions have you held, and what work have you done, either in the trades or industry, or elsewhere, since you finished school?

"A. I went to work for the du Pont Company January 1911 at Newburgh as a receiving clerk. And in 1914 —I gradually advanced until 1914.

"Then I was made office manager still at Newburgh. I remained there until 1917 when I was transferred—January 1917—to Wilmington, Delaware, to the office of Mr. F. Kniffen.

"I remained there until August of 1917 when I entered the Armed Services.

"I returned to civilian life in January 1919 and returned to work with du Pont in March 1919 at which time I was transferred to Detroit as a liaison representative between the Sales Department and the Operating Department.

"I remained in Detroit until April 1929 soliciting business during this period from the automobile manufacturers. I was then transferred to Toronto, Canada with the Canadian Industries, Limited, a subsidiary of the du Pont Company as sales manager for their coated fabrics.

"I remained in Toronto until April 1930 when I returned to Detroit to enter business for myself.

"I left Detroit in 1938 for Washington, D. C. I was employed that year by the United Clay Products Company selling Carrier air conditioning units.

"I remained with that company until 1943 and was then employed by the Veterans Administration in Washington until November 1943, at which time I was transferred to Pittsburgh in the Veterans Administration Office there, and later became contact officer for the western part of Pennsylvania.

[fol. 4717] "Q. You were still with the Veterans Administration?

"A. Yes.

"In 1946 I was transferred to the Philadelphia branch office of the Veterans Administration as Chief of Contact for the States of Pennsylvania, New Jersey, and Delaware.

"Throughout this area we had a hundred and four contact installations employing over six hundred people. When the branch offices throughout the country ceased to exist in 1949, I was transferred to the Veterans Administration in Manila, Philippine Islands, as an administration officer for the Medical Division.

"I remained in Manila for the two years which I had agreed to remain there, and then returned to the United States on June 28, 1951.

"The principal reason for my return at that time was to enter the hospital for the arthritis and neuritis which had severely handicapped me during my tour of duty in the Philippines.

"I entered Mount Alto Hospital on June 29, 1951, the day after my arrival in the States.

"I remained in that hospital for over four months, during which time several tests were conducted by my doctor but my condition did not improve to the extent whereby I could carry on a gainful occupation.

"I later returned to the hospital in May 1952 for a period of one month and through their several tests and X-rays, I was discharged with the diagnosis of arthritis of my right leg and spine.

"Q. You have been unable to engage in any gainful occupation since then?

"A. Yes.

[fol. 4718] "I applied for retirement in April 1952 which I am now receiving.

"Q. What is the condition of your health now, Mr. MacShane?

"A. From my waist up, excellent; down, I am not very good.

"Q. You are unable to travel or walk or move around?

"A. Yes. Even when I came back here—I left here before Thanksgiving and went to Washington. I was there until about a week after New Years, and I came back here. And the General came up and got me. And by the time I got back here, I could hardly walk.

"Q. When you first went with the du Pont Company in 1911, with what department or division of the company were you associated?

"A. The Operating Department. I was with the Operating Department all throughout the years until 1919.

"Q. And was that with the Fabrikoid Company of the du Pont group of companies?

"A. Yes. The Fabrikoid Division.

* * * * * * *

"Q. Directing your attention more particularly to the period from 1919 until 1929 when you were in the Detroit office of the du Pont Company, will you please state in a little more detail the nature of your duties and the kind of work that you performed for the du Pont Company while you were in that office.

"A. Well, when I first went to Detroit, I would have laid odds that I would never be a salesman. I didn't go out for that purpose and I didn't like the idea.

[fol. 4719] "I went out there more or less as a service man for the companies to whom we were selling coated fabrics. With my experience, obtained at the plant, I had a thorough knowledge of the manufacture of the material and the purposes for which it should be used, as to the type of material for certain purposes, the strength of the material; also its colors.

"Jay Stark was the manager of the office at the time.

"He and another salesman by the name of Bud Tatum were soliciting business for du Pont from the Detroit office. About one year later, Tatum left Detroit —left the company—and Mr. Stark asked me as a personal favor to call on a furniture manufacturing company to whom du Pont had never sold any material.

"Q. What kind of materials were you dealing with?

"A. 'Fabrikoid.'

* * * * * * *

"Q. Now, I was interrupted to ask you these questions about the types of materials that you were dealing with.

"Will you please go back now and state what was the nature of your duties in that Detroit office with respect to selling or handling these materials.

A. Until 1921 when Mr. Stark left the Detroit office, I was handling principally the sale of materials to other industries besides the automobile industries. This consisted of bookbinders, furniture manufacturers, repair shops for automobiles, and so forth.

"Early in 1921 I was transferred to Cleveland, Ohio, [fol. 4720] to solicit business throughout the northern part of that state. I was there only about two months or so and I received word to return to Detroit. This was about the time that Mr. Stark had left.

"And I was given the job of soliciting all businesses, including the automotive, throughout the Detroit area.

"This consisted of Michigan and Willys Overland in Toledo, Ohio.

"Q. Before you came back from Ohio and were put in charge of solicitation of business in the Detroit area, what was the nature of your duties with respect to servicing the automobile accounts in the Detroit area?

"A. While I was in Ohio?

"Q. Before you went to Ohio?

"A. Before I went to Ohio?

"Q. Yes.

"A. Whenever any company, regardless of whether it was automotive, would call the office and register a complaint, it was my duty to call upon that company to determine the cause of the complaint and to make any corrections possible and report such action to our Sales Director.

"Q. Did you have anything to do with deliveries during that period?

"A. Only when a company may have advanced their production schedule, and they would call us up and ask us to advance the date of their previous schedule.

"Q. Now, did you call on the various automobile companies in the Detroit area during this pre-Ohio period with the salesman who had the primary responsibility for selling to them?

"A. With Mr. Stark, yes, I did.

[fol. 4721] "Q. Did you continue then to have charge of the solicitation of business in the Michigan area or Detroit area from the time you returned from Ohio in 1921 until you left Detroit in 1929?

"A. With the exception of Fisher Body. I solicited Fisher Body until 1925. Then a Mr. J. Henry Smith was employed by the du Pont Company——

"Q. We will get to him a little later.

"A. —principally to solicit the Fisher business.

"Q. What duties did you have during this period with respect to keeping the home office of the Fabrikoid Company advised of conditions in the field and competitive conditions, if any?

"A. Well, any time—not any time—but every time that I called on any company whether it was on a complaint or in solicitation of business, I reported all facts to the Sales Department on a trade report which was made out daily, giving them the full story as I learned it.

"Q. What type of information would you regularly report in these trade reports?

"A. Well, if it was on a complaint which was made I would report why the material was unsatisfactory, in respect to color or quality, to what extent, how many yards out of the shipment. I would inspect the material while I was at the plant.

"Q. With reference more particularly to competition, what did you report about that?

"A. Whenever any automobile company was in the market, they would solicit quotations from, oh, probably a half dozen different manufacturers of coated fabrics.

[fol. 4722] "That was their way of getting an idea of the lowest price that was obtainable, not necessarily meaning that they were going to give anybody else the business outside of their regular sources.

"That information, when we could get our competitors' quotations, was given to Newburgh. Very seldom would a buyer give you the exact quotations he received from a competitor. He would just say, 'You are high.'

"Q. What did you do with reference to ascertaining the total requirements of a customer of coated fabric and the sources from which he bought his coated fabrics?

"A. Well, it was generally known throughout the trade, especially throughout all of the sales representatives for the different manufacturers, who was supplying who.

"As far as the quantities of their requirements was concerned, we all knew pretty well what their production was going to be. That was published as a rule; whether they would turn out twenty thousand cars a month or five thousand or fifty thousand. We always knew the number of yards required for each model, and we would calculate it ourselves.

"Q. Did you report that information regularly back to the headquarters?

"A. Oh, yes.

"Q. Where were headquarters during this period?

"A. Newburgh.

"When I first went to Detroit, headquarters were in Wilmington; they later moved to Newburgh.

"Q. During this entire period, did you also endeavor to verify your estimates of the requirements of the [fol. 4723] manufacturers using coated fabrics and the sources from which they bought them by talking with the purchasing agent or the buyers?

"A. Well, most purchasing agents were reluctant to give detailed information. They knew that we knew how much yardage was supposed to be used on a car. They are all about standard. And we also knew what they intended to produce.

"So they knew that we had that information.

"But it may be possible—and it was possible—and it was a fact that sometimes they would have the schedule laid out for three months, and that it might be reduced or increased anywheres from ten to twenty-five percent.

"Q. Did they show you those schedules?

"A. No.

"Q. Did they tell you what was in them?

"A. No. But at one time while I was in Detroit, I knew the output of every automobile manufacturer out there.

"Q. Did you know from whom he was buying his coated fabrics?

"A. Yes.

"Q. Who was your superior in Newburgh to whom you made your reports?

"A. H. A. Lindsay. He was Director of Sales.

"Q. Was he Director of Sales during the entire period that you were in Detroit?

"A. From 1919 until about 1927, I think it was, when he went to California. And after Lindsay, there was H. L. Hopkins.

"Q. Who determined the prices which you would quote for coated fabrics to customers and prospective customers?

"A. The Director of Sales.

[fol. 4724] "Q. Who was that?

"A. Lindsay and Hopkins. Of course, they worked in conjunction with the manager of the plant."

* * * * *

"Q. Now, what automobile manufacturers were buying fabrics from du Pont Company through the Detroit sales office when you were first assigned to that office in March 1919?

"A. Ford, Willys-Overland, Chevrolet, Buick, Cadillac, Olds, Oakland. In 1919 it was the Oakland Motor Company. Pontiac didn't come out until about a couple years later. When they couldn't sell any Oaklands, then they switched to Pontiac.

"Q Did you sell anything to Metz?

"A. Metz? It wasn't in Detroit.

"Q What about Maxwell?

"A. Maxwell was, but we didn't sell them anything.

"Q. You weren't selling to Maxwell? How about Hupp?

"A. We didn't sell them anything.

"Q. Were you selling to Reo at that time?

"A. Yes. We sold a little stuff to Reo—they were up at Lansing—but not a great deal.

"Q. Did you sell the Briggs Body Company at that time?

"A. No. We never sold Briggs in 1919.

"Q. Were you selling the American Auto Trimming Company at that time?

"A. I believe we were. Not much. We weren't selling them the majority of their requirements. Just an occasional order.

"Q. What was the situation with respect to Chevrolet Motor Company at that time?

[fol. 4725] "A. The only thing I know about Chevrolet at that time—the only information I would receive was when I was called to their plant at Flint, Michigan—all of their buying was done in New York until Chevrolet moved to Detroit in 1923.

"I was just servicing that account in Flint.

"Q. Do you know whether they were using du Pont fabrics?

"A. Yes, they were. They were using du Pont fabrics. I knew that from my experience at Newburgh. We sold Chevrolet long before I left Newburgh.

"Q. What types of fabrics were they using?

"A. They were using a rubber-coated top material and curtains, and a sateen which was known as our 6200 quality for upholstery. They were also using a lighter drill for kick pads.

"Q. What type of body were they using these fabrics for?

"A. At that time, when I first went to Detroit, the production of open cars ran around 90 to 95 percent. When I left Detroit, production of closed cars was about 90 or 95 percent. So they just switched in the ten years from the open car to the closed car.

"Q. Chevrolet was making their own open bodies at that time?

"A. Yes.

"Q. Who was making their closed bodies?

"A. I believe Fisher."

"Q. And these fabrics that Chevrolet was buying from du Pont at that time were being used in the manufacture of their open bodied cars then?

"A. Yes.

"Q. Fisher was buying the fabrics that were being used in the manufacture of closed bodied cars?

[fol. 4726] A. Well, on all of the closed cars they used a cloth upholstery and a pyroxylin top material.

"Q. Fisher was buying those for the closed Chevrolets?

"A. That is right, yes.

"Q. State again when it was that Chevrolet moved their buying operations from New York to Detroit.

"A. It was in 1923 about in the spring I believe; because we had our offices in the Dime Bank Building.

"And I received a telegram one day to make arrangements to move to the General Motors Building. And it was shortly after Chevrolet moved their offices there.

"Q. Did you then solicit the Chevrolet business?

"A. Yes.

"Q. What were the names of the Chevrolet buyers or purchasing agents that you dealt with?

"A. Well, the Director of Purchases at that time was Donald O'Keefe. I had known him when he was a buyer of the coated fabrics at Buick Motor.

"He left Buick Motor about 1920 I think it was to take a job with Durant when they built their plant at Elizabeth, New Jersey.

"I didn't see him again until he came back to Detroit as the Director of Purchases.

"Q. Is he the one you did business with over at Chevrolet?

"A. Yes.

"Q. When did you make your first contract with Chevrolet?

"A. For their requirements for the last half of 1923. That is when they moved there.

[fol. 4727] "See, the contract for the first half of 1923 was let in the New York office. The contract for the second half was let in Detroit.

"Q. You had some conversations with O'Keefe about that contract, did you?

"A. I had lots of conversations with O'Keefe about every contract—the ones I got and the ones I didn't get.

"Q. When did these negotiations for this contract occur?

"I am now speaking of the contract for the last half of 1923.

"A. They usually started negotiations about a month to two months before the period. Now that period would be from July through December. They probably started negotiations about May or June.

"Q. Tell us what happened during those negotiations.

"A. After I moved into the General Motors Building, I was on the fifth floor and O'Keefe was on the seventh floor. And I was in, oh, you might say constant touch with him. But if I didn't see him in his office, I would see him in the lobby.

"And he told me they were in the market for their requirements for the last half of the year. And they wanted quotations on certain types of materials.

"So I asked them what their schedule was or what quantities they figured on. He would give me that information, and I would forward that to Newburgh.

"They would wire back quotations, and I would take them up to O'Keefe.

"Well, after we first submit quotations, it may be a week or it may be a month before they would decide upon their source. And there was always dickering.

[fol. 4728] "Q. You mean by the sources, the fabric concern that was going to get the contract?

"A. Yes.

"Q. Excuse me for interrupting you there.

"A. Of course, on every contract, whether it was Chevrolet or anybody else, they always tried to get a lower price, which was only natural. And if I remember correctly, our quotations for the first half of 1923 were so low that the business was not desirable from the standpoint of profit. It was in the second half of 1923 that I got the business at higher quotations which proved to be profitable for the company.

"Q. Did you get all of the business?

"A. All of the business for the last half of the year, both on the top and the upholstery.

"Q. Wasn't that the occasion when O'Keefe told you that——

"A. Wait a minute now. Shortly after he came to Detroit he told me that he had instructions from Mr. Knudsen. Knudsen at that time was President of the Chevrolet Division. And he had told O'Keefe that in the future they were to have two sources of supply. And regardless of the company to whom he gave the business it would have to be split at least 75-25 per cent.

"And the last half of the year I did not get all of the business. I only got 75 per cent of it.

"Q. Did the contract provide that du Pont would supply Chevrolet with 75 per cent of their requirements or did it specify——

"A. They did at that time give us specific yardages.

"Q. Chevrolet then also placed contracts at that time with other sources?

"A. I had an old friend of mine at the O'Bannon [fol. 4729] Company. He got the other 25 per cent.

"Q. Now, you referred a moment ago to the fact that you had gotten a little better price for your fabric than Chevrolet had paid the preceding six months?

"A. That is right.

"Q. Were you able to hold that price?

"A. We held that price for the balance of that year, I believe.

"Let's see; there was one year—I'm not sure whether it was 1923 or not—that they called in all their suppliers and asked for a reduction on the materials they were furnishing. And if it was 1923, we reduced our price four or five per cent I think it was. That is a pretty long time to remember.

"Q. I show you a document which has been offered in evidence in this cause as Government Trial Exhibit No. 418 captioned 'Monthly Report, Cellulose Products Department 1923.'

(The document was handed to the witness.)

"You examine that document and see whether or not that refreshes your recollection as to whether you held the price and if not how much you reduced it.

"A. Well, that is just what I was saying; it is six per cent; I said four or five.

"Q. It was with reference to that first contract that you made that the price was reduced six per cent?

"A. That is right.

"Q. When you were negotiating for this contract, did you endeavor to induce O'Keefe to buy all of his [fol. 4730] requirements from du Pont of coated fabrics?

"A. On every contract I did.

"Q. And what, if anything, did he say about that that you have not already told us?

"A. Well, outside of saying that he was instructed to have two sources of supply, he told me that it wasn't on account of our material or our services, but that they were perfectly satisfactory. But he said he had to go according to instructions, and he wouldn't give over 25 per cent to one company and 75 per cent to another."

* * * * * * *

"Q. Did he say anything about where he would prefer to buy his fabrics if it hadn't been for Mr. Knudsen?

"A. That is what I was leading up to.

"Q. Just tell us what he said.

"A. That he had to have a reliable source.

"Q. Have you told us all you can remember about that conversation there?

"A. Well, I had so many conversations with them that it is hard to pin it down to one particular time. But I do know at one time he told me that they wanted to have a source that they could depend upon to make deliveries when they wanted them.

"It wasn't their policy to carry any large inventories; because it ran up to too much money; and they wanted a source that if they called up and said they had to increase their schedule and that they wanted immediate shipment, they could get it."

* * * * * * *

[fol. 4731] "Q. Now, what happened in 1924?

"We have been talking about the last six months of 1923. Now what happened in 1924?

"A. 1924 was a bad year, I think. When the other manufacturers found out that there was going to be two sources of supply, they came in in 1924 and put in lower quotations than we had, considerably lower, as I remember.

"And O'Keefe told me that we would not get the business unless we met competitive prices. So I immediately got in touch with the Director of Sales, and I told him our prices were too high and asked could we go any lower. Eventually they told me No.

"So we did not get any top material from Chevrolet for the first six months of 1924.

"Q. Do you know whom they bought their requirements of top material from during the first six months of 1924?

"A. O'Bannon was one. And I think F. S. Carr was the other one."

* * * * * * *

"Q. Did you get the pyroxylin-coated fabric contract during the first six months of 1924?

"A. I got the fabric—the upholstery.

"Q. Did you have to reduce your prices to get it?

"A. I don't believe so. I think our original quotation stood up.

"Q. I show you the same exhibit that I asked you to look at before. Will you please state, after examining the exhibit, whether it refreshes your recollection as to whether you did reduce your prices to get the pyroxylin-coated fabric business from Chevrolet."

* * * * *

[fol. 4732-4733] "A. Well, I can't state positively that this is so. Perhaps it is."

[fol. 4734] "Q. Did you try to sell the fabric to O'Keefe at your prices?

"A. Oh, sure.

"Q. What did he say?

"A. He just told me that he wouldn't give us the business; that he had a much lower price and that he wouldn't pay a premium to buy du Pont. And we didn't get the business.

* * * * * *

"Q. When did you make your next effort to sell coated fabric to Chevrolet?

"A. The first half of 1925.

"Q. We haven't got through with the last half of 1924 yet. Didn't you try to sell them anything then?

"A. Yes, that's right. I thought we were through with 1924.

"Yes.

"Q. What happened at that time?

"A. I knew about the trouble. In the last half of 1924 instead of getting 75 per cent of the business, I got a hundred per cent, both on 'Fabrikoid' and top material.

"Q. During your negotiations for those contracts covering the last half of 1924, did you deal with Mr. O'Keefe?

"A. On every contract I dealt with O'Keefe.

"Q. Was anything said during those conversations about the two sources of supply instructions?

"A. No. And I did not mention it because he had previously told me that they had to have two sources. But when we were negotiating for the last half of 1924, he didn't say anything about the 75-25 per cent. So I just took all of the business.

* * * * * *

[fol. 4735] "Q. Who got the business at Chevrolet during the first six months of 1925?

"A. Three companies.

"Q. Can you name them?

"A. J. F. Heath; and I believe it was Haartz; and it seems to me it was F. S. Carr.

"Q. Did du Pont get any of it?

"A. No.

"Mr. Harsha: Can you identify what material you are talking about?

"The Witness: Top only.

"By Mr. Neitzert:

"Q. This was rubber-coated fabrics.

"A. Yes.

"Q. Did you attempt to get that business?

"A. Oh, yes.

"Q. What did O'Keefe tell you?

"A. That our prices were too far out of line. And we had been negotiating for at least a month before he let the business. And he called me up at different times and wanted to know when I would drop in and find out what the situation was and wanted to know when we were going to reduce our price.

"And I told him we were not going to reduce it on this contract; that it was our best price.

"So I believe it was that year that he told me that if I didn't give him a better price that he was going to call W. P. Allen in Wilmington.

"I don't know whether he called that one or not. But I didn't want to take the final responsibility of losing the business. So I called Lindsay at Newburgh. Lindsay was some place in New York. So I asked the Newburgh office to contact Lindsay and have him call me at home that night, which he did.

[fol. 4736] "And I gave him the story as O'Keefe gave it to me. And the prices were so far below ours that we would have lost money on it. So we discussed it on the telephone and decided that we wouldn't go any lower than our last quotation. And consequently we lost the business.

"Q. What happened after that—after those contracts were made?

"A. Well, one day I got a call from Flint——

"Q. Just about when was this?

"A. That was probably April or May.

"Q. 1925?

"A. 1925, yes.

"Charlie Weatherall was the superintendent of the Trim Plant for Chevrolet at Flint. And he said he was having trouble with the top material, and he said—or he asked me if I would go up.

"So I went up to Flint. And he had this material laid out on their tables. There were tables running around 50 or 60 feet. And I looked at the material. And I agreed with him that it was poor quality, had a poor finish, poor grain."

* * * * * *

"A. I said, 'You have got Heath in here and Haartz and one other.' The other one was Carr. Oh, he was rather embarrassed. And I went back to Detroit. And O'Keefe called me up. I didn't call him. I didn't tell him I had been up there. He called me up in a day or so, and he said, 'Well, we are in trouble.'

"I said, 'Is that so?'

"He said, 'Yes. Our sources of supply are not living up to their schedules, and the material is inferior.'

[fol. 4737] "He said, 'How soon can you ship us a carload, and what price will you charge us?'

"I knew I could get the plant on the telephone and have a carload in a couple of days, which I did. And I told them—he said, 'As long as you have got me over the barrel, I suppose. . . .'——

"No; he said, 'You have got me over a barrel.' And he said, 'What price are you going to quote?'

"I said that it was not the policy of the du Pont Company to take advantage of such situations and that our price as previously quoted still stood.

"He gave me a contract for the last six months of 1925 and asked me if we would start shipments in June against that contract, which we did.

"Q. The contract provided for shipments to start in July?

"A. As a rule, yes, the last six months of the year. We knew they were in trouble, so we started in June.

"Q. Was this contract for the last six months of 1925 for all of Chevrolet's requirements or for only a part of them?

"A. All of them; a hundred per cent.

"Q. Was anything said at the time they negotiated the contract with you about the two sources of supply instruction?

"A. The only time that was ever brought up as far as I can remember was in 1923. And the 25-75 per cent after that never entered into it at all.

"Q. Did yo[illegible]tart making shipments in June under the contracts made for the last six months of the year 1925?

"A. That is right, yes."

* * * * * * *

[fol. 4738] "Q. Did you take the contracts, the written contracts, for the sale of fabrics to Chevrolet over to O'Keefe for his signature? I am talking now about the general practice during this period.

"A. Oh, no. When they were ready to close, if I got the business, O'Keefe would call me up.

"Q. You would go over to his office though?

"A. I would go to his office. He had the contracts on his desk. And he would sign them there in front of me.

"Q. Then you took the contract and sent it to your home office to be signed?

"A. Yes.

"First I would wire them and tell them we got the business just to relieve their mind.

"Q. What form of contract was Chevrolet using in the middle 1920's when buying from du Pont?

"A. They were using a contract naming a specified amount of each quality.

Q. Specified number of yards?

"A. Yes.

"Q. And did they change later?

"A. Yes. They changed later to — their contract would read 'Covering requirements of (specify the quality and type of material—deck or upholstery) for a period from July 1, 1926' or 1927, whenever it was "to December 31.'

"And that contract was not at all acceptable.

"Q. Acceptable to whom?

"A. du Pont. —because we didn't know whether they would want a million yards, two million yards, or five hundred thousand yards. And for a set quotation which we would have to give them, we would have to get a quotation on cotton goods.

"Well, cotton goods the 1st of July would be one price and maybe the 1st of November it would be up two or [fol. 4739] three or four cents. So, I asked O'Keefe on more than one occasion if he couldn't give us a contract specifying the number of yards to be delivered over a period. And he told me 'That is the way we are writing up our contracts and covering our requirements. If you don't want to take it, we can find other sources. They will be glad to take it.'

"Q. During what period did you have these conversations with O'Keefe that you have just described? What years, to the best of your recollection?

"A. Oh, I think probably the requirements contract came out about 1926.

"Q. Were you ever able to induce O'Keefe to change the form of that contract?

"A. Never, no. As long as I was still there, it was always the requirements contract.

"Q. Did you continue to try to get him to change it?
"A. Yes. Without success."

* * * * * *

"Q. When did Chevrolet first start buying fabrics from du Pont Company?

"A. I don't know. I was still at Newburgh. Offhand, I would say 1913 or 1914.

* * * * * *

"Q. When you entered the Detroit office in 1919 was the Buick Motor Car Company buying fabrics from du Pont?

"A. Yes.

* * * * * *

"Q. When you came into the office, what percentage of Buick's requirements of fabrics was Buick buying from du Pont?

"A. Not over 50 per cent.

"Q. Did you endeavor to get them to buy a greater [fol. 4740] percentage of their requirements from du Pont?

"A. Always.

* * * *

"Q. When was the first year you were able to increase the percentage of Buick's requirements that were furnished by du Pont?

"A. Well, any appreciable amount, the first year was in 1922.

"Q. During that year what percentage of Buick's requirements of coated fabrics was furnished by the du Pont Company?

"A. In 1922 we furnished 100 per cent of the top material and 100 percent of the coated fabrics—'Fabrikoid.'

"Q. Will you state what happened prior to the negotiation of that contract?

"A. Well, it seemed to be quite a little—there was quite a bit of bitterness.

"We had the contract with them in 1920. And then the recession hit and they wanted to cancel. They held up their releases. And they also had a contract that year with Haartz. And they held up Haartz's shipments.

"Then in 1921, they requested an out and out cancellation of the contract which du Pont refused to do stating that they had contracted with the grey goods mills for the cloth, and they would not cancel our contracts nor reduce our price.

"So, before Buick released any of those shipments to us, they released some to Haartz. And they dilly-dallied back and forth—this is between central office and Buick—it didn't go through the Detroit office—on the negotiation for cancellation.

"Sometime during 1921—I don't remember when—du Pont agreed to cancel the 1920 contract providing they gave us a hundred per cent of their [fol. 4741] requirements for 1922, which they did.

"Q. You negotiated the 1922 contracts?

"A. Yes.

"Q. Was that the first time you ever had a contract with Buick for a hundred per cent of its requirements?

"A. That is the first time and the last time.

"Q. The only time?

"A. Yes.

"At that time Bill LaRocke was the purchasing agent.

"Q. Now, during 1922, from whom did Buick buy its double texture uncoated fabric?

"A. J. C. Haartz. They bought all of their uncoated fabrics from Haartz for several years.

"Q. Did du Pont at that time manufacture a double texture uncoated fabric like the kind that Buick bought from Haartz?

"A. Well, we could manufacture it, and we did for Buick.

"Q. You mean at a later time?

"A. Yes.

"We only manufactured and only sold about 3,000 yards. And that was more or less of a trial order.

"Q. Was that fabric known as 'Teal'?

"A. No, that wasn't known as 'Teal.'

"Q. 'Teal' was a later fabric?

"A. That is right. That fabric was a piece of duck combined to a drill.

"Q. What was it used for?

"A. Tops on open cars.

"Q. Did you attempt to sell that fabric to Buick?

"A. We attempted every time they were in the market, but we never got any business.

"Q. What reasons did they give you for refusing to buy from you?

"A. One reason was because Haartz had always had the business from Buick, and their price was much [fol. 4742] lower than we could meet because it was nothing except two pieces of cloth that du Pont had to buy on the outside and combine it with a cement.

"The only thing connected with the cloth was cement, manufactured by du Pont. So, it wasn't a very profitable business one way or the other. And the only reason we tried to get it was that we tried to get all the business we could from anybody.

* * * * * * *

"Q. Was this double texture fabric used for the same purpose as your rubber coated top material?

"A. Yes. But it was used mostly on Buick roadsters.

"Q. Now, when did you develop 'Teal'?

"A. Well, I think 'Teal' first came on the market about 1923.

"Q. And what kind of a fabric was 'Teal'?

"A. 'Teal' was a combined fabric. It was a cloth dyed in the wool. That is, it was dyed before it was woven. And that 'Teal' at the time was black and white, sort of a salt and pepper effect. And that was combined to a drill.

"And I think Buick switched to that from this old duck which was a plain color and faded. I think that was in 1923. For a number of years we tried to get the 'Teal' business from Buick. We were never successful.

"Q. Whom did they buy their 'Teal' from?

"A. Haartz.

"Q. Did Haartz call their fabric teal, or was that your trade name?

"A. That was our trade name.

"Q. Do you remember what Haartz called theirs?

"A. Sport Topping.

* * * * * * * *

"Q. During this period from 1923 and 1924 and 1925, you were continuing to try to sell 'Teal' to Buick?

"A. Every time they were in the market we tried to sell it to them but we never could.

[fol. 4743] "Q. When were you first able to sell them an order of 'Teal'?

"A. I think the first time we sold Buick 'Teal' was when I took samples up there of a brown and white 'Teal' instead of black and white. And I showed it to the sales department and Ken Forbes. Ken Forbes is the body engineer. And they liked the brown and white for a change.

"That was in 1927, I think.

"Q. What reasons did they give you for refusing to buy your 'Teal' from 1923 to 1927?

"A. Well, to be perfectly frank with you, we couldn't match Haartz' price, even if we did match the sample.

"Q. Following 1922, about what percentage of Buick's coated fabrics business did you obtain for the du Pont Company?

"A. I don't think we ever had over 50 per cent of the Buick business outside of 1922 up until 1927. Then we had, I would say, 75 per cent of the 'Teal' business.

* * * * * *

"Q. Now, during this period following 1922 did you attempt to get Buick to buy more than 50 per cent of its coated fabrics requirements from du Pont?

"A. 1922 you say?

"Q. From 1922 to 1929?

"A. Oh, yes. Every time they were in the market we always tried.

"Q. Whom did you talk to?

"A. I talked to LaRocke from 1920 until I left.

* * * * * *

"Q. What did LaRocke say to you when he only gave you 50 per cent or less of the business?

"A. On the 'Teal' that Haartz got in first, and that they were satisfied with the material, and that they saw no reason to change.

[fol. 4744] "Q. What about the coated fabric?

"A. Let's see; it seems to me in those days that they were buying the balance of the coated fabrics from Chase.

"Q. What reasons did they give for refusing to give you all of that business?

"A. They were satisfied with the source, and they wanted two sources.

"Buick was more conscious about the two sources than Chevrolet was.

"Q. Did you ever try to get the Buick people to use coated fabrics for upholstery?

"A. I did for the first couple of years I was out there until I found out that it was a lost cause.

"They would not consider imitation leather for upholstery in the Buick car.

* * * * * *

"Q. With reference to your testimony that you sold Buick about 50 per cent of its requirements of coated fabric after 1922, did you have reference then only to their requirements of coated fabrics for use on open-bodied cars?

"A. That is right.

* * * * * *

"Q. Well, then, straighten the record out as to what percentage of the top material you sold to Buick after 1922.

"A. Well, from 1922 to 1927, we did not sell them any 'Teal.' That was all Haartz. We sold them about 50 per cent of the rubber-coated fabrics.

"Q. Then after 1927?

"A. Then we started to sell them 'Teal.'

"Q. And how much of the 'Teal' business did you have? Straighten that out.

"A. I think we had all their 'Teal' business in 1927, 1928, and 1929, and about 50 per cent of their rubber.

* * * * * *

"On open cars they didn't use just one material. They used 'Teal' on some and rubber on others.

[fol. 4745] "Q. How were you able to determine the percentage of Buick's requirements that you were furnishing them?

"A. Production basis.

"Q. And how were you able to determine who else was selling them?

"A. LaRocke told me that they were buying from Haartz.

"Q. Was the Cadillac Motor Company buying coated fabrics from du Pont when you went into the Detroit Sales Office in 1919?

"A. They were buying 'Fabrikoid,' but not any rubber.

"Q. Do you know how long they had been buying 'Fabrikoid' from du Pont?

"A. They had been buying 'Fabrikoid' for years. They were buying it when I was in Newburgh.

* * * * * *

"Q. When was it that Stark told you that you had always gotten a hundred per cent of Cadillac's 'Fabrikoid' business?

"A. 1919, when we went out to Cadillac. He was telling me about not getting any top material but always getting the 'Fabrikoid.'

"Q. Was that the same occasion when you talked about the top business?

"A. Yes.

"Q. What was Cadillac using du Pont 'Fabrikoid' for?

"A. It was a higher class, higher-priced piece of material. It was a 7600 quality moleskin they were using for their door panels and kick pads.

"Q. Was that use in connection with the manufacture of open-bodied or closed-bodied cars?

"A. All open bodies.

"Q. Who was building Cadillac closed bodies?

"A. Fisher. They only used cloth on the closed bodies for upholstery.

[fol. 4746] "Q. Did you continue to sell Cadillac a hundred per cent of their requirements of 'Fabrikoid' as long as you were with the company?

"A. There was only one year that I didn't get the contract on 'Fabrikoid.'

"Q. When was that?

"A. I think it was the second year I was out there in 1920. The Texti-leather Company, one of our competitors, put in a much lower quotation; and Hulgrave told me what it was. He asked me if I would meet it—not meet it, rather, but lower our price.

"We didn't lower the price; and we lost the business.

* * * * * *

"Q. When did you make your first sale of top material to Cadillac?

"A. I think the first order I got from Cadillac on top material was the first year I went there—1919. And it was only for a small amount—a couple of thousand yards or so.

"They wanted to test it. The only reason they considered it at all was that that was the year after we came out with this new special finish.

"Q. Tell us, what was this new special finish?

"A. It was a rubber-coated material with a high lustre which had never been on the market before."

"Q. When did du Pont introduce that new material?

"A. 1918.

"Q. Describe how it was made.

"A. It was a drill, cotton cloth, combined to a sheeting, with a rubber cement and rubber-coated to a finish weight of about 38 ounces and finished with a high lustre varnish.

"Q. What was it used for?

"A. Deck materials.

[fol. 4747] "Q. Did any of du Pont's competitors have a cloth like that?

"A. No, not ~~at~~ that time, not with a high lustre.

"Q. How long was it before a competitor offered a cloth like that?

"A. We were in the lead for about three years—two or three years. And then our competitors came out with a higher lustre. And then about 1924 or 1925, we came out with another one, an improved one. At that time, they called it 'Everbright'. That was a higher lustre and more durable.

"Q. Coming back to the fabric that du Pont introduced—you say in 1918 or 1919?

"A. Well, it happened while I was in Service. So, it was 1918.

"Q. What was the name of that fabric?

"A. 'Pontop.'

"Q. What advantages or disadvantages did 'Pontop' have as compared with the deck materials that had been used prior to the introduction of 'Pontop'?

"A. Well, everybody complained of the rubber top material. They complained that the rubber top material would lose its lustre in a couple of months. Everybody knew it. We knew it.

"So, they didn't want it for a high-priced car like Cadillac. They wouldn't even consider it..

"The Hodgman material had a special finish. It wasn't exactly rubber-coated; it was a sort of a—oh, I forget just how they made it. But it held its lustre.

"And up until we came out with a high-lustre material, why, they would not consider us."

* * * * * * * *

[fol. 4748] "Q. Was your material superior to Hodgman's product?

"A. From a standpoint of price, yes; because Cadillac bought this trial yardage—I forget just what it was—two or three thousand yards—and it was so much cheaper than Hodgman that they were reluctant to change at first until they ran their tests on it and it proved to be satisfactory., And from then on, we got a hundred per cent of the business.

"Q. Your first contract, you said, was in 1919. When did you get your second contract?

"A. 1920.

"After they made the sample run or the test on the three thousand yards, or two thousand, whatever it was, we had the business a hundred per cent from then on. At least that was what they told me.

"Q. Did you continue to sell both top material and artificial leather to Cadillac as long as you were with the Detroit Sales Office?

"A. Yes. Dan Hulgrave was the Director of Purchases and Ray Vogel was his assistant."

Mr. Neitzert: Page 70 is next.

"Q. Mr. MacShane, was du Pont selling coated fabrics to the Olds Motor Company in 1919 when you went into the Detroit Sales office?

"A. Yes.

* * * * * *

"Q. What contracts did du Pont have with Olds when you went into the office?

"A. They had adopted the new 'Pontop' rubber for the decks which had come out the previous year. And we sold them a hundred per cent of the rubber.

* * * * * *

[fol. 4749] "Q. And what per cent of their requirements of artificial leather?

"A. We never did get a hundred per cent of the artificial leather I don't think until 1922. We were selling only about 50 per cent or less.,

"Q. Did you attempt to obtain a contract for a greater percentage of their artificial leather?

"A. Yes.

"Q. When was that?

"A. 1919, 1920—every year.

"Q. To whom did you talk?

"A. When I first went there I talked to a man by the name of Maxson. And he told us that he was buying, I think it was, from Textileather.

"Q. What reason did he give for refusing to give you a hundred per cent of their artificial leather business?

"A. He bluntly stated that they were buying from Textileather, were pleased with their service, and were pleased with their quality, and that they intended to continue to buy from them. Maxson was a pretty tough man to get along with."

Mr. Neitzert: At the bottom of the page——

Mr. Harsha: Will you read the next two questions, please?

Mr. Neitzert: Yes, please.

"Q. How long was he there?

"A. I think he left there in 1920. I don't think he was there over a year after I was there. He went in business for himself.

"Q. Whom did you deal with at Olds after he left?

"A. Charlie LeJeune."

Mr. Neitzert: Is that what you wanted?

[fol. 4750] Mr. Harsha: Yes.

Mr. Neitzert: (Continuing):

"Q. Now, you got a contract in 1920 for a hundred per cent of their top and curtain materials?

"A. Yes.

* * * * * * *

"Q. Now, what happened to that contract?

"A. Well, Olds was just like all of the other automobile manufacturers; on account of the recession, they asked us to hold up the schedule. And later on, they asked us to cancel it.

"Well, that is the same story as with Buick and the others. The du Pont Company did not want to cancel on account of having committed themselves for a specific number of grey goods—specific yards of grey goods.

"Well, that went on for a year or so, and du Pont finally cancelled the contract with the understanding that they would give us all of their requirements on both 'Fabrikoid' and rubber for 1922, which they did.

"Q. Did you negotiate the 1922 contract?

"A. Yes.

"Q. Is that the first time you ever had a hundred per cent of their 'Fabrikoid' business?

"A. First and only time.

"Q. Did those 1922 contracts cover uncoated fabrics? I am referring now to the Oldsmobile contract.

"A. I don't think—no, in 1922 Oldsmobile did not use uncoated fabrics, if I remember correctly. They were still using rubber top material and 'Fabrikoid.' I don't think they went into 'Teal' until 1923, 1924."

Mr. Neitzert: The top of page 77:

"Q. Now, following 1922, did you attempt to induce [fol. 4751] these purchasing agents at Oldsmobile to buy all of their requirements of 'Fabrikoid' from you?

"A. Yes.

"Q. And what reasons did they give for refusing to do so?

"A. The same reason that Maxson gave—that they were buying from Textileather, I believe it was—I'm sure it was—and they were perfectly satisfied with the material and service, and that they intended to continue to buy at least a portion from them.

"Q. How long after the year 1922 did you have a hundred per cent of Oldsmobile's top and curtain business?

"A. That was the only year I had a hundred per cent."

* * * * * *

"Q. When did they start using an uncoated fabric for tops and curtains?

"A. I think Olds was a little later than Buick. I don't think they went into the teal business until about 1924.

"Q. From whom did they buy their teal?

"A. When they first went in, they bought it from us.

"Q. For how long?

"A. I think we had all of their teal business for about two or three years.

"Q. Then what happened?

"A. We lost it to Haartz.

"Q. Did Haartz still have it when you left the company?

"A. Yes."

* * * * * *

"Q. I am not sure that I have got the percentage of Olds' requirements of rubber-coated curtain and top material that you sold to them after 1922.

"I have Fabrikoid, but I don't believe I have the rubber goods. What were the facts as to that?

"A. I think F. S. Carr got the rubber goods. We [fol. 4752] only got about 50 per cent of it; whereas, before 1922, we were getting a hundred per cent of their top material.

"Q. Did you try to continue to sell them a hundred per cent of their requirements?

"A. Oh, yes.

"Q. And what reasons did the purchasing agents give for refusing to buy more than 50 per cent?

"A. Well, they wanted two sources of supply. After LeJeune went in and Westover, they were very friendly, which was quite a change from Maxson. But even with their friendship, I was unable to get all of their business."

Mr. Neitzert: At the top of the next page:

"Q. Do you know how long du Pont had been selling coated fabrics to Oldsmobile before you went into the Detroit office in 1919?

"A. Well, my only recollection is that while I was still at Newburgh I know we were shipping to Olds. I believe that was as far back as 1914. I don't know whether we sold them before then or not.

"It seems to me we had some trouble with them. At the time, we were having difficulty getting fast dyes, and we shipped some top material to Olds and it faded. It was off color. It wasn't a uniform color. And I think we lost all of the business that year.

"Of course, it wasn't only Olds that we had trouble with on the dyes, it was everybody else we were selling to; but Olds seemed to be a little bit more critical.

"Q. What was the matter with the dyes at that time?

"Mr. Harsha: What time are we referring to, may I ask?

[fol. 4753] "The Witness: This is about 1916, 1917, or 1918. It couldn't have been 1918, because I was in the Service. It was probably 1916 or 1917.

"By Mr. Neitzert:

"Q. What was the matter with the dyes?

"A. We had to buy dyes here in the United States, and they were not as good as the German dyes. They were not fast. They were just what they called a fugitive dye. And as soon as it was exposed to light, why, it faded.

"Q. You had been using German dyes before the war started?

"A. Yes.

"Q. Did you ever correct that situation?

"A. I think it was about 1917 that the du Pont Company went into the dye business. And it took them a couple of years to get a good fast dye."

* * * * *

"Q. Was the du Pont Company selling coated fabrics to the Oakland Motor Company when you went into the office?

"A. Yes.

"Q. What per cent of Oakland's requirements were covered by your contracts at that time?

"A. I don't think we ever got over possibly a third of their business.

"Q. After you came in to the office, did you attempt to increase the participation of the du Pont Company in this business?

"A. It was always my ambition to sell them a hundred per cent.

"Q. With whom did you deal in the Oakland Company?

"A. When I first went there a man by the name of Jim O'Rourke was Director of Purchases, and his assistant was Eric Hoover.

[fol. 4754] "I think in 1920 Mr. O'Rourke left to become production manager for the Murray Body Company. Eric Hoover left shortly after that to become purchasing agent for the Franklin Motor Company at Syracuse, New York.

"Q. Who replaced him as purchasing agent?

"A. Charles Miller replaced O'Rourke as Director of Purchases. And Fred Gordon replaced Hoover."

* * * * * *

"Q. Coming back to the period 1919 and 1920, what reasons did the Oakland purchasing agents give for not giving you more than a third of their business?

"A. Just like all of the others—they were buying from Chase. They had three sources; I think another was Boston Woven Hose. We never considered them at all a high-class competitor. But, nevertheless, they got some of the business."

* * * * * *

"Q. Were you ever able to get 100 per cent of their business—Oakland's business?

"A. Once.

"Q. When was that?

"A. 1922.

"Q. Tell us how that happened.

"A. Well, Oakland seemed to be more bitter than the other General Motors units about our refusal to cancel the contract for the 1920 and 1921 requirements.

"And it seems to me that they got so mad that they sent du Pont a check; because this Fred Gordon used to rub it into me every once in a while—I forget how much the check was for, whether it was in full settlement or whatever it was—but that was before du Pont decided to cancel all of those General Motors contracts.

"Whether the money was refunded, or whether they [fol. 4575] were given credit for it, I don't know. It didn't come under the Detroit office.

* * * * * *

"Q. How was that dispute settled?

"A. I think it was in the latter part of 1921 that du Pont agreed to cancel the Oakland contract with the provision that they would buy a hundred per cent of the top materials and 'Fabrikoid' from us during 1922.

"Q. And did you negotiate the 1922 contracts?

"A. Yes.

"Q. Did you sell them a hundred per cent of the top materials and artificial leather?

"A. Yes.

* * * * * *

"Q. When you had these conversations that you have referred to with the purchasing agents and solicited their business, did that occur at the offices of the purchasing agent or at your office or where?

"A. At the offices of the purchasing agents.

"Q. Now, about Oakland using 'Fabrikoid'. What were they using for upholstery?

"A. Genuine leather.

"Q. Did you ever attempt to sell them artificial leather?

"A. Yes.

"Q. Were you successful?

"A. No.

"Q. What reasons did they give for not using artificial leather?

"A. Prestige, and from a sales point of view.

"Q. You have given that same answer several times; and I think we might have you explain just a little more in detail what that means.

"What did they mean when they said 'prestige' and——

"A. Well, when the sales department advertises a [fol. 4756] car, they specifically state 'Upholstery Genuine Leather'. And if it was 'Fabrikoid', why, they would have to say, 'Imitation Leather', which did not look too good in print.

"Q. Did they ever indicate that they thought artificial leather would not hold up as an upholstery fabric?

"A. No, I don't believe so.

"Q. It was purely just the sales appeal of having genuine leather upholstery?

"A. Yes. We sold Chevrolet upholstery material for years. Never had any serious complaints.

"Q. After 1922, approximately what percentage of Oakland's requirements of coated fabrics did they buy from du Pont?

"A. After 1922, the year we got the hundred per cent, they gradually reduced. In 1923, we probably got 50 per cent. Then in 1924, 40 per cent. And then we went back to the one-third or 33⅓ per cent.

"Q. During this period, did you attempt to hold a hundred per cent of the business?

"A. Oh, yes.

"Q. And you had your conversations with whom on that subject?

"A. Both Hoover and Gordon.

"Q. What reasons did they give for this continual reduction in the amount of fabrics that they bought from you?

"A. The same excuse they gave me before they gave us 100 per cent—that they wanted other sources.

"Q. Did Oakland ever adopt the uncoated double texture teal-type decking for a part of its cars as the other companies did?

"A. Yes.

[fol. 4757] "Q. When did that happen?

"A. I think they adopted that around 1924.

"Q. Then after that, they continued to use both the rubber-coated and the teal-type material?

"A. That is true.

* * * * * *

"Q. Where did Oakland buy its teal-type fabrics?

"A. From Haartz.

"Q. Were you ever successful in selling them any 'Teal'?

"A. No.

"Q. Did you try?

"A. Yes, sir.

"Q. Over what period of time?

"A. Every year.

"Q. And what reasons did they give for refusing to buy from you?

"A. They started with Haartz, and they were perfectly satisfied with them.

* * * * * * *

"Q. Now, also in your testimony——"

Mr. Harsha: Pardon me, may we have the next question?

Mr. Neitzert: Just the next question and answer?

Mr. Harsha: Yes.

Mr. Neitzert: (Continuing):

"Q. Can you estimate what percentage of Oakland's tops and curtains were made of 'Teal'-type material and what percentage were made of rubber-coated materials after they started using 'Teal'?

"A. Roughly I would say one-third 'Teal', two-thirds rubber. That is a pretty hard question to answer accurately.

* * * * * * *

[fol. 4758] "Q. Now, also in your testimony concerning your dealings with each of these motor car companies, you have referred to contracts made in 1920 and to contracts made in 1922, but you haven't said anything about any contracts made in 1921.

"What happened in 1921?

"A. I was still working on the 1920 contracts. We didn't have any contracts in 1921.

"Q. You mean no new contracts were made?

"A. That is right.

"Q. Was the Scripps-Booth Motor Company buying coated fabrics from du Pont when you went into the Detroit office?

"A. No, sir.

"Q. What was the Scripps-Booth Motor Company?

"A. When I went there, it was a small outfit—rather high-priced cars. And they were only turning out about seven or eight thousand cars a year. And I called on them with Jay Stark in 1919.

"Q. Whom did you call on?

"A. I don't remember his name.

"Q. Was he the purchasing agent?

"A. He was the purchasing agent.

"Q. Of the Scripps-Booth Motor Company?

"A. Yes. He told us that they were buying 'Pantasote' for the top material; and I believe it was 'Zapon' for the interior trim.

"And I called on them repeatedly up until 1922. Of course, from 1920 on, their production was gradually decreasing. And in 1922, I think, they went out of business. And during the years they were in business and I called on them, I didn't sell them anything.

[fol. 4759] "Q. What reasons did they give for refusing to buy from you?

"A. They were satisfied with 'Pantasote' for the top material and satisfied with 'Zapon' for their interior trim; and they wouldn't change.

"Q. For seven or eight thousand cars a year, how many yards of coated fabrics would they require for top and curtain materials and interior trims?

"A. For the top and curtains, they would use—I don't know whether they made roadsters or not; I don't recall—but approximately 75- to 80,000 yards of top material. That is for the seven to eight thousand production.

"Q. And the interior trim?

"A. Twenty thousand at the most.

"Q. Where was Scripps-Booth's purchasing office?

"A. Detroit.

"Q. Was General Motors Truck buying coated fabrics from du Pont when you went with the Detroit sales office in 1919?

"A. Yes, they were.

"Q. Did you call on General Motors Truck?

"A. Yes.

"Q. Where was that purchasing office?

"A. They were located in Pontiac, Michigan, right behind the Oakland Motor Works.

"Q. Who was the purchasing agent over there that you dealt with?

"A. At that time Mr. Creighton.

"Q. And was he there until you left the Detroit office in 1929?

"A. Yes, he was there. He was a purchasing agent until 1925 about, when the Yellow Truck moved to Pontiac. There they had their main offices. And this man from Chicago was made Director of Purchases. I [fol. 4760] think he was also a vice president in charge of purchases. His name was Livingston.

"Q. Did you deal with him then after 1925 with reference to sales to General Motors Truck?

"A. That is right.

"Q. Did you make sales to General Motors Truck during the period 1919 to 1929?

"A. Yes.

"Q. What did they use coated fabrics for?

"A. Upholstery.

* * * * * * *

"Q. Now, you made reference to the Yellow Truck Company moving to Pontiac in 1925?

"A. I think it was in 1925.

"Q. Did you solicit their business when they moved into Pontiac?

"A. Yes.

"Q. Were you able to sell them any coated fabrics?

"A. Yes.

"Q. When did they start buying from you?

"A. 1925, 1926.

"Q. Did you have all of their business?

"A. No.

"Q. Who else sold Yellow Truck?

"A. When Yellow Truck was in Chicago, they used to buy from Chicago Decorative Leather, I think. And they also bought from them when they came to Pontiac.

"Q. Do you know about what percentage of Yellow Truck's business you had?

"A. Prior to 1925 I think I had all of their upholstery material. They may have bought some small yardage from Chase, I think it was. But they used, for the decks, a plain canvas. We didn't sell them any rubber at that time as I recall. They didn't use any.

[fol. 4761] "Q. How much of the business did you have after 1925?

"A. Oh, probably fifty per cent.

"Q. Did you try to get more of it?

"A. Yes.

"Q. What reasons were you given for not getting it?

"A. Same old reasons: that they had been buying from this source from Chicago before they moved to Pontiac and they intended to continue to buy from them.

"Q. When you went to the Detroit sales office in 1919, was the Fisher Body Company buying coated fabrics from the du Pont Company?

"A. No, sir.

"Q. What business was the Fisher Body Company engaged in at that time?

"A. They were making closed cars for all the General Motors units—closed bodies rather, not closed cars—and some non-General Motors units.

"Q. What did they use coated fabrics for?

"A. Deck material.

* * * * * *

"Q. From whom was Fisher Body buying its requirements of deck material when you went with the Detroit sales office?"

Mr. Harsha: Pardon me, could we have the next question read?

Mr. Neitzert: (Reading):

"Q. What did they use for interior trim?

"A. Cloth.

"Q. What did they use for upholstery?

"A. Cloth

* * * * * *

"Q. From whom was Fisher Body buying its requirements of deck material when you went with the Detroit sales office?

"A. Textileather Company and Duratex.

[fol. 4752] "Q. Did you call on Fisher?

"A. I did. I first called on them in 1919 with Mr. Stark.

"Q. Whom did you talk to when you called on them with Mr. Stark?

"A. He introduced me to Herb Nye, the body engineer; Fred Walker; and Claude Crusoe. They were the buyers of the fabrics.

* * * * * *

"Q. Were you and Stark able to get any business when you called on them in 1919?

"A. No, sir.

* * * * * *

"Q. What reasons did these purchasing agents give for not giving you any business?

"A. Well, for one reason, Textileather was represented by the Olson Brothers. They had offices right next to me in the Dime Bank Building. And they were very friendly with the Fisher Brothers. Also with Herb Nye. They had been supplying Fisher for years. The same thing goes for Ralph Allen. He was sales manager for the Duratex Company. He was also very friendly with the Fishers and Nye.

"They had become so entrenched in there that du Pont wasn't given any consideration.

* * * * * *

"Q. Do you remember selling them some 66-inch decking at one time—or about that time?

"A. Oh, yes. I remember that very well.

"Q. Tell us about that.

"A. I think they gave us an order, or said that they were giving us an order, for a considerable amount. And we had covered for the cotton goods.

"Before we made any shipments, they decided they didn't want any 66-inch material, and told us to cut it back to 63-inch.

[fol. 4763] "Q. Well, is 66-inch an unusually wide cloth?

"A. Yes, 63-inch was the average.

"Q. If I understand what you said, you had this promise of an order and you bought your cotton goods, and then they refused to take it?

"A. That is right.

"Q. Is that what happened?

"A. They gave us the order for 63-inch, but we had the 66-inch cotton goods on hand.

"Q. Do you know what you had to do with that?

"A. Yes. Cut it down. We had to take the loss on it.

"Q. Do you recall whether that was in 1923 or 1924?

"A. I think that was in 1924.

"Q. Then were you able to get any more business from them?

"A. I think that was the last order we got until we came out with this new Pontop.

"Q. Now, you solicited the Fisher business up until when?

"A. Actively up until 1925.

"Q. Then what happened then?

"A. The du Pont Company hired a man by the name of J. Henry Smith.

"Q. When did he start work?

"A. Latter part of 1925.

"Q. What was his job?

"A. I don't know. I think he was a type of special representative.

"Q. Whose business did he solicit?

"A. Fisher. Fisher is the only one he called on.

"Q. And did he work out of the Detroit office, the same office that you were in?

"A. Yes.

"Q. When did he start ~~soliciting~~ Fisher's business?

"A. Latter part of 1925.

"Q. What happened?

"A. Well, about a couple of weeks or a month after he had arrived there, he got an order for approximately [fol. 4764] 75,000 yards of this new rubber deck material, what we called at the time Everbright, which was an improvement over 'Pontop'."

* * * * *

"Q. Did he continue to get large orders from Fisher?

"A. Yes. And shortly after he got that 75,000 yard order—that was probably October of 1925—I think before the year was out, he got another order for around a hundred thousand.

"Q. And did he continue to get large orders the following year. Just take the first six months of 1926. What happened then?

"A. Yes. He continued to get—well, up until then, up until 1925, Fisher had been using pyroxylin for the decks exclusively. Then, when we came out with this new Everbright, they liked it well enough to use it for decking on all cars below the Cadillac. That was Buick, Olds, Oakland, and Chevrolet.

"I think we continued to sell them in 1926.

"Q. Did you have all of their business the first six months of 1926?

"A. Yes. That was because Textileather did not make a rubber-coated material. And Duratex did not have a quality equal to ours in appearance."

* * * * *

"Q. Did any of du Pont's competitors manufacture and sell a fabric comparable to Everbright at this time?

"A. Well, later on, oh, around 1927, I think it was, Carr came out with one. F. S. Carr. They had a rubber decking that was not any better than ours. But it was comparable."

[fol. 4765] "Q. But until Carr came out with that, were you the only one that had this kind of a fabric?

"A. That is right.

"Q. After Carr came out with a comparable fabric, did other manufacturers also come out with one?

"A. Not during my stay there. They just couldn't match the finish.

"Q. When you came out with 'Everbright,' what companies adopted it for decking material?

"A. Ford, Chrysler.

• • • • •

"Q. How long after the first six months of 1926 did you continue to have a hundred per cent of Fisher's business?

"A. I think it was the latter part of 1926. Fisher decided they would go back to pyroxylin for the Buick Motor Company.

"Q. What happened?

"A. We got an order from them for 63-inch deck material that year. And the following year they were only using rubber on Chevrolet and Oakland I think it was. They were using pyroxylin for decks on all the other General Motors cars.

"Q. From whom were they buying their pyroxylin fabrics?

"A. They went back to Textileather and Duratex.

"Q. Did they continue to buy their——

"A. If I remember correctly, our sales started to decrease to Fisher from 1927 on.

"Q. They continued to buy their 'Everbright' from J. Henry Smith?

"A. What we sold of the rubber deck material they bought from us and they bought some from Carr too. [fol. 4766] We didn't get all of their business then.

"Q. Do you know what was the percentage of Fisher's business in coated fabrics that du Pont had by 1928 or 1929—any period in there you want to select?

"A. Coated fabrics? Are you referring to both rubber and pyroxylin?

"Q. Yes.

"A. I would say that was probably reduced to 30, 35 per cent.

"Q. Was that the situation when you left the company?

"A. Yes.

• • • • • •

"Q. Now, not referring merely to Fisher but to all of the companies that have been covered in your testimony, please state what your selling arguments were. In general, what was your method of attempting to make sales to these companies when you called on the purchasing agents?

"A. Our ability to make shipments when desired or when required; our quality of goods; and our prices in general, as well as giving service.

"Q. Can you think of anything else?

"A. Also our ability to develop new materials for their approval if they so desired."

* * * * *

"Q. Did you use these selling methods and same arguments when you called on motor companies that were not affiliated with General Motors or that were not General Motors units?

"A. Oh, yes.

"Q. Was there any difference in your sales methods when you were attempting to sell the General Motors [fol. 4767] units and when you were attempting to sell non-General Motors companies?

"A. No. I used the same method.

"Q. When calling on the General Motors sales representatives, did you ever refer to the fact that du Pont owned some of the General Motors stock?

"A. Did they refer to it?

"Q. Did you ever refer to it?

"A. No, no, absolutely not.

"Q. Did they ever refer to it?

"A. Not the General Motors purchasing agents.

"Q. They are the ones I am asking about now.

"A. No.

"Q. Were you ever informed by the General Motors purchasing agents or any of them that they were required or instructed by anyone to buy part of their requirements from du Pont?

"A. No, sir. If they were instructed, I would have gotten more business.

"Q. Were you ever told that you would get—by anyone other than the General Motors purchasing agents—business from the General Motors units because du

Pont owned part of the General Motors common stock?

"A. No, sir.

"I worked just as hard to get General Motors' business as I did to get any other business.

"Q. Did you ever hear about any arrangement between du Pont and General Motors that du Pont would be given 75 or 80 per cent, or any other percentage, of General Motors' coated fabrics business?

"A. No, sir.

"Q. Did you get that much?

"A. No, sir.

[fol. 4768] "Q. Except in 1922?

"A. 1922.

"And the Chevrolet business, I got a hundred per cent of that several times. But that was only one.

"Q. As far as you know, in your negotiations with the General Motors purchasing agents, who, in the General Motors organization, decided from whom the General Motors units would buy coated fabrics?

"A. As far as I know, it was the Director of Purchases.

"Q. Of each individual unit?

"A. Each individual unit.

"Q. Or company?

"A. Yes.

"Q. Is that the man that you dealt with?

"A. That is right.

"Q. And was that true with respect to each General Motors Company or division?

"A. That is right. Although I do know on one occasion in 1925 that when I lost the Chevrolet business, O'Keefe took it up with Mr. Knudsen before they let the business to competitors.

"Q. Is that the only occasion when you——

"A. That is the only one I know of."

The Court: The Court stands recessed for fifteen minutes.

(Short recess taken.)

The Court: Proceed, please.

"Q. You mean that is the only time that you know of anyone going to any one of their superiors about where they were going to buy?

"A. Yes.

[fol. 4769] "Q. Were you ever informed by anyone in the du Pont Company before you started negotiating with these purchasing agents what percentage of the business you could expect to get?

"A. No, no.

"Q. Did you ever have any knowledge about whether you would make a sale or what percentage of the purchaser's requirements you would sell before the deal was closed with the purchasing agent?

"A. No. From the day I put quotations in, I never knew until the day they would call me to tell me that we had the contract or didn't have the contract.

"They wouldn't tell me we didn't have it. I would have to find out from them whether or not I was going to get it. I never knew in advance whether I was going to get the business or not.

"Q. And the contracts that specified the yardage to be delivered as distinguished from the contracts that called for requirements, were they handled in the same way?

"A. Yes.

"Q. And who fixed the yardage figure that appeared in those contracts?

"A. The purchasing agents of the individual units.

"Q. Now, is what you are saying now true of all of the General Motors individual units?

"A. That is true.

"Q. Did you know what that yardage figure was going to be ordinarily before you got the contract back?

"A. No. Because I never knew what their schedule would be.

"Q. Then you could figure up their total requirements on the basis of their published production figures?

"A. That is right."

[fol. 4770] Mr. Neitzert: Then page 116:

"Q. Mr. MacShane, during the period that you were in the Detroit office of the du Pont Company, were you ever successful in inducing the General Motors companies or divisions as a group to buy a larger percentage of their requirements of coated fabrics from the du Pont Company than they had previously been buying from the du Pont Company; and, if so, will you state on what occasions that occurred?

"A. Does this refer to both the 'Fabrikoid' and the top material?

"Q. Yes.

"A. Well, one of the principal reasons why I was able to persuade the different units to buy more material from us was the development of the new 'Pontop' rubber top material.

"Q. When did that occur?

"A. First year I went to Detroit—in 1919.

"Q. That was developed in 1918; and just coming out when you came there?

"A. That is right.

"Q. Was there any other time when you were able to increase the percentage of the requirements of the General Motors units that came from du Pont?

"A. About the only thing I can remember, if this is relevant, was the 1922 situation.

"Q. You mean the requirements contracts that you got as a result of that 1922 settlement of the 1920 contracts?

"A. That is right. That year we got 100 per cent from all of them.

"Q. That is the second. Now, were there any others?

"A. Well, the next one would be the development of the Everbright finish which was superior to the Pontop. [fol. 4771] "That came out in 1925.

"Q. You supplied a larger percentage of General motors requirements of coated fabrics after the Everbright decking came out than you did before; is that right?

"A. That is true.

"Q. Now, was there any other occasion?

"A. I say that is true. That is true in this sense: because up until we produced the 'Everbright' finish, Fisher Body had been using pyroxylin. Then when J. Henry Smith came with the company in 1925, he persuaded the Fisher Body to replace the pyroxylin top material they had been using with the 'Everbright'. That increased the volume considerably.

"Q. You have testified about that in connection with your testimony about Fisher. You are now referring to the same thing, aren't you?

"A. Yes, sir.

"Q. Now, was there any other time while you were with the company when you were able to induce the General Motors units to increase the percentage of their requirements that they took from du Pont?

"A. Well, as the years went by, the individual units were buying less.

"Q. I am talking about the percentage of their requirements, not the volume.

"A. I see. Not until 1927.

"Q. What happened then?

"A. That was the first year I was able to sell Buick 'Teal'. 1927 and 1928 and 1929.

"Q. So when 'Teal' came out, you were able to increase——

"A. Increase the percentage sold.

"Q. To Buick?

"A. Yes.

[fol. 4772] "Q. Were those all of the occasions you were able to increase your sales to the General Motors units in the period you were with the company?

"A. Yes.

* * * * * *

"Q. When you entered the Detroit sales office in the spring of 1919, did your duties include servicing any contracts that had been made with the Ford Motor Company?

"A. Yes.

"Q. What kinds of coated fabrics were being delivered to Ford at that time pursuant to those contracts?

"A. The rubber top material, and the 'Fabrikoid' 6000 quality of the sateen for upholstery and interior trim.

"Q. In general, were these large contracts or small contracts?

"A. Large.

* * * * * * *

"Q. What use did Ford make of these fabrics?

"A. The rubber material was used for tops and curtains.

"Q. And the 'Fabrikoid'?

"A. The 'Fabrikoid' was used for upholstery and interior trim.

"Q. Was Ford making any of its own coated fabrics at that time?

"A. When I went to Detroit they were just building a plant.

"Q. What kind of plant was that?

"A. For pyroxylin coated materials.

"Q. When did that plant go into production?

"A. I believe it was the following year. 1920.

"Q. Did that cut down the quantity of fabrics that Ford bought from du Pont?

"A. Yes.

"Q. Did Ford continue to buy fabrics from du Pont during 1919 and 1920?

"A. Yes."

[fol. 4773] Mr. Neitzert: At the bottom of page 124:

"Q. When, after 1922, were you able to make your first sale of rubber coated materials to Ford?

"A. It was a couple of years after—1924.

"Q. And were your sales after 1924 of rubber-coated goods to Ford substantial or were they insignificant in amount?

"A. Well, they changed their method of buying. At one time they were buying for the entire year. Then they changed over to a six months period.

"I believe in 1924 it was substantial in comparison with what we had sold them, but not as far as their production was concerned. We only sold them about a hundred thousand yards, I guess.

"Q. Then what happened when 'Everbright' came out?

"A. We did not sell 'Everbright' to Ford until—they cancelled the order for pyroxylin; they were still using 'Pontop' in 1925. That was before it was really put on the market. In 1925 we sold them a substantial yardage of 'Pontop.'

"Q. And in 1926, what happened?

"A. We also sold them a substantial yardage.

"Q. Was that when they adopted 'Everbright'—in 1926?

"A. No. They did not go to 'Everbright' until after we got the order for pyroxylin. That was in 1928.

"Q. What happened then?

"A. We continued to sell Ford 'Everbright' up until the time I left there; they were still selling them.

"Q. Did you have a hundred percent of the top business when you were selling them 'Everbright'?

"A. I doubt it.

[fol. 4774] "Q. Were your sales substantial?

"A. Very substantial.

"Q. How did your volume or yardage of 'Everbright' sold to Ford compare with your volumes of 'Everbright' sold to Fisher during these years?

"A. That would be from 1918 to 1928?

"Q. Yes.

"A. We sold more to Ford than we did to Fisher."

Mr. Neitzert: Then the top of page 129:

"Q. Did you solicit business from the Ford Motor Company in the same way that you solicited business from the various General Motors companies and divisions?

"A. Yes, sir.

"Q. Was there any difference in your approach?

"A. No.

*   *   *   *

"Q. When you went to the Detroit office in 1919, did you have any occasion to service deliveries under contracts to Willys Overland?

"A. Yes, I did.

"Q. What type of fabrics were covered by those contracts?

"A. We were selling them only top material—rubber.

"'Q. Were they substantial contracts?

"'A. Yes, they were.

"'Q. What kind of rubber goods was this?

"'A. It was double texture regular drill, with a sheeting backing.

"'Q. Was this the 'Pontop' that we came out with in 1918 and 1919?

"'A. Yes.

[fol. 4775] "'Q. By 'we', I mean the du Pont Company.

"'A. That is right.

"'Q. Do you know whether you had all of their business or not?

"'A. I believe we had all of the business on top material in 1919 when I went there.

"'Q. Did you continue to sell them all of their requirements of top material?

"'A. No.

"'Q. When did you lose the business or part of it?

"'A. Well, during the recession of 1920, Willys Overland was in pretty bad financial straits. And I never put too much effort trying to get any business while they were in that position, because I knew if we did, why, I would have to ask them to have it shipped C.O.D.''

Mr. Neitzert: Then the top of page 133:

"'Q. When was the Chrysler Company formed?

"'A. Chrysler went down and took Willys Overland over in 1920. And he was there a couple of years. And then he came up to Maxwell-Chalmers Motor Company. And they were in financial straits, and he straightened them out. And he took over the whole works in 1925 I think it was.

"'And then it became the Chrysler Motor Company.

"'Q. Did you solicit their business at that time?

"'A. Yes.

"'Q. To whom did you talk?

"'A. Well, in the early days there was a man there they called Colonel Downey. He was with the old Maxwell regime. And I never sold him any though. And there was also a man by the name of Raleigh.

[fol. 4776] "'Q. When did he come?

"A. I think Raleigh came around 1926 or 1927.

"And the first order we got from Chrysler was for 'Teal' deck material.

"Q. When was that?

"A. I believe that was in 1927. It may have been in 1926, but I think it was 1927.

"Q. Do you know whether you continued to sell fabrics to Chrysler after that?

"A. Yes. We sold them in 1927. Before that, Haartz had been selling them. And in 1928, Haartz got the business back.

"They were considerably under our price. And we got a sample of the material that Haartz was supplying and sent it into Fairfield to be analyzed and tested. And it proved not to be a fast dye. It was a fugitive dye as against the fast dye that we had sold them the previous year.

"So Nickowitz came out to Detroit, and we went over to——

"Q. Who was Nickowitz?

"A. He was our chemist at the time in Fairfield.

"And he went over to Chrysler with Jim Tomlinson—Tomlinson was working in our office at that time—and they ran the same test at Chrysler, and proved to Raleigh that it was a fugitive dye.

"So then we regained the business; we still had it when I left.

"Q. I believe you have already testified that when Everbright came out; Chrysler started using that?

"A. Yes.

"Q. Did you call on Chrysler in connection with these sales of Everbright and 'Teal'?

"A. Yes. I had called on Dodge—I had called on [fol. 4777] them for years. And Dodge was taken over by Chrysler in 1928. That is when they used our Everbright.

"Q. Did you use the same sales approach to Chrysler that you did with the General Motors companies?

"A. Yes, sir.

"Q. Any difference in your selling methods?

"A. I only had one method.

"Q. Did you have all of Chrysler's business?

"A. No.

"Q. Did you try to get it all?

"A. Yes.

"Q. What reasons did they give for not giving you all of their business?

"A. They wanted two sources.

"Q. Do you know about what percentage of Chrysler's business you had during these years?

'A. I guess we had probably 75 per cent."

* * * * * *

"Q. Now, did you solicit the business of the Durant Motor Company while you were in the Detroit office?

"A. I did.

"Q. Over what period of time did you do that?

"A. I think they built the plant in Flint in 1919. The purchasing agent there was Roy Heurlich.

"Q. Is he the one you did business with and had your conversations with?

"A. That is right.

"Q. Were you able to sell him any coated fabrics?

"A. No. We were very friendly, both inside the office and out; and he intimated to me that there was not any possibility of my getting any business from Durant.

[fol. 4778] "Q. Did that attitude on the part of Durant later change?

"A. Not until they got in trouble. That was about 1922.

"Q. And they started buying from you then?

"A. Well, Roy Heurlich called me up one morning. I was still in the Dime Bank Building. And he asked me if I could help him out. He said they would have to close down at noontime if they did not get some top material.

"So I had been selling another customer who made automobile trunks with a heavy moleskin covering down at Wyandotte. And I asked them if I could borrow or buy back about 600 yards of their material. They told me I could.

"So I called Heurlich and told him I could pick it up. I drove to Wyandotte, and they loaded it in my car.

And Heurlich drove from Flint into Birmingham—that is about halfway—and met me with his car. We just transferred the material from one car to the other.

"So later, the next time I called on Heurlich, he told me that he had told the president, a Mr. Holler, about the services that we had rendered for them. He had told him that those services had kept the plant open. And Holler told him that any time in the future that they were in the market for any top material to give us every consideration.

"Q. What happened after that?

"A. We got some business.

"Q. Did you solicit the business of the Packard Motor Company while you were in Detroit?

"A. Yes.

"Q. Did you get any of their business?

"A. Yes."

* * * * * *

[fol. 4779] "Q. Did you get substantial business from them?

"A. Yes. I got, I think, probably 75 per cent of their interior trim."

Mr. Harsha: Would you read the next question, please, just preceding the exchange.

Mr. Neitzert: (Reading):

"Q. Did they adopt 'Everbright' when it came out?

"A. No.

"Q. And did you continue to get their business as long as you were in Detroit?

"A. Yes.

"Q. Who made closed bodies for Packard?

"A. Murray Body.

"Q. Did you solicit Murray Body?

"A. Yes, I solicited and sold Murray Body.

"Q. Did you get a substantial amount of business from Murray Body?

"A. Yes.

"Q. Did you continue to get it all the time you were in Detroit?

"A. Yes, sir.

"Q. Did you solicit the business of the Graham Motor Company?

"A. Yes.

* * * * * *

"Q. Were you successful in getting business from them?

"A. Yes. I got a little busines from them.

"Q. Over what period did you sell coated fabrics to Graham Motor Company—or the Graham-Paige Company?

"A. Well, I think the last I sold them was just before I left Detroit, in 1928. I sold them substantial quantities of 'Teal' to be shipped directly to Briggs.

[fol. 4780] "Q. Did Briggs build their bodies, their closed bodies?

"A. No. This was for open cars.

"Q. When did you first start selling to Graham? Or making sales to Graham, I mean?

"A. Oh, I think some small yardages early in the 1920s.

"Q. Did you make——

"A. I never got the majority of the business from Paige.

"Q. You did not have the majority of it?

"A. No.

"Q. Did you have a substantial amount of it?

"A. Yes, I had a substantial amount of it.

"Q. Did you try to get all of it?

"A. Naturally.

"Q. What did they say about that?

"A. They had been buying from one source for years, and they continued to buy from them.

"Q. Now, did you solicit the business of other and smaller automobile manufacturers?

"A. I solicited the business of every known manufacturer out in that district.

* * * * * *

"Q. How long were you in Mr. Kniffen's office working with him?"

This is the cross examination by Mr. Harsha. I have a few excerpts of the cross I want to read:

"Q. How long were you in Mr. Kniffen's office working with him?

"A. From January until August of 1917.

* * * * * *

"Q. You went into the Service at approximately what time? I mean the Armed Services?

"A. September—I left in August 1917; and I went into Service September 1917.

"Q. And you were in Service until when?

[fol. 4781] "A. Until January 1919.

* * * * * *

"Q. Do you recall conversations with either Tatum or Stark in which they would inform you: 'Yes. Today I landed the contract for the entire requirements for Chevrolet' for example?

"Would you have conversations of that sort?

"A. Yes. Stark and I were very close. We discussed practically all of the business.

* * * * * *

"Q. Did you ever know a man by the name of C. Hallock Silkman?

"A. He was sales manager of the New York office when I was at Newburgh.

"Q. What was the division of function between the New York office and the Detroit office on sales?

"A. In New York, they just covered the State of New York and Jersey, I believe. It was just a branch office of the central office.

"Q. Were they also selling to General Motors units from the New York office?

"A. No, they didn't sell the General Motors unit. When they bought in New York City that was handled direct by the Sales Department. Either from Newburgh or from Wilmington.

"Q. Did you know a Mr. Burckel?

"A. Burckel?

"Q. J. A. Burckel.

"A. The name sounds familiar, but I can't place him.

"Q. Your answer is that you cannot place him?

"A. I can't place him, no.

"Q. Did you know a man by the name of Mr. Earle Clark?

"A. No.

"Q. Never heard of him?

"A. Never heard of him.

"Q. Did you know that General Motors was sending information on its purchases directly to the du Pont [fol. 4782] Company in 1920?

"A. No. General Motors was sending information on their purchases in 1920?

"Q. To the du Pont Company; what it was was information showing where the business was placed. Did you know that?

"A. No. I would imagine that would have been through Stark. I didn't know General Motors sent it direct.

"Q. You do not recall ever seeing any reports of that nature?

"A. No.

"Q. Did you know a man by the name of Mr. C. O. Terpenning?

"A. Yes.

"Q. Did you know him?

"A. Yes. He was at Newburgh.

"Q. What was his position?

"A. He was a clerk, correspondence clerk, on automotive sales.

"Q. Was he under your jurisdiction when you were office manager there?

"A. No. He didn't work for du Pont then.

"Q. He came in after you left?

"A. Yes, after I left.

"Q. I want to show you an exhibit which was introduced at the trial as Government's Exhibit No. 297, on the stationery of the du Pont Fabrikoid Company.

"It is a letter dated July 12, 1918, addressed to Mr. J. A. Haskell, in care of the Chevrolet Motor Company, New York City. And it is signed: du Pont Fabrikoid Company, per C. O. Terpenning.

"He states that: 'We attach hereto report of General Motors units for month of June showing unfilled yardage June 1st, yardage placed during June, yardage shipped during June and unfilled yardage as of July 1st. Also Report showing competitive Sales to June 30th.'

[fol. 4783] "And I ask you whether you have ever seen a report similar in nature to that.

"A. Never have.

"Of course, this happened in 1918. But I never saw any previous or subsequent reports."

"Q. I believe you testified that until the spring of 1923 all of the purchases by Chevrolet were made in New York; is that correct?

"A. That is true.

"Q. Now, when you say they were made in New York, was that arranged between the New York office of Chevrolet and the New York office of the Fabrikoid Company?

"A. No, it was the New York office of Chevrolet against the Sales Department in Newburgh. I don't think any of the salesmen connected with the New York office ever call on Chevrolet."

* * * * *

"Q. Mr. MacShane, I want to ask you some questions now concerning your testimony on direct examination regarding sales by the du Pont Company, Fabrikoid Division, to the Buick unit of GM.

"On your direct testimony, I believe you stated that in 1919 when you reported to the Detroit office, Buick bought approximately 50 per cent of its requirements from du Pont.

"Can you state whether that referred to both rubber and Fabrikoid?

"A. That is right."

* * * * * *

"Q. Now, did the percentage of requirements supplied by du Pont to Buick change in 1920, if you recall?

"A. No. It was about the same in 1920 as it was in 1919.

"Q. And how about 1921? Do you recall?

[fol. 4784] "A. Well, 1921 was a bad year. 1920 was the recession. And whatever they used in 1921 was from the contract that was negotiated in 1920.

"Q. That was a carry-over from the previous year?

"A. Yes.

"Q. They were still drawing against the contract requirements of the 1920 contract?

"A. That is right.

"Q. Now, are you sure in your own mind that du Pont was not supplying the full requirements of Fabrikoid in 1920 to Buick? Is your recollection clear on that?

"A. My recollection of Buick is that we did not supply them a hundred per cent at any time except in 1922.

"Q. I would like to show you Government's Trial Exhibit No. 420."

* * * * *

"Does that refresh your recollection at all concerning that particular period of time?

"A. No. I don't know where these figures came from, or who compiled them; but my recollection—and I have a pretty good memory—is that I do not think I ever sold Buick a hundred per cent except in 1922.

* * * * *

"Q. I would like to show you Government's Exhibit 460, which was introduced at the trial of this case and which is a memorandum dated January 27, 1927 written by Lammot du Pont to Messrs. P. S. du Pont and J. J. Raskob.

* * * * *

"Q. Isn't it true that in 1928, du Pont sold Buick [fol. 4785] all of its requirements of 'Fabrikoid'?

"A. Not to my recollection it is not."

Mr. Neitzert: Then over on bottom of page 190:

"Q. Well, now, do you recall whether you supplied any of the rubber-coated fabric requirements of Buick during the last half of 1925?

"A. Yes. We got about 50 per cent of the rubber, but we did not get any of the 'Teal.'

"Q. And do you recall whether you supplied any rubber-coated fabrics to Buick for the first half of 1926?

"A. About 50 per cent.

* * * * * *

"Q. Now, in regard to your testimony on Oldsmobile, I believe you stated that here again, as in Buick, following the difficulty on the cancellation of 1920 contracts, du Pont got the entire requirements of Oldsmobile in 1922?

"A. That is right.

"Q. I believe you also testified that was the only time that du Pont had a hundred per cent of the 'Fabrikoid' business.

"A. That is true.

"Q. Do you have any explanation for the fact that Oldsmobile is shown in this Exhibit No. 460 as buying none of its 'Fabrikoid' other than from du Pont?

(Document handed to the witness.)

"A. I don't know where they got these figures, but I cannot agree with them, because they were still buying from Textileather.

"I know I never sent in a report stating that I was getting a hundred per cent of the business.

[fol. 4786] "Q. During the period that you were in the Detroit office, would you say that du Pont had a reputation as being a high-priced firm on 'Fabrikoid' and rubber-coated fabrics?"

"A. I would not say high-priced; I would say high-class.

"Q. Well, I am talking about price.

"A. No. We were in line with some of the better manufacturers such as Chase, Zapon, Carr, Haartz.

"And then we get down to Boston Woven Hose, Heath, and O'Bannon. They were noted for a cheaper quality than du Pont.

"Q. Did you ever hear of an outfit called Federal Leather?

"A. Yes.

"Q. What kind of products did they make?

"A. They made a good imitation leather. But they were a very small concern.

"In fact, I understand that they did not even get any business to amount to anything until Ralph Allen, who used to be sales manager for the Duratex Company, went with them. And he sold some Federal Leather to Fisher Body.

"Q. Was it a high quality leather, artificial leather?

"A. Yes. High quality, small production.

"Q. What would you characterize as a large price differential per yard on 'Fabrikoid'?

"A. Five cents.

"Q. Five cents is a large difference in price between competing firms in this field?

"A. Yes. There were cases where it can go as high as 10 or 15 cents lower.

"Q. Would a differential of 11 cents be considered rather extraordinary?

"A. Yes.

[fol. 4787] "Those, sound like quotations when some competitor wanted to get his foot in the door.

"Q. Do you recall an incident in 1926 covering the contract period for the first half of 1927 when du Pont got the 'Fabrikoid' business of Buick, although their prices were 11 cents a yard higher than Federal Leather?

"A. That could be possible, because Federal Leather could not be relied upon to meet Buick's requirements. They were not large enough.

"Mr. Neitzert: He asked you if you remembered it.

"The Witness: No, I do not remember that specific case.

"By Mr. Harsha:

"Q. Now, on your testimony concerning GM Truck, I believe you said that about 1925 the Yellow Truck was combined with GM Truck; is that correct?

"A. That is correct.

"Q. And am I correct in assuming that the purchases for what had been Yellow Truck and also GM Truck were now unified?

"A. That is right.

"Q. Unified purchasing?

"A. Yes.

"Q. You stated, I believe, that beginning somewhere about 1925 or 1926, du Pont sold fabrics to Yellow Truck.

"Q. Do you recall that?

"A. Well—

"Q. My question is: do you recall what kind of fabrics? I don't think that on your direct testimony you were clear on that.

"A. That is coated fabrics—'Fabrikoid'.

"Q. How about rubber-coated?

"A. We did sell them some rubber; but they were [fol. 4788] using a lot of canvas for their big trucks. We did not sell any of that.

"Q. In that period 1925 to 1926, did you sell them all of their requirements of 'Fabrikoid'?

"A. No.

"Q. Do you recall what proportion of the business you had?

"A. I don't think I had over 50 per cent—40 to 50 per cent—of the fabrics business.

"The same applies to the rubber business from the time that the Yellow Truck came to Detroit. That is from 1925 on.

"Q. On upholstery you had all the business though, did you not?

"A. Yes. You mean up to 1925, or beyond 1925?

"Q. I meant after.

"A. After 1925 we did not get all of it. Chicago Decorative Leather got some of it.

"Q. Did you remember the relative proportions?

"A. 50-50.

"Q. Are you sure?

"A. No, not positive about the percentage. But it is approximately 50 per cent.

* * * * * * *

"Q. Now, you ceased calling on Fisher after 1925; is that right?

"A. That is right.

"Q. That is when this J. Henry Smith was brought in as the special representative; is that right?

"A. That is right.

"Q. Did you keep in touch with the sales that du Pont was making to Fisher, nevertheless, after that period?

"A. Yes.

"Q. That is after 1925?

"A. That is right.

"Q. You did?

"A. Yes.

"Q. Did you see the contracts let?

"A. I saw copies of the orders.

[fols. 4789-4796] "Whenever we got an order in the Detroit office we always made copies of it and sent the original into Newburgh.

* * * * * * *

"Q. Did you ever hear of a meeting of Mr. W. P. Allen who was the General Manager, I believe, of your Cellulose Products Division, with the Director of Purchase, Mr. Main, and the Assistant Director of Purchase, Mr. Lynah, and J. L. Pratt, and Mr. O'Keefe and Mr. Hulgrave in Detroit in about 1923 regarding the percentage of the business which du Pont could sell to GM?

"A. Yes, I heard of the meeting.

"Q. From whom did you hear of the meeting?

"A. I think it was O'Keefe.

"Q. Did he tell you about that meeting.

"A. Yes, that is the time that he told me they had to have two sources and they would not give us over 75 per cent of the business. And I also knew Jim Lynah.

"Q. Were you informed by Mr. O'Keefe or Mr. Lynah that you were to get 80 per cent of the business?

"A. Oh, no, I was never informed by anybody that we would get any certain amount of business. The only thing that I was ever informed of was that O'Keefe told me we would not get over 75 per cent of the business, whether we would get 50——

"Q. Did you know Mr. Allen, your General Manager?

"A. Oh, yes, very well.

"Q. Did he ever tell you about that meeting?

"A. No.

Mr. Neitzert: That is all of the deposition that I care to read, your Honor, at this time.

[fol. 4797] Cross Examination.

Turning to page 170, in the middle of the page:

"Q. Was there a trade rumor at that time that because of du Pont's purchase into the General Motors Company that the business would go to du Pont?

"A. I wouldn't say it was a rumor; it was more of a feeling.

"Q. Do you think that feeling led to the lower prices quoted by your competitors?

"A. I am sure it did.

"In one instance in Chevrolet in 1925, I always had the feeling that those three competitors that took the business were sorry for themselves for taking it or putting in such a low quotation."

Turning to page 171:

"So, it is not true that you had the 'Fabrikoid' contract supplying Chevrolet's requirements of 'Fabrikoid' from the last half of 1923 to 1925?

"A. That is right.

[fol. 4798] "Q. Didn't you have the 'Fabrikoid' contract from 1925 until the time you left the Detroit office for Chevrolet's requirements?

"A. That is right."

Turning to page 175:

"Q. Now, I believe you testified, or have already covered the fact, that you got the rubber-coated fabrics contract for Chevrolet for the last half of 1923.

"A. That is right.

"Q. That was your first contract?

"A. Yes.

"Q. And that was for the entire requirements of Chevrolet?

"A. Specified quantities.

"Q. Were you informed as to whether that was the total requirements purchased by Chevrolet?

"A. Yes, that is right, both on 'Fabrikoid' and top material.

"Q. That was their total requirements of both 'Fabrikoid' and rubber-coated fabrics?

"A. Yes.

"Q. That was the last half of 1923.

"A. That is right.

"Mr. Neitzert: Are you talking about the last half of 1923? What was the witness' answer?

"Mr. Harsha: He said 100 percent of their total requirements, I believe.

"The Witness: No; wait a minute; that was the year I only got 75 percent—in 1923—75 percent of rubber. That was when they first came out with this two sources of supply business.

"By Mr. Harsha:

[fol. 4799] "Q. Now, you stated that you did not get the top materials business for Chevrolet in the first half of 1924 because your prices were high; is that substantially what you testified to?

"A. That is right.

"Q. Do you recall how much higher your price was than that of your two competitors who got the contract —O'Bannon and F. S. Carr?

"A. I don't recall the exact price differential.

"Q. Were you substantially higher?

"A. Yes. It was so high that we could not consider it."

I believe there, Mr. Neitzert, the witness, MacShane, asked that the "we" be changed to "they."

So, let the answer read:

"It was so high that they could not consider it."

"Q. Now, you got the rubber contract for the last half of 1924, did you not?

"A. Yes.

"Q. Rubber-coated fabrics contract.

"A. That is right.

"Q. Were your prices in the last half of 1924 lower than those that you had submitted on the previous bid?

"A. I believe it was about the same.

"Q. About the same price?

"A. Yes.

"Q. Do you know whether Carr and O'Bannon underbid you on that last half of 1924?

"A. I don't know what their quotations were; but I know that Chevrolet had trouble with the material breaking.

"Q. The material was inferior. Your competitor's material was inferior?

"A. That is right.

[fol. 4800] "Q. Who got the rubber-coated fabrics part of that contract for the second half of 1924?

"A. Carr.

"Q. How do you account for the fact that for the first half of 1925, Carr also got part of the contract for Chevrolet on the rubber-coated materials?

"A. Carr, Heath, and Haartz. They were lower than they were on the first half of 1924; considerably lower. And we would not meet the competition. We wouldn't lower our final quotation.

"Q. Had the quality of their product changed in that year?

"A. To me, it looked worse. That is when we had to come to Chevrolet's rescue.

"Q. Now, after that period for the first half of 1925 when Heath, Haartz, and Carr were the suppliers for Chevrolet's rubber-coated fabrics, du Pont got the Chevrolet requirements thereafter, did they not?

"A. That is true.

"Q. Up until the time that you left the Detroit office?

"A. Yes.

"Q. Which would be for, say, the first half of 1929?

"A. That is right, yes.

"Q. Did the rubber-coated fabrics contracts bulk larger in dollar volume than the artificial leather contracts?

"A. Yes."

Mr. Harsha: That is all, your Honor.

Mr. Neitzert: Your Honor, I should like to offer in evidence an exhibit which I missed when I was offering my documentary case, and I ask that this exhibit be marked and received as Defendant's Trial Exhibit DP-328.

[fol. 4801] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 328.)

Mr. Neitzert: May I hand you a copy for your book?

Mr. Cox: May it please the Court, with the Court's permission, before calling the next witness, I should like to make a very brief statement about the line of proof that is to follow.

The Court will perhaps remember that, when Mr. Williams was testifying a week or ten days ago about the sale of automotive paints to General Motors, he testified that he sold all of the divisions of General Motors except three —the three divisions being Frigidaire, Electro-Motive, and Packard Electric.

Our next line of proof has to do with the sales made by du Pont to those three divisions. I had intended to begin this line of proof with witnesses from the Frigidaire Division who would describe their activities in selling finishes to Frigidaire Division of General Motors. Unfortunately there is a witness who will testify on another aspect of that question who can be in Chicago only today.

He is in the employ of another company, and that is to say not du Pont or General Motors, and it will therefore be necessary for me to depart somewhat from an orderly and logical order of proof, and call that witness first.

I make that statement, your Honor, so you will understand why it is done that way.

We call Mr. Knight.

[fol. 4802] J. L. Knight, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Cox:

Q. You are J. L. Knight?

A. Yes.

Q. Where do you live, Mr. Knight?

A. In Louisville, Kentucky.

Q. What is your occupation at the present time?

A. I am Manager of Engineering of the Major Appliance Division of the General Electric Company.

Q. How long have you held that position?

A. Since early 1951.

Q. What position did you hold, if any, in General Electric before 1951?

A. I was assistant manager of Engineering of the Appliance and Merchandise Department of the General Electric Company.

Q. Now, what were your duties when you held that last position?

A. Well, this was when I was in an overall capacity of the Appliance & Merchandise Department. This is after I was in the Refrigerator Department in Erie.

Q. And prior to that time, had you been employed in the Refrigerator Department in Erie?

A. Yes, as manager of Engineering of that department.

Q. How long did you hold that position?

A. Oh, since I was manager of Engineering, since about 1946.

Q. And had you been at Erie before that?

A. Yes, I was at Erie starting in 1931.

Q. Now, what were your duties in 1931 in Erie?

A. I was in charge of the Refrigerator Cabinet, Design, [fol. 4803] Development, and Engineering Supervision of Manufacturing, and in charge of the laboratory activities which was responsible for the selection of materials and processes.

Q. Now, you say you are responsible for the selection of materials.

Did you have any responsibility with respect to the selection of finishes for the cabinets for the ice boxes?

A. Yes.

Q. What were your responsibilities in that respect?

A. It was my job to review the results of laboratory and field tests, and to act as the final judge of what materials we were to use in our production.

Q. Do you now have any duties with respect to the finishes that are used on cabinets of refrigerators that General Electric makes?

"A. No, except in a very general sort of way. I am on an operation staff now; not in the operating position.

Q. Do you know by reason of your position with General Electric whether the General Electric is now buying any finishes from the du Pont Company?

A. Oh, yes.

Q. What kind of finish does it now buy from du Pont?

A. We buy a "Dulux" for use on our household refrigerators and our food freezers.

Q. Is that a top coat that you are speaking of?

A. That is both top coat and prime coat.

Q. What kind of material is that? Specifically, is it a nitrocellulose or a pyroxylin material?

A. No, it is not. It is a synthetic resin type of material which requires a high bake.

Q. Can you tell us when General Electric first began to [fol. 4804] use this "Dulux" finish on its refrigerators?

A. Yes, we started using it in production in 1932.

Q. What kind of a finish were you using before that date?

A. Nitrocellulose material.

Q. Do you know what company manufacturing refrigerators first used "Dulux" as a finish for its refrigerators?

A. I believe the General Electric Company.

Q. Did General Electric use that finish before Frigidaire did?

A. I believe so. I am quite sure they did.

Q. What is the basis of that answer, Mr. Knight?

A. Well, it was our practice, and still is, each year to purchase samples of our leading competitors' products, and I remember rather distinctly that the samples that we purchased did not have "Dulux" on them.

Q. Now, do you recall any of the circumstances surrounding the adoption of the "Dulux" finish by General Electric?

A. Oh, yes. In the early 30's or in 1930 and 1931, we were very vigorously seeking a material for the finish of refrigerators better than the nitrocellulose materials which were available and which we tried from the various sources. We had a very extensive testing program under way on the various kinds of finishes in an effort to get one which was much better than the one we had, and it was at that time that the du Pont Company submitted samples of this very new material, "Dulux", to us. We subjected these samples to laboratory tests, and it looked so good from a laboratory standpoint that, in July of 1931, we made several hundred refrigerators finished with this new material and put them into the field for actual test under field conditions. Then, about a year later, we made surveys of these refrigerators finished with "Dulux" in the field, and found them [fol. 4805] to be very substantially better than the nitrocellulose finished refrigerators; and, since we were so eager to get a much better finish, we insisted on putting the "Dulux" into production, even though the du Pont people weren't quite ready to go. We put this material into production though, and our field troubles largely disappeared.

Q. What part did you personally take in this activity? Were you engaged yourself in the testing, and that sort of thing?

A. Yes. This preliminary testing work was always done in our laboratory, and I inspected the panels, the test panels that were subjected to various sorts of humidity and various other kinds of tests.

I followed very closely at that time this testing in the laboratory, and then initiated the application of this material to the several hundred samples for field tests.

Then the engineers under my direction went to the field and actually inspected these in the field, in the customers' homes.

Q. Did any representatives of the du Pont Company work with you in this enterprise?

A. Oh, yes. The technical service from du Pont, in adapting this material to our processes and working out the production bugs that a new material of this sort has, was invaluable.

As a matter of fact. I well remember Peters and Jim Bullett and Hopkins—those are three names that occur to me—who were from the du Pont Company and who worked with our production and laboratory people in adapting this material to our processes.

Q. Did they do that work in your plant and in your laboratory?

A. Oh, yes.

[fol. 4806] Q. Now, at this time while you were carrying on this work with the du Pont Company, were you carrying on any similar work with other manufacturers of finishes?

A. Well, we had been testing the materials of quite a number of other manufacturers of the nitrocellulose variety. It was several years, though, before any "Dulux"-type materials were ever brought out by any competitors. They were working largely on the nitrocellulose type of material.

Q. In this period that you are speaking about, which I understand is, roughly, 1931 and 1932, were you working with any other manufacturer on a synthetic finish of any kind?

A. No.

Q. Did the time come then when you decided to use the "Dulux" finish in your entire production?

A. Yes. We started to put it in production late in 1932, and, by 1933, we had converted over completely.

Q. Have you continued to use the "Dulux" finish on your refrigerators since that time?

A. Yes, we are using it today.

Q. Where do you get this finish that you use, from what supplier?

A. From the du Pont Company.

Q. You buy it all from the du Pont Company?

A. Yes.

Q. Do you ever obtain a finish of that kind or buy any quantity of a finish of that kind from other suppliers?

A. We haven't for our refrigerators or home freezers.

Q. Do you ever make test runs of the finishes supplied by other manufacturers?

A. Oh, yes. It is very definitely our policy to have more than one source of supply on all of the materials that we use. We have been testing and seeking an alternate supply almost from the very beginning, as soon as the other com-[fol. 4807] panies began to develop a similar product.

Q. Have you found another source of supply?

A. No, we have not, not as yet.

Q. Today the du Pont Company is your only source of supply for the high-baked white enamel?

A. That is right, for refrigerators.

Q. How many tests have you made of finishes made by other companies, if you know, roughly?

A. Well, I can't quote a number, but we have tested—

we are continually testing samples from other companies. I can recall a half dozen major suppliers that have submitted samples on which we have run tests.

Q. Can you name some of those suppliers?

A. Yes, Pittsburgh Plate Glass, Lowe Brothers, Ault and Wiborg, Sherwin-Williams, and Acme.

Q. Have you, in testing these other finishes, done so only in the laboratory, or have you tested them also in the field?

A. We have tested many of them in the field.

Q. Are those tests confined to a few refrigerators, or do you make a substantial run for your samples?

A. Our general procedure is that we always run a laboratory test first, and if the panel test, the test made under synthetic conditions, shows up well enough to warrant it, then we will make a run on the production line, which may be a matter of hundreds, or even thousands of refrigerators. We have made as many as ten thousand on trial models which we have placed in the field for observation. Our procedure is not to consider changing either the source of material or type of material without having about a three year field test. [fol. 4808] Q. If it is your policy to have two sources of supply, why is it that you have continued to buy all of your high bake white enamel from the du Pont Company?

A. We haven't been successful as yet in getting a competitor of du Pont to supply a material which has the total balance of qualities that we demand in the finish that we use.

I might say, in our refrigerator work, the paint finish, the white finish on these refrigerators and home freezers is subjected to a very severe service.

First of all, they are subjected to kitchen greases. They are subjected to scratch, mar and abrasion. They are subject to color change. Due to the fact that the refrigerators run colder than the surrounding atmosphere, the relative humidity in the vicinity of the surface is high, so that corrosion is a very severe problem in refrigerator finishes.

One last thing is that the white finish is very easily stained by fruit juices and other things.

Our problem has always been to get a finish which had a good balance of all of these five or six qualities that I have mentioned. The competitive finishes that have been submitted frequently would be very strong in one or two or three of these characteristics, maybe even better than the "Dulux" we are using, but would be weak in some one of the other factors.

The fact that du Pont, with its specialized knowledge of this refrigerator finish, has been able to keep such a perfect balance between these various characteristics has enabled it to maintain its position in our testing.

Q. Does General Electric itself make finishes?

A. Yes.

Q. Does General Electric make a high bake white enamel?

A. Yes.

[fol. 4809] Q. Have you tested that high bake white enamel for use on refrigerators?

A. Yes.

Q. Have you ever adopted it?

A. No. Our own people haven't produced a finish which has the specially balanced characteristics that makes it fitted for refrigerator use.

A finish that might be very wonderful for some other product may be unfit or not so desirable for use on refrigerators.

Q. I think a little while ago you stated that General Electric also used "Dulux" enamel and primer on its home freezers, is that right?

A. That is right.

Q. From what company do you get your requirements for these freezers?

A. We use the same material on the freezers as we do on the household refrigerators.

Q. Have you ever used the finishes made by any other company beside du Pont?

A. Not on a production basis.

Q. Have you tested other products for that purpose?

A. Oh, yes, we have.

Q. Why is it that you continued to use "Dulux" alone on your home freezers?

A. Well, for much the same reason as I outlined for the household refrigerators, for this balance of the qualities that we require. The same problems by and large exist for home freezers as for household refrigerators.

Q. Mr. Knight, what other finishes are used on refrigerators besides these high bake white enamels and primers that you have been testifying about?

A. Well, we use, on some of the parts that aren't subjected to the humidity conditions, other materials. For example, on panels, the back panels and the parts of the refrigerator machine that run warm, where they are not subjected [fol. 4810] to these severe conditions, we use other materials.

Q. What kind of materials are those generally?

A. Well, we have used japan for some of the parts, and on some occasions we have used air-dried type materials where the conditions warrant it.

Q. From whom do you buy those materials?

A. We buy them from various companies. One of the suppliers which supplies us japan in quantity has been the Suydam Company. That is about the only one I can remember at the moment.

Q. Mr. Knight, does General Electric at the present time finish the exterior of any of its refrigerators with porcelain?

A. No.

Q. Have you ever used porcelain for the exterior of a refrigerator?

A. Yes. Before the war we made, oh, roughly, five per cent of our production for, perhaps, eight or ten years before the war with a porcelain finish.

Q. Why have you not used the porcelain finish on any of your refrigerators since the war?

A. Well, there are several reasons for that.

First of all, the "Dulux" materials today are considerably better than they were ten or fifteen years ago, so the margin of difference in the quality or the lasting qualities of porcelain and "Dulux" has narrowed down to the point where, in most applications, the customer doesn't get very much for his money when he buys a porcelain finish.

In addition to that, since the war, it has been difficult to get the enameling grade iron that we needed, and the market seems to be shrinking rather than increasing.

Q. You mean the market for porcelain refrigerators?

A. Yes.

[fol. 4811] Q. Is more or less labor required when you make the refrigerator with a porcelain material?

A. With the designs that we have had and the materials available, there has been substantially more labor cost and material cost in the porcelain exteriors.

Q. Mr. Knight, I want to turn briefly now to another subject.

Are you familiar generally with the refrigerants which were used in General Electric's household refrigerators from about 1932 to date?

A. Yes.

Q. What refrigerant does General Electric now use in its household refrigerators?

A. We use Freon 12.

Q. When did you first begin to use Freon 12, if you know?

A. We used it in limited quantities in household refrigerators before the war, starting, I would guess, about 1941 or 1942, thereabouts, in small quantities. After the war, we rather quickly switched 100 percent to Freon 12.

Q. What did you use before the war when you were not using F-12?

A. Mostly sulphur dioxide.

Q. Can you tell us why General Electric did not use F-12 at an earlier date for all of its household refrigerators?

A. Well, in the time when Freon-12 was introduced and was being fairly widely used in some of our commercial applications, which did not come under any part of the General Electric Company, we studied the use of F-12, and we didn't adopt it for the reasons it would require a complete redesign and retooling of our machine, and the cost of Freon at that time was, we considered, prohibitive.

We found no great advantage at that time from the customers' standpoint to use it.

Q. Have you ever heard of a refrigerant called F-114?

A. Oh, yes.

[fol. 4812] Q. To your knowledge was General Electric ever interested in using or purchasing F-114 for use in its household refrigerators?

A. No, I am reasonably sure that we never made any attempt to buy it.

Q. Can you say why you were indifferent to that refrigerant?

A. First of all, we favored the reciprocating type machine, and in the reciprocating type machine the F-114, which is a low pressure, high volume gas, is a disadvantage rather than an advantage. So that in order to use this material, we would have been required to have a completely different design, and all of our tests and studies indicated there would be no advantage from a cost or performance standpoint.

Q. Is the different type of design to which you refer the rotary compressed type design?

A. That is the design for which F-114 seems to be best adapted.

Q. To your knowledge, Mr. Knight, what refrigerator companies in this country have ever used a rotary compressor in their household refrigerators?

A. Frigidaire and Norge and Sunbeam—that is now Seeger. They are the only ones I personally know of.

Mr. Cox: You may examine.

Cross Examination.

By Mr. Harsha:

Q. Mr. Knight, referring to the period 1931-1932, during which I believe you testified that General Electric first began to test "Dulux," what finish had GE used prior to the introduction of "Dulux"?

A. Nitrocellulose lacquers.

Q. From whom did you purchase them?

A. Well, we bought some from du Pont, some from Ault [fol. 4813] and Wiborg, some from Mason Waldham. I believe we bought some from Pittsburgh Plate Glass.

Q. Prior to this time was GE producing a porcelain finished home refrigerator?

A. No. We bought some porcelain finished refrigerators from other companies, but we made none ourselves.

Q. Do you know what other refrigerator manufacturers at this time—I am speaking now of 1931 or 1932 and slightly thereafter—were using porcelain as their finish rather than a synthetic resin finish?

A. I don't believe—I don't know of any company that produced solely porcelain. I know that most of the companies had porcelain models in their lines. What proportion they were, I don't know, but I am very sure that none of them, or none of the major producers at that time, were exclusively porcelain.

Q. How about Frigidaire? What was that?

A. The ones that I am familiar with, they had both the porcelain and nitrocellulose finishes.

Q. Do you know which was the more popular line at that time in terms of finish? Whether they were making more of one——

A. I don't know percentage-wise, no. In our own case, the percentage of porcelain models was very small.

Q. How about Westinghouse? Were they making refrigerators at that time?

A. Yes.

Q. And what were they using?

A. Very largely nitrocellulose finish.

Q. Do you recall any other refrigerator manufacturers who were putting out a porcelain finish refrigerator?

A. I believe that Kelvinator had some porcelain models at [fol. 4814] that time. As a matter of fact, at that period of the production of refrigerators, the majority of the refrigerator cabinets were from ice box manufacturers, such as Siegler and Jewett, and there were a half dozen other makes.

The porcelain exteriors were largely simply steel panels that were fastened on with metal trim, so the problems of porcelain at that time were particularly severe.

Q. At this time, do you recall whether the Frigidaire Division of GM was advertising widely the fact that their refrigerator was a porcelain finish?

A. Oh, yes, they made quite a point of it.

Q. As a matter of fact, wasn't there somewhat of a division of opinion among various refrigerator manufacturers in this period, in the early '30's, over whether porcelain finish or a high bake enamel finish was best?

A. I do not recall any time in the history of the refrigerator business when there was not a difference of opinion about everything, but I believe it was largely a matter of sales propaganda or sales points.

Q. This division of opinion, if I can describe it in that loose fashion, continued over the years?

A. Well, the facts are no manufacturer that I know of today makes a high percentage of its product in porcelain.

Q. How about immediately prior to World War II?

A. The percentage at that time was quite small. As I said previously, around 5 per cent.

Q. Yes?

A. I have not a too clear idea of what Frigidaire's were, but they were the great proponents of porcelain finishes.

Q. Were they still advertising widely porcelain finish [fol. 4815] just before World War II?

A. I do not recall that they were.

Q. How about Kelvinator, were they wide advertisers?

A. I do not recall Kelvinator making much of an issue of the porcelain finish.

Q. Were they known in the trade as being largely porcelain finish manufacturers?

A. Not Kelvinator, no.

Q. What?

A. Kelvinator was not.

Q. How about Westinghouse?

A. No.

Q. Now, where was this "Dulux" used on the home refrigerators? You say General Electric adopted it along in 1932 or 1933.

A. In our Erie Works.

Q. I was not very clear, but I have reference now to the box itself, the refrigerator itself.

Was it used on the outside of the cabinet?

A. Yes, on the exterior.

Q. Now, I believe in one of your previous answers you indicated that today the percentage of porcelain finish used on home refrigerators has declined, is that right?

A. In our own case, we are making none at all. We felt that the reason for using porcelain is probably less today than it was fifteen years ago due to the fact that the quality of the high bake synthetics has so greatly increased over that period of time.

Q. Now, you said, I believe, prior to the war, and for some considerable period of time, that Frigidaire did widely advertise the fact that theirs was a porcelain finish refrigerator, is that right?

A. Yes, they were at the time making both kinds though, I am quite sure.

Q. But they were advertising the porcelain finish, weren't they?

A. Yes.

[fol. 4816] Q. Isn't it true that today Frigidaire is using largely "Dulux"?

A. Yes, sir.

Mr. Harsha: That is all, thank you.

Mr. Cox: That is all, Mr. Knight. Thank you very much.

(Witness excused.)

Mr. Cox: I will call Mr. O'Donnell.

John D. O'Donnell, called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follow:

Mr. Cox: In the case of this witness, your Honor, there will be some documents introduced and a booklet has been supplied.

The Court: Do I have the book?

Mr. Cox: Yes, you have the book.

Direct Examination.

By Mr. Cox:

Q. You are John D. O'Donnell?

A. Yes.

Q. Where do you live, Mr. O'Donnell?

A. Dayton, Ohio.

Q. What is your occupation?

A. I am a salesman in the Industrial Finishes Division of the du Pont Company.

Q. Where is your office?

A. In Dayton, Ohio.

Q. Now, as salesman, do you have any dealings with the Frigidaire Division of General Motors?

A. Yes, I do.

[fol. 4817] Q. What do you sell to the Frigidaire Division of General Motors?

A. I sell primers, "Dulux" enamel, lacquers, general line of industrial products.

Q. How long have you been doing this work in Dayton, Mr. O'Donnell?

A. I came to Dayton late in 1925.

Q. Have you been there continuously since that time?

A. No, I had a break. I was there until 1930, and I came back a year or so later and took up the contact with Frigidaire again in 1943.

Q. When did you first sell finishes to Frigidaire?

A. In 1926.

Mr. Cox: Mr. Harsha, I should like with your permission to make a statement for the record at this time to this effect.

As I think you know, the refrigerator business of General Motors in the early or middle 20's was carried on by the Delco Light Company, and at some point, the date which I hope will be furnished in time by counsel for General Motors, the name was changed to Frigidaire, and with your permission, I propose throughout this examination to refer to Frigidaire throughout the entire period of time.

Mr. Harsha: That is satisfactory.

Mr. Cox: If that is satisfactory to counsel and the Court.

By Mr. Cox:

Q. There are documents in the record which refer to Delco Light as the company which made the refrigerators.

Now, I direct your attention to 1926, which is the time when you say you first sold finishes to Frigidaire. What [fol. 4818] did you sell them at that time?

A. The first material I sold to Frigidaire was black baking enamel. At that time, there were terms used such as rubber black, black finish enamel. That terminology is common to the materials now generally known as black baking enamel. They might be called rubber coated, or black finishing enamel.

Q. Where was this black baking enamel used?

A. It was used on their farm lighting units, ice cabinets, and the compressor of the refrigerator.

Q. Do you know what kind of top coat the Frigidaire was using on the exterior of its refrigerators in 1926?

A. The top coat material that was used was "Duco," or nitrocellulose lacquer.

Q. Did you sell them that material?

A. Yes, I did.

Q. Do you have any general recollection now as to what part of Frigidaire's refrigerator production was finished with "Duco" in 1926?

A. Yes, in 1926, practically all of their production was finished in "Duco."

Q. Did you sell Frigidaire all of "Duco" at that time?

A. Yes, at that time.

Q. Was there a primer used with the "Duco"?

A. Yes, there was a baking primer, and the "Duco" was covered with a lacquer top coat.

Q. Did you sell that primer to Frigidaire at that time?

A. Yes, I did.

Q. Now, did Frigidaire use any other kind of finish on any of its refrigerators at that time?

A. Yes, they used some porcelain.

Q. Was that on a large or small part of their production, if you remember, generally?

A. Well, early in the production, they used mostly [fol. 4819] "Duco" but going into 1927 and 1928, and along there, their porcelain production increased over "Duco" considerably.

Q. Now, I direct your attention again, if you will, to the year 1926.

Do you know where Frigidaire got the porcelain at that time?

A. They made their own.

Q. They made their own?

A. Yes.

Q. Do you recall, or do you know at that time, what their porcelain making facilities consisted of?

A. Yes, I remember quite well. They had two rather small box-type ovens. They were not conveyerized.

Q. Now, you said a moment ago, for some time, as I understood your testimony, Frigidaire continued to use "Duco," and, I take it, the primer on most of its production of refrigerators, is that right?

A. Not for very long.

Q. How long?

A. I would say for a period of up to 1927 or 1928; their production was increasing in porcelain so that the ratio of porcelain finished cabinets to "Duco" finished cabinets was quite high in favor of porcelain.

Q. During this period of time, in 1926 and 1927, to the extent they were using nitrocellulose lacquer for exterior finish, where were they getting it?

A. They were getting it from du Pont.

Q. Now, you referred to something that happened in 1927 and 1928 to porcelain.

What did happen? Did they begin to use more porcelain at that time?

A. Yes, they increased their facilities and upped their production proportionately.

Q. Were you told by anyone in Frigidaire before that date, that they were going to do it?

A. Yes.

[fol. 4820] Q. Were you told why they were going to do it?

A. Yes, we were.

Q. What did they say to you about it?

A. They told us that the "Duco" finished cabinet that they were servicing in the hot, humid, salt air climates in Florida and Texas was not holding up very well; and the porcelain cabinets they were servicing in these areas were showing superior quality over our "Duco" finish, and that is why they were going to porcelain.

Q. What steps, if any, did du Pont take after it received that information from Frigidaire?

A. They sent engineers to the southern climates to inspect the finish of "Duco" as against porcelain, and to report back to us their findings. They confirmed the Frigidaire opinion that the porcelain in those climates was a superior finish to "Duco" finish.

Q. Did you make any investigation about the use of porcelain in other parts, or the use of "Duco" in other parts of the country?

A. Yes, we very definitely did, and were very pleased to find that, in what we classified as the "normal climates" in this country, the lacquer finished cabinets were proving very satisfactory.

Q. Roughly, in what part of the country was it that "Duco" for finsh proved to be unsatisfactory?

A. In the years that we have been running these periodic climate tests, we considered Texas, New Orleans, Miami, Florida, as representing the most severe exposure conditions, and we used Baltimore and Washington as pretty representative of what we call "the other parts of the country."

Q. You used Washington as a representative?

A. Yes. It is surprising.

[fol. 4821] Q. I ask you, when was this specific investigation about which you testified, made, approximately, what year, if you could tell us?

A. Well, we made several.

Q. Well, I am directing your attention to the one you made after you got complaints from Frigidaire.

A. Prior to their increasing their percentage of porcelain?

Q. Yes.

A. 1927.

Q. Now, at that time, did "Duco" have any advantages compared to porcelain as a superior finish of refrigerators?

A. Yes, the "Duco" finish was less expensive to apply, didn't require the baking oven for the top coat—only needed to bake the primer.

The finish was easy to repair in case of a damage, a chip or a scratch, or any damage done to the finish. In the case of the "Duco" finish it was easy to touch up, whereas the porcelain finish could not be repaired. We have not learned yet how to do that. Those are the general differences.

Q. Was there any difference in the shipping problem, so far as porcelain refrigerators are concerned?

A. Yes, because porcelain required special enamel primer to withstand the high temperature of the high baking of porcelain, and the excess weight of the porcelain box, and the hazard of chipping the porcelain, the shipping crate had to be designed of better and stronger material, and it cost more money than the shipping crate that they used for shipping "Duco" boxes.

Q. Now, after you made this investigation in 1927, did you personally try to persuade the Frigidaire representatives not to increase their use of the porcelain?

A. Oh, yes, I did all I could in that respect.

Q. Did other representatives of du Pont in your presence, or to your knowledge, likewise try to persuade Frigidaire [fol. 4822] not to increase its use of porcelain?

A. Yes. I called for some help in this emergency and our director of chemistry of our finishes division, Mr. Callahan, and our general sales manager, Mr. Lackey, came to Dayton, where we had a conference with the Frigidaire officials including the vice president, Mr. Funkhauser, their chief chemist, Mr. Williams, their director of purchases, Mr. Barney, and Mr. Kettering sat in on that conference.

Q. Now, what did you say at that conference, if you remember?

A. We presented the proposition to Frigidaire that, as the "Duco" finished cabinets that had been in service in all parts of the country other than the salt air climates, and so on and so forth, had proven so satisfactory, we felt they should be willing to continue using "Duco" on the boxes that would be used in those climates, and only produce porcelain for the humid, salt area sections, Florida, et cetera.

They didn't go along with this too well, most of them. It so happened Mr. Kettering thought we had a good point. He mentioned that he had in his own use three—if I remember rightly—Frigidaire "Duco" finished cabinets that were quite satisfactory to him, and that he didn't see why they should be required to suffer the expense of porcelain in production and pay more for shipping crates and so forth, but the other Frigidaire people stood by their guns and insisted that they wanted to feature porcelain, and they proceed to increase their facilities and turn out more procelain.

Q. In this conversation did you tell them about the investigation you had made in the field in the different areas in the country?

A. As a matter of fact, we had one of our men who had [fol. 4823] made the last survey, sit with us at this conference, and tell what we had experienced in the study.

Q. Now, I want you to consider this question very carefully and rake your memory, Mr. O'Donnell. Have you told us about all of the arguments you made to the Frigidaire representatives at that meeting that you can now recall? Is there any argument you made to them that you have not mentioned?

A. I cannot recall, but we put every force we could into our proposition. I think we have covered it quite thoroughly.

Q. Did you say anything to them about du Pont's owning stock in General Motors?

A. Oh, no, it never occurred to us.

Q. Did any one representative of General Motors or Frigidaire at that meeting, other than Mr. Kettering, agree with your position?

A. No, I don't think so.

Q. Now, what happened after that meeting? So far as Frigidaire's purchases of "Duco" from you are concerned?

A. Well, their "Duco" purchases increased because their production increased. Their ratio of production, finished in "Duco" as against porcelain, changed to a much higher percentage of porcelain than "Duco."

Q. Can you tell us approximately what percentage of their production thereafter was finished in porcelain as compared with "Duco"?

A. They went up to as high as 80 percent porcelain to 20 percent "Duco."

Q. Over what period of time did that increase take place?

A. Well, that was a gradual turnover on up into, if I recall, 1929, and the ratio was 80 to 20 or better in favor of porcelain.

[fol. 4824] Q. In between the time you attended this meeting that you described and 1930, when I think you said you temporarily left Dayton, did you ever again make any attempts to persuade Frigidaire to use "Duco" as against porcelain, as a superior finish?

A. We continued a campaign towards that end, and always have definitely striven to develop more interest in Frigidaire in "Duco" as against porcelain.

Q. When you left Dayton in 1930, Mr. O'Donnell, who replaced you as the salesman who dealt with Frigidaire?

A. Mr. R. M. Cook.

Q. Is Mr. Cook now alive?

A. No, he is dead.

Mr. Cox: At this point, may it please the Court, I should like to offer the document which has been marked du Pont Exhibit No. 337 for identification, in evidence.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 337.)

Mr. Cox: Du Pont Exhibit No. 337 is a trade report made by Mr. Cook, dated April 13, 1931, and I should like to read the first three sentences that appear on the back of the report:

> "Talked to E. J. Barney, Director of Materials and Supplies, regarding method of handling contacts between du Pont and Frigidaire, sales department, purchasing, engineering and laboratories.
>
> "Mr. Barney said, he would see that sample of Black 2015 submitted some time ago, was tested on Ice Cream Cabinets.
>
> [fol. 4825] "Mr. Barney said that at meeting three weeks ago attended by Mr. Pratt, Vice President, General Motors it was decided again to stick to porcelain for Frigidaire cabinets and that present plans do not call for use of lacquer."

By Mr. Cox:

Q. To your knowledge, Mr. O'Donnell, did Frigidaire ever go back to the use of lacquer generally as an exterior finish for its refrigerators?

A. No, it did not.

Q. Now, Mr. O'Donnell, I want to refer to an incident that occurred in 1926 which is covered by certain documents which have been introduced in evidence by the Government in this case. Those documents are Government's Trial Exhibits 338 and 339.

Mr. Cox: Will you hand Mr. O'Donnell those documents?

By Mr. Cox:

Q. Now, Mr. O'Donnell, were you selling to Frigidaire in 1926?

A. Yes.

Q. I am going to ask you to look at the first of these documents which is Government's Trial Exhibit No. 338, and I call your attention to the first sentence of that document which is a letter from Mr. Pratt to Mr. Elms, and the sentence reads:

> "I have your letter of January 9th in regard to rubber and finishing varnish purchased by Delco-Light from Lowe Brothers."

What was this rubber and finishing varnish, if you know?

[fol. 4826] A. That is the material that I referred to earlier as being now generally known as black baking enamel.

Q. Were there two products or one?

A. There were two products, the rubber varnish was the first coat material, being pigmented to produce some filling properties, and the finishing varnish, also black, was used as the top coat.

Q. And will you tell us again what these particular finishes were used for, if you know, by Frigidaire, at this time?

A. Yes, ice cream cabinets, compressors, receivers, machine compartments, and so forth.

Q. Now, did you ever sell any of these materials—that is to say, the rubber and finishing varnish—to Frigidaire?

A. Yes, I sold some substantial quantities. As a matter of fact, I believe the first order I took for Frigidaire was for these materials.

Q. How many orders did you get from Frigidaire for these materials?

A. One or two orders. There was, I think, a carload of each, or possibly one order covering a mixed carload. We were dealing in materials of—I think the first and only order was about 10,000 gallons—5,000 each.

Q. Did you say the only order? Did you get only one?

A. I believe only one for this material.

Q. That is, one order received about the time this correspondence marked Government Trial Exhibit No. 338 was received?

A. Yes, it was, early in 1926.

Q. Now, do you recall the circumstances under which you made that sale of these products at that time? Do you recall anything about it?

A. Well, we were called in by Delco-Light Company as it was at that time, and told that they had been using a competitor's material in their original plant, now known and [fol. 4827] then known as Plant 1. That was a hand-operating, hand dipping system. They were going to automatic dipping on a much larger scale, 5,000 gallon capacity dipping tanks, and the material that they had been using was found to be not satisfactory for the big operation. They had studied the paint industry, and this particular type of product black backing enamel, and had determined that we would be the logical supplier to call to for engineering materials to fit this big operation, and that is how we were able to enjoy our first business with Frigidaire.

Q. Do you know who the competitor was that had been supplying them with the material for hand dipping?

A. Yes, a local concern at Dayton, Lowe Brothers.

Q. Were you told at that time how they happened to come to du Pont, to you, for this material?

A. Simply that they had investigated manufacturers of this type of product and felt that we would be the logical supplier.

Q. Now, you testified a moment ago that you sold them or got one order from them, is that right?

A. Yes.

Q. Did you deliver that order to them?

A. Yes.

Q. Do you now recall whether there was any delay in connection with the delivery of that order?

A. Yes, whether we had actually manufactured the material or not I am not certain, but we were asked by them to at least delay shipment until they could determine whether their old supplier, who had asked for an opportunity to put their material into production, would be able to actually satisfy them. They told us if that should happen, they would take any quantity of material we would have made up for them, but that they did want us to give this other supplier an [fol. 4828] opporunity and to wait for their report, which was shortly after that, and they told us that they wanted us to ship our order or orders and that they would continue with our material.

Q. Did you ship the order?

A. Yes, we filled the tanks with our materials, the dip tanks.

Q. Did you ever at any time while you were dealing with Frigidaire get another order for this material from Frigidaire?

A. The order, whether it was for a carload of each or a mixed car, is somewhat confused in my mind. I haven't been able to remember since 1926. But whatever quantity we shipped early that year was the only order we received from Frigidaire for this type of product.

Q. Did they continue to use this product?

A. Oh, yes, in large quantities.

Q. Do you know where they got the product that they used?

A. Yes. They bought their material from that time on from the Kay & Ess Company in Dayton, which is now the Moran Paint Company.

Q. Did you make any attempt thereafter to sell them these products?

A. Oh, yes. We brought our superintendent of the varnish plant in Chicago, who we thought was our best man on those products, down to the Frigidaire plant to work with us. We also had servicemen to try to satisfy their objections to our material, if any, but we were not able to get any more business.

Q. Do you know who it was who sold them this material on behalf of Kay & Ess?

A. Yes, their salesman, Mr. A. J. Turner.

Mr. Cox: At this time, I should like to offer a document [fol. 4829] which has been marked du Pont Exhibit No. 338, which is a trade report on a visit that Mr. O'Donnell made to the Delco-Light Company on May 18, 1926.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 338.)

Mr. Cox: The offset is so bad that I hesitate to ask anyone to read it. I will read the relevant paragraph.

This is headed:

> "Black Baking Enamel—For the present they have adopted Black Enamel made by Kay & Ess of Dayton for finishing 'Receivers.' Our first sample of Locomotive Black was not satisfactory, whereas Kay & Ess submitted a satisfactory enamel. They have not yet tried 9209 our latest sample. Will try this as soon as they can but as the Kay & Ess material is working O.K., they are not so anxious to change."

By Mr. Cox:

Q. Is that a report you wrote?

A. Yes, I remember that.

Q. Did they ever thereafter change to your material, to your knowledge?

A. No, they never did.

Q. Is this black baking enamel and Locomotive Black which is referred to in your trade report the same material that is described as rubber and finishing varnish in Government's Trial Exhibit No. 338?

A. The same.

Q. Mr. O'Donnell, do you recall the development of a synthetic enamel called "Dulux"?

A. Yes, I do.

[fol. 4830] Q. What, in general, is the difference between "Dulux" and "Duco," can you tell us?

A. Our first product, "Duco," was a nitrocellulose lacquer, an air-dried material, though it would be used over a baked primer.

"Dulux" is a synthetic resin material, which, like the primer, requires a high bake.

Q. Does "Dulux" have any advantages over "Duco" as a finish for refrigerators?

A. Very definitely. The hardness, flexibility, toughness, adhesion, stain-resistance, and a very important property, moisture-resistance, are all better than any properties of that sort that we were able to incorporate into our lacquer products. So much so that we were very enthused when we had the results of all test work and were satisfied that it was the finish that the refrigeration industry had long been looking for.

Q. Can you tell us whether "Dulux" is more or less expensive than "Duco" in application?

A. Well, in application, the cost of operating a bake oven for the top coat would be more than simply air drying the lacquer. But, because of the superior hiding quality and spreading rate, the number of square feet per gallon that can be obtained with "Dulux" over "Duco" is so much greater that the actual cost per square foot of "Dulux" as against "Duco" would be about half the cost of "Duco."

Q. What company first developed "Dulux"?

A. The du Pont Company.

Q. Was this finish, if you know, made available to all refrigerator companies at the same time?

A. No. We first made this material available to the General Electric Company.

Q. Was the General Electric Company at that time a com- [fol. 4831] petitor of Frigidaire?

A. Oh, yes. As a matter of fact they were, as they are now, their principal competitor.

Q. Do you know how long it was, after General Electric adopted "Dulux", before it was adopted by Frigidaire?

A. Approximately one year, possibly a little more than a year.

Q. Did Frigidaire immediately begin to use "Dulux" on all of its refrigerators, do you know?

A. Oh, no. They never used either "Duco" or "Dulux" on all of their production. They have always used some porcelain.

Q. Let me direct your attention to the late 1930's, and ask you whether you are in a position to estimate for us what proportion of Frigidaire's production at that time was finished with "Dulux" as against porcelain?

A. In the late 30's, the "Dulux" finish had proven so satisfactory that the ratio of "Dulux" to porcelain got as high as 80 per cent "Dulux" to 20 per cent porcelain.

Q. 80 per cent "Dulux" as against 20 per cent porcelain?

A. That is right.

Q. Was that change in proportion a gradual change on the part of Frigidaire, if you know, or did it occur all at once?

A. Oh, it was a gradual change.

Q. Now in recent years have you attempted to persuade Frigidaire to finish all of its refrigerators with "Dulux"?

A. Yes, we have repeatedly.

Q. What have you said to them in an attempt to persuade them to do so?

A. That our experience in serving the refrigerator industry throughout the entire country has satisfied us that the performance of the "Dulux" finish has been equal to the requirements of the industry; and that we would like to [fol. 4832] sell Frigidaire on the use of "Dulux" 100 per cent, but have never been able to do so.

Q. Have you told us all of the arguments that you have used in the attempt to persuade them to us "Dulux" instead of porcelain?

A. Well, we have submitted panel exhibits, and we have featured the difficulty of repairing porcelain when damaged, and evidence of that sort. That would be all.

Q. Have you ever in those conversations said anything to them about du Pont's ownership of stock in General Motors?

A. We have not.

Q. Mr. O'Donnell, to your knowledge, is there any other manufacturer of refrigerators today in the United States who finishes the exterior of its refrigerators with porcelain?

A. No, sir, there is none that we know of.

Q. What type of finish do the other refrigerator manufacturers use?

A. They all use "Dulux" or "Dulux"-type material.

Q. To your knowledge, was there ever a time that any of the other refrigerator companies, I mean other than Frigidaire, finished the exteriors with porcelain?

A. Exclusively?

Q. Or in part? Was there ever a time that any of the other companies used porcelain as an exterior finish?

A. There may have been. Some of the concerns, years ago, possibly in the late twenties, may have turned out a part of their production in porcelain, but there have not been any using porcelain, I am sure, since the advent of "Dulux".

Q. You are now speaking of porcelain as an exterior finish?

A. As an exterior finish.

[fol. 4833] Q. Do you know whether Frigidaire manufactures washing machines?

A. They do.

Q. Do you know when they first began to manufacture those automatic washing machines?

A. Yes, that was in 1946.

Q. What kind of finish does Frigidaire use on the cabinet of its automatic washing machines?

A. They use porcelain.

Q. Have you ever attempted to persuade them to use the "Dulux" on those cabinets instead of porcelain?

A. Yes, we have.

Q. What have you said to them about that?

A. We have drawn their attention to the fact that we have been selling "Dulux" to other manufacturers of washing machines with considerable success, and we would present evidence of the outstanding properties of "Dulux" for these particular requirements, such as acid resistance and the like, and the advantages of repairing the "Dulux" finished cabinet should it be damaged against the difficulty of repairing porcelain, but we were not able to sell them.

The Court: The Court will now recess for fifteen minutes.

(A recess was here taken.)

The Clerk: Case on trial.

By Mr. Cox:

Q. Mr. O'Donnell, I think when we adjourned, I was asking you about the use of porcelain in washing machines, and you had told us that you had made efforts to persuade [fol. 4834] Frigidaire to finish the exterior cabinets of the automatic washing machines with "Dulux."

Have you ever been successful in persuading them to adopt "Dulux" for that purpose?

A. We have not.

Q. To your knowledge, does any other manufacturer of washing machines in this country, other than Frigidaire, finish their cabinets with porcelain?

A. No, there are no others.

Q. What kind of finish do the others use?

A. They use "Dulux" or "Dulux"-type material.

Q. Mr. O'Donnell, so that the record may be clear, so far as Frigidaire uses "Dulux," where do they buy their "Dulux"?

A. They make their own.

Q. I am not talking about porcelain. I am talking about "Dulux."

A. Oh, "Dulux," they buy from us.

Q. "Dulux" is a trade name of du Pont synthetic enamel?

A. Yes, sir.

Q. Does du Pont supply that material today?

A. That is right.

Q. And that has been true for some years?

A. Yes, sir.

Q. How long roughly, would you say it has been true?

A. Since we established "Dulux." They adopted it about 1933, to this date.

Mr. Cox: I should now like to offer exhibits that relate to the production of Frigidaire, as it is divided between porcelain and "Dulux," the two exhibits being du Pont Exhibit No. 351 and du Pont Exhibit No. 352.

I now offer those documents.

(Said documents, so offered and received in evidence, [fol. 4835] were marked du Pont Exhibits Nos. 351 and 352.)

Mr. Cox: I call attention to the fact that du Pont Exhibit No. 351, which is a report made by Mr. Cook dated 1-23-42, shows that at that time the Frigidaire production was 1,500 cabinets per day, 7,500 per week, and 6,000 used "Dulux" and 1,500 porcelain.

Du Pont Exhibit No. 352 is a report which was made by Mr. O'Donnell, and contains a table showing the 1950 production. It is dated September 14, 1950, and shows the production for refrigerators, ice cream cabinets, home freezers, water heaters, electric ranges, and automatic washing machines.

It will be noted that of the more than one million refrigerators that have been made, roughly 938,000 were finished with "Dulux," and 72,621 with porcelain; that all of the ice cream cabinets, home freezers, water heaters, were finished with "Dulux," and all of the electric ranges with porcelain, and all of the automatic washing machines with porcelain.

By Mr. Cox:

Q. Do you have a copy of that exhibit, No. 352, in front of you, Mr. O'Donnell?

A. Yes, sir.

Q. Can you tell us how many gallons of "Dulux" top coat and primer would be used in 1950 to finish 72,621 refrigerator cabinets, roughly?

A. 72,000 refrigerator cabinets would consume——

Q. 72,621 refrigerator cabinets.

A. It would consume about 36,000 gallons of "Dulux."

Q. Of just "Dulux," or "Dulux" primer?

[fol. 4836] A. That is the combination. We always refer to the system, including the primer and the enamel.

Q. Of that 36,000 gallons, more or less, is that evenly divided between the top coat and primer?

A. Equal parts were used, one coat of primer and one coat of "Dulux."

Q. Can you tell us what the price of the top coat and primer was per gallon in 1950?

A. The price per gallon of primer was approximately $3.40 and "Dulux" close to $4.00 a gallon.

Q. Now, you will note that that exhibit shows that in that year 113,545 automatic washing machines were finished by Frigidaire in porcelain.

Can you give us an estimate of how many gallons of "Dulux" and "Dulux" primer would have been required to finish that number of washing machines?

A. I would estimate close to 50,000 gallons.

Q. Are the prices you gave us a moment ago with respect to refrigerator finishes applicable to the finishes that have been used on washing machines?

A. Yes, sir.

Q. How about the primer and top coat in the case of washing machines, half and half?

A. In equal parts, yes.

Q. Now, to your knowledge, does Frigidaire produce any other household appliances on which they do not use porcelain?

A. Yes, they are now producing dryers.

Q. Clothes dryers?

A. Clothes dryers.

Q. When did they begin to make clothes dryers?

A. 1952.

Q. Prior to that time, did Frigidaire sell clothes dryers?

A. Yes.

Q. Now, where did it get the clothes dryer before it made them?

A. The clothes dryers were made by a concern in Illinois, [fol. 4837] the Hamilton Manufacturing Company at Two Rivers, Wisconsin. They were not made in Illinois; they were made in Wisconsin.

Q. Do you know what finish the Hamilton Company uses on the dryers they manufactured for Frigidaire?

A. Yes, they used our "Dulux" system.

Q. What finish did Frigidaire use when it began to manufacture dryers?

A. Porcelain.

Q. Have you tried to persuade Frigidaire to use "Dulux" instead of porcelain?

A. We definitely have.

Q. Do you know whether any other manufacturer of clothes dryers uses porcelain finish instead of "Dulux"?

A. So far as we know, there are none.

Q. What kind of finish do the other manufacturers use?

A. They all use "Dulux" or "Dulux"-type of material.

Q. Have you been successful at any time in persuading Frigidaire to use "Dulux" instead of porcelain on its dryers?

A. We have not.

Q. Do you know how many units of dryers that Frigidaire has produced in a recent year?

A. Last year, they did not have a full year's production, but they produced over 40,000 dryers.

Q. Can you give us an estimate in terms of dollar value as to the value of "Dulux," what it would have been if it had been used to finish those 40,000 dryers?

A. We would estimate approximately $65,000.00.

Mr. Cox: Now, at this time, while Mr. O'Donnell is still on the stand, I should like to offer certain documents which have been heretofore marked for identification. These are not documents that were written by Mr. O'Donnell; they were written by Mr. Cook, who has been referred to in the [fol. 4838] testimony, but there are occasional terms in the documents which I think Mr. O'Donnell may assist us in defining.

The documents are du Pont Exhibits 339, 340, 341, 342, 343 and 344, and I now offer those documents.

I do not intend to read them at any length.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits Nos. 339, 340, 341, 342, 343 and 344.)

Q. Mr. O'Donnell, there is a reference in one document, the one that has been marked du Pont Exhibit No. 340, to a primer and splatter finish. What is that? Will you tell us? Will you look at the document, du Pont Exhibit No. 340?

A. You asked——

Q. I asked you what a primer and splatter finish is.

A. Well, the primer would be a typical smooth primer; the splatter finish would be one that would give any irregular surface to the finished coat.

Q. Has du Pont ever sold that kind of a finish to Frigidaire?

A. No, we have not.

Q. I should now like to call your attention to the document which has been marked du Pont Exhibit No. 341, and ask you if you could tell us—I am going to ask you a question about the paragraph headed "Baking Clear 'Dulux' Alum. Vehicle."

Do you see that paragraph?

A. Yes.

Q. What do the letters and the numbers RC-3041 refer to, if you know?

A. That refers to a synthetic resin, clear vehicle, that would be used as a conveyor for, in this case, aluminum [fol. 4839] powder that would be added to the clear and sprayed on to produce an aluminum type of finish.

Q. Is that a du Pont code number?

A. Yes, the code number referred to is a du Pont code number.

Q. Now, turning to the next document I have just one question I want to ask you about that.

Can you identify A. D. Dick, who is referred to in that?

A. A. D. Dick at the time of this date was a correspondence clerk in our Chicago office.

Q. What were his duties?

A. He would receive orders as they came in in the mail, and place them on various plants, write letters to the customer acknowledging receipt of orders, referring to shipping when scheduled, and that sort of work.

Mr. Cox: This is just one of these documents which I should now like to read, which is the one that has been marked du Pont Exhibit No. 344, which is an excerpt from the Chicago office industrial weekly report for the week ending October 2, 1940. It is addressed to Mr. Biesecker.

By Mr. Cox:

Q. Who was Mr. Biesecker?

A. Mr. Biesecker at that time was regional manager of the finishes division here in our office at Chicago.

Q. This report was signed by L. C. Streeter. Who is Mr. Streeter?

A. Mr. Streeter was our industrial division sales manager for this region.

Q. Did he have any duties with respect to the sale of finishes to Frigidaire?

A. Yes, he was the superior to whatever salesman was calling on the Frigidaire at that time.

[fol. 4840] Mr. Cox: I should now like to read this excerpt:

> "For the past two or three weeks Frigidaire have been making a production run with Lowe Brothers

Primer and Enamel. We have just learned that Frigidaire experienced serious trouble with the competitive primer and had to discontinue its use before the competitive run was completed. We have made a rush shipment of 'Dulux' primer to the customer which they will use under the Lowe Brothers enamel until all competitive enamel on hand has been used up. As soon as this is accomplished, Frigidaire will return to the use of 'Dulux' Primer and Enamel 100%. We do not as yet have any details of the trouble they experienced with the competitive primer."

By Mr. Cox:

Q. Mr. O'Donnell, do you know whether Frigidaire from time to time has tested competitive high bake whites?

A. They have run laboratory tests and prepared panels for exposure in Florida and other climates.

Q. Do you know whether they have ever run any production tests?

A. They have not run large scale production tests.

Mr. Cox: That is all.

You may examine.

Cross Examination.

By Mr. Houchins:

Q. Now, Mr. O'Donnell, focusing your attention back to 1927, when, as you told us, Frigidaire experienced some [fol. 4841] difficulties with its finishes on the refrigerators in the southern part of the country, do you know whether or not Frigidaire suffered substantial financial losses as the result of these failures on finishes in the South, in the salty regions?

A. I never heard of any losses, no.

Q. Do you know if, as a result of these defective finishes, which were showing up in these areas of salt water usage, Frigidaire decided to shift its entire production to porcelain, or did it shift only a percentage?

Q. Would you give us that percentage again, please?

A. In what year?

Q. 1927.

A. In about 1927, the percentage of porcelain as against "Duco" was comparatively small. Early in the year it grew. Toward the end of the year—I can't tell you by year, but I do know that within a couple of years porcelain had well overtaken "Duco."

Q. Do you know if Frigidaire replaced those finishes on refrigerators which went bad?

A. No, they did not.

Q. They did not?

A. I am sure they did not.

Q. As a result of that experience on the part of Frigidaire, was it your observation that certain executives or certain personnel in Frigidaire Company developed an antipathy toward "Dulux" as opposed to porcelain? Did they become porcelain minded?

A. They definitely became porcelain minded. But I draw your attention to the fact that in those years we did not have "Dulux"—1927 and 1928.

Q. Pardon me, I meant "Duco."

How long did this porcelain minded attitude on the part [fol. 4842] of Frigidaire executives and personnel continue?

A. Well, it continued through the years, and today they still like to feature that some of their production is porcelain.

Q. Did you find that an obstacle to overcome in selling Frigidaire people in later years on "Dulux"?

A. Yes, we did.

Q. Was that a substantial obstacle?

A. Yes, as indicated by the fact that their other appliances, washing machines, driers, and so forth, have always been porcelain since they have been making them.

Q. Do you know whether or not Frigidaire ever entered into extensive advertising campaigns concerning the virtues of porcelain over "Dulux"?

A. Yes, I know they have.

Q. Do you know whether or not Frigidaire had a very large plant facility for the application of porcelain?

A. They do have large plant facilities for that use.

Q. Do they still have such facilities?

A. Yes, sir, they definitely have.

Q. Do you have any idea how much money is invested in such facilities?

A. No, I wouldn't be able to estimate the value.

Q. I believe you told us, Mr. O'Donnell, that General Electric was the first refrigerator manufacturer that adopted "Dulux"?

A. That is right.

Q. Did you offer "Dulux" to Frigidaire before you offered it to General Electric?

A. No, we did not.

Q. Did you offer it to Frigidaire at about the same time as you offered it to General Electric?

A. I would say shortly after.

Q. What sort of reception did you get from the Frigidaire people?

A. They immediately agreed to conduct tests to deter- [fols. 4843-4848] mine to their own satisfaction that the material had the properties we claimed it had.

Q. After they conducted those tests, did they go into heavy "Dulux" production?

By the way, when was this?

A. They adopted "Dulux" for use in their plant sometime in 1933.

Q. When was it that you offered it to them for these tests?

A. About a year before. They had at least a year's time to test the material.

Q. When they adopted it, did they adopt it on a very large scale or on a small scale?

A. I was not contacting Frigidaire as the du Pont representative at that particular time. My recollection from talking to our representative in Dayton, Mr. Cook, was that, when they converted to the use of "Dulux" as a replacement for "Duco", that they did so on a large scale.

[fols. 4849-4851] Redirect Examination.

By Mr. Cox:

Q. Mr. O'Donnell, I think there is one point in the record we had better try to clarify. Will you look at the report which is du Pont Exhibit No. 338, and also look at the first sentence of the letter which is Government's Trial Exhibit No. 338.

Now, in your trade report, you referred to black baking enamel, and locomotive black.

Does that refer to the same thing?

A. Yes, sir.

Q. And in Mr. Pratt's letter to Mr. Elms, there is a reference to rubber and varnish finish.

A. Yes, sir.

Q. Are rubber and varnish finish different products from black enamel or locomotive black?

A. No, they are the same.

Q. They are the same?

A. Yes.

Mr. Cox: That is all.

Mr. Houchins: That is all.

(Witness excused.)

[fol. 4852] William E. Kreuer, called as a witness on behalf of the defendant, E. I. du Pont de Nemours and Company, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Gribbon:

Q. State your name, please.

A. William E. Kreuer.

Q. And where do you reside?

A. I reside in Wellesley Hills, which is a suburb of Boston, Massachusetts.

Q. Are you employed by the du Pont Company?

A. I am.

Q. What is your present position with the du Pont Company?

A. I am regional sales manager of the Boston region.

Q. For which department of the du Pont Company?

A. For the Fabrics and Finishes Department of the Finishes Division.

Q. When were you first employed by the du Pont Company?

A. In 1922.

Q. Have you been continuously employed by du Pont since 1929?

A. I have.

[fol. 4853] Q. When did you assume your present position as Boston regional manager?

A. In the middle of 1950.

Q. Prior to that time what position did you hold in the du Pont Company?

A. I was industrial sales manager in Chicago, prior to going to Boston, and prior to that I was industrial sales manager in Cleveland, Ohio, starting in 1946, to 1950.

Q. And prior to 1946 you have been employed in the sales and finishes for du Pont?

A. I have.

Q. Now, directing your attention particularly, Mr. Kreuer, to the period from 1946 to 1950 when you served as industrial sales manager for the Cleveland region, will you tell us what your duties were during that period?

A. Yes, the duties of industrial sales manager in the Finishes Division is to supervise the sale of finishes to industrial manufacturers for the product that they manufacture, and to supervise the sales organizations; you help them merchandise the products that du Pont sells for that type of industrial product.

Q. Now, in that capacity you have nothing to do with trade sales or automotive sales?

A. That's right.

Q. Can you tell us whether there are located within the Cleveland territory, manufacturers who make refrigerators?

A. Yes, there are.

The Westinghouse Electric, Crosley Corporation, Frigidaire and Kelvinator.

Q. Did du Pont sell finishes to these manufacturers that you named?

A. We sold finishes to Westinghouse, Crosley and Frigidaire.

Q. What type of finish were you selling to these manufacturers?

A. We sold them "Dulux" primer and enamel at that time that you were speaking of.

[fol. 4854] Q. Now, that "Dulux" is a synthetic resin product?

A. It is, sir.

Q. And what were these manufacturers using that product for?

A. They were using it for the exterior of refrigerators and home freezers.

Q. Do you know what kind of finish these refrigerator manufacturers were putting on the interior of refrigerators when you came to Cleveland in January, 1946?

A. Yes they were all using porcelain.

Mr. Gribbon: I wish to introduce in evidence an exhibit marked DP No. 348. I believe your Honor will find that in the book that Mr. Cox put up on your desk yesterday afternoon.

This is a memorandum dated April 1, 1940, from R. M. Cook to L. C. Streeter, both of whom were identified yesterday as members of the du Pont sales organization.

It is headed at the top "Frigidaire Dulux for Inner liners".

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 348.)

By Mr. Gribbon:

Q. Mr. Kreuer, will you tell us what inner liners are?

A. Well, an inner liner is a synonym of the term "food compartment", and they both mean the interior of a refrigerator where you would put food that comes under refrigeration, and it doesn't include the interior of the door.

Q. But it does include the balance of the interior?

A. That comes under refrigeration.

Q. What is the word most commonly used to describe [fol. 4855] the balance of the interior of the refrigerator?

A. Well, I think that "inner liner" and "food compartment" are pretty generally used.

Mr. Gribbon: This is dated April 1, 1940, and reads as follows:

> "E. J. Barney telephoned me at Philadelphia last Thursday morning that he had discussed this question"——

that is "Dulux" for inner liners—

"—with E. B. Newill, Assistant GM"——

By Mr. Gribbon:

Q. Are Messrs. Barney and Newill Frigidaire officials?

A. Well, this is prior to my time in Cleveland, and although I heard they are, I am not in a position to testify to that.

Mr. Gribbon: (Continuing):

> ". . . and that Mr. Newill's opinion was, so far as Frigidaire's policy was concerned, that they would be very much opposed to the use of 'Dulux' for this purpose, that they would fight it with every facility at their command, including advertising to show the advantage of porcelain over 'Dulux', and also that they would take this question up with N. E. M. A."

Q. In 1946 were other manufacturers besides Frigidaire using porcelain for the food compartments of refrigerators?

A. Yes, sir.

Q. Do you know, Mr. Kreuer, whether efforts had been [fol. 4856] made to promote the use of "Dulux" on food compartments prior to 1946?

A. Yes, I know that, although I didn't participate in that promotion.

Q. Now, during the period that you were at the head of the Cleveland office beginning in 1946 did du Pont renew its efforts to persuade refrigerator manufacturers to use "Dulux"?

A. Yes.

Q. Did you personally particpate in those efforts?

A. Yes, I did, very vigorously.

Q. Do you recall the circumstances or the occasion for the renewal of your efforts to promote the use of "Dulux" on food compartments?

A. Yes, quite well.

The laboratory developed a new product called abrasion-resistant "Dulux" that, in the tests in the laboratory and field tests, looked outstanding for the purpose required in the food compartment because of its resistance to food acids and its abrasion resistance.

Q. Do you recall when that abrasion-resistant "Dulux" product was developed in the laboratories?

A. Well, it is pretty difficult to say when it was actually developed, because those things are steps, but I think it was first announced in 1944.

Q. And when was it made available in commercial quantities?

A. In 1946 or 1947.

Mr. Gribbon: I offer in evidence an exhibit that has been previously identified as DP No. 349.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 349.)

[fol. 4857] Mr. Gribbon: Will you show Mr. Kreuer a copy of that exhibit?

This is entitled: "Summary of a Meeting of Refrigerator, Washing Machine and Steel Kitchen Cabinet Manufacturers Held in Chicago in November, 1944 by the Industrial Finishes Division".

By Mr. Gribbon:

Q. Did you attend the meeting referred to in this exhibit, Mr. Kreuer?

A. Yes, I did.

Q. Will you tell us something about this meeting, its purpose, and who attended?

A. Well, this meeting was one of a number of the same type that were conducted by the du Pont Company for our refrigerator customers.

Now, at that particular meeting, we invited our washing machine customers and our steel kitchen cabinet cutomers. The purpose of the meeting was to discuss the finishes we were selling, and new methods of application that had come up, and new finishes that had been developed.

Mr. Gribbon: I should like to read, with the Court's permission, portions of Exhibit DP No. 349, beginning with the first paragraph:

> "Dr. Gowing's paper stated a strong case for the use of 'Dulux' on food compartments of domestic mechanical refrigerators. The standard two-coat 'Dulux'

systems were recommended with the mar resistant system receiving a preferential rating."

By Mr. Gribbon:

Q. Is that the abrasion-resistant product you refer to?
A. That's right.

[fol. 4858] Mr. Gribbon: Skipping down to the second paragraph:

> "All customers who expressed an opinion were in agreement that 'Dulux' could be used satisfactorily on the food compartments of domestic refrigerators."

And down to the next paragraph:

> "In spite of this overwhelming backlog of favorable data, no one manufacturer is willing to replace porcelain with 'Dulux' because of the selling tactics which have been employed by their competitors, and which would be repeated in all probability. 'Dulux' will not be used extensively for this purpose until the majority of the leaders in the field agree upon its adoption. It is not likely that Frigidaire and Kelvinator can be persuaded to quit porcelain, but there is some hope that Westinghouse, General Electric, Crosley, Gibson, and Norge will agree on the use of 'Dulux.' A calculated saving of 50¢ to $2.50 per cabinet, depending upon porcelain costs in various plants, will accrue with the use of 'Dulux'. Mr. Van Derau stated that the savings would be even higher"——

Q. Who was Mr. Van Derau?
A. Mr. Van Derau is Works Manager of the Westinghouse Electric Company.

Q. Mr. Kreuer, did you devote a substantial portion of your time between 1946 and 1950 to the promotion of the use of this "Dulux" product for food compartments of refrigerators?
A. Yes, I devoted considerable time to it.

Q. Would you tell us briefly the qualities and properties of this abrasion-resistant "Dulux" that you urged as the basis for a switch from porcelain to "Dulux" for food [fol. 4859] compartments?

A. Well, the properties can be best broken down into two parts.

First, cost, and under cost, I think it best to tell you that a food compartment consists of a top, a bottom, two sides and a back.

Now, all of those pieces which are welded together are finished with non-acid resisting porcelain, and then the bottom only is finished with acid resisting porcelain.

The reason for that is that the acid resisting porcelain costs so much more that they only put it on the bottom where it is more needed.

Now they have to apply approximately ten mils of porcelain versus two mils of "Dulux."

Another factor is that to use porcelain, you have to use what they call an enameling steel, which is a heavier gauge steel, and costs more than the lighter gauge steel which they can use in "Dulux".

The reason for the heavier gauge steel is the fact that porcelain at that time was baked at 1500 degrees Fahrenheit as compared to 285 degrees Fahrenheit for "Dulux." Each one of those things is more costly than "Dulux."

Another factor in the cost is that with this heat of 1500 degrees, you get a distortion of the metal, and when those food compartments are put into the refrigerator, they are sometimes twisted and turned, and the porcelain may chip.

When it does chip, the inner liner or food compartment must be discarded because there is no way of patching it.

With "Dulux" the food compartment, in the first place, doesn't distort because of the lower temperature, but if it [fol. 4860] is distorted and has to be manipulated into the refrigerator, it is much more flexible than porcelain and doesn't chip as readily. But if it does chip, it can be repaired.

Q. Will you tell us in some detail the efforts that you made to sell the refrigeration industry upon the use of "Dulux" for food compartments in this period, 1946 to 1950?

A. Yes. At that time we recognized a market for "Dulux" finish where porcelain was then being used, and we had an outstanding product.

So I personally developed a very elaborate merchandising story that contained a lot of exhibits. In fact, it took about half a medium van to carry these exhibits around.

These exhibits were part of the prop in telling the merchandising story of our new abrasion-resistant "Dulux." This story was told all or in part to Crosley, Westinghouse, Kelvinator, General Electric, and Frigidaire.

Q. Were there any other companies that you know of?

A. I addressed a meeting, a combination meeting of Coolerator and Gibson sales people, in Chicago here with this exhibit and story.

Q. During what time did this demonstration take place?

A. I would say in 1947 to 1950.

Q. Were you able to persuade any of the companies to which you made your demonstration to adopt "Dulux" for use on food compartments?

A. There were three companies that adopted "Dulux" for food compartments—the Gibson Company, Franklin Transformer, and Coolerator. As I remember, they were the three.

Q. Did you make any attempt to persuade Frigidaire to [fol. 4861] use "Dulux" on food compartments?

A. Very great attempts.

Q. Did you ever visit the Frigidaire plant in an effort to persuade them as to the advantages of "Dulux" for food compartments?

A. I did on many occasions. In fact, I went to Frigidaire so many times with the "Dulux" story for food compartments versus porcelain that they began to know me as "Mr. Dulux for food compartments" and every time I went in they said, "Here he comes again to tell the story of 'Dulux' for food compartments."

Q. What arguments did you use in your effort to persuade Frigidaire to use "Dulux" for food comparments?

A. I used the argument that I have just outlined before, the cost angles and quality of the abrasion-resistant "Dulux."

Q. Did you ask Frigidaire to take into consideration the fact that du Pont owned stock in General Motors?

A. Absolutely not.

Q. Were you able to persuade Frigidaire to test "Dulux" for food compartments?

A. Yes. Frigidaire did test "Dulux" on some cabinets for food compartments.

Mr. Gribbon: I offer in evidence an exhibit that has been identified as du Pont 345, which is a letter from Mr. Kreuer to Messrs. Bullett and Merkle the next name should be rather than Nerkle.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 345.)

By Mr. Gribbon:

Q. Who were these gentlemen to whom this letter was addressed?

A. Mr. Bullett was the director of the Philadelphia Labo- [fol. 4862] ratory, and Mr. Merkle was supervisor of sales service at the Philadelphia Laboratory.

Mr. Gribbon: I would like to read the second paragraph of this letter. It is dated March 17, 1947:

> "As you probably know, this office has been doing considerable promotion work on DULUX for food compartments with Frigidaire, Westinghouse and Crosley. Westinghouse and Crosley are very interested in the use of DULUX on food compartments and will make the switch if Frigidaire will. Last week we had a meeting with Mr. Schweller of Frigidaire, who is interested in starting laboratory tests on DULUX finishes for food compartments. If the tests look satisfactory, he has agreed to finish 200 food compartments in DULUX."

By Mr. Gribbon:

Q. Did Frigidaire make the test referred to in this letter?

A. Yes. They didn't finish 200, but they finished a smaller amount.

Q. Were you able to persuade Frigidaire to use "Dulux" on their food compartments?

A. No.

Q. Did they continue to use porcelain?

A. They did.

Q. If you know, or if they gave you any reasons, what reasons did the Frigidaire representatives give you for their decision to continue to use porcelain rather than the "Dulux" you were offering?

A. Well, the Frigidaire people are very porcelain-conscious people, and they felt to advertise porcelain gave them a prestige in the industry.

There was another thing. They didn't altogether agree with the savings that we felt could be accrued by using "Dulux" versus porcelain.

[fol. 4863] Although "Dulux" was very resistant to food acid, much more resistant than procelain, it did stain, but the stain would bleach out. That was another thing that they didn't see eye to eye with us on.

Q. The result was they continued to use porcelain on the food compartments?

A. That is right.

Q. Did you present the same arguments to other large manufacturers that you presented to Frigidaire regarding the use of "Dulux" for food compartments?

A. Yes, the same arguments.

Q. In particular, do you remember any large manufacturers that you approached?

A. Yes, the people I mentioned before, and that was especially Crosley and Westinghouse. I also took part of the story to General Electric and to Kelvinator.

Q. Referring to Crosley and Westinghouse, what view did the representatives of those companies express as to the merits of "Dulux" against porcelain for food compartments?

A. They thought it was an entirely satisfactory finish. In fact, they said that if Frigidaire or General Electric would go to "Dulux" for food compartments that they would go along.

Q. What factor of your arguments appeared to influence their judgment?

A. Well, I think the cost factor was the major factor.

Q. Did Crosley and Westinghouse make laboratory tests of "Dulux" for food compartments?

A. Oh, yes. Both of them made laboratory tests and some field tests were made too with refrigerators.

Q. Were you informed as to the results of both the [fol. 4864] laboratory and field tests?

A. Yes. In fact, they put a good number of them out in the field and they were inspected and found to be entirely satisfactory. We never had complaints on them.

Q. Nonetheless, you were unable to sell Crosley and Westinghouse "Dulux" for refrigerators?

A. No.

Q. Did they explain why they would not go along unless either Frigidaire or GE began to use "Dulux" on the interior?

A. Yes. They felt that they would be unable to combat the advertising of those two major companies who would advertise "Dulux." Undoubtedly their salesmen would refer to the "Dulux"—who would advertise—porcelain, pardon me, and the other two companies would have a "Dulux" liner, and the major companies would refer to them as painted liner, which would be a stigma attached to the word paint.

Q. Did you ever succeed, while you were in Cleveland, in selling Crosley or Westinghouse "Dulux"?

A. No, sir.

Q. During that time, did you continue your efforts to sell Fridigaire "Dulux" for food compartments?

A. Yes, absolutely, because they were the crux of the whole thing. If we could have sold Frigidaire on "Dulux" for food compartments, we knew there were a number of other companies that would go along, and it was a big sales plum that we were never able to gain.

Mr. Gribbon: I offer in evidence an exhibit which has been identified as DP No. 346 which is an excerpt from a report of a visit of John O'Donnell to the Frigidaire on August 1, 1950.

With the Court's permission, I would like to read a portion of the paragraph which is labeled 1-B.

> [fol. 4865] "Mr. Sanger presented the 'Dulux' food compartment story to all men listed opposite with the exception of S. N. Schweller who unfortunately was not able to be with us being tied up in preparation for the visit of the president of General Motors Corporation tomorrow. We all agree this story was presented to a sufficient number of key people of Frigidaire who accepted our presentation as a well organized story. However, as we have always known Frigidaire to be the most porcelain conscious refrigerator manufacturer, they told us very definitely that this presenta-

tion would have no effect on their plans to continue making all interiors of porcelain as well as all inner door pans, as soon as feasible."

Did you participate in that demonstration, Mr. Kreuer?

A. I did not. I had left Cleveland before that.

Q. Do you know whether the material was the same used by you in your demonstrations?

A. Yes, this was material that I had prepared and talked about before.

Q. Do you know whether du Pont was successful in selling "Dulux" to Frigidaire for food compartments as the result of this demonstration?

A. I know they were not.

Q. Do you know whether du Pont has ever been successful in selling "Dulux" for this purpose for Frigidaires?

A. They have not.

Q. During the period 1947 to 1950, when you were promoting the use of "Dulux" for food compartments, do you know whether any of your competitors were attempting to promote the use of a similar product?

[fol. 4866] A. To my knowledge, there were no paint manufacturers, competitors of du Pont, marketing or testing such a product in the field.

Q. Do you know whether any competitor of du Pont has an available product comparable to abrasion-resistant "Dulux" that you attempted to sell for food compartments?

A. To my knowledge, at the present time, they do not.

Q. Mr. Kreuer, an exhibit which has been marked in evidence as DP Exhibit No. 352 shows in 1950 the production of refrigerators was 1,011,358. How much paint would have been required to finish the food compartments for that volume production?

A. Do you mean in dollars?

Q. Will you give us first in gallons, then in dollars.

A. Well, it takes about one-sixth of a gallon of "Dulux," that is the primer and enamel combined, for a food compartment. This was in 1950, and it is pretty hard to hit on an average price for 1950 because at that time prices were on the rise, but I would say that a price for the combined primer and enamel would be somewhere in the neighborhood of $3.60.

So, one-sixth of that would be 60 cents, and for a million would be about $600,000.

Q. $600,000 worth of "Dulux" to finish the Frigidaire production?

A. Yes, sir.

Q. Using the same basis, can you tell us how much "Dulux" would have been required at that time by all of du Pont's "Dulux" customers to finish their food compartments with "Dulux" in 1950?

A. You mean including Frigidaire?

Q. Yes, including Frigidaire.

A. Well, using the same formula and knowing approximately the production of the Frigidaires, I would say it [fol. 4867] would be close to two and a half million dollars annually.

Q. If you know, Mr. Kreuer, to what extent has du Pont been successful in general, in promoting the use of this abrasion-resistant "Dulux" product?

A. Well, in addition to the three manufacturers of refrigerators that I mentioned before that used "Dulux" on their food compartments, the abrasion-resistant "Dulux" was also used on shelves in refrigerators by some manufacturers. It has been, and is still being used on metal office desks and metal office partitions.

Q. Did Frigidaire use it for shelving?

A. I cannot answer that question. I am not sure.

Q. Is that a major item in Frigidaire's requirements of "Dulux"?

A. Well, it would not be a major comparison with their over-all purchases, but it still would be a nice business.

Q. You don't know whether they use it?

A. No, I don't know.

Mr. Gribbon: You may cross examine.

Cross Examination.

By Mr. Hoyt:

Q. Mr. Kreuer, you mentioned the term, or used the word, that Frigidaire was porcelain conscious.

A. Yes, sir.

Q. Do you know the reason for that, for their having become porcelain conscious?

A. You mean the background reason?

Q. Well, I was wondering specifically if you knew anything about their facilities in the manufacture of porcelain.

A. Well, I know they have large facilities. I have never seen them.

[fol. 4868] Q. They produce their own, is that correct?

A. Yes.

Q. Do you know anything about the porcelain enamel equipment? Is that a separate piece of equipment from the porcelain making equipment?

A. Oh, sure.

Q. Do you know whether they have a substantial investment in porcelain enameling equipment?

A. I don't know anything about that. I would presume they would have, knowing the number of pieces that come out.

Q. Now, you testified in 1944, your abrasion-resistant—is that the term you used?

A. That is correct.

Q. That your abrasion-resistant "Dulux" was not ready for commercial sales, is that correct?

A. That is right.

Q. So this was an exploratory sort of meeting?

A. Well, it was a new product that was offered at this meeting. I would not call it an exploratory meeting.

Q. Had these various companies that you mentioned as being at that meeting conducted any tests of "Dulux" of this abrasion-resistant "Dulux", I mean?

A. To my knowledge, this was the first that it was announced. I am not positive whether they conducted tests prior to that.

Q. Specifically, did Gibson and Crosley?

A. I do not think that tests were conducted prior to that time. I think it was the announcement of it.

Q. So that the enthusiasm which you testified about that these companies had had not been based on previous tests?

A. Oh, yes.

Q. Tests by them

A. Oh, yes, they had tested du Pont "Dulux" prior to that, not the abrasion-resistant "Dulux."

Q. Not the abrasion "Dulux"?

A. No.

[fol. 4869] Q. Did you make an attempt to sell abrasion-resistant "Dulux" to Kelvinator?

A. Yes.

Q. What was their response?

A. Kelvinator purchased some abrasion-resistant "Dulux" in the west, which they sent down to, I believe, the Mexican plant of theirs to use on food compartments there, and then it became an export proposition and I was no longer in it.

Q. Did they ever purchase any "Dulux" for domestic use?

A. No.

Q. The first companies, I take it, who used this product were Gibson, Franklin and Cooleratort?

A. That is correct.

Q. Were they major producers?

A. Well,——

Q. As compared to Kelvinator, Frigidaire, Westinghouse and Crosley?

A. No. I would say that all of them are smaller than the people which you mentioned.

Q. What was the first major company who adopted this abrasion-resistant "Dulux"?

A. I do not like to say these people are not major, but they were the three that adopted "Dulux."

Q. They were the only three, is that correct?

A. Yes.

Q. Wasn't there some conversation at this meeting, going back to the Bismarck Hotel meeting, wasn't there some controversy there between these companies or the different representatives as to the value of the abrasion-resistant "Dulux?"

A. Well, I think that is absolutely true; you always have a controversy on any subject that is brought up cold like that.

Q. Have you finished?

A. I say you always have a controversy, and there was [fol. 4870] a dissenter. One of our men said that he did not feel that the value was there.

Q. Now, you stated that there were no other producers of abrasion-resistant "Dulux", is that correct? I mean du Pont had no competitors in the field?

A. No one makes "Dulux" but du Pont, but there were no other manufacturers making anything comparable to the du Pont abrasion-resistant "Dulux".

Q. Does that statement also apply to the "Dulux" rather than the abrasion-resistant?

A. Oh, no, there were many other manufacturers of high baked products that were competing with "Dulux".

Q. Do they sell to refrigerator companies?

A. Yes, sir.

Mr. Hoyt: That is all.

Redirect Examination.

By Mr. Gribbon:

Q. Will you look, Mr. Kreuer, at the exhibit which refers to the meeting in the Bismarck Hotel regarding finishes in 1944. It is the same exhibit you were shown on cross examination.

Reference was there made to the attitude of the Seeger representative. Do you recall what position Westinghouse's representative took with respect to the cost savings of "Dulux" for food compartments?

A. Yes, Mr. VanDerau did not agree with Mr. Sosey. Mr. VanDerau has had lots of experience in finishing food compartments, because under his jurisdiction, there were ten thousand food compartments finished sometime prior to this meeting.

Q. Do you know whether Seeger had ever conducted [fol. 4871] tests prior to that meeting?

A. I do not think they had conducted tests prior to the meeting.

Mr. Gribbon: That is all.

Mr. Hoyt: That is all.

(Witness excused.)

Mr. Cox: Your Honor will recall that yesterday afternoon we explained that this general line of testimony was intended to deal with du Pont's sale of products to the three divisions that were not covered by the testimony of Mr. Williams, the three divisions of General Motors being Frigidaire, Electro-Motive, and Packard Electric.

The testimony that we have offered so far in this line of proof relates to sales to Frigidaire.

It will now be necessary for us to interrupt this testimony about Frigidaire and present a witness who will testify about sales to the other two divisions, Packard Electric and Electro-Motive.

I will call Mr. William P. Fisher.

WILLIAM P. FISHER, called as a witness on behalf of the defendants, having been first duly sworn, testified as follows:

Direct Examination.

By Mr. Cox:

Q. You are William P. Fisher?

A. That is right.

Q. Where do you live, Mr. Fisher?

A. Chadds Ford, Pennsylvania.

Q. Where do you work?

A. Wilmington, Delaware, for the du Pont Company.

[fol. 4872] Q. What is your position with du Pont?

A. Manager of Industries Finishes Division, Fabrics and Finishes Department.

Q. When were you first employed by the du Pont Company?

A. January, 1926.

Q. In what department or division of the du Pont Company?

A. In the Finishes Division.

Q. Where did you first work?

A. At Parlin, New Jersey.

Q. How long did you work there?

A. I was at Parlin from 1926 to 1929, engaged in sort of liaison work between field and laboratory.

Q. What did you do in 1929?

A. In 1929 I was assigned to an industrial territory in northeastern Ohio.

Q. How long did you remain in northeastern Ohio?

A. I stayed there from 1929 until 1936.

Q. Where were your headquarters when you were in Ohio?

A. Oh, several towns—Cleveland, Warren, Youngstown.

Q. You say you remained there until 1936?

A. Until 1936.

Q. Was there a change in your duties at that time?

A. In 1936 I was sent to the Chicago office where I was a supervisor, field supervisor over an area including my previous territory.

Q. Field supervisor of what?

A. Industrial sales.

Q. How long did you remain in that position?

A. I stayed there until 1944 when I went to Boston for one year, and then returned to Chicago as Regional Industrial Sales Manager.

[fol. 4873] Q. How long did you remain in Chicago in that position?

A. Until 1950, when I went to Wilmington as assistant manager of industrial sales and then became manager in 1951.

Q. Now, in describing your work, Mr. Fisher, you have frequently used the term "industrial sales." Will you tell us what that term means in the du Pont Company so far as your duties were concerned?

A. Industrial Sales in the Finishes Division refers essentially to what is briefly known as paint-on products. That means paint that is applied to a product of manufacture as distinguished from paint that is sold for application to houses, or for distribution to retail or jobber channels.

Q. Does it include paint or finishes that are put on automobiles when they are first manufactured?

A. No, it does not.

Q. How is that branch described in the du Pont Company?

A. That is called automotive sales.

Q. And now to what extent while in your present position do you have responsibility for sales to any of the divisions of General Motors?

A. I have responsibility for what might be called auxiliary divisions, that is, Frigidaire, Packard Electric, and the Electro-Motive Division.

Q. Mr. Fisher, I want to direct your attention specifically to two of those divisions which have not been covered by the testimony so far, that is, Packard Electric and Electro-Motive.

I first direct your attention to the Electro-Motive Division of General Motors. Do you know what business is carried on by that division of General Motors?

A. They build diesel locomotives.

[fol. 4874] Q. Do you know what finishes are used by that division in the construction of diesel locomotives?

A. Yes.

Q. What finishes does the division use?

A. They use finishes on the exterior of the diesel which are our "Duco", colored various colors.

In the interior they use a synthetic finish, and then they use large quantities of what might be termed insulation finishes, insulation varnishes.

Q. Do you sell any finishes at the present time to Electro-Motive?

A. Yes.

Q. What kind of finishes does du Pont sell to Electro-Motive at the present time?

A. We sell finishes that go on the exterior.

Q. Is that a lacquer finish?

A. That is "Duco."

Q. Do you know or can you estimate how much of Electro-Motive's requirements of that lacquer for the exterior of the engine du Pont sells to Electro-Motive?

A. We sell them about 70 or 75 per cent.

Q. Do they buy that lacquer from any other competitor or any other company beside du Pont?

A. Yes. They buy the other 30 per cent or 25 per cent from a competitor.

Q. What competitor is that now?

A. Rinshed-Mason has most of it.

Q. Do you know whether the diesel locomotives that Electro-Motive builds are built to order or are they built in gross and just sold that way, if you know?

A. They are built to order. The sale of a diesel takes quite a while.

Q. Do you know whether the persons who order the engines ever specify the products that are to be used on [fol. 4875] the engine?

A. I think that in most cases they do. They may not specify always the product, but they will put a color number on there, and it happens in most cases that color number is our color number.

Q. Do you know why that should be, Mr. Fisher?

A. Yes. We over the years have been very active in the solicitation of railway business. We advertise the fact that we sell 85 per cent of the Class I railroads all or part of their passenger car requirements.

Q. Is it the railroads who order the engines from the Electro-Motive Division?

A. Yes. The Electro-Motive Division finds it much easier to take our color number, and if they need a hundred gallons, send us an order.

The alternate to that would be to get us to send a color card in, send that to some other person, have them make a match. It is much simpler to do it this way.

Q. Are you speaking of a case in which a railroad has designated your color number?

A. That is right.

Q. You mentioned a synthetic that is used to finish the interior of these engines. Does du Pont sell that to Electro-Motive?

A. No, we do not.

Q. You also mentioned the varnish that is used by Electro-Motive. Does du Pont sell that varnish to Electro-Motive?

A. No.

Q. Does Electro-Motive have any use for thinners in connection with its finishing of these engines?

A. Yes. The application of the "Duco" color coat requires a large amount of thinner.

Q. Does du Pont sell thinner to Electro-Motive?

A. Oh, sometimes we do and sometimes we don't. At the present time I don't believe we have any of the "Duco" type thinner.

[fol. 4876] Q. Do you know where Electro-Motive buys its thinner?

A. They buy it from a local concern in Chicago.

Q. Do you know where Electro-Motive buys the synthetic finish which is used on the interior of a Diesel?

A. Yes. They buy it from Rinshed-Mason.

Q. Do you know where they buy the varnish that you spoke of?

A. Yes, the Sterling Varnish Company.

Q. Now, Mr. Fisher, I would like to direct your attention to Packard Electric, which is another division of General Motors.

What business is carried on by that division, if you know?

A. They make electrical cable, wiring harnesses and small motors.

Q. When did you first have anything to do with the Packard Electric Division of General Motors?

A. In late 1929.

Q. Was that when you were in the Ohio territory?

A. Yes.

Q. What did you do at that time in relation to Packard Electric?

A. I was the industrial salesman contacting Packard Electric.

Q. At that time was Packard Electric a part of General Motors?

A. No, they were not.

Q. Since you left or after you left the Ohio area, were you familiar with the business transactions, if any, between du Pont and Packard Electric? Have you followed that account?

A. Yes, I continued to have general supervision over it.

Q. What are the principal finish products that are used [fol. 4877] by Packard Electric or were used in 1929? Let's start with 1929.

A. In 1929 they used what is known as cable lacquer and a minor amount of varnish.

Q. Let me ask you the same question as of the present time. What finish products does the division use at the present time, if you know?

A. They use cable lacquer, considerable quantities of varnish, and wire enamel.

Q. What product does du Pont today sell to Packard Electric, if you know?

A. We sell them wire enamel only.

Q. Do you sell them any insulating varnish?

A. No.

Q. Do you sell them any cable lacquer?

A. No.

Q. Is there more than one type of cable lacquer, Mr. Fisher?

A. Yes. Cable lacquers can be classed according to the types of cable.

I might explain that cable consists of a copper wire surrounded by a sheet of some type, rubber composition, sometimes covered with a fabric and sometimes with lacquer. That lacquer may either be a low tension lacquer or a high tension lacquer. Low tension means where the cable is used for the lighting system of the car. High tension where it is used for the ignition system.

Q. What is the purpose of these lacquers? Why are they applied to the cables, Mr. Fisher?

A. Somewhat to insulate, and mostly to protect the insulation.

Q. How are they applied to the cable?

A. They are applied by dipping operation, passing the cable through a bath, then wiping it off with a die or a nipple.

Q. Is this lacquer that you are speaking of that is applied to cables the same kind of lacquer, generally speaking, that has been referred to in this case as "Duco"?

A. No. No, it is not.

[fol. 4878] Q. What is the difference between this cable lacquer and "Duco" type lacquer?

A. "Duco" is based on the use of low viscosity nitro cellulose as covered by the Flaherty patent, whereas these materials are based on high viscosity nitrocellulose or other cellulose products.

Q. Mr. Fisher, you testified a moment ago that you first began to deal with Packard Electric in 1929. Was du Pont selling them anything at that time?

A. Yes. Prior to my taking over, du Pont had sold them large quantities of low tension, but at the time that I took over we were selling them the black high tension cable lacquer.

Q. That was in 1929?

A. In 1929.

Q. Do you recall how or when or what the circumstances were that led to the sales of the black high tension lacquer that you have mentioned?

A. Yes. Just about the time that I went there, we had developed a very outstanding black high tension cable lacquer, and it had had a combination of heat resistance, oil resistance, cold crack resistance, and also good working properties.

Q. How much of the Packard Electric Company's requirements of black high-tension lacquer did du Pont sell in 1942, roughly, if you remember?

A. We sold the entire requirements except for trial runs that they gave competitors.

Q. For how long, if you know, did you continue to supply Packard Electric with all of its requirements of black high-tension lacquer?

A. That continued until 1933.

The Court: The Court will now recess for fifteen minutes.

(Whereupon a recess was taken.)

[fol. 4879] By Mr. Cox:

Q. Mr. Fisher, before I continue with the questions about Packard Electric, I should like to revert for a moment to your testimony about your sales to the Electro-Motive Division.

You testified that you did not sell them the synthetic that was used on the interior, and that you did not sell them varnish, is that correct?

A. That is correct.

Q. Do you make the kind of synthetic finish that is used on the interior of those locomotives?

A. Oh, yes, and would very much like to have that business.

Q. You tried to sell Electro-Motive?

A. Yes.

Q. Do you make the kind of varnish that Electro-Motive uses?

A. We make that type of general varnish. Those are varnishes that require a lot of specialized laboratory work, and we certainly are in a position to do that.

Q. Have you tried to sell Electro-Motive varnishes of that kind?

A. Yes.

Q. Now, I will return to the questions I was asking you about Packard Electric, and I think you just testified beginning in 1929 that du Pont Company had all of the black high-tension lacquer business of Packard Electric, and that continued until some time in 1933, is that correct?

A. Yes, about the middle of 1933.

Mr. Cox: At this point I should like to introduce a document which has been marked du Pont Exhibit No. 333 for identification, which is the report dated January 14, 1932.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 333.)

[fol. 1880] Q. Is this the report that you made, Mr. Fisher?

A. Yes, this is known as Industrial Sales Trade Report.

Q. Now, will you look at the face of that report, and particularly at the words and figures that appear at the left hand side, and I call your attention to the two entries there that relate to du Pont.

Do you see them?

A. Yes.

Q. Now, which of those entries relates to the high-tension black business that you just referred to?

A. The entry that is marked "CL. blk;" that means "Carloads, black," price, $1.85 from du Pont; approximate consumption 15,000 gallons.

Q. What is the next item below that that has to do with du Pont?

A. The next item below is in the wrong line, and that is "3125" thinner, .80, and from du Pont.

Q. Was this report made at the time when Packard Electric was part of General Motors, or was it before?

A. This is before it became part of General Motors.

Q. Was this report made at the time when du Pont had all of the black high-tension lacquer business?

A. That is correct.

Q. Now, I should like to have you look at a passage that appears on the reverse side of the report, the two center paragraphs in the page, and I particularly call your attention to the second of those paragraphs—although I should like to have you look at both of them, Mr. Fisher—and I am now going to direct your attention specifically to the last two sentences of the second paragraph which reads as follows:

> "While, as you state in your recent memo, Snyder is friendly to both F. S. and Arco, it is true, but the [fol. 4881] only competitor we have on Black at present is Arco. There are dozens of lacquer people calling here who never even get a chance to discuss their product, let alone a chance to have samples tested or to find out what Packard's requirements are."

What do the letters "F. S." mean in that paragraph?

A. That is Ferbert Schorndorfer.

Q. Is that a company that made lacquer?

A. That is a lacquer and paint company that is located in Cleveland.

Q. Now, do those sentences state accurately your impression at that time of the purchasing policy of Packard Electric?

A. Yes, essentially.

Q. And you say that this was before Packard Electric became a part of General Motors?

A. That is correct.

Q. Now, was there any change in your observation in the purchasing policy after Packard Electric became a part of General Motors?

A. Yes, I would say there was a rather basic change.

Q. What was that change, Mr. Fisher?

A. As an independent, Packard Electric felt that the three suppliers, Ferbert, Arco and du Pont, were expert in the field of cable lacquers, specialists in that field, and they thought that that was enough. They wanted to stimulate competition among those three, but they felt that other people in the lacquer business might come in there and claim to know something about it, about cable lacquers; they felt that actually they didn't have a whole lot of experience, and that Packard could not afford to spend the time and effort testing the products of anybody who came in and claimed they had something.

[fol. 4882] Q. Is that the policy to which you were referring when you said in this report, "There are dozens of lacquer people calling here who never even get a chance to discuss their product"?

A. That's right.

Q. Now, what change took place in that policy in your observation after Packard Electric was acquired by General Motors?

A. General Motors opened it up to a great extent.

Q. What do you mean by "opened it up"?

A. Well, when suppliers came in, well-known lacquer companies, a lot of concerns were nationally better known than these two, and they got a chance to send in samples and they gave them the details of their requirements, and eventually more people got specified or approved.

Q. I would like to call your attention also to a statement that appears in this same paragraph in which you say:

> "According to my records their total purchases have been in excess of $25,000 for 1931."

Is that a reference to the black high tension lacquer business, or is it a reference to all of their requirements, if you can tell from the context?

A. That is all of their requirements, but it was practically all black high tension.

Q. In your activities in your business at that time, was that a large or small account?

A. That was a very large industrial account.

Q. Now, you have told us in 1933 there was a change in your relationship with Packard so far as black high tension lacquer was concerned. What was that change?

A. Well, in 1933, they started buying lacquers of a considerably higher heat and oil resistance. As a matter of fact, [fol. 4883] the testing of such lacquers had started in 1932, and we had submitted such products. That change was essentially due to the introduction of a new resin which was available to a number of people.

Q. Did you lose the black high-tension lacquer business?

A. We lost the business in the middle of 1933.

Q. Who got the business, if you know?

A. First, it was Arco.

Q. Did you lose the business before or after General Motors bought Packard?

A. After.

Q. For how long did the situation continue which you have just described, that is, during the time you were not selling any black high tension?

A. From the middle of 1933 to sometime in 1936. We sold to Packard Electric, but not in quantities; that is those cases where you have a trial run. Where you have a volume, and working properties, we really never got up to where we got the material approved on all counts until about the beginning of 1936.

Q. Before I come to that, I should like to introduce a document which has been marked du Pont Exhibit 334.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 334.)

By Mr. Cox:

Q. Is this a report you made, Mr. Fisher?

A. Yes, sir.

Q. Now, at the time this report was made, who was getting the black high-tension lacquer business?

A. Arco was getting it.

Q. As shown——

A. As shown in the second line down.

Q. What business does this report indicate that du Pont [fol. 4884] was getting from the Packard Electric at the time of this report?

A. It indicates nothing but varnishes.

Q. Was this report made before or after General Motors had bought Packard Electric?

A. After.

Q. Now, Mr. Fisher, you have said a moment ago, in 1936, there was a change in the black high tension lacquer business.

What happened at that time, in your relation with Packard?

A. In 1936, we started to get larger production amounts until sometime within about a year, we again became the preferred supplier.

Q. You say you became the preferred supplier?

A. Of black high-tension.

Q. Of black high-tension?

A. Yes.

Q. Can you estimate at that time how much of the Packard Electric requirements of that lacquer you were supplying?

A. Well, in certain periods between 1936 and the next few years, we got 50, maybe 75, per cent of the business—I don't think 75, about 50.

Q. Had your lacquer improved in quality between 1933 and 1936? I am asking about the black high-tension lacquer.

A. Our production lacquer had improved greatly.

Q. What do you mean by production lacquer?

A. We had submitted samples during that early period which was essentially the same as the lacquer on which we obtained the business later.

Q. You mean samples you had submitted at an earlier date, were they equal in quality to the samples of lacquer that Packard Electric was using?

A. There were many periods during that time when I felt, [fol. 4885] and had good reason to believe, that our product was equal in quality to that that was being used.

Q. Are you now referring to the period before you got half of the business?

A. That is right. I am referring to the period from 1933 to 1936.

Q. How long did you continue to supply a large part of Packard Electric's requirements of high-tension black lacquer?

A. Until about 1939.

Q. What happened at that time?

A. Well, in 1939 the requirements of heat and oil resistance were again upgraded. A competitor came along and gave them a lacquer of considerably higher heat and oil resistance, and they got the business.

Q. What competitor was that?

A. I believe that was the Standard Varnish Company.

Q. Now, do you know, after that time, that is to say roughly after 1939, how much of the requirements of the Packard Electric Company for black high-tension lacquer was supplied by the Standard Varnish?

A. Practically all, for a considerable period.

Q. How long did that continue?

A. Well, that continued until the war.

Q. Throughout that time, did you continue to attempt to sell black high-tension lacquer to Packard Electric?

A. Yes, sir.

Q. Were you ever able to sell any in production quantities during that period?

A. Only for trial runs. We finally had a material that was approved, however.

Q. When you say "approved", what do you mean by that?

A. Approved as to quality.

[fol. 4886] A. Approved by whom?

A. Approved by the laboratory people and production people.

Q. Whose laboratory people and production people?

A. The Packard laboratory people.

Q. They approved your lacquer, but they did not buy it in production quantities?

~~A. No.~~

Q. Now, Mr. Fisher, I should like to direct your attention to the other kind of high-tension lacquer that you mentioned, which was the clear.

Going back to the period before 1934, where did Packard Electric buy its clear high-tension lacquer?

A. They bought it from Ferbert Schorndorfer and Arco.

Q. Did you, prior to 1934, attempt to sell clear high-tension lacquer to Packard Electric?

A. Oh, yes.

Q. Were you successful in selling any to them?

A. No.

Q. Will you please show Mr. Fisher again the document that has been marked du Pont Exhibit No. 334.

Is there an entry on the face of that document that refers to the clear high-tension lacquer?

A. Yes. "Clear HT. FS CO," meaning Ferbert Schorndorfer, "4,000 gallons."

Q. Did you thereafter 1934 get any business from Packard Electric for clear high-tension lacquer?

A. Yes. I might say that our clear had been approved during this entire period when we were getting the black business. In fact, it was a superior product. But the Packard Company did not feel the need for a superior product, for the clear, because that was a dealer item, and they wanted to keep other people in the picture. So they gave the business, or had given it, to Arco and Ferbert Schorndorfer.

[fol. 4887] Q. What do you mean by a dealer item?

A. That means that the cable was sold to dealers for replacement use on automobiles as distinguished from sale to the automobile manufacturer.

Q. Was all the cable on which the clear high-tension lacquer was used sold to dealers?

A. Practically all.

Q. None of it used in production?

A. No.

Q. You again say that your clear high-tension lacquer was approved. Approved by whom, by Packard?

A. Approved by the Packard production and laboratory people.

Q. About what time, if you recall, was that approval given?

A. Oh, we got small amounts all during the period from 1929 to 1934. You would always try to get a drum just to keep on the list.

Q. Did the time come when they bought clear high-tension lacquer from you for production?

A. Yes, sir. In 1934 they recognized the need for a higher quality clear, and so they started to buy from us.

Q. Do you know how much of their requirements they started to buy from you at that time?

A. Eventually they bought most of their requirements.

Q. This is their requirements for clear high-tension lacquer?

A. Yes.

Q. How long did that continue?

A. That continued until about 1936. In 1936 a new material came into the picture, ethyl cellulose.

That was a product that we had been familiar with and we knew it would produce a top quality lacquer, but had always been discouraged from offering it because it was very expensive.

In fact, such a lacquer cost, roughly, twice what the other [fol. 4888] clear lacquer cost. But a competitor became approved and started getting business in 1936.

Q. What competitor was that?

A. The Glidden Company.

Q. Did you thereafter try to sell an ethyl cellulose lacquer to the Packard Electric Company?

A. Yes, sir, we tried and finally had it approved.

Q. Did you sell a lacquer of that kind to them?

A. No, we never secured any business.

Q. By 1939, were you selling any clear high-tension lacquer to Packard Electric at all?

A. We continued for a time to sell the lower quality clear high-tension at the lower price for certain outlets where that was sufficiently good. But that business disappeared about 1939.

Q. Did you continue thereafter to solicit Packard Electric's business?

A. Yes.

Q. For clear high-tension lacquer?

A. All items, yes.

Q. Did you get any business from them for that lacquer?

A. No, our business began to disappear by 1940.

Q. After the war did you solicit any business from Packard Electric for clear high-tension cable lacquer?

A. Yes. We solicited business after the war based on the same products that had been approved prior to the war.

Q. Have you been successful in obtaining any business from Packard Electric since the war on this lacquer?

A. No.

Q. Mr. Fisher, now I want to direct your attention to the low-tension cable lacquers that you mentioned in the beginning of your testimony.

[fol. 4889] You said, I think, that in 1929 when you first dealt with Packard, it had been buying low-tension cable lacquers from du Pont, is that right?

A. Yes.

Q. Who had developed those lacquers, if you know?

A. Well, the du Pont Company had been a pioneer in the idea of using lacquer for protecting cable, and certainly should receive part of the credit for having developed such lacquers.

Q. Did you attempt to sell low-tension cable lacquer to Packard Electric in 1929 when you first dealt with them?

A. Yes. One of my first assignments was to try to get Packard to sign a year's contract for low-tension cable lacquer.

Q. Were you successful in that effort?

A. No. They told me that they felt that inasmuch as we had the only approved black that we should be satisfied with the black business, which was the largest in dollar volume.

Q. Again, was this before or after GM acquired Packard Electric?

A. That was before.

Q. Did you continue your efforts after 1929 to sell them low-tension lacquer?

A. Yes.

Q. Were you ever successful?

A. Only to a very minor degree. In 1936 Packard found that the low-tension cable lacquer that they had been buying —that they had been making themselves based on film scrap was not satisfactory, and so they called us in and asked us to help them to try to get a heavier coating on it.

We experimented with them for several months. I remember this distinctly because it was the time that I turned the account over to Mr. Robertson, who succeeded me.

We added various things, principally a low viscosity nitrocellulose in order to try to apply a heavier film which [fol. 4890] would still work in the high speed equipment that they had recently installed.

Finally they found, using suggestions that we had given them, that they could apply a satisfactory coating still based on the film scrap.

Q. Did you get any business from them after that development work?

A. We got no business based on that, nothing but good will. But a little later they discovered that they needed a still higher quality for certain dealer outlets, and so for a period of time we got some of that business.

Q. Was that, if you know, a large part of their requirements for low-tension lacquer that you got?

A. No, that represented less than 5 per cent of their requirements, and we shared it with someone else.

Q. You mentioned in your last answer that they had been making their own low-tension lacquer, Packard Electric had. When did they first start making their own low-tension lacquer, if you know?

A. They started experimenting in 1930. By 1931 they were making all of their low-tension lacquer.

Q. What were they using for that purpose?

A. A film scrap solution that they purchased from the Eastman Kodak Company.

Q. Did they always buy that from the Eastman Kodak Company, or did they change suppliers?

A. There were times when they bought it from the Arco Company. It was still based on film scrap, but the Arco Company reduced the viscosity for them.

Q. Now, after they started to make their own low-tension [fol. 4891] lacquer, did you attempt to get that business from them again?

A. Oh, yes.

Q. Did you try to persuade them to buy from you before General Motors bought Packard Electric?

A. Yes, before and after.

Q. Were you ever able to persuade them to buy their low-tension lacquer from you rather than making it themselves?

A. No. In fact, I can tell you that on one occasion we were so anxious for business that we quoted them a price about two or three cents a gallon over what they had told me their manufacturing cost was. But we did not get any business.

Q. Did you ever try to get their business for film scrap solution?

A. Yes, we talked about it.

Q. Were you ever able to get any of that business from them?

A. No.

Mr. Cox: I should now like to offer the document that has heretofore been marked for identification du Pont Exhibit No. 335, which is a report dated May 8 and May 9, 1936.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 335.)

By Mr. Cox:

Q. This report was made by Mr. Robertson. Is that the Mr. Robertson you referred to a moment ago?

A. Yes.

Q. Will you examine this report and tell us whether it refers to the incident that you described in your testimony, that is to say, the incident involving your work with Packard Electric?

A. Yes. In the next to the last paragraph it says:

> [fol. 4892] "It now appears that Litman will be able to use his regular film scrap material (by following leads suggested by us in our blends) for making cable for auto manufacturers.

That is the incident that I referred to.

Q. I think you also said that you thereafter did get a certain amount of their business for certain kinds of low-tension lacquer that they were selling to certain dealers, is that right?

A. Yes. The report continues, and it has reference to it, "however, he still expects to use a better finish on dealer cable and we have a good chance of getting this portion of the business if we can supply a satisfactory product at a reasonable price."

Q. And you did get some of that business?

A. Yes.

Q. Did anyone else get any part of that business?

A. Yes, the Arco Company got some of it.

Q. How long did you continue to get that part of Packard's business for low-tension cable lacquer, if you remember?

A. For about two years, possibly a little over.

Q. Then what happened?

A. Well, then they found out that they could apply these heavier coats with existing film scrap solution, with the low tension made of their own manufacture based on film scrap solution, so they stopped buying from us.

Mr. Cox: I should now like to offer the document which has been marked for identification du Pont Exhibit No. 336, which is another report prepared by Mr. Robertson, and is dated 9/11/41.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 336.)

[fol. 4893] By Mr. Cox:

Q. I ask you to look at this document, Mr. Fisher.

At the time this report was written, was du Pont getting any business at all from Packard Electric?

A. A very small amount under the heading of Roxylin and others, we would come in under the term "and others".

Q. Can you give us any estimate of how much business that was at that time?

A. Oh, possibly $1,000.00, $1,500.00 worth a year.

Q. What kind of lacquer was that that you were selling to them at that time?

A. That was a black, apparently, because 6233 is our number.

Q. Do you know whether your black was still approved by Packard Electric as of the date of this report?

A. Yes.

Q. Now, based on this report and on the volume that is shown on it, can you give us any estimate as to what the total dollar volume of Packard Electric's requirements for lacquers was in the year 1941?

A. Well, this report would indicate that it is about $200,000.00. I would say it was somewhere between $200,000.00 and $300,000.00.

Q. Do you know whether Packard Electric's production has increased or decreased since the war?

A. It has increased very greatly.

Mr. Cox: You may cross examine.

Mr. Harris. There is just five minutes, your Honor. It would be a convenience if I could start this afternoon.

The Court: Very well.

[fol. 4894] Cross Examination.

By Mr. Harris:

Q. Directing your attention first, Mr. Fisher, to the Electro-Motive. Now, the exterior "Duco," you have had from 70 to 75 per cent all along of the requirements?

A: 70 to 75 per cent, yes.

Q. When did Electro-Motive set up in business, if you know? If you don't know, it is immaterial.

A. Well, it is a number of years ago. I cannot tell you exactly.

Q. Well, has it been in operation, and have you been selling to it during the time that you have been engaged, as you testified this morning, in your capacity as manager?

A. In my capacity as manager of industrial sales in Wilmington, I have only had contact for about two years.

Q. Now, when did you have the first contact with them?

A. The first contact was when I was in Chicago as a regional manager of Industrial Sales which started in 1944. [fol. 4895] Q. 19 what?

A. The end of 1944.

Q. That was your first contact with them?

A. Yes.

Q. Do you know the record of their purchases before that time?

A. I am not familiar with it, but I do believe they bought from us.

Q. Now, Rinshed-Mason took the balance, did it?

A. The balance?

Q. The balance between 75 and 100 per cent of the exterior "Duco" or exterior finish?

A. At what period are you speaking of now?

Q. Well, the period that you testified to this morning. I am just reading from my notes. How long has Rinshed-Mason had the balance that you didn't have, of the exterior finish?

A. Well, I testified this morning that Rinshed-Mason had the principal portion of what we did not sell of colored exterior finish.

Q. That is what I thought.

A. During the present period. Now, by that I meant during the period of the last few years.

Q. That's right, and that would be around 25 per cent, wouldn't it?

A. 25 to 30 per cent.

Q. Yes. Now, the interior finish, what kind of finish did they use for the interior?' I think you called it synthetic something.

A. Yes, they used a synthetic comparable to our "Dulux."

Q. Comparable to what?

A. Our "Dulux" finish.

Q. From whom did they get that?

A. Rinshed-Mason.

Q. Now, you had tried to get that business, had you?

A. Oh, yes.

Q. Was the price of Rinshed-Mason better than yours?

A. I would not think so.

[fol. 4896] Q. Do you know?

A. We are competitive in other parts of the country with them.

Q. I am speaking now of the purchases by Electro-Motive. Was the Rinshed-Mason price lower than yours for this synthetic finish?

A. I do not know.

Q. I see.

Now, you spoke of the Electro-Motive using varnish. Where did they use the varnish?

A. Well, a piece of electrical equipment has lots of coils and motors that were where insulation is a most important factor.

Q. And are these the parts where the varnish that you testified about, were used?

A. Yes, on the electrical portion.

Q. Are these the parts that require specialized products?

A. Yes, they require a specialized varnish.

Q. And that specialization is according to certain specifications, is it not?

A. The specifications are not spelled out in complete detail. It requires cooperation between the varnish maker and the user, Electro-Motive.

Q. Who sells this specialized varnish to Electro-Motive?

A. Sterling Varnish Company.

Q. Yes? As a matter of fact, du Pont never did, did it, prepare a varnish according to that formula, the formula used by Electro-Motive?

A. Yes, we have had varnishes that, in our opinion, Electro-Motive could use. It is incorrect to speak about a formula that they prepared, because we make the formula.

Q. I am speaking now of the varnish that is sold by Sterling. You have not made that particular varnish, have you?

A. Yes, we have. There are many varnishes, I should say, and we have formulated a number of products.

[fol. 4897] Q. And as I understand your testimony this morning, Mr. Fisher, you stated that "we could have done it, if we wanted to". Am I right in remembering that when you spoke of this specialized laboratory job, you said "we could have done it."

A. I don't think I said, "We could have done it." I think I said, "If we had wanted to."

Q. What did you say, if you recall? Did you say, "We had done it"?

A. I said that we had laboratory facilities capable of formulating insulating varnishes for any requirement.

Q. Did they do it for Electro-Motive?

A. Yes.

Q. And was it accepted by Electro-Motive?

A. They did not purchase any.

Q. Did they accept it and give it the okay, or whatever you call it, the approval?

A. Well, I cannot recall. I believe that they certainly have approved some of them.

Q. I am speaking about a specialized varnish which you say required laboratory work. Now, did they approve anything like that for you which was purchased from Sterling?

A. There is no one specialized varnish. There are a number of varnishes required for this work.

Q. Now, should we go to another subject?

Do you recall when General Motors took over Packard Electric?

A. Yes.

Q. When?

A. In the middle of 1932.

Q. Now, had you had anything to do with sales of Packard Electric at that time?

A. Yes.

Q. How long had you been selling Packard Electric?

A. From—I personally had been contacting them from November of 1929.

Q. And had du Pont sold them material up to the time [fol. 4898] that General Motors took over?

A. Yes.

Q. Now, I am calling your attention first to black high tension, and I would like you to look at du Pont Exhibit No. 333.

This you have testified was your sales trade report of January 14, 1932?

A. Right.

Q. At which time it appears that the "CL black", du Pont sold 15,000 gallons—is that gallons?

A. Yes, it was.

Q. Now, who sold the high-tension black?

A. That was the high-tension black.

Q. I see. And what is the high-tension clear? I beg your pardon. You are right on that.

Who sold the high-tension clear?

A. Ferbert Schorndorfer, at that particular time.

Q. Now, I notice you say that, and I am calling your attention to the right-hand side of this document now, "An important reason why the customer buys from competitors"—and you have set down two reasons, "Quality," and "Friendship."

What was this quality that you were referring to?

A. Well, quality would include the film characteristics first. That means the ability to resist heat and oil and bending around a mandrel at a low temperature, plus the ability to have all of those three properties, and at the same time work with satisfactory equipment without sticking on the reels.

Q. Would that indicate from your statement that the company, the Packard Electric business, was obtained from competitors on the basis of quality, or that the quality was this [fol. 4899] time superior to the du Pont quality of that particular article?

A. I don't quite follow that question.

Q. Well, will you tell us then, please, what you meant by the statement that the competitor—that the customer bought from competitors on the basis of quality and friendship?

A. Well, that is a general statement, a general statement applying to all items that they buy.

Q. Well, is it referring to the fact that they buy from the competitor because the quality is better than du Pont's? Is that what you are referring to?

A. No, I am referring to the fact that they would buy from a competitor if the quality were better.

Q. Isn't that a record of what was actually being done by the customer and you are reporting it to your company?

A. That is a record of the customer's purchasing policy, giving important reasons why a customer or prospect buys from competitors. It says, "Quality" and "Price," and a man wants to know——

Q. Go ahead. I am sorry.

A. (Continuing): And the man reads the report and wants to know which one of those three factors are the important factors. Sometimes it is all three, and in this case I wrote down "Friendship."

Q. And you wrote down "quality"?

A. Yes, quality. It has to have quality.

Q. Wasn't your competitor Arco?

A. Yes.

Q. Now I call your attention, if you please, to the third paragraph on the back of this document:

> "I think that if it is at all possible, it would be very good policy to make a small price reduction. Even [fol. 4900] though we have not had all of Packard's Black business for 1931, the total volume has been very attractive. Prices have always been on a profitable basis with no haggling whatsoever. While, as you state in your recent memo, Snyder"——

Who is Snyder?

A. That was Mr. J. A. Snyder, the purchasing agent of Packard Electric.

Q. (Reading):

> "—Snyder is friendly to both F. S. and Arco, it is true, but the only competitor we have on Black at present is Arco."

Was the Arco quality any different from yours at the time?

A. Yes.

Q. Was it better, or not?

A. Not as good.

Q. Then why were they buying on the basis of quality from Arco?

A. If you will read this sentence, it refers to Black.

Q. Sir?

A. It refers to Black. This paragraph speaks of Black.

Q. That is not the material that you are talking about when you are talking about quality?

A. Any material that the customer purchased had to have quality, whether they bought it from us or from a competitor.

Q. Shall we pass to something else? I don't think we are getting through on some of these questions.

Will you give the witness the next report, which is numbered for identification Government's Exhibit No. 1319. This is known as du Pont's No. 2 on List No. 3, a document which was furnished to the Government.

[fol. 4901] Will you look at that document, Mr. Fisher? It is an excerpt from Industrial Sales Trade Report, a call made by you, I take it, or whoever made this—did you make this?

A. I can't tell from this excerpt whether or not I made it.

Q. Whether it was you or not?

A. Right.

Q. All right, but in October, 1932, were you calling on Packard?

A. Yes.

Q. They are talking about two products, are they not, a clear and a black, is that right?

A. Which part of the page are you speaking of? Under what paragraph?

Q. Right at the beginning, "Purpose of call. Follow up on X-62-7 clear."

A. That is right.

Q. What was X-62-7 clear?

A. That is a high-tension clear lacquer.

Q. What was X-62-8 black?

A. That was a high-tension black lacquer. Both of those—when they have an "X" in front of them, it means experimental materials.

Q. I call your attention to the result in No. 1, the first paragraph, that X-62-7 did not show up well on certain tests, right?

A. Yes.

Q. Now I call your attention to the third paragraph:

> "It is reported that Arco has cut price on 13½ per cent film scrap solution to fifty-six or fifty-seven cents. If so, would we be interested in meeting that figure?"

Now, did you find in your attempt to sell the du Pont product that sometimes your competitors were selling a similar product at a lower price?

A. A similar product?

Q. Yes.

A. You always find that.

Q. Did you find it in dealing with Packard Electric?

A. Naturally, a similar product sometimes at a lower price, but that doesn't mean it is the same product.

[fol. 4902] Q. You could say yes, could you not, to that question? If you will let me rephrase it.

Did you find in your dealings with Packard Electric that competitors were selling to Packard Electric a similar product to du Pont's at a lower price?

Will you answer yes or no, please?

A. I can't answer that categorically yes or no.

Mr. Cox: I object to the question.

Mr. Harris: He said he can't answer it. Now, answer the best way you can.

Mr. Cox: I object to the question unless the product and time are specified.

By Mr. Harris:

Q. I will specify high tension black, and I will specify the time in 1932 on more than one occasion.

A. The answer is no.

Q. You did not find at any time that your competitors were charging a lower price than du Pont?

A. For a satisfactory product?

Q. I didn't say that. I said a similar product.

A. Well, if you would define that word "similar". If by similar you mean something unsatisfactory but similar, that might have been the case. I don't know.

Q. So that we understand from your answer that if the product were being charged at a lower price to Packard Electric, though it is similar, it is not as good a quality as du Pont's?

Mr. Cox: May we have the question read, please?

(Question read.)

[fol. 4903] The Witness: Could you put that a little simpler?

By Mr. Harris:

Q. Yes. Did you find any competitor ever sell a product similar to du Pont's of equal quality at a lower price than du Pont?

A. We were speaking about black high tension. Now it is general.

Q. Yes, I will call it black high tension.

A. Let me tell you then. Our product was satisfactory, the only satisfactory product during the period that I am talking about.

Q. Now let us take another product that you were selling during this period.

Let's take the clear. You were selling that, weren't you?

A. No.

Q. What were you selling?

A. Black high-tension.

Q. Is that all?

A. Oh, small amounts of varnish and thinner. But black high-tension was the main product.

Q. I call your attention to Government's Exhibit No. 1320. That is your report of December 15, 1932.

Were you selling at this time film scrap solution?

A. No.

Q. What is this item on the back of the page of this document called "Film scrap solution. We finally met the Arco price of 56 cents."

What are you talking about there?

A. That is a film scrap base which has been reduced by the addition of thinner to the desired viscosity, to the viscosity desired by Packard. They added oils or plasticizers to that to produce the low tension cable lacquer.

Q. What do you mean by saying "we finally met the Arco [fol. 4904] price of 56 cents"?

Was the Arco price lower than your price?

A. It had been lower—

Q. I say was it lower? Was it lower than your price? You said it had been lower?

A. I can't tell you. Actually what happened, I believe, was that I had some haggling with the office. I knew what this Arco price was, and I had to do some selling at the office to get them to meet the Arco price.

Q. Do I understand from that that the Arco price at that time was lower than the du Pont price for this product?

A. I can't recall whether we had actually quoted or not. We were not selling them any. We were not selling this item.

Q. When you say you met the Arco price, what do you mean by that?

A. I mean that we quoted what, in my opinion, was the Arco price.

Q. And by meeting it, did you have to come down or go up?

A. I imagine we had to come down.

Q. Was Arco a competitor?

A. Yes, sir.

Q. I call your attention to du Pont Exhibit 334. This is another of your reports of the 7th of May, 1934. What you are talking about there apparently is clear film, black high-tension, and clear high tension. Am I right on that?

A. These are the materials tabulated in the consumption figures.

Q. Are those the materials that du Pont was trying to sell to Packard Electric?

A. Yes.

Q. In 1934, is that right?

A. Yes, sir.

Q. What do you mean by the phrase, "All three" referring to why this customer or prospect bought from com-[fol. 4905] petitor, "(quality, service and price.)" Did you mean by that that your competitors were selling better quality, that they gave as good or better price at a lower price than du Pont for this material?

A. No.

Q. What did you mean by it?

A. I meant in the opinion of Packard Electric Corporation at that time the competitors had a superior quality service price.

Q. Yes. Do you know whether they did or not?

A. I believe not; I didn't believe it.

Q. Why did you put it down then?

A. It says why. Because Packard Electric Company thought that, but that does not make it a fact.

Q. You record, do you not—I think we are both talking English—you record, do you not, that the customer which was Packard Electric, bought from the competitor, which was Arco, F. S. Company and Eastman, on the basis of quality, service and price, rather than from du Pont. Have you an answer to that?

A. I am reporting to the office the information and the reason that the customer believes. It does not say it is a fact that either quality, service or price—they buy on what they feel, what they believe.

Q. Shall we go to the next, and I call your attention to the next document which has been marked for identification Government's Exhibit 1321. The next is No. 7 of the list 3 of the du Pont documents furnished to the Government, and this appears to be a trade report, and it is on the 24th of April, 1935, and you are talking about black high-tension. I call your attention to the paragraph at the bottom on the right:

> [fol. 4906] It appears that the ovens will be ready for testing by next Wednesday, May 1. The first concern offering a suitable material will get the business."

Now, what was going on at that time? Was there a sort of race between you and your competitors; du Pont and the competitors to obtain a satisfactory product for Packard Electric?

A. Yes.

Q. Who did get there first?

A. A competitor was the first to be approved, both from a laboratory standpoint, which means film properties, and from a production standpoint. We were approved very early in the game from a laboratory standpoint, but unfortunately Packard Electric Company, at that time, considered us to be just another paint company, and they saw no reason—there were a great many competitors at this time, and they saw no reason to make a trial run of our product just because it was approved, any more than they would make one of anybody else.

Q. Did you ever get any of that business?

A. Yes, we got it eventually.

Q. I beg your pardon?

A. Yes, we got quite a lot of it.

Q. How soon after your product was approved?

A. Well, during this first year, 1935, I would imagine we sold them black high tension seven or eight times in lots of one to ten drums, if we had ten drums working. You would have a lot of argument to try to get them to place an order with you, I mean to try to get them to place it on their own terms.

Q. How long after your sample was approved—was it your production that was approved?

A. Yes.

[fol. 4907] Q. How long?

A. It is pretty hard to say that too, because you have to remember during this period the standards were steadily changing from a period of the middle of 1933 until about 1936.

Q. You were forever trying to catch up, is that right?

A. Yes.

Q. When you did, you got the business, is that right?

A. We were forever trying to get the material approved in production without—well, I will have to put it this way. We would be approved on a laboratory basis. Somebody else would be approved, a number of others. The other fellow would get a larger order, then possibly the other man might come in with a slightly different product, and by the time we got approved, they could buy our material, the production standard had changed.

Q. Then you would get a chance to meet the new standard, wouldn't you?

A. Yes, we might introduce the new standard ourselves.

Q. Yes, and it would be acceptable?

A. Yes.

Q. And you would be first then in that case?

A. Not necessarily the first to get the business, the record shows we were not.

Q. But you did get the business, didn't you?

A. By 1936, we began to get a very substantial share because we had a material which worked better in production than any other.

Q. What do you call a very substantial share?

A. I think about 50 per cent.

Q. And you people, you and your competitors were running neck and neck, weren't you, in quality?

A. Well, you could not say neck and neck.

[fol. 4908] Q. You mean you were way out in front?

A. When you say competitors, broadly speaking, by that time there were eight or nine that were after that business.

Q. And you got 50 per cent out of the eight or nine competitors?

A. Yes, sir.

Q. And they got the rest, is that right?

A. Yes, but at that time, our material worked better.

Q. You saw to that, didn't you? You saw to it that it would work better, didn't you?

A. I mean that they could run it in production in a very foolproof manner.

Q. Yes.

A. We had no control over their operating——

Q. A little louder, please.

A. We had no control over the operation of their equipment.

Q. You mean it was working better on their equipment?

A. That is correct.

Q. And that would be the same with your competitors, wouldn't it?

A. The working properties are an important part in a thing of this kind.

Q. How long did you continue to get 50 per cent of their business?

A. Well, we didn't, continuously. We got as much as 50 per cent until about 1939.

Q. What happened then?

A. In 1939, a product of still higher heat and oil resistance came into the picture.

Q. By another company?

A. By another company.

Q. Then what?

A. So we lost the business.

Q. For how long?

A. We never regained any substantial portion of it. We never got any more except a trial quantity.

Q. Did they continue to buy high-tension black after the war?

A. No.

[fol. 4909] Q. They didn't, did they?

A. No, sir.

Q. Did anybody?

A. No, sir.

Q. It was an obsolete item, wasn't it?

A. That is putting an unfair construction on it.

Q. All right. You have answered it anyway.

A. I would not say it was an obsolete item.

Q. Now, calling your attention to du Pont Exhibit No. 335, I call your attention to the last paragraph before the letter "C". It was read to you by counsel, I believe, this morning:

> "It now appears that Litman——"

Who is Litman?

A. Doctor Litman was a chemist.

Q. (Reading):

> "—will be able to use his regular film scrap material for making cable for auto manufacturers."

This film scrap material that you say Packard was making for itself?

A. Yes.

Q. You gave it some helpful hints on how to do it, is that right?

A. Yes, sir.

Mr. Harris: (Reading):

> "However, he still expects to use a better finish on dealer cable and we have a good chance of getting this portion of the business if we can supply a satisfactory product at a reasonable price."

By Mr. Harris:

Q. No, the du Pont Company would not expect, would it, any of the General Motors units, Packard Electric being [fol. 4910] a subsidiary, to buy an unsatisfactory product at an unreasonable price, would it?

A. No.

Q. Now, will you look at the next one?

I gave this a tentative number for identification Government's Exhibit No. 1322. It is List 3 No. 12 of du Pont documents, and this is dated 6-17-36. This is the report by Mr. Robertson who you testified was a salesman at that time, and I call your attention to the second paragraph under B on the righthand side. You are speaking now of apparently Dr. Litman:

> "While he will probably use the same materials which Anderson does."

Who is Anderson?

A. Anderson means Anderson, Indiana, the plant of the Delco-Remy Corporation.

Q. That is the same material that the Anderson plant uses, is that right?

A. Yes.

Q. Were they furnished by du Pont?

A. Yes.

Q. He also wants a price, a lower price.

Would you say that the du Pont price at that time was higher than the competitors' price for——

A. That is something on which it would be impossible to generalize.

Q. I am asking you to merely read the sentence that is before you. He also wants a lower price. Does that mean you have to meet competitors' prices?

A. Not necessarily to meet competitors' prices. Let me explain if you insist on talking about it.

Q. Just before you start your explanation, let us see this lower paragraph, this bottom paragraph:

> "I could make little headway with DeBolt——"

[fol. 4911] Who was DeBolt?

A. He was a purchasing agent at Warren, Ohio.

Q. Reading:—"On the possibility of increasing his takings of——." What is the black?

A. That means the black high tension.

Mr. Harris: (Reading):

> "Other than his admission that he was trying to squeeze us further on price."

Now, do you know what that means?

A: Yes, I am pretty familiar with the tactics by purchasing agents in general.

Q. Yes. They try to get you, do they not, to lower your prices to what they say is the lower price of the competitor?

A. That is one way of doing it.

Q. Is it the correct way?

A. No, it is not the only way.

Q. Is it one way?

A. That is one way of putting it.

Q. Now, I call your attention to the next paragraph:

> "Had a few minutes with Litman before closing time and learned the Black High-Tension Cable Lacquer situation is all up in the air again. Belden——"

Who is Belden?

A. That is a competitor of Packard Electric.

Q. A competitor of Packard Electric?

A. Yes.

Q. (Continuing):

> "Belden is selling a Black H.T. cable which is far superior to Packard Cable in heat resistance and their sales department is raising an awful howl."

[fol. 4912] Then I call your attention further down to the next paragraph:

> "Someone has already offered Packard a lacquer approaching the quality of Belden finish but it is

> somewhat difficult to dry. We are going to have to move fast in doing likewise for there is no question in my mind but what Packard will be using a more heat resistant finish in the near future."

In order to get the business you would have to make a product that would embody this heat resistant quality, wouldn't you?

A. Yes.

Q. I call your attention now to du Pont Exhibit 336, to the back part of this document which is dated September 11, 1941, and it is a report by your Mr. Robertson, and he says that the competitive price level is still $1.90. That material is what? Which of these various materials is that, do you know, that he is talking about?

A. That undoubtedly refers to a material of the quality of our 6233 black high-tension.

Q. (Continuing):

> "and DeBolt expects us to fill this old order entered and accepted by us last June at this price."

Now, that means, does it not, that you would meet your competitors' price?

A. Yes, and in the meantime our price had been increased, and the new price of this lacquer is $2.00.

Q. But the competitive level is $1.90?

A. No, he doesn't say so. We took an order at $1.90 [fol. 4913] and raised the ~~price to~~ $2.00, and so DeBolt says: "You have to give me that stuff at the old price."

Q. Let's take this a little slowly. The date is September 11, 1941, and the statement is that on that day the competitive price level is still $1.90.

I take it that du Pont had raised its price at that time?

A. That's right.

Q. And the competitor had not?

A. No, that's right. That would indicate that.

Q. And they tell you, "If you want to get the business you have to go back to $1.90," don't they?

A. Yes, that is what he said.

Q. All right.

I call your attention now to Government's Exhibit No. 1323, which is a report by a Mr. Kadlac under "war service" dated—it looks like 8-24-42.

I call your attention to paragraph (B), and the date is 1942:

> "Dr. Litman advised tests on the drum of 6233 Black ran fairly equal to present force."

Do you know whom they were buying from in 1942, for this black?

A. It might have been any one of about five people.

Q. You wouldn't know?

A. No.

Q. (Continuing):

> "Advised it was pretty hard to tell on a one drum run just what the material was capable of doing. However, as the black is now practically an obsolete item with them"——

[fol. 4914] That is what we were talking about a few minutes ago, isn't it, Mr. Fisher?

A. Yes: I would like to explain that, though.

Q. Yes, sir?

A. It was obsolete because they decided to buy a clear and color it themselves.

Q. Yes?

A. And make a product of their own manufacture out of the clear.

Q. Yes.

Now, I call your attention to a paragraph just before the last paragraph, and it is discussing the 6200-4922 and says that:

> "Sunlight are going to produce their own."

What does that mean, "Sunlight are going to produce their own"?

A. I don't see that here, but——

Q. Will you look at the right-hand side, Mr. Fisher, and it is the second main column which begins: "The J 6200 4922."

Do you have it, sir, the second paragraph "The J 6200"?

A. Well, we are talking about Exhibit 1323?

Q. Right there, sir (Indicating).

A. Oh, yes.

Q. Yes?

A. "Sunlight" means the Sunlight Division of Packard. Sunlight Electric Company had been the manufacturer of small motors.

Q. So what they say, and I think you say, that they are going to make their own——

A. Yes, it is not quite clear. Packard was across the street, but it is not clear whether Packard was going to make it for Sunlight or not.

Q. Yes. If you read on right down:

> "Asked Litman why we were not getting some of the present business"——

I think that refers to 6200X-4964——

> "—and who present suppliers were. He stated present [fol. 4915] main two suppliers were Ferbert Shorndorfer & Arco Co., and stated they had been working on this type materials for years with Packard but we would be given every consideration when occasion arose."

Did that mean what?

A. That referred to a blue metallic lacquer which was a specialized thing that came into the picture. Apparently we didn't go to work on it, at the same time these people did.

Q. O. K.

A. That was another big item.

Mr. Harris: Yes. If your Honor will excuse me for one minute.

By Mr. Harris:

Q. Mr. Harsha reminds me of a question I would like to ask you.

How long were you familiar with the purchasing policy of Electro-Motive. I am not quite sure whether you told us.

A. I did say that I was familiar with the purchasing policy of Electro-Motive. I have been familiar with the Electro Motive business——

Q. All right.

A. (Continuing)—in supervisory capacity since the year at the beginning of 1945.

Q. Well, do I understand that you, yourself, went out and sold them before 1945?

A. Not as a salesman, no.

Q. Well, this statement that you made that du Pont got from 70 to 75 per cent of the exterior finish, what part of time does that cover?

A. Oh, that would be the present time.

Q. You have no knowledge of the prior time, of any prior time?

A. Not exactly.

[fol. 4916] Q. I beg your pardon?

A. No.

Q. Why do you say "not exactly"?

A. Oh, in a general way I think it was probably about the same as this, but I don't know for sure.

Q. And that would mean way back to the beginning; is that your feeling that in a general way du Pont from the start got the 70 to 75 from Electro-Motive.

A. I couldn't express an opinion on that. I don't know.

Q. Do you have records in the du Pont Company showing what you got?

A. Yes, I believe we do.

Mr. Harris: That is all.

Pardon me, Mr. Cox. I would like to offer in evidence, if the Court please, Government Exhibits 1319, 1320, 1321, 1322, and 1323.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 1319, 1320, 1321, 1322 and 1323.)

Mr. Harris: Thank you, your Honor.

Redirect Examination.

By Mr. Cox:

Q. Mr. Fisher, there are one or two questions I should like to ask you about the varnishes purchased by Electro-Motive.

Did I understand you to say on cross examination Electro-Motive uses several different kinds of varnish?

A. Yes.

Q. Have you ever attempted to sell varnishes of that kind to Electro-Motive?

A. Yes.

[fol. 4917] Q. What did you do when you attempted to sell those varnishes to Electro-Motive? How did you go about it?

A. At one time Electro-Motive, I recall, while I was in Chicago, was in some difficulty on the insulating varnishes. We had a man in our Chicago office who was quite an expert on such matters. We took him out there. Our regular salesman took him out, and he assisted them and consulted with them. We, with his help, formulated materials to offer.

Q. When you say you formulated materials, what do you mean? Did you make a varnish?

A. Yes, we made varnishes and submitted samples, but we never got any business. Apparently the competitor licked the difficulty, and so they saw no reason to give us any business.

Q. Do you sell varnishes of that general type to other persons?

A. Yes.

Q. I should now like to ask you a few questions about a number of these exhibits that have been introduced by the Government.

The first one I should like to call to your attention is the document that I believe has been offered and admitted as Government Exhibit No. 1322.

I call your attention to the paragraph on the reverse side of the exhibit that has to do with Belden and a lacquer it was using.

A. Yes.

Q. Did you about that time try to develop a lacquer comparable in quality to the lacquer that Belden was using?

A. Yes.

Q. Did you submit that lacquer to Packard Electric?

A. Yes.

Q. Did you get any business?

A. No.

Q. Do you know who did get the business?

[fol. 4918] A. That business went to—of black, to the Standard Varnish Company.

Q. I should also like to call your attention to a document which has been admitted as Government Exhibit No. 1323, which is another report which refers to the blue metallics. This report is dated 8/24/42.

Do you remember that document or would you like to look at it?

A. I would like to look at it.

Q. Did you ever sell any blue metallic to Packard Electric?

A. I don't believe we did.

Q. Now, I should like to call your attention to another document which has been offered and admitted as Government Exhibit No. 1320.

This is the document that contains a sentence with respect to film scrap solution. Will you look at that? Do you recall that incident?

A. Yes.

Q. I think you testified on direct examination that you reduced your price to 56 cents, is that right?

A. Yes.

Q. Did you thereafter get any business from Packard Electric on film scrap solution?

A. No.

Q. Do you recall that on your cross examination you were asked by Mr. Harris about giving what he called helpful hints to Packard Electric in the manufacture of low tension cable lacquers?

A. Yes.

Q. Were you responsible for that activity; did you carry it on?

A. Yes, I was there personally with Mr. Robertson. We worked with them for two or three months.

Q. Why did you do that, Mr. Fisher?

A. Good will plus there was a possibility that we might be able to sell them. There was a chance for a period that [fol. 4919] we could take one of our bases plus a film scrap and make a ready-to-use product.

Q. Were you ever able to make sales of that kind to Packard Electric?

A. No.

Mr. Cox: I think that is all.

Mr. Harris: I have just one question, your Honor.

Recross Examination,

By Mr. Harris:

Q. Will you show the witness, please, the document you just gave him, Government's Exhibit No. 1320?

Mr. Fisher, you were asked by Mr. Cox to look at the back of this document, Government's Exhibit No. 1320, and you stated that you finally met the Arco price of 56 cents, did you not?

A. Yes.

Q. And you also stated, did you not, that having done that you didn't get the business, is that right?

A. That is right.

Q. Will you read on, "Mr. Nye of Delco-Remy is so far unwilling to take this away from Arco at same price."

That, I take it, is Arco at 56, isn't it?

A. Yes.

Q. Then this sentence:

> "Will not push as long as we get all the black which is more profitable."

Do we understand from that you thereafter did not go after that business?

A. We continually called at the Packard Electric Company. There are certain items that you push more than others. We did not push that item as hard as we did the black.

[fol. 4920] Q. No, you had the more profitable business, didn't you?

A. Yes, we had the more profitable business.

Q. Would that explain, you think, in part why you didn't get the business, because you didn't push it?

A. No, I don't think it would.

Mr. Harris: All right. That is all, your Honor. Thank you.

Mr. Cox: That is all, Mr. Fisher.

(Witness excused.)

Mr. Gribbon: In line with the statement made by Mr. Cox this morning, your Honor, we propose now to turn to the remainder of the case dealing with the du Pont efforts to sell refrigerator finishes.

At this time we will call as a witness Mr. Norberg.

O. E. NORBERG, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Gribbon:

Q. Will you state your name, please?

A. O. E. Norberg.

Q. By whom are you employed, Mr. Norberg?

A. The Crosley Division of the Avco Corporation. Avco Manufacturing Corporation.

Q. For how long have you been employed by Crosley?

A. Since 1941.

[fol. 4921] Q. What does Avco stand for?

A. Avco is a contraction of the original name of the parent firm, the Aviation Corporation, and after going out of the aircraft business after the last war, the contraction was made to Avco.

Q. You are affiliated with the Crosley Division of Avco?

A. That is correct.

Q. For how long have you been employed—did you tell me that?

A. Yes, since 1941.

Q. And prior to that, were you employed in the refrigeration industry?

A. Yes, I was.

Q. By whom?

A. Two years prior to that by the Gibson Refrigerator Company at Greenville, Michigan, and then for about eight years prior to that at the Norge Division of Borg-Warner.

Q. Where are your headquarters now?

A. Cincinnati, Ohio.

Q. What appliances are manufactured by Crosley?

A. Refrigerators, ranges and home freezers.

Q. Where do you manufacture them?

A. We manufacture refrigerators in Cincinnati and Richmond, Indiana. Ranges and freezers are manufactured at our Nashville, Tennessee, plant.

Q. Do your duties as director of appliance engineering include supervision over the selection of finishes to be used on your appliances?

A. Yes, that is right.

Q. When did Crosley commence to manufacture household refrigerators?

A. In 1935.

Q. When did it commence to manufacture freezers?

A. 1946.

Q. At the present time what finish is Crosley using on [fol. 4922] its refrigerators and freezers?

A. Du Pont "Dulux" enamel.

Q. That is both the primer and top coat?

A. Both primer and top coat; that is correct.

Q. Do you know what percentage of your requirements of "Dulux" Crosley buys from du Pont?

A. 100 per cent of our requirements of this material.

Q. 100 per cent of your requirements of synthetic enamels for your refrigerators and freezers is bought from du Pont?

A. Yes, that is correct.

Q. Has Crosley always purchased 100 per cent of its requirements of finishes for its freezers and refrigerators from du Pont?

A. There have been a few periods during the past two years when we have made what we call trial runs of competitive materials of a similar nature. We have run these trial runs of Jones-Dabney material, which is also a synthetic enamel.

But our primary source almost 100 per cent, very close to 100 per cent, is the du Pont "Dulux" material, which we have used since we went into production of refrigerators back in 1935. In the case of the freezers, we have never used anything but "Dulux."

The trial runs were only on the refrigerators.

Q. Will you explain the function or the properties of the exterior finishes on a refrigerator?

A. Yes. The finish on a refrigerator, unlike on almost any appliance, automobile or anything of that nature, is not primarily an appearance factor. It is more important to consider it as a protective coating for the metal, of which the article is constructed.

For that reason, while we do demand a high gloss, good [fol. 4923] adhesion, and all the other properties we speak of technically in finish, one of the most important is a high quality that will withstand the wear and tear of several years of service, and also to withstand this under the most adverse climate conditions, such as along the Atlantic Seaboard or Gulf States where salt spray might affect it.

For that reason we very jealously guard the quality of this material, and constantly check it and test it to make sure that we are not going to have defects develop out in the field and consequent service problems and damage to our reputation.

Q. You have referred to service problems, Mr. Norberg. To what extent, if any, has the service that du Pont Company offers been a factor in your decision to continue to purchase your requirements of the synthetic enamel from du Pont?

A. I would say that in addition to the very fine inherent qualities of the material as we know them, and also the fine association we have had with du Pont for all these years, that one of the next items in importance and in favor of our continuing with du Pont is the fact that they do have an excellent technical service that they offer us constantly, which consists of not only sending technical service people into our plant, but also making available to us their laboratories where we can send our people or send panels in to keep a constant check on the quality of the material as we receive it and also the way we put it on.

One example of that it perhaps might be well to mention. A few years ago we received some complaints from—I believe this was one of our foreign sales outlets in Africa—where because of certain defects in the finish, rusting and blistering occurred.

[fol. 4924] We called in and asked the du Pont people about it, and as a result they sent in several technical people, kept them in our plant for a long period of time to run down the cause of the trouble, and at the same time ran tests on our material in their laboratory to try to find the answer.

Eventually it proved to be not the finish at all, but the metal preparation that precedes the finishing operation.

I offer that as one example of the technical service that is always available to us.

Q. Other than the quality of the product and the technical service, are there any other factors that have entered into your decision to continue to purchase your synthetic enamel from du Pont?

A. Yes. I believe one other advantage of our association with du Pont or anyone's association with du Pont on finishes is the series of meetings that du Pont has sponsored. Many of these meetings took place before the war, and since the war there have been several of them.

These meetings are sponsored for du Pont customers. At that time the technical people from the du Pont laboratories reviewed recent developments in their laboratories on new and better finishes for their various customers. It usually consists of not only presentation by the du Pont technical people, but a discussion by the customers as to whether they do or do not feel that this particular finish that is being developed is going to apply to their product, how much they think it might be worth to them, and in general it is a very educational thing for the customer.

They also go into new techniques of spraying the paint, metal preparation, a number of other factors that are very helpful to a company in our kind of business.

Q. Do you know of any other finish manufacturer that [fol. 4925] sponsors such meetings?

A. No, I do not. I don't believe that any of them do.

Q. Returning now to the question of your testing of other synthetic enamels, I believe you mentioned that you have tested and run trials on Jones Dabney. Have you tested other synthetic enamels?

A. Yes, we have. I believe that we have tested Jones Dabney, Sherwin-Williams, Cook Paint and Varnish, and Pittsburgh Plate Glass Company's paint.

Q. Have you tested them only in the laboratory or on trials?

A. No, those tests are not only laboratory tests, but they are also field tests in which we send complete products out into the field in various controlled or observed areas.

Q. Have you approved as a source of supply any of these materials?

A. Yes, we have. We have approved Jones Dabney as an alternate or second source of supply for our standard refrigerator whites.

Q. But you have continued to buy your enamels 100 per cent from du Pont?

A. That is correct, with the exception of the trial runs that I mentioned a moment ago.

Q. Mr. Norberg, will you direct your attention now to the interior or the food compartment of the refrigerator.

What finish does Crosley use on the food compartments of its refrigerators?

A. Porcelain enamel.

Q. Has it ever considered using "Dulux" in the food compartments?

A. Yes, we have. We have considered it many times, even before the war.

Q. Has du Pont ever attempted to persuade Crosley to use "Dulux" to finish the food compartments?

A. Yes, they have, in a very emphatic manner. I remem- [fol. 4926] ber very distinctly. I think it was about 1948, Bill Kreuer, the du Pont representative, came into my office. He had a whole carload of equipment with him, and put on a very convincing, dramatic demonstration of why this particular new finish that had been developed was better than porcelain enamel for refrigerator food liners or interiors.

Q. Did you use or did you test "Dulux" for use on food compartments?

A. Yes, we did. We not only did some testing after that demonstration, but we had done quite a lot of it before, and I believe that even prior to Mr. Kreuer's demonstration we had already built between 500 and 600 refrigerators in which we did have these "Dulux" interiors, placed them out on test in various parts of the country, and kept them under observation there. They are actually still there.

Q. Have you reached any conclusions from the observations you have made on the "Dulux" finish on food compartments?

A. Yes, we have. We feel that it is a satisfactory method of finishing the interior of a refrigerator.

Q. Entirely durable and commercially satisfactory?

A. Our tests indicate that, yes.

Q. Is there any advantage to be gained in your opinion from the use of "Dulux" rather than porcelain in the food compartments?

A. The advantage primarily is one of cost. We estimate that there might be a reduction in product cost of somewhere in the neighborhood of $1.00 per refrigerator by using the "Dulux" enamel rather than the porcelain enamel.

[fol. 4927] Q. In view of your conclusions as to the durability of the "Dulux" for food compartments and the saving in cost, have you decided to use "Dulux" on your interiors?

A. No, we have not.

Q. You have continued to finish them in porcelain?

A. We continue to finish them in porcelain, that is correct.

Q. Why is that?

A. Primarily because of the fact that we are in a highly competitive business, and our products must be sold along side of our big competitors in the business, Frigidaire, General Electric, and a number of other companies.

Were we to come out with a synthetic enamel or "Dulux" liner in our refrigerators, as compared with the porcelain interiors in the others, they might throw rocks at us, and our customers and prospective customers would be given the story undoubtedly that our product was an inferior one. That doesn't necessarily mean that it is, but that might happen.

Q. Did you ever advise the du Pont salesman as to why Crosley was not using and would not use "Dulux" for the food compartments?

A. Yes, we did. We repeatedly have told du Pont representatives who call on us that if they could convince or sell Frigidaire, General Electric, some or all of the big companies, to convert over to synthetic enamel or "Dulux", that we would be very happy to go along, but we couldn't do it under the circumstances of their continuing with porcelain enamel interiors.

Q. Does Crosley finish the exteriors of any of its refrigerators with porcelain?

A. No, we do not.

Q. What is the reason for that?

A. I might say that we are not particularly interested in [fol. 4928] building that kind of a refrigerator. We see no particular reason for it, and it does amount to a very, very small segment of the potential business, of the overall business that we enjoy.

Q. Did you ever finish the exterior of any of your refrigerators with porcelain?

A. No.

Q. Does Crosley have its own porcelain making and applying facilities?

A. Yes, we do.

Q. Do you know the approximate capital investment that Crosley has tied up in such facilities?

A. I would guess somewhere in the neighborhood of four or five hundred thousand dollars, somewhere near a half a million.

Q. Is that referring only to the facilities at your refrigerator plant?

A. Yes, that is right. That is correct.

In addition to that, we do have facilities in our Nashville, Tennessee, plant which are not used on refrigerators at the present time. They are used on the parts for ranges.

Q. Are the Crosley refrigerators distributed throughout the United States?

A. Yes, throughout the United States, and many foreign countries as well.

Q. Mr. Norberg, let me direct your attention to the question of the refrigerant used by Crosley.

First, let me ask you, do your duties as the Engineering Director carry with it responsibility with respect to the refrigerant used in your machines?

A. Yes, that is right.

Q. What refrigerant does Crosley use in its household refrigerators?

A. We use Freon-12, commonly known as F-12.

Q. When did you use F-12?

A. 1936.

Q. Has Crosley used it continuously since 1936?

A. Yes, sir, that is right.

[fol. 4929] Q. Have you ever heard of a refrigerant called F-114?

A. Yes.

Q. Did Crosley ever attempt to buy or to use F-114?

A. No, we never did. We never had any occasion to. F-114, as I know it,—I am not too familiar with it because we have no use for it—it was a refrigerant designed or formulated by Frigidaire for their rotary compressor.

We have never used a rotary compressor, and therefore had no reason to want any quantities of F-114.

Q. What type of compressor do you use?

A. We use a reciprocating compressor.

Q. Do you know of any refrigerator company besides Frigidaire that did use the rotating type of compressor?

A. Yes, I know two. Norge, made by Borg-Warner, and Seeger makes the Sunbeam refrigerator.

Mr. Gribbon: You may cross examine.

Mr. Harris: Just a few questions, Mr. Norberg.

Cross Examination.

By Mr. Harris:

Q. How long have you been in the refrigerator business?

A. Since 1932.

Q. So that you have been with your company during all the time that it has been selling refrigerators, have you?

A. No, I have been with my present company, the Crosley Division, only since 1941.

Q. You were in refrigeration before that?

A. Yes, that is correct.

Q. Who were you with?

A. Just prior to coming with Crosley, I was with the [fol. 4930] Gibson Refrigerator Company at Greenville, Michigan, for two years, and then from 1932 until 1939 with the Norge Division of Borg-Warner.

Q. Does the Norge use porcelain for its food compartments?

A. Prior to the war, Norge did use porcelain.

Q. Now, your people—when did they first use "Dulux" on the exterior? That is where they use it, isn't it?

A. Yes, that is correct.

Q. Did they use it right from the start?

A. Yes, 1935.

Q. They used porcelain for their food compartments, is that correct?

A. That is right.

Q. What other claims are made, do you know, for porcelain, as a substance for food compartments?

A. Probably the most important one is it is clean and sanitary, and it is a carryover from the early days when the insides of refrigerators were packed with a heavy slab, almost a sort of marble type of thing. Of course——

Q. The properties of porcelain for food containers has been broadly advertised, have they not?

A. That is right.

Q. Are we right in saying it is practically universal among all refrigerator companies that they use porcelain for the food compartments?

A. Of the leading companies, yes.

Mr. Harris: Thank you.

Mr. Gribbon: You may be excused.

(Witness excused.)

Mr. Cox: I will call Mr. VanDerau.

[fol. 4931] C. L. VanDerau, called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Cox:

Q. You are C. L. VanDerau?

A. Yes, sir.

Q. Where do you live, Mr. VanDerau?

A. Mansfield, Ohio.

Q. What is your occupation?

A. General works manager, Mansfield, Newark and Columbus plants of the Westinghouse Appliance Division.

Q. Is that a part of the Westinghouse Company?

A. Yes, sir.

Q. How long have you held that position?

A. Two years this coming September.

Q. Did you work for the Westinghouse Company before that?

A. I worked for the Wastinghouse Company since 1922.

Q. Will you tell us very generally what the nature of your duties has been with the company since, say, 1930?

A. Since 1930?

Q. Yes.

A. Well, I was general superintendent, was made general superintendent of the plant in 1927; works manager of the plant May, 1935, and general works manager of the three plants September 1st, 1951.

Q. Does the Westinghouse Company manufacture home refrigerators?

A. They do.

Q. Does the manufacture of these refrigerators come within your jurisdiction?

A. It does.

[fol. 4932] Q. Do you have anything to do with selecting the finishes that are used on refrigerators?

A. Quite a lot.

Q. What do you do about the finishes, Mr. VanDerau? What are your duties with respect to finishes?

A. Well, the general management, and under the general management, the finish is a very important thing in the refrigerator field; in the early days of refrigeration, there had been a great many hundreds of thousands of dollars lost because of imperfect finish due to the metal treating processes, and superior finishes have been developd by the refrigerating companies.

Q. At the present time does the du Pont Company sell any finishes to Westinghouse for use on refrigerators?

A. They sell all of our material for refrigerators.

Q. What kind of material is that, Mr. VanDerau?

A. Well, that is a synthetic primer and a synthetic finish coat.

Q. Those finishes are sold generally under the name of "Dulux", is that right?

A. Yes, sir.

Q. How long has the du Pont Company been supplying 100 per cent of your requirements of those finishes for refrigeration?

A. Since January 1, 1932.

Q. When did you begin to use synthetic enamel as a finish for your refrigerators?

A. The latter part of December, 1933.

Q. What I am trying to find out is whether at any time since you have been using synthetic enamel for the exterior finish of your refrigerators, you have bought it from anyone other than the du Pont Company?

A. No, with the exception of trial runs, samples, we might take through the laboratory testing phase.

[fol. 4933] Q. When you first began to use "Dulux" as an exterior finish for your refrigerators, do you know what other manufacturers were using it as a finish at that time?

A. General Electric at Erie.

Q. Was using what?

A. Synthetic finishes from du Pont.

Q. Prior to that time, how had refrigerators, generally speaking, been finished?

A. With oil primers, high heat oil primers and cellulose lacquers, one primer coat and two so-called lacquer or "Duco" coats.

Q. Do you know whether Frigidaire was using "Dulux" when you first adopted "Dulux" as a finish?

A. As far as I know, they were setting up to use "Dulux", and came in shortly after we got it.

Q. Why did you change from "Duco" type of finish to "Dulux" when you did change?

A. Because "Dulux" type of material was far superior by every test we could put them through. The weakness of your "Duco" principally in white, is that they turn yellow, almost over into light brown as they age, and they become harder as they become older, and very much subject to chipping, and anybody passing by a refrigerator with some object, and strikes a door, you have knocked a chip off.

Your "Dulux" material is very much like rubber, and will stand a lot of abuse, and does not become hard and brittle with age. The best comparison would be to take a sheet of new celluloid, very flexible, and then six months later, as the gums come out, you could snap it any place.

That is the difference between "Duco" and "Dulux" finishes.

[fol. 4934] Q. Do you know whether the adoption of "Dulux" has resulted in any savings in cost at Westinghouse?

A. There has been a spectacular savings. The box figures about 100 square feet of surface, and "Duco" finishes, in 1932 and 1933, averaged $3.90 for 100 square feet. Those figures have been brought down to as low as $1.15 per hundred square feet per cabinet, and at the persent time, with the increases that are taking place in the basic raw materials since the war, it has run to $1.60, and you have a much superior finish. Instead of yellowing, your "Dulux" bleaches whiter.

There is another factor. At one time, we spent a tremendous amount of money for damages in shipment. They were taken out of the crate by the dealer, and delivered to the customer, and the damages on the "Duco" finish, as distinguished from "Dulux," averaged 12 cents a cabinet. What I mean by that, if you have 100,000 cabinets, you have a liability, in which you set up a fund to take care of it.

You must remember these cabinets are guaranteed for five years, and this has been a progressive thing over the years. It is .81 of a cent as against 12 cents in the early days of "Dulux."

Q. Mr. VanDerau, does anyone other than du Pont Company make a synthetic enamel of the same general type as "Dulux"?

A. There are several companies today.

Q. Have you ever tested any of the synthetic enamels made by those other companies?

A. Only small tests of samples, and compare it in laboratories. We have never obtained materials and actually put runs on them out in the field. Whereas we have done that with "Duco" or "Dulux" material.

[fol. 4935] Now, there is a very good reason for it, and it is an economical reason. Remember that household appliances are tremendously competitive, and one of the things you have to resort to is mass production tactics or methods. When you do that, you cannot be changing these materials.

These products are standardized, the labor operations and packing time in minutes and seconds.

As just a little sidelight, four hours and fifty-five minutes from the time we stamp a sheet of steel for the body, through over 1300 individual operations, it is in the warehouse ready to ship, at the rate of two a minute.

So you see that any materials, basic materials, finishing materials or things of that kind, must be standardized, and back of that is the scientific control, such as metallurgical and chemical controls, especially at the sources of the raw materials, and at the point where you put those materials in.

Now, the figures I gave you indicate that several things have happened. One is that du Pont has improved their products, and simplified them.

The other is that we must have done something, too, to obtain these spectacular results, as far as costs were concerned.

Now, back in 1935, we started to experiment with reclaiming sludge in the tanks. That meant an investment of over $100,000.00 in trying to save this wasted material.

There were reasons for that. The city dump did not want to take this material, and we had a problem of how to get rid of this sticky substance. Nobody was using it.

In spraying materials, you only use about 35 percent of [fol. 4936] the material on the product. The other is oversprayed and volatile, and goes out in the stacks. We set up a small paint factory under laboratory control, and being managed by a chemist who knew what they were working with and working for, over a period of several years.

First we made a factory paint. Then we made a paint we could use on a compressor, then we developed it for water tank, but over a period of approximately five years, and working with du Pont, and du Pont, instead of resisting, (it lost business for them) helped us and also became a source of supply of the raw "Dulux."

We found that we could take a picture of the new "Dulux" and add 25 to 30 percent, and as high as 35.

However, we do not recommend that, between 25 and 30, and fed it back into the product with the proper kind of control.

Now, I point out as an economical problem in which our cost for the small paint factory through 1951, to use the two years figures in the 1951, the savings and profit over and above the cost of the raw materials, and labor to reclaim these things amounted to $452,000.00.

Q. You are speaking of the saving from this reclamation?

A. That is right.

Then, in 1952, a lesser amount of production, due to the unavailability of raw materials, such as steel, copper and aluminum, there was a lesser production, but the savings were a little over $431,000.

Now, if we take these economic reasons into account, it ought to be easy to see why we have no desire to be constantly changing from one standard to another, because we would have to go through all this problem again.

[fol. 4937] There is nobody, so far, that will come up with prices that will take out that much of our costs, and that amounts to quite a little amount of money, where it is a little better than $2.00 a refrigerator.

Q. Would the use of finishes from two sources of supply in any way complicate this reclamation process?

A. Yes, because if you take a white—first, you could have a blue white from one supplier, and we will say, and a cream or slightly yellow white from the other, and you will not get a product that you can blend into the other because you have lost your standardization, your specialization.

The Court: The Court will now recess for fifteen minutes.

(Whereupon a recess was taken.)

By Mr. Cox:

Q. Mr. VanDerau, over the years have any other manufacturers of high-baked whites solicited Westinghouse for its business for refrigerators?

A. Quite a number of times.

Q. Now, will you tell us, in addition to the reasons you have already given, why you have not, or have you, changed your sources of supply for this material, or adopted a second source of supply?

A. Well, one of the reasons is that with a conveyorized plant you cannot be subject to the whims and wishes of everybody else. After you adopt a course, you have to follow that.

Now, these mixing tanks hold about 500 gallons. They are rated at that, but they actually have about 450 gallons in them, and there are two of them to a set-up, two each for the primer, and two for the others, and your reclaim. [fol. 4938] And when you have about a mile of pipe lines that run to these spray booths—why, it would take at least a day to drain the lines out, and you would have $2,000 worth of material that you would have to use inefficiently, and the chances are that you would turn out some bad products because you have got off base with it, with your air pressures and your temperatures, and it is not just an easy job like a change-over, so you see that is another reason why we'd resist doing that.

And I might say that we do use some other materials on other products, and we apply exactly the same kind of methods of control to those products that we do to du Pont.

Q. Directing your attention to the refrigerator finish again, does the quality of the du Pont products have anything to do with your decision not to get a second source of supply, or change your source of supply?

A. Very definitely. When we first went in, when "Dulux" was first introduced to us by du Pont personnel, I made a trip down to Philadelphia to look at their pilot plant, and I sort of put an estimate on what du Pont had put into that plant, and the confidence they had in the "Dulux" materials, and I had an estimate in my own mind of about $2,000,000, plus a tremendous lot of money in tens of thousands of panels that they had in their laboratories developing these synthetics as well as in their Florida proving grounds, and places of that kind.

So when you see those kinds of methods in use, see technically trained personnel running those, you cannot help but have confidence in that, and for that reason, my associates have to report back, and we agreed to plunge in and work [fol. 4939] along with du Pont. We have had a very, very happy relationship over those years.

Now, another factor—and I think I can say this without it being harmful to any other suppliers—du Pont has the finest trained technical group at their beck and call, at the beck and call of the users of the materials, of anybody in the business and we have had several times, when we have had a little problem, and I am thinking of one in particular where we were going to find it very difficult to keep in production until the trouble would be overcome, which I called from Pittsburgh to the Chicago office, and the next morning one of the men of du Pont was on the job, and within a very few hours they had materials coming in from their Toledo plant that kept us in production.

You cannot laugh off that kind of service. They have been simply excellent, and I don't know how you could say, any better.

You can be sure with du Pont, on that kind of service.

Q. Does this technical staff of which you speak provide service regularly? Do they make regular calls on your plant?

A. Their salesman—I wouldn't exactly call them a salesman—they seem to be more of a sales engineer and actually they are in our plant for a day and a half every week, looking after our needs, and if there is indication of any trouble, our people feel very free with them, and they do everything possible to keep us out of trouble.

For instance, I know a little illustration, a little off color in the toning of colors that you use in your reclaim. Du Pont sent three people in and left one of them there for about two weeks working with our mechanical people until they found out what the trouble was with that particular toner.

[fol. 4940] Q. In general in purchasing the material, including the finishes that you use on your refrigerators, is it the practice on the part of the Westinghouse operation with which you are familiar to change suppliers from time to time depending upon the price they offer you?

A. No.

Q. Why is that?

A. Well, of course, that is a little difficult to answer. There may be exceptions to that rule. But these large mass production plants do not lend themselves to changing because they are too costly. If there is any merit to a product, we will prove them in a laboratory in a small way rather than plunge production.

Sometimes when a pint of material will do what a ten barrel lot will do, it requires a laboratory test to determine, and a lot of people are not interested in purchasing that pint.

Q. Do you purchase finishes on the basis of price or quality or service or on the basis of all three?

A. Well, I would say on the basis of all three. Actually in the years that we have used the du Pont materials, I don't know of a single time that we have tried to chisel on the price.

We have found in our association with du Pont that as their basic raw materials have gone down, they have notified us that there would be a reduction of ten cents or twenty cents a gallon; and by the same token they have raised their prices when their basic raw materials have gone up. So it has been a rather mutual thing.

Our purchasing people haven't got the slightest idea of trying to chisel du Pont after these many years of association.

Q. Has there ever been a time to your knowledge when you or your purchasing people have felt that the prices charged by du Pont for the "Dulux" finish were unreason- [fol. 4941] able?

A. No, and the reason for that is possibly our own control, in which we have a standard set of so much material cost per square foot. There is a monthly statement put out on that, and if there is a tendency for that to go up, it doesn't necessarily mean that du Pont's price is out of line. It can mean that there have been ten more pounds of pressure added, it means that much more waste.

So through that standardization and the figures I gave you a few minutes ago, we don't think—we insist on a good product and reliable product for which we are willing to pay, and the other savings are in the application of it, in other words, trying to do it in a scientific way day after day the same way.

Q. I should like to turn briefly, Mr. VanDerau, to another subject and ask you this question:

Does Westinghouse now finish the exteriors of any of its refrigerators with porcelain?

A. No, we haven't finished any since the war.

Q. Did you finish the exteriors of any of your refrigerators with porcelain before the war?

A. We ran never over six per cent of our total production, and that was primarily for the Gulf Coast and certain river towns. There is a differential in cost to the customer. It means an extra investment—I am talking old prices now—

of about $25.00 or $30.00. It takes special steel, and there are a lot of things in there that are different than the "Dulux" finishes.

Q. You say since the war you have finished no refrigerators with exteriors of porcelain?

A. We tore that setup out during the war for war products, and we never replaced it.

[fol. 4942] Q. Since the war have you sold your refrigerators in the Gulf States and in these river towns that you mentioned?

A. We have.

Q. Have you had many complaints about the finish from those areas?

A. Practically none.

Q. Do you know to what extent the porcelain is used as an exterior finish in the refrigerator industry today or since the war?

A. Well, that is a difficult question to answer. Taking all the refrigerator companies that are in the business, Frigidaire is about the only one that still furnishes a porcelain refrigerator.

In their standard lines, I would take an average and say it wouldn't amount to two per cent, and maybe less, in the industry. I don't think it has ever amounted to over ten per cent of Frigidaire's sales.

Q. Do you know of any other company since the war that has used porcelain as an exterior finish for refrigerators except Frigidaire?

A. I do not. I just had a conversation that runs through my mind. I think Kelvinator made a small lot right after the war, and then went out of the business. I could be wrong. That could be just before or after.

Q. Does your company have any porcelain making and porcelain applying facilities?

A. We have one of the largest enameling plants in the country, second to Frigidaire, who has the largest. It is used on our other products.

Q. Could you tell us in general terms how much capital investment is represented in those facilities, if you know?

A. Well, that is a little difficult. I would say, without the building, and on today's prices, that those four furnaces [fol. 4943] with the full complement of equipment and the necessary miles of conveyors that are involved, it would be somewhere between one and three-quarters to two million dollars.

Now the "Dulux" facilities, they run somewhere in the neighborhood of a half a million. That is not floor space. That is strictly facilities.

Mr. Cox: I think that is all. You may examine.

Cross-examination.

By Mr. Houchins:

Q. Mr. VanDerau, when did Westinghouse start making household refrigerators?

A. We made units in 1929, and bought our cabinets from Kelvinator, Frigidaire, and Seeger.

Q. When did you start making your own?

A. We started making our cabinets as of January 1st, 1932.

Q. In 1932, what percentage of your cabinets were porcelain and what percentage were "Duco"?

A. All "Duco." There was no porcelain at that time.

Q. That is, Westinghouse has never made a porcelain cabinet, is that correct?

A. Oh, yes.

Q. When did you start making porcelain cabinets?

A. We started making porcelain cabinets in the fall of 1933.

Q. Let's take the year 1934, shortly after you got in production on porcelain cabinets. Can you give us an estimate as to what percentage of your cabinets manufactured were porcelain cabinets?

A. Never over 6 per cent.

Q. Sixty?

A. Six. That was the high water mark. It could be anything from that down to zero.

Q. I am not sure that I understood your answer a moment ago when Mr. Cox asked you if you had porcelain enamel [fol. 4944] equipment, and I think you said you had the equipment but for other purposes. Is that what you said?

A. I said used on other products as well as being used on the food liners for the refrigerators.

Q. Do you have porcelain enameling equipment which is used on the exteriors of refrigerators?

A. No.

Q. Of that porcelain enameling equipment which you do have, is there any way that you can distinguish between that which is used on food compartments and that which is used on other appliances generally?

A. That is a very easy thing to answer. Yes, because there are two separate enamel plants.

Q. You have one plant that is used only——

A. One for the food liners and the tubs for the Laundromats. They are highly specialized. The other enamel paint —that is a pair of furnaces in both cases—is for the exterior parts, such as ranges, tops for water tanks, hot plates, roasters, and a million and one other things of that kind. That is what we call the exterior.

Q. You say you have one plant for food liners. Do you mean by that food compartments in refrigerators?

A. That is right.

Q. Can you give us an estimate of what that plant represents in capital investment?

A. One and three-quarter million dollars. They are dead duplicates of one another.

Q. Mr. VanDerau, were you ever known in the industry or among refrigerator men as a pro-porcelain man, a man who favored porcelain over "Dulux" or any other type of exterior finish?

A. Not for refrigerators.

Q. You distinguish, apparently. What do you mean, for what?

A. Ranges.

[fol. 4945] Q. Have you always felt porcelain was not as good a finish for the exterior of refrigerators as other products, for example, "Dulux"?

A. No, I don't think it is a question of that. It is one of economics. It is one of anywhere from $25.00 to $35.00 premium.

Q. I am talking now about the exterior finish.

A. I am talking about the same thing. There are many reasons.

For instance, you don't have the basic supply of enameling iron to furnish that requirement in any great percentage, and we haven't had it since the war.

Q. Turning our attention now, a moment, to the food compartments, what has been your feeling on food compartments? Have you felt that porcelain is a superior product for food compartments?

A. Well, you see refrigerators, due to tradition and convention all down the line, started off with the porcelain food liners. There have been a tremendous lot of sales talks that have built that up, and when you get through with it, it is a superior finish for certain things, like we will say citric acid, acetic acids, things of that kind that you get in foods.

It is more costly, but one of the factors that make you form an opinion is what is the industry doing? The industry has been practically all porcelain.

Now, these salesmen go into a large department store, and here is every make over there, and our sales depend pretty much on the attitude of the floor salesman. He says this is porcelain, porcelain glass. This one over here is plain paint. We would lose sale after sale unless a high percentage of competition would go in and do exactly the same thing.

In 1936 we put out 10,000 boxes with the "Dulux" liners. [fol. 4946] It was a sizable cost reduction, at that time more than a dollar a unit.

Our sales people said we can get $5.00 more if you will put the porcelain back on because our competitive sales people are going into the show rooms, taking a half dollar, which is a little rough on the outside of the edge, and going across and scraping through it, which you can't do with glass.

It is pretty hard to beat that kind of sales. You couldn't put your finger on any one individual because it could be that salesmen working for a particular store over here that does that. It doesn't necessarily mean it is Frigidaire, General Electric, or anybody like that.

So we had that resistance there. They have been out seventeen years, and we have never made a single repair part for them, so they couldn't have chewed up too many of them.

You bring this up, we are turning out "Dulux" liners at the present time for certain applications.

For instance, we have been making a freezer, six cubic foot size, at our Springfield, Massachusetts, plant, and a little four foot refrigerator. They do not have porcelain facilities at Springfield, so the total production will run somewhere between 100 and 150 a day, and have been for the last four or five years. Those are "Dulux" liners.

We have an eighteen foot size made up here in Wisconsin, that is beyond our oven facilities; light production of something like fifty of those big fellows a day.

They don't have enamel facilties, so that is a "Dulux" finish job, and that is being done today.

We have no complaints on those products.

But there is no similarity between the types of equipment [fol. 4947] that you put in for "Dulux" as against the type equipment for porcelain.

So, if you have your investment in your porcelain facilities, and with a certain amount of sales resistance, you would not change that finish.

Then there is another thing that you have to take into account. Since the war, the buying public has been buying the better things. You can take automobiles, or you can take refrigerators or ranges and they want all the frills, clocks, cigarette lighters, everything you can think of, and that puts you up in the high price bracket. That is one phase.

The other phase is that instead of buying five cubic foot, six cubic foot, they now buy eights, tens, and twelves, and even up to eighteens. They are not buying the $100.00 box.

So, don't you see, the demand is for a higher cost box because we had not been in a highly competitive market that we may get into, that may force all of us to get in to pick up that dollar or more that can be taken out of a food liner.

Q. You mentioned a moment ago that once the manufacturer has a plant facility for the production of porcelain refrigerators, that is, refrigerators covered with porcelain, that he is reluctant to change. Is that what you stated a moment ago?

A. That is right, because what you do is take a tremendously high priced investment, leave it lay there idle, and put in a second big investment. The savings that might be apparent piece by piece may not be so apparent when you have these idle facilities on your hands.

Mr. Houchins: If the Court please, I would like to introduce in evidence at this time, what has been marked Gov- [fol. 4948] ernment's Trial Exhibit No. 1324. It is No. 3 list, document No. 50, supplied to us by counsel for du Pont.

(Document, so offered and received in evidence, was marked Government's Exhibit No. 1324.)

By Mr. Houchins:

Q. This appears to be a letter on the stationery of the du Pont Company from John W. Stutt to Mr. Henry E. Lackey.

Will you tell us who Mr. Lackey was, please?

Mr. Cox: I will stipulate to those facts. I don't think you ought to ask the witness that question.

Mr. Lackey at that time was industrial sales manager in the fabrics and finishes division, the finishes department of the du Pont Company.

Mr. Houchins: Will you please inform us, Mr. Cox, who Mr. Stutt was?

Mr. Cox: My recollection, which I shall check at some time, was that Mr. Stutt was the regional sales manager in Philadelphia of the finishes division of the fabrics and finishes department of the du Pont Company.

By Mr. Houchins:

Q. Does that accord to your recollection?

Mr. Cox: I object to him asking this witness about this document, which he has never seen before, and the document with which he is not connected.

[fol. 4949] Mr. Houchins: This document is written by Mr.

John W. Stutt, and if counsel will check the document, you will see that he refers to a recent conversation, or various contacts he has had with this witness. He writes about this witness, describing certain things about the witness.

I think it is very probable that this witness knows who Mr. Stutt is.

Mr. Cox: If the witness can answer.

The Court: He may answer that.

The Witness: A. I do.

By Mr. Houchins:

Q. Will you identify for us, please, Mr. Stutt?

A. He is regional manager in the Philadelphia office in the Finish Division of du Pont, and has been for a great many years.

Mr. Houchins: I read from that document, the first and second paragraphs. The document is dated June 28, 1949:

> "I understand that the publicity campaign by Frigidaire, featuring Porcelain finish inside and out on their refrigerators, is quite familiar to everybody in Wilmington, but I am attaching copy of the ad anyhow for its informative value.
>
> "This brings back quite some interesting memories to you and myself because it portrays to my mind the dramatic episode at Parlin when Mr. Moosmann advised us some twenty years ago that we had lost our last DUCO (Frigidaire) account due to the fact that they had spent over $1,000,000 in putting in their own Porcelain enameling equipment."

[fol. 4950] Continuing on with the third paragraph, in order to substantiate the statement I made a moment ago:

> "We all realize that these things do not happen all of a sudden; that Frigidaire must have been considering this major step for a number of years. Also none of us can overlook the fact that C. L. VanDerau, Manager of Westinghouse Elec. & Mfg. Company at Mansfield is and always has been pro-porcelain in his thinking and it was always considered absolutely necessary by me to develop on an annual basis evaluation ratings

to convince Van and Frigidaire that DULUX offered superior advantages over Porcelain."

Mr. Cox: Are you going to ask a question about the document?

Mr. Houchins: No.

Mr. Cox: Thank you.

By Mr. Houchins:

Q. Mr. VanDerau, is there on the market a satisfactory substitute or competing product, I should say competing product for "Dulux," that is, a satisfactory synthetic enamel?

A. I think there is.

Q. Would you name for us, please, those that you know?

A. I think Pittsburgh Plate Glass has a satisfactory product. I think possibly—I have had very little experience with Jones-Dabney, but I know it is used by some of our competitors. I think there are two or three.

But in spite of that, you cannot be mixing up suppliers [fol. 4951] and get the values back in supplies that we have attained, and also keep our field reputation at a very high level which we have obtained from a company which we have the full history on.

Q. Have you tested any of these products?

A. Yes, not necessarily on refrigerators but on other products.

Q. Have you tested any of them on refrigerators?

A. No, only through the laboratory stage of a few panels.

Q. By that you mean test runs?

A. No, not test runs. A test run would be where you take a hundred refrigerators or a thousand, run them and put them out in the field for a year. We would take panels and things of that kind and make comparative checks.

Q. This was only a laboratory test?

A. That is right.

You see in the control of these things, we have a 60-day coat test, in 100 degree temperature in which we take two panels out of production a day, and put in there. We also take two panels and put them in the humidity of 100 degrees, and 100 percent relative humidity.

Now, if there is anything defective, it will start little blisters, and those little blisters in the coat will develop into rust and shelve that finish. So this thing has been reduced to a science, so you see, you can take a pint of materials and put them in the 60-day test and find out you have been very, very foolish to spend good money running a test run-off.

So there are a lot of things like that we do that we can predetermine pretty well.

[fol. 4952] Q. I refer now to Defendants' Trial Exhibit No. DP. 349, which has been introduced in evidence in this case.

This appears to be, Mr. VanDerau, a report of a meeting held at the Bismarck Hotel in Chicago on November 10, 1944, by the Industrial Finishes Division of du Pont.

I gather from the context of the report that you were at that meeting. Do you recall that meeting?

A. Well, I have been at several of those meetings, but I don't know which one this would be, unless it is identified to a time.

Q. What is that? I didn't get it.

A. I say unless it was identified by time.

Q. If you look on the front, sir, you will see that it is November 10, 1944.

A. I was at that meeting.

Q. I see your name is referred to on the second and third pages of the document.

I gather generally, Mr. VanDerau, at that meeting a discussion came up concerning the comparative price of porcelain on the food compartment of refrigerators, compared to "Dulux." Do you recall that?

A. Yes, I do.

Q. What position did you take as to that issue? Did you argue that porcelain was cheaper or more expensive than "Dulux"?

A. No, I argued that porcelain was more expensive, and these figures here indicate that, because there are figures mentioned anywhere from 50 cents to $2.50, but the conditions of 1944 as against the conditions of 1953, those figures would change.

I would like to say at this time that if you were putting in new equipment you would hesitate to jump in either [fol. 4953] direction, because you have the future of plastics down the road, and maybe it would mean a difference of $5.00 a food liner, so the manufacturer would hesitate very much before he would do that and stay pretty much with what he had.

Q. Starting at the top of the third page, Mr. VanDerau, I read:

> "A calculated saving of 50¢ to $2.50 per cabinet, depending upon porcelain costs in various plants, will accrue with the use of 'Dulux.' Mr. VanDerau stated that the savings would be even higher than estimated by many because the baking of 'Dulux' will not distort the liner as in the case of porcelain, which would eliminate the cost of hand fitting of shelf slides with shims. He contends 'Dulux' is a 'natural' for the job.
>
> "Mr. Sosey of Seeger claims that very little would be saved by using 'Dulux' in place of porcelain on the interior of home and farm freezers. Mr. VanDerau took firm exception to Mr. Sosey's statement on the basis that the dimensional variation with porcelain coated liners would create an untenable labor cost in the alignment of various compartments and the slides for shelves and baskets."

Now, having refreshed your memory, Mr. VanDerau, by reading that document, do you recall whether or not you took the position it would be cheaper to use "Dulux" than it would to use porcelain?

A. It would have been cheaper to use "Dulux" at that [fol. 4954] time, and it would be cheaper now if you had the proper facilities, but the dollar values have changed, and the reason is that you have gas welding flow—some manufacturers use that. Then they took another step, from three rollers to two rollers, to turn it, to get the linings.

Now, those welders have been changed over to six welders where they come in, and the three operations become one.

So some of these savings apparently since 1944 have been decreased to a figure that I would put of $1.00 to $1.25, as against that $2.50.

Now, in changing all that, the necessity for fitting where a set of racks approximated a dollar a cabinet, that has already been eliminated through other mechanical controls, and through more improved equipment.

The problem between "Dulux" and porcelain is strictly mechanical. Your glass at 1550 degrees of temperature, the grain structure changes, and the food compartment wants to belly out like a barrel, whereas "Dulux" at a temperature of not over 375 degrees in the primer, you do not get the warping of steel that you have to push back in shape.

So, as your heavier equipment, you would put more reinforcing in this way of reinforced angles, and take, for instance, you put a "T" in there and stretch that metal out a [fol. 4955] little bit, it will take out a lot of the warping if your design will permit it.

So, everybody has been working on this, and there is still a possibility of $1.00 more, but not $2.50, with the improvements that have been made.

Q. I have just a couple of other questions, and we will be finished there.

Do you recall whether or not a Frigidaire representative was present at this meeting at the Bismarck? Do you recall anyone there representing Frigidaire?

A. I think Frigidaire had a representative there, but again, I wouldn't want to be held to that. There was a roster signed by everybody and ought to be in the du Pont records.

Q. Now, one last question: Has Westinghouse ever used "Dulux" on its food compartments?

A. Ten thousand were turned out in 1936 which I referred to a few minutes ago. At the present time we are making a freezer and an under-the-sink type at Springfield, Massachusetts, in "Dulux", and we are making our 18-foot cabinet at Manitowoc in Wisconsin, at the rate of about fifty a day in "Dulux."

Now, all the balance of them are made at Mansfield and are in porcelain, and we couldn't put them in "Dulux" if we wanted to, because our "Dulux" facilities are way overloaded.

We would have to go out and provide a whole bank of new facilities in order to swing that job over, because this business has grown to where we have no excess capacity.

[fols. 4956-4957] Mr. Houchins: There are no further questions.

[fol. 4958] The Court: You may proceed.

Mr. Ragland: The black book that the Clerk has, marked Ernest R. Bridgwater, that I will ask him to hand to you, your Honor, contains the nine exhibits that we will introduce in examination of this witness.

The purpose of the testimony of this witness will be to try to give the Court a picture of the actual trade relations between du Pont and General Motors in rubber chemical products.

As in the case of prior witnesses who expect to appear on both General Motors and U. S. Rubber phases of the case, it is proposed to limit the examination of the next witness at this time to the General Motors aspect of the case.

I have talked to Mr. Harsha about this, and I understand that he agrees that that limitation is consistent with the practice that your Honor has approved in the case of other witnesses as being in the interest of an orderly presentation.

I will ask Mr. Bridgwater to take the stand.

Ernest R. Bridgwater, called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Ragland:

Q. Please state your name and address.

A. Ernest R. Bridgwater. I live in Wilmington, Delaware.

Q. What is your occupation?

A. I am Director of Sales of the Rubber Chemicals Division of the du Pont Company.

[fol. 4959] Q. When did you come with the du Pont Company?

A. February 1st, 1924.

Q. Have you been in charge of sales of rubber chemicals products since that time?

A. Yes. I was engaged by du Pont for the purpose of setting up a rubber chemicals sales division, and I have been engaged in that activity ever since.

Q. Would you tell us briefly your service and your education before you came with the company?

A. I attended the University of Akron, and the Massachusetts Institute of Technology, where I took my degree in Chemical Engineering.

During World War I, I served in the Chemical Warfare Service. Immediately after the war I went to work for the B. F. Goodrich Company as a rubber chemist.

After about three years with Goodrich, I received an offer from the Firestone Tire & Rubber Company, which I accepted, also to work as a rubber chemist.

After I had been with Firestone for about two years, I received the offer to which I referred from du Pont to go with du Pont to set up the rubber chemicals sales organization.

Q. Will you describe briefly your duties with du Pont?

A. Yes. I have general supervision over all of our sales activities pertaining to rubber chemicals and neoprene.

Q. What do these sales activities that you mentioned consist of?

A. They consist of two closely related phases. First, I have two research laboratories, one at Deepwater, New Jersey, employing about 125 people, and one in Akron, employing about 20 people.

These laboratories are staffed by chemists and engineers who have had experience in the rubber industry, and they [fol. 4960] are engaged in research on the compounding and processing of natural and synthetic rubbers.

Their work is closely coordinated with the work of our customers, that is, the users of our products, and the function of our laboratories is to assist our customers in developing suitable formulations and manufacturing processes for the use of our rubber chemicals and "Neoprene."

They also serve as trouble-shooters when one of our customers gets into some difficulty.

Then I have a staff of 35 to 40 sales supervisors, sales correspondents and salesmen, all of whom are chemists or engineers, who serve in a liaison capacity between our laboratories and the chemists and the production experts of our customers. In that manner we endeavor to secure our customers' business.

They also contact end users of rubber products for the purpose of acquainting them with the properties of "Neoprene" and assisting them in finding rubber manufacturers who are competent to, well, both competent and adequately equipped to make whatever rubber products, whatever "Neoprene" products those firms may need in their business.

Q. What do you mean by the term rubber as you use it?

A. I use the word rubber in a generic sense to include natural rubber and all the synthetic rubbers, including "Neoprene" and also reclaimed rubber.

Q. Now tell us what rubber chemical products your department sells?

A. We sell rubber chemicals and "Neoprene." Rubber chemicals are chemicals that are used in the processing of natural or synthetic rubbers. "Neoprene" is a synthetic rubber which is very widely used in the automobile and other industries.

[fol. 4961] Q. Do your salesmen call on customers in the automotive industry in an attempt to sell these products?

A. Yes, indeed.

Q. Are you familiar with the sales of these products to the automotive industry?

A. Yes.

Q. What percentage of the total sales of your division is comprised of rubber chemicals?

A. About 15 per cent. The balance would be "Neoprene."

Q. How many rubber chemicals does your division produce and sell?

A. About 65.

Q. To what customers do you sell them?

A. We sell rubber chemicals to practically every rubber manufacturer in the United States and hundreds of rubber manufacturers abroad. We have somewhere between 900 and 1,000 domestic customers.

Q. Do you sell any rubber chemicals to General Motors divisions?

A. Yes. We sell to the two rubber manufacturing divisions of General Motors, that is, the Packard Electric Division and the Inland Manufacturing Division.

Q. Are you the principal supplier of rubber chemicals to these two divisions?

A. No. I understand that the R. T. Vanderbilt Company is and has been for many years. I believe we are the second largest supplier, and then there are a large number of others. For example, the Sharpless Chemical Division of the Pennsylvania Salt Manufacturing Company is a substantial supplier, also the Akron Chemical Company, and others.

Q. You spoke of the situation at the present time, Mr. Bridgwater. The complaint in this case was filed on June 30, 1949. Was the situation as to the suppliers of rubber chemicals to these two divisions the same then?

[fol. 4962] A. Substantially so. The R. T. Vanderbilt Company was the largest supplier, and I think we were the second largest. But I am not certain that the Sharpless Division of Penn. Salt was participating in the business at that time.

Q. Has your division attempted to obtain a greater proportion of the business of these two divisions than you have obtained?

A. Of course.

Q. Now I wish you would turn to the subject of "Neoprene." Would you describe briefly again that product?

A. Well, "Neoprene" is the first synthetic rubber that was made on a commercial scale in the United States, and I might add the first synthetic rubber that was made anywhere in the world excepting the subsidized manufacture in Russia, and in Germany also there was subsidized manufacture.

We introduced "Neoprene"—that is, we, the du Pont Company, introduced "Neoprene" in 1931. It is generally regarded, I think, as one of the outstanding achievements of du Pont research through all time.

Q. Mr. Bridgwater, the record in this case already shows the research about 1926 to 1928 in synthetic rubber by Mr. Thomas Midgley of General Motors Research Division.

What connection did that research have with du Pont's development of "Neoprene"?

A. None whatever. We who were engaged in the research that ultimately culminated in the development of "Neoprene" first learned of Midgley's work at a meeting of the American Chemical Society in the fall of 1928.

For some years prior to that time we had been experimenting with acetylene as a starting material for the [fol. 4963] manufacture of synthetic rubber. Midgley's approach was entirely different. It had nothing whatever to do with it. As a matter of fact, the first step in the process for making the synthetic rubber which is now called "Neoprene" was invented by Father Nieuwland, who was at that time the Professor of Chemistry at the University of Notre Dame. We acquired a license under his basic patent covering that fundamental acetylene reaction.

The subsequent steps in which the synthetic rubber was actually produced were invented by Doctor Wallace Carruthers, who was a distinguished research chemist in the employ of the du Pont Company and who also was the inventor of "Nylon."

Q. What are some of the qualities of "Neoprene" that make it useful in the automotive industry?

A. "Neoprene" is more oil resistant than natural rubber, although less oil resistant than some other synthetics. It is also resistant to deterioration from heat and sunlight.

Q. What other products compete with "Neoprene" for use in the automobile industry?

A. All of the rubbers, that is natural rubber, GR-S and butyl rubber, which are made by the Reconstruction Finance Corporation, and Buna-N type of synthetic which is made by B. F. Goodrich Company, Firestone Tire & Rubber Company, United States Rubber Company, Goodyear Tire & Rubber Company, also the vinyl plastics which are made by a large number of manufacturers including those four rubber companies I just mentioned, also in some cases leather and metals and other materials.

Q. How closely do these other synthetics and "Neoprene" resemble each other?

A. Well, superficially, they look and feel alike. It would [fol. 4964] be impossible for a layman to distinguish between them.

However, each one of them has certain points of superiority over the others.

Q. How do they compare in price?

A. Some are higher than "Neoprene" and some are lower than "Neoprene."

Q. How do automobile manufacturers and accessory manufacturers determine which they will use?

A. The determination is made by engineers, after considering the advantages and disadvantages of the various rubbers for the particular use under consideration.

Mr. Ragland: Your Honor, I now propose to show that other companies, and not General Motors, worked with du Pont in the development and application of "Neoprene" to the automobile industry.

By Mr. Ragland:

Q. Mr. Bridgwater, first, will you tell us what automobile parts involve the largest volume of "Neoprene"?

A. Radiator hose.

Q. Which manufacturers use "Neoprene" radiator hose?

A. Ford and Chrysler and some of the smaller manufacturers, but none of General Motors' divisions.

Q. Did any General Motors car ever use it?

A. Yes, Buick did at one time, but they have since discontinued its use.

I should explain, however, that I believe some General Motors trucks use "Neoprene."

Q. Have you ever tried to convince the passenger car [fol. 4965] divisions of General Motors that they should use "Neoprene" for radiator hose?

A. Yes, indeed.

Mr. Ragland: I wish to offer now the first exhibit in the book. It is No. DP 353, which is a memorandum dated April 12, 1949, from S. W. M. to J. B. L.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 353.)

By Mr. Ragland:

Q. Who are S. W. M. and J. B. L.?

A. S. W. M. is a chemical engineer in our sales division, and J. B. L. is a chemist serving as a salesman for us in Detroit, and has the Pontiac Motor Division among his customers.

Mr. Ragland: I would now like to read the entire document. It is entitled "Pontiac Motor Co., Radiator Hose."

"RAK"——

By Mr. Ragland:

Q. Who is that?

A. R. A. Kurtz. He is one of our salesmen.

Mr. Ragland: (Reading):

> "—has reported that Pontiac are interested in using GR-I."

By Mr. Ragland:

Q. What is that?

A. That is another name for butyl rubber, a competing product.

Mr. Ragland: (Reading):

> "—in the construction of radiator hose and have asked Thermoid for quotations on a product of this type."

[fol. 4966] By Mr. Ragland:

Q. What is Thermoid?

A. A rubber manufacturing company in Trenton, New Jersey.

Mr. Ragland: (Reading):

> "Since other car manufacturers are using neoprene radiator hose and believe it is worth while, we would like to demonstrate to Pontiac that neoprene will make the most serviceable product. To accomplish this, we will need samples of radiator hose constructed from GR-I and neoprene. Do you believe that Lampman——"

By Mr. Ragland:

Q. Who is he?

A. Lampman is the engineer whom we would have to sell in order to get neoprene specified for radiator hose in Pontiac cars.

Mr. Ragland: (Reading):

> "—would be willing to furnish samples of hose for such a test or had we better obtain samples from some other source and present to him the results of any tests that we make as an accomplished fact. Any further information which you may have will be of help in setting up this program."

Q. Does this letter pertain to one of your efforts to convince General Motors that they should use neoprene in radiator hose?

A. Yes.

Q. Have you made similar efforts to sell other car manufacturing divisions?

A. Oh, yes, indeed.

Mr. Ragland: I now offer in evidence DP Exhibit 354, [fol. 4967] which is an excerpt from the development report of the rubber chemicals division, dated May 15, 1950.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 354.)

By Mr. Ragland:

Q. By whom was this report prepared?

A. Mr. V. A. Cosler, one of my assistants.

Mr. Ragland: I will read only the last paragraph on the first page of this exhibit:

> "Automotive radiator and heater hose, constructed of neoprene, is being used as standard equipment by Chrysler and Ford. Their experience in using this hose has demonstrated advantages for neoprene which justify its higher cost. Other automobile manufacturers, who are now using hose made from Butyl rubber, GR-S and reclaimed rubber claim that this hose is adequate for their purpose."

By Mr. Ragland:

Q. You have already testified that no General Motors car, except trucks, now uses neoprene radiator hose. What is your estimate of the dollar volume of additional neoprene that du Pont would sell if all General Motors cars did use neoprene radiator hose?

A. No less than $750,000.00.

Q. Now, we will turn to another use of neoprene on the automobile. What is the next use you would like to discuss?

A. One important use is in adhesives.

Q. Will you explain the use of neoprene in adhesives?

[fol. 4968] A. There is a rapidly growing tendency among automobile manufacturers to fasten parts together with adhesive which were formerly fastened with mechanical fasteners. Many of the adhesives that are coming to be used for that purpose are based on neoprene.

Q. Now, give an example of this.

A. One very interesting example is the brake lining adhesive. Brake linings used to be adhered to the shoe by countersunk brass rivets. Several years ago, Chrysler developed a process of adhering the brake lining to the shoe with an adhesive cement that was based on neoprene. The advantage of this is that when the brake lining was fastened with rivets, they were countersunk only about half the thickness of the lining, so that when half of the thickness was worn away it became necessary to remove the lining, and in effect throw away half of it.

Now, however, with the so-called Chrysler Cycleweld adhesive process—that is the name they gave their process—it is possible to wear the brake lining right down to the bottom.

Q. Did you ever try to sell General Motors on using a "Neoprene" base for brake lining adhesive?

A. Yes, we did.

Q. Did GM ultimately adopt one?

A. Well, GM did ultimately adopt an adhesive process for adhering their brake lining to the shoe, but the adhesive they used is one based on the Buna-N type of synthetic rubber.

Mr. Ragland: I offer now Defendants' Exhibit DP-355 which is an office trade report written by S. W. McCune, dated February 8, 1945.

[fol. 4969] (Said document, so offered and received in evidence, was marked du Pont Exhibit No. 355.)

By Mr. Ragland:

Q. Who is S. W. McCune?

A. I previously identified him.

Q. The same one you identified earlier?

A. Yes, sir.

Mr. Ragland: This trade report substantiates Mr. Bridgwater's testimony regarding General Motors' attitude on neoprene adhesives. I do not wish to read from it at this time.

I now offer in evidence Defendant's Exhibit No. DP-356, a salesman's trade report of S. W. McCune, dated January 23, 1950, which discusses a call made by Mr. McCune and Mr. J.B.L.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 356.)

By Mr. Ragland:

Q. That is the J.B.L. you previously identified?

A. Yes, sir.

Mr. Ragland: It is dated, or rather, the call date is January 11, 1950. The report indicates this salesman interviewed Ed. Zauel.

By Mr. Ragland:

Q. Who is Mr. Zauel?

A. He is an engineer in the Chevrolet Gear and Axle Plant.

Mr. Ragland: I would like to read only the third and final sentences from the last paragraph of this exhibit:

> [fol. 4970] "The adhesive is then applied to the surface of the shoe and the whole assembly is cured under pressure at elevated temperature. After curing, each brake is tested by applying a load of 4,000 pounds in shear on the bond between the lining and the shoe. Every shoe is also subjected to a hammer test in order to make sure that the lining is bonded on firmly over the surface of the shoe. It is believed that the adhesive used in bonding these brake linings is a phenolic one which has been modified by compounding with a Buna-N Type of synthetic rubber."

Now, I would like to go to still another use of neoprene—for electric wires and cable.

By Mr. Ragland:

Q. What make of automobile first used neoprene for electric wire?

A. The Packard Motor Car Company used neoprene horn wire somewhere around 1934.

Q. Is horn wire the most important type of neoprene covered wire used in the automobile?

A. No. No, it is quite unimportant. The most important type is the ignition cable.

Q. What automobile was the first to use that?

A. Ford.

Mr. Ragland: We have located in the du Pont files, your Honor, a sales circular put out by the Ford Motor Company advertising certain features of the 1946 models of Ford cars and trucks. It is marked for identification but it is not in your book, your Honor. We have only the one copy. I would be glad to let you see it. I showed it [fol. 4971] to Mr. Houchins, for the Government, and it is marked for identification, and the witness will refer to it and read from it.

It is marked as Defendants Trial Exhibit No. DP356-A. We have no copies, and I do not propose to introduce it as an exhibit, but I wish to ask the witness several questions about it.

By Mr. Ragland:

Q. Mr. Bridgwater, is this the announcement of Ford's first use of ignition wiring, as far as you know?

A. Yes, this is announcement of the features that were embodied in Ford's first post-war models, and that was the first use, to the best of my knowledge.

Q. I wish you would read what the pamphlet says about neoprene ignition wiring.

A. Well, under the heading "Six cylinder engine features", it says, and the first four words are in bold face type; "New neoprene ignition wiring . . . oil, heat and ozone resistant."

On the following page under "V-8 Engine Features", exactly the same item appears.

Q. Does the pamphlet list any other use of neoprene?

A. Yes, under the heading "Six Cylinder Engine Features", and also under the heading "V-8 Engine Features" it says, "New front motor supports", in bold face type, and then ". . . made from oil resistant neoprene rubber . . . longer life".

Mr. Ragland: Does your Honor wish to examine this?

The Court: Will you pass it up?

Mr. Ragland: I am sorry we don't have copies.

The Court: All right, proceed.

[fol. 4972] By Mr. Ragland:

Q. Did you know at the time about the adoption by Ford of these neoprene parts?

A. Yes.

Q. Were you pleased at Ford's uses of neoprene parts on any——

Mr. Harsha: I object to that. I believe that is immaterial.

The Court: Sustained.

By Mr. Ragland:

Q. Did General Motors ever publicize any use that it made of neoprene?

A. No.

Q. Now, I would like to go to still another important use, seals and gaskets.

Is that an important use on an automobile, Mr. Bridgwater?

A. Yes, it is.

Q. Do all manufacturers use neoprene seals and gaskets?

A. I think so, although Chrysler uses a great many more than any other manufacturer.

Q. When did the use of neoprene for seals and gaskets become common in automobiles?

A. The use became common in 1940. There were sporadic uses of small parts by various manufacturers prior to that, but it was in 1940 that the first substantial tonnage uses of neoprene appeared.

Q. What was the first company to use neoprene for this purpose—for seals and gaskets?

A. Chrysler. In their 1940 model they used a neoprene universal joint boot, which was a seal designed to protect the moving parts of the universal joint from dirt and dust. That was by far the largest neoprene part that had ever been used in any automobile, and its use, we thought, would [fol. 4973] probably stimulate other automobile engineers to use neoprene for other purposes, and we believe it did. It was the start of the substantial trend towards neoprene for seals and gaskets.

Mr. Ragland: I offer in evidence Defendants' Exhibit No. DP-357 which is the salesman's report of J. H. Norton, dated February 27th and 28th, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 357.)

By Mr. Ragland:

Q. Who is "D.F.F." who is mentioned in the report?

A. D. F. Fraser. He was at that time a chemist in our rubber laboratory at Deepwater, New Jersey.

Mr. Ragland: Now, I would like to read just a small part of this report, reading the first two sentences:

> "D.F.F. had been requested to return to assist in solving two problems. The first concerns the universal joint boot."

Now skipping down to the last two sentences of the first paragraph, I read:

> "This is an extremely important problem because it involves from 1,000 to 2,000 lbs. of neoprene per operating day and because Perbunan——".

By Mr. Ragland:

Q. What is that?

A. A competing synthetic rubber.

Mr. Ragland: (Continuing):

> "—is favored for this product."

[fol. 4974] It reads: "produce," but it should be "product."

> "If we can solve the problem and get neoprene into production, it will be the first large-sized neoprene part going into automobiles as original equipment."

I now offer Defendants' Exhibit DP No. 358, which is a report of Mr. D. F. Fraser dated July 22, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 358.)

Mr. Ragland: Before I read, I want to ask a question.

By Mr. Ragland:

Q. Can you tell us who Mr. W. J. McCortney, and Mr. J. Hendrick and Mr. J. Dudley, who are referred to in the report, are?

A. McCortney is in the engineering department of the Chrysler Corporation. He is head of Chrysler's rubber and plastics laboratory.

Hendrick and Dudley were at that time his principal assistants.

Q. I assume that the J.H.N. mentioned in the report is your salesman, J. H. Norton, to whom you have already referred?

A. That is right.

Mr. Ragland: I read the first two sentences of the second paragraph on page 2 of the report. It is right at the middle of the page, on page 2:

> "The universal joint boot is being released to production. This neoprene part will probably be molded by Goodyear."

[fol. 4975] Then I would like to skip over to the third page, and read the first three sentences of the third full paragraph:

> "Hendrick kindly provided me with all the Chrysler specifications covering synthetic rubber parts. The tabulation appearing below lists these specifications by number and title."

Then skipping down to the paragraph that is entitled "Special Note to Salesmen," I read:

> "By means of copies of this trade report this list is being sent to the interested salesmen for information regarding the source of supply of the various parts. Naturally this information is to be considered as confidential and the fact that we are in possession of the specifications should not be divulged to your customers. In most cases the specifications list the rubber company's compound or designation."

I won't read any more from the report, but would like to call the attention of the Court to the lengthy list that appears on the next three pages of the report. It lists in detail the number, the title, the composition, and our suppliers of all the Chrysler parts then specified to be made of neoprene rubber.

By Mr. Ragland:

Q. Was this list of value to you?

A Yes, it was, and may I explain that this was a list not only of parts specified to be made of neoprene rubber, but it was a list of parts, of all parts specified to be made from synthetic rubber of any type.

[fol. 4976] In most cases the Chrysler specification was so worded as to allow the rubber manufacturer to choose the synthetic rubber that he wished, and I should say that in most of these cases the specifications could be met by use of either neoprene or the Buna-N type synthetic, so this list was very helpful because it told us what manufacturers were Chrysler's preferred suppliers for each of these items, and hence enabled us to go to those manufacturers and attempt to convince them that they should use neoprene rather than the competing product.

Q. Did any General Motors divisions ever give you any such list?

A. No, sir.

Q. Have you ever tried to get them?

A. Yes, of course. It would have been very helpful, but we have been unable to do so.

Mr. Ragland: I now offer in evidence Defendants Exhibit DP No. 359, which is a report of D. F. Fraser, dated October 11, 1940, reporting calls at Chrysler on October 3 and 4, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 359.)

Mr. Ragland: I will not read from this report at this time.

I offer in evidence now Defendants Exhibit DP 360, which is another report prepared by D. F. Fraser. This is dated August 25, 1941.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 360.)

[fol. 4977] Mr. Ragland: I wish to read the first sentence of the third paragraph on page 2 of this report, that is about the middle of the page, which is as follows:

> "While at Chrysler I went over the various neoprene parts now in use and the places on the car where we could expect to see neoprene used. The most interesting new development is that of rear spring covers."

Right there follows a very lengthy list of neoprene parts, the parts that Chrysler was then using. I won't read that, but I call attention to the fact that this list contains some eighteen different parts, not including one part that is marked "to be discontinued."

I wish to point out also that on pages 3 to 6 of the report is another list of the Chrysler specifications for parts in which synthetic rubber is used, and that this list includes many items which were not given on the list furnished du Pont thirteen months earlier.

By Mr. Ragland:

Q. I would like now to go to the last important use of neoprene that we will specifically discuss, that is, weather stripping for automobile doors. Is that used by any car manufacturer?

A. Not on a commercial scale at the present time, although it is under active development, and we think that neoprene veneered door and trunk weather stripping will very shortly be used, at least by Chrysler, if not by others.

Q. What automobile company has taken the lead on that?

A. Chrysler.

Q. Has neoprene been used by General Motors cars for weather stripping?

A. Yes. One of General Motors' suppliers has furnished [fol. 4978] a large volume of weather stripping with a neoprene veneer, but without having been requested to do so by General Motors, or rather by the Fisher Body Division, which is the division to which it is supplied—in fact, even without the knowledge of Fisher Body Division. We have been told by the engineer at Fisher Body who is responsible for the purchasing decisions with respect to this sort of material that, although they appreciate that neoprene veneer is advantageous, they would be unwilling to pay the modest added cost that its use would entail.

Mr. Ragland: I now offer in evidence Defendants' Exhibit No. DP-361, which is a salesman's trade report of J. B. Ledden, dated October 22, 1950.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 361.)

Mr. Ragland: This concerns a call made by Mr. Ledden at Fisher Body on October 19, 1950. I will read only three sentences from this report, the third, fourth and last sentences:

"Beckerleg said——"

The title of the report shows Beckerleg was Fisher's chief engineer.

> "Beckerleg said that he had been at Derby, Conn. a few days ago and had found out that Sponge Rubber——"

By Mr. Ragland:

Q. Who is Sponge Rubber?

A. Sponge Rubber Products Company, a very large supplier [fol. 4979] of weatherstrip to all of the automobile manufacturers.

Mr. Ragland: (Reading):

> "—Sponge Rubber was supplying the neoprene veneered section of weatherstrip to Fisher. They have being doing this for the past 3 or 4 months and Fisher was not aware of it."

Then skipping to the last sentence:

> "Beckerleg said that as far as he was concerned the item could have been made from GR-S natural or anything that Sponge desired and that under no conditions could it be assumed that Fisher wanted or required the neoprene veneer on this part. He did state further that it was to Fisher's advantage to have neoprene on the part but that certainly they were not going to pay an extra cent for the neoprene."

By Mr. Ragland:

Q. Have you covered now the major uses of neoprene in the automobile industry?

A. Yes, I have. There are many more minor uses. I have been informed that a Chrysler New Yorker contains 123 separate and distinct neoprene parts.

Q. Do General Motors cars contain that many neoprene parts?

A. No, not nearly that many. I don't know how many.

Q. I would like to conclude by asking you several very general questions, Mr. Bridgewater.

Have you ever been advised by anyone that there is an [fol. 4980] agreement between du Pont and General Motors which requires General Motors to buy any part of its needs of rubber chemicals from du Pont?

A. No, indeed.

Q. Or any agreement that requires General Motors to use any automobile parts made from Neoprene on General Motors cars?

A. Absolutely not.

Q. To your knowledge has the fact that du Pont owns stock in General Motors been used in any way to sell your products to General Motors divisions or to try to persuade them to use automobile parts made with your products?

A. Not to my knowledge, and I feel quite confident that if it had been, I would have known about it.

Mr. Ragland: This completes the direct examination.

Cross-examination.

By Mr. Houchins:

Q. Mr. Bridgewater, I believe you told us that in the Rubber Chemicals Division of which you are Director of Sales, 85 percent of your sales were in neoprene and 15 percent in rubber chemicals, is that correct?

A. Approximately, yes, sir.

Q. And that—focusing our attention for the moment on rubber chemicals—that you supply rubber chemicals to General Motors Divisions, that is, Packard Electric and Inland Manufacturing Divisions?

A. That is right, sir.

Q. I think you told us that you were the second largest supplier of rubber chemicals to Packard Electric. Can you tell us what percentage, if you know, of Packard Electric's requirements of rubber chemicals you supply?

A. I think I said we are the second largest suppliers to [fol. 4981] the two combined. I am sure, however, also, that we would be the second largest to Packard Electric. However, I have not recently inquired as to what percentage we enjoy of the Packard Electric business.

Q. Take the two combined.

A. I did recently ask our salesman in our Akron district office, who happens to call on both of these firms, I asked him to give me a fresh reestimate of the percentage of the General Motors business at those two divisions which we enjoy, and he said he thought about 25 percent, possibly a little less.

Q. What was the name of the man whom you asked for that estimate?

A. Mr. Stangor.

Q. What was his position?

A. He is a salesman—E. L. Stangor.

Q. I understand that there are a great many of these rubber chemicals. I believe you told us about 65.

A. Yes, sir.

Q. Can you name for us the three that you supply these two GM divisions, Packard Electric and Inland, in largest volume?

A. Yes. I think one of the three that would be the largest volume would be, well, a product that is commonly abbreviated as M. B. T. S. I think perhaps you don't want to clutter up the record with its chemical name, which is very difficult.

Another product is called Thiuram M. That is also an abbreviation, a nickname.

And I suspect that the third would be the product that we call "Thionex."

Q. Are these three products made by other people in the chemicals field besides du Pont?

A. Yes, they are.

[fol. 4982] Q. Are they generally made by other chemical companies?

A. Yes. I will have to distinguish between made by and offered for sale by. They are offered for sale by the R. T. Vanderbilt Company, the Monsanto Chemical Company, and the Akron Chemical Company offers MBTS, and the Sharpless Chemical Division offers "Thionex" and Thiuram M.

Now, the Akron Chemical Company, however, is not a manufacturer. They sell the products of American Cyanamid. The R. T. Vanderbilt Company sells for the Goodyear Tire & Rubber Company.

Q. Turning our attention to the larger subject, neoprene, neoprene was developed, as I understand it, or came out about 1931?

A. That is right, sir.

Q. When did it come into general usage, if it is yet in general usage?

A. Indeed it is in general usage. Why, I should say that by 1934 we had a hundred rubber manufacturers who were using neoprene, but in very small quantities.

By 1940 we had maybe three or four hundred rubber manufacturers using neoprene, but the quantities still were small.

After the war it became used in much larger quantities because it was then lower in price.

Q. Are there still a lot of bugs in neoprene that have to be worked out?

A. Oh, there are always bugs in everything. Nothing is perfect.

Q. What I mean by that is this: Is neoprene a product which is, speaking relatively to other chemical developments, still in its infancy, you might say?

A. No, sir, I would certainly not say that. We have been [fol. 4983] selling neoprene now for twenty-two years. The principal type of neoprene we now sell, known as neoprene type GN, was introduced by us in 1939, and has been unchanged since then.

I think any rubber manufacturer will tell you that neoprene is one of the most uniform types of rubber that he has to use.

Q. When would you say that that condition began to exist, that is, neoprene being a uniform type of rubber?

A. In 1935.

Q. Mr. Bridgewater, has Chrysler Motor Corporation collaborated with du Pont in any way in the development of neoprene or developing its uses, the various uses of it?

A. Not in developing the product, but in developing its uses, yes.

Q. Has it collaborated in a big way?

A. Yes, although in no bigger way than many, many other corporations.

Q. Has GM collaborated in developing uses of neoprene with du Pont?

A. Yes, but to a considerably smaller extent than Chrysler—smaller, I should say, also than Ford.

Q. I wish to refer at this time, if the Court please, to a document which we have marked as Government Exhibit 1325. It is a document which was given to us by counsel, No. 2 list, Document 50.

I now offer that document into evidence.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1325.)

[fol. 4984-4985] By Mr. Houchins:

Q. Who was Sloman?

A. Sloman was a sales engineer for the United States Rubber Company.

Q. Is he a chemist?

A. I am not certain. I suspect so.

Mr. Houchins: I next offer into evidence a document which we marked Government Trial Exhibit No. 1326. This is on the No. 2 list, document No. 57, furnished to the Government by du Pont counsel.

(Said document, so offered and received in evidence, was marked Government Exhibit No. 1326.)

[fol. 4986] Q. Turning your attention to those GM companies who were using neoprene, speaking now specifically of radiator hose which you talked about in your direct testimony, you said that Buick once used radiator hose made of neoprene and then stopped.

When did they stop using neoprene radiator hose?

A. Oh, I don't recall exactly. They used it, I believe, shortly after the war, and discontinued its use maybe three or four years ago, but I can't be certain of those dates.

Q. Do you know why they discontinued its use?

A. Yes, because they thought the hose made out of cheaper synthetic rubber was adequate. Their engineering opinions, which, of course, they are entitled to, doesn't check with the engineering opinion of their big competitors, Ford and Chrysler.

Q. Generally speaking, are there synthetic rubbers competing with neoprene which are cheaper in price?

A. Some cheaper and some more expensive.

Q. Is there an honest difference of opinion, would you say, among engineers and technicians in the automotive field as to the merits of the use of neoprene over other rubber synthetics?

A. Sure, there are honest differences of opinion in any particular use with respect to the merits of the various engineering materials that may be used.

There is never anything that is perfect. An engineering decision always involves compromise. The question is which [fol. 4987] product has the best balance of desirable properties and the least harmful undesirable properties.

Q. So there is a difference of opinion, you would say?

A. Yes, of course there is. It is on the basis of the difference of opinion, for example, between General Motors engineers and the engineers of Ford and of Chrysler and most of the other companies that we get less business from General Motors.

Q. When Buick stopped using this neoprene radiator hose, did you understand that they stopped because they wanted to use a cheaper product, is that correct?

A. Yes, sir.

Q. Would you have the opportunity to keep that business if you had lowered the price of neoprene to meet this competitive price?

A. Oh, I think so, but of course we could not consider doing that because we sell "Neoprene" at the same price to everybody. It does not matter whether you buy a 50-pound bag a year or several million pounds a year, you pay exactly the same price, so if we were to reduce the price of neoprene for Buick, we would have to reduce it for everyone, and we could not afford to do that.

Q. That is the reason you did not reduce the price to Buick?

A. That is right.

Q. Was this difference in price for "Neoprene" when it was being used by Buick for radiator hose and this synthetic rubber a substantial difference in price? Was the synthetic substantially under "Neoprene", the other competing synthetic?

A. I should say the cost difference in the finished hose—that the finished hose made of "Neoprene" cost from ten to twelve per cent more than the competing product. They shave pennies.

[fol. 4988] Q. How is that?

A. They shave pennies. These automotive engineers consider one-fifth of a cent to be a very large sum of money.

Mr. Houchins: If the Court please, would you like to recess at this time?

The Court: The Court stands recessed for fifteen minutes.

(Recess taken.)

Q. Mr. Bridgwater, referring again to the sales of rubber chemicals to Packard Electric Company and Inland

Manufacturing Company, can you tell us, please, whether or not the du Pont Company has any sales records which would show the sales to those two companies of rubber chemicals?

A. Oh, yes, we have records which would show our exact sales to those two divisions, certainly.

Q. What would those records be called? How do you describe them?
into any sort of a monthly or yearly or other periodic master
competitors.

A. Well, they are our accounting records, our records of

Q. That is, it would show his estimate of what percentage

Q. Is there any sort of a salesman's trade report which is written up covering the visits to most of the accounts?

A. Oh, yes, our salesmen write a report called a "Trade
billings.

Report" on every call. The trade reports, however, would not show our exact sales, because we have, naturally, a much better record in the record of our invoices, but the salesman's reports show his estimates of the sales of our various
of the business you were getting?

A. Well, never in terms of percentage, always in terms of pounds.

[fol. 4989] He would say; with respect to each competitor, that he has learned, usually by talking to one of the chemists or engineers, that they are using a certain competitor's product for a certain purpose, and knowing how many units they make of that product, he would be able to figure quite accurately how much of that chemical they purchased.

Q. Now, are these salesmen's trade reports recapitulated
report?

A. Yes, our salesmen write annually a master trade report in which they recapitulate what we call competitive information. That is information with respect to the sales by competitors.

Q. And would those master trade reports be kept for each customer?

A. For each customer, yes, sir.

Q. And filed that way?

A. Yes, sir.

Q. Now, turning again to the subject of neoprene, and various of the competitive products of neoprene, can you tell us, Mr. Bridgwater, what product went into the manufacture of this rubber radiator hose, which Buick started using after it stopped using the neoprene hose?

A. Butyl rubber.

Q. Butyl?

A. Yes, that is a synthetic rubber made by the Reconstruction Finance Corporation.

Q. Now, speaking in terms of pounds, or any other unit with which you are familiar, can you tell us how much cheaper butyl is than neoprene?

A. Well, per pound it is quite a bit cheaper. Butyl costs, I think, around 24 cents, somewhere, and neoprene, the cheapest type of neoprene, is 41 cents.

However, that is a very deceptive thing.

Q. Excuse me. Are these current prices?

A. Current prices and they would have been approxi- [fol. 4990] mately the same, at the time you were speaking of, but that is very deceptive, because neoprene is diluted with much higher percentages of cheap fillers, and extenders, than butyl.

It is not feasible to dilute or extend butyl as much as neoprene, so the relative costs per pound are really meaningless. The only cost that matters is the relative cost per foot of hose.

Q. Well, let's take that, then, relative cost per foot of hose. Can you give us some idea per foot of what the relative costs are between butyl hose and neoprene hose?

A. Well, of course, there is a large number of sizes and some hose is curved, and some hose is straight.

Q. Well, the same type of hose.

A. But roughly, neoprene hose will cost ten, twelve, or maybe fifteen per cent more than butyl.

Q. Could you convert that into cents, or how many cents per foot for each of those two products?

A. Well, again, that is difficult, because, as I say, there is such a wide range of sizes, and some cars take a curved hose, and some a straight hose, and I don't know off-hand whether the Buick hose was curved or straight.

Q. Now, let us consider GR-S-11 which, as I understand it, is a competitive product to neoprene.

A. GR-S-11?

Q. Yes. That is what I thought I understood you to say. What is GR-S-11?

A. I am sorry. I think you have misunderstood me. GR-S is the most widely used synthetic rubber made by the Reconstruction Finance Corporation.

Q. Is that the same as butyl?

A. No, R.F.C. makes two types.

[fol. 4991] Q. Let us take Buna. What is Buna?

A. Well, Buna, as used in this country, is a generic term, more properly Buna-N. I think that is what you refer to. That is the expression I used. It is used as a generic term for butadiene-acrylonitrile co-polymer. That is called "Buna-N Type" of synthetic rubber, because the German I.G. was the first to make that type of synthetic rubber. They used the trade name "Buna-N," which, as I say, has come to be used in this country as a generic.

Q. Now, if you can answer this question, since it is a generic term, what is the relative costs between Buna-N and neoprene?

A. It costs more than neoprene. There are several types. There are four manufacturers and each manufacturer makes two or three grades.

I think all of the types are more expensive than neoprene. They may range from about—oh, maybe 15 per cent more to 40 per cent more. That is a rough approximation. I do not have the exact figures in mind.

Mr. Houchins: I wish to introduce in evidence at this time what has been marked Government's Trial Exhibit No. 1328. It is the No. 2 list, Document 64.

Mr. Ragland: Will you identify it further?

Mr. Houchins: That is all the identification I have of the document you supplied us.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1328.)

Mr. Houchins: This is a letter dated February 7, 1939, [fols. 4992-4993] from the Rubber Chemicals Division of du Pont to General Motors Corporation, Detroit Diesel Engine Division.

I will read from the second paragraph. The letter is to the attention of Mr. G. W. Truxell, Jr., Chief Engineer:

> "We note in your letter that you are using 'Neoprene' in your Diesel engine injectors. In this connection we are wondering if you have made any applications of our material which we might use as a write-up in 'The Neoprene Notebook.'"

By Mr. Houchins:

Q. This was in 1939, now, Mr. Bridgwater?

A. Yes, sir.

Q. Do you know if General Motors Diesel Engine Division continued to use "Neoprene" in its injectors?

A. I don't know whether they continued or not. That is a very tiny little piece, and a very unimportant use.

Q. Is there any other use of "Neoprene" made by the Diesel Engine Division of Electro-Motive?

A. I don't happen to know, but I would suspect that there must be, yes, because there is a lot of need for seals and gaskets about a Diesel engine, and I would think in the normal course of events we would get some of that business, and Buna-N people, of course, would get some, too.

I would hazard the suspicion that the Buna-N people would get about three times as much as we do.

[fol. 4994] Q. Would that be true in the case of General Motors, that is, when you were trying to sell "Neoprene" to be used in General Motors' cars, would you try to sell the sub-contractor?

A. Well, not to the same extent as Chrysler, because General Motors has the Inland Manufacturing Division which plays the same role as these fifty or more rubber manufacturers that I spoke of that supply Chrysler.

However, General Motors does buy some of its extruded rubber parts on the outside. You will recall that I spoke on direct examination of the seals that Fisher Body Division was buying.

Q. In a case of that sort, your job in du Pont would be to sell the sub-contractor, is that correct?

A. Our job is to sell the sub-contractor whether that subcontractor be an outside firm or a division of GM, as in the case of the Inland Manufacturing Company,—well, not quite that either.

Our job is to sell both, because we must first get the automobile manufacturer, or the car manufacturing division in the case of General Motors, to write specifications which will permit the use of "Neoprene," and where there is a difference in cost, we must convince them that "Neoprene" is desirable and needed so that they will write the specifica- [fols. 4995-4996] tions that will require the use of "Neoprene" or some other high quality premium price synthetic rubber.

In many cases, these specifications are so worded that only "Neoprene" can be used. You can readily see that the fabricator—the sub-contractor—plays a minor role because the sub-contractors for GM are the same people that make parts for Chrysler and for Ford, but still, when they make them for Chrysler and Ford, they are much more often made of "Neoprene" than when made for GM.

That is because GM does not require "Neoprene", does not ask for "Neoprene", and does not want to pay the premium price for "Neoprene" in many instances.

Q. You say in many instances it is a matter of GM not wanting to pay the price of "Neoprene"?

A. It is, in many instances, not wanting to pay the price; however, in many more instances, it is a matter of their believing, or at least—well, I can give them credit for honesty. I have no reason to believe that they have any other motive than sound engineering opinion, but it just seems to happen that the GM engineers again and again—their engineering opinion favors Buna-N Type whereas in similar products, the engineers of Ford and Chrysler would favor "Neoprene".

[fol. 4997] R. B. K'Burg, called as a witness on behalf of the defendants, having been duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Ragland:

Q. Will you please state your name and address?

A. R. B. K'Burg. I reside in Wilmington, Delaware.

Q. What is your occupation?

A. Assistant Director of Sales of the Electrochemicals Department.

Q. Will you now state your various positions in your own way, with the company, and the nature of your work in these positions, and also your education before you came with du Pont?

A. After receiving my degree in Chemical Engineering from Lehigh University in 1928, and a Master's degree in Chemistry the following year, I started to work on August 16, 1929 with the Roessler & Hasslacher Chemical Company.

On May 1, 1930, R&H was purchased by du Pont.

I had started as control chemist with R&H, but at the time of the acquisition I was doing metallurgical research. For some years after the acquisition R&H operated under its own company name, but on December 31, 1932, it became a department of du Pont known as the R&H Chemicals Department.

Up to that time I continued in metallurgical research, but on the same day I was transferred to the Chicago district sales office as a salesman.

My position here in Chicago was to cover the automotive trade, automotive parts businesses in Michigan and Detroit. I continued in that capacity in Chicago and a little later as assistant district manager, until in June of 1942, when [fol. 4998] I was transferred to our Niagara Falls, New York, plant.

At the same time the name of the department was changed to the Electrochemicals Department of du Pont.

At Niagara Falls I was manager of cyanide products service and research, and I remained there for a year in that capacity, returning then to Chicago in June of 1943 as Chicago district manager.

We continued to cover the same territory until February 1, 1946, when we opened a new office in Detroit, completely independent of Chicago, and I went to Detroit as district manager.

I continued in that capacity in Detroit, calling upon the automobile trade in company with our salesmen, and all other industries in Michigan, until May 15, 1950, when I went to Wilmington as assistant director of sales of the Electrochemicals Department which is my present position.

Mr. Ragland: I think that I might state that in the testimony of the witness and in my questions, I will often use the words "R&H"; that means Roessler & Hasslacher Chemical Company.

By Mr. Ragland:

Q. Are we to understand, in short, Mr. K'Burg, that you have been engaged in sales work calling on the automobile trade in electrochemical products from 1933 to 1950 when you went to Wilmington?

A. That's right.

Q. Did you have any personal acquaintance with the sales activities even prior to 1933?

A. Well, yes, in a limited way, in metallurgical research. [fol. 4999] I was also called upon to do considerable service work submitted by other technical men who were in the field at that time, and consequently I was in touch with the trade reports that they supplied and the trade problems which they submitted to the laboratory for solution.

Q. How often did you make personal calls each year on the customers?

A. Well, after I went into sales work in Chicago and then in Detroit, we called on all of our important customers no less than four times a year, and frequently as many as eight and ten and twelve times.

Q. So that we may get the products that you sell to the automotive industry in the proper perspective, I wish you would tell the Court how many of the various products your department does make and sell to everybody?

A. Our department makes and sells approximately eighty different industrial chemicals.

Q. How are they classified?

A. We divide them into six general groups; the sodium products; chlorine; peroxygen; formaldehyde; vinyls; and ceramics.

Q. To what customers do you sell various of these products?

A. We sell to practically every consuming industry in the United States.

Q. How many customers do you have?

A. We have approximately 8,000 customers.

Q. And what were the total sales of your department in dollars in 1947?

A. In 1947 exclusive of our interdepartmental transfers, our sales were somewhat over $47,000,000.00.

Q. What were they in 1948?

A. They were almost $51,000,000.00

[fol. 5000] Mr. Ragland: So the Court may understand just how much in dollars we are talking about, I call the Court's attention to the fact that the Government's Trial Exhibit No. 504 shows that in 1947 the sales of the Electrochemicals department of du Pont to all General Motors divisions, totaled $1,019,272.00, and that for the first seven months of 1948 it totaled $556,804.00.

By Mr. Ragland:

Q. Now, Mr. K'Burg, will you describe in a general way the sales procedures which you and the other salesmen associated with you, have used in selling your products to the automotive industry. Tell us just how you get and keep customers?

A. Well, to begin with, all of these products that we manufacture are highly specialized industrial chemicals, and consequently it takes technical training in order to sell them. Almost all of the men we have in the field, both our straight salesmen and our technical service representatives are technically trained men.

They also have been given training in our plants and laboratories before they are sent into the field.

It is their job to keep in touch with all of the technical developments in their respective lines of activity, and keep us informed what is going on, and we keep them informed through the laboratory of new developments, too. They are technically trained men.

Q. Do you and the other salesmen in your department, to your knowledge, follow any different sales procedures in trying to sell General Motors divisions and other customers for your products?

A. No, sir, we handle it alike for everyone.

[fol. 5001] Q. What products does your department sell the General Motors Divisions?

A. Well, principally the sodium products line. In fact, some 95 percent of the materials that we sell to General Motors divisions are in the sodium products group. The other five percent of them are minor sales of less important items.

Q. Can you classify into any general types these various products?

A. Yes, principally case hardening materials and electroplating materials.

Mr. Ragland: These are the two subjects that we will consider in detail, and before we do that, the witness will try to tell just exactly what these products are used for, but I think a few preliminary questions might be asked first.

By Mr. Ragland:

Q. When did du Pont start selling both of these products or any of these products to anybody?

A. Du Pont didn't start selling them until after the acquisition of R&H Chemicals in 1930. Prior to that time R&H enjoyed a very substantial business in this line of chemicals in all industries, prior to du Pont acquiring that business.

Q. Was the automobile industry the principal customer of R&H?

A. No. I would say that the principal industries which we sold were the textile and plastic and chemical industries as well as the automotive. They were certainly equally important.

Q. How did the acquisition of R&H affect the business transferred to du Pont?

A. Not at all. Our business continued along normal commercial lines.

[fol. 5002] Q. Were you informed at that time of any agreement under which General Motors Divisions were to give their sodium chemicals business or any other business to du Pont?

A. No, sir.

Q. Were you informed at that time of any conspiracy by which du Pont would get the sodium chemicals business, or any other business, at General Motors Divisions?

A. No, sir.

Q. Were you ever informed of any such agreement or such conspiracy?

A. No, I was not.

Q. In fact, did you, as a result of the acquisition, get any business of General Motors Divisions that R&H was not already previously enjoying?

A. No, not at all. As a matter of fact through normal technical developments and our regular commercial relations, we gained business and lost business over the years, but there certainly was no change.

[fol. 5003] **Recess**

[fol. 5004] The Court: Proceed, please.

R. B. K'Burg, called as a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued).

Mr. Ragland: The witness had completed his general statement just before the noon adjournment. Now, I ask him to turn directly to the two principal classes of products which his department sells to the automotive industry.

By Mr. Ragland:

Q. First we will take up surface hardening, or as it is called, case hardening of metals. Mr. K'Burg, will you explain just what it is?

A. In the simplest terms, case hardening is the name of a process of adding carbon to the surface of a piece of steel which, with subsequent heat treatment, will produce a hard surface.

Perhaps another way to explain it in more simple terms than that would be to mention that steel in itself has different degrees of hardness. There are hard steels and soft steels, and each of them has its purpose.

[fol. 5005] A good example of a hard steel is a file. A file has about, oh, three-quarters of one per cent to one per cent carbon. But it has that concentration of carbon all the way through the steel that composes the file. If you suitably heat treat a file, it is very hard, as anyone knows who has ever used one.

On the other hand, a soft piece of steel would be similar to, well, wire, the sort of wire you find in a coat hanger which can be bent and twisted, and nothing happens to it. That isn't hard at all. If you put a file to it, you have no trouble cutting through it. That has very low carbon content.

Most any type of heat treatment that you might give to it after it is made would not harden it at all.

Case hardening is really a combination of both effects. You treat the steel in such a manner that you add carbon to the surface, and thereby, by suitable heat treatment, end up with a very hard wear-resistant surface.

But by combining that very hard wear-resistant surface with the softer, more flexible or ductile steel that is the base metal, then you have a combination of a hard surface plus a tough base.

You could apply that to something that we are all familiar with, or I think we are, like a gear, which is a good example. The teeth on a car gear, of course, mesh and intermesh a good many times in the life of a car, millions of times, in fact.

Now, the surface of those teeth must be extremely hard in order to stand up under that constant meshing and intermeshing. On the other hand, if the tooth of the gear itself were of the same hardness all the way through, it would easily break off and the gear would be completely useless.

The carbon content, therefore, in the surface of the gear must be higher than the carbon content on the interior of [fol. 5006] the gear, and that is done by case hardening. The gear, or any part similar to it, whether it is used for automotive use, or otherwise, if it is case hardened, is exposed to an atmosphere or some condition which will enable the steel to absorb carbon.

The normal heat treating or case hardening process provides for heating the steel to red or yellow-red heat, say 1500 or 1600 degrees Fahrenheit. At that temperature steel will begin to absorb the carbon.

The transition from high carbon in the surface to a lower carbon in the middle of the case, to the normal carbon content of the gear itself, is very gradual, and you have different degrees of hardness then upon subsequent heat treatment, with the hardest surface being the tooth surface and the softer, or ductile part, being the base of the gear.

So you have a combination of hardness and strength.

Q. Now, explain just how the products which you sell are used to do that, to make the surface of the metal harder?

A. Well, our products for this purpose are sodium products, primarily sodium cyanide. The cyanide itself is used as a molten bath, which is heated to the temperature at which you must treat the steel in order to cause carbon absorption.

The carbon comes from the sodium cyanide.

The cyanide is melted in either internally or externally heated pots, and the work which is to be treated is immersed in the molten cyanide.

Q. Was that the standard way of doing case hardening when du Pont acquired R&H in 1930?

A. That was one of two standard methods.

Q. What was the other method called?

[fol. 5007] A. The other method was called pack hardening. That was done by surrounding the part which was to be case hardened by that process with charcoal or coke or some form of carbon in a container, and then heating the entire container plus the contents and then subsequently treating with suitable heat treatment thereafter.

Q. Does your department sell any products for pack hardening?

A. No, sir.

Q. Is pack hardening still used in the industry?

A. Yes. It is used to a fair extent, although not to the extent it was at one time.

There are a number of reasons for that. It is dirty, and it is a cumbersome process, and costly.

Q. Are these two methods that you have just described still the principal methods for case hardening used in industry?

A. No. There is another process which has become very important in more recent years.

Q. What is that?

A. That is known as gas carburizing.

Q. Will you explain just briefly what that is, so we will have the picture of these three competing processes?

A. Gas carburizing is another method where you accomplish the same end by putting a case on steel. But in this case the equipment is usually a large muffle type furnace with perhaps a continuous hearth in it, through which a conveyor will run. The parts to be heat treated are run through the furnace and gas is introduced at high temperature through a pipe somewhere in the furnace. Subsequent heat treatment after that develops a hard surface.

Q. Going back to 1930, what automobile companies used the molten bath of the cyanide type that you first discussed? [fol. 5008] A. All of them did—Ford, Chrysler, General Motors plants, Hudson, Nash, Studebaker. All of them used it for substantial amounts of case hardening at that time.

Q. From whom did those companies purchase their requirements?

A. The high test or 96 percent sodium cyanide, they bought most of it from R&H. However, there was some imported sodium cyanide available from a number of importers and also some smaller concerns.

Q. Have you mentioned the American Cyanamid Company?

A. No, sir. I didn't mention them. But American Cyanamid Company was a supplier of several grades of sodium cyanide, one of which they trade-named "Aerocase".

Q. Will you tell us briefly the way in which that product was being promoted in the early 1930's, if it was being promoted?

A. It was. In the early 1930's, "Aerocase" was placed on the market and was used by several concerns.

The chief advantage claimed for it was that it would produce a somewhat deeper case than would the cyanides which we were offering.

They conducted a trial installation—in fact it operated for quite some time—in the Buick plant in Flint. Buick at that time was manufacturing transmission gears for Pontiac and Oldsmobile as well as for themselves.

Q. Were there any other case hardening materials of the cyanide type that were being developed about the same time?

A. Yes, several companies were working on them after the development of "Aerocase". One of them was E. F. Houghton Co., who put on the market products called "Perliton" and "Perlitex".

[fol. 5009] The Park Chemical Company of Detroit introduced several similar products which they variously trade-named "Parkcase". In a year or so the A. F. Holden Company came out with their products which they called "Holden Light Case" and "Hard Case".

Q. Did any of your customers switch to those new products?

A. Yes, they did; quite a few of them did, and it meant loss of business for us.

Q. What steps did your department take to meet this competition?

A. Well, when we first became aware of the need for a deeper hardening bath than we could get with straight cyanide, our laboratories started quite extensive study and experimentation to develop a product which could be competitive.

From the many experiments conducted, we came up with a product which we named "Ducase", which we introduced at the Warner Gear Company. Warner Gear was a division of the Borg-Warner Corporation. They were primarily Ford suppliers.

Q. Were your efforts to regain the lost business by the development of these new products successful?

A. Not entirely. As a matter of fact, "Ducase" in itself was not the complete answer to the problem. We had to continue our experiments and after a few years, we decided that in order to be sure we were on the right track we would have to develop something which would be of real use. We also thought we had better make a market survey of the entire industry in the Chicago area which at that time included Michigan. We called on every user, minor and major, in and out of the automobile industry, and contacted [fol. 5010] every user in the automotive industry in order to get this information to make as complete a market survey as possible.

Q. What year did you make that survey?

A. That was in 1937.

Q. Will you tell what estimates you based the survey on which you made then?

A. Yes, in so far as they applied to du Pont products, they came from our sales records from 1937, I believe, and previous years. Many of the other figures were obtained from estimates by our salesmen and myself who called on these various consumers of case hardening materials.

Q. Was your survey restricted to the automobile industry? I think you indicated that it was not.

A. No, it was not. In fact, everybody was surveyed at that time.

Mr. Ragland: I wish to offer Defendant's du Pont Exhibit No. 362, which is the first exhibit in the book marked R. B. K'Burg.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 362.)

Mr. Ragland: This is a tabulation made from a survey in 1937. Mr. K'Burg testified about it. It is entitled: "Estimated Annual Requirements of General Motors Divisions and other automobile manufacturers of case hardening and heat treating materials sold by du Pont and other companies, respectively, selected from the general survey of all users of such products by R. B. K'Burg in September, 1937."

I wish to state that this exhibit has been put in its present [fol. 5011] form by counsel as an aid in the presentation. The listings here do not appear in the survey made by Mr. K'Burg and his associates in 1937 in exactly the same form.

In the form of the survey, there were about 150 different customers or potential customers, and they were grouped alphabetically according to cities and states in which the plants were located.

From it we have attempted to take all of the General Motors Divisions and group them together, and also to take the other companies that were in the automotive industry and group them together. The figures representing the total purchases for each of the two groups, and the percentage figures, have been computed by counsel and are made a part of the exhibit.

By Mr. Ragland:

Q. Mr. K'Burg, will you look at this tabulation now and state whether or not it accurately shows the figures selected from your survey?

A. Yes, it does.

Q. You have examined it in the past, have you?

A. I have.

Q. Do the companies which are listed on the chart as comprising the automotive industry buy most of the chemicals that you sell?

A. No, not most of the chemicals we sell. I think I mentioned before a large part of our business was with other industries such as plastics, chemicals, and textiles.

All of those are certainly equally important as the sources listed here.

Q. You will notice that the survey contains three Chevrolet divisions, or units under General Motors. I might say what they are so that you can follow:

[fol. 5012] Chevrolet Gear & Axle, Chevrolet Bay City and Chevrolet Parts Manufacturing. Why does this survey contain three instead of just one for Chevrolet?

A. Well, in the case of Chevrolet, with all the various divisions it had, and all the various plants that it had, it was necessary that a salesman or serviceman call upon each plant and attempt to sell them individually, inasmuch as it was Chevrolet's practice to buy completely independently.

The metallurgist or engineer or the people with whom we dealt always determined their own needs in the specific plants. Consequently we had to call on every Chevrolet plant to find out what was needed.

As a matter of fact, I think it is rather clear from this that Chevrolet was buying at least three different products from different suppliers at that time.

Mr. Ragland: I wish now to call the Court's attention especially to the fact that this chart shows that the estimate which Mr. K'Burg and his associates made in 1937, about twelve years before this case was filed, was that the ten General Motors divisions listed were buying in the aggregate less than half a million pounds of case hardening and heat treating products from du Pont, which was less than half of their requirements.

The fourteen other automobile companies listed were buying nearly two million pounds from du Pont, which was a far greater per cent of their requirements.

To be exact, the other automobile companies were buying 87.89 per cent of their requirements from du Pont, whereas the General Motors divisions were buying only 46.53 per cent.

[fol. 5013] Conversely, the General Motors divisions were buying 554,000 pounds or 53.47 per cent of their requirements from du Pont's competitors, and the other automobile companies were buying only 263,000 pounds or only 12.11 per cent of their requirements from du Pont's competitors.

Ford, alone, bought more from du Pont than all of the General Motors divisions combined.

By Mr. Ragland:

Q. Mr. K'Burg, this chart does not contain any items showing the use of the gas hardening process. Why is this?

A. Well, at that time, the gas hardening process was just beginning to be developed. We didn't know much about it. It was incapable of being translated into pounds. You just don't buy pounds of gas.

We were particularly interested, of course, when we made this survey, in determining what we could do to compete with these case hardening baths like "Aerocas[illegible] and "Perliton", which were being placed on the market by competitors.

We found at the same time or uncovered a much more serious threat in the gas carburizing.

Q. Did this challenge actually develop as you had predicted during the period that you predicted?

A. No, not during the period we predicted. You see that was delayed by the war. Subsequent to the war, many gas process installations were made, and it really did cut into our cyanide business.

Q. Has any survey similar to this one you made in 1937 been made by you or anybody else in your department to your knowledge since that time?

A. No, sir.

[fol. 5014] Q. Will you tell us why?

A. Well, primarily because there was no need for another survey. I mentioned the reason for this survey was to determine the competitive position of deep hardening baths.

Q. Now, based on your market sales and its competitive position in the case hardening, what changes would you estimate a similar survey would show today?

A. I would estimate both within the General Motors Corporation consumption figures and the non-General Motors consumption figures, the percentages would be decreased.

I would also estimate that the percentage would be decreased more in the case of non-General Motors plants, but I do not think it would come down to as low a figure as at General Motors.

Mr. Ragland: While we do not have the survey with the exact poundage figures subsequent to 1937 to offer to the Court, I think it will help all of us to follow Mr. K'Burg's testimony to refer to a chart which is in the book. It is identified as Defendant's Trial Exhibit No. DP 363.

This shows in words what Mr. K'Burg will testify to in ~~some detail~~.

This chart shows the various processes and the products for case hardening and other uses in General Motors divisions from 1930 onward. It was at that time that du Pont acquired the R&H Company, and started to sell this product. It was prepared by counsel from the information furnished by Mr. K'Burg.

The chart has been checked by him. The chart is intended to enable the Court and counsel to have before them a sort of guide to the testimony of Mr. K'Burg on this subject.

[fol. 5015] By Mr. Ragland:

Q. Mr. K'Burg, what was the basis of the information that you gave us for this chart?

A. Most of it was based on personal knowledge and contacts with these divisions of General Motors, also based on trade reports of our du Pont salesmen.

Mr. Ragland: During the course of Mr. K'Burg's examination, I intend to offer exhibits, but not read from them to any extent, but I think the reports will supplement his oral testimony.

By Mr. Ragland:

Q. Handing you this chart, I ask you to look at it, and I call your attention to the legend at the bottom left hand corner entitled,

> "Identification of major competitive suppliers and products."

I believe in your previous testimony, you have mentioned all of the suppliers, and all of the products except perhaps "Kwickcase", right at the very bottom under Park Chemical Company.

Will you explain what that is?

A. "Kwickcase" is a case hardening salt sold by the Park Chemical Company.

Q. Which of the divisions of General Motors listed on the chart does its buying of your products independently?

A. Each of them do.

Q. How about Chevrolet which is shown as one item here. Does each plant buy independently?

A. Well, each plant of Chevrolet buys independently. It is a rather complicated story, because you have so many Chevrolet plants and quite a few of them do case hardening, and it is necessary that we call on each one, call on the pur-[fol. 5016] chasing agent as well as others to attempt to get the business.

Q. Which one of the divisions on this chart of the General Motors Corporation would you say does the most case hardening?

A. Chevrolet is obviously the first one among the car manufacturing divisions, followed by Buick.

Among the non-car manufacturing divisions, the most important are Saginaw Steering Gear and Frigidaire.

Q. Now, I would like for Mr. K'Burg to tell in his own way about these most important divisions that he has mentioned. You did not mention Cadillac, but since this is the first item, I think I might have you explain in your own way, following the chart, just what happened?

A. Well, prior to 1930, at the time du Pont acquired the R&H, Cadillac was buying 75 percent cyanide-chloride mixture from us for its case hardening operations. They were also doing pack hardening at that time. Some time subsequent to 1930, a few years later, about 1935, exactly, the Park Chemical Company introduced a 60 percent case hardening mixture, which they induced Cadillac to buy instead of our 75 percent mixture.

Cadillac installed it and continued to use it in spite of our best efforts to get them to resume the use of our 75 percent product. After 1935, as a matter of fact about 1938, during the period when the deep hardening salts were being developed generally in the market, they installed a large bath of "Perliton," and they eliminated some of the salts being sold by the Park Chemical Company.

We tried very hard to get our salt baths in there at that time. In fact, I called a number of times on Mr. Roy Weber, who was their metallurgist, with Mr. Walter Gager who was in our Niagara Falls plant, and we induced Mr. Weber to try [fol. 5017] our salt bath. He ran it and we thought he found it to be satisfactory, but he would never intsall it. He continued to use Perliton.

When the war came along, Cadillac discontinued hardening to a large extent. They were making tank parts and they did not have much use for a salt bath.

After the war, they resumed where they had left off.

Well, I should say that, prior to the war, they started experimenting with gas, which was quite new at that time, and had some little success with it. Meanwhile, during the war they had learned something more about gas, and installed considerably more of it for postwar operations.

They continued to use some salt baths. They were buying some from the Park Chemical Company.

Later in the war years, or after the war, in 1948, 1949 and 1950, their use of gas had increased substantially, and each time this was done, they used somewhat less liquid hardening, although it was not cut out entirely. Cadillac car production, in the postwar years, increased substantially, but it has decreased its cyanide case hardening as I described right up to the present.

Q. Did you try to sell a greater quantity to Cadillac?

A. Yes, sir, we always tried to sell Cadillac anything we could.

Q. I believe you stated that the most important of all the divisions, as far as case hardening was concerned, was Chevrolet, although Buick was second. Since the order on the chart is Buick, then Chevrolet, I wish you would tell us briefly or describe briefly the developments at Buick.

A. Buick was an early operator of the American Cyanamid "Aerocase" process. They had never bought any [fol. 5018] cyanide from us. In fact, even before the acquisition of R&H by du Pont, they were buying the equivalent of our high test sodium cyanide from importers. They had started using the "Aerocase" case hardening process in the early 30's and continued for a little time. In the meantime we tried to get them to install "Ducase", although unsuccessfully. They were always experimenting with different products, and they tried some products of the Holden Company about that time, but the salt bath operations were not expanded too much because Buick was early interested in gas hardening. I think they were one of the first to put in gas hardening equipment. When the war was imminent, that is, when the war started in Europe, the importation of the French cyanide was cut off, and we were able to get their high test cyanide business.

Nevertheless, we still couldn't obtain any portion of their deep hardening salt business. Buick at that time had installed even more of the gas hardening equipment and were using substantially larger amounts of it on transmission gears, although there was some question, as I recall it, as to whether the quality was as good as it was in the liquid hardening baths. Nevertheless, they kept at it.

During the war, Buick did very little case hardening. They were making some machine gun parts and miscellaneous items, and there was not much case hardening to be done. But after the war gas hardening really came into its own at Buick. They substituted gas for many of their case hardening operations, although they did keep some baths going all the time for specialized jobs, where batch type operation was better in their opinion than continuous operation of the gas furnace.

We did sell them some sodium cyanide—the high test 96 [fol. 5019] percent sodium cyanide—subsequent to the war, but there was no real development along that line simply because of the general trend to gas.

That situation continued right along and is still true today, for that matter. Most all of Buick's case hardening is done with gas, what little material they use in the salt baths is supplied by competitors, primarily E. M. Houghton and Holden Chemical Company. The 96 percent cyanide they buy from us for case hardening purposes is used generally for tool room work, which is quite minor.

Mr. Ragland: The only other car division of General Motors that I am going to ask Mr. K'Burg to discuss in similar detail is the one he said was most important, Chevrolet.

By Mr. Ragland:

Q. I think you mentioned there are a number of Chevrolet plants. Of the twenty-five or so, which is the more important, as far as case hardening is concerned?

A. Well, Chevrolet Gear & Axle in Detroit is the largest customer of salt bath materials, followed very closely by the Saginaw Transmission Division in Saginaw.

Chevrolet Flint did a little; Chevrolet Toledo did quite a bit of pack hardening, and in later years Chevrolet Buffalo and Chevrolet Cleveland have done some heat treating also.

Q. I am going to ask you to restrict your comments to the

Gear & Axle and the Saginaw Transmission plants which you say are the most important.

I think you might explain, though, just how the item on the chart "Chevrolet" relates to those two. Does it cover just those two, or does it cover all of the Chevrolet plants? [fol. 5020] A. Well, it covers most of the Chevrolet plants in general. On the chart the item for the years 1938 to 1941, relating to the special mixture which was prepared by us, did apply to Chevrolet Gear & Axle almost entirely, although the results of that work led us to believe that we could obtain Chevrolet business, comparable Chevrolet business, at many of the other plants. Generally speaking it is pretty fairly consistent a story all the way across.

Q. Now take up the Gear & Axle plant, and tell about that.

A. The Gear & Axle plant, before 1930, was buying French cyanide from importers of that product, and not much from R&H, although we did sell them some.

In the period after the acquisition Chevrolet continued to buy—that is, Chevrolet Gear & Axle continued to buy French cyanide, and they also started in using the product of one of our competitors which I have mentioned, Houghton's "Perliton".

At one time during this period—in 1938, to be exact—I happened to be calling at the Chevrolet Gear & Axle laboratories and visited with their Mr. E. O. Mann and W. D. Huffman, who were metallurgists for the organization.

Both of them told me at that particular time that they were rapidly getting disgusted with the purchase of proprietary case hardening compounds—that is those sold under trade names—because they felt they were paying higher prices for products sold on that basis than they would have if they had a specification product of their own.

They told me they had also solved a similar problem some few years back in pack hardening materials by doing just that, by developing a pack hardening composition which [fol. 5021] suited their general needs, and giving it a specification number and offering it out to general competitive bidding by all suppliers.

They saved themselves substantial amounts of money by that. But when they told me they were interested in a product of their own—a specification product—that looked like a wonderful opportunity from our standpoint, to co-operate with them and get some real business from Chevrolet, which we had not been getting.

I told Mr. Huffman and Mr. Mann at that time that we would certainly like to work the problem out with them, and if our Wilmington office would give approval we would start in right away. Obviously we were given that approval and we started working with Mr. Huffman and some of the other metallurgists at the Chevrolet Gear & Axle plant to find out just what would be the best product suitable for Chevrolet's needs.

We had several of our men from the Niagara Falls laboratory, including Dr. D. A. Holt, who was in charge of metallurgical research at that time, visit the Chevrolet plant, and after considerable experimenting and trial and error, we developed a product which looked to be very suitable for all of Chevrolet's needs at that plant.

Mr. Ragland: I now wish to offer in evidence Defendants' Exhibit DP 364.

That is the third document in your Honor's book.

(Said document, so offered and received in evidence, was marked DP Exhibit No. 364.)

Mr. Ragland: This exhibit consists of three excerpts from three R&H chemical department reports which are entitled [fol. 5022] in each case "Sales Research & Development Monthly Summary Reports". They are dated December, 1938, January, 1939, and May, 1939.

Most of the exhibits I will introduce, but not read from, but I think I might read a little from this.

I would like to read starting with the second sentence of this exhibit down through the second paragraph; that is the second sentence in the first paragraph, and all of the second paragraph:

> "The new salt is giving excellent results and Chevrolet estimates that at ten cents a pound for Chevrolet #30 its cost per pound of steel treated is about 30 percent lower than that of two competitive salts now being used. (p. 7 of Report for December 1938)
>
> "Operation of the experimental Chevrolet #30 bath at Detroit has been completed. Chevrolet's Metallurgical Department is preparing a formal report recommending this composition to replace Houghton's Perliton and Park Case. The bath, stabilized at 15 percent cyanide and two to three percent cyanate, is ideal

for their work and shows a thirty percent saving in materials over competitive products. After formal approval, all suppliers will have an opportunity to bid on this composition under a G.M. specification. Since we believe we can make this salt at a lower price than competitors, we should be able to obtain all the business.''

By Mr. Ragland:

Q. Did you obtain all of the business?

A. No, we did not. We obtained it first, of course, as an [fol. 5023] experimental order, as mentioned in the exhibit, but we had to follow up even on that to get Chevrolet started. It was not until sometime in the early part of 1939 that Chevrolet finally agreed that they were about ready to start, but they had to run another trial of competitive material before they got at it.

In May of 1939 they actually bought their first lot—substantial lot—of Chevrolet No. 30, as we called the product, and continued to use it substantially, but even then they continued to operate some baths with competitive case hardening compounds.

Q. You testified that the other most important Chevrolet plant was Saginaw Transmission.

Would you discuss that in brief detail?

A. Well, Chevrolet Transmission manufactured transmission gears for the Chevrolet cars. They were using imported French sodium cyanide although they were buying some 45 per cent cyanide mixture from us at about the time of the acquisition and for a few years thereafter.

At the time we developed Chevrolet No. 30 we had a very ardent supporter for its use in the Chevrolet organization, in W. D. Huffman. In fact, he thought we would have no particular trouble inducing other Chevrolet plants doing case hardening of a similar nature, to use the Chevrolet No. 30, and consequently we promptly went up to Saginaw to see Saginaw Transmission Division, and I called upon Mr. C. M. Campbell, their metallurgist.

Well, Campbell said he was not particularly interested in Chevrolet No. 30, although he believed there was use for the product. One of the reasons for his feeling was that he had decided that he was going to make his own case hardening mixture out of imported sodium cyanide—that was the French material—and add to it salt.

[fol. 5024] He did that and continued to do so for quite some time. That was all the more reason why we wanted to sell him Chevrolet No. 30, because if we could it meant we were going to get some of the cyanide business that was going to the importers of French material. However, Campbell never did agree to even a trial of Chevrolet No. 30 and we never were able to sell him at Saginaw Transmission Division at all.

Q. Now going briefly to the non-car divisions, I believe you said that the most important of those from the standpoint of case hardening are Saginaw Steering Gear and Frigidaire.

I would like you to discuss those two briefly and pick up first Saginaw Steering Gear. That is the fourth item from the bottom of the chart.

A. Saginaw Steering Gear Division of General Motors, as the name implies, manufactures steering gears for all car divisions. They didn't at all times, however. In fact, part of the work of that nature was transferred to them, I believe around 1936, from the Brown-Lipe-Chapin Division plant in Syracuse. But even before that they were doing some work along those lines and were a substantial user of case hardening materials.

They were using 96 per cent sodium cyanide at that time. They were buying some from us, and some of it from the importers of the French product.

However, after they moved the Brown-Lipe-Chapin business to Saginaw Steering Gear, case hardening expanded considerably at that location, and they put in some new salt baths.

We were unable to get our products in there at that time. [fol. 5025] They were using mostly materials from Park Chemical Company.

At the same time the trend toward gas carburizing was apparent to everyone in the organization, in General Motors and elsewhere. Saginaw Steering Gear started to look at gas carburizing, and did put in a gas furnace. Some of the work was transferred to that.

Then the war came along and car production was discontinued, and Saginaw Steering Gear started manufacturing machine gun parts. They were using some liquid baths using some of our sodium cyanide, the high test material, because there was no longer any French material available, for minor amounts of work, but using their gas furnaces and the Park Chemical Company product mostly.

After the war they went back to manufacturing steering gears, of course, and they put in some additional case hardening furnaces, both gas and salt. They put in the Park Chemical Company's material—I believe their No. 5-C salt—in the new furnace. We thought that we were going to be able to get some business out of that, because we felt that our new water soluble case hardening salt would be even better than Parkcase 5-C.

Roy Griffin, who was metallurgist at that plant at that time, agreed to a trial, and it was run, and everything seemed to be quite satisfactory. In fact, the heat treaters at the plant liked it very much. But we never did get any orders. Griffin never specified the material to the purchasing department, and we didn't get it. They continued to put in gas operations, and, except for 96 per cent cyanide which we continued to sell them in small amounts for minor operations, all the case hardening business at Saginaw Steering Gear still goes to our competitors, either Parkcase salt, or we have lost it by virtue of the gas hardening process.

[fol. 5026] Q. Now finally as to this case hardening chart, take up Frigidaire and tell us in the same way about it. Frigidaire is the third from the bottom.

A. Frigidaire was buying practically all of their high test 96 per cent cyanide from the old R&H Chemical Company before the acquisition, and for a couple of years thereafter. But then they switched almost entirely to the imported French product.

They didn't do as much case hardening at that time as they have done subsequent to the war, but they did do a fair amount, and they used entirely competitive materials.

During the war, of course, the type of work that Frigidaire did did not require case hardening, but after the war they decided they were going to have to do a lot more heat treating on some of their compressor parts. They conducted a survey of their own, a cost study primarily between the gas process and salt bath hardening, and came to the conclusion that the salt bath would be more economical than gas for their purpose.

They did install a very large salt bath furnace for a carburizing type salt bath, and at first we got some business out of that. They also investigated American Cyanamid's "Aeroheat" product at that time, and used that more or less along with ours, but we had most of the business when they first put the bath in.

However, in subsequent years this ratio has changed, and now we get the short end of the business at Frigidaire. American Cyanamid continues to get most of the carburizing salt business there.

Q. Did you attempt to sell each of these General Motors Divisions that are listed on the chart more of your materials for case hardening than you were able to sell?

[fol. 5027] A. Yes, we continued to call on all of them and tried to sell our goods at all times to these people.

Q. Was there any exception to that?

A. None whatsoever.

Mr. Ragland: In completion of Mr. K'Burg's testimony concerning case hardening, I wish to offer now these other exhibits.

These are several reports which supplement his oral testimony and confirm certain of the statements made in the chart concerning divisions not covered in detail in Mr. K'Burg's oral testimony. I will not read from them.

The reports which I wish to offer are marked for identification as follows:

The first is Defendants' Exhibit No. DP-365, which is an excerpt from the report for February, 1933, of the R&H Chemicals Department to the Executive Committee dated March 21, 1933.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 365.)

Mr. Ragland: The next document I wish to offer is marked Defendants' Exhibit No. DP-366, which is an excerpt from the report of the R&H Chemicals Department for April, 1933, to the Executive Committee of du Pont, dated May 25, 1933.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 366.)

Mr. Ragland: Next I offer Defendants' Exhibit No. DP-367, which is an excerpt from a report of D. A. Holt, [fol. 5028] entitled "Metal Cyanide Research," dated September 7, 1933.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 367.)

By Mr. Ragland:

Q. Who was D. A. Holt, Mr. K'Burg?

A. Doctor D. A. Holt at that time was in charge of metallurgical research at our Niagara Falls Laboratory.

Mr. Ragland: The next document I offer is Defendants' Exhibit DP-368, which is an excerpt from a report by W. M. Gager, of the technical service department of the R&H Chemical Company, entitled, "Sodium Cyanide—its Present Status in the Steel Treating Industry", dated December 19, 1932.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 368.)

By Mr. Ragland:

Q. Can you tell us a little bit more about who Mr. Gager was?

A. Mr. W. M. Gager was a technical service man who traveled throughout the heat treating industry extensively and called upon all of our accounts in connection with our case hardening products.

Mr. Ragland: I next offer Defendants' Exhibit DP 369, which is an excerpt from a report of R. B. K'Burg, entitled, "Division Progress Report for January 1,—July 1, 1931" dated August 18, 1931.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 369.)

[fol. 5029] Mr. Ragland: I next offer DP Exhibit No. 370, which is a report by W. M. Gager, dated November 15, 1928, reporting a call at the Delco-Remy plant in Anderson, Indiana, for the R&H Chemical Company.

(Said document so offered and received in evidence was marked DP Exhibit No. 370.)

Mr. Ragland: I purposely did not offer in evidence at the start, until I had put in these reports and after Mr. K'Burg had made his statements about some of the divisions, the No. 2 item in your book, Defendants' Exhibit DP 363.

I now wish to offer that.

(Said document so offered and received in evidence was marked DP Exhibit No. 363.)

By Mr. Ragland:

Q. There remains now the second major group, the electroplating uses of your chemical products.

Will you tell us what electroplating is?

A. Electroplating is the name of the process used to deposit one metal on top of another through the use of a direct electric current, that is, a current which flows in one direction only.

A good example, perhaps, of electroplating might be this microphone. The base metal would be the starting point, and on top of that might be plated, say, copper or nickel or chrome, or all three of them.

While it might not be apparent, you could section this microphone, and examine it under a microscope, and you would see successive layers of the metals which have been added on top of the base metal. Each of those is called a plate, and each one is electroplated thereon.

[fol. 5030] It is something like if you cut a tree in half, you can see the annular rings in the tree with the naked eye. This requires microscopic examination because each layer is extremely thin.

It has two purposes. One is for rust protection. That is, the base itself would rust or corrode easily, and by putting on additional layers of other metals, you end up with a product which withstands atmospheric corrosion.

It has another purpose, which is strictly decorative. You see that on the cars—bumpers, grilles, door handles, and interior parts of a car also.

In order to visualize electroplating better, perhaps it would be well to start with an actual example in the automotive industry, like the bumper. The bumper is a stamped piece of steel, stamped into the form in which it is to be put on the car. The bumper itself is of no particular use on the car if it isn't covered with something which adds some protection to it, and as far as the car purchaser is concerned, he wants something which is an item of beauty.

So they put on a final chromium plate.

But that bumper goes through a series of stages in the electroplating process. The most important part of it, of course, is the actual part of the process where the plating takes place. That is, the tank containing a solution of chemicals and also the anodes.

The anodes are the pieces of metal—the material which is to be deposited on the bumper. If it is copper, the slabs, the anodes, are copper. If nickel, they are of nickel.

The anodes are hung along the sides of the tank, and the work to be plated, in this case the bumper, passes [fol. 5031] through the tank by conveyor methods or otherwise, and in between the rows of anodes.

A source of direct current is provided by generators, and the generators are connected to the bar on which the anodes hang. The chemicals in the solution are put in there to enable the metal which is to be plated to be conducted more readily from the source, that is the anode, over to the part to be plated, in this case the bumper.

The actual plating process, then, the actual deposition of copper, using that as an example right now, requires a direct current through the anode bar and through the anodes themselves. Little particles of copper, microscopic particles of copper are dissolved off and they carry an electric charge, and they go through the solution to the part to be plated where they are deposited on there in the same form—that is, little microscopic particles.

A succession of those over a period of time results in a plate, a coating of that copper. If it is nickel, it is nickel. But that is generally the way it works.

Q. If an automobile company or an accessory maker wants to do electroplating, will you list the things that that company has to buy?

A. Well, in the first place they have to have the equipment, including the generator capacity and things of that sort.

A good example of what you have to have might be the post war installation at Pontiac, which is I think, the world's largest. It is a series of tanks for cleaning and plating some 600 feet long, and cost, I understand, in the neighborhood of $2,000,000.

The bumper, as it comes from the stamping machines, is brought to one end of the Pontiac chain automatically on [fol. 5032] a conveyor, and transferred automatically to the conveyors that run through this 600-foot long plating machine which puts on copper, nickel and chrome.

The first series of steps, of course, would be the cleaning procedure, and then the copper strike, which is just a flash —an extremely thin deposit of copper—which is almost invariably done on steel no matter what the end use is.

From there it goes through a series of rinses and then through the copper-plating tank.

One of the reasons why the tank must be so long is that in order to plate a predetermined thickness of copper or nickel, or a combination of both, you know the rate of travel through there because of the speed of the conveyor, and the tank must be just so long that in the period of time that it takes for the bumper to go through it ends up with a thickness of copper equivalent to what the engineers want.

From there it is transferred through nickel and chrome and suitable rinses in between.

Q. Does du Pont sell any of the equipment? You said that Pontiac purchased about $2,000,000 worth for its plant. Did du Pont sell any of that?

A. No. We do not participate in the equipment business at all.

Q. What electroplating products do you sell?

A. We sell the chemicals which make up the electrolyte or the solution for conducting the metal ~~from~~ the anode to the part to be plated.

In addition to these chemicals—primarily sodium cyanide, because our interest is in the cyanide processes—we sell brighteners, addition agents that enable one bath to operate differently than another or produce different desired effects.

[fol. 5033] We at one time sold copper anodes, but now we do not. We do sell cadmium anodes, however.

Q. Did you sell zinc anodes?

A. We sold zinc and tin anodes at one time, but we no longer do. Our interest is in the chemicals.

Q. I understand that the most important of the various forms of electroplating to you is copper plating, is that so?

A. That is right.

Q. I wish that you would tell us the various types of bath or solution that are on the market for that?

A. There are three principal types. First is the alkaline or cyanide type bath which we market, as do a few other competitors. There is the acid type process, one of which was developed—well, it isn't sold by General Motors Research, but was developed by them and promoted by them.

The Day-Brite process is another acid process marketed by the Dayton Bright Copper Company.

The third classification is the pyrophosphate bath for copper plating, which is marketed by the United Chromium Inc., and it is called Unichrome.

Q. When did automobiles, if you know, start using chromium plating for the thin layer at the top?

A. That was back in the '20's. I think about 1926 Oldsmobile was the first one to endeavor to use chromium plating.

Prior to that car finishes were usually painted or brass, or just had a nickel deposit on top of brass, but none of these was too satisfactory.

Q. How do nickel and copper compare in cost?

A. Nickel as a metal costs over twice as much as copper, and of course in the plated form, starting with the nickel anode versus copper anode, it costs more to plate nickel than it does copper.

With the advent of chromium plating, it was necessary [fol. 5034] that some improvements be made in the basic metal deposited prior to chromium. That resulted in a very keen interest in copper plating, and a little later it developed a substantial need for heavy copper deposits.

Q. What company was the first to develop an improved copper plating process?

A. Du Pont was.

Q. About what date was that?

A. That was about 1934.

Q. To what companies did you first offer your new process for trial?

A. The first concern with whom we discussed high speed copper plating, as we called it—well, we called it bright copper plating to begin with, then high speed copper plating—was Thomas Steel Company in Warren, Ohio.

Later we talked with the Buckeye Bumper Division of Electric Auto-Lite Company in Springfield, Ohio, who at that time were plating primarily for Chrysler.

We also went to Keystone Chromium Corporation, a large job plating plant at Buffalo, New York. That was an ideal place for us to discuss bright copper or high speed copper because of its proximity to our laboratories at Niagara Falls, where we could watch over the solution very carefully and offer the service which is necessary to make solutions of this type function properly.

Q. During the period that you made these offerings of your new product, were you trying to arrange for a trial installation of your new process at any General Motors plants?

A. Yes. We were calling regularly on Mr. W. M. Phillips, who was manager of the Electro Chemistry Department of General Motors Research Division, and we called on all the car divisions and some accessory divisions which were interested in copper plating.

[fol. 5035] Mr. Ragland: I now wish to offer in evidence Defendant's Trial Exhibit No. DP 371, which is an excerpt from a report of the Electroplating Division to the Executive Committee of the du Pont Company, entitled "Technical Accomplishments for 1938," dated February 2, 1939.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 371.)

Mr. Ragland: This is one of the few documents that I would like to read from:

> "Our foremost technical contribution to the electroplating industry was the perfection of the 'Du Pont High Speed Copper' Process. The process was announced in October and has found ready acceptance by the trade as it filled a long-felt need. Sixty-three companies have purchased materials for 'High Speed Copper' plating installations, 14 of these being commercial production units. Gross sales during 1938 were $15,235, with 1939 sales of salts, brightener, and anodes estimated at $150,000.
>
> "Through the cooperation of the two laboratories a process was developed that makes possible the speedy deposition in appreciable thicknesses of smooth, bright copper plating which can be readily buffed."

By Mr. Ragland:

Q. What is "buffed"?

A. That is another term for polishing.

Mr. Ragland (Reading):

"The ultimate cost of copper applied by the process should be considerably less than old-type copper plating [fol. 5036] baths. The increase in production, reduction in power requirements, and ease of buffing far offset the higher initial costs. The properties of 'Du Pont High Speed Copper' indicate that it may find extensive use in new applications where copper cyanide baths have not previously been used; e.g., heavy deposits on steel wire and printing rolls, and for electroforming. Pending outcome of exposure tests and modifications of specifications, there is a possibility of this copper displacing a portion of the nickel now used as an undercoat for chromium. This should extend the use of copper plating, particularly in the automotive industry, since the lower cost of the 'Du Pont High Speed Copper' Process will enable the plater to increase depth of the copper plated layer, and decrease thickness of the more expensive nickel overcoat, at the same time eliminating a buffing operation."

By Mr. Ragland:

Q. Mr. K'Burg, of the 63 companies mentioned, which of these were divisions of General Motors?

A. Cadillac, Ternstedt; Brown-Lipe-Chapin, Delco-Remy.

Q. Wasn't A. C. Spark Plug?

A. A. C. Spark Plug was one of those instead of Delco-Remy.

Q. Four out of 63, in any event, was it not?

A. That is right.

Q. How many of the 14 commercial production units that are listed were General Motors Divisions?

A. One, Cadillac.

Q. I think that before we take up the General Motors Divisions you might tell us a little bit more about what [fol. 5037] the other automobile companies do. I think you mentioned that you took it first to the plater for Chrysler, Buckeye Bumper, and to Keystone Chromium Corporation, the large job plating firm.

How about some others? How about Ford?

A. Ford was one of the first to become interested in high speed copper and Packard was also. We actually obtained an installation in Ford Motor Company in 1938. I called there with Mr. F. F. Oplinger, who at that time was assistant manager of our Electroplating Division, and we saw Mr. L. P. Brockway, their plating superintendent, and induced him to make a trial of high speed copper.

He did put in an experimental installation. It performed quite satisfactorily and resulted in a production bath. Ford didn't do a lot of plating at that time but nevertheless they did find a use for it.

Packard, on the other hand, did a lot of plating and had fairly substantial facilities for that purpose. Their Mr. James Higgins, at that time metallurgist for the company, visited our Niagara Falls laboratories and we did a lot of plating for them to demonstrate what could be done in their own plant.

This resulted in a substantial installation of high speed copper at Packard, followed up a year or so later with several more. Packard has always operated our high speed copper to a very substantial extent.

Q. You mentioned that Ford didn't do too much of its own electroplating at that time. Will you compare the practices as to whether the automobile maker does its own electroplating or whether it farms it out or has jobbers do it, as between General Motors Divisions and companies like Ford?

A. Well, General Motors relies primarily upon its non- [fol. 5038] car production divisions, such as Ternstedt, Brown-Lipe-Chapin, and Guide Lamp, to do most of their plating where they don't actually do it themselves in the car producing plants.

It was Ford's practice, and it has always been Chrysler's practice, to job out that type of work. In fact, the parts were often made by others and plated according to Chrysler's specifications, and then Chrysler would put them on their cars.

At Hudson, most of their work was jobbed out. The same is true at Studebaker and Nash. I mentioned that Packard did most of their own.

Q. What was the situation at some of these accessory makers for Chrysler and Ford and other companies? From whom did they buy their needs of the bath solution, the thing that you sold?

A. Many of them became very substantial users of high speed copper solutions. I can name quite a number.

Q. I wish you would for the record.

A. One of the most important is the Doehler-Jarvis Company in Grand Rapids, Michigan, which is a very important Chrysler supplier, and has always been. They manufacture die castings for Chrysler and plate them.

Two other very large users of high speed copper were the Electric Auto-Lite Divisions, one in Woodstock, Illinois, and one in Cincinnati, Ohio. Electric Auto-Lite has always been a major Chrysler supplier, but also did plating for practically all the independent companies, like Hudson, Studebaker, and Nash.

There were two substantial concerns in Detroit proper that put in high speed copper—Ainsworth Manufacturing Company and Glenvale Products Company, both of which were big suppliers for Ford, Lincoln and Mercury.

[fol. 5039] The Hurd Lock Company in Adrian, Michigan, which was a big supplier of Ford's, put in high speed copper and operated it quite successfully. Continental Die Casting Company in Holly, Michigan, and Detroit, installed high speed copper. They did a lot of work for non automotive concerns with high speed copper, and they did some automotive overflow work.

A good example was the Precision Casting Company in Kalamazoo, Michigan, which put in high speed copper after experimenting with one of our competitors' process and having quite a bit of trouble. They put in high speed copper and operated it very successfully.

They plate refrigerator hardware and handle almost all of Oldsmobile's overflow.

A couple of concerns outside the automobile industry were Keeler Brass Company in Grand Rapids, and Applied Arts Company in Grand Rapids—also Winters & Crampton Manufacturing Company in Grandville, Michigan, who manufacture refrigerator hardware.

All these people used high speed copper very satisfactorily.

Q. Did all of these companies do work for the automobile industry?

A. No, not all of them. Winters & Crampton, I think, did not do very much.

Q. Are there any others that did not?

A. Oh, I think we can think of some more. Most of them did something for the automotive industry, although some of them confined their operations to non-automotive hardware, such as furniture and refrigerator work.

Q. Were these accessory companies using du Pont high speed copper exclusively in 1948?

A. Yes.

Q. In what respects, if any, did your sales efforts in [fol. 5040] selling these companies on the use of du Pont high speed copper differ from your sales efforts at General Motors divisions?

A. In no respect at all.

Q. I should like, just as we did in the case of case hardening, to refer to a chart, which has been marked for identification as Defendant's Exhibit No. DP-372.

This shows in a graphic way the various copper plating processes and their uses at General Motors divisions, so that the Court and counsel may have it before them as sort of a guide, just as we did for case hardening.

This chart, I should like to say, was also prepared by counsel from information furnished by Mr. K'Burg, and has been checked by him, just exactly as the case hardening chart.

Mr. K'Burg, what was the basis of the information that you gave us for this chart?

A. This is based upon my recollection of calls upon almost all of these General Motors Divisions as well as departmental records.

Q. Just as I did before, during the course of Mr. K'Burg's remaining examination, I intend to offer as exhibits the trade reports which supplement his oral testimony.

If you will look at this chart now, I call your attention to the legend at the bottom lefthand column entitled "Identification of Processes."

Will you explain that in a little detail?

A. Yes. The "du P", of course, refers to the du Pont high speed copper process, which is an alkaline cyanide process.

"H-VW-M" is the Hanson-Van Winkle-Munning process, another alkaline cyanide process.

"MacDermid" refers to the MacDermid, Incorporated, [fol. 5041] "Rocheltex" process which again is an alkaline cyanide process.

"Unichrome" is the process of United Chromium, Inc., a pyrophosphate type bath.

"Day-Brite" refers to the process of Dayton Bright Copper Company, an acid copper process.

"GM acid" is the process developed by General Motors Research Division, and is an acid process, as it says.

"Wessex" is an alkaline cyanide process marketed by Westinghouse Electric Corporation.

"Rochelle" refers generally to the old type cyanide copper process, which was used for many years, using Rochelle salts as an addition agent, that product being offered by many people.

Q. Which of these General Motors divisions does the largest amount of electroplating?

A. Among the car divisions, Chevrolet does more by far, and Cadillac, of course, does a very substantial amount.

In the non-car divisions, Ternstedt is out in front by a long way.

Q. We will just discuss primarily Chevrolet and Ternstedt, the two big ones.

I think we might start, in order to qualify this and do it very briefly, with Cadillac, the first item on the chart. Tell us very briefly about Cadillac, if you will?

A. Cadillac was the first of the General Motors divisions to make an installation of high speed copper. That occurred in 1938. In May they put in an experimental tank of a few hundred gallons, followed up by another installation of two thousand gallons about the middle of the year, and later in the year another tank of around 12,000 gallons capacity, I believe.

[fol. 5042] They used the 2,000 gallon tank which they put in the middle of the year in production also.

High speed copper was a success at Cadillac almost from the beginning. Insofar as our sales of material to them are concerned, we sold them our 96 per cent high test sodium cyanide, which is essential to its operation.

We sold them the addition agents but we were not able to sell them the copper anodes, which in all cases represented very substantial dollar volume in the plating business.

In 1939 Cadillac installed several additional semi-automatic machines for high speed copper plating, and continued through 1940 to use the process quite successfully.

Despite our difficulties in trying to sell them high speed copper anodes, as we called our particular copper anodes, we did get an agreement on the part of Mr. Jack Bunch, who was plating superintendent, that if the claims that we made for our anodes being superior to the competitive ones could be proven, he would buy them, and he did buy them after a trial.

We sold Cadillac, then, most of the ingredients and anodes that went into these baths through 1940.

In 1941 there was an additional expansion of high speed copper plating, this all being brought about by greater demand for thicker plates. However, in doing this, they ran into some trouble. They had had some troubles corrected by technical service prior to that time, even, but they also were using products of Hanson-Van Winkle-Munning Company for part of their production.

As with any good development of this sort, no matter what head start you have, competition starts very early [fol. 5043] thereafter, and we were getting plenty of competition by 1941.

Hanson-Van Winkle-Munning was the first one to induce Cadillac to make a trial of a competitive process.

Through the war years there were no cars produced, and Cadillac merely kept their solutions in standby condition. After the war it became very evident that very much heavier deposits of plate would have to be put on all exterior car parts because, on the cars which had gone through the war, the finishes had not stood up too well, and corrosion was very apparent.

Cadillac made the decision to increase their copper plating facilities to an even greater extent, and they did put in additional equipment for this purpose. They continued to use our process largely, but they also continued to operate a production solution of Hanson-Van Winkle-Munning's process.

In 1947 one of the large du Pont semi-automatic solutions was converted to the MacDermid process, when they encountered some roughness. But Cadillac continued experimenting right along with ways and means of improving all types of copper plating.

In 1948 additional units were put in. Cadillac's car production was increasing considerably, and being a quality product they were not concerned about the amount of copper solution they installed. They wanted to get lots of it, and they put in additional du Pont copper.

Later they modified one of our solutions with MacDermid addition agents and also the addition agents offered by the WICO Company, the Wire Coating & Manufacturing Company, another competitor.

[fol. 5044] They continued to operate the WICO process for awhile, but it proved to be entirely too costly. The addition agents—the consumption of them—was way out of line with our addition agents, and they rejected WICO copper and went back to du Pont Copper.

In 1949 they started tapering off on their trials of competitive materials, still continuing to use lots of du Pont copper, and finally in 1950 they discontinued all trials of competitive products—all of them had been tried and all of them found wanting to some extent—and du Pont copper was in at Cadillac completely.

Mr. Ragland: In order to complete the Cadillac story, I would like to offer in evidence Defendants' Exhibit DP 373, which is a technical service report, dated April 25, 1939, by Mr. F. F. Oplinger.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 373.)

By Mr. Ragland:

Q. Who was Mr. Oplinger?

A. F. F. Oplinger was assistant manager of the Electroplating Division. He has since died.

Mr. Ragland: I would like to read the last paragraph at the bottom of page 1, and the short paragraph at the top of page 2:

> "During the past month they have spent considerable time and money obtaining cost data on the various bright nickel plating processes as well as on High Speed Copper. Mr. Bunch—"

[fol. 5045] Mr. Bunch is shown by the report itself to be Cadillac's superintendent of plating.

> "—Mr. Bunch claims that the data is as accurate as it was humanly possible for them to get it. According to the final results the cost of plating 0.001" of copper with the High Speed process including anodes, current, chemicals for replenishing and for cleaning and pickling was found to be 1.1 ct. The cost of bright nickel plating was found to be 2 cts. /0.001" SF. As a result of their cost studies, it is entirely possible that

they may discontinue the present method of bright nickel plating and substitute another."

Then at the top of the other page:

"The important fact is that they have found High Speed Copper plating to cost only one-half as much as bright nickel plating. This most certainly indicates that there will be a definite increase in the amount of copper used and a decrease in the amount of nickel."

I think this would be a convenient place to recess.

The Court: The court stands recessed for fifteen minutes.

(Recess taken.)

The Court: Proceed.

Mr. Ragland: The witness will now discuss only one each of the car and non-car divisions that are shown on the chart, but in both instances he will discuss the two most important; that is Chevrolet for the car divisions, and Ternstedt for the non-car divisions.

[fol. 50[illegible]] By Mr. Ragland:

Q. Take up Chevrolet first, if you will.

A. Well, as in the situation of case hardening, each Chevrolet plant has a different problem and makes its own decisions and does its own purchasing. Consequently we had to discuss high speed copper plating and the prospects of using it at each of the plants. Not all Chevrolet plants do plating, but one of the most important reasons for the interest in Chevrolet is that they make more cars than anyone else within the General Motors Corporation, and consequently have the biggest potential market for our products.

It happens that Chevrolet has always followed the practice of plating substantial quantities of nickel with very little copper. They use a copper strike to a certain extent, but at Chevrolet Flint, for instance, where they manufacture, or they did at this time manufacture, grilles for all of the Chevrolet cars and many other parts, they were using steel grilles and plating primarily with nickel.

At the time we introduced high speed copper in 1938 several of the Chevrolet plants began to show an interest in high speed copper, but no installations resulted from it, at least in that year.

The following year, 1939, however, the war was just beginning in Europe, and there was a serious shortage of numerous materials developing in this country, one of which was nickel—in great demand for alloy steel and that sort of thing—and consequently Chevrolet was unable to get all of the nickel they wanted. They began to take a serious look at high speed copper at that time, and when we learned that Chevrolet might make an installation of high speed copper, Mr. Oplinger, whom I previously men- [fol. 5047] tioned, and H. W. Kennedy, one of our service men in Detroit, and I called on Chevrolet Flint—on Mr. A. G. Spencer, their metallurgist.

We found him quite agreeable to a trial of high-speed copper because they needed something to replace the heavy deposit of nickel they were putting on there. They did order the materials and install a 13,000 gallon solution, I believe, which performed quite satisfactorily, but for some reason they only continued to run it for about two months. We have never been completely satisfied that we knew the reasons why they discontinued it, but they gave us as reasons that the equipment which they were using was not suitable for high speed copper and that they had meanwhile found ways and means of preparing the steel in such manner that they could put nickel on it and buff it.

After that they took high speed copper out and put nickel back in. We never did get that business back again.

At Chevrolet Gear and Axle and Saginaw Transmission Division they did considerable plating, but neither of those plants ever put in high speed copper.

Just before the war, however, and still due to the nickel shortage, they began to experiment with an acid copper process. Actually it was the General Motors Research acid copper, and it was adopted for part of the work. They used that to replace the nickel.

During the war years, of course, they didn't do any plating to speak of except on some miscellaneous war work, but after the war Chevrolet went right back to plating heavy deposits of nickel. They never have changed that [fol. 5048] procedure until recently when they ran into nickel shortages again, and have put in the MacDermid process for copper plating.

The Bay City plant started the manufacture of die castings for hardware after the war, and we learned through Mr. Huffman of the Chevrolet Gear and Axle that they were going to install copper plating. Naturally, this was another good opportunity for us, and we immediately went to see Mr. Ecker who was the metallurgist at that plant, to try to induce him to put in high speed copper. However, he did contemplate the possibility but didn't install it. He actually put in the Unichrome process which I mentioned is the pyrophosphate bath, and completely competitive to anything we had to offer.

They have had trouble with Unichrome over the years since that time, but despite these troubles we have never been able to induce them to make a trial of high speed copper or install it.

High speed copper was tried at Chevrolet Cleveland, and the plant at Saginaw in 1949, but that was primarily for defense work.

In neither plant did we get the high speed copper installed. The only high speed copper solution that Chevrolet ever used was one put in at the Buffalo plant, and that was of very little significance compared to the potential copper business that could have developed at Chevrolet.

The Buffalo plant has had nothing but complete success with high speed copper, and they like it particularly because they know the laboratory is nearby, at Niagara Falls, and they can get assistance if they need it.

[fol. 5049] By Mr. Ragland:

Q. Now, will you drop down to the seventh division on the chart, Ternstedt, which I believe you said was the most important of the non-car divisions from the standpoint of electroplating?

A. Yes.

Ternstedt is a major manufacturer of hardware and other parts for the GM car divisions. They have always done a lot of plating of all types, and they have also been one of the most difficult divisions of General Motors for us to sell anything. They operated the standard cyanide process, a standard cyanide copper process, up to 1938, and were the second of the General Motors divisions to install the du Pont high speed copper solution.

This was done in July of 1938 on an experimental basis, and later in the year they put in a larger installation—I think it was in their plant 16 for the plating of die castings. This is in Detroit.

We thought that Ternstedt would be an ideal market for high speed copper, because of the particular nature of their plating. They weren't after heavy deposits. They wanted to plate a fair amount of copper rapidly because most parts that Ternstedt made were interior parts, and that would be ideal for high speed copper, particularly on die castings.

In 1939 they installed at the Fort Street plant, where they were plating primarily steel parts, another du Pont high speed copper solution.

We were encouraged in our efforts to sell Ternstedt through other General Motors people such as Mr. Phillips from the General Motors Research Laboratories, and by [fol. 5050] the people of Cadillac who had done some demonstrating of plating for Ternstedt on their own parts. They continued to use some of our high speed copper for 1939 production, the production of 1940 car model parts, although this was not by any means all of the copper plating they did.

In 1940 they got a new tank, a new piece of equipment, which they thought was ideally designed for high speed copper, and installed it at the Fort Street plant for plating of steel parts.

Well, during this period, Ternstedt bought very little from us, despite the fact they were using some of our processes. Ordinarily when you develop a process you expect to sell your goods to go with it. Ternstedt had been buying foreign sodium cyanide—that is the French material purchased from the importers—and even when they put in high speed copper at first they elected to use some of this and copper cyanide instead of putting in salts designed for this purpose.

We did sell them some salts, but not much, by any means. We never did sell them any copper anodes. We sold them some addition agents. Ternstedt had a policy which they often expressed to me and other salesmen from our department who called there, about buying from local suppliers wherever they possibly could. That meant if anyone in Detroit had the equivalent to offer of what we had operating out of Chicago at that time, that the Detroit suppliers were going to get the business, and that is exactly what did happen.

In 1941 Ternstedt discontinued our process stating that [fol. 5051] it just wasn't doing the work they expected of it, the equipment was not designed properly for it, despite their original contention that it was, and they at that time began converting all of their solutions to GM's acid copper process.

We learned also that the Fort Street plant was having some trouble on plating of diecastings, and tried to induce them to transfer the solution which had been discarded for use on steel at Fort Street, over to this plant 16.

I said "Fort Street" before, but I meant "Plant 16."

They declined to do this, and we just never got any more high speed copper business at Ternstedt.

Postwar, the situation remained the same. They continued to operate GM acid copper and the Hanson-Van Winkle-Munning competitive cyanide process exclusively. We had sold them some sodium cyanide—that is the high test—because when the war started they couldn't buy it anywhere else, but now there is again imported cyanide available, and they are actually using some of that.

Mr. Ragland: Now, I offer Defendants Exhibit No. DP 374 which is a technical service report, dated June 10, 1941, by H. W. Kennedy.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 374.)

Mr. Ragland: I wish to read only the first paragraph, and the first sentence from the second paragraph.

By Mr. Ragland:

Q. I believe you said that Mr. Kennedy was one of your salesmen?

A. Technical serviceman located in Detroit at that time.

[fol. 5052] Mr. Ragland: (Reading):

"I called here today at the request of Mr. Cole—"

who was shown by the report itself to be the chemist at Ternstedt—

"—to inspect their Zin-O-Lyte operations."

By Mr. Ragland:

Q. What are Zin-O-Lyte operations?

A. Zin-O-Lyte is a trade name for one of our zinc cyanide processes.

Mr. Ragland: (Continuing):

"however, while I was in the lobby, Mr. Hidley called me in and told me that they wished to return 1100 pounds of RH 553 and 4 gallons of RH 556."

By Mr. Ragland:

Q. What are those, RH 553 and RH 556?

By the Witness:

A. RH 553 was our designation of the du Pont high speed copper plating salts from which the bath is made up; RH 556 is an addition agent for that bath.

Mr. Ragland: (Continuing):

> "I told him that this sounded as though they intended to discontinue High Speed Copper operations. He said he did not know anything about it.
>
> "I mentioned this to Mr. Cole and he said that they installed the second full automatic machine of General Motors Research Acid Copper last week-end and consequently cut down on their High Speed Copper."

[fol. 5053] By Mr. Ragland:

Q. The High Speed Copper that they cut down was du Pont?

By the Witness:

A. That's right.

Mr. Ragland: This chart and the testimony, the chart entirely and the testimony of Mr. K'Burg largely, deal with copper plating which he has stated is the most important to du Pont of the various plating operations. However, so that this record will be complete, I now wish to ask Mr. K'Burg a few questions about the other types of electroplating—zinc, tin and cadmium.

By Mr. Ragland:

Q. Do you have items to sell for those?

A. Yes, we do. We manufacture chemicals which are used in all three.

Q. Did du Pont acquire this business from R&H, too, or did it develop it itself?

A. Both. R&H had several processes which it had developed on its own, and subsequent to the acquisition, we have developed a couple of processes.

Q. Did General Motors purchase any of their requirements in this line from R&H before du Pont acquired it?

A. I am sure they must have.

Q. Did the transfer of the R&H business to the du Pont Company effect any change that you know of in the commercial relations?

A. No.

Q. As to the new processes which your department subsequently developed, did you offer them first to any Gen- [fol. 5054] eral Motors Division?

A. No. The "Durobrite" zinc process was first tried by the Buffalo Bolt Company in North Tonowanda, New York. They manufactured plated parts for the automotive industry in their plant near Niagara Falls. It was a very good place for an installation to be made. It was a very satisfactory installation, and they still use it to this day.

My recollection concerning the automotive industry is that our first installation was at the Ainsworth Manufacturing Company in Detroit which made parts generally for the Ford Motor Company.

Q. Which General Motors Division do most of the zinc, tin and cadmium plating?

A. Chevrolet does the largest amount of zinc plating. Cadillac, Ternstedt Division, and Frigidaire all do some.

Q. How about Delco-Remy?

A. Delco-Remy does a fair amount of zinc plating. They do zinc, tin, and cadmium.

Q. Testify very briefly about Chevrolet, if you will.

A. Chevrolet at the Gear & Axle plant does most of the zinc plating for the Chevrolet Divisions. They have never used our process. We have sold them 96 per cent sodium cyanide—our high-test product—for this purpose, and occasionally some zinc cyanide, which they buy on a competing basis.

When our price was low, we got the business, and when it was not, we did not. They have never used any of our addition agents. At one time, we sold them some zinc anodes also on a competitive basis, and we didn't get much on that basis.

Q. I believe you said that Frigidaire was one of the noncar divisions that was important in this line. Does Frig- [fol. 5055] idaire buy its requirements from you?

A. Frigidaire used to buy substantial amounts of sodium cyanide from us, from R&H, then later from du Pont. However, we have tried to sell them zinc anodes without success.

Q. Now, finally, take up the Delco-Remy Division, which I believe you said was the other important one, especially as far as zinc plating is concerned?

A. Yes, Delco-Remy before the war did a fair amount of zinc plating, but not as much as it has done since.

Before the war, they bought some of their chemicals from us, but they did not use our "Durobrite" process. Since the war, we have been quite successful in selling them our process and "Durobrite" conditioning agent. We have never been able to sell them the zinc anodes.

Q. Have you tried to sell each of the General Motors divisions about which you have testified, including those that had other forms of plating and those that are listed on the chart, have you tried to sell each one of them a greater portion of their electroplating requirements than you have been able to do?

A. Yes, we have always tried to sell General Motors divisions everything we had to sell that they could use.

Q. Has there been any exception at all to that?

A. No. Except I recall at one time being so unsuccessful at Buick that I went to my superior, my district manager here in Chicago, and I said we were getting nowhere fast, and we should not even bother to call any longer.

He said, "No, you had better keep on calling," and we did and finally got some business.

Mr. Ragland: In completion now of Mr. K'Burg's testi-[fol. 5056] mony concerning electroplating, I wish to offer in evidence a few of the reports which supplement his oral testimony, and confirm certain statements made in the electroplating charts concerning the divisions, not covered in detail in Mr. K'Burg's oral testimony.

I will not read any of them.

The exhibits start with du Pont No. 375, which is the third item after the second chart.

Mr. Ragland: Defendants' Exhibit No. DP 375 is a technical service report of H. W. Kennedy, dated October 1st, 1940.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 375.)

Defendants' Exhibit No. DP 376 is a master report by H. W. Kennedy and R. R. Bair, dated January 2, 1941.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 376.)

By Mr. Ragland:

Q. You have previously told us who H. W. Kennedy is. Who is R. R. Bair?

A. R. R. Bair is a chemist in our Niagara Falls Laboratory in charge of service.

Mr. Ragland: The next exhibit is Defendants' Exhibit No. DP 377, which is a technical service report of F. F. Oplinger, dated September 6th, 1939.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 377.)

[fol. 5057] Mr. Ragland: The next is Defendants' Exhibit No. DP 378, which is a technical service report by H. L. Benner, dated May 29, 1945.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 378.)

By Mr. Ragland:

Q. Who is H. L. Benner?

A. At that time, H. L. Benner was the technical service representative in Detroit.

Mr. Ragland: Next is Defendants' Exhibit No. DP 379. It is a routine trade report of Mr. K'Burg dated May 8, 1941.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 379.)

Mr. Ragland: The next is Defendants' Exhibit No. DP 380, this being a routine tehcnical report by Mr. Hill whose initials are not shown on the report.

It is dated March 31, 1949.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 380.)

By Mr. Ragland:

Q. What are Mr. Hill's initials, and who is he?

A. His initials are D. W. He is a technical service representative in Western Michigan.

Mr. Ragland: The next is Defendants' Exhibit DP 381, which is a letter from Mr. K'Burg to P. R. Lindsay, sales [fol. 5058] manager of the sodium products division, dated August 17, 1949.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 381.)

Mr. Ragland: And finally, Defendants' Exhibit No. DP 382, which is a routine trade report of R. C. Schuler, dated November 19, 1947.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 382.)

By Mr. Ragland:

Q. Who is R. C. Shuler?

A. R. C. Shuler at that time was a salesman in Detroit.

Mr. Ragland: Just as I did in the case of the other chart, I now, having completed Mr. K'Burg's oral examination, and having offered these trade reports, wish to offer in evidence the electroplating chart which has been marked for identification as Defendants' Exhibit DP No. 372.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 372.)

Mr. Ragland: I would like to ask you just a few general questions to complete your testimony, Mr. K'Burg.

Have you ever been advised by anyone that there is an agreement between du Pont and General Motors which requires General Motors to buy from du Pont any part of its needs of products which your department sells?

A. No, I have not heard of it.

[fol. 5059] Q. Have you ever heard of any conspiracy under which General Motors is required to buy from du Pont any of the products which you sell?

A. No, sir.

Q. Finally, to your knowledge, has the fact that du Pont owns stock in General Motors been used in any way to sell any of your products to any General Motors division?

A. No, sir, it has not.

Mr. Ragland: That completes my examination.

Cross-examination.

By Mr. Harsha:

Q. Mr. K'Burg, you have testified principally about the case hardening materials, and electroplating, and high speed copper plating processes and chemicals which you sold to General Motors, among other car manufacturers. Are those two types of chemicals the principal chemicals which you sell, and by you, I mean the Electrochemicals Department of du Pont, to General Motors?

A. Yes, sir.

Q. This accounts for the bulk of your sales to GM, in your department?

A. That is right.

Q. Now, I would like to ask you a few questions about this case-hardening process or processes, rather.

You mentioned this gas carburizing process which came in, I gather, some time in the middle thirties or late thirties.

A. Well, I think the late thirties would be better.

Q. Was that a rather expensive process to convert to?

A. Yes, it was.

Q. For an automobile manufacturer?

A. For the installations which were being considered at that time, it was quite expensive. Since most of these large [fol. 5060] installations have been made, there have been some smaller, less expensive installations put in.

Q. Would it be true to say that those who have gone to the gas carburizing process have been those who were the largest units in the automobile industry?

A. Yes.

Q. Now, I would like to ask you a few questions regarding this DP 362.

This is an excerpt from the survey made in 1937.

Now, I gather from your testimony regarding this chart that in many instances at least the figures shown here are estimates rather than actual sales figures, or figures that you saw in the customer's hands, is that right?

A. That is right, yes.

Q. I mean you were estimating what their requirements were?

A. That is right.

Q. And I note that the largest purchaser of your products among the units outside of General Motors is Ford Motor Company in 1937. Isn't it true that at that time the Ford Motor Company was going to this gas carburizing process?

A. They were starting to test it.

Q. And at the time you prepared this survey, you knew that didn't you?

A. I found that out during the survey.

Q. Yes. As a matter of fact, didn't Ford go to that process in the next few years?

A. They did in part, but they had never gone all the way.

Q. Well, proportionately, how much of their case hardening is done by the gas carburizing process, say, today, do you know?

A. No, I don't. First I cannot determine how you can measure the gas hardening process in the same terms.

[fol. 5061] Q. I gather also, just to make clear in my own mind, that this chart does not purport to show just automobile manufacturers who are using the gas carburizing process, is that right?

A. That is right.

Q. So that some of the units that are shown here, some of the automobile units that are shown here, from your own general survey, would appear to be small users of the various types of cyanide manufactured by du Pont, or competing processes manufactured by people like Holden, but may in fact be very large case hardeners, if I can use that term, who use the gas hardening process, is that right?

A. Well, for 1937, most of these figures look quite substantial.

Q. Well, isn't it a fact that the Saginaw Steering Gear Works of General Motors at that time was using gas carburizing?

A. In 1937, I think they were probably just starting to use it. I do not think any extensive use was being made of it at that time.

Q. How about Chevrolet Gear? Were they using the gas carburizing process then?

A. They were not really using it. No one was really using it in 1937. It was still on an experimental basis.

Q. Now, I gather that the standard material of case hardening at the time you went with the R&H Company in 1929 was the cyanide process, is that right?

A. Yes, sir, and pack hardening.

Q. And then in the early 30's, there were demands among certain of the manufacturers who were doing this case hardening for a product which would have a deeper case, isn't that right?

A. Yes.

Q. Deeper than that provided by the cyanide process?

A. Yes, a product which would put on a deeper case.

[fol. 5062] Q. Yes. Who was the first one to come out with that type of process, do you recall?

A. Yes, the American Cyanamid Company.

Q. That was "Aerocase"?

A. Yes, sir.

Q. How about "Perliton", did that come out about that time?

A. A few years later.

Q. And du Pont's "Ducase", I gather, was produced later to meet that type of competition, is that right?

A. No, "Ducase" was developed about—I should say probably prior to "Perliton", but subsequent to "Aerocase".

Q. After "Aerocase"?

A. That is right.

Q. Do you have Exhibit DP 363 there? I think that perhaps we may have to use both in conjunction because they somewhat overlap.

Now, I believe you indicated on your direct that the Buick Motor Company was about the next largest car unit of GM, in terms of this case hardening process?

A. That's right, yes, sir.

Q. Drawing your attention to DP Exhibit No. 363, you note a statement that they commenced displacement of liquid hardening with the gas process in 1936. That was a year before you made this survey, is that right?

A. That is right.

Q. And by 1937, would you say they were substantial users of this gas carburizing process?

A. No, I would not say they were. They were continuing these experiments which, incidentally as I recall it, were not successful at first. They were still using liquid baths in 1937.

Q. What I am trying to find out is, did you lose any business in your sales to Buick because of this gas carburiz-[fol. 5063] ing process in about 1937?

A. No, we did not. We were not selling to Buick.

Q. How about your Saginaw Steering Wheel? Were they using the gas carburizing process rather extensively in 1937?

A. No, sir. I think I should say that no one was using it extensively prior to the war.

Q. Do you have records in the Electrochemicals Department of du Pont which indicate the percentage of the customers' requirements which were being supplied by the du Pont Company in say the last ten years?

A. Not that way. We have our trade reports in which the salesmen always report in terms of pounds to show both our sales and our anticipated sales and competitors' sales.

Q. Do you know what you are selling to the Ford Motor Company today in the way of this cyanide process?

A. Yes, we are selling a substantial quantity of 96 per cent sodium cyanide to Ford Motor Company today.

Q. How would it compare to the figure you show for 1937?

A. It is not nearly as large as that.

Q. Well, what I am trying to find out is how much of a drop has there been, roughly?

A. Well, the Ford Motor Company, on this chart—

Q. Bought 1,300,000 pounds?

A. I think I had better break it down. They bought 50,000 pounds of the 96-98 per cent sodium cyanide. That is the product that we are selling them today in substantial quantities.

Q. You say in larger quantities than shown here?

A. Yes, considerably more than that. I would say it would probably run 300- or 400,000 pounds. Of the 75 per cent sodium cyanide—in there, it shows 850,000 pounds. We are selling them very little today, probably not even 100,000 pounds.

[fol. 5064] Of the 45 per cent sodium cyanide—the chart shows 450,000 pounds. I do not think we are selling any of that today. Most of our sales to the Ford Motor Company happens to be 96 per cent high test cyanide.

Q. Now, in this 362, du Pont Exhibit 362 which you have there in your hand, can you tell us roughly what the dollar volume of those sales would amount to? Take for example, the total shown under General Motors total sold by du Pont, 482,000 pounds.

Can you translate that roughly into dollars?

A. It will be rough.

Q. Well, your best estimate.

A. About $56,000.

Q. Now, you have mentioned this "Ducase" process that du Pont brought out. Was that brought out at the time you made this report in 1937?

A. We were trying to promote its use.

Q. Was it in general use at that time?

A. No, sir, it was never in general use.

Q. It was never in general use?

A. No.

Q. I believe you said something to the effect that it was not the complete answer to the type of case hardening requirements of many large customers; is that right?

A. That is right.

Q. Isn't it true that that was supposed to be your answer to the competition afforded by "Aerocase" and Holden?

A. It was for "Aerocase," but not for the Holden product.

[fol. 5065] Q. What was your answer as to that competition?

A. We later brought out two different products which we called du Pont accelerated salt and du Pont carburizing salt. That was afterwards.

Q. That was after this report was made?

A. Yes.

Q. Many years after; was it, roughly?

A. Probably a year, more or less.

Q. So that as a matter of fact, the "Perliton" and "Aerocase"—that is the "Perliton" process or Holden—du Pont did not have any product that was equal to it in quality at the time this survey was made?

A. I think that is a matter of opinion, sir. "Ducase" could have been used for that purpose.

Q. Yes. Didn't the survey that your made about this time indicate that there were serious drawbacks to the du Pont process as then evolved?

A. No. The survey was made primarily because we knew there was a growing need for it. That was the real reason for the survey. We were trying to develop, or produce, a deeper hardening bath which would answer this question, not only in the automotive trade, but everywhere.

Q. What I am trying to determine here, as near as I can, and I hope in nontechnical language at the time you made this survey, isn't it true that du Pont didn't have a case hardening material which was equal to the quality then existing in such competitive products as Aerocase and Perliton?

A. I don't want to get technical here.

Q. Well, let me put it this way——

A. I think I can answer your question all right. If you get [fol. 5066] the carbon in the steel, which is the end purpose of case hardening, and can do it by Aerocase, "Ducase", or Holden or cyanide or anything else, then you have your process.

Now, your choice of process would not necessarily be the measure of quality of any one of these products. There may be other characteristics which are objectionable or desirable.

Q. Well, I note that in this report that you made at that time that the statistics were taken from, you made this statement on the second page of your report that there appear to be two limitations to the cyanide bath, and I presume you are referring there to the process that the du Pont Company was selling the materials for?

A. May I take a look?

Q. Sure.

A. Well, it describes the result which can be expected from any sodium cyanide bath. You can obtain 6 thousandths of an inch. To get more somebody would have to bring out a new bath or you would have to run your cyanide bath in an uneconomical way. You could actually go on to 8 thousandths or 15 thousandths in the cyanide that was being made then if you ran it a little longer. The idea was to cut down the time, and that was the reason for the deeper hardening bath.

Q. That is right. At that time, your product was not as fast in its operation—isn't that correct—as some of those then on the market?

A. That is an inherent characteristic of sodium cyanide.

Q. Just to make sure I have these products straight then, "Ducase" was not really in commercial usage in 1937, [fol. 5067] at the time you made this survey?

A. No, we had one or two small users of it. As a matter of fact Burroughs Adding Machine Company used "Ducase" for a long time after this survey was made. I don't believe it was even mentioned that Burroughs was using "Ducase" in that sheet, although it may have been.

Several other small companies were using it. The drawback to "Ducase" was exactly the same drawback as the "Aerocase" had. I might mention concerning this we still sell a lot of these grades of sodium cyanide for casehardening today.

Q. Yes, I gather that. It is true, you did predict in this survey, quite a substantial loss of the du Pont sales of the cyanide, projected over the subsequent two or three years, isn't that right?

A. That's right.

Q. And was your information on your forecast substantially borne out by events?

A. No, I didn't forecast the war along with it.

Q. I see. That changes the picture?

A. Yes, that changed it entirely.

Q. But after the war, would you say you became a better prognosticator?

A. Well, gas furnaces continued to be installed. There are several interesting things that developed as a result of all of this. We started out then to try to sell more sodium cyanides in a number of plants, and also these activated type baths that I mentioned.

The net result of that was that we found many concerns who had been sold on installing the Houghton and Holden processes who should never have put it in at all, and some actually went back to the use of our sodium cyanide. That [fols. 5068-5069] is the reason we maintained our position on sodium cyanide.

Adjournment.

[fol. 5070] Cross-examination (continued).

By Mr. Harsha:-

Q. Mr. K'Burg, we were discussing the cyanide case hardening materials yesterday, and I have a few additional questions with respect to them.

Directing your attention to, say the mid-30's, prior to the beginning of World War II, can you tell me whether there were any differences in the results obtained between the cyanide sold by the du Pont Company and the cyanides which were imported during that period?

A. No, there would be no substantial difference. In fact, practically none.

Q. Do you know whether there was any difference between the two types of cyanide, the imported and du Pont in terms of price?

A. Yes, there was.

Q. Can you tell me what the difference was?

A. Well, the imported material was less expensive.

Q. Was it appreciably less expensive?

A. I think it sold generally for about one-half to about one cent a pound less for our equivalent material.

Q. One-half?

A. One-half to one cent per pound less than our equivalent material.

Q. And this cyanide sold for roughly what?

A. In that period?

Q. Yes.

A. I think our price was 16½ cents a pound.

[fol. 5071] Q. And the imported, you would say, would be 16 or 15½, something like that?

A. That is right.

Q. Now, are you in a position to know what proportion the du Pont Company, say, in 1947 and 1948, was supplying to the various General Motors units of their requirements for those sodium cyanides for case hardening?

A. Well, in 1947 and 1948, there was no imported material available. We had to supply it all.

Q. You were supplying all?

A. That is right, of the 96-98 per cent sodium cyanide.

Q. That is an important use today for sodium cyanide, isn't it, in the automobile industry?

A. That is right.

Mr. Harsha: Do you have Mr. K'Burg's 1937 report there, the survey, the photostatic copy?

Now, you might also show Mr. K'Burg, if you have it handy, DP Exhibit 362 which is the statistical material which was prepared from Mr. K'Burg's report in 1937.

And I note in the grouping of the GM units that the General Motors Truck is shown as buying its—well, 2,000 pounds of the 96 per cent sodium cyanide from du Pont and 5,000 pounds of "Aerocase."

I would like to direct your attention, Mr. K'Burg, to page 38 of this report which you made in 1937, and which deals with your report on the Yellow Truck & Coach, which I assume is the same as the GM Truck on this chart.

By the Witness:

A. Yes, it is.

~~By~~ Mr. Harsha:

Q. And I note that you state:

> "For many years they have operated accelerated salt [fol. 5072] baths to produce a case of greater depth than can be obtained with straight cyanide.
>
> "2. This bath is 'Aerocase' and it was selected because at the time it was the only one of the accelerated salt baths on the market."

Then you go on to state that:

> "They require case depth of about 0.018", which they produce in 'Aerocase' in about one hour. They have in the past operated pots with 'Ducase'."

By Mr. Harsha:

Q. And that is the du Pont material, isn't it?

A. Yes, sir.

Mr. Harsha: (Reading):

"And with Perliton, but decided not to use the former because it proved to be more costly in operation than 'Aerocase' and the latter had no advantages over 'Aerocase' in any respect. They state that they were well pleased with the operation of 'Ducase' and might have continued with it except for the expense involved."

By Mr. Harsha:

Q. Wasn't this the reason why General Motors Truck was using "Aerocase" rather than du Pont sodium cyanide or "Ducase" at this time?

A. Yes, that is what it says.

Q. Now, I would like to direct your attention to the chart. It shows that Chevrolet Bay City was purchasing 100,000 pounds of the 75 per cent sodium cyanide from du Pont, and 5,000 pounds of the Holden material.

[fol. 5073] I direct your attention to page 29 of your report of 1937.

The Court: What is the number of that exhibit, please?

Mr. Harsha: Your Honor, this exhibit is not in evidence. It was foundation material for du Pont Exhibit 362, and I asked for a copy of it, and counsel provided it for me.

Now, you will note there that the statement is made:

"du Pont 75 per cent Cyanide-Chloride Mixture continues to be used here for practically all operations except the hardening of the Chevrolet speedometer gear on which they find they require a deeper case than can be produced with cyanide.

"2. For the speedometer gear operation they use Holden's Light (?) Case for the reason mentioned above."

By Mr. Harsha:

Q. Isn't this also the explanation in this instance why Chevrolet Bay City Division was purchasing the Holden material?

A. In 1937, yes, although they could have used "Ducase".

Q. But you do make the statement that they required a deeper case than could be provided by cyanide, and I presume you mean there in a reasonable length of time.

A. That is right. Time is an important factor.

Q. Then with respect to Buick, I note as shown on this chart Buick purchased 300,000 pounds from Holden. If you will refer to page 32 of your report—I guess it begins on page 31, you have the statement, and I quote:

> [fol. 5074] "We have been given to understand that for most of the operations Buick has conducted in salt baths during the past few years Sodium Cyanide had no particular limitation. For speedometer gears, however, they found that better results could be obtained with a deeper case produced thru the use of deep hardening salt baths."

Then on the next page, the statement was made at the end of paragraph 2:

> "Holden's light case has been used here in very large quantities."

Then you mentioned that this operation was formerly carried out in a bath made up from 40 per cent sodium cyanide so that this was not the situation where you had lost Buick, isn't that correct?

A. We had not been selling anything to Buick in that period.

Q. And I gather also from the rest of your statement in paragraph 2, that the Holden materials had been one of the first of the accelerated case hardening materials being introduced into this industry, is that right?

A. Well, I think the situation is as I mentioned it in direct examination that Holden and Park came out with an accelerated type salt about the same time, and that followed "Ducase" introduction, and then very shortly after that we came out with our salt baths in addition to "Ducase."

Mr. Harsha: Then on the next page, on page 32, you state:

> "On speedometer gears 'Parkcase' is being used and [fol. 5075] is producing very satisfactory results. In this instance they wished a deeper case than could be obtained thru use of cyanide."

By Mr. Harsha:

Q. There, again, is the explanation for Buick turning to Parkcase in this particular instance, isn't it?

A. That is right.

Q. Now, isn't it true, Mr. K'Burg, that if you contrast the du Pont cyanides that you were producing, say about this time in 1937, with the products which were then sold under the names of, say, "Aerocase" and "Perliton" and "Parkcase"—if you contrast those two groups, isn't it true that you would find that they are not wholly comparable in terms of the results which can be obtained through their use, as case-hardening materials?

A. Well, I think that is a safe general statement. I think it could be qualified to the extent that these competitors, Park Chemical and Houghton, had a much greater interest in selling a compounded product, containing sodium cyanide, rather than straight sodium cyanide.

In fact, they rarely sold that. One of the things we uncovered as we went about our business of trying to sell our accelerated salts in competition with them, was the tendency to oversell these products and that many people were using them simply because they were oversold, and many of them went back to the use of straight cyanide.

On the other hand, there were places where some deep hardening was required, and that was the purpose of the survey, to determine whether we should go into that business.

[fol. 5076] Q. Yes, and where a user had a requirement for a deeper type of case and wanted it speedily, then the du Pont cyanides at that time, as contrasted with the "Parkcase" and the "Aerocase" and so on, would not produce the same results?

A. Well, if you except "Ducase"—"Ducase" was in the market before "Perliton" and "Parkease", and those materials, but not before "Aerocase."

Q. Now, I would like to turn for a moment to this copper plating, high speed copper plating.

Do you have the du Pont Exhibit No. 372 there?

This is the "canned" résumé, shall we say, of your testimony, I believe, and I believe in your direct examination you were asked to describe, you might say, the history of operations in three of the General Motors plants.

The first one was Cadillac, and if I follow the notes that have been made on this document, it is true that over the years du Pont has been the major supplier to Cadillac; isn't that true?

A. Yes, sir.

Q. And then directing your attention to the Chevrolet which, I believe, you stated was the largest user or potential user, should I say, of this copper plating process, the notes indicate that in 1939 Chevrolet installed the du Pont high speed copper process, and then discontinued it after a couple of months, and in connection with that, I direct your attention to du Pont Exhibit DP 377.

I direct your attention, Mr. K'Burg, to the second paragraph of this trade report made by Mr. Oplinger. The Chevrolet-Flint referred to, I presume, is the same Flint referred to in the analysis of operations here?

A. Yes, it is.

[fol. 5077] Q. And in the second paragraph the statement is made that:

> "As the plater told us when they started operations, they had some trouble with the machine which had been installed for automatic buffing of the copper, because of this, they tried the method previously used and much to their amazement found that they could polish the steel prior to plating. Because of this, the story now is that it will probably be cheaper for them to use former practice than to resort to High Speed Copper plating prior to the nickel."

Now is this the reason that was given to your salesman, Mr. Oplinger, for Chevrolet discontinuing the use of the high speed copper process in 1939?

A. I am sure that is one of the reasons.

Q. Chevrolet found, or at least in their own judgment they believed, that it was cheaper for them to go back to the earlier method?

A. Well, there is another angle to that, in so far as it applies to Chevrolet. Chevrolet followed an entirely different practice than any of the other General Motors divisions in that they had always used substantial amounts of nickel, and they had some special arrangement whereby they cast their own nickel anodes, thereby saving some money there.

That was not true of the other General Motors car divisions. But Chevrolet—I think they just had a preference for nickel plating.

Q. Now, I believe the other division that you discussed was Ternstedt, which I believe you identified as being the largest non-car unit in General Motors, in terms of potential [fol. 5078] for the use of this high speed copper, isn't that right?

A. That's right.

Q. And in connection with that, I note that here, too, in the earlier years, meaning 1938 to 1940, they are shown as having installed the du Pont high speed copper plating process, and then discontinuing it in about 1941, according to the notations here.

I believe you stated on direct that the reason that you were told, anyhow, or that du Pont was told why they dropped the du Pont process, was that it was not doing a job. Do you recall that?

A. I think I said that they found the equipment not to be quite adequate for use with our cyanide copper process.

In our opinion, both in the case of Chevrolet and Ternstedt, they could have used substantial amounts of du Pont high speed copper at all times, but of course they have their own metallurgical reasons for making decisions.

Mr. Harsha: Could you show Mr. K'Burg du Pont Exhibit 374, please?

By Mr. Harsha:

Q. I should like to draw your attention to this, and I believe part of it was read to you by counsel on direct, and I call your attention to the third paragraph where it stated that:

> "Pointed out that if their shutting down of the High Speed Copper was brought about principally by the Production Department who found the acid copper finish to be so much easier to buff."

Now, that acid copper finish has reference to this process [fol. 5079] that General Motors Research evolved, hasn't it?

A. I think it is, in that case.

Q. And they could not afford to operate the high speed copper—that is the du Pont process?

A. Yes, sir.

Q. And isn't that the reason assigned to your salesman by Ternstedt for discontinuing the high speed process?

A. That is the reason they gave. I am sure that for a large share of Ternstedt's operations they could have used high speed copper satisfactorily and economically.

Q. Now, in checking over this chart, Exhibit No. 372, a resume of the operations of the various GM units from 1938 to 1950, as I analyze this chart, if we omit Frigidaire and Delco, which, according to the notations, I gather, are very small users of any kind of plating process—isn't that correct?

A. Yes, they are relatively small.

Q. And if we confine our attention to the divisions of GM which apparently do a substantial amount—I guess I should say also eliminate Buick, according to the notations.

A. That is right.

Q. So if we confine ourselves then to the divisions Cadillac, Chevrolet, Oldsmobile, Pontiac, Truck and Coach—GM Truck and Coach, I presume—Ternstedt, A. C. Spark Plug, Brown-Lipe-Chapin, and Guide Lamp.

Isn't it true that of these nine divisions that eight of them at some time during this period covered by this chart have installed and used for some period of time the du Pont high speed copper plating process?

That is, Cadillac used it and still uses it today, I gather. Chevrolet installed in 1939 the high speed copper plating [fol. 5080] process, and discontinued it for the reasons we have just discussed.

Oldsmobile installed it, according to the notes, in 1941.

Pontiac installed it in 1940.

Truck and Coach apparently did not use it.

Ternstedt apparently has used it and then discontinued it in 1941.

A. C. Spark Plug adopted it in 1939, and Brown-Lipe-Chapin adopted it in 1938 and 1939. Guide Lamp has experimented with it and has used it, and apparently is still using it today.

So isn't it a fair statement that from the analysis of this information, Mr. K'Burg, the du Pont Company has had a greater opportunity to install its high speed copper-plating processes in General Motors units than any comparable process made by a competitor?

A. No, I wouldn't say that. When the high speed copper process was first developed, as I mentioned yesterday, it was the first one. No one knew how well it was going to catch on in the trade until some time elapsed.

After it does catch on, it is just like any other satisfactory product, someone else wants to get in the business, and it wasn't too many years following that that a good many competitors came in.

The identification of the various processes down here in the lower left-hand corner of the chart shows that we were certainly not without competition. The very fact that du Pont high speed copper stayed in some of these plants so long was due to the fact that we provided all sorts of service and assisted them to keep it in.

Q. Let's put it another way. Isn't it true that no other [fol. 5081] competitor of du Pont has been able to install its process in the General Motors units in as large numbers as du Pont?

A. Well, you really have to refer to each unit. Each unit does an entirely different job, and they approach it from an entirely different angle. You just can't generalize on it at all.

Q. Isn't one of the reasons why the du Pont high speed copper plating process has been discontinued in a number of the operations, at least one of the principal reasons assigned, is the fact that it resulted in a plating which was very hard to buff?

A. That is one of the reasons. On the other hand, a good many of these competitive processes which were tried and discontinued had the same disadvantage. The need for thicker deposits of copper is still as great now as it has ever been since the war, and there are constant developments going on, not only among our competitors, but in our own laboratories. I think we will have answers to those problems ourselves as we go along.

In the meanwhile, du Pont high speed copper is still installed in many places.

Q. I would like to show you, Mr. K'Burg, what has been marked for identification as Government Exhibit No. 1329. I believe you identified earlier in your testimony Mr. Oplinger as being an employee of the Electrochemicals Department, is that correct?

A. Mr. Oplinger—

Q. Or was, I should say.

A. Yes.

Q. He is deceased now, I believe?

A. That is correct. Mr. Oplinger at the time was assistant manager of the electro-plating division.

Mr. Harsha: I offer Government Exhibit No. 1329 at this time.

[fol. 5082] (Said document so offered and received in evidence, was marked Government Exhibit No. 1329.)

By Mr. Harsha:

Q. I direct your attention, Mr. K'Burg, to page 5 of this report, at the bottom of the page, where there is a reference to No. VIII, High Speed Copper. I presume that means du Pont process when he states:

"Our process has some very serious disadvantages."

Incidentally, this was written, according to the handwritten note, in 1946. Do you know whether that is substantially accurate?

A. Substantially—

Mr. Neitzert: What page are you on?

Mr. Harsha: Page 5.

The Witness: We have since tried to determine when it was written, and we think it was more likely first drafted in 1945.

By Mr. Harsha:

Q. Going to page 5 again of this document, I continue.

> "Unless these difficulties are eliminated or greatly minimized, progress will become more difficult and further serious loss of business will result. Specific examples of such losses of accounts are as follows."

Then there is a reference to Guide Lamp Division of GM, and Pontiac Motors and Ternstedt, and then miscellaneous consumption, where he states that:

> "An estimated 25,000 gals. has been lost to competition elsewhere during 1946."

[fol. 5083] Then he concludes that:

> "A total of no less than 100,000 gallons has gone to competition during 1946. Further losses are anticipated unless improvements in our process are forthcoming."

Wouldn't this tend to explain some of these decisions by the General Motors units to discontinue the high speed copper plating process of du Pont?

A. No, I don't think it does at all. This report was written by Mr. Oplinger to Departmental Management, and he certainly would be very frank in his statements of his opinions of our process, and both the advantages and disadvantages of it as well as the competitive processes.

The competitive processes were not answering all the questions that needed to be answered at that time. In fact, some of these more or less pessimistic statements that Mr.

Oplinger made at this stage didn't hold good. Guide Lamp put high speed copper back in, in larger quantity.

This loss at Pontiac Motors was not a real loss because it was not a replacement. That was installed in the original equipment, at which time we had 55,000 gallons of high speed copper in that tank.

Q. I note over on page 7, he also refers to this question on buffing, in which he states that:

> "—in general, high speed copper deposits cannot be buffed satisfactorily."

Then he states, in the next paragraph, that:

> "Competition has used this weakness in our process [fol. 5084] quite widely. It was the primary reason for the Ternstedt Division, GMC's interest in acid copper and accounted almost entirely for the fact that they give our process no consideration."

Was that based on the reports that the du Pont Company had received from Ternstedt?

A. It would be verbal reports. You have to know exactly what you are trying to plate. Acid copper will not plate satisfactorily on some metals, and particularly metals of some designs.

Buffing is a factor in some places. The superior throwing power of a cyanide bath is much more of a factor than buffing in another place. You just can't generalize.

Q. As a matter of fact, isn't this a very highly technical field, ~~Mr.~~ K'Burg, in which metallurgists disagree sharply in their opinions in assessing the relative qualities of various processes?

A. That is right, but I think they generally agree that our high speed copper bath is a better bath today than anyone else's.

Mr. Harsha: That is all. Thank you.

Mr. Ragland: I have just a few more questions.

Redirect examination.

By Mr. Ragland:

Q. Mr. K'Burg, were the needs of the other customers that you testified continued to use high speed copper, any different, in your opinion, from the needs of General Motors Divisions that switched to other processes?

A. No, sir.

Q. Did you use any different sales efforts in the case of other customers than General Motors Divisions?

A. No, we did not.

[fol. 5085] Q. Just one final question that I would like to ask Mr. K'Burg in order to bring out definitely how much money is involved in the sales and potential sales to General Motors Divisions of electrochemical products. At the beginning of your testimony, Mr. K'Burg, I called attention to the fact that Government Exhibit No. 504 indicates that during the years 1947 and 1948 the total purchases by General Motors Divisions of your department's products were averaging about a million dollars a year.

I want to ask you to make an estimate now, and I wish you would limit your testimony to the products which do not involve any switches to competitive processes. By that I mean gas case hardening and the non-cyanide types of copper plating baths.

With that limitation, would you give us an estimate of the purchases by General Motors Divisions, if they had bought their requirements of your products from you rather than buying a large part of them, as you have testified they did, from your competitors?

Mr. Harsha: Your Honor, I am not sure I understand that question, but if I do, I object to it.

The Court: I think it is too long. I will sustain the objection.

Mr. Ragland: May I start—

The Court: You may break it up into parts.

By Mr. Ragland:

Q. I wish to eliminate first of all the process idea, the switches to other processes, and just limit it to the direct [fol. 5086] competition of products where they are continuing with the cyanide type of case hardening, and continuing the cyanide type of electroplating.

With that limitation, how much annually would you sell

General Motors Divisions if they bought their requirements from you rather than a part of them from competitors?

Mr. Harsha: I would like to object to that, your Honor. I don't think this witness is in a position to give such testimony. If they have records indicating how much GM's business of these products is, I think they ought to introduce them. They are the best evidence.

The Court: In view of his familiarity with the subject, I think he should be permitted to answer.

The Witness: Well, at what time do you mean?

By Mr. Ragland:

Q. I mean in the 1947 to 1948 period, the same time that the Government figures relate to.

A. Well, I would estimate that our sales would have been in the neighborhood of three million dollars.

Mr. Ragland: That is all.

Mr. Harsha: Nothing further.

The Court: You are excused.

(Witness excused.)

Mr. Cox: If it please the Court, the testimony of the next three witnesses will relate to the subject of plastics and brake fluids. The names of the witnesses are Gillie, Walker and Weber. There are a few documents which have been [fol. 5087] supplied to your Honor in the notebook which has been handed to you.

The first witness is Leslie B. Gillie.

Mr. Gillie, will you take the stand?

Leslie B. Gillie, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Cox:

Q. You are Leslie B. Gillie?

A. That is right.

Q. Try to speak up, Mr. Gillie. Where do you live?

A. I live in Wilmington, Delaware.

Q. Are you now employed by the du Pont Company?

A. Yes, I am.

The Court: Keep your voice up higher, please.

The Witness: I am.

By Mr. Cox:

Q. In what capacity, Mr. Gillie?

A. I am assistant director of sales of the Polychemicals Department.

Q. I should now like to direct your attention to the period of time between August 1936 and August 1948, and ask you whether you were employed by the du Pont Company at that time?

A. Yes, I was.

Q. What were you doing in the du Pont Company during that period?

A. Between 1936 and 1948?

Q. Yes.

A. I was in the plastics department in charge of the sale of molding powders.

[fol. 5088] Q. What were you doing from 1948 through, say, the end of 1949?

A. I was director of sales of the plastics department.

Q. Now, I want to direct your attention to the subject of plastics. Is there a plastic that is described as cellulose acetate?

A. Yes, there is.

Q. Has that plastic ever been manufactured by the du Pont Company?

A. It has.

Q. When did the du Pont Company start making that plastic, Mr. Gillie?

A. We started making it in 1930.

Q. Did you sell it under a trade name?

A. Yes, we did. The name was Plastacele.

Q. Was that plastic used in the automobile industry for any purpose?

A. It was.

Q. Can you tell us what purpose or purposes it was used for in the automobile industry?

A. The main purpose; the largest single use of the material was for steering wheels, for covers on metal insert of steering wheels.

Q. What quality did the plastic have that made it suitable for that use?

A. Well, it was a molding powder. It was a very easily fabricated material. It had good dimensional stability which means that it would stay put after it was molded.

It was susceptible to coloring, in many, many shades of colors, and opaque and translucent colors.

Q. Did you say its principal use was for steering wheels on automobiles?

A. I said the largest use of this material was for steering wheels.

[fol. 5089] Did anyone, other than the du Pont Company, in the 1930's, produce this plastic?

A. Yes, Tennessee Eastman Company, and the Celanese Company which was then the Celluloid Company, and du Pont.

Q. Did these other companies sell plastic under trade names?

A. They did.

Q. Do you remember what those trade names were?

A. The Tennessee Eastman Company was called "Tenite," specifically "Tenite I," and the Celluloid Company was "Lumarith."

Q. During the 1930's, did any division of General Motors use this plastic for any purpose?

A. Did they use it?

Q. Yes, was it bought and used by any division of General Motors?

A. Yes, it was.

Q. What division of General Motors bought it?

A. The Inland Division. Well, again, I am not quite clear. It was used by the General Motors Car Divisions. The steering wheels you are talking about was only manufactured by the Inland Manufacturing Company.

Q. Did the Inland Manufacturing Division of General Motors make steering wheels of this material?

A. They did.

Q. That division itself engaged in the manufacture of steering wheels, is that right?

A. That is right.

Q. Did it buy the plastic which it used for that purpose?

A. It bought the plastic.

Q. For what automobiles did Inland make these steering wheels?

A. Well, Inland made steering wheels for all makes of automobiles for all companies.

Q. You mean by that that it made steering wheels for companies other than the units of General Motors?

A. Yes, sir.

[fol. 5090] Q. Do you know whether it made all or only a part of the steering wheels used by the other units of General Motors?

A. I think they made all the steering wheels used by the General Motors units.

Q. Do you recall when the Inland Division first began to make steering wheels of plastic?

A. Yes, it was in 1937.

Q. Was that plastic a cellulose acetate?

A. Cellulose acetate.

Mr. Cox: At this point, may it please the Court, I would like to offer in evidence a document which has been marked du Pont Exhibit No. 400 for identification.

It is a schedule of sales of cellulose acetate made by the du Pont Company for the years 1937 through 1947. It will be noted that there are two columns.

The first column shows the sales to all customers, and the other column shows the sales to the Inland Manufacturing Division of General Motors for the years 1937 through 1947.

By Mr. Cox:

Q. Do you have a copy of this schedule?

A. Yes, sir, I do.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 400.)

By Mr. Cox:

Q. Now, did you sell any of your acetate molding powder to Inland in 1937?

A. We did.

Q. This schedule shows that you sold "$1,200.00 worth." [fol. 5091] A. That is right. They were just testing out and working on samples at that time.

Q. Do I understand from your answer that they were not really producing these wheels?

A. They were starting in production.

Q. Do you know whether during that year any other company sold them any of this plastic?

A. Yes, I know that they tested other materials, all of the materials during that year.

Q. Now, in 1938, the schedule shows that you sold them a large amount of plastic, in the amount of approximately $39,000.00.

Do you know whether other companies were selling them any plastic during that year?

A. Yes, they were.

Q. What companies were selling them plastic at that time?

A. Both Tennessee Eastman and the Celluloid Company.

Q. Now, the schedule shows that sales increased to $157,000.00 in 1939. Can you explain why that increase took place?

A. Well, as I recall it, during the two months in which we got a very large portion of the business, practically two-thirds of what we show here, because they were having trouble with the other materials for those two months.

Q. Your reference to other materials, is that a reference to these materials supplied by other companies?

A. To acetate materials.

Q. In this year, 1939, what other companies, if you know, were they buying plastic material from?

A. They were buying mostly from Tennessee Eastman and next from the Celluloid Corporation.

[fol. 5092] Q. Do you know from which of the companies involved they were buying the greater part of their requirements in 1939?

A. They were buying most of their requirements from Tennessee Eastman.

Q. Are you in a position to estimate what proportion of their requirements du Pont sold in 1939?

A. Well, I think I am. I took this job in 1939, and this was a very large potential for us, and I recall very well that we estimated that there was about a million and a quarter pounds of material to be used during that year for all of the steering wheels they were going to manufacture, so reducing it to dollars, we got about 25 per cent of the business in that year.

Q. Mr. Gillie, the schedule shows that in 1940, your sales were $102,000.00, roughly, as against $157,000.00 in 1939.

Can you tell us why that decrease in your sales took place in 1940?

A. Well, we began to lose out. In that year, they began using more of our competitors' materials.

Q. Which of your competitors got more business in that year?

A. Tennessee Eastman.

Q. Are you in a position to estimate what portion of Inland's requirements you supplied in the year 1940?

A. Well, I recall that we had the general idea of an increase in the number of steering wheels that they produced that year, and I estimate that we had fallen off about 10 per cent, to maybe 15 per cent, 15 or 16 per cent.

Q. Now, the schedule shows that in the year 1941, you sold $4.00 worth of this plastic to the Inland Division, is that right?

A. That is correct.

Q. What happened in that year to your business at [fol. 5093] Inland?

A. We fell flat on our faces, that is all. We lost it completely.

Q. Were they using this plastic for steering wheels in 1941?

A. Yes, they were using it. They were buying most of it from Tennessee Eastman.

Q. Now, in the period that is covered by this table, specifically the years 1937 through 1941, at any time during that period did you make any investigations or tests to determine whether there was any difference between the quality of your cellulose acetate molding powder and the quality of the cellulose acetate molding powder sold by the Tennessee Eastman and the Celluloid Company?

A. Yes, I had a special trip out there. We were having trouble with the matching of the colors, and I took a special trip out to Inland; and I was taken into the laboratory and shown a sample. It was an Oldsmobile steering wheel, and it was a beige color. And they showed me wheels molded, and sanded wheels, and they asked me if I could see the difference in the color shades, and I said I could not see any difference, and they held it up in different ways and looked across them and over them, and finally they got a little bit disgusted with me, and they said, "Let us go outdoors," and we went out in the daylight, and they held it up, and I still could not see any difference in the color shades. They looked exactly alike to me, and I began to get kind of acrimonious, and I said finally it must be my bifocals because I could not see any difference, and I know that when we left this place, John Mack and myself were completely frustrated because we felt that we had produced a product that was equivalent, and the color was right, and we deserved a part of the business, and we felt we just were not going to get it.

[fol. 5094] Q. Do you know how the price charged by Tennessee-Eastman for its product compared with the price of your product?

A. My recollection is that the average price of this material was 51 cents a pound.

Q. Well, I am not sure that I understand that answer, Mr. Gillie. You say the "average price." You mean that was your price, or the Tennessee-Eastman?

A. Well, the price of the material was 51 cents a pound, the standard material, and the prices were all the same, meaning the Tennessee-Eastman price, our price and Celanese.

Q. Will you tell us briefly, Mr. Gillie, just what you did in an attempt to get and to keep this business with the Inland Manufacturing Division? What steps did you take?

A. Well, we set up an office in Detroit and we had technical men in that office. We supplied those men with samples of colors, color chips and blocks of this material, and they got in touch with the body engineers, the stylists, and all those people concerned with the steering wheels in the General Motors Corporation. They invited them to see our exhibit and they went out to call on them, and they gave them blocks of this material from which they cut samples simulating the roundness and so forth of the steering wheel; gave them color chips, and worked with them on the testing of the material.

In addition to that we had a salesman in Dayton—at least he lived in Dayton, and this was part of his business—who called on Inland. We had at Arlington a technical service group who worked with Inland.

We had at Arlington a small laboratory in which we set up a press with which we could make—we could cover [fol. 5095] steering wheels from the inserts that were supplied us by Inland, to match colors. We had—we made—we used just plain rods, round inserts, and molded over those inserts to show the colors, and we had our Production Division, assistant manager of the plant, and superintendent of production, visit the Inland plant to help us to try to get this business.

Q. Directing your attention particularly to the years 1939, 1940, and 1941, were these efforts that you have just described carried on throughout those years?

A. Yes, they were carried on right through 1941.

Q. Did the Inland people ever tell you why they preferred the product of your competitors to your product?

A. Well, yes, they said that they liked the service of the other companies, and both of those companies were very good companies, and they produced a product that we thought was equal to ours—not any better—and they just seemed to prefer to do business with those two companies, particularly Tennessee-Eastman.

Q. Did you think that the service provided by the Tennessee-Eastman was better than your service?

A. No, I don't think so because Tennessee-Eastman didn't go to all the ends that we did to try to get this business.

Q. Would you say that there was simply an honest difference of opinion between you and the Inland people as to the quality of your products and your service as compared to the product and service offered by your competitors?

A. Well, I just think they preferred to do business with the other people.

Q. This table which has been introduced as du Pont Exhibit No. 400 shows that after 1941 you sold no cellulose- [fol. 5096] acetate molding powder to the Inland Manufacturing Division at all, is that correct?

A. That is correct.

Q. Now, passing over the war years, and directing your attention to a period after the war, did the Inland Manufacturing Division use cellulose-acetate molding powder for steering wheels, after the war?

A. They used a modification of cellulose-acetate which was called "Cellulose-Aceto-Butyrate."

Q. From where did they buy this different plastic?

A. They bought it from Tennessee-Eastman.

Q. Did the du Pont Company make and offer that new plastic?

A. No, we did not.

Mr. Cox: At this point I shall offer in evidence, without reading, certain documents which have heretofore been marked for identification.

These are the documents which have been marked du Pont Exhibits for identification 401, 402, 403 and 404.

(Said documents so offered and received in evidence were marked as du Pont Exhibits Nos. 401, 402, 403 and 404.)

Mr. Cox: I call the Court's attention, and counsel's attention, to the fact that the document which has been marked du Pont Exhibit No. 404 for identification is dated October 30th, but no year is shown.

So far as we can ascertain from the internal evidence of this document and the preceding document, the year should be 1939.

Mr. Harris: Thank you.

[fol. 5097] By Mr. Cox:

Q. So that the record may be clear, I would like to have you identify some of the persons that are named in these documents, Mr. Gillie.

Who was Mr. H. A. Rosley?

A. Mr. Rosley was a sales correspondent in the Arlington office of du Pont.

Q. And who was Mr. J. M. Mack?

A. Mr. J. M. Mack was a salesman in Dayton.

Q. He is the salesman you mentioned in your earlier testimony who had been assigned to this account, among others?

A. That is right.

Q. He is the same man who signed DP Exhibit 404 as "Johnnie Mack"?

A. Johnnie Mack, yes.

Q. One more question about cellulose acetate molding powder, Mr. Gillie.

Did you ever sell any of this material to any of the divisions of General Motors other than Inland Manufacturing?

A. No, we did not.

Q. Now, Mr. Gillie, I should like to direct your attention to another plastic—

The Court: Pardon me. The Court will now recess for fifteen minutes.

(R recess was here taken.)

By Mr. Cox:

Q. Mr. Gillie, I next wish to direct your attention to the plastic that is known generally under the term of acrylic resin.

Have those plastics ever been furnished by the du Pont Company?

A. Yes, sir.

[fol. 5098] Q. In what form did the du Pont Company produce that plastic?

A. We produced it in the form of molding powder, sheets, rods and tubes.

Q. Does du Pont sell it under a trade name?

A. Yes. The trade name is "Lucite."

Q. When did du Pont first begin to produce the molding powder?

A. They first began to produce the molding powder in 1937.

Q. What company first produced the acrylic resin molding powder, if you know?

A. Du Pont.

Q. Have there ever been any other companies who made this molding powder?

A. A Rohm & Haas Company of Philadelphia produces a similar material.

Q. When did it begin to produce the material, if you remember?

A. Molding powder?

Q. Yes.

A. About two years after we did.

Q. Does it sell its molding powder under a trade name?

A: It does. The trade name they started with was Crystalite and then changed it to Plexiglas.

Q. Is this molding powder used in the automotive industry at all?

A. Yes, it is.

Q. When did du Pont begin to promote the use of the acrylic molding powder in the automotive field?

A. In 1937.

Q. What qualities did this plastic have that made it suitable for use in manufacture of automobiles?

A. Well, it is a plastic that has clarity equal to optical crystal.

It is a sturdy material. It had good dimensional stability. It lends itself to a wide range of transparent colors as well as opaque and translucence. It has the property of carrying light.

[fol. 5099] In addition to which, and probably the most important property for the automobile industry, is its resistance to outdoor exposure. It is the only thermoplastic that will stand up in outdoor exposure.

Q. Is it used today in the automobile industry for parts of automobiles?

A. It is used very widely, yes.

Q. Now, what kind of parts are made of this material?

A. Well, it has been used for some time on interior of the car for decorative purposes as well as utility.

It is used as a lens over the instrument panel, the speedometer. It has been used for knobs for the glove compartment. It is used on hardware trim, on the interior of the car, and it is used for radio grill.

Also on the outside of the car, it is used for tail lights, reflectors, and directional signals, parking lamps, and so forth.

Q. What kind of material did it replace that formerly had been used for these parts?

A. Well, it directly replaced glass.

Q. Is there any other material that it replaced?

A. Well, because of the ability to mold this to more accurate dimensions, it replaced a lot of metal parts that were used to hold the glass in place.

Q. Do you remember when du Pont first got a commercial order for this plastic for use in an automobile?

A. Yes, I do. I went to Bay City, Michigan, to the Bay Manufacturing Company, Electro Auto Lite, and I had an order for 30,000 pounds to be used in the manufacture of a lens for the speedometer, over the speedometer of a Dodge car.

Q. Was that the first commercial order that you had?

A. That is the first commercial order we had for the automobile industry.

[fol. 5100] Q. Now, have you ever sold this material to any of the divisions of General Motors?

A. Yes, we have.

Q. What divisions have bought this material?

A. We have sold the material to Inland, to Guide Lamp, and to A. C. Spark Plug.

Q. Do you sell this material to the divisions today?

A. Yes, we do.

Q. For how long a period of time have you been selling to those divisions?

A. Well, Inland started molding before the war and discontinued, and started in 1944 and the other two divisions started in 1946.

Q. Now, you have referred to your sales to AC Spark Plug Division. You say those sales began in 1946?

A. That is correct.

Q. Has Rohm & Haas ever sold any of this material, do you know, to the AC Spark Plug Division?

A. Yes, I know very well they have.

Q. Do you know whether you or whether Rohm & Haas supplies the greater part of requirements of the AC Spark Plug Division at the present time?

A. Well, in the competitive struggle, we have led part of the time and they have led part of the time. We have had a larger proportion of the business sometime and they have had a larger proportion at other times.

Q. Has there ever been a time since 1946 when you supplied, for any period of time, all of the requirements of the AC Spark Plug Division?

A. No, sir.

Q. Has there ever been a time since 1946 when Rohm & Haas supplied all of the requirements of the AC Spark Plug Division?

A. No, not all the requirements.

Q. Has there been a time that Rohm & Haas supplied more of the requirements of the AC Spark Plug Division [fol. 5101] than you have?

A. In 1948, they supplied most of these requirements.

Q. Is that the only year that you can recall in which that was true?

A. It was nip and tuck in the other years.

Q. Now, do I understand your previous answer to mean that you started to sell Inland Manufacturing Division this material before the war?

A. They started the molding operation down there before the war. They put in some injection molding equipment, and we did sell them some material, I am pretty sure, not very much.

Q. Has Rohm & Haas ever sold any material?

A. Inland?

Q. Yes.

A. Oh, yes.

Q. Do you know whether you or Rohm & Haas at the present time sell to Inland the greater portion of its requirements?

A. Well, the situation there is the same as it was with the AC Spark Plug. We had a larger proportion of the business sometime and they had a larger proportion of the business other times.

Q. When did you start to sell the Guide Lamp Division of General Motors?

A. 1946.

Q. Has Rohm & Haas sold that division any of this material?

A. Have they sold them?

Q. Yes.

A. Yes, they do.

Q. Do you know whether you or Rohm & Haas supply at the present time a greater part of this division's requirements?

A. At the present time?

Q. Yes.

A. I would say almost 50-50 at the present time. We get a little more than 50 per cent of it at the present time.

Q. Have there been times when you have had more than 50 per cent, substantially more than 50 per cent, of this division's business?

A. Yes, we have had as much as 95 per cent of the business, maybe more.

[fol. 5102] Q. Can you tell us, if you know, why you at times obtained that much of this division's business?

A. We produced a red color, which, of course, is used on the rear of the car for tail lights, and we have been able to produce a color which was sunfast, and which stood up indefinitely in weather and in use.

Q. What color was this?

A. Red.

Q. Did Rohm & Haas produce a red of comparable quality, do you know?

A. They produced a red, but not of comparable quality.

Q. Are the requirements of the Guide Lamp Division, if you know, largely for colored plastic of this type?

A. Well, since they make lamps, they use mostly red material.

Q. Did Rohm & Haas ever develop a red that was comparable in quality to your red?

A. They have now, yes.

Q. After they developed that red, did they get more of the business from Guide Lamp than they had before?

A. They immediately started to get a portion of the business, as soon as they developed a satisfactory red.

Mr. Cox: That is all. You may examine.

Cross-examination.

By Mr. Harris:

Q. Mr. ~~Gillie~~, talking first about—what was it, "Lucite"?

A. Yes.

Q. When you say you had over a number of years a nip-and-tuck race between yourself and Rohm & Haas was that principally concerned with technical improvements, that one or the other of you were making, so that when you put a better object out then you got more business, and when they did, they got more?

A. Well, that was part of it.

Q. Was part of it price?

A. No price.

[fol. 5103] Q. No price at all?

A. No.

Q. Now, do you want to finish your answer, sir?

A. I have finished.

Q. Now, calling your attention to du Pont Exhibit No. 400. This is the table that you ~~have~~ referred to showing the sales of cellulose—acetate molding powder from 1937 through 1947.

Was there anyone else in the automotive business who bought this powder, other than Inland?

A. In the automotive business?

Q. Yes.

A. No.

Q. Do I understand—

A. Will you please state the question again?

Q. I asked you, sir, whether there was anyone else in the automotive business, besides Inland, who bought this powder in those years.

A. For what purpose?

Q. I don't know for what purpose they would use it. I am assuming it is for automobiles?

I will ask you—let us take steering wheels. Is there anybody else but Inland that bought the powder for steering wheels?

A. Yes, sir.

Q. Who did?

A. Sheller Manufacturing Company.

Q. Did you sell Sheller?

A. No, we did not.

Q. Who sold Sheller?

A. Tennessee-Eastman and Celanese.

Q. Did you ever try to sell Sheller?

A. Yes, we did try.

Q. And they didn't buy any of your stuff?

A. No, they didn't buy—

Q. Did they tell you why?

A. They just didn't give us a chance. We didn't have [fol. 5104] much chance to test in there—we just couldn't get in there.

Q. Is there any other company that you couldn't get into?

A. Are you talking about steering wheels?

Q. Yes, I am talking now just about steering wheels.

A. No, there wasn't any other company manufacturing steering wheels.

Q. Am I right in believing that this chart is concerned only with powder sold for steering wheels?

A. That is correct.

Q. Now, first of all I would like to ask you who it was in Inland that you had to see and had to satisfy with your product?

A. Well, we had to satisfy the people in the laboratory—I think the man's name was Geyer, but George Schroyer was the technical man, and they had to be submitted also to the car divisions, to the styling people. Actually what we did, our big problem was to get our material specified.

Q. Yes.

A. And we went to the stylists, to the engineers, and we got our material specified sometimes as the first material; and sometimes as an alternate.

Q. And sometimes the material would be specified, would it not, for knobs and not for wheels?

A. Not for Inland—oh, well, now we are in a different field. If you are talking about knobs, we sold a lot of this material to independent industrial molders who used it for manufacturing parts for the automotive industry.

Q. But you didn't sell any material for knobs to Inland?

A. Not that I recall, no.

Q. All right.

Now, what other companies, if you know, Mr. Gillie, what other automobile companies did Inland Manufacturing [fol. 5105] manufacture steering wheels for, at this time, from 1937 to 1940?

A. It was my understanding that they manufactured for any automobile companies from whom they could get business.

Q. Well, do you know if they did get the business?

A. I don't have any direct knowledge of that. My information comes just from listening to the talk about the kind of business that they did.

Q. Well, that is perfectly all right, sir. Just tell us, did Chrysler give Inland business for steering wheels?

A. I don't know what Inland's business was in steering wheels.

Q. Put it this way: had you heard that Inland was making steering wheels for Chrysler?

A. I had heard that Inland was making steering wheels for all automobile companies.

Q. That's right, sir.

Now, do you know from your knowledge of this business, whether the colors—say on a Chrysler—the color on a Chrysler steering wheel in 1938 was the same as the color on a General Motors, a Chevrolet steering wheel? Do you happen to know that?

A. I don't understand the question.

Q. All right, sir.

Let's put it this way: One of your troubles, as I understand your testimony this morning, was in getting a color that suited the people who had the say, is that right?

A. That's right, correct.

Q. Well, now, let's take one of your colors; let's say in 1938, would that color be yellow, a yellow steering wheel, or red, or black, or what?

A. The colors were determined by the stylists in accord- [fol. 5106] ance with the upholstery and the trend in the car, and they changed from year to year.

Q. That's right. So that you would get your steering wheel color, would you not, Mr. Gillie, after the upholstery color had been decided upon?

A. That was the general way of doing it.

Q. And your difficulty, if I understand your testimony, in looking over the exhibits, was in matching the color, wasn't it?

A. That is correct, yes.

Q. Now, there was another difficulty, too, wasn't there, on thickness?

A. That was a mechanical difficulty.

Q. Yes.

A. It was not concerned with the molding powder.

Q. I mean, why is it referred to? What was the difficulty, if you will just tell us?

A. Well, it would be the same with any molding powder. If they got the insert into the die not quite straight, they would have a thicker coat on one side than they would on the other.

Q. Well, that would be their operation?

A. That is correct.

Q. It wouldn't be anything having to do with you, would it?

A. No, that is correct.

Q. Now, what about transparency of color? Would that be your powder, or would that be the application of the powder? When they say "The color is too transparent?"

A. That meant they wanted us to put more pigment into it to get a greater opacity.

Q. Yes. That, then, would be up to you wouldn't it?

A. That is correct.

Q. Now, calling your attention to these figures on du Pont Exhibit No. 400, I notice that in 1939 you have about more than four times the business that you had in 1938, [fol. 5107] How do you explain that? How did you get that?

A. Well, it is my recollection that in two months of that year that they bought most of this powder, and the understanding we had at that time was that they were having trouble either in delivery or some other reason, with the competitor's powder.

Q. Now, did that same reason apply in 1940?

A. No, in 1940 we were specified on some of the cars, and we got some of the business.

Q. Now, we have come to the year 1941, which, of course, we didn't get into the war until the end of the year, did we?

A. No.

Q. But the war in Europe had begun to affect, had it not, the production of passenger cars?

A. It was my recollection that it didn't affect the production of steering wheels, as far as Inland was concerned.

Q. Then how do you account for the fact that you got $4.00 only? Did you not try for the business at all in 1941?

A. We certainly did try.

Q. Were you met with the same statements as to your color not matching Tenite?

A. Well, I don't think that is just the way to put it, our color not matching.

Q. Well, to explain the use of the words "not matching." I am reading to you from du Pont Exhibit No. DP 404:

> "It would be a splendid innovation——"

this gentleman says. I think he is a salesman of yours——

> "if we could get our color adopted instead of having to match Tenite."

[fol. 5108] So that you did have some trouble with matching Tenite, didn't you?

A. This salesman is a very aggressive individual, and this is a little sarcasm. We were specified on the blueprints.

Q. Yes.

A. And he was in our terms "throwing the hook" into our color people, that we might get our color specified before the other fellow got his specified, but we were on the prints.

Q. As a matter of fact, the practical situation you had to meet was the situation where Tenite was also in the field?

A. Tenite and others.

Q. Do you have any other explanation of this drop to $4.00 from $102,000.00 than what you have given us?

A. No, I haven't any other explanation.

Q. All right, sir.

Now we come to 1942, '43 and '45 on this chart, which shows zeros in the way of sales to Inland. Those were the war years, weren't they?

A. That is correct.

Q. That would make a lot of difference, wouldn't it?

A. Make a lot of difference?

Q. To your sales of color for steering wheels?

A. Oh, it certainly did.

Q. Now, when you come to 1946 after the war——

A. It would make a difference to everybody's color.

Q. Yes, sir, I am only talking about this chart and the reason why the zeros are there. Now you come to 1946, and I understand that the product that you presented was not acceptable because at that time the other companies had made a modification, is that right?

A. Tennessee Eastman had a material which they called [fol. 5109] Tenite II, which was an aceto-butyrate, and that material has been used for steering wheels ever since.

Q. Then in 1946 you did not make that type of thing, did you?

A. No, we made molding powder.

Q. Yes, I understand that, but not of the type that had been accepted, and the same is true, is it not, of 1947?

A. That is right.

Q. I see you have large sales to other customers, what you call sales to all customers, and I note that in the year 1941 where you had $4.00 to Inland, you had a million dollars, over a million dollars, to all customers.

Now, that would be for other uses, wouldn't it, than steering wheels?

A. That would be for other uses than steering wheels.

Mr. Harris: Thank you, Mr. Gillie.

Mr. Cox: Just one question, Mr. Gillie, so we may have the record straight.

Redirect examination.

By Mr. Cox:

Q. Is it a fact that the year 1941 was really the last year that Inland ever used cellulose acetate molding powder for steering wheels?

A. 1941, I am not familiar, Mr. Cox, with what they did for war vehicles. I assume that they didn't doll up steering wheels for Jeeps or anything of that sort because this was the style then.

Q. So far as you know, that was the last year then that it was used for that purpose?

A. As far as I know.

Q. In any quantity?

A. That is correct.

[fol. 5110] Q. Again, so that the record may be straight, the first column here, sales to all customers, those figures do not represent sales of the material for use in making steering wheels, is that correct?

A. No, they represent sales of materials for automobile parts, for trim, and everything else, but they do not represent sales for steering wheel materials.

Q. On cross examination you said, I think inadvertently, that all the figures on this chart related to sales for steering wheels. That, in fact, is only the sales to Inland that have to do with that use, isn't it?

A. I don't recall I said that because this states here "Sales to All Customers." If I did, it was incorrect.

Mr. Cox: That is all.

Mr. Harris: Nothing further, your Honor.

The Court: You are excused.

(Witness excused.)

Mr. Gribbon: May it please the Court, the next two witnesses will testify concerning du Pont Company's development and sale of the fluid for use in hydraulic brake systems.

This proof is relevant not only to the allegation in the complaint that there was an agreement that bound General Motors to buy from du Pont substantially all of its requirements of products made by du Pont, but also to the allegations in the complaint, particularly paragraphs 64 and 30(e), which charge the existence of another agreement that prevented General Motors from entering any field of chemical manufacture.

[fol. 5111] The first witness, we now call Doctor A. G. Weber.

I believe your Honor has in the book there the documents that will be introduced in the course of these two examinations.

A. G. Weber, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Gribbon:

Q. Will you state your name, please?

A. My name is Arthur G. Weber.

Q. Are you employed now by the du Pont Company?

A. I am.

Q. For how long have you been so employed?

A. I have been with the du Pont Company since 1930.

Q. Where did you take your college work?

A. I got my degree in chemistry and my four-year college degree at the University of Kansas in 1927.

I got my Ph.D. degree in chemistry at the University of Wisconsin in 1930, and then went to work with du Pont after that.

Q. You have been continuously employed by the du Pont Company since that time?

A. I have.

Q. What is your present position?

A. My present position is Section Manager in the Research Division of Polychemicals Department at the du Pont Experimental Station in Wilmington.

Q. I wish to direct your attention to the year 1934. Will you tell us what your position was with the du Pont Company at that time?

A. I was a chemist in the Research Department of the Ammonia Department.

[fol. 5112] Q. In 1934 what were your specific duties?

A. I was given the assignment of developing a hydraulic brake fluid. This consisted of choosing the proper materials, compounding them into a mixture, testing them in the laboratory to show that they would be suitable for hydraulic fluid, comparing them in the laboratory with competitive materials then available, taking them out in the field and testing them in the field, and getting other people who might be interested in buying brake fluid to test it, finally convincing them that our fluid would be better for their use than the fluids they then had or might be made available to them.

Finally having proven the technical advantages to make the first sale, the Research people would drop out of the picture, and the Sales Division would take over.

Q. You were not connected with the sales effort as such? It was principally the developmental work?

A. My main job was research and the development aspects, yes.

Q. What briefly are the differences between a hydraulic brake system and a mechanical brake system?

A. If we assume for this discussion that the brake shoes and the brake wheel are essentially the same—actually they are slightly different—but if we assume that the brake shoes and the brake wheels are the same, then the difference is mainly in how one transmits the power from a brake pedal to the four wheels of a car.

In a mechanical system one uses brake rods or cables, clevises, equalizing bars and so on, to get that force from your foot to the four wheels.

With the numerous devises that are needed for mechanical system, since it is exposed underneath the car, as the car gets older they might rust, and finally the force is [fol. 5113] distributed or could be distributed unequally to the four wheels.

In a hydraulic system we have a closed system in which one has a master cylinder underneath the pedal in which there is fluid which is transmitted by a closed system of tubes to each of the four wheels.

Because this system is tight and transmits this force equally to all four wheels, since it is a hydraulic system, it is not subject to deterioration due to exposure to weather or due to, let's say, bumping into the curb with one front wheel which might shorten the distance, and therefore throw a brake rod in a mechanical system out of adjustment.

So it is easier to keep a hydraulic system in adjustment so far as transmitting the force from the pedal equally to the four wheels.

Q. Can you tell us what are the desirable properties of a fluid to be used in a hydraulic brake system?

A. A good hydraulic brake fluid has to have a high enough boiling point so it won't boil out in the summer time, when the weather gets hot and the brakes might get hot.

It has to have a low enough freezing point that it won't freeze up in the winter time.

It has to be non-corrosive to all the metals in the hydraulic system, and they include iron, copper, aluminum and so forth.

It must not attack rubber, because there are rubber parts in the system.

It must have good lubricating properties because in a brake system there is a piston with a sliding rubber cup in the master cylinder, and also pistons and sliding-rubber cups in each wheel.

[fol. 5114] In addition to that, it must be stable so that in use and over a long period of time the fluid will not deteriorate.

While this is not an absolute requirement, it is very desirable that the fluid be compatible with other brake fluids that might be put into that system because if another fluid is put into the system as a servicing requirement and the two systems are not compatible, the fluid might separate and render the system inoperable.

Q. When did the du Pont Company enter the brake fluid field?

A. My first work on hydraulic brake fluid development was done in 1932. There was a short period where we looked into the brake fluid situation. We found that there was not a great deal of interest, and we did not have the materials and the ideas at that time that we could put into a good fluid, so I dropped out of the picture.

It was carried on in a minor way until 1934 when I was re-assigned to the job, because there seemed to be a great deal of interest developing in hydraulic brakes, and we thought, maybe we could make a contribution.

Q. In 1934 when you were assigned to this work, did du Pont have a brake fluid?

A. We did not have a brake fluid in the sense it was ready to be marketed. Mr. Moses, who is now dead, had carried on some interest in hydraulic brake fluid development between the 1932 period and the 1934 period, and a brake fluid, an experimental brake fluid, had been submitted for tests which consisted of mainly iso-butynol, water and soap.

Q. Did you improve the fluid that was available in 1934?

A. When I was re-assigned to the job, I felt that this fluid, while it showed some desirable properties, could be im-
[fol. 5115] proved, and I worked up a new composition which consisted mainly of glycerine, iso-butynol, and castor oil.

Q. Did you make efforts to persuade the General Motors units to use the newly developed and improved brake fluid you had brought out in early 1934?

A. I took samples of that to the various General Motors units, to LaSalle, and to Oldsmobile and to Pontiac, and to the Delco Division of General Motors, and to the General Motors Research Laboratories.

Q. Which of the General Motors cars were using hydraulic brakes at that time?

A. During 1934, only LaSalle and Oldsmobile were actually using hydraulic brakes on their cars that were sold to the public.

Q. Were you successful in persuading any of the General Motors units to use your hydraulic brake fluid?

A. Not at that time.

Q. Do you know what fluid Oldsmobile and LaSalle were using?

A. Oldsmobile and LaSalle, in 1934, were using what was generally known as the Lockheed Blue Can fluid.

Q. Who manufactured that fluid?

A. I should say Wagner—no, it was Lockheed Blue Can. It was manufactured by the Wagner Electric Company in St. Louis.

Q. And sold under the name of Blue Can fluid?

A. Blue Can fluid.

Q. What were the ingredients of that fluid?

A. The Blue Can fluid was made up of a 50-50 mixture of castor oil and diacetone alcohol.

Q. Did you compare the Wagner Blue Can fluid with the fluid you were offering?

A. Since this material was quite widely used, and was used [fol. 5116] for new car installations, we compared our fluid very extensively in the laboratory and also in field tests.

Q. What conclusions did you draw from those tests?

A. We concluded that in some properties our fluid was definitely better and in some properties, it was slightly worse, we thought not significantly, but taking it all in all, we thought our fluid was a better fluid.

Q. You thought your fluid was superior to the Blue Can fluid that General Motors units were using?

A. Yes, because our fluid would not freeze up in temperatures that one would encounter in the winter time. It didn't show any tendency to boil out in the summer time. Probably one of the most important things was our fluid appeared to be stable over a long period of time while the Blue Can fluid was unstable over long periods.

Q. Do you know how the price of the Wagner fluid that General Motors had been using compared with the price of the fluid you were offering?

A. No, I do not, because we were never told what price General Motors could buy the ingredients for or what they might sell it to their units for.

Q. Did you give any consideration to whether your product could be offered at a price that would be competitive with the Wagner price?

A. We made the assumption that as a chemical manufacturer, we would be able to buy these ingredients since General Motors didn't manufacture them themselves and had to buy it—we made the assumption that we would be able to buy these ingredients as cheaply as General Motors, and we assumed we could mix them as cheaply, because we had experience in an operation of this sort.

[fol. 5117] Using that assumption, we developed a price that we thought might be the cost of their fluid, and we also made an assumption on the various compositions that we were developing in the laboratory, and the result of that comparison indicated that our fluid would be cheaper than their fluid, and in talking with the various units in order to get them interested in testing it, we assured them our fluid could be made available to them at a price enough lower than the fluid they were then using to be attractive to them.

Q. Did that offer result in your making any sales of your fluid to General Motors?

A. Not at that time. At a later time we did—not on that particular fluid—but at a later time on a different composition, we sold a small amount.

Q. Did you subsequently develop another type of brake fluid?

A. Yes, after some further work and testing on this first fluid, we might call it glycerin-castor oil fluid, I got the idea if one would take castor oil and propylene glycol and heat them together and add iso-butynol and heat them, one would get a better fluid, even better than the glycerin type fluid.

After experimenting and testing we were convinced it was better, and we immediately made some field tests and took all of these results to General Motors units and showed them the advantages, and encouraged them to set up tests so that they, themselves, would be able to see the advantages.

Q. Were you successful in your efforts to persuade General Motors units to use this new propylene glycol fluid?

A. No, we were not. Pontiac at a later time ordered a small batch, but it never got into any cars.

[fol. 5118] Q. Could you tell us, did you make efforts to sell this propylene glycol fluid?

A. Yes, we did.

Q. Could you tell us generally the nature of the efforts you made to persuade the General Motors people to use propylene glycol fluid?

A. After this latest improvement we thought we had made a real advance, so we felt we ought to transmit this information along and pass on the results as rapidly as we could develop them.

I made what was almost bi-weekly trips to Detroit over that period, and I went to Pontiac, and I went to Oldsmobile, and I went to LaSalle, and I went to General Motors Research Laboratory, and I went to Delco Products Company in Dayton, because Delco Products, it appeared, was going to supply the brake parts to the various operating units, and as a supplier of brake parts, of course, they would have to know about the fluid that would be used in them, to be sure there would be no incompatabilities develop.

Q. Was there any other reason why you approached the Delco Division?

A. Well, we also had the feeling that there might be a fair-sized market for service brake fluid—that is for cars that were already sold, and in the public's hands, when they needed some service to go back and buy new fluid, or fill their parts with new fluid.

The Delco Company at that time had many contacts over the country through United Motor Service, to service the brake parts that were going to be put on the cars, and through these many outlets we would then sell a service fluid to the public.

We felt that that was a good market, and we also felt that if we couldn't convince the operating units directly to use [fol. 5119] our fluid, that Delco might, through their efforts, assist us and in that way get the units to buy our fluid.

Q. Now, during what period did your efforts to persuade the General Motors units and Delco to use or buy your fluid, continue?

A. Well, as I recall on the second period of working on brake fluid, I started in early 1934, and this continued through until the middle of the summer or late summer of 1935.

Q. And you were unsuccessful in selling any of the General Motors units for production use?

A. I was unsuccessful, with this one exception that I mentioned: Where we delivered a small amount to Pontiac, but it never got into the cars.

Q. By the way, what General Motors car divisions were at that time, say late in 1934 and early in 1935—what car divisions were using hydraulic brake systems?

A. In 1934 Oldsmobile and LaSalle, and in 1935 Pontiac also used it on their new cars.

Q. Do you know what fluid these divisions were using?

A. By 1935 these units were using what was then called Delco No. 5 brake fluid.

Q. Who manufactured the Delco No. 5 brake fluid?

A. Delco bought the ingredients—that is, Delco did not manufacture any solvents. They bought the ingredients and mixed it in their plant, and then supplied it to the operating units of General Motors.

Q. The Delco Division of General Motors was mixing the ingredients and supplying a finished fluid to the car units?

A. That's right.

Q. And that product was called Delco No. 5?

A. Delco No. 5 fluid.

[fol. 5120] Q. And what were the ingredients of this fluid, do you know?

A. This fluid, in so far as one could tell in performance or by analysis, was the same as the Wagner fluid; that is it was 50 per cent castor oil, and 50 per cent diacetone alcohol.

Q. That was the fluid essentially that you had tested and compared with yours earlier in the year?

A. That's right, and we had checked it when it came out under Delco's name.

Q. Did you succeed in getting any of the General Motors divisions to approve your brake fluid?

A. Yes, during the time I was associated—over this period mentioned, both Olds and Pontiac approved, as far as the technical characteristics were concerned.

The Court: The Court will now recess.

(Whereupon a recess was taken until 2:00 o'clock p. m. CDST, of the same day, Friday, May 1, 1953.)

[fol. 5121] The Court: Proceed.

A. G. Weber, a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (continued):

By Mr. Gribbon:

Q. Prior to the recess, Dr. Weber, you testified of your efforts to promote the use of your propylene glycol fluid; you had succeeded in gaining the approval of two General Motors Divisions, but you had been unsuccessful in making sales to any of the General Motors Divisions. Were you at any time advised by the representatives of the General Motors Divisions about their reasons for not using your fluid?

A. No, I was not. In talking with one unit, one person might complain that the rubber swelling was too great; another unit might complain that the fluid corroded the metal to too great an extent, and one other unit might say well, they wanted to test it for a longer time.

[fol. 5122] I was never able to find out just why they were not willing to go ahead with it.

Q. Did you yourself perform tests to determine the parative quality of the Delco No. 5 fluid to your own fluid?

A. Yes, I did. I might say I had assistance in the laboratory. I do not mean to say that I carried out every one of those tests myself, although on a large portion of them I did.

Q. What were the results of those tests?

A. In some properties our fluid was definitely better than the blue can fluid.

For instance, in boiling point and freezing point. In some respects, the blue can fluid was slightly better than our fluid, for instance, the lubrication. We felt it was better slightly, but not significantly.

Q. Did you conclude that your fluid was comparable in the overall to the Delco No. 5 fluid?

A. We concluded it was not only comparable, but we felt it was better.

Q. You used the term blue can fluid.

A. I meant to say Delco No. 5, because it was the same as the blue can fluid.

Q. Do you know what the comparative price of your fluid was as compared to the Delco No. 5 price?

A. No, I did not, because they never gave us the price they had to pay for their ingredients or the finished fluid. When I say "they", I mean General Motors.

Q. They never told you the price that they paid for this Delco No. 5 fluid?

A. No, we were never able to find out.

Q. Did you at that time form any judgment as to whether you would be able to sell your fluid at a competitive price?

A. Well, we knew the composition of their fluid; we knew [fol. 5123] their fluid was made by purchasing these materials on the outside. They did not manufacture any materials, and we made the assumption that we could buy those materials as cheaply as they could on the outside, and we assumed that we knew how to mix them, and formulate the compound as efficiently as they could.

We assumed the other operations in selling could be done as efficiently.

Knowing the price that we could produce our own fluid for, we concluded that our fluid could be sold to them cheaper than the other, and we assured them we would sell to them at a price enough lower than the fluid that they were then using to be attractive.

Q. Did you find, during this time in 1934, that the General Motors divisions permitted you to use their laboratories and cooperated in testing your fluid?

A. They gave us what might be considered limited access to the laboratories, and what might be called limited cooperation. Of course, that is a relative matter, and I say that because in working with Chrysler and Studebaker and Reo and these other companies, we had much more complete cooperation.

For instance, at Studebaker, we were able to go back in the laboratory and see the tests set up, and see them come off, see the measurements made, and discussed the result from a purely technical standpoint, and formed opinions about the comparative data.

The same thing was true at Reo and at Chrysler. We had practically as complete cooperation as at the other two places.

[fol. 5124] Mr. Gribbon: I offer in evidence exhibits which have been previously marked for identification, DP-Nos. 383, 384, 385, 386 and 387.

These exhibits are reports extending from the period November, 1934 through August, 1935, and reflect the efforts of Doctor Weber to interest General Motors and other automobile companies in propylene glycol fluid that du Pont was promoting at this time.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 383, 384, 385, 386 and 387.)

Mr. Gribbon: I do not propose to read these exhibits.

By Mr. Gribbon:

Q. How long, Doctor Weber, did you continue your efforts to persuade General Motors units to use your fluid?

A. To the middle or the end of the summer of 1935, as I recall.

Q. What was the occasion of the cessation of your efforts then?

A. At that time, we temporarily withdrew our fluid from the market.

Q. Why did you take that action?

A. In the spring of 1935, we entered into an arrangement with Wagner to assist us in the marketing of our fluid.

Before we talked to Wagner, we made the assumption that we would sell approximately 250,000 gallons of brake fluid a year.

When we began to talk with Wagner, they stated that if they had any part in marketing it themselves that the market would be 750,000 gallons approximately per year.

[fol. 5125] When we formulated the composition of our brake fluid, we used the propylene glycol that I mentioned which was available in sufficient supply for 250,000 gallons, but there was not enough for 750,000 gallons, so we had a problem, and we decided to submit a sample to Wagner at the time of making this arrangement, which included ethylene glycol instead of the propylene glycol.

This had not been completely tested in our laboratory. This was started in their laboratory. They had some doubts about whether they would get satisfactory results, and so in order to resolve this problem, we decided to withdraw from the market temporarily to make a thorough study of all the samples of propylene glycol which had been previously submitted to us, what results they were going to have with the people who were testing it, and to examine the result.

Until that was out of the way, we felt that we should not offer it further.

Q. Which fluid was it that Wagner considered?

A. It was the fluid which contained the ethylene glycol instead of the propylene glycol.

Q. Which fluid had you been attempting to sell General Motors during the previous year?

A. We had been attempting to sell General Motors the propylene glycol.

Q. Did you personally participate in the tests of your fluid late in 1935 that you have just described?

A. You mean making the survey?

Q. Yes.

A. No, I did not.

Q. Who did that work?

A. That work was carried on by Mr. Walker who had come into the work a little bit earlier than that.

[fol. 5126] Q. Did you thereafter continue to work on the development of brake fluids?

A. I withdrew at the time the survey was started among the people who had been working with me previously, and who had the tests under way.

Q. Since then, what responsibility have you had in connection with brake fluid?

A. I have had no direct responsibility.

Q. Dr. Weber, is the manufacture of brake fluid complicated?

A. I should say it is about as simple an operation as one could have. It is chiefly a mixing operation, only it is the heating of the castor oil, but it is about as simple an operation as one could set up.

Q. Are there any hazards attendant upon the manufacture of brake fluid?

A. No, there are not. I would say there are as few hazards as any chemical operation that I know of that is carried out.

Mr. Gribbon: That is all.

Cross-examination.

By Mr. Hoyt:

Q. Mr. Weber, when did hydraulic brakes first come into general use in passenger cars?

A. When you say "general use"——

Q. I mean the production models.

A. Well, I think that Chrysler probably started in the early '20's. When I say "Chrysler" I do not mean all of their units. I mean some of them.

Q. So that cars could be purchased, could they, in the '20's and in the early '30's by a consumer with hydraulic [fol. 5127] brakes, if he went to Chrysler?

A. Some cars. I don't which ones.

Q. Do you know where Chrysler obtained their brake fluid?

A. You are talking about the fluid that was installed in

Chrysler cars on Chrysler assembly lines?

Q. Yes.

A. I believe that they manufactured it themselves, manufactured it in the sense that they mixed the ingredients. They did not manufacture the ingredients.

Q. Mixed their own ingredients?

A. They bought the solvent and other things on the market, put them together, with some mixing devices. They could have had them mixed by someone who sold them the solvents; I am not sure of that.

Q. And General Motors started in 1927 on their LaSalle and Oldsmobile, is that right?

A. They put hydraulic brakes on their cars that they sold the public first in 1934. They had started testing before that time.

Q. When did Ford first use hydraulic brakes?

A. Ford, I believe was the last of the Big Three—sometime after Chevrolet. I don't know whether it was—I would guess—I don't know the exact date. I would guess it was in 1936, but I am not sure of that.

Q. Do you know whether or not Ford mixed their own fluid?

A. I don't believe I was ever told whether they did or not. I think probably they mixed part of it, but I am not sure.

Q. Now, in 1924——

A. Pardon me just a minute. The Ford adoption of hydraulic brakes came after I had gotten out of direct responsibility, so this is just a guess.

[fol. 5128] Q. I see. Now, du Pont first offered a hydraulic brake fluid in 1934?

A. Offered for test?

Q. Yes, or for sale; for use, let's say?

A. No, we had some testing done in 1932. This first time I was assigned. I think that sample got to at least one part of General Motors before that time.

Q. Was that the propylene glycol.

A. No, it was not. It was just fluid that Mr. Moses had worked on.

Q. And your propylene glycol was first ready for use, when?

A. Pardon me, I didn't understand.

Q. When was your propylene glycol ready for use?

A. It was introduced for testing sometime during 1934. I don't remember the exact time. It was after the glycerin fluid had been out for testing for a while, and then I got the idea of this further improvement.

Q. Was propylene glycol the same—was it referred to by any number comparable to, say, Delco No. 5? Did you have a number for propylene glycol?

A. I believe in the laboratory we, of course, made a number of compositions to try out, and then tried to pick the one that seemed to do the best job, so frequently we would start with "A" series of compositions, and No. 1, 2, 3, 4, 5, and then jump to some other.

I believe that was called F-4, but I wouldn't want to trust my memory that far. No, I beg your pardon. I believe the glycerine was F-4. I don't remember that well enough to answer.

Q. When did Delco Laboratory, Delco Products, first start mixing fluid?

A. When did Delco Products start first mixing fluid for test or for sale?

[fol. 5129] Q. For sale.

A. I believe it was 1935.

Q. 1935. And that was their Delco No. 5?

A. Delco No. 5 which, so far as we know, was the same composition as the Blue Can fluid which Oldsmobile and LaSalle used in 1934.

Q. What was that mixture again?

A. Delco No. 5 at that time was a 50-50 mixture of the castor oil and diacetone alcohol.

Q. And then when you brought out your propylene glycol, you purchased the materials, did you not, and mixed them?

A. We purchased them and mixed them?

Q. Yes.

A. No.

Q. You produced them yourself?

A. We produced the iso-butynol in our Bell plant. We produced the propylene glycol in our Bell plant. We purchased the castor oil. The castor oil was a minor part of the mixture.

Q. I see.

Do you know whether or not Delco ever used a diethylene glycol glycerin fluid?

A. Diethylene glycol glycerin fluid?

Q. Yes.

A. It was either Delco or General Motors that had proposed a composition at one time that had diethylene glycol in, and it had been submitted to one of the operating units for test.

We knew that because we thought that our fluid was being tested, and we found out that that fluid was being tested in place of the one that we thought was to be tested.

Q. I show you an exhibit marked DP-383, and call your attention to the second paragraph, the sentence beginning:

> "He contradicted an earlier statement when it was [fol. 5130] mentioned that Olds and Pontiac had been given samples of Delco fluid (diethylene glycol-glycerin fluid) and discouraging results had been obtained"—

and so on.

That would not refer to the Blue Can type of fluid?

A. No, Blue Can was castor oil-diacetone fluid.

Q. I see.

I also call your attention to a sentence in the third paragraph:

> "They feel that the price advantage will be the biggest talking point in going to GM units because they and GM think that Blue Can fluid is satisfactory in all respects."

A. I am sorry, I don't see that sentence.

Q. It is in the third paragraph, the last paragraph on the page, the sentence about the middle.

A. Oh, "They feel that——"?

Q. Yes. Will you read it to yourself, please?

A. Yes.

Q. Now, was the Blue Can fluid at that time cheaper than the fluid you were proposing to sell?

A. I don't know, because they never told us the price of Blue Can fluid. We assumed, however, that our fluid would be cheaper, based on the calculations that we, ourselves, made, assuming that we would be able to buy these ingredients as cheaply as Delco could buy these ingredients.

Q. As cheaply?

A. As cheaply.

Q. I see. Well, how about the Delco number? Did you say Delco No. 5 was the same as the Blue Can?

A. The Delco No. 5 was the same as the Blue Can fluid, that's right.

[fol. 5131] Q. Now, on the last page of that exhibit, would you notice the second sentence. I will read the first sentence:

> "It developed that Delco still thinks they have a good fluid for the Kelsey system. This indicates that if GM makes a change that Delco will boost their fluid in preference to du Pont to the GM units."

I don't have any question to ask about that particular sentence, but I just call your attention to it.

I now call your attention to du Pont Exhibit No. 385. You will note the date of this is November 23rd, 1934. Now, at that time, was Delco offering for sale a brake fluid?

A. This is hard to answer exactly, but let me answer it this way: In 1934 Oldsmobile and LaSalle were the only General Motors units that had hydraulic brakes on them, and they were using Wagner Blue Can fluid. The 1935 model of Pontiac had hydraulic brakes on it as well as Olds and LaSalle. The 1935 model was used, was using the Delco No. 5, and whether that model was introduced before the end of the year, I am not sure, but let's say approximately at the end of 1934 Delco began to supply General Motors units with their Delco No. 5 fluid.

Q. It was customary, was it, to contract for that sort of thing before the new model came out?

A. I don't know because this is a matter that was handled within the General Motors units.

Q. I call your attention now to the second paragraph of this document, the second sentence, "When the writer refused—" that is you—"refused to give this—" he is talking about composition of your fluid, I take it,—"Case indicated [fol. 5132] that it could be easily obtained through the proper channels when the time came."

What did you have in mind? What did you mean by that phrase "through the proper channels"?

A. I assumed that he would call my superior in Wilmington.

Q. Who was your superior?

A. My superior at that time was Mr. M. H. Merriss, I believe, although Mr. Woodhouse also had an interest in brake fluids at this time.

Mr. Merriss was following the part that related to sales, and Mr. Woodhouse was following the part which related most to research.

Q: And you had an idea that your superior would give this information, is that correct?

A. I had an idea that they would?

Q. Yes.

A. I had no way of knowing whether they would.

Q. Mr. Rasmussen at this time was employed by whom?

A. I didn't understand the question.

Q. By whom was Mr. Rasmussen employed?

A. Mr. Rasmussen was the engineer in charge of brakes, the brake development at the Delco Products Division of General Motors.

Q. Was Delco making the brake parts then?

A. In 1934—I am not sure of this, but I believe they were making both LaSalle and Oldsmobile parts at that time. They were doing a lot of experimenting. They were getting ready for the next year, so I believe that they were making Oldsmobile and LaSalle parts at that time.

Q. Yes: Now the fluid you were talking about here, is this still the propylene glycol fluid?

A. Yes, this is the improved fluid which we made by heating a mixture of castor oil and propylene glycol and adding isobutanol to it.

[fol. 5133] Q. Is this the same fluid that is sometimes referred to as No. 21, or did that come out later?

A. The Wagner 21 fluid was the propylene glycol fluid we had here which had been changed very slightly in adjusting the ratios of the castor oil and propylene glycol. When it was marketed, it was marketed as the Wagner 21 fluid.

Q. Now you testified that you withdrew your propylene glycol in early 1935, is that right?

A. We withdrew our propylene glycol?

Q. Yes.

A. No, I didn't say that.

Q. What was that?

A. I said we held up development until we had a chance to check the results which Wagner brought out in connection with the ethylene glycol fluid, this one sample of fluid that was submitted to Wagner and which they tested under a very special set of conditions, and because we wanted to be sure to resolve this, then we went back and investigated and studied all the fluids that were out, including the propylene glycol fluids. We had no criticism on any of the propylene glycol fluids.

Q. Up until this time what automobile companies had purchased your propylene glycol, up until the time you stopped development work, as you put it?

A. That is hard to answer. Let me answer it this way. No General Motors units had purchased fluid at this time.

We made one sale of 50 gallons of this fluid to Reo, and I am not sure whether it was before this date or after this date, but it was for their 1935 models which were just being put into production. Although 50 gallons is a small amount of fluid, it did take care of some 500 cars, and they expected to buy more later.

[fol. 5134] Q. Did they buy more later?

A. No, they did not. The reason they did not, I might add, is that the hydraulic brakes which they had put on their passenger car, it was a hydraulic brake which was manufactured by Inland Company, a new type of brake.

They were using the Wagner brake on trucks, and the Wagner Company said that they would withdraw the brakes from their trucks if they continued to use these new brakes on their passenger cars.

So because the truck business to Reo was more important than passenger car business, they of course had to withdraw their brakes from their passenger cars.

Q. I call your attention now to Defendants' Exhibit No. DP 386, and direct your attention to the second paragraph:

> "The conference was opened by Rasmussen asking Olts whether he had changed his mind about du Pont fluid. Olts' answer was: 'Frankly, I started work with a strong prejudice against du Pont fluid, but, unless something unexpected develops in the practical tests, I am convinced that du Pont fluid has many technical advantages over Blue Can fluid."

Do you know why Mr. Olts had a strong prejudice against the du Pont fluid originally?

A. General Motors never told us very much about the testing they were doing, either on our own fluid or on other fluids. So anything I might say here would be just a guess. One might guess that they were trying to develop a fluid of their own.

Q. Mr. Olts was the engineer in charge of testing, wasn't he?

[fol. 5135] It shows on the face of the document?

A. Well, he, at least, carried out in the laboratory the test on brake fluids. I think he was not responsible for car tests.

Q. I now call your attention to the next paragraph, next to the last sentence:

> "The low viscosity of our fluid was referred to by Olts as a decided advantage except that it might cause noise in the master cylinder if an orifice type pressure compensator is used in place of the present Lockheed type."

Now, would you explain about this orifice type pressure compensator?

A. That gets into engineering details.

Q. Just simply, if you could. I mean, not in engineering details. Let me ask a question.

Would that mean that you had to change the type of compensator or that GM would have to use this type of compensator if they wished to use your fluid?

A. This is just a guess because I am not an expert on this particular thing, but as I understand it, there was a slight noise developed, and it is a question of whether a person would hear that noise or not.

If a person heard that noise and considered it an objection, then, of course, you would have to change it. If they didn't, then you wouldn't. But Rasmussen, the engineer in charge, said that the other advantages were so great that this could be forgotten about. I would have to take his opinion on that.

Q. If the orifice type pressure compensator; if there were a change in that, would that make the system in- [fol. 5136] compatible with the Lockheed system?

A. I am not sure I understand just what you mean. You mean if you had to change this orifice?

Q. Yes.

A. Would it then be necessary to change the entire brake?

Q. Would it then be compatible with the Lockheed system?

A. Well, this orifice was on the Lockheed system.

Q. The same type?

A. So far as I know.

Now, this is a detail which, so far as I am concerned, I will have to take Mr. Rasmussen's word on it.

Q. Now, after 1935 you made some sort of an agreement with Wagner, was that it?

A. Yes, in the spring of 1935, I believe.

Q. That they would market your propylene glycol under the name of No. 21, is that right?

A. Well, the agreement, I don't believe, stated that they would do it under that number. But there was an agreement to market du Pont fluid, and it was expected, of course, as time would go on, that we would improve that fluid, as time and experience showed that improvements could be made.

Q. I take it that that arrangement continued during the time you were connected with brake fluids?

A. I got off of the brake fluid work at the time that the survey started. This agreement carried on in the marketing and for some years after, I am not sure just how long, but I think up until about a year ago.

Mr. Hoyt: That is all.
Mr. Gribbon: No redirect.

(Witness excused.)

Mr. Cox: We will call Mr. K. E. Walker.

[fol. 5137] K. E. Walker, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows, to wit:

Direct examination.

By Mr. Cox:

Q. You are K. E. Walker, is that right?
A. Yes, sir, that is my name.
Q. You are now employed by the du Pont Company?
A. Yes, sir.
Q. What is your position with the du Pont Company?
A. My present position?
Q. Yes.
A. Senior supervisor in the research division of the polychemicals department.

Mr. Cox: Your Honor, are you able to hear the witness?
The Court: Yes. Keep your voice up, please.

By Mr. Cox:

Q. How long have you been employed as a chemist in the du Pont Company?
A. I have been employed by the du Pont Company since 1930.
Q. During that period have you done any work on hydraulic brake fluid?
A. Yes, sir, I have.

Q. When did you first do any work on the hydraulic brake fluid?

A. I first started on hydraulic brake fluid in November of 1934.

Q. What kind of work were you doing at that time?

A. At that time I was preparing samples of fluid to be sent out for tests. I was testing various fluids, comparing properties of other fluids available with our fluid, and doing general test work of that sort.

[fol. 5138] Q. Did you visit prospective customers at that time?

A. I did not at that time.

Q. Dr. Weber who preceded you on the stand has testified that you replaced him in certain work that was being carried on in connection with brake fluid.

When did that occur, if you remember?

A. At about the time that the sample he mentioned was withdrawn from the Wagner Electric Corporation and from the other places, I replaced him in the work.

Q. What was the first thing you did after you replaced Dr. Weber in that work?

A. Well, in the beginning I worked on determining the reason for the difficulty with the sample, finding out what happened. When we knew that, we then began to formulate a propylene glycol composition which would be satisfactory, and after some months we then examined the car tests that we had set up on that fluid, and decided that this composition, which varied only slightly from the original propylene glycol composition that we set out, was a satisfactory composition in our estimation.

Wagner seemed inclined to want to delay a little bit on that. They weren't quite so sure. We felt the tests which had been set up in several parts of the United States showed that the fluid was satisfactory. Therefore, it was decided that Dr. J. A. Almquist, who was, I believe, assistant chemical director of our department at that time, should make a survey of some of the automobile engineers who had tested our propylene glycol fluid to determine whether they felt and confirmed my belief that the fluid was satisfactory.

I was elected to go along and assist Dr. Almquist.

[fol. 5139] Q. What automobile companies did you visit in that connection?

A. We visited Oldsmobile, Pontiac, General Motors Truck, Reo, Chrysler, and Studebaker.

Q. Did you reach any conclusion as a result of this survey that you made?

A. The conclusion as a result of this survey was that our fluid was satisfactory. Various automobile engineers confirmed that in their opinion the fluid had performed satisfactorily in the tests that they ran. Dr. Almquist then gave the opinion that we should go ahead and manufacture the fluid.

Q. Did you go ahead and manufacture the fluid?

A. Yes, we began manufacturing propylene glycol fluid in June of 1936.

Q. Now at that time was there any shortage of propylene glycol?

A. Not that I recall. We were able to buy propylene glycol sufficient for our needs.

Q. Do you know whether there had been any change in that respect between the time that your sample had been submitted to Wagner, which caused the survey, and the time you resumed production?

A. Well, I believe that Carbide had increased their production facilities. At least, we were able to get sufficient propylene glycol at this time by purchase on the outside for higher requirements than we had been able to earlier.

Q. You used the term Carbide. I think you had better tell us what you mean by that?

A. By Carbide, I mean the Carbide & Carbon Chemical Corporation.

Q. What was the designation under which this fluid du Pont made was sold commercially?

A. The fluid designation was Lockheed No. 21.

Q. What difference, if any, was there in this fluid and the propylene glycol fluid, if you know, that had been submitted to General Motors for test in 1934 and 1935?

[fol. 5140] A. The difference was slight. It was merely a matter of a change in ratio of the propylene glycol and castor oil components.

Q. Mr. Walker, after du Pont began to produce this fluid, which I shall hereafter refer to as Lockheed No. 21, did you make any effort to sell this brake fluid to General Motors?

A. Yes. I began contacts with various units of General Motors in an attempt to sell them our fluid.

Q. Do you know what fluid General Motors was using at this time?

A. At that time, in the period of 1936, they were still using Delco No. 5 fluid.

Q. Where were they getting that fluid, if you know?

A. They were purchasing—the Delco people were purchasing the ingredients, mixing the ingredients, castor oil and diacetone alcohol to make the fluid.

Q. At this period in 1936, do you know what cars produced by General Motors were equipped with hydraulic brakes?

A. Essentially all of the General Motors cars had brakes at that time. I believe possibly the V-16 Cadillac did not have them.

Q. What steps did you take to try to persuade General Motors to use Lockheed 21?

A. We had various test data from the laboratory and car tests, comparing Lockheed No. 21 fluid with the Delco No. 5 fluid.

I used that information in discussions with the engineers to try to persuade them that our fluid was superior to the Delco No. 5. In fact, it had better high temperature characteristics, had better low temperature characteristics, both in freezing point and in viscosity, which is important in low temperature operations.

[fol. 5141] Q. Were you able to persuade any of the units of General Motors to adopt and use Lockheed No. 21?

A. No, I was unable to. I believe for a short time General Motors Truck did use it.

Q. Did the representatives of General Motors ever tell you why they did not wish to adopt and use Lockheed No. 21?

A. Yes, they gave me some reasons. Chaminade, of Chevrolet, for instance, at one time said that Delco No. 5

fluid had lower rubber swelling than our Lockheed No. 21. This was contrary to our test, and we investigated it thoroughly, and finally we were able to find that they had been using an incorrect test method to determine that.

They had used two kinds of cups, a different kind of cup in each fluid, so that the results were not comparable.

I believe I was later able to prove to them that our fluid was at least as good, if not better, in rubber swelling because he approved it for the use in one of their plants.

Q. Who was Mr. Chaminade?

A. Mr. Chaminade, I believe his title was chassis engineer with the Chevrolet, and his responsibility was mainly brakes.

Q. Now, in explaining to you why they did not wish to adopt the Lockheed No. 21, did the General Motors representatives ever say anything to you about that price of your fluid?

A. Yes, at times they did mention that the price of our fluid was higher than Delco No. 5.

Q. Did you find out what the price of Delco No. 5 was?

A. No, I did not.

Q. Did you find out? Did you try to find out?

A. Yes, I made several attempts to find out, but they were unwilling to tell me.

Q. Did you ever at any time, while you were dealing with General Motors, learn how the price of Lockheed No. 21 [fol. 5142] compared with the price of Delco No. 5?

A. Well, at one time in early 1938, I believe it was, I told Mr. Dernier who was the purchasing agent for Oldsmobile, that we would be willing to sell them our fluid for approximately 95 cents per gallon.

At that time, he in my presence, talked with Mr. Leach who was in the engineering group. I believe he was the assistant engineer, and told him—I am sorry, it was Mr. Wolfram at Oldsmobile; in my presence, he told Mr. Wolfram that the price was right. So I assumed that our price quotation was approximately the same as the No. 5.

Mr. Cox: At this point, may it please the Court, I would like to offer in evidence a document which was heretofore marked du Pont Exhibit No. 388, dated January 14, 1938, addressed to Mr. J. C. Woodhouse, experimental station, and it bears the name and signature of K. E. Walker.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 388.)

By Mr. Cox:

Q. Did you write this report, Mr. Walker?

A. I had it typed, yes, sir.

Q. You dictated it?

A. Yes, sir.

Q. Did this report refer to the contents you just testified about?

A. Yes, it does.

Mr. Cox: I call the Court's attention to the fact that this report was written contemporaneously. Mr. Walker stated:

> "Mr. Goldsmith of the F. & F. Flint Plant arranged that Mr. Dernier was to put the writer in touch with the Oldsmobile engineers interested in hydraulic brake [fol. 5143] fluids. On arriving at Mr. Dernier's office he immediately asked about the price and advantages of No. 21 fluid over the fluid they are now using. He was told the price would be approximately 95 cents per gallon in tank car quantities and informed of the various advantages, including superior low temperature properties and stability. He then called Mr. Wolfram, Assistant Chief Engineer, and asked him if he would like to talk to the writer about No. 21 fluid. During the conversation Mr. Dernier mentioned to Mr. Wolfram that the price structure was right. However, Mr. Wolfram was apparently not interested."

By Mr. Cox:

Q. Did Oldsmobile purchase any Lockheed 21 fluid from du Pont after you quoted this price of 95 cents a gallon per tank car?

A. No, they did not.

Q. How long, if you know, did the various General Motors Divisions continue to use this Delco No. 5 fluid that you have referred to?

A. Well, they used it until sometime in either late 1938 or early 1939, I believe.

Q. What fluid did they begin to use at that time?

A. At that time, they began using a fluid known as Delco No. 9.

Q. What kind of fluid, if you know, was Delco No. 9?

A. It was a fluid that was quite similar to ours except that it had a minor amount of castor oil, and a fairly large amount of propylene glycol, and the propylene gylcol derivatives, and normal butanol instead of isobutanol.

Q. Who developed the Delco No. 9 fluid, if you know?

A. That was developed by the Delco Brake Division of General Motors, and by Union Carbide.

[fol. 5144] Q. Who actually made this Delco No. 9 fluid? Who manufactured it?

A. I understood that it was manufactured by the Delco Brake Division of General Motors. That is, it was mixed by them.

Q. Where did the Delco people get the ingredients, if you know?

A. I understood that the ingredients were purchased from the Carbide & Carbon Chemicals Corporation, which is a unit of Union Carbide.

Q. Did you understand that you purchased all of the ingredients from Carbide & Carbon?

A. No, they purchased all the ingredients except the castor oil. I don't know where they purchased the castor oil.

Q. After General Motors units began to use this new fluid, Delco No. 9, did you attempt to persuade them to use Lockheed 21 instead of Delco No. 9?

A. Yes, I still continued in my efforts to persuade them to use our fluid. We had certain advantages even over No. 9 fluid.

We felt that the higher quantity of castor oil in our test substantiated this opinion of better lubrication, and there was quite a bit of aluminum corrosion. The aluminum parts in the various brake cylinders were corroded by this Delco No. 9 fluid.

Q. Did the people in General Motors give you any reasons for preferring Delco No. 9 to Lockheed No. 21?

A. The principal reason that they gave us was in the boiling point. The Delco No. 9 fluid had a boiling point which was approximately 20 degrees Fahrenheit higher than the No. 21 fluid.

Our tests, however, and the large volume of fluid which we had sold showed that these higher boiling points were not necessary.

[fol. 5145] Q. What was the boiling point of Lockheed No. 21?

A. The boiling point of Lockheed No. 21 was approximately 240 degrees Fahrenheit.

Q. What, if you know, was the boiling point of Delco No. 9?

A. At that time it was approximately 260 degrees Fahrenheit.

Q. Now, did you regard this difference in boiling point as significant or not significant in its relation to the quality of the two fluids?

A. Well, we felt that the large number of cars and trucks that had been using No. 21 without difficulty, and from temperature measurements in brake cylinders that had been reported to us, that it was not necessary to have fluid with a higher boiling point than No. 21.

Q. You referred in that answer to the fact that No. 21 was being used in a large number of cars and trucks.

At this time—that is to say, in 1938—and thereafter—was Lockheed No. 21 sold commercially in large quantities?

A: It had been sold commercially since some time in 1936 in large quantities for service use, and had been used in many trucks.

Q. Do you know whether it had been bought by any automobile companies for original installation in their cars?

A. Yes, it had been used in original installations, in Packard, Studebaker, in Nash—essentially all of the independents.

Q. Now, did you ever convey or report to the people in General Motors your findings and conclusions with respect to the difference in the boiling point of these two fluids?

A. Would you repeat that question?

(Question read.)

[fol. 5146] By the Witness:

A. Yes, I had discussed that with the people in General Motors several times.

By Mr. Cox:

Q. What did they say to you when you reported your findings, do you remember?

A. Well, in the case of Mr. Case at General Motors Research Laboratory, he still maintained the opinion that the 20 degree higher boiling point was a step in the right direction. Later on he pretty well conceded the point that he did not have definite proof that the boiling point differential was necessary.

Mr. Leach of Pontiac also pretty well confirmed that it was not necessary, as far as their records had shown.

Q. Did you at any time have any complaints from users of Lockheed No. 21 that the boiling point of the fluid was too low?

A. We did not have, and the Wagner Electric people, who generally handled most of the complaints, told us that it was entirely satisfactory, that they had many fewer complaints than they had ever had before in the brake fluid.

Q. Now, in these discussions about the adoption of Lockheed 21 by General Motors, did the representatives of General Motors ever say anything to you about the price of Lockheed No. 21, as compared with the price of Delco No. 9?

A. Well, at one time in the discussions with Mr. Leach at Pontiac, I had quoted, or we had quoted the price of 91 cents per gallon for brake fluid to General Motors units. In discussions with Mr. Leach, he pointed out that Delco No. 9 fluid cost the General Motors units approximately four cents a gallon more than Delco No. 5, and that Delco No. 5 [fol. 5147] fluid cost more than No. 21, at the time we were quoting 91 cents.

We did not know exactly how much more No. 5 cost than No. 21, but that meant that the differential of No. 9 and No. 21 was greater than four cents a gallon.

Q. Am I to understand from that answer, at least at the time of this conversation, the price of Lockheed No. 21 which was quoted to General Motors, was lower than the price of either Delco No. 5 or Delco No. 9?

A. At that time.

Q. Did any of the General Motors units buy Lockheed No. 21 after the price was lowered to 91 cents?

A. No, they did not.

Q. Had your price, by the way, been higher than 91 cents at one time?

A. Yes; at one time it was higher.

Q. Now, after the price was 91 cents, did the General Motors people give you any more reasons why they preferred not to buy Lockheed No. 21?

A. Well, I learned the reason in discussions with Mr. Leach in Pontiac. He mentioned that at the time they began making the Delco No. 9 fluid that the various General Motors units had decided to buy the fluid from Delco so that they would be able—Delco would have enough business to be able to make fluid, and that they would be able to pay for the investment that they would have to make in order to do that, so he said that they had agreed to pay the four cents per gallon higher than No. 5 and that Delco had agreed to absorb an equivalent amount during the first few years, to make that possible.

Q. Will you tell us when that conversation took place, approximately?

A. In December, I believe, of 1938.

[fol. 5148] Mr. Cox: At this time I should like to offer in evidence a document which has been marked du Pont Exhibit No. 395 for identification, and I will ask the witness be shown the document.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 395.)

By Mr. Cox:

Q. This is a document dated December 29, 1938, addressed to J. C. Woodhouse from K. E. Walker.

Is this the document you wrote as indicated by the dictator initials?

A. Yes, sir.

Q. Does this document describe the conference that you just referred to in your testimony?

A. Yes, sir, it does.

Mr. Cox: Now, I would like to read part of this document beginning on the first page:

> "Leach said they were using Delco No. 9 fluid in production because of its higher boiling point compared with No. 21 and better stability and low temperature operation compared with No. 5. He brought up the usual illustrations about gassing troubles with No. 5 fluid in taxicabs, trucks and busses and said that use of No. 9 fluid corrected all this. He finally admitted they had no evidence showing that No. 21 would not have been just as satisfactory as No. 9. The reason for using No. 9 eventually came to light. All GM Engineering Units agreed to approve No. 9 for all production so that Delco could afford to produce it at a reasonable price. No 9 costs about eight cents more [fol. 5149] per gallon than No. 5, which was taken care of by the GM production units paying four cents more per gallon than for No. 5 and Delco taking a four cent loss per gallon. The new equipment costs required to produce No. 9 fluid are to be written off in a year, after which Delco expects to reduce the fluid price to about that of No. 5 fluid which is still higher than the latest No. 21 price. Because of this promise made before No. 21 fluid price was reduced, GM engineers have been reluctant to use No. 21 and have given the boiling point argument for support."

By Mr. Cox:

Q. After this conference, Mr. Walker, did you make, or continue any efforts to sell General Motors No. 21?

A. No, we decided not to continue.

Q. At that point you gave up, is that right?

A. Yes, sir.

Q. Did you continue thereafter to market Lockheed No. 21?

A. Yes, we continued to market the Lockheed No. 21 fluid.

Q. And was it, if you know, sold extensively for use——

A. Yes, it was sold in very large volume for many years.

Q. Was it sold both for service uses and for original installation?

A. Yes, sir, it was.

Q. Now, after that time, and I refer to December, 1938, when you had your conference with Mr. Leach—did you do any more development work on brake fluid in the du Pont Company?

A. Yes, we continued to try to perfect still further No. 21 fluid, and Wagner Electric Corporation also told us that designs of automobiles and trucks were expected to change [fol. 5150] in such a manner that they would require higher boiling fluids.

They expected that this change would take place within, say, two or three years, beginning with the period, as I recall, about 1939.

For that reason we decided to turn to developing fluid with a much higher boiling point than any fluid on the market at that time.

Q. What kind of changes in design did the Wagner people speak of when they made this statement?

A. They were speaking in terms of making smaller diameter brake drums with more powerful brakes along with the smaller diameter, and car speeds were expected to increase, and the design of fenders was changing so that shrouds were being added, making it more difficult to ventilate the brakes.

All of these things were expected to increase brake temperatures in their estimation.

Q. Before you continue to tell us about your work in the brake fluid, will you tell us, if you know, whether in fact these changes in car design ever took place in the way that Wagner predicted they would?

A. Well, of course, fender shrouds were used, and some of the brake drums were made smaller, but as usually happens, the engineers found some ways to increase heat dissipation.

So that the changes that Wagner predicted did not take place to the extent they predicted.

Q. Now, were you successful in your attempt to develop [fol. 5151] the brake fluid with a higher boiling point?

A. Yes, sir, we eventually developed a fluid using a chemical compound which had never been known before, termed, chemically methoxymethoxyethanol, which we called MME, for short.

That solvent, when combined by a similar reaction to the one used for propylene glycol, was reacted with castor oil to give a fluid containing the MME solvent and the MME castor oil reaction product as a lubricant.

Q. About when did you develop this new fluid?

A. This, I believe, took place in the period from 1939 to 1940.

Q. And was there some commercial name or trade name under which that fluid was marketed?

A. Eventually it became marketed as Lockheed No. 21-11.

Q. Was the boiling point of this Lockheed 21-11 higher than the boiling point of Delco No. 9?

A. It was considerably higher. They boiled that at approximately 330 degrees Fahrenheit compared to 260 degrees Fahrenheit for Delco No. 9.

Q. Did you try to sell this new fluid, that is the Lockheed 21-11, to General Motors?

A. Yes, sir, I again contacted a number of the engineers in General Motors, and described the properties of this fluid.

Q. Were you able to sell the fluid to any of the car divisions?

A. We were not able to sell the fluid to any of the car divisions.

Q. Did they give you any reasons for declining to buy this fluid?

A. Well, at that time they felt that the number 9 fluid had operated satisfactorily, that there was no demonstrated [fol. 5152] need for a fluid which cost more than No. 9 fluid. They did express a desire, perhaps, to see if it would be practical to mix and sell a fluid using MME as a solvent, and we gave them a quotation on the MME to be used by them in making up a fluid.

Q. Were you able to sell them any of that solvent?

A. No, sir, we were never able to sell them any of that solvent.

Q. Do you know where they bought the solvent, if they did buy it?

A. They never bought the solvent. We were the only people who produced it.

Q. In these considerations did they say anything about the higher boiling point of your fluid, of your new fluid?

A. They acknowledged it had a higher boiling point, and that if there were cases where in heavy duty buses you needed a higher boiling fluid than they had, it would be satisfactory.

There were minor points they felt where it was not as satisfactory as Delco No. 9, but they could see that these were minor and that overall the fluid was satisfactory.

Q. Was the price of Lockheed 21-11 higher or lower than the Delco No. 9?

A. At that time?

Q. Yes.

A. I believe at that time the price of 21 was higher than Delco No. 9.

Q. When you say "No. 21", you mean the new solvent with the increased boiling point?

A. No, sir, that was No. 21-11.

Q. I am asking you about 21-11.

A. 21-11, the price was higher.

[fol. 5153] Q. Was 21-11 ever sold commercially?

A. No, 21-11 was sold commercially in considerably smaller volume than No. 21.

Q. Why was the fluid sold in smaller volume?

A. As I mentioned before, the engineers had been busy and found a way of keeping the boiling point from going as high as had been predicted, so there was no need for the higher boiling fluid.

Q. Now, after the war—that is to say, from 1945 on—was your Lockheed No. 21 fluid sold commercially and used extensively?

A. From 1945 on?

Q. After the war.

A. Yes, sir.

Q. It was used for——

A. It was used. I don't know what you mean by "extensively", but it was not sold in nearly as large volume as 21.

Q. Was No. 21 sold in large volume after——

A. In very large volume, I would say.

Q. Was it sold to any automobile companies for original installation?

A. It was still being sold for original installations to Studebaker, Nash and the people I mentioned earlier.

Mr. Cox: At this point I should like to offer in evidence without reading the documents what have been heretofore marked for identification as du Pont Exhibits 389, 390, 391, 392, 396.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 389, 390, 391, 392 and 396.)

[fol. 5154] Mr. Cox: I would also like to offer the documents which were heretofore marked for identification as du Pont Exhibit No. 397.

That is all.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 397.)

Cross-examination.

By Mr. Hoyt:

Q. You say, Mr. Walker, that you made a determined effort to sell your brake fluid to General Motors?

A. I felt I did, yes, sir.

Q. What other companies were making such attempts?

A. What other companies?

Q. Yes.

A. I don't know, beyond the fact that obviously United Carbon & Carbide Chemicals Corporation must have been making attempts. They sold them the fluid.

Q. They sold it through Delco, didn't they?

A. Yes, but Delco was a unit of General Motors.

Q. And Delco was a unit of General Motors?

A. Yes, sir.

Q. Did you ever sell No. 21 to Chrysler?

A. So far as I know, we did not. We were there many times and talked to them about it, but we did not sell them the fluid.

Q. Did you ever sell 21-11 to Chrysler?

A. So far as I know, we did not.

Q. Did you ever sell either 21 or 21-11 to Ford?

A. I believe some of those two fluids was sold to Ford.

[fol. 5155] Q. That was 21, was it?

A. I believe so.

Q. Do you know when that was?

A. I don't know definitely.

Q. Then you sold that to Packard, Studebaker, and Nash, is that right?

A. The sales of fluid to Packard, Studebaker and Nash were made by the Wagner Electric Corporation as were the other sales that I was talking about.

Q. Do you know whether or not those three companies had facilities themselves in producing brake fluid?

A. Ford, Chrysler?

Q. No, Packard, Studebaker and Nash.

A. So far as I know, they did not.

Q. Now, was 21-11 the same as a fluid known as M-376?

A. There was a slight variation in the fluid. No. 21 fluid had propylene glycol in place of the MME. It reacted with the castor oil. The solvent part was the same in each case.

Q. Now, on this Lockheed 21-11, do you know anything about—you testified about the boiling point. What about the freezing point?

A. The freezing point of Lockheed No. 21-11?

Q. Yes. It was below minus 40 Fahrenheit and the viscosity was lower at minus 40 than the Lockheed No. 21.

Q. By 40 degrees Fahrenheit, can you tell me how many days it ran at 40 degrees Fahrenheit?

A. Well, in our test, it ran for five days at 40 degrees.

[fol. 5156] Q. Do you know whether Delco made any tests before?

A. Yes, Delco made tests, and it froze at a shorter time, either three or four days. I don't remember which.

Q. Do you know whether that met General Motors' specifications?

A. No, their specification was, I believe at that time it should be five days, but they conceded later that they felt it was insignificant.

Q. How long did Delco continue to buy raw materials from Carbide?

A. I don't know that.

Q. You don't know whether they stopped immediately or not, is that it?

A. Well, I know that sometime after that I was told that they were buying, but I don't remember the date on which I was told that.

Mr. Hoyt: I am going to read a statement to you and ask you if you ever heard it. This is taken from the minutes of the General Purchasing Committee of General Motors Corporation for February 6th, 1925. It is Paragraph (e) of Government's Exhibit No. 1331 for identification.

Paragraph (e) is headed:

> "Purchases from Outside Companies Obtainable from Allied Companies."
>
> "A circular letter has been addressed to all purchasing agents requesting that report on GME-55 covering every purchase of materials from outside companies obtainable from allied companies be made. It was decided that these reports should be summarized and reviewed by the committee at its meetings."

[fols. 5157-6042] Then skipping down to the following paragraph:

> "A study will be made to arrive at a method of determining how much lower the price of the successful outside company must be than the price of the allied company bidding in order to justify placing the business outside."

By Mr. Hoyt:

Q. Did you ever hear of any such policy of General Motors at the time you were making sales to them that they would prefer to purchase from allied companies unless the price was substantially lower than outside companies?

A. No, sir, I never heard that statement.

Mr. Hoyt: I offer this excerpt, Government's Exhibit No. 1331 in evidence.

(Said document so offered and received in evidence was marked Government's Exhibit No. 1331.)

Mr. Hoyt: Copies will have to be made for defense counsel. We do not have copies at the present time.

That is all I have.

Mr. Cox: That is all.

(Witness excused.)

[fol. 6043] GEORGE EDMONDS, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

Q. You are familiar, are you not, with the charges which are alleged against the defendants in the Complaint in this suit?

A. I have read the Complaint.

Q. Have you ever heard of any arrangement of any kind between the United States Rubber Company and General Motors Corporation or the du Pont Company that they would deal exclusively with each other?

A. No, I have not.

[fols. 6044-619[illegible]] Q. Or that they would prefer the products of each other as against their respective competitors?

A. No, sir.

[fol. 6194] LAMMOT DU PONT COPELAND, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Potter:

Q. And I believe in 1952 you became president of Delaware Realty & Investment Company?

A. That's right.

Q. Do you hold stock in that company?

A. I do.

Q. And how long have you held it?

A. Well, I received my first stock from the estate of my mother who was one of the original subscribers; and in December, 1926, my father gave me his holdings which represented his original subscription.

Q. Have you as a stockholder of Delaware Realty, at any time had any arrangement or understanding or agreement, with any member of the du Pont family respecting the holding of that stock and the voting of it?

A. No.

Q. Have your uncles, Pierre, Irenee or Lammot ever instructed or advised you as to the voting of your shares of that company?

A. They never have.

Q. Have you, as a member of the Board of Delaware Realty, attended with some degree of regularity the board meetings?

A. Yes, I have been practically to all meetings.

Q. You think to practically all of them since you went on the Board?

A. I believe so. One or two I might have missed.

Q. At any meeting which you attended, Mr. Copeland, either a formal meeting of the Board or an informal meeting of the Board, or a meeting of the officers of that company, have you ever heard the trade relations between the [fol. 6195] du Pont Company, General Motors Corporation and United States Rubber Company discussed?

A. No, they were never discussed; there was no reason why it should be discussed.

Q. Are you a stockholder of Christiana Securities Company?

A. I am.

Q. Where did you acquire your holdings of that stock?

A. I purchased it in the open market.

Q. That is, you purchased it in the open market in the ordinary channels?

A. Yes.

Q. How many shares of that do you hold?

A. I have 96 or 97, I don't recall which.

Q. Have you at any time had any arrangement or understanding, either express or implied, with the other members of the du Pont family, or any of them, with respect to the holding and voting of the Christiana stock?

A. Never had such an arrangement.

Q. Have you ever heard of any such arrangement?

A. No, I never have.

Q. Have you ever heard of any such arrangement with respect to stock in Delaware Realty?

A. No, I never have.

Q. You were and are a director of Christiana, are you not?

A. I am a director.

Q. How long have you been a director, do you recall?

A. I believe since 1942 I have been a director—1942 or 1944, I have forgotten which, now.

Q. I believe the record shows that you became a director of Christiana in 1940.

A. Oh, 1940, as far back as that.

[fol. 6196] Q. Have you regularly attended the meetings of the Board of Christiana since you went on it?

A. Yes, I have.

Q. At any meeting of that Board has the subject of trade relations between these three so-called manufacturing defendants been discussed?

A. Never.

Q. Now, it appears also from the record, Mr. Copeland, that you became a director of the du Pont Company in 1942, and that you went on the Finance Committee of the du Pont Company in 1943?

A. I believe that is right.

Q. What other position do you hold with the du Pont Company?

A. I am the secretary of the company.

Q. So that at the present time you are a director, a member of the Finance Committee, and secretary of that corporation?

A. That is right.

Q. When were you first employed by the du Pont Company?

A. In September 1929.

Q. Have you continued in the employ of that company fairly consistently since that time?

A. Yes, except for a short leave of absence during the NRA, when I was with that organization.

Q. Did you ever attempt directly or indirectly to use the stock ownership, du Pont Company's stock ownership in General Motors in order to further sales of du Pont products to General Motors?

A. No.

Q. Have you ever sought the assistance of any person who was employed or connected with General Motors and at the same time employed or connected with the du Pont Company to further the sales of du Pont products?

A. Well, there was one case which I might mention. It is [fol. 6197] the only case at all that comes anywhere near that. Back in 1942, I was in the finishes division as an assistant, administrative assistant to the general sales manager, and the director of sales asked me whether I would get hold of my friend, Mr. Henry du Pont, and ask him to try to put in a good word for du Pont paints for a plant that the North American Aviation Corporation was building.

Q. When was this, Mr. Copeland?

A. I think in 1942 or 1943, just about the beginning of the war.

Q. About the beginning of the war?

A. It was an aviation plant being built for the war.

Q. As I understand it, at that time you were in the employ of the du Pont Company as the assistant to the sales manager of the Fabrics and Finishes Division?

A. Yes, the Finishes Division of the Fabrics and Finishes Department.

Q. Who asked you to call H. B. du Pont?

A. Mr. Zintle, who was then the director of sales, my superior.

Q. Director of sales at that time?

A. Yes.

Q. Since going on the Board of the du Pont Company in 1942 and on the Finance Committee in 1943, have you regularly attended the meetings of those two bodies?

A. I have.

Q. At any meeting which you have attended, have you heard the subject of trade relations between the du Pont Company and General Motors and U. S. Rubber discussed?

A. No, I have not.

Q. Except in the one instance which you have just mentioned, which occurred when you were assistant to the sales manager, have you ever attempted to induce the General [fol. 6198] Motors——

A. May I correct my record? I am way off on my date there. That wasn't 1942 at all because I was no longer with the Finishes Division after 1941. That must have been back around 1939.

Q. Now, let's see if we can straighten that out, Mr. Copeland.

This instance which you spoke of took place when you were assistant to the sales manager of Fabrics and Finishes?

A. Yes. I transferred from that work in September of 1941, and I am sure it was considerably prior to that time. I would think perhaps it was 1940, or perhaps even 1939.

Q. And on that occasion, then, as I understand it, you simply called H. B. du Pont and asked him if he would put in a word for du Pont paint, is that right?

A. That is right, yes.

The Court: The Court will now recess.

[fol. 6199] Q. Mr. Copeland, before the lunch recess, I think I brought out that you were a director of the du Pont Company, a member of the Finance Committee, and also were a secretary of that corporation?

A. That's right.

Q. And has your attendance at the meetings of the Board and the Finance Committee been regular or irregular?

A. Very regular.

Q. At any meeting of either of those bodies which you have attended, have you heard the matter of trade relations between the du Pont Company, General Motors or United States Rubber discussed?

A. No, never.

Q. Have you in any capacity, at any time except this one instance which you spoke of this morning, when you were assistant to the sales manager, ever attempted to influence General Motors to buy from the du Pont Company?

A. No, I never have.

[fol. 6200] Q. Nor to have the du Pont Company buy from General Motors?

A. No, sir.

Q. Has anybody ever requested you to use your good offices to influence trade relations between those two companies?

A. No, except that one minor example, nobody ever has.

Q. Well, in respect to the United States Rubber situation, Mr. Copeland, have you ever attempted to influence the du Pont-U. S. Rubber trade relations?

A. I never have.

Q. Has anybody in the du Pont Company ever requested you, or asked your assistance, in obtaining business for the du Pont Company from the United States Rubber Company or vice versa?

A. No, they never have.

Q. Have you at any time in any capacity in which you held with the du Pont Company, taken any action which was designed or intended to cause the du Pont Company to refrain from competing with either of the other two companies?

A. No, I have never taken any such action.

Q. Now, it appears, Mr. Copeland, from the record in the case that you are one of the so called du Pont representatives on the General Motors Board, is that correct?

A. That is correct.

Q. And what other positions have you held with the General Motors Corporation?

A. I have been a director of General Motors since 1944. I was made a member, elected to the position of member of the committee upon audit, in 1946, in the spring of 1946, and I resigned from that committee and became a member of the Financial Policy Committee in 1949.

[fols. 6201-6202] Q. And have you, as a member of the Board and as a member of the Financial Policy Committee, attended regularly the meetings of those two bodies?

A. Up until this spring my attendance has been very regular.

Q. At any meetings of those two bodies, have you heard the subject of trade relations between General Motors and United States Rubber or du Pont discussed?

A. I have never heard such matters discussed.

Q. During the time that you have been associated with General Motors have you ever attempted to influence that corporation in its trade relations with either of the other manufacturing defendants?

A. No, not in any way.

Q. Has anybody connected with the du Pont Company or any member of the du Pont family or anyone else ever requested you to use your influence to improve trade relations between those companies?

A. No, they never have.

[fol. 6203] Q. Have you read the complaint in this case?

A. Yes, I have.

Q. That is, the amended complaint?

A. The amended complaint.

Q. Are you familiar with the offenses charged in the amended complaint in this case?

A. Yes, I am.

Q. In paragraph 9 of that complaint it is charged that you have been a director of one or more of the corporate defendants and that you have authorized, ordered and done one or more of the acts alleged to constitute the offenses charged.

I would like to know from you whether that allegation is true or false.

A. It is absolutely false.

Q. Have you ever taken any action to restrain commerce between these corporations?

A. Not to my knowledge.

[fols. 6204-6234] Q. Now, in substance, Mr. Copeland, the amended complaint charges that there was a conspiracy, understanding or agreement pursuant to which the du Pont Company, General Motors Corporation, and the United States Rubber Company were to prefer each other in their purchases of products, and that they would prefer the products of each over their respective competitors.

Have you at any time had any knowledge or information concerning any such agreement, understanding or conspiracy?

A. I never heard of any such agreement. I have no knowledge of it, and I have never seen any indication of its existence.

Q. The amended complaint likewise charges, Mr. Copeland, that there was a conspiracy, agreement or understanding entered into pursuant to which each of the three companies which I have mentioned were to refrain from competing with each other.

Have you at any time had any knowledge or information of any such conspiracy, understanding or agreement?

A. No, I never have.

[fol. 6235] Henry B. du Pont, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Nichols:

Q. Have you been a fairly regular attendant at meetings of the Board and committees of General Motors since you have been on those bodies?

A. Yes, I have been a very regular attender.

Q. During any meeting of any of those bodies which you have attended, have you heard any discussion of trade relations of General Motors Corporation?

A. No. Trade relations were never discussed at any of those meetings.

Q. Are trade relations a matter that normally come before the Bonus and Salary Committee in any connection?

A. No, they never do come before the Bonus and Salary Committee. Bonus and Salary Committee doesn't cover that phase of General Motors' operations.

[fol. 6236] Q. As a director of General Motors Corporation, have you ever heard any discussion of the trade relations between GM and the du Pont Company?

A. No, I never have.

Q. Or United States Rubber Company?

A. No.

Q. Or any other company?

A. No. Well, possibly one exception, the only thing that I ever remember having come before the Board of General Motors were some very large steel deals where General Motors, to get sufficient steel, had to help finance steel expansion on the part of some very large steel companies.

That was a financial matter where the Board was giving its blessing, so to speak, on the management committing the corporation to many, many millions of dollars.

Q. Because of the large sums involved?

A. Large sums?

Q. Yes.

A. Well, the last one was——

Q. I am not asking for a figure, but you say because of the large sums involved?

A. Oh, yes, because of the large sums. The last one was something like $25,000,000.

Q. During your connection with General Motors Corporation in any capacity, have you ever been asked by anyone in the United States Rubber Company to lend your assistance in promoting or effecting sales of Rubber Company products to General Motors Corporation?

A. No, on no occasion whatsoever.

Q. Have you ever been asked to do any such thing by anyone in the du Pont Company?

A. Between du Pont and General Motors?

Q. As between du Pont and General Motors Corporation?

A. No, except you might say that this North American [fol. 6237] Aviation matter might be in that category. That was spoken of by Mr. Copeland in his testimony. But I have never had anything in connection with General Motors directly.

Q. You are referring to the paint incident that Mr. Copeland testified to this morning?

A. Yes, that is right.

Q. What did you have to do with that incident?

A. Well, at that time North American Aviation was expanding its production of fighter and trainer planes, and had to build a new plant down at Dallas, Texas, and the Air Force had made a deal with us—I mean with North American—to build a big new plant with RFC funds.

I guess somebody in our paint division, or fabrics and finishes division is the correct name, heard about it and hoped that they could get in on the business. I got this telephone call from Mr. Copeland, asking me whether I could talk to the president, whom I knew very well, and see whether I couldn't put in a good word for him.

Q. Who was the president?

A. Mr. Kindelberger.

Q. What did you do in response to that request, in response to Mr. Copeland's request?

A. Well, I called up "Dutch"—Mr. Kindelberger—and told him that our paint department would like to be considered for the business, and I said I hoped that he could see that at least they got fair consideration.

Q. Did you ever talk to Mr. Kindelberger after that, or otherwise follow up the incident to see whether du Pont got the order for the paint?

A. No, I never did. I passed that information on to him, and that was that, and it was up to the du Pont people to go ahead and sell the paint on the basis of price, quality, service, and whatnot.

[fol. 6238] Q. What was the relationship, if any, between North American Aviation and General Motors at that time?

A. General Motors Corporation owned, I think it was approximately 29 per cent of the common stock of North American Aviation.

Q. Did you have any direct connection with North American Aviation at that time?

A. Yes, I had been a director for many years, back to about 1934.

Q. Apart from that one episode, Mr. du Pont, can you recall any other instance where you were asked by anyone in the du Pont Company or any member of the du Pont family to use your good offices in promoting the sale of du Pont products to General Motors Corporation?

A. No, I really don't recall. I don't believe I ever did.

Q. Or to United States Rubber Company?

A. No.

Q. And you have been a director of the du Pont Company for some years, have you not?

A. Since 1934, I believe.

Q. And more recently a member of its Executive Committee?

A. Yes, I was elected a member of the Executive Committee along in the autumn of 1939.

Q. And you continue to hold both those positions at the present time?

A. Yes, that is correct.

Q. Are you a stockholder in the Christiana Securities Company?

A. I own a few shares of preferred stock, but no common stock, I believe.

Q. Have you personally ever owned any common stock in Christiana Securities Company?

A. No, not to my recollection.

[fol. 6239] Q. You have, however, been a director and officer of that company, have you not?

A. Yes, that is correct.

Q. Have you been regular in your attendance at meetings of the Board?

A. Yes, very regular.

Q. Can you recall the subject of trade relations ever having been discussed at any meeting?

A. No, trade relations never were discussed in Christiana meetings.

Q. And particularly trade relations between General Motors, du Pont and United States Rubber, or any of those companies?

A. No, that was a subject that was never discussed.

Q. I believe the record shows that you were one of the original subscribers to the stock of Delaware Realty & Investment Company, is that correct?

A. Yes, that is correct.

Q. Have you continued to be a substantial stockholder in that company?

A. Yes, I have.

Q. Have you held any official position with that company?

A. Yes. I was one of the original directors. I served as a director until sometime in 1934, at which time I resigned as a director.

I was elected a director again, I believe it was 1938 or 1939—the record will show it—and I have been a director ever since.

I was a vice president of Delaware Realty & Investment Company for a number of years. I have forgotten just what year I was elected. Then I was elected president of Delaware Realty, I think it was in 1943.

Q. Is the stock which you hold in Delaware Realty under any restriction by virtue of any agreement or understanding [fol. 6240] with other members of the family?

A. What do you mean by restriction?

Q. Are your hands tied in dealing with it or as to how you should vote it in any way?

A. Are my hands tied?

Q. Yes.

A. No.

Q. Have you ever heard of any agreement or understanding among any holders of Delaware Realty stock which limited their right to dispose of it?

A. No.

Q. Or how they should vote it?

A. No.

Q. Have you ever received any instructions or advice regarding your Delaware Realty stock from Mr. Pierre, Mr. Irenee or Mr. Lammot du Pont?

A. No, I never have.

Q. With reference either to the holding of it, the disposition of it, or the voting of it?

A. No, neither those gentlemen nor anybody else messed into my affairs.

Q. You feel then entirely free to dispose of it and vote it any way you want, is that correct?

A. Absolutely, and I have.

Q. And you know of no restriction that has ever pertained to it?

A. Never any restriction so far as I am concerned. I never heard of any others.

[fol. 6241] Q. You have read the Complaint, of course, have you not, in this case?

A. Oh, certainly.

Q. You are familiar with the charges?

A. Yes.

Q. Which are alleged against the defendants.

Have you at any time been aware, or have you ever heard of any arrangement between the du Pont Company and General Motors that they would deal exclusively with each other in the purchase of each other's products?

A. No, I never heard of any such agreement.

Q. Or that they would give preference to each other's products over their respective competitors?

A. No.

Q. Have you ever heard of any such arrangement which affected the purchase and sale of products as between the [fols. 6242-6282] du Pont Company and United States Rubber Company?

A. No, the same is true of the Rubber Company.

Q. Or as between General Motors and United States Rubber Company?

A. No.

Q. Have you ever heard of any arrangement or agreement that these companies would stay out of each other's fields of business?

A. I never heard of any such agreement.

Q. Or that they would not compete?

A. I never heard of any agreement that they should not compete.

Q. You recall the allegation in paragraph 9 of the amended Complaint?

A. I can't keep paragraph 9 in my head; which one is that?

Q. Well, it alleges in substance that you have been a director in various defendant companies, and that you have used your position in these companies to authorize, order, or do acts which constitute the offenses alleged in this case?

A. Yes, I remember now.

Q. Are those allegations true or false?

A. They are completely false.

[fol. 6283] Cross-examination:

By Mr. Harris:

Q. Now, Christiana holds three million, or did before the one stock split, 3,050,000 shares of E. I. du Pont de Nemours, and Delaware holds 304,000, or together, 30 per cent of 11,000,000 odd shares.

What, if anything, did Christiana do with the shares of stock in the du Pont Company that it held, to your knowledge?

A. May I ask what you mean by do with them?

Q. Did you vote it?

A. Yes, we voted those shares at the annual meetings of the du Pont Company.

Q. And that was done under the instruction, was it, of the Board of Directors?

A. Yes, that is right.

Q. You know that to be a fact yourself, don't you?

A. Yes. We authorized certain people to vote the stock in person or in proxy at the annual stockholders' meeting of the du Pont Company.

Q. Yes, sir, and when you voted the stock in the annual meetings of the du Pont Company, I think it is in evidence but I will ask you whether that was always done for the management.

A. There was a period, I think, when there were no instructions, but for many years the people were authorized to vote the stock in favor of the management.

[fols. 6284-6293] Q. And if they were not so authorized specifically, they did it anyway, did they not, as far as you know?

A. As far as I know, yes.

Q. Mr. du Pont, did you ever have occasion to consider before you came to the witness stand whether the holding of that stock that we have just talked about, that du Pont stock by Christiana, and the holding of Christiana stock by Delaware, by the du Pont family, constituted any extended control of General Motors?

Perhaps, before putting the question, I should say that the du Pont Company held 10,000,000, or 23 per cent, of General Motors Corporation stock.

Did you ever have occasion to consider whether that, to any extent, was control of General Motors by the du Pont Company, du Pont individuals, Christiana, Delaware?

A. No, I never have had any occasion to consider that in any way control of the company.

[fol. 6294] Redirect examination.

By Mr. Nichols:

Q. I have one or two questions on redirect examination. Mr. du Pont, you testified on your direct examination that there are not and never have been any restrictions on your right to deal with your Delaware Realty stock in any way or to vote it as you please.

Do you recall that testimony?

A. Yes, that is true.

Q. On the cross examination you were asked whether or not you had ever sold any shares of your Delaware Realty stock, do you recall that?

A. Yes.

Q. And you replied that you had not?

A. That's right.

Q. And will you state, please, the reasons why you have not sold any of your Delaware Realty stock.

A. The reasons why I have not sold it?

Q. That's correct.

A. Well, I never considered selling the stock. I might say the underlying security in Delaware Realty & Investment was the du Pont Company. I certainly had great confidence in the future of the chemical industry and the du Pont Company in particular.

The du Pont Company had done mighty well over the years, and it appeared like a mighty good investment to retain, so I saw no reason for selling it from that standpoint, but even if I had considered selling it there were [fol. 6295] two pretty serious obstacles, or there would have been two pretty serious obstacles.

One, there is no market for Delaware Realty & Investment stock, if I had wanted to sell it, and I would practically have to force it on the market through a private sale, and at quite a penalty, pricewise, and then there is another very big factor, and that is the terrifically high capital gains tax that I would have to pay, as I say, and I never thought it would be good business to sell it, and if I had tried to sell it, there would have been those two great big obstacles.

Q. One more question. Are the awards by the bonus and salary committee of the General Motors Corporation of which you are a member, in any way influenced by the recipients' attitude toward the du Pont Company?

A. That is a surprising question to be asked. Why, no, of course, not. Why should it be?

Would you repeat the question again?

Mr. Nichols: Read the question, please.

(Record read by the reporter.)

The Witness: A. Oh, no, absolutely not.

[fol. 6296] PIERRE S. DU PONT, III, called as a witness on behalf of the Defendants, having been first duly sworn on his oath, was examined and testified as follows, to-wit:

Direct examination.

By Mr. Nichols:

Q. Mr. du Pont, you are one of the defendants in this case, are you not?

A. Yes.

Q. You are appearing in your individual capacity at this time?

A. That is correct.

Q. Will you state, please, when and where you were born?

A. I was born outside of Wilmington, Delaware, on January 1, 1911.

Q. You were about four years old then in 1915 when Christiana Securities Company or its predecessor was formed?

A. Yes, sir, if my arithmetic is correct.

Q. Where do you live at the present time?

A. In Rockland, Delaware, a small town outside of Wilmington.

Q. You are a son of the late Lammot du Pont, are you not?

A. I am.

Q. And, therefore, of course, a nephew of Pierre and Irenee du Pont?

A. That is correct.

Q. What schools and colleges have you attended, Mr. du Pont?

A. I graduated from a local country day school in Wilmington in 1928; then went to Phillips Exeter Academy for one year; then went to M.I.T. and graduated with a Bachelor of Science degree in 1933.

Q. Have you been employed since that time?

A. I started with the du Pont Company on January 2, 1934.

Q. You were elected a director of the du Pont Company [fol. 6297] October 18, 1948, according to the records in this case, is that correct?

A. To the best of my recollection.

Q. You are also a director of Delaware Realty & Investment Company, Christiana Securities and Wilmington Trust Company, are you not?

A. Yes.

Q. Do you recall the approximate date, or at least by years, when you went on those several Boards?

A. Yes. I went on Delaware Realty Board, I believe, in 1943. I went on the du Pont Board in October, 1948. I was elected to the Christiana Board in August of 1952, and was elected to the Board of the Wilmington Trust Company in January of 1952.

Q. Have you ever been a director of the General Motors Corporation?

A. No, sir, I have not.

Q. Or of the United States Rubber Company?

A. No, sir.

Q. Have you ever had any connection with those two companies?

A. No, sir.

Q. The record also shows, Mr. du Pont, that you are a stockholder in the Delaware Realty & Investment Company, is that correct?

A. That is correct.

Q. How were your shares of stock in that company acquired?

A. They were acquired on the expiration of a trust that was set up by my father.

Q. Do you remember about the year when the trust expired?

A. 1943, as I recall.

Q. Have you continued to hold the shares?

A. Yes, sir.

Q. Was the acquisition of the shares accompanied by any agreement or understanding between you and any other members of the du Pont family holding Delaware [fol. 6298] stock relating to or in any way affecting your or their disposition or voting of the stock?

A. No, sir, I had no advice or instructions from anybody.

Q. Have you ever heard of any such agreement?

A. No, sir.

Q. Or understanding, or arrangement?

A. None, to my knowledge. It is preposterous.

Q. Were you ever instructed or advised, by your father or either of your two uncles, Pierre and Irenee du Pont, as to the holding or disposition of your shares of Delaware Realty stock?

A. No, sir, I was never advised one way or the other.

Q. Or with respect to the voting of that stock?

A. No, sir, I received no advice.

Q. It also appears from the record that you are a holder and beneficiary of common stock in Christiana Securities Company.

A. That is right.

Q. What is the extent of your interest in the stock of that company, and how is it held?

A. Well, I have got two shares at the moment in my own name, and then I am a beneficiary of two trusts, one of which has Christiana in it, and which I have no control over the principal.

The other one is a trading account that was set up by some of my brothers and sisters, and myself, which is in the form of a trust, of which I am trustee.

Q. What is the approximate number of shares in each of those two trusts that you mentioned?

A. The trading account at the moment has got, I think, 140 shares in it, and there are four beneficiaries. The other trust, I believe, has 600.

Q. That is the trust with respect to which you have a [fol. 6299] lifetime interest only, is that correct?

A. That is correct.

Q. Have you at any time in the past owned personally and directly any more than two shares of the common stock?

A. Sure. Back in the early 30's I bought and sold Christiana stock, common stock on the market. I did a little, shall we say, speculating with it, which turned out to be rather profitable. One time I had quite a lot, and then I sold it down to nothing, and recently acquired two shares.

Q. Did you ever feel any obligation to consult anybody about whether you would acquire or sell any of that stock?

A. No. I was hardly in a position as I was running around the countryside working on various du Pont plants, and I didn't think to consult anybody. I wouldn't spend the money to call Wilmington to get advice. I had my own ideas and proceeded.

Q. I am asking whether there was any obligation to call them?

A. No.

Q. With respect to any Christiana stock which you have ever owned and that now amounts to two shares, you tell me?

A. That is right.

Q. That is, shares in your control, have you ever been under any obligation, moral or otherwise, with respect to voting the shares at the behest of anybody?

A. No, sir.

Q. Have you ever received any instructions or advice from any member of the family, including your father or either of your uncles, as to your retention or disposition or voting of any Christiana stock?

A. No, sir.

[fol. 6300] Have you been a regular attendant at the Board meetings of du Pont, Delaware Realty, and Christiana Companies?

A. Yes, sir.

Q. Have you ever heard the subject of trade relations discussed at any of those meetings?

A. Never.

Q. You have been employed, Mr. du Pont, in the du Pont Company's sales divisions or departments at various times, have you not?

A. Yes, sir.

[fol. 6301] Q. What products have you handled?

A. Well, I sold, directly sold high tenacity rayon, which du Pont calls "Cordura," and I also sold nylon directly. U. S. Rubber and General Motors were two of the many customers that I had when I was in those activities. At the present time I have supervision over the sales of rubber chemicals and "Neoprene."

Q. In what capacity is that?

A. As assistant director of sales.

Q. You have, I take it, made direct and personal calls on General Motors and United States Rubber Company in the merchandising of the products?

A. Yes, sir. I called on them quite regularly.

Q. Has your method of effecting sales, or your sales technique with respect to those two companies differed in any respect from your general sales approach to other customers?

A. Yes, it did. I tried a lot harder. They were tough customers to do business with, and you just didn't walk in and get an order. You had to argue, argue them out of an order, and that was difficult.

Q. Are you saying that if there was any difference it was because General Motors and the Rubber Company were more difficult to sell?

A. They were harder to convince of the advantage of using du Pont products, yes.

Q. Did anyone in the du Pont Company ever suggest to you that you should use a different technique or some different arguments in your sales efforts with General Motors or United States Rubber Company?

A. No, sir, no one suggested anything.

Q. Did you personally ever request any person in the [fol. 6302] du Pont Company, or any member of the du Pont family who was connected with General Motors Corporation to use his good offices or his efforts in your behalf in selling du Pont products to General Motors Corporation?

A. No, sir. I never would have asked anybody's help. In the first place, I was more or less under test to see whether I had any managerial skill and any selling skill, and if I couldn't do the job myself, why, then, I guess I wasn't a very good salesman. So I stuck to it by myself.

Q. Did you ever seek to enlist the good offices of anyone in the United States Rubber Company or any du Pont family member in your sales efforts with United States Rubber Company?

A. No, sir.

Q. Mr. du Pont, do you know or have you ever heard of any arrangement whatever, expressed, implied, formal or informal, or otherwise, between the du Pont Company and General Motors Corporation that those two companies would buy exclusively the products of each other?

A. No, sir, I never heard of such a thing.

Q. Or would give preference to the products of each other in their purchases?

A. No, sir.

Q. Have you ever heard of any such arrangement between du Pont and the Rubber Company?

A. No, sir.

Q. Or between United States Rubber Company and General Motors Corporation?

A. I have never heard of any such thing.

Q. Have you ever heard of any arrangement of any kind that the United States Rubber Company would not compete with du Pont in any fields of enterprise?

A. No, sir.

Q. Or that du Pont would not compete with United States [fols. 6303-6306] Rubber Company?

A. No, sir, I never heard of such an agreement or arrangement.

Q. Or that General Motors and the Rubber Company would stay out of any fields in which du Pont was operating?

A. I never heard of any such thing.

Q. Or the other company was operating?

A. No, sir.

Q. In other words, have you ever heard any intimation of any kind with reference to any division of fields or agreements not to compete between any of these three companies?

A. No, sir, I haven't ever heard of any such thing.

Q. Are you positive about that?

A. Most positive.

[fol. 6307] Cross-examination.

By Mr. Houchins:

Q. Were there additional shares of Christiana stock purchased by you from time to time for your other children?

A. Sure, there have been off and on, and he has been given some.

Q. In those cases where such stock is purchased by you for your children, is it held in their name directly?

A. Yes, it is, directly in their name.

Q. Who votes those shares?

A. Nobody. They are minors. I don't believe they can vote.

Q. You don't vote them, at any rate?

A. I have no right to vote them.

Q. Mr. du Pont, I refer to Government's Exhibit No. 1222.

A. May I take a look at it?

Q. Yes. This is certain answers supplied by the Delaware Company to interrogatories submitted to them by the Government. These answers indicate, on page 3, that in the years 1944, 1946 and 1947 you were appointed by the Board of Directors of Delaware Realty Company to vote Delaware stock at Christiana stockholders' meetings.

Do you recall that?

A. Sure.

Q. I notice that you are listed there as an alternate. Do you recall that you ever performed that duty of voting Delaware stock at Christiana meetings?

A. I may have once.

Q. Do you remember what year that was?

A. No, sir, I don't, but being a third alternate it is kind of hard to remember whether I was an active participant or not. I was there.

Q. You voted only once, as you recall it?

A. That is right, because the other two weren't there. I think I voted once; I am not certain.

[fol. 6308] Q. You voted only once, but you don't recall which year you voted?

A. No.

Q. On that occasion when you did vote, did you vote for the management slate, if you recall?

A. Sure.

Q. Were you instructed by the Board of Directors of Delaware to vote for the management slate?

A. I believe so. Yes, it is in the record. The resolution is in the record. I think we were instructed to vote for the management. I would have, anyhow, instructions or not.

Q. Where were Christiana stockholders' meetings held?

A. In Wilmington.

Q. In what building, if you know?

A. The du Pont building.

Q. Is the same true for Delaware?

A. Sure. There are not many office buildings in Wilmington except the du Pont buildings.

Q. Mr. du Pont, I refer to Government's Exhibit No. 1303, which is a chart which has been introduced in evidence in this case, which sets forth certain stock relationships among the various defendants.

I ask you if you are familiar or if you are aware of the fact that members of the du Pont family own 100 per cent of the outstanding stock of Delaware Realty. Are you aware of that fact?

A. Yes, I am, but I don't know as I would say 100 per cent, because I don't know what the other people who have been stockholders might have done. I would guess that it is close to 100 per cent, but I don't know every detail.

Q. Are you aware of the fact that the Delaware Realty Company, together with members of the du Pont family, own about 67 per cent of the stock of Christiana?

A. I know it is somewhere in that range, yes, sir.

[fol. 6309] Q. Are you aware of the fact that Christiana Securities Company together with Delaware owns about 30 per cent of the outstanding common stock of the du Pont Company?

A. I think it is general knowledge. Sure, I know it also.

Q. You know, I assume, that the du Pont Company owns approximately 23 per cent of the common stock of General Motors?

A. Yes, sir, I am aware of that.

Q. Having those things in mind, Mr. du Pont, in your opinion as a director of Delaware Realty and the du Pont Company and of Christiana, are these stock relationships that I have just mentioned such, in your opinion, as to enable Delaware Realty to exert any degree of control over the du Pont Company and over General Motors?

By Mr. Houchins:

Q. Did you get the question?

A. Yes, sir, I got the question. I don't think it exerts any control over any of the companies.

Q. Who is Mr. E. H. Tinney?

A. He is assistant secretary or secretary of Delaware Realty and also has the same position, I am not certain which he is, in Christiana, and also a personal employee of Mr. Irenee du Pont.

Q. Has he held his position in Delaware Realty for a considerable amount of time?

A. He has been there as long as I have been. I don't know anything about before that.

Q. That would be from when?

A. 1943.

Q. Mr. du Pont, I have just shown you what I have tentatively marked as Government's Exhibit No. 1335 for identification.

This appears to be a memorandum dated March 29, 1944, on the letterhead of Delaware Realty & Investment Com- [fol. 6310] pany, addressed to various people, among them yourself. You are listed second.

The document, you will note, on the last page is signed by Mr. E. H. Tinney. Do you recall receiving this document from Mr. Tinney?

A. Yes, I think so. My memory isn't too good, but I am sure if I am on here as getting a copy, I got one, and I must have seen it.

Q. This is a memorandum from Mr. Tinney, in which he apparently discusses with you and other addressees listed on the front what has been a proposal to liquidate Delaware Realty & Investment, I gather from the context.

On page 6 of the document, Mr. Tinney, in summarizing his feelings, states the following as the reason apparently against liquidation:

> "Delaware Realty, at least to some extent, facilitates control of the du Pont and General Motors industries. While liquidation would not eliminate this immediately, it would weaken it; more particularly so with the passage of time."

I ask you, Mr. du Pont, if you agree with the statement in this memorandum.

A. Well, I don't—I don't know whether Delaware Realty facilitates the control of du Pont or General Motors or not because I don't think it has any bearing in this situation.

Q. I gather then you disagree with Mr. Tinney's statement, is that correct?

A. Well, I don't know what "facilitates control" means. You either have control or you don't.

Q. Mr. Tinney is addressing the letter to various people, and you are one of them.

A. That is right.

[fols. 6311-6329] Q. Do you disagree with this statement—

Mr. Cox: The witness has testified he doesn't understand what Mr. Tinney meant. I object to the question. I think it is argumentative.

The Court: Overruled.

By Mr. Houchins:

Q. Will you answer the question, please?

A. Will you repeat the question, please?

Q. I asked you, in view of the fact Mr. Tinney has addressed that letter to you, among other people, whether or not you agree with Mr. Tinney's statement.

A. I don't believe I do.

Q. Did you ever indicate your dissent to Mr. Tinney to that statement?

A. Well, no, I don't think I did.

I would like to point out that this question of the dissolution of Delaware Realty is under constant study, and this is just one of two or three studies that have been made since I have been on the Board, and presumably there have been more before that. I don't know.

Q. I am not sure I got your answer. I gather you said you did not indicate your dissent to Mr. Tinney.

A. I don't believe I did because it was just a routine report of Mr. Tinney's thoughts.

Mr. Houchins: If the Court please, I offer this document in evidence as Government's Trial Exhibit No. 1335.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1335.)

[fol. 6330] Max N. Nickowitz, called as a witness on behalf of the Defendants, having been previously duly sworn, resumed the stand, was examined and testified further as follows:

Direct examination (continued).

By Mr. Neitzert:

Q. Are you the same Max N. Nickowitz who testified before in this cause and before this Court on Monday, April 20, 1953, through Wednesday, April 22, 1953?

A. Yes, I am.

Q. And you have been director of sales of the Fabrics Division of the du Pont Company since 1944?

A. Correct.

Q. Now, I direct your attention to du Pont Exhibit No. 228 which has previously been offered in evidence in this case, and which was identified by you when you were last on the stand, a chart or diagram showing the general classes of products manufactured and sold by the Fabrics Division of the Fabrics and Finishes Department of du Pont Company.

[fol. 6331] I ask you to state, Mr. Nickowitz, which of these products are sold in competition with substantially identical products manufactured and sold by the United States Rubber Company?

Mr. Harsha: Can we have the date of this you are referring to?

Mr. Neitzert: 1952 or 1953. We are going to cover the entire period.

By Mr. Neitzert:

Q. Suppose you make your answer cover the current period.

A. Those products are "Fabrilite," vinyl-plastic coated fabrics, rubberized fabrics, "Fairprene," synthetic-rubber coated fabrics, "Fairprene" synthetic rubber sheet stock without fabric backing, protective and water stop "Neoprene" coated fabrics, "Fairprene" industrial cements, "Rug Anchor" and "Teal."

Q. Does the United States Rubber Company make a combined fabric similar to "Teal"?

A. No, they do not. However, they offer in competition with "Teal" a vinyl coated knit back fabric.

Q. Let's just clarify that a little bit. You have already testified that "Teal" is a relatively expensive fabric, Mr. Nickowitz. In the year 1948, for example, what was your price of "Teal" to the Fisher Body Company?

A. It was approximately $2.63 per 54 inch yard.

Q. That was cotton backed?

A. That was cotton backed. They also buy an "Orlon"-faced material which we supply in two colors. One is natural—that is an undyed face—and that product sells for $5.15 per 54-inch yard; and we also supply them with a black [fols. 6332-6358] dyed "Orlon"-faced material which sells for $5.80 per yard.

Q. Well, now, just for a basis of comparison, what was your price of say 5950 grade, 50 inch "Fabrilite" in 1948?

A. You mean 69?

Q. Yes, 6950.

A. That was about $1.35 per yard.

Q. About half the price of cotton "Teal"?

A. Yes.

Q. Is the fabric that the United States Rubber sells in competition with "Teal," a fabric like your "Fabrilite"?

A. Yes, it is vinyl coated.

Q. So that as far as the "Teal" is concerned, the competitive product is really not exactly the same?

A. That is corect.

Q. That is not true, is it, of these other products?

A. Correct.

Q. And am I correct in understanding you to say that beginning with the box on Exhibit No. 228 which bears the name "Fabrilite", vinyl plastic coated fabrics, and extending to the right-hand side of the page, you have competition from the United States Rubber in selling all of those products except Ventube and, in the respects which you explained, "Teal"?

A. And the unsupported vinyl "Fabrilite", the one immediately to the right of the box labelled "'Fabrilite', vinyl plastic coated fabric."

[fol. 6359] Q. Now, you have testified that one of the other fields in which you have lost business to the United States Rubber Company since 1933 is the automotive upholstery field.

A. Yes.

Q. When did United States Rubber Company get into that field?

A. The United States Rubber Company entered the automotive upholstery field in 1934.

Q. Had the United States Rubber Company been selling coated fabrics to the automotive industry prior to that?

A. Yes, they had been selling rubberized products to the automotive industry as far back as I can remember, but the sales to the industry prior to that was for the replacement in the auto top field, and I do not recall that they ever had, prior to that, any original equipment business on top material.

Q. Did the du Pont Company have any appreciable amount of business in the replacement field?

A. That used to be a very large factor back in the days before the closed car. That replacement business was very large, but in recent years it has been a very minor portion of our business.

Q. What was the field of rubber-coated fabrics used by the automobile industry that was important to the du Pont [fol. 6360] Company?

A. Upholstery trim, side curtains and things of that kind?

Q. Is that the field that the U. S. Rubber Company went into for the first time in 1934?

A. Yes, sir.

Q. What success did the U. S. Rubber Company have in that field?

A. Well, they have made a lot of progress in that field. They started in in 1934, and the first time we felt the impact of their competition was with Chevrolet Commercial when they introduced rubberized upholstery material, and got about ten per cent of the business. Prior to that time we had been selling pyroxylin coated fabric, and with the beginning of that, they have progressively moved on in that industry to the point where last year we estimated that the United States Rubber Company had gotten almost as much business as we had.

Our sales to the automotive industry in that category were about, as I recall, five million dollars, and theirs about four million dollars or four million two hundred thousand dollars. We have it in our annual survey.

Q. Your report shows du Pont sales five million and U. S. Rubber four and a half million?

A. Yes.

Q. In 1933, they had none, is that correct?

A. That is correct.

Q. You mentioned a loss of business at Chevrolet Commercial. You said you lost ten per cent, I believe, in 1937. You had previously had all of that business?

A. Yes, sir.

Q. What happened since you lost that ten per cent?

A. Well, the United States Rubber Company are now getting about a third of the light weight truck upholstery material—that is the 26 ounce upholstery material—which is about the same as we were getting. Chevrolet Commercial [fol. 6361] usually has three sources of supply for that material, and currently the United States Rubber Company, Goodall Sanford Company and ourselves each have a third of the business.

The Court: The Court will now recess for fifteen minutes.

(Recess taken.)

The Court: Proceed.

By Mr. Neitzert:

Q. Mr. Nickowitz, you were naming some of the du Pont Company's customers whose business was lost to the United States Rubber in the automobile field, and you mentioned the Chevrolet Commercial Division.

Will you finish with the business lost to General Motors before you go on to the other companies?

A. Following Chevrolet Commercial, General Motors Truck adopted U. S. Rubber Company's material. I might say that it is customary for them to buy their upholstery materials on the light-weight trucks from the same source that Chevrolet Commercial buys from.

They use the same weight construction and pattern.

United States Rubber Company are getting theirs, we believe, approximately the same amount of business as we are getting, which is about one-third of their light truck upholstery.

In 1946 United States Rubber Company succeeded in getting the heavy duty upholstery business from General Motors Truck. Prior to that time GMC had been using leather upholstery material, and there was a shortage of leather, and of course there was also a shortage of fabrics and plastics and platicizer, but United States Rubber had [fols. 6362-6364] been concentrating in an effort to get additional business from General Motors Truck and apparently had enough raw materials with which to take care of that business, and they have had that particular construction from General Motors Truck 100 per cent ever since.

We have tried to get it, to break in there, and we just haven't been successful. They remind us of the fact that United States Rubber took care of them on that material during a period of shortage.

Q. Has United States Rubber gotten in with Fisher?

A. Yes, they supply, and have for the last four or five years, materials to Fisher for station wagons.

The Pontiac and Chevrolet, I believe it is, and then, more recently, they have gotten into Fisher Body in a very substantial way because of the growth of the popularity of the hard top convertible automobile, and Fisner's consumption has increased, and the United States Rubber Company are getting a very substantial portion of that business.

The United States Rubber Company's business in the automotive industry has increased very substantially, and at Fisher and Ford both, also where we have had business [fol. 6365] I have one additional exhibit on a subject in which the Government has shown some interest in its subpoenaing, which I offer as Exhibit DP-507.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 507.)

Mr. Neitzert: Exhibit DP-507 is a letter from the files of United States Rubber Company and is the next exhibit in your book.

This letter bears the stamp of January 6th P. M., 1947, and it refers to the occasion when the United States Rubber Company got the heavy duty truck upholstery business, at the General Motors Truck and Coach Division of the General Motors Corporation.

The first, second and third paragraphs are as follows:

> "This is a very important initial order recently received from General Motors Corporation, Truck and Coach Division, and is a special construction Naugahyde which this fine customer is planning to use in the future as a replacement for genuine leather on their top quality lines of trucks and busses.

"The original trial order consists of a total of 5,000 yards and if this material is as satisfactory as the original samples we submitted, there will be substantial repeat business on this item.

[fols. 6366-6379] "Needless to say, a construction of this kind is rather expensive and represents a substantial investment for our customer with the result that they are going to be critical about the quality and appearance."

Q. Is that the expensive and heavy weight coated fabric that you had been attempting to sell to General Motors 'rucks without success since the date of this exhibit?

A. That is right.

Adjournment.

[fol. 6380] The Court: Proceed, please.

Max N. Nickowitz, called as a witness on behalf of the defendants, having been first duly sworn, resumed the stand and testified further as follows:

Direct examination (continued).

By Mr. Neitzert:

Q. Your Exhibit DP-497, and also your testimony, shows that neither du Pont nor U. S. Rubber went into the business of manufacturing and selling diaphragms, gaskets, washers, packings; shock and insulating packs until after 1933.

When did du Pont first enter into that business?

A. In 1936.

Q. When did United States Rubber enter this field?

A. U. S. Rubber entered that field about three to four years later.

Q. About what is your annual sales of that type of "Fairprene" product at the present time?

A. They are currently going at approximately $3,000,000.00 annually.

Mr. Neitzert: Have you the 1952 competitive reports?

Mr. Harsha: Yes.

By Mr. Neitzert:

Q. What happened when the United States Rubber Company entered this field?

A. Shortly after they entered the field, we noted a concentrated drive on three of our very important customers who were leaders in their respective fields.

[fols. 6381-6520] One was Chefford Master Company of Fairfield, Illinois; the other was Bastian-Blessing; and the third was Fisher Governor.

Q. Were you supplying those companies with all of their requirements at that time?

A. We were supplying all three of those companies with all of their requirements of the type of materials we manufactured.

Q. What success did U. S. Rubber have with their solicitations of this business?

A. They were not successful at Chefford Master in getting any of the business.

In the case of Bastian-Blessing and Fisher Governor, they did succeed in getting some of the business and actually shared the business with us.

Mr. Neitzert: I offer in evidence, if your Honor please, Exhibit DP-497, an excerpt from the trade report dated September 27, 1946, relating to the efforts of the U. S. Rubber Company to obtain business from the Chefford Master Manufacturing Company.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 497.)

[fol. 6521] Offers in Evidence (du Pont).

Mr. Cox: If it please the Court, your Honor has been given a book which contains the exhibits which we should like to offer at this time. The exhibits will be offered in the order in which they appear in the book.

I should like first to direct the Court's attention to the first three of these exhibits which is intended to be treated as a group. They are the exhibits which have been marked for identification as du Pont Exhibit No. 442, No. 443, and No. 444.

Each of them is a technical exhibit, a table or a chart, or, in the case of the first one, it is a graph.

I am offering these exhibits as a group because they are offered to meet the issues that were tendered by three [fol. 6522] statistical exhibits offered by the Government. Those Government statistical exhibits, your Honor, are found in Volume 6 of the printed Government's Exhibits and are numbered 1204, 1205 and 1295. They appear in Volume 6.

(Said documents, so offered and received in evidence, were marked as Defendants' Trial Exhibits Nos. DP-442, DP-443, and DP-444.)

Mr. Cox: With those exhibits before me, I should like first to comment on an exhibit which has been marked du Pont Exhibit No. 442 for identification, which I offer at this time.

Mr. Harsha: Is it agreeable to state for the record at this point that I believe we have the understanding that we may reserve objections on the documents which are being put in now without a witness, in the event we wish to have someone examined later on?

Mr. Cox: That is agreeable to me, if you will state that on the record.

I think perhaps I might amplify that statement, your Honor, by saying that I understand the arrangement is that the Government will notify us hereafter whether it wishes to have a witness produced who will testify with respect to these exhibits, that witness to testify as part of the Government's rebuttal case. But at that time it is also agreed that if it seems desirable, we shall have the opportunity to examine the witness first in a preliminary way to lay his qualifications on the record, and to explain the way in which the chart has been prepared, and that then the witness may be cross-examined by the Government.

Is that it?

[fol. 6523] Mr. Harsha: Yes, I think there is one additional factor.

We reserve the right to call for some of the foundation materials that have been used.

Mr. Cox: We have offered to make available to the Government any underlying material which has been used to make up these charts.

Mr. Harsha: Is that agreeable to the Court, your Honor.

The Court: It is agreeable with the Court.

Mr. Harsha: Thank you.

Mr. Cox: If I may return now to our Exhibit 442, the Court will recall that when the Government Exhibits 1204 and 1205 were offered by the Government—those are exhibits, by the way, headed, "Relative size of du Pont, General Motors and U. S. Rubber in their respective fields"—and I am now directing my remarks only to that part of the Government exhibit that relates to du Pont.

The Court will recall that when those exhibits were offered, I pointed out that it seemed to me that those exhibits created a somewhat inaccurate impression of the size and importance of du Pont in the various industrial fields in which it is engaged.

I based this comment on the fact that the net sales of du Pont, which were shown in the Government exhibit, reflected sales of such commodities as paints, synthetics, and fabrics of various kinds, which were not manufactured and sold by the other companies shown in the Government chart, whose net sales were being compared with those of du Pont.

Our Exhibit 442 is designed to show the other side of [fol. 6524] that picture, that is, it shows that if the du Pont sales are compared with the sales of all other companies that make comparable or competitive goods, in other words, if you look at the entire market, du Pont's position in the market is relatively small.

Our Exhibit No. 442 thus shows value of du Pont's shipments in 1947 was only 8½ per cent of the total value of all the shipments made by all the other companies in the United States with which du Pont competes.

This exhibit, I may say, is based on figures that have been collected and certified by the United States Bureau of Census, and we are prepared to supply that certification to the Government if it requires it.

The du Pont shipments are taken from the reports that are made by the du Pont Company to the Census. The shipments of the other companies are taken from the reports filed by those companies with the Census. The classification of the industries and the determination of the industries in which the du Pont Company participates and in which the other companies participate, those determinations are all made by the Census as reflected in its certification.

So much for our Exhibit 442.

The next exhibit, which is 443, also bears on the general charge made by the Government that the growth of the du Pont Company has in some way been unnaturally and unlawfully fostered by the alleged arrangements that are said to have existed between du Pont and General Motors and between du Pont and U. S. Rubber.

This chart, that is to say, 443, shows the growth in net sales in 1939 and 1948 of du Pont and 27 other chemical companies.

[fol. 6525] So that the comparison can be made on the basis of sizable companies, it has been restricted to companies which in 1948 had sales of more than $20,000,000.00, that is to say, net sales because this chart relates to net sales.

The Court will note that at the end of each bar on this chart, at the righthand side, there is a percentage figure. Now those percentages are computed in this way: The net sales of each company as shown by Moody's Industrial for the year 1948 were compared with its net sales for 1939.

In each case, as might be expected, the net sales in 1948 were greater than the net sales in 1939.

The percentage figures at the right hand side of each bar show the relationship between the amount of this increase and the total net sales of each company in 1939.

If I may take a specific example, in the case of the Dow Chemical Company, which is a well known chemical company, and which is shown in the second bar from the top, the amount by which Dow's net sales in 1948 exceeded its net sales in 1939 was 537 per cent of the net sales in 1939.

Now, it will be noted in this chart that the rate of increase in du Pont's sales was exceeded by the rate of increase of fifteen other chemical companies.

It is also to be noted, I think, that gauged in terms of the percentage increase in sales, du Pont appears slightly more than half way down the list of companies. This suggests that its rate of increase in sales has not been in any way extraordinary or unusual.

The table also establishes, we believe, that the size of the du Pont Company as shown by the Government's Exhibits has not impeded the growth of other major chemical concerns.

[fols. 6526-6531] So much for du Pont Exhibit No. 443, which I offer in evidence at this time.

Mr. Cox: The next chart, the third one, is du Pont Exhibit No. 444, and that is a comparatively simple chart which has to do simply with the subject of paints.

This again is based on figures compiled by the Bureau of Census. This chart compares du Pont shipments with paints and varnishes, and that includes lacquers, with those of the total industry.

The left hand side of the chart compares du Pont shipments with those of the total industry in dollar amounts in 1939 and 1947.

On the right hand side of the chart, du Pont's participation in the total shipments of the industry is shown in a percentage relationship.

It will be noted that in both years 1939 and 1947, du Pont's share of the total paint and varnish industry was relatively small, being 9.5 per cent in 1939, and 8.1 per cent in 1947, and that between 1939 and 1947 its position in the industry actually decreased slightly, that is to say, from 9.5 to 8.1 per cent.

So much for our Exhibit DP No. 444, which I now offer in evidence.

Mr. Cox: The next exhibit is 446, which I now offer in evidence.

(Said document so offered and received in evidence was marked Defendants' Trial Exhibit No. DP-446.)

[fol. 6532] Mr. Cox: When we rose for lunch I had finished my comments on our Exhibit No. 450 which is an exhibit relating to du Pont sales to United States Rubber, and I turn now to a similar exhibit which is the next exhibit in the book, du Pont Exhibit No. 445, which I now offer.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 445.)

Mr. Cox: Du Pont Exhibit No. 445 is a similar chart, similar to the preceding chart, except that it covers sales by du Pont to General Motors of the same seven-year period.

This table is prepared in the same form as the United States Rubber table with one exception: In the case of the preceding table which related to United States Rubber, a single figure was shown for the Fabrics and Finishes Department as a whole, and in the case of General Motors, because of the importance of the volume of the testimony [fol. 6533] that has related or was related separately to fabrics and finishes, we have broken down the sales figures in the case of the Fabrics and Finishes Division to show the sales of fabrics separately from the sales of finishes.

As in the case of the table showing sales to United States Rubber, the totals for each of the defendants and for all of the defendants, I should say, are shown at the foot of the table, a total for each year relating to sales of all departments.

It will be noted from looking at those totals that most of the sales to General Motors were between three and three and a half per cent of du Pont's total sales, and that at no time during this period were the sales to General Motors more than 4.1 per cent of du Pont's total sales.

This table, like the Rubber table, is based upon materials supplied the government during the course of the grand jury investigation, and which is now in the government's possession, with the exception of the figures for the last five months of 1948 which were collected for use at this trial.

I think that with those comments I shall leave that exhibit and go to the last of these statistical exhibits that I comment on at the present time.

This next and last exhibit I shall comment on is du Pont No. 451, which I offer at the present time.

That is the next exhibit in the book.

This exhibit, may it please the Court, is the one marked 451, and has particular relevance to the charge made in Paragraph 30(b)2 of the amended complaint.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 451.)

[fol. 6534] Mr. Cox: That paragraph charges that as a part or as the result of a conspiracy, du Pont expanded its facilities so as to enable it to produce the types and quantities of products that were used in substantial quantities by General Motors and by United States Rubber.

Now, this table, 451, is confined to products which were new to the du Pont Company after 1928, or since 1928, or, as the chart table defines the products, it is confined to products the du Pont Company added to its line after 1928, or which were produced and sold commercially in quantities for the first time after 1928.

The total sales of those new commodities in typical year, that is 1950, is shown, and that figure is $852,465,000. Those are the total sales made to all purchasers by the du Pont Company in 1950, of these new products.

The next two figures show the total sales of the new products made in 1950 to General Motors and to United States Rubber. The sales to Genueral Motors were $13,057,000, or 1.5 per cent of the total sales of new products, and the sales of the United States Rubber being $15,607,000, or 1.8 per cent of the total sales of the products.

This year, 1928, was selected as the breaking point of the products because the company, for other purposes unconnected with this lawsuit, had made a study of its products that were new to its sales efforts after 1928. We assume that that is a fair year, so far as the Government's purposes go, because we assume that it is the Government's position that by 1928 the conspiracy was in full flower.

Now, may it please the Court, that completes the comments I wish to make on the physical exhibits. We have [fol. 6535] additional documentary evidence which has been classified according to the subject matter, which we should like to offer at this time.

We have divided that among ourselves more or less in accordance with the division that was made for the presentation of the evidence. So at this point Mr. Gribbon will take over the presentation of evidence and present some documents relating to certain other specific commodities.

Mr. Gribbon: May it please the Court, as Mr. Cox has said, we have divided the balance of exhibits we propose to introduce this afternoon in accordance with the issues or incidents in the case that they pertain to.

I might say at the outset that we have no intention of reading all of these documents. Our intention, rather, is to relate these documents to the incidents and to confine ourselves in reading or describing them only to so much of the document as is necessary to point out their particular relevance in the case.

The first group of documents are found in the tab in your Honor's book under Flint Varnish.

There are seven documents in this book that have been numbered for identification with the numbers DP-217, 218, 460, 219, 220, 216, and 221.

All of these exhibits, if the Court pleases, relate to the Flint Varnish and Color Works. That company, the Complaint alleges, was acquired by the du Pont Company in reliance upon an understanding that du Pont would be the primary supplier of General Motors for paints, varnishes, and lacquers.

The Government has introduced in evidence an exhibit which has been identified as Government Exhibit 277, a [fol. 6536] report by the du Pont Development Department in April, 1918, relating to the acquisition of the Flint Company.

At page 2 of that exhibit, there is reference to a report of the development department, which was in process, in fact, was completed but not typed, and Government Exhibit 277 states that that report will recommend that du Pont's paint and varnish development, which had been in progress since 1916, be along industrial lines.

I now offer in evidence Exhibit DP-217, which is the first seven pages of the Development Department report referred to in Government's Exhibit No. 277, which was under preparation at the time that the Flint Company was acquired.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 217.)

Mr. Gribbon: I do not propose to read this exhibit, but simply to point out that in this exhaustive study of how du Pont should proceed in the paint and varnish industry, there is no mention that General Motors would be a profitable outlet for paint and varnish, nor is there mention that the automotive industry, generally speaking, would be such an outlet.

I next offer Exhibit DP-218 and Exhibit No. DP-460.

These two exhibits relate to the circumstances of du Pont's acquisition of the Flint Varnish & Color Works in the spring of 1918, and more particularly to the allocation of the minority interest in the Flint Company.

(Said documents, so offered and received in evidence, were marked du Pont Exhibits No. 218 and 460.)

[fol. 6537] Mr. Gribbon: Exhibit No. 460 states the role that the du Pont people expected Mr. Mountain, the president of the Flint Company before du Pont acquired the majority interest in it, would be expected to play in the future operations of the Flint Company.

Reading the second paragraph of du Pont Exhibit No. 460, it states:

> "It is understood that Mr. W. W. Mountain will be retained as President of the Flint Varnish & Color Works at the same salary which he is getting at the present time; that he will be in full charge of this Company the same as he is today. There is no question but what Mr. Mountain is a very valuable man, and that through his very close connection with Mr. Willys, Mr. Durant, and several other of the large automobile people, he holds a very large amount of business. He is also a very prominent man in the vicinity of Flint, Michigan, being president of the Chamber of Commerce of that city, and also prominent in other affairs."

Exhibit No. 218 encloses a letter by Mr. R. R. M. Carpenter which ascribes to Mr. Mountain, the same Mr. Mountain described in Exhibit No. 460, the division of the minority stock in Flint to Mr. McLaughlin, Mr. Willys, Mr. Mountain and Mr. Durant for the account of General Motors.

The record shows, if the Court pleases, that Mr. Lammot du Pont became chairman of the Board of the Flint Company and actively solicited business for Flint from at least some of the General Motors units.

Government's Exhibits Nos. 442 and 444 through 449 consist of correspondence between Mr. du Pont and Mr. [fol. 6538] Rice and others in the management of the Cadillac Division.

We offer in evidence Exhibit DP 219, which is the next exhibit in your Honor's book, which fits chronologically into the exhibits that the Government has offered, between Government's Exhibits 446 and 447.

(Said document so offered and received in evidence was marked Defendant du Pont Exhibit No. 219.)

Mr. Gribbon: Your Honor will see on the first page just below the quotation, the statement that: "Mr. Sohlinger—" who was a du Pont salesman—says they do not give— "they" mean Cadillac.

(Reading):

> "—the Flint Company a chance to compete for their enamel business."

We next offer in evidence Exhibit DP 220. This is a memorandum by Mr. Lammot du Pont to Mr. Grubb, who was the general manager of the du Pont paint operations.

(Said document so offered and received in evidence was marked Defendant du Pont's Exhibit No. 220.)

Mr. Gribbon: The letter undertakes to list the various divisions of General Motors and to set forth those that are not buying finishing varnish from Flint.

Your Honor may recall that when Mr. Lawrence Fisher testified, he explained that finishing varnish was the last [fol. 6539] coat applied in the old varnishing system before it was supplanted by "Duco." That was at page 1010 of the transcript.

This letter, it will be noted, was written in May of 1923, which would be five years after the Complaint alleges there was an agreement that General Motors was to buy all or substantially all of its requirements of paints and varnish from du Pont.

I should like to read the second paragraph of this report, written by Lammot du Pont:

> "I note that Buick Motor Company, Flint; Oakland Motor Company, Pontiac; Olds Motor Works, Lansing and Cadillac Company, Detroit, do not use our finishing varnish, and apparently the other divisions have no use for a finishing varnish.
>
> "It thus appears that we are not selling any finishing varnish to any GMC unit. There must be a reason for this. Is it because our finishing varnish is not up to the standards of our competitors? I think this should be looked into carefully."

This Exhibit 220 might be compared with an exhibit Government's Exhibit No. 420, which is another and somewhat more elaborate report on the status of du Pont's sales to General Motors written in 1921.

A comparison of that report will show that in the intervening two years, du Pont had lost business at some of the General Motors' units:

The record, particularly Exhibits 434, Government's Exhibit No. 434, and Exhibits Nos. 437 through 441, show efforts by Lammot du Pont, Chairman of the Board of [fol. 6540] Flint, to interest the Fisher Body Company in the use of Flint products.

In this connection, we offer DP Exhibit No. 216, which is a schedule of the Flint Varnish & Color Works' sales to the Fisher Body Company in 1923 and 1924, as well as sales to the Buick Company.

This table, we suggest, establishes that the Flint Company, in both of those years, sold only trifling amounts of finishes to Fisher Body.

(Said document so offered and received in evidence was marked as du Pont Exhibit No. 216.)

Mr. Gribbon: By comparing the Fisher purchases with those of Buick, and also comparing the production of the two divisions, it is apparent that the Fisher Company could have been buying but a very small percentage of its requirements of finishing products from Flint.

Finally, in connection with Flint, we offer Exhibit DP-221.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 221.)

Mr. Gribbon: In its opening statement, the Government asserted that the Flint operation was highly profitable to the du Pont Company because, following du Pont's acquisition of the Flint Company, du Pont enjoyed a market in General Motors that was protected against any competition.

Those references will be found at the transcript pages 56 and 57.

[fol. 6541] Now, quite apart from the question of whether there was any protected market, which we met with other evidence, we offer DP Exhibit No. 221 to show exactly what the profit situation of the Flint Company was in the period 1916 through 1924 when it was dissolved.

It will be seen that in the years following du Pont's acquisition of a majority interest in Flint, which was 1918, the Flint Works earned less money than they had in any of the three previous years, and actually lost money in two of those years; and that further it wasn't until 1923 when General Motors and the entire automotive industry had greatly expanded that Flint was able to earn as much money as it had in 1916, two years before du Pont had any interest in Flint.

If the Court please, we now turn to the next section in the volume that has been given to you. We wish to introduce at this time three exhibits relating to du Pont's efforts to sell maintenance paint to the Hyatt Division of General Motors.

I offer in evidence Exhibits DP 225, 226, and 227. These exhibits merely fill out the correspondence which the Government has introduced at Nos. 311 through 314.

(Said documents so offered and received in evidence, were marked Defendant du Pont Exhibits Nos. 225, 226 and 227.)

Mr. Gribbon: The next group of documents, if the Court pleases, relate to the subject of Pyralin.

Pyralin was du Pont's trade name for transparent celluloid. In paragraph 39 of the Complaint it is alleged that a [fol. 6542] purpose of the General Motors investment in 1917 and 1918, at least, in part, was to secure a protected market for the pyralin business which du Pont had entered into in 1915.

I believe the record also shows that this product Pyralin was used rather extensively in the '20's on the windows of open cars, detachable windows of open cars.

I offer in evidence Exhibits DP 421 and 462. Those are tables, the first two that appear in your Honor's book.

(Said documents so offered and received in evidence were marked Defendant du Pont Exhibits 421 and 462.)

Mr. Gribbon: We have been unable to develop full records for this early period. We have put together what has been available.

We believe that Exhibit 421 shows that whatever sales of pyralin du Pont was making to the General Motors units were relatively small compared to its total sales of pyralin to all customers.

This shows total sales and sales to the Buick division and the Chevrolet division of General Motors for the period 1916 through 1932.

Exhibit DP 462 shows that ~~those two divisions,~~ Buick and Chevrolet, from 1918 through 1930, accounted for upwards of 75 per cent of General Motors production of open cars, and it was the open cars only that used the pyralin at that time.

So that it is our belief that the sales to these two divisions represent a very large percentage of total sales to General Motors.

It will be seen that in no year throughout that period did sales of pyralin to these two divisions approach a half mil- [fol. 6543] lion dollars, and that following 1925 there was no year in which sales were in excess of $200,000 going down to 1932 when sales trickled off to about $7500.00.

I introduce next Exhibits DP-423, 424, 425, 426, 427 and 428, which follow along in your Honor's book.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 423 through 428, both inclusive.)

Mr. Gribbon: These exhibits are excerpts from reports of the Arlington Company, which was the subsidiary through which du Pont operated its pyralin business.

They show that from 1915, when du Pont acquired Arlington, through 1917, when the General Motors investment took place, that rather than requiring a protected market, the Arlington Company was prospering.

Each of these reports shows that orders are running ahead of capacity.

Typical of the reports is Exhibit No. 426, where, on the second page, there is a paragraph relating to sales of pyralin to the automobile trade.

This is in August of 1916. The statement is made:

> "Our relations with the trade in this line are on a highly satisfactory basis, the Willys-Overland Com-

pany being the only large user with whom we have not established a satisfactory connection."

Exhibit No. DP-428, which was written in June of 1917, a few months before the du Pont Company's investment in General Motors, is in the same vein, to the effect that [fol. 6544] the automobile trade is indicating well in advance its requirements and they show heavy demand.

Trade conditions remain about the same with demands for our material beyond our ability to supply.

Next, your Honor, I introduce DP Exhibit No. 429. I suggest this is a particularly significant document in view of the charges in Paragraph 56 of the complaint.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 429.)

Mr. Gribbon: Paragraph 56 of the complaint charges that beginning in 1917 with the General Motors investment, it was agreed that General Motors would buy from du Pont all, or substantially all, of the products manufactured by du Pont.

This Exhibit No. DP 429 is a report dated January 22, 1918, and is therefore contemporaneous with the investment by the du Pont Company in General Motors which was authorized in December of 1917 and carried out in the first few months of 1918.

The report, Exhibit No. 429, was written by Lammot du Pont, a member of both the Finance and Executive Committees of the du Pont Company that approved the investment in General Motors.

The report relates to the question of whether the Arlington Company, which was making pyralin, which was at that time used in the automobile trade among other uses, whether the Arlington Company should expand its capacity.

As is stated on the first page of the report, second paragraph:

> "The question whether we build an additional plant for transparent, or any other quality, depends prima- [fol. 6545] -rily on the expectation of an increased demand a year or more hence, or after the war. We are now disposing of the entire output of the present plant."

Lammot du Pont, in recommending with respect to this question of whether there was any reason to foresee an increased demand for pyralin, concludes, as is shown on page 3 of the exhibit, in the next to last paragraph:

> "As stated before, the question depends on the Sales Department's estimate of demand for Pyralin after the war. In the summer of 1916—"

Now that was better than a year before du Pont's investment in General Motors.

> "In the summer of 1916, Mr. Burckel made a forecast of the demand for Pyralin for several years ahead. This forecast did not show any demand in excess of our present capacity for several years to come. I do not know of any reason justifying Mr. Burckel making a radical change in his forecast of 1916."

I now introduce on the subject of pyralin, Exhibits numbered DP-430, 431, 432, 433, 434 and 435.

I suggest that these exhibits be read in conjunction with Government's Exhibit No. 419.

(Said documents so offered and received in evidence were marked Defendant du Pont Exhibits Nos. 430, 431, 432, 433, 434 and 435.)

Mr. Gribbon: In Government Exhibit No. 419, there is a statement attributed to the sales manager of du Pont's [fol. 6546] pyralin sales to the effect that according to du Pont's estimate at that time, August of 1921, it was selling the General Motors units their requirements of pyralin.

Now these exhibits, 430 through 435, cover a period from 1923 through 1926 when pyralin was being used in the automobile trade. They contain statements showing similarly that at various times du Pont was supplying the entire requirements of various automobile companies in addition to the General Motors units, including Nash, Studebaker, Reo, White, Maxwell and Chrysler.

In addition, Exhibit DP-435 shows substantial orders from the Ford Motor Company.

Finally, on the subject of pyralin, I offer in evidence Exhibit DP-422. This is a table showing du Pont sales of pyralin to General Motors and to all customers in the period 1946 through 1950.

(Said document so offered and received in evidence was marked Defendant DP-Exhibit No. 422.)

Mr. Gribbon: Now, it is apparent that the use of pyralin for automobile windows in closed cars has long since passed. The only use of it in the automobile trade is for ornament, trim, things of that kind.

This table shows that sales of pyralin currently and in the past several years are most insignificant in terms of du Pont's sales or in terms of General Motors requirements.

This indicates that du Pont sold over $5,000,000 worth of pyralin in 1950, of which a total of $9,000 was sold to General Motors.

Turning, if the Court please, to the next subject, which I believe is labeled "Ammonia—New Departure", Government Trial Exhibits 371 through 374 consist of a request that was made upon Mr. Pratt, vice president of General Motors, by a friend of his in du Pont's ammonia department, asking Mr. Pratt if he would inquire why du Pont had lost business with the New Departure division, one of the accessories divisions under Mr. Pratt's jurisdiction. [fol. 6547]

I would like to offer in evidence DP Exhibit No. 441. This is a table showing du Pont's sales of ammonia and all ammonia products to the New Departure Manufacturing Company in the period 1933 through 1938.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 441.)

Mr. Gribbon: The Government's Exhibits to which I refer are dated in 1934, and it will be seen that in the year following the request—let me say first that this table shows the insignificance of the volume of sales that were being discussed at that time in this correspondence, but it also shows that in the year following Mr. Pratt's letter to the New Departure people, that is 1935, and in the succeeding years, du Pont actually sold less ammonia to New Departure than it had in the year before the request was made, 1933.

The next subject has to do with ethyl alcohol. Government's Exhibits Nos. 315 through 318 disclose an inquiry by the du Pont Development Department to General Motors asking General Motors' requirements or usage of ethyl alcohol because du Pont was investigating the question of entering upon the manufacture of ethyl alcohol.

In Government's Exhibit No. 316, Mr. Pratt states that General Motors' requirements of ethyl alcohol are com- [fol. 6548] paratively small, and Exhibit No. 318, Mr. Lynah states these requirements to be approximately 125,000 gallons per year.

I offer in evidence DP Exhibit No. 438, which is an excerpt of a letter from Mr. Brown of the du Pont Company to Mr. Kielberg of the United Molasses Company for the purpose of showing, as is shown in the third paragraph of this exhibit, the capacity of the plant that the du Pont Company erected following its study of possible requirements for ethyl alcohol.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 438.)

Mr. Gribbon: The third paragraph indicates the plant as originally constructed had a capacity of approximately 8,000,000 gallons of marketable alcohol per year.

That exhibit we suggest offers a basis for concluding to what extent, if any, General Motors' possible requirements of 125,000 gallons per year might have had upon du Pont's decision to enter upon the manufacture of ethyl alcohol.

Further on the subject of ethyl alcohol, Government's Exhibits Nos. 328 and 329 reflect an effort by du Pont, once it entered into the manufacture of ethyl alcohol, to secure some of General Motors' business.

In Trial Exhibit, Government's Exhibit No. 329, Mr. Pratt referred the du Pont's sales proposal to the General Purchasing Committee.

Mr. Gribbon: I offer in evidence Exhibits DP 439, 436 and 437.

[fol. 6549] (Said documents so offered and received in evidence were marked du Pont's Exhibits Nos. 436, 437 and 439.)

Mr. Gribbon: DP Exhibit No. 439 shows that on September 30th, 1927, the General Motors Purchasing Committee rejected a proposal by the du Pont Company for a contract covering General Motors' requirements of denatured alcohol, and it might be noted that not only du Pont was bidding for this business, but two other companies, Michigan Alkali and United States Industrial Alcohol Company.

Exhibits DP 436 and 437 follow along in time, 439, and indicate that du Pont came back and suggested that there were price attractions to General Motors in buying ethyl alcohol from du Pont, which is Exhibit No. 436, and 437 indicates the final rejection by the General Purchasing Committee of du Pont's request for a contract to supply ethyl alcohol.

The next group of documents, if the Court pleases, relate to the subject generally of du Pont's sale of finishes to General Motors following the discovery, adaption and introduction of "Duco."

I offer in evidence DP 461 which reflects judgment by the Dunham Body Company in late 1922 of the value of "Duco" as an automobile finish.

(Said document so offered and received in evidence was marked Defendant DP Exhibit No. 461.)

[fol. 6550] Mr. Gribbon: I offer in evidence Exhibit DP 224, which has to do with a contract between General Motors and the United States Industrial Alcohol Company.

(Said document so offered and received in evidence was marked Defendant DP Exhibit No. 224.)

Mr. Gribbon: Government's Exhibit No. 469 states that a contract was made by General Motors with United States Industrial because that company had quoted a lower price on thinner than du Pont was prepared to give, and an exhibit, GM-155 shows that this contract with the United States Industrial was not renewed in June of '47, after it had run for only six months.

Now, during the cross examination of Mr. Lynah, Government's counsel alluded, at page 2762 of the transcript, to the failure of General Motors to renew this contract, and commented, "Well, they had served their purpose, hadn't they?"

We offer Exhibit DP 224 to show the reasons why the general purchasing committee rejected the United States Industrial Alcohol's offer to renew the contract.

The first two paragraphs of that exhibit, 224, show that du Pont quoted a lower price than did U. S. Industrial Alcohol, and for that reason was awarded the contract.

I offer in evidence Exhibit No. 223, DP 223, the next exhibit in your Honor's book, which is an answer to a letter that has already been introduced in evidence by the Government as Government's Exhibit No. 495.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 223.)

[fol. 6551] Mr. Gribbon: This letter has to do with the super discount, and in it one Charles Blake, writing to the du Pont Company with respect to super discount, states in the second paragraph:

> "We note that you prepared the volume of purchases within a few days after the termination of the contract and we are wondering if you are in a position to let us have the information at the end of each month. We have several contracts of this character and at the end of every month we make a quantity discount performance schedule which is sent to all divisions."

The next group of documents, if the Court please, have to do with the subject of brake fluid, Exhibits DP 383 through 392, and 395 through 397, along with the testimony of witnesses Weber and Walker, reflect in some detail the continuing efforts by the du Pont Company from 1934 to the war, to interest the General Motors divisions, car divisions, the research people and the Delco Division in the use of du Pont's brake fluid.

Three documents which have been identified as Exhibits DP 393, 394 and 398 are reports by Mr. Walker and were inadvertently omitted in the presentation of the brake fluid portion of the case.

I now offer them in evidence.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 393, 394, and 398.)

[fols. 6552-6558] Mr. Gribbon: And to supplement the evidence on brake fluid, I offer in evidence Exhibits DP 399 and 447.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 399 and 447.)

Mr. Gribbon: These exhibits reflect the volume of brake fluid that the Delco Division of General Motors compounded and distributed to the Car Divisions, the using divisions of General Motors during the period 1936 through 1951. Your Honor will recall that the evidence shows that in lieu of buying brake fluid from du Pont, the General Motors' divisions preferred to have the Delco Division compound its own brake fluids.

We offer Exhibit DP-399 to show the order of magnitude of the market for brake fluid in General Motors, du Pont was shooting at in the sales efforts that were related by the Witnesses Walker and Weber.

And we offer Exhibit No. DP-447 as indicating the degree of success that du Pont had in selling the very same brake fluid that General Motors rejected, to customers other than General Motors.

It will be seen that in 1950 du Pont was selling brake fluid at an annual rate of in excess of $3,000,000, all of it to customers other than General Motors.

Exhibit DP No. 399 shows that General Motors' usage of brake fluid in 1950 and 1951 was in the neighborhood of two or three million dollars.

[fol. 6559] Mr. Horsky: I have a very brief number of documents, and the first two relate to a matter of safety glass, du Pont's brief and unsuccessful effort to sell safety glass to General Motors through the Duplate Corporation.

The first one which I offer as du Pont 449 should be read with du Pont's Exhibits 160 through 171, and it adds one further fact, namely, that in 1931 General Motors, which theretofore had manufactured some proportion of its own requirements of safety glass, abandoned its safety glass and turned to outside sources of supply.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 449.)

In connection with that same matter, I should like to offer du Pont 463, which is a schedule of the five years for 1927 to 1931 during which du Pont was offering safety glass through Duplate, and during which also General Motors was manufacturing some proportion of its own requirements.

(Said document so offered and received in evidence was [fol. 6560] Mr. Horsky: This is the sales by du Pont through the Viscoloid Company of the plastic filler which was necessary in the manufacture of safety glass, to the Fisher Body Division of General Motors, and it shows that sales of that material by du Pont to General Motors were inconsequential.

The last two exhibits relate to tetraethyl lead.

I should like to offer du Pont Exhibit No. 448 as a further explanation, and in further support of a letter which has been introduced by the Government as Government's Trial Exhibit No. 711 from Irenee du Pont.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 448.)

Mr. Horsky: Without going into the details, this is a petition and power of attorney and the specifications of a patent application prepared by the representatives of the American Research Laboratories, which your Honor may recall was the outfit in Denver which Mr. Webb considered briefly in 1926 as a possible second source of supply for tetraethyl lead for the Ethyl Corporation.

It is significant in this case that the patent application reveals by the specifications, and particularly in the last paragraph on page 3, which I need not read, that Mr. du Pont was correct in Government's Trial Exhibit No. 711, in pointing out that this method by which these people proposed to produce tetraethyl lead involved the use of bromine, and therefore did not avoid the bromine shortage problem which was inherent in the earlier problems of production of tetraethyl lead by the du Pont Company.

The last exhibit that I have is a corrected version of [fol. 6561] Defendant's Trial Exhibit No. DP-119. The numbers are unchanged.

We discovered, after the exhibit was introduced, that the earlier exhibit had purported to state these figures as du Pont production of tetraethyl lead. It should have been "du Pont sales of tetraethyl lead," and this exhibit has a corrected caption.

I regret to say, however, that in correcting that aspect of the exhibit, we still omitted to correct one other aspect of the exhibit which I pointed out at the time the original one was put in, namely, that the figures in the middle column are not a poundage figure, but are thousands of pounds

The caption should have in parentheses "In thousands of pounds."

Other than that, this is the same as the prior exhibit.

Mr. Scott has the balance of the exhibits, your Honor.

Mr. Scott: The few remaining documents relate to certain episodes to which there is already evidence in the record, and tend to amplify the circumstances surrounding those episodes.

The first document, No. DP 452, is a chart which we have prepared primarily for the convenience of the Court in appreciating the rather complicated evidence which now is in the record, as to the permanent financing of du Pont's emergency purchases of General Motors' stock in the latter part of 1920.

Your Honor will recall that there is evidence in the record as to the emergency conditions in the latter half of [fol. 6562] 1920 which led first to Mr. Durant's personal difficulties, and also to the failure of the English investors to take up some $15,000,000.00 of commitments under the new common stock issue.

In connection with both of those episodes the du Pont Company entered into very substantial commitments which were financed on a temporary basis at that time, in the spring of 1921, and these temporary commitments proved to be a blot on the credit of General Motors, and were ultimately taken up through the application of proceeds of the $35,000,000.00 bond issue, put out by the du Pont Company itself.

This chart shows on the lefthand side the total outstanding commitments which required permanent financing, and on the righthand side you will note the application of the proceeds of the du Pont $35,000,000.00 bond issue.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 452.)

Mr. Scott: I now offer in evidence DP 453. DP 453 is a memorandum over the signature of Pierre S. du Pont, president of General Motors, and on the second page you will note under the printer's note, the memorandum was dated February 16, 1923. This memorandum was prepared in the early part of 1923, in connection with the distribution of bonus benefits under the General Motors Bonus Plan.

Your Honor will recall that the record shows that the General Motors Bonus Plan was originally adopted in [fol. 6563] 1918, in that year, and that for the year 1921 no bonuses were earned; that during the year 1922 there was a change in the form of administration, and this represents the first distribution after Mr. Pierre du Pont became president.

I offer in evidence DP 453.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 453.)

Mr. Scott: DP 454 is a letter signed by Irenee du Pont, president of du Pont Company, addressed to the Finance Committee of the du Pont Company, and is introduced to supplement the series of documents which are now in evidence relating to the discussions within the du Pont Company of the adoption of the proposed Managers' Securities Plan.

I offer in evidence DP 454.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 454.)

Mr. Scott: DP 455 is a letter to the stockholders of General Motors signed by Alfred P. Sloan, Jr., president of General Motors, and is the letter which submitted to the stockholders of General Motors the Managers Securities Plan.

Annexed as a part of that exhibit is the plan itself, which is in the form in which it was submitted, and finally adopted.

I offer DP 455 in evidence.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 455.)

[fol. 6564] Mr. Scott: DP 458 is an excerpt from the minutes of meeting of the Finance Committee of the du Pont Company, dated November 4, 1929. It relates to the consideration of the problem of finding ways and means to convert the Managers' Securities stock into the common stock of General Motors Corporation.

There is now in evidence in the record that in the year 1930 there was a plan developed for partial distribution.

I offer DP 458 in evidence.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 458.)

Mr. Scott: DP 456 is an excerpt from the meeting of the Board of Directors of the du Pont Company held on March 21, 1932.

This document, and also DP 457, relates to the episode which is now a matter of record, that in the depression year of 1931 the du Pont Company purchased 300,000 shares of stock from Fisher Brothers.

These two documents are intended to supplement the documentary record relating to that episode.

The first document, if your Honor will note, indicates that this was intended from the outset to represent a temporary investment, and the second document, which is an excerpt from the meeting of the Finance Committee held on May 15, 1933, your Honor, you will note, carries out the same theme, and indicates that except for a very small portion of the 300,000 shares which was transferred to the permanent investment account, it was treated as a simple investment, and the record shows, independent of [fols. 6565-6567] those documents, that ultimately a portion was sold, and the balance was distributed to the stockholders as a dividend.

I offer those two documents, namely, Exhibit Nos. DP 456 and 457 in evidence.

(Said documents, so offered and received in evidence, was marked du Pont Exhibits Nos. 456 and 457.)

Mr. Scott: The last and final document, DP 459, relates to the final episode in connection with Managers Securities, which was the discussion of General Motors Securities Company.

It now appears from the record that this company was dissolved in 1938.

This document is a memorandum prepared in March of 1937 in the Treasurers Department of the du Pont Company, and sets forth the tax reasons, first, for originally holding the General Motors stock via a wholly owned corporation, and finally, the tax reasons for dissolving it at that time.

I offer in evidence DP 459.

(Said document so offered and received in evidence was marked duPont Exhibit No. 459.)

[fol. 6568] Walter S. Carpenter, Jr., called as a witness for the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination.

By Mr. Cox:

Q. You are Walter S. Carpenter, Jr.?
A. I am.
Q. And you live in Wilmington, Delaware?
A. I do.
Q. And you are now Chairman of the Board of Directors of the du Pont Company?
A. That is correct.
[fol. 6569] Q. How long have you been Chairman of the Board of Directors of the du Pont Company?
A. Since 1948.

Mr. Cox: At this time I should like to offer du Pont Exhibit No. 464, which is a tabulation of the positions held by Mr. Carpenter in the du Pont Company from 1909 to date.

(Said document so offered and received in evidence was marked du Pont Trial Exhibit No. 464.)

By Mr. Cox:

Q. I think, perhaps, Mr. Carpenter might be given a copy of this exhibit.

Mr. Carpenter, this Exhibit, du Pont 464, shows that you were first regularly employed by the du Pont Company as a clerk in the purchasing department in Chile in December, 1909.

Had you had any kind of employment of any sort with the du Pont Company before that date?

A. In the three previous summers during college vacations, I worked on explosive plants in the du Pont Company in the State of New Jersey.
Q. Where did you go to college, Mr. Carpenter?
A. I went to Cornell University.
Q. Did you graduate?
A. No, I did not. I left there my senior year to go to Chile.

Q. Except for the slight addition which you have just given to us, does this tabulation on the basis of your present recollection accurately reflect the positions you have held with the du Pont Company?

A. It does, yes.

Q. This exhibit, Mr. Carpenter, shows that after having [fol. 6570] been employed in Chile, that you then held various positions in the Development Department of the du Pont Company; that you thereafter became treasurer, and that in 1940 you became president, the position which you held until January, 1948.

I should now like to direct your attention to your position as treasurer of the du Pont Company, and I ask you what your duties were as treasurer of the company?

A. The treasurer of the company has general charge of the Treasury Department, which in turn comprises Auditing and Accounting and the care of the funds and securities of the company, the relationships with the Internal Revenue Department, the preparation of financial and statistical data for the Finance Committee in connection with dividends, the payment of dividends, the forecasting of the cash requirements of the company, the recommendations with respect to provision for additional securities, and general financial matters concerning the company.

Q. Those were your duties as treasurer, a position which you held from January 10,1921, to May 16, 1926?

A. Yes.

Q. After May 16, 1926, was there a change in the nature of your duties, Mr. Carpenter?

A. Well, I resigned from the treasurership and became vice president in charge of finance. In that position you are not in direction of the immediate affairs of the Treasury Department, but you have general supervision of the financial affairs of the company.

Q. Then on May 20, 1940, you became president?

A. Yes.

Q. What were your duties as president, Mr. Carpenter?

A. The duties of the president—he is the chief executive [fol. 6571] officer of the company, and he has general supervision and direction over the various affairs of the company and the carrying out of any wishes or orders of the two committees, the primary committees of the Board of Directors, namely, the Executive Committee and the Finance Committee.

And, of course, he has supervision of the general organization of the company.

Q. You continued to serve as president until January 19, 1948. At that time you became chairman of the Board of Directors, is that correct?

A. That is correct.

Q. What are your duties as chairman of the Board of Directors?

A. The chairman of the Board of Directors presides at the meetings of the Board of Directors and also at the stockholders' meetings.

He provides that the various committees of the Board are equipped with manpower and attempts to keep in general touch with the company affairs.

Q. Who succeeded you as president of the du Pont Company?

A. Crawford Greenewalt.

Q. Who elected Mr. Greenewalt president of the company?

A. He was elected by the Board of Directors.

Q. Who recommended him to the Board?

A. I did.

Q. Will you tell us why you recommended Mr. Greenewalt as your successor?

A. Mr. Greenewalt had served a valuable and brilliant career with the du Pont Company for about 25 years, I think, at that time. He had had experience in a number of departments in the company. He had been associated for a long while in connection with the research work, and in that [fol. 6572] capacity had been associated with a number of very important developments of the company.

He also had experience in the Development Department and in several of the industrial departments. During the period of the war, when we were so busy in connection with our atomic program, he served in a very important capacity in that connection.

He later became assistant general manager of one of the industrial departments, and from that position was selected for a position on the Executive Committee and a vice-president.

After a short time he was made vice-chairman of the Executive Committee and later, when he became president, he was also chairman of the Executive Committee, which he is at the present time.

Q. Mr. Carpenter, in one of your previous answers you have referred to the two committees of the Board of Directors of the du Pont Company, namely, the Executive Committee and the Finance Committee. I should like to ask you some questions about those committees and about the Board of Directors.

You have been a member of the Board of Directors, this Exhibit No. 464 shows, from May 1, 1919, to date. During that period have you regularly attended the meetings of the du Pont Board of Directors?

A. Yes.

Q. This same exhibit shows that you have been a member, or that you were a member, of the Executive Committee from May 1, 1919 to January 19, 1948; that from April, 1926 to May, 1940, you were vice-chairman of that committee, and from May 20, 1940 to January 19, 1948, you were chairman of that committee.

[fol. 6573] During that period of time did you regularly attend the meetings of the Executive Committee?

A. Yes, I did.

Q. The same exhibit shows that you have been a member of the Finance Committee from November 28, 1921 to date. During that period of time have you regularly attended the meetings of the Finance Committee?

A. Yes, I have.

Q. Mr. Carpenter, directing your attention to the Finance Committee, will you tell us briefly and generally what the functions and responsibilities of the Finance Committee are of the du Pont Company?

A. Well, the Finance Committee has largely the general responsibility for the financial affairs of the company. It is their responsibility and job to provide sufficient capital for the corporation's needs; to carefully supervise the financial affairs of the company; also to receive reports from time to time with respect to the earnings, provide for the declaration of dividends, and any other matters of a general nature involving any large policy questions in connection with the financial status and position of the company.

Q. What duties and responsibilities, if any, does the Finance Committee have in relation to the commercial operations of the du Pont Company?

A. The Finance Committee has no responsibilities with respect to that. There is this, perhaps, that might be said in that connection.

The Finance Committee has the approval of certain appropriations in excess of certain minimum amounts for extension of plant for use by the commercial departments. Also, I think, it has certain technical authority with respect to patent matters. But in general the entire responsibility [fol. 6574] for handling the commercial affairs of the company is lodged with the Executive Committee.

Q. While you have been a member of the Finance Committee of the du Pont Company, has it been a regular or consistent practice for that committee to discuss or consider matters involving the sale by du Pont of its products or the purchase by du Pont of products?

A. No.

Q. How often does the Finance Committee meet?

A. Twice a month.

Q. Directing your attention to the Executive Committee, tell us generally what the functions or responsibilities of the Executive Committee are in the du Pont Company?

A. The Executive Committee has complete responsibility with respect to the operations and sales and all collateral duties in connection with the carrying on of the commercial affairs of the company.

It also selects and places the individuals who are in charge of various departments. We have ten industrial departments of the company, and a number of staff departments. It selects the heads and approves the selection of the assistant heads of all of those departments.

It receives reports from time to time covering the activities of those several departments and any special report regarding extension or change in the operation or activities of those departments.

Q. You have referred in your answer to reports that are received by the Executive Committee from the industrial or operating departments.

Could you tell us whether those reports ever contain information about sales made by the operating department? [fol. 6575] A. Oh, yes. They always cover the sales made during the current month, and during the current year.

Q. Do they ever contain information about the sales made by the du Pont Company to particular or named customers?

A. I think they would include reference to any extraordinary activities in that connection.

Q. Do you recall whether the Executive Committee regularly and systematically received reports showing what percentage of their requirements certain customers of du Pont were buying from du Pont?

A. No, they would not contain that.

Q. Would those reports ever contain any information of that kind in an isolated or sporadic way?

A. Yes, I think they would cover reference to any special contracts which might be made with important customers.

The Court: May I have counsels' indulgence for a few moments, please?

(A recess was here taken.)

Q. Mr. Carpenter, you just finished testifying generally about the nature of the reports received by the Executive Committee.

I now ask you whether those reports are sent on by the Executive Committee to the Finance Committee?

A. No, they are not.

Q. How often does the Executive Committee meet?

A. They meet regularly once each week, and sometimes more often than that.

Q. Mr. Carpenter, I should now like to direct your attention to the investment which the du Pont Company holds in the stock of General Motors.

Is that investment or stock interest in General Motors [fol. 6576] under the supervision of any particular body or group in the du Pont Company?

A. Yes, it is under the supervision of the Finance Committee.

Q. Does the Finance Committee supervise all of du Pont's stock holdings in other companies?

A. No, I think that is about the only one. The rest are all under the supervision of the Executive Committee.

Q. Why is it that the General Motors' investment is supervised by the Finance Committee and du Pont's stock holdings in other companies are supervised by the Executive Committee?

A. Well, the other securities involve certain operating responsibilities. That is not true of the General Motors' securities.

Q. Will you tell us what you mean by "operating responsibilities" in that sense, Mr. Carpenter?

A. Well, perhaps I can give examples there. There would be securities of the Remington Arms, for instance, or Canadian Industries, Ltd., and the South American companies, and the Executive Committee recognizes that they have certain responsibility for following closely the operations of those companies, the industrial operations of those companies, and so those securities are directly in charge of the Executive Committee, and for that purpose.

In the case of General Motors investment we do not assume that there is any such responsibility as that, and also we regard it purely as a financial investment.

Q. Has du Pont's investment in General Motors been under the supervision of the Finance Committee throughout the period of time that you have been a member of the Finance Committee of the du Pont Company?

A. Yes.

[fol. 6577] Q. Has this distinction that you have described between du Pont's investment in General Motors and its stock holdings in certain other companies such as the Canadian Company and the Remington Company—has that distinction been observed so long as you have been a member of the Finance Committee?

A. Yes, it has.

Q. Now, exactly in what way does the Finance Committee of the du Pont Company discharge the responsibility it has for supervision of the investment in General Motors?

A. Well, the Finance Committee selects, informally, I think, the representatives from time to time to nominate as members of the General Motors Board. The committee receives also the quarterly reports and in a general way follows the progress of the General Motors Corporation.

Q. What quarterly reports are those?

A. Those are the published quarterly reports.

Q. While you have been a member of the Finance Committee of the du Pont Company in the meetings that you have attended of that committee, have there ever been discussions about any aspects of the operations of General Motors?

A. Well, I think there have been discussions from time to time, yes, of the general progress of the General Motors Corporation.

Q. Have you discussed in the meetings with the Finance Committee of the du Pont Company what person should be nominated by the du Pont Company for membership on the Board of Directors?

A. Yes, we have.

Q. Can you tell, Mr. Carpenter, whether the persons so nominated have in every case been members of the Finance Committee of the du Pont Company?

A. So far as I can recall they have, with one exception.

Q. What is that, and who is that?

[fol. 6578] A. That exception is Mr. H. B. du Pont who is now a member of the Board of General Motors.

Q. Do you recall whether matters which were pending before the General Motors Board of Directors or the committees of the Board of Directors of General Motors were discussed in meetings of the du Pont Finance Committee?

A. I don't recall of any such instances.

Q. You have been a member of the Finance Committee of the Board of Directors of General Motors since 1927, have you not?

A. Yes, sir.

Q. And for a number of years you have served on certain committees of the Board of Directors of General Motors?

A. Yes.

Q. Now, while you were on the Finance Committee of the du Pont Company, and while you were serving on the Board of Directors of General Motors, did the du Pont Finance Committee ever give you any instructions or directions as to how you should discharge your duties?

A. No, not at all.

Q. In your presence did the du Pont Finance Committee ever give such instructions or directions to any other person who was a member of the General Motors Board of Directors?

A. No.

Q. Specifically were any such instructions ever given to you—that is, instructions as to how you were to discharge your duties as a member of the Board of Directors of General Motors—by Mr. P. S. du Pont or by Mr. Lammot du Pont, or by Mr. Irenee du Pont?

A. No, not in one instance.

[fol. 6579] Q. While you served on the Board of Directors of General Motors and its committees, Mr. Carpenter, how did you decide how to vote on matters that came before that Board of Directors and its committees?

A. Well, I assumed that I was member of the Board of Directors representing all of the stockholders of the corporation and I judged the matters on the merits of the programs that were put before us from time to time.

Q. Mr. Carpenter, does the du Pont Finance Committee receive any reports that show where or in what amounts General Motors is purchasing its requirements of various commodities?

A. No, nothing at all.

Q. Does it receive any reports showing what percentage of General Motors requirements of certain goods it buys from du Pont or buys elsewhere?

A. No, the du Pont Finance Committee receives no reports from General Motors except published reports.

Q. Do you recall now whether at the meetings of the du Pont Finance Committee which you attended, it was the practice of that committee to discuss questions relating to General Motors purchases of supplies?

A. No, we did not.

Q. In this connection, Mr. Carpenter, I should like to call your attention to a document which has been introduced in evidence in this case by the Government, marked Government's Trial Exhibit 460.

With this document before you, I should like to read to you the covering memorandum that appears on the first page of the document:

> "At the last meeting of the Finance Committee the [fol. 6580] question of purchases by General Motors from du Pont was mentioned and I gathered that you were somewhat surprised at the statement that General Motors was not buying anywhere near all of their requirements of products which du Pont makes, from the du Pont Company."

This memorandum, you will note, is a memorandum from Mr. Lammot du Pont to Messrs. P. S. du Pont and J. J. Raskob, and is dated the 27th of January, 1927.

Now, Mr. Carpenter, with this memorandum in front of you, do you recollect the discussion referred to in this memorandum?

A. No, I don't recall that discussion, and I don't believe that matter could have come up in connection with any order of business. It might not even have come up during the meeting. Maybe it was before or afterwards that Mr. du Pont had spoken to his brother about that. It was certainly not a matter which would ordinarily be dealt with by the Finance Committee.

Q. Does this memorandum refresh your recollection as to other instances in which the matter of General Motors' purchases was discussed at the meetings?

A. No, I cannot recall any such instance.

Q. Does it refresh your recollection as to any instances in which discussions might have occurred before or after the meeting of the Finance Committee?

A. No.

Q. Does this memorandum lead you to wish to change the answer which you previously gave me to the effect that such matters were not frequently or regularly discussed in the Finance Committee?

A. No, sir, it does not.

Q. Now, reverting again for a moment to the delibera- [fol. 6581] tions or the actions of the du Pont Executive Committee as distinguished from the Finance Committee, do you now recall whether the Executive Committee systematically and regularly received reports showing what percentage of General Motors requirements of the products made by the du Pont Company, General Motors was buying from du Pont Company?

A. No, it does not.

Q. Did that committee ever receive estimates from the Operating Departments with respect to the percentage of General Motors' sales or requirements that the Operating Departments were selling at any particular time?

A. Well, as I have said, those reports occasionally contain advice of any new contracts of great importance, particular with important customers, and conceivably such comments might include an estimate of what the requirements of that customer might be and what percentage of the requirements it was intended it should be supplying.

Q. And while you were a member of the Executive Committee, did that committee, or to your knowledge any other agency in the du Pont Company, direct the Operating Departments or the Industrial Departments, as you called them a little while ago, to prepare and submit regularly reports estimating what percentage of the requirements of General Motors the du Pont Company was selling?

A. No.

Q. Did the Executive Committee ever receive any reports from General Motors showing what percentage of its requirements it was buying from the du Pont Company?

A. No, the Executive Committee received no reports from General Motors of any kind.

Q. Now, directing your attention to the Board of Di- [fol. 6582] rectors of the du Pont Company, Mr. Carpenter, did the Board of Directors of the du Pont Company, while you were serving on that Board, ever receive any reports showing what percentage of General Motors' requirements it was buying from the du Pont Company?

A. No, it did not.

Q. Mr. Sloan was a member of the Board of Directors of the du Pont Company, was he?

A. Yes, for a number of years.

Q. Were you ever present at meetings which Mr. Sloan attended?

A. Very often.

Q. Did Mr. Sloan ever make any reports or comments on the operation of General Motors at those meetings of the du Pont Board?

A. Yes, Mr. Sloan regularly gave brief comments regarding the progress of General Motors.

Q. In those comments did he ever say anything about what percentage of its requirements General Motors was buying from du Pont?

A. Never.

Q. At those meetings of the Board of Directors of the du Pont Company, Mr. Carpenter, which Mr. Sloan attended, did you ever hear anyone give Mr. Sloan any advice or suggestions about how he should conduct the affairs of General Motors?

A. No, indeed.

Q. Now, Mr. Carpenter, I should now like to turn to another subject, and that has to do with the organization of the company known as the Managers Securities Company.

When did you first come in contact with the financial operations of the du Pont Company?

A. When I was first made treasurer, in the early part of 1921.

Q. That, the record shows, was in January, 1921.

Now, the record in this case shows that thereafter, that is to say about 1923, a company was organized known as [fol. 6583] the Managers Securities Company, and that certain of the stock in General Motors held by the du Pont Company was transferred to that company, that is the Managers Securities Company.

Do you remember that transaction, generally?

A. Yes.

Q. Were you consulted before that transaction was consummated?

A. Yes, indeed.

Q. Were you in favor of the transaction?

A. I was.

Q. Will you tell us why you were in favor of the transaction?

A. Well, the purpose of that transaction was to carry out a time-honored custom, at least for the du Pont Company, of endeavoring to interest important managers of the company in the stock of the company, in which they were engaged, in order that they might direct their interest for the welfare of that company and the improvement of its position and its earnings, and in that way benefit themselves.

Q. Before that transaction was consummated did you discuss the transaction with Mr. P. S. du Pont?

A. Oh, yes, it was dealt with in our Finance Committee in which they were all members.

Q. That is, P. S. du Pont was a member?

A. Yes, sir.

Q. And Mr. Lammot du Pont was a member and Mr. Irenee du Pont was a member?

A. Yes.

Q. And did you ever hear any of those men say why they were in favor of this plan?

A. I don't recall any specific statements that they made in that connection, but I think we all realized why it was [fol. 6584] done, and it was very consistent with the policy which had been prevalent in the du Pont Company since the beginning of the century.

Q. Based on the discussions which you had with Messrs. P. S. du Pont, Lammot du Pont and Irenee du Pont, can you now tell us whether in your recollection their reasons for favoring the plan differed in any respect from yours?

A. No.

Q. You mean their reasons were the same?

A. Their reasons were the same.

Q. Now, Mr. Carpenter, Paragraph 53 of the Amended Complaint in this case charges that the purpose of this project or plan involving the Managers Securities Corporation was to make the executives of General Motors, and now I quote from the complaint, "more directly responsive to the influences and desires of the du Pont Company."

Is that statement true or false?

A. I believe it is false. I am sure that it is false.

Q. Was that the purpose of the organization of the Managers Securities Company?

A. No, it was not the purpose. It was just the reverse of the purpose.

Q. What do you mean by saying that it was just the reverse of the purpose?

A. As I have already stated, the purpose of that program was to make these managers more interested in the prosperity and the future of the General Motors Corporation—not the du Pont Company.

It was designed that way, and I believe operated that way. You will recall that it took this form: The Managers Securities Company was formed, and it bought a 30 per cent interest in the General Motors Securities Company which at that time held substantially all of the du Pont's General Motors investment, constituting about seven and a [fol. 6585] half million shares. So that the 30 per cent interest that they bought in that company constituted a purchase of substantially 2,250,000 shares of General Motors.

They bought that on a deferred payment plan, at least in part. They paid about one-seventh of that price in cash, and the balance they paid in preferred stock of the Managers Securities Company.

That common stock of the Managers Securities Company was first purchased by the General Motors Corporation, and then by the General Motors Corporation sold at the same price to the about 80 managers of the corporation.

Now that transaction was originally made on the basis of substantially the market values. It was a very serious undertaking for these managers. They subscribed to this stock and paid cash for it in what was for them a very substantial amount, so that it was a purely arm's length transaction between the two. But that plan was designed so that these managers, putting cash in to the extent of about one-seventh of the full purchase price of the stock, were in the position of having the benefit of all the benefits that would flow towards substantially seven times the amount of their own investment. They had the opportunity to benefit by the appreciation in investment in General Motors stock equal to about seven times their own initial investment; they had the opportunity of sharing the dividends on a comparable amount of investment in General Motors stock; and in addition to that as a result of the contract that was entered into between the General Motors Corporation and the Managers Securities Company, there flowed to the Managers Securities Company each year one-half of the total accruals [fol. 6586] under the General Motors Bonus Plan, so that you might say that they had this three-fold opportunity of enjoying the benefit of any increase in earnings of General Motors Corporation—through the appreciation of the securities, through the dividends on those securities, and also through the transfer of these bonus earnings which were in turn dependent upon the earnings of the General Motors Corporation.

So you had really—they had a sort of a three-fold pyramiding of the benefits flowing from the earnings of General Motors to themselves, and that operating, as I have referred to, on this seven-fold leverage which they gained over and above their initial cash subscription. All of that served as a powerful incentive to those men to interest themselves in the increase and the progress and the earnings of the General Motors Corporation.

It had absolutely no association at all with the du Pont Company. The du Pont Company might have gone bankrupt in that period without having any effect upon what the results to them would have been, or might have prospered greatly without any reflection on the flow of benefit to these 80 managers.

It is for that reason that I say it operated just in reverse of the way that it seems to be here represented.

Q. You mentioned in the course of your answer, I think, Mr. Carpenter, that this stock that du Pont transferred to Managers Securities Company was sold.

Do you recall how the price was fixed at which it was sold?

A. The price at which the General Motors stock was sold to the Managers Securities Company?

Q. Yes.

A. That was sold at substantially the current market. I [fol. 6587] think it was something of the order of $15.00 a share at that time.

Q. Did the du Pont Company make or lose money on that sale, if you remember?

A. The sale of those shares corresponded substantially to the purchase of the Durant stock some years before that, and I think that the difference between the market price as of the date this was sold and the price at which those shares were initially purchased was something like $4.00 a share, so that there did result a profit to the du Pont Company.

Q. Mr. Carpenter, I want to direct your attention to your activities as a member of the Board of Directors of General Motors. The record in this case shows that you have been a member of that Board of Directors since February 10, 1927.

Does that accord with your recollection?

A. Yes.

Q. Have you been a fairly regular attendant at the meetings of the Board of Directors of General Motors since you became a member?

A. Yes, I have.

Q. Will you tell us generally based on your attendance at those meetings, what the activities of the Board of General Motors have been, what it has done during this period of time?

A. Well, the Board of Directors has certain more or less formal requirements, such as the selection of the management of the company, the election of the officers, the declaration of dividends—perhaps I might give an account of a meeting of the Board of Directors.

We first have a review by the economist of the general economic conditions surrounding the industry at that time. After that we have quite a complete statistical review of the [fol. 6588] affairs of the corporation involving sales and labor problems and matters of that character, specific earnings and current earnings.

After that we have the receipt of the reports from the several committees of the Board, and then take any action on those which is necessary. Usually they do not require any special action other than their receipt.

Then we have a discussion by some of the officials of the

General Motors Corporation of the affairs in their departments.

Then we take any formal actions which are required, of course, for statutory purposes.

Q. Does the Board of Directors of General Motors have any responsibility with relation to the election of members of the Board, to fill vacancies on the Board?

A. Yes.

Q. What does it do in that respect, Mr. Carpenter?

A. With respect to vacancies?

Q. Vacancies on the Board?

A. Well the selection of the candidate to fill a vacancy is handled somewhat informally. The initiative of that effort usually heads up with the Chairman of the Board, Mr. Sloan. He usually consults various individuals for any suggestions.

The selection of those members of the Board from management who constitute sort of the management representation on the Board, that comes up more or less automatically as the men come up through the organization and assume more important positions in the operational activities of the corporation.

When they are eligible, or the Chief Executive Officer desires to make them members of the Executive Com- [fol. 6589] mittee, or what is now the Operations Policy Committee, then they are required to be members of the Board.

Those recommendations are brought before the Board more or less automatically, as I say, and approved by the Board.

Q. May I interrupt you there, Mr. Carpenter, to ask you whether in your experience a recommendation of that kind, that is to say recommendation of a management representative for membership on the Board, has ever been rejected by the Board of Directors?

A. No, never in my experience.

Q. Very well. Will you continue?

A. Then, in addition to that, there are certain men over there who have been nominated to occupy positions on the Board by the Finance Committee of du Pont. There have been about five, as a rule, I think.

If any vacancy should occur in that group, then Mr. Sloan usually suggests that we nominate another to take that place.

Then, in addition to that, there are some representatives that are not connected with either of those groups, and Mr. Sloan consults with various people. He has suggestions of his own.

It has been Mr. Sloan's idea, I think, that we should attempt to increase the Board membership of General Motors by the selection of people from outside of either of the other groups, feeling, I think, that they might bring a fresh viewpoint to the Board, or something new, or perhaps a more objective viewpoint of the activities of General Motors.

There are, I should say, about four or five members in that group at the present time, and they, as I say, have been selected in this more or less informal way, and when a large [fol. 6590] group of Directors rather agree that the selection would be acceptable to the Board, that name is presented to the Board and that man is elected.

Q. Mr. Carpenter, in your answer you have referred to those members of the Board of General Motors who are nominated for membership on the Board by the du Pont Company. You stated that you thought the number was about five.

There is in evidence in this case at least one exhibit which indicates that in 1927, when you first went on the Board, six members of the Board were nominated by the du Pont Company.

Does that accord with your recollection?

A. Well, I can't recall offhand. I would say about five, it is in that neighborhood.

Q. I think the same evidence indicates that there are today five members on the Board who were nominated by the du Pont Company.

While you have been a member of the Board of Directors of General Motors, has there to your knowledge been any agreement or understanding expressed or implied between du Pont and General Motors as to how many members of General Motors Board du Pont should nominate?

A. No.

Q. In your answer you also referred to the so-called outside directors, and you said that Mr. Sloan had from time to time been in favor of adding to that group:

Do you remember that statement?

A. Yes.

Q. Did you agree or disagree with Mr. Sloan on that [fol. 6591] point, if you remember?

A. I was in favor of that program.

Q. In this connection, Mr. Carpenter, I should like to show you two exhibits that were introduced in evidence by General Motors. They are documents which have been marked General Motors Exhibits 11 and 12. Each of these documents is a letter that you wrote to Mr. Sloan, and contains the names of certain persons that you suggest in the letter might be considered for nomination to the Board of Directors of General Motors.

Do you recollect that correspondence?

A. Yes, I do.

Q. How did you happen to write these letters to Mr. Sloan? Why did you write them?

A. I think Mr. Sloan asked me if I would do that, make some suggestions of names that might be tossed into a pool from which a directorate might eventually be selected.

Q. Do you know whether Mr. Sloan asked any other members of the General Motors Board for suggestions?

A. I don't know to what extent he asked all of the members. I know that he did ask some of the members, and occasionally we would get together in a group and discuss names and toss in new names to be considered.

Q. Now, on what basis did you select the names that you listed in these letters to Mr. Sloan?

A. Well, as I told Mr. Sloan, I think, in this letter that I was not recommending all of these people; that there were many of them, quite a number of them that I didn't even know.

I in turn had consulted with others and looked up the record on some of these gentlemen, and their age classification, and sent the names along to be considered with others. [fol. 6592] Looking at this list and then recalling the selections, I had a very poor batting average.

Q. To what extent in including names in this list were you influenced by the person's attitude to the du Pont Company?

A. Not at all.

Q. In selecting names for the list, did you take into account the person's probable attitude toward the purchase by General Motors of du Pont products?

A. No, indeed.

Q. Mr. Carpenter, I believe in one of your previous answers you mentioned the fact that the Board of Directors of General Motors elects the officers of the company, is that right?

A. Yes.

Q. Does it elect the president of General Motors?

A. Oh, yes.

Q. You became a member of the General Motors Board in 1927. At that time the record shows Mr. Sloan was president. Do you recollect that?

A. Yes.

Q. Thereafter the Board did elect certain presidents, did it not, in the succeeding years?

A. Yes.

Q. I think the record shows that Mr. Knudsen was president for a time?

A. He was.

Q. That thereafter Mr. C. E. Wilson was president?

A. Yes.

Q. And he was succeeded more recently by Mr. Curtice. Do you remember the election of those men?

A. Yes, I do.

Q. Now, directing your attention to those men, Messrs. Knudsen, Wilson and Curtice, who recommended them to the General Motors Board for presidency of the corporation?

A. I think in the case of Mr. Knudsen and in the case of Mr. Wilson, the recommendation was from Mr. [fol. 6593] Sloan. My recollection is that Mr. Wilson recommended Mr. Curtice.

Q. Was any one of these men a nominee of the du Pont Company?

A. No, indeed.

Q. Had Mr. Knudsen or Mr. Curtice or Mr. Wilson, to your knowledge, ever had any connection with the du Pont Company in the sense of having been employed by it or served on its Board, or anything of that kind?

A. Not at all.

Q. In your previous answer you have referred to the reports that are made to the Board of Directors of General Motors. Do those reports cover the detailed operations of the company?

A. The reports of the General Motors Board?

Q. Yes.

A. No, they cover merely the minutes of the meetings of the Board committees, unless there is something specific that requires approval, such as an employment plan or pension plan or something of that nature which would be more in detail.

Q. Does the Board of Directors of General Motors supervise or direct the day-to-day conduct of the company's business?

A. No, it does not.

Q. Does the Board of Directors of General Motors make any decisions on engineering or marketing or purchasing practices and policies?

A. No.

Q. In your experience has the Board of Directors of General Motors ever considered any question relating to where or in what amount General Motors should purchase supplies that it uses in its operations?

A. Not at all.

Q. Have there ever been any discussions in the Board of Directors of General Motors of General Motors' pur-

[fol. 6594] chases from the du Pont Company or from its competitors?

A. Never in my presence, no.

Q. Has there ever been any discussion in those meetings of General Motors of purchases from the United States Rubber Company or its competitors?

A. The only case that I can think of in that connection might be that when the initial contract was made with the Rubber Company, it embodied very substantial financial commitments, which I believe required that it come before the Finance Committee of General Motors, which, in itself was rather unusual, and no doubt was at that time reported by the Finance Committee to the Board.

I recall no discussion in the Board, but it was probably before them.

Q. Apart from that instance, do you recollect any other incident where General Motors purchases from United States Rubber was the subject of consideration by the Board of Directors?

A. No, never.

Q. Mr. Carpenter, you have referred in one of your previous answers to the committees of the Board of Directors of General Motors. The record in this case shows that you had been a member of the Finance Committee of General Motors from February 10, 1927 to May 3, 1937.

Did you regularly attend the meetings of the Finance Committee during that period?

A. Yes, I did.

Q. I think the record also shows that you were a member of the Policy Committee of General Motors from May 3, 1937 to June 3, 1946.

During that period of time, did you regularly attend the [fol. 6595] meetings of that committee?

A. Yes, I did.

Q. The record also shows that you were a member of the Financial Policy Committee of General Motors from June 3, 1946 to June 6, 1949. During that period of time did you regularly attend the meetings of the Financial Policy Committee?

A. Yes, I did.

Q. Now I should like to ask you some questions about the functions of these different committees, and I shall begin with the Finance Committee, which was a committee that existed and on which you served from 1927 to 1937.

What, in general, were the functions and responsibilities of the Finance Committee of General Motors?

A. The Finance Committee had general responsibility for the financial aspects of the General Motors business. It had the provisioning of sufficient capital for its purposes, watching its earnings position, receiving from time to time reports on the financial status which would enable it to declare dividends or recommend dividends to the Board of Directors; also provide for any matters of a general over-all character concerning the financial position and requirements of the General Motors Company.

Q. Did it direct or manage the financial affairs of the corporation in a direct way?

A. No, that was done through the financial officers who reported to the Finance Committee. I might say that the Finance Committee also had the responsibility of approving certain large appropriations which may have been approved in advance by the Executive Committee for the construction of new plants or going into new business, or anything of that character.

Q. Do you recall that General Motors had a bonus plan [fol. 6596] in the period of time that we are now talking about?

A. Yes.

Q. Did the Finance Committee have any responsibilities under that bonus plan?

A. Yes. The Finance Committee did administer that plan under the terms of the bonus plan itself, which meant that it made provisions for deciding the amount of bonus which was to be set within the limits of the plan, and then later received from the Chief Executive Officer of the corporation recommendations with respect to the distribution of that.

It provided for the acquisition of stock for distribution under the bonus plan and all necessary work in connection with the administration of the plan in accordance with the written plan.

Q. Do I understand your answer to mean that the Finance Committee received from the chief executive officer of the corporation recommendations as to the individual awards or allotments that were to be made under the Bonus Plan?

A. Yes.

Q. Now, what did the Finance Committee do about those recommendations?

A. The Finance Committee discussed them in a general way with the person who had recommended them, and then of course the Finance Committee was obliged under the plan to approve it.

Q. Do you recall whether the Finance Committee in practice changed or modified or revised the recommendation made by the chief executive officer?

A. Very seldom.

Q. Did you personally participate in that consideration of the bonus recommendations?

A. Yes.

Q. To what extent, if at all, in that consideration did you take into account the attitude of the persons who were [fol. 6597] being considered for bonus awards toward the du Pont Company?

A. Not at all.

Q. Did you ever take into account the attitude of those persons toward the products of the du Pont Company?

A. Toward the what?

Q. Products of the du Pont Company?

A. No, indeed.

Q. Now, did the Finance Committee have any responsibility in relation to the day-to-day operation of General Motors?

A. Merely the financial aspects of it; that responsibility rested on those financial officers, as I have said, who reported to the Finance Committee.

Q. Did it ever consider or decide questions relating to the marketing or production of the company's products?

A. No, it did not.

Q. Did it ever consider questions relating to the purchasing practices of the company?

A. Not at all.

Q. Do you recall whether the Finance Committee ever passed on any questions relating to sales by the du Pont Company to General Motors?

A. I am sure it did not.

Q. Were those sales discussed in meetings of the General Motors Finance Committee?

A. No, never.

Q. In one of your previous answers, you have referred to the fact that the first contract for tires, that is the contract made roughly, I think, in 1931 between United States Rubber and General Motors was submitted to the Finance Committee of General Motors.

Do you recall your previous answer on that?

A. Yes.

Q. Do you know whether or not that contract before it was submitted to the Finance Committee had been approved or considered by the Executive Committee of General Motors?

A. Yes, it had.

[fol. 6598] Q. Now, aside from that incident, do you recall any other incident in which the Finance Committee of General Motors considered questions relating to purchases or sales between General Motors and the Rubber Company?

A. No, I cannot.

Q. Mr. Carpenter, you previously testified, as the record shows, that you have been a member of the Financial Policy Committee from the time when it was formed until a date in 1949.

To what extent, if at all, did the activities and functions and responsibilities of the Financial Policy Committee differ from those of the Finance Committee?

A. When the policy committee was set up——

Q. Mr. Carpenter, I am sorry. I am not asking you about the policy committee, but about the Financial Policy Committee.

A. Oh, subsequent——

Q. Subsequent to the policy committee.

A. That would be from 1946 on.

Q. That is right.

A. Well, that was substantially exactly the same as those of the Finance Committee, with this exception: That in 1937, I think, the Board set up a special committee called the Bonus and Salary Committee, and that committee thereafter took over all of the bonus responsibilities that theretofore had been carried on by the Finance Committee. With that exception, I think the Financial Policy Committee was just the same as the previous Finance Committee.

Q. Did the Financial Committee, and does the Financial Policy Committee pass upon the purchase practices or policies of General Motors?

A. No.

Q. In the meetings of that committee, have you ever [fol. 6599] heard any discussion of General Motors purchases from du Pont Company?

A. Never.

Q. Or from the United States Rubber Company?

A. No.

Q. Now you have referred to this Bonus and Salary Committee. Did you serve on that committee, Mr. Carpenter?

A. Yes, I served on that committee when it was initially set up in 1937 for a period of four, five, or six years. I can't recall just how long.

Q. In what respect, if at all, did the operations of that Committee differ from the operations of the Finance Committee so far as they related to the bonus plan? Did it operate in substantially the same way?

A. Yes, it did. I think perhaps it went into matters somewhat more fully than the Finance Committee had theretofore done. It was their specific job.

Q. Do you recall whether that committee, that is, the Bonus and Salary Committee, in practice revised or changed or modified the recommendations made by the chief executive officer as to the individual awards?

A. Very seldom.

Q. In your deliberations as a member of that committee, to what extent, if at all, were you influenced by your views as to the attitude of a possible recipient of awards toward the du Pont Company?

A. Not at all.

Q. In the consideration you gave the matters that came before that committee, were you in any degree influenced by the individual's attitude toward the products of the du Pont Company?

A. No, I was not.

Q. Mr. Carpenter, the record shows that the Finance and Executive Committees were abolished in 1937, and that thereafter a single committee called the Policy Committee [fol. 6600] was in existence. Do you recall that change in the organization of General Motors?

A. Yes, I do.

Q. That arrangement lasted, the record shows, until 1946, and you were a member of that committee, you have testified, and regularly attended its meetings?

A. I was.

Q. Now what were the functions and responsibilities of the Policy Committee, Mr. Carpenter? What did it do?

A. The Policy Committee was organized to take over the responsibilities theretofore performed by the Executive Committee and the Finance Committee.

It was believed that whereas before that time the responsibilities to be dealt with could be divided on the one side between operating matters and on the other side between financial matters, the theory that Mr. Sloan, who advocated this Policy Committee, had, was that in this particular committee we could make that division between the so-called high policy or policy matters as distinguished from administrative matters, and that that committee could deal with matters of important policy and philosophy dealing with both operations and finance.

In that respect it did operate. The Executive Committee, which had theretofore existed, was replaced in very large part, however, by the creation of an Administration Committee, which was technically, I suppose, not a creation of the Board but was a committee organized to handle most of the operating matters, and that committee reported to the Policy Committee.

Q. Were you a member of this Administration Committee?

A. No, I was not.

[fol. 6601] Q. Was any member of the General Motors' Board, who had been nominated for membership on the Board by the du Pont Company, a member of the Administration Committee?

A. No.

Q. Did the Policy Committee in practice manage the day to day operations of General Motors?

A. Oh, no.

Q. Did it direct or supervise the purchasing practices of General Motors?

A. No, it did not.

Q. Did it consider questions relating to the purchases by General Motors of products from du Pont?

A. No, it did not.

Q. Or purchases by General Motors of products from United States Rubber Company?

A. No, it did not.

Q. Do you recall whether in the meetings of the Policy Committee you ever heard any discussion of General Motors' purchases from the du Pont Company?

A. I am positive I never did.

Q. Do you recollect whether you ever heard any discussion in those meetings of General Motors' purchases from the Rubber Company?

A. No, I did not hear any.

Q. Mr. Carpenter, before you became a member of the Board of Directors of General Motors in 1927, did you consider whether you should or should not undertake to serve as a member of that Board? Did you give that matter any thought?

A. I think I did when I was asked to serve.

Q. Can you tell us now why you decided to accept the responsibility of serving as a director on the Board of General Motors?

A. Well, I recognized that the du Pont Company had a very serious responsibility with respect to that enormous investment. It owed that duty to its stockholders, and there was a job to be done there.

[fol. 6602] The Finance Committee felt that that job could best be done by nominating representatives to the Board who could in turn serve on the Finance Committee of General Motors. Others had done it before me. I was a member of the Finance Committee, had been long associated with the financial matters of the company, and it seemed to me a very natural thing that I should serve, and I was very happy to serve."

Q. To what extent, if at all, Mr. Carpenter, in making that decision were you influenced by any desire or purpose to sell du Pont's products to General Motors?

A. Not at all.

Q. While you have been a member of the Board of Directors of General Motors and have served on its committees, on what basis have you tried to deal with the questions that came before the Board and its committees?

A. I dealt with them entirely on the basis of my judgment of the merits of the particular programs that were submitted to us.

Q. In your discharge of those duties, what distinction, if any, have you drawn between du Pont as a stockholder in General Motors and the other stockholders?

A. Absolutely none.

Q. What distinction exists, if any does exist, in your concept of your duty as between a duty to du Pont and a duty to the other stockholders of General Motors?

A. None at all.

Q. While you have served on the Board of General Motors and on its committees, Mr. Carpenter, what aspect of General Motors' affairs have you been particularly [fol. 6603] interested in?

A. I think more particularly in their financial aspects.

Q. Have you ever attempted to give anyone in General Motors any advice about the production and distribution of motor cars?

A. Oh, indeed I have not.

Q. Have you ever attempted to give anyone in General Motors any advice about where he or the corporation should buy its requirements of particular products?

A. Never.

Q. Mr. Carpenter, I should like now to turn briefly to another subject, and ask you a very few questions about some other corporations that are involved in this case.

I think the record here shows that you are a stockholder in Christiana, is that correct?

A. That is correct.

Q. I think the record also shows that you are a director of that company?

A. I am now.

Q. Do you recall who asked you to become a director of Christiana?

A. I think Lammot du Pont.

Q. What did he say to you when he asked you to become a director?

A. He just asked me whether or not I would be willing to serve, I think.

Q. With respect to the Christiana stock that you own, are you now a party to any agreement that restricts in any way your right to vote that stock in any way you see fit?

A. No, I am not.

Q. Are you a party to any agreement that restricts your right to dispose of any stock in any way you see fit?

A. No, I am not, and I have disposed of stock in Christiana from time to time.

Q. You have disposed of shares of stock from time to time?

A. I have.

Q. Have those disposals been made to members of your [fol. 6604-6607] family, Mr. Carpenter?

A. No, I have made certain charitable awards through that means.

Q. Have you ever been a shareholder, officer, or director of the Delaware Realty Company?

A. No, I have not.

[fol. 6608] Q. Mr. Carpenter, at this point I should like to call your attention to certain allegations that are made in the amended complaint in relation to the relations that existed between General Motors and du Pont Company, and I should like to begin by calling your attention to certain allegations that are found in Paragraph 64 of the Amended [fol. 6609] Complaint, and I should like you, if you will, to listen while I read these allegations to you, because I intend to ask you some questions about them.

Paragraph 64 alleges that:

> "The du Pont Company following its acquisition of control over General Motors in or about 1917, not only extended its operations into the manufacture of paints and varnishes and related products, but also began expanding into other areas in the chemical field."

Now, this is the part of the allegation to which I wish to call your attention, the part I am about to read:

> "In connection with this expansion, du Pont Company entered into an agreement with General Motors to the effect that the latter would refrain from the manufacture of chemicals, including paints and varnishes and similar products, leaving this field, as between the two companies, exclusively to du Pont Company."

To your knowledge, Mr. Carpenter, did any agreement of that kind exist between the du Pont Company and General Motors while you have been an officer and director of the du Pont Company?

A. There has not.

Q. To your knowledge does any such agreement exist today?

A. It does not.

Q. Now, this paragraph goes on to allege, and I read again:

> "It was further agreed between the two companies that when General Motors made discoveries in the [fol. 6610] chemical field, it would inform du Pont Company of the findings and grant to du Pont Company exclusive development, production, and exploitation rights with respect to such discoveries."

To your knowledge, Mr. Carpenter, was there ever any such agreement between the two companies while you were an officer and director?

A. There never was.

Q. To your knowledge is there such an agreement today?

A. No.

Q. The same paragraph then goes on to allege:

> "It was also understood that if any of said General Motors' discoveries were usable in General Motors' operations, du Pont Company would, after their development, make them available to General Motors Company for use upon an exclusive or preferential basis."

To your knowledge, Mr. Carpenter, was there ever any such agreement between the two companies while you were an officer or director of the du Pont Company?

A. There never was.

Q. Is there such an agreement today, to your knowledge?

A. There is not.

Q. And finally in this paragraph it is charged as follows:

> "It was further understood that if du Pont Company made discoveries in the chemical field which might be of use in the production of automobiles, du Pont Company would promptly inform General Motors of its findings and grant to General Motors preferential rights with respect to such discoveries and General Motors would aid in the experimental work on such discoveries."

[fol. 6611] Mr. Carpenter, did such agreement exist between the two companies while you were an officer and director of the du Pont Company?

A. There did not.

Q. To your knowledge does any such agreement exist today?

A. It does not.

Q. Now, Mr. Carpenter, in answering these questions that I have asked you, do you remember Article 7 of an agreement establishing the Kinetic Chemicals, Inc., that agreement having been made a part of the record in this case?

A. Yes, I am familiar with that.

Q. Do you recall Article 7 of that agreement?

A. Yes.

Q. In the light of that article, do you wish to change or modify the answer that you have previously given to my question?

A. No, I do not.

[fol. 6612] Direct examination (Continued)

By Mr. Cox:

Q. Mr. Carpenter, just before lunch I asked you a question about Article 7 of the agreement establishing Kinetic Chemicals, Inc. in 1930.

Did you personally suggest that that article be included in that agreement?

A. No, that was the suggestion of General Motors at the time the contract was being negotiated.

Q. Do you know whether any discoveries or inventions were ever turned over to Kinetic Chemicals pursuant to the provisions of that article?

A. None were turned over.

Q. Do you recall whether General Motors ever suggested to du Pont that Article 7 be canceled?

A. Yes, they did.

Q. Did that request come to your attention at the time it was made?

A. Yes, it did.

[fol. 6613] Q. Can you tell us what attitude the du Pont Company took when it received that request?

A. We took the position that if they wished to eliminate it, it was agreeable to us.

Q. Was it or was it not eliminated?

A. It was eliminated.

Q. Mr. Carpenter, I now wish to turn to the question of sales by du Pont to General Motors, and I should like to ask you whether you have been aware over the years that General Motors has been a substantial customer of the du Pont Company.

A. Yes, I have.

Q. The amended complaint in this case makes certain charges with respect to those sales, and I should like to read these charges to you. I must ask you to listen to them because I shall ask you some questions about them afterward.

I am going to begin with Paragraph 56, of the amended complaint. That paragraph charges as follows:

> "Beginning in 1917, it was understood and agreed between General Motors and du Pont Company that, because of the latter's acquisition of control over General Motors, General Motors would give preference to du Pont Company in buying products for use in its operations. It was agreed that General Motors would purchase from du Pont all or substantially all of its requirements of products manufactured by du Pont, and would refrain, in whole or in large part, from purchasing such products from competitors of du Pont Company."

Mr. Carpenter, to your knowledge while you have been [fol. 6614] an officer and director of the du Pont Company, has any such agreement or understanding, express or implied, existed between du Pont and General Motors?

A. It has not.

Q. Paragraph 62 of the Amended Complaint makes a further charge about this alleged agreement. That paragraph charges as follows:

That paragraph charges that this previous alleged agreement, the charges about which I have just read to you:

> ". . . was subsequently modified so as to permit General Motors to purchase from 20 to 25 per cent of its requirements of the products du Pont manufactured which General Motors used from companies other than du Pont, leaving du Pont with 75 to 80 per cent of the General Motors business."

Now, to your knowledge, Mr. Carpenter, while you have been an officer or director of the du Pont Company, has any such agreement as that existed between the two companies?

A. It has not.

Q. To your knowledge has there been any agreement over that period of time of a general and continuing nature that obligated General Motors to buy any stated percentage of all of the products it uses that are manufactured by du Pont from du Pont?

A. No.

Q. Mr. Carpenter, the record in this case discloses the existence of certain contracts between du Pont and General Motors under which General Motors bought its requirements or part of its requirements of certain specific commodities for certain limited periods of time from the du Pont Company.

[fol. 6615] Are you aware in general of the fact that such arrangements have existed from time to time in the past?

A. Yes.

Q. If I may now direct your attention not to those particular contracts, but to any general, continuing contract or understanding, has there been any such contract or understanding, expressed or implied, that General Motors over the years would buy all or any part of its requirements from the du Pont Company?

A. There has not.

Q. In this connection, Mr. Carpenter, I should now like to call your attention to certain documents which were introduced in evidence by the government in this case. They bear Government's Trial Exhibits Nos. 420 and 460.

Again I think it will not be necessary for you to read these documents in detail because I believe I can characterize them in a way that will not be objectionable to government counsel.

If you will examine these documents in a general way, you will see that each of them contains a computation or an estimate as to the percentage of requirements of certain commodities that certain divisions of General Motors are buying from the du Pont Company.

You have seen these documents before, have you?

A. Yes, recently.

Q. In preparation for your testimony in this case?

A. Yes.

Q. While you were president of the du Pont Company, Mr. Carpenter, did you receive reports of this kind, that is to say, reports, which showed how much of their requirements the various divisions of General Motors were buying from the du Pont Company?

A. No.

[fol. 6616] Q. Did you ask to have such reports made by anyone in the du Pont Company when you were president?

A. No, I did not.

Q. You have testified, I believe, that in the case of the reports submitted by the operating or industrial departments to the Executive Committees, you recollect generally that sometimes those reports contained some information similar to the information in the documents, did you not?

A. Yes.

Q. Do you know now whether in collecting such information the operating or industrial departments followed any practice in relation to General Motors that differed in any respect from the practice those departments followed with respect to other important customers of du Pont?

A. No, I know of no difference.

Q. I should also like to call your attention to another incident that is reflected in Exhibits which the Government has introduced in this case. Merely for the purpose of identifying these exhibits and not because I think it is necessary that you examine them. I shall state for the record that they are Government Trial Exhibits 363 to 367, inclusive.

These documents relate to an incident which occurred in 1926 when Mr. Lammot du Pont sought and obtained from Mr. Sloan permission to disclose to a Mr. Allen of the du Pont Company certain production schedules which Mr. Lammot du Pont had received as a member of the finance committee of General Motors.

Have you had occasion to examine these documents in preparation for your testimony?

A. Yes, I have seen them.

Q. Mr. Carpenter, while you were president of the [fol. 6617] du Pont Company, did you ever secure any production information from General Motors and pass it on to people in the operating departments of du Pont Company?

A. No, I did not.

Q. Did you, as a member of the Finance Committee of General Motors, receive production schedules or production estimates from the operating divisions or departments of General Motors?

A. Yes, we did.

Q. What did you do personally with those reports that you have seen?

A. Well, I read them in preparation for their discussion at the meeting, and later returned them to General Motors.

Q. Did you ever disclose or exhibit those reports to anyone in the operating departments of du Pont?

A. No.

Q. Did you ever show those reports to the other members of the Finance Committee of the du Pont Company?

A. No.

Q. There is another document to which I should like to call your attention, Mr. Carpenter, which has been introduced in evidence by the government in this case. That is a document which bears Government's Trial Exhibit No. 537.

This document reflects a resolution or decision taken by the General Purchasing Committee of General Motors in 1924, and I call your attention to the last paragraph of that document, which I shall now read to you.

It reads as follows:

> "Finally it was agreed that as a practice General Motors could not undertake to supply information [fol. 6618] showing the volume of business done with any suppliers to the du Pont Company but that in special cases, upon request by the President of the du Pont Company to the President of General Motors, the situation would be properly dealt with, and that if the du Pont Company were to furnish to General Motors a list of suppliers whom it is desired to favor with inquiries, our divisions would endeavor to meet their wishes in this regard."

Mr. Carpenter, when you first became president of the du Pont Company, was this resolution or decision of the General Purchasing Committee of General Motors called to your attention?

A. No.

Q. When did you first learn of this decision or resolution?

A. Just a few days ago.

Q. While you were president of the du Pont Company, did you ever request the president of General Motors for information about the volume of business done by General Motors with any of its suppliers?

A. No, I did not.

Q. Mr. Carpenter, while you were president of du Pont, were there any assignments or transfers of persons employed by the du Pont Company to important positions in General Motors?

A. No.

Q. To your knowledge are there now any positions of responsibility or power in General Motors held by any persons who have ever held positions of responsibility in the du Pont Company?

A. No.

Q. There are certain members of the Board of Directors of General Motors who are directors of the du Pont Company?

A. Oh, yes.

Q. My question is directed to the management of General Motors. [fol. 6619]

A. That is what I thought you were inquiring about.

Q. Mr. Carpenter, have you personally, quite apart from your activities as a member of the Board of Directors of General Motors and its committees, ever undertaken to talk to anyone in General Motors about its purchasing practices and about where it obtained its supplies?

A. No, I never have spoken a word to anyone on that subject.

Q. Have you ever attempted to persuade anyone in General Motors not to buy from any competitor of the du Pont Company?

A. Never.

Q. The complaint charges that generally for the period of more than thirty years there has been an agreement or understanding between du Pont and General Motors that General Motors would favor du Pont in purchasing the commodities made by du Pont that General Motors required.

It is also alleged that there was a conspiracy or agreement that General Motors would refrain from entering the fields of production in which du Pont was engaged.

I now ask you generally whether to your knowledge any such agreement as that existed at any time while you have been president or while you were an officer or director of the du Pont Company?

A. There has never been any such agreement.

Q. Have you personally ever taken any steps to carry out or to order anyone else to carry out any such agreement or understanding?

A. I have not.

Q. The complaint also charges in general terms that there was in effect a similar arrangement, a combination or [fol. 6620-6622] conspiracy between the United States Rubber Company and the du Pont Company?

I ask you generally whether to your knowledge any such agreement existed while you were an officer or director of the du Pont Company?

A. No such agreement ever existed.

Q. And I also ask you whether you personally have ever done anything to carry out or ordered anyone else to carry out such an understanding?

A. I have not.

[fol. 6623-6625] Cross Examination

By Mr. Harsha:

Q. Yes. Now, you touched upon the manner in which the du Pont representatives on the General Motors Board were—I believe you said "discussed" and suggested by the Finance Committee of du Pont, and you mentioned that there had been usually five—I think there was one instance called to your attention that the du Pont Company had six so-called du Pont representatives on the General Motors Board.

Do you recall that?

A. That is correct.

Q. Now, how was the number five or six directors representing the du Pont Company—how was that determined by the du Pont Company, if you know?

A. I think it just grew up that way. I don't think there was any mathematical approach to that, or any specific decision with respect to the number. It just happened that way. Today I don't know why there should be just five and not four or six.

Q. Was it thought by the Finance Committee of du Pont that that was an adequate amount of representation to have on the General Motors Board?

A. I think so.

[fol. 6626] Q. Passing along on the same page that I referred to, page 3, that is numbered at the bottom of the page and it states that:

> "Mr. du Pont feels that the best manner in which to attain the greatest success possible in the conduct of the affairs of the General Motors Corporation is for that Corporation to interest its principal men in the Corporation as substantial stockholders or partners. [fol. 6627] He not only feels this very keenly, but feels too that the du Pont Company with its large and controlling interest in the General Motors Corporation has now a splendid opportunity to enhance the value of its own investment in the General Motors Corporation through giving to the General Motors Corporation an opportunity to interest its important employes as managing partners in this great enterprise."

Would you state that was an accurate statement of the objectives of the Managers Securities Plan, Mr. Carpenter?

A. Yes, the purpose of the Managers Securities plan was certainly to enhance the value of our investment.

Q. And would you call the reference to the managing partners—would you call that an accurate reference?

A. Well, I think that is an informal use of the words, perhaps.

Q. Now, would you say that as a result of the Managers Securities Plan that one of its results was to create or make for a greater loyalty among the top management to General Motors?

Mr. Cox: What is the question?

(Question read.)

Mr. Cox: Mr. Harsha, I am not going to object to the question, but I am not clear on it.

Mr. Harsha: Let me rephrase it.

Mr. Cox: I was not clear whether you were asking him for the state of mind of the employees of General Motors or for the purpose of the Plan.

Mr. Harsha: Let me see if I can rephrase it a little more accurately.

[fol. 6628] By Mr. Harsha:

Q. Would you say one of the purposes of the Managers Securities Plan as you understood it was to make for a greater loyalty among the top management of General Motors to those in control of General Motors?

A. No, only to the General Motors Corporation.

Q. Only to the corporation?

A. Yes.

Q. Would you say that it tended to create a greater enthusiasm among the top management for the policies determined in General Motors?

A. Well, I think the idea was intended to create a greater enthusiasm for the enhancement of the prosperity and the earnings of General Motors as a whole, whether or not they might be directed for one moment to the specific item that you mentioned, or something else, and I would rather refer to the general purpose of the plan.

Q. And it is, of course, ~~true~~ that at this time du Pont was the largest single stockholder in General Motors?

A. That is correct.

Q. And was it your understanding that it was Mr. Pierre du Pont who suggested that this Managers Securities Plan be worked up?

A. I don't recall who made the original suggestion, whether it was Mr. Raskob or Mr. Pierre or Mr. Brown. I think perhaps they all worked it out together.

Q. Well, you will note that in the last sentence of that paragraph we have just been looking at on page 3, it states at the very end of that sentence, "And Mr. du Pont there- [fol. 6629] fore requested that a plan be developed to accomplish this object."

A. It does appear that that is there.

Mr. Harsha: Would you show Mr. Carpenter Government's Exhibit No. 167, please?

By Mr. Harsha:

Q. This is a memorandum by Mr. Raskob to the Finance Committee of the du Pont Company dated January 30, 1922, and I believe you previously indicated that you were a member of the Finance Committee of du Pont at this time?

A. That is correct.

Q. And it states in the first paragraph:

> "Recently the du Pont American Industries, Inc., which held a large block of Chevrolet Motor Company stock, surrendered that stock to the Chevrolet Motor Company for exchange of General Motors Corporation common stock, on the basis of one share of Chevrolet for 14⅓ shares of General Motors Corporation common stock and the du Pont Company likewise exchanged its Chevrolet holdings at that time. In addition to this our friends exchanged their stock, so that today the Chevrolet Motor Company is without the control of our company and its friends."

I draw your attention that there is a proposal recommended later on in this memorandum, and I believe you will find that your name appears as one of those signing the approval.

Do you see that in the lower left hand corner?

A. Yes.

Q. Now directing your attention to this sentence I have just read, in which it states that "So that today the Chevro [fol. 6630-6632] let Motor Company is without the control of our company and its friends," can you tell us to whom the expression friends of the du Pont Company refers? Does that mean the Morgan Company?

A. Well, I can't tell who that is, Mr. Harsha. I just don't know at the moment.

Q. Do you have any recollection?

A. No. My recollection is, and it is rather hazy, that the Chevrolet Company at that time was more or less in the course of dissolution, and this letter indicates that Mr. Raskob has found that the ownership of the stock in that company has gotten down to 45 percent, and he feels that does not constitute control, and therefore makes the recommendation that we repurchase six percent in order to establish control.

Q. You have no recollection as to who the "friends" are that are referred to here?

A. No, I don't.

Q. Wasn't the Nobel industry a large investor in General Motors stock about this time?

A. The Nobel became interested first, I think, at the time of that common stock issue of some $36,000,000 of new stock.

Q. That was about 1920, was it not, sir, if you recall?

A. Perhaps 1920. I don't think that would have involved them in the Chevrolet Company. Well, the fact is I just don't know the answer to your question, Mr. Harsha.

[fol. 6633-6645] Q. Was there any discussion of Mr. Irenee du Pont's statement that "it would seem distinctly advantageous if Mr. Sloan were on the du Pont Board," if you recall?

A. I presume this report in this form was discussed and that is what it says, Mr. Harsha.

Q. You have no independent recollection of a discussion?

A. No, I don't really.

Q. Was anything said as far as you can recall as to why it would be advantageous to du Pont to have Mr. Sloan on the Board of the du Pont Company?

A. Well, he cites the two reasons: because of our interest in General Motors, and because he is an excellent man who would contribute strength.

The second one is perfectly obvious. I think the first one was that through his presence there, he might give us from time to time a general report on the progress of General Motors, and that, as was brought out this morning, has been done consistently over the period.

[fol. 6646] Q. I should also like to show you Government's Exhibits No. 232, No. 231 and No. 233. I believe Exhibit No. 232 is the first of these in point of time, Mr. Carpenter.

It is a letter addressed to you, dated September 15, 1948, by Mr. Sloan.

He states, in the second paragraph, that:

> "I have in mind two or three industrialists who would add prestige and bring experience into our Board of Directors. They are people who I am sure would be helpful in the years to come. In one case the individual is head of a corporation which is a supplier to General Motors to the extent of 20%; the other is Chairman of the Board representing a stockholder interest having very little to do with operations of a corporation which also has about 20% of General Motors business."

Then, passing down to the last paragraph on the page, he states:

> [fol. 6647] "Now I realize that it would be better to have members on our Board having no relationship whatsoever with a corporation of a business character; at the same time, should we accept this as a definite rule? If we should say that an individual is not a candidate if he was connected with a corporation which was supplying us material to the extent of not to exceed 20% of our needs, should that be a barrier and prevent us from considering men in that position?"

Then he states, at the very last paragraph on page 2:

> "What I am really asking, therefore, is:—Would you be prepared to accept as eligible for our Board of Directors, men whom you would be glad to have, from every point of view except that they might have relationships as a supplier to the extent of 20% of General Motors needs."

Then in Government Exhibit 231, a memorandum written to you by Mr. Lammot du Pont, dated September 16, 1948, the day after the previous document, you state:

> "I would like to talk to you about this some time."

Then you state:

> "I am wondering whether an objection to the inclusion of a director solely on the ground that he may be a supplier comes with good grace from us, in view of our own position.
>
> "It is true that because of our stockholdings we are surely entitled to representation on the G. M. Board but in spite of this we cannot urge too strongly [fol. 6648] that a supplier is, irrespective of other merits, to be disqualified."

There are certain notations on that document, Mr. Carpenter. Are those in your handwriting or Mr. Lammot du Pont's handwriting, if you know?

A. They look like Lammot du Pont's handwriting.

Q. Calling your attention to the statement in the third paragraph of this memorandum which you wrote, beginning with "It is true that because of our stockholdings we are surely entitled to representation on the G. M. Board, but in spite of this we cannot urge too strongly that a supplier is, irrespective of other merits, to be disqualified." Can you tell us what were your reasons for that statement?

A. Yes, I can. I think in this I was needling Lammot a little bit.

Lammot was very strong in the feeling that a man who is an important supplier of General Motors, perhaps, would not be the ideal director for General Motors. Personally, I didn't feel that way nearly as strongly as he did. As a matter of fact, I didn't think it was a serious deterrent at all, and if a man were a man of considerable capacity and in other ways well equipped to become a member of the Board, in our opinion, I didn't think that should serve as an obstacle.

As I say, Lammot didn't feel that way. It is a long time ago, but I think in that second paragraph there I was rather needling him because of the somewhat anomalous position which in a way it put ourselves.

I think I went on, however, with a perfectly obvious treatment of that: It is perfectly clear why we not only [fol. 6649-6724] were entitled to a position on the Board, but it was almost obligatory that we should be in there in order to look after our investments.

Q. Do you recall whether about this time you had a discussion of this subject matter with Mr. Lammot du Pont?

A. I think probably I did.

Q. Did Mr. Lammot du Pont ever take the position in his discussion with you that one of the objections might be that when you have a supplier representative on the GM Board, that he might be expected to attempt to influence General Motors to purchase from that supplier?

A. I don't believe I ever discussed with Lammot his reasons for that. I know I did not feel those same reasons.

Lammot was always very strong in the feeling that as to directors who were on the General Motors Board, there should be some reason to make us feel that they were specifically interested in the furtherance of the interests of General Motors, and I think that occasioned his comment regarding the stockholders.

Q. Was it your position that the fact that you were representing a large stockholder overcame the objection that you were also a supplier?

A. Well, I certainly think that that was true. I would go even further than that. I would not think that being a supplier was necessarily a critical matter in disqualifying one.

Q. I take it that view was not shared with you by Lammot du Pont?

A. It was not.

Mr. Harsha: Thank you. I think that is all.

Mr. Cox: No redirect examination, your Honor.

[fol. 6725] Crawford H. Greenewalt, called as a witness on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

Direct examination

By Mr. Cox:

Q. You are Crawford H. Greenewalt?

A. I am.

Q. You live in Wilmington, Delaware?

A. I do.

Q. You are now the president of the du Pont Company?

A. I am.

Q. How long have you been president of the du Pont Company?

A. Since January 19, 1948.

Q. Where were you educated, Mr. Greenewalt?

A. I attended the William Penn Charter School in Philadelphia, from which I graduated in 1918, and the Massachusetts Institute of Technology, from which I graduated in 1922.

Q. Did you receive a degree at that time?

A. I did.

Q. What degree was that?

A. Bachelor of Science.

Q. I believe that since that time you have been the recipient of some honorary degrees from universities, is that right?

A. That is correct.

Q. And you are a member of the National Academy of Sciences?

A. I am.

Q. Mr. Greenewalt, are you the Crawford Hallock Greenewalt who is named as a defendant in Paragraph 9 of the first Amended Complaint in this case?

A. I am.

Q. The record shows that on the government's motion you were dismissed as a defendant.
[fol. 6726] Are you the husband of the Margaretta du Pont Greenewalt who was named as a beneficiary defendant in Paragraph 11 of the second Amended Complaint?

A. I am.

Q. That is the complaint which is now before the Court. In what relationship, if any, does Margaretta du Pont Greenewalt stand to the defendant, Irenee du Pont?

A. She is his daughter.

Q. When were you married, Mr. Greenewalt?

A. June 4, 1926.

Mr. Cox: At this time, may it please the Court, I should like to offer in evidence the document which has been marked du Pont Exhibit No. 465 for identification, which is a tabulation of the positions held by Mr. Greenewalt with the du Pont Company from 1922 to date.

(Said document, so offered and received in evidence, was marked Defendants' Exhibit No. DP-465.)

By Mr. Cox:

Q. Mr. Greenewalt, do you have a copy of this?

A. Yes, I have one here.

Q. I do not intend to ask you many questions about the positions that are listed in this exhibit, but there are two or three questions that I think might assist the Court and counsel.

I notice that you began as a control chemist in the Paint, Lacquer, and Heavy Chemical Department, and that after being in that department for a short time, you then became a control chemist in the Chemical Department.
[fol. 6727] Is the Chemical Department an operating department of du Pont?

A. No, it is not. It is one of the company staff departments. Its responsibility is really for the forward looking research that is aimed at developing new processes and new products for the long term future.

Q. Does it carry on any commercial operations, any buying or selling, or anything of that kind?

A. No, it does not.

Q. This exhibit shows that after having been in the Chemical Department as control chemist, you served in the Chemical Department in something that is called the experimental station.

Will you tell us what the experimental station is?

A. Well, that is a site about two and a half miles outside of Wilmington where all of the research done by the Chemical Department is conducted, but where also some of the operating departments have their research laboratories. The Chemical Department has a dual responsibility in the sense that it is responsible for its own research program, and also acts as landlord for the other departments that are resident there.

Q. How large an establishment is that?

A. Well, size can be measured in many different ways. The investment there is about $45,000,000. There are total personnel of about 2,500, and the technically trained people engaged in research number about 900. That is at the present time.

Q. Was the establishment that large when you went to work there in 1924?

A. By no means.

Q. Mr. Greenewalt, without going into any detail, can [fol. 6728] you just refer generally to one or two of the projects that were carried on with which you were connected while you were at the experimental station so that we may have in the record an illustration of the kind of work that was done there?

A. Well, I remember very well the first job I had was to assist in the construction of a high pressure laboratory in which we were to explore the carrying out of reactions under pressures of from 5,000 to 15,000 pounds a square inch. That was considered rather remarkable in those days.

I also did some work on the synthesis of ethylene and acetylene from petroleum hydrocarbons, and then for the few years before I became assistant director, I was engaged in the development of nylon.

Q. The exhibit shows that after having been in the Experimental Station still in the Chemical Department, you thereafter were engaged in the Chemical Division of the Grasselli Chemical Department.

Is the Grasselli Chemical Department an operating department?

A. Yes, it is. It is one of our ten industrial departments.

Q. It carries on commercial operations?

A. Commercial operations, it does.

Q. Was your work in that division related to those commercial operations or was it still a research job.

A. Well, each of our industrial departments is responsible for the three important branches of its business, sales, production and research. Each industrial department, of which Grasselli was one, had its own research division, and I was at the head of the research division of the Grasselli Chemical Department.

Q. This exhibit shows that the next position you held was manager, Technical Division, Explosives Department. [fol. 6729] Can you explain to us what your duties were in that position?

A. Well, that was the code under which our atomic energy work was done in the Second World War. To explain what I did, I am afraid I must give a little background.

The du Pont Company had undertaken to design, operate and build a plant, which later became known as the Hanford Engineer Works, in which we manufactured plutonium, which, as I suppose everybody knows, is one of the fissionable materials.

Now at the time that we undertook that work, we in du Pont had no knowledge whatever of the scientific background that was involved in that undertaking. That, as you may recall, was being carried out here at the University of Chicago under the name of the Metallurgical Project, and under the direction of Mr. Arthur Compton, who at that time, I think, was professor of physics here.

Now, the Metallurgical Laboratory took the responsibility for the scientific background for this atomic energy development fully and completely. We could not do so. However, the men here, while very distinguished scientifically, had very little knowledge of operating procedures or of what was necessary to convert scientific concepts into something that would work, and so there was set up in the du Pont Company a technical group whose function was that of liaison.

I was in charge of that group and that is what this title implies. Our job really was to understand the scientists here, what they were doing, and to translate their results in terms that our own engineers, our designers, constructors and operators could use in implementing their responsibility in the construction of this plant, and of course, it went [fol. 6730] two ways. When some piece of information was needed by our own people, it was our job to translate that into scientific language so that it would be at hand.

Q. That work, the exhibit shows, continued until 1945?

A. So far as I was concerned, Mr. Cox. The company's connection continued for perhaps a year and a half longer.

Q. And thereafter you held various positions in the du Pont Company, including a position in the Development Department and one in the Pigments Department, and then, the exhibit shows, that you became a vice president on June 1, 1946, and president on January 19, 1948.

The exhibit also shows that on January 19, 1948, you also became a member of the Finance Committee?

A. That is all correct.

Q. You had theretofore, according to the exhibit, served on the Executive Committee, that is, from June 1, 1946. Does that accord with your recollection?

A. That is so.

Q. Have you ever been on the Board of Directors of General Motors?

A. I have not.

Q. Now, it appears from this exhibit and what you have told us in the brief testimony you have given about your positions, Mr. Greenewalt, that many of the positions you held in the du Pont Company, particularly in the early stages of your experience with the company, were positions in which your duties were primarily of a scientific or research nature.

Can you tell us when or at what point or how you began to become acquainted with the commercial operations of the du Pont Company?

A. Well, Mr. Cox, it is very difficult to answer your question in terms of a date. I don't think it went quite that way. [fol. 6731] I had a predilection for research, but I think the fact that I went into industrial research was an indication that I was interested in the commercial side. Then of course, very shortly afterwards, I became a rather substantial stockholder, and in that sense I felt it was my responsibility to know as much as was proper about the commercial side of the company.

Of course, even in the research laboratory, one has to become aware of the commercial implications of what one is doing.

For example, we were thoroughly aware in the Nylon development of the necessity of competing with silk, and that required a knowledge of the commercial factors that entered into a successful research development.

I suppose that one might say that the first direct connection I had with the company's commercial activities was when I became the head of the Chemical Division of the Grasselli Chemical Department, and as you will see about the same time I became a member of the Board of the du Pont Company, and of course then it was necessary for me to become more deeply familiar with the company's commercial interests.

I should say it was a matter of growth rather than of date.

Q. Would it be correct to say that as the years went on you did become more and more familiar with the company's operations?

A. Yes, that was necessary, Mr. Cox.

Q. Mr. Greenewalt, can you tell us generally, and without too much detail, if you please, how the du Pont Company was organized and how it operates, with particular reference to the relation between the operating departments and the committees of the Board of Directors, and the [fol. 6732] Board itself.

A. Well, there again, I have to give a small amount of background.

In 1921, I have been told, and particularly at the urging of Mr. Irenee du Pont, the decentralized system of organization was set up under which we still operate. The idea there was that if the company were going to grow and expand and diversify the chemical field, some way had to be found to share the responsibility so it would not be necessary for the very top echelons of management to run every phase of the business.

To that end there were set up what we call our industrial departments. At that time, I believe, there were four; today there are ten.

Those industrial departments carry forward the business of the company. They make the products, sell them, and do a substantial amount of the research necessary to support them and diversify their own operations.

Each of those industrial departments is headed by a general manager. That general manager has substantially the autonomy of the president of a subsidiary company, or of an independent company. For example, he has complete authority with respect to the purchase of his raw materials; with respect to his sales problems, including the setting of his selling prices; with respect to the wage and salary rates that he pays his organization; with respect to the selection of his personnel.

In fact, the only personnel selections with which the Executive Committee is concerned, is the designation of the general manager himself, and the approval of his assistant.

[fol. 6733] Now, in all of those regards he has as much autonomy as can be given him.

Now, there are, in addition, I think, fourteen staff departments—legal, treasurer's, and so forth, public relations, advertising, and what-not—who serve the industrial departments. But their position essentially is the position of an independent expert selling his wares to the industrial departments general managers.

Now, the Executive Committee is the governing body of the du Pont Company with respect to its business and operations, and the Executive Committee, of course, has broad jurisdiction over the company's operations.

It is, as you have been told, a committee of the Board of Directors. It decides on all matters of broad policy that cut across the industrial departments of the company. It approves appropriation requests above a rather small amount.

There are many other duties which I won't bother to go into. I suppose one might say that the most important function of the Executive Committee is the selection of the top personnel of the company, because, of course, on that the successful operation of the industrial departments depends.

Q. Now, Mr. Greenewalt, I should like to direct your attention to the subject of the commercial relations that exist and have existed between du Pont and General Motors.

Are you aware that General Motors has been and is a substantial customer of the du Pont Company?

A. Yes, I am.

[fol. 6734] Q. Mr. Greenewalt, as long as you have been a member of the Finance Committee of the du Pont Company, has it received any reports of any kind from any source showing the amount of sales made by du Pont to General Motors?

A. It has not.

Q. Has it received during that period of time, any reports showing what percentage or part of General Motors requirements it buys from du Pont?

A. No, it has not.

Q. Now, directing your attention to the Executive Committee on which you have already testified, has that committee received any reports during the period of time that you have been a member, showing the percentage of General Motors' requirements which that corporation buys from the du Pont Company?

A. No, it has certainly not received any reports that set that forth.

I might say this, that we have received, from time to time, monthly reports from each of the industrial departments. In those reports, sales are reported, earnings are reported, and frequently there is commercial chit-chat relating to reasons for the department missing its forecast or exceeding it, as the case may be.

Now, there may be occasional references in those reports; there may well have been occasional references in those report to dealings with General Motors, but there is certainly no routine in which the Executive Committee or Finance Committee or any other committee, would be aware of the percentage of its requirements that General Motors purchases from the du Pont Company.

Q. Now, personally, quite apart from your membership on these committees, Mr. Greenewalt, does the president [fol. 6735] receive any reports from any source that show what percentage of its requirements General Motors is buying from du Pont?

A. I do not.

Q. To your knowledge is any system of reports kept anywhere in the du Pont Company which regularly and systematically record the percentage of General Motors' requirements it buys from du Pont?

A. There is not.

Q. Do you ever receive any information of that kind personally, direct from General Motors, as distinguished from receiving it from someone in the du Pont Company?

A. No, I have never received such a report.

Q. Have you ever intervened with anyone in General Motors to ask them to assist the du Pont Company in selling its products to General Motors?

A. No, I have not.

Q. Mr. Greenewalt, have you ever heard of the commercial practice that is sometimes described as "reciprocity"?

A. Yes.

Q. Have you, as president of the du Pont Company, ever requested any information from the president of General Motors or from anyone else in General Motors, about

General Motors' suppliers, so that you could use that information to sell du Pont goods?

A. No, I have not.

Q. Are you aware that in 1924 the general or central purchasing committee of General Motors passed a resolution or reached a decision which in effect recited that if the president of du Pont should apply to the president of General Motors, such information might be made available to du Pont?

A. I am now aware of it.

Q. When did you first learn of that?

A. I can't remember the date. It was certainly in connection with this litigation. That was the first time.

[fol. 6736] Q. Were you told about that resolution when you first became president of the du Pont Company?

A. No, I was not.

Q. Now, I should like to direct your attention, if you please, to the subject of commercial relations that exist between du Pont and the United States Rubber Company. Are you aware that du Pont buys goods from the United States Rubber Company?

A. I am.

Q. And are you aware that du Pont sells goods to the United States Rubber?

A. I am.

Q. While you have been on the Finance Committee or the Executive Committee of the du Pont Company, has either of those committees received reports showing the percentage of United States Rubber requirements that it buys from the du Pont Company?

A. They have not.

Q. Do you, as president, personally receive any such reports?

A. I do not.

Q. Have you, as president, received any reports that compare du Pont's purchases from United States Rubber with du Pont's sales to United States Rubber?

A. No, I have received no such reports.

Q. Have such reports to your knowledge been received by the Finance or Executive Committees while you have been on the committee?

A. No. I should say this, Mr. Cox: I think that when this litigation was first instituted in connection with some of the accusations that were made, I felt it necessary to advise the stockholders that this litigation was in progress and to give them a point of view—our point of view, shall I say quickly—with respect to it.

[fol. 6737] In that connection I did ask to be compiled our sales to the United States Rubber Company for a particular year, and our sales to the General Motors for a particular year. I did ask to have that information prepared in connection with that letter to the stockholders, but that is the only occasion on which I have ever had such information available to me.

Q. My question, Mr. Greenewalt, was not directed at anything you may have done in preparation for this litigation, but to your ordinary course of business.

A. No, in the ordinary course of business there was nothing of that sort.

Q. Now, while you have been president of the du Pont Company have you seen Mr. Irenee du Pont from time to time?

A. Oh, yes.

Q. Have you seen Mr. Lammot du Pont from time to time, when he was alive?

A. I did, indeed.

Q. And have you seen Mr. P. S. du Pont from time to time?

A. Yes.

Q. Have you ever discussed in any way the affairs of the du Pont Company with any of those gentlemen?

A. Yes, I have.

Q. Now, did Mr. Irenee du Pont ever ask you to cause the du Pont Company to buy its requirements of goods from the United States Rubber Company?

A. No, he did not.

Q. Did any of the men that I have named ever make such a request to you?

A. No, they did not.

Q. Did any of those men ever say anything to you about any agreement existing between du Pont and United States Rubber whereby each agreed to buy its requirements [fol. 6738] of goods from the other, or any part of their requirements?

A. No, they did not.

Q. Did any of those men ever say anything to you in any of these conversations about any such agreement between du Pont and General Motors?

A. They did not.

I think I might say, Mr. Cox, that the three brothers, and Mr. Carpenter, would lean over backwards—as a matter of fact, I don't remember an occasion since I have been president, when they have come to me with any suggestion whatever with respect to the du Pont Company.

The conversations that I had with respect to the du Pont Company's affairs were always of my seeking.

Q. These men have all been members of the Finance Committee while you have been a member of this Finance Committee?

A. No, they have not.

Q. They have not?

A. Only Mr. Pierre du Pont has been a member of the Finance Committee while I have been a member of that committee.

Q. Now, I should like to direct your attention to certain other corporations which are involved in this case, Mr. Greenewalt, and one of them is Christiana.

You have been a director of that corporation since 1944?

A. I have.

Q. And I think the record in this case, specifically Government's Exhibit No. 1292, shows that in 1936 Mr. Irenee du Pont gave you 1,000 shares of stock in that corporation, is that correct?

A. That is correct.

Q. Has that 1,000 shares been your total holding in Christiana at any one time?

A. That has been my maximum holding at any one time, yes, Mr. Cox.

[fol. 6739] Q. When you received this gift from Mr. Irenee du Pont, was any restriction made on the gift, Mr. Greenewalt?

A. Yes, there was. The restriction was that I was to continue in the employ of the du Pont Company for a period of five years. Should I voluntarily leave the employ of the du Pont Company, I had to return the stock to him. I could, however, retain such dividends as had been paid in the interim. That is the only qualification. I think there is a letter to that effect.

Q. I was going to ask you whether it was stated in writing or orally?

A. Yes, it was. It was stated in writing.

Q. Do you have with you a copy of that letter

A. Yes, I have it here.

Q. That is marked Defendants' Trial Exhibit No. DP-331 for identification, a letter to you from Mr. Irenee du Pont, dated June 1, 1926. That is the letter to which you refer?

A. That is it, yes.

Mr. Cox: I now offer that letter in evidence.

(Said document, so offered and received in evidence, was marked Defendants' Exhibit No. DP-331.)

Mr. Cox: I think perhaps I might comment that the substance of this letter, I think, has been the subject of the stipulation that was made between Miss Hunt and Mr. Nichols, earlier in this proceeding.

Mr. Harsha: That's right.

By Mr. Cox:

Q. Mr. Greenewalt, are you a party to any agreement [fol. 6740] or understanding, express or implied, that restricts your right to dispose of your shares of Christiana?

A. No, I am a party to no such agreement, nor do I feel I am restricted in any way.

Q. Have you, in fact, disposed of any of the shares of stock that you owned in Christiana?

A. I have.

Q. In what way have you disposed of it?

A. Well, the major portion, in trust for my children, and other rather substantial amounts as gifts to various charities.

Q. In relation to the gifts to charities, have those gifts been absolute, or have you retained any power to vote the stock?

A. No, they have been absolute.

Q. As to the Christiana stock which you now hold and which you have held in the past, have you been a party to any agreement or understanding with anyone which restricted your right to vote that stock as you saw fit?

A. I have not.

Q. Have you ever been a stockholder or officer or director of the Delaware Realty & Investment Company?

A. No, I have not been.

Q. Have you ever been a stockholder, officer or director of the Wilmington Trust Company?

A. No.

Q. Have you ever been a director or officer of the United States Rubber Company?

A. No.

Q. Have you ever owned any shares of stock in the United States Rubber Company, Mr. Greenewalt?

A. Yes. At one time I owned 300 shares of the preferred stock of the United States Rubber Company, but since that time that has been disposed of in large part as gifts to charity, and I think there was some small portion of it that I sold. I am not now a stockholder.

[fol. 6741] Q. Mr. Greenewalt, the amended Complaint in this case charges that over a long period of years, including its later stages, years in which you have been an officer or director of du Pont Company, that a conspiracy existed between the du Pont Company and General Motors and U. S. Rubber Company, the substantial terms of which are that each of the companies would favor the products of the other, so far as buying for its own requirements are concerned, and that the companies would divide fields of industrial activities.

I shall now ask you some questions about those charges in the Complaint which I should like to have you consider carefully in answering them.

The first question is this: During the period of time that you have been a director and officer of the du Pont Company, to your knowledge has there been any agreement or understanding or arrangement, express or implied, between du Pont and General Motors, under which General Motors was obligated to buy all or substantially all, or some stated percentage of its requirements of the goods it uses, from du Pont?

A. There has not.

Q. During that same period of time has there been any such arrangement or agreement or understanding requiring the du Pont Company to buy from General Motors, du Pont's requirements of goods made by General Motors?

A. There has not.

Q. Has there, during that period of time, to your knowledge been any agreement or understanding or arrangement, express or implied, that General Motors would stay out of the chemical business?

A. There has not, to my knowledge.

[fol. 6742] Q. Has there been any such arrangement, agreement or understanding, that General Motors would turn over to du Pont for exploitation, any chemical discoveries or inventions that General Motors might make?

A. There has not.

Q. During that same period, to your knowledge, Mr. Greenewalt, has there been any such agreement, understanding or arrangement between the United States Rubber Company and du Pont, whereby United States Rubber was required to buy all or substantially all, or any stated percentage, of its requirements from du Pont?

A. No.

Q. Was there any such agreement or arrangement, to your knowledge, between du Pont and the United States Rubber, which obligated du Pont to buy all or any part of its requirements from United States Rubber?

A. No.

Q. Has there been any agreement or arrangement under which United States Rubber refrained from entering into the chemical business or into chemical fields of activity in competition with du Pont?

A. There has not.

Mr. Cox: That is all.

You may cross examine.

Mr. Harris: If your Honor please, I wonder if I might have five minutes? Oh, that is all right. It is here now.

Cross Examination

By Mr. Harris:

Q. Mr. Greenewalt, I would first like to call your attention to the time when you became president of the du Pont Company.

Now, what are your duties as such president?

A. Well, I am the chief executive officer of the du Pont Company.

[fol. 6743] Q. What does that mean?

A. That means, I suppose, that as the highest responsible echelon in the company, I am Chairman of the Executive Committee, and I am the instrument, I suppose it would be fair to say, through which the instructions of the Executive Committee and the Finance Committee are carried out with respect to the operating departments, when some decision of major policy is reached.

Q. Now, do you have the power of appointment of your principal officers, such as the managers of divisions?

A. Now, I think we should be very precise there, Mr. Harris.

Q. Yes, sir?

A. The appointments of the general managers of the industrial departments and the heads of the auxiliary departments are made by the Executive Committee. It is normally my function to make recommendations to the Executive Committee as to who shall be appointed general managers or department heads, as the case may be.

Q. Yes?

A. The assistant department head or assistant general manager is nominated by the general manager, and his selection is approved by the Executive Committee, there being a very real distinction.

Q. Now, in the case of the manager, have you had occasion since your incumbency in the office, which was in 1948, wasn't it, in the beginning?

A. Yes.

Q. Have you had occasion to make any changes in the managers of any of your departments?

A. Yes, I have.

Q. Particularly what departments?

A. Well, I remember several. The Organic Chemicals Department, the general manager of that department who was general manager at the time I became president, retired [fol. 6744] some months or years afterwards, and I recommended his successor, Mr. Daley, who I think appeared here in this court.

Q. You are the one who put Mr. Daley's name before the Executive Committee?

A. That is correct.

Q. Now, after it has been before the Executive Committee and approved, as I take it it was, does the appointment then go to the Board?

A. No, it does not.

Q. It stops there?

A. It goes to the Board as a matter of information.

Q. But not for approval?

A. But the power is entirely in the Executive Committee.

Q. Now, as to these assistant managers, does the recommendation of the manager come to you for approval?

A. You said Manager, Mr. Harris?

Q. I am speaking of the assistant managers.

A. I see. Yes, it does come to the Executive Committee for approval.

It works this way: let's take the case of Mr. Daley, who was appointed by the Executive Committee as general manager of the Organic Chemicals Department. He will then consider his recommendation for his assistant, and he will bring that to the Executive Committee and say, "I recommend Mr. So-and-So as my assistant."

Now, if the Executive Committee approves, it says, "Yes, we approve that recommendation." If it doesn't approve, it merely expresses its disapproval, whereupon Mr. Daley retires into the silences and comes up with a new candidate.

Q. Comes up with a new one?

A. Yes, but he always makes the recommendation.

Q. Now, how do the Executive Committee become members? What is the procedure there?

A. That, of course, is a Board appointment, but there it [fol. 6745] is again on my recommendation. We have had one new member since my term as president, and that was a recommendation I made to the Board.

Of course, after consultation with my associates on the Executive Committee.

Q. So that I may have my record straight on that, who was that, Mr. Greenewalt?

A. Mr. Dannenbaum.

Q. That is the Executive Committee?

A. Yes.

Q. Oh, I have him listed here.

A. You have him there. It is my impression that he was elected early in 1949; I am not sure.

Q. We have him down as 1948, but that is all right.

A. You are doubtless right.

Q. Now, as to the Finance Committee, is the same procedure adopted?

A. Well, I have nothing to do with recommendations for membership on the Finance Committee except as a Board member, if I wish to make some point with respect to it. I think that the recommendations for membership on the Finance Committee would lie between the Chairman of the Finance Committee and the Chairman of the Board.

Q. Is that somewhat unusual, Mr. Greenewalt?

A. I think not. Unusual in what sense, Mr. Harris? I want to be sure I understand.

Q. Was it peculiar to the du Pont Company, if you know?

A. Oh, I am not sure as to that. I think many companies have Finance Committees, but I am sure I couldn't say as to how committee appointments are made in other companies. I wouldn't be able to say whether it was unique or not.

[fol. 6746] Q. But it is, however, in the case of the Finance Committee, that is the only case, bearing in mind other committees, that the Board acts on rather than the president through some other means? You have the Chairman of the Board, don't you?

A. Yes.

Q. And does he put the nomination before the existing Finance Committee for a member?

A. No, the Finance Committee and the Executive Committee are committees of the Board of Directors. They are elected by the Board.

Q. I am only getting nominations now, sir.

A. Now in the du Pont Company, as it has been traditionally run, the Executive Committee job is a career job in the sense that the members of the Executive Committee have uniformly spent their life and their career in the du Pont Company and have come up through various branches of its business.

Q. They are employees, aren't they?

A. Yes, strictly speaking, I am advised by our legal people that the Finance Committee members are also employees, and so is the Chairman of the Board.

Q. We are not discussing that. Let's get your ideas on it, Mr. Greenewalt.

A. Literally they are all employees. But as constituted, all of the members of the Executive Committee are men who have spent their life in the du Pont Company.

In the Finance Committee, those elected to the Finance Committee have been usually men of either long financial knowledge and experience, or men who represented substantial stock ownership in the du Pont Company.

The recommendations—as a matter of fact, the membership of the Finance Committee has not changed sub-

[fols. 6747-6754] stantially over the years in which I have been a director, so that the occasion for nominating new members has not come up very frequently. But I think the responsibility for nomination would, as I say, go between the Chairman of the Board and the Financial Vice President who is Chairman of the Finance Committee.

But I think that is quite ordinary, really, and the Board approves in every instance.

Q. That is the Board of Directors?

A. Yes, indeed.

[fol. 6755] Q. What would you say is the function of the nominees of the du Pont Company on the Board of General Motors, as nominees of the du Pont Company?

A. Well, I would say that their responsibility is to conduct themselves as a director of the corporation in the interest of all of the stockholders.

Q. Undoubtedly. But is there any reason why through the years there should always have been five, possibly on occasions six, nominees of the du Pont Company on the General Motors Board?

A. Well, I don't think there is any particular reason. Obviously some representation is indicated by the very substantial stock ownership of the du Pont Company.

[fols. 6756-6760] Q. That is because of the ten million shares held by the du Pont Company in General Motors, they are entitled, would you say, to that representation?

A. Well, now, I am quite willing to speak in generalities, Mr. Harris, but when you come to tell me whether that results in four, five or six as being appropriate, I must hold up my hands and say I don't know.

Q. May I put this question to you: Would you say that any part of their function is to represent the du Pont Company on the Board of General Motors?

A. No, I would say not, Mr. Harris.

Q. The only function you feel they have, do you, is to represent all the stockholders?

A. Yes, indeed.

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[fols. 6761]. Q. What did it do, if he told you, to the young man?

A. Well, his idea, I think, was that the young man would have a greater incentive to progress in the company and to seek its prosperity because if he were successful, the prosperity of the company and his own prosperity would go together. That, of course, is the heart of our bonus plan, in any event.

Q. Now the prosperity of the company is in some measure dependent, is it not, upon the management?

A. Oh, I would say completely, Mr. Harris, almost. With good management you have a good company; otherwise you don't.

Q. Would this incentive, you think, make for loyalty to the company and to the management?

A. I am not sure that I get you. It would certainly mean that the interests of the management and the interests of the stockholders would become coincident in the sense that the manager would be thinking not as a hired hand, hired to do a job, not only in that capacity, but also as an owner or part owner of the business.

Now that would result in his actions being dictated not only in consideration of the salary he was paid, but in consideration of the future prosperity that he might expect through an appreciation either in value or in dividend payment of the stock that he held.

Q. Has it followed in your experience that the recipients of these bonuses have been cooperative with the management?

A. You continue to speak about cooperation with the management. Of course, all employees must cooperate [fol. 6762] with the management. You obviously cannot run a business in which the people responsible for handling it are at cross purposes. That is the essence of any successful business, to have cooperation among its participants.

Q. I would say it was basic. What we are concerned with is why the bonus?

A. Well, for the reason, Mr. Harris, that if one has a participation in the business, in the earnings of the business through stock holdings therein, one conducts his daily affairs both from the point of view of his position as a paid employee and from his position as a stockholder in the business. The two points of view should be coincident always. They are not necessarily so. The possession of a substantial stock interest in the business makes it so or tends to make it so.

Q. Did you notice that change—have you noticed that change in your employees when they became stockholders, that there was some difference in their attitude towards the management?

A. Mr. Harris, you keep talking about attitudes towards the management. Attitudes to their work is a more accurate way of putting it.

There is a difference in the attitude of an employee if he is a paid employee only, and if he is also a stockholder. It is not a question of his attitude to his associates. It is a question of the kind of effort he will make in the interest of the business, and when he makes an effort in the interest of business, if he is a stockholder, it is an effort in his own interest, and that is important.

It is not a question of the relationship of one man with another man.

Q. Did you find that as a result of this bonus plan your [fol. 6763] employees and executives stay with the company?

A. Yes, indeed.

Mr. Harris: Thank you, Mr. Greenewalt.

The Court: Any questions on redirect?

Mr. Cox: No redirect, your Honor.

The Court: You are excused.

(Witness excused.)

Mr. Gribbon: If the Court please, we have two additional exhibits we would like to introduce at this time. I will ask Mr. Wescott to pass them up to the Court.

These exhibits—I might add we were a little late in serving on Government, and they have asked that their opportunity to object to them be reserved until their rebuttal.

The Court: They will be received subject to objection later after inspection.

Mr. Harsha: Thank you, your Honor.

Mr. Gribbon: These exhibits are identified as du Pont exhibits 329 and 330, and deal with that portion of the proof that relates to General Motors' purchase of cellulose acetate molding powder. That is the plastic which the Inland Manufacturing Division of General Motors used in the fabrication of steering wheels.

The witness Gillie testified on behalf of du Pont that du Pont began to sell such powder in 1937, and had some initial success, and thereafter lost out to competitors, the principal, among which, is the Tennessee-Eastman Company.

[fols. 6764-6765] Exhibit DP-329 is a request which the general counsel of the du Pont Company directed to the Eastman Kodak Company, a parent of Tennessee-Eastman asking for a statement of the sales which Tennessee-Eastman made of cellulose acetate molding powder during the four years, 1937 through 1941.

Exhibit DP-330 is the reply to that request by the du Pont general counsel signed by one M. K. Robinson of the Eastman Company which states, on the first page, the exact poundage that Tennessee-Eastman sold to Inland during the period 1937 through 1941, and on the second page estimates the total dollar volume of such sales based upon average prices during the years, and these two exhibits, DP-329 and DP-330, which I now offer in evidence, should be read in conjunction with Exhibit DP-400 which is already in evidence and which shows the du Pont sales of cellulose acetate molding powder to Inland during the years 1937 through 1941.

(Said documents, so offered and received in evidence, were marked Defendants' Exhibits Nos. DP-329 and DP-330.)

[fol. 6766] Charles Erwin Wilson, called as a witness on behalf of the Defendants, having been first duly sworn, was examined and testified as follows:

Direct examination

By Mr. Hurd:

Q. Mr. Wilson, give us your full name, please.
A. Charles Erwin Wilson.
Q. Where do you live?
A. My home is at Bloomfield, Michigan. Temporarily I live in Washington.
The Court: Would you keep your voice up, Mr. Wilson? The acoustics are bad. The amplifier is not working.

[fol. 6767] By the Witness:

A. I will repeat what I said.
My full name is Charles Erwin Wilson and my home is in Bloomfield, Michigan.

By Mr. Hurd:

Q. Mr. Wilson, you were employed by General Motors Corporation at one time?
A. Yes, sir.
Q. What was the date of your first employment?
A. In April, 1919.
Q. But prior to that time had you had any employment by any other concern?
A. Yes.
Q. What was that, and during what period?
A. Westinghouse Electric Manufacturing Company from July, 1909, until April, 1919, almost ten years.
Q. When you went with General Motors in 1919 what position did you have?
A. I was employed as chief engineer and sales manager of the Automotive Division of the Remy Electric Company at Anderson, Indiana. They had a branch office in Detroit also.
Q. What was the business of that company, of Remy Electric?
A. The Remy Electric Company made starting, lighting

and ignition equipment for motor cars, trucks and tractors.

Q. How long did you remain with Remy?

A. The Remy Electric Company in 1925 was combined with the Delco Company and thereafter the company was called Delco-Remy Company, and I remained with the Delco-Remy Company until late in 1928.

Q. What position did you have with Delco-Remy before you left it in 1928?

A. I was president and general manager of it.

[fol. 6768] Q. That was a separate organization?

A. That is correct. It was a wholly owned subsidiary of General Motors Corporation.

Q. When you left the Delco-Remy in 1928, at the end of 1928, where did you go?

A. To Detroit, Michigan, with headquarters in the General Motors Building.

Q. And that is still with the General Motors Corporation?

A. Yes.

Q. Is that what is referred to as the central office?

A. That is right, the operating end of the business.

Q. What position did you have at the time of your transfer to the central office?

A. Temporarily I was special assistant to Mr. Sloan, who was then president, pending a change in the organization. Later I was vice-president in charge of the manufacturing staff.

Q. When did you become president of General Motors Corporation?

A. In January, 1941.

Q. Then how long did you remain president?

A. Until January of this year; twelve years.

Q. 1953?

A. Yes.

Q. What was the occasion of your leaving General Motors at that time?

A. I left to become Secretary of Defense.

Q. Have you had any connection or relationship with General Motors since that time?

A. No.

Mr. Hurd: If the Court please, I offer in evidence a document marked for identification as General Motors Exhibit 285, which is marked in pencil at the lower right-hand corner as No. 1 in the Court's book.

(Said document, so offered and received in evidence, [fol. 6769] was marked Defendant General Motors' Exhibit No. 285.)

Mr. Hurd: This is a summary from the employment records of General Motors showing the various positions that Mr. Wilson occupied with General Motors Corporation from 1919 to January, 1953.

By Mr. Hurd:

Q. Mr. Wilson, now turning to the 1929 period when you were transferred to the central office of General Motors Corporation, and covering that date until the time you became president in 1941, will you describe in general terms the nature of your duties?

A. They are in the broad manufacturing end of the business, as distinguished from sales and engineering. They had to do with properties and facilities, the coordination of the manufacturing knowledge, development of purchasing and manufacturing policies.

I was in charge of any central purchasing that the corporation might do, as distinguished from the bigger activity of purchasing that each of the divisions did for themselves. I investigated any properties that the corporation might be interested in buying, anything we thought we ought to sell. I reviewed the appropriations requests for Mr. Sloan on appropriations of new money for new machinery and equipment and expansions, for replacement of obsolete equipment.

A final review before such request went to the Executive Committee of General Motors, and the Finance Committee, for final approval. In a sense, I was a technical assistant in that area for Mr. Sloan.

Q. Did you have anything to do with the Accessory Divisions of General Motors during this period?

[fol. 6770] A. Not until a little later. At that time I had the same relation with all of the divisions. I was an over-all assistant to Mr. Sloan on all of the company's manufacturing—

Q. You are referring to 1929?

A. That's right.

Q. And what do you mean by "a little later" you had some connection with the Accessory Divisions?

A. Well, a little later Mr. John Pratt, who was vice-president in charge of the Accessory Divisions, and I had a dual job. I was his assistant on the accessories end of the business, and I still had my position as vice-president in charge of the manufacturing staff.

Q. And did you later subsequently take over the entire responsibility for the Accessory Divisions?

A. Yes, at one time.

Q. And that was before you became president?

A. That's right, before I became executive vice-president also.

Q. Now, you have referred to having a responsibility for looking into the acquisition or disposal of businesses.

Will you go into that in a little more detail, and tell us what you mean?

A. Well, I might mention a few. After investigation we purchased, and I worked out the purchasing arrangements, the Allison Engineering Company in Indianapolis. That was a small concern that started out—Jim Allison had gotten interested in racing engines at the Speedway, developing special engines with increased power.

Later they started a little business of overhauling the Liberty engines, the aircraft engines that were made in World War I. They had developed a special improved type of bearing for aircraft engines. It was not a very large [fol. 6771] enterprise, but it seemed to us a proper entry into the aircraft engine field. That was one of the acquisitions.

Q. What did you do in connection with that matter?

A. I handled the negotiations to purchase it from the estate of the people that had been owners. The Whitman Engine Company in Cleveland was another.

Another was the McKinnon Industries in Canada where General Motors wanted to expand and promote its tire and truck business in Canada. We felt that we needed the backing of a good parts manufacturing organization.

The Fokker Aircraft Company was one.

Q. What company?

A. Fokker Aircraft Company had been built up around the engineering and inventive genius of Tony Fokker, and was an American company with rights to produce planes. It had certain other interests, such as Western Air.

It was a company that was promoting aviation generally in the United States. The aviation business being rather closely associated in some ways with the motor car business, some of the principles and engineering details were similar, and there were some possibilities in our research and in our experience in mass production that we could contribute to a new, growing industry.

Also, it was just far enough away from our regular business that we thought once in a while we might get an idea that would be helpful in our broader business.

Q. Did you acquire that company?

A. That is right.

Q. Who handled the investigation of the business?

A. Well, I did myself. I visited around and looked the properties over and considered what the assets were.

[fol. 6772] Q. Were there any other companies that you investigated during 1929 and the early '30's?

A. There were a couple of small companies. Packard Electric Company down in Warren, Ohio, which made wire.

Q. Did you acquire that?

A. Yes, sir, and Sunlight Company that made some fractional horsepower motors. That was a little later.

Q. Did you have anything to do with the Bendix Aviation acquisition?

A. Yes. I helped to organize the Bendix Aviation Company. As a matter of fact, I personally named it. I suggested to the other new directors that that would be a good name for it. I have known Mr. Bendix since the very early days of the automotive business, back in, oh, 1909 or 1910, perhaps 1911—1911 and 1912. He was quite an inventor and promoter.

He was a great believer in the automotive business, and later in the aircraft business. The basic idea of Bendix Aviation was to put together some smaller concerns that would be strong enough to really make progress, not only in the automotive business but in the new and growing aircraft industry.

Q. Did you investigate any businesses that you did not acquire or that you did not go into?

A. Yes. We investigated the possibility of going into the steel business. There was one particular company, the Corrigan-McKinney Co. in Cleveland, that had been built by Mr. Corrigan and Mr. McKinney. At that time they had both passed on, and the company was owned by four estates.

Business was pretty dull and they wanted to sell it, so we took a good look at that and considered whether we should or should not go into the business.

[fol. 6773] Mr. Knudsen went over to look at the properties with me. We had people go over their business to see what the assets really were, and we finally decided not to do it.

We also looked at the Kelly Springfield Tire Company down at Hagerstown, Maryland. We finally decided not to buy that property either.

Q. You have referred to the fact that you had responsibility for the central purchasing of materials. Did you enter into any contract for the purchasing of materials by the central office of General Motors?

A. Yes.

Q. In the early 30's?

A. Yes.

Q. Do you recall any of those?

A. Well, we bought pig iron. We made a purchase contract for tires. We made a contract to buy wheels. Generally speaking, one of the responsibilities of the central purchasing office was to make sure that suitable suppliers would be available to the divisions. Generally speaking, the divisions did their own specific purchasing.

Most of the items that we required for cars and trucks were different enough that it was important to have the purchasing close up to the specifications and the quality and the deliveries, and so forth. So that usually the purchase arrangements were made by the separate divisions, like Chevrolet, Buick, Cadillac, Olds, Pontiac, or Delco-Remy, New Departure, AC Spark Plug, and so forth.

We also operated as consultants with those purchasing people and the engineers and managers of those divisions at times.

Q. With whom was your contract made for wheels that you referred to?

A. Kelsey-Hayes.

Q. Do you recall in general what the term of the con-[fol. 6714] tract was, what period it covered?

A. It was two or three years.

Q. What about your pig iron purchases? Were those under contract?

A. About the same time.

Q. The same duration of time?

A. I think so.

Q. What about tires? With whom was that contract?

A. Well, I think the first tire contract was two years, or maybe a little less. It was two model years.

Q. Did you have any contract for the purchase of magnet wire as you recall?

A. Yes, we had a contract with Anaconda.

Q. What was the term of that contract, approximately?

A. I am not sure but I know it was a fairly long time. It was not six months or a year's purchase. It was a longer agreement.

Q. Who had the concept of making these contracts for a relatively long period, that is, in excess of a year?

A. It wasn't an absolutely new thing in the business. As the automotive industry developed very rapidly, at times the important thing was to get good suppliers and make sure you could get the parts. In earlier years, Mr. Durant himself had made long term contracts with some suppliers.

When I was operating the Delco-Remy Company, I did the same thing for the Delco-Remy Company. I have also made contracts on the other end. At one time Delco-Remy made a contract with Chrysler Company to sell them their electrical equipment, lamps and shock absorbers, for five years. I negotiated it myself with Walter Chrysler so I was familiar with the concept.

I was always interested in getting good prices, but more interested in creating conditions and arrangements so [fol. 6775] that the supplier could manufacture at a low cost and sell to us at a low cost and still make a profit.

Q. Was there, in your opinion, any relationship between the term of the contract and making that possible?

A. When engineering and production facilities are involved and tooling, temporary short contracts are very expensive. The contractor or supplier cannot afford to make capital investment in new machinery and so forth, which he may have to depreciate over a period of ten or twelve years, and only have a six months' contract. It is quite a gamble.

So he either has to charge a big price during that six months and take the business risk, or be assured that he will have the business over a longer period of time so that he can make those kind of arrangements.

I remember one particularly, a purchase arrangement with the Dayton Malleable Company, which involved their putting in a new, complete, progressive manufacturing system in their foundry. They couldn't afford to do it unless they knew they were going to have our business long enough to make it a reasonable business arrangement.

Q. During the early part of your work in the central office, referring to 1929 and through the depression, did you have anything to do with the purchase of commodities or raw materials?

A. Yes.

Q. What was that situation?

A. Well, I recognized, at least, I thought so, that the prices on commodities were quite low, and that there were a great many people unemployed in the country as the depression came on, and that many concerns were liquidating their inventories down to a reasonable turnover at the [fol. 6776] then low level of business, and that in itself was an added load on the country, because it took that much more production out of the whole economy of the nation.

I had been interested in the supply of basic commodities and the broad economics of business, and I recommended to the Executive Committee of General Motors that we buy some of these commodities at the then low prices, even somewhat in excess of what we might need at the time. We would need them later, and it would help to stimulate business at the low level it was then at.

I had a very simple idea. I was thinking about the unemployed people, and if they could just go out in the hills near their homes and pan out about $3.00 worth of gold a day apiece, why, that would go right in the system, and everything would be stimulated and business would be all right again.

Well, of course, that was impossible because there was no gold that close. I thought, well, now, why not get more people employed in making nonperishable commodities and store them up and help get this thing over with? I fully expected, and it turned out that way, that ultimately General Motors would make a profit from doing it, too—do the right thing and make some money doing it.

Q. You referred to having suggested this to the Executive Committee, I believe you said. Do you recall what their reaction was?

A. Mr. Sloan was very interested in it. He thought it was a good idea.

Q. Was the committee also?

A. Yes. It was finally agreed that we would do it.

Q. Mr. Wilson, I will show you a document marked for [fol. 6777] identification as General Motors Exhibit No. 286, which is No. 2 in your Honor's book.

Is the action that is referred to in this exhibit dealing with the subject of the commodity or raw material purchases that which you have just described?

A. That is correct.

Mr. Hurd: If the Court please, I offer in evidence General Motors Exhibit No. 286.

I should like to read this exhibit. This is from the minutes of a joint meeting of Operations and Executive Committees of General Motors Corporation, July 17, 1930.

(Said document, so offered and received in evidence, was marked Defendant General Motors Exhibit No. 286.)

Mr. Hurd: Under the heading "Raw Materials—Future Commitments":

> "There was discussed the question of whether we would be justified in making forward purchases of certain basic raw material in order to take advantage of what seem to be attractive prices existing at this time. The suggestion was made that we might purchase up to $20,000,000 worth of such materials in excess of what we would ordinarily purchase for our scheduled needs but not in excess of what we could use during the year 1931 on the basis of a conservative estimate of production.
>
> "The Committee was in sympathy with the idea of making forward purchases of certain raw materials provided a satisfactory plan can be worked out for submission to the Finance Committee. Messrs. C. E. Wil- [fol. 6778] son, John L. Pratt, Donaldson Brown and Wm. S. Knudsen were appointed a sub-committee to develop a plan for submission at the next meeting of this Committee for further consideration."

By Mr. Hurd:

Q. Was such a plan developed, Mr. Wilson?

A. Yes.

Q. Who handled the working out of the details of the plan?

A. I did.

Q. Mr. Wilson, I will show you a document that has been marked for identification as General Motors Exhibit No. 287, which is No. 3 in the Court's book.

This purports to be a report by you to Mr. Pratt dated August 25th, 1930.

Is that a report of the plan that you have referred to?

A. Yes, this is part of it. This particular one dealt principally with copper.

Mr. Hurd: If the Court please, I will offer in evidence General Motors Exhibit No. 287.

(Said document, so offered and received in evidence, was marked Defendant General Motors Exhibit No. 287.)

Mr. Hurd: I should like to read Exhibit No. 287. This is Mr. Wilson's report dated August 25, 1930, approximately a month after the Executive Committee's authorization:

> "On analyzing the problem of purchasing commodities as we have discussed, I find the only feasible way in which we can reasonably make advance commit- [fol. 6779] ments is thru the concerns who fabricate material using the commodities.
>
> "While in some cases it would be possible to buy futures in the commodities themselves, I do not believe it would be good policy for us to do this as we would then be competing with the fabricators of the material who might be protecting themselves for their ordinary requirements which would include their estimate of what our requirements might be, in other words, we would be artificially reflecting the demand for the commodities. For example, if we attempted to buy rubber futures at the present time, we would be competing with the tire companies who in line with their policy, would be protecting themselves for their normal requirements, which would include a percentage of our business.
>
> "It seems to me that it is entirely feasible to work with our principal suppliers and obtain the price protection on the basic commodities discussed. The way I think the situation could be handled is as follows: using our Central Purchasing Committee as the vehicle for handling the work, we could estimate our requirements and work with the two or three Divisions who might be the principal users of the commodity involved. We could then handle the situation so that the basic commodity itself, with the commitment and the fabricating charge could be settled by the various Divisions.

> "For example—we could make copper commitments for certain tonnages with Anaconda, American Smelting and Kennecott as the Divisions desired, depending [fol. 6780] on the price at which we could purchase the material and the fabricating cost on the heavy items of consumption. In the case of copper to make sure we were not making any mistake or anticipating ourselves in any way in the future, we would go over the matter very carefully with the following Divisions"—

naming six of them.

> "The situation would be handled so that it was sufficiently flexible so that any change in our specifications for the fabricating material would not interfere in any way with the liquidation of the commitment on the basic commodity.
>
> "In the case of lead, we would only have to deal with Delco-Remy, Frigidaire and Harrison Radiator. In the case of zinc, we would deal with A. C. Ternstedt, Guide Lamp, Harrison Radiator and Chevrolet.
>
> "I do not see any way of covering on rubber or cotton except thru the tire companies. On the basis of the decrease of price of cotton and rubber we should be able to purchase tires at the present time for from 20 to 25% less than at this time last year.
>
> "I believe, it would be worth while to set up the machinery for making such commitments within the next few weeks so that we will be in a position to take advantage of minimum prices."

By Mr. Hurd:

Q. Mr. Wilson, was this plan submitted to the Finance Committee of General Motors?

[fol. 6781] A. Yes, sir, it was working out of the plan under their broader appropriation for the $20,000,000 expenditure.

Q. What action did the Finance Committee take regarding it?

A. They approved our going ahead with it. This was a very practical way to do it, because while you can look in your newspaper and can see that rubber is so much a pound and copper is so much a pound, there are actually great variations in the specifications of the materials.

For instance, in tire building you have to have long staple cotton. In copper, you either have electrodes or rods or bars, and there are different specifications, whether you are going to use it in a brass foundry or in a wire mill, or roll it down for thin sheets to make radiators.

There is some variation in it. Also, there was a question of freight.

If you actually bought the copper you had to take it some place and put it somewhere; so obviously the thing to do was to leave the responsibility of the grades and specifications with the people that would finally have to use it so that we didn't get into the trouble of having the copper some day at the wrong place of the wrong kind.

The same thing applied to these other commodities.

Q. What commodities were covered by this plan of yours?

A. Rubber and cotton, copper, lead, zinc. There may have been a few others.

Mr. Hurd: If the Court please, I offer in evidence General Motors' Exhibit No. 288, the document that has been so marked for identification, which is No. 4 in the Court's book.

I should like to read a portion of this. This is from the [fol. 6782] minutes of the Finance Committee of General Motors Corporation, dated September 8, 1930, under the heading "Forward Commitments for Raw Materials."

(Said document, so offered and received in evidence, was marked Defendant General Motors Exhibit No. 288.)

Mr. Hurd: (Reading):

> "There was a general discussion regarding the desirability of making forward commitments for materials, in view of the apparently favorable prices prevailing at the present time.
>
> "It was the sentiment of this Committee that the operating executives should be permitted to contract for materials required in our business for a year in advance (based upon a conservative estimate of our requirements) in those cases where in their opinion such commitments are desirable purchases for the corporation."

By Mr. Hurd:

Q. Pursuant to this resolution, did you go ahead and carry out this program for the purchasing of raw materials or commodities?

A. Yes, sir.

Q. During what period of time did that continue?

A. It started in the fall of 1930 and it was continued for a number of years.

Q. Under whose direction was that work conducted?

A. It was under mine at the time.

[fol. 6783] Mr. Hurd: If the Court please, I would like to offer into evidence documents which have been marked for identification as General Motors' Exhibit 289 to 296, both inclusive, and are identified in the Court's Book as Nos. 5 to 12 inclusive.

(Said documents so offered and received in evidence, were marked Defendant General Motors Exhibits Nos. 289 to 296, both inclusive.)

Mr. Hurd: I should like to read portions of a few of these documents.

The first one, General Motors Exhibit No. 289, which is No. 5 in the Court's book, is the minutes of meeting of the Operations and Executive Committees, General Motors Corporation, March 12, 1931.

Under the heading "Purchase of Commodities":

> "Report was submitted by Vice-President Wilson dated March 11, 1931 (OC-916) showing purchases so far made of rubber, cotton, copper, zinc and lead, and upon motion, same was accepted and ordered filed.
>
> "Upon motion duly made, seconded and unanimously adopted, it was
>
> "RESOLVED, that it is the sense of this meeting that we should buy at this time our requirements of rubber, cotton, copper, zinc and lead to cover our estimated manufacturing schedules for the year 1931."

Attached to that is Mr. Wilson's report which is referred to in the minutes. It is dated March 11, 1931.

General Motors Exhibit No. 290 which is No. 6 in the Court's book, is from the Finance Committee minutes, [fol. 6784] dated March 23, 1931, under the heading: "Forward Commitments for Raw Materials":

> "Report of the Chairman dated March 23, 1931 showing forward purchases that have been made of rubber, cotton, copper, zinc and lead was read by the Secretary. It was explained to the Committee that because of the unusual conditions existing at the present time, and in harmony with the sentiment expressed by both the Finance and Operations Committees, we are purchasing our requirements of basic materials such as rubber, cotton, copper, zinc and lead to cover estimated production schedules for the calendar year 1931. Upon motion, this report was accepted and ordered filed, and the plan recommended of making purchases of basic materials up to the amount of our estimated requirements for the year 1931 approved."

General Motors Exhibit No. 291, which is No. 7 in the Court's book, is from the minutes of the Executive Committee, dated April 9, 1931.

Under the heading "Purchase of Basic Materials":

> "Report was presented to the Committee by Vice-President C. E. Wilson, dated April 9, 1931 (OC-939) regarding commodity purchases that have been made, which was ordered filed.
>
> "Upon motion, duly made, seconded and unanimously adopted, it was—" * * *

And I drop down to the last resolution on the page:

> Resolved, that Vice-President C. E. Wilson be au- [fol. 6785] thorized to use his judgment as to future purchases of important commodities, it being suggested that it might be well to contract for an additional month's requirements from time to time up to the total amount required for the year 1931 when and as in his judgment market conditions justify, rather than to at this time purchase all of the balance of our requirements for the year 1931."

General Motors Exhibit No. 292 is Mr. Wilson's report, dated June 11, 1931, and has attached to it the Executive

Committee minutes of the same date approving Mr. Wilson's suggestions.

General Motors Exhibit No. 293, which is No. 9 in the Court's book, refers to Mr. Wilson's report in October, 1931 on his purchases of these materials and approves it. The report is attached.

General Motors Exhibit No. 294 is Mr. Wilson's report on these purchases in November, 1931.

General Motors Exhibit No. 295, No. 11 in the Court's book, is report on December 17, 1931.

The last one of these exhibits, General Motors Exhibit No. 296, contains the minutes of the Finance Committee of September 12, 1932, approving of the action of the Operations Committee with respect to these purchases.

By Mr. Hurd:

Q. Mr. Wilson, turning to another subject which you have mentioned, investigation of the tire business, do you recall how that subject arose—the investigation of the possibility of General Motors acquiring a tire factory?

[fol. 6786] A. As I recall, the Executive Committee asked Mr. Pratt to look into the matter. This was consistent with the broad policy of the company of assuring itself suitable sources for important materials and parts needed in the business, and being certain that year by year those parts could be obtained at a fair price, but a low price, as economically as possible, consistent with quality. That is what was done.

Q. I might call your attention, Mr. Wilson, to an exhibit which is in evidence, Government's Exhibit No. 1067, which appears in the Court's book as No. 13.

This is from the minutes of the Operations and Executive Committees under date of April 24, 1930.

I call your attention particularly to the last two paragraphs on the second page, which read:

> "Resolved that it is the sense of this meeting that it is desirable for General Motors Corporation to engage in the manufacture of automobile tires in some way or other with the understanding that we should have a reasonable return on the investment.

"Resolved Further that Mr. John L. Pratt be appointed a committee of one to submit a report on this matter, it being the consensus of opinion of this Committee that both propositions discussed should be further developed and the facts submitted to this Committee."

By Mr. Hurd:

Q. Is that the action of the Executive Committee that you referred to?

A. Yes.

Q. Now, who conducted this investigation?

A. Well, a number of people were involved in it.

[fol. 6787] Q. Who had supervision over it?

A. The assistant comptroller of General Motors, a man by the name of Anderson at the time; Mr. Wennerlund, who was a technical man in the manufacturing staff; Mr. Armstrong, as I remember; Mr. Geyer, an engineer from Dayton; Mr. Midgley who had done some work in General Motors research on artificial rubber. A number of people tried to look over the whole rubber manufacturing industry, the tire manufacturing industry. Notice there were two ideas in the action of the Executive Committee. One was whether we should buy a company or not, and then if you did, whether you could make a fair return on the investment.

Q. These men you mentioned, were they the people who conducted the investigation?

A. Yes, sir.

Q. Under whose supervision was it done?

A. Mr. Pratt's, and to some extent mine.

Q. You know how that investigation was conducted, what these men did?

A. They visited different plants and discussed the industry with various people.

Q. Do you recall what plants they visited?

A. Oh, I think to some degree they visited practically all of the plants in the industry. Of course, we had reasonable entree to all of the plants because a good many of them were suppliers of ours, and we had a friendly relation with them.

I don't know in all cases that they showed us their books, but we could go through the plant and talk the business over with them in a general way.

I don't think most companies had any idea at the time that we might be interested in buying a plant; not necessarily so, though. The Ford Company was making part of [fol. 6788] their tires and there was a general discussion in the industry whether that was a good arrangement, or if it was enough of a specialty to keep it a separate industry.

Q. Did you personally conduct any part of the investigation?

A. I went down to look at the Kelly-Springfield plant in Maryland, and some of the United States Rubber plants.

Q. And what conclusion was reached by you and Mr. Pratt with respect to the desirability of General Motors acquiring some plant to go into the tire business?

A. The only one that we knew that probably would be for sale at the time was the Kelly-Springfield plant, and it didn't look to me like a good place to start any such development.

The figures that they discussed with us didn't show that it had been a profitable operating plant. Obviously their greatest trouble had been in the widely fluctuating prices of rubber particularly. It was a great hazard in the business, and it finally looked to me like it wasn't the thing to do, so I recommended against it.

Q. Did you present a report on the subject, do you recall?

A. Yes, sir.

Q. I show you, Mr. Wilson, Government's Exhibit No. 1069 which is numbered 14 in the Court's book, and ask you whether or not that is the report that you made on this survey?

A. Yes.

Q. And do you recall what action the corporation took with respect to this?

A. They temporarily dropped the idea of going in the business.

Q. I also call your attention, Mr. Wilson, to Government's Exhibit No. 1070, which is No. 15 in the Court's [fol. 6789] book, and ask you whether or not this is the action of the Executive Committee that you referred to in turning down the proposition?

A. Yes.

Q. Now, Mr. Wilson, you also mentioned earlier that you did make a contract through the central office for the purchasing of tires.

Do you recall how that contract originated?

A. That was after this decision not to go into the business.

Q. Yes.

A. Well, Mr. Sloan and I discussed the matter, and he thought it would be a good thing to purchase part or all of the tires centrally, and I called a meeting of the purchasing agents' group and discussed it with them, and they advised against it.

I later discussed the matter with Mr. Sloan again and thought that it would be advantageous to buy 50 per cent of the tires centrally, and later combine with that purchase the suggestion that we underwrite the rubber and possibly the cotton to make it sound for a supplier to make an agreement with us over a long term basis for 50 per cent of the business, without having to charge us for what you might call the insurance of rapidly rising rubber prices. That sounded like a good idea to him, so we started to develop the plan.

Q. Who originated this idea of General Motors financing the rubber and cotton?

A. I did.

Q. And where did you get your idea?

A. Well, I had been interested in this kind of a thing for a long time. I never was interested in buying something from a concern at such a low price that they lost money on it.

I always like to make an agreement that would be to the [fol. 6790] advantage of both parties, and that would be fair over a long period of time. The automotive industry is very dependent on good suppliers, and I was always interested in both the suppliers, the dealers, and the people, as well as what might be a temporary profit position.

I didn't neglect that either, but I was always interested in the long term stability of business which was to the advantage of everybody. I worked on that all my life, so it was nothing new.

Q. In what way did this program of buying rubber and cotton, in your opinion, guarantee the producer a profit?

A. He only had to take the business responsibility and risk for the thing that was under his control. In other words, the efficiency of fabrication in his plants, his ingenuity in working out newer and better ways of doing things, the amount of equipment that he had, was completely under his control.

It was proper for him to take a business risk on that part of it, but rubber was flitting from one dollar a pound to eight or ten cents a pound—it actually hit a low of 3½ cents a pound in 1932-33. That had actually been the curse of the tire business for years—this big flip in rubber prices. The rubber mostly came from abroad.

Prices were manipulated at times by foreign cartels. You never could tell where you were, and by just buying tires for three or six months at a time, the tire companies would have to spend money for expensive molds to make particular tires. They didn't invest money in their plants to achieve the minimum cost, and I knew it could be done, and that is what we would have tried to do if we had acquired a plant.

[fol. 6791] I thought if I could get somebody to go ahead and do it, make a reasonable profit on it, and give us the low prices at the same time, we would have the advantage that we would get from operating a plant of our own. We wouldn't have to have the management responsibility of a new type of business, nor of the added investment in it.

So that was the background of it.

Q. But when was it you started this concept of—

A. That was in the summer, in the fall of 1930.

Q. You say you discussed this plan with Mr. Sloan?

A. Yes, sir.

Q. And was it a private conversation between you and Mr. Sloan?

A. Yes.

Q. Was this also in the summer?

A. I don't mean the other men didn't know about it; there was nothing private in that, but at that stage it was not a formal resolution of any committee, or anything like that.

Q. And about when did this occur?

A. In the summer or early fall of 1930.

Q. Now, was there any discussion, Mr. Wilson, with Mr. Sloan at this time regarding a company that you might deal with?

A. He asked me who I thought would be the best company, and I suggested that the Goodyear Company was perhaps the biggest at the time, and would be a good company to deal with. They were, as far as I knew, quite a progressive company. I thought well of them. He said that sounded all right to him, and we could start anywhere we wanted to, if I thought that is where it ought to be, why, to go ahead.

He said, "I have known Mr. Litchfield, the president, for years, and I know him on a personal basis."

[fol. 6792] I believe they went to MIT together. I am not real sure about it.

He said, "I will call him up and tell him you are really serious about it, and when it is convenient for him would he come over to Detroit and visit with you about it."

And that was done.

Q. About when did you have this conversation?

A. I am not sure which month it was back in 1930, but it was right about this time.

Q. Did you contact any rubber company before Goodyear?

A. No.

Q. And was anyone present at the time of this conversation other than you and Mr. Litchfield?

A. No.

Q. What was that conversation?

A. I discussed in general terms the relative advantages for our two companies of setting up something like this, in which we would buy the rubber and cotton and he would give us the equivalent of a fabricating charge to put those two important basic materials into tires of various sizes for us.

He didn't seem to think too much of the idea. He apparently wanted to buy his own rubber and cotton, and perhaps thought it complicated his business relations with other companies. I don't know why, but he finally took the position with me that our two big companies had done business on a friendly basis for many years, and he didn't see any reason to change it, so he didn't take to the suggestion.

Q. Following that, was any other rubber company contacted?

A. There were discussions with the Goodrich Company, but Mr. Knudsen held those.

Q. Do you know whether or not the Goodrich quoted prices on this plan of yours?

[fol. 6793] A. They gave Mr. Knudsen some prices. The Chevrolet division, which was under Mr. Knudsen's charge at that time, had given business to the Goodrich Company. He was very well acquainted with Mr. Tew who was then the president and was buying half of the Chevrolet requirements from Goodrich. He discussed the matter with them, and as I recall, got some quotations on some other sizes of tires also.

But the point there was whether they wanted to expand the idea and take it or not, and, as I remember, Mr. Tew wasn't so enthusiastic about it, either. I guess he would have liked to have half of our business, but this was a new idea, and a new way of doing business.

Q. Was any other company contacted?

A. Well, United States Rubber Company later. The Firestone Company, which was the other great producer, had not been supplying tires to General Motors in recent years. The relations between Harvey Firestone, Sr., and Mr. Henry Ford, Sr., were very close, and they were regarded as a Ford supplier, so that as far as I know we didn't actually process the idea with them.

Q. How was the contract with the United States Rubber made?

A. Mr. Armstrong and I knew the local representative of the United States Rubber in Detroit, Emmet Sheahan. One of the plants was right there in town, so we thought that we would develop the idea with them, and after a preliminary discussion with Mr. Sheahan, he got the top executives of the company, Mr. Tompkins and Mr. F. B.

Davis, to have a meeting with us. We started to discuss the plan—was it a good plan or not, and what could you do with it?

Q. And you say, "a meeting with us." To whom do you [fol. 6794] refer?

A. Mr. Armstrong and myself, and later with Mr. Knudsen.

Q. And what did Mr. Davis—what position did he take on the subject?

A. Well, Mr. Davis and Mr. Tompkins began to understand what I was really talking about, and they thought it was a sound thing for our two companies, if we could work it out. There were a great many details and it took awhile to get them clarified completely, such as exactly how we would do this for all the different tire sizes and so forth. But in the fall of 1930, I guess, the contract—as I remember it was in early 1931—was finally signed.

Q. Who handled the price negotiations with United States Rubber from General Motors' standpoint?

A. We first wanted to make sure that the Chevrolet prices were satisfactory and would work out under this plan. Those were handled by Mr. Davis and Mr. Knudsen and covered the Chevrolet passenger tires and also the truck tires.

The Chevrolet business being half of General Motors' business, roughly—perhaps it was a little more at that time, it was very important that the plan, if it was to be successful and satisfactory, should work out right for Chevrolet so that we made the first review on the Chevrolet tires.

Q. Do you recall whether or not you obtained any figures from Goodyear as to what their prices would be, based upon the current prices of rubber and cotton?

A. After we decided that the plan was really practical and we could do it, just to make sure, and to get some prices from others on a known basis of cotton and rubber, we asked the Goodyear Company and the Goodrich Company to give [fol. 6795] us some prices—not prices they would sell us tires for at the moment, but what they could sell us tires for if they could buy the rubber and cotton at the then market basis which was eight cents or ten cents a pound.

Q. Did you obtain those prices?

A. Yes, sir.

Q. How did the prices of the three companies compare?

A. The United States Rubber prices were lower.

Q. Do you recall whether or not you made any report to the Operations Committee, on the subject?

A. Yes, sir.

Q. Mr. Wilson, I will show you Government's Exhibit No. 1089, which is No. 16 in the Court's book.

I also show you Government's Exhibit No. 1090, which is No. 17 in the Court's book.

Is Government's Exhibit No. 1089, accompanied with 1090, the report you made on the subject?

A. Yes, sir.

Mr. Hurd: If the Court please, I should like to read Exhibit No. 1089.

This is dated October 8, 1930, and is directed to the Operations Committee.

> "A short time ago it was considered advisable to attempt to buy a portion of the Corporation's tire requirements on a basis whereby the Corporation would carry the risk and responsibility for the price of Rubber and Cotton, and the manufacturer all other costs. Negotiations were started with Goodrich Tire & Rubber Company and United States Tire & Rubber Company, Goodyear declining at the time to entertain the proposition.
>
> "Prices were asked on the Chevrolet tire sizes on the basis of three factors:
>
> [fol. 6796] "A—Rubber converted into lbs. of raw rubber.
>
> "B—Cotton converted into lbs. of raw cotton.
>
> "C—All other items of cost.
>
> "Goodrich brought in figures as above, but added 6% to the total, for profit. United States included their profit in factor 'C'. When prices were compared, it was decided to ask for prices on other General Motors tire sizes, with the result that we have today a complete list of all, making it possible to compute the tire

prices by simply multiplying Factors 'A' and 'B' with today's market price and adding Factor 'C' to the total.

"Comparison developed that United States Tire & Rubber Company have given us the most favorable terms, and Mr. Pratt has notified them of our willingness to enter into a contract for 1½ years on the above basis, and has at the same time signified our willingness to underwrite the purchase of up to 5,000 tons of rubber @ .08 per lb., this representing about 25% of the Corporation's requirements for one year and an expenditure of $800,000.00.

"Immediately when the decision was announced to the trade, Goodyear and Goodrich both made application for permission to quote on the balance of the Corporation's requirements, or any part of them, at competitive prices.

"It is our opinion that it would not be desirable to close contracts for 100% of the Corporation's tire re- [fol. 6797] quirements, but that the remaining open 50% should be left to the Divisions to handle on the best possible basis. We therefore ask authority to conclude the contract for 50% of General Motors tire requirements with United States Tire & Rubber Company.

"A schedule is attached showing the savings effected over present prices, on the basis of rubber @ .08 and cotton @ .11 per lb., also showing the variation in quotations of the three firms."

Government's Exhibit No. 1090, which is No. 17 in the Court's book, is an attached summary of prices showing in the first column the sizes of the tires, and in the second column the prices quoted by United States Rubber, and in the third column those quoted by Goodyear, and in the fourth column, the current prices being paid by General Motors for the respective tire sizes.

By Mr. Hurd:

Q. Do you recall what the reaction of the Operations Committee was to your recommendation, Mr. Wilson?

A. They must have thought I did a pretty good job, because they approved.

Q. Mr. Wilson, I will call your attention to Government's Exhibit No. 1091.

Is this the action of the Operations Committee held October 9, 1930 approving your plan?

A. Yes, this is the formal approval of it.

Q. Following that, who conducted the negotiations for the detailed provisions of the contract that was made with United States Rubber in behalf of General Motors Corporation?

A. Mr. Armstrong and I.

[fol. 6798] Q. Now, I will show you, Mr. Wilson, Government's Exhibit No. 1092 which is No. 19 in the Court's book.

Is that the first contract which you negotiated with United States Rubber? It is dated January 1, 1931.

A. What is the date on it?

Q. January 1, 1931. It appears half way down the first page, the cover page.

A. Yes, this is it.

Q. Now, in this report which you made, you referred to the fact that you thought it undesirable to contract centrally for more than 50 per cent of the total requirements.

Whose idea was it not to contract for in excess of 50 per cent centrally?

A. I think it was mine.

Q. What was the basis of your view?

A. Well, I always liked to see things developed by evolution, and this was a new way of going at it. I was very much sold, and I thought it was very sound. I wanted to work it out, and at the same time I would have been unwilling to put 100 per cent of the tire business with one company, because of the hazard to the General Motors' business; it would have been too great. They might have had a big strike in the company and it would shut us down completely for "X" months, or they might have had a fire, or some other hazard. The General Motors' business was too big and important to jeopardize that way.

Q. Now, I think the record shows, Mr. Wilson, that an additional percentages agreement was entered into at the date of this contract, providing for additional percentages of tires for some of the divisions.

By whom were the negotiations for those additional per- [fol. 6799] centages conducted?

A. By myself for what were called the medium price class of automobiles, which was at that time the Pontiac—

Q. I believe you misunderstood my question. Are you about to talk about tire sizes?

A. Yes.

Q. No, I am referring to the fact that shortly after this first contract with United States Rubber was made, agreements were made between General Motors and United States Rubber that Cadillac would buy an additional percentage from United States Rubber, a percentage in addition to the 50 percent you had contracted for, and that Pontiac would—

A. Oh, the 50 percent agreement with United States Rubber Company made by the central office of General Motors did not prohibit the divisions from buying more tires, if they wished. We didn't recommend any important amount, but the understanding we had was that the divisions, like Cadillac, Pontiac, Olds and so forth, would go ahead and buy tires in the market at the market prices that the tire companies were willing to sell at, for the other half of the business. The question came up, could they buy a little more from the United States Rubber Company where they were sold on the United States Rubber tires and wanted to have some more of them, so that it was left with some flexibility.

Q. Well, who conducted the negotiations for these additional percentages?

A. Well, that was between the divisions, and I think Mr. Armstrong knew about it, too, because we still didn't want all of General Motors business put in one place. I don't think it ever went past 55 percent in total; perhaps it did by some minor fraction.

It was a cooperative—

Q. Was it on the recommendation of the central office [fol. 6800] that the divisions bought additional percentages?

A. Not that I recall.

Q. The second contract with the United States Rubber is in evidence as Government's Exhibit No. 1114, dated January 1, 1932.

On behalf of General Motors who conducted the negotiations for that contract?

That is No. 20 in the Court's book.

A. Well, I did on a number of the features of it; other people helped me on the details.

Q. About this same time the record shows that an agreement was entered into between United States Rubber and General Motors Corporation under which General Motors Corporation was given a license to manufacture tires under United States Rubber patents.

It is in evidence as Government's Exhibit No. 1116, and is in the court's book as No. 21.

Do you recall whose idea it was to obtain this license from the United States Rubber Company?

A. It was my idea.

Q. And what was your purpose?

A. Well, there was still some little continuing discussion in General Motors that General Motors might want to go into the tire manufacturing business some day itself, and I thought just to keep the thing on a completely good basis all around, that I might as well get the rights. There weren't any very important patents—the United States Rubber Company had one that was quite interesting on a progressive manufacturing basis for making tires instead of building them one at a time by the old simple basis. They [fol. 6801] had licensed their competitors in most cases. The rights were not too valuable, but I did want to have the rights. It included what I called the know-how as well as the technical patents. I was just trying to look ahead a little bit so we could handle the thing in a proper way, no matter what our final idea was some day.

Q. Did you ever operate under the license?

A. No.

Q. Did you ever make any similar arrangement with any other companies on any other commodity?

A. Yes. It is not an unusual arrangement to make. It was often made by General Motors where some new development came along and the concern had a patent on it. There was a great hazard in putting 100 percent of General Motors' business in any one place, and frequently an arrangement was worked out where we could manufacture half of them if we wished and buy the other half from the people who had worked up the new plans and ideas and had the patents.

Other companies do the same thing, of course. We have made the supplying contracts with other automobile companies on the same kind of basis.

I remember one particularly with the Ford Company on fuel pumps. Our A.C. Spark Plug Division had developed a fuel pump and the Ford Company wanted to use it, but they hated to buy it all in one place, especially from their competitors.

So we gave them the rights to make the pump themselves if they wished, and the A.C. Spark Plug Division has had half or more of the business ever since. The Ford Company felt secure by having another supplier if they needed it. It is just a convention in the business, a sensible arrangement [fol. 6802] I might say as a matter of fact.

Q. I call your attention to Government's Exhibits Nos. 1138 and 1140 appearing in the Court's book at page 23.

These constitute the third contract with United States Rubber in May, 1933. On behalf of General Motors, who conducted the negotiations for that contract?

A. Well, I continued to be very interested in this particular contract. I was very sold on the idea to begin with, and I just wanted to make sure that it continued to be a good arrangement, so I worked on it.

Q. I also call your attention to Government's Exhibit No. 1173 which is the fourth contract which appears in the Court's book and that is numbered No. 24.

This is a contract between General Motors and the United States Rubber, dated August 1, 1936.

Did you also conduct the negotiations for that contract?

A. Yes, sir.

Q. Yes. Now, you started to mention a while ago something regarding the problem you had on tire sizes in connection with Pontiac. What was that?

A. Well, I started to tell you about another tire deal, not so big. The standard tire in the low price field that Ford, Plymouth and Chevrolet used was a 6.00 x 16 tire. The cars a little larger, or heavier, like Pontiac and a small Buick or Olds, took a 6.50 x 16 tire. Pontiac had a special tire of 6.25 x 16. It was just a little cheaper, a few pennies, than the 6.50.

Figuring it was really good enough for Pontiac—and I had weighed these tires, the big volume Chevrolet tire and the next size tire—on a per pound basis we were paying about $2.00 a set too much.

I figured they could both be made by the same manu- [fol. 6803] facturing process in the tire companies if they had enough volume to set up this progressive way of making them.

So I raised the question with various concerns and a representative in Detroit by the name of Lee Jackson of the Firestone Company. The others didn't seem to be much interested in my new idea, but Lee said, "I will call the old man in Akron and get him up here."

So Harvey Firestone, Sr., came up to see me, and he was quite a salesman, and gave me a very good selling on the merits of the Firestone tires and of a special process they had of using liquid latex in making them.

It was jokingly called in the trade as giving you a "gum dipping"—if you exposed yourself to the Firestone people they would give you a really good selling on it.

But after he tried his, I tried mine, and finally he said, "I think you have got something there. I will go back to Akron and let you know in a couple of days."

As the result we bought the 6.50 x 16 after they had a chance to set up the right way of making them, and had enough volume, so they had the other half of the business on that tire size.

Q. What divisions did that cover?

A. That covered Pontiac, Olds and the small Buick.

Q. Did you make a contract?

A. With the Firestone Company.

Q. With the Firestone, when was this?

A. I don't remember exactly.

Q. To refresh your recollection was it about 1936?

A. I think it would be along that time.

Q. Did you discuss this proposal of yours with anybody from the United States Rubber?

[fol. 6804] A. I think we did, but they didn't seem to be too interested in it. They already had half of the business, and they didn't feel quite as tempted to reach for it as the Firestone Company did.

Q. You made the contract with Firestone?

A. That's right, sir.

Q. Now, Mr. Wilson, since the conclusion of the Second World War, and since full production has been resumed, what, if anything, have you had to do with the purchases of tires from United States Rubber, or from anyone else?

A. Since the war?

Q. Yes, since the conclusion of the war?

A. Well, my responsibilities got stepped up a little bit and I lost interest in my old love of the tire contracts and I didn't pay so much attention.

Q. You didn't handle any negotiations?

A. No, they were more on the regular buying business. I don't know exactly what the contracts were recently.

Q. Did General Motors have a policy during the period of shortages during the war, regarding purchases generally?

A. Well, we felt this way about it: where we were suppliers of parts and equipment to others, we should take care of their business after the war, even though materials were short. Perhaps we could have made more money putting those materials into our own finished automobiles, but we didn't do it.

Any company that we had served before the war, we told them we would take care of their business just like we had before. In other words, if we had half of their business, we would take care of half of it, whatever it turned out to be, or if we had all of it, we would take care of all of their business, whatever it was. We rather felt the same way [fols. 6805-6812] about our suppliers, that is that in the critical reconversion days it was a little difficult to find new sources, so most of our suppliers liked our business, liked the way we had been doing business, and wanted to keep on serving us, so that is about the way we carried it out.

Q. Mr. Wilson, in recommending the original contract with United States Rubber and the successive contracts that you did participate in, to what extent, if any, were you influenced by the fact that certain du Pont individuals owned stock in United States Rubber?

A. In no way whatsoever. I never even knew how much they owned. That had no bearing on it, and no du Pont ever talked to me about the contract.

Q. When you made your first contract in 1930, or beginning in 1931, did you know that the du Pont individuals had substantial investments in U. S. Rubber Company?

A. I don't think I did. I don't recall—I never knew anything about it, really.

Q. It is charged in the Complaint in this case that there was some agreement between the three manufacturing defendants, some of the individual defendants, that is, du Pont, General Motors and U. S. Rubber, that U. S. Rubber Company be favored by General Motors from the standpoint of their purchases.

Did you ever know of any such agreement or understanding?

A. No.

Q. Did you ever know of any understanding on the reverse side of this that United States Rubber Co. would favor General Motors as a source of materials that U. S. Rubber used?

A. No.

[fol. 6813] Cross Examination

By Mr. Harris:

Q. Have you had any occasion, Mr. Wilson, to talk to Mr. Irenee du Pont or Mr. Lammot du Pont—did you have occasion at about this time, 1928 and 1929, about the Tire Department of U. S. Rubber?

A. No, I never talked to either of them about it.

Q. So you do not know, do you, unless you have learned it since this litigation, what Mr. Irenee du Pont and what Mr. Lammot du Pont thought about the prospects of the Tire Department of U. S. Rubber?

A. I did not.

Q. I call your attention, so you may be informed, to Government's Exhibit No. 1074, dated September 14, 1928.

It is a letter to Mr. Walter S. Carpenter, and it discusses the General Motors' point of view on the rubber syndicate going into the purchase of rubber stock.

This is at the top of the second page:

> "I called on Mr. Alfred Sloan before the meeting on Monday to learn what the views of the General Motors Company would be. Mr. Sloan stated to me in the presence of Lammot that the General Motors Company, if and when they got into the tire business, would want to own the facilities outright and would not consider having partners in the enterprise whose interests would [fol. 6814-6826] be at variance with the interests of the General Motors Corporation. Consequently if they went into the production of tires they would acquire facilities for that purpose rather than purchase stock in any large corporation."

Now, at that time, Mr. Wilson, did you have any discussion with Mr. Sloan along the lines of this letter?

A. No, I did not.

Q. I take it you had no discussion with Mr. Sloan about General Motors investing in stock of a rubber company?

A. No, I did not. Generally speaking, we thought that was a poor thing to do because we got management responsibility and got some complications with our partners, with selling to other people, and so forth.

Our experience has been that we got along very much better where we had all or nothing; only had a buyer relation with a good company that we believed in, or if we wanted to be in the business, we went in one hundred per cent.

Q. Yes, that was the idea to which you testified earlier this morning.

Do you recall now, Mr. Wilson, whether Mr. Sloan told you about that time that either of the du Ponts had talked to him about this idea?

A. No, I never knew anything about it.

[fol. 6827-6832] Then comes General Motors Exhibit No. 287 dated August 25, 1930, which I won't bother to show you. That is the letter of Mr. Pratt to you, suggesting the feasibility of working with the supplier on these purchases.

Then comes GM 288, and that is dated September 8, 1930. In this meeting you have Donaldson Brown, Mr. Carpenter, Jr., Mr. H. F. du Pont, Irenee du Pont, Mr. Raskob and others.

I mention the names that I do because these are people who have been or are associated with the du Ponts.

This one concerns commitments for raw materials and allowing the operating executives to be permitted to contract.

A. Was that the Finance Committee at that time?

Q. Yes, sir, it was.

That was necessary; wasn't it, to go before the Finance Committee because of your buying futures, and things like that?

A. Well, $20-million is money. That was the final authorization to do it.

[fols. 6833-6836] Q. Was there any significance in Mr. Lammot du Pont's leaving the meeting, if you know, after the resolution had been approved to make a contract with U. S. Rubber?

A. I don't know of any reason why he left.

Q. Do you recall any statement or anything else made by Mr. Lammot du Pont at that meeting?

A. No, I do not.

Q. U. S. Rubber would greatly benefit, would it not, by the contract such as was entered into?

A. Well, I thought it was a fair contract, and if they did the kind of things that I had been talking about, improved their factory processing and recognized that they could go ahead and count on the business for a year and a half, and count on General Motors for the responsibility of the rubber, they could make a go of it and make a profit. I have always wanted suppliers to make a profit.

But on the General Motors side I had gotten for General Motors some very, very favorable tire prices.

Q. The only question that I asked, and I think you answered it, was that it would be of great benefit to U. S. Rubber if they got this contract.

A. Well, very few people in the rubber business would have thought so, but Mr. Davis and Mr. Sheahan and Mr. Tompkins assured me that they could make a go of it at those prices.

[fol. 6837] Q. When, Mr. Wilson, did you first learn, if you have learned it, that Pierre, Irenee, and Lammot du Pont were heavy stockholders of U. S. Rubber?

A. I don't recall exactly. Somewhere in the early '30's, I suppose. It had no influence with me one way or the other.

Q. I am not suggesting that, sir. I am just asking your knowledge.

I call attention to GM Exhibit No. 289—I don't need to read it—the joint meeting of the Operations and Executive Committees of March 12, 1931, reporting on these purchases of raw materials, including rubber and cotton, and I call [fol. 6838] attention to the fact that Mr. Lammot du Pont was present.

Also GM Exhibit No. 290, Finance Committee meeting, March 23, 1931, covering the forward commitments for this material, rubber, cotton, and so forth, at which Mr. Donaldson Brown, Mr. Carpenter, Mr. Irenee du Pont, Mr. Lammot du Pont, and Mr. Pierre du Pont and Mr. Raskob were present.

I call your attention now to Government's Trial Exhibit No. 1114, which is a contract dated January 1st, 1932, and carries the same sort of provision for 50 per cent as the first contract.

On May 2nd, 1932, Government's Exhibit No. 1118, you have the additional agreement, 50 per cent for Oldsmobile, 50 per cent for Oakland-Pontiac, 15 per cent for Cadillac-LaSalle, and 50 per cent for GMC Truck.

I take it your answers would be the same as to those negotiations?

A. That is right. In total that may have been 55 or 60 per cent of the business, but I would like to mention again that, especially in 1932, the production of those particular Divisions was very low in General Motors.

Q. We were in the depression?

A. That is right, and the Chevrolet and Buick business carried the load.

Q. Now, I call your attention to Government's Trial Exhibit No. 1120.

It is a letter to you dated March 23, 1932, from Mr. Pratt. Mr. Pratt at that time, was he associated with you in the General Purchasing Committee?

A. Mr. Pratt had been active in this side of the business for a long time, and Mr. Pratt and I worked together on a great many things.

[fols. 6839-6857] Q. I call your attention particularly to the first sentence:

> "I have gone over the proposed contract with the U. S. Rubber Company for 50% of General Motors tires."

Then I would like you to look, if you please, on the inside of the first page:

> "I do not think that we in General Motors should contract for more more than 50% of the tires used in Canada, and should not execute the proposed letter whereby we would contract for a further 50% of Olds, Oakland-Pontiac, General Motors Truck, and 15% of Cadillac-LaSalle. In other words, I would leave with Canada, whose responsibility it is for these cars in Canada, the right to decide whether or not they wish to follow the practice of Olds, Oakland-Pontiac, Cadillac-LaSalle, and General Motors Truck in the States."

Did Mr. Pratt discuss with you at all the reason why he objected to that further 50 per cent?

A. I think it was just our standard policy of not getting too much concentrated in one place.

Q. However, as is obvious from the letter, you did go ahead and make the additional contracts for the additional 50 per cent?

A. I must have talked him out of it.

Q. You mean you were for that, were you, sir?

A. I mean he was my senior, and I thought it was all right because the volumes were so low at the time. So I guess I must have talked him out of it.

[fol. 6858] The Court: Counsel may proceed.

Mr. Harsha: I might say generally that the order which the Government intends to follow presenting its rebuttal evidence will be as follows:

We intend this morning to offer a number of documents without witness, and this afternoon we intend to call an officer of the General Motors Corporation as our first rebuttal witness.

Whereupon The Government. To Further Maintain The Issues On Its Behalf, Introduced The Following Evidence In Rebuttal.

OFFERS IN EVIDENCE (U. S.)

Mr. Harsha: The first document the Government offers, your Honor, is Government's Exhibit No. 26. These have been arranged in the order which we intend to offer them in the folder given to the Clerk, and this is a document entitled "Copy of PSduP's Handwritten Letter of August 28th, 1914"—presumably Pierre du Pont's handwritten letter of August 28th, 1914, addressed to "Dear Coleman," presumably Coleman du Pont.

I do not intend to read the entire letter but I should like to direct the Court's attention to a statement contained on the second page of this document, the last paragraph on the page, in which the statement is made:

> "My suggestion of a plan is to put on the Executive Committee the men suggested by Irenee, making him Chairman in charge of active operations in manufacture and sale. Enlarge the Finance Committee who will continue to outline the policies of the Company,

[fol. 6859] putting on it Alfred, Connable, Irenee, Haskell and myself."

To this I believe there is no objection by counsel, to my stating this is a reference to the reorganization of the du Pont Company in 1914.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 26.)

Mr. Harsha: The Government next offers Government's Exhibit marked for identification No. 1345, and this document we discovered belatedly, should have been a part of Government's Exhibit No. 166. It was a covering memorandum prepared by Mr. John J. Raskob directed to the directors of the du Pont Company dated August 19, 1921, and I do not intend to read the entire document, but I should like to read a portion from the first page, the first paragraph which states:

> "The enclosed history of the du Pont Company's investment in the General Motors Corporation (Exhibit -I) is very full and has been prepared with a great deal of care by Mr. Echols, Assistant Treasurer.
>
> "We decided to invest in this industry in December 1917 and completed an initial investment of $25,000,000 early in 1918. In 1919 this investment was increased to $45,182,000; in 1920 to $47,532,000; and in 1921 to $75,581,000."

Skipping down to the fourth paragraph:

> "As the Directors know we are now in control of the company and are completely responsible for its [fol. 6860] policies and management and our voting strength may be summarized as follows:"

Then there is a tabulation immediately below this. I don't intend to read the entire tabulation, but I direct the Court's attention to those who are included together with the du Pont Company as constituting a portion of its voting strength, including J. P. Morgan & Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1345.)

Mr. Harsha: I should now like to offer Government's Exhibit No. 163. I do not intend to read from this document other than to call the Court's attention to the listing on page 8 of the document which is entitled, "Control of Chevrolet Motor Company."

This is a memorandum to the Finance Committee of the du Pont Company from John J. Raskob dated April 9, 1921, and I should particularly like to direct the Court's attention to the statement made in the middle of the page, in which it is stated:

> "Chevrolet stock held by friends (see detail below)"

and opposite that is 44,162 shares, and under that it states:

> "See detail below."

And below that are listed a number of the people falling within this category as set up by Mr. Raskob, including members of the du Pont family.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 163.)

[fol. 6861] Mr. Cox: May it please the Court, if I may, I should like to inquire of Mr. Harsha as to this document, what line of proof offered by the defendants this document is offered in rebuttal of.

Mr. Harsha: Well, this came up in the examination of Mr. Carpenter, in which we were asking Mr. Carpenter in regard to another related document, who in control of the Chevrolet Motor Company were the friends, so-called, as listed in that document, of the du Pont Company, which augmented the stock held by the du Pont Company, and the statement was made at that time that he had no knowledge concerning what was referred to in that particular respect.

I think that I could agree with Mr. Cox that we perhaps should have had this document before us at the time for Mr. Carpenter, but it was a withdrawn exhibit which we had overlooked in preparation for the cross examination.

Mr. Cox: I should be content, Mr. Harsha, if you will agree that the document does not impeach anything Mr. Carpenter said in his testimony?

Mr. Harsha: I don't offer it as impeachment, but I would say as a full explanation of the point.

Mr. Cox: Because his testimony was simply that he didn't remember. I also point out to the Court that when he was examined he stated that Mr. J. P. Morgan wasn't a friend, and your Honor will note that Mr. Morgan is not in this exhibit.

The Court: Well, there is no objection?

Mr. Cox: No objection on the basis of Mr. Harsha's con- [fols. 6862-6866] cession that it is not offered on the basis of impeaching Mr. Carpenter's testimony.

Mr. Harsha: I should now like to offer Government's Exhibit No. 1346 which is a memorandum of C. R. Mudge, Director, addressed to Mr. W. S. Carpenter, Jr., dated September 24, 1936, in which he states that:

> "I am returning your memorandum to Finance Committee dated September 18th. A short memorandum is attached with two suggestions."

* * * * * * *

[fol. 6867] The Court: Is there any objection to that procedure?

Mr. Harsha: No, I believe not, your Honor.

The Court: That will be the ruling.

Received subject to objections that may be raised later.

Mr. Hurd: Thank you.

Mr. Harsha: It has been pointed out by my associate, Mr. Harris, in order to make clear which are in disputed category, I think it would be well if counsel will state which of the documents they are entering their objection to as being what they consider not proper rebuttal.

Mr. Hurd: We will do that.

Mr. Harsha: The next exhibit I should like to offer is Government's Exhibit No. 199.

Mr. Hurd: We object to this on the same ground, if the Court please.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 199.)

Mr. Harsha: I do not intend to read extensively from this document—

[fol. 6868] The Court: Pardon me. It won't be necessary for the Court to rule separately on each one. The same ruling stands, namely, received subject to objection to be ruled on later.

Mr. Harsha: Thank you.

This is a letter dated January 8, 1941, addressed to Mr. W. S. Carpenter, Jr., president of the du Pont Company, and it is written by Donaldson Brown.

* * * * * * *

Next I should like to offer Government's Exhibit No. 237, [fol. 6869] which is a letter addressed to Mr. W. S. Carpenter, Jr., dated July 20, 1923, and written by Donaldson Brown.

Mr. Hurd: May the record show the same objection.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 237.)

Mr. Harsha: In connection with this letter, we are offering it in rebuttal to the testimony of Mr. Sloan, who stated, at printed page 2892 of the transcript that they, meaning the du Pont Company, had nothing to do with the Managers Securities Plan except to authorize General Motors Securities Company to sell Managers Securities Company a thirty per cent interest in General Motors Securities Company.

Then, again, the statement contained at page 2906 and 2907 of the printed record that the Managers Securities Plan was not intended and did not have the effect of making General Motors people responsive to the du Pont will.

* * * * * * * *

[fol. 6870] Mr. Harlan: I suppose Mr. Harsha will concede that this letter refers to a proposal in the discussion of Managers Securities Plan, which in fact never went through.

Mr. Harsha: This was at the formative stage. I would concede this is before the final details were worked out, but this directly bears upon the intent behind the formulation of such a plan.

Mr. Harlan: My point simply is it relates to a plan that did not go through and not to the plan that did go through, your Honor.

Mr. Harsha: I should next like to offer Government's Exhibit No. 238, which is a reply to the preceding Exhibit No. 237.

Mr. Hurd: May the record show the same objection.

Mr. Harsha: I should like to call the Court's attention to the paragraph beginning on the top of page 8 of this document.

[fol. 6871] This is a letter written by W. S. Carpenter, Jr., in reply to the previous exhibit, and is addressed to Mr. F. D. Brown, vice-president of General Motors Corporation, dated July 24, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 238.)

* * * * * * *

Mr. Harlan: This again, if your Honor please, does not refer in any way to the plan finally adopted.

Mr. Harsha: I don't wish to argue that point at this time, Mr. Harlan, but I think it has a direct bearing.

[fol. 6872] Next I should also like to offer in this series of correspondence Government's Exhibit No. 239, which is a memorandum by Irenee du Pont to Walter S. Carpenter, Jr., dated July 26, 1923.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 239.)

* * * * * * *

I might say with respect to this document that for the reasons I have stated in connection with Government's Exhibit No. 237, I believe that this is proper rebuttal to show the fact that the du Ponts were very actively participating.

The Court: Is this exhibit objected to?

Mr. Hurd: No, your Honor, I am not objecting to this.

Mr. Harsha: They objected to the preceding one, I believe, Government's Exhibit No. 238.

Next I should like to offer Government's Exhibit No. 1347.

[fol. 6873] Mr. Hurd: We do object to that document, if the Court please.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1347.)

* * * * * * *

[fol. 6874] In connection with the grounds which we are offering this document for, your Honor, I should like to call to the Court's attention the testimony of Mr. Sloan, which I believe this rebuts, particularly at page 2906 of the printed record, where he stated in substance that the bonus plan on its face posed a possibility of a means of getting General Motors people to respond to the influences and desires of the du Pont Company.

We think this shows an attempt to influence the top GM management on the part of certain of the top management officials of the du Pont Company.

Next I should like to offer Government's Exhibit No. 1348.

Mr. Hurd: Same objection, if the Court please.

(Said document so offered and received in evidence, was marked Government's Exhibit No. 1348.)

* * * * * * *

[fol. 6875] We are offering this letter primarily, your Honor, in rebuttal to the testimony of Mr. Sloan, at page 2842 and 2846 of the transcript, and also to General Motors [fol. 6876] Exhibits 15 and 16, which purported to show how seldom Mr. Sloan attended meetings of the du Pont Company during the period that he was a director.

We think that this bears on the informal arrangements which were made outside of actual director meetings for acquainting the du Ponts with developments in General Motors.

I should now like to offer Government's Exhibit No. 458.

Mr. Hurd: The same objection, if the Court please.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 458.)

* * * * * * *

Next I should like to offer two exhibits which are related. First I will offer Government's Exhibit No. 483.

[fols. 6877-6888] Mr. Hurd: Same objection.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 483.)

Mr. Harsha: This is the letter written by Gordon Lefebvre, I believe it is—yes, Lefebvre, who is the General Manager of General Motors of Canada, Ltd., addressed to Mr. John Pratt, vice-president of General Motors Corporation, and dated February 8, 1927.

I don't wish to read this entire document, but in connection with this document I should like to offer Government's Exhibit No. 484, which is in response to the previous objection.

Mr. Hurd: Same objection, and also to Government's Exhibits No. 485 and 486 in this series of letters. We make the same objection to all of them.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 484.)

• • • • • • •

[fols. 6889-6891] Mr. Harris: If your Honor please, I will direct the Court's attention to Government's Trial Exhibit No. 1367.

• • • • • • •

[fol. 6892] Mr. Harris: I call the Court's attention now to Government's Trial Exhibit No. 1368, an excerpt from the Paint, Lacquer and Chemicals Department's monthly report to the Executive Committee for November, 1926, dated December 23, 1926.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1368.)

• • • • • • •

[fol. 6893] We offer now Government's Trial Exhibit No. 1369, excerpt from the monthly report of the Chemical Products Division to the Executive Committee for February, 1927, dated March 22, 1927.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1369.)

• • • • • • •

[fol. 6894] Mr. Cox: May I inquire, Mr. Harris, if this exhibit, too, is offered to show that as to paint General Motors was a very substantial customer or the largest customer?

Mr. Harris: That is so.

Mr. Cox: Is that the sole purpose of it?

Mr. Harris: Yes.

Mr. Cox: I have no objection to it.

I should not like Mr. Harris or the Court to be under any misapprehension on one point, however, and that is that it was not our position that that was not the case. I mean by that that General Motors was not a very substantial customer. In fact, I think some of our witnesses testified that it was a very substantial customer.

Mr. Harris: Yes, but Mr. Cox and your Honor, we are calling the Court's attention to these particular documents because of the size of the percentage and the detailed statement as to absolute figures and percentages.

[fol. 6895] Government's Trial Exhibit No. 1370 is excerpts from monthly report of the Automotive Finishes Division to William Richter for May, 1931, dated June 13, 1931.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1370.)

Mr. Harris: The first line, to General Motors sales were $542,632.00 or 81 per cent, in May; $513,966.00 or 78 per cent of the entire sales in April.

Mr. Cox: May it please the Court, is that offered again for the same purpose?

Mr. Harris: Yes, it is, unless I change my purpose.

Mr. Cox: They are all offered to show the size of our sales to General Motors as compared to the sales of others?

Mr. Harris: Where they so indicate.

Mr. Cox: Where they so indicate, and for that purpose only?

Mr. Harris: I don't know what that "purpose only" means. I am stating the purpose at this time. I am not limiting myself.

Mr. Cox: Well, the reason I raise this, your Honor, is that we do have a problem as to sur-rebuttal in one sense, and if the Government would be kind enough to indicate to us what these documents are offered to rebut where they are being offered—

The Court: Well, that would simplify matters.

[fol. 6896] Mr. Cox: It would make it much easier.

The Court: If you offer anything in sur-rebuttal.

Mr. Harris: These documents I now offer are to show that relationship which I have stated to the Court. Some of these documents may not, in the technical sense, rebut a particular witness, but it makes clear and gets at certain statements that may have been made. In other words, if they say it was a large customer and we show they took 78 or 91 per cent of the production, we think the Court should know that.

Government's Trial Exhibit No. 1371 is of the same nature, December sales to General Motors were $370,463, whereas to other manufacturers it was $23,709.

The same situation exists with regard to Government's Trial Exhibit No. 1372, General Motors in August, 1935 was $319,924, and in 1935, July, it was $670,948 as against sales to others in August of 1935 of $195,967, and in July of $161,668.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 1371 and 1372.)

Mr. Harris: Government's Trial Exhibit No. 1373 is to show, if the Court please, one of the reasons why the figures may have been presented showing a loss by General Motors in certain sales are in this document accounted for in this fashion.

It is an excerpt from the monthly report of the Fabrics and Finishes Department to the Executive Committee for July, 1946, dated August 23, 1946.

[fol. 6897] (Said document, so offered and received in evidence, was marked Government's Trial Exhibit No. 1373.)

* * * * * * *

Government's Exhibit No. 1374 is of the same nature, an excerpt from the monthly report of the Fabrics and Finishes Department to the Executive Committee for May, 1947, dated June 27, 1947.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1374.)

[fol. 6898] Exhibit No. 1396 is offered in whole and is a report to the Executive Committee from the fabrics and finishes department dated May 21, 1931.

* * * * * * *

Mr. Cox: Is it your contention now that the complaint [fol. 6899] charges a restraint of commerce within Germany or in foreign commerce?

Mr. Harris: No, but I think that document shows, if the Court please, the relationship between General Motors and du Pont; the pressure that General Motors exerted. It is true it exerted it in Germany, but it exerted it on behalf of du Pont.

Mr. Cox: I think on the basis of Mr. Harris' statement I must object to this document. I have no desire to prevent him from ranging rather far afield, but I think in commercial transactions in Germany, in the German Republic in 1931, it is too much.

The Court: The Court will receive it subject to the objection.

Mr. Harris: We now have a set of excerpts, if the Court please, from documents which were not received until after our subpoena. They were received on subpoena, and they were not available to us during the presentation of the defense.

The first one is Government's Trial Exhibit No. 1375, excerpts from Annual Competitive Report (1935), dated March 5, 1936, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1375.)

Mr. Harris: The document, if the Court please, is offered with the idea that here we have explanations of reasons for [fol. 6900] the loss or the gain of business of General Motors, particularly by changes in technology and other reasons, which were part of our contention on cross examination of the various trade relations witnesses offered by the defense:

• • • • • • •

Mr. Neitzert: Your Honor, I wish to object to this group of exhibits referred to by counsel beginning with Exhibit 1375, and I think the series ends with 1385.

Mr. Harris: 1386.

Mr. Neitzert: 1386. These are excerpts from the annual competitive reports which were referred to by the witness Nickowitz and which were produced I guess by agreement.

Mr. Harris: No, no, by subpoena.

Mr. Neitzert: Your Honor agreed subpoenaes would [fol. 6901] issue if they were required. I don't recall whether they were, or not—

Mr. Harris: There was a subpoena.

Mr. Neitzert: These excerpts are only fragmentary excerpts from those documents, but my principal objection to them is that they in no way refute anything that has been said by any witness in this case, and furthermore, everything that is said in these documents has already been said at least once and sometimes two or three times.

Take, for example, the steel top business which has been covered by one or more of the witnesses in this case, and also in most instances the same material appears in some document which has already been introduced in this case.

Mr. Harris: I think, if your Honor please, the documents first came to our attention, we were first able to learn about them after we had had the opportunity to cross examine. Had we had these documents, we certainly would have cross examined the witnesses that were put on the stand, and these are matters that are stated now or contemporaneously that witnesses, if they stated them at all, stated them as matters of memory, and we cannot now tell your Honor—

The Court: You may argue that matter in your briefs.

Mr. Harris: Yes.

I call the Court's attention to Government's Trial Exhibit No. 1376, excerpts from Annual Competitive Report (1936), dated March 24, 1937, from Fabrics nad Finishes

Department to Executive Committee of E. I. du Pont de Nemours and Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1376.)

* * * * * * *

[fol. 6902] Mr. Cox: These documents have been objected to, and I don't want to argue that, but I should again like to point out that for the purposes of assisting the defendants to know what they must do to meet this rebuttal testimony, it would be very helpful if Mr. Harris would make a some- [fol. 6903] what more definite statement about what these documents rebut.

This one, for example, leaves me utterly at a loss. I don't know what testimony the Government has in mind in offering this one.

Now, I don't want to burden Mr. Harris or unduly prolong the offering of this evidence, but we do have a problem about deciding what to do about the sur-rebuttal.

Mr. Harris: I submit we can give Mr. Cox references probably in the recess.

Mr. Cox: That will be satisfactory.

The Court: That will be satisfactory.

Mr. Harris: Government's Trial Exhibit No. 1377 is an excerpt from Annual Competitive Report (1937), dated March 23, 1938, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company.

(Said document so offered and received in evidence, was marked Government's Exhibit No. 1377.)

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[fols. 6904-6905] Government's Trial Exhibit No. 1378 is excerpts from Annual Competitive Report (1938), dated March 9, 1939, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1378.)

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[fols. 6906-6907] Government's Trial Exhibit No. 1379, excerpts from annual competitive report (1939), dated March 12, 1940, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1379.)

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[fol. 6908] Government's Exhibit No. 1380, "Excerpts from Annual Competitive Report (1940), dated March 4, 1941, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1380.)

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[fol. 6909] Government's Exhibit No. 1381, "Excerpts from Annual Competitive Report (1941), dated March 12, 1942, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company."

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1381.)

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[fols. 6910-6912] Exhibit No. 1382 is excerpts from Annual Competitive Report (1946), dated March 17, 1947, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1382.)

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[fol. 6913] Next is Government's Trial Exhibit No. 1383, "Excerpts from Annual Competitive Report," dated March 11, 1948, from Fabrics and Finishes:

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1383.)

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[fol. 6914] Government's Trial Exhibit No. 1384, "Excerpt from Annual Market Survey," April 15, 1949, from Fabrics & Finishes Department.

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[fol. 6915] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 1384.)

Mr. Harris: Government's Trial Exhibit No. 1385, "Excerpt from Annual Market Survey (1949)," April 14, 1950, from Fabrics and Finishes.

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(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1385.)

[fol. 6916] Government's Trial Exhibit No. 1386, Excerpts from Annual Market Survey (1950), dated April 11, 1951, from Fabrics and Finishes Department.

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(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1386.)

Mr. Harsha: May it please the Court, at this time the Government wishes to call Mr. Ralph Mark.

Ralph C. Mark, called as a witness on behalf of the Government, having been first duly sworn on his oath, was examined and testified as follows, to-wit:—

Direct examination

By Mr. Harsha:

May it please the Court, I should like to point out the Government is calling this witness to examine him regarding the return which the General Motors Corporation submitted pursuant to the Grand Jury subpoena issued preceding the filing of this complaint, and this deals with the [fol. 6917] matter of purchases by General Motors as set forth in the so-called Schedule "I" from alleged competitors of the du Pont Company.

That Schedule "I" was attached as an appendix to the brief of General Motors Corporation which they filed in opposition to the Government's motion for the issuance of certain subpoenas which was recently passed upon by the Court.

By Mr. Harsha:

Q. Will you state your full name?

A. Ralph C. Mark.

Q. Where do you live?

A. Detroit.

Q. By whom are you employed?

A. General Motors Corporation.

Q. How long have you been employed by General Motors?

A. Twenty-three years.

Q. Twenty-three years?

A. Yes.

Q. Keep your voice up, Mr. Mark. What is your present position with General Motors?

A. I am Comptroller of the corporation.

Q. How long have you been Comptroller?

A. 1949.

Q. What was your position preceding that?

A. I was Director of the Cost Analysis Section on the Comptroller's staff.

Q. How long did you occupy that position?

A. Eight or nine years.

Q. Prior to that time?

A. I was employed in that same section, but in a lesser capacity.

Q. Have you had any employment with any other corporation other than General Motors during your business career?

A. I was in public accounting prior to the time I became associated with General Motors.

[fol. 6918] Q. How many years were you in that field?

A. Six or seven years.

Q. Where were you educated, Mr. Mark?

A. Ferris Institute, Big Rapids.

Q. Grand Rapids?

A. Big Rapids, north of Grand Rapids.

Q. Would you show Mr. Mark what has been numbered Government's Exhibit No. 1343 for identification?

The Court: Where would that be?

Mr. Harsha: I have prepared an excerpt from that, your Honor. The examination is going to be confined to Schedule "I." Exhibit No. 1343-A is the excerpt.

The Court: Was Exhibit 1343-A previously referred to?

Mr. Harsha: It is the same as this document, your Honor, just for purposes of keeping down the volume.

I might state this is an exhibit which the General Motors Corporation submitted to the grand jury, which includes their purchases from a great many companies. We are only concerned in this examination with the purchases which General Motors made from alleged competitors of the du Pont Company.

It is Schedule "I" contained in that exhibit.

Mr. Hurd: Pardon me, if the Court please, I don't believe we have a copy of Exhibit No. 1343-A.

The Court: I understand this was attached to defendant's brief?

Mr. Harsha: Yes.

[fol. 6919] The Court: If so, then you should have it, Mr. Hurd:

Mr. Hurd: This is the same thing that was attached to the brief?

Mr. Harsha: That is my understanding.

Mr. Hurd: All right.

Mr. Harsha: This is Schedule "I."

By Mr. Harsha:

Q. Directing your attention to the exhibit which you hold in your hand, No. 1343, can you tell us, Mr. Mark, what if anything you had to do with the preparation of this exhibit?

A. I supervised the gathering of the data that went into this exhibit.

Q. Will you turn to the so-called Schedule "I." Do you have that before you?

A. Yes.

Q. In particular reference to Schedule "I" of that exhibit, can you tell us what, if anything, you had to do in the preparation of that?

A. Yes. We got the instructions out to the Divisions, who in turn compiled the data which entered into this particular exhibit. It came back to us, and we consolidated it.

Q. Was this work performed under your supervision?

A. Yes.

Q. Did you issue any type of instructions to your Divisions regarding the purchases which they were to list which went into the foundation of the figures?

A. We issued instructions but in broad terms.

Q. Would you describe generally what those instructions were?

A. Yes. I have a letter here that describes it, I think. We wrote a letter to each of our Divisions and listed the [fol. 6920] categories as they are listed there, and then attempted to give them additional typical information that would aid them in placing their purchases from competitors in those particular categories.

Q. To whom were these instructions sent?

A. To the Division Comptrollers of each of our Divisions.

Q. Each of your Car Divisions?

A. No, each of all of our Divisions.

Q. That would be your Car Divisions in addition to your Accessory Divisions?

A. That is correct.

Mr. Harsha: May I see that letter, sir?

I hope our numbering system is not becoming too complex, but I suggest we number this 1343-B for identification.

By Mr. Harsha:

Q. Is Government Exhibit for identification 1343-B, Mr. Mark, the instruction letter which you sent out to the Divisions of General Motors Corporation?

A. Yes.

Q. Now, in what form did you receive the compilations from the Divisions of General Motors?

A. In various forms as listed in the instructions contained in this letter.

Q. Turning to what is physically page 4—it doesn't appear to be numbered—I see a heading "Instructions For The Development of Purchases data."

Do you see that?

A. Yes.

Q. Are the categories which are there listed, are those the ones which were followed by your Divisions in submitting their purchase data?

A. Yes.

Q. So that you instructed them to list their purchases under four principal categories, am I correct? These being [fol. 6921] Chemicals, Finishes, Fabrics and Anti-Freeze?

A. That is correct.

Q. Turning to the attachment to this letter, which is entitled, "Attachment B-1" which is physically page 8 of this exhibit.

Do you see the heading which states:

> "The Following List is Indicative of the Type of Items to be Included as Competitive Purchases under Section 'Competitors of E. I. du Pont de Nemours and Company.' "?

A. Yes.

Q. Can you tell us what are the various products that you have listed under these headings, Anodes, Solvents, Paints, and so forth? What are those supposed to be?

A. I am not acquainted with the technical details of them. They are supposed to be merely, as it says, indicative of the types of commodities or materials that would make up Anodes or Solvents, and so forth, as an aid to the Divisions.

Q. Am I to understand from this listing, take for example the ~~first~~ one that is listed, "Anodes," do you see that?

A. Yes.

Q. Under "Anodes" there appear to be perhaps ten or twelve types of Anodes. Do you know whether the Divisions in submitting their purchase data to you included their purchases of Anodes of any or all of these types?

A. Yes.

Q. They did?

A. They classified according to their own source of information, that is, their own experts were the ones that did the classifying at each of the Divisions.

Q. Did you have any conferences with those experts?

A. Only as an assist, and again backed up by experts of our own.

[fol. 6922] Q. Can you explain a little more fully what you mean by an "assist"?

A. We got advice from experts in our Research Laboratory Division, purely as an aid to describing some of the chemical terms. The Divisions themselves had buyers and manufacturing people that were experts in their own line, and they followed out the application of it.

Q. Do you know whether all of the types of Anodes which are here listed in this schedule are Anodes of the types which are purchased by General Motors?

A. The Divisions that reported the information back felt that they were, and they are the experts, so we had to abide by their decision.

Q. Do you know whether all the types of Anodes which are listed here are of the types of Anodes that are manufactured and sold by the du Pont Company?

A. I do not.

Q. Now, in your Schedule "I," you have these various purchase data listed under the heading "Purchases from Competitors of E. I. du Pont."

Did you suggest that heading?

A. Well, no, I don't think I did. I don't know where that heading came from.

Q. Did you have available when you made this study any sales data prepared by the du Pont Company showing their sales to General Motors?

A. Yes, we had that, which was one of the aids in determining what commodities made up the various broad categories, such as Chemicals and Finishes.

That is, with other information, catalogs, pamphlets and the sampling, one month's sampling that we took in the month of June, 1948.

Q. Did you study that sampling, the result of that [fol. 6923] sampling?

A. We conducted our own sampling for the one month of June, and that sampling together with catalogs and pamphlets and that summary which you referred to furnished by the du Ponts, gave us enough information on which to elaborate the various categories.

Q. Would you show Mr. Mark Government's Exhibit No. 1344, please.

Government's Exhibit No. 1344 for identification is the tabulation to which you have just previously referred.

A. The one we had was a negative, but this looks familiar, as far as I can tell. This looks like it.

Q. You will note that it is headed "Sales by product to General Motors Corporation or 100 per cent own subsidiaries for the following years," and then there is a listing of sales by certain departments of du Ponts for the years 1938, '39, '40, '41, 1946 and 1947:

A. Yes.

Q. Was the material you received from the du Pont Company organized in this fashion, do you recall?

A. It looks like it was a copy of this.

Q. Would you turn to page 2 of that exhibit, sir?

Do you see the item listed under Electro-Chemicals Department about ten items down entitled, "Graphite Anodes"?

A. Yes.

Q. You will note that during the years 1946 and 1947, there are apparently no sales listed by the du Pont Company to General Motors Company. Do you see that?

A. Yes.

Q. Now, in your compilation by your Divisions, would they include purchases of, for example, graphite anodes for the years 1946 and 1947 irrespective of whether any had been purchased from du Pont?

A. Yes, I think they would if they were so told. Again, it would have to be up to the Divisions that actually made the classification.

[fol. 6924] Q. Now, turning back again to Government's Exhibit No. 1343-B, which is this instruction letter, am I correct on your attachment No. 1, that the various products that are listed there under Solvents consist of the various types of Solvents which were purchased by General Motors during this period 1946 and 1947?

A. I wish you would repeat that question.

Q. Are these products which were purchased by General Motors during 1946 and 1947, so far as you know?

A. Are you referring to this instruction letter of mine?

Q. Yes.

A. These products here?

Q. Under Solvents, yes.

A. Yes, that is what we told them, to list their purchases of products as classified on that attachment B to Government Exhibit No. 1343-B.

Q. I don't like to read off the names, and I probably couldn't pronounce them if I tried, but there are probably fifteen names of products listed there under Solvents. Do you know whether the du Pont Company was manufacturing each of those types of Solvents during 1946 and 1947?

A. No, I do not. Our Divisions felt that they must have because they apparently found invoices in payment of them.

Q. Do you have any recollection as to which of the types of Solvents there listed are the principal Solvents purchased by General Motors?

A. I do not.

Q. Now turning to the Solvents which you have listed under Finishes, do you see that on your Schedule "I"? That is the second item under Finishes.

A. Yes.

Q. The figure, for example, purchases by General Motors is shown to have been in 1947, $1,102,389.00.

Comparing that with your instruction letter which you [fol. 6925] hold in your hand there regarding Solvents, do you know whether that figure consists solely of what is listed there as acetylated solvents?

A. I am not sure that I heard the last portion of that. Listed there as what?

Q. Were the purchases that are shown on your chart, did they consist solely of Acetylated Solvents?

A. I am sure I couldn't answer that question. The Solvents listed as a part of the $1,102,389.00, so far as I know, are all of the Solvents that all of our Divisions bought from du Pont in the year 1947.

Q. I think you misspoke yourself, didn't you? Don't you mean from companies other than du Pont?

A. From companies other than du Pont. I am sorry.

Q. And so far as you know there may have been other types of Solvents rather than acetylated?

A. I couldn't tell you.

Q. Now, turning to another item listed under finishes, Mr. Hurd, is it agreeable, can we stipulate that the item Adhesives shown on Schedule "I" is not to be regarded as a part of the Finishes?

Mr. Hurd: That is correct. It is not a part of an automobile finish.

Mr. Harsha: Thank you.

By Mr. Harsha:

Q. Now turning to your Schedule "I," which is Exhibit 1343, you note the sum there, for example, 1947, there are listed purchases by General Motors from others than du Pont of $3,055,580.00.

A. Yes.

Q. Do you know whether this figure is composed of all [fol. 6926] Adhesives purchased by General Motors?

A. So far as I know it is. If they followed the instructions that we gave here, as long as the Adhesives were of the same type that were sold by the du Pont Company.

Q. Do you know whether the Adhesives which are here shown as purchased from companies other than du Pont includes Adhesives other than "Neoprene" base Adhesives?

A. I don't know.

Q. Turning to the next general heading, that of Fabrics shown on Schedule "I," there are two general category breakdowns shown, namely, Coated Fabrics and Imitation Leather.

Can you tell me what distinction is made between those two categories, that is, in the compiling of these figures?

A. Well, largely I think we were guided by the type of catalogues, type of merchandise that the du Ponts published plus the advice of our so-called experts, chemical engineers, and the analysis that we made of June, 1948, in detailing these items of each of these broad categories.

Q. Do you know whether the item, for example, "Imitation Leather," is restricted to what has been called in this case as pyroxylin coated fabrics?

A. No, I do not. Our Divisions that handle and buy imitation leather, I would assume, would know that. I don't.

Q. Do you know whether there is any relation between the category here listed as "Imitation Leather" and the use of this fabric for upholstery and trim? Is it limited to that, do you know?

A. I do not.

Q. Do you know what the usage is to which coated fabrics are put?

A. I do not.

Q. Let me see if I can clear up one thing in your letter of instructions that I don't quite understand. Do you see [fol. 6927] your attachment headed, "B-2," at the very end of this exhibit, page 3?

A. Yes.

Q. Now I see a heading there, "Fabrics," and then under that various types of products are listed. Can you tell me whether the products "Imitation Leather," "Coated Fabrics," "Air Brakes," "Automotive Brakes and Parts," and so forth; are those all under the general subject of "Fabrics"?

A. So we were told when we compiled the letter.

Q. Do you know whether these figures which enter into the compilation shown on your Schedule "I" include the purchases by General Motors of fabrics for each of the uses as shown here, "Brake Linings," etc.?

A. No. I do not. The Divisions that classified them and handled it and were the experts on it knew that.

Q. Did you ever discuss this problem with your experts?

A. Broadly, at the time we issued the letter of instructions.

Q. Do you recall having any conversation with your experts regarding this matter of coated fabrics versus imitation leather?

A. Not specifically, no.

Q. Is this a fair assumption to be made from this compilation as measured against your instruction letter, Mr. Mark, that included in the items of coated fabrics may be fabrics which are used for brake linings?

A. I don't—

Mr. Hurd: If the Court please, I think counsel is a little confused by the document.

Mr. Harsha: I will concede that.

Mr. Hurd: At the time this was sent out, we were subpoenaed to produce information regarding certain other [fol. 6928] companies, among them, competitors of Bendix Aviation.

This instruction letter, you will notice on the page marked "No. 2," deals with the items that are purchased from competitors of Bendix Aviation, and these last items that counsel has just referred to, appearing in "B-2," under the heading "Air Brakes, Automotive Brakes, Carburetors, Brake Linings," and so forth, relate to the aviation purchases.

They are not relating to the du Pont items or competitive to du Pont. I think with a closer reading of the document, if you had time to study it, you would see that that is what it means.

Mr. Harsha: Thank you, sir.

Mr. Hurd: All right.

By Mr. Harsha:

Q. Directing your attention once again to this letter of instruction which you sent out to the Divisions of General Motors, Mr. Mark, I would like to draw your attention to the attachment "B-1," which I gather from the heading does relate to purchases made from others than du Pont, and on page 2 of that you notice the heading, "Fabrics" at the bottom of the page?

A. Yes.

Q. And under that coated fabrics, and there are listed there "Fabrilite," "Cavalon," "Fairprene." I don't notice any listing for imitation leather. Do you know whether imitation leather was a subject matter or a category head which was subsequently decided upon?

A. This attachment "B-1" was never intended to be complete. It was only a guide set up in order to describe to Divisions as best we could what was meant by the term in this case [fol. 6929] fabrics. It could have been thousands of items could have been added and weren't.

Q. Insofar as you know, you don't recall any discussion on how you decided what was a coated fabric and what was imitation leather?

A. No, I do not.

Mr. Harsha: May I have the Court's indulgence for just a minute?

Your Honor, I believe that is all I have with this witness.

Cross-examination.

By Mr. Hurd:

Q. Mr. Mark, with reference to this circular letter, Government Exhibit No. 1343-B that you have been dealing with, before your preparation of this letter, did General Motors, if you know, make any check of its purchases of these same general items from competitors of the du Pont Company?

A. Yes. We selected the month of June, 1948, just prior to the subpoena, and used that month as a sampling in order to determine products that were competitive and from whom we bought them, and whatever other information would be helpful in compiling the final job.

Q. The month of June, that would be the last month prior to the issuance of the subpoena?

A. That is right.

Q. And at that time the invoices, would they be available?

A. They would all have been available for that one month.

Q. Then after the preparation of that, what we might refer to as a "spot check," it only related to one month, it was some time after that, then, that you prepared this [fol. 6930] circular letter?

A. Yes, it was in January. I think that is the date of this circular letter. So we spent the balance of the time from, say, the end of September until January in studying and getting this data together for the letter of instructions that went to the Divisions.

Q. Now, if you turn to the fourth page of this circular letter, 1343-B and find the four categories, Chemicals, Finishes, Fabrics and Anti-freeze, with the various items under each, from what source did you obtain those four basic categories, plus the subdivisions as there listed?

A. These we got from Mr. Hogan in the Legal Department, which I understand came from the letters that he had received from the Government or the Government attorney.

Q. In other words, those were the categories that you understood the Government wished to use in making the survey?

A. That's right.

Mr. Harsha: We will object. I move to strike that because there was no indication on the part of the witness that he knew something that was referring to others. It was just his understanding. He didn't see the letters.

Mr. Hurd: Well, he said it was his understanding.

The Court: He can only testify to what he knows of his own knowledge.

Mr. Hurd: Well, that was the source of the information, so far as he was concerned.

By Mr. Hurd:

Q. Those were the categories that you used, are they not, in preparing the grand jury return which is Schedule [fol. 6931] "I" of the complete return and is referred to in these exhibits as 1343-A?

A. That is correct.

Mr. Hurd: If your Honor please, I don't think there will be any question about the source of the categories, as to who originated them, but I mention it just now in case there is any uncertainty in counsel's mind. I intend to offer the document on surrebuttal that we have, letters of Mr. Hotchkiss to me which set forth the categories he wished to cover.

Mr. Harsha: And do you also intend to offer your draft of letters submitted to Mr. Hotchkiss of the categories? Have you seen his letter?

Mr. Hurd: I haven't seen his letter. I better look at it. It might be a good document to see.

Mr. Harsha: We will be glad to produce it.

By Mr. Hurd:

Q. As to the breakdown in the attachment "B-1" of this circular letter, where illustrations are given as to the type of products falling under these various headings that appear on the fourth page, for example, under the heading "Chemicals", sub-heading "Anodes", and the various types of anodes, from what source did you obtain the detailed breakdown appearing under "Anodes"?

A. Well, from a number of sources. They came out of the June 1948 sampling. They came from this expert of our own Research Department. They came from catalogues, pamphlets and some, I believe from the document which I was shown here previously on the sales of the du Pont Corporation to General Motors.

Q. The du Pont return to the Grand Jury subpoena, whenever that was?

A. Yes, that is right.

[fol. 6932] Q. By the way, you were shown a one sheet document. Do you recall whether it was just one sheet, or whether it was a multiple sheet?

A. It was a multiple sheet.

Q. And was anybody in on the determination of the items to be included in this "B-1," other than yourself? You handled all of that alone, or was anyone else in on the discussion?

A. No, I merely supervised it. I had several men under me. We had, as I say, members of our own Legal Department, Mr. Hogan, and the Divisions, several of us aided.

Q. The Central Office?

A. The staff.

Q. Did the Research people have any part in it?

A. Yes, as I say, I think I mentioned the chemical engineers and a lot of the technicians and the Research Laboratories assisted in the——

Q. At the time you made this up, was it your understanding or not that the items listed here were the type of items being manufactured by the du Pont Company?

A. Yes, they were the type of items being sold to General Motors.

Q. And if you will turn to "Attachment B-2" for the moment, this lists the same categories, but lists names of purported suppliers. From what source did you obtain these names?

A. From the same sources, from the June, 1948 sampling that we took from the Divisions' purchasing agents, buyers.

Q. To begin with, is that anything other than a summary of the returns you received from the various Divisions in response to your circular letter?

A. That is all it is.

Q. And do you have any personal knowledge as to what [fol. 6933] the particular items were, or as to who made them?

A. No, my association was strictly—we tried to define it as well as we could, let the experts classify it, and we put it together.

Q. Was it or was it not your understanding that Schedule "I" contained the dollar purchases of the respective items named, purchases by General Motors Company from companies who were competitive with the du Pont Company as to those particular items?

A. That is correct.

Mr. Hurd: That is all.

Redirect Examination.

By Mr. Harsha:

Q. Just a question or two, Mr. Mark.

Mr. Mark, referring to the Schedule "I," preparation of which was under your supervision, as I understand it, this only relates to a period of two and a half years, does it not, of the purchases by General Motors?

A. That's right.

Q. From companies other than du Pont for 1946, 1947 and half of 1948?

A. That is my understanding.

Q. Now, I believe you stated on cross-examination that it was your understanding that the items included in this Schedule "I" were the type of items then being produced and sold by du Pont, is that correct?

A. No, those were items of the type that we bought from others to the best of our knowledge, which were of the type that du Pont was selling to General Motors.

Q. But were of a type that were also being produced [fol. 6934] and sold at that time by du Pont?

A. To the best of my knowledge, yes.

Q. Did you investigate that point?

A. I did not.

Q. Now, if, for example, you found from looking at the —I believe you indicated that you also had the du Pont return at the time that you prepared this General Motors Schedule "I"?

A. Yes.

Q. Now, if you found that the du Pont Company may have made sales to the General Motors Company in the years preceding World War II, say in 1938, when the study begins, but there are no sales indicated to General Motors in the period 1946 and 1947, did you make any investigation to determine whether du Pont was still producing such items?

A. No, we did not.

Q. In that connection, Mr. Mark, upon whom did you rely to determine whether the material returned by the Divisions was an item competitive with a product being manufactured by the du Pont Company?

A. We relied on the people at the Divisions that were buying and using the material and would know more about it than anybody else.

Mr. Hurd: That is all.

Mr. Harsha: That is all.

(Witness excused.)

Mr. Harsha: Mr. Hurd pointed out that we have not introduced exhibits that were used on examination of the witness and I will introduce them now.

The Court: Is there any objection to the offer?

[fol. 6935] Mr. Hurd: Yes, ~~there~~ is to certain of them.

The Court: You are referring to 1343-A and 1343-B?

Mr. Hurd: There is an objection to 1343, if the Court please. I think it is different from the type of objection we were discussing this morning. Government's Exhibit

No. 1343 is a complete return that General Motors made to the Grand Jury subpoena which dealt with any matters not concerned in any way with the issues in this case.

Among other companies being investigated at that time were Bendix Aviation Company, North American Aviation Company, Remington Arms Company, and I don't recall what all, but anyway this document was a complete return and covered everything, so that it has many sections that are completely irrelevant, and I think should not be introduced, and I think the exhibit ought to be cut down to begin with to the portions pertinent to this particular suit.

I can indicate——

Mr. Harsha: May I interrupt? I think there will be no problem on this. The somewhat unique system we have used in numbering this, in this respect to this exhibit, I think has been confusing, but we have tried to meet just this point.

I do not want to offer the entire General Motors' return to the Grand Jury because, as Mr. Hurd points out, much of it is irrelevant to the issues in this case.

The Court: You can work that out in conference between you.

Mr. Harsha: We have made a photostat of the one Schedule "I" which we would like to offer as Exhibit No. [fol. 6936] 1343-A which consists of eight pages, and they are graded according to size of purchase for each item.

(Said document so offered and received in evidence was marked Government Trial Exhibit No. 1343A.)

Mr. Hurd: May I suggest that we take it up with counsel later?

The Court: Yes.

Mr. Hurd: In that connection there is further objection to a portion of what Mr. Harsha proposes to offer in the form of 1343-A. The fourth item on it dealing with the subject of anti-freeze, I think that particular item should be eliminated from the exhibit due to the fact that the subject of anti-freeze has not been gone into at all, as far as the purchases are concerned, by the defense, and the subject of anti-freeze is a story unto itself.

We did not go into it because it didn't answer anything that the Government had introduced, but if this particular evidence is to go in at this time, it means that on surrebuttal we must call witnesses to go into that particular item, and so I would like, apart from the procedure we followed this morning, as far as that particular item is concerned, to ask the Court to rule on that at this time so that we may have guidance as to whether it will be necessary for us to go into it on surrebuttal.

As I say, I don't believe there was anything in the Government's original case, or in the defense, relating to the subject of anti-freeze, except some correspondence back in the very early '30's or late '20's, but nothing about the current story which these figures relate to, and which the witnesses would have to cover.

[fol. 6937] This also comes up in certain other exhibits that the Government has advised us it proposes to offer as a recurring subject.

Mr. Harsha: May I speak as to this one particular item?

I think Mr. Hurd would agree with me if he looked over the documentary evidence put into evidence by the Government, that we had a section dealing with the subject of anti-freeze in our case in chief.

It is true we did not have sales statistics, but this was for the period beginning, I believe, in the middle twenties, and carrying on from there, but I don't think that should restrict us from showing what are the purchases by General Motors of anti-freeze from the du Pont Company and from others than du Pont during the period when we do have figures available.

We have had no sales statistics for these earlier years, going back to the twenties and the thirties, but if, as we contend, this is one of the items purchased almost exclusively from du Pont as the sales statistics themselves show, as I recall du Pont was perhaps 90 percent supplier of anti-freeze to General Motors—I don't think the Government should be barred from showing that in analyses of these sales statistics.

Mr. Cox: May it please the court, I have an interest in this question, and without repeating what Mr. Hurd said, I would like to address myself to it briefly.

The point, I think, is this, that while Mr. Harsha is quite right that there was certain evidence in the Government's case in chief about anti-freeze, that evidence consisted, if my recollection is correct, entirely of certain letters that [fol. 6938] related to a controversy that arose some time in the twenties.

Perhaps "controversy" is too strong a word, but a question arose at that time as to the relative merits of ethyl alcohol and glycerine as anti-freeze, and there was correspondence which the Government offered between Mr. Pratt and Mr. Sloan and perhaps someone in the du Pont Company, relating to this matter.

Now, in our case in chief, I think it would be accurate to say that we did not deal with that subject at all. Certainly I did not in my case, because I was content to rest on the Government's own evidence. The statistics which Mr. Harsha now proposes to introduce have nothing to do with that subject matter at all. They have nothing to do with ethyl alcohol or alcohol or glycerine as an anti-freeze.

As this exhibit relates, they refer to methylene alcohol and methyl glycol which are two synthetics. So far as the du Pont Company is concerned, after the date of the correspondence which the Government offered as its case in chief, in that connection they represent new and wholly different subject matter.

At one time, I would like to say to the Court, I have considered putting on a witness or two witnesses, perhaps three witnesses, as part of my case in chief to deal with this new subject matter, but when the Government presented no statistics in its case in chief, and no evidence relating to the methylene or ethylene glycol, I ceased that part of my preparation and abandoned an attempt to present or press that evidence to the Court.

Now, in this evidence, if this evidence is to be admitted on this new subject-matter, then I feel that as Mr. Hurd [fol. 6939] said, that I must under the circumstances ask the Court's permission to produce those witnesses or at least a witness as a part of surrebuttal, and I would ask the Court if it is appropriate to consider that aspect of the matter and to perhaps rule on it at the same time that the

Court rules on the admissibility of this document, because I feel that without criticizing Mr. Harsha in any respect whose burdens I fully appreciate, that this is a case in which, if we are not allowed to present our side of the controversy, we will be substantially prejudiced as a result of the Government's coming now forward for the first time with this evidence.

Mr. Harsha: Well, I would like to speak from this point, your Honor, because I think it poses a problem which is perhaps slightly broader than just a question of antifreeze.

What we are attempting to develop here is the available sales data which we think that the Court should have bearing on the comparison between the percentages supplied by du Pont to General Motors as opposed to all competitors of du Pont in their sales to General Motors, and I think that if we are to present data of that type for the periods which we have relatively full figures available namely 1946, 1947 and part of 1948, that it is certainly prejudicial to a full understanding of that sales relationship that existed between du Pont and General Motors if certain items are excluded from that tabulation, because obviously if you eliminate those items in which du Pont was predominantly the supplier, and then limit it to certain items on which I think we will contend du Pont is really not competitive at all, and not in position as a supplier with respect to many of these items, a wholly false picture is given, and for that [fol. 6940] reason it seems to me that where the Schedule "I" was prepared by General Motors, all we are attempting here is to reproduce the sales data they have submitted, together with explanations which we get through witnesses as to whether certain of these products are competitive or are not competitive between du Pont and other companies.

The Court: Well, it is the Court's judgment that the evidence should be received and follow[illegible]. Of course, under the circumstances the defendants would be permitted to introduce evidence on surrebuttal.

Mr. Hurd: Thank you.

Mr. Harsha: Thank you.

Now, just so the record is clear, your Honor, perhaps I should make it clear that I am offering in evidence Government's Exhibits 1343-A, which is a photostat of the Schedule "I," together with a tabulation, subject to new inaccuracies that the tabulation will have. Then I am also offering Government's Exhibit 1344 which is a schedule of sales by the du Pont Company to General Motors during the period 1938 through 1947, and also the Comptroller's circular letter which is Government's Exhibit No. 1343-B, dated January 31, 1949——

(Said documents so offered and received in evidence were marked Government Trial Exhibit Nos. 1343A, 1343B and 1344.)

Mr. Hurd: Now, if the Court please, I would like to have the objection we had this morning as to all of these documents, with the exception of the portion relating to anti-freeze, on the ground that they are not proper rebuttal, to have that fall under the general rules, and we [fol. 6941] can argue that in connection with the brief, if that is agreeable.

We did appreciate having a ruling on the anti-freeze because that involved putting in further evidence.

Mr. Harsha: Mr. Cox pointed out to me that there may be some problem as to conferring on this du Pont schedule, and I will take it up with counsel to make sure that we all have the same papers.

Mr. Cox: My point was that you described it in terms of "Let the record show it is complete." I think it is complete. It may be that it is not complete, but I think the record should not be——

Mr. Harsha: That's right.

Mr. Harris: If your Honor please, this witness' examination will be directed to the Government's Exhibit No. 1343-A, the item of adhesives, and Government's Exhibit No. 1344, the item of heavy bodied cement and pyroxylin solutions.

Louis F. Weyand, called as a witness on behalf of the Government, in rebuttal, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Harris:

Q. What is your name?
A. Louis F. Weyand.
Q. Where do you live, Mr. Weyand?
A. St. Paul, Minnesota.
Q. Give us the street address.
A. 1753 Summit Avenue.
Q. What is your occupation.
A. I am an executive vice-president of the Minnesota [fol. 6942] Mining & Manufacturing Company.
Q. What does the Minnesota Mining & Manufacturing Company manufacture principally?
A. Abrasives, various kinds of tapes, including the Scotch brand cellophane tapes, and adhesives and coatings.
Q. How long have you been with Minnesota Mining?
A. 38 years.
Q. Briefly, what positions have you filled?
A. Office clerk, salesman, sales manager, division sales manager, general manager of a division, and a vice-president, and then latterally this other position.
Q. Yes. What adhesives does Minnesota Mining make? What are the general categories of adhesives?
A. Well, they produce adhesives which basically are of reclaimed rubber, resins, various clays, and also synthetic rubber adhesives which also include clays, resins and solvents.
Q. And does that include "Neoprene" base?
A. That includes "Neoprene."
Q. Now, is General Motors a customer of Minnesota Mining?
A. General Motors is a customer of Minnesota Mining.
Q. Are they a fairly large customer?
A. Yes, they are.
Q. Will you state whether or not General Motors buys from Minnesota Mining adhesives?
A. They do, yes.

Q. Will you please state the nature of the adhesives that General Motors buys from you?

A. They buy several kinds, and we group our adhesives into two categories, one which we call adhesives as such; and the other as sealers. Now, the adhesives are used for [fol. 6943] applying or attaching felt or sound deadener, rubber weather stripping, and making fast and adhering the rubber around the windshields and so-called rear lights, and also for adhering fabric, trim materials.

Q. Do you know whether or not in 1946, 1947, and part of 1948 du Pont manufactured adhesives used in automobile manufacturing?

A. I believe they did, sir.

Q. As to your knowledge and belief, what do they manufacture and what use was it put to?

A. Well, they produced "Neoprene" base adhesives.

Q. Do you know what General Motors used "Neoprene" base adhesives for, if it used them?

A. Well, they used them primarily for attaching rubber weather strips, or the rubber around what they refer to as a deck lid of automobile bodies.

Q. And what is the deck lid, sir?

A. That is the lid of that part which closes the trunk compartment.

Q. What, if you know, did General Motors use the adhesives sold to it by Minnesota Mining, for, in the years 1946, 1947 and 1948?

A. They used adhesives for attaching fabric and for sound deadener or attaching or windshield rubbers and weather stripping.

Q. Can you say from your knowledge of the business, Mr. Weyand, what percentage approximately of use in an automobile that the du Pont adhesives were used?

Mr. Cox: I object to that question.

Mr. Harris: Let me reframe it.

By Mr. Harris:

Q. What percentage of the automobile structure is covered [fol. 6944] by weather stripping, and what do you call that back lid?

A. Deck lid.

Q. Deck lid, for which you say the du Pont adhesive was used?

Mr. Cox: I still object to the form of the question.

The Court: Well, sustained. I don't know how the witness can answer that unless he is an expert in the construction of automobiles.

By Mr. Harris:

Q. Well, you know, do you not, the use to which these adhesives are put?

A. Yes, sir, I do.

Q. You know, do you, how much of the car, the ordinary car, the ordinary automobile, your adhesives are used in? By that I mean in terms of percentage, these various parts that you have spoken about.

Mr. Cox: Percentage of what?

By Mr. Harris:

Q. (Continuing) Of the surface of the car, and the parts to which the adhesives would apply.

A. I am afraid, sir, that is a difficult question. It would be hard for me to answer that.

The Court: I think what you want to know is what part of the car the adhesives are used on.

By Mr. Harris:

Q. Well, you can state that. What parts of the car? I thought you had done so.

A. Yes, I had. For attaching trim to metal, to attach the felt pads to the roof, and to the floor, and to the deck lid—[fol. 6945] I refer to that again—and also for attaching rubber to the doors of the deck lids and for sealing the windshield rubbers and the rear lid rubber.

Q. Now, what percentage of the entire car to which adhesives are applied, is that? That is, is it the entire adhesive application, or is it the application, less the parts put in by du Pont? Can you tell me?

A. I am afraid I am confused at that question, Mr. Harris.

Q. You have stated, I believe, Mr. Weyand, that the "Neoprene" adhesive manufactured by du Pont is used only for the weatherstripping and for the deck lid.

A. To the best of my knowledge, that's right.

Q. Now, what percentage of the entire use of adhesives is that?

A. Oh, well, now, the weatherstripping adhesive is made with "Neoprene" base, irrespective of the maker, and I estimated between five and ten per cent of the total adhesives used in the car.

Q. That's right. Does that include the deck lid?

A. That includes the deck lid.

Mr. Harris: Take the witness. No further direct.

Cross-examination.

By Mr. Cox:

Q. Mr. Weyand, I represent the du Pont Company in this litigation.

A. Oh, yes.

Q. My name is Cox. I should like to ask you two or three questions about your last testimony.

This last estimate that you gave us of five or ten per cent, are you speaking of five or ten per cent of the body volume of that adhesive, or of their dollar value, or just what was it?

A. I am speaking of the gallonage.

[fol. 6946] Q. The gallonage?

A. Yes.

Q. Are these "Neoprene" adhesives more expensive than other adhesives?

A. Yes, they are.

Q. If you expressed the percentage of relationship in terms of the dollar value of the adhesives that went into a car, would the percentage relationship between the "Neoprene" adhesive and the balance be greater or less than five or ten per cent?

A. The ratio would be two and a half or three to one in the price over the ordinary, what we call "Reclaimed Rubber Adhesives."

Q. So that your percentage represented by the dollar value or cost of the adhesives would be larger?

A. Would be larger.

Q. Mr. Weyand, in preparation for your testimony in this case, did you examine the du Pont product book, or anything of that kind?

A. No, sir.

Q. You have testified that du Pont makes "Neoprene" adhesive?

A. That's right.

Q. And that your company also makes that?

A. Yes, sir.

Q. What kind of an adhesive is used to attach the rubber around the windshield of the car?

A. For the most part a reclaimed rubber base resin solvent adhesive.

Q. You do not know of your own knowledge whether a "Neoprene" adhesive has ever been used by any car manufacturer for that purpose?

A. That is right.

Q. You are not prepared to say it was not?

A. I am not prepared to say that.

Q. Do you know of your own knowledge whether in 1946 and 1947 the du Pont Company made and sold any adhe- [fol. 6947] sives made of reclaimed rubber that was used on windshields?

A. I have never seen it.

Q. You don't. Are you certain they did not make them?

A. I would not know that they did not make it, but I have never seen any.

Q. What kind of adhesives is used ordinarily, Mr. Weyand, to cement silencer pads and trim materials to the body of a car?

A. A water disperse type with a base of reclaimed rubber.

Q. Does your company make that?

A. Yes.

Q. Do you know of your own knowledge whether in 1946 and 1947 du Pont Company made a product that was also used commercially for that purpose?

A. I do not know.

Q. Have you ever heard of "Fairprene" cement being used. Have you ever heard of a product called "Fairprene" cement?

A. Yes.

Q. Have you heard of that product being used for this purpose, that is to cement the silencer pads and trim materials to the body?

A. No.

Q. Are you prepared to say it has never been used for that purpose commercially?

A. I have never seen it used for that. I would prefer to say it that way.

Q. If I suggested to you that it had been used commercially for that purpose, would you be prepared to deny that?

A. No, sir, I have never seen it.

Q. What do you know of your own knowledge, Mr. Weyand, about the products of the Chrysler Company, that they use for adhesives?

A. Well, the Chrysler Company at one time purchased their adhesives from adhesive manufacturers, and several years ago they started producing their own adhesives in their own adhesive plants.

[fol. 6948] Q. Have you ever personally sold adhesives to them?

A. Yes.

Q. In recent years?

A. No, some years ago.

Q. In 1946 or '47 were you selling adhesives to them?

A. Well, I was the manager of the Adhesive Division at that time.

Q. But did you sell adhesives to Chrysler at that time?

A. Yes, but I couldn't tell you in what quantity.

Q. Did you personally have any knowledge as to what kind of adhesives Chrysler was using in 1946 and 1947?

A. Yes, they used chiefly reclaimed rubber base adhesives.

The Court: The Court stands recessed for fifteen minutes.

(Short recess taken.)

Mr. Cox: Mr. Weyand, I have just two or three more questions and we will be finished.

By Mr. Cox:

Q. You testified that du Pont makes and sells some adhesives that are made of "Neoprene". Are you aware that the du Pont Company also makes and sells adhesives that use as a base some other synthetic rubber?

A. I am not familiar with the Fairfield or du Pont line of adhesives beyond the "Neoprene" adhesive.

Q. Does that mean that you have never heard of the du Pont rubber sealing compound that has an asphalt base? [fol. 6949] You never heard of that?

A. I don't believe I ever heard of it, sir.

Q. You are not aware that that is an adhesive that is offered for use in sealing tops in windshields? You have never heard of that?

A. No, sir.

Q. Have you ever heard of a commodity sold by the du Pont Company that is sold under the name "Fairprene Cement" and has an asphalt and rubber base?

A. I wouldn't know the ingredients. I know of the "Fairprene" cements by name.

Q. Did you include that in your general description of the adhesives made of "Neoprene," or were you—

A. Well, "Fairprene" as I knew the name, was a trade name covering their adhesives, and the ingredients of the adhesives depended upon the composition or formula.

Q. And you didn't know anything about the formula?

A. No, sir.

Mr. Cox: That is all.

Mr. Harris: No redirect, your Honor.

(Witness excused.)

Mr. Hoyt: The Government now calls Edwin W. Farmer as a witness.

If the Court please, Mr. Farmer will testify in regard to Government's Exhibits 1343-A to 1344, on the subject of solvents as it appears under the sub-heading "Finishes" [fol. 6950] on Government's Exhibit 1343-A, acetylated solvents on Government's Exhibit 1344.

Edwin W. Farmer, called as a witness in rebuttal on behalf of the Government, having been first duly sworn on his oath, was examined and testified as follows:

Direct Examination.

By Mr. Hoyt:

Q. Will you state your name, please?
A. Edwin W. Farmer, F-a-r-m-e-r.

Q. Where do you live, Mr. Farmer?
A. Detroit.

Q. What is your present position?
A. Treasurer and assistant general manager of Dibble Color Company.

Q. How long have you been associated with the Dibble Color Company?
A. Twenty-one years.

Q. Will you give a brief resume of the various positions you held in that company?
A. Well, I have been assistant general manager most of that time, and treasurer for the last few years.

Q. What products does the Dibble Color manufacture?
A. Inks, lacquer, enamels, undercoatings, lacquer thinners.

Q. Did they manufacture any solvents for use in mixing with paint or as thinners?
A. We do not manufacture any solvents.

Q. Does your company have any connection with some [fol. 6951] other company?
A. We are a subsidiary of Pratt & Lambert, Incorporated, Buffalo, New York.

Q. Are you familiar with the products manufactured by Pratt & Lambert?
A. Fairly familiar with them.

Q. Do you know whether Pratt & Lambert make solvents?
A. They do not manufacture solvents.

Q. You mention lacquer thinners. Is there more than one type of lacquer thinner?
A. Oh, yes.

Q. Would you describe the principal types, please?

A. Well, thinking of it as it pertains to Detroit, there are lacquer thinners for use in automobile lacquers. That would be for spraying, principally. If it is for dipping, there would be dipping lacquer thinners, or for some other purpose. It may be for metal or for wood.

Q. Can lacquer thinner be used to thin enamel?

A. Well, I didn't get the question.

Q. Can lacquer thinner be used to thin enamel?

A. Well, you would be sticking your neck out if you tried it.

Q. Now, do you know which automobile manufacturers use lacquer on their cars as against those which use enamel?

A. General Motors use lacquer, Packard, Hudson. There may be some others who use it.

Q. What are the ingredients of a lacquer thinner?

A. Customarily they are composed of ethyl acetate, butyl acetate, or amyl acetate, or a similar solvent, and aromatic hydrocarbons, such as toluene.

Q. What proportion of the lacquer thinner consists of [fol. 6952] solvents?

A. Of solvents? Oh, usually forty to fifty percent.

Q. Where does your company or companies purchase your solvents that you use in your thinner?

A. Carbide & Carbon Chemical Company, Commercial Solvents, U. S. Industrial Chemicals, and Shell Chemical.

Q. Will you name some of the other principal manufacturers of such solvents, if you know, or if there are any?

A. Well, I think I have named the principal ones. We are contacted by the larger ones, and they are the ones I have just named.

Q. Did you ever hear of acetylated solvents?

A. I have heard of it, but I am not familiar with it.

Q. What type of solvents, if you know, does the du Pont Company make?

A. We have not been contacted by any salesman for du Pont on solvents for fifteen or twenty years.

Q. Are you concerned with the purchasing of these solvents?

A. I supervise it.

Q. Does du Pont solicit your business on other products?

A. They do on pigments and on nitrocellulose and a few other items for plastic.

Q. Do you purchase products from them?

A. We do.

Q. Do their salesmen call on you regularly?

A. They do.

Q. Did you ever see any solvent made by the du Pont [fols. 6953-6955] Company?

A. I worked for du Pont when they were making ethyl acetate.

Q. When was that?

A. About 1917 to 1923.

Q. Has any salesman of the du Pont Company in recent years, specifically 1946 and 1947, ever shown you or attempted to sell you any du Pont solvent?

A. No.

Q. Have you been in the market for solvents during all that period?

A. Yes, we have.

Q. Could a solvent be used as a lacquer thinner alone without being mixed with other products?

A. It could be, but it does not stand to reason that it would be.

Q. What would that reason be?

A. The cost.

Q. Do you know how much lacquer thinner a company needs in proportion to the amount of lacquer that it needs in finishing automobiles?

A. Customarily a gallon of lacquer enamel for an automobile is reduced with at least one gallon of lacquer thinner for spray application.

Mr. Hoyt: You may cross-examine.

Mr. Cox: May I have the Court's indulgence?

No cross-examination, your Honor.

The Court: You are excused.

(Witness excused.)

Mr. Harsha: That completes our presentation for today, your Honor. We are running a little ahead of schedule. Our other witnesses will not be ready until tomorrow.

[fol. 6956] The Court: Proceed.

Mr. Harsha: The Government calls as its witness Mr. T. A. Nalle.

Will you take the stand, please?

Thomas A. Nalle, called as a witness on behalf of the Government, in rebuttal, having been first duly sworn, was examined and testified as follows:

Mr. Harsha: May it please the Court, the purpose of the examination of this witness is to inquire into and develop certain facts regarding a number of documents which have been returned by the du Pont Company pursuant to the recent subpoena calling for trade reports. They deal with the subject matter of fabrics.

We have given your Honor a list of the documents to which we will refer during the examination.

Direct Examination.

By Mr. Harsha:

Q. Will you state your full name, Mr. Nalle, please?

A. Thomas A. Nalle.

Q. Where do you live?

A. Wayne, Pennsylvania.

Q. By whom are you employed, Mr. Nalle?

A. I am employed by the Fabrics Division of the du Pont Company at Philadelphia.

Q. How long have you been in the employment of the du Pont Company?

A. I started with du Pont March 11, 1915.

[fol. 6957] Q. Was that with what was the forerunner of the Fabrics Division?

A. No, sir, I first went to work at the experimental station just out of Wilmington as a chemist. I went to work on a development process there, and in September I was sent to the Newburgh plant at Newburgh, New York,——

Q. Is that September of 1915?

A. 1915—to put this process on a production basis. I worked on that until May 11, 1917, at which time I went into the service.

I returned to the company sometime in 1919, and sometime during 1920 I was laid off for lack of work. I came back to the company in 1924, I don't remember the exact date, and I have been with them continuously since that time.

Q. When you returned to the company in 1924, what position did you obtain?

A. To the best of my recollection, I was an assistant supervisor in one of the production areas for probably six or eight months. Then I was put in charge of handling complaints, representing both the production and the sales departments.

Q. Where were you located at that time?

A. I was located at the Newburgh office. About 1927 I was sent to the Fairfield plant where an office sales organization was being organized.

I stayed there approximately three years and returned to Newburgh office on similar work until 1933.

In 1933 I was assigned to the Philadelphia sales territory as sales representative in that area. I worked there until August, I think it was, 1936, when I was transferred to the Detroit offi[illegible]

I continued at D[illegible] until August 1st, 1949 when I was [fol. 6958] again assigned to the Philadelphia office as sales representative where I am now employed.

Q. Approximately what year would you say that you became acquainted with the sales work as opposed to the development or research work that you did?

A. I would say in sales office work in the late '20's, or early '30's, and with the field work when I went to Philadelphia in 1933.

Q. When you were working in the sales office work as opposed to the field, were you there dealing with reports being sent in from the field by the salesmen of the Fabrics Division?

A. To some extent. I handled the general range of office work, correspondence with the salesmen, correspondence with the customers, and just general supervision of the interior work.

Q. Then you became an active salesman in the field beginning in about 1936, is that correct?

A. In 1933 at Philadelphia, and in 1936 at Detroit.

Q. When did you first engage in sales work in the Fabrics Division with regard to the automobile companies, if you did?

A. You refer now, sir, to sales contacts?

Q. Yes.

A. In 1936, except for a little automotive business there might have been in the Philadelphia territory, which was very little.

Q. You didn't do much automotive work out of the Philadelphia office?

A. No.

Q. That was all handled primarily out of the Detroit office, is that right?

A. There was practically none there. There were just Mack Truck and one or two other very small companies.

[fol. 6959] Q. When did you first call on any division of the General Motors Company, if you did?

A. I would guess that probably my office work took me to see some of these accounts in the late 20's, not as a salesman but as a man from the office to check into certain details that we might have been working on at the time.

Q. Did you at a later date become active in the solicitation of the fabrics business of any of the General Motors divisions?

A. I did, sir, in 1936.

Q. Beginning in 1936?

A. Beginning August, 1936, as I recall it.

Q. Were you engaged continuously in sales contact work from 1936 on until 1949?

A. Yes, sir.

Q. Were you during that period of time, active in soliciting the business of various divisions of General Motors?

A. Yes, sir.

Q. What types of customers did you solicit during this period, say, from 1936 to 1949?

A. I solicited anyone in the Detroit territory who was a potential customer for the production which we manufactured, both automotive and non-automotive customers.

Q. What products were you attempting to sell to the automotive industry during this period?

A. We were attempting to sell a complete line of products made by the Fabrics Division.

Q. Would that include the products produced both by the Newburgh plant and the Fairfield plant?

A. It did, sir.

Q. Did you attempt to sell all of the products that were produced by that entire division?

A. All that—I should perhaps qualify that. All that fell in the so-called industrial group. We had other men [fol. 6960] in the same territory selling, for example, "Tontine" window shade material which went into an entirely different field.

Q. Did you sell or attempt to sell fabrics used for purposes other than upholstery or automobile trim?

A. Yes, sir.

Q. You did, sir? I am speaking now in regard to your solicitation of automobile customers.

A. Anyone who used any type of fabrics was always considered a potential customer, and we were supposed to keep in contact with them.

Q. At the beginning of this period, which started I believe you said 1936, when you went out to the Detroit office?

A. Yes.

Q. About how often on an average would you contact the various divisions of General Motors Company?

A. Well, that depended largely on circumstances as to the requirement at that particular time. In some cases I might see them several times a week. Others, there might be lapses of several weeks.

Q. Would it be fair to say that you might make 15 or 20 calls a year on a particular division of General Motors?

A. Yes, I think so in general, and in some cases more than that.

Q. Now, after you made one of these calls was it your practice to make any kind of written report?

A. Not always, no, sir. Occasionally we made a trade report. I think those were confined to the master trade reports and occasionally a quarterly report, which were just routine matters.

[fol. 6961] Q. Now, you refer to the master trade report. When did you start making those, do you recall?

A. As I recall, we started what is approximately the current form; it was supposed to be made of the last quarter of 1946.

Q. Was this the report that showed the estimates of the consumption of fabrics by that particular customer with an estimate as to the amount of business to be obtained by the du Pont Company, your company, as opposed to all of its competitors?

A. By no means, no, sir.

Q. What did that report contain?

A. Well, first of all, my job was selling, and we kept, we made what reports we were required to, and I put into that report only the information which I felt reasonably sure was correct. If I was not certain about it, I left it out. In that way there was quite a bit of material which does not show.

For example, if we and several others might be supplying a customer a parallel line of products, I was able to get a very good idea, I thought, of what we were selling, and of what those principal competitors were also selling, and that was the basis of those reports.

Q. Do I understand you to mean your report would show the estimated sales by du Pont and competitors of du Pont of products which were approximately comparable?

A. No, those reports showed only the major suppliers. For example, there were four—shall I take the example of Fisher Body?

Q. You pick your own example.

A. Well, there were four major suppliers of more or less parallel products. There was du Pont, the J. C. Haartz Company, Textileather and Federaleather. With the exception of Haartz, during the forties, right after the war, the first two or three years, I was able to get what I [fol. 6962] thought was a fairly definite picture so those were the basis for my reports, and I would guess that my report—understand, my reports were in yardage, not in dollars—might have covered perhaps 65 to 75 percent of the total requirements.

Q. You say your record would cover sixty-five to seventy-five percent of the total requirements of the customer?

A. Total usage of the customer of coated fabrics.

Q. What would account for leaving out the other 25 percent, roughly?

A. Well, I was never a statistician. My job was selling, and the bulk of the business, maybe 75 percent, was from these four suppliers. There might have been a dozen others.

Q. Smaller supplies, you mean?

A. Some small and some large, but if I didn't have reasonable assurance as to what my figures were, I always followed the practice of leaving them out and my home office knew that and understood how the report was made.

Q. But I gather that you attempted to make your estimates as accurate as it was within your power at that particular time?

A. To the extent of the supply sources shown. The so-called fringe accounts, I just simply followed the policy of not including them.

Q. The fringe accounts, you say?

A. Probably a dozen or fifteen other accounts who might have been supplying some today and some at various times.

Q. You would not leave out any major supplier, to the best of your ability?

A. I could, yes. I am sure I did.

Q. Was that your practice?

A. For instance, for a couple of years there I did not show the Haartz Company in those consumption figures [fol. 6963] at the right-hand column of the trade report for the simple reason that Fisher at that time was not interested in having us supply the material which Haartz supplied. We had the material available and we contacted them regularly about the possibility of supplying it, but since we were not sharing in that business, I didn't at that time include it on the report.

Q. From what sources did you obtain your estimates of the yardage figures which you put into your report?

A. Well, for our own figures I would use an estimate of what I knew to be our own sales in yards and from schedules of accounts we were supplying, from information I picked up from the engineers and specification men, scheduling men, and so forth, I was able to develop what I thought was a fairly representative picture of the consumption of the parallel products which we were at that time furnishing.

Q. Would you ask the scheduling personnel of the particular customer the amounts that they were buying from one of your competitors?

A. No, I wouldn't ask him directly because they didn't like to be asked such information. I would usually engage him in conversation. I might talk to one man about one thing and another man about another phase of it, and in that way I could form a pretty good picture of what was coming from whom.

Q. You mean by piecing together details that you had picked out from a number of conversations?

A. That is right. You see, we and two other suppliers might be supplying the same item at the same time, and when a model was going into production sometimes we would say No. 3 would submit samples which would be selected, or No. 2 and No. 1. I am using numbers rather [fol. 6964] than names of companies.

I would be given some of their samples to match because they wanted us to supply some of that same color, maybe in that weight or in another construction, and in the same way they might select one of our numbers, and they would have other people match that.

Q. Will you show Mr. Nalle Government's Exhibit No. 1358, please?

Is Government's Exhibit No. 1358, Mr. Nalle, a report prepared by you?

A. Yes, sir.

Q. Is this a so-called master trade report? This, you will note, is dated "date of call, October 16, 1939."

A. Yes. That was considered a master report, and you will notice the form of this is—yes, this was a master report but we used the same form for routine reports.

Q. Routine reports also?

A. Yes, leaving out the consumption figures.

Q. Now, approximately how long have you prepared master trade reports on this type of form? I see this is dated 1939.

Had you used it from the time that you went out to the Detroit office?

A. I would say that this form was instituted about 1938, to the best of my knowledge. I am not definitely sure.

Q. Did you make reports prior to 1938 which would also set out the estimated consumption figures?

A. Set them out, yes, with the limitation which I have previously explained.

Q. How long had you prepared reports such as that?

A. As I recall, I must have prepared some—you are speaking in the automotive field now? I must have prepared some of those possibly in the fall of 1936.

[fol. 6965] Q. Now, during the period prior to the time that you went out to Detroit, when you said you were engaged in sales office work, I believe, in Philadelphia, did you at that time see reports similar in nature from your salesmen in the field, which gave estimates of the customers' consumption?

A. I think I must have.

Q. And would that be during the period, say, from 1933 to 1936?

A. No, sir. I was a salesman myself in the field in 1933 to 1936. I was making up these things.

Q. This would be the period prior to 1933, is that correct?

A. Yes, sir.

Q. Going back into the 1920's?

A. Well, the late 20's, yes, sir.

Q. Now, do you make a copy or receive a copy of these master reports, irrespective of the form, but I mean where you have the customer's estimated consumption, do you keep copies for yourself?

A. Well, to this extent: Those copies were typed in the Detroit. We sent the necessary copies to the home office, and kept one for our files.

Q. When you say "our files," do you mean——

A. I mean the Detroit office files.

Q. The Detroit office files?

A. Yes, sir.

Q. And do you know how far back they keep these reports showing estimated consumption?

A. I have no idea.

Q. Have you checked that at all recently?

A. No, sir.

Q. Do you know what the practice is with regard to the maintenance of documents in the Detroit office?

A. Well, the headquarters in the last fifteen or twenty years have moved several times, and I don't know what the practice is. I have no idea.

Q. Now, turning to this report which you prepared in [fol. 6966] 1939, I see it concerns the Chevrolet Commercial Body Division located in Indianapolis, Indiana.

I note that the upper part of the report which is headed "Consumption—Pyroxylin Coated Goods—Next Twelve Months" has been left empty.

Does that mean at that particular time Chevrolet Commercial Body Division was not purchasing pyroxylin coated fabrics?

A. Yes, sir.

Q. And then I note that the next is "Consumption—Rubber-coated Goods—Next Twelve Months."

Now, judging from the date of this report which is 10-16-39, can you tell us what period of time these figures that you have indicated refer to?

A. It is a little difficult to recall just what was done fourteen years ago, but I would assume from the heading of this report that it covered the period from October to October roughly.

Q. You mean this is a projection for the ensuing year, 1940?

A. Yes, sir, based on the estimates which could be made at that time.

Q. Now, turning to the first item that you have indicated there under the heading, "Quality," "6130," width, 50 inch, and under "Price" the notation "Contract," then the "Manufacturer," du Pont, and then the initials "D. S."

Can you explain what those designations mean?

A. Starting with the "Quality" designations?

Q. Yes.

A. That code number represented a construction of fabric with a coating bringing it up to a given weight, in that case 30 ounces to the lineal yard.

Q. The "30" at the end of the last two digits?

A. The first two digits indicate the type of fabric, and the last two digits indicate the weight that that particular [fol. 6967] type of product is.

Q. And the "30", I assume, indicates the width?

A. That was the width of the yard.

Q. And what does the indication "Contract" refer to?

A. Well, Chevrolet followed the practice of buying against contracts, a contract covering a period of time and——

Q. Now, what does the abbreviation "D.S." refer to?

A. Direct sales.

Q. Not handled through a distributor or intermediary, is that correct?

A. That is right, sir.

Q. "400,000" refers to what?

A. To my estimate of their probable requirements of that particular item.

Q. That would be supplied by du Pont?

A. By du Pont.

Q. Now, taking the next item, the quality of which is Reddo, and so forth. Now, is that a reference to a fabric produced by Chase which is comparable?

A. That's right, sir.

Q. Is that supposed to be comparable to the preceding item produced by du Pont?

A. That is comparable in all respects. The color might have been different; I cannot recall.

Q. Now, the next item I notice is headed, "Headlining 50″ Drill."

Is that a different usage of fabric?

A. Yes, sir, that is used in the top of a small number of the bodies to cover up the bows in the unfinished section [fol. 6968] up in there. It is stretched from front to rear and the top of the body—in some few of the bodies.

Q. And is that a fabric different in some fashion from the preceding two items that you listed there?

A. It is different in weight, yes, sir—weight and general construction of the fabric.

Q. I assume that you made a headlining drill at that time, at the du Pont Company?

A. Oh, yes.

Q. Now, opposite that I see, on the right-hand side, there is the item "Headlining Sheeting."

Can you tell me what the purpose of that fabric is? That is, what it is used for.

A. Well, it serves the same general purpose as the thousand yard item mentioned on the opposite side. In other words, it is used in the interior of the body to cover up the unfinished section of the top. It is a very light-weight material having very little coating and as I recall that is put in there and then is subsequently sprayed with paint.

Q. Now, how about the curtain material, the next item? What is that?

A. The curtain material was used on a type of open delivery body. In other words, some might be old buggy curtains, when the weather was good you would roll them up on the sides and on the back.

Q. Now, directing your attention to the comments on this document, No. 1, which reads: "Landers supplies a very cheap sheeting which is entirely satisfactory. Also were low on curtain stock. Chase were lower than we were on the recent olive drab inquiry. We were third. In addition to Chase, Landers were low. I do not believe Cotan, now represented by Mr. Scott, formerly with Chase, was seriously considered."

[fol. 6969] On the basis of comments contained therein, can you tell us, Mr. Nalle, whether at that time that you made the report, these comments referred to the prices being quoted for the following year's business?

A. Not necessarily for the entire year. They were perhaps for a contract period which might have been for a period starting in October or December, I cannot recall the exact period, but I am rather certain it was not for a period to exceed six months.

Q. What was the custom of the Purchasing Department of Chevrolet Commercial Body at this time, if you recall, as to the duration of the contracts which they let for fabrics?

A. In 1939—my recollection is that it would probably be six months.

Q. And when would they normally ask for quotations and let and finally make the award of the contract?

A. Oh, on that basis, sir, I think it would be in the fall, maybe October or November, and the next one approximately six months later. It might vary a few months either way.

Q. Now, during this period of 1939 were you also calling on other divisions of General Motors that were consumers of fabrics?

A. Yes, sir.

Q. And were you making reports similar to the one you have there in your hand for those divisions?

A. I cannot say whether I was or not. I don't know.

Q. Well, wasn't that the general practice, though, to make reports?

A. It was, but I don't remember having any particular report. It was the general practice.

Q. It was your general practice, but you cannot remember any specific report, is that what you mean?

A. That's right.

[fol. 6970] Q. Now, after you had made a report which gave your estimates of the anticipated annual consumption of a division of General Motors, such as are indicated in this document, you have before you, Government's Exhibit No. 1358, was it your practice at a subsequent period, to check your estimates against the actual sales by du Pont for that period to see how closely they corresponded?

A. No, sir.

Q. Weren't you interested ever to find out whether your estimates were accurate?

A. I might have when the time came to make the next report.

Q. Pardon?

A. I say I might have checked them when the time came around to make up the next or succeeding report.

Q. It would have a bearing on what would be your estimate the succeeding year, would it not?

A. I would naturally see whether I had been right or wrong, but once the trade consumption figures were written, they were more or less forgotten by me.

Q. But I gather you might have reviewed them the following year in making up your next——

A. I might have reviewed them in making up the following year, yes, sir.

Mr. Harsha: Would you show Mr. Nalle Government's Exhibit No. 1349, please.

By Mr. Harsha:

Q. Now, is this what you have described in your testimony as being the more or less current master trade form report?

A. Yes, sir.

Q. This is one you made with respect to Fisher Body, Division of General Motors, date of—date of call——

A. May I modify that "Yes, sir"?

[fol. 6971] Q. Certainly.

A. It was current for perhaps two or three years. As I recall at present we have a slightly different form.

Q. Is the format approximately the same?

A. The consumption figures, and so forth, would be. The other requested information has been revised to some extent.

Q. Now, this is a report which you made following a call, or following, I might say, two calls, one dated November 29th and the other December 6th, 1946.

Based upon your practice, and with reference to the date of your visits, can you tell us what period of time is referred to in your estimates that are shown here?

A. This is the report which was made out in the fourth quarter, and it is based on purchases made for that calendar year to the date of the report.

Q. So that this is not one of the type where you are projecting for the following year?

A. This is the current year.

Q. This is the current year, 1946, is that correct?

A. Yes, sir.

Q. And the only projection that is contained in this report would be for that month or some of the unexpired year?

A. That is right.

Q. Now, drawing your attention to the fact that there is nothing indicated under the columns, "Rubber coated fabrics," in the middle of the page—do you see that?

A. Yes.

Q. Is that an indication that at that time the Fisher Body was not consuming rubber fabrics?

A. No, sir, it is not.

Q. What is it?

A. It meant that I didn't have information which I felt [fol. 6972] was sufficiently accurate to justify including any other items.

Q. Now, did you have any fashion by which you informed the home office, whereby they could distinguish between an omission under one of these types of products to indicate that the consumer was not buying that type of fabric, as opposed to the situation where you felt you didn't have sufficient information?

A. Would you repeat that question, please?

Mr. Harsha: Will you read the question?

(Question read.)

By the Witness:

A. By that, sir, do you mean did we have a regular form where we report omissions or corrections?

By Mr. Harsha:

Q. No, I meant from the way you make up your master report. How would a person in the home office know whether you merely didn't have adequate information concerning a type of fabric to include it in your master report?

A. Well, we were in constant communication by telephone. I would visit the home office frequently, and we would go over these reports, and they understood thoroughly—it was always understood that I was simply reporting on the products, paralleling those in which we were in full production for that customer at that time. I didn't try to go out and rummage up and down, and do a little detective work, and try to find every yard of every fabric of the type they were using.

Q. No, But I assume from this report it is true that du Pont was not selling rubber fabrics, at least to Fisher [fol. 6973] Body, at that time?

A. Yes, it does not mean we weren't trying to sell them.

Q. It might also mean that they just weren't buying rubber fabrics from anyone, isn't that true?

A. Not necessarily.

Q. Couldn't that be the case?

A. It could be, but it is not probable.

Q. As a matter of fact, isn't it true that Fisher Body in this period after the war consumed very little in the way of rubber fabrics?

A. I still don't know.

Q. You don't know what Fisher was consuming in the way of fabrics after the Second World War?

A. I don't know all of their fabrics, no, sir. I know, if you include top materials, I know that they were consuming large quantities of convertible top material which we call "Teal", and which, in general categories, might be called a rubber fabric.

Q. A rubber fabric?

A. It has rubber in it.

Q. Don't you usually refer to your "Teal" as a combined fabric, sir?

A. Yes, we do, but some people might consider it as a rubber fabric. It wouldn't be classed as a rubber coated fabric, if that is what you mean.

Q. And that is what this particular box on your report refers to, isn't it, "Rubber coated fabrics"?

A. Yes.

Q. Now, you have another heading in this report entitled "Resin coated fabrics & sheet stock." What type of fabric does that cover that is made by du Pont? Is that the vinyl?

A. That is the vinyl material, sir.

Q. Now, referring back to the pyroxylin coated fabric at the top of the report, am I correct that the items in- [fol. 6974] dicated as "6950-50" "for du Pont—do you see that, the first item?

A. Yes, sir.

Q. Is that a comparable item to the Broken Twills listed for Textileather?

A. It is.

Q. Then it also applies, I assume, for the same Broken Twills supplied by Federal?

A. It would, sir.

Q. And then with respect to the next, which is "4000-4500-4502". Does that correspond to an item listed under Textileather?

A. That would correspond to the sateens in both cases.

Q. And the last item under the du Pont listing, "2251-55" & "58," does that correspond to the drills listed for Textileather?

A. It does.

Q. Do you recall whether the year 1946 was a year of rapidly expanding production on the part of Fisher Body?

A. It very definitely was. Beginning their post war production, I believe a few cars were made in 1945, but I am not certain.

Q. Did that rapid expansion, do you recall, also occur at the very end of the year after this report was made?

A. Automotive production figures would show that, but my recollection is that it did, based on the availability, or controlled, I should say, by the availability of raw materials. In our industry it was a period of great scarcity.

Q. Great scarcity in fabrics?

A. Of fabrics for producing these items.

Q. Do you mean by that that you didn't have great difficulty in that year in selling fabrics to the automobile industry?

A. All you had to do was tell someone you had it.

[fol. 6975] Q. And they would buy it?

A. They would buy it.

Q. Now, if you turn to the back of the page, of this exhibit, Mr. Nalle, you see the statement appears, where you state that:

> "The consumption figures shown on the other side of this sheet are based on the production of 700,000 passenger cars in 1946 and the usage of 1.6 yards per car."

Do you recall from whom you obtained your estimate on the car production? Would you have gotten that from somebody in Fisher Body?

A. No, sir, I am quite certain that those were published figures representing what that manufacturer would get out during that year.

Q. Well, wouldn't you check those with the purchasing people in the Fisher Body to see whether the published figures were off or not?

A. No, I had a great deal of confidence in the published figures. They were "Ward's Automotive Reports" and so on.

Q. And these figures indicated here for pyroxylin coated fabrics were the du Pont figures based upon what had been the du Pont actual sales during the earlier part of 1946?

A. Well, I state there, sir, "Since post-war production was resumed, we have received orders totaling 2,760,000 yards. This amount is broken down as follows:"—into those qualities.

Q. Yes. I think I didn't make myself quite clear, Mr. Nalle. I pulled a switch on you. I was going back to the first page of this document as to your estimates on pyroxylin coated fabrics, and I wondered whether your yardage figures shown there for du Pont had been largely based upon your knowledge of actual orders already [fol. 6976] placed during that year with du Pont.

A. Based largely on that, yes, sir.

Q. And the other figures for Textileather and Federal, had these been attached previously, as you described?

A. That was used in arriving at our figure, but I made it my business to try to find out, at least.

Q. To what?

A. I made it my business to try to find out about how many yards of each different construction were used of these particular fabrics, were used in an automobile body, and that is the way I arrived at that figure of 1.6.

Q. Now, will you show Mr. Nalle du Pont Exhibit No. 289, please. Would you keep that same exhibit that you just had?

A. Yes.

Q. This is an exhibit which has been introduced by the defense, Mr. Nalle, and it showed the actual sales made by the du Pont Company in yards of coated and combined fabrics to the Fisher Body Company during the years 1923 to 1949.

I should like to direct your attention to the year 1946, which is the same year covered by your master trade report that we have just been discussing, namely, Government Exhibit No. 1349.

If you will look in the third column of this du Pont exhibit, you will note total du Pont sales—do you see that?

A. Yes, sir, 1,211,100.

Q. That is correct. That apparently is the actual yardage sales made by du Pont to all units of General Motors—rather, to Fisher Body during that particular year.

You will note that opposite that there is a figure 805,000, [fol. 6977] roughly, which is the number of automobile bodies manufactured by Fisher that year.

Comparing that with the estimate given in your master trade report, which was 700,000 cars, do you have an explanation as to why you were off 100,000 for the car production for that year?

A. My only explanation is that my report, the year still had a month to go, and my 700,000 figure was apparently taken from the published information that that is what they expected to build. Further than that, I cannot explain it.

Q. Is it possible in the last month of this year, 1946, that production was far in excess of that which had previously been estimated?

A. I don't know. I don't remember the production curve at that time, whether it was flat or whether it went up.

Q. It was a period of rapid expansion, was it not?

A. It was, but the rate of expansion I couldn't possibly recall.

Q. You also note—I believe my arithmetic is correct—that if you total the items that you have shown on Exhibit 1349 shown opposite du Pont, the total yardage would amount to 810,000 yards. That is combining the pyroxylin and the resin coated fabrics?

A. On the trade report?

Q. Yes, on the trade report, 810,000 yards, I believe, and you will note that du Pont Exhibit shows du Pont's actual sales amounted to 1,211,000 yards for that particular year.

Would the discrepancy between your estimate and the actual sales by du Pont also be attributable to this rapid expansion of car production in the very last part of the year?

Mr. Cox: What do you mean also?

[fol. 6978] Mr. Harsha: In reference to his estimate also on the car production.

I will strike the also, Mr. Cox.

The Witness: Would you repeat the question?

Mr. Harsha: Read the question, please.

(Question read.)

The Witness: You are calling attention to the discrepancy of 800,000 against 1,211,000?

Q. That is correct, sir.

A. I would not say that the expansion was that rapid. I would say that I hadn't checked my shipments with complete accuracy as to the total sales for that period, up to approximately December 1st.

Q. I gather from your answer that it is clear that du Pont sold more fabrics than you had estimated on your master trade report in November of 1946, is that correct? That is, 1,211,000 as opposed to the 810,000 that you had estimated.

Mr. Neitzert: The documents make that clear. If the witness knows——

By Mr. Harsha:

Q. Do you know that?

A. These figures bear it out.

Q. Do you know whether the companies that were listed in your master trade report, Textileather and Federal, do you know whether they had increased sales above that estimated by you in this master trade report?

A. I do not.

Q. Do you have any knowledge as to whether their [fol. 6979] actual sales during that year were up or below, I mean over or above the figures you had estimated?

A. I think they were very much above. We were all trying to find a suitable fabric for coating. We tried to turn over all we could find, and the other plants, our competitors, were doing the same thing. The whole industry was doing the same thing.

Q. From these figures it would indicate that from an estimate by you of 810,000 for du Pont and the actual sales as shown by du Pont Exhibit No. 298 of 1,211,000 that du Pont actually sold, roughly, 400,000 yards above your estimate, is that correct?

A. Yes.

Q. Do you know whether any of your competitors, Textileather or Federal, had increased sales amounting to that magnitude?

A. I have no way of knowing.

Q. Did your home office ever bring to your attention the fact that your master trade report in 1946 was considerably off from the actual sales by du Pont?

A. I don't rem-ber the specific instance that they did, but knowing some of the people who read them and checked them, I am quite sure that I was called on the carpet about it.

Q. You say you think you were?

A. I am quite sure it was pointed out that I was way off.

Q. It was your business to try and stay as close to the actual figures as you possibly could, is that correct?

A. I would, but there again I didn't spend too much time on arithmetic and bookwork.

Q. Now, would you show Mr. Nalle Government Exhibit No. 1350, please?

A. May I ask the date of this last one?

Q. 1946.

A. Yes, 1946.

[fol. 6980] Q. Government's Exhibit No. 1350 also relates to Fisher Body, Mr. Nalle, and the date of the call is February 17, 1948.

Then you will note that you have, as in other reports, indicated the estimated annual consumption in various types of fabrics. Can you tell us what period of time those figures relate to?

A. I am reasonably certain that relates to the calendar year 1947.

Q. To 1947?

A. Yes, sir.

Q. Am I correct, Mr. Nalle, that the items shown for du Pont, Textileather and Federal in each of the instances, as we have gone over in the previous documents, are comparable, that is, the 6950 quality corresponds to the 21 ounce BT of Textileather, is that correct?

A. They did, sir, except in this report they are broken down a little more. For instance, the 22½ ounce sateen is comparable to the 4502 of du Pont, and the 225 drill is comparable to the 2251 quality, and the 4000 quality would be the 17½ ounce sateen.

The Court: The Court stands recessed for 15 minutes.

(Recess taken.)

The Court: I wish to advise counsel that it will be necessary to adjourn at 3:30 today instead of 4:30.

Mr. Harsha: Thank you.

By Mr. Harsha:

Q. Mr. Nalle, do you have Government's Exhibit No. 1350, the one we were looking at just prior to the recess? [fol. 6981] This is your master trade report on Fisher Body that you made in February, 1948, and I believe your last answer was the estimates on this report referred to the calendar year 1947, is that correct?

A. I believe so, sir.

Q. Would you show Mr. Nalle also du Pont Exhibit No. 298, please.

If you will look at the year 1947, Mr. Nalle, the total yardage sold by du Pont to General Motors in that year amounted to 1,979,000 odd yards, and I believe if you will accept my arithmetic, your estimate will show that you estimated du Pont Company during that period would sell 1,978,000 yards.

Was this report made in the same fashion as the other master report we have discussed?

A. I believe so, sir.

Q. Do you have any explanation as to the very excellent estimates that you made for that particular year?

A. I guess I was just lucky.

Mr. Neitzert: The fact that he made it two months after the year closed might have helped.

By Mr. Harsha:

Q. Now, on this report, Mr. Nalle, you were there listing, were you not, all of the types of fabric which du Pont was selling to Fisher Body at that time?

A. All that du Pont was selling?

Q. Yes.

A. I believe that is correct, sir.

Q. At this particular time du Pont was not selling any top fabric for convertibles to Fisher Body, was it?

A. You would not judge so from the report, but as to the actual sales I cannot be certain.

[fol. 6982] Q. Now, would you show Mr. Nalle Government's Exhibit No. 1351, please?

This is another master trade report which you prepared for Fisher Body, and the date of the call is October 18, 1948. Do you have it there?

A. Yes. May I ask the date of the last exhibit we had? The date of that call?

Q. That was February 17, 1948.

A. Yes. This is approximately nine months later.

Q. Yes. From the date of this document, can you tell us what period of time your estimates for pyroxylin and vinyl coated fabrics as shown on this document, what period of time this refers to?

A. I would say that refers to 1948.

Q. The calendar year 1948?

A. Yes, sir.

Q. And the fabrics that are listed under vinyl resin coated that were sold by du Pont, what were they used for at that time? Was that for upholstery and trim?

A. I would say that it was.

Q. I note that the last box of this form, which was devoted to resin coated, has been marked out by typewriter and there has been inserted the heading "Top Materials", and there are indicated under that heading "Teal" for du Pont, 85,000 yards, and Haartz, 490,000 yards.

Does this refer to the first sales made by du Pont in 1948 of this top material?

A. It doesn't necessarily refer to the first sales. It refers to the first time this item was reported on these reports. As to the exact date of the first sale, I can't tell you.

Q. Was it some time in 1948, however?

A. I think that is correct.

[fol. 6983] Q. What is bow lining; that is the next item shown there?

A. Bow lining is similar to the fabric which is used as the lining on the underside of the top fabric. It is used to cover the side panels, and so forth, in the car, so they will match up with the interior side of the top material.

Q. Would this be in a convertible car?

A. Yes.

Q. Is it a coated fabric or uncoated fabric?

A. Well, I don't know how the trade would generally classify it. I, myself, would classify it as an uncoated fabric.

Q. Is it two pieces of fabric cemented together?

A. Just one piece, no cement.

Q. But the "Teal" is two pieces of fabric cemented together, is that correct?

A. That is right, sir.

Q. And that is the type of material listed here under "Top Materials", is that right?

A. On the bottom of the box, yes, sir. I might say that in the forming or making up of that report those figures were switched around just to take advantage of the space.

Q. I note that your estimates for this year, this is 1948, according to the previous answer, your estimate shows that you anticipated that the du Pont Company would get approximately 1,765,000 yards of the requirements of Fisher Body, and if you will look at du Pont Exhibit No. 298 you will see that for the year 1948 du Pont actually sold 2,001,000 odd yards.

Mr. Neitzert: I take issue with your arithmetic this time, Mr. Harsha. You must have left out the top materials in your figure.

Mr. Harsha: I think I did.

[fol. 6984] Mr. Neitzert: Yes.

The total figure is 1,887,500, if you want to accept my arithmetic.

Mr. Harsha: Thank you.

Strike my last question, then.

By Mr. Harsha:

Q. I note that you estimated du Pont would receive approximately 1,887,500 yards and the actual sales by du Pont to General Motors, Fisher Body Division, during that year were 2,001,000 yards.

Was this master trade report prepared in the same fashion as the others we have looked at?

A. In general I would say so, yes, sir.

Q. Do you know whether your sales to Fisher Body increased slightly over your estimates for the last two months of 1948?

A. I do not.

Q. Were you informed by your office whether this was considered to be a rather accurate estimate?

A. I have no recollection of it, sir.

Q. In your judgment as a salesman would you consider this a fairly accurate estimate, that is, 1,887,000 against 2,001,000?

A. I would on my past performance, covering the items listed.

Q. Now would you show Mr. Nalle Government's Exhibit No. 1352, please, and also du Pont Exhibit No. 311. I think we don't have comparable tabulations there, Mr. Nalle. I will pass that for the moment.

Mr. Harris, would you show Mr. Nalle Government's Exhibit No. 1355 and du Pont Exhibit No. 308?

[fol. 6985] Mr. Neitzert: May I inquire what you meant, Mr. Harsha, when you said you didn't have comparable tabulations?

Mr. Harsha: I was referring to the fact that I had the wrong chart.

By Mr. Harsha:

Q. Now directing your attention to Government's Exhibit No. 1355, Mr. Nalle, this is a trade report prepared also by you, the customer is General Motors Corporation Truck and Coach Division. The date of your call is shown to be 7/8/47.

Can you tell us what your estimates under pyroxylin and resin coated fabrics, what period of time these estimates refer to?

A. I believe, sir, that referred to the calendar year of 1947.

Q. 1947?

A. Yes, sir.

Q. Was this report prepared in a fashion similar to the reports that you made on your calls to Fisher?

A. An effort was made to prepare it in the same way, but

I had much less success in getting complete information here. In other words, there was a lot more guesswork.

Q. I call your attention to du Pont Exhibit No. 308, and you will note there that the yardage sales to General Motors Truck and Coach Division shown for 1947 are 90,000 odd yards, total du Pont sales, and I believe you will find that your estimated sales of fabrics by du Pont for General Motors Truck for this particular year was 97,000 yards.

Is that correct? Does that accord with your checking?

A. Yes, sir.

[fol. 6986] Q. So that you were approximately 7,000 yards off out of the 90-odd thousand?

A. Yes.

Mr. Harsha: Now, will you show Mr. Nalle Government's Exhibit No. 1356, please.

By Mr. Harsha:

Q. Now, this is also a report prepared with respect to General Motors Truck, and the date of the call is 1 7 48.

Can you tell us what your estimated figures refer to for terms of time?

A. I believe that is also for the calendar year 1947. I notice that the figures are approximately the same as in the previous report.

Q. Is that what you are basing your answer on, the similarity between the figures of the previous report?

A. No, I am basing my answer on the date of the report.

Q. Pardon me?

A. I am basing my answer on the date of the report.

Q. So that this refers to the same period of time as the previous exhibit, 1355?

A. I think so.

Q. Now, I should like to show you Government's Exhibit No. 1357, and this is dated October 18, 1948.

It also concerns GMC Truck and Coach Division. Can you tell us what your estimates refer to in terms of the period of time covered?

A. I believe that is the estimate for the calendar year 1948.

Q. For 1948?

A. Yes, sir.

Q. Now, am I correct that there was no customary period of time when you would prepare these master trade reports?

A. There was to this extent: This form of report was usually prepared sometime during the fourth quarter of the year. If you didn't get it done by the end of that quar- [fol. 6987] ter, if for some reason or other you had to put it off, we sent them in as soon after that as possible.

Q. Was it customary when you prepared these in the fourth quarter of the year, that they were to refer to the year——

A. The current year, sir.

Q. The current year?

A. Yes, sir.

Q. Did you ever make the reports when you would attempt to estimate for this succeeding year?

A. No.

Q. Now, I note that in reference to du Pont Exhibit No. 308, the du Pont actual sales for the calendar year 1948 are shown as 96,593 yards, and subject to correction, I believe your estimate shows that you estimated du Pont would sell to GMC Truck approximately 108,000 yards.

Does that coincide with your recollection?

Mr. Neitzert: Excuse me a minute. What exhibit are you referring to?

Mr. Harsha: Exhibit 1357.

Mr. Neitzert: My arithmetic says 94,500. Have you made a mistake, or have I?

Mr. Harsha: I think I have.

Mr. Neitzert: The estimate was 94,500, and the actual sales was 96,500.

Mr. Harsha: That is correct. I accept that.

By Mr. Harsha:

Q. Was that report prepared in the same fashion as the others we have looked at?

A. Yes, sir.

Q. Was this considered by your office, do you know, as an accurate estimate?

A. I don't know, sir.

[fol. 6988] Q. Were you ever informed concerning this? Did you have any communication from your home office?

A. I was not—I cannot recall.

Q. Pardon me?

A. I cannot recall that I was informed as to this one, as to the items on the report.

Mr. Harsha: I should now like to pass to the Chevrolet commercial body.

Would you show Mr. Nalle Government's Exhibit No. 1352, and would you also show him du Pont 312?

By Mr. Harsha:

Q. Du Pont Exhibit No. 312 sets forth the yardage sales of coated fabrics to Chevrolet commercial body division during the years 1941 to 1950. Referring now to Government's Exhibit No. 1352 which is your trade report, Mr. Nalle, and the date of call is October 29, 1946, the customer, Chevrolet-Indianapo-is (formerly Chevrolet Commercial Body), can you tell us what period of time this estimate refers to, as shown on this exhibit?

A. I think, sir, that estimate refers to the calendar year——

Q. 1946?

A. 1946.

Q. Now, turning to du Pont Exhibit No. 312, you will note that the 1946 sales of du Pont were considerably under your estimate. They were shown to be 535,000-odd yards. Do you have any explanation as to why your estimate was high on that particular occasion?

A. May I scan the report for a minute?

Q. Certainly.

A. I think the explanation of the high figure is that they were buying much more from competition than I was conscious of at the time.

[fol. 6989] Q. Were you informed by any of the purchasing agents to that effect? Were you informed by any of the purchasing agents of GMC, Chevrolet Commercial Body, to that effect?

A. Yes, that was after the war, and they were trying out several other different materials. That is the beginning of these new vinyl resin materials that they were——

Q. Was this used for heavy upholstery?

A. For the regular truck upholstery.

Q. Is that a very heavy fabric?

A. No, we would call it a medium weight fabric, sir.

Q. Did you have any particular trouble with your sample of fabric which you submitted around this time?

A. I cannot recall any particular difficulties then, sir. Sometimes there was a question of getting deliveries on schedule, and I also notice in checking into the report there that I mentioned the Textileather as having received a release for a given yardage, but they are not shown on the consumption figures at all there.

Q. Now, is that a release for the following year?

A. Well, that was a release against the contract. That doesn't mean a contract for 2,000 yards. The first part, the department placed the order and then the scheduling department issued releases against that contract.

Q. Now, is this referred to on 1352? Is this release of 2,000 yards in the fourth paragraph, is that what you have reference to?

A. Yes.

Q. Is that where you had a release of approximately 100,000 yards, and United States Rubber for 6,000 yards, and Textileather, 2,000 yards?

A. Yes, sir. Those were releases at that particular time. They are in no sense of the ratio of the business.

[fol. 6990] Q. Does that refer to the calendar year 1946, or is that for the beginning of the next year?

A. Does which refer to it, sir?

Q. These releases that you are referring to?

A. Those releases, on our last release we received approximately 100,000 yards. That was the release that we had received some time during the life of that contract for shipment at subsequent dates, but I have no way of knowing what the date of that release was.

Q. Now, if I understand your answer, in connection with this document you state that you believe your estimate was off in this particular year with respect to Chevrolet Commercial Body because there was more likely competition than you had anticipated at this time.

A. There was a scarcity of materials and they were trying out a number of different materials made by different manufacturers. In other words, they wanted to broaden their base of supplies to take care of any possible——

Q. Was the du Pont Company having difficulty at that time in keeping up the schedule?

A. I cannot recall, but I would suspect we might be.

Q. This is the period immediately after the war, isn't it?

A. Yes, sir.

Q. And this is the period that I think you indicated in some of your previous answers was a period of short supply of fabrics?

A. Yes, sir, that's right.

Mr. Harsha: Now, will you show Mr. Nalle Government's Exhibit No. 1353?

[fol. 6991] By Mr. Harsha:

Q. This is a report dated January 15th and January 16th, 1948, and it refers to Chevrolet-Indianapolis Division of General Motors.

By the way, Mr. Nalle, is that the same customer as is listed on the previous exhibit, Chevrolet Commercial Body?

A. Yes, sir.

Q. This is the same?

A. It is a change of title of that organization.

Q. Now, was this the only plant which consumed fabrics that was operated by the Chevrolet Commercial Body, do you know?

A. With one very minor exception for production, this was the only one. Occasionally the Flint Service Plant might secure some very limited yardage, only a few thousand yards, to take care of replacement requirements.

This was their production plant, sir.

Q. Now, what year do these estimates refer to as shown on Government's Exhibit No. 1353, Mr. Nalle?

A. These refer to 1947, sir.

Q. Are these in the nature of estimates, then, and weren't your books closed on the 1947 business by this time?

A. These were estimates on the trend of the books. The sales were all in, but in making this I did not go to the trouble of tabulating all of the sales.

Q. Would you get a report from your home office as to the total sales made by du Pont before you made up these reports?

A. There is a figure on the left-hand part of this report, "du Pont sales, 11 months, 1947, 487,541 yards." That is home office information.

[fol. 6992] Q. Now, these figures show with respect to your competitors, Cotan and United States Rubber and Textileather—did you obtain those figures in the same fashion as you described the preparation of other master reports?

A. I put two and two together, and I arrived at a figure I thought was representative of what they were selling.

Mr. Harsha: Now, would you show the witness Government's Exhibit No. 1354, please.

By Mr. Harsha:

Q. This also concerned the same customer, I believe, Chevrolet-Indianapolis Division, otherwise known as Chevrolet Commercial Body, does it not?

A. That's right, sir.

Q. I note the date of this report is November 22, 1948. What period of time was covered by the figures shown here as estimates?

A. That is for the year 1948.

Q. Now, I note that the only sales which you show for the du Pont Company is the item under Fabrilite, 475,000 yards.

Is this the only commodity or only fabric at that time that the du Pont Company was selling to the Chevrolet Commercial Body?

A. I think so.

Mr. Harsha: Would you show Mr. Nalle Government's Exhibit No. 1356. He has that.

By Mr. Harsha:

Q. I would like to direct your attention, Mr. Nalle, to this report. This is the report with regard to GMC Truck dated January 7, 1948. We have looked at it previously in connection with our other aspects.
[fols. 6993-6994] I would like to call your attention to the fifth paragraph on the second page of this document. Do you see the statement which reads:

> "I would like very much to get into the heavy duty upholstery situation. Due to the continued scarcity of leather, their consumption of such material will be worthwhile. It is used in the heavier, more expensive truck models. You will recall that we had an order for this in December, 1946, in 'Fabrilite' 7140, but could not provide a satisfactory color match. Consequently U. S. have been enjoying this business."

Now, do you recall that episode?

A. Yes, sir.

Q. And did you lose the business because your fabric didn't match according to the judgment of the General Motors' buyers?

A. We were asked to match a sample of leather, which we attempted to do, and I believe we made up a substantial part of the yardage on the order, and sent them a sample. And they would not accept it.

In the meantime they had apparently put the same problem up to U. S. Rubber, and they at some date along in there, did give them a match which they accepted.

Q. Now, turning to the face of this document under the "Resin coated fabric", the second item is "Naugahyde" with an indicated yardage of 40,000.

Would that be the type of materal to which you are referring on the second page of this document?

A. That material would be included in that item. To what proportion, I cannot say, sir.

Q. I see.

A. By that I mean the heavy duty and the medium weight were, I would say, included in that one item.

[fol. 6995] Direct Examination (Continued).

By Mr. Harsha:

Q. I believe the witness has a correction he would like to make in an answer he made just before the adjournment.

A. I have, sir.

Could I see the exhibit on which that error was made, please?

Q. Yes. I have shown the witness Government's Exhibit No. 1356.

A. Shall I proceed, sir.

Q. Yes.

A. In stating that this Naugahyde, the U. S. Rubber material as shown in here included the heavy duty material, I was in error.

That 40,000 yards includes only the standard type equivalent to our 6026, which is used on the light trucks. I had no information as to the quantity of the heavy duty ma- [fol. 6996] terial being used, and when I did have, I think, it is listed on a subsequent report as heavy duty material.

Q. Does that complete your correction?

A. Yes, I think so.

Mr. Harsha: I have no further questions of this witness, your Honor.

Before turning him over for cross-examination, just to keep the record clear, I should like at this time to offer in evidence Government's Exhibits Nos. 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357 and 1358, concerning all of which this witness has been examined.

The Court: There are no objections to the offer? They are all received.

(Said documents so offered and received in evidence, were marked Government's Exhibits Nos. 1349 through 1358.)

Mr. Harsha: That is all I have.

Cross-examination.

By Mr. Neitzert:

Q. Mr. Nalle, do you make out trade reports on all accounts, or just some accounts that you service or sell, or attempt to sell coated fabrics to?

A. Mr. Neitzert, we make out trade reports on all important accounts.

Q. How do you determine whether an account is an important account or not?

A. If a customer has a potential usage of 5,000 yards or over, that is considered an important account.

[fol. 6997] Q. Is that true of industries other than the automobile industry?

A. It is true for every industry that we serve.

Q. When did you first start making out master trade reports?

A. Sometime during the fourth quarter of 1946.

Q. What type of trade reports did you make out before you made out master trade reports?

A. We made out what was called a routine trade report.

Q. You referred in your testimony this morning to a trade report that bore a date in 1949 as a master trade report?

A. I beg your pardon? Did you say 1949?

Q. 1939, excuse me.

How do you reconcile what you just said now with your reference to that master trade report?

A. I was in error. I was confused by the fact that some of those reports back there showed yardages, consumption figures, and that led me to that conclusion.

Q. Which report prior to the time when you started making out master trade reports showed estimated consumption figures?

A. We made those estimated consumption figures once a year.

Q. Did all the reports that you made out at that time, which you now refer to as routine trade reports, have forms for those estimated consumption figures?

A. They had forms there, but usually for the subsequent quarters we simply refer to the trade report which had consumption on it, listing the number and date of that report.

Q. Now, these reports that you made out prior to 1946 that had estimated consumption figures differed from your master trade reports in what respects?

A. Simply we were then estimating the expected requirements for the ensuing twelve months.

[fol. 6998] Q. That was before 1946?

A. That was before 1946, sir.

Q. And every trade report that you made out before 1946 had a space for that type of estimate?

A. It did.

Q. How did that estimate differ from the estimates that you made on the master trade reports?

A. They covered a forward estimate of expected consumption. The master trade report covered that year in which it was made.

Q. When did you make out routine trade reports? I don't mean years, but under what circumstances did you make out routine trade reports?

A. We made them quarterly.

Q. When?

A. Quarterly. Each quarter—but each quarter report did not show figures.

Q. Did you make out a report each time that you called on a customer?

A. No, sir.

Q. Do you know under what circumstances the method of making reports was changed and why it was changed in 1946?

A. It was changed because we were getting into a very competitive era. We had a lot of new post war items on the market, and they wanted to have the best records available on who was selling the various items and to what accounts.

Q. For what years did you make out master trade reports while you were in Detroit?

A. Some in 1946, '47 and '48.

Q. Did you make out any master trade reports for the year 1949 while you were in Detroit?

A. No, sir.

Q. When did you leave Detroit?

A. I left Detroit on August 1, 1949.

Q. Will you please show the witness the first master [fol. 6999] trade report on the Fisher Body Company? Will you advise me what exhibit number it is?

Mr. Harsha: Government's Trial Exhibit No. 1349, I believe.

By Mr. Neitzert:

Q. At the time you made out the trade report, which has been marked Government's Trial Exhibit No. 1349, approximately how many suppliers were selling coated and combined fabrics to the Fisher Body Company?

A. I would estimate there were 12 to 16.

Q. What were the four companies that had most of the business?

A. In 1946 that would be du Pont, J. C. Haartz Company, Textileather, and Federaleather.

Q. What percentage of all Fisher's total business do you estimate those four companies had?

A. On a dollar basis I would estimate that represents 75 per cent of it.

Q. Of the four companies, which did you estimate at that time had most of the business, the larger amount of the four companies?

A. I estimated that du Pont had the larger part.

Q. And who second?

A. J. C. Haartz Company.

Q. Your report shows Textileather third and Federaleather fourth, is that right?

A. Yes, sir.

Q. I call your attention to the fact that Government's Trial Exhibit No. 1343-A shows that in 1946 the Haartz Auto Fabric Company sold to the General Motors Company a total of $375,000 worth of fabrics. Do you know any General Motors division other than Fisher that bought [fol. 7000] any substantial quantities of fabric from Haartz?

A. No, sir, I do not.

Q. Why didn't you put Haartz on this trade report with the other three large suppliers?

A. Because that represented an item which we had not been able to participate in, and I had no means of knowing or estimating the approximate yardage or evaluation, so I left it off.

Q. What type of material was that that Haartz was supplying to Fisher?

A. That was some coated fabric and some top material.

Q. Was that top material uncoated Teal-like material?

A. That was the Teal type material, sir.

Q. Was the du Pont Company making and offering for sale Teal in 1946?

A. We were.

Q. Were you endeavoring to sell your Teal to Fisher?

A. Yes, sir.

Q. Why didn't you put on the name and the amount purchased from the other twelve or fifteen companies that sold Fisher 25 per cent of its requirements on the trade report which has been marked Government's Trial Exhibit No. 1349?

A. Would you repeat the question, please?

Q. Why didn't you put on the other twelve or fifteen suppliers that had 25 per cent of Fisher's business on your trade report, which is marked Government's Trial Exhibit No. 1349?

A. It would have made an endless clerical job, and would have resulted in figures in which I had no confidence, to try to find out a man that might be supplying one per cent of the total. I followed the practice, if I wasn't able to put in an estimate that I thought was reasonably representative, I left it off.

[fol. 7001] Q. Will you please show the witness Government's Trial Exhibit No. 1350?

You testified, Mr. Nalle, that this was your report for the year 1947. If I asked you these same questions with respect to the suppliers, number, type of materials that they were supplying, and the way in which you made up your trade report, which is Government's Trial Exhibit No. 1350, as I did with respect to Government's Trial Exhibit No. 1349, would your answers be the same?

A. Yes, sir.

Q. I call your attention to the fact that Government's Trial Exhibit No. 1345-A shows that in 1947 the Haartz Auto Fabrics sold to the General Motors companies approximately $1,413,000 worth of coated and combined fabrics.

Do you know whether any General Motors Division, other than Fisher, bought any substantial quantities of fabrics from the Haartz Company in 1947?

A. It is my belief that they did not, sir.

Q. You have no knowledge of any other purchases?

A. I have no knowledge.

Q. What type of fabrics did Haartz sell at that time to Fisher?

A. They sold coated fabrics and the combined "Teal" type.

Q. Will you please show the witness Government's Trial Exhibit No. 1351.

I call your attention to the fact, Mr. Nalle, that Government's Trial Exhibit No. 1351 shows all of the big four suppliers of Fisher for the year 1948.

Why did you put Haartz on this time when you hadn't done so the preceding two years?

A. That was simply because we were getting in and supplying some of this material, and I could get a reasonably [fol. 7002] good estimate on what they were using.

Q. I call your attention to the fact that Haartz supplied, according to your estimate, about 490,000 yards of "Teal" and about 250,000 yards of bow lining.

Can you estimate what would be the cost or price of those quantities of fabrics?

A. I would estimate the item under the "Teal" caption at between $2.60 and $2.75 per yard, and the bow lining item I would guess in the neighborhood of 60 cents. I think that is a reasonably accurate guess.

Q. And these trade reports, are the yards that are here given, lineal yards or square yards, or what kind of yards?

A. Those are what we term running yards—that is, a yard long and whatever the width may be.

Q. Does the width on different fabrics vary?

A. The width varies, 50, 55, some 56 and some 59.

Q. Does the price of these fabrics also vary?

A. Very materially.

Q. What is the highest price shown on that exhibit, 1351?

A. Why, this "Teal" item is by far the most expensive.

Q. Still referring to 1948, was du Pont still the largest supplier of Fisher at that time?

A. 1948, I think we were, sir.

Q. About what percentage on a dollar basis of Fisher's business did you have then?

A. We are talking about the year 1948?

Q. Yes, if you remember.

A. I think we had about 40 percent.

[fol. 7003] Q. And who was second in size?

A. The J. C. Haartz Company.

Q. And your report shows that Textileather was third, and Federaleather was fourth?

A. Yes, sir.

Q. What about the other suppliers? What percentage did they have at this time?

A. You mean the total group?

Q. No, the other group of suppliers that you said aren't on here. You have four here.

A. Four here, and that would leave probably twelve others.

Q. What percentage did they have about that time?

A. They would have about 25 percent.

Q. I show you a document which I have referred to, and which is marked Government's Exhibit 1343-A, and I direct your attention particularly to the page caption "General Motors' purchases of coated fabrics from suppliers other than du Pont for the years 1946 and 1947."

Do you see any of those other suppliers named on that sheet of paper?

A. You are speaking now of suppliers to Fisher Body?

Q. Yes, among the group that you didn't put on there.

A. There is Columbus Coated Fabrics Co., Goodall, Backstay Welt Co., George H. Carter, U. S. Rubber, Brunsene, Allen Industries—I think that covers it.

Q. Did any of those suppliers furnish Fisher with the same kinds or types of coated fabrics that you sold to Fisher?

A. They did.

Q. Did all of them?

A. They all furnished types of coated fabrics we could supply or were potential suppliers to Fisher Body—that we would like to supply to them.

Q. Take for example United States Rubber Company. [fol. 7004] Did you manufacture all of the same kinds of coated fabrics that are manufactured by United States Rubber Company?

A. Essentially so, yes, sir.

Q. What about Cotan?

A. Cotan had the same general line of fabrics we had.

Q. What about Columbus Coated Fabrics?

A. Parallel.

Q. Goodall?

A. Yes, sir.

Q. I think the Court may have gotten the impression from the way Mr. Harsha put his questions this morning that you were not very proud of the accuracy of these estimates.

What is the fact as to whether or not you consider these reasonably accurate trade estimates?

A. I thought on the average they were pretty good.

Q. You didn't intend to be apologizing for any of them this morning?

A. With the understanding that they were interoffice instruments and the people to whom they were intended or for whom they were intended understood the basis upon which they were made.

Q. You mean people in the home office knew, for example, that you weren't running after the fifteen suppliers that had 25 per cent or that they knew that Haartz was supplying——

A. They knew that I didn't like to turn figures in that I couldn't substantiate reasonably well.

Mr. Neitzert: Will you please show the witness Government's Trial Exhibit No. 1352.

By Mr. Neitzert:

Q. I didn't understand what your testimony was with reference to the estimated annual consumption which here is on the front of this exhibit, not including Textileather. [fol. 7005] Will you please restate the facts as to that situation?

A. May I review this?

Q. Yes. I think you made reference to the notes that you had made on the back of the page, to a contract that the customer had with Textileather, and to a release for 2,000 yards under the contract.

A. Well, there is a very obvious omission in there, and the fact that in the body of the trade report I referred to releases which Textileather had at that time, and I showed no consumption figures for them——

Q. Do you know whether or not you left off any other supplier in making this trade report?

A. There is none of the 40 or 46 inch headlining included in there which was probably a 60,000 yard item.

Q. Did you refer to that in a subsequent trade report?

A. I did.

Mr. Neitzert: Please show the witness Government's Exhibit 1353.

By Mr. Neitzert:

Q. Was reference made to that item in that trade report?

A. You refer to in the block listings?

Q. No, I refer to the entire trade report.

A. Yes, sir, it is.

Q. Where is reference made to the headlining?

A. It is shown as a consumption item in the consumption for 1947, and if I may have a minute to check through this——

Q. Maybe I could help you a little by referring you to the last page.

A. I have that. I refer to it stating that, "Cotan has been supplying the light weight headlining material for some time." And so on.

[fol. 7006] Q. Now, the omission of Cotan and Textileather from the face only of Government's Trial Exhibit No. 1352 would account for about how much of an error in the business obtained by customers?

A. You are speaking dollarwise?

Q. Either way you can give it.

A. Well, there would be about $60,000 to $70,000.

Q. Those items appear on your next trade report, on the face of your next trade report, 1353, Government's Trial Exhibit No. 1353, or do they not?

A. That item is the headlining, 46 inch, where we estimate 90,000 yards.

Q. Now, except for that omission, do you know of any other omissions that appear on any of these Chevrolet master trade reports which have been marked Government's Trial Exhibits 1352, 1353 and 1354?

A. I think they are essentially correct.

Q. Was there any fringe suppliers of Chevrolet Commercial, as there were with Fisher?

A. Practically none.

Q. So far as you know this is all they bought?

A. Yes, sir.

Mr. Neitzert: Now, will you please show the witness a document which is the next trade report in this series for Chevrolet-Commercial, bearing date of January 12, 1950, which is covered by the Government's subpoena, but which has not been marked as a Government Trial Exhibit, and has no Government Trial Exhibit number?

I will ask your Honor for leave to have that document marked as Exhibit DP-557 for identification.

By Mr. Neitzert:

Q. This trade report appears to have been made by [fol. 7007] salesman J. W. Richardson.

Is he the man that took your place in Detroit?

A. Yes, sir.

Q. And I call your attention to the fact that in your report for 1948, Government's Trial Exhibit No. 1354, you estimated that du Pont had about 47 per cent of the yardage at Chevrolet Commercial, while in Mr. Richardson's report for the following year he estimates that du Pont had only 24 percent of the yardage.

Did anything happen after you made out your trade report which has been marked Government's Trial Exhibit No. 1354, that would account for that reduction in du Pont's business with this customer?

A. Well, as we have stated, they went through this period in 1946, and then in 1948 they instituted a policy of purchasing, awarding contracts, I should say, to the three lowest bidders, so that they would have a minimum of three sources in there.

Q. When was that policy adopted?

A. That was adopted in 1948.

Q. What time in 1948?

A. Late in 1948. I think it was in the fall of 1948.

Q. Before or after you made out your trade report, if you remember?

A. I don't remember definitely.

Q. And thereafter did Chevrolet Commercial pursue that policy in selling——

A. They did as long as I was in contact with them.

Mr. Neitzert: Will you now please show the witness Government's Trial Exhibit No. 1355?

This trade report covering the situation at General Motors Truck and Coach bears the date of July 11, 1947, which is the only master trade report included among these exhibits that was made out in the middle of the year. [fol. 7008]

By Mr. Neitzert:

Q. Explain the circumstances under which that occurred.

A. Yes, sir.

Q. Will you please do so?

A. They had been very slow in reconverting to truck production from their war time assignments, and there was not purchased in 1946—I could not get a line on what they were going to use, and what they expected to use, so I omitted the trade report.

Q. You made no 1946 report?

A. I made no 1946 report.

Q. Why did you make this one out in the middle of the year 1947?

A. Well, they were slowly, getting slowly started there. They had some pilot models on the production line, and I made out one as best I could on the limited——

Q. When they opened up?

A. No, they had been opened, but doing very little in the way of actual turning out trucks off of the production line.

Q. You have reference to your note on the back of this trade report, and I quote:

> "Are slowly getting started on new truck production, and have six pilot models on the production line. It will be a month or so before they are in real quantity production."

A. Yes, sir.

Q. So that this trade report was made out for the year 1946 in the middle of the year, just as they were starting [fol. 7009] up with civilian production, if I understand your testimony?

A. Yes, sir.

Q. And did I also understand your testimony to be that at the end of the year you made out a new trade report for the year 1947?

A. I believe I would have, yes, sir.

Mr. Neitzert: Will you show the witness Government's Trial Exhibit No. 1356.

Let me interpose here, your Honor. I may have misstated the year I was talking about. The last trade report before the witness was for the year 1947, and it shows the trucks made in 1947, and at that time the witness made out a trade report for that year, 1947 and then at the end of the year he made out another one for the year 1947. I think I may have used the year "1946" by error in asking my question.

By Mr. Neitzert:

Q. Do you now have Government's Trial Exhibit No. 1356?

A. I do, sir.

Q. Why did you show the same yardage figures in Government's Trial Exhibit No. 1356 as you did in 1355, when one was made out before production started, and one was made out at the end of the year?

A. The situation there was such that I couldn't develop any trustworthy information which would warrant any change in my estimates.

Q. Do you show on this exhibit, No. 1356, all of the purchases of this customer from competitors?

A. No, sir.

Q. Which ones are omitted?

A. There is the Hood Rubber people were selling this—I will have to refer to this to get the name of it.

[fol. 7010] Q. Are you referring to Koroseal?

A. This Koroseal item, that was one of the items going into busses, and U. S. Rubber, I believe, was selling quite a lot for coaches and for trim, and for heavy duty trucks, but as to how much, I don't know.

Q. Heavy duty trucks is what you referred to?

A. Yes, the heavy stuff.

Q. Now, are those sales which are not shown on the front of this exhibit referred to in the notes which you have added to the report?

A. May I review for just a second——

Q. Yes, sir.

A. In a general way some of them are.

Q. You have already referred to the heavy duty sales of the heavy duty upholstery at the middle of page 2.

Now, reference was made to the heavy Koroseal sales at the top of page 4.

A. Yes, sir.

Q. Now, why didn't you put that estimate on the front of this exhibit as to the yardage of Koroseal and heavy duty Naugahyde that was being purchased during 1947 by this customer from Goodrich or its subsidiaries, the Hood Rubber Company and the United States Rubber Company?

A. May I point out, sir, that the truck materials were bought by one purchasing group, and the bus and coach materials in general were bought by another group, with their respective follow-up groups and respective engineering groups, and I had no way of getting any trustworthy information as to how much was going into these coaches or busses, and the heavy duty trucks.

Q. Did you solicit that business?

A. We did.

Q. Were you permitted to bid on it?

A. I don't recall an instance where we were.

Q. Were you shown the specifications of plans for those parts?

A. No, sir.

[fol. 7011] Q. Would you explain the fact that those two items were omitted to the home office?

A. Yes, sir.

Q. I suppose from the way they were omitted——

A. They were very much concerned about our poor showing there, and the apparent large volume of materials being consumed, and so much so that my immediate superior, Mr. Brown, came out sometime in late 1948 specifically to go up and see these people to see what we could do about it.

Q. Government's Trial Exhibit No. 1343-A shows on one of the schedules which is a part of that exhibit, a schedule captioned "General Motors' Purchases of Coated Fabrics from Suppliers Other than du Pont for the years 1946 and 1947," and an item Hood Rubbber Company, $36,000.00.

Do you know what that was?

A. I am certain that was the Koroseal item for coach work.

Mr. Neitzert: Please show the witness Government's Trial Exhibit 1357.

By Mr. Neitzert:

Q. Does this trade report, in the way in which it was made up, show the situation that existed at the time it was made up? Does it differ in any respect from the preceding one?

A. Only in that I have been able to get some information as to the approximate heavy duty consumption figures here.

Q. You refer to the item on the face of this Government's Trial Exhibit No. 1357, heavy duty "Naugahyde," U. S. Rubber, 15,000 yards?

A. Yes, sir.

[fol. 7012] Q. By the way, what was the relative cost of this heavy duty upholstery as compared with what you referred to as medium weight upholstery on direct examination, supplied for the lighter trucks?

A. I will have to do a little figuring here.

I would say it was approximately double.

Q. Double the price?

A. Double the price.

Q. Did you attempt to get that business?

A. Yes. I felt very badly about it. I wanted to get it.

Q. Do you recall, either while you were in Detroit or after you left Detroit, whether a further survey was made of the business in coated fabrics of the GMC truck and coach division?

A. I believe Mr. Richardson made a survey shortly after he succeeded me.

Q. Were you ever told what that survey showed?

A. Yes.

Q. What did it show?

A. He told me that I had been——

Mr. Harsha: I object, your Honor. I think this is complete hearsay. This is not a report prepared by this man. It is a survey made by another person in the organization.

The Court: Sustain the objection.

By Mr. Neitzert:

Q. You have referred in your cross-examination to a trip that Mr. A. L. Brown, who has been a witness in this case, made to the GMC truck and coach offices about this time. What was the purpose of that trip?

A. You are speaking of the visit in the fall of 1948?

Q. Yes.

A. To develop more business from this account.

Q. Was that trip made after you made out your trade [fol. 7013] report dated October 22, 1948, which is marked

Government's Trial Exhibit No. 1357, or before the time you made out this report?

A. I believe it was made after.

Q. Did you accompany Mr. Brown on this trip?

A. I did, sir.

Q. Do you recall whether he was able to develop any further information at that time about who was getting the business of this customer?

A. I recall that he was not able to get anything new on the situation.

Mr. Neitzert: Your Honor, I would like to offer in evidence at this time a document which has been marked for identification as DP 557, which is the last in a series of Chevrolet master trade reports which the Government has not included among its exhibits.

(Said document so offered and received in evidence, was market Defendants' Trial Exhibit DP No. 557.)

Mr. Neitzert: I believe that concludes my cross-examination. Thank you.

Mr. Harsha: I have just a few questions.

Redirect Examination.

By Mr. Harsha:

Q. Will you show the witness Government's Exhibit No. 1343-A, please?

Would you direct your attention to the first page of this document that you were shown on your cross-examination, Mr. Nalle. Do you see the item under Fabrics on the first page, coated fabrics and imitation leather?

A. Yes.

[fol. 7014] Q. Can you tell me, in your experience as a salesman of fabrics for the du Pont fabrics division, what the difference between coated fabrics and imitation leather is?

A. The terms are used interchangeably. Originally, when "Fabrikoid" and so on were first made, they were made to look like leather.

Then the industry moved away from the idea of imitation, and felt that their products stood on their own merits. So some people might call them coated fabrics, and some might call them imitation leather.

Q. I believe you testified regarding the use in recent years of these vinyl coated fabrics?

A. Yes, that was post war.

Q. Can vinyl coated fabrics be considered as an imitation leather?

A. Oh, yes.

Q. And they are also a coated fabric, as the name describes?

A. That is right, very definitely.

Q. Now turn to page 9 of that exhibit, sir.

You notice the first company listed there is Haartz Auto Fabrics?

A. Yes, sir.

Q. What was the most important product manufactured by Haartz in the fabrics field in the years 1946 and '47, if you know?

A. I would say that perhaps their most important was top material with some coated fabrics being second in importance to the top material.

Q. Do you have any idea, based on your solicitation of the General Motors' business, and in particular of the Fisher Body business, and your estimate as to the amount shown here—in 1946 there is a total of $375,000 sold by Haartz to General Motors—approximately how much of [fol. 7015] that would be comprised of top material?

A. I couldn't possibly break that down.

Q. Would your answer be changed with respect to the year 1947?

A. The answer would be the same.

Q. It is true, however, is it not, that during these two years, 1946 and '47, you did not consider on your master trade reports the Haartz Company as an important competitor in the fields of pyroxylin coated and vinyl coated fabrics?

A. They were not one of the groups supplying the parallel products on which I attempted to concentrate my figures.

Q. If you look at the next company, Backstay Welt Company, do you know what they make?

A. They make a variety of coated fabrics or imitation leather products, to the best of my knowledge.

Q. Of vinyl fabrics?

A. I believe so.

Q. Do they make a pyroxylin coated fabric?

A. Yes.

Q. Do they make any other fabric that is used in the automobile industry, to your knowledge?

A. I do not know of any.

Q. Is there such a product as welts that are used in the automobile industry?

A. There are some welts, yes.

Q. What is a welt?

A. A welt is a strip of material wrapped around a cord.

Q. Around a cord?

A. A cord, yes. That is a general description of it.

Q. What is that used for?

A. That is used in the trimming of a car, trimming of a seat, the top, and so forth.

Q. Do you sell welts?

A. Not at present.

Q. When did du Pont discontinue the sale of welts?

A. I have no definite knowledge as to when the date was.

[fol. 7016] Q. Has it been some years?

A. I believe it has.

Q. Are you prepared to say that the figures showing the sales by the Backstay Welt Company of $184,000 in 1946 do not include any welts?

A. I am not. I do not know how the business was broken down.

Q. The fourth company listed there is Detroit Gasket and Manufacturing Company. Do you know what they produce and sell to the automobile industry?

A. They produce rubber sheets, rubber coated materials, as the name implies for gaskets, and that sort of product, some rubber goods.

Q. Some what?

A. Some coated fabrics.

Q. Rubber coated fabrics?

A. Yes.

Q. Do they make any pyroxylin coated fabrics?

A. I do not know of any.

Q. Do you know whether they make any vinyl coated fabrics?

A. I do not know.

Q. Do you know whether they make any fabrics that are used in the automobile industry for upholstery?

A. I do not know of any, no, sir.

Q. But you are reasonably certain that they do make some rubber coated fabrics which are used for gaskets, is that correct?

A. Yes, sir.

Q. Are they known as a large producer of gaskets in the industry?

A. I would say so, relatively large.

Q. A gasket is used as a part of the automobile engine, isn't that correct, do you know?

A. They use it in many places.

Q. It has nothing to do with upholstery, the gasket, is that correct?

A. They might use some within the body of the car, but [fol. 7017] I am not too familiar with where gaskets go.

Q. Do you know what the Brunsene Company, also listed here, as selling $47,000.00 worth of materials in 1946—do you know what they make?

A. They make a general line, I believe, sir, of vinyl and oil coated fabrics.

Q. Oil coated?

A. Yes, sir.

Q. Is that oilcloth?

A. Of that type fabric.

Q. Do you know what this oilcloth is used for, this oil coated cloth?

A. It could be used interchang-ably with a pyroxylin or vinyl for some of the trim items in the car, the top boots and so forth, and I believe on the back of seats where it doesn't show.

Q. Do you know whether General Motors used it for that?

A. I feel reasonably sure that they used it in the seat construction.

Q. In the seat construction?

A. In the trimming of seats, yes, sir.

Q. Did you ever hear of the Chicopee Manufacturing of Georgia?

A. I have heard of them, yes, in a general way.

Q. Do you know what they make?

A. I believe that their product is a woven fabric. It might be paper or it might be cotton or it might be plastic, probably with a coating on it as a protective surface.

Q. Do you know what that product is used for? Is it used for upholstery by General Motors?

A. I think it is used for seat covers, for covering seats.

Q. But not for the upholstery, is that correct?

A. It is a seat cover that goes over the upholstery.

Q. Do you know anything about this company called [fol. 7018] Automotive Products, Inc.? Have you ever heard of them?

A. I can't say that I have.

Q. You don't know what they make?

A. No, sir.

Q. Have you ever heard of them in the upholstery and trim fields?

A. I may have, but I can't recall it now.

Q. How about the Jansen Manufacturing Company? Have you ever heard of them in the upholstery field?

A. Yes.

Q. In the automobile upholstery field?

A. They are similar to the Backstay situation.

Q. By that do you mean that they make a product similar to that?

A. Paralleling the Backstay Welt Company.

Q. Do they make welts, do you know?

A. I don't know if they are now or not.

Q. Do you know what products they do make?

A. No, not at present.

Q. Do you know what they made in those years as indicated here, 1946 and '47?

A. They were supplying these coated fabric items and some bindings, I believe.

Q. Bindings?

A. Welts and bindings, they are all in the same group.

Q. What kind of coated fabric, do you know?

A. In 1946 and '47 that could have been pyroxylin or vinyl, probably some of both.

Q. You have no distinct recollection as to which it was?

A. It was probably some of both because that was in a period there when the industry was getting into the vinyls.

Q. As I understand it, on your cross-examination you indicated, Mr. Nalle, that in respect to the master trade [fol. 7019] reports which you prepared concerning Fisher Body that there were a number of suppliers other than those which you had listed on your trade reports?

A. Yes, sir.

Q. And you mentioned perhaps some ten or twelve, maybe fifteen other suppliers, and I understood you to say that one of the reasons you did not include them on your report was that you were unable at the time you prepared the report to obtain any accurate figures as to how much they were supplying, is that correct?

A. That is substantially correct, yes, sir.

Q. You had no idea as to what, for example, Haartz was supplying at that time in 1946 or in 1947?

A. No.

Q. And as to these other companies that we have discussed on Exhibit No. 1343-A, I gather that most of those were among that fringe group that you referred to as not having been listed on your master trade reports for these periods regarding Fisher Body, is that correct?

A. Some of them are included here, although I doubt if all of them are in this particular listing.

Q. From what source did you obtain your information by which you stated that the ten or twelve or possibly fifteen fringe suppliers accounted for 25 per cent of Fisher's requirements?

A. From my contacts in the trade, information I would pick up from various buyers, specification engineers, schedule people, and so forth, and from talking with competitive salesmen.

Q. Am I to understand that the Fisher purchasing agents informed you as to each one of these fringe suppliers as to approximately how much they were buying from them?

A. No. I didn't ask them a direct question. You would have to pick it up and gather it from your contacts and conversations.

[fol. 7020] Q. On the basis of your conversations, how did you arrive at the 25 per cent figure?

A. Well, I just put two and two together.

Q. Did you ever discuss the accuracy of your estimate with any of the General Motors' purchasing agents?

A. No, sir.

Q. Is it possible that your estimate on these fringe suppliers might be a little high in 1946 and '47?

A. It is possible, but I do not believe so.

Q. Am I correct in my understanding that in respect to Chevrolet Commercial Body that your trade reports there did not have any fringe suppliers left off?

A. Not any that I can think of.

Q. And with respect to General Motors Truck, what was the situation there?

A. There was a great deal left off of those.

Q. There was that one on the heavy duty item?

A. Heavy duty, and materials that went into busses and coaches. I couldn't get any trustworthy information out of that particular group of people.

Q. I believe you stated with respect to a heavy duty upholstery material in regard to General Motors Truck that you lost out on that business to U. S. Rubber, is that correct, at least along in 1948?

A. I think it was about that time, sir.

Q. I think you stated on cross-examination that you were quite disappointed in not being able to obtain that business for du Pont, is that right?

A. Yes, sir.

Q. Were you told by anybody in General Motors as to why they bought from U. S. Rubber rather than du Pont?

A. Well, in a general way the situation was this: We [fols. 7021-7022] hadn't given them a satisfactory sample when this business first came up.

Q. Is that a couple of years previous?

A. The year previous, the sample referred to in previous testimony, yes, sir. And U. S. Rubber had brought them something that was acceptable, and they saw no reason for changing the situation.

Q. And that continued on through 1948?
A. Yes.

Mr. Harsha: I think that is all.
Thank you, Mr. Nalle.
Mr. Neitzert: Nothing further.

(Witness excused.)

Offers in Evidence (U. S.)

Mr. Harsha: May it please the Court, at this point we would like to present certain excerpts in evidence which have been taken from documents received under the subpoena which was recently issued to the du Pont Company.

Mr. Houchins: The Government offers into evidence Government's Trial Exhibit No. 1361.

This, your Honor, is a series of excerpts from Automotive Products Trade Reports made out by various du Pont salesmen respecting sales contacts and visits with Fisher Body Corporation.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1361.)

* * * * * * *

[fols. 7023-7024] The Government next offers into evidence Government's Trial Exhibit No. 1362, which is a series of excerpts from plastics department, industrial division, molding powder trade reports. These excerpts concern the contacts and sales efforts of du Pont salesmen with Inland Manufacturing Company.

(Said document so offered and received in evidence was marked Government's Trial Exhibit No. 1362.)

* * * * * * *

[fols. 7025-7026] The Government next offers into evidence Government's Trial Exhibit No. 1363, which is a series of excerpts from Industrial Sales Trade Reports, Finishes Division, of the du Pont Company, they being excerpts from reports of du Pont salesmen in their efforts with Packard Electric Company.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1363.)

* * * * * * *

[fol. 7027] I next offer in evidence Government's Trial Exhibit No. 1364, which is a series of excerpts from automotive products trade reports, Flint plant, concerning sales efforts with the Olds Motor Works.

(Said document so offered and received in evidence was marked Government's Exhibit No. 1364.)

* * * * * * *

[fol. 7028] Next I offer Government's Trial Exhibit No. 1365, which is a series of excerpts from automotive products trade reports, Flint plant, concerning sales efforts of du Pont salesmen with the Cadillac Motor Car Company.

(Said document, so offered and received in evidence was marked Government's Exhibit No. 1365.)

* * * * * * *

[fols. 7029-7031] I next offer Government's Trial Exhibit No. 1366, which is an excerpt from the trade reports of the Rubber Chemicals Division concerning contacts and sales efforts with the Inland Manufacturing Company.

(Said document so offered and received in evidence was marked Government's Exhibit No. 1366.)

[fol. 7032] Mr. Harsha: May I proceed?

The Court: Proceed, please.

Mr. Harsha: In connection with the testimony of Mr. Mark, comptroller of General Motors, during his examination there was introduced Government's Exhibit No. 1343-B, which is his letter of instructions sent out to the various divisions of General Motors requesting them to compile figures on the purchases by the various divisions from companies other than the du Pont Company during the period 1946, 1947, and the first half of 1948.

It was brought out that on the attachment B-1 to that letter, there was a listing by product breakdown under the major headings, such as Anodes, Solvents, et cetera. In view of the fact that I believe it has been of paramount importance in this case to try to develop, in comparing the sales and purchase figures, that there are comparable items being compared, I made the inquiry to counsel for General Motors as to whether the reports which they had received from the divisions of General Motors were by the various product breakdowns as listed in the B-1 attachment to this letter of instruction.

Mr. Hurd, would you like to make a statement in regard to that?

Mr. Hurd: Yes, if the Court please, counsel made this inquiry yesterday, and I told him I would check into the matter, and I have, and I am advised that the returns made by the divisions to Central Office, returns which Mr. Mark received, were under the headings as shown on the first page of Government's Trial Exhibit No. 1343-A, and were [fol. 7033] not broken down as to the particular types of items that were included.

In other words, the divisions that made returns, made returns on anodes showing the total purchases of anodes from competitors of the du Pont Company, and the total purchases of chemical solvents from competitors of the du Pont Company, and so on, without identifying what the particular item was called, either by trade name or by other designation, merely the overall purchases that each division made of the item as described in the first page of 1343-A.

Mr. Harsha: I might say, your Honor, that the government intends to offer this morning several pieces of correspondence and a number of charts and statistical tabulations, and that will conclude the government's rebuttal evidence.

I believe your Honor has been provided with the materials which we intend to offer this morning.

I should say that there are three tabulations which are based upon the testimony and the master trade reports which were prepared by Mr. Thomas Nalle, who was on the stand yesterday, and that we have revised them slightly in accordance with certain portions of his testimony, and I have given copies of those to counsel, but I do not intend to offer them this morning, in view of the fact that they have not had an opportunity to check. So if it is permissible with counsel and, with the pleasure of the Court, when we finish this morning I should like to rest, subject to the right to offer these three other charts when we resume.

The Court: There is no objection to that agreement.

Mr. Harsha: The first document the Government offers [fol. 7034] is Government's Exhibit 1404 which is a letter dated September 27, 1930, written by Mr. F. O. Clements, technical director, research laboratories of the General Motors Corporation, addressed to Mr. E. K. Bolton, chemical director of the du Pont Company.

Mr. Harsha: I might state first, that there are partial portions of the record to which I believe this is addressed, and that this is proper rebuttal evidence. I should like to direct the Court's attention to several statements by Mr. Sloan, one at page 3208 of the printed transcript, where on cross-examination he was asked:

> "Wouldn't you say that du Pont's ownership of this ten million shares of General Motors stock has necessarily affected the relationship between the two companies so that they have become, as you expressed it in one of your letters, one family?
>
> "A. No, I don't think so at all."

And then at page 3212 of the printed record of the transcript Mr. Sloan was asked on redirect:

> "Mr. Sloan, on your direct examination you testified in substance that as far as you knew there was never any agreement or understanding between the du Pont Company and General Motors that General Motors would favor the du Pont Company as a supplier.
>
> "Has there been anything in your cross examination to cause you to change your mind, as to that?
>
> "A. There has not. So far as I know, and as far as the record discloses, to my mind, there has been no change. I still maintain the strongest conviction [fol. 7035] that all transactions were at arm's length based upon the interest of all the stockholders in General Motors, and no other condition entered into it so far as business judgment goes."

Mr. Harsha: I now offer Government's Exhibit No. 1404 in evidence.

(Said document so offered and received in evidence was marked Government's Exhibit No. 1404.)

* * * * * * *

Mr. Hurd: If the Court please, we object to the document on the ground there has been no proper foundation for impeachment, and on the ground it is not proper rebuttal evidence, and if agreeable to the Court, we will argue it——

[fol. 7036] The Court: We will receive it subject to the objection, to be ruled upon later.

* * * * * * *

Mr. Harsha: I should next like to offer Government's Exhibit No. 1395 which is a letter dated March 16, 1921, [fol. 7037] addressed to Mr. Irenee du Pont, president of du Pont Company, is unsigned and bears the initial in the lower left hand corner of "W".

Mr. Harsha: In regard to this document I should like to read the following stipulation which has been entered into by counsel in the case:

> "Subject to defendants' objections as to the admissibility of Government Trial Exhibit No. 1395 for identification, it is stipulated that if Mrs. William C. Durant were called as a witness to testify in this cause, she would testify that she resides at 45 Gramercy Park, New York, New York; that she is the widow of William C. Durant, and that Government Trial Exhibit No. 1395 for identification, purportedly being a copy of a letter of date of March 16, 1921, addressed to Irenee du Pont, and bearing in the lower left corner the initial 'W.,' is a document taken from the personal files and papers of William C. Durant, of which she is the owner, and that if Mr. Winfred W. Murphy were called as a witness to testify in this cause, he would testify that he resides at 23 Derby Road, Port Washington, New York; that from 1909 to 1937 he was employed by William C. Durant as a personal secretary, and that he identifies Government Trial Exhibit No. 1395 for identification from the stenographer's initial 'W.' in the lower left corner, and from the style and format as being a letter typed by Suzanne E. Weiller, now deceased, who was employed by William C. Durant as a stenographer and assistant to Murphy,

> and that Suzanne E. Weiller in the ordinary course [fols. 7038-7043] of business regularly took dictation of letters from William C. Durant, typed and mailed such letters, and retained copies thereof for filing purposes, but that he has no actual knowledge as to whether Government Trial Exhibit No. 1395 for identification was in fact dictated by William C. Durant or whether it was in fact ever dispatched."

In accordance with this stipulation, your Honor, I should like to offer this document and read it at this time.

Mr. Harlan: Before you read it, may I state the ground of my objection, if your Honor please?

The Court: You may.

Mr. Harlan: Despite the very liberal policy we have been following in allowing the Government to introduce evidence, I must object to this exhibit. When Mr. Harsha showed me this letter and asked me whether we would agree to its authenticity and to its receipt, I caused a check to be made of the files of the du Pont Company, and informed Mr. Harsha that we had not been able to find this letter, either the original or any copy of it in the files of the du Pont Company or in the files of the two individual defendants; and beyond that that I had caused Mr. Irenee du Pont and Mr. Pierre du Pont to be shown a copy of this letter, and neither of them had any recollection of ever having seen it prior to the time it was produced by the government.

I told Mr. Harsha that under those circumstances I, of course, could not consent to the admission of this letter coming from the files of a third party and a stranger to this litigation.

* * * * * * *

[fol. 7044] Mr. Harlan: Mr. Harsha and I have entered into this stipulation:

> "With reference to Government Trial Exhibit No. 1395 for identification, it is stipulated between the parties hereto as follows:
>
> "1. That a search of the files of the du Pont Company and of Irenee and Pierre du Pont has been made,

and that neither the original of said exhibit, nor any copy thereof, nor any response thereto, has been found, nor do the records of the du Pont Company or of Irenee or of Pierre du Pont disclose any information that said exhibit or a copy thereof was ever received by Irenee du Pont or anyone connected with the du Pont Company;

"2. That if the defendants, Irenee du Pont and Pierre du Pont, were recalled as witnesses in this cause, each would testify that he has no recollection of ever having seen the original or any copy of said exhibit until it was recently shown him by counsel in connection with its proposed introduction in evidence by the Government, and that at no time did he request or seek the resignation of William C. Durant as President of General Motors Corporation, nor did he authorize anyone to do so on his behalf or in behalf of the du Pont Company."

In connection with that, if your Honor will refer to the exhibit for identification itself, you will see that the writer [fol. 7045] of this letter in effect recognizes that Mr. Pierre du Pont and Mr. Raskob and Mr. Irenee du Pont certainly by implication, were entirely ignorant as to who this alleged representative of the du Pont interests, as he is referred to in that letter, was, or as to the episode.

I had one other thing. In view of the fact that neither of us wants to take the time or put these two men to the necessity of coming out here, I had one other item that I was going to introduce, which is a statement on this general subject that was made in the deposition of Mr. Pierre du Pont on direct examination, which I will read on surrebuttal if we haven't got it here.

I have it here, and with your permission I might as well end this situation here.

I read from the deposition of Mr. Pierre du Pont, page 208, where in describing the events that led up to the resignation of Mr. Durant, Mr. du Pont testified as follows:

"Now, Durant said to me after the whole thing was over—he took it very complacently; you wouldn't think anything had ever happened to him. He was quite as agreeable and unconcerned as he was before anything did happen, and he told me that he would resign as he felt that the bankers would insist on it, or had insisted on it, and he said that he wanted me to take his place. I told him it was not my intention at all for him to leave, much less to take his place. But we ended that part of the conversation.

"He brought it up, told me he was going to resign. He felt it was compulsory. I think he hoped that I would take the position. Afterward it turned out that the Morgan people and others—I don't know whom [fol. 7046] they talked with—did ask me to take the presidency. They insisted on that. I was very unwilling to do it, but they insisted it was the right thing to do, at least temporarily, so I assented to it."

Thank you, Mr. Harsha.

Mr. Harsha: In connection with one statement by Mr. Harlan, I don't think this is the point perhaps to argue inferences to be drawn from communications, but I think he has placed an interpretation not intended by the author of the letter in regard to the next to last paragraph, where I believe the author is referring only to his personal difficulties with which at that time the du Ponts were not familiar, and not to the fact of the intervention of a representative of the du Pont interests to request his resignation. But I think that is purely a matter of argument.

The next exhibit which the Government wishes to offer is a statistical tabulation, Governments Trial Exhibit No. 1387, which is entitled "du Pont Sales of Finishes (Products of Finishes Division) to The Automobile Industry."

(Said document so offered and received in evidence was marked Government's Exhibit No. 1387.)

Mr. Harsha: This is a tabulation which, as indicated by the source notations, has been taken from the various annual competitive reports, which were largely obtained from the returns to the subpoena issued by the Government near the latter stages of this case.

They show in the top column the percentage of requirements of all auto manufacturers supplied by du Pont Finishes Division during the years 1938, '39, '40, '41, and then 1946 and 1947.

[fol. 7047] Then they show the du Pont Finishes Division in the second column, and the dollar sales to all automobile manufacturers during those years.

In the third column, they show the du Pont Finishes Division sales to General Motors which have been taken from the total sales of finishes products reported by the du Pont Company in response to the Grand Jury subpoena.

Then, fourth, they show the percentage of the du Pont sales to General Motors as a percentage of du Pont sales to all automobile manufacturers.

You will note the very high percentage of du Pont sales to G. M. as compared to the percentage of du Pont sales to all automobile manufacturers. They run 92 per cent and higher.

I think there has been unavailable to us a breakdown, further than that given by the Finishes and Fabrics Division reports to the Executive Committee, but based on their figures they indicate percentages of this nature.

In respect to which this is being offered, I should like to direct the Court's attention to certain of the testimony of the witness Williams of the du Pont Company, who was examined concerning the issue as to G. M.'s purchases of finishes throughout the years.

He stated that General Motors' purchases of finishes from du Pont throughout the years represented only about 45 per cent of the du Pont's total sales to the automobile industry, and we are offering this exhibit in rebuttal to that statement, which is further augmented by later testimony.

I might give the page references: page 4234, and then pages 4197, 4203, 4207 and 4209 in which, in various ways, testimony was elicited intending to give the impression [fol. 7048] that the du Pont Company was a very large supplier of a number of automobile companies other than the General Motors Corporation.

We believe that this establishes by their own records that the principal customer in the automobile field by all odds was General Motors, and that the percentage which its purchases bore to du Pont's total sales to the automobile industry was greatly in excess of the 45 percent mentioned by the witness.

Mr. Cox: May it please the Court, it is difficult for me to take this exhibit very seriously, but I intend to treat it, if I can, with the gravity that it does not deserve.

I object to it first on the ground that it is not proper rebuttal, and I take it that objection will be reserved and ruled on later on.

I should also like to object to it on the ground that on its face it is confused, meaningless, and internally inconsistent. I think your Honor may have noted the point I am about to explain without argument in any detail.

I pass over the first horizontal column, which simply contains percentages which appear elsewhere in the record, and which appear to have no relationship, logical or otherwise, to the rest of the exhibit.

But when you come to the second two columns, the horizontal column headed "Du Pont Finishes Division, Dollar Sales to All Automobile Manufacturers", and the next horizontal column that is labeled "DuPont Finishes Division, Sales to General Motors", the point to which I should like to call your Honor's attention is that the Government is comparing unlike things.

[fol. 7049] The sales in the first column, Finishes Division, Dollar Sales to All Automobile Manufacturers, as it appears on the face of the report from which those figures are taken are simply sales of paint or finishes used in the original manufacture of automobiles. They are finishes that are put on automobiles.

The second figure, du Ponts Finishes Division, sales to General Motors, which is taken from a different source, our return to the Grand Jury subpoena, includes all sales of all kinds of paint that are made in these years by du Pont to General Motors.

Now there were, as that return shows, very large and significant amounts of paint that were not used on automobiles, and were not included in the computation that was made in the column just above. That is a matter that can be argued later, and I shall not refer to the return in detail except to remind your Honor that there is testimony in this record now, for example, that du Pont Company in a year sells to General Motors for use on refrigerators paint that has probably in dollar value of sales in recent years been in excess of one million dollars.

It also shows house paint. There was testimony in this record, as the Grand Jury return will show, of sales of industrial paint, for example, the Electro-Motive Division.

The result of comparing these unlike things is, as your Honor will note, that in the third column Mr. Harsha reaches the astounding conclusion that the sales of du Pont to General Motors are in excess of du Pont's sales to General Motors and all other automobile manufacturers.

In other words, he is proving that the whole is somewhat smaller than the part.

That appears also from the footnotes, which he himself [fol. 7050] has put on the exhibit. In one case the sales in 1946, when Mr. Harsha shows that our sales to General Motors were 97 percent of our sales to all other automobile manufacturers, the footnote B shows that in fact, making computation based on the figures in a competitive report, our sales to other manufacturers were 19 percent of the sales to all automobile manufacturers including General Motors.

I think that explanation will indicate why, your Honor, it is difficult for me to take this exhibit very seriously.

The Court: The same ruling as to the other contested exhibits.

Mr. Harsha: I should now like to offer Government's Exhibit No. 1393 and its companion exhibit No. 1394, which are pie charts, so-called, illustrating the General Motors Corporation per cent and dollar volume of purchases of paints, enamels, primers, lacquers, thinners, and pyroxylin from the three largest suppliers. Exhibit No. 1393 relates to the year 1946 and Exhibit No. 1394 relates to the year 1947.

(Said documents, so offered and received in evidence, were marked Government's Exhibits Nos. 1393 and 1394.)

Mr. Harsha: The sources of these exhibits are indicated at the bottom of the page.

It should perhaps have been augmented by including the Government Exhibit numbers which were subsequently attached to those two documents.

They are the ones which, your Honor may remember, [fol. 7051] were put into evidence during the examination of Mr. Mark of General Motors the day before yesterday and are the General Motors' tabulation of sales and purchases in so-called Schedule I, and the other source is the summary of sales of Finishes products submitted by du Pont Company in response to the Grand Jury subpoena, the number of which, I believe, is Exhibit No. 1344.

The first chart, the one for 1946, which is Government's Exhibit No. 1393, indicates that General Motors' total purchases during the year 1946, of the products enumerated in the heading, amounted to $14,864,000, of which the du Pont Company supplied $10,430,000, equaling 70 per cent of the total requirements of General Motors for these products.

The next large supplier, as indicated by the chart, was Rinshed-Mason, which sold $1,934,000; and the third largest supplier was Pittsburgh Plate Glass, which sold $582,000 worth of these products or 4 per cent of the total requirements of General Motors.

All other paint suppliers, which were in excess of 500 separate companies, supplied only $1,918,000 or 13 per cent of the total requirements.

The other chart, the one for the year 1947, is based on the same source material, and indicates similarly that the percentage of the sales by du Pont to General Motors, that is the percentage of General Motors' total requirements, is in the neighborhood of 72 per cent.

Although the Court may note that in 1947 the total dollar purchases by General Motors of these paint products, broadly, amounted to $26,470,000, or an increase of almost $12,000,000 over the year preceding,—despite this tremendous increase in absolute dollar figures—, the Court [fol. 7052] will also note that du Pont's percentage of the total remains very close to that of the preceding year, namely, 72 per cent.

In other words, the du Pont Company received $18,938,000 of General Motors' purchases, and the next largest supplier was again Rinshed-Mason, with 12 per cent, or in dollar figures, $3,205,000; and the third largest supplier was Pittsburgh Plate Glass Company, amounting to $938,000, or 3 per cent; and that all other paint suppliers to General Motors amounted to only $3,389,000 or 13 per cent, that business being split up among approximately 500 different suppliers.

I am sure I will hear from the gentlemen of the defense regarding this, and I think perhaps it might aid the Court in understanding the Government's position in putting these figures together if I indicate briefly what we have eliminated from the figures which were supplied by General Motors in their Grand Jury return, which is now numbered Government's Exhibit No. 1343-A.

The Court will recall that in that exhibit there were a number of items listed under the general heading of Finishes.

There were paints, enamels, primers and lacquers.

Thinners were shown as a separate item. Solvents were shown as a separate item. Pyroxylin was shown as a separate item, and adhesives comprise the other item under the general heading of Finishes.

Now, in connection with the examination of Mr. Mark, I asked for the stipulation of counsel, and it was given, that adhesives might be excluded from a consideration of those products comprising the finishes, so that adhesives have [fol. 7053] been eliminated from this computation, and we believe properly so.

The other item which has been eliminated from the computations entering into this chart is the product which has been listed in the General Motors grand jury return under the heading of solvents, solvents for finishes.

Now we believe we have properly eliminated that item, and I would like to state at least three of the bases upon which we arrived at that conclusion.

First, it will be noted that in the General Motors brief, which was submitted in opposition to the issuance of subpoenas recently in this case, they made a comparison, product by product, from the finishes and fabrics field. In that they indicated that du Pont had sold no solvents in the finishes category to General Motors during the year 1946 or 1947.

Secondly, you have the testimony of du Pont's own witness, Mr. Williams, who was examined at page 4151 of the transcript in this case, Volume 85, and he was asked to list the products which the finishes division was selling to the automobile industry.

Now, he read off an extraordinarily lengthy list of products which were offered for sale to the automobile industry, but he did not list solvents among those products.

In connection with his testimony, du Pont Exhibit No. 176 was also introduced at this point, and it purported to list the products used in finishing automobiles, and it, too, did not list solvents as one of those finishing products.

It did list a product called "Bonderite", which is a type of solvent used to clean sheet metal. But Williams testified at page 4156 that du Pont does not make this product. [fol. 7054] The third item that I would like to bring to the Court's attention in connection with our elimination of solvents from this computation is the testimony of Mr. Farmer, the government's witness, who appeared here just the other day, and who testified at page 12865 of the stenographer's transcript (page 6950 of the printed transcript)—I might say you will recall he was the witness from the Dibble Color Company which was a distributor, or at least connected with the Pratt & Lambert Paint Company.

He testified that although the du Pont Company had solicited his business for pigments and raw materials for thinners for a number of years, he had never been offered solvents by the du Pont salesmen for use in thinner manufacture. He also testified that you do require solvents to make thinners.

So I think the composite of those three lines of evidence establishes affirmatively that the solvent category in the finishes field is not a product which is manufactured and offered by du Pont for sale in the paint field. We believe that we were justified in excluding it from consideration in this computation.

Mr. Hurd: If it please the Court, we object to Government Trial Exhibits Nos. 1393 and 1394, first, on the ground that they do not fall within the scope of rebuttal evidence, which is a matter, if agreeable to the Court, we will argue in the briefs.

Secondly, we object on the ground that the charts are not accurate and are misleading.

The first inaccuracy that I wish to refer to is a matter not mentioned by counsel for the plaintiff.

In preparing this chart, as counsel has mentioned, reliance was made upon Government's Exhibits Nos. 1344 [fol. 7055] and 1343-A, which are the grand jury returns, —summaries of those—, made by the du Pont Company and General Motors respectively.

Examination of the du Pont return discloses that among the items which they included under this hearing of finishes was rubbing and polishing compound. That item was not covered in the General Motors return. We were not asked to include that field, and it is not in there, so that you are comparing apples and oranges.

You are comparing there purchases of a certain number of items made from du Pont including this one item of rubbing and polishing compound which was not in the information to General Motors purchases from competitors of the du Pont Company. That distorts the chart, of course.

Secondly is the matter of solvents. As to that, the return of the du Pont Company to the Grand Jury, which is Government Exhibit No. 1344, discloses that solvents were listed as among the items on which they made a return to the Grand Jury, and they show that they did make sales of paint solvents to General Motors from 1938 to 1941. They do not show any sales in 1946 and '47.

The General Motors return which is Government's Exhibit No. 1343-A discloses that it bought very substantial paint solvents from competitors of the du Pont Company. So that here was an illustration of a situation where du Pont lost all of the business during that period.

Therefore, counsel have omitted it from their chart, and obviously created a very distorted picture. Just to show the extent of this, the solvent items in 1947, which General Motors purchased from competitors of du Pont Company, [fol. 7056] were over a million dollars, which would have a material effect upon the appearance of the pie chart, of course, and would substantially change the percentages. In 1946 they were over half a million dollars.

So that if you are giving a complete picture of the finishes field as this purports to do, it has omitted an important item which would change the appearance and change the percentages, and it has included an item on the du Pont side without having any comparable one on the General Motors side, which again distorts the picture.

Now, again, I assume that as a matter of argument, counsel is entitled to prepare any type of chart that they wish, but this is a matter of evidence. There should be a foundation for it.

As to this particular chart, as a matter of evidence, there isn't a foundation. The document is inaccurate.

I should say the least counsel should do would be to show on the face of the chart what they have done so that the distortion won't be so confusing, so concealed. If they included on the face of the document a statement that they did not include solvents, that would be one thing.

If they included the statement that they have included rubbing compounds on the du Pont side without a comparable item on the competitor's side, at least the document would not be entirely misleading.

But as it is, it is both, I say, inaccurate and misleading. As a matter of evidence, I suggest the document should be corrected before submission.

Mr. Cox: To amplify what Mr. Hurd said in one re- [fol. 7057] spect, if your Honor please, I think that perhaps the Government has been unintentionally and inadvertently confused, as I have been at times, by reason of the fact that the words "solvents" and "thinners" in the paint business are not words of precise meaning.

Indeed, they are frequently used interchangeably to mean the same thing. Sometimes they have a shade of meaning that is different, but as bearing on whether the du Pont Company was offering solvents in relation to what I have just said about the meaning of the words, I should like to call the Court's attention to the du Pont products book for 1946, which covers the period of time that is involved in these figures.

Now that book lists the products by divisions, and in the Finishes Division, at the beginning at the treatment of its products, it has a general listing of categories of products, and the last one is headed "thinners". But that product or those products are described as "clear liquid solvents."

That is true to somewhat the same extent in connection with the description of the products of the Industrial Finishes Division, where the thinners are described as appropriate combination of solvents and dilutants.

Then I also point out to your Honor in the general index of this products book, so far as bearing on the meaning of these terms that the term "thinner" is listed under the general term solvents.

So I think the real question here is not exactly a matter of words, but a question really of usage.

It seems to me that the testimony of Mr. Mark was conclusive the other day, because as I understood that testi- [fol. 7058] mony, plus the exhibits that Mr. Harsha put in, the test that was applied by General Motors was whether these products were comparable and competitive with the products put out by du Pont, and for that reason they included these solvents which make a substantial difference in these figures.

Mr. Harsha: There are one or two points I should like to mention here, your Honor.

I think one of the comments mentioned by Mr. Hurd illustrates rather graphically the reason behind the reluctance of the Government to introduce in its case in chief the Grand Jury returns made by the General Motors Corporation. This was because of the difficulty of being able to contrive any analyses which were comparing comparable products.

It was this question that had us troubled for a long time in trying to distinguish between the products sold by du Pont to make a true and accurate comparison of products purchased by General Motors from competitors of the company.

I think that was one of the reasons this morning that I made the request of counsel that if they had compilations showing product by product what they included in the general categories of anodes, solvents, adhesives, and so forth, that in all fairness they should now be made a part of the record because only in that fashion can a really true comparison be arrived at, I believe.

He mentioned, for example, that the General Motors' figures on finishes do not include the rubbing compounds. Well, I just don't know how anyone could arrive at that conclusion from looking at their figures because they throw anything into this heading, and there certainly is no way [fol. 7059] of determining from their figures what they have included or excluded.

That is one of the reasons we were interested in trying to determine that. It doesn't seem to be available, however, but I don't see them come forward with tabulations which show that these were items which were not included in the General Motors return.

I will be delighted to make any adjustments necessary to be sure we are comparing comparables with comparables. But in the absence of this, I don't see how it is possible to take care of objections, such as that voiced by Mr. Hurd.

In respect to the objection by Mr. Cox, the product book is not in evidence. We were relying on those matters which are now a matter of record, including the testimony of their own witness, including the testimony of the witness that you did not have solvents as such.

It is true you do have thinners, but it was not being offered for that reason.

We do not think these charts are misleading or inaccurate. If there are particular items they point out that should be included or excluded from one side or the other of the charts, I will be delighted, as I suggested previously, if we could sit down and discuss the matter, and hold the matter open.

Mr. Hurd: May I just refer briefly to the matter of the rubbing compounds?

As counsel said, he didn't realize it was omitted from the General Motors' study. The General Motors' study identifies the items being covered, as Exhibit No. 1343-A discloses. It has the general heading of "Finishes," but has the specific designations beneath that.

[fol. 7060] The first is paints, enamels, primers and lacquers. Rubbing compounds certainly could not be any of those.

The second is solvents. Rubbing compound can't be that.

Then there are thinners, and next pyroxylin, and rubbing compound can't be that.

Now, as it turns out, adhesives is not a Finishes' product, but is included here, as I explained the other day, due to the fact that the du Pont Finishing Department happens to make it, and that is the category we were giving.

But there is no difficulty, in comparing these documents, telling that the General Motors' study did not include rubbing compound, whereas it appears on the face of the du Pont document.

The Court: Well, it will be received subject to the objection, and passed upon by the Court later.

The court stands recessed.

(Recess taken.)

The Court: Proceed, please.

Mr. Harsha: The next exhibit which the government offers, your Honor, is Government's Trial Exhibit No. 1400, which also deals with the same general field as the two previous exhibits. It is a tabulation rather than a products chart, and it shows General Motors' purchases of paints, enamels, primers, lacquers, thinners and pyroxylin for the years 1946 and 1947, and it indicates the dollar volume.

First, the total shown from all suppliers was, namely, $14,864,000 in 1946, and then it shows that the du Pont Company supplied slightly over 70 per cent of that total or $10,430,000.00.

[fol. 7061] Then listed under the heading "Supplied by Other than du Pont" are the names of the other paint companies selling to General Motors during that year, listed in terms of descending importance dollarwise, and the Court will note that the largest indicated there is Rinshed-Mason with sales of $1,934,000.00, and that they descend quite rapidly in size of volume down to the Barker Chemical Company which is indicated as $30,000.00. Of those below that which are not listed, none has any individual company sales which amounted to more than $30,000.00, and there were altogether over 400 of these suppliers not listed, none of which made total sales in excess of $30,000.00 for that year. The total of all the some 400 odd suppliers amounted to roughly, $664,000.00, and the same observations apply to the 1947 dollars volume which indicates that du Pont, in that year, supplied 71.55 per cent of General Motors' requirements, or, in dollar volume, $18,938,000.00 as contrasted with General Motors' total purchases of these products amounting to, $26,470,000.00, and the Court will note listed below are the other suppliers which, after you have passed the first three or four, not one of which had individual sales in excess of one per cent.

Mr. Hurd: If the Court please, we make the same objection to Government's Exhibit No. 1400 as to Government's Exhibit No. 1393 and 1394, and that is that it is not rebuttal evidence; that it is inaccurate, misleading, and that it is without foundation.

The Court: It won't be necessary for the Court to repeat each time, but the ruling on all of these contested exhibits are the same, namely, that they are received subject to objection and will be ruled upon later.

[fol. 7062] (Said document, so offered and received in evidence, was marked Government's Exhibit No. 1400.)

Mr. Harsha: Next I should like to offer two exhibits dealing with the purchases by General Motors of the product anti-freeze. These are Government's Exhibits 1389 and 1390.

Government's Exhibit No. 1389 is a schedule showing in absolute dollar volume and also in percentage, General Motors' purchases of anti-freeze from the du Pont Company and from all other suppliers who sold $500.00 or more, of anti-freeze to General Motors during the year 1946.

The Court will observe that the du Pont Company, which is listed first, had sales to General Motors of $668,000.00, roughly, amounting to 97 percent of the total purchases by General Motors, and thereafter are listed the other suppliers, the largest of which was Grimm-Hansen-Treland Company, with sales of $4,163.00, and there are thereafter listed in descending importance, the other suppliers who had total sales in excess of $500,000.00, and there were also 43 other suppliers not listed on this who had sales of less than $500 apiece.

The total of all their suppliers amounted to three percent of General Motors' total requirements.

The same observation holds with respect to Government's Exhibit 1390 which is a listing of General Motors purchases of anti-freeze from du Pont and other suppliers who sold $500 or more to General Motors during 1947, and in that year du Pont is indicated as supplying 97.6 percent of General Motors total purchases and the next [fol. 7063] largest supplier was Miller Auto Supply & Equipment Company with sales of $10,634.00.

The rest were all smaller than that, and all other suppliers amounted to only 2.4 percent.

The sources for the tabulation for this exhibit, and also for the preceding exhibit are shown at the bottom of the page, and are the two returns, one made by General Motors, and the other made by the du Pont Company to the Grand Jury preceding this case.

Mr. Hurd: If the Court please, we object to 1389 and 1390 on the ground that they are not rebuttal evidence.

(Said document so offered and received in evidence, were marked Government's Exhibits Nos. 1389 and 1390.)

Mr. Harsha: Next, I should like to offer two charts dealing with the subject of upholstery and trim. These are exhibits 1391 and 1392.

Exhibit 1391 shows General Motors Corporation percent and dollar volume of purchases of upholstery and trim during the year 1946, and indicates the percentage supplied by the du Pont Company as opposed to others, the two other major suppliers and all other suppliers there listed.

I should indicate that by way of indicating the source, these two are based upon the Grand Jury returns submitted by the General Motors Corporation and the du Pont Company, and in connection with the estimates, or, rather, with the dollar volume sales here shown, the Government has confined its comparison—I wish to make this clear—[fol. 7064] it has compared du Pont's sales to General Motors of its "Fabrikoid,"—that is the pyroxylin coated fabrics—the du Pont's sales of "Fabrilite" and "Cavalon," which were identified by previous witnesses in the case as being the coated fabrics used for upholstery and trim materials by General Motors' various divisions, and we have contrasted to du Pont's sales only the purchases indicated by General Motors in Government's Exhibit No. 1343-A, which are listed under the heading "Imitation Leather" for those two years.

We have eliminated from the comparison here the item which General Motors has listed as "coated fabrics". The reason for that was that in the course of the examination of the witnesses, particularly the examination of Mr. Nalle, he indicated that, when it was called to his attention, the names of various of these suppliers that General Motors had listed under the category coated fabrics, that they made fabrics and sold to General Motors, fabrics other than those used for upholstery and trim.

There were welts, if your Honor will recall, and gimps, and so forth, which were not offered for sale by the du Pont Company, and there were other coated fabrics which were used for gaskets and washers which have nothing to do with the use of fabrics, as upholstery and trim, and for that reason we have excluded those, and we have also eliminated the combined fabrics or "Teal" which, according to the testimony and the documents now in evidence, du Pont was not selling during the years 1946 and 1947.

Mr. Hurd: If the Court please, we object to Govern-[fol. 7065] ment's Exhibit 1391 and 1392, first on the ground they are not within the scope of rebuttal; and secondly, on the ground that they are inaccurate and without foundation. This is worse than comparing apples and oranges. Here they have compared apples and potatoes. Under counsel's own statement to the Court, they have compared coated fabrics known as "Fabrilite" and "Cavalon," he says, made by the du Pont Company and not with coated fabrics as shown by the General Motors return, but with its imitation leather only, and the result is, as far as this comparison is concerned, they do have on the one side the du Pont sales to General Motors of coated fabrics, "Fabrilite" and "Cavalon," plus imitation leather, "Fabrikoid," and then on the other side the General Motors purchases, only of the imitation leather, omitting coated fabrics which were set out in the return to the Grand Jury in the hearing in 1343-A.

The distortion on this is phenomenal. The coated fabrics as shown on General Motors exhibits are considerably in excess of its imitation leather purchases from competitors of du Pont, so that they have taken the smaller group of purchases and compared that with the combined purchases from the du Pont Company, resulting in this enormous distortion, both in the figures and percentages, practically a complete reversal of the true picture as shown by the evidence.

I would also like to refer briefly to the excuse that they give for doing this, that the witness testified that some of these companies from whom General Motors purchased these materials made something other than coated fabrics. [fol. 7066] There is no evidence that those outside items were included in this.

The instructions, the Court will recall, given to the divisions were to include only items that were purchased from competitors of du Pont, items purchased from companies who were competing with du Pont as to the particular product, so that on the record as it stands, there is no evidence that anything was included in the General Motors' return that is not comparable to an item that would have been available from du Pont at the same time. So that these two charts, not only are inaccurate, but the picture they create is completely prejudicial and completely reverses the true facts as shown by the evidence in the case.

Mr. Neitzert: I have a few supplemental remarks to make about these exhibits. In offering these exhibits, your Honor, the Government must abandon all pretense of relying upon the record. It has adopted a policy of completely ignoring the record.

Now, I just want to point that out in some respects to your Honor. You will notice that these exhibits are captioned "General Motors Corporation per cent and dollar volume of purchases of upholstery and trim". Now, upholstery and trim are coated fabrics, but the record shows that a great many other coated fabrics are sold by du Pont to General Motors, and by competitors of du Pont to General Motors, other than upholstery and trim, such as top materials, winter front materials, insulating materials, gaskets, diaphragm materials, and many other commercial applications, seat covers, as well as uncoated combined fabrics.

All of those are included in the grand jury figures submitted by both du Pont and by General Motors.

[fol. 7067] Now, the government has a perfect right, of course, to ignore these many categories of materials in which the two companies are competing and pick out only upholstery and trim, and compare that and ignore the other fields in which competition exists if they want to do that.

It isn't very helpful to your Honor for them to make such a presentation, but they could do it if they want to, but if they are going to do that they are obligated to your Honor to at least make the presentation factual and to make it accurate.

Now, that is what they have not done here, and they have not done it for two reasons: First; they have no basis for contending in the record in this case that all of the du Pont sales are sales of upholstery and trim. They have put everything in. There is nothing whatsoever in this record to show that these du Pont sales are sales of upholstery and trim only. The evidence is to the contrary.

The second error that they have made is that they have completely ignored all of the evidence that all of the upholstery and trim bought from competitors is not in these charts. They have short changed us coming, and then turned around and short changed us going.

Now, if your Honor will recall the document upon which the du Pont sales are based, it is Government's Trial Exhibit No. 1344, which lists the coated fabric products, or rather the products manufactured by the Fabrics Division, that were sold to General Motors in 1946 and 1947, and the items shown are under the following captions and classified and described as follows:

[fol. 7068] First, the general heading is "Fabrics and Finishes Department, Fabrics Products"—not fabrics, not coated fabrics, not imitation leather, but "Fabrics Products."

Then the first is "Fabrikoid," and the next is "Fabrilite"—obviously "Fabrilite" products.

Then "Cavalon" products, and then "Fairprene" products.

Well, all "Fabrilite" is not an upholstery material as the evidence shows in this case. All "Cavalon" products are not upholstery material.

We offered in evidence Exhibit No. DP-228 which shows that there are many products made out of these materials other than upholstery and yet there is nothing in this record, nothing whatsoever in this record, to show that the materials which they had put in this chart are only that small—not small, but large segment of "Fabrikoid" and "Fabrilite" that goes into upholstery.

It is reasonable to assume, and we must assume on the basis of evidence offered in this case, that those "Fabrikoid" and "Fabrilite" products include such things as case coverings, tire coverings, spring boots, shop aprons, seat covers, window shades and curtains, work clothing, match covers, all of which are "Fabrikoid" and "Fabrilite" products, or coated—in other words, none of which come into the categories of upholstery.

So much for the short change we got on the going end when they were looking at the Grand Jury returns of the du Pont Company.

Now, let's see what they did when they started to use the returns of the General Motors Company.

The returns of the General Motors Company appear in [fol. 7069] Exhibit No. 1343A. As Mr. Hurd has said, they have selected less than half of the coated fabric products purchased by General Motors to be included in this exhibit.

They have omitted entirely the schedule of coated fabrics purchased by General Motors from competitors, as distinguished from the schedule that is captioned "Imitation Leather," although the record shows, and Mr. Nalle testified, that the two terms are used interchangeably and unquestionably some of the General Motors' witnesses put products such as United States Rubber's vinyl coated fabric in one category, and some put it in another, which is obviously the case because United States Rubber products appear in both schedules, both the coated fabrics and the imitation leather schedules.

So it is conclusive that some of the General Motors Divisions treated it as General Motors' upholstery and some considered it an imitation leather.

The same thing is true of Goodall fabrics.

Now, the witness testified not as represented by government counsel, but he testified that many of these suppliers whose names appear in the coated fabrics' schedule, carried the identically same line du Pont carries and sells, identically the same products.

We have testimony all through this record that the sales made by United States Rubber, Goodall, Hood, Columbus Coated Fabrics to the Truck Division of General Motors were sales of upholstery, and only upholstery. Yet those particular items are omitted here, large items, items that exceed the sales to General Motors of the fabrics which have been classified by the General Motors as imitation leather.

Another large omission, your Honor, is the omission of [fol. 7070] the Haartz Company. Counsel inadvertently stated that the record shows that in 1946 and 1947 we were not making "Teal" which was the principal but not the only product sold by Haartz to General Motors.

However, page 7000 shows that yesterday Mr. Nalle testified as follows:

> "Q. Was the du Pont Company making an offering for sale 'Teal' in 1946? A. We were.
>
> "Q. Were you endeavoring to sell your 'Teal' to Fisher? A. Yes."

Brown so testified, and so did some of the other witnesses.

On page 7003 of the record, it appears that I showed the Witness Nalle the schedule and I said:

> "Are any of the people in there your competitors? This is the schedule of suppliers of coated fabrics, and now name them. Name the large ones such as United States Rubber, Columbus Coated Fabrics, Goodall, and U. S. Rubber,"

and he testified that they were selling the same thing to General Motors that du Pont was selling to General Motors.

Then, on redirect examination, beginning on page 7013, Mr. Harsha came back and re-examined the witness on this schedule, and he made completely inadmissible these pie charts at that time. His own witness, with his own examination of his own witness, he d veloped first that coated fabrics and imitation leather are interchangeable terms and whether you use one or the other depends on [fols. 7071-7074] whether you go back to the earliest days when everything was imitation leather, and before, as he said, the time when "coated fabrics began to stand on their own feet" so that the manufacturers no longer relied upon their resemblance to real leather to obtain sales.

Now, Mr. Harsha went down the list with the witness, these lists of suppliers that appear in General Motors' schedules of coated fabrics sellers, and the witness pointed out with respect to I think all but two of the companies mentioned by Mr. Harsha, that they were selling vinyl coated fabrics and in some cases rubber coated fabrics such as our "Cavalon" and in other cases pyroxylin coated fabrics such as our "Fabrilite," to the public whether or not to General Motors, he didn't know, but, with the possible exception of two concerns of which he had no knowledge, the concerns in that exhibit were selling all of the products listed in the Grand Jury exhibits supplied by the du Pont Company and upon which the Government bases this chart.

There could be no clearer, more obvious, deliberate misstatement of the facts than those contained in these pie charts.

I thank you.

* * * * * * * *

[fol. 7075] (Said documents so offered and received in evidence were marked Government's Exhibits Nos. 1391 and 1392.)

Mr. Harsha: The final exhibit I wish to tender in evidence at this time, your Honor, is Government's Exhibit No. 1388, General Motors' purchases in dollars from du Pont and competitors of du Pont, involving products produced by du Pont and others as competitors in the market, and it covers the years 1946 and 1947.

The categories set up are similar to those which are contained in the previous exhibits under the heading of "Finishes", and you will note the items of paints, enamels, primers and lacquers, with the source indicated for those [fol. 7076] figures, and then the pyroxylin and the thinners which we believe are the items properly to be considered under the general categories of finishing items. It indicates, for example, that in 1946 the du Pont Company supplied approximately 70 per cent of those items which General Motors was purchasing.

In respect to fabrics which have been arranged in the same fashion, discussed in the previous two exhibits, we confined them to upholstery and trim, namely the "Fabrikoid", "Fabrilite", and "Cavalon" produced by du Pont, and compared that with the imitation leather purchased by General Motors from competitors of du Pont, indicating the percentages there.

The third general group is that of anti-freeze which was also covered in a previous exhibit.

This really pulls together those three sets of exhibits, and shows that on an overall basis the total purchases from du Pont during 1946, for example, of these three categories, amount to $13,119,974, as contrasted with the purchases from competitors of the du Pont Company of $5,150,274, or du Pont supplied 72 per cent out of the total of $18,270,248.

The same analysis applies with respect to 1947 where, it will be seen, that in the lower right-hand corner that the du Pont Company supplied 70 per cent of these products enumerated in the above categories.

That is our final offering, your Honor, subject to the three other exhibits—I am sorry, there are two others. I withdraw that.

Mr. Hurd: If the Court please, we object to Govern- [fol. 7077] ment's Exhibit No. 1388 on the ground it is not rebuttal evidence, and also on the ground that it is inaccurate and not supported by the record.

This is the culmination of all of the errors and misrepresentations contained in prior documents, and in addition, it has a few of its own.

I think I should just point out some of the inaccuracies in order that counsel may have an opportunity to correct their monster, if they so desire.

In the first column, under "Finishes," the first heading is "Paints, Enamels, Primers and Lacquers." That is defined in the footnote No. 1 as "Including all items listed in du Pont's 'Sales by Products to General Motors' summary which are classified in it under the heading 'Finishes Products,' except thinners and heavy-bodied cements and pyroxylin solutions."

That definition is inaccurate in that they have excluded "Solvents" without so indicating, and the solvents' figures are substantial there, and the purchases from competitors of du Pont would materially change the percentages.

The next column at the head to the left under "Fabrics," the fabrics is again comparing imitation leather and coated fabrics as purchased from du Pont, with only imitation leather purchased from competitors of du Pont.

They have omitted all coated fabrics purchased from competitors of du Pont which are far in excess of the imitation leather items. They are practically equal to the total figures of all of the purchases shown in this chart under "Fabrics"; and the last inaccuracy to which I wish to refer is contained in footnote No. 2 at the bottom of the [fols. 7078-7087] page where it states that "No data available on whether du Pont produces this item which is listed in General Motors' Grand Jury exhibit above as 'pyroxylin' in general category of 'finishes'."

That is contrary to the record.

The documents which they have introduced in evidence, Government's Exhibit No. 1343-A, on its face shows that this was a competitive product, a product competitive with that made by du Pont, and in the testimony of the witness Mark the same information is substantiated.

Mr. Cox: I should like to point out, if I may, another infirmity in this document which Mr. Hurd quite properly described as a "monster," and that is the Government in the attempt to try to make the kind of showing they find attractive, has carefully selected from Government's Exhibit No. 1343-A only those products they find attractive in terms of percentage.

The total purchases shown from the competitors for 1947, in Government's Trial Exhibit 1343-A, comes to $21,936,000, whereas they have by this most extraordinary process of selection, been able to reduce that total on this exhibit to about $9,000,000.00.

They do that by omitting chemical anodes and chemical solvents and adhesives, and other products, which General Motors buys substantially from competitors, and in very small quantities from du Pont.

In making this comment, unlike Mr. Hurd, I have no hope that they will confess their error.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1388.)

[fol. 7088] The Court: Is counsel ready to proceed?

OFFERS IN EVIDENCE (G. M. C.)

Mr. Hurd: If the Court please, I have a few exhibits that I would like to offer without reading. The Court has been given a set of them.

Whereupon To Further Maintain The Issues On Their Behalf, The Defendants Introduced The Following Evidence, In Sur-Rebuttal, To Wit:

Mr. Hurd: The first exhibit is General Motors Exhibit No. 267-A, which I believe was offered some time ago in the course of the ethyl portion of the case.

At that time counsel for the government had not had an opportunity to examine, and the record is a little vague as to whether the offer was temporarily withdrawn. I don't know whether the exhibit is in or out, but to clarify the record I offer General Motors Exhibit No. 267-A.

(Said document, so offered and received in evidence, was marked General Motors Exhibit No. 267-A.)

Mr. Hurd: I next offer General Motors Exhibits Nos. 297 and General Motors Exhibit No. 298.

GM Exhibit No. 297 is a letter from Mr. Pratt to Mr. Lefebvre, dated December 20th, 1926.

General Motors Exhibit No. 298 is a letter from Mr. Lefebvre to Mr. Pratt, dated January 24, 1927.

(Said documents, so offered and received in evidence, were marked General Motors Exhibits Nos. 297 and 298.)

Mr. Hurd: I have a series of three documents, General [fol. 7089] Motors Exhibits Nos. 299, 300 and 301, which I offer in evidence.

Mr. Harsha: Are you going to read those, Counsel?

Mr. Hurd: No, I am not.

General Motors Exhibit No. 299 is a letter from Mr. Melville C. Williams to myself, dated December 13, 1948;

General Motors Exhibit No. 300 is a letter from Mr. Hotchkiss to myself, dated December 17, 1948;

General Motors Exhibit No. 301 is a letter from myself to Mr. Williams, Dated December 20, 1948.

(Said documents so offered and received in evidence, were marked General Motors Exhibits Nos. 299, 300 and 301.)

Mr. Harsha: In respect to the last three exhibits, I should like to interpose an objection, your Honor, on the grounds that these are apparently offered by counsel as the correspondence relating to the fashion in which the decision was reached as to the categories of products which General Motors was to make a study of and was to compile their purchases from competitors of the du Pont Company.

Our objection relates to the fact that, I gather from statements made earlier by counsel, they intend to adduce these documents to show that the categories were those which were suggested by the government.

I would like to object to their introduction unless an earlier document, which was a draft letter prepared by counsel outlining these categories, is also included in the record. We have that letter in our files. I have photostats just made of it, and I believe that it has a bearing upon the inferences to be drawn upon that particular [fol. 7090] question as to who is the originator of the catagories which appeared finally in the General Motors grand jury return.

The Court: Are you familiar with this exhibit prepared by counsel?

Mr. Hurd: I am familiar with it. I have no objection to their introducing it if they wish.

Offer in Evidence (U. S.)

Mr. Harsha: Then may I have leave to introduce that document as Government's Exhibit No. 1407?

The Court: You may. It is received.

(Said document, so offered and received in evidence, was marked Government's Exhibit No. 1407.)

Mr. Hurd: At this time, we wish to call a witness on the subject of anti-freeze. Mr. Thompson, will you take the stand, please?

Irvine W. Thompson, called as a witness on behalf of the Defendants, in surrebuttal, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Hurd:

Q. Give us your full name, please.

A. Irvine W. Thompson.

Q. Where do you live, Mr. Thompson?

A. Detroit, Michigan.

Q. By whom are you employed?

A. By the Chevrolet Motor Division of General Motors Corporation.

[fol. 7091] Q. In what capacity are you employed?

A. Well, I really have two titles: one, General Parts and Accessories Merchandising Manager for the Chevrolet Division, and General Manager of the General Motors Parts Division.

Q. What, in general terms, is the activity of the General Motors Parts Division?

A. Well, the General Motors Parts Division is purely a service organization. They service the products, that is, the spare parts and accessories for the Buick, Oldsmobile, Pontiac and Chevrolet Divisions.

Q. What do you mean by servicing the parts?

A. The dealer sends the order into us for the merchandise, and we ship it in accordance with his requirements.

Q. What is the nature of this merchandise?

A. Merchandise is the service parts of the products as well as the accessory items, which we call accessories.

Q. Where do you acquire these parts and accessories?

A. The parts and accessories are acquired from many sources. The various divisions make their own parts, a good share of them. The accessories we buy on the open market where we can get the best product at the best prices.

Q. Are these parts and accessories that you merchandise all acquired by the dealers or are they used up in production by the divisions?

A. We only are interested in the parts end of the business, the parts that are required to service the vehicles. In other words, the dealers buy them for resale purposes.

Q. When did you first go with General Motors?

A. I went with the Chevrolet Division in 1923.

Q. What was your position at that time?

A. My first position was a field representative calling on dealers in the interest of sales of our products and servicing of them.

[fol. 7092] Q. Will you briefly trace the history of your employment from that time up until today?

A. Well, briefly, I started in in Baltimore as what might be termed a field representative, and then was transferred to various offices throughout the country.

In 1933 I was transferred in the central office on the central office staff.

Q. In what capacity?

A. At that time my title was manager of parts and accessories in the eastern part of the country, eastern half of the United States.

About a year later I was promoted to the executive assistant in charge of all operations of parts and accessories, and then about five years ago I was made the general manager of the department.

Q. Mr. Thompson, among the items that the parts division merchandises is anti-freeze. Has that been included at any time?

A. We have been merchandising anti-freeze since 1933.

Q. By "we," to whom do you refer?

A. All of the car divisions, that is, Buick, Oldsmobile, Pontiac and Chevrolet, that come under the General Motors parts division.

Q. Is there more than one type of anti-freeze?

A. Yes. There basically are two types of anti-freeze: the permanent, so-called permanent, and the nonpermanent type of anti-freeze.

Q. Can you tell us in nontechnical language the general nature of the items that fall within these two categories?

A. I think the simplest way of putting it would be that the permanent type of anti-freeze obtains its name from the fact that it has a higher boiling point than the nonpermanent type. So in the trade, at least, we generally refer to it as the permanent and the nonpermanent type.

[fol. 7093] Q. Do you know in general the types of materials that fall within these two categories?

A. Basically the nonpermanent type is an alcohol type of anti-freeze. The permanent, I suppose, is a more technical name, but I would say it came in the glycerine family.

Q. Which type of anti-freeze was the parts division merchandising in 1933?

A. We were merchandising in 1933—the only type that we were merchandising was a permanent type of anti-freeze.

Q. From whom did you acquire that?

A. That was purchased from the Glycerine Producers Association.

Q. Do you know who the members were of that association?

A. Well, I don't know whether I know all the members, but I remember Swift and Armour were the two important ones. It was a meat packers association, I imagine.

Q. Was the du Pont Company a member of it?

A. Oh, no.

Q. At this time you say you were merchandising this permanent anti-freeze, were you acquiring for resale any other type of anti-freeze except the permanent in 1933?

A. No, we were only merchandising the permanent type of anti-freeze.

Q. How long did you continue to merchandise only the permanent type?

A. We merchandised the permanent type of anti-freeze which we secured from the Glycerine Producers Association in 1933, '34 and '35.

In 1935 we discontinued it, not by choice, but due to the fact that the Glycerine Producers Association came to us and told us that they would be no longer able to supply us with glycerine, that we would have to find another source.

[fol. 7094] Q. What did you do, if anything, at that time, 1933, '34 and '35?

A. To the best of my knowledge there were only two people that manufactured the permanent type of anti-freeze.

In the main we were taking the entire output of the Glycerin Producers Association. There was also the Union Carbide & Carbon Company that sold under the name of "Prestone."

So we immediately—they were very nice to us. I mean the Glycerin Producers Association gave us notification, and we immediately went to work trying to find a source, but the sources were limited.

The "Prestone" people felt that they could sell all they could produce anyway, and they saw no value in doing business, or at least they didn't elect to do business with Chevrolet and divide their volume.

We still felt the need because we feel the responsibility very definitely of taking care of the dealer. We then started to look around and see if we could find a source for anti-freeze. We didn't like to go to the alcohol type, but we finally went to the non-permanent type. We looked the field over and, I would say, checked every place that we possibly could.

Q. Did you make any effort to induce the Prestone people to sell to you?

A. Yes, I would say considerable effort.

Q. Did you acquire any from the Prestone people?

A. No, they—you see, you are in a shortage market at that time, and while we were hopeful that Prestone might sell us some, the facts were they felt they should preserve their entire output into——

[fol. 7095] Q. What did you do? Did you cease selling anti-freeze, or did you acquire the non-permanent type?

A. No, we did not cease selling anti-freeze, but we started out and canvassed every source that we knew, and finally after looking all of the products over that were available of the nonpermanent type, the price and the merchandising policies, we finally signed a contract with the du Pont organization

Q. With the du Pont Company?

A. Yes.

Q. Was that for your entire requirements of the non-permanent type?

A. That was for our entire requirements of the non-permanent type.

Q. And approximately when was this?

A. That would be 1936, as I recall.

Q. Was this a term contract or an indefinite duration contract?

A. Well, our contracts with the supplier for that type of merchandise only runs for six months, and it is our responsibility—or for a season—to always review it every season with the thought of either getting a better contract or better terms in the form of price or product. We don't sew ourselves up on a long term contract.

Q. This is for one season?

A. One season.

Q. When that expired what, if anything, did you do?

A. Well, we went through the same procedure again because we still felt that we would like very much to have a permanent type of anti-freeze, that that represented to us in our channels, the largest market, and we were not successful, so we continued again after looking over all of the so-called non-permanent type, of staying with du Pont, because we felt very definitely that they gave us the best product at the best price.

[fol. 7096] Q. Now, how long did this continue?

A. Well, we handled the non-permanent type from 1936 to 1940.

Q. Was the matter reviewed each year as you have described this first year?

A. Very definitely it must be reviewed each year.

Q. What happened in 1940?

A. Well, in 1940 we were again on the—trying to get a permanent type of anti-freeze, and I might say all during 1936 to 1940 we tried each period of contract to get Prestone interested, and in 1940 du Pont developed an anti-freeze which was of the permanent type. We took that on, and we went all through the laboratories, and it was approved by General Motors, and we added it to our line and merchandised it under our label as genuine General Motors ethylene glycol.

Q. By the way, how did you merchandise the permanent type as long as you were able to buy that up to 1936? Did you merchandise that under the manufacturer's label, or under your own label?

A. Well, under both the permanent and non-permanent types of anti-freeze it was merchandised under our label up until 1950.

Q. Now, in 1940 when you say the du Pont Company had a permanent anti-freeze, did anyone else have a permanent anti-freeze, anyone outside of the du Pont Company and the Prestone people?

A. Not to my knowledge.

Q. Did your 1940 arrangement with the du Pont Company cover only the permanent anti-freeze?

A. No, we bought both types of anti-freeze, the permanent and the non-permanent type of anti-freeze. You understand after we took on the permanent type anti-freeze, it only proved what we originally thought, that it would always be the big seller with General Motors, and so the non-permanent type was the small seller, and the [fol. 7097] permanent type immediately became the big seller.

Q. How long did you continue with that arrangement with the du Pont Company with reference to the period of the war? Did it continue until the war ended, or did it stop sooner than that?

A. No, we kept it all the way through up until the war, and then there was no permanent available for commercial uses, so we handled the non-permanent type during the war, and that continued up until about after the war, and then there was more permanent anti-freeze made available.

Q. What was the situation with reference to the available supply after the war?

A. Well, anti-freeze of the permanent type has been in more or less short supply, and of course immediately following the war it was very definitely in short supply. Du

Pont gave us an allotment based on our past war experience—that is before the war—and in turn we made allotments to our dealers in line with their past purchases, but the supply no where near met the demand in the permanent anti-freeze field.

Q. Was any effort made by your division to acquire anti-freeze from any other source after the war?

A. Well, I like to say that there was probably more effort extended than the results that we got out of it. Yes, very definitely we worked very hard trying to obtain from any source an additional supply of anti-freeze. Our results were not very good, but our efforts were really put there.

Q. For how long did this period of shortage continue?

A. Well, I would say that permanent anti-freeze has not been produced up to, in quantities, really definitely to meet the market, until the season of 1952 and 1953. Now, in 1951 maybe there was a little—about even, but even in [fol. 7098] 1951 there was a little shortage, and in all the other years there was a definite shortage.

Q. Are you still buying your anti-freeze from the du Pont Company?

A. Right now we are not buying any anti-freeze because it is not in the season, but when we buy our other anti-freeze we will not be buying it from du Pont, effective with this season.

Q. Have you contracted with anyone else for your anti-freeze?

A. Yes, sir.

Q. To what extent, if any, was your decision, if any, to contract with some other company or to change suppliers motivated by the pendency of this lawsuit?

A. Will you repeat the question?

Mr. Hurd: Will you read the question?

(Question read.)

By the Witness:

A. I don't want to plead ignorance, but frankly I have not followed this case very much, so I would say the answer was definitely—it was not motivated in any way, shape or form. Our hope was to buy merchandise where we can at the best price.

I think the real motivation was that du Pont did not elect to sell us merchandise in our cans, and under our labels, and in 1951 and in 1952 we hunted for a source that would do that, and we found the source this year who we believe will supply our requirements.

It is, we think, a good product, and we prefer to sell under our own labels.

Q. Now, you have been discussing the purchase and sale of anti-freeze by the parts division. Was that limited [fol. 7099] to the account of Chevrolet?

A. No, the General Motors parts division on any interchangeable items such as anti-freeze, when we buy they buy for the other car divisions in the corporation.

Q. So that your purchases covered the Buick, Olds, Pontiac and Chevrolet?

A. In 1947 and 1948 the Buick, Oldsmobile, Pontiac and Chevrolet.

Q. Your purchases were limited to the anti-freeze used for resale to dealers?

A. Yes.

Q. Was any anti-freeze used in production as distinguished from what is merchandised to the dealers?

A. Yes, the production department bought some anti-freeze. You must understand the main purpose there is —all they do buy anti-freeze for is to put in a new vehicle long enough to get it into the dealer's hands, because we feel that the customer should have a choice of type of anti-freeze that he puts in, and therefore that anti-freeze is a low-priced anti-freeze, and it is just a one-shot proposition where they use it to protect the product in transit, you might say.

Q. From a dollar standpoint, is the amount purchased from production larger or smaller than what you acquire for resale?

A. Oh, it would be rather a small, a very small segment of our business.

Q. Now, Mr. Thompson, in making these contracts from time to time with the du Pont Company, as you have described from 1936 until this year, to what extent, if any, were you motivated in selecting the du Pont Company by the fact that the du Pont Company owned the stock in General Motors Corporation?

A. Absolutely none.

Q. Did you ever hear that you were supposed to favor the du Pont Company as a supplier?

A. No.

[fol. 7100] Q. Or buy substantial parts of your requirements of anything from the du Pont Company?

A. No, I don't—no one ever even indicated to me that we should favor du Pont. When you are running a big organization, you just cannot run it with a lot of strings tied to it.

Q. Were there any strings tied to your purchases of anti-freeze?

A. Absolutely none.

Mr. Hurd: If the Court please, that completes the direct examination of this witness.

Cross-examination.

By Mr. Harsha:

Q. Mr. Thompson, on your direct examination you stated that during the year 1933, 1934 and 1935 the parts division of General Motors was purchasing this glycerine type of anti-freeze from, I believe you named it, as the Glycerine Producers Association.

A. That is right.

Q. And then some time in 1935, was it, they informed you they could not longer or would no longer sell to General Motors?

A. That's right.

Q. Did they give you any reasons as to their discontinuing their sales to GM?

A. Yes, they explained their position very definitely. As you know, glycerine, or at least I am told glycerine has two main purposes; one, it is used as explosives, and I am not too sure about this, but I am of the opinion that even the Government had a little bit to do about it, because they elected to sell it for the production of gunpowder, or at least that was their explanation to us. It was a very friendly deal. They were very kind to us and gave us as many weeks' notification as possible.

[fol. 7101] Q. Now, I get it in the testimony, your testimony has been limited primarily to the purchases of antifreeze made by the parts division of General Motors as opposed to the production units, is that correct?

A. Yes.

Q. Now, am I to understand that production units of General Motors have used at least in the period, say, after the war, an alcohol type of non-permanent antifreeze?

A. They use an antifreeze—they do not use any permanent antifreeze in the car. The sole purpose of putting it in the automobile is—you understand, we build 400, 500, 600 cars a day in a plant, or 1,000, and the only time they use it is during the season when that car is apt to become frozen in the handling of it and getting it to the dealer. It is not all year round job. Our southern plants put it in at one time of the year, and the northern plants put it in at another time. It is not selling; it is just protecting the automobile.

Q. Now, is this type of antifreeze of the non-permanent nature, used by the production units of General Motors, is that a methanol antifreeze?

A. Yes, I believe in the main it is.

Q. From whom do they purchase it?

A. I think from du Pont.

Q. Is there a separate contract on that?

A. Yes.

Q. Is that a requirements contract?

A. You mean a term contract?

Q. Yes.

A. Well, all of General Motors, or rather the divisions, operate on the same basis; their contracts run about six months or a season.

Q. Are they for the total requirements of the car production units, for a methanol antifreeze?

A. Well, some of that would vary by the weather. In [fol. 7102] other words, you get an open season like last year, and it would make their contract run on a basis of their requirements.

Q. That is what I mean, it is for the entire requirements, whatever that may be, depending on the season, is that correct?

A. Yes, because no one knows about the weather.

Q. Now, is the parts division today—or let us take the period since the end of World War II, say beginning in 1946—has the parts division of General Motors been a large purchaser of methanol type of antifreeze as opposed to the permanent type?

A. No, most of our volume, and it would have been a great deal more in the permanent type of antifreeze, had we been able to secure it.

As I said a while ago, the permanent type of antifreeze has been definitely in short supply.

Q. Yes. I am confining my questions now to the methanol, the non-permanent type of anti-freeze. I am inquiring as to whether that, whether the General Motors parts division, purchases a large amount of that type of antifreeze.

A. Well, a [illegible]ge share of our sales is in the permanent type of antifreeze, and I think that is perfectly explainable, if you don't mind me saying this.

You see, the car dealer services mostly the later model cars, and they are the people who, shall we say, have a little bit more money and do spend a little bit more money on such merchandise as antifreeze. They buy the better type.

So our sales on the non-permanent type was rather limited.

Q. Now, let me show you the record in this case, Gov- [fol. 7103] ernment's Trial Exhibit No. 1344, and this is a compilation prepared by the du Pont Company showing its sales by products to General Motors, and I draw your attention to the items under "Antifreeze" on the first page of the exhibit for the years 1946 and 1947.

Now, you will note that the methanol type of antifreeze purchased by General Motors was $366,000.00 roughly, as compared to $266,000.00 of the ethylene glycol type, and in

1947 the ethylene glycol type accounted for $969,000.00, and the methanol type for $740,000.00.

Now, can you tell me from those figures, Mr. Thompson, whether the great bulk of those purchases were made by the parts division or by the car divisions?

A. Now you are talking about the years of 1946 and 1947?

Q. Yes, sir.

A. Well, again in 1946 and 1947 we were limited in our purchases of the permanent type of anti-freeze. Therefore an owner didn't have his choice either. Neither did the dealer. So it would be normal, if we couldn't get the permanent type of antifreeze, to buy the methanol type of antifreeze for service, and I would say that in those years our proportion for service was a great deal higher than the normal percentage would be, by far.

Q. Well, now, were there other producers of methanol type of anti-freeze in the years 1946 and 1947?

A. Yes, there were other types. There was other people in the business.

Q. I believe from your previous testimony you indicated [fol. 7104] that you had inquired about a good deal of serving this field of anti-freeze, and trying to find other sources.

Were you aware of the fact that the du Pont Company's percentage of the entire methanol production of the country was relatively small?

A. I don't think we ever got into that as to their percentage of the industry. The way we rate a supplier is on his ability to supply us with the merchandise we need. Now, in an item like anti-freeze, I think we have all got to realize that you have to take quality into consideration, the merchandising programs of that company, as well as the price, and I will say in answer to your question that at each time that a renewal of the contract came up, we surveyed the field of the people in it.

Q. Did you ever hear of the Spencer Company as a producer of methanol type of anti-freeze?

A. Spencer?

Q. Yes, sir.

A. Yes, I believe I heard of those folks.

Q. Did you ever approach them to purchase methanol anti-freeze from them?

A. I am pretty sure they received the bid award that went out from us.

Q. Was this in 1946?

A. I would say that each year—you understand, as a manager, you cannot keep all of these names in your mind, but I am sure we leave no stones unturned, if they are a good, legitimate supplier, and as far as I know, they are—I am sure they went on the mailing list.

Q. Do you know how their product compares in price with the du Pont methanol anti-freeze?

A. You mean to us?

Q. Yes, sir.

A. No.

Q. You have no recollection?

A. No.

Q. Did you ever hear of the Cities Service as a manufacturer of methanol anti-freeze?

A. Yes.

[fol. 7105] Q. Yes?

A. Yes, I know they manufacture it.

Q. Did you ever attempt to purchase from them?

A. I am reasonably certain that again, that the bids went out, invitations to bid, as we call them, went out.

Q. Did you get a bid from them, do you know?

A. I wouldn't know.

Q. Did you ever hear of Cellanese as a manufacturer of methanol?

A. Yes.

Q. Did you solicit bids from them?

A. I am reasonably certain that they were on the list.

Q. Do you know whether you got bids from them?

A. Yes, they bid on our business.

Q. Do you know how their price compared with the du Pont price for methanol?

A. Again, on price, I don't think their price was any more favorable, but you must realize that you have got to tie not only price, but the quality of the product and the merchandising plans, altogether. In other words, there is no advantage in buying from an organization, whether you are talking about anti-freeze or any other item, and then have the merchandising conflict in the field, or the quality not be what you would expect.

Q. Now, did you find that the methanol type of anti-freeze produced by the other major producers in the field are approximately equivalent to that produced by du Pont in terms of quality?

A. Yes; from all that I have heard in the field, most of the good names were very satisfactory. You know, of course, I imagine that you know this, during the war period anti-freeze quality got to a point where even the Government stepped in, and today you must register in a good number of states your products, so that the quality is maintained.

[fol. 7106] Q. Now, did you ever solicit bids from a producer called Commercial Solvents?

A. Commercial Solvents?

Q. Yes, during this period.

A. Yes, I remember that they bid on our business.

Q. In 1946 and 1947?

A. Yes.

Q. And did you award them any business?

A. Not—no.

Q. Do you know how their price compared with that of du Pont?

A. I don't think it was any lower.

Q. Were the prices running about the same?

A. I would say in the neighborhood.

Q. How about Union Carbide? Did you solicit them as a buyer?

A. Union Carbide, which is the Prestone——

Q. Well, aren't they also a producer of methynol?

A. We sent competitive—we gave them an invitation to bid.

Q. No. My question is do you know that Union Carbide is a producer of methanol anti-freeze?

A. Yes, they produce it, I am sure.

Q. Aren't they a large producer of methanol as well as Prestone permanent type?

A. Well, in the field I think if they have a great value it is on the basis of the words "Prestone, a permanent type of anti-freeze."

Q. Did you request any bids from Standard Oil of Indiana, do you recall, during this period?

A. Standard Oil, I am pretty sure, got an invitation to bid.

Q. And did they submit a bid, do you know?

A. Yes, I think they did.

Q. And was the contract awarded to them?

A. No, sir.

Q. Now, turning to the field of the ethylene glycol, [fol. 7107] permanent anti-freezes, who are the major producers in that field, would you say, in the period after World War II?

A. Well, Dow Chemical, Texaco, National Carbide.

Q. That is a subsidiary of Union Carbide, is it?

A. Yes. Oh, I expect there are six or seven producers.

Q. Did you ever hear of Jefferson Chemical, a producer of the ethylene glycol type?

A. Jefferson Chemical?

Q. Yes, sir.

A. No, personally I am not acquainted with them.

Q. Did you ever hear of Wyandotte Chemical?

A. Yes, in Detroit.

Q. Did you solicit them as a supplier?

A. From Wyandotte?

Q. Yes.

A. Yes. Definitely.

Q. In 1946 or '47?

A. Yes.

Q. Did they submit a bid?

A. Yes.

Q. Now, all of these companies that submitted a bid to you either for methanol or glycol, was that indication to you that they intended to sell to General Motors at the price they had specified on their bids?

A. Yes.

Q. Are you talking now after the war?

A. Yes, I would say on the nonpermanent type or the type on which they bid, it indicated they were interested in supplying General Motors and Chevrolet with anti-freeze, but as I previously explained, could we have purchased some permanent type of anti-freeze in the years 1946, '47, 1948, '49 and '50 or '51, we would have been very happy to have purchased from anyone, provided it was quality merchandise.

Q. Well, now, let me see if I understand your previous answer.

[fol. 7108] I thought you indicated that at least as far as Wyandotte and Dow are concerned, that you had sent them invitations to bid during the period 1946 and 1947 on your ethylene glycal type of anti-freeze requirements, isn't that correct?

A. Yes, they were sent invitations to bid.

Q. And didn't they submit bids on which they quoted you a price?

A. They submitted bids, but as I understand, they were not in a position to supply us with the merchandise.

Now, very often in business you get an invitation to bid, and you just don't ignore it; you certainly don't, if you are not in position to make delivery—you certainly can't kick out one customer in the shortage market and put another one in.

Q. Now, am I to understand they would submit bids to you quoting a price to you on so much ethylene glycol which they would then state they were not a position to sell you?

A. Well, the bids were never on the basis that they would deliver the goods at that time. I think they were like many other people, looking down the road that the permanent anti-freeze would not always be in short supply.

Q. Well, now, let me see if I understand——

A. Well, let me say this year, in their bids, this year they very definitely bid.

Q. What were these bids that you were issuing in 1946 and '47? For how long a period were you requesting materials?

A. The standard time, for the season which is basically six months.

Q. And did they indicate—what did they indicate on their bids to you, if they quoted you a price for the material?

[fol. 7109] A. They indicated they were not too interested in supplying us at that time.

Q. Would they then so state on their bids that "we are quoting this price, but we are not in position to supply it"?

A. I think you do that on your price, without saying anything.

Q. You mean they quote a high price?

A. Definitely.

Q. I thought I understood you to say in your earlier testimony that all of these prices were running about the same.

A. Well, you know if you understood me to say that, I don't know, but what I intended to say was that the prices on the non-permanent type were somewhere in the neighborhood of each other.

Q. But there was a range of the permanent types?

A. Yes.

Q. How great a range would you say?

A. Well, great enough range that would indicate to us that they were not too interested in the business.

Q. Now, how many producers of ethylene glycol types of antifreeze would you say there were in 1940?

A. In 1940?

Q. Yes.

A. In 1940, to the best of my knowledge, there were only two.

Q. Du Pont and Union Carbide?

A. Du Pont and Union Carbide.

Q. And when did the other companies go into the production of these methanol——

A. Largely during the war period.

Q. Did any go in before the war?

A. Not to my knowledge.

[fol. 7110] Q. Do you recall whether you made any survey around 1940 or 1941 to see whether there were other producers of ethylene glycol?

A. Yes, we made surveys very definitely.

Q. During this period after the end of the World War, what position would you say the du Pont Company occupied in the field of methanol anti-freezes, in terms of quantity of sales?

A. I wouldn't even hazard a guess.

Q. Were there others, do you know, who were larger suppliers of methanol than du Pont?

A. I wouldn't know that.

Q. How about with respect to ethylene glycol. Do you know how the du Pont Company ranged in the industry in that particular field?

A. Right immediately following the war?

Q. Yes, sir.

A. I would say they held a very nice position, but what percentage I would not know.

Q. Do you know whether they are a major factor today in the industry, or whether their position had slipped during the post-war period?

A. Oh, I think there has been lots of competition introduced into the permanent type of anti-freeze business.

Q. As I understand it, you have purchased practically no permanent anti-freeze from anyone other than du Pont until just this current year, isn't that right?

A. That is right.

Mr. Harsha: That is all. Thank you.

[fol. 7111] Redirect Examination.

By Mr. Hurd:

Q. Mr. Thompson, after the war, say 1946 to 1951, did you find any supplier who was willing to sell you both the permanent and non-permanent anti-freeze?

A. Not any supplier—you must understand that our requirements are substantial. Suppliers not only have got to meet us in price, but they have got to meet us in merchandising policies and the quality of their production must be there.

The permanent type of anti-freeze, I repeat myself again, was quite short up until last year.

Q. And in 1946 or 1947 was there any shortage of the nonpermanent type?

A. Any choice?

Q. Any shortage of the nonpermanent?

A. Shortage? Yes, there was shortage to an extent even in 1947 and 1948 of the nonpermanent type. When you take one phase of a market out you automatically create a shortage of another.

Q. When the nonpermanent type became available, was there any reason for your not buying your nonpermanent type from one supplier while you bought the permanent, which was not available generally, from du Pont?

A. Well, there is a financial deal there. Now we have 45 warehouses, and for those 45 warehouses we must take it out of a source. You understand that anti-freeze weighs quite heavy so the economical way to ship it is in carload lots on paletts.

You can't ship it very well LCL.

So if a small share of your business comes from one supplier and a larger volume from another, it is an economical waste, you might say, to buy from one source and one from another, so there is a very definite advantage in buy- [fol. 7112] ing it all from one source from the standpoint of handling and freight rates, and all of the other things that go with it.

Q. In connection with this recent change of suppliers that you referred to, are you buying both types, all of it, from one supplier, or are you splitting it up?

A. Yes, we are following the same policy because of the economical savings. We are buying from the ~~one~~ Genessee Research Company our entire requirements for the next season.

Mr. Hurd: That is all.

Mr. Harsha: Just one question.

Recross Examination.

By Mr. Harsha:

Q. This reference you have to changing your source of supply, does that go to the winter season coming up for 1953 and '54?

A. Yes.

Mr. Harsha: Thank you. That is all.

Redirect Examination.

By Mr. Hurd:

Q. Has that contract been entered into?

A. That contract has been awarded, and the delivery will start somewhere around July 15 of this year.

Mr. Hurd: That is all.

(Witness excused.)

[fol. 7113] The Court: The court stands recessed for fifteen minutes.

(Recess taken.)

The Court: Proceed, please.

Mr. Cox: May it please the Court, the witness that we shall present this morning on behalf of the du Pont Company is a witness who, since 1930, has been engaged in the sale of the two types of anti-freeze that have been described as methanol and ethylene glycol.

The statistics offered by the Government in rebuttal related, with one unimportant exception that I shall note in a moment, solely to these two types of anti-freeze.

In the Government's case in chief, however, certain evidence was introduced that had to do with the use of ethyl alcohol as an anti-freeze, and although the Government's rebuttal does not relate to ethyl alcohol as distinguished from methanol and ethylene glycol, I shall at this time merely for the sake of completeness and so that the Court may have all the facts before it, offer in evidence two tables compiled from the records of the du Pont Company that show the sale of ethyl alcohol made by du Pont to General Motors from 1932 through 1941.

These two tables, which I believe are included in the volume of exhibits which has been given to your Honor, have been marked du Pont Exhibits 566 and 567; and I now offer those exhibits in evidence.

(Said documents so offered and received in evidence were marked du Pont exhibits Nos. 566 and 567.)

[fol. 7114] Mr. Cox: The first table I shall refer to is du Pont Exhibit No. 567, which shows du Pont sales to all General Motors Divisions. It also shows the total sales to all customers, and strikes a percentage relationship between the two.

I am sorry, your Honor. I am informed that you were not given a book.

The Court: It would be in this volume, wouldn't it?

Mr. Cox: No, these are new exhibits, your Honor.

I am sorry. I misunderstood. I thought it had been given to you. They are the first exhibits in the book, marked du Pont Exhibits Nos. 566 and 567.

Your Honor will note that the first one shows the total sales to all customers as well as the sales to General Motors, and strikes a percentage relationship between the two.

The next in the book, which is du Pont Exhibit No. 566, I believe—they are offered in reverse order—shows the sales by the du Pont Company to the five divisions of General Motors which made the largest purchases from du Pont during this period.

These sales were made throughout the period of time covered by the Organic Chemical Department of the du Pont Company, and not by the Ammonia Department.

There is one other comment I should make about these tables so that there may be no misunderstanding.

Ethyl alcohol has certain industrial uses in addition to being useful in anti-freeze. From the du Pont Company files, it is not possible for us to tell whether the ethyl [fol. 7115] alcohol sold to General Motors was used as an antifreeze or for some other purpose.

For that reason I cannot represent to the Court or to counsel for the Government that all the ethyl alcohol sales covered by these two tables represents sales of ethyl alcohol that was used as antifreeze, although we believe it is reasonable to assume that at least a large portion of it was so used.

The tables, on the other hand, do cover absolutely all the sales of ethyl alcohol, no matter how it may have been used, that were made by du Pont to General Motors for the period of time shown in the two tables.

I think with those comments, I shall now pass on to the testimony of the witness.

We will call Elmer F. Schumacher.

Elmer F. Schumacher, called as a witness on behalf of the defendants, in sur-rebuttal, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Cox:

Q. You are Elmer F. Schumacher, is that right?
A. Yes, sir.
Q. You live in Wilmington, Delaware?
A. Yes, sir.
Q. And you are now the sales director of the Poly Chemicals Department of the du Pont Company?
A. That is correct.

Mr. Cox: Try to keep your voice up.

By the Witness:

A. That is right, yes, sir.

[fol. 7116] By Mr. Cox:

Q. Does that department handle sales of anti-freeze materials for the du Pont Company?
A. It does, yes.
Q. What type of antifreeze does it sell?
A. The methanol and ethylene glycol type.
Q. Has it at any time since you have been connected with the department sold any other type of antifreeze material, Mr. Schumacher?
A. Well, yes. For one short period during the war, we

were allotted by the authorities in Washington a certain amount of ethyl alcohol to sell to replace——

Q. Except for that short period during the war, the department did not sell ethyl alcohol as an antifreeze?

A. It did not.

Q. In Government Trial Exhibit No. 1344, which was shown to you or which I think you have seen, Mr. Schumacher, which is a return made by the du Pont Company in response to a Grand Jury subpoena, you will note that in the year 1946, in addition to sales of ethylene glycol and methanol type of anti-freeze, there is an entry that indicates that roughly $35,000 of the ethanol type was sold. Is ethanol the ethyl alcohol to which you referred to in your previous answer?

A. I am sure it is, yes, sir.

Q. Why was it during that period that you were allotted ethyl alcohol for use as anti-freeze? What is the explanation for that?

A. Solely to preserve our business, I think, in taking care of the outlets we had established over the years.

Q. Was there a shortage of the other type?

A. A very great shortage. Methanol was almost entirely removed from the market.

[fol. 7117] Q. Mr. Schumacher, when did you first go to work for the du Pont Company?

A. Oh, in the late twenties. I was with a subsidiary, what came to be a subsidiary, the National Ammonia Company in their New York office.

Q. When did you first have anything to do with the sale of antifreeze?

A. In 1930.

Q. What department of the du Pont Company were you employed in at that time?

A. I went into the ammonia department.

Q. Was that the department that at that time was selling antifreeze materials?

A. Yes, sir.

Q. How long did the ammonia department continue to sell antifreeze materials?

A. Until it became a part of the polychemicals department.

Q. What date was that, roughly; what year?

A. 1949.

Q. After that what department handled the sale of antifreeze?

A. The polychemicals department.

Q. Have you been engaged, or have your duties related to the sale of antifreeze from 1930 until the present time?

A. Well, my duties were devoted entirely to antifreeze until about 1944, early 1944.

Q. What change occurred in your duties at that time?

A. I was then made assistant director of sales of the then ammonia department.

How long did you hold that position?

A. I continued in that capacity for about two years, until 1946, when I was made director of sales of the ammonia department.

Q. Then when the polychemicals department was organized?

A. I became director of sales of the polychemicals department.

[fol. 7118] Q. As assistant director of sales and director of sales of the ammonia department, and as director of sales of the polychemicals department, do the sales of antifreeze fall under your general jurisdiction?

A. They do.

Q. Mr. Schumacher, what is methanol, in layman's terms?

A. Methanol is a term that grew to be applied to, after it was made synthetically and in large volume, grew to be applied to methyl alcohol, which was also sometimes known as wood alcohol, sort of a contraction of the words.

Q. Do you know how long the du Pont Company has been producing methanol?

A. We have been producing methanol since 1929.

Q. Do you know for what uses du Pont was selling methanol in the period of time up to 1929?

A. When we first came into production of methanol, we sold it for a multitude of industrial, or what we called miscellaneous uses. There was a great variety, no one of them important in itself.

Q. When did the du Pont Company first begin to sell methanol extensively as an anti-freeze material?

A. Well, they made a pass in it in the latter part of 1929; but really made an effort at the beginning in 1930.

Q. That was the year that you first went to work in Wilmington, was it?

A. That is right.

Q. And was that the first year that you had anything to do with the sales of anti-freeze material?

A. That is the first I had anything to do with it.

Q. What was your first job in that connection? What did you do?

A. Well, my assignment was to build up the volume of [fol. 7119] sales of methanol, and the largest potential market appeared to be the anti-freeze market, so my job became one of specializing in the sale of methanol in the anti-freeze market to get a piece of the huge amount of business that was dominated by ethyl alcohol at the time.

Q. Why was the company, if you know, interested in building up the market for methanol?

A. We were large producers of methanol. We were turning out a great deal of it.

Q. Did the company use any methanol in its own production processes?

A. Yes, we used some.

Q. Did it produce methanol in excess of its own needs?

A. Much in excess of our own needs.

Q. Tell exactly what you did to build up a market for methanol as anti-freeze material.

A. In 1930?

Q. Yes.

A. Well, we thought that we had in methanol a material that was inherently cheaper to make than competitive anti-freeze materials, and we set about selling it in bulk to large buyers. They had to be large buyers to take it in bulk. Our preference was to sell it in tank cars, and also at a price. We deliberately undertook to undersell the market.

Q. You say undersell the market. What commodities in particular were you trying to undersell?

A. Our chief competition was ethyl alcohol, and we thought we could successfully maintain or consistently maintain rather a price somewhat below the so-called going market price for ethyl alcohol.

Q. Both ethyl alcohol and methanol were what has sometimes been described as a non-permanent type of antifreeze, is that right?

A. They have been so described, yes, so regarded.

[fol. 7120] Q. Will you please show the witness du Pont Exhibit No. 556?

Mr. Cox: At this time I should like to offer in evidence the third document in the book which was given to your Honor this morning, which has been marked du Pont Exhibit No. 556 for identification.

This is a table showing sales of anti-freeze by the Ammonia Department covering the years 1930 to 1948, inclusive.

(Said document, so offered and received in evidence, was marked du Pont Exhibit No. 566.)

By Mr. Cox:

Q. Mr. Schumacher, will you tell us, if you know, whether this table covers all sales of antifreeze material that were made throughout this period of time by the Ammonia Department?

A. Yes, sir, it does.

Q. So it would include both the temporary and the permanent types of antifreeze throughout this period that have been sold?

A. Both the permanent and non-permanent, yes, sir.

Q. And to the extent that during the war period you say sales were made of ethyl alcohol for antifreeze, they are reflected in this statement?

A. They would be in this tabulation, yes.

Q. This exhibit, Mr. Schumacher, shows that in 1930 you sold in gallons 1,811,000 gallons of antifreeze material to all customers, and the sales continued from the period 1930, '31, '32 in each of those years, to be less than two million gallons, and in 1933 they rose to 1,979,000.

What efforts were you making during those years, to [fol. 7121] wit, 1930 through 1933, to sell methanol as an antifreeze

A. We were following the policy I have already described as seeking large customers, people who could take in large volumes at a price.

Q. Thereafter did you change in any way your selling policy?

A. Yes, sir. In 1934 we made a great change in our plans.

Q. What did you do in 1934?

A. Well, during the years you have already mentioned, 1930 through 1933, we had grown quite unhappy about our profits, or rather the lack of them. We weren't too happy about the progress we were making volume-wise.

We had been doing a little investigating among automotive wholesalers to check up on the possibility of selling antifreeze to them and that looked promising. So we completely changed our plans for selling antifreeze in 1934. We adopted a trade mark——

Q. What was that trade mark?

A. Zerone. We decided to forsake the bulk sales and go into small packages, so we packaged it in drums, gallon cans and quarts.

We had been successful in developing a formula for including in the Zerone an inhibitor which, by the way, we obtained a patent on, which protected the cooling system against the corrosion caused by water.

We developed a merchandising plan and sales plan and a national advertising plan, all of them calculated to attract the favorable attention of wholesalers and retailers alike, through whom we had to go to reach the ultimate customer.

Q. When would you say this program was put into effect?

A. We put it into effect in 1934, with the season that begins then, the 1934-35 season.

[fol. 7122] Q. Did you personally participate in the organization and promotion of this program?

A. Very much.

Q. What did you do?

A. Well, I organized a program, and once we got it instituted went out in the field with salesmen and interested, or sought to interest, wholesalers in taking on the idea.

I might add, by the way, that it was necessary to build up a structure whereby they would take it in carload lots.

Q. Did your sales of anti-freeze thereafter increase in amount?

A. Very markedly. This record, if I may refer to it?

Q. Yes, sir, certainly.

A. This record shows that in 1934 we increased our sales to 2,742,000 gallons. We went in 1935, the next year, to four million eight; and in 1936, five and a half, and so on. Our sales increased steadily and our profit position took a very satisfactory turn. Indeed, we felt that by 1935 we had established a merchandising success.

Q. That year, in your opinion, marked the successful culmination of this program?

A. Yes. We may have had some doubts about it in 1934, but we had no doubts whatsoever by the time we finished the 1935 season.

Q. I should now like to direct your attention to the question of your sales to General Motors in this early period.

I direct your attention to the fact that du Pont Exhibit No. 556 shows that in 1930 you made no sales of anti-freeze to General Motors Divisions. Does that accord with your recollection?

A. Yes, sir. We made no sales in 1930. We made no sales to General Motors as a matter of fact at all until 1936.

Q. In this connection I should like to have the witness [fol. 7123] shown Defendants' Trial Exhibit No. GM-154, and specifically page 50 of that exhibit.

Mr. Schumacher, this is an exhibit offered in evidence by counsel for General Motors, and it is a summary of contracts approved by General Purchasing Committee of General Motors.

On page 50 of this exhibit, which I believe you have before you, you will note that toward the foot of the page there is an item with a red line underneath it, reading in part a description of the item, which starts with the date "6/18/30," it says:

"Anti-freeze methanol,"

under the heading "Product contracted for," and under the heading "Supplier," it says:

"Western Rosin & Turpentine Company."

There is a note at the foot of the page that says:

"Red line signifies contract with du Pont."

The question I now put to you is whether you had any part in any negotiation of any contract between General Motors and the Western Rosin and Turpentine Company in 1930.

A. I recall no part in that. I came to Wilmington, as I think I said before, in 1930. Actually it was the early part of June.

Q. You did not get to Wilmington until June, 1930?

A. No, I did not.

Q. Do you have any recollection of any kind about any contract of this sort?

A. I have no recollection of it.

[fol. 7124] Q. To your knowledge in 1930 or 1931, did General Motors use any methanol as antifreeze material?

A. 1930 and '31?

Q. Yes.

A. No, sir, they didn't, so far as I was informed. They told me that they didn't.

Q. What kind of antifreeze material were they using at that time, if you know?

A. In the contacts I had with them, soliciting their business, that is for their production line, they told me that they used ethyl alcohol.

Q. Had you ever been told or heard that they were using glycerine as a resale item at that time?

A. As a resale item?

Q. Yes.

A. I learned that later, yes.

Q. Du Pont Exhibit No. 556 also shows that in 1931 no sales were made to General Motors, and in that connection I should like to call your attention to another exhibit that has been offered in evidence by counsel for General Motors.

Will you please show the witness General Motors Exhibit No. 155, and specifically page 22?

This is an exhibit, Mr. Schumacher, which is headed "General Motors Corporation, summary of products rejected by general purchasing committee," and toward the foot of page 22 you will note that there is an item with a red line underneath it.

Under the heading, "Date of Action," the date 8-11-31 appears, and under the heading, "Product Rejected," the words "antifreeze Methanol" appear.

Under the heading "Supplier" the words, "E. I. du Pont" appear.

Under the heading, "Remarks," the words appear, "No price advantage."

[fol. 7125] Now, do you recollect whether you had anything to do with the attempts to negotiate this contract with General Motors?

A. My recollection with regard to it is very hazy. We had made a number of attempts to sell them, unsuccessful attempts. This may have been one of them.

Q. You have no more definite recollection than that?

A. No, sir.

Q. Do you recollect anything about the price you quoted to General Motors at that time in an attempt to get the contract?

A. Well, in that period we were seeking to adhere to this policy of underselling ethyl alcohol, and tried always to do that, but that did not mean that in specific instances they wouldn't undersell us for a particular piece of business.

Q. Du Pont Exhibit No. 556, Mr. Schumacher, shows that the first year in which any sales of antifreeze material were made to General Motors was in 1936.

Prior to that time, did you make any attempt to sell antifreeze materials to General Motors?

A. Yes, for their production line we made consistent attempts.

Q. Were you ever successful in selling them?

A. Not for their production line, no sir.

Q. The exhibit also shows that in 1936 you made your first sales of methanol antifreeze material to General Motors.

Was that methanol you sold to General Motors at that time?

A. That was methanol in 1936, yes, sir.

Q. Can you tell us what the circumstances were that led to those sales?

A. Yes. By 1936, the early part of 1936, we had been [fol. 7126] adding to our sales force, of course, and we had a man by that time located in Detroit. Through him I recall being told that this glycerin autifreeze that we had learned General Motors had been reselling was being withdrawn from the market, and that the prospects might be ripe to get them interested in our material.

That seemed to be the case, so I went to Detroit to General Motors, seeking to interest them in this resale business, because I thought I saw two things: One, an opportunity to enlarge our sales of methanol, and the other an opportunity to broaden the distribution of our trade mark material, Zerone. Those were my primary objectives.

Q. Let me ask you this, which perhaps I should have asked you a little while ago. You have mentioned that you had a trade mark on your methanol antifreeze, which was the trade mark Zerone?

A. Yes, sir.

Q. And you mentioned that you conducted a national advertising campaign as a part of this merchandising program that began in 1934, is that right?

A. Yes, sir.

Q. What part, if any, did the trade mark have in the national advertising campaign?

A. We thought a very important part. It identified our material through to the consumer to whom our advertising was directed.

Q. Now, directing your attention again to this period of time in 1936, what did you personally do about the General Motors situation, if anything?

A. I went out there a number of times on a series of visits, seeking to interest the personnel in these ideas I have already mentioned, particularly to interest them in selling our Zerone.

I found that the people to talk with were concentrated in the Chevrolet Division, so I devoted my efforts right there.

[fol. 7127] As I say, I tried to interest them in selling Zerone. Well, they had a number of years of experience selling this glycerine antifreeze, as they pointed out to me, under their own brand name, and they preferred to do that, didn't want any part of my Zerone story, and it got to the point where I reached an impasse, and was told then quite pointedly that if I wanted to get any business at all, I would have to deal with them on the basis of their own brand.

By that time I had gotten some idea of the volume really involved, and I felt I couldn't forego the opportunity to enlarge our sales of methanol, so I capitulated and agreed to supply them their own brand of antifreeze.

Q. Did they say to you what they intended to do if you didn't agree to sell them your methanol for distribution under their brand name?

A. They made it quite clear that they wouldn't buy.

Q. Did you thereafter make an arrangement with them under which you supplied them anti-freeze to sell under their brand name?

A. Yes, we worked out an arrangement. It involved our drawing up a formula, working up a formula for them, helping in the design of the packages, procuring packages, drums, cans, cartons, and so on, and filling them for them. In short, selling them a complete product, f. o. b. our plant.

Q. Packaged for their use, bearing their trade mark?

A. Packaged for their use, bearing their name.

Q. Was this a term arrangement, Mr. Schumacher? Did it last for any specified period of time?

A. Only one season. There was no commitment beyond that.

Q. Did you undertake to supply them with their total [fol. 7128] requirements of anti-freeze for resale for that season?

A. For resale, yes, for that season. They pointed out, by the way, that they were dealing also for three other divisions of the company, the Pontiac, Oldsmobile and Buick Divisions, and I understood that when I finally completed negotiations for this private brand, as we called it, or their own brand, that that would include the activities or the resale business of these other divisions.

Q. This arrangement was confined entirely to anti-freeze that was to be resold by General Motors, is that right?

A. Entirely to that.

Q. It had nothing to do with the anti-freeze that was used on the production line, is that right?

A. Nothing at all.

Q. I have now taken you through this story to the year 1936 when this arrangement was made. Up to that time were you selling anything except methanol as an anti-freeze?

A. No, sir.

Q. Did the time come thereafter when you did develop another type of anti-freeze?

A. Yes, sir. By 1939 the research people in the company had developed a new method or a new process for making the ethylene glycol, using methanol as a raw material.

Q. Ethylene glycol is a type of anti-freeze sometimes described as a permanent type, is that right?

A. Permanent type, yes, sir.

Q. What did you do about marketing this permanent type of anti-freeze, the ethylene glycol?

A. Well, we thought, as I have said before, that we had a merchandising success in "Zerone," and a plan that appealed to the wholesalers and retailers and to the public as well, at least a product that appealed to the public. [fol. 7129] We could think of no better scheme than to market ethylene glycol in essentially the same manner as we were marketing "Zerone," and we set about then adopting a trade mark for it, "Zerex," by the way, and applied the same principles to its distribution that we had demonstrated successfully in the case of "Zerone."

Q. Did you advertise this trade mark "Zerex" as the name for ethylene glycol?

A. Yes, sir.

Q. Was that advertising done on a national scale?

A. Yes, sir.

Q. When did you start this merchandising program for the ethylene glycol type?

A. We announced to the trade in 1939 that we were going to be out with this brand of anti-freeze the following season, so that our actual selling activities began in 1940.

Q. Did you sell any of the ethylene glycol to General Motors?

A. Yes, we did.

Q. How did that come about?

A. Well, we had known for some time that General Motors had been seeking a socalled permanent antifreeze to be sold under their own brand, and we had had this experience by that time, about four years experience with them selling them or supplying them with their own brand of methanol antifreeze, so it seemed perfectly logical to continue supplying them or to start supplying them at long last the permanent type or ethylene glycol antifreeze, under their own brand name, and we set up the same general scheme for supplying that that we had established with them for the methanol business.

Q. At this time, roughly in 1940, how many companies [fol. 7130] in this country, if you know, were producing ethylene glycol?

A. When we got into it there were only two, ourselves and the Carbide group.

Q. Referring to the group of companies designated generally as Union Carbide?

A. Yes, sir.

Q. Now, this arrangement that you have just described with General Motors on ethylene glycol, was that again an arrangement with respect to antifreeze that was to be resold by General Motors?

A. That was our understanding, the same as the other cases.

Q. Mr. Schumacher, I should like to turn your attention to the use of antifreeze on the production line. Do you recall when you first sold General Motors any methanol for use on the production line?

A. Well, when we finally made this arrangement in 1936 for their reselling methanol antifreeze under their own brand name, it looked to me as though we had at long last gotten a toehold here in that the corporation would have to accept, or certainly should accept, methanol as an antifreeze.

I assigned our representative in Detroit then to the job of getting the production line business, and he succeeded in 1936 in lining up one unit, the Pontiac unit, to buy our methanol antifreeze for their production line.

Q. Was antifreeze used in the production line bought centrally in General Motors, if you know, or was it bought by the separate divisions?

A. It was bought by the separate divisions.

Q. In 1936 did you get business from any division other than Pontiac?

A. No, none other that I recall.

Q. Let me ask you this question: Was the arrangement [fol. 7131] made with Pontiac in 1936 an arrangement under which du Pont supplied that division's total requirements for antifreeze for production line purposes?

A. I don't think I am entirely clear as to that. My best recollection is that corporation signed so-called requirements contracts, but I don't know that I ever knew exactly what that meant. The only interpretation we could put on it was that they would buy from us what they chose to buy of our material.

Q. Are you referring to a contract that was a contract for the buyer's requirements of seller's make?

A. I can't recall the exact wording, but that was the sense of it; that we undertook to supply the buyer's requirements of our particular material, however, it was described.

Q. Tell me this, Mr. Schumacher, was the contract for a term?

A. They were always term contracts.

Q. For a season or longer?

A. Usually for a season, yes.

Q. Now, directing your attention to the year 1937, did you keep this Pontiac business in that year?

A. 1937?

Q. Yes.

A. Yes, I think we did.

Q. Did you get business from any other division for production line antifreeze in 1937?

A. I believe that was the year we added the Oldsmobile unit.

Q. Did you get any other units in 1937 except Oldsmobile?

A. No, sir, I don't recall any

Q. Directing your attention to the year 1938, did you get business from any additional car unit of General Motors in that year?

A. Yes. In 1938, at long last we cracked the Chevrolet business. We thought we would get it first, but it took us three years to get in there.

[fol. 7132] Q. Had you been trying to sell Chevrolet before that time?

A. You bet, yes, sir.

Q. You had been trying for three years?

A. Well, we made our most strenuous efforts beginning with the resale deal in 1936, but we had no luck with Chevrolet until 1938.

Q. Did you in this period up to, say, 1941, ever get any business for production line antifreeze from either the Buick or the Cadillac Divisions?

A. No. We didn't supply Buick or Cadillac anything until postwar.

Q. Did you solicit those divisions?

A. Yes, sir.

Q. What happened to the antifreeze market and supply during the war period, Mr. Schumacher, roughly from 1941 until 1945?

A. It became extremely short and went on allocation. It was really distributed by the War Production Board, and the situation as between supplier and purchaser was pretty well frozen.

Q. I should like to direct your attention to the post war years, and particularly to the supply situation in those years. I shall ask you about each of the years separately.

First, take the year 1946. What was the situation as to the supply of antifreeze materials in that year?

A. It was extremely short.

Q. Would your answer apply both to methanol and ethylene glycol?

A. Both types were short.

Q. In 1946, was there any change in your relations with any of the car units of General Motors? Did you get any additional business from any of them?

A. I was about to mention before, that was the first year we got the Buick business, and the Cadillac business, 1946. [fol. 7133] Q. In 1946?

A. Yes.

* * * * * * *

[fol. 7134] Direct Examination (Continued).

By Mr. Cox:

Q. Mr. Schumacher, I think when we adjourned for lunch you just testified that in 1946 the du Pont obtained the business of Buick and Cadillac for production line antifreeze?

A. Yes, we had.

Q. Was that the first time you had had that business?

A. That was the first time we had had the business of those two units.

Q. Do you know whether any representative of Buick or Cadillac or both told du Pont at that time why they were giving them the business the first time?

A. I don't recall that we were told by them why.

Q. Now, I direct your attention to the year 1947. What was the supply situation in that year?

A. It continued to be very short.

Q. Did the shortage exist as to both methanol and ethylene glycol?

A. Both types.

[fol. 7135] Q. Was there any change in the amount of business that you did with General Motors during that year? Did you get any new business?

A. 1947, no, I recall no significant change.

Q. Now, what was the supply situation in 1948?

A. It continued to be in s-ort supply of both types of antifreeze.

Q. Was there any change in the business you had with General Motors in 1948?

A. Well, in 1948 there was a little change, yes. We had —we that year succeeded in getting one of the units in the resale activities to take on our Zerone and Zerex brands, and forsake the General Motors private brands.

That was the Oldsmobile unit.

Q. Was that the first time that any unit of General Motors had bought your private brand for resale?

A. That was the first time any unit bought our nationally advertised brand.

Q. Your nationally advertised brand?

A. Yes, sir.

Q. Before that time all of the units had been buying your products and selling them under General Motors' private brand?

A. That is correct.

Q. This change occurred both as to Zerone and Zerex?

A. They took them both on, yes.

Q. Now, in 1949 what was ~~the~~ situation so far as concerned supply?

A. In 1949 there was a slight easing in the supply of antifreeze generally.

Q. Did that easing relate to both types or only to one type?

A. Well, more so with regard to the low-priced or nonpermanent than it was with regard to the permanent.

Q. Was there a slight easing as to the permanent type?

A. We thought so, yes.

[fol. 7136] Q. Now, did any changes occur in your negotiations with any of the units of General Motors in 1949?

A. Yes, 1949, the Chevrolet production unit told us that they were going to give approximately half of the business to competition, and I think that was the year also that we lost the Cadillac production line business.

Q. Did the Chevrolet people tell you what competitor they were going to give that fifty percent of this production line business to?

A. My recollection is fairly clear as to that one. They told us they were giving it to William S. Gray & Company.

Q. And did they, if you know, during that season get half of their requirements from W. S. Gray & Company?

A. It turned out they did not, when the season got along and it was time for them to get shipments from the competition, they fell down on them, and Chevrolet had to come back to us.

Q. You say they fell down?

A. The supplier, William S. Gray.

Q. How do you know that?

A. Because Chevrolet told us they were unable to get shipments and would we help them out.

Q. And did you supply them with the material?

A. We did, yes.

Q. Now, I think you testified also in this year of 1949 that you lost the production line business of Cadillac, is that right?

A. Yes, sir.

Q. That was the business for the 1949-1950 season?

A. Yes, that would be it.

Q. Now, directing your attention to the year 1950, what was the supply situation in that year?

A. Well, in 1950, in June, wasn't it the Korean incident [fol. 7137] took place—and with that the whole supply situation with regard to antifreeze became as tight as it ever had been. It was in as short supply as it had ever been, both types.

Q. What change, if any, occurred in your relations with any of the units of General Motors in 1950?

A. Well, in 1950 we renewed our contract with Chevrolet for production. I think that was the only change in production and in the resale; it was 1950 that we succeeded in inducing Pontiac, who had observed the Oldsmobile divisions now for two seasons selling Zerone and Zerex, and we induced Pontiac to join in that same activity—that is to buy and resell our own Zerone and Zerex rather than the GM brand.

Q. So in that year there were two units of General Motors buying your brands of materials for resale, and selling them under your brand name, is that correct?

A. That's right.

Q. In connection with both the Oldsmobile and Pontiac change, which you testified about, did they first suggest that they would be willing to sell under your brand name, or did you suggest that to them in the first instance?

A. I think we were the instigators of that move.

Q. Now, in the year 1951 what was the situation as to supply?

A. 1951, both types of antifreeze continued in short supply.

Q. What change, if any, occurred in your relations with any of the General Motors units in 1951?

A. Well, that marked a big change in our relations with them, dealing first with the production line, I think, that was the year that we got Cadillac back on our books, and that was the year dealing now with resale, that was the year we had to tell the Buick and Chevrolet people that we would have to discontinue the private brand, their own [fol. 7138] brand, and urged them to take on Zerone and Zerex. Our business had grown so in volume that—and it was necessary whenever we made their private brand to stop operations on Zerone and Zerex, resulting in a penalty in production, that we felt that we just had to insist on their going to Zerone and Zerex.

Q. What did they say when you told them that you would no longer sell them your materials for resale under their private brand?

A. Well, both units objected very strenuously and reminded us of their experience with their own brand and their strong purpose to continue, but as I have already said, we felt that we were in a position that we just had to change, and they finally reluctantly acquiesced, telling us that if ever an opportunity was afforded them to get their own brand, they would certainly do it.

Q. They told you if ever an opportunity came to them when they could get their own brand, they would do it?

A. Yes, sir.

Q. What did you understand that to mean?

A. Either that we would have to capitulate again, or they would go somewhere else.

Q. What kind of opportunity did you understand they were waiting for?

A. Well, in 1951 the opportunity would have had to be one where some supplier had enough to sell them.

Q. Did they find another supplier in 1951-1952 season?

A. Apparently they did not, because they went along with us.

Q. Now, as to the year 1952 what was the situation so far as concerns supply?

A. The supply situation for both types of antifreeze continued to be short.

[fol. 7139] Q. Was there any change in your relationship with General Motors during 1952?

A. I recall none in that year.

Q. Now, finally coming to the current year, 1953, so far in this year what has been the supply situation?

A. It is quite the reverse of the years we have just been talking about, antifreeze of all types is in very easy supply. There is plenty of it.

Q. And has there been any change in your relations in General Motors so far this year?

A. Yes, sir, we have lost the resale business of Chevrolet, Buick and Pontiac, and we think we have retained the resale business on the "Zerone" and "Zerex" basis of the Oldsmobile unit.

Q. That is the resale?

A. Resale is all.

Q. Has there been any change in the production line business so far with you?

A. The production line business to the best of my knowledge is not yet fully settled for 1953-54 season. We think we have the Chevrolet business, and I believe the Oldsmobile business. I think the Oldsmobile business is lined up, but I am not sure about that.

I think I am wrong. I think that it is Chevrolet and Cadillac that we have lined up.

Q. That business is ordinarily awarded later in the year than the resale business is?

A. Oh, yes.

Q. Now, throughout this period of time that your testimony has covered, Mr. Schumacher, what procedure have you followed in the du Pont Company in respect to submitting bids? How has that been done with General Motors?

A. Well, each year at an appropriate time of the year, we go to either the production units or to the resale group, [fol. 7140] and have quoted them our prices for the ensuing season.

Q. Have you been invited to submit those bids, or do you volunteer them?

A. Well, I think I would say we volunteered.

Q. And has any period of time elapsed between the time you submit the bid and the time the bid is awarded?

A. Oh, yes.

Q. Have you, throughout this period of time, ever had an arrangement either for production line anti-freeze, or for anti-freeze for resale with General Motors or any of its units that extended for more than one season in point of time?

A. No, sir.

Q. Mr. Schumacher, I should like to ask you a few questions about other producers of antifreeze material.

In the period between 1936 and 1941, do you have that period in mind?

A. Yes, sir.

Q. Can you tell us what companies in this country were producing methanol in substantial quantities?

A. Well, besides ourselves there was Commercial Solvents, Carbide and Carbon Chemicals Corporation—those were the principal ones. I think somewhere in that period City Service was producing a relatively insignificant amount.

Q. In this period that I am asking you about, from 1936 to 1941, did Union Carbide ever buy any methanol from the du Pont Company?

A. Yes, sir.

Q. Were those purchases frequent or infrequent, do you remember?

A. Oh, I think they were fairly consistent for a period of years.

Q. Were they for small quantities?

A. No, I think we would regard them as large quantities.

[fols. 7141-7145] Q. Did Commercial Solvents throughout this period, 1936 to 1941, ever buy any methanol from the du Pont Company?

A. Yes, they too bought from us.

Q. Did they buy fairly consistently throughout the period, if you remember?

A. I think they did.

Q. Did they buy in small quantities or in large?

A. We would regard them as substantial.

Q. I think that you testified, did you not, earlier in your examination, that up to 1940 the only two companies in the country that were producing ethylene glycol were du Pont and Union Carbide, is that right?

A. Yes, sir.

* * * * * * *

[fol. 7146] Cross-examination.

By Mr. Harsha:

Q. Approximately how many major producers would you say there are of the methanol type antifreeze today?

Mr. Cox: May I have the question?

By Mr. Harsha:

Q. Approximately how many major producers, or major sellers, if that makes it easier for you——

A. That simplifies it.

Q. Of the methanol type antifreeze are there today?

A. If I may emphasize sellers, and begging the question with regard to major for just a moment, I think there are probably fifty, sixty, seventy-five sellers of methanol antifreeze today.

Q. Am I to understand from that that many of these sellers have a common source?

A. Yes, sir.

Q. For the ethylene glycol?

A. You said——

Q. For their methanol, pardon me.

A. Yes, sir.

Q. Do you have any idea how many major producers of methanol there are today?

9. Yes, today there are probably six or seven.

Q. Now, I would like to go back to your testimony, Mr. Schumacher, on this period when you first joined the ammonia department, I believe, in 1929 or 1930?

A. 1930.

Q. I gather from the exhibit that was put in, I believe just prior to the time you took the stand, du Pont Exhibit 556, the figures indicate that the ammonia department was not selling antifreeze to the General Motors units in the years 1930 through 1935?

A. That is correct.

Q. Do you know what General Motors units were using as an antifreeze during that period?

A. In production?

[fol. 7147] Q. Well, let's take production first, in the production lines, first.

A. In their production we were informed they were using ethyl alcohol or denatured alcohol, one and the same thing.

Q. Do you know from whom they were purchasing it?

A. No, I do not.

Q. Were they buying any of it from the du Pont Company, do you know?

A. They may have been. I didn't keep myself informed as to the sales of ethyl alcohol by the other departments in the company.

Q. How about in respect to the so-called resale aspects of General Motors' business during this period?

A. Well, the first I became acquainted with their resale activities, they were selling glycerin, a glycerin base antifreeze.

Q. Did that continue up until the end of 1935?

A. Yes, sir.

Q. In 1935 they withdrew from that type of anti-freeze?

A. Yes. We understood it was withdrawn from them, that the Glycerin Producers Association had taken it off the market.

Q. How long did the production line units of General Motors continue to use the ethyl alcohol as an anti-freeze, if you know?

A. Well, we thought, when we got the business of the Pontiac unit, when we first got that in 1936, that we got essentially all of their business. That would leave in 1936 all the other units using ethyl alcohol.

If we are correct further that in 1937, when we acquired the Oldsmobile business and retained Pontiac, that would leave the other units using ethyl alcohol. And again, if we are correct in our assumption that when we got Chevrolet in 1938 we got essentially all the business in that [fol. 7148] year, and we did retain Oldsmobile and Pontiac, that would leave all the other units continuing with ethyl alcohol and so on, until we took them on, one unit at a time.

Q. During that period of time, were you acquainted with who was supplying the ethyl alcohol to these various production line units?

A. I never concerned myself with it.

Mr. Cox: You are aware, I take it, Mr. Harsha, that my exhibit shows the du Pont sales to those divisions?

Mr. Harsha: Yes, I understand. I also take it that this is not a breakdown, though, as between ethyl alcohol used for other than antifreeze purposes in that period.

Mr. Cox: No, but it is all the ethyl alcohol for any purpose sold by du Pont.

By Mr. Harsha:

Q. During this period between 1930 and 1935, did you make any attempt to sell methanol antifreeze to the Accessories Division or the so-called Resale Division of General Motors?

A. I don't recall too accurately, sir. I think we made some attempt during the latter part of that period. I don't think we made any real attempt in the early portion of it.

Q. They were not what you would consider all out vigorous attempts?

A. You are dealing with the period 1930 through 1935?

Q. Yes.

A. The early part of that period, we were selling a commodity at a price, if you understand what I mean, and we didn't think we had anything to sell General Motors for resale.

When we thought we saw the merchandising possibilities in the product, we began to talk, and when we established [fol. 7149] the merchandising possibilities, we were very much interested.

Q. You mentioned that a number of the years—I believe shortly prior to the war and during World War II and in the years immediately thereafter—you were asked a number of questions as to whether anti-freezes of both types were in short supply.

A. Yes, sir.

Q. I believe the gist of your testimony was that it had been in short supply.

A. Yes.

Q. Now during that period, do you mean by that that there was no changing around among customers for their sources from which they were buying antifreeze?

A. Very little that came to my attention, if any.

Q. How about other car companies? Did they change around any?

A. I really don't know.

Q. Did you sell any antifreeze to any other than General Motors?

A. Yes.

Q. What company?

A. Well, we sold antifreeze to Nash. In that case we sold it as Zerone. We sold it for production line purposes, and got them to so label it as Zerone in their cars.

We sold antifreeze to Mack Truck. I think we sold some to Autocar. Diamond T, I think, was a customer.

I am not sure myself with regard to other passenger car manufacturers. We may have supplied some to Hudson and possibly to Studebaker.

Q. Is this during the period after the end of the war?

A. Yes.

Q. Did you have any of those customers before the war?

A. Some of them.

[fol. 7150] Q. Did you gain some after the war?

A. I am afraid I can't answer reliably as to the dates in each case.

Q. I am not going to pinpoint a precise date, but did some of these customers you just mentioned, did you pick them up after the war?

A. I doubt it very much, although I am not sure.

Q. I believe you mentioned that you didn't get the Cadillac production line business, if I understood you, until about 1946, is that correct?

A. That is about right.

Q. Can you tell us who were supplying Cadillac with their antifreeze prior to that time?

A. No, I don't know.

Q. How about the Buick that you got the same year? Do you know who had been their supplier?

A. No, I don't know who was the supplier before.

Q. I believe you stated in 1949 that you lost half of the Chevrolet business to William S. Gray, but that they didn't make apparently adequate shipments, and so you regained the business, is that right?

A. That is essentially correct, yes, sir.

Q. I think you also mentioned losing Cadillac. To whom did you lose Cadillac?

A. I don't know for sure. I assume it might have been the same source of supply, but I am not certain myself.

Q. Has there been any great difference or great increase in the industry's production of all types of antifreeze between the years 1951 and 1952?

A. No, I don't think there has been a great increase in production in those two years.

Q. Now, how about the following year, 1953?

A. I don't think so then either.

Q. About the same?

A. Approximately.

Q. As I understand it, 1953, is more or less easy supply for antifreeze?

A. Yes, sir.

[fol. 7151] Q. In regard to this bidding procedure that you discussed on your direct, do you mean by that that in all cases you were never asked to bid by General Motors?

A. That is drawing a pretty fine line. We were sellers. We were interested in retaining their business, and we would maintain contact with them. Whether we initiated a quotation or they actually asked us would be pretty hard to say.

Q. Has that been true over the years?

A. Yes.

Q. I mean going back to, say, when you first came out with your permanent antifreeze in 1940?

A. Yes, I think so.

Mr. Harsha: Thank you. I think that will be all.

Redirect Examination.

By Mr. Cox:

Q. Mr. Schumacher, there are two or three questions which I would like to ask you. I think one of them I simply forgot to ask on direct examination, and it may be that Mr. Harsha will then want to ask you something about the same subject matter.

That has to do with the occurrence in 1953 that you testified to on your direct examination, that is to say, the loss of the General Motors' business for resale. Were you told by General Motors that they were going to get their resale requirements from another supplier?

A. Yes, sir.

Q. Did they tell you how they intended to market that anti-freeze? Would it be under their brand name or someone else's?

✓

A. They made it clear that they had a supplier of their own brand.

Q. Who would supply them with material which they would sell under their private brand?

A. Under their own brand, yes, sir.

[fol. 7152] Q. Mr. Schumacher, Mr. Harsha asked you on cross examination some questions about the supply situation in 1953, and particularly about any increase of production facilities that may have occurred just before or during that year.

Can you tell us what factors, in your opinion, as a student of the market, contributed to the easing of the supply situation in 1953?

A. Well, if I may restate in a way my answer to Mr. Harsha, there may have been some improvement in supply, but we didn't regard it as significant.

The important factor, as we interpreted the market, is that the 1952-53 winter has been an unusually mild one, pretty well over the country, and sales of anti-freeze of all brands, as nearly as we can determine, have deteriorated very much.

That has accumulated large inventories in the hands of the manufacturers or the prime producers. It has accumulated inventories in the hands of wholesalers, and to a degree inventories at the retail level. All of that has a very pronounced effect on what we call the supply situation.

Q. You also testified in response to questions by Mr. Harsha on cross examination about certain companies who now or post war have produced ethylene glycol. Do you remember some of the questions and answers about those companies?

A. Yes, sir.

Q. Did any of those companies, to your knowledge, produce ethylene glycol before the war?

A. Not to the best of my recollection except for carbide.

Q. They are companies that went into the production after the war, or during the war?

A. Pretty generally post war.

[fol. 7153] Mr. Cox: May I have the Court's indulgence? That concludes the redirect.

Mr. Harsha: Just a question, if I may.

Recross Examination.

By Mr. Harsha:

Q. Regarding this loss of the 1953 contract with General Motors for the resale, is that the portion of the business you were describing?

A. Yes, sir.

Q. It has nothing to do with the production line requirements, is that right?

A. No.

Q. Do you still have that at du Pont?

A. We think we have the Chevrolet business settled. We feel reasonably sure of Cadillac. The other business, to the best of my knowledge, has not yet been placed.

Q. Turning to this resale business, does that apply to all the GM units, this resale?

A. No. We believe we are retaining the Oldsmobile unit as resellers of Zerone and Zerex.

Q. How about the other car units?

A. We had Pontiac lined up, and they have deserted us to go along with Buick and Chevrolet, and Buick and Chevrolet have regained a brand of their own.

Q. What is the name of that new supplier, do you know?

A. Well, I was informed that it was Genessee Products, or some such name.

Q. Have you ever heard of them before as a seller?

A. I have heard the name, yes.

Q. Is is a major supplier?

A. Well, we regard them, sir, as packagers and, I suppose, suppliers.

[fol. 7154] Q. You mean they don't produce their own ethylene glycol antifreeze?

A. Not so far as I know.

Q. Do you know where they buy it? Where they obtain the material?

A. No, I don't know.

Q. Do you sell them any antifreeze material?

A. No, we do not.

Q. They are not considered as a producer of the material, is that right? They are just a packager?

A. That is correct.

Mr. Harsha: I think that is all.

Mr. Cox: That is all, if it please the Court.

The Court: You may be excused.

(Witness excused.)

STIPULATION RE TESTIMONY OF PAUL P. HUFFARD

Mr. Cox: May it please the Court, there was one other witness we had planned to call to testify on our behalf with respect to the subject of antifreeze.

Mr. Harsha has very kindly agreed that instead of putting this witness, who is employed by another company, to the inconvenience of coming to Chicago, that we may stipulate as to the tenor of his testimony..

I should now like to read this stipulation that has been agreed to by counsel for the Government:

> "It is stipulated by the parties hereto that if Mr. Paul P. Huffard were called as a witness to testify in this cause, he would testify as follows:
>
> "My business address is 30 East 42nd Street, New York City, New York.
>
> [fol. 7155] "At the present time I am Vice President, Director and a member of the Executive Committee of Union Carbide and Carbon Corporation.
>
> "Before December 31, 1949, National Carbon Company and Carbide and Carbon Chemicals Corporation were wholly-owned subsidiaries of Union Carbide. On December 31, 1949, the subsidiaries were merged into Union Carbide.
>
> "I joined National Carbon Company in 1919. I was president of National Carbon from 1929 until 1944. From 1944 until 1949 I was Chairman of the Board of National Carbon.
>
> "In 1927 National Carbon began to offer a new product, ethylene glycol antifreeze, under its trade name

of 'Prestone.' Since that time National Carbon has continued to market the Prestone antifreeze.

"I had direct executive supervision of the development and promotion of markets for 'Prestone' from 1927, when the product was first introduced, until 1944. Since 1944 I have continued to keep myself generally informed as to the antifreeze business of Union Carbide and its divisions.

"In the early years, technical difficulties were encountered with 'Prestone' which National Carbon was gradually able to overcome. Among the main early difficulties which were successfully overcome were leakage, foaming and rust-loosening.

"By 1935 National Carbon succeeded in establishing a public demand for 'Prestone' antifreeze which was distributed under that trade name through local jobbers and dealers.

"In 1936 I participated in negotiations relative to supplying General Motors with the 'Prestone' antifreeze.

[fol. 7156] "The circumstances which led to such negotiations were as follows: Mr. Donaldson Brown, who was an officer in General Motors Corporation, telephoned me in New York. Mr. Brown had been a college classmate of my brother and I had known Mr. Brown for some time in a social and friendly way. During the course of the telephone conversation Mr. Brown said to me that General Motors wanted to buy antifreeze from Union Carbide; that he suggested that I go to Detroit and discuss the matter. I told Mr. Brown that I would do so.

"I went to Detroit and had discussions with several General Motors men. I came back to New York and returned to Detroit a second time for further discussions. Then I came back to New York—and later returned to Detroit for still further discussions. I cannot now remember the names of the General Motors representatives with whom I talked.

"The substance of what went on was as follows: Throughout the discussions the General Motors men urged me to supply them with antifreeze. They stated they wanted the antifreeze for resale under a private brand name of General Motors rather than under the trade name of 'Prestone.' I said I wanted to continue to market antifreeze under the National Carbon trade name of 'Prestone.' Since the General Motors people were only interested in selling the antifreeze under a General Motors trade name, the negotiations came to an end.

"My basic reasons for taking this position were as follows: I wanted to build up a market for the antifreeze exclusively under the National Carbon trade name of 'Prestone' because that was considered to be, [fol. 7157] in the long run, the best merchandising policy for the Union Carbide organization. National Carbon was selling all the ethylene glycol antifreeze which the Union Carbide organization could produce, and hence there was no occasion to make any exceptions from Union Carbide's merchandising policy in order to move any excess supply of the ethylene glycol anti-freeze.

"Prior to the time I had such negotiations with General Motors, or prior to the end of the year 1936, we had never sold any of the ethylene glycol antifreeze for distribution under any private brand name other than 'Prestone.' Commencing in 1940 the Union Carbide organization did sell ethylene glycol for distribution under private brand names.

"During 1936 Carbide and Carbon Chemicals Corporation was producing methanol and has continued to produce it. With the exception of the last year or two, our production of methanol has always been insufficient to cover the amounts used and sold by the Union Carbide organization. From time to time we have purchased methanol from du Pont in order to meet our needs.

"Since the war commenced and right up to the fall of 1952 there has been an acute shortage of ethylene glycol with the demand always exceeding the supply."

Now, may it please the Court, we have a few documents which we would like to offer at this time, which will complete the presentation of our case.

Mr. Gribbon is going to present a number of those documents at this time.

[fol. 7158] OFFERS IN EVIDENCE (DU PONT)

Mr. Gribbon: May it please the Court, during the course of the Government's rebuttal case, they introduced a series of excerpts from reports by the du Pont Fabrics and Finishes Department to the du Pont Executive Committee relating to the sales of those two products, fabrics and finishes, to General Motors.

Those are Government's Trial Exhibits Nos. 1367 through 1386.

I would like to offer at this time a series of supplemental excerpts from those same reports. I do not propose to go into any additional reports, but merely to add to the record such additional excerpts from those reports selected by the Government which seem to bear upon the rebuttal purpose of the Government.

In doing this, I should like to say we do not waive our objection to the introduction of many of these exhibits on the ground that they are not rebuttal material, but in the event that Government's exhibits are retained in the record, we believe it is important that these additional excerpts be considered in connection with them.

The exhibits which I propose to deal with, your Honor follow in the book that was given to you by Mr. Cox this morning. They begin with Exhibit DP 558. I think it is about the third or fourth exhibit in the book, following the tables on antifreeze.

The first one is an excerpt from the Paint, Lacquer & Chemicals monthly report, dated December 23, 1926.

The Government offered as Exhibit No. 1368 an excerpt from the same report to the Executive Committee, of which we have prepared a supplemental excerpt, identified as Exhibit DP 558, which I now should like to offer in evidence.

[fol. 7159] (Said document so offered and received in evidence was marked du Pont Exhibit No. 558.)

Mr. Gribbon: The portion of the excerpt which the Government used dealt only with the subject of rubberized fabrics. The supplemental excerpt which we have introduced deals with finishes.

The stated rebuttal purpose of the Government's excerpt is to show, as it said, the importance of General Motors as a customer of du Pont, and to show competition in businesses generally.

Your Honor will note in Exhibit No. DP-558 on the second page, that during the period covered by the report, of the entire amount of colored "Duco" sold by the du Pont Company, but 19 per cent was sold to all of the General Motors units, while 33 per cent of that amount went to other motor manufacturers, and the balance was split among other users of "Duco."

Turning in the same exhibit to the bottom of page 3, the paragraph there your Honor will note reads:

> "The General Motors Corporation are unwilling to make a requirements contract for 1927. We have reduced the price of thinners from $1.75 per gallon to $1.50 per gallon in one instance, and from $1.40 to $1.20 in another instance, these prices being subject to a quantity trade discount."

The last paragraph:

> "In addition to the above, some divisions of the General Motors Corporation at least will undoubtedly make their own thinners."

[fol. 7160] The thinners being the product which the du Pont Company had been selling to General Motors.

The next exhibit which I should like to offer has been identified as No. DP-563.

(Said document so offered and received in evidence, was marked du Pont Exhibit No. 563.)

Mr. Gribbon: Now, when it came to collecting excerpts from the 1950 report, the Government reversed its procedure and at this time introduced as Exhibit No. 1386, material relating to finishes, and left out that relating to fabrics.

We should like to include in the record this excerpt which is a du Pont Exhibit, No. DP-563, relating to the fabrics sales during the period, and it reads:

> "During 1950 we secured new business at several important automobile manufacturers, namely Ford,

> Willys and Studebaker. An increased percentage of Fisher Body's 'Teal' business resulted from an improved product."

It goes on to estimate the major competitors in the automotive market, showing du Pont, Ford following closely behind, Textileather and next United States Rubber Company, another defendant in this case.

I next offer Exhibit No. DP-564, which is an excerpt from the 1935 Annual Competitive Report of the Fabrics & Finishes Department, which is the full paragraph quoted in part in Government's Trial Exhibit No. 1375. The portion omitted by the Government is the very last sentence which begins:

> "During 1935 the position of du Pont and leading competitors was"——

[fol. 7161] and it shows that the Chase Company had a somewhat higher percentage of the business than du Pont, and that approximately 50 per cent of the market was going to all others.

(Said document so offered and received in evidence was marked du Pont Exhibit No. DP-564.)

Mr. Gribbon: I should like to offer next the following three exhibits in your Honor's book which have been identified as Exhibits DP-559, 560 and 561.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 559, 560 and 561.)

Mr. Gribbon: First, DP-559 is an additional excerpt from the 1937 Annual Competitive Report of the Fabrics & Finishes Department, a portion of which has already been marked by the Government as Government's Exhibit No. 1377.

Exhibit DP 560 is a portion of the report already marked in part, as Government Exhibit 1380, and DP 561 is a portion mar-ed as Government Exhibit 1381.

In these Government trial exhibits to which I have just referred, that is Exhibit No. 1377, 1380 and 1381, the Government has selected paragraphs from a portion of the annual report dealing with the du Pont Company sale of automotive finishes. In each case they have omitted a single paragraph, usually the final paragraph of the report, and in order that the complete report relating to automotive finishes will be in the record, we offer these exhibits, 559, 560 and 561.

[fol. 7162] We propose to read only 559 which states:

> "Pittsburgh Plate Glass Co. secured the next largest share of automotive finishes business, estimated at 18.58% of the industry's total purchases, through supplying practically all of Chrysler's requirements."

I next offer Exhibit DP 562, This is an excerpt from 1947 annual competitive report of the Fabrics and Finishes Department which is the paragraph that immediately follows the third paragraph of Government's Trial Exhibit No. 1383.

It consists of two paragraphs from the report dealing with fabrics, one of which states that the du Pont Company has improved its position in the fabrics field, in the course of the previous year, and the third paragraph which states the reasons for that improvement has not been included in the Government exhibit and is set forth here in Exhibit DP 562, and reads as follows:

> "Increased sales for bookbinding, automotive trim and upholstery and surgical tape were chiefly responsible for du Pont's improvement in 1947. In the first two industries we either regained business from competition, which was temporarily lost during the period of fabric shortage, or obtained new business outright on the basis of superior quality and service."

(Said document so offered and received in evidence was marked du Pont Exhibit No. 562.)

Mr. Gribbon: The final exhibit which I propose to offer is the one that follows in your Honor's book and has been [fol. 7163] identified as Exhibit DP 565.

This consists of excerpts from a publication known as "Du Pont Products Index." This particular issue of Products Index was published, as shown on page 2 of Exhibit DP 565, in 1946, and I might state that it was not supplanted by an additional publication until 1949.

The purpose of the du Pont Products Index is, as stated on page 3 of DP 565, in the introduction, where it sets forth that the index contains information on chemicals and allied products manufactured and sold by the E. I. du Pont de Nemours & Company.

Mr. Gribbon: Exhibit DP 565 contains excerpts from the Products Index relating to four categories of products, Adhesives, which begins on page 4 of the numbers at the top; the second category of the products dealt with in this exhibit is anodes, which begins at page 17 on the top of the exhibit; the third category is Fabrics which begins at page 23, the numbers being at the top of the exhibit; and the final category is Solvents sold by the Finishes Division.

Now, the excerpts which we have included in Exhibit DP 565 all bear generally upon the statistical tabulations that have been identified as Government's Trial Exhibits 1343-A, 1388, and 1391 through 1394 which were introduced on Friday.

More particularly, the first section of Exhibit DP 565 relating to Adhesives shows that at this time in 1946 and through 1947 the du Pont Company was offering a broad line of adhesives and cements, during the same period in which Government's Exhibit 1343-A shows that General Motors was purchasing very substantial quantities of adhesives from competitors of du Pont, and the figures on [fol. 7164] General Motors purchases from competitors of du Pont were $2,000,000 in 1946, and $3,000,000 in 1947.

Now, the first three pages of the section relating to adhesives simply take the index from the Products Index, and show the names of the du Pont products that fall into the categories of adhesives and cements, and the following pages of the section dealing with adhesives are marked to indicate the rather brief description of each of the products in the adhesives and cement categories that were offered by the du Pont Company.

Similarly, the second section of DP Exhibit 565, that relating to anodes that begins at page 17 of the exhibit, bears upon Government's Exhibit No. 1343-A which shows that during this period of 1946 and 1947 General Motors was purchasing approximately a million dollars a year of anodes from competitors of du Pont.

The third section of Exhibit DP 565 relating to fabrics shows the variety of purposes other than upholstery and trim, for which du Pont's fabrics products are sold and used. More particularly, in light of the Government's contention to the contrary, this section on fabrics at page 26, at the top of the page clearly shows that du Pont for 1946 was making and offering "Teal" for use in convertible automobiles as curtain and top fabric. That is on page 26, the fourth item on the left-hand side.

The final section of Exhibit 565 shows on the first three pages which are taken directly from the index, the extensive line of solvents that are offered by the du Pont Finishes Division.

Your Honor will see that beginning at page 28 of the exhibit we have included everything under solvents, and [fol. 7165] underscored those items that were offered by the Finishes Division.

The Court may recall that on Friday, when the Government counsel introduced Exhibits 1393 and 1394, which purported to show General Motors' purchases of finishing materials from du Pont and competitors of du Pont, the Government excluded from General Motors' purchases from competitors of du Pont its purchases of solvents for use in finishes, which came to a half million dollars in 1946, and a million dollars in 1947.

The basis for that exclusion, according to Government counsel was that du Pont did not manufacture or offer solvents for use in finishes.

The first three pages of this exhibit, as I have said, lists the finish solvents offered by du Pont and the remaining pages give a brief description of a number of different solvents of various chemical composition offered by du Pont for use with finishes.

Mr. Harsha: May it please the Court, are you through with your description of the exhibit?

Mr. Gribbon: Yes.

Mr. Harsha: The Government would like to interpose an objection to this document being received in evidence on grounds very briefly, your Honor, that the import of this exhibit is to give the impression that with respect to all of these items that have been marked in here, the du Pont

Company was attempting to sell and solicit the business of General Motors with respect to these items.

The record does not support that, and furthermore there is no evidence that there was actual production in the [fol. 7166] years in question, namely, 1946 and 1947, of all of these products which have here been listed.

In fact, the book itself tends to contradict some of their own witnesses on this point.

Reference has been made to anodes, and the great list of anodes made by the du Pont Company according to this catalog, and yet we turn to the record in this case and we find at page 9,174 that their witness K'Burg stated that, when he was describing the products which they were attempting to sell, and he said,

> "We sell the chemicals which make up the electrolite or the solution for conducting the metal from the anode to the part to be plated.
>
> "In addition to that, that is primarily sodium cyanide, because our interest is in the cyanide processes, we sell brighteners, addition agents that enable one bath to operate differently than another or produce different desired effects.
>
> "We at one time sold copper anodes, but now we do not. We do sell cadmium anodes, however.
>
> "Q. Did you sell zinc anodes?
>
> "A. Zinc and tin anodes at one time, but we no longer do. Our interest is in the chemicals."

Now, it is that type of testimony which I think has a very relevant bearing on the inferences to be derived from use of a Products Index, which is now being introduced for the first time at the very end of their case, and from this we are supposed to assume that all of these products have [fol. 7167] been offered for sale to General Motors Corporation, and there is nothing in the record to support that, and in many cases it is contradicted by their own witnesses. For that reason I move it not be received.

Mr. Gribbon: I suggest that counsel offered no reason against the introduction of it in evidence. We offer it to show these products were manufactured and offered by the du Pont Company in 1946 and 1947. We have shown by other proof in this case the extent to which we made sales efforts and the extent, to General Motors, and other customers.

The Court: The objection is overruled. It will be received.

(Said document so offered and received in evidence was marked Defendants' Exhibit No. DP 565.)

Mr. Cox: May it please the Court, I will now offer the last six documents in your Honor's book. These documents are charts, and your Honor will recall that last Friday we had some discussion about charts, and I am rather inclined to think that almost everything that can be said about these charts and the Government charts was probably said at that time, so I shall try to confine my remarks within a compass that will reduce the area of controversy as much as possible, particularly in view of the hour of the day.

There are two things I should like to say about these charts before I introduce them, and one is that, of course, as Mr. Gribbon said with respect to his documents, we do not by introducing these charts intend to waive the objection urged by Mr. Hurd on behalf of all of us, that the Government charts are not proper rebuttal.

I think I should also say that in offering the charts we do not waive or abandon another position which Mr. Hurd [fol. 7168] has urged on behalf of all of us. I think he stated that position with particular clarity and force on the occasion of the argument on the subpoena, and that position is that in our view the controlling question in this case is not what percentage of General Motors' requirements du Pont supplied, but why the sales or rather why the purchases from du Pont were made by General Motors.

The ultimate question is whether those purchases were made for normal, usual business reasons, or whether they were made, as the Government contends, pursuant to some enveloping over-all conspiracy that has existed for thirty-five years.

Now, it is our position that the purchases were made for lawful business reasons, and we think for that reason, no matter what the percentage of General Motors' requirements may be that is covered by the purchases, that fact cannot affect the ultimate legal conclusion. I think I might point out to your Honor that in our case in chief, we ourselves came forward with evidence of some situations in which du Pont supplied all or nearly all of the requirements of the General Motors or certain of its divisions. We did that because we believed that that circumstance along with others, supported our contention that the relations between the companies were proper, normal business relations.

Now, saving those two points, I should now like to offer these charts in evidence. They are offered merely because we believe that since the Government has offered similar charts which have been received subject to our objection, the Court should have before it charts that we believe are correctly compiled and which do not contain the errors and [fol. 7169] misapprehensions which we believe vitiate the Government's charts.

In other words, they are offered primarily for the sake of accuracy and completeness.

The first of these is the chart which has been marked defendant du Pont Exhibit No. 569. That is a chart which compares for the two years du Pont sales of imitation leather and coated fabrics to General Motors, and General Motors' purchases of those commodities from du Pont's competitors.

For the reasons that were stated last Friday by Mr. Hurd and Mr. Neitzert, which I shall not repeat, we believe if a comparison is to be made, the comparison should be a comparison of all of du Pont's sales of both imitation leather and coated fabrics, with all of General Motors' purchases of those commodities, and not merely a comparison of General Motors' purchases of imitation leather with all of du Pont's sales.

When your Honor compares our chart with the Government's chart you will see that it does make a rather substantial change in percentages.

Mr. Harsha: May I speak on these charts, please?

Mr. Cox: Yes.

Mr. Harsha: With respect to du Pont Exhibit No. 568 which is their chart on finishes, your Honor, I should like to interpose an objection on behalf of the Government.

For one thing, the heading of the chart, we do not believe, is in accord with the facts in this record, namely that these are purchases by General Motors from du Pont and its competitors.

[fol. 7170] Now, to be competitive, we submit, du Pont and the other companies must be producing comparable items. We went into this at some length, I believe, as to the manner in which we had put together the figures which appeared in the Government's pie charts which are somewhat analogous to these, and one of the items not included was solvents for finishes which they have included in their chart here as indicated.

Now, in view of the testimony in the case that the du Pont Company was not offering solvents—we have had two or three witnesses on that, and some of their own witnesses have indicated that they were not offering solvents for sale to General Motors—I believe we were justified in excluding it, and obviously it was a question of what you put in to consider them as comparable items.

Now, if du Pont was not offering for sale a particular item at that time, then obviously if you load in a lot of purchases by General Motors from other sources, why you get quite a distorted picture, and we think that is not quite so apparent in du Pont Exhibit No. 568 because solvents is not a tremendous item, but it does affect the proportions, but it becomes even more apparent, I believe, in the fabrics' picture in du Pont Exhibit No. 569, because while I don't want to elaborate at length, we have had witnesses on the stand describing the types of fabrics.

We had the witness Nalle on the stand the other day, for example and he stated that some of the companies which were selling to General Motors during this period—that is the companies other than du Pont—were selling things like gaskets and welts and gimps and so forth.

[fol. 7171] He admitted right on the stand that they were not then—for example, welts were not being produced by du Pont—so you have no idea as to what fabrics are truly competitive, and for that reason we confine our comparisons to upholstery and trim where we could ascertain that these were fabrics which were actually in competition between du Pont and other companies, but when you put in other fabrics some of which the du Pont Company is not manufacturing, then certainly it is misleading to call these fabrics' purchases from du Pont and its competitors. They are not competitive.

I would suggest in respect to these, your Honor, that since you reserved your ruling as to their admissibility, that is the Government exhibits, as to the admissibility of those exhibits until such time as the final briefs are submitted, that since these charts go to the same type of thing, only seeing through the defense's eyes, that ruling be withheld at this time.

The Court: Well, the Court will make the same ruling as to these exhibits. The Court will receive them subject to objection.

(Said documents so offered and received in evidence were marked du Pont Exhibits Nos. 568 and 569.)

Mr. Cox: I assumed that was the way these exhibits would be dealt with, your Honor. I think I have concluded my description of the fabrics charts, and I might say as to that and the next three charts that they all rest ulti- [fol. 7172] mately on the grand jury figures which are contained in Government's Trial Exhibits Nos. 1343-A and 1344.

I shall next offer then du Pont Exhibit No. 568, which is the exhibit headed General Motors Corporation purchases of finishes from du Pont and its competitors, and as Mr. Harsha has pointed out, this exhibit is compiled on different bases from the bases on which the Government finishes exhibit was compiled, and the difference is chiefly in the inclusion of the solvents which we believe the record shows were made and offered at this time—that is, 1946 and 1947—by du Pont.

The Court: The Court's ruling will be the same on all of the chart exhibits.

Mr. Cox: I next offer the chart marked du Pont Exhibit No. 570 which consists of two pie charts, one for 1946 and one for 1947, which compares General Motors Corporation purchases of adhesives from du Pont with its purchases of adhesives from du Pont's competitors.

Again these two pie charts rest on the grand jury figures that are found in Government Trial Exhibits Nos. 1343-A and 1344.

I take it that the objection runs to all of the documents and the same ruling will be entered thereon.

Mr. Harsha: Yes, I think we would interpose the same line of objection to the next four, Exhibits 570 to 573. I don't want to load the record with our objections.

The Court: Well, the same ruling stands as to all.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 570.)

[fol. 7173] Mr. Cox: We next offer Exhibit marked du Pont Exhibit No. 571 for identification consisting of two pie charts, one for 1946 and one for 1947, comparing the General Motors Corporation purchases of anodes from du Pont with its purchases of anodes from du Pont competitors, and again the chart rests on the grand jury figure.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 571.)

Mr. Cox: I next offer the document that has been marked du Pont Exhibit No. 572 for identification which consists of two pie charts, one for 1946 and one for 1947 and bearing "General Motors Corporation purchases of chemicals (solvents) from du Pont and its competitors," and this again rests on the grand jury figures.

I might say by way of explanation here that the reason this chart is handled as it is is because in the General Motors return to the grand jury subpoena, there were two separate treatments of solvents. There was one category of solvents dealt with under the heading "Finishes," and it is those solvents which we have included in our finishes chart, and there was another category of solvents dealt with under the general heading "Chemicals," and it is that latter heading of "Chemicals" which is covered by this exhibit which I now offer.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 572.)

Mr. Cox: And finally I offer the table which has been marked du Pont Exhibit No. 573 for identification.

This table rests in turn on the prior pie chart Exhibits, [fol. 7174] and also on the Government trial exhibits which contain the grand jury figures.

(Said document so offered and received in evidence was marked du Pont Exhibit No. 573.)

Mr. Cox: This table, your Honor, produces a total by adding to finishes and fabrics and antifreeze which were the three products that the Government totaled in its total table, the table that Mr. Hurd described as a "monster"—it adds to those products the chemical products "Anodes and Solvents", and the adhesives, and in addition it contains recomputed figures for the finishes and fabrics, the same figures that are reflected in the pie chart.

Here your Honor will notice that on the basis of this computation the total percentage of the requirements of General Motors, that General Motors purchased from du Pont in the years in question, is substantially less than the percentage shown in the Government's table which was confined to finishes, anti-freeze and fabrics and in which table the figures we submit as to the finishes and fabrics were computed on an erroneous basis.

Mr. Harsha: Before you proceed any further, before we pass it too far, with respect to du Pont Exhibit No. 572, which is your solvents chart, I don't want to belabor my objection at this point, but am I to understand from this that among the purchasers contained here in this chart, under the heading, "All others" meaning other than the du Pont Company are included purchases by General Motors from some companies which are distributors of du Pont's solvents?

Mr. Cox: I can answer that question only in general terms. I think there is in evidence a list of the du Pont [fol. 7175] competitors, and I would be glad to answer the question as directed to the particular companies listed here.

Mr. Harsha: Well, I have particular reference to the Detrex Company, which I believe is listed as the first or second largest supplier.

Mr. Cox: My information is that the Detrex Company has been a distributor of du Pont's products, but the question whether General Motors, in response to the Grand Jury subpoena, reported purchases from Detrex of products which Detrex in turn obtained from du Pont is a question, Mr. Harsha, that I can't answer.

It would have to be addressed to Mr. Hurd. He is the authority on that branch of the case. If there is any other name that you should like to inquire about, I should do my best to answer it.

With the introduction of du Pont Exhibit No. 573, that I think concludes the presentation of our documents and evidence.

Mr. Harsha: Just to get this clear in the record, if I may, may I ask Mr. Hurd whether included in the purchases from others, as shown in du Pont Exhibit No. 572, are included purchases by General Motors of solvents which are manufactured by du Pont and distributed by other companies, such as Detrex?

Mr. Hurd: If the Court please, I can't answer the question specifically, but I think perhaps I can cover it from the general standpoint.

I am not sure whether this is contained in an interrogatory or not. It seems to me it was. I know that in preparation for trial, the Government inquired of General Motors as to whether or not any purchases reported to the grand [fols. 7176-7177] jury as from competitors of du Pont could have been purchases of products made by du Pont but sold to us through some jobber or distributor, or someone else.

After an investigation, we reported back that the same thing had occurred to us subsequent to our rendering figures to the grand jury; that it was possible in obtaining the data on the competitive purchases that something might have been included which was a du Pont product, although we had not bought it from du Pont, and we had undertaken to check that very point.

It is almost impossible to get an absolutely precise check on it, but we found that if there was such an error as that in our figures that it amounted to less than one per cent. I think at the maximum it was around three-tenths of one per cent; that our figures might be wrong as much as three-tenths of one per cent.

I cannot relate this to any particular product, but I do have that information as to the over-all exhibit.

Mr. Harsha: Would your answer hold the same, Mr. Hurd, with respect to the Blakely Company as to solvents?

Mr. Hurd: That would be true as to any particular product and any particular company.

All I know is that the over-all figures cannot be inaccurate more than three-tenths of one per cent. I am quite sure that appears of record in this case.

I am sure we answered an interrogatory to that effect, with an affidavit to that effect.

* * * * * * *

[fols. 7178-7363] Mr. Ragland: I wish to call the Court's attention to a proposed post-trial stipulation, which the parties propose to enter into, to be completed as soon as corrections to the record and other similar matters have been completed.

The purpose of the stipulation is to provide for certain post-trial details for the convenience of the Court and all parties, so that they may conveniently handle the record and prepare the briefs and the findings.

Counsel for the Government and for the defendants have approved in substance the proposed stipulation. It is understood that amendments to the stipulation, and especially to the appendices at the back of the stipulation, will be made as the correcting process progresses.

I wish to call the Court's attention especially to paragraph one, at the top of page 2 of the stipulation. It is provided there that the pre-trial order that the Court entered on January 5, 1953, shall be superseded in respect of certain provisions which have served their purpose now and no longer need govern the future conduct of the case.

I should like to ask if this arrangement is satisfactory to the Court because it is all proposed.

The Court: Yes, I have no objection. That is a practical way to handle it.

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[fol. 7364] EXCERPTS FROM THE ARGUMENT OF MR. HOUCHINS

At this point I would like to make it clear what the position of the Government is as to this agreement and understanding as to inter-company sales between du Pont and General Motors.

It has never been the Government's position that General Motors was required to buy willy-nilly all of the products which are manufactured by du Pont. I think that is best illustrated by simply looking again to Paragraph 56 of the complaint which is the paragraph respecting this inter-company sales agreement, and by reading the language in the middle of Paragraph 56 which reads:

> "It was agreed that General Motors would purchase from du Pont all or substantially all of its requirements"—

and I wish to emphasize the word "requirements"—

> "manufactured by du Pont, and would refrain, in whole or in large part, from purchasing such products from competitors of du Pont."

Now, I think it is clear from a reading of that allegation in the complaint that it is not, for example, the Government's position that if General Motors did not require and could not use, say any nylon hose, that it nevertheless had to buy nylon hose from du Pont; or, for example, if General Motors did not require and could not use sulphuric acid, that it had to buy sulphuric acid from du Pont; and similarly it is not the Government's position and has never been our position that if General Motors did not require and could not use brake fluid of say 300 degree boiling point because it needed brake fluid of say 350 degree boiling [fol. 7365-7371] point, that it nevertheless had to buy that 300 degree boiling point brake fluid from du Pont; and finally, similarly it has never been our position, for example, if General Motors did not require and could not use a non-transparent steering wheel plastic because it needed transparent steering wheel plastic, that it nevertheless had to buy the non-transparent from du Pont.

General Motors, after all, was in business. We recognize that. It had to make and sell automobiles in a competitive market, and certainly the Government has never contended that General Motors had to buy from du Pont products which it could not use.

Instead it is the Government's position that General Motors, by the agreements and understanding alleged in the complaint was to buy its requirements—and "requirements" by the very nature of the word means a product that is needed and is usable—if a purchase has to be stored away in a warehouse, for example, because it cannot be used in a competitive market, then I submit that is not a requirement of the purchaser.

To return, however, to the main track and the evidence concerning these miscellaneous products, we believe that undoubtedly this evidence was a diversionary tactic and the purpose was to divert the Court's attention from the proof which has been offered concerning fabrics and finishes.

* * * * * * *

[fol. 7372] Now, your Honor, we turn to the subject of brake fluid, which in some respects is similar to the subject of safety glass because, here, also, we have a situation in which General Motors was supplying itself with brake fluid, and that is the reason they didn't get brake fluid from du Pont.

General Motors adopted hydraulic brakes in 1934. Most of the major producers were adopting hydraulic brakes in about that same time. The hydraulic brakes, of course, require brake fluid, and this put General Motors in the need of a brake fluid supply.

However, it was the practice on the part of all the major producers, Chrysler, Ford, all the majors, to mix their own fluid. This, I think, came about because the brake fluid mixing operation is the simplest operation imaginable. It isn't a chemical operation. It is simply putting several oils in a vat, stirring them up and mixing them. One of these oils is castor oil, and there are various others.

But the operation is simple, no hazards involved, no dangers involved in the operation.

[fol. 7373] General Motors, then, following suit, following the custom of other major producers in the business, started mixing their own brake fluids. With the single exception of a short period of time, a little less than a year, after General Motors adopted hydraulic brakes, at which time they were securing this fluid from an outside source, with the single exception of that short period of time, General Motors has always right up to the present mixed its own brake fluids.

Now, the defendants have come up with some evidence which they hope will show that du Pont was making brake fluid, tried to sell it to General Motors, and General Motors didn't buy it. That, they say, refutes the Government's charges.

Of course, I have already made the point that General Motors was making its own brake fluid. However, in addition to that, the record clearly shows that the various brake fluids which du Pont offered to General Motors were simply not up to General Motors' needs.

Du Pont offered fluids at three different times. They offered fluid in 1934, 1935, and in 1939. These fluids all differed somewhat, and apparently they represented efforts on the part of du Pont to improve their fluid to the point where General Motors could use them, but they were always unsuccessful.

However, the fact is that General Motors tried and tested every single du Pont brake fluid without exception. But in the case of each of them, they declined to abandon their own economical and satisfactory method of supplying themselves, and declined to use the du Pont fluid.

[fol. 7374] One of the defendants' witnesses on the subject was Mr. Weber. Mr. Weber was asked why it was that General Motors apparently had declined to use the du Pont fluid, and he said this:

> "One person"—

and he means a General Motors' person—

> "might complain that the rubber swelling was too great; another unit might complain that the fluid corroded the metal to too great an extent."

As a matter of fact, as to the 1934 brake fluid, the first one the du Pont Company offered to General Motors, that fluid was so unsatisfactory that du Pont never sold a single drop of that fluid to any automobile company, with the single exception of Reo, who finally was induced to buy fifty gallons. That, I think, speaks more adequately than I can as to the inferiority of the du Pont fluid.

It moreover appears from the record that the du Pont fluids had low boiling points and they had high freezing points, another factor which made them unusable by General Motors. As a matter of fact, Walker admitted on cross examination that as to the 1939 brake fluid, it did not even meet General Motors' specifications as to freezing points.

Clearly this is an adequate reason for General Motors not using the du Pont fluid. They simply couldn't use it and stay in the competitive market they were in.

The decisive fact, however, which I wish to leave as to this subject before I go to another one, is that this evidence is contrary to what the defendants would have the Court [fol. 7375] conclude because the evidence shows that General Motors never purchased a drop of brake fluid from any outside supplier, du Pont or any other outside supplier, after 1935.

In this situation, where du Pont was competing, as it were, not with an outside supplier but with General Motors itself, the defendants would have the Court believe that this shows an unsuccessful competitive struggle.

We submit that nothing of that sort could be concluded from this evidence.

The Government, as I have pointed out, has never maintained as part of its position that General Motors was required to buy from du Pont materials which it could not use or materials which it did not need to purchase from an outside source at all because it was producing its own fluid.

Your Honor, at this point, if I may digress just a moment, the defendants have maintained that the presence of General Motors in the brake fluid business and in the safety glass business is at odds with the Government's position elsewhere in the case concerning the division of fields.

I am referring to tetraethyl lead, Kinetic chemicals, and artificial rubber portions of the case.

We submit that by an examination of the complaint respecting that allegation concerning the division of fields, that it is immediately clear that this evidence is wholly consistent with the evidence concerning tetraethyl lead, Kinetic chemicals, and with the allegations of the Government with respect to that.

[fols. 7376-7563] The relevant paragraph in the complaint to the division of fields is Paragraph 64. The significant portion of that paragraph reads:

> "In connection with this expansion, du Pont Company entered into an agreement with General Motors

to the effect that the latter would refrain from the manufacture of chemicals, including paints and varnishes and similar products, leaving this field, as between the two companies, exclusively to du Pont Company."

Your Honor, in the case of these two subjects I have talked about, clearly you don't have a chemical operation. One is pasting together two pieces of glass, and the other is mixing up several oils. Certainly this is not a chemical operation, and it has no application to the paragraph which I have just read from the complaint.

Brake fluid and safety glass are certainly not chemicals. They are not paints. They are not varnishes. They are not similar products.

We submit that the evidence concerning brake fluid and safety glass is wholly consistent with the Government's position elsewhere in the c e as relating to the division of fields.

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[fol. 7564] EXCERPTS FROM THE ARGUMENTS OF MR. BRASS

Du Pont argues that General Motors retains complete freedom to buy from any competitor of du Pont Company whenever it decides that the price and the quality or the service is more attractive.

Now, a similar contention was made in the International Salt case, and there the Court rejected that contention. Despite the fact that the contract there contained such a provision, it was said in that case on page 397 by the Supreme Court, and I quote:

> "We do not think this concession relieves the contract of being a restraint of trade, albeit a less harsh one then would result in the absence of such a provision. The 'Saltomat' provision obviously has no effect of legal significance since it gives the lessee nothing more than a right to buy appellant's salt tablets at appellant's going price. All purchases must in any event be of appellant's product."

And that, your Honor, disclosed that assuming that that is the situation here, that General Motors would perhaps have some freedom in the case where the price is not equal, but nevertheless, the competitor would have to make a better price or a better product or render a better service before it could get the business.

Now, the exercise of control over the freedom of General Motors to purchase its requirements in a competitive market also constitutes an unreasonable restraint within [fols. 7565-8195] the meaning of the Sherman Act. The Supreme Court noted in the first Yellow Cab opinion, where it was alleged that there were unreasonable restraints upon the cab operating companies, the Supreme Court there said, and I quote at page 226:

> "In addition, by preventing the cab operating companies under their control from purchasing cabs from manufacturers other than C. C. M., the appellees deny those companies the opportunity to purchase cabs in a free, competitive market. The Sherman Act has never been thought to sanction such a conspiracy to restrain the free purchase of good. in interstate commerce."

Now, that is the situation we have here. General Motors is restrained in its ability to buy wherever it wants to buy, from whatever company it wants to buy from.

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[fol. 8196] EXCERPTS FROM THE ARGUMENT OF MR. HARSHA

If I recall the arguments correctly that were advanced yesterday by counsel, he stated that the root of the Government's charge of du Pont's control over General Motors stems from that company's ownership of 23 per cent of the outstanding stock of General Motors.

So that I may not be accused of misquoting him, I should like to turn to his statement in that respect. I believe this is Mr. Cox.

After stating the proposition, which we have demonstrated by the evidence in the case, the evidence that the du Pont Company is the largest single stockholder and that the rest of the stock is very widely dispersed among some 400,000 stockholders, then referring to this situation, counsel makes the statement that there is a certain element of truth in that statement, that is, that we say that this amounts to control, but he says it is a part of the truth and not the whole truth.

Continuing, he says, at page 14665 of stenographer's minutes,

> "We all know that in fact frequently the owner of a large single and concentrated block of stock does have that kind of influence in the affairs of a corporation."

Then he goes on to argue that it does not follow that that kind of a concentrated block of stock has the power in all circumstances and under all conditions to control the corporation in the sense of changing the management.

Then counsel proceeded, as I recall, to postulate this position. He said that there was no proof that the du Pont Company exercises sufficient control or sufficient power to control General Motors that it can change the management of General Motors should that management [fols. 8197-8201] refuse to purchase products from du Pont.

I think that argument, your Honor, I say this in all sincerity, that argument ignores the facts of business life and ignores the facts of record in this case.

Counsel has completely ignored the voluminous documentation which the Government has adduced, showing that the du Pont Company has had a continuous control over the selection and the determination of the management of General Motors for over 30 years. We have shown that, at least since December 1920, du Pont Company has in fact selected the top management of General Motors.

I have no wish at this point to burden the Court with a review of that evidence which I developed at some length in our opening argument, but I think that there is no need, viewed against that background of evidence, for this Court to speculate as to what might occur if du Pont and the management of General Motors should suddenly break over the issue as to whether General Motors should prefer du Pont as a supplier.

When the du Pont Company can determine, and in fact it has determined, as we have shown, during this entire 30-year period, who shall be the chief executive, who shall sit on the board of directors of General Motors, who shall sit on the governing committees of General Motors, then how can there ever arise the situation depicted by defense counsel?

I think the so-called acid test postulated by the defense counsel is no more than a hypothetical one, and certainly in the context of this record it is a most unreal situation.

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[fol. 8202] Now, I was struck by one remark. I think it was a preliminary remark that was made by Mr. Cox in his opening argument to the Court—I should say closing argument to the Court—and that was that the general nature of this case is a restraint of trade case and a monopolization case.

[fol. 8203] Now, I think it is rather significant that he phrased it in that fashion in his opening remarks, because he didn't say this is a combination and conspiracy case in restraint of trade and to monopolize trade.

Now, I say, of course, as the Court is well aware, there is a substantial distinction and difference between these two statements and I think that distinction becomes more apparent when you analyze some of the arguments that have been advanced by the very able defense.

The Court may recall that some stress was laid by defense counsel on the argument that merely for the Government to show that du Pont has supplied 100 per cent of General Motors' requirements of a particular product or, later, 75 per cent of General Motors' requirements for certain products, does not demonstrate a restrain of trade.

Moreover they have argued to this Court that merely to prove that du Pont is a preferred supplier of General Motors does not prove restraint of trade. But I think that misses the central contention of the Government's case, and I earnestly suggest, your Honor, that there is, for example, a very basic difference between the examples cited by defense counsel in their arguments. There was one such, as I recall, where reference was made to the fact that General Electric purchased its entire requirements of refrigerator paint from du Pont, and that, therefore, du Pont's position was no different vis-a-vis the Frigidaire subsidiary of General Motors.

Now, I think in the first instance it should be clear that at least so far as this record discloses, du Pont is the exclusive supplier, if you will, of General Electric because General Electric has decided of its own free will to buy [fols. 8204-8213] from du Pont and that is all that shows.

But in this case, and to the contrary, the Government has charged, and I believe we have proved, your Honor, without any question, that it has been the result of the understandings reached at a very early time between these two corporations, General Motors and du Pont, and that the understanding was that du Pont was to supply the requirements of General Motors to the extent that it was able to do so.

* * * * * * *

[fol. 8214] Now, I would like to take up one other topic that I think has been hammered—I think I use the term advisedly—to some extent in this argument, and that is the question as to what the Government means, what has the Government charged in respect to this question of requirements.

And counsel have been most adroit, I believe, in saying that all manner of inconsistent arguments and positions have been taken by the Government in this respect, and I must say they have found us taking positions which, so far as I know, we have not taken. They talk of amendments to the understanding or agreement on requirements that took place in the first three years of the Durant-du Pont partnership. I know of no such modification of the understanding or agreement, nor do I know of any such allegation that has been made by counsel in argument or in its briefs. I think we ought to get back to what has been charged, and what we are now alleging the Government has shown in the evidence in this case.

Paragraph 56 of the complaint, your Honor, states that at the beginning of 1917 it was understood and agreed between General Motors and du Pont that General Motors would give preference to du Pont in buying products for use in its operations. It was agreed that General Motors would purchase from du Pont all or substantially all of its requirements of products manufactured by du Pont.

Now, I think that the word "requirements" there had [fol. 8215] two very significant aspects: One, they are products which General Motors must use, they need in their own operations, and they are products which du Pont makes.

Now, the only amendment to this understanding has not been made by the Government. We have merely conformed, if your Honor please, to the evidence which, we have adduced in this case showing that in 1923 du Pont and General Motors, by mutual understanding, did modify that understanding, and they did at that time decide the thereafter General Motors should be free to place between 20 to 25 per cent of its requirements with suppliers other than du Pont, and that is set forth in the Government's complaint, and it is also alleged in respect to United States Rubber in substantially the same manner.

But now I want to comment on this one argument that has been made because I think it has been done very adroitly by counsel, and that is that in some fashion counsel has argued that we must show throughout that there is this coercion exerted by du Pont, and that if you don't show this coercion, why, then this whole control thing falls apart.

Now that I think is unrealistic, and it is ridiculous, and it is not supported by this record, your Honor. The Government does not have to prove that, and I think if the Government tried to prove that it would itself indeed be rather unrealistic.

We have shown that the du Pont Company does have control; we have shown that the du Pont Company has determined the management; and we have shown that since 1917 there has been an understanding between the parties, [fol. 8216] and you don't have to coerce somebody that you have got an understanding with.

Now, as to the question of the word "requirements," we have never attempted to, so far as I know, argue that du Pont is the one who determines what General Motors' requirements are.

I think that would be an absolute absurdity. The du Pont Company is a manufacturer primarily of chemical products. No right-minded du Pont executive is going to say, "Because we control General Motors we are going to determine what are the technical requirements of General Motors as an automobile manufacturer." They are going to give General Motors freedom to determine what they need in order to produce automobiles and sell them in a competitive market, and to that extent we are in complete agreement with the argument advanced by defense counsel, to that extent.

But of course, they leave out one very important consideration, and that is the understanding that du Pont is to be preferred if it produces the product which General Motors needs.

Now, for example, certainly I think it would be ridiculous for the Government to be held, if you will, to a standard of proof in this case such as that we had to show why didn't du Pont stop General Motors from going from open top or the fabric top automobile in 1935 over to the steel top.

Now, I think that would be an incredible situation. We don't have to prove anything like that. Du Pont isn't going to say to General Motors, "You can't go to a steel [fol. 8217] top because that is going to cut down your requirements for fabrics."

After all, du Pont is interested in General Motors from a number of aspects, and they are not going to destroy it.

Now, I think this position is one which counsel for the defense have very adroitly taken and they have, if you will, exaggerated the position just sufficiently so that they then set up a standard of proof which, if it occurred, would indicate these men were insane, and they were not that.

They left General Motors with freedom to determine what they needed. Counsel seemed to feel that they had made a point in respect, for example, to the refrigerator business, that du Pont hadn't coerced General Motors not to use porcelain which du Pont didn't make, and didn't coerce them to use its paint. Now, I think that is very unrealistic.

I think it is significant, however, that when General Motors, after deciding what its requirements were, and deciding that as to some of its production that it would go into paint, du Pont bobs up again with the business.

And I would like to pass from this point, but I rather got the impression that there was some weakness in the Government's case because in some fashion the Government has not shown that General Motors in the early days was coerced to drop its use of real leather, which was not produced by du Pont, and wasn't in fact coerced into using artificial leather.

Well, now, that is a very unrealistic position. If Gen- [fols. 8218-8277] eral Motors feels that in order to exist in a competitive market that it must use real leather, obviously you are going to let them use real leather, but when du Pont has the product that General Motors needs, which meets its requirements in terms of technical requisites, then we find throughout this record that du Pont has been the preferred supplier.

Now, they seem to make some sport of our statement on price and quality and service.

Well, I had thought that this question of requirements as satisfying GM needs would certainly fall under the word "quality" because, obviously, if you have something that General Motors either wouldn't use, couldn't use, or would put it at a disadvantage competitively in selling cars, that isn't meeting their quality requirements.

I think the record shows that in many instances over the years, price has not been, shall we say, the governing consideration.

In many instances in the record we have adduced, and in our brief we have referred to them in passing, where du Pont's prices in many instances were quite high, much higher than competition, but they did get the business nevertheless.

There was no thought of taking the contracts away from du Pont except once in a while, where Mr. Pratt refers to placing a little bit of business somewhere else as a disciplinary measure, and as soon as the price is met by du Pont, bingo, the business goes back to du Pont again.

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[fol. 8278] EXCERPTS FROM THE ARGUMENT OF MR. BRASS

I come now to the third step in counsel's process of simplification. In the third step, counsel addressed himself to the restraints which flow from the control of General Motors and which have to do with the requirements of General Motors, and he made this step exceedingly simple.

He stated that, if he understood the Government's charge, it is that the freedom of General Motors to make its own decisions in the field of commercial operations has been restrained and General Motors has not been free to buy its supplies in the exercise of its own judgment.

That appears at page 14660 of the stenographer's minutes. That is the way counsel states that the Government says that commerce has been restrained.

Now, at that point counsel paid some lip service to the Government's contention that there has been a restraint of trade upon the freedom of competitors of du Pont and U. S. Rubber to sell to General Motors, but in his effort to simplify the case he brushed this aside and this is what he said, and I quote from page 14660 of the minutes:

> "But it is clear to me and I think the Government will agree that what it means by that is that General Motors has not been free to buy from those competitors and not been free to make arrangements with those competitors of du Pont for exploitation of chemical discoveries."

But the Government does not agree that there is only one issue here with respect to restraint, and that the issue is only whether General Motors has been restrained in its freedom to buy.

Now, when counsel addressed himself to this question, there were two rabbits in the hat. There were two lines of restraint. These have been talked about throughout the [fol. 8279] trial. They have been argued here and in our briefs. These two lines of restraint were restraints upon the freedom of competitors to sell, and restraints upon the freedom of General Motors to buy.

Counsel argues further that if the Government is relying upon the percentage which General Motors purchased as proof of the restraint, that that is not proof of restraint. But we have pointed out repeatedly we rely upon the percentages as the measure of the extent to which control over General Motors has been exercised.

Counsel made another argument which I thought was a rather curious one. He said that the preemption of the market or the precluding from a market is not really relevant in this case because when you speak of precluding or preempting a market you mean some arrangement. Now, counsel did not say what he specifically meant by this arrangement. If he meant a 100 per cent arrangement, that is not required by the law, and if he meant a written arrangement that also is not required by the law. Of course, where an arrangement is in writing the writing is in itself merely evidence of the existence of an arrangement.

Now, why is counsel raising arguments of this nature with respect to the restraints which have been imposed upon the freedom of competitors of du Pont and U. S. Rubber? I believe there is a good reason and that reason is because the law in the International Salt case, the Griffith case and the National City Lines case is very clear and counsel is unable to meet these arguments head on.

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Vol. VI

TRANSCRIPT OF RECORD

(Pages [illegible] to [illegible])

(GOVERNMENT'S EXHIBITS)

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

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No. 113—Communication dated November 22, 1916, from Development (du Pont) to Executive Committee re "Harrison Bros. & Co., Inc."	874	3156
No. 114—"Net Purchases of Common Stock of General Motors Company, Chevrolet Motor Company and General Motors Corporation, 1914-1917" by Pierre S. du Pont	906	3188
No. 115—"Net Purchases of Common Stock of General Motors Company and Chevrolet Motor Company, 1914-1917" by Irenee du Pont	907	3189
No. 116—Unsigned letter dated September 17, 1915, to J. A. Haskell	908	3190
No. 117—Communication dated December 2, 1915, from M. K. Doherty to Pierre S. du Pont transmitting list of Directors, Committee Members, and Officers of General Motors Company	910	3192

Government's Exhibits:

	Original	Print
No. 118—Letter dated December 12, 1916, from W. C. Durant (Chevrolet Motor Company) to John J. Raskob	912	3194
No. 119—Unsigned letter dated May 9, 1916, to Lammot Belin	916	3198
No. 120—Unsigned letter dated April 10, 1916, to W. C. Durant (Chevrolet Motor Co.)	918	3200
No. 121—Letter dated April 12, 1916, from W. C. Durant to J. J. Raskob	920	3202
No. 122—Unsigned letter dated May 9, 1916, to W. C. Durant	921	3203
No. 123—Communication dated September 5, 1917 from T. S. Merrill (GMC) to Pierre S. du Pont transmitting list of Directors and Officers of General Motors Corporation	923	3205
No. 124—Communication dated December 19, 1917, from "Treasurer" to "Finance Committee" re General Motors—Chevrolet Motor Stock Investment	926	3208
No. 125—Excerpt from "Annual Report of the du Pont Company for the Year 1918"	946	3228
No. 126—Copy of minutes of Joint Meeting of Executive Committee #178 and Finance Committee #85, E. I. du Pont de Nemours & Company, December 20, 1917	947	3229
No. 128—Communication dated March 8, 1918 from Treasurer (du Pont) to Finance Committee	952	3234
No. 129—Letter dated January 23, 1918, from Mr. Raskob to W. C. Durant	962	3244
No. 130—Excerpts from meeting of Board of Directors of General Motors Corporation of February 21, 1918	965	3247
No. 131—Excerpts from meeting of Board of Directors of General Motors Corporation of March 21, 1918	970	3252
No. 132—Excerpts from meeting of Finance Committee of General Motors Corporation on June 27, 1918	972	3254
No. 133—Unsigned letter dated June 29, 1918, to H. M. Barksdale	975	3257
No. 134—Memorandum dated December 12, 1918, to Finance Committee from "Chairman"	981	3263
No. 135—Memorandum from J. J. Raskob (du Pont) to Finance Committee dated December 14, 1918	984	3266
No. 137—Report of General Motors Corporation for the Fiscal Year Ended December 31, 1918	990	3272
No. 138—Extracts from Minutes of Meeting of Finance Committee (GMC) on September 25, 1919	1006	3288
No. 139—Report of General Motors Corporation for the Fiscal Year Ended December 31, 1919	1009	3291

Government's Exhibits:

	Original	Print
No. 140—Memorandum dated March 19, 1920 from J. J. Raskob to Finance Committee, du Pont Company	1026	3308
No. 141—Minutes of Meeting of the Board of Directors of du Pont American Industries, Inc., May 26, 1920	1029	3311
No. 142—Extracts from meeting of the Finance Committee (GMC) June 2, 1920	1035	3317
No. 143—Letter dated May 21, 1920, from Irenee du Pont to John J. Raskob	1042	3324
No. 144—Unsigned communication dated July 16, 1920 to Edward R. Stettinius	1044	3326
No. 145—Letter dated July 20, 1920, from Edw. R. Stettinius to Pierre S. du Pont	1045	3327
No. 153—Letter from du Pont American Industries, Inc. (Pierre S. du Pont, President) and Chevrolet Motor Co. (John J. Raskob, Vice President) dated November 22, 1920 to du Pont Securities Company	1046	3328
No. 154—Agreement dated November 22, 1920, between du Pont Securities Company, W. C. Durant, du Pont American Industries, Inc. and Chevrolet Motor Company	1047	3329
No. 155—Minutes of meeting of Board of Directors of du Pont Securities Company, November 22, 1920	1055	3337
No. 156—Communication dated January 18, 1921 from M. D. Fisher (du Pont) to J. J. Raskob	1064	3346
No. 157—Agreement dated December 31, 1920, between du Pont American Industries, Inc., du Pont Securities Company, and W. C. Durant	1066	3348
No. 158—Resolution adopted by Board of Directors of du Pont American Industries, Inc., May 31, 1921	1071	3353
No. 161—Communication dated April 2, 1921, from J. J. Raskob to Finance Committee (du Pont)	1074	3356
No. 162—Letter dated April 8, 1921, from Irenee du Pont to John J. Raskob	1082	3364
No. 163—Communication dated April 9, 1921, from J. J. Raskob to Finance Committee (du Pont)	1084	3366
No. 166—History of the du Pont Company's Investment in the General Motors Corporation dated August 17, 1921	1093	3375
No. 167—Communication dated January 30, 1922, from J. J. Raskob to Finance Committee	1111	3394
No. 168—Communication dated February 6, 1922, from W. Carpenter, Jr. (du Pont) to Finance Committee	1112	3395
No. 177—Members of Board of Directors and Principal Executive Offices Held and Officers Who Were Not Directors, 1917-1948 (General Motors Corporation)	1114	3397

Government's Exhibits:

	Original	Print
No. 178—Communication dated December 29, 1920, from Pierre S. du Pont (GMC) to Officers, Directors and Heads of Department	1115	3398
No. 179—Communication dated November 22, 1920, from Secretary, Finance Committee (du Pont) to P. S. du Pont	1121	3404
No. 180—Communication dated December 21, 1920, from Irenee du Pont to Finance Committee	1123	3406
No. 181—Letter dated January 8, 1921, from John J. Raskob to Irenee du Pont	1125	3408
No. 182—Extract from minutes of Finance Committee (du Pont) April 24, 1923	1129	3412
No. 183—Letter dated April 25, 1923, from Pierre S. du Pont to the Directors of General Motors Corporation	1131	3414
No. 184—Communication dated May 8, 1923, from Irenee du Pont to Board of Directors (du Pont)	1133	3416
No. 185—Letter dated May 15, 1923, from J. J. Raskob to Pierre S. du Pont	1135	3418
No. 186—Communication dated May 22, 1923, from M. D. Fisher (du Pont) to Irenee du Pont	1138	3421
No. 187—Positions Held in General Motors Corporation, 1918 to date, by Alfred P. Sloan, Jr.	1139	3422
No. 188—Letter dated December 24, 1928, initialed LduP to Alfred P. Sloan	1140	3423
No. 189—Communication dated February 13, 1929, from Irenee du Pont to Lammot du Pont	1142	3425
No. 190—Communication dated April 22, 1930, from Chairman of the Board to A. P. Sloan, Jr.	1143	3426
No. 194—Communication dated April 6, 1937, from Chairman of the Board to A. P. Sloan, Jr.	1145	3428
No. 195—Communication dated April 6, 1937, from Chairman of the Board to F. D. Brown (GMC)	1151	3434
No. 196—Letter dated April 23, 1937, from President to W. S. Carpenter, Jr.	1152	3435
No. 197—Telegram dated May 3, 1937, from "Carpenter" to "PresduPont."	1157	3440
No. 198—Letter dated September 12, 1940, from "President" to Alfred P. Sloan, Jr.	1158	3441
No. 199—Letter dated January 8, 1941, from Donaldson Brown (GMC) to W. S. Carpenter, Jr.	1160	3443
No. 200—Letter dated January 9, 1941, from "President" to Donaldson Brown (GMC)	1164	3447
No. 201—Letter dated April 8, 1942, from W. S. Carpenter, Jr., to Alfred P. Sloan, Jr.	1171	3454
No. 202—Letter dated April 10, 1942, from "Chairman of the Board" to Alfred P. Sloan, Jr.	1175	3458
No. 203—Letter dated April 13, 1942, from Alfred P. Sloan, Jr., to Lammot du Pont	1179	3462
No. 205—Letter dated May 29, 1943, from Alfred P. Sloan, Jr., to Lammot du Pont	1183	3466

Government's Exhibits:

	Original	Print
No. 207—Letter dated September 23, 1943, from Alfred P. Sloan, Jr., to Walter S. Carpenter, Jr.	1185	3468
No. 208—Letter dated February 11, 1944, from Alfred P. Sloan, Jr., to Walter S. Carpenter, Jr.	1187	3470
No. 209—Communication dated May 22, 1944, from "Chairman of the Board" to Alfred P. Sloan, Jr.	1189	3472
No. 210—Communication dated July 12, 1944, from W. S. Carpenter, Jr. to Lammot du Pont	1192	3475
No. 217—Letter dated May 3, 1945, from Alfred P. Sloan, Jr. to Walter S. Carpenter, Jr.	1195	3478
No. 220—Letter dated December 10, 1945, from Alfred P. Sloan, Jr. to Walter S. Carpenter, Jr.	1197	3480
No. 221—Letter dated December 13, 1945, from "Chairman of the Board" to Alfred P. Sloan, Jr.	1199	3482
No. 222—Letter dated February 26, 1946, from W. S. Carpenter to Lammot du Pont	1200	3483
No. 224—Communication dated May 22, 1946, initialed WSC to Donaldson Brown	1202	3485
No. 228—Letter dated September 30, 1947, from Alfred P. Sloan, Jr., to Walter S. Carpenter	1204	3487
No. 231—Communication dated September 16, 1948, from W. S. Carpenter, Jr., to Lammot du Pont	1206	3489
No. 232—Letter dated September 15, 1948, from Alfred P. Sloan, Jr. to Walter S. Carpenter, Jr.	1207	3490
No. 233—Memorandum dated September 17, 1948 from Lammot du Pont to W. S. Carpenter, Jr.	1209	3492
No. 235—Letter dated June 21, 1923, from J. J. Raskob to J. P. Laffey (du Pont)	1211	3494
No. 237—Letter dated July 20, 1923, from Donaldson Brown (GMC) to W. S. Carpenter, Jr.	1224	3507
No. 238—Letter dated July 24, 1923, from "V.P. and Treas." to F. D. Brown (GMC)	1227	3510
No. 239—Communication dated July 26, 1923, from Irenee du Pont to Walter S. Carpenter, Jr.	1236	3519
No. 240—Communication dated July 26, 1923, from J. J. Raskob to Finance Committees GMC and du Pont	1237	3520
No. 241—Extracts from Minutes of meeting of Board of Directors (GMC) August 9, 1923	1257	3540
No. 242—Communication dated August 14, 1923, from Irenee du Pont to P. S. du Pont	1259	3542
No. 243—Minutes of special meeting of Board of Directors (du Pont) August 30, 1923	1262	3545
No. 244—Communication dated October 15, 1923, from Board of Directors to Finance Committee and communications dated October 10, 1923, from J. J. Raskob to Board of Directors (du Pont)	1266	3549

Government's Exhibits:	Original	Print
No. 246—Letter dated October 19, 1923, from J. J. Raskob to Walter S. Carpenter, Jr.	1279	3562
No. 247—Communication dated October 27, 1923, from J. J. Raskob to Board of Directors (du Pont)	1280	3563
No. 248—Minutes of special meeting of Board of Directors (du Pont American Industries, Inc.) November 5, 1923	1282	3565
No. 250—Extracts from minutes of meeting of Board of Directors (GMC) November 8, 1923	1284	3567
No. 252—Minutes of regularly quarterly meeting of Board of Directors (General Motors Securities Company) May 16, 1924	1286	3569
No. 253—Minutes of annual meeting of stockholders of General Motors Securities Company March 17, 1926	1289	3572
No. 254—Minutes of annual meeting of stockholders of General Motors Securities Company March 16, 1932	1291	3574
No. 256—Minutes of annual meeting of stockholders of General Motors Securities Company March 15, 1933	1295	3578
No. 257—Minutes of annual meeting of stockholders of General Motors Securities Company March 21, 1934	1298	3581
No. 258—Interrogatories propounded by plaintiff to General Motors Corporation (Interrogatories 7 and 8)	1301	3584
No. 259—Answer of General Motors Corporation to Interrogatory 7(a) and (b)	1304	3587
No. 260—Answer of General Motors Corporation and Interrogatory 7(a) and (b)	1307	3590
No. 262—Letter dated August 7, 1929 from John J. Raskob to General Motors Securities Company	1314	3597
No. 263—Letter dated August 13, 1929 from Alfred P. Sloan, Jr., to Lammot du Pont	1317	3600
No. 264—Letter dated August 20, 1929, from "Chairman of the Board" to Alfred P. Sloan, Jr.	1319	3602
No. 265—Minutes of Special Meeting of Board of Directors of General Motors Securities Company January 6, 1930	1321	3604
No. 266—Communication dated October 24, 1930, from "President" to W. S. Carpenter, Jr.	1322	3605
No. 267—Communication dated December 12, 1930, from Chairman, Finance Committee, to Finance Committee—du Pont Company, Board of Directors—General Motors Securities Company	1324	3607

Government Exhibits:

	Original	Print
No. 268—Minutes of Special Meeting of Board of Directors of General Motors Securities Company, December 15, 1930	1347	3630
No. 269—Communication dated January 17, 1931, from "Treasurer" to Board of Directors, General Motors Securities Company	1352	3635
No. 270—Communication dated February 12, 1932, from "Treasurer" to Board of Directors, General Motors Securities Company	1355	3638
No. 273—Communication dated January 4, 1939, from "Treasurer" to Finance Committee	1357	3640
No. 274—Application for Ruling and Closing Agreements re proposed complete liquidation of General Motors Securities Company—Department of Treasury, Bureau of Internal Revenue dated September 28, 1938	1360	3643
No. 276—Bonus and Salary Committee of General Motors, 1941-1948	1396	3679
No. 277—Communication dated April 17, 1918, from R. R. M. Carpenter to Executive Committee transmitting report of The Flint Varnish & Color Works and the Flint Varnish & Color Works of Canada, Ltd.	1397	3680
No. 278—Communication dated August 14, 1918, from L. du Pont and Wm. Coyne to Executive Committee	1432	3716
No. 279—New England Oil, Paint & Varnish Co., Everett	1434	3718
No. 280—Communication dated March 15, 1920, from Development Department to W. S. Carpenter, Jr.	1437	3721
No. 281—Communication dated March 17, 1920, from Development Department to W. S. Carpenter, Jr.	1448	3732
No. 282—Communication dated March 18, 1920, from W. S. Carpenter, Jr. to Executive Committee	1462	3746
No. 283—Advice of Action of resolution of March 22, 1920 (du Pont)	1466	3750
No. 284—Communication dated April 7, 1920, from W. S. Carpenter, Jr. to Executive Committee	1468	3752
No. 285—Communication dated November 4, 1921, from H. Grubb, General Manager, to Irenee du Pont	1471	3755
No. 286—Communication dated November 30, 1921, from Hunter Grubb and A. B. Echols to Board of Directors, Flint Varnish and Color Works	1485	3769
No. 287—Extract from Minutes of the Board of Directors meeting (General Motors Corporation) January 8, 1923	1489	3773

Government Exhibits:

	Original	Print
No. 288—Extract from Minutes of Finance Committee meeting (du Pont) February 16, 1923	1491	3775
No. 289—Communication dated January 27, 1923, from Development Department to Executive Committee	1492	3776
No. 290—Communication dated April 15, 1918, from "Vice President" to William Coyne	1498	3782
No. 291—Letter dated April 19, 1918, from du Pont Fabrikoid Company to J. A. Haskell (Chevrolet Motor Company)	1500	3784
No. 292—Communication dated April 20, 1918, from "Vice President" to C. Hallock, Silkman (du Pont Fabrikoid Company)	1501	3785
No. 293—Communication dated May 22, 1918, from Wm. Coyne to C. L. Petze	1502	3786
No. 294—Letter dated June 15, 1918, from The Arlington Works (du Pont) to J. A. Haskell (du Pont)	1503	3787
No. 295—Letter dated July 2, 1920, from du Pont Fabrikoid Company to J. A. Haskell (GMC)	1505	3789
No. 296—Letter dated July 11, 1918, from Edw. Verlinden (Olds Motor Works) to J. A. Haskell (GMC)	1506	3790
No. 297—Letter dated July 12, 1918 from du Pont Fabrikoid Company to Chevrolet Motor Company	1507	3791
No. 298—Letter dated July 12, 1918 from Cadillac Motor Car Company to J. A. Haskell (GMC)	1511	3795
No. 299—Letter dated July 13, 1918, from W. L. Day (General Motors Truck Company) to J. A. Haskell (GMC)	1513	3797
No. 300—Letter dated July 15, 1918, from Fred W. Warner (Oakland Motor Car Company) to J. A. Haskell	1514	3798
No. 301—Communication dated July 20, 1918 from J. S. O'Rourke (Oakland Motor Car Company) to "attention of Mr. Warner"	1518	3802
No. 302—Letter dated July 3, 1918, from F. Kniffen (du Pont Fabrikoid Company) to J. A. Haskell	1519	3803
No. 303—Communication dated November 18, 1919, from Chas. L. Petze to Board of Directors du Pont Fabrikoid Company	1521	3805
No. 304—Communication dated December 19, 1919, from Executive Committee (du Pont) to Board of Directors, du Pont Fabrikoid Company	1525	3809
No. 305—Letter dated February 3, 1920, from "Vice President" to M. L. Prensky (GMC)	1526	3810
No. 306—Communication dated July 29, 1920, from Chas. L. Petze (du Pont Fabrikoid Company) to John J. Raskob	1527	3811

Government Exhibits:

	Original	Print
No. 307—Letter dated August 25, 1920, from "Vice President" to C. L. Petze	1530	3814
No. 308—Letter dated September 15, 1920, from F. W. Pickard (du Pont) to J. A. Haskell (GMC)	1532	3816
No. 309—Letter dated April 28, 1921, from W. S. Carpenter, Jr. to F. Donaldson Brown (GMC)	1534	3818
No. 310—Letter dated April 29, 1921, from "Vice President" to W. S. Carpenter, Jr.	1536	3820
No. 311—Letter dated November 1, 1922, from "General Manager, Accessory Divisions" to F. S. MacGregor (du Pont)	1537	3821
No. 312—Letter dated December 18, 1922, from Hyatt Bearings Division (GMC) to J. L. Pratt (GMC)	1538	3822
No. 313—Communication dated November 16, 1922, from F. A. Weiss to Mr. Forsythe	1539	3823
No. 314—Communication dated December 20, 1922, from "Vice President" to H. J. Forsythe (Hyatt Bearings Division)	1542	3826
No. 315—Letter dated August 27, 1924, from Z. Phelps (du Pont) to John Pratt (GMC)	1543	3827
No. 316—Communication dated September 2, 1924, from "Vice President" to Z. Phelps (du Pont)	1545	3829
No. 317—Communications dated September 2, 1924, from "Vice President" to James Lynah	1546	3830
No. 318—Letter dated September 4, 1924, from James Lynah (GMC) to J. L. Pratt (GMC)	1547	3831
No. 319—Letter dated November 13, 1925, from H. Fletcher Brown (du Pont) to Alfred P. Sloan	1548	3832

THE DU PONT FAMILY

# PIERRE S. DU PONT

NO CHILDREN

# IRENEE DU PONT

1 **IRENE DU PONT**
(SPOUSE OF IRENEE)
2 * **IRENE S. DU PONT MAY**
3 ERNEST N. MAY
4 ERNEST N. MAY, JR
5 IRENEE DU PONT MAY
6 THOMAS H. MAY
7 JOHN E. MAY
8 * **MARGARETTA DU PONT GREENEWALT**
9 CRAWFORD H. GREENEWALT
10 NANCY G. FREDERICK
11 DAVID GREENEWALT
12 CRAWFORD H. GREENEWALT, JR
13 # * **CONSTANCE DU PONT DARDEN**
14 COLGATE W. DARDEN, JR
15 COLGATE W. DARDEN III
16 PIERRE S. DU PONT DARDEN
17 IRENE S. DU PONT DARDEN
18 * **ELEANOR DU PONT RUST**
19 PHILIP G. RUST, JR
20 FRANCIS G. DU PONT RUST
21 HENRY RUST
22 RICHARD C. RUST
23 * **MARIANA DU PONT SILLIMAN**
24 HENRY H. SILLIMAN
25 * HENRY H. SILLIMAN, JR
26 * DORIS DU PONT SILLIMAN
27 * ELEANOR H. SILLIMAN
28 * MARIANA DU PONT SILLIMAN
29 * ROBERT M. SILLIMAN
30 * **OCTAVIA M. DU PONT BREDIN**
31 JOHN B. BREDIN
32 STEPHANIE S. DU PONT BREDIN
33 MARGARETTA S. BREDIN
34 * **LUCILE DU PONT FLINT**
35 ROBERT B. FLINT
36 ROBERT B. FLINT, JR
37 PETER H. FLINT
38 ALICE L. FLINT
39 HENRY A. FLINT
40 CONSTANCE E. FLINT
41 * **IRENEE DU PONT, JR.**

# LAMMOT DU PONT

42 * **NATALIE DU PONT EDMONDS**
43 # GEORGE P. EDMONDS
44 * GEORGE P. EDMONDS, JR
45 * ANDREW W. EDMONDS
46 * **MARY DU PONT FAULKNER**
47 HERBERT K. FAULKNER
48 ELISE DU PONT FAULKNER
49 EMILY M. FAULKNER
50 CHARLES S. FAULKNER
51 ROSEMARY FAULKNER
52 HENRY B. FAULKNER
53 ANDREW G. FAULKNER
54 * **ESTHER DU PONT WEIR**
55 * **LAMMOT DU PONT, JR.**
56 LAMMOT DU PONT III
57 WILLIAM F. DU PONT
58 # **PIERRE S. DU PONT III**
59 PIERRE S. DU PONT IV
60 JANE DE DOLIETE DU PONT
61 MICHELE W. DU PONT
62 * **EDITH DU PONT RIEGEL**
63 EDITH DU PONT RIEGEL (JR)
64 RICHARD E. RIEGEL, JR
65 JOHN E. RIEGEL
66 NATALIE M. RIEGEL
*
67 **ALEXANDRINE DU PONT P. COLLIER**
68 * **REYNOLDS DU PONT**
69 KATHARINE L. DU PONT
70 KATHARINE DU PONT
71 REYNOLDS DU PONT, JR
72 THOMAS L. DU PONT
73 * **DAVID FLETT DU PONT**
74 * **WILLIS H. DU PONT**

WILLIAM KEMBLE DU PONT
(DECEASED)

75 **S. HALLOCK DU PONT**
76 VIRGINIA S. DU PONT
77 EVE DU PONT REMER
78 S. HALLOCK DU PONT, JR
79 WILLIAM K. DU PONT
80 RICHARD S. DU PONT
81 **PAULINA DU PONT DEAN**
82 JUNIUS S. DEAN
83 **WILHELMINA DU PONT ROSS**
84 DONALD P. ROSS

HENRY BELIN DU PONT
(DECEASED)

85 # **HENRY B. DU PONT**
86 * MARGARET DUPONT SMITH
87 * HENRY B. DU PONT III
88 * EDWARD B. DU PONT

89 **MARGARETTA DU PONT CARPENTER**

90 **LOUISA CARPENTER JENNEY**
91 **IRENE C. KITCHELL MORGAN**
92 RENEE KITCHELL LICKLE
93 MARGARETTA L. KITCHELL
94 NANCY G. KITCHELL
95 CAROL V. KITCHELL
96 LESLIE H. KITCHELL
97 **ROBERT R. M. CARPENTER, JR.**
98 ROBERT R. M. CARPENTER III
99 MARY K. CARPENTER
100 WILLIAM K. CARPENTER
101 **WILLIAM K. CARPENTER**
102 BELLE M. CARPENTER

LOUISA DU PONT COPELAND
(DECEASED)

103 # **LAMMOT DU PONT COPELAND**
104 PAMELA C. COPELAND
105 LAMMOT DU PONT COPELAND, JR
106 LOUISA D'ANDELOT DU PONT COPELAND
107 GERRET VAN SWERINGEN COPELAND

KEY

Names in brackets are husbands and wives

Names underlined are minors

Defer
* Benei

THE DU PONT FAMILY

LAMMOT DU PONT

TALIE DU PONT EDMONDS
ORGE P. EDMONDS
GEORGE P. EDMONDS, JR
ANDREW W. EDMONDS
RY DU PONT FAULKNER
HERBERT K. FAULKNER
ELISE DU PONT FAULKNER
EMILY M. FAULKNER
CHARLES S. FAULKNER
ROSEMARY FAULKNER
HENRY B. FAULKNER
ANDREW G. FAULKNER
THER DU PONT WEIR
MOT DU PONT, JR.
LAMMOT DU PONT III
WILLIAM F. DU PONT
RRE S. DU PONT III
PIERRE S. DU PONT IV
JANE DE DOLIETE DU PONT
MICHELE W. DU PONT
TH DU PONT RIEGEL
EDITH DU PONT RIEGEL (JR)
RICHARD E. RIEGEL, JR
JOHN E. RIEGEL
NATALIE M. RIEGEL
EXANDRINE DU PONT P. COLLIER
YNOLDS DU PONT
THARINE L. DU PONT
KATHARINE DU PONT
REYNOLDS DU PONT, JR
THOMAS L. DU PONT
VID FLETT DU PONT
LLIS H. DU PONT

WILLIAM KEMBLE DU PONT
(DECEASED)

75 **S. HALLOCK DU PONT**
76 VIRGINIA S. DU PONT
77 EVE DU PONT REMER
78 S. HALLOCK DU PONT, JR
79 WILLIAM K. DU PONT
80 RICHARD S. DU PONT
81 **PAULINA DU PONT DEAN**
82 JUNIUS S. DEAN
83 **WILHELMINA DU PONT ROSS**
84 DONALD P. ROSS

HENRY BELIN DU PONT
(DECEASED)

85 # **HENRY B. DU PONT**
86 * MARGARET DUPONT SMITH
87 * HENRY B. DU PONT III
88 * EDWARD B. DU PONT

89 **MARGARETTA DU PONT CARPENTER**

90 **LOUISA CARPENTER JENNEY**
91 **IRENE C. KITCHELL MORGAN**
92 RENEE KITCHELL LICKLE
93 MARGARETTA L. KITCHELL
94 NANCY G. KITCHELL
95 CAROL V. KITCHELL
96 LESLIE H. KITCHELL
97 **ROBERT R. M. CARPENTER, JR.**
98 ROBERT R. M. CARPENTER III
99 MARY K. CARPENTER
100 WILLIAM K. CARPENTER
101 **WILLIAM K. CARPENTER**
102 BELLE M. CARPENTER

LOUISA DU PONT COPELAND
(DECEASED)

103 # **LAMMOT DU PONT COPELAND**
104 PAMELA C. COPELAND
105 LAMMOT DU PONT COPELAND, JR
106 LOUISA D'ANDELOT DU PONT COPELAND
107 GERRET VAN SWERINGEN COPELAND

MARY DU PONT LAIRD
(DECEASED)

108 **MARY B. LAIRD DOWNS**
109 **WILLIAM W. LAIRD, JR.**
110 **ALLETTA LAIRD DOWNS**
111 **WILHELMINA LAIRD CRAVEN**
112 **ROSA LAIRD HAYWARD**

ISABELLA DU PONT SHARP
(DECEASED)

113 **HUGH R. SHARP**
(SPOUSE OF ISABELLA)
114 **HUGH R. SHARP, JR.**
115 **BAYARD SHARP**

KEY

Names in brackets are husbands and wives

Names underlined are minors

Defendant Individuals
* Beneficiary Defendants

Government's Exhibit No. 3

Govt. Trial Ex. No. 3

Wilmington, Delaware,
September 11th, 1914

To the Board of Directors,
of E. I. du Pont de Nemours Powder Company.

Gentlemen:

ORGANIZATION

As I have been requested by our President to assume the active duties of that office I ask that you approve the following plan of changes in the organization of the company with a view to carrying out the policy of bringing into greater activity and responsibility those men who are now in charge of the several departments of the company:

1st.

Amend the By-laws to omit the requirements that the President of the company be a member of the Executive and Finance Committees.

2nd.

Amend by the By-Laws so that the Finance Committee will report directly to the Board of Directors instead of to the Executive Committee as at present. (This re-establishes the original position of the Finance Committee in the organization of our Company).

3rd.

Increase the membership of the Finance Committee to four and place on that committee:

P. S. du Pont
Alfred I. du Pont
William du Pont
T. C. du Pont.

4th

Define the duties of the Finance Committee as follows:

(a) Recommendation of dividends to be declared by Board of Directors.

(b) Approval of the annual or semi-annual estimate of appropriations, thereby authorizing a general financial plan under which the departments may act without further reference to Finance Committee for approval of details except as provided in paragraph c.

(c) Approval of all detail estimates of appropriations committing the company to an expenditure of $300,000 or more at the time the Executive Committee recommend starting work.

(d) Authorize appropriations not in the annual or semi-annual estimate of appropriations which may commit the company to an expenditure of $150,000. or more.

(e) Approval of the financial plan whereby funds for future expenditure on capital account are to be provided. For this purpose the monthly financial forecast of the Treasurer is to be sent to the Finance Committee.

(f) Recommend to the Directors plans for the authorizing, issue or sale of securities.

(g) Fix the salaries of the Executive Committee members and president and Vice Presidents of the Company.

(h) Authorize the sale of any tract of real estate valued on the books of the company or by appraisal at more than $100,000.

(i) Authorize certain persons to have access to the safe deposit boxes of the company.

(j) Grant powers of attorney to officers or representatives of the company.

(k) Authorize licenses to others under patents owned or controlled by the company.

5th.

Request the resignation of the present members of the Executive Committee and elect to that Committee the following as in charge of the departments indicated:

Irenee du Pont	Chairman
F. L. Connable	Purchasing Committee
H. F. Brown, Director	Smokeless Powder Dept.
R.R.M. Carpenter, “	Development Department
William Coyne, “	Sales Department
Lammot du Pont “	Black Powder Dept.
H. G. Haskell “	High explosives department
J. J. Raskob, Treasurer	including charge of Accounting and Auditing Departments.

6th

Increase the number of Directors to include all those named for the Executive Committee.

7th

Establish the following as the powers and duties of the Executive Committee:

Subject to the Board of Directors and Finance Committee, the Executive Committee have full power in the control of the company's affairs. It is desired that this power be used only with discretion in order to:—

(A) Throw responsibility on the head of the departments, where one department alone is interested; and

(B) Throw responsibility on the heads of two or three departments in matters arising which affect but two or three departments.

In the latter case should the several heads of departments fail to be unanimous, the decision is to be made by the Chairman of the Executive Committee.

Thus it is expected that the Executive Committee should issue final orders only in cases where more than three departments are interested by the decision, and on such other matters as the President asks them to decide for him.

Discussion and criticism of affairs affecting less than four departments is entirely proper so long as such discussion and criticism is constructive and given in a spirit to aid the departments interested, but it is not desired that there should be fault-finding where a better solution of a question is not offered.

In order that the Executive Committee may be in a position to intelligently offer helpful criticism and pass on matters affecting more than three departments, they must be kept informed of matters of importance throughout the company. For this purpose monthly reports should be presented to the Executive Committee for their information and there should be discussion of the same in the monthly meetings. Short interim meetings should be held weekly between the monthly meetings to discuss matters pertaining to the company's welfare and to keep the members posted promptly on any new matters of importance as they occur.

Any action taken in an interim meeting carries the same weight and authority as an action taken at the regular monthly meeting.

As the members of the Committee are all engaged in active and responsible duties in their own departments, it is necessary that the Executive Committee work should not be allowed to interfere with departmental affairs. If any member of the Committee believes that his departmental work is being inter-fered with by Executive Committee duties, it is his duty to report that fact to the Chairman in order that a plan to relieve him may be formulated before any injury is done.

8th

Retain on salary in advisory capacities, with the title of Vice President, Messrs. Alfred I. du Pont, H. M. Barksdale, J. A. Haskell, A. J. Moxham and C. L. Patterson.

9th

Elect to Vice Presidency of the company, Mr. F. L. Connable to represent the President in matters concerning the Purchasing

Department, in the same way as that position has been filled by Mr. Irenee du Pont heretofore.

Yours very truly,

Pierre S. du Pont,
VICE PRESIDENT

Approved .

Approved Alfred I. du Pont

Approved T. C. du Pont

Approved Wm. du Pont.

Government's Exhibit No. 41 vernme

Du Pont Securities Company,
Wilmington, Delaware.

March 2nd, 1915.

Gentlemen:

The undersigned, in accordance with the arrangement approved by resolution of your Board of Directors, passed the first day of March, 1915, under which the undersigned sold to your Company certain shares of the capital stock of E. I. du Pont de Nemours Powder Company, desire to place in the Treasury of your Company the number of such shares set opposite our respective names - the stock so placed in your Treasury to be used for the recognition of past and to encourage the future services of certain employes of E. I. du Pont de Nemours Powder Company - and this will authorize the Board of Directors of your Company in their discretion to issue and dispose of the shares of your stock set opposite our respective names for the above purposes.

Subscriber	Total stock due under resolution of March 1st	Number of Shares assigned hereunder	Balance to be issued in our names
Pierre S du Pont	37500	5875	31625
Irenee du Pont	12000	1880	10120
Lammot du Pont	12000	1880	10120
A. Felix du Pont	6000	940	5060
R R M Carpenter	4500	705	3795
John J Raskob	3000	470	2530
		[illegible]	[illegible]

shares set opposite our respective names - the stock so placed in your Treasury to be used for the recognition of past and to encourage the future services of certain employes of E. I. du Pont de Nemours Powder Company - and this will authorize the Board of Directors of your Company in their discretion to issue and dispose of the shares of your stock set opposite our respective names for the above purposes.

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R R M Carpenter	4500	705	3795
John J Raskob	3000	470	2530
		[illegible]	[illegible]

NUMBER OF SHARES OF DU PONT POWDER COMMON STOCK

Total,	31,491	
Acquired from T. C. duPont,	3,314	
Balance acquired from following:	28,177	
P. S. duPont,	14,089	shares
Irenee duPont,	4,508	"
Lammot duPont,	4,508	"
A. Felix duPont,	2,254	"
R. R. M. Carpenter,	1,691	"
J. J. Raskob,	1,127	"
	28,177	"

Government's Exhibit No. 43

A meeting of the Directors of duPont Securities Company was held at duPont Building, Wilmington, Delaware, on the 2 day of March, A. D., nineteen hundred and fifteen, at Five o'clock P M.

There were present all of the Directors.

The waiver of notice of the first meeting was read and ordered filed.

It was determined, upon motion, to proceed to the election of officers, which resulted as follows:

Pierre S. duPont,	President,
Irenee duPont,	Vice-President,
John J. Raskob,	Secretary,
John J. Raskob,	Treasurer.

The President and Secretary immediately assumed the duties of their respective offices.

The minutes of the meeting of the incorporators and subscribers were read, and on motion it was ordered that the Secretary record the same in a suitable book to be procured for that purpose.

The Secretary was directed to procure a corporate seal, certificates of stock, and all necessary and proper books for the business of the Company.

On motion it was resolved that the depositories of this Company be Bankers Trust Company - J.P. Morgan & Co.

It was determined, upon motion, to proceed to the election of officers, which resulted as follows:

Pierre S. duPont, President,
Irenee duPont, Vice-President,
John J. Raskob, Secretary,
John J. Raskob, Treasurer.

The President and Secretary immediately assumed the duties of their respective offices.

The minutes of the meeting of the incorporators and subscribers were read, and on motion it was ordered that the Secretary record the same in a suitable book to be procured for that purpose.

The Secretary was directed to procure a corporate seal, certificates of stock, and all necessary and proper books for the business of the Company.

On motion it was resolved that the depositories of this Company be Bankers Trust Company - J.P. Morgan & Co.

On motion the principal office of the Company in the City of Wilmington and State of Delaware was located at duPont Building.

The following resolution was offered and on motion, duly seconded, was unanimously adopted.

RESOLVED, That in the judgment of this Board, it is necessary that this Company should acquire fourteen thousand five hundred and ninety-nine shares of the preferred stock of E. I. du Pont de Nemours Powder Company, a corporation existing under the laws of the State of New Jersey, and ninety-one thousand four hundred and ninety-one shares of the common stock of the said Company, and do pay therefor the sum of Twenty-one Million Four Hundred and Eighty-eight Thousand Two Hundred and Forty-six Dollars as follows: Thirteen Million Nine Hundred and Eighty-eight Thousand Two Hundred Forty-six Dollars in cash, and Seven Million Five Hundred Thousand Dollars in the full-paid capital stock of this Company at par; the said stock being in the judgment of this Board necessary for the business of this Company and worth upwards of the said sum of Twenty-one Million Four Hundred and Eighty-eight Thousand Two Hundred and Forty-six Dollars;

AND BE IT FURTHER RESOLVED, That the officers of this Company be and they are hereby authorized to acquire the said stock as aforesaid, and to pay therefor in the manner herein provided.

The President reported that he had arranged to borrow in the name of the Company $8 500 000. from Bankers Trust Company, and to give therefor the promissory note of the Company in the principal amount of $8 500 000. bearing interest at the rate of six per cent. per annum and payable eighteen months after date, with privilege of having such note extended for an additional period of eighteen months at the same rate of interest and a commission of one and one-half per cent. of the principal amount, to be secured by 54,591 shares of the common capital stock and 14,599 shares of the preferred capital stock of the E. I. du Pont de Nemours Powder Company, owned by the Company.

The President further stated that Bankers Trust Company had agreed to make such loan provided that the payment of it was guaranteed severally, but not jointly, by Mr. P. S. duPont in the amount of $4,250,000., Mr. Irenee duPont in the amount of $1,360,000, Mr. Lamott duPont in the amount of $1,360,000., Mr. John J. Raskob in the amount of $340,000., Mr. A. Felix duPont in the amount of $680,000., and Mr. R. R. M. Carpenter in the amount of $510,000. The guaranty agreement to provide that when and as any one guarantor shall make a payment under such guaranty, such guarantor should receive from the stock then remaining pledged and on hand with the Bankers Trust Company the proportion of preferred stock and common stock which any such payment should bear to the amount due and unpaid on said note at the date of such payment.

On motion duly made, seconded and carried,

UNANIMOUSLY RESOLVED, that the President and Treasurer, both directors of this Company, hereby are authorized and directed in the name of this Company, to borrow from Bankers Trust Company of New York City, $8,500,000., and to execute and deliver in exhcnage therefor the promissory note of this Company in the collateral note form now used by and satisfactory to Bankers Trust Company, to the order of Bankers Trust Company, dated March 2, 1915, payable eighteen months after date, bearing interest at the rate of six per cent. per annum, such note to provide that the time of payment thereof may be extended eighteen months from September 2, 1916, at the same rate of interest, upon the payment by this Company to Bankers Trust Company of a commission of one and one-half per cent. of the principal amount. To secure such note, the President and Treasurer are hereby authorized and directed to pledge with the Bankers Trust Company fourteen thousand five hundred ninety-nine (14,599) shares of the preferred capital stock and fifty-four thousand five hundred ninety-one (54,591) shares of the common capital stock of the E. I. duPont deNemours Powder Company now owned by this Company, and for such purpose such officers are hereby authorized and directed to execute and deliver to Bankers Trust Company an assignment or assignments of such shares of stock, assigning the same either expressly to said Trust Company, or in blank, or to such person as may be certified to this Company by the President of such Trust Company as the nominee of the Trust Company, - all as said Trust Company may request. So long as such note is unpaid, all dividends payable on the stock pledged thereunder shall be paid directly to, and applied by, said Trust Company on account of interest then due, or to fall due, from time to time, any balance or accumulation thereof not so applied to be held to be applied at the maturity of such note upon the principal thereof. Upon any default in such note said Trust Company shall forthwith possess all voting rights appertaining to the stock pledged hereunder. Until such default such voting rights shall be possessed by the Company.

FURTHER UNANIMOUSLY RESOLVED, that the officers of this Company are hereby authorized and directed to execute and deliver the consent of this Company to a certain guaranty agreement whereby P. S. duPont, Irenee duPont, Lamott duPont, A. Felix duPont, John J. Raskob and R. R. M. Carpenter severally guarantee in the amounts set opposite their respective names, (such amounts aggregating $8,500,000.) the payment of the principal and interest of said loan of $8,500,000., when and as any one guarantor shall make a payment under such guaranty, such guarantor should receive from the stock then remaining pledged and on hand with the Bankers Trust Company the proportion of preferred stock and common stock which any such payment should bear to the amount due and unpaid on said note at the date of such payment.

FURTHER UNANIMOUSLY RESOLVED, that the officers of the Company are hereby fully authorized and directed to execute and deliver any other paper or papers and to do any further acts necessary and desirable to carry out the foregoing resolutions with respect to said loan and guaranty, as they in their discretion may determine or as they ma be advised by counsel to the Company.

FURTHER UNANIMOUSLY RESOLVED, that Bankers Trust Company be designated a depository of this Company in the City of New York, and the Treasurer of this Company is hereby directed to open a deposit account with such depository for this Company, and the Secretary of the Company is directed to certify to such depository, (1) a copy of the by-laws of this Company, or such part thereof as relates to its deposit accounts, the endorsement of drafts or checks deposited therewith or drawn against the same, and (2) a statement naming the officers of this Company authorized to endorse or sign such drafts or checks, with specimens of their respective signatures for use by said depository for the purposes of comparison.

FURTHER UNANIMOUSLY RESOLVED, that as provided in the By-Laws of this Company, all drafts and checks drawn against such account should be signed by any two of the following, namely, the President, Vice-President or Treasurer or such other person or persons as may be expressly authorized by resolution of the Board of Directors, and any one of such officers or persons is authorized to endorse all drafts or checks deposited to the credit of such account, and said depository is directed to accept for deposit any drafts or checks made or endorsed to the order of this Company bearing the stamped endorsement of this Company, and the depository is hereby directed to accept and pay without further inquiry any draft or check against such account bearing the signature or signatures of such officers as so required, including drafts or checks to the order of any officer of this Company.

The following resolution was offered and on motion, duly seconded, was unanimously adopted.

WHEREAS, it is necessary that this Company should borrow the further sum of Five Million Nine Hundred Thousand Dollars,

THEREFORE BE IT RESOLVED, That the President and Treasurer of this Company be and they are hereby authorized to borrow the said 4 amount upon such terms, and for such time as to the said President and Treasurer may seem proper, and to secure the same by issuing the note, notes, or other obligation or obligations of this Company in such form as may be approved by the said President and Treasurer, and to secure the repayment thereof by pledging thirty-six thousand nine hundred shares of the common stock of E. I. duPont deNemours Powder Company, a corporation existing under the laws of the State of New Jersey;

AND BE IT FURTHER RESOLVED, That the said President and Treasurer be and they are hereby authorized to use the note, notes, obligation or obligations of this Company to the amount aforesaid, drawn and secured as aforesaid, in purchasing any shares of the preferred or common capital stock of the said E. I. duPont deNemours Powder Company.

The following resolution was offered, and on motion, duly seconded, was unanimously adopted.

RESOLVED, That the President of this Company be and he is hereby authorized to vote any stock now or hereafter owned by this Company in any other corporation at any meeting of the stockholders of such corporation or corporations in such way as to the President of this corporation may seem meet and proper.

In pursuance of the provisions of the By-Laws, on motion, duly seconded, the following resolution was unanimously adopted.

RESOLVED, That any two members of the Board of Directors be and they are hereby authorized to sign on behalf of the Company all checks, notes, drafts or orders for payment of money.

Government's Exhibit No. 45

A meeting of the Directors of Du Pont Securities Company was held at Du Pont Building, Wilmington, Delaware, on 19th day of March, A.D., nineteen hundred and fifteen, at eleven o'clock A. M.

All the Directors were present.

A letter was received from Messrs. Pierre S. du Pont, Irenee du Pont, Lammot du Pont, A. Felix du Pont, R. R. M. Carpenter and John J. Raskob under date of March 2nd, 1915, placing in the Treasury of this Company 11 750 shares of the stock of Du Pont Securities Company to be issued in the discretion of the Board of Directors in recognition of past and to encourage future services of certain employes of E. I. du Pont de Nemours Powder Company (the original of which forms part of these minutes).

On motion of Mr. J. J. Raskob, seconded by Mr. Irenee du Pont, the following resolution was unanimously adopted:

WHEREAS, the stockholders of this Company have assigned to it eleven thousand seven hundred and fifty shares of its capital stock to be used by this Company as hereinafter provided;

AND WHEREAS, this Company is the owner of a large number of shares of the preferred and common capital stock of E. I. du Pont de Nemours Powder Company, a corporation existing under the laws of the State of New Jersey, and it is the desire of this Company to recognize the past and encourage the future services of certain of the employes of the said Powder Company,

THEREFORE BE IT RESOLVED, That this Company do assign the said eleven thousand seven hundred and fifty shares of the ~~said~~ stock as follows;

Irenee du Pont	1250 shares
Lammot du Pont	1250 shares
R. R. M. Carpenter	1250 shares
William Coyne	1250 shares
Harry G. Haskell	1250 shares
Harry F. Brown	1250 shares
John J. Raskob	1250 shares
William C. Ramsay	1250 shares
Frank G. Tallman	1250 shares
John P. Laffey	500 shares

to be held by them and in accordance with the provisions of a certain agreement now present;

AND BE IT FURTHER RESOLVED, That the officers of this Company be and they are hereby authorized to execute the said agreement on behalf of this Company and to carry the provisions thereof into effect,

AND BE IT FURTHER RESOLVED, That a copy of the said agreement be spread on the minutes of this meeting

Government's Exhibit No. 52

IRENEE DU PONT

Summary of Acquisitions and Dispositions of Common Stock of Christiana Securities Company (Du Pont Securities Company)

Acquisitions	No. of Shares	
Subscription upon formation of Christiana, 3/1/15	12,000	
Received from Christiana as key employee of du Pont Company, 1918	1,250	
Purchased from J. J. Raskob, 1921	165	
Received as stock dividend, 1922	11,118	
Total Acquisitions		24,533
Dispositions		
Gift to Christiana for key employees of du Pont Company, 3/2/15	1,880	
Gifts to employees of du Pont Company, 1915-24	667	
Sales to employees of du Pont Company, 1923-26	1,200	
Sales and gifts to "members of the du Pont family", 1925-40	9,560	
Gifts to charities, 1933-47	1,321	
Gifts to others, 1933-40	615	
Sales through brokers, 1933-39	1,989	
Total Dispositions		17,232
Balance, 6/30/49		7,301

Government's Exhibit No. 67

GENERAL MOTORS CORPORATION

Inter-Organization Letters Only

June 16th, 1927

SUBJECT

FROM

FOR ATTENTION OF Messrs. P. S. duPont
Irenee duPont
Lammot duPont

Gentlemen:

On Tuesday Messrs. J. P. Morgan & Company received a cable from Nobels directing them to sell 50,000 shares of General Motors common stock at the market. Undoubtedly what they meant was that they wished to sell 50,000 shares of stock at the prevailing market with the understanding that the brokers could use their discretion. However, this was not what the cable stated and the brokers of necessity had to interpret the cable literally, which meant dumping 50,000 shares of stock "at the market". This resulted in quite a break in the stock which dropped to 196, since which time, however, it has recovered to above two hundred.

On March 28th Sir Harry wrote me, as per copy of letter enclosed herewith, with which you are all familiar. In my absence Mr. Sloan replied to the letter, as per copy of letter also enclosed. I understand also that Lammot wrote Sir Harry giving it as his opinion that the relative market prices of du Pont and General Motors at that time made duPont seem rather high.

It would seem to me very desirable to have Nobels secure say 40,000 shares of duPont common, or perhaps better still an equivalent amount of Christiana Securities Company stock and in that way come directly into the partnership that controls duPont. My suggestion, therefore, is that we offer them the privilege of buying 40,000 shares of duPont from the Christiana Securities Company at $240. per share, taking in payment therefor either cash or some General Motors common at say $205. per share. Or, as an alternative proposition, get a block of Christiana Securities Company stock together and sell it to Nobels at a price equivalent to duPont at $240., taking cash or General Motors in payment therefor.

I think the risk of losing control of the duPont Company through the sale of 40,000 shares by the Christiana Securities Company is very remote and involves little risk because I think the gain through securing the English as partners would warrant the risk. Of course, if they take Christiana stock instead of duPont this question would not be involved, and, in addition, by buying Christiana stock they would become partners not only in duPont, but in the control of Atlas as well.

I have had the thought that if the Christiana Securities Company should secure say nine or ten million dollars cash through the sale of 40,000 shares of duPont, it might invest it in the Steel Pool, but personally I would much prefer the investment made in General Motors as it is a business we all know, understand and are responsible for, and I feel very confident that in the gain this investment will likely be double that of the Steel investment.

The main point of this letter is this: I feel very strongly that we will be very well advised to do everything possible to secure the closest relationship between the English and American dye and chemical interests that it is possible to secure, and that an investment of ten million dollars in our stock by the Imperial Chemical Industries of England will be a very great and substantial step in this direction.

J. J. Raskob

Government's Exhibit No. 68

Copy: Mr. P. S. du Pont
Mr. Irenee du Pont

June 17, 1927.

Mr. John J. Raskob,
New York City, N. Y.

Dear John:

Have just read yours of June 16th in regard to I.C.I. investments in du Pont and General Motors stock. It does not seem to me a good move, on principle, to weaken Christiana Securities position with respect to du Pont by the sale of a considerable block of its du Pont stock. The suggestion of the issue and sale of Christiana stock to I.C.I. of course overcomes this, but would get us into another difficulty. Christiana Securities is almost entirely owned by a small group that are intimately connected and whose interests, generally speaking, are pretty much the same. If we get in another substantial stockholder; such as I.C.I., the chances are that its interests would not be wholly with the other stockholders, and this would leave the way open to difficulties and misunderstandings.

The stockholdings of du Pont are already so diversified that an additional foreign stockholder does not create the same effect. I am heartily in favor of I.C.I. retaining the General Motors interest which they have, and I believe and am highly in favor of their taking an interest in du Pont stock, but I am not in favor of the idea of accomplishing both or either of these purposes through the Christiana Securities route.

Yours sincerely,

LduP/MD

Government's Exhibit No. 101

March 16th, 1909.

Artificial Leather
Nitrated Cotton Requirements.

Mr. Irenee duPont.
Building.

Dear Sir:—

Referring to your recent request for such information as we have on file regarding the amounts of nitrated cotton manufactured and used by the various concerns whose requirements in this line we have started to investigate, I submit the following. As these studies, with the exception of Artificial Leather, have become especially active only recently, and as our previous work on the Artificial Leather study has been principally in connection with investigating the manufacturing requirements, costs, market for finished products, etc., the data appearing below consists generally of estimates and opinions, but we will secure whatever reliable information is available as soon as possible and will probably take up other lines of manufacture as well.

ARTIFICIAL LEATHER.

Fabrikoid Company, Newburgh, N. Y. Mr. Mix of the New York Office, has advised us that this company makes 1,000 pounds of nitrated cotton per day (25,000 pounds per month), and we are awaiting the result of his attempt to have this figure confirmed so we may have the benefit

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Italics indicate handwriting.

of whatever additional information he receives before taking the matter up direct.

It has also been reported that their nitrated cotton costs them about 30¢ per pound, that they use from 400 to 700 pounds per day in the manufacture of Artificial Leather and that they have recently organized a pyroxylin department with an office in New York City, under the charge of T. R. Chase, who was formerly in the employ of the duPont Company, for the sale of the nitrated cotton made by them that they do not use in their other lines of manufacture.

Frost Finishing Company, West Barrington, R. I. &
West Nutley, New Jersey. Our average monthly sale of nitrated cotton to this company during the three months ending February 28th, 1909, was 4161 pounds, but they also

use large quantities of celluloid scrap, each two pounds of which they consider to be the equivalent of one pound of nitrated cotton, and the Superintendent of the West Nutley plant told me that it makes a better artificial leather than pyroxylin mixtures and that if he had full authority to make a choice he would use nothing else. He also informed me some time ago, when their output was smaller than at present, that they used the equivalent of 200—50-gallon barrels of 16 ounce mixture per month. On this basis, if they did not use celluloid scrap they would require about 10,000 pounds of nitrated cotton, per month.

Sanford Mills (Factory L), Reading, Mass. Our New York office is confident that we furnish all the nitrated cotton used by this company. We sold them an average of 4288 pounds per month during the three months ending February 28th, 1909.

Charles Cooper & Company, (operating the Koratal Plant), Newark, N. J. We are informed by Mr. Mix that this company makes about 600 pounds of nitrated cotton per day (15,000 pounds per month). This we will confirm as soon as possible.

Marokene Company, Elizabeth, N. J. We have been assured by this company that we supply all the nitrated cotton used by them. Their average monthly purchase from us during the three months ending February 28th, 1909, was 1333 pounds.

Boston Artificial Leather Co., Stamford, Conn. Mr. Richards of this company told the writer that they make from 6,000 to 8,000 pounds of nitrated cotton per month—we average it at 7,000 pounds—most of which they use in the manufacture of artificial leather.

ARTIFICIAL SILK.

During the year ending June 30th, 1908, there were imported into the United States for consumption, 977,444 pounds of artificial silk, at least 75% of which was manufactured under the Chardonnet process. Comparatively little artificial silk is manufactured in this country, but it is conservatively estimated that the consumption here is 1,000,000 pounds per year. In view of such a large percentage of this being made by the Chardonnet methods, we may figure the amount of nitrated cotton necessary for the production of the total amount on the basis of the requirements of this process.

To produce 1,000,000 pounds of Chardonnet silk per year, would require about 167,000 pounds of nitrated cotton per month.

CELLULOID.

The principal celluloid manufacturers of the country are
The Celluloid Company, Newark, N. J., and
The Arlington Company, Arlington, N. J.

both of which are now using nitrated paper made from picked white cotton rags as the basis of their product.

The former company receives paper from the plant of the Diamond Paper Mills Company, Bloomfield, New Jersey, at which place the writer learned that an average of about 2500 pounds were furnished to the Celluloid Company per day.

The entire output of the White Falls Paper Company, West Nutley, N. J. is taken by the Arlington Company and the Superintendent of the paper mill informed me that they have been supplying this concern with paper at the rate of about 3400 pounds per day, but that this would soon be increased to 4,000 pounds per day.

We understand at present that these two celluloid manufacturing plants secure all their paper from the mills mentioned and while we have not determined the reason they use nitrated paper, we suppose it is due to the lower cost of paper made from cotton rags, which are not digested, as compared with the cost of long staple cotton or linters, no sufficient supply of the so-called Tennessee fibre having been available for their purposes in the past.

Figuring 25 working days per month and, assuming that, should nitrated cotton be adopted by these concerns as a substitute for nitrated paper an equal amount of cotton would be required, we estimated that their joint requirements, including the increase to be made in the output of the Arlington plant, would be about 216,000 pounds per month.

In connection with celluloid, we may also consider the

nitrated cotton requirements of photographic film manufacturers.

We have received advice indirectly from the Sales Agent, confirmed by the Factory Manager, that the Eastman Kodak Company, of Rochester, New York, uses 10,000 pounds of nitrated cotton per day (250,000 pounds per month) in the production of films. They nitrate their own cotton at present.

Our New York office is now negotiating for the business of the Ansco Company, film manufacturers of Binghampton, New York, and they stated their present requirements to be from 18 to 20 barrels of mixture per week, each barrel containing about 50 gallons of 18 ounce pyroxylin solution.

As it requires about one pound of nitrated cotton to produce one pound of film, the reported output of the Eastman plant might appear to be excessive, but owing to the popularity of moving picture establishments at this time and the consequent heavy requirements of pictures for their operation, the figures given may be correct, although we have not satisfied ourselves on this point as yet.

Representatives of the Ansco Company have stated that they are considering going into the manufacture of films for moving picture machines and that if they do their output will be trebled in a short time.

We understand that the Eastman Kodak Company cannot fill their orders for films fast enough and that the Ansco Company could do a much larger business in their present line, were it not for the fact that they are holding back until the settlement of some litigation in which they are now involved with the Eastman Company.

Charles Cooper and Company, of Newark, New Jersey, proprietors of the Koratal plant, have been supplying the Ansco Company with nitrated cotton.

We figure that the film manufacturers mentioned require about 254,500 pounds of nitrated cotton per month.

MISCELLANEOUS.

The Welsbach Company, of Philadelphia, nitrate cotton for use in the manufacture of their incandescent gas mantles, and the Gould Storage Battery Company, who have a plant near New York, used to have considerable cheese cloth nitrated by Charles Cooper & Company, but are now doing their own nitrating.

We have not had an opportunity to investigate the requirements of these concerns as well as those of others that require nitrated cotton, but will take them up as soon as possible.

The above information, of which a summary appears below, will give an idea of the probable amounts nitrated and required by the plants mentioned and we will have the figures confirmed at the earliest opportunity, after which full reports on each subject will be prepared and submitted.

SUMMARY

Artificial Leather	Monthly Requirements	
Fabrikoid Company	25,000 lbs.	
Frost Finishing Company	10,000 "	
Sanford Mills (Factory L)	4,288 "	
Charles Cooper Company (Koratal Plant) Less that sold to the Ansco Company	10,500 "	
Marokene Company	1,333 "	
Boston Artificial Leather Company	7,000 "	58,121 lbs.
ARTIFICIAL SILK		
That consumed in this country		167,000 "
CELLULOID (including photographic films)		
The Celluloid Company	83,000 lbs.	
The Arlington Company	133,000 "	
Eastman Kodak Company	250,000 "	
The Ansco Company	4,500 "	470,500 "
Total		695,621 "

At present we are only furnishing 9782 pounds of the above total, leaving a balance of 685,839 pounds.

During the year 1908, we used 3,601,914 pounds of gun-cotton in the manufacture of Government smokeless powders. This is at the rate of 300,160 pounds per month—only about 44% of the above balance which does not include the requirements of the Welsbach Company, Gould Storage Battery Company and other large consumers of nitrated cotton.

[redacted]

It will also be noted that the nitrated cotton requirements of artificial silk consumed in this country annually is over 55% of the amount we furnished to the Government in the form of Powder during 1908.

Very truly yours,
(s) W. W. Richards.

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Government's Exhibit No. 103

Wilmington, Delaware,
March sixteenth,
1912

EXECUTIVE COMMITTEE,
BUILDING.

Gentlemen:—

It has been reported for some time past that the Pluviusin Company, the largest manufacturer of artificial leather in England, has contemplated the erection of plants in this country. The rumor having come to us shortly before I left for Europe that they had discussed, among themselves, the desirability of joining us in this venture, we allowed the report to reach their ears that the writer expected to be in London at a certain time, taking the chance that they would call upon him while there, which they did the day after his arrival, of their own accord.

The question of joining us in some way was brought up by Mr. Winterbottom, the controlling factor, and arrangement was made to have his General Manager join us in Wilmington for a discussion. This meeting was held yesterday with Mr. Coyne present.

The proposition placed before us by Mr. Dodd of the Pluviusin Company was that we should make a separate company of our artificial leather business and sell them, say, 45% of the stock.

The second proposition which was discussed, but not looked upon very favorably by Mr. Dodd, was that the Pluviusin Company should purchase outright the O'Bannon Corporation.

The third proposition suggested by us was that we should either purchase outright the American rights to all of the Pluviusin processes or that we should manufacture our light sheetings under their process on a small royalty basis.

The fourth proposition which was not brought up in the meeting, but which was suggested by Mr. P. S. du Pont, is that we suggest to them some agreement by which we would exchange ideas, etc. This last proposition is left for discussion at your next meeting, if thought advisable.

I believe that should these people start manufacturing in this Country on their own hook, it would mean a long drawn out price-cutting war which would cause all of the concerns to lose materially for a considerable time. Some arrangement with them seems advisable. It is also a fact that we do not seem able to manufacture a satisfactory light sheeting at this time and the information which we would secure from the Pluviusin Company for this purpose would, no doubt be of value.

As Mr. Dodd sails the latter part of next week and is desirous of taking some word from us to his Board of Directors, I request that the matter be discussed at your next meeting and that I be authorized to give him some reply.

In case of our being willing to make some agreement, Mr. Winterbottom, himself, will come to this Country in April.

Respectfully submitted,

R. R. M. Carpenter. (Stamp)

Note. "Noted H. J. M." stamped at top of document.

5769

[fol. 770] GOVERNMENT'S EXHIBIT No. 104

Wilmington, Delaware,
October 11th,
1912.

Messrs. P. S. duPont,
A. J. Moxham,
C. L. Reese,
R. R. M. Carpenter,

DEVELOPMENT COMMITTEE.

Gentlemen:

A representative of this Department met Mr. Mark Brickhill and Mr. Bucklin of the Winterbottom Book Cloth Co., in New York on the evening of Monday, October 7th. Mr. Brickhill had been in this Country since September 27th, and returned to England on Wednesday, October 9th. Evidently the purpose of his visit was to arrange for a place for the Pluviusin Company to begin the manufacture of artificial leather in this country, as he advised our representative that he had under option a place for this purpose, which option expires on the 25th of October. Mr. Brickhill expected to reach England on or about the 14th of this month, and advised that his people would at once enter into consideration of the question of entering the American field, and must come to a prompt decision in the matter.

He stated that they were entirely willing to consider a combination with our interest in this country, either before or after their entry into the field, as they agreed with us that some such combination would be mutually beneficial, but that if we wished to consider a combination before they [fols. 771-772] entered the field, we would have to advise them by cable to this effect, outlining in general our plan of combination for their consideration. Our representative had not expected to go into the subject as far as was found necessary in the interview, as we were under the impression that the Pluviusin Company was not yet ready to consider this matter. However, in view of Mr. Brickhill's statements some preliminary ground was covered.

We have for some time past, been asking Mr. Winterbottom to formulate his ideas on a combination, and on learning of their intention to start at an early date in this country, we asked Mr. Brickhill for his ideas. His answer was that he felt inasmuch as we now occupied this field, that the intimation of the plan of combination should come from us. However, further talk on the subject drew from Mr. Brickhill a suggested plan, which while he would not vouch for its acceptability we judge from his presentation of the matter that the idea represented to his people a generally acceptable form of combination. Mr. Brickhill stated that the Pluviusin Company was ready to come in with us, and to buy a substantial interest in the business, and that their contribution in return lay in their good-will in this country, their ability in the business in general and certain secret patent processes that they are working up, and are now practically ready to demonstrate commercially, which will improve the quality of the product, and at the same time, reduce the cost of production.

[fol. 773] (a) We advised Mr. Brickhill that we felt sure we would desire to control the combination, and in the subsequent conversation with him, a division of interests of 60 and 40% was discussed our understanding being that the Pluviusin Company would purchase for cash a 40% interest.

[fol. 774] Very truly yours,

R. R. M. Carpenter,
Manager, Development Department,
Per Egbert Moxham (Stamp)

[fol. 775] Government's Exhibit No. 105

Wilmington, Delaware,
February 10th,
1913

EXECUTIVE COMMITTEE BUILDING

Gentlemen:

We are in receipt of a report from Mr. Carpenter, which is enclosed herewith on his negotiations with the Winterbottom Book Cloth Company. In addition we have attached as an addendum to this report, certain additional data that we understand Mr. Carpenter desires should be laid before you.

In Mr. Carpenter's letter accompanying this report, he advises that the new process of the Winterbottom Book Cloth Company is based on the use of nitro-cellulose without a solvent, and that the heaviest coating is secured by running once through the machines.

Our understanding is that the contract submitted with Mr. Carpenter's report is a tentative agreement entered into, subject to the approval of your Committee. It is highly important that the subject receive prompt consideration, that the matter may be carried to a conclusion by Mr. Carpenter while in Europe. We understand from cable advice from Mr. Carpenter that, pending your decision on this agreement, he has agreed with the Winterbottom Book Cloth Company that we will not make any arrangements looking to a sale of our product in Europe.

Respectfully submitted,

R. R. M. Carpenter,
Manager, Development Department,
Per, Egbert Moxham.

[fol. 776] Wilmington, Delaware,
February 10th,
1913.

Executive Committee Building

Gentlemen:

On January 29th and 30th, Mr. P. S. duPont and the writer discussed with the Chairman and two of the Directors of the Winterbottom Book Cloth Company, of Manchester, England, the subject of a contract between our Company and the Winterbottom Book Cloth Company. The standing of the Winterbottom Book Cloth Company is of the very highest.

[fol. 777] It is the recommendation of Mr. duPont and the writer that this contract be entered into for the following reasons:

First: We believe that the sale of one-sixth of the capital stock of the proposed new Fabrikoid Company at an approximate price of $250,000.00 cash to a concern having the standing of the Winterbottom Company, preferable to having them build a large Plant in the United States and place on the market a product which from our limited personal examination of samples leads us to believe is probably superior to that now being manufactured.

[fol. 778] In conclusion, we feel a contract on the tentative agreement enclosed, will be a highly advantageous one, in that we would secure as partners rather than competitors, the Winterbottom Book Cloth Company, and in view of the fact that the terms of investigation for the purchase of the process are, we believe, advantageous to us.

[fol. 779] Respectfully submitted,

R. R. M. Carpenter,

Approved and recommended,

P. S. duPont.

Government's Exhibit No. 106

Wilmington, Del., November 10, 1921.

FINANCE COMMITTEE,
BUILDING.

Gentlemen:—

In accordance with your request of October 17th, there is transmitted to you, herewith, a short history of the Fabrikoid industry, prepared by Mr. R.R.M.Carpenter.

Very truly yours,

IRENEE DU PONT, President
/s/ IRÉNÉE DU PONT

NOTE. "Finance Committee, Secy's No. 6665" and "Received Nov. 14, 1921, M.D.F." are stamped at top of this page. "Return to Executive Committee Room 9069" is stamped at bottom.

November 4, 1921.

To ~~EXECUTIVE~~ FINANCE COMMITTEE,

FROM—CELLULOSE PRODUCTS DEPARTMENT.

- HISTORY AND PROSPECTS OF FABRIKOID INDUSTRY -

This account of the duPont Company's investment in the manufacture of coated textiles is presented in response to the Finance Committee's resolution of October 17th, requesting, at the outset of the new period inaugurated by the recent change in form of management, that a summary be made of the past history and present outlook of this industry. The aim has been to set down in order the most important facts with respect to—

1. The Company's entrance into this field and the successive steps by which its present holdings have been acquired;
2. The financial results of the enterprise to date; and
3. The present status and future outlook of the business, and the policies now to be followed.

1. ACQUIREMENT OF BUSINESS; CORPORATE RELATIONSHIPS:

~~In~~ 1908, in anticipation of a falling off ~~in~~ the Government's orders for smokeless powder, study was begun of the artificial leather industry as offering a possible outlet for substantial quantities of guncotton. At that time the manufacture of pyroxylin coated fabrics was only about eleven years old in this country, and the combined output of all American producers was estimated at less than a million yards a month. Our investigation, which was continued through the following year, indicated that the field was a promising one, with good opportunities for expansion, particularly in making the heavier and better grades of goods, where the nitro cellulose consumption would be large; and in addition to its commanding position with respect to this essential material, it was believed that the Company's superior methods of solvent recovery would give it an important advantage as a manufacturer of artificial leather.

Accordingly, in 1910 negotiations were entered into with the Fabrikoid Company, of Newburgh, N. Y., the largest and reputedly the most progressive and successful of the half dozen producers in this country, and on July 20th of that year an agreement was signed under which three weeks later the entire assets of that company were taken over in exchange for $1,195,000. in duPont securities. This price was arrived at on the principle of capitalizing the 1909 earnings on a 20% basis, the purchaser getting the benefit of the increment in net worth from January 1st to July 20th, 1910, as well as the assets on which the previous year's earnings had been made. The securities transferred in payment of the purchase price were in the proportion of five shares of the preferred stock of the Powder Company to two shares of its common stock and three hundred dollars of its 4½% gold bonds, all taken at par; and the market value of these securities was very close to the agreed purchase price, being, according to recorded sales of near the same date, $1,198,275.

Previous Earning Capacity:

According to our audit made at the time of this purchase, the net earnings of the Fabrikoid Company for the year 1909 had been roundly $236,000., while the average "investment in manufacture" (average of beginning and end of year figures, determined according to the standard practice of the Treasurer's Department by excluding the item of $236,000. for patents and good will and making no deduction for the $94,000. of payables) was $652,000. The "return on investment", therefore, as that term is used in the E. C. Series Charts and in the tabulations given in a later section of this report, had been roundly 36%; or 20% on the value of the securities given in payment of the purchase price. From July 10 to August 20, 1910, while the purchase was being consummated, it was estimated

that profits were accruing at the rate of $800. a day, from which it would appear that substantially the same rate of earnings was being maintained.

Pluviusin Alliance:

In October, 1913, the Company's Fabrikoid interests were separately incorporated as the DuPont Fabrikoid Company, and a one-sixth interest sold to the Winterbottom Book Cloth Co., Ltd., owners of the British Pluviusin Co., Ltd. The original total capitalization of the DuPont Fabrikoid Company was $1,800,000, closely corresponding with the actual cost of the enterprise to that date; and the price received for the one-sixth holding sold the Pluviusin interests was $200,000, that being one-sixth of the value of the net tangible assets of the duPont Fabrikoid Company and a reciprocal purchase of one-sixth of the capital stock of the Pluviusin Company being made at the same time by the duPont Company for a price similarly arrived at. Very valuable manufacturing information was obtained from the Pluviusin Co., as a result of this transaction.

Until its dissolution at the end of 1920, all manufacturing interests of the duPont Company in this general field (rubber—as well as pyroxylin-coated textiles) continued to be held through the duPont Fabrikoid Company, functioning as a separate corporation though under close duPont control. Under the policy of expansion which was followed, the original capitalization was increased in 1914 to $3,000,000. and again in 1916 to $5,000,000, halt common and half preferred. As the cost of this expension was not borne proportionately by our British associates their share of the ownership decreased from the one-sixth at the outset to 8.8% of the common stock and 4.2% of the preferred prior to their final complete withdrawal in 1920.

Canadian
Fabrikoid:

In February, 1914, in order to get access to the profitable Canadian market without the burden of the 35%

import duty exacted, the entire business and assets (except buildings, which were leased) of the Cotton Manufacturing Company, of Toronto, the leading Canadian producer of artificial leather, was bought by the duPont Fabrikoid Company for $66,852. In 1916 the business and assets of the

Peerless Leather Company, of Kitchener, Ont., were bought for $23,086 and merged with the Canadian branch of the business.

Fairfield Purchase:

On June 13, 1916 ~~1061~~, the duPont Fabrikoid Company bought the entire capital stock of the Fairfield Rubber Company, of Fairfield, Conn., successful producers of rubber-coated fabrics in large volume for automobile and carriage tops and other uses, having as their chief customer the Ford Motor Company. The principal incentives to this purchase were the demonstrated profitableness of the business, the advantage of rounding out our line of offerings to the automobile trade, and the economies in manufacturing and selling expense logically to be anticipated from the addition of a large volume of new business of closely kindred nature. The price paid was $600,000. based on net tangible assets of at least $500,000. and on current and average past earnings of $100,000. a year. The Fairfield corporation was promptly dissolved and the entire business taken over at once as a separate activity of the duPont Fabrikoid Company.

Purchase of Marokene Co.

In January, 1917, in order to secure some four hundred thousand yards of promptly available gray goods and to get temporary additional capacity for a volume of business which considerably exceeded the existing facilities, the du-

Pont Fabrikoid Company bought out the artificial leather business of the Marokene Company, located at Elizabeth, N. J. The purchase price of $170,342. was balanced by raw materials worth at current market values roundly $140,000. and machinery and fixtures having an estimated replacement value of roundly $30,000. No real estate nor long-term lease was bought, the nearness of the plant to a residential section making the location undesirable for more

than temporary manufacturing uses; and in the same year manufacture at Elizabeth, was discontinued and the equipment and remaining stocks were transferred to Newburgh.

Sale of Canadian Branch:

On September 30, 1919, the entire assets and business of Canadian Branch were sold to the Canadian Explosives, Ltd., thus ending any direct participation of the duPont Company in the Canadian field. This sale was effected on a net asset value basis, the tangible net assets transferred amounting roundly to $1,200,000. The good will value of the business was estimated at $462,500, and an additional payment of 8.8% of that amount (proportional to their share of Fabrikoid Common stock) was made and transmitted to the Pluviusin interests, but on mutual considerations apart from this particular transaction no payment for good will was exacted by the duPont Company.

Withdrawal of Pluviusin:

In 1920, the Explosives Trades Ltd. having bought out the British owners of Pluviusin, negotiations were begun by them for a mutual re-exchange of Fabrikoid and Pluviusin securities, by which the American and the British enterprises might be brought exclusively under the duPont and Nobel ownership respectively. Before the end of the year a deal was consummated by which the entire Pluviusin holdings of 1050 shares of Fabrikoid debenture stock and 2200 shares of common were bought back by the duPont Company at par and 200 respectively, this being in accord with the then asset value.

Present Owership and Corporate Status:

The reason for a separate corporate entity having thus ceased to exist, the duPont Fabrikoid Company was, at the end of 1920, dissolved and the ownership of all its properties vested directly in the duPont Company. It will be seen that the final net result of all the steps above recorded is that the duPont Company now oens exclusively and holds directly the two separate but kindred enterprises located at Newburgh, and at Fairfield.

2. Financial Results to Date:

The net results of the duPont Company's exploitation of this field up to the present time may be concisely told in the following tabulations, for which the necessary data has been taken from the E. C. Series Charts of the Treasurer's Department. In interpreting these figures it must be borne in mind that they have been made up rather from the Fabrikoid Company than from the duPont Company standpoint. They do not accurately reflect investment and return on investment for the duPont Company, first because of the standard Company practice here applied of considering "Investment in manufacture" to include only tangible assets (in consequence of which, for example, the 1910 "investment" was considered as being only about $740,000. although the Company actually paid for the business securities worth roundly $1,200,000) and second because of the Pluviusin ownership (in diminishing proportion as shown above) of part of the investment and earnings shown.

First, viewing the entire industry as a unit, the composite results of the Newburgh, Toronto and Fairfield enterprises together, for the entire time they have severally been under duPont control, have been as follows:

Year	**Avg. Total Investment in Mfr.**	**Gross Sales**	**Net Receipts**	**% return on investment**
1911	883,475	704,559	4,634 *	.52 *
1912	1,079,007	941,308	50,462	4.68
1913	1,487,540	1,363,233	164,583	11.06
1914	1,720,800	1,396,655	159,694	9.28
1915	1,850,837	2,982,059	399,991	21.61
1916	3,664,724	5,208,367	771,778	21.06
1917	7,300,860	7,538,556	799,324	10.95
1918	8,164,046	6,013,390	538,889	6.60
1919	8,702,427	10,144,077	1,373,345	15.78
1920	10,537,261	11,544,412	3,460,292 *	32.84 *
1921	7,100,000	3,661,000	1,650,000 *	23.00 *

* Red figures.

The figures shown for 1921 are arrived at by combining actual results for the first nine months with the No. 4 forecast for the last quarter. The indicated net loss includes a prospective write-down of inventories at the end of the year of roundly $300,000.

For the nine years from 1911 to 1919 inclusive the average annual turnover, as shown by the above figures, was 1.04 and the average return on investment was 12.2%. The extremely adverse results in 1920 were due mainly to the disastrous drop in the value of stocks on hand, the write-down taken by this industry at the close of the year being $3,606,847. Of this, roundly $3,200,000. was in grey goods, of which in the face of an extreme stringency among the mills necessitating advance orders in the early part of the year, liberal provision had been made for business which in large measure failed to materialize or was cancelled. Even without this write-down, however, the year's business would have shown a profit of only $146,555. or 1.35% on the manufacturing investment, owing to the failure of sales expectations throughout the year to be realized and to the collapse of business, particularly in the automobile trade, over the second half year, involving a great volume of enforced postponements and abandonment of more or less firmly established contractual obligations.

The adverse result for 1921 is due to a continuation of the same general causes. On a large volume of 1920 gray goods purchases, where that appeared to be the best way out, postponements of delivery to 1921 were secured; and as these goods have come in their values have been promptly written down to approximately the current market.

A further adverse factor, arising mainly from the wide disparity between actual and normal or expected volume of sales, has been a high rate of selling expense. In 1920 this item amounted to over 7% on total gross sales, and for the first nine months of the present year to near 16%, against a fair normal of probably five or six per cent for a large volume business of this nature. An important element of this high selling expense during the past two years has been the largest proportion of main office and branch office Sales Department overhead in comparison with the direct selling cost—a burden which should be greatly reduced under the new plan of organization as indicated below.

Separate Showing by Branches:

Disregarding Toronto and considering only the two branches which now constitute the Company's coated textiles industry, the above tabulation may be split up as follows, the 1911, '12 and '13 figures for Newburgh being those given in the composite statement above:

NEWBURGH

Year	Investment	Sales	New Receipts	% Return
1914	$1,653,335	$1,358,661	$159,854	9.67
1915	1,693,096	2,650,973	338,387	19.99
1916	3,073,376	4,101,777	534,928	17.22
1917	5,245,018	4,884,565	438,270	8.36
1918	5,519,281	4,326,077	586,736	10.63
1919	5,394,670	6,313,339	1,091,086	20.23
1920	6,755,438	8,252,718	2,668,800 **	35.51 **
1921	4,200,000	2,019,000	1,254,000 **	30.00 **
		FAIRFIELD		
1916	279,493*	501,844	65,290	10.23
1917	1,063,932	1,615,982	99,022	10.84
1918	1,135,905	721,048	165,767 **	16.75 **
1919	2,146,864	2,609,733	2,284	.14
1920	3,781,828	3,291,694	791,492 **	20.93 **
1921	2,900,000	1,642,000	396,000 **	14.00 **

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* This figure has been put on an annual investment basis by multiplying the full amount invested by the fraction of a year for which it was used.

** Red figures.

Explanation has already been made of the disastrous results of 1920 and 1921 operations. The adverse results for Fairfield in 1918 and 1919 were due to heavy losses on long-time contracts made with the Ford Motor Company, followed by the general war-time increase in manufacturing costs and by a sharp advance in the price of cotton and of cotton fabrics, against which we were not protected.

3. PRESENT STATUS;
OUTLOOK; POLICIES:

With respect to present and immediate future conditions, the situation is broadly indicated by the final lines of the above tabulations, showing a prospective net loss on the current year's operations of $1,650,000.,in which is included a forecasted write-down of $300,000. to bring inventories at the end of the year completely down to a replacement basis. With respect to outlook and policies, a discussion in considerable detail is given in the initial monthly report of the Cellulose Products Department to the Executive Committee, dated October 17th (E. C. number 6551). For the present purpose it is thought sufficient to add the following bried summarization of what appear to be the most important facts.

Chief Recent
Developments:

From January to August, a net reduction in investment of roundly 35% has been effected as follows:

	Jan. 31	Aug. 31	Reduction	% Reduced
Permanent Investment	$2,1[illegible]0,453	2,262,914	82,461*	3.8 *
Working Capital	5,632,012	2,674,516	2,957,496	45.2
	7,812,465	4,937,430	2,875,035	36.8

* R.d [illegible]

Gauged by the current rate of consumption, however, a large excess of stocks remains to be liquidated, either by gradual consumption or disposal or by an increase in volume of manufacture, as is evident from the following showing for August 31st, in considering which it should be borne in mind that since all standards for stocks are expressed in terms of monthly requirements any increase in volume would automatically increase the standard allowance and reduce the excess without any change in the absolute investment:

	Standard Invest. for Forecasted Consumption	Value of Actual Stocks	Excess
Materials & Supplies	$215,915	1,836,828	1,620,913
Finished Products	101,104	191,188	90,084

In September, Newburgh operated at approximately 22½% of capacity and Fairfield at 25%. This represents some improvement over the earlier months of the year, and while there is no indication of any near return to what are believed to be normal conditions, it appears at least that the present tendency is definitely upward. A policy of retrenchment in manufacturing, sales, chemical and service personnel has been rigorously carried through, and both plants

are now carrying only what are regarded as skeleton organizations.

Grey Goods
Situation:

Inasmuch as the crucial item of working capital investment for this industry is the fabrics required for coating, it appears worth while in this connection to consider somewhat more in detail our present position with respect to that commodity.

Our present total investment in grey goods, on hand and enroute, is roundly $1,100,100. According to market quotations of September 22nd, the replacement value of these goods is $805,000. In addition we have on contract for near future delivery 630,000 yards, at contract prices aggregating $129,000. On these goods the present replacement value indicates a margin in our favor of $21,000.

The standard for total gray goods is one month's requirements. Comparing the value of present total stocks with the value of forecasted monthly consumption, it appears that as of October 1st there was an excess equivalent to 4½ months' requirements. It must be borne in mind, however, that this method of comparison, while perhaps the only practicable one in a condensed treatment of this nature, does not adequately portray the situation; for the several varieties of fabrics are not interchangeable and the ultimate facts are that there is little or no excess in certain construction while in others the excess exceeds the average figure just given.

Competitive
Situation:

Viewing briefly certain broader aspects of the situation, it is evident that the future outlook is not one of easy success.

The present total manufacturing capacity for coated textiles in the United States is probably five times the present consumption and there appears to be no prospect of demand again approaching capacity in the near future. Under the stress of recent adverse conditions, any former disposition toward mutual helpfulness among the manufacturers appears to have given way to the spirit of every man for

—10—

himself, and there is now little or no inclination to cooperate. Competition is fierce and, it appears in many instances unintelligent. Losses of the same character as ours if less in amount appear to have been general, and two of Fabrikoid's chief competitors are now in the hands of receivers. In short, the outlook appears to be for a long future period of vigorous competition, in which reliance must be had for profits upon superior efficiency in purchasing, production and sales. On the other hand, the industry may unquestionably be said to be fundamentally a sound one, offering a product of large usefulness for a variety of further manufacturing enterprises which cater to permanent human needs; capable probably of further great expansion; and no doubt holding out satisfactory future rewards to those manufacturers who in the struggle of competition prove themselves fit to survive. There would appear to be no necessary or permanent reason why the duPont Company should not continue in this field on at least an equal footing with any other manufacturer.

Present
Policies:

It would appear natural that we should secure a large amount of the business of the General Motors Company.

This is, however, not the case, as we are placed by them in severe competition, and not always equal competition. By this we mean that during recent months we have been in competition with concerns in receivers' hands, who are willing to take business at most any price.

For a description of certain important changes, reference is again made to the recent Executive Committee report described above by date and number. The nature of these changes may be briefly stated as follows:

1. Concentration at the plants of all the personnel and routine necessary for effectively carrying on the business.
2. Removal of general sales department activities to the plants, thus insuring close contact between manufacture and sales, with resultant economies of time and expense and improvement in service to customers.

3. Withdrawal from all branch sales offices save Detroit.
4. Issuance of all invoices henceforth at Newburgh in the interest of greater directness and expedition.

Special Economies
in Prospect under
New Organization:

It is confidently expected that the consolidation into one compact organization of the manufacturing, sales, chemical and service activities of this industry will result in very substantial savings. Of these gains perhaps the greater part will come from the increased efficiency and promptness of action which should result from the closer relations and unified control of the several departments of the business; and of that advantage it would be very difficult at this time to make any close appraisal. Certain definite economies in the direct cost of the necessary sales, chemical and service work are in prospect. Figures are now being prepared which will be available in the near future showing direct results in reduced expense.

/s/ R. R. M. CARPENTER.
GENERAL MANAGER.

Note. "Executive Committee Secy's No. 6663" is stamped at top of first page of document but has been crossed out. Also stamped at top is "Received Nov. 12, 1921 M.D.F."

Government's Exhibit No. 107

SERIAL No. S-606
MAY 27TH 1916.

EXECUTIVE COMMITTEE,
Building.

Gentlemen:

FAIRFIELD RUBBER COMPANY

Attached will be found a report on the Fairfield Rubber Company.

Owing to the late date on which this report is presented to you it may be that you will not care to render a definite decision at the meeting Monday. It so happens that W.S. Carpenter, Jr., who is conversant with this subject, is planning to be out of town on Wednesday of this week and for this reason it is requested that at the Monday meeting this subject be taken up and discussed, calling on W. S. Carpenter for assistance, if desired, and that a subsequent meeting be arranged for Wednesday, at which time a decision can be reached.

The reason for the haste in this matter is because, in accordance with the custom of the Fairfield Rubber Company, they expect to send out their new price list for the last six months of this year on June 5th and it would be of material advantage for us to acquire this company before that date, if at all, in order that the commitments may be made in accordance with our own ideas.

Yours very truly,

[stamp] R. R. M. CARPENTER
VICE PRESIDENT

L.

To Executive Committee Serial No. S-606.
From Development Department. May 26th, 1916.

FAIRFIELD RUBBER COMPANY.

Several weeks ago Mr. J. K. Rodgers, of the Fabrikoid Sales, was advised by Mr. H. H. Barnard, of the J. H. Lane Company, that the present owners of the Fairfield Rubber Company would be interested in considering the disposal of their porperty. Ostensibly Mr. Barnard's interest in bringing this matter to the attention of the duPont Company was owing to his hope that, should we acquire this business, they could expect to secure the cotton cloth sales for the entire production, whereas, at the present time the purchases of the Fairfield Rubber Company are distributed among two cotton houses.

Soon after this matter was referred to this Department a meeting was arranged with Mr. A. C. Wheeler, who is one of the three stock holders in this concern, at which time the advice of Mr. H. H. Barnard was confirmed, and accordingly Mr. F. H. McCormick, of this Department, and the writer visited that plant yesterday and the purpose of this report is to describe the proposition which has been made to us in the form of a firm offer.

The Fairfield Rubber Company is a manufacturer of rubber coated cotton cloth which is used more particularly at the present time for automobile and carriage tops. In fact, it is a direct competitor in the field of our "Rayntite", but is a heavier material and is made by rolling a mixture made up of reclaimed rubber, whiting, litharge, sulphur, etc., on to the cotton cloth and later vulcanizing.

The plant of the Fairfield Rubber Company was established in 1880 and is located at Fairfield, Connecticut, a small town about five miles from the center of Bridgeport, Connecticut.

—2—

The plant is located on the New Haven Railroad and ships from Fairfield Station, which is a very short distance from the plant and to which their goods are hauled by team.

The exact area of the property of the Fairfield Rubber Company was not learned, but it is thought to be from six to eight acres, of which but about one-half is covered by the present plant.

The main building of the plant is of frame construction but the boiler house, store rooms and varnish mixing rooms are of substantial brick construction. Exact data regarding certain phases of the investigation was not obtained inasmuch as the owners preferred not to create any suspicion on the part of their present force by endeavoring to secure this data. This is true regarding the area of the property as well as the size of the buildings.

It is estimated that the main building is about 200 feet long and probably 30 to 40 feet wide and is divided at various points by fire walls. In this building is located the various incorporating rolls, as well as the calendar rolls, of which there are two, for the combination of the rubber mixture with the cloth and also various embossing rolls. There are also heating chambers in this building for the purpose of drying the material before shipment.

The boiler house complete is new, being constructed within the last two years. The store house and varnish mixing and cement houses are of good substantial brick construction.

There is also on the property a first class frame house which is used as the superintendent's building. In addition there are stables for the two teams and wagons which they use for carting their material to the Station and also a good size garage, which houses the machines of the officers, as well as a small truck for the use of the works.

The President of the Company is Mr. Harral, and the other stock holders are Mr. A. C. Wheeler and Mr. William Wheeler, together with the Wheeler interests. Mr. Harral is a brother-in-law of the two Wheelers, who are brothers. The writer was extremely well impressed with Mr. Harral and Mr. A. C. Wheeler, with whom negotiations were carried on. They are both fairly well along in years, Mr. Wheeler probably being over sixty and Mr. Harral over seventy, and are apparently very well off financially.

The principal business of the Fairfield Rubber Company is the manufacture of rubber coated cloths for automobile and carriage tops. Of recent years the Ford business has constituted the largest factor of their business and at the present time constitutes probably 60% of their total business. The Ford material is used on the flat part of the Ford tops, which receives the hardest wear. The rounded sides of the Ford top are made of a cheaper material inasmuch as that does not receive the hard wear which the top does.

In addition to the Ford business they sell to some other automobile manufacturers, but their sales are very largely through jobbing houses, and they are not acquainted as to just who uses their material.

They have had practically no selling force. Their sales were originally made by their President, but of late they have had one salesman who visits the various customers more for the purpose of inquiring as to the satisfaction of the goods than for the purpose of selling. Their advertising is comparatively small, and is made up of advertisements in a few of the trade magazines.

The organization of the Company is made up of Mr. Harral, the President, who apparently shoulders most of the responsibility, Mr. A. C. Wheeler, who gives but a portion of his time to this, spending the balance of the time playing golf; and the office at the works is made up of one bookkeeper and secretary, one chief clerk and the son of Mr. Harral, whose duties, according to Mr. Harral, have been very meager.

The plant is operated by a Mr. Hotchkiss, who is the Superintendent. The Assistant Superintendent is that in name only.

and merely acts as such during the absence of Mr. Hotchkiss, at other times being the operator of the large calender.

The force at the works is made up of about 80 or 90 men. They have heretofore been operating on a ten hour schedule, but have recently changed to nine, and of late months have been working up to eight and nine o'clock at night. Apparently from the description of Mr. Harral, the labor is very well satisfied and were extremely appreciative of the recent increase in wages.

The exact record of the yards sold during the recent period of years was not obtained as this was part of the information for which they would have been obliged to call upon the assistance of their force, but it is estimated to be in the neighborhood of from two and one-half to three million yards per annum. The sales value amounted to in the neighborhood of $900,000 per annum.

The profits, as well as the dividends paid, are set forth in Exhibit "A". It will be noted that practically all of the earnings have been paid out in dividends. This is owing to the fact that they did not care to expand their operations. They have had the expansion under consideration for some time, but owing to the age of Mr Harral they did not care to assume any further responsibilities. If the average earnings of the years 1911 to 1915 are considered as representative of earning capacity, it will be found that the average earnings amount to approximately $100,000 per year. The price at which the verbal option on the property is now held is $600,000, so that the earnings of $100,000 show a return of about 16⅔% on this purchase price.

It is quite probable that if this company were taken over by the Fabrikoid Company certain charges made principally for administrative, sales and main office superintendence/would be materially increased, but, inasmuch as the Fabrikoid Company has at the present time an administrative, operating and sales force which is capable of handling the business and operations of the Fairfield Rubber Company without more than a nominal increase in expense, this increased charge would be a bookkeeping charge only, with the

possible exception of certain accounting, which would probably be kept by the Fabrikoid Company in a more complete form as it is believed that the accounting methods at present practiced/by the Fairfield Rubber Company would be considered very crude by this Company.

If, however, these administrative and main office charges should be increased ona basis comparable with those of the Fabrikoid Company the following would result:—

ADMINISTRATIVE:

2% on gross sales on $900,000	$18,000.
Main Office Sales .55% on $900,000	5,000.
Main office superintendence (Fabrikoid heretofore charged $15,000 per annum) say,	5,000.
Total Administrative	$28,000.
At the present time Fairfield Co. pay to their President, Vice President and bookkeeper, say,	8,000.
Increase in administrative, main office sales and operating	$20,000.

If this should be charged against the earning capacity of the Fairfield Company it would reduce the net earnings to $80,000, the purchase then being on the earning basis of 13⅓%. It does not seem too optimistic to believe that the value received by the Fairfield Company from the duPont main office will considerably more than off set the charges above and would probably materially increase the volume of business. It is also more than probable that it will be considered advisable to materially increase the capacity of the plant is a very short time.

On Exhibit "B" is set forth the statement of assets and liabilities of the Fairfield Rubber Company as of January 1st, 1916. No statement of conditions has been made since that date and they did not care to make any claims for the earnings during the period since January first. Since January first a dividend of $17,500 has been paid, and they expect to pay before the consummation of any transaction with us an additional dividend of $17,500, so that the net assets as of January first should be reduced by the amount of $35,000, but if the earnings have been equal to the average of the last five years,

and there is no reason to believe that they will be less than that, inasmuch as the plant has been running to capacity of late months there should be added to the net assets, say, 5/12 of $100,000 or say, $40,000, or roughly sufficient to off set the amount of the dividend. The following remarks are made regarding the statement:—

The real estate, machinery and tools are placed at $118,000. It is the belief of Mr. Harral that the value of these items is today not less than $200,000, and it is thought by the writer that it is certainly not less than $150,000. Considering the very conservative type of men it is thought that in making the improvements to plant much has been charged off against cost, which might rightfully have been capitalized. Also there has been charged against cost each year an amount equal to 10% on the machinery item. This has been deducted from the machinery and tools capital account. Attention is called to the very large item of cash on hand amounting to $107,000.

There is an item of about $120,000 for the stock of cloths on hand as of that date. While the amount of cloth on hand at the present time is not known, the store rooms of the company are all well filled with rolls of cotton so it is quite probable that the stock of cotton on hand to date is as great, if not greater, than on January first. This cotton is included in the inventory at cost or less, according to Mr. Wheeler, and as the price of cotton has in the last couple of years increased from in the neighborhood of ten cents up to nineteen cents, there is no hesistancy in accepting their statement that much of their present stock of cloth is included in the inventory at well below present prices. It might be mentioned here that they have still to be delivered on a cotton contract at least one million yards of cloth averaging in price about 12½ cents against present prices of 17 cents for this grade so that this cotton contract is worth in itself about $45,000. All of the finished product included in the inventory is priced at cost or less.

While little is known of the Accounts Receivable item

of about $120,000 among the assets, Mr. Harral explained that many of the customers which they now have on their books have been on for a great many years, and they feel that their accounts payable are worth 100 cents on the dollar. In the list of the various debtors whose names make up the item of $120,000 the Ford Motor Company amounts to $84,000 or about 75%.

It will be noted that there are no accounts payable. This is typical of the type of men as they advised that they never leave the office on the week end until their outstanding accounts have been paid.

The item of bills payable of $7,300 was accepted of Mr. Harral's son as a loan, and was done as a convenience to Mr. Harral, Jr., and serves merely as an investment for him.

The profit and loss account as of the year 1915 is also included in Exhibit "B". It will be noted from this that the cost of their selling expense is about $5.100 and is made up merely of the salary of their one salesman plus his expenses. As before referred to, while the expenses of the Fabrikoid Company would probably be considerably greater than this amount, these additional expenses should be expected to show a corresponding result in the earnings.

X

The present status of the Fairfield Rubber Company is that on July first most of the contracts which they now have expire. It is the expectation of Mr. Harral to circularize his trade on June 5th, which is the first Monday in June, with their new quotations. While the discount from list on sales for last year amounted to 60-10-5-5 off, it is their present plan to quote not more than 60 off list except to the Ford Company, who will be allowed 60 and 5.

While the Fairfield Rubber Company has usually taken orders for one year in advance they planto quote merely for six months this time, owing to the general unusual business conditions.

It is owing to the fact that Mr. Harral considers it necessary to circularize the trade on that date that it seems very to use our own ideas as regards future prices.

It is understood that practically the only order which the Fairfield Company now has for deliveries beyond July first is a new order recently accepted from the Ford Motor Company. This order was for 2,100,000 yards for Ford tops. This was taken at a price of 60 and 5 off list which means an increase in price over their last contract of nine cents per yard for 1,500,000 yards and thirteen cents per yard for 600,000 yards, or a total additional price for this quantity of $213,000. As they do not keep accurate cost sheets it is necessary for them to largely estimate the price at which to quote and Mr. Wheeler believes that this increase in cost to Ford will appreciably more than offset their increase in the cost of production. It is thought that their rubber will not cost in excess of $60,000 more on this order than under previous prices, and if we consider that their average increase in the price of cotton is five cents per yard, or $105,000, this would make but $165,000 increased cost of the principal materials on this order as against the $213,000 increase in price.

While Mr. Wheeler did not care to go on record as to the future of the business, he did say that he believed the year commencing July first would be the best year that they have ever had.

The competitors of the Fairfield Rubber Company are L. C. Chase & Company, The International Rubber Company, Acme Tire Company, Empire Tire Company, United States Rubber Company and the Hodgeman Rubber Company.

The L. C. Chase Company and the Hodgeman Company it is understood make a very satisfactory product, and according to Mr. Rodgers make the only product which competes directly in quality with the Fairfield Company. The International Rubber Company belongs to Mr. O'Bannon, formerly of the O'Bannon Company, and it is said that their product is not a satisfactory one. The Acme and Empire Tire Companies, according to Mr. Harral, have a small production and the

United States Rubber Company is a new producer in that line.

Mr. Harral advised that there is no agreement whatsoever as regards prices, though a tacit understanding did formerly exist, but at the present time Mr. Harral is very friendly and thinks a good deal of the principals in the Chase, Acme and Empire Companies. He spoke of them and more particularly of the Chase Company in the very highest terms.

Mr. Harral further advised that while they had had but two or three pieces of their product returned from Ford on account of defects, that the International Company have recently been obliged to take back eight carloads of from 1500 to 1700 yards each owing to poor quality.

The trade in which the goods of the Fabrikoid Company are used has not been as carefully investigated as would be the case ordinarily owing to the fact that the Fabrikoid Company has for a number of years been actively operating in that same trade. For this reason it was felt that an expression of opinion by the Fabrikoid Sales would be of more value than any analysis that could be made, especially in a short time, by this Department. X

As Exhibit "C" is given a letter from Mr. Rodgers in reply to my request that he state all the pros and cons. It will be noted that Mr. Rodgers confirms what has been said above regarding the negligible increase in sales expense to handle this product.

A letter from Mr. Kniffen is incorporated in this report as Exhibit "D". It is interesting to note that while the Ford Company is conversant with our single texture fabric, which is advocated by us for top material, the Ford Company placed their order for over two million yards covering deliveries over a period of fourteen months from July first with the Fairfield Company. The Fairfield people received a letter from Mr. Deal, Purchasing Agent of the Ford Company, expressing in the highest terms his appreciation of the very pleasant business relations which have existed between the Ford Company and the Fairfield Company. The writer understands from our own people here that Mr. Deal is not at all given to flattering, and therefore, this letter is of particular interest to us. It might be added that while this letter was not seen by the writer it is this together with everything else which was spoken of by the Fairfield people believed to be the actual situation, but as this is the case with all other information, figures, etc., they can be confirmed before closing any contract with these people.

It is the belief of the writer that if the real estate, machinery and tools of the Fairfield Company are included at a fair appraisal value and if the merchandise, particularly in the form of cloths on hand, is marked up to more nearly its present value, that the net assets of the Fairfield Company as of January 1st, 1916 would amount to at least, and quite probably more, than $600,000. Also while figures of earnings since January first are not available there is no reason tobelieve in so far as we know why earnings should not amount to at least the $35,000 paid and to be paid to the present stock holders. If this is correct, and in any event it cannot be far from correct, a purchase of this property at $600,000 would be a purchase on the basis of their assets.

Attention is called particularly to the fact that this purchase will be one very largely of liquid assets, the total net quick amounting to about $400,000 or 66% of the total price of $600,000, and also it would be noted that over $100,000 is in cash which seems an unnecessarily large amount of r (sic) a business of this size. If this is reduced by its partial disbursements to the new stock holders the earnings will yield a correspondingly higher percentage return on the investment. It is further quite possible that inasmuch as the Fairfield plant operates on much the same class of cotton goods that does Fabrikoid that the amount of cloth in stock could be reduced.

It is further the opinion of the writer that if the Fairfield Company, operating as at present, has been earning an average of $100,000 per annum that the Fabrikoid Company in spite of possible increase in administrative and sales expense will be able to show net earnings of at least that amount, and more probably will show a considerably greater amount owing to the fact that they will undoubtedly be able to increase sales to an extent which will warrant materially increasing the present capacity. As this $100,000 is equivalent to a 16⅔% return on the investment if purchased at $600,000, the Fabrikoid Company should expect to maintain a return on the investment of that amount.

While it is possibly a rather bad feature to have so much, probably 60%, at present of the present capacity of the plant going to one customer, there is no good reason to believe that such should be the case long if the Fabrikoid Company should take over this company and with their salesmen increase the volume of business and increase the number of large buyers among the present customers of the Fabrikoid Company.

In view of all that has been said it is the recommendation of the writer that this Department be authorized to purchase for account of the du Pont Fabrikoid Company the entire $35,000 outstanding capital stock of the ~~Fabrikoid~~ Fairfield Rubber Company at the price of $600,000, at which price a verbal option is now held by this Department, this price to be provided that it can be substantiated by investigation by our accountants that the earnings of the Fairfield

Rubber Company for the years 1911 to 1915 were not less than as set forth in Exhibit "A", and provided further, that it can be established upon investigation that the net assets of the Fairfield Rubber Company as of January 1st, 1916 were not less than $500,000.

PREPARED BY:

W. S. CARPENTER, JR. (Stamp)

APPROVED BY:

R. R. M. CARPENTER (Stamp)

NOTE: "X" 's in margin of document, pages 7 and 9, are hand-drawn.

EXHIBIT "A"

	(1) EARNINGS	DIVIDENDS PAID	BALANCE OF EARNINGS OVER DIVIDENDS (4)
1909	244,729		
1910	155,623		
1911	85,405	87,500	2,095(3)
1912	149,106	140,000	9,106
1913	114,334	87,000	27,334
1914	64,497	87,000	22,503(3)
1915	95,700	70,000	25,700
1916	(2)	35,000	

(1) From this should be deducted about $1500 per year for bonus to employes.

(2) Profits to date this year not known.

(3) Deficit.

(4) The net increase to surplus during the years 1911-1915, according to this figure amounts to $37,542 less bonus allotments of, say, $7,500 = $30,042.

Exhibit "A"

EXHIBIT "B"

THE FAIRFIELD RUBBER CO.

January 1, 1916.

ASSETS & LIABILITIES

Real Estate		85,960.22	Capital Stock	35,000.00
Machinery & Tools		31,949.83		
Fixtures & Furniture		1,561.63		
Insurance		1,975.48	Bills Payable	
Expenses		2,970.67	C.D.& F.Harral	7,300.00
Bills Receivable		725.00		
Cash on hand		107,671.71		
Merchandise:				
Cloths	121,172.02			
India Rubber	29,573.58			
Chemicals	6,822.33			
		157,567.93		
Ducks & Drill		16,389.82		
Harral & Major Cloth		4,787.92		
Upholstering Cloth		1,821.62		
Clothing		976.86	Profit & Loss	491,939.74
Open Book a/c Debit		119,881.05		
		534,239.74		534,239.74

EXHIBIT "B"

PROFIT & LOSS A/C

Jan. 1st, 1915.

		Profit & Loss Bal. Jan.1,1915	466,368.10
		Duck & Drills	134,685.86
		Harral Cloth	1,442.63
		Clothing	1,709.04
		Interest	16,948.02
		Suspense	37.12
Upholstering Cloth	939.94		
Repairs	1,637.04		
Expenses	31,887.11		
Insurance	2,970.72		
Commission	196.22		
Salary	12,737.00		
Geo.W.Hurted Salary	2,600.00		
" " Expenses	2,559.48		
10% Machinery & Tools	3,550.00		
10% Fixtures & Furn.	173.52		
Dividend #44	35,000.00		
" #45	35,000.00		
Balance Profit & Loss	491,939.74		
	621,190.77		621,190.77

EXHIBIT "C"

COPY

May 26, 1916.

Development Department:

Attention Mr. W. S. Carpenter.

Referring to the matter of the proposed purchase of the Fairfield Rubber Company, concerning which you asked me to give you my ideas "pro" and "con".

I can think of absolutely no business reason against this, but many in its favor. The business is an old established one, the reputation of the goods being of the highest character, if I am not mistaken, Fairfield Rubber ranking higher than any other make, unless it be Hodgeman Rubber Co.

X Fabrikoid salesmen could sell the output of this factory, I think I am safe in saying, at no additional expense to us, and I believe this to be true with the Fairfield capacity double what it is at present. In fact, I think the increase in actual necessary Sales and Over-head expense, in case we should take on this additional business to handle, would be negligible, if it was handled through the present Fabrikoid organization, and I am convinced, from my general knowledge of the matter, that the present Fairfield business could be doubled in a year or two without much difficulty.

Rubber tops for automobiles seem to be giving very good satisfaction, and we have lost many good accounts on automobile top goods because of the lower cost of rubber. Therefore, to have this plant would enable us to get at least our share of this business, which should be large.

As to the margin of profit per yard on goods, you, of course, have the figures. Wish to suggest, however, that with the dye plant of our own, this could be added to quite materially, as we have thoroughly demonstrated already at Newburgh.

(sd) J. K. Rodgers.

JKR/EGC

Note: "X" in margin is hand-drawn.

Exhibit "C"

19

EXHIBIT "D"

COPY

May 26, 1916.

DEVELOPMENT DEPARTMENT
(ATTENTION MR. W. S. CARPENTER) (CONFIDENTIAL)

OUR FILE FO-385—FK

REFERENCE: Conversation of this morning as to how the manufacture of a line of rubber coated fabrics would fit into our present activities:

Excluding Combined Mohairs, we now have Double Texture catering to the high class vehicle top trade, and Single Texture Fabrikoid, catering to medium to low class trade. By the possession of rubber coated fabric we would be able to cover the entire field; when thinly applied the rubber-coated goods would provide the cheapest type of cover, and when more thickly applied they would satisfy that portion of the trade, such as the Ford Motor Company, which requires something better than the very cheapest but insists upon a greater weight and thickness in the finished goods than possessed by our present Single Texture Fabrikoid auto material. In short, the proposed addition would enable us to cover the whole field.

Identically the same gray goods are used for both the rubber and Fabrikoid and to quite an extent the same embossing equipment; with consequent possible pooling of stocks and plant equipment. Both are sold to the same class of trade.

The only apparent argument against the proposal lies in the similarity of the trade to which rubber fabric and Single

Texture Fabrikoid is sold. The two points of difference mentioned above explain why both are now sold side by side, but in actively pushing Single Texture Fabrikoid we are invading the rubber field and by far the greater part of the prospective advances by Single Texture Fabrikoid will be at the expense of rubber coated goods.

I do not think that the latter negative argument compares

Exhibit "D"

at all in force with the affirmative argument in the first paragraph regarding our covering the entire field.

Altho the vehicle top line is by far the most important to be considered, the same general arguments apply to other smaller fields. Cheap casings such as typewriter covers and even the cheaper forms of upholstery fabric show the same points of contact between rubber and Fabrikoid as do auto top materials.

One point of the situation which might be mentioned is that these rubber-coated fabrics being associated with the cheaper trades would not tend to enhance the advertising value of the duPont or duPont Fabrikoid name. How seriously such a sentimental consideration would react upon the other duPont or duPont Fabrikoid industries is a matter where the opinions of the Sales and Advertising Departments should be of more value than any opinion from the Operating Department. It would appear to the writer that the influence would be small.

(sd) F.Kniffen.

K.

FK/MR

Government's Exhibit No. 108

To Mr. Irenee du Pont — Serial No. S-512

From Development Department — April 17, 1914.

PROGRESS REPORT ON CELLULOID INVESTIGATION.

In a report recently compiled by this department on the celluloid investigation the results were set forth in detail. The object of the present report is merely to summarize the recommendations of that report and give a brief resumé of the findings subsequent to the date of that report, with a view of enabling the proper parties to express an opinion as to the next step to be taken.

In the preceding report it was recommended that should the Company desire to participate in the benefits of the celluloid business, inasmuch as the object of the investigation was to dispose of nitro-cellulose,of which the Company has at present an excess productive capacity, an attempt should be made to bring about this participation by developing one of the four following channels of entry, in the order named.

1. To approach the present celluloid companies with a view of supplying them with their nitro-cellulose requirements.

2. To build a celluloid plant for the manufacture of sheet celluloid.

3. To build a plant for the manufacture of sheet celluloid, combining to it a department for the manufacture of celluloid articles as an assistance in disposing of the sheets.

4. To acquire one of the present operating companies.

The results of the investigation to date are listed below.

FIRST: It is the positive conviction of this department that it will not be possible to supply any of the present operating celluloid companies with their nitro-cellulose requirements. The reasons for this can be briefly enumerated as follows:

—1—

Their plants compare farily well though they do not equal in amount of output that of the individual plants of this company, thereby enabling them to practice economies in operation with consequent reasonable costs of production and they believe that the margin of difference between their present cost and our selling price could not be sufficient to make outside purchases attractive.

They would sacrifice the perfect control and supervision of their product throughout its manufacture which they now enjoy.

Lastly, and most important, it would be almost impossible for this company to supply them with the product which they desire unless they would agree to instruct us in the details of the manufacture or the composition or character of their product. Inasmuch as they have been working for years upon the development of their nitro-cellulose they would not care to turn over the information accumulated for the benefit of another producer, especially as they probably would feel that later, should the duPont Company have this information, it might decide to enter the celluloid business as a competitor of them.

In view of the above this department feels satisfied to drop further consideration of the subject from this standpoint.

SECOND: The success of the construction of a plant for the manufacture of sheet celluloid would depend largely upon the supply and demand of this product, as well as on market price and for this reason these phases are briefly discussed.

There are, at present, three large domestic manufacturers of celluloid and one smaller one. These are the Celluloid Company of Newark, N. J., Arlington Company of Arlington, N. J., Fiberloid Company of Indian Orchard, Mass. and the Viscoloid Companyof Leominster, Mass. The first three companies, which are the largest, have been operating for in the neighborhood of 30 years and have developed a very good business. The prices heretofore have been such as to result in exorbitant profits for these

companies, resulting in almost phenomenal development. These three produce sheets, part of which they manufacture into articles and part of which they sell. The last named has only a very small sale of sheets outside of five or six comb companies which they themselves control.

It is estimated that the total production of sheets amounts in pounds to about 8,500,000 per year. Of this amount there are sold as sheets about 4,400,000 pounds, the balance being manufactured into articles by the celluloid companies themselves.

In addition to this domestic supply imports are now being made by German and English companies. So far as is known the only German company which is importing is the Rheinisch Gummi und Celluloid Fabrik and the only English company is the British Xylonite Company. While there are other German the above named is believed to be the only English company. The effect of imports is further discussed below.

The principal outlets for sheet celluloid are by sales to the automobile trade for automobile top windows and for the manufacture of hair ornaments and combs, advertising novelties, toilet articles and many other various articles, such as buttons, cutlery, toys, etc., together with a small amount for export. The consumption in the automobile business has not as yet been thoroughly investigated but it is planned to do so shortly. The hair ornament and fancy comb business has not, for the last four or five years, been very satisfactory, owing to the change in styles. This has resulted in many of the comb companies failing or liquidating, many times with quite an item on their books to the credit of the celluloid companies. Among the advertising novelty manufacturers there are some in very good financial standing.

The celluloid plant at Troisdorf had, when visited, a productive capacity of about 1,600,000 pounds per year. While making the investigation there it was said that they considered that the smallest plant which could be recommended for the most economical operation. Should a plant

of that capacity be installed by the duPont Company it would mean increasing the productice capacity of celluloid sheets, sold as sheets in this country, by 36%. An investment in a plant of this capacity would be a little over $1,000,000.00, including Plant & Equipment, Finished Product, Raw Materials, Celluloid in Working and Accounts Receivable. About one-half of this investment is in Working Capital. As near as can be figured at present, the profits to be derived in this manufacture, considering the cost of production as estimated at Troisdorf and the present market prices in this country, would be from 10¢ to 20¢ per pound. If the plant could be operated to 75% of its capacity and produce 1,200,000 pounds and yield a profit of, say, 15¢ per pound, the return would be $180,000 per annum, or 18% on the investment. The amount of nitro-cellulose consumed in this production would be about 900,000 pounds per year or 3000 pounds per day.

In view of what is said below regarding the German product, these costs and estimates would have to be very carefully checked again.

The terms on which the celluloid sheets are sold to the small manufacturers, which convert them into articles of various descriptions, are extremely liberal, being about eighty (80) to ninety (90) days, with 2% discount. Inasmuch as many of these manufacturers can turn over their product inside of a week, the result is that the celluloid companies actually carry these small manufacturers for weeks. It is firmly believed that there is no price understanding among the celluloid companies but that the competition for the business is quite strenuous. The result is that these small manufacturers play one celluloid manufacturer against the other for better terms until the celluloid companies, in order to secure the business, are obliged to permit these small manufacturers to run up their accounts far beyond their financial standing. Theyoccassionally fail with the resulting loss on the part of the celluloid manufacturer. Many of those who do not fail are so bound to the big companies that any attempt by them to secure their requirements elsewhere would, probably, be strenuously resented by the big companies who might even go so far as to call their credits which would result in embarassment on the part of the small manufacturers.

Each time that the question of a new producer entering the market has been discussed with these manufacturers they have asked what inducement there would be given to them to secure the business; that they have been given service to their perfect satisfaction for years by the present companies and they could see no reason for changing unless sufficient inducement could be given.

It seems to follow, therefore, the an attempt to secure this business, to be effective, would have to be made by offering inducements in the way of concessions in prices. For some of these small manufacturers to accept these terms would mean their embarassment; for others who are able to withstand the resentment of the big companies, it would mean that they would, probably, be offered even lower terms by the present companies. As it would be necessary to make a strenuous campaign to dispose of even 75% of the productive capacity of the plant above mentioned, it is believed this would result in the ruination of the business for the present companies, as well as for ourselves.

The market price of celluloid in this country has always experienced a gradual decrease; the product which some years ago sold for $1.35 per pound now selling for 60¢.

In time to come the increase in the demand in this country might be sufficient to gradually absorb the output of a new plant but this time will be even more remote, in view of the recent reduction in tariff which appreciably affects the importation of sheet celluloid, the reduction being from 40% to 25%. The effect of this is already being noticed by the importations of the above mentioned German and English firms. The latter is now installing a warehouse in Leominster, Mass., which is the center of the comb business, in order to better supply the trade.

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There are some objections to the foreign product which it is believed will prevent it from making very great strides in this country, although they, undoubtedly, will secure a portion of the trade. These reasons are the following:

Among many of the consumers of celluloid sheets the product which they demand, in order to meet the ever changing styles in their product, varies continually and they are in the custom of ordering just enough material to keep them operating for a very few days, or even one day, in the case of some. If the foreign companies do not keep stores on this side the difficulties in offering this service to the consumers can easily be appreciated. Though the British Company is installing a warehouse, as mentioned, the capacity of this is estimated to be about $20,000.00 worth of stock, whereas the large companies maintain a stock of in the neighborhood of $250,000.00. As the colors of celluloid are extremely varied and as the thicknesses of the sheets are many and as he demand varies between wide ranges, it can be seen that r some classes of customers the present arrangement of the British company will not be sufficiently effective. Another objection is that some of the companies hesitate to order their materials from an outside party when they are so dependent upon the present big companies for extension of credit. They also hesitate to buy from a newcomer, especially when he is a foreigner, unless they are offered some inducements to more than compensate for possible disadvantages. Again, the trying out of a new product is something that many of them hesitate to do. Those who have tried out the products find that of the British quite satisfactory, whereas that of the German company has not proved so to many. They claim that the material is not very stable, that it varies in thickness and hardness. Also inasmuch as the foreign product must pass the customs unpolished to secure the lower rate of duty, this is not satisfactory to some. Statistics show that increases in importations of celluloid since the new tariff became effective have been quite appreciable. This, of course, is to be expected as these companies would, undoubtedly, attempt to accumulate some stocks in this country. Tt is thought, however, that these companies may hesitate to establish very large warehouses in this country, owing to the possibility of an increase in the tariff later, which is already being discussed.

To sum up the above, it seems highly inadvisable to launch out upon the celluloid business by the erection of a large plant. There is an alternative, however; that of erecting a small plant and entering the business in a modest way. This might be done as follows:

Detailed estimates, both regarding the investment required and the cost of production, which may be prohibitive in a small installation, shoud be obtained, possibly from our German friends at Troisdorf, adjustments being made for the higher cost of production necessary to manufacture a more satisfactory product, which our Troisdorf friends claim they are able to do, though admitting that their present product is somewhat inferior. With a small unit the Company could specialize in the manufacture of certain products, such as the transparent for the automobile business. This would have the following advantages:

The original investment would be reduced; the amount of stock necessary to keep on hand would be reduced owing to there being but very few sizes for this trade; the class of customers secured would be more stable and, therefore, it might not be necessary to grant such long terms of credit. After this had been worked out the Company could gradually work into other lines of manufacture, such as that of the products demanded by the large advertising novelties companies. From this the manufacture could gradually expand into new lines and eventually work up a general business and wide reputation.

THIRD: The addition of the Articles Manufacturing

Department could be best considered after the manufacture of sheets had been taken up. The Company would, at that time, be more familiar with the celluloid trade and the demands of the consumers, as well as the effect of the foreign competition which is being somewhat felt, owing to the reduction in the tariff on manufacturing articles from 65¢ per pound plus 30% to 40%.

FOURTH: In considering the purchase of one of the present operating celluloid companies, the interest seems to, naturally, center upon one as the most attractive, namely, the Fiberloid Company. This for the following reasons:

The Celluloid Company and the Arlington Company seem both too large to start with, being capitalized at $6,000,000 and $4,000,000 respectively, the assets of the latter amounting to somewhat over $5,000,000. Also the percent of the product which is converted into articles by these companies themselves is quite large, being about 50% of the total, from the best data at hand. This would necessitate more detailed manufacture, as well as a larger organization for the distribution of the product. The location of the Celluloid Company is hardly to be recommended, it being located in the city of Newark and almost entirely surrounded by residences. The possibility of danger, while heretofore not having caused any trouble, can be appreciated and, in fact, may some day necessitate the moving of the plant to a less populated district. At any rate, expansion would be more difficult with this location. While none of the plants have been entered, it is believed, from rumors, that the equipment of this company is not of the most modern, owing to the ultra-conservative character of the management. At least, most of buildings are very old. This cannot be said of the Arlington Company, however, who seem quite aggressive and have an excellent location with unlimited area for expansion and almost no residences in the vicinity. The stock of both of these companies is held quite closely and inasmuch as the owners of

the latter especially are particularly sanguine as to the future of the industry, the purchase of the company at an attractive figure would probably be extremely difficult. The Celluloid Company pay 8% on their stock and the Arlington Company 4%.

The fourth company, the Viscoloid Company, have not a very good name in the trade; also they do not manufacture the higher grade class of goods which, it so happens, attracts the better customers. Even the product which they do manufacture has not a very good name and very little of the stock is sold as sheets. The reputation of this company, as well as the product, may be somewhat influenced by prejudice, owing to the fact that they own or control five or six comb factories who are direct competitors of the other independent comb manufacturers. This last feature is especially unattractive because the hair ornament business is a variable one itself and the ownership of these companies by the Viscoloid Co. would make it very difficult for them to sell their product to other comb manufacturers.

The Fiberloid Co. have comparatively recently, namely, in 1904, moved their plant from Newburyport to Indian Orchard, Springfield, Mass., at which time it is claimed the entire installation was of the latest type and the plant and operations planned to facilitate the easiest and most economical handling of their product during the manufacture. They claim to convert only about 30% of their total product into articles, their main object being to develop their sheet business. According to the opinion of the trade, their product is very satisfactory, being on a par with that of the Celluloid or the Arlington Company. They own some stock in one comb factory, namely, the Yale Novelty Co. of Leominster, Mass,, but this does not seem to influence their sales to other comb factories. It is believed that stock was taken in this company ata time when the comb company was in difficulty and owed the Fiberloid Company a large amount of money for raw materials.

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While negotiating with one of the Directors of this company in an effort to arrange for supplying them their nitro-cellulose requirements, the question was brought up of our buying the controlling interest in their company. Later this Director, together with one of the other Directors, in discussing the matter more at length, advised that they believed a controlling interest in the company could be acquired at a price which would yield 15% on the purchase price, though no positive assurances were given of their ability to do so.

The capitalization of the company is made up of $1,000,000, 7% accumulative Preferred Stock and $2,000,000 of Common Stock, both having the same voting rights. For this reason it would be necessary to acquire more than $1,500,000 par value of the stock. It was insinuated that the company is earning about 15% on their Common Stock so that the purchase of the controlling interest, if all in Common Stock, would mean something over $1,500,000.

The Common Stock is not quoted, inasmuch as not a share has changed hands since the original distribution at the time of the re-organization of the company in 1911, at which time the capital stock was increased from $20,000, or its original amount some twenty-eight years ago. The Agreement of Association of this company makes provision that

1. The Preferred Stock is preferred as to assets in event of liquidation, and is preferred as to 7% annual cumulative dividends, payable quarterly, January, April, July and October.

2. No mortgage can be placed on the Company's property without the consent of 75% of all of the outstanding Preferred Stock.

3. The Preferred Stock cannot be increased without the consent of 75% of all of the outstanding Preferred Stock.

4. No dividends can be paid on the Common Stock whereby the net quick assets shall be reduced below $1,000,000, nor except out of the net earnings, nor unless all accrued dividends on the Preferred Stock have been paid in full.

5. Thirty-five per cent of the balance of the net earnings each year after paying 7% on the Preferred

Stock and 5% on the Common Stock shall be retained in the business until the net quick assets amount to $1,500,000 but with the right on the part of the Company of reducing net quick assets to $1,350,000, provided the money is needed for new plants or machinery, but thereafter 35% of the profits, as above mentioned, shall be retained in the business until the net quick assets again become $1,500,000.

6. The Preferred Stock is redeemable as a whole, but not in part, after January 1, 1917, upon sixty days' notice at $125 per share and accumulated dividends.

At the time the Preferred Stock was first offered for sale it was totally subscribed in one day. At that time a statement was made in which the average annual net earnings since April 30th, 1903 to that date exceeded $258,000 and such net earnings for the six months ending October 31, 1911 exceeded $164,000. The statement also made known that the losses from collection over a period of eight (8) years had equalled less than one-half of 1%, which seems surprising in view of the nature of the business and the very long terms of credit granted on the sales.

As Exhibit "A" the statements of the company for three (3) dates, about a year apart each, are set forth. By this statement it will be noted that the Material Assets of the company gradually increased during those years and the Good-Will was somewhat decreased. At the present date it is claimed the company has not a dollar of indebtedness, with the exception of current debts. The reason that the two Directors referred to believe that they can buy up this stock is that a controlling intrest is now held by three parties, one of whom is Mr. Kenyon, one of the two original founders of the company, and who is at present in such poor state of health that he would consider liquidating his holdings. Owing to the fact that the Fiberloid Company consider us as possible future competitors of theirs, they are unwilling to offer any information regarding the details of manufacture or of earnings. They state, however, that their Preferred dividends have always been paid and that recently two dividends on Common have been declared and paid. Further information, however, can possibly be obtained should this Company be interested in the proposition.

CONCLUSIONS

In view of what has been said, it is the belief of this Department that one of the following two courses is the most advisable to follow—

> Either the making of a further study to determine the advisability and make estimates of the investment required and the earnings of a small plant as referred to above, or
>
> Continue our negotiations with the Fiberloid people with a view of purchasing a controlling interest in this company on the best terms possible.

While this study has not been carried sufficiently far to make definite recommendations on either of these courses, the following pros and cons may be cited:—

FIRST: Building small plant.

ADVANTAGES:

Would make use of our present nitro-cellulose producing capacity for all of the product produced.

The duPont Company would own the entire plant and control the manufacture and output.

Only the lines of manufacture would be taken up which would be considered most advantageous to the Company and ~~most~~ closely follow the policy of the Company.

The plant could be located at one of the present Smokeless Powder Plants with the contingent advantages.

The Company would not be purchasing more nitro-cellulose producing capacity, of which it has at present an excess.

DISADVANTAGES:

Would have to pay for instruction in the manufacture of the product and the expense of carrying it through the experimental stage.

Would have some difficulties in entering the trade though

probably not insurmountable.

Would have to develop the reputation of the product.

As regards the purchase of the Fiberloid Company, the following may be mentioned:

ADVANTAGES:

Trade and reputation would be already established and the concern a going one.

Intimate knowledge of the manufacture would be included.

As their present nitro-cellulose producing capacity is claimed to be operating at full, for any increase in their production it might be possible to supply the nitro-cellulose from the present plants of the Company.

It might further be advantageous to supply nitro-cellulose for part of the present celluloid production.

DISADVANTAGES:

The investment would be a large one and in view of the present status of some of the lines of business on which the celluloid is dependent for its patronage and also in view of the reduction in the tariff, this investment might not yield the expected returns from now on.

Thelocation of the plant would be somewhat distant from the location of any of the present Smokeless Powder Plants, which might make it impractical to supply any of the requirements of the Fiberloid Co. for its present output and even difficult for future requirements.

RECOMMENDATIONS

Inasmuch as this study has not as yet been carried sufficiently far to enable this department to make definite recommendations as to the proper course to pursue, but merely to set forth, briefly, the findings of the investigation to date to get an expression of opinion as to the desired

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direction of procedure, it is hoped that the information contained may be sufficient to permit of a decision being arrived at as to whether both or one of the above courses will be considered as attractive to pursue, it being the opinion of the Department that for obvious reasons it would not be good policy to proceed too far, especially with the negotiations of the Fiberloid Co., if there is no possibility of the proposition being accepted.

APPROVED BY
R. R. M. CARPENTER (Stamp)

PREPARED BY
W. S. CARPENTER, JR. (Stamp)

Government's Exhibit No. 109

September 12, 1915.

TO EXECUTIVE COMMITTEE

FROM DEVELOPMENT DEPARTMENT.

PURCHASE OF ARLINGTON COMPANY

I am handing you report prepared since Satruday noon, when our representative, W. S. Carpenter, Jr., concluded negotiations with the Arlington Company started last Monday.

There is much to be gained by prompt consideration of this report tomorrow morning.

We have promised the Arlington Company a prompt reply which should be given early this week.

As soon as general policy is approved, contract to buy along lines as mentioned will be paepared.

We have been studying this situation for some years past, and feel strongly that this is the best opportunity we will get to enter this business.

Mr. Irenee duPont, Mr. Raskob, Mr. P. S. duPont and the writer have gone over the matter carefully, and are convinced that we should either take advantage of this opportunity or drop further consideration of this subject.

R R M Carpenter

Director, Development Department

(837)

ENCL.

Government's Exhibit No. 110

September 12, 1915.

To EXECUTIVE COMMITTEE

FROM DEVELOPMENT DEPARTMENT.

THE PURCHASE OF THE ARLINGTON COMPANY:

About one weeksago it was learned, thru certain intermediaries, that the owners of the Arlington Company, celluloid manufacturers of Arlington, N. J., had been considering the sale of the entire Company. This matter was promptly followed up resulting in interviews, first with these intermediaries, and subsequently with the principals.

Briefly, the causes leading up to the present situation, as well as the developments, are as follows:—

There exists in the Arlington Company two principal factions—the Chapman interests (made up of Henry C. Chapman, C. Brewster Chapman, Francis A. Gudger, etc.), and the Ensign interests (made up of Ensign, Ellsworth and Schultz families, etc.), the former having majority interests.

The Ensign faction, it is said, has for some period been uneasy regarding their position and especially anxious regarding the future of the Company—this in view of the fact that the larger stockholders of both sides are men over seventy years of age, Mr. H. C. Chapman being seventy-eight. This feeling was probably intensified owing to the fact that C. B. Chapman, the son of the President, has never shown any interest whatsoever in this line of business, being interested in other developments in the south. It is also claimed, tho the writer saw no evidences of it during the various meetings, that there has existed some lack of sincere cooperation in the management of affairs.

As a result of the above condition, the Ensign

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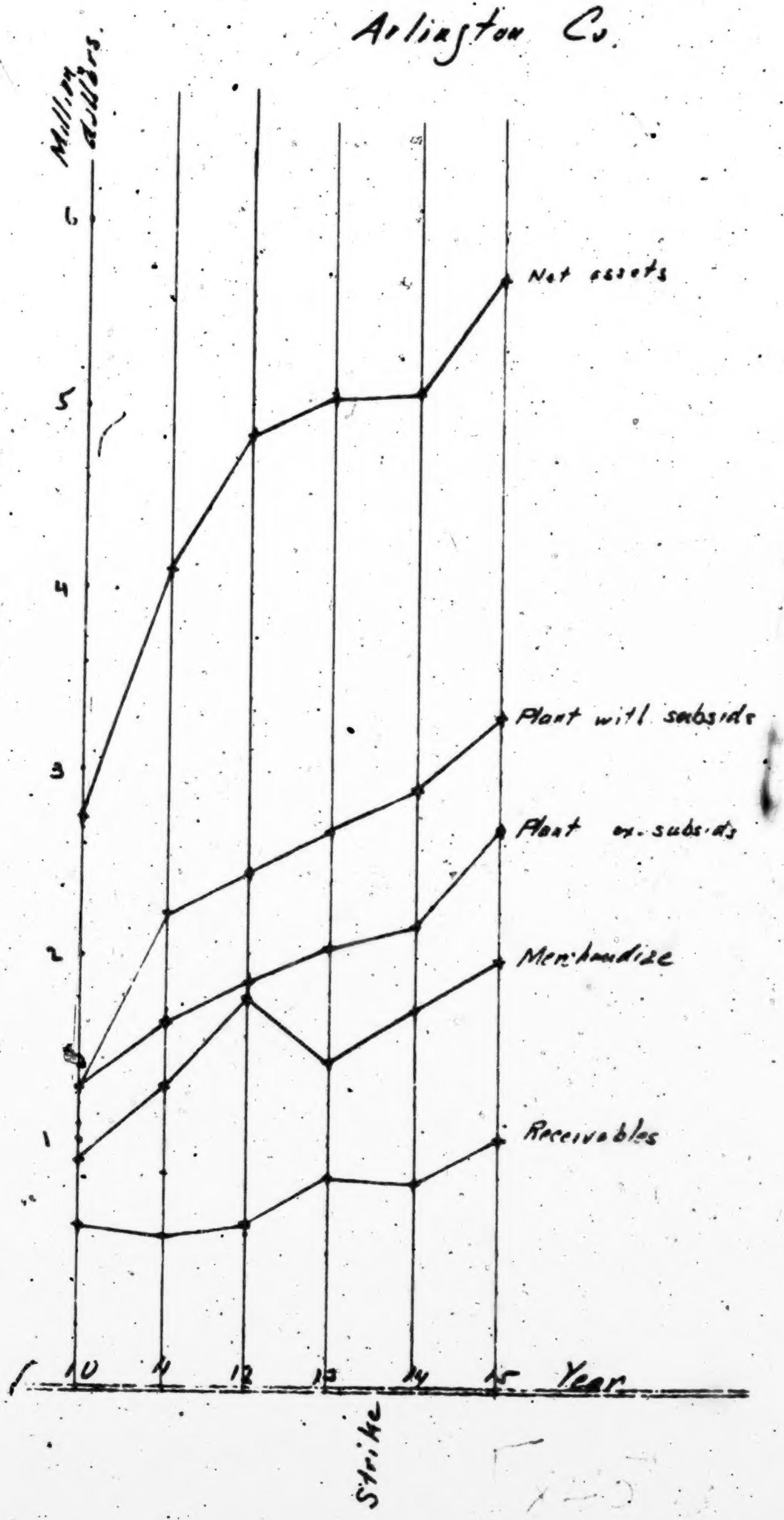
interests about two months ago approached Mr. Norman Peters, a broker in New York, with the request that he, without disclosing the overtures of the minority, approach Mr. Chapman and endeavor to obtain an option from him on his holdings. Mr. Peters did this, and, according to Mr. Chapman, represented that he was in touch with a prospective buyer. For some time Mr. Chapman declined to consider this, but later consented to give an option on his holdings at $165. per share, provided the others would join. This option was to remain in force during the month of August. Mr. Chapman later explained to the writer that his only reason for considering the proposition at all was owing to his age and the fact that the business apparently had no attractions for his son.

It subsequently developed that Mr. Peters was not in touch with an interested purchaser, and the option lapsed without results. Subsequently, however, Mr. Peters had a friend of his write to Mr. H. F. duPont inquiring if he thought the duPont Wompany would be interested in such a proposition.

The writer first visited these fourth parties, then got in direct touch with Mr. Peters and Mr. Ellsworth (Treasurer) and later with Mr. Chapman.

After considerable discussion, during which Mr. Chapman and the Ensign interests were advised of our interest and requested to indicate a proposition based upon their


Arlington Co.
Million dollars.
6
5
4
3
2
1
10
11
12
13
14
15
Year
Strike
Net assets
Plant with subsids
Plant ex. subsids
Merchandize
Receivables

average annual earnings over a period of four years, 1911-1914, they advised that they would be willing to dispose of their entire holdings and guarantee the balance of the stock at a figure resulting from the capitalization ~~fo~~ of their average annual earnings over this period on an eight per cent. basis, provided we would increase their 1913 earnings by $150,000., which they claimed was a minimum figure of the actual cost to them of a severe strike, the first and only one in the 32 years existence of the Company. They further believed that we should compensate them for the losses due to a price war in that period.

From Exhibit "B" it will be noted that the total earnings over that period of four years amounted to $2,070,332. (as noted, we are not sure of these earnings, but they have been computed from the best data available), which, with the $150,000. (neglecting price war costs) equals $2,220,-332., or an average of $555,083. This, capitalized at 8%, equals $6,938,537., or a price of about $173.50 for each of the 40,000 shares of the Company.

As it was believed that this would not be their final figure, in accordance with a plan decided upon at a meeting of Messrs. P. S. duPont, Irenee duPont, J. J. Raskob, R. R. M. Carpenter and the writer, the writer again met with the stockholders and indicated, but without compromise, that in his opinion an offer based upon the earnings capitalized at 10% and no allowance made for the strike cost, would be accepted; provided that should the price per share, so figured, fall below $130., the Arlington Company need not sell at below $130., tho we could, if we so desired, buy at

$130., and should the price result above $170. per share, the Arlington Company would sell and we buy at $170. A contract binding both parties to abide by the results of a thorough investigation by both parties, with arbitrators in case of disagreement, was suggested.

As a result of two meetings to discuss this proposition, the Arlington Company accepted all of the terms as outlined informally in Exhibit "C", and briefly stated above, with the exception that they insisted upon our adding to the earnings for the four years $75,000. as part compensation for the strike loss. We therefore now have the proposition to present to you on the above basis.

If the earnings as per Exhibit "B" should be correct, namely, $2,070,332., and we add $75,000., we get average annual earnings of $536,333. which, if capitalized at 10%, equal a total price of $5,363,333., or about $134. per share, or a reduction of $1,575,204., or about $39.50 per share below their original offer.

While it is obviously erroneous to grant them the full credit for the actual cost of their strike of $150,000., especially when its actual occurrence positively proves that the business is not immune from such upheavels, it does seem somewhat severe to expect, inasmuch as this strike, purely by coincidence, occurred in the specific period of four years selected rather than in any of the other ~~25~~ 28 years of operations, that we should insist the earnings of these four years should bear the entire burden; in other words, that this admittedly unusual cost should be capitalized against them.

The Arlington Company claim that their books can prove an actual cost of this strike to them of $150,000. and that they further suffered from lost profits resulting from delays in production a minimum of $50,000. or a total of $200,000. I might point out that should we grant them no consideration for this loss and should there be no possibility of further strikes (which is of course untrue) and capitalize this loss against them, they would lose thereby $500,000. in the sale. If we allow them $75,000. only, their loss is $312,500.—that is, we are granted an actual reduction of $312,500. to insure us against further strikes.

For the present discussion we will consider the actual loss of earnings due to the strike to have been $150,000. (as can be actually shown by the books). By making restitution in the earnings of $75,000. and capitalizing at 10%, the resulting annual average earnings over the four years and purchasing at this price it may be rightfully considered that we are purchasing upon a 10% earning basis, and are capable of ~~havin~~ bearing the burden of a strike of similar intensity once in every ~~6~~ 8 years.

This deduction is, of course, based upon the assumption that conditions may in the future be at least as advantageous as in the past, and we see no reason why such should not be the case.

As having bearing on this discussion, it should be mentioned that, while the actual cause of the strike could not be learned, it was stated that it was not due to under-pay but, I understood, dissention among the men regarding distribution of labor. The strike was broken by the training of a large number of new hands and the return to work of many of the old ones but without any concession. I was told by a number of the Arlington men at separate times and while alone that labor conditions are at present wholly satisfactory, and such that they believe the possibility of a repetition of the unpleasantness extremely remote.

In view of, what has been said we think there is some justification in the stand of the Arlington Company, and believe that their concession of $75,000. (it is at least $125,000. if we figure lost profits) is a generous one.

Assets of The Arlington Company

Plants & Property. It so happens that the location of their plants is particularly advantageous for us. Their main plant at Arlington, and the paper plant at West Nutley, are on the line from New York to Haskell. Their articles plant at Poughkeepsie is not distant from Newburgh, and their Canadian plant is in the same city as our Canadian artificial leather plant. None of the plants have as yet been inspected, nor will this be possible prior to an arrangement with them. It may be said from reputation and general appearance that the Arlington plant is well laid out and of up-to-date substantial construction. I gather that they employ 500 to 600 hands at this plant, including men and women. They claim their is sufficient adjoining land owned by the Company and away from ~~prob~~ populated districts for practically unlimited expansion. This property extends out over

the meadows. The plant is located along the railroad. The town of Arlington is on the outskirts of New York.

It is practically impossible to check the item of plant and property in their statement now as we know little of the cost of equipment for the manufacture of articles. Our estimate of a plant for the production of about 1,500,000 lbs. of sheets, tubes, rods, etc. amounted to about $450,000. As their production is about twice this, a fair figure would be $900,000. As they manufacture about forty to fifty per cent. of their sheets into articles of every description, and as equipment required for this is all of special type, we are not disturbed at the large discrepancy between our figures.

Of not minor importance is their paper mill at West Nutley near Arlington, where they claim to make a paper for celluloid manufacture surpassed by none in the country. This plant appears to be of modern construction and in good condition.

The Poughkeepsie plant makes principally collars, cuffs and brushes. It makes about 700 to 800 dozen collars per day and the Arlington Company is able to dispose of this amount to advantage. Mr. Gudger advises that this is about 65% of the total trade in this line of the American companies.

The Toronto plant is said to operate steadily. The sheet celluloid is forwarded from Arlington. The duty, according to Mr. Gudger, averages about six to seven per cent ad. valorem. The celluloid scrap of these plants may possibly be worked in to advantage for Fabrikoid.

In Florida a tract of about 11,500 acres has been purchased in quite recent years and a camphor tree plantation is under way. Mr. Chapman believes this to be one of the greatest potential assets of the Company, tho it has not yet, and probably will not for a few years to come, yield any profits, as the trees are not yet grown. This operation is under the supervision of a good expert and about 125 to 150 men are employed,

and modern labor-saving machinery is used. This seems a very prudent step inasmuch as the camphor market of the world is controlled by the Japanese Government, and they in turn are dependent upon the labor of a practically uncivilized race living on some of the islands near Japan. The economical phase of this development cannot be discussed owing to lack of information but Mr. Chapman said he would very gladly purchase this from us, if we buy it and so desire, at the cost of its development.

The Arlington Company claim to possess valuable patents and processes for their various branches. They spoke of two new patents which they are now preparing to exploit, which conservative estimates indicate should save in operating costs a minimum total of $60,000. per year. They further claim that with these operating they will have no fears of foreign competition regardless of tariff protection. They claim further to have all necessary data for the manufacture of photographic films, and are expecting to erect a plant for this manufacture shortly?

There are no law-suits pending against the Company.

Their good-will is unquestionably a valuable item. They have grown steadily through a period of 32 years, and now claim over thirty thousand live, active customers. While our present negotiations with the Arlington Company have been of but about one weeks' duration, this Department made a rather exhaustive investigation of the celluloid industry, particularly of that branch of the trade made up of comb and novelty manufacturers using the sheet products of the big companies, with a view of later entering this manufacture. It might be added that, inasmuch as we had no intention of producing articles at the start, this phase of the industry was not covered as completely as it would otherwise have been. The general opinion obtained

from our investigation was that the Arlington Company product is equal to any in this country or abroad. There are, of course, always those who are prejudiced one way or another, but I feel safe in saying that insofar as quality is concerned we need have no fears. I have never heard any complaints against the fair treatment of customers by the Arlington Company; in fact, there seemed to exist a very good feeling toward the Arlington Company. It might be added that there seemed to exist no ill-feeling against any of the raw celluloid producers.

There are four raw celluloid (that is, sheets, tubes, rods, etc.) producers in this country. Their combined product (from best data obtainable) in raw celluloid, is at present about 9,000,000 lbs. per year. This may be distributed about as follows:—

Arlington Co.	3,125,000 lbs.
Celluloid "	3,125,000 "
Fiberloid "	2,000,000 "
Viscoloid "	750,000 "
TOTAL	9,000,000 lbs.

The Viscoloid Co. may be considered apart from the others. The quality of their product is not equal to that of the others and it is consumed almost entirely by comb and novelty companies controlled by the Viscoloid Company.

The other Companies make about the same kind of products, the Arlington and Celluloid Companies converting about forty to fifty per cent of their product into articles and the Fiberloid Co. about 30%.

If we consider that the earnings as figured in Ex. "B" are correct (not certain) and that we will pay $5,363,333. for the Company, we may consider, judging from the statement of Jan. 1, 1915, that we are paying ~~about $450,000. for patents, good-will, etc., which does not seem excessive.~~ *nothing for good will patents etc. but that tangible assets exceeded liabilities by about $180,000.* About one year ago the entire plant property of the Arlington Co. was thoroughly appraised by the Standard Appraisal Co. of New York for insurance purposes, and their results differed from those of the Arlington Co. by but a few thousand dollars, the appraiser's results being in excess of those of the Arlington Co.

It may be well to mention here the colored enamel business of the Arlington Co. This material is made from scrap celluloid. According to Mr. Moosmann the Arlington Co. quality is so good as to place them in a class by themselves. Mr. Moosmann further adds that while they now only have about 50% of this trade in the U. S. he sees no reason why, if properly handled, 90% of the business should not be controlled. This branch will work in nicely with the Parlin lacquer business.

FOREIGN COMPETITION

The recent tariff reduction made a material difference with the rates as shown in Exhibit "D". Only the class including celluloid sheets, rods, etc. or raw material will be discussed. The rate on high grade finished products corresponding to that of the Arlington Co. was not appreciably effected, and also statistics are not satisfactory on finished products as many of the important items come under the statistics headings toys, brushed, combs, etc. and cannot be separated.

It will be noted that the recent reduction was appreciable and further that the importations increased. There are numerous reasons however why we believe this will not, even under the low tariff, become a large item. Among these are,

The small articles manufacturers do not care to place their orders for ahead owing to the frequent changes of fashion.

The material to come under low tariff class comes in unpolished.

The deliveries will be uncertain.

The small manufacturers cannot carry large stocks as they do not have the capital.

They have when using foreign product almost no market for the disposal of their waste, which, in the case of using domestic product, is taken back by the sellers.

If the foreigners retain the enormous stocks of materials necessary to supply all grades we do not believe their entire costs will be sufficiently low to effect the situation materially.

The domestic manufacturers would prefer to purchase from Americans.

Difficult to make adjustments if sizes, quality and color not satisfactory.

The increase in imports in 1913-1914 was due largely to the establishment of small stores of materials in this country by the foreigners, tho it was learned from the trade that these efforts were not being welcomed. It was further claimed that certain of the foreigners, after making their initial sale, raised their price which considerably exasperated the customer in at least one known case.

In the case of the cheaper grades of manufactured articles the foreigners have been to come extent favored. However, this class of goods, especially those articles in which the percentage of the labor cost is high compared with the material cost such as hollow articles, dolls, hollow combs, etc. and which cannot be made to advantage in machines, never has been widely developed in this country. Most of the small articles manufacturers who make largely side-combs, etc. on machines feel that they can still hold their own. The factor of rapidly changing fashions plays a large factor in this also.

Export statistics are not very satisfactory either but do indicate that this is a growing factor. Strange as it may seem, it is known that the American raw celluloid manufacturers do export their products in appreciable quantities, and into the very sections of England where the British Xylonite Co. (one of the largest) has its plant, for the purpose of making knife handles, etc. Knife handles must be of very good grade to prevent shrinkage. Mr. Chapman advised that they sell in England at higher prices than are obtained by the foreigners for their product in the same territory, but this has not been confirmed.

It is thought that the shortage of labor to be expected abroad after the war may not only cut down the efforts of the foreigners in the U. S., but ~~may~~ will assist the American efforts abroad. Some expansion should also be expected in South America.

It has been learned that at the present time all of the large Celluloid Manufacturers are operating at high speed. Mr. Chapman advises that they expect their earnings to be appreciably increased this year, owing to new business as a result of the war. This was confirmed at another time by Mr. Ellsworth, Treasurer. It seems that much of this should be retained with proper effort. We will obtain the full advantage of this both as regards the future and the present inasmuch as the Arlington people have promised to make no dividend declaration pending our negotiations.

FUTURE POSSIBILITIES

While the percentage basis on which we can close this proposition is not as high as has been the case in other lines, we believe the present status of this Company, as well as the celluloid business in general is such as to warrant its acceptance. In addition to the profits of the business operated as at present, we believe there are certain other features showing probabilities of increased earnings, such as

Savings thru use of nitrated cotton rather than paper in certain low grades.

Possible use of cheaper solvents already developed by the duPont Co., tho nothing should be done to reduce the quality of the product.

Control of more of the trade thru better sales organization. Believe much can be done along these lines as this seems to be a neglected feature among all of the Celluloid Cos.

Possible other features in economics of operations.

Further, it does not seem impossible to me that we may discover, in taking over this Company, certain methods or practices which may be of material advantage to the operation of the duPont Co. If so, credit should be given to the Celluloid operations.

—12—

GENERAL CONCLUSION

In reply to the query, "Why are the Arlington people willing to sell", we believe we may accept as sincere the reasons given by the Arlington people as above, viz:- that in view of the fact that the principal stockholders are old men and have not heirs who would appreciate and interest themselves in the business (especially is this so of Mr. Chapman) and are therefore anxious regarding the future value of their holdings, they are willing to accept a fair price for their holdings and we think that, while the proposition as outlined is a good one for the duPont Company, it is also a good one for them. A sacrifice figure we feel certain that they would not have considered.

The Celluloid business with the possibilities of the film and lacquers business, is unquestionably the logical channel of development for the duPont Company, and we do not hesitate to say that, all things considered, the Arlington

Company is the best Company in this country for the duPont Company to own.

There is in this case, as in the case of every business, the possibility of a cheaper and better product being discovered to effect the results, but this question has for years been the subject of diligent study by able men but without results.

Although the estimates of earnings and purchase price as estimated above, are not claimed by us nor by the Arlington Co. to be correct, the proposition as informally outlined in Exhibit "C", while it has not been signed by them as they preferred not to do so without the approval of their lawyers, has been accepted by the Directors representing all the stock and may be considered as a firm offer on their part and we are positive can be closed on those terms.

Prepared By: W. S. CARPENTER, JR. (Stamp)

Approved by R. R. M. CARPENTER (Stamp)

NOTE. "Return to Room ——" Stamp top p. 1. Italics indicate pencil changes. Lines on document pp. 1, 6, 7 & 8 are hand-drawn.

EXHIBIT "B"

PROPOSITION AS OUTLINEDTO THE ARLINGTON COMPANY AND WHICH IS ACCEPTABLE TO THEM.

Memorandum of Proposition which I (Mr. W.S.Carpenter, Jr.) believe will be acceptable to our people (The E. I. duPont deNemours Powder Company) though nothing can be considered as firm offer.

* * * * * * * * * *

We to buy entire capital stock of The Arlington Company at a price arrived at by capitalizing the earnings over a period of the four years 1911, 1912, 1913, 1914, at the rate of ten per cent (10%).

Should the resulting value of the stock be less than $130# per share, you would not be obliged to sell at under $130# though we could purchase at $130# if we so desired, Should the resulting price be over $170# per share you would sell at $170#.

Earnings should be figured by deducting from the sales price of product all usual items such as operating costs, materials, sales costs, insurance, taxes, overhead, superintendence, main office, repairs, etc., also depreciation at the rate of three per cent (3%) on all the plants, equipment, etc. Also the dead stock accumulated each year should be written off against costs. Provision should be made to write off against costs, bad debts.

We would expect you to give us statement of your total assets and liabilities. Such items as Cash, Accounts and Bills Receivable, Accounts and Bills Payable, and similar items, should check up accurately. Such items as Plant, Equipment, Interest in Subsidiaries should not fall below ninety-five per cent (95%) of such valuation when appraised.

Purchase to include all plants, cash, machinery, equipment, patents, processes, brands, trademarks, good will, stocks, bonds, accounts receivable; in fact, everything now owned.

Complete investigation allowed, by us.

EXHIBIT "B" CONT'D.

DEFINITION OF "COSTS".

Net Selling Revenue f.o.b. Works less—Depreciation, All Operating, Manufacturing, Selling, Transporting, Overhead, Raw Materials, Office Expenses, Laboratory, Superintendence, Taxes, Insurance (all, if not carried at one per cent (1%), Shrinkage in discarded equipment, Depreciation in Product-physical as well as obsolescence—Bad Debts.

Values of inventories used for purpose of computing net earnings are to be priced at actual factory costs.

The following is the final decision of the Arlington Company:

This proposition will be accepted if Seventy-five Thousand Dollars ($75,000#) is added to the four years' earnings to cover the cost of our strike.

Note:—While this proposition has not been signed by the Arlington Company, it was written out as above by the Arlington Company on their note paper and is definitely acceptable to them.

EXHIBIT "C"

ESTIMATED EARNINGS OF ARLINGTON CO. FIGURED FROM BALANCE SHEET AND SUPPOSED DIVIDEND RECORD(3)

	1911	1912	1913	1914	Average
Surplus and Reserves at end of Year	$ 815,426	$1,024,334	$1,065,369	$1,693,793	$1,149,730
Surplus and Reserves at beginning of Year	103,461	815,426	1,024,334	1,065,369	752,147
Increase in Surplus	711,965	208,908	41,035	628,424	397,583
Dividend Paid (According to Corporation Service Manual) 4%	160,000	160,000	160,000	(1)	120,000
Total Earnings	871,965	368,908	201,035	628,424	517,583
Percent on $4,000,000 Capital Stock	21.79	9.22	5.03(2)	15.71	12.94

(1) No mention made of Dividends in Corporation Service Manual.
(2) Year of strike.
(3) These figures were not supplied by the Arlington Co. and we are not positive that they are correct.

FINANCIAL CONDITION OF THE ARLINGTON COMPANY
AS OF JANUARY 1st.

Figures obtained from Bradstreet.

****

	1908	1909	1910	1911	1912	1913	1914	1915
ASSETS.								
Cash	$ 13,386.42	$ 36,985.90	$ 25,104.39	105,880.85	$ 53,584.14	$ 231,704.77	$ 98,593.59	$ 82,746.74
Accounts Receivable	462,002.87	478,819.88	537,709.78	468,996.40	539,290.00	794,636.91)	785,571.28	1,055,505.26
Bills, Notes, Receivable	6,187.30	9,501.49	1,852.11	14,414.51	9,108.24	18,498.55)		
Real Estate	597,034.42	605,866.08	683,571.83)	1,630,583.86	1,868,807.54	2,032,181.90	2,184,012.38	2,692,448.49**
Machinery, Tools & Fixtures	452,106.85	501,535.11	606,830.07)					
Merchandise	1,098,688.06	806,365.66	800,770.20	1,288,907.58	1,786,317.31	1,417,406.65	1,713,581.04	1,991,948.85
Patents	63,751.77	63,751.77	64,251.77	64,518.79	64,518.79	64,518.79	89,757.40	140,799.90
Interest in Subsidiaries				585,000.00	585,000.00	634,896.92	717,914.34**	609,865.67
Bonds								85,712.17
Insurance Fund							87,121.13	
	$2,657,158.09*	$2,502,825.89	$2,819,090.15	$4,158,341.99	$4,900,606.02	$5,193,843.49	$5,676,551.16	$6,659,027.08
LIABILITIES								
Capital Stock Paid in (Common)	$2,000,000.00	$2,000,000.00	$2,000,000.00	4,000,000.00	$4,000,000.00	$4,000,000.00	$4,000,000.00	$4,000,000.00
Accounts Payable } Bills Payable }	374,559.38	111,984.57	55,303.91	54,880.69	85,179.17	169,509.23	220,726.87	350,113.37
Reserves								260,580.47
							390,455.24	354,589.28
Surplus & Undivided Profits	282,598.71	390,841.32	763,786.24	103,461.30	815,426.85	1,024,334.26	1,085,369.05	1,693,793.96
	$2,657,158.09	$2,502,825.89	$2,819,090.15	$4,158,341.99	$4,900,606.02	$5,193,843.49	$5,676,551.16	$6,659,027.08

* - The correct total of the above item is $2,693,158.09

** - Called other Investments, Subsidiary Companies.

*** - According to another statement of the Arlington Co., this item is subdivided as follows:

Florida Essential Oils Co. (Camphor Grove)	$ 67,500.10
Poughkeepsie Plant (Collars, Cuffs, Brush plant)	94,436.29
Plant and property	2,530,512.10
	$2,692,448.49

EXHIBIT "D"

IMPORTATIONS.

Details of last three tariffs covering raw celluloid.

Act of 1899 to Aug.5,1909	Act of 1909 8/6/09 to 10/4/13	Act of 1913 Oct. 4,1913
60 cts. p.lb.	45 cts. p.lb.	25%(1)

(1) As the average value at present is, say, 50 cts. p. lb. abroad, this would amount to, say, 12.5 cts. p.lb.

Record of imports of celluloid. Yr. ending June 30.

Year	Pounds	Value
1905	2,367	3,991
1909	1,656	1,174
1910	2,976	2,577
1911	1,165	2,270
1912	1,178	2,641
1913	22,305	18,338
1914	118,979	59,270
1915	60,314	29,761

852

3141

EXCERPT FROM REPORT OF EXECUTIVE COMMITTEE TO BOARD OF DIRECTORS OF E. I. DU PONT DE NEMOURS POWDER COMPANY DATED SEPTEMBER 22, 1915

PURCHASE OF ARLINGTON COMPANY:

The Committee authorized the proper officers of this Company to purchase the entire capital stock, ($4,000,000.,—all Common and fully paid in) of the Arlington Company, celluloid manufacturers, on a 10% earning basis established by average earnings over a period of the four years, 1911-1914. It has been tentatively agreed that if the resulting value of the stock on the 10% earning basis be less than $130. per share, the Arlington Company shall not be obliged to sell for less that this figure, though we can purchase at $130. per share if we so desire, and should the resulting price be over $170. per share they will sell at $170. per share.

The Arlington Company is one of the two largest celluloid companies in this country and produces about 3,125,000 lbs. of raw celluloid per year. They have been in existence for about 32 years and now claim over 30,000 live active customers. In addition to the celluloid plant at Arlington, New Jersey, they own a paper plant at West Nutley, New Jersey, a celluloid articles plant at Poughkeepsie, New York, 60% of the stock of a company operating a celluloid plant at Toronto, Canada, and a camphor tree development of approximately 11,500 acres in Florida. They claim to have all necessary data for the manufacture of photographic films, and are expecting to erect a plant for this manufacture shortly.

The Company is controlled by two principal factions, the Chapman interests (made up of Henry Chapman, C. Brewster Chapman, his son, Francis A. Gudger, etc.) and the Ensign interests, (made up of the Ensign, Ellsworth and Schultz families, etc.) the former having majority interests. The principal reason for their desire to sell is that the larger stockholders of both factions are men over 70 years of age, and the further fact that C. Brewster Chapman, son of the

President, has never shown any interest whatever in this line of business, being interested in other developments in the south.

It has been roughly estimated that the net earnings for the four years, 1911-1914, averaged 12.94% per year on the $4,000,000. capital stock though the data at hand for this computation is not complete nor has the data been substantiated by the Arlington Company.

In addition to the profits of the business, operated as at present, it is believed that there are certain other features showing probabilities of increased earnings, such as—

1st:—Savings through the use of nitrated cotton rather than paper in certain low grades.

2nd:—Possible use of cheaper solvent already developed by the duPont Company, although nothing should be done to reduce the quality of the product.

3rd:—Control of more of the trade through better sales organization. It is believed that such can be done along these lines as this seems to be a neglected feature among all celluloid companies.

4th:—The possibility of discovering, in taking over this company, certain methods or practices which may be of material advantage to the operation of the duPont Company.

5th:—Possibly other features in economics of operations.

I hereby certify that the foregoing is a true excerpt from the report dated September 22, 1915 by the Executive Committee to the Board of Directors of the E. I. du Pont de Nemours Powder Company.

/s/ L. DU P. COPELAND
L. du P. Copeland
Secretary
E. I. du Pont de Nemours & Company, Inc.

Seal

June 20, 1949

Government's Exhibit No. 111

SERIAL NO. SU-102.
AUGUST 11th, 1916.

TO EXECUTIVE COMMITTEE
FROM DEVELOPMENT DEPARTMENT

THE MANUFACTURE OF PAINTS AND VARNISHES AT PARLIN.

Report U-106 of May 15th, 1916 proposed an investigation of paint and varnish manufacture for the Parlin Works. The present report summarizes the more important results of the study, which was undertaken with the assistance of Messrs. G. W. Priest and F. S. MacGregor. The statistical figures for 1914 are conservative to use because that was not a very prosperous year.

BUSINESS IN THE U. S.

	Census Year	
	1914	1909
Number of establishments	855	863
Value of Paint Industry Prods.	$113,953,084	$ 96,476,286
Value of Varnish " "	35,096,736	30,996,533
Total value of Paints & Varns.	149,049,820	127,472,819
Plants, whose paint production exceeds varnish production	618	644
Plants, whose varnish production exceeds paint production	237	219
Division of Products.		
Pigments (colors)	$ 17,407,955	18,134,869
Paints	70,582,461	57,380,539
Varnishes and Japans	36,061,203	31,758,735
Fillers and putty	3,239,174	3,197,671
Water paints and Kalsomine	2,202,281	1,981,161
Bleached Shellac	1,806,802	772,240
All other prods. incl. rprs.	17,749,944	14,247,604
	$149,049,820	$127,472,819
Pigments direct from smelters	$9,978,710	$7,963,332
Natural mineral pigments	473,076	613,133

Sub-division of Products.

Pigments	1914 Pounds	Change over 1909	Dollars	Change over 1909
Barytes	46,930,380	—16.6%	325,922	—6.5%
Earth Colors	92,896,956	—56.4%	797,819	—26.5%
Lithopone	48,922,062		1,857,510	
Prussian Blue	1,239,382		357,077	
Ultramarine	2,698,639		222,769	
Other dry colors	95,616,993		3,616,445	
Colors paste in oil	21,420,854	—35.1%	1,011,763	—21.8%
Lead white and oxide Chrome yellow, orange Vermillion (true) and fine colors	148,596,759		9,188,650	

Paints	1914. Pounds	Change over 1909	Dollars	Change over 1909
Paints in paste form (exl. zinc and white lead)	129,042,658		$10,165,819	
Ready mixed paints in oils	*gallons* 40,745,563	+18.9%	41,544,280	+35.3%

Varnishes & Japans.

	Gallons			
Oleoresinous varnishes	17,789,212	—4.8%	18,681,346	+6.4%
Spirit varnishes (not turpentine)	2,964,172	+132.8%	3,080,425	+105.%
Turpentine and benzine varnishes	3,297,371	—5.4%	2,865,356	+0.9%
Pyroxylin varnishes	852,571	—54.8%	1,308,796	—44.5%
Drying japans & lacquers	6,560,406	—1.1%	3,015,907	—4.7%
Baking " " "	4,888,816	+63.9%	2,960,856	+42.4%

DISCUSSION AND CONCLUSIONS RELATIVE TO U. S. BUSINESS:

I. The paint and varnish manufacturers are very numerous and on an average they all seem to make a profit. The entrance of one new manufacturer would make no great impression on the other 855 makers.

II. The country's turnover of paint and varnish products was almost $150,000,000 in 1914, showing that this is a large business, worthy of attention.

III. In five years, from 1909 to 1914, the business increased as follows (in round figures):

Varnishes from $31,760,000 to $36,060,000 or $4,-300,000 almost $900,000 per annum.

Paints from $57,380,000 to $70,580,000 or $13,200,000 or $2,640,000 per annum.

Ready mixed paints in oil increased 19% in weight and 35% in value over 1909.

IV. There is a great tonnage of chemically manufactured mineral colors, requiring chemical skill and manufacturing plants (see statistics on Ultramarine, Lithopone and Prussian Blue, all chemical products) independent to a reasonable degree of ore monopolies. This shows a chance of future enlargement in the scope of manufacture of paints. However with few exceptions the color manufacture and paint making are entirely separate industries. A paint maker buying all his colors is quite safe. This subject was discussed in detail with Mr. Benni Patterson, President of the Patterson-Sargent Company. Therefore color manufacture can

and should be left to future development.

V. The varnish business is increasing. However, this increase in value is due to three factors, viz.:

a. An increase in cost of varnish raw materials.

b. A tremendous increase in the volume of business of spirit varnishes.

c. A large increase in the volume of business of baking lacquers.

VI. The increase in the paint business is largely in the ready made mixed paints showing this to be a good business, 19% increase in volume of business over 1909.

REASONS FOR DU PONT CO. ENGAGING IN THE PAINT AND VARNISH BUSINESS:

I. Reasons for utilizing Parlin Works for this industry are given below under a separate heading.

II. A large number of small and medium manufacturers are conducting a profitable business, though apparently not giving more than a fair return on the investment and in many cases a small return. Our Company is in a position to obtain a much better return on the investment.

a. our investment would be smaller than the average on account of existing excess plant.

b. the average paint and varnish maker is handicapped by too small working capital and insufficient advertising. This is an important factor and positively established.

c. we would have a great advantage in spirit varnish on account of similarity to present Parlin business.

Furthermore the average maker buys his alcohol in barrels from a denaturing plant. With our large purchases, our own existing denaturing plant and tankcars, we should have an advantage over all other makers, in some cases as much as 5 to 8 cents per gallon of alcohol. As shown the spirit varnishes increased over 100% from 1909 to 1914. Our Company ought to claim eventually at least $1,000,000 of the $3,000,000 total business.

d. our business would be strongly supported by our probable future manufacture of linseed oil and certain chemical colors.

e. our business would be materially supported by our own consumption of paints and varnishes amounting to many thousand gallons, probably at least $100,000 worth annually. For 1914 the Company's consumption is at the rate of $300,000 per annum.

—4—

III. This is a large and growing industry in itself.

IV. The industry lends itself admirably to extended manufacture such as future production of our own tincans, pigments resin and turpentine (possibly in conjunction with Georgetown Alcohol Plant), etc.

V. The industry would give our Company an outlet for Deep Water Point products, such as benzol, solvent naptha, dead oil and pitch.

NATURE OF PROPOSED BUSINESS:

The manufacture of pigments (colors) is varied and very complicated, as well as requiring large investments in order to cover a wide field. Certain colors are well suited to manufacture by themselves such as lithopone, but it is recommended that this subject be left to the future.

The production of the oils is covered by another special report.

The manufacture of "mixed paints in oil" is recommended as a standard business showing a steady increase—19% in volume of business in five years, other lines falling off.

The manufacture of spirit varnish is specially recommended on account of the large increase in the demand and our peculiar advantages.

The manufacture of japans and lacquers is recommended as probably particularly profitable when popular brands have been established and because it is an increasing business.

The manufacture of other standard varnishes should be undertaken guided by existing business conditions.

The manufacture of our own tincans for the paints and varnishes as well as for ether, pyroxylin solutions, etc. should be investigated at earliest convenience. Similarly rosin and turpentine production.

REASONS FOR LOCATION OF PAINT AND VARNISH MANUFACTURE AT PARLIN:

I. Proximity to New York City is a great advantage and Parlin is a good distribution point.

II. Parlin is a logical point for a small package business and a tincan factory due to existing production of ether and pyroxylin solutions.

III. Parlin is the logical plant for spirit varnish manufacture on account of the alcohol denaturing plant and similarity to present production.

IV. Parlin is already a considerable consumer of materials entering into paints and varnishes, viz: benzol, gasoline, wood and grain alcohol, gums and pigments.

V. Apparently none of the other plants have any advantage for this business over Parlin.

VI. This business lends itself very well to a combination with the present Parlin business and also to a future extension of the combined industries, such as for instance ~~to the~~ treatment of hides and many combinations of oil products and solvents.

UTILIZATION OF PRESENT PLANT:

The proportion of the existing plant that may be utilized by the paint and varnish industry can not be given with any exactness. It is quite obvious that portions of grounds, railroad sidings, storehouses, power plant, offices, etc. can be utilized, tho the proportion depends entirely on the amount of business. The same applies to specific equipment which could be utilized, such as present solvent tanks for oil and turpentine, and some of the buildings for gum refining kettles.

In regard to the required investment statistics do not seem reliable for the particular plans which we are preparing. This information will be obtained readily by investigation of other concerns in accordance with the second recommendation given below.

With respect to labor it should be noted that the

number of laborers is relatively small as compared with other industries on the same tonnage basis and there are no disadvantages with respect to wastes, fumes, fire danger or poisonous affects.

Appended to this report are some tables taken from U.S. Census reports giving information relative to capitalization, wages, salaries, number of employes, etc. Some of these figures are of interest as showing for instance that the value of the annual output of a plant is greater than its capitalization, and that the number of employes is about 11 for $100,000 of output, showing that the number of employes is not great relative to the output. However, no further conclusions are drawn from these Census figures, as they are apt to lead to mistakes, especially when applied to apparent profits which in this case are shown to be 13% on the capital for the whole country, but which is hardly net profit.

The paint and varnish business requires knowledge and skill as well as selling ability, but there are no manufacturing difficulties.

RECOMMENDATIONS:

I. It is recommended that the paint and varnish industry shall be accepted as a suitable extension of operations at Parlin as soon as a practicable and apparently profitable plan has been developed.

II. It is further recommended that the preferred plan is to acquire by purchase one or more suitable going concerns, if obtainable, at figures indicating a proper return on the investment, and with a view to transfer of operations to Parlin at the first opportune time.

III. The extension of the study to tincans, rosin and turpentine, and colors is temporarily deferred.

APPROVED BY:	PREPARED BY:
C. A. MEADE (Stamp).	FIN. SPARRE (Stamp)

APPROVED BY:

R. R. M. CARPENTER (Stamp)

PAINT & VARNISH

Census Year	1909	1904	1899
Number of establishments	791	639	600
Total persons engaged	21896	16480	—
Proprietors & firm members	456	439	
Salaried employes	7200	4408	3710
Average number of wage earners	14240	11633	9697
Primary Horse Power	56162	41288	30443
Capital	$103,995,000	$75,486,000	$60,053,000
Miscl. Expenses	13,537,000	9,651,000	5,046,000
Salaries	10,378,000	5,677,000	5,017,000
Wages	8,271,000	6,264,000	4,926,000
Cost of materials	79,016,000	59,827,000	44,739,000
	111,202,000	81,419,000	59,727,000
Value of products	124,889,000	90,840,000	69,562,000
Apparent Profit*	13,687,000	9,421,000	9,835,000

	1909		
	Paint	Varnish	Total
Number of plants	588	203	791
Proprietor & firm members	—	—	456
Salaried employes and wage earners	11,864	2,376	14,240
Capital	—	—	$103,995,000
Miscellaneous expenses	—	—	13,537,000
Salaries	—	—	10,378,000
Wages	$6,736,000	$1,533,000	8,271,000
Cost of materials	62,458,000	16,558,000	79,016,000
Value of products	94,572,000	30,317,000	124,889,000
" added by mfr.	32,113,000	13,760,000	45,873,000
Net value added by mfr.	—	—	13,687,000

Value added by manufactur=sum of salaries, wages, miscl. expense and apparent profit.

	Capital Invested	
	Total	Per $1000 of output
1899	$60,053,000	$863
1904	75,486,000	831
1909	103,995,000	833
1914	124,010,000**	832 (av. of 1904 – 1909)

	Output Per Plant		
	Total	No. of plants	Aveg. per Plant.
1899	$69,562,000	600	$115,900
1904	90,839,000	639	142,000
1909	124,899,000	791	158,000
1914	149,050,000	799	186,000

Number of employes (1909 per $100,000 investment 13.1

" " " " " " output 11.4

*This is not net profit on the business, but difference between value of products and cost of operations and probably does not include certain overhead items.

**Calculated on basis of 1904 and 1909 outputs.

✓ 20.

Government's Exhibit No. 112

SERIAL NO. SU-111
NOVEMBER 28th, 1916.

EXECUTIVE COMMITTEE,
Building.

Gentlemen:

PURCHASE OF HARRISON BROS. & CO., INC.

I am handing you herewith report recommending the Development Department be authorized to negotiate for the purchase of the Harrison Brothers & Company, Incorporated.

On August 22d the Executive Committee passed the following resolution, referring to a report which we presented on the Paint and Varnish business at that time.

> "RESOLVED, that the Development Department be informed that, provided a complete study demonstrates the fact that a satisfactory return on the investment can be secured, the Executive Committee would favor the development of the paint and varnish industry, preferably by the acquisition or purchase of one or more suitable going concerns".

A more thorough investigation of this business has been made in the country and we have determined on Harrison Brothers & Company as by far the most satisfactory concern for us to negotiate for, and both Dr. Sparre and Mr. Meade believe that while the estimated return on this investment is not large it will put us in a position to build up a very satisfactory paint and varnish business in connection with our other chemical business.

There is one thing interesting in a combination chemical, paint and varnish business in that it is a well known fact that when business is not good the paint and varnish business is thriving. This is caused by the railroads and factories in boom times being too busy to do their repair work.

While it will be noted they have a considerable sized acid plant, if we were able to get this plant at this time and were able to manufacture sulphuric acid cheaply we could do a great deal toward

—2—

amortizing this plant during the war. Also if we build up a large business on one of our own plants ~~we could~~ eventually move all of the apparatus of Harrison Bros. to our own plant and could sell the Philadelphia property at a considerable figure as this property will increase in value owing to its very good location.

We are preparing a chart, which we hope to have ready for Monday's meeting, which will endeavor to show the Committee as plainly as possible our ideas on future development for plant utilization, and which willshow the direct connection between the different enterprises which we will recommend from time to time, and the direct connection which exists in the raw materials.

Yours very truly,

VICE PRESIDENT.

L.

NOTE: Pencil notation at top of first page: "Copy to T. L. Riggin—6-18-43." Lines in left margins are hand-drawn.

Government's Exhibit No. 113

TO EXECUTIVE COMMITTEE SERIAL NO. SU-111

FROM DEVELOPMENT DEPARTMENT November 22, 1916.

HARRISON BROS. & CO. INC.

Since the acceptance of report SU-102 dated August 11th, 1916 on the paint and varnish industry, effort has been made to accomplish some definite achievement in accord with the second recommendation of that report, viz, that the preferable plan for securing satisfactory entrance into the business would be, "to acquire by purchase one or more suitable going concerns, if obtainable at figures indicating a proper return on the investment, and with a view to transfer of operations to Parlin at the first opportune time."

Since that time the paint and varnish manufacturers of the United States have been scrutinized with care and this investigation has developed the following facts.

The consolidation of numerous small paint manufacturers was at one time seriously considered but the introduction of the anti trust laws apparently discouraged effort in this direction, with the result that the 1914 census shows 855 establishments in the paint and varnish business amounting to about $149,000,000 per year, as against 663 establishments in 1909 doing a business of $137,000,000. The bulk of the business is conducted by men whose ability is probably not more than mediocre and the merchandising apparently has not been conducted along the best lines, as the character of advertisement most used seems to indicate an attempt to influence the retail dealer to handle and the painter to use the seller's products rather than to convince the ultimate consumer to the insistence upon the use of the article advertised.

There is a certain amount of annoying competition from the smaller mixers who buy for mixing linseed oil, lead and pigments and whose small overhead charges allow a margin of profit on sales at low prices to a limited clientele whose critical faculties have not been properly developed by the advertising of the larger manufacturers.

Naturally the desire of this Department has been to find a concern which had well established brands of good reputation, whose business was sufficiently rounded in the various branches of the industry, possessed of sufficient competent men by whom our own men could be trained, whose size was not disproportionately large to development at our own plant (Parlin particularly in mind) and whose location was as convenient as possible for coordination with future development.

Consideration of the fact that the paint industry in the United States in the main is rather disorganized, that there is a large number of sellers, producing small quantities of more or less uncertain quality, whose trade readily could be gained by a concern producing goods of standard quality, and following proper methods of merchandising, the field for a very large expansion seems open - in domestic trade, to say nothing of the trade development possible in Central and South America where but little business has been done as yet in American paints in proportion to the opportunity. It would seem therefore that the purchase of a concern of some magnitude might not be out of proportion to the business in this industry that we might reasonably hope to develop in the course of a few years. The 1914 census showed a turnover of the combined paint and varnish businesses, as above stated, of $149,000,000 of which the paints and pigments alone contributed about $113,000,000 per annum. The statistics indicate steady growth. Today the largest paint and varnish business in the United States is the Sherwin-Williams Company whose turnover we have reason do believe is little, if any, in

? excess of $10,000,000 per annum. The Detroit graphite Company, whose specialty is graphite paint for steel structures, has a business of $4,000,000 to $5,000,000 per annum. Not many others have a business in excess of $1,000,000 per annum. The average ? is less than $200,000 per annum or but little more than 7% of the total paint and varnish turnover - 10% of the domestic business today would mean an annual business of over $15,000,000.

Most of the paint concerns depend on other manufacturers for lead, linseed oil, pigments, etc. although there is justification of this in the general ease with which these commodities may be secured, though such concerns as Sherwin-Williams and the National ?. Lead Company crush their own linseed and the Sherwin Williams Co. manufactures some of its pigments and colors.

No attempt was made to approach the Sherwin Williams Co. on account primarily of its size and for the further reasons that the location seemed further from our headquarters than was advisable and the personnel of doubtful value.

Early in the investigation Dr. Sparre suggested that our conditions might perhaps be met as favorably as possible by Harrison Bros. & Co. Inc. of Philadelphia. Inasmuch as this concern also manufactures certain inorganic chemicals as well as paint and varnish, examination was postponed until it had been pretty clearly established that it would be extremely difficult to find among the paint manufacturers any concern worth purchasing that conformed at all well to our requirements.

It was believed that the control of Harrison Bros. & Co. was in the hands of Lee Higginson & Company of Boston, who might be willing to dispose of the property. It was found that Lee Higginson & Company held or control 25000 of the 35000 shares of stock (15000 preferred 7% voting non-cumulative and 20000 common) and that they would be willing to put a price upon the stock to the du Pont Company.

The examination of this company as the result of the attitude of Messrs. Lee Higginson & Co. has convinced the writer that the paint business of this concern conforms as closely to the requirements above laid down as can be expected and that the acquisition of it would undoubtedly give the best entrance possible into the paint business in the United States. The situation, however, is much complicated by the fact that Harrison Bros. & Co. Inc. not only make paint (and some varnish) but always have been engaged in the manufacture of acids and certain inorganic chemicals which in part have been required in paint manufacture and in part have been sold to the trade, and the chemical business during the past two years has been a source of unusual profit. It is impossible to separate the paint from the chemical business and our examination has been made with the purpose of determining the value to us of the entire proposition as it now is and must be taken if at all.

Before going into details a rough historical sketch of this company may be helpful to an understanding of the situation.

Harrison Bros. (founded in 1793) were pioneers in chemical manufacture in the United States and were one of the earliest manufacturers in this country of sulphuric acid. The manufacture of paints and pigments was taken up early in the concern's history and the brand of "Town and Country" mixed paints is today widely known and favorably regarded in the United States. The corporation of Harrison Bros. & Co. was formed in 1898 with Thomas Skelton Harrison as president and C. Leland Harrison as treasurer, who respectively retired in 1902 and 1903 when Lee Higginson & Co. became interested in the company by reason of a bond issue of $1,300,000 which they underwrote. When the National Lead Company was organized, attempt was made to purchase Harrison Bros. & Co. by the promoters of the former company, but the deal failed, the writer understands from the desire of Thomas Skelton Harrison who was then in control, to secure a higher figure for his stock than the conditions warranted. The desire by Mr. Harrison to sell persisted however probably to the damage of the company's business, and with the result of control passing to the hands of Lee Higginson & Company, who, however, gave the company but little financial aid, demanding that the corporation build up its position from its own resources and this process has been going on with varying fortune since 1903.

Attention is now asked to details of this company's business.

HARRISON BROS. & CO. INC. PROPERTIES AND INTERESTS:

Gray's Ferry: The original plant of Harrison Bros. & Co. is located on Gray's Ferry Road, Philadelphia on the East bank of the Schuylkill River. The area occupied here prior the war was 32-1/5 acres which is valued on the books at $25,000 per acre. The water front is about a quarter of a mile in extent. The size of ocean steamers which can be handled at the dock is limited by the draw bridge of the B. & O. Railroad which will not allow passage of steamers of more than 50 feet beam. This means that the maximum dead weight capacity of ocean steamers that can reach Harrison Bros. is 4000 to 4500 tons. Since the beginning of the war some additional land has been purchased so that the area now occupied is about 40 acres. Exhibit "E" is a schedule which shows the investment in Buildings and Equipment as of September 30th, 1916, and indicates the increases from the appraised value of May 31st, 1916 determined by the American Appraisal Company.

At this plant the manufacturing activities are divided between chemicals, pigments and paints and varnish. Of the chemicals both sulphuric, nitric and mixed acids are made, sulphuric acid being made both by chamber and contact processes, and also aluminum sulphate or alum. These of course are the items of large tonnage. The items of smaller tonnage are lactic acid, acetic acid, zinc sulphate, sodium nitrite, lead nitrate and strontium nitrate.

Under pigments are manufactured lithopone, white lead by the Dutch process, white lead by the Carter process, red lead and litharge, which constitute a large tonnage and aluminum hydrate and other dry colors which constitute a smaller tonnage.

Under paints and varnishes, the colors in oil, the dry colors and the ready mixed paints constitute the bulk of the business.

Varnishes made are largely for the consumption of Harrison Bros. in the manufacture of varnish paints. There is not a large outside business done in this article.

All of the chamber sulphuric acid made here is required in the work of the various departments, but since the beginning of the war a sulphuric acid concentrating plant has been installed to produce O.V. from chamber acid purchased from producers not equipped for concentrating. There has also been installed since May first a new contact acid plant. The new boiler plant and power house were beginning operations in October.

This location has been much congested, but with the expansion at Paulsboro referred to hereafter, the completion of the new power plant and improvements under way in general plant equipment, manufacturing can be carried on expeditiously and economically. Shipping facilities by both rail and water are excellent. Inspection of the plant showed that a great deal has been done and is being done to put the property in first class condition.

The Mantua Chemical Co. The President of Harrison Bros. & Co., Mr. Russell Hubbard, who has very favorably impressed the writer, stated that before the war plans had been made, in view of the increasing congestion at Gray's Ferry, to secure additional water front property on the Delaware River. After a long investigation the most feasible site, all things considered, was found at Paulsboro, N.J. on the Mantua Creek about three miles North of our Repauno Works. There Harrison Bros. secured in 1914 250 acres of land of which 150 acres is naturally suitable for building, at a cost of about $30,000. The Mantua Creek is navigable to the Mantua Chemical Company's dock for barges and floats. Lighterage to deep draft vessels is about one-half mile. Mr. Hubbard thinks the site today is worth $400 - $500 per acre.

At about the time this purchase was consummated, in order to take care of the rapidly expanding business in lithopone, Harrison

Bros. & Co. were able to purchase favorably on account of financial difficulties, a portion of the N.Z. Graves Paint Plant in Camden. For legal reasons these New Jersey operations are combined in a corporation called the Mantua Chemical Co., all of whose stock is owned by Harrison Bros. & Co. Inc. though the accounts and expenditures by this Company will not be entirely separated from those of Harrison Bros. & Co. at Gray's Ferry until the end of the fiscal year November 1st, 1916 to October 31st, 1917.

The plant at Camden has been operated as a temporary expedient in the manufacture of lithopone and little has been done to put the original property in good shape. It has however, served the purpose of allowing Harrison Bros. to increase their tonnage in lithopone at favorable prices by about 6000 tons per annum.

At Paulsboro has been constructed a thoroughly modern chamber acid plant of a capacity of about 50,000 tons per annum, and also a concentrating plant for making O.V. The du Pont Co. has recently purchased from this plant 4500 tons of 66° acid for delivery at Hopewell over the first six months of 1917, and negotiations are under way for the purchase of an additional quantity for the last six months. It has been planned to develop at Paulsboro the manufacture of alum on a large scale and draw from the acid plant for such requirements as may from time to time be needed at Gray's Ferry in excess of the plants there. The plant is adjacent to the fertiliser factory of the I.P. Thomas Co. which consumes in the neighborhood of 20,000 tons of chamber acid per annum, of which it manufactures less than half, and will no doubt prove a good customer for a portion of the product of the Mantua plant.

The growth in the sale of strontium nitrate has also made it seem advisable to plan for extension in the manufacture of this chemical at Paulsboro and plans have been made for the manufacture of limited amounts of nitric acid and hydrochloric acid. The investment here is covored by the item "Mantua Plant" in Exhibit "C".

Harrison Bros. - Chicago. Some years ago the paint business of Harrison Bros. & Co. in the Central States and in the Southwest was conducted by means of branch offices in a good many cities. Convinced that the policy was uneconomical, these offices gradually were abandoned and finally decision was reached that a manufacturing branch which could be supplied with raw or partly manufactured paint products from Gray's Ferry would be advisable. A small paint mixing concern in Chicago (The Riverside Paint Works) was purchased on account of ability under the condition to secure a plant suitable to the work at a very favorable price because of the proximity to large producers of linseed oil. The completion of this organization has really been effected only during the present year. Statement and P. & L. account are given in Exhibit "G".

The National Bauxite Co.

In order to insure it's supply of raw materials for alum manufacture, in the production of which Harrison Bros. seems to have a most excellent standing for special grades, a number of years ago the company associated itself with the Jarecki Chemical Company and Franklin Kalbfleisch in the securing of bauxite properties in Georgia, and later in Arkansas adjacent to the operations of the Aluminum Company of America. The properties in Georgia were rather widely scattered, and this coupled with desire to be alone concerned in the management, led to the recent exchange by Harrison Bros. & Co. with the other stockholders of the Bauxite Company of the Georgia properties for their stockholdings, Harrison Bros. & Co. retaining the Arkansas properties, to which they have added, and which now supply their ore for the manufacture of alum. In Exhibit "C" the statement of assets and liabilities as of September 30th will be found an item "Rome, Ga. Plant - $24,584.88" which is the remnant of the adjustment of the Georgia property, and which Mr. Hubbard, the President, advised the writer might not be worth quite the sum at which it stands on the books, which was the original book value. Exhibit "H" gives the balance sheet and six month's P. & L. statement June 30th, 1916 for the National Bauxite Company.

Boyd Smith Mines: In 1914 Harrison Bros. & Company in order to secure a source of sulphur, purchased the Boyd Smith pyrites property situated in Louisa County, Virginia, between the pyrites mine of the Virginia-Carolina Chemical Company, and that of the Arminius Chemical Company. The shipping station is Mineral, Virginia. The area on which prospecting and mining is now being carried on is 360 acres. In addition is owned 730 acres on the other side of the property of the Virginia-Carolina Chemical Company, on which no prospecting has been done as yet. The stock of Boyd Smith Mines, Inc. is $200,000 first preferred, $50,000 second preferred and $50,000 of common. The first and second preferred are 7% non-cumulative stock and the entire stock issue, with the exception of the $50,000 second preferred, which is owned by Mr. Boyd Smith is held by Harrison Bros. & Co.

In Exhibit "C" the item "Boyd Smith Mines - $405,179.58" is the net balance of this account after allowing market price for what pyrites have been taken out to that time against the payment made for the preferred stock and the advances to the Boyd Smith Mines for developing the property.

Although some mining has been done, this property hardly can be called at present more than a prospect, though Mr. Hubbard states that the outlook is very promising and the quality of ore thus far secured satisfactory. The ore as mined runs about 38% sulphur and is concentrated to 42% content before being shipped to Philadelphia.

Whiting Property: This item in Exhibit "C" in the statment of assets is simply real estate held at Whiting, Ind. which is believed to be a valuable site for a future plant for the manufacture of lithopone for Central and Western distribution.

The Essential Oil Specialty Co. This is a small experimental company capitalized at $25,000, of which the American Linseed Co.

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holds one half, $12,500, and Harrison Bros. & Co. the other half. The work to-date in this has been purely of an experimental nature.

Beckton Chemical Co. The holdings in this company constitute a very important element in the composition of Harrison Bros. & Co.'s assets. Exhibit "F" gives the statement of assets and liabilities to August 31st, 1916 of the Beckton Chemical Co., and the earnings from 1908 to 1915 inclusive. Harrison Bros. & Co. own 52% of the capital stock of the Beckton Chemical Co., which will be noted from Exhibit "C" is carried on the books at $104,000 which is the cost to Harrison Bros. The other 48% is owned by Cawley Clark & Company, color manufacturers of Newark, who also own the land and buildings in which is located the machinery covered in the statement of assets and liabilities, Exhibit "F", by the plant account "Meadows" $145,109.22. The plant accounts labeled "Philadelphia" and "Gray's Ferry" are for machinery owned by the Beckton Chemical Co. in buildings at the Gray's Ferry plant of Harrison Bros. & Co. which are leased from Harrison Bros. The Beckton Chemical Co. was the pioneer manufacturer of the zinc pigment lithopone in the United States and today "Beckton White" is the standard for manufacture of this kind. Inspection of the record of profit in Exhibit "F" shows that the business has steadily grown and has been a very profitable one, particularly up to 1915; the shrinkage in profits in 1915 was due to the rapid advance in zinc which took place before supplies of raw material were properly covered. Lithopone is also manufactured by the New Jersey Zinc Company but the competition from this source, the writer is advised, it not severe in view of the fact that the New Jersey Zinc Company can hardly afford to push the sale of Lithopone with vigor without damage to it's sale of zinc oxide which it puts out in competition with white lead.

Although the chemical end of Harrison Bros. & Co.'s business is almost entirely in the manufacture of inorganic chemicals, there are some items that are of particular interest to the du Pont Company in the development of our plans; for instance the production of nitrite of soda is a by-product in the manufacture of red lead, and nitrite of soda is required in the manufacture of azo dyes which constitute an important line of dyestuffs. We are not making this ourselves in any quantity. Acetic acid is required in the manufacture of several dyes, especially indigo and for several organic chemicals such as acetanilid. Harrison Bros. have no charcoal plant and could be supplied by our Company with acetate of lime. Strontium nitrate gives evidence of being a business that can be conducted satisfactorily in the future as Harrison Bros. appear to have been the only ones in this country to have developed the manufacture on such a scale that they should be able to hold their business at the close of the war. This is a chemical which we ought to make. The expansion planned in the manufacture of alum and lithopone by Harrison Bros. is one that would be well adapted for utilization of facilities at Hopewell where we already have an alum plant and which location is as well adapted as any in the United States for the manufacture of these articles. The production of sulphuric acid at first thought seems to be entirely excess and foreign to our needs, but unless recovered acid could be supplied of such quality as would be satisfactory, there will undoubtedly be calls in the future developments at Carney's Point and Deep Water for weak acid which must be cheap in order to serve its purpose satisfactorily. The nitric acid plants are of course, as far as we are concerned, entirely excess.

It is apparent therefore that while our interest in Harrison Bros. & Co. is primarily on account of the paint and pigment portion of the business, the chemicals that are manufactured are not entirely alien to our interests, and if we were engaged in their manufacture, we might be in a stronger trade position in the future than we would be without them. We would of course prefer that the chamber acid plant at Paulsboro either were smaller or had not been built at all but as it is a fact it must be considered with the whole proposition.

If purchase of Harrison Bros. is not made now there is no doubt that in another year's time the chemical expansion planned for Paulsboro will be such that the proposition would be of little or no interest to us as it would be probably very largely a duplication of work which we may be attempting at Hopewell. Our interest, therefore in Harrison Bros. is due to the fact that not only are they manufacturers of paints, but they are also producers of pigments and dry colors of which they possess information which would be very useful to us in a future development on a large scale; and aside from the surplus acid capacity their chemicals are also included in the list of things which are of particular interest to our contemplated manufacture.

The location is convenient, both as to connection with our Wilmington Office and the development of the paint business at Parlin. The company bears a good name in the trade and it would be easy to develop a paint business with the "Town and Country" brand to very large proportions. It is easy to see from inspection of what records have been available that there is truth in the assertion of Mr. Hubbard, the President, that the Harrison Bros. & Co. of today is an entirely different proposition from anything which the records show prior to 1915. Exhibit "A" is a statement of comparative sales from 1909 to 1915 inclusive, with a summary of the totals by classification of chemicals and paints. Exhibit "B" which follows gives the statements of assets and liabilities and the profit and loss statement from 1911 to 1915 inclusive. Exhibit "C" is a more detailed statement of assets and liabilities as of Sept. 30th, 1916, compared with the statement at the end of the fiscal year October 31st, 1915. The increase in the sales of paints and varnish from 1915 to 1916 is partly in increased tonnage but more largely in advances in price.

Inspection of Exhibit "B" indicates that there was little available capital for advancement of the business during the period 1911 to 1915. The company's position, however, was

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steadily improving as is witnessed by the ~~original~~ gradual rise of the surplus and the payment of some dividends on the preferred stock, and Mr. Hubbard, the President, stated to the writer, that immediately prior to the war plans had bwen made for a material expansion of their paint business which he felt sure could be accomplished without great difficulty or expense.

The springing up of the great demand for acids of course made it advisable for Harrison Bros. & Co. to centre their attention on this profitable source of income and to neglect their paint business until normal conditions had been again reached. The increase of capital by $1,000,000 in 1916 and the application of a portion of the profits received during 1915 and 1916 not only to the expansion but to the general betterment of manufacturing conditions at Gray's Ferry makes the officials feel very confident that under normal conditions they will be in a much more favorable condition for economical manufacture than they ever have been before. This is probably true.

Mr. Hubbard reported to the writer that the gross profit for 1916 would exceed that shown in estimate (Exhibit "D") which gives the profit by the items of manufacture, and that the net profit estimated there as something less than two millions would be considerably in excess of that figure, so that the surplus of that date would be in round figures $2,400,000 as compared with a surplus of $2,326,227.52 as shown as of September 30th in Exhibit "C".

Lee Higginson & Company have asked $285 per share for the common and couple that with a request that the preferred be taken at par.

The price is based on a surplus of $2,400,000 at the close of the fiscal year 1916 (October 31st), an increased valuation of the stock of the Beckton Chemical Co. and a participation by the stockholders in the estimated earnings for the coming fiscal year (which are believed will reach at least $1,500,000) as follows:

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Surplus Estimated Oct. 31, 1916	$2,400,000
Common Stock	2,000,000
Increase in value of H.B. & Co's share of Beckton Chem. Co. assets	650,000
Stockholders participating in 1917 earnings	650,000
	$5,700,000

20,000 shares common $285 per share.

The stock of Harrison Bros. & Co., according to Mr. Francis L. Higginson Jr., is at present held most largely by original subscribers. There is no trading actively in it. Last quotations give 165 asked 140 bid. Mr. Higginson assured the writer that his firm had endeavored without success to purchase at 165. He thought that practically all of the stock could be purchased, but expressed belief that if agreement as to price were reached, it might be impossible to have all the stock turned in if the purchaser's name were known.

Examination of values is now in order.

A comparison of the plant value at Gray's Ferry, as shown in Exhibit "E", with the corresponding figure in Exhibit "C", shows a discrepancy in round figures of $147,000 (Exhibit "E" total 3,579,163.67; Exhibit "C" "Real Estate Plant, etc." 3,725,901.65). This discrepancy, to be adjusted at end of fiscal year (Oct. 31st) is the difference between book value on May 31st, 1916 and a plant appraisal made by the American Appraisal Company at that time, and is not considered in Mr. Higginson's assumption of a surplus of $2,400,000 at Oct. 31st, 1916.

The land at Gray's Ferry is carried on the books at $805,000 for 32-1/5 acres held prior to 1915. Since then have been purchased about eight acres of adjacent properties, which cost is covered in the general plant account. The failure to give the additional cost of these purchases separately may or may not have significance in relation to the book value of the original tract. The situation is an admirable one for a business that commits no serious nuisance, and we have no positive evidence that the value is too high. It is certain however, in view of nuisance liability, that it is not an ideal locality for the manu-

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facture of such chemicals as nitric acid.

There is no reason to believe that the plant cost of the Mantua Company is otherwise than as given in Exhibit "C". This includes the 250 acres of land at Paulsboro, N.J. at $80,000.

The value of the Boyd Smith mines account , already referred to, as to its composition, will be worth the investment if ore is produced to meet the demands of Harrison Bros. & Co. We shall undoubtedly need chamber acid at Hopewell in time, and this location would be excellent for a sulphur supply at that point as there is no apparent hope of future possibility of securing cheap acid from sulphur.

The value of Harrison Bros. Chicago is dependant on its family relations with the Gray's Ferry Plant, and although the balance sheet (Exhibit "G") shows a writing up of about $31,000 on an appraisal made the year after the purchase of the Riverside Paint Works, we have accepted the par value of the stock as given in Exhibit "C" $193,500($6500 of the stock is held by employes in Chicago).

The bauxite properties in Arkansas, covered by the stock of the National Bauxite Co., Mr. Hubbard considers much better than those in Georgia exchanged for the balance of the Company's stock and although the operations there have not been developed to a large extent, Mr. Hubbard feels sure that par value for the stock is not too high a figure at which to carry it. Careful inspection of the property by competent engineers which has not been possible, would be the only way of determining whether this value and that of the Boyd Smith pyrites property were proper.

Harrison Bros. & Co. are confident that the net earnings for 1916-1917 will not be less than $1,500,000 and they might be willing to guarantee this figure. If the earnings amount to this, and $285 were paid for the common stock, and par for the preferred stock, the situation at the end of 1917 might be figured as follows:

Earnings		[illegible]
5% on mortgage($1,285,000)	$64,250	
Allow say 10% returns on purchase price -		
1,500,000 for preferred		
5,700,000 " common		
7,200,000 @ 10%	720,000	
	784,250	784,250
Balance to apply towards reduction of pur.price		715,750
Purchase Price		7,200,000
Difference		6,484,250
Deduct preferred stock		1,500,000
Cost of common stock end 1917		4,984,250
@ $249 per share.		

This would mean that in order thereafter to maintain 10% on the investment earnings of $712,675 must be made.

10% on $6,484,250 =	648,425.00
5% on mortgage($1285000)	64,250.00
	712,675.00

If we are convinced that the earnings 1916-1917 will be as much as $1,500,000 which, under the conditions appears very reasonable, the price we are willing to pay for the stock must depend, on the earnings we believe possible after 1917.

The data given in the exhibits will afford some guide in an estimate of this nature, but the writer feels that there is justice in the claim of Harrison Bros. that with the improvements introduced the past two years, and the present ability to increase the business, the earnings prior to 1915 should not be given too much weight in an estimate of what will be possible in the future on a normal trade basis.

If we refer to the detailed profit statement (Exhibit "D") it will be noted that the largest items are $714,000 for nitric acid and $535,000 for sulphuric acid. The apparent discrepancy between the statement of acid profits in Exhibit "D", and the record of sales of different acids as shown in 1916, in Exhibit "A", is due to the method of book keeping, whereby the profits are credited to the acid radicles that make up the mixed acid sold.

If we apportion the undistributed overhead expense stated in Exhibit "D", the net profits from paint and varnish and from chemicals may be stated in round figures as respectively $345,400 and $1,582,900.

If comparison is now made between the paint sales of 1916 and 1914 on the basis of 1916 sales and profits, the profit in 1914 would be $246,000. Inspection of Exhibit "B" shows total earnings for 1914 after deducting depreciation and mortgage interest (which are included in the "undistributed overhead" deducted in Exhibit "D" to determine net earnings) of $169,456.94. It is therefore apparent that the earnings in 1916 from paint and varnish have been augmented by either a larger proportion of sales of more profitable products than in 1914, increased prices, larger tonnage, or by all three of these factors. We know that paint prices have been advanced during the past two years and it seems probable that the increase in profit largely came from price advances as the chemical activity has not allowed as much attention to the paint business as in previous years.

A similar comparison may be made of a leading item in the chemicals - alum - where the net profit for 1916, after allowing for overhead, would be $175,000 on sales of $1,015,127.54 (Exhibit "A"). The sales for 1914 were $472,935.74 from which the profit based on 1916 profits (Exhibit "D") would be in round figures $81,000. But the total net profit for 1914 including that from paints, as already noted, is but $169,456.94(Exhibit "B").

The total differences due to changed conditions are evident by comparing the summaries in Exhibit "A" of chemical and paint sales for 1916 and 1914 with the 1916 profits from Exhibit "D".

From Exhibit "D"	Chem.profits	1916	$1,582,900	Paint Prof.	1916	$345,400
" " "A"(	" sales	1916	5,284,740	" sales	1916	2,102,443
(	" "	1914	676,198	" "	1914	1,524,660

Chemical profits 1914 based on comparison of 1916 sales & profit	$203,000
Paint " " " " " " " " " "	235,000
Total	$438,000

Actual net profits for 1914 $169,456

This makes evident how far removed the present conditions are from those preceding 1915, but does not give much help in predicting the future.

The increase in the use of lithopone (the growth in this

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is shown by Exhibit "F" giving the record of the Beckton Chemical Company) and the general improvement in manufacturing conditions at Gray's Ferry make it seem not unreasonable to believe that in the future Harrison Bros. and Co. can maintain earnings of $300,000 from the paint and varnish end of the business.

The president of Harrison Bros., Mr. Hubbard, stated to the writer that the present equipment at Gray's Ferry could manufacture, without additions, double the quantity of paint sold in 1914.

The future earnings from chemicals is necessarily uncertain. There will of course be some market for the acids, but prices in due time must be very low and tonnage reduced.

The trade in strontium nitrate is certainly growing. Having first started the business in the U.S. Harrison Bros. should be able to reduce costs and hold future trade, but it cannot be expected that a few years hence the present rates of profit can be maintained, and there also must be a fairly well defined limit beyond which expansion cannot go in a definite time without running the risk of over production.

The alum business has seemed to hold forth enough future possibilities to warrant plans for a large expansion in this manufacture at Paulsboro.

Attention already has been called to the desirability of manufacturing these water soluble inorganic salts at Hopewell.

If we assume that after 1917 profits from the chemicals will be but one eighth of the 1916 profits from this source as shown in Exhibit "D", they would be $200,000.

It hardly seems reasonable that if 1916-1917 earnings prove to be $1,500,000 that in 1917-1918 they will drop as low as $500,000($200,000 chemicals and $300,000 paints). On the ground however of belief in ability to average these returns after 1917, apparently we might pay as much as $210 for the common stock. If a price of $210 is paid for the stock in 1916 and the 1917 earnings are $1,500,000 we have results as follows:

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Earnings 1916-1917		$1,500,000
5% on mortgage ($1,285,000)	$64,250	
Allow for 1916 - 1917 10% on Purchase price 1,500,000 for pfd. stock Common stock @ 210		
4,200,000	570,000	
5,700,000 @ 10% =	634,250	634,250
Applicable to reduction of purchase price		865,750
Purchase price		5,700,000
Cost at end of 1917		4,834,250
Less preferred stock		1,500,000
For common stock		3,334,250

(20,000 shares) = $166.71 per share.

Earnings after 1917 of $500,000 give a return on purchase price as adjusted at end of 1917 of 9.0%.

Earnings	500,000
Less mortgage interest	64,250
	435,750

$$\frac{435{,}750}{4{,}834{,}250} = 9.0\%$$

If we insist on a return on the investment of at least 10% either of three factors must be changed; - the price for the stock must be lowered; we must feel sure that earnings can exceed $500,000; or that particularly favorable trade conditions will continue through 1918 so that returns will be sufficiently in excess of 10% on original investment to reduce the purchase price enough to allow thereafter a 10% return with earnings of $500,000.

The net tangible assets of Harrison Bros. as of Sept. 30, 1916 (Exhibit "D") will be as follows:

The Beckton Chemical Co. (Exhibit "F") shows capital and surplus of $723,255.64. No good will is carried in the assets. 52% (the proportion of Beckton stock owned by H.B. & Co.) is $376,092.93. Deducting from this the figure ($104,000) at which the Beckton stock is carried on H.B. & Co's books, we have $272,092.93 which may be considered as an allowable addition to the book value of H.B. & Co.'s assets.

As already noted the investment at Gray's Ferry should be adjusted by $147,000.

Then we have total liabilities Sept. 30, 1916,

Exhibit "C"			$8,577,298.65
Less capital		$3,500,000.00	
and surplus		2,326,227.52	5,826,227.52
			$2,751,071.13
Total assets Sept. 30,1916		$8,577,298.65*	
Less good will acct.	250,000		
" adjust.for G.F.	147,000	397,000.00	
		8,180,298.65	
Add increase in Beckton value		272,092.93	8,452,391.58
		Net worth	5,701,320.45

This is almost exactly what the initial cost would be with common stock at $210. It will be noted that any allowance over the above figure for good will must diminish the return on investment unless earnings in excess of $500,000 after 1917 can be maintained.

However, it must be noted from Exhibits "B" and "C" that the plant account increased from 1914 to 1915 by $276,207.84. Further consideration of Exhibits "B" and "C" shows that from October 31st, 1915 to Sept. 30, 1916 the plant account (including the $227,557.50 written off in 1915) covering Gray's Ferry and the Mantua Chemical Company (Paulsboro and Camden) was increased $1,926,584.32. This means an increase fro Oct. 31, 1914 to Sept. 30th, 1916 of $2,202,792.16 of which, as shown in the 1915 statement (Exhibit "B") there was written off $227,557.50. If we assume that one half of the total plant increase, or $1,101,396.08, should be written off for the period, the deduction from the net worth above determined will be $1,101,396.08 less $227,557.50 = $873,838.58.

Net worth	5,701,320.45
Write off	873,838.58
	4,827,481.87
Pur.Price	5,700,000.00
Good Will	872,518.13

The writer is not at all hopeful that Messrs. Lee Higginson & Co. would sell at $210 on the basis of Sept. 30th statement and give assurances of earnings for 1916-1917 of $1,500,000 but if the property can be secured for this figure he recommends purchasing, because:

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*Inventories in the statement of Sept. 30, 1916 (Exhibit "C") are at cost price if below market price and at market price if the market is lower than cost.

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I. Immediate entrance is secured to the paint business which will allow us to acquire thorough familiarity with the industry before we are ready for expansion at our own locations.

II. Harrison Bros. & Co. can give us the best general knowledge procourable by the purchase of a going concern.

III. The chemical features of the business harmonise with several of our plans for future development.

IV. If Harrison Bros. & Co. are not purchased now their planned extensions will, by another year, render the proposition of but little value to us at least from the standpoint of chemical manufacture.

V. Purchase of Harrison Bros. & Co. will remove what undoubtedly will be in a short time a powerful factor in the paint trade, and a very possible competitor in chemical lines we may desire to take up.

VI. The size of the proposition does not appear out of proportion to developments possible in the next few years at our own plants.

VII. The situation at Gray's Ferry is now being adjusted, and may be more carefully fitted for the most advantageous manufacture at that point while chemical manufacture expansion desired may be carried on at our own plants - probably Hopewell.

VIII. The sites at Gray's Ferry and Paulsboro are valuable, and undoubtedly saleable if future development makes removal desirable.

APPROVED BY: PREPARED BY:

R. R. M. CARPENTER C. A. MEADE

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COMPARATIVE SALES - H. B. & CO. INC.

	1909	1910	1911	1912	1913	1914	1915	1916
Alum	463222.47	512103.98	498621.70	512538.97	489636.23	472935.74	555412.41	1015127.54
Acetic Acid	133017.37	124698.84	92252.21	89071.98	105968.62	55341.84	114176.01	403226.51
Lactic Acid	23380.02	19422.38	22144.67	33243.01	32489.12	32041.63	60122.01	96234.47
Sulp. "	142491.45	153077.66	122939.98	126085.76	103850.75	82387.40	218280.94	747539.49
Mur. "						6507.20	9768.10	94778.40
Nitric "	25176.30	24526.85	17369.01	10623.23	6696.80	10298.58	13509.94	216847.95
Mixed "	2243.14	2049.[illegible]					469883.18	2204652.23
Nitrite Soda	13627.01	22458.95	25123.79	27458.93		14419.70	18782.03	75165.07
Nitrate Lead	14764.90	10656.01						
Stront. Nit.							155599.12	362759.48
Zinc. Sulp.							27030.55	61176.87
Misc. Chem.	38.39	43.77	14.51	12.17	28236.57	2266.35	4492.47	7232.66
Total Chem.	817961.05	869038.43	778465.87	799034.05	766878.09	676198.44	1647056.76	5284740.57
Lead Prods.	306358.36	334766.50	292344.75	408645.47	458297.48	69458.54 Chgo. 340530.38 Phila. 409988.92	53451.29 466725.08 520176.37	50161.57 794899.36 845060.88
Paint & Varnish	962968.04	895765.27	895446.11	977672.18	1086921.18	301660.60 683892.60 985553.20	297174.10 645036.94 942211.04	494228.84 695957.49 1190186.33
Color Making	62738.18	94872.80	102346.73	112416.86		17553.31 94803.51 112356.82	24376.78 90238.39 114615.17	7468.15 43163.47 50631.62
Alumina Hyd.						2042.10 14719.78 16761.88	2233.40 12585.92 14819.32	3708.80 12855.71 16564.51
Paint Total	1332064.58	1325404.57	1290137.59	1498734.51	1545218.66	1524660.82	1591821.90	2102443.34
Grand "	2150025.63	2194443.00	2068603.46	2297768.56	2312096.75	2200859.26	3238878.66	7387183.91

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- SUMMARY -

	CHEMICALS	PAINT T.	TOTAL -
1909-	817961.05	1332064.58	2150025.63
1910-	869038.43	1325404.57	2194443.00
1911-	778465.87	1290137.59	2068603.46
1912-	799034.05	1498734.51	2297768.56
1913-	766878.09	1545218.66	2312096.75
1914-	676198.44	1524660.82	2200859.26
1915-	1647056.76	1591821.90	3238878.66
1916-	5284740.57	2102443.34	7387183.91

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Exhibit 88

Assets	1910	1911	1912	1913	1914	1915
Real Est. &c.	2367740.22	2351917.82	2410705.59	2537942.12	2668070.16	2944228.-
Patents Goodwill &c.	530145.83	430000.-	250000.-	250000.-	250000.-	250000.-
Stock other Comps.	163464.95	214908.50	287005.31	429735.41	522116.27	616057.97
Inventory	405112.49	516225.47	593876.37	499849.88	623566.70	976499.69
Bills & Acct.Rec.	464977.53	406691.50	423636.71	412645.27	393664.24	624028.58
Cash	212734.45	110725.12	89473.31	115959.95	90534.71	248906.08
Unev. Ins. Taxes &c.	6251.03	4709.72	4791.95	4628.77	5045.83	23028.81
	4150426.43	4065178.13	4059489.24	4250761. 40	4552997.91	5682749.13

Liabilities	1910	1911	1912	1913	1914	1915
Cap. Stk.Pfd.	1500000.-	1500000.-	1500000.-	1500000.-	1500000.-	1500000.-
" " Comm.	1000000.-	1000000.-	1000000.-	1000000.-	1000000.-	1000000.-
1st.Mort.Bonds	1300000.-	1300000.-	1300000.-	1300000.-	1300000.-	1300000.-
Accts.Pay.	71294.05	56149.22	88586.50	109394 .98	150704.66	456451.17
Accrued Wages	13158.72	14145.39	15051.05	14593.71	18285.54	25665.75
" Bond int.	32500.-	32500.-	32500.-	32500.-	32500.-	32500.-
Sundry Reserves	97496.57	17035.77	8000.-		3378.06	107092.51
Dividend Acct.	60000.-	60000.-				
Surplus.	75977.09	85347.75	115351. 69	203672.71	328129.65	558289.70
Bills Pay.				90600.-	220000.-	702750.-
	4150426.43	4065178.13	4059489.24	4250761.40	4552997.91	5582749.13

Profit Loss-	1911	1912	1913	1914	1915
Profit for year	341355.92	385003.94	338321.02	354456.94	698967.55
Chg.Deprec.Fund	106839.43	110000.-	110000.-	120000.-	120000.-
	234516.49	275003.94	228321.02	234456.94	578967.55
Int.on Mortg.Bonds.	65000.-	65000.-	65000.-	65000.-	65000.-
	169,516.49	210003.94	163321.02	159456.94	513967.55
Dividends	60 ,000.-		75000.-	45000.-	56250.-
Chg.vs. book val.Patent &c.	109516.49		88321.02	124456.94	457717.55
Rights,Goodwill &c.	100145.83	180000.-			• 227557.50
Net Surplus for Yr.	9370.66	30003.94	88321.02	124456,94	230160.05
Previous Surplus.	75977.09	85347.75	115351,69	203672.71	328129.65
Bal.	85347.75	115351.69	203672.71	328129.65	558289.70

• New construction charged off -

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EXHIBIT "C".

9/30/16.

ASSETS AND LIABILITIES.

H.B.& CO., INC.

	Sept. 30, 1916.			Oct. 31, 1915 (Fiscal yr. end)
Real Est., Plant Ac.	$3,725,901.65 - appraised			$2,944,235.00
Mantua Plant	917,353.17	$4,643,254.82		
H.B.& Co. Chicago	193,500.00			
H.B. Bonds bought (96 bonds bought in 15 retired)	82,437.50⌀			
Boyd Smith Mines	405,179.38			
Beckton C. Co. (Purchase Price)	104,000.00			
Natl. Bauxite Co.	105,500.00			
Essential Oil Spec. Co.	12,500.00			
Rome, Ga. Plant	24,580.88			
Whiting Property	11,694.20			
Other Investments	4,306.32	$ 943,698.28	Stock Other Companies	$ 616,057.97
Inventory G.F.	$1,529,166.41		Inventory	976,492.69
" Mantua	392,382.12	$1,921,548.53		
Patent Rights, Good will, etc.	250,000.00	250,000.00		250,000.00
Bills & Accts. Rec.	592,700.64	592,700.64		624,028.58
Unex. Ins. & Taxes	10,877.96	10,877.96		23,028.81
Excess Repra. & Replac.	112,648.87	112,648.87 – ?		------
Cash	102,569.55	102,569.55		248,906.08
Total	$8,577,298.65	$8,577,298.65		$5,682,749.13
Captial Stock Pfd. Noncum.		$1,500,000.00		$1,500,000.00
" " Common		2,000,000.00		1,000,000.00
1st Mortgage Bonds		*1,285,000.00		1,300,000.00
Bills Payable		943,500.00		702,750.00
Accts. "		402,036.32		456,451.17
Accrued Wages		37,156.54		25,665.75
" Bond Interest		26,770.83		32,500.00
" Div. On Pfd. Stock		17,500.00		-----
Sundry Reserve Acct.		39,107.44		107,092.51
Surplus		2,326,227.52		558,289.70
		$8,577,298.65		$5,682,749.13

Add 2,408,1[illegible] to 1/31 after reductions [illegible] real estate [illegible] 147,0[illegible]

* - 15 bonds retired.

⌀ - 86 bonds bought in at $82,437.50.

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Exhibit "C"

EXHIBIT "D"

Profit by items for fiscal year ending October 31st, 1916 estimated from the last available P. & L. statement dated July 31st, 1916 - Nine months of the fiscal year.

CHEMICALS	Credits	PAINTS & PIGMENTS	Credits
Acetic Acid sales	117,600	Red Lead Sales	113,000
Lactic acid "	46,100	White " "	46,700
Mixed acid "	55,300	Colors in oil "	55,900
Muriatic acid "	36,400	Color Making (Dry) Sales	87,300
Sulphuric " "	535,000	Pure Lead Sales	11,800
Nitric " "	714,000	Ready Mixed "	108,000
Acetate of Soda Sales	700	Blanc Fixe	2,600
" " Lead "	900	Color Making (Red)	1,900
Alum Sales	189,300	White Paint Sales	23,500
Aluminum Hydrate "	1,500	Varnish Mixed Sales	38,400
Chemical Misc. "	2,200		
Nitrite of Soda "	30,800		
Strontium Nitrate "	84,000		
Total Credits Chemicals	1,813,800	Total Credits Paints	387,400
Less sundry debits	39,900		
	1,773,900		387,400
Based on the 9 months statement the 12 mos. overhead will be $233,000 (including bond interest and depreciation)	191,000		42,000
	1,582,900		345,400
			1582,900
		Total Net.	$1,928,300

[illegible]

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Exhibit "D"

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APPRAISED PLANT VALUE MAY 31, 1916.

DEPARTMENT	BUILDINGS	EQUIPMENT	TOTAL	ADDITIONS MAY 31 TO SEPT. 30.	TOTAL	GRAY'S FERRY PLANT
#1 Chamber	43516.43	57724.98	101241.41		101241.41	
#2 Chamber	82309.07	126918.51	209227.58		209227.58	
Alum	61647.34	146532.31	208179.65	11276.11	219455.76	
Acetic Acid	7746.95	36453.83	44200.78	6340.24	50541.02	
IronFreeAlum		1500.00	1500.00		1500.00	
MuriaticAcid	4751.16	26271.14	31022.30	691.40	31713.70	
NitricAcid	32711.73	108550.93	141262.66	22839.73	164102.39	
KalbfleischTowers	18055.27	50226.21	68281.48		68281.48	
#3 Chamber	15706.95	75909.59	91616.54		91616.54	
#4 Chamber	15706.99	75909.57	91616.56		91616.56	
StrontiumNitrate	4953.02	19731.52	24684.54	689.30	25373.84	
LightLacticAcid	8102.87	17358.62	25461.49	504.87	25966.36	
Dark " "	7245.30	7420.05	14665.35		14665.35	
Contact Acid	36528.16		36528.16	176654.90	213183.06	
O.V.				8432.08	8432.08	
NitrateStorage				1946.54	1946.54	
" BagWash				1430.66	1430.66	
					1320394.33	1320394.33
Total Chemical						
White Paint	18957.00	18324.64	37281.64	921.62	38203.26	
Printing and ColorPrint	14364.37	15806.83	30171.20		30171.20	
ReadyMixed	17710.89	16588.98	34299.87		34299.87	
Shipping		2500.00	2500.00		2500.00	
AluminaHydrate	8021.72	10515.87	18537.59		18537.59	
WhiteLead	58256.15	100765.83	159021.98	12583.50	171605.48	
Cooperage	2224.86	2086.48	4311.34		4311.34	
RedLead	10132.54	26713.02	36845.56	6432.44	43278.00	
Oxide		9200.00	9200.00		9200.00	
LeadRecovery	1336.53	1648.47	2985.00		2985.00	
ColorGrinding	35670.80	59122.35	94793.15	691.68	95484.83	
" Making	6995.29	11027.22	18022.50		18022.51	
Varnish	10405.74	13927.37	24333.11		24333.11	
ColorMakingRed	2498.14	3709.10	6207.24		6207.24	
BlancFixe	1867.32	5087.23	6954.55	1631.00	8585.55	
Vitreosil	4607.93	9240.70	13848.63		13848.63	
ZincSulphate	2406.26	5895.09	8301.35		8301.35	
ZincRoasting				22391.46	22391.46	
DutchWhiteLead	54012.73	5987.27	60000.00	380.85	60385.85	
BecktonLithopone	16775.42	6469.38	23244.80		23244.80	
" "	51418.83	4206.71	55625.54		55625.54	691522.52
Total Paint						
Power	79350.74	211443.68	290794.42	105170.52	395964.94	
Mch.&Carp.Shops	3897.79	35772.98	39670.77	11885.20	51555.97	
Office	21296.00	15395.87	36691.87	6702.00	43393.87	
Laboratory		8000.00	8000.00	3820.65	11820.65	
Sanit.&Accid.Prev.			2245.34		2245.34	
Store		1500.00	1500.00		1500.00	
Service Room		3000.00	3000.00		3000.00	
Restaurant	2912.64	506.91	3419.55		3419.55	
Stable&Garage	10475.27	968.51	11443.78		11443.78	
Dwellings	7500.00	00.50	7500.50		7500.50	
General(Roads,etc.)		195407.87	195407.87	26986.48	222394.35	
Miscellaneous				8107.87	8107.87	
Land					805000.00	
					1567346.82	1567346.82
						3579163.67

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Exhibit "E"

EXHIBIT "F".

THE BECKTON CHEMICAL COMPANY

AUGUST 31st. 1916.

ASSETS

PLANT A/C	Newark	$ 28,703.76	
" "	Meadows	145,109.22	
" "	Philadelphia	55,073.22	
" "	Grays Ferry	106,881.38	
" "	Acid	406,629.24	
" "	Land	21,000.00	$762,936.82
Cash		$ 42,288.57	
Accounts Receivable		178,418.83	
Acceptances Receivable		23,335.00	
Inventory		291,031.01	
Unexpired Insurance		5,569.88	540,643.29
			$1,303,580.11

LIABILITIES

Capital Stock	$ 250,000.00
Accounts Payable	111,662.12
Notes Payable	390,000.00
Reserve for Depreciation	78,469.35
Reserve for Insurance	193.00

PROFIT & LOSS A/C

PROFIT -	November '15	$ 4,871.03		
	December '15	14,359.99		
	January '16	34,930.13		
	February '16	35,833.38		
	March '16	59,661.63		
	April '16	61,644.85		
	May '16	106,601.34		
	June '16	77,796.45		
	July '16	65,036.01		
	August '16	61,654.92	$522,389.53	
	Managerial Expense 10 months		185,390.21	
			$336,999.32	
	SURPLUS, 11/1/15		136,256.32	
	SURPLUS, 8/31/16			$ 473,255.64
				$1,303,580.11

gma 1455

BECKTON CHEMICAL COMPANY

FISCAL YEARS, ENDED OCTOBER 31st.

	1908	1909	1910	1911	1912	1913	1914	1915
Profits	$46.048.	$62.795.	$89.167	$119.906	$103.578.	$199.987.	$325.851.	$174.877
penses	1.309.	1.537.	3.346.	6.628.	55.283.	85.858.	101.563.	130.312.
	$44.739.	$61.258.	$85.821.	$113.278.	$ 48.295.	$114.129.	$224.288.	$ 44.565.
idends Paid	35.000.	40.000.	60.000.	60.000.	25.000.	25.000.	100.000.	10.000.
PLUS	$ 9.739.	$21.258.	$25.821.	$ 53.278.	$ 23.295.	$ 89.129.	$124.288.	$ 34.565.
(Amount)	$174.012.	252.139.	$345.963.	$468.565.	$585.278.	$811.027.	$963.876.	$1.182.559.
(Tons)	2,230	3,400	4,750	6,400	7,900	10,448	12,695	14,975
T PER TON	$20.06	$18.00	$18.00	$17.70	$12.50	$ 19.24	$25.77	$11.67

* Up to the year 1912, the executive and selling expenses were borne jointly by H.B. & Co. Inc. & C.C. & Co. without charge to the B.C.Co. Commencing in 1912, a charge of 10% on sales was charged up and paid to H.B. & Co., Inc., and to C.C. & Co., in proportion to their stock interest.

** Before deducting depreciation.

3183

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gmc 1422

HARRISON BROS. & CO., INC. OF CHICAGO

BALANCE SHEET, 30th June, 1916.

ASSETS:

Cash in bank and on hand			$12,147.59
Accounts Receivable		$126,073.63	
Less, Reserve for Uncollectible Accounts		600.00	125,473.63
Inventories of Product - Material & Supplies			76,636.82
			214,258.04
Deferred Charges to Operations:			
Prepaid Insurance		1,350.96	
Advertising Matter		2,390.23	
Advances to Salesmen		1,175.00	
Charter Fee		345.00	
Interest		99.82	5,361.01
Real Estate, Buildings, Machinery, etc.:			
Real Estate		15,889.00	
Buildings		45,079.85	
Machinery, etc.		22,287.31	
Motor Trucks and Automobile		5,335.92	
Furniture and Fixtures		5,447.18	
Print Shop Equipment		1,663.18	95,702.44
			$315,321.49

LIABILITIES.

Bills Payable			$55,000.00
Accounts Payable:			
Harrison Bros. & Co. Inc. Phila.		$11,797.56	
Miscellaneous		7,816.93	19,614.49
			74,614.49
Accrued Accounts:			
Rent, Taxes, etc.		579.14	
Salesmen's Commissions		750.00	1,329.14
			75,943.63
Reserve for Depreciation			2,940.99
			$78,884.62

CAPITAL AND SURPLUS:

Capital Stock		$200,000.00	
Surplus:			
Profits for Six Months as Annexed	$5,463.71		
Excess of Appraisal value of plant, over book value, March 1916*	30,973.16	36,436.87	236,436.87
			$315,321.49

*Am. Appraised.

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gmc 1455

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Exhibit "G"

PROFIT & LOSS ACCOUNT

FOR THE SIX MONTHS ENDED 30th JUNE, 1916.

Sales			$384,805.05
Less, Allowances, etc.			851.18
Net Sales			383,953.87
Cost of Sales:			
Materials consumed		$289,988.80	
Labor (Direct)		4,284.12	
Packages		12,730.26	
Freight		2,043.52	
		$309,046.70	
Factory Expenses:			
Labor, Non-productive	$7,096.89		
Maintenance	3,747.11		
Depreciation	2,940.99	13,784.99	
			322,831.69
Gross profit			$61,122.18
	Chicago	**Minneapolis**	**Totals**
Selling Expenses:			
Salesmen's Salaries & Commissions	$11,029.85	$3,630.00	$14,659.85
Salesmen's Expenses	6,021.76	2,763.97	8,785.73
Advertising Matter	3,980.51	916.57	4,897.08
Freight and Cartage	2,213.65	1,248.88	3,462.53
Miscellaneous	3,125.73	354.80	3,480.53
	$26,371.50	$8,914.22	$35,285.72
Kansas City Warehouse Expense			393.63
Kansas City Insurance			13.75
Total Selling Expenses			$35,693.10
General Expenses:			
Salaries	$8,398.07	$4,633.57	$13,031.64
Rent	1,116.52	600.00	1,716.52
Insurance	1,058.52	29.97	1,088.49
Postage	677.43	221.47	898.90
Office Supplies	370.78	70.53	441.31
Collection	59.08	41.59	100.67
Miscellaneous	1,351.29	277.77	1,629.06
	$13,031.69	$5,874.90	$18,906.59
Reserved for Uncollectible Accounts, less collections of accounts previously charged off			219.98
Appraisal Expenses			530.00
Total General Expenses			$19,656.57
Total Selling and General Expens.			55,349.67
Profit from Operations			$5,772.51
Other Income:			
Allowance by Harrison Bros. & Co., Inc., Phila., for collection of old branch and Riverside Paint Co. Accounts			2,525.87
Profit before Interest and Adjustment of Affiliated Companies' Accounts			$8,298.38
Interest and Discount			2,834.67
Profit before Adjustment of Affiliated Companies' Accounts			$5,463.71

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gmc 1455

NATIONAL BAUXITE COMPANY

BALANCE SHEET, 30th June, 1916.

ASSETS:

Cash in bank and on hand		$6,727.62
Bills Receivable	$996.57	
Less Reserve for Doubtful Bills Receivable	996.57	
Accounts Receivable:		
Harrison Bros. & Co., Inc.	12,085.54	
F. H. Kalbfleisch Co.	5,153.03	
Warecki Chemical Co.	1,063.38	
Miscellaneous	6,102.76	24,404.71
Inventories - Ore, Supplies and Merchandise at book values		4,110.61
		$35,242.94
Real Estate, Buildings and Equipment at book values:		
Real Estate and Mining Rights	37,865.62	
Buildings and Equipment	26,735.16	
		64,600.78
		$99,843.72

LIABILITIES:

Accounts Payable:		
Mine Manager	$112.70	
Boyd Smith Mines, Inc.	351.80	
Miscellaneous	4,993.35	$5,457.85
Accrued Accounts:		
Taxes	332.44	
Royalties	120.29	452.73
		$5,910.58

CAPITAL and SURPLUS:

Capital Stock, authorised and issued		$100,000.00	
Less, in Treasury		17,500.00	
		82,500.00	
Surplus, Jany. 1, 1916	$1,426.37		
Profit for the six months ended June 30, 1916 as annexed	10,006.77	11,433.14	
			$93,933.14
			$99,843.72

Subject to allowances for Depletion of Mines, Depreciation on Buildings and Equipment and Adjustment of Inventories.

gma 1455

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E

[illegible]it [illegible]

PROFIT AND LOSS ACCOUNT

For the six months ended 30th June, 1916.

Sales of Bauxite	$40,296.03	
Less Discounts	48.31	
	40,247.72	
Cost of Sales	14,871.01	
Gross profit		$25,376.71
Selling, Administrative and General Expenses:		
Royalties	6,575.62	
Traveling Expenses	540.41	
Laboratory Expense	620.86	
Prospecting	15.95	
Legal Expenses	418.05	
Mine Manager's Salary and Expenses	1,248.06	
Mine Office Expenses	652.86	
Philadelphia Office Expenses	131.96	
General Expenses	1,054.33	
Uncollectible Accounts, Written off	680.47	
Reserved for Doubtful Bills Receivable	996.57	
Taxes	450.00	
		13,385.14
		$11,991.57
Other Income:		
Steam Shovel Rental.	500.00	
Discount on Purchases	2.23	
Interest on Bank Balances	46.16	
		548.39
Profit before Allowances for Depletion of Mines, Depreciation of Plant and Equipment, Adjustment of Inventories and Extraordinary items.		12,539.96
Extraordinary Items:		
Loss on Sales to Harrison Bros. & Co., Inc., or Real Estate, Equipment and Ore	2,868.58	
Less, Equity in Commissary Turned over by former Mine Manager	335.39	
		2,583.19
Profit before Allowances for Depletion of Mines, Depreciation on Buildings and Equipment and Adjustment of Inventories.		$10,005.77

Government's Exhibit No. 114

PIERRE S. DU PONT

Net Purchases of Common Stock of General Motors Company, Chevrolet Motor Company and General Motors Corporation, 1914–1917.

	General Motors Co. (N. J.)		Chevrolet Motor Co.		General Motors Corp. (Del.)		
Date	Net Shares Purchased	Net Price Paid	Net Shares Purchased	Net Price Paid	Net Shares Purchased	Net Price Paid	Total Net Price Paid (Cumulative)
4/28/14–12/31/14	2,005	$135,092.50					$ 135,092.50
1/ 1/15–12/31/15	230	73,460.00					208,552.50
1/ 1/16– 5/ 9/16	100	9,541.45					218,093.95
	2,335*	$218,093.95					
5/10/16–12/31/16			11,155** 3,000	— $ 752,601.00			970,694.95
1/ 1/17–12/20/17			5,950	501,281.76	5,100	$531,837.50	2,003,814.21
HELD at 12/20/17			20,105	$1,253,882.76	5,100	$531,837.50	$2,003,814.21

* Exchanged for common stock of Chevrolet Motor Company.

** Received on exchange of stock of General Motors Company.

Government's Exhibit No. 115

IRENEE DU PONT

Net Purchases of Common Stock of General Motor Company and Chevrolet Motor Company, 1914-1917

	General Motors Co. (N.J.)		Chevrolet Motor Co.		
	Net Shares Purchased	Net Price Paid	Net Shares Purchased	Net Prices Paid	Total Net Price Paid (Cumulative)
1/1/14-6/4/14	400	$27,075.00			$27,075.00
6/5/14-12/31/14	*(100)*	*(7,016.67)*			$20,058.33
1/1/15-12/31/15					$20,058.33
1/1/16-5/9/16					$20,058.33
	300*	$20,058.33			
5/10/16			1500**	$ 4,500.00	$24,558.33
5/11/16-12/31/16			*(500)*	*(8,186.11)*	$16,372.22
1/1/17-12/20/17			300	19,375.00	$35,747.22
			1300	$15,688.89	$35,747.22

* Exchanged for common stock of Chevrolet Motor Company.

** Received on exchange of 300 shares of General Motor Co. Common and $4,500 in cash.

( ) Indicates sales.

Government's Exhibit No. 116

September 17, 1915

J. A. Haskell, Esquire,
New York City.

My dear Haskell:

I must apologize to you for taking liberties with your name in a meeting that was held in New York yesterday. The facts are these:

For some time I have been a modest holder of General Motors stock and recently was informed that on account of the lapse of the Voting Trust on this stock the share holders proposed reorganizing the Board under the direction of Mr. Kaufman, of the Chatham & Phenix Bank, by whom I was requested to become a member of the new Board. It later developed that there was a contest between the old faction and the new, both claiming control of the company. Raskob who has also been interested in the situation and I were requested to attend a meeting in New York yesterday at which a Board satisfactory to both sides was proposed. We appeared at this meeting and found an absolute "deadlock". After quite six hours discussion each side had nominated six men, of which I was one of the Kaufman side. While I was absent talking with the latter for a few minutes, the oppsing side said they would be contented if three names were added to the Board by me. To this proposition Mr. Kaufman assented; each side stipulating that the new comers should not be connected with either faction. Knowing your record as a

Director and your interest in affairs in general, I took the liberty of mentioning your name and also that of Lammot Belin, who is equally unacquainted with the situation. Raskob was present and could answer for the suggestion of his own name. These three were accepted as satisfactory and the meeting broke up with the agreement that the old Board would propose a proxy committee to solicit proxies for the names given. I had no thought that this list would be made public, though I confess—in the hurry of leaving—I did not make certain of such an understanding. Raskob tells me that he had you on the telephone as soon as he noticed that the news had been given out and that you were willing. It is my judgment that the Directors will now work together, having decided upon a policy and that we are not entering a Board full of friction. The company has done so well and is in such fine shape that I do not think we need fear responsibilities of the duties to start with. It will be my policy to try to be informed and I hope that you will take the same position. I have no intention of being a "dummy" director.

As the price of General Motors stock is now fairly high and as you may not wish to become a shareholder at this price, I suggest that I furnish you with some shares which I shall be glad to average with those obtained by me some time ago. Will you let me know your wishes.

NOTE. At top of page 1 is written "P624" and "Duplicate from file of P. S. duPont" and there is stamp "Jan 16 1949." "P. S. du Pont" is stamped across each page.

Government's Exhibit No. 117

GENERAL MOTORS COMPANY
DETROIT, MICHIGAN

December 2, 1915

Mr. Pierre S. duPont,
E. I. duPont deNemours & Co.,
Wilmington, Del.

Dear Mr. duPont:

We have prepared a list of the Directors, Committee Members, and Officers of this Company and, having some extra copies, are enclosing one thinking you would find it useful.

Yours very truly,

Office of the President

/S/ M. K. DOHERTY

NOTE. At top are Received and Answered stamps of P. S. Du Pont dated Dec 6—1915.

Personnel of General Motors Company

Directors

F. L. Belin	Aetna Explosives Co.	2 Rector St.	New York
Arthur G. Bishop	Genesee County Savings Bank		Flint, Mich.
Emory W. Clark	First & Old Detroit Natl Bank		Detroit, Mich.
Pierre S. duPont	E. I. duPont deNemours & Co.		Wilmington, Del
W. C. Durant	Chevrolet Motor Co. of N. Y. Inc.	57th St. & 11th Av	New York
J. A. Haskell	E. I. duPont deNemours & Co.	19 Cedar St.	New York
L. G. Kaufman	Chatham & Phoenix Natl Bank		New York
J. H. McClement		165 Broadway	New York
C. S. Mott	Weston-Mott Co.		Flint, Mich.
C. W. Nash	General Motors Company		Detroit, Mich.
Thomas Neal	Acme White Lead & Color Works		Detroit, Mich.
S. F. Pryor	Remington Arms—Union Metallic Cartridge Co.	233 Broadway	New York
J. J. Raskob	E. I. duPont deNemours & Co.		Wilmington, Del
Chas. H. Sabin	Guaranty Trust Company		New York
J. J. Storrow	Lee, Higginson & Co.	44 State St.	Boston, Mass.
Albert Strauss	J. & W. Seligman & Co.	1 William St.	New York
Albert H. Wiggin	Chase Natl Bank		New York

Chairman — Pierre S. duPont

Finance Committee

L. G. Kaufman
C. H. Sabin
A. H. Wiggin

Executive Committee

F. L. Belin
A. G. Bishop
Emory W. Clark
W. C. Durant
C. W. Nash
C. S. Mott
J. J. Storrow
Albert Strauss

Chairman — J. J. Storrow

Officers

President	C. W. Nash
Vice President	A. G. Bishop
" "	Emory W. Clark
Treasurer	Jas. T. Shaw
Secretary	Standish Backus
Comptroller	W. H. Alford
Asst. Treas.) " Secy.)	T. S. Merrill
Asst. Comp.	Wm. P. Winch

Government's Exhibit No. 118

CHEVROLET MOTOR COMPANY
New York, N. Y

OFFICE OF THE PRESIDENT

December 12, 1916.

ANSWERED
DEC 20 1916
J. J. Raskob.

Mr. John J. Raskob,
Wilmington, Del.

My dear Mr. Raskob:—

In reply to yours of December 1st, inquiring as to the number of shares of General Motors owned by the Chevrolet Company, I beg to present the following:

On January 13th as Syndicate Manager I submitted a proposition to the Board of Directors, offering to purchase on or before December 31, 1916, as a maximum, 500,000 shares of the capital stock of the Chevrolet Company at par, or any part thereof, and to pay for same by delivering General Motors common stock on the basis of one share of General Motors common for five shares of Chevrolet stock, the exchange to be made as of January 14, 1916, so as to entitle the Chevrolet Company to receive the dividends on General Motors common payable to stockholders of record on January 15, 1916. The amount of Chevrolet stock to be purchased by me, as aforesaid, limited, on the above basis of exchange, to the amount of General Motors common stock that I might be able to deliver.

At a meeting of the Directors of the Chevrolet Company, on January 13, 1916, the following resolution was adopted:

> RESOLVED that this Corporation accept the offer of Mr. Durant to purchase from this Corporation the whole or any part of 500,000 shares of capital stock of the Company on the basis of five shares of Chevrolet stock for one share of General Motors common, the exchange to be made as of January 14, 1916, and the Board of Directors do hereby declare that the said stock is of the value of at least $50,000,000 and that same is necessary for the business of the Corporation.

At the time the proposition was submitted and accepted, the capital of the Chevrolet Company had been increased from $20,000,000 to $80,000,000 ($60,000,000 available for the acquisition of properties or investments). While my proposition contemplated the purchase of 500,000 shares, requiring $50,000,000 of the increased capital and involving the acquisition of 100,000 shares of General Motors common, the impression prevailed at the time, and I proceeded upon the assumption, that the Company would later accept my offer to purchase, on a basis at least as favorable to it, the additional 100,000 shares, requiring an additional issue of $10,000,000 maximum and involving the acquisition of an additional 20,000 shares General Motors common.

In other words, if the full amount of the increased capital had been used for the purpose, the Chevrolet Company would hold 120,000 shares of General Motors common, giving to the Chevrolet Company practically a three-quarters interest in the earnings applicable to the common stock of the General Motors Company.

—2—

Since my original proposition was made, no further action was taken regarding the purchase or exchanges until the meeting of our Directors held on November 29, 1916, when it was decided that the proposition as originally made would not be changed or modified in any respect.

I have delivered and have in my possession for delivery as of this date 71,218 shares of General Motors common and expect to deliver the balance of the 100,000 shares within the date mentioned.

Assuming that the 100,000 shares will be delivered, the Chevrolet Company will have practically five-eighths interest in the earnings applicable to the common stock of the General Motors Company, instead of three-quarters, as I had hoped or as was originally intended.

For your further information, would say that calculated conservatively, the earnings of the General Motors Company for the year ending July 31, 1917 will be $25,200,000. Deducting the dividend upon the $20,000,000 preferred issue, amounting to $1,200,000, will give us a net of $24,000,000, five-eighths of which, or $15,000,000, will belong to the Chevrolet Motor Company. In addition to the above the Chevrolet Motor Company will have its own earnings of approximately $6,000,000, or a total of $21,000,000 applicable to $70,000,000 of stock issued, or 30%.

As this is subject to change, I would prefer to have it treated as confidential.

I sincerely trust you will be able to attend the directors meeting, held at Detroit on the 14th, and that you can arrange to go through with us, leaving here tomorrow afternoon.

Sincerely yours,

(Signed) W. C. Durant

WCD*W

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Government's Exhibit No. 119

May 9th, 1916.

Lammot Belin, Esquire,
No. 2 Rector Street,
New York City.

Dear Lammot,

Last January Mr. Durant made an offer to us to exchange our General Motors Company stock for Chevrolet Motor Company stock on the basis of one to five, i.e. we to receive five shares of Chevrolet Motor Company for one share of General Motors Company stock. At the time we felt we could not accept the offer for the reason that we were not sure he had control of the General Motors Company and being in the position of neutral Directors we might be charged with taking sides should we do anything which would tend to give one side or the other control of the Company. Since that time, however, Mr. Durant has secured control of the Company so that this objection is removed. He appreciated the position we were in at the time and has left this offer open for acceptance. The offer includes the hundred shares of stock held by you and the fifty shares of stock held by your father. Pierre and I are sending our stock in for exchange and I told Mr. Durant I would speak to you about it, so that should you care to make the exchange if you will send your stock to him, he will issue you the Chevrolet Motor Company stock immediately. The exchange offer was made as of January 14th so that it is necessary for us to give up the dividend of $10.00 we received in February and the dividend of $5.00 we received this month, making $15.00 per share, i.e. in sending your stock in to Mr. Durant you would accompany it with a check for $1 500.00.

—2—

It occurs to me that you should retain enough General Motors Company stock in your own name to prevent being disqualified as a Director. I think this requires but three shares. I have not written your father about this matter, thinking you would perhaps prefer taking it up with him yourself as he undoubtedly made this investment through you.

Helena joins me in sending love to you and your good wife and we hope to have the pleasure of seeing you soon in New York.

Sincerely yours,

Government's Exhibit No. 120

April 10th, 1916.

W. C. Durant, President
Chevrolet Motor Company,
600 West 57th Street,
New York City.

Dear Mr. Durant,

I thank you very much for your letter of the 7th, which I have read with a great deal of interest and about which I will talk with you the next time I am in New York.

You will, of course, recall the fact that my position on the Board of Directors of the General Motors Company is that of what might be termed a neutral director—at least I feel that is largely the way my position there is considered—and in my endeavors to be absolutely neutral I feel that I am sometimes possibly being misunderstood by both sides. It is needless, of course, for me to tell you the admiration I have for you and your wonderful accomplishments, because this is so well known to our mutual friend, Mr. Kaufman that he must have imparted it to you. When I felt not at liberty to accept the exchange offering made last January it was only after most careful deliberation of the matter, in which deliberation it seemed to me that the taking of a step which might result in my being charged with working with your side in the way of securing control to the Chevrolet Company was not what one would expect of a person occupying a neutral position. I understand Mr. duPont has about 2200 shares of General Motors Company stock and my holdings are a little less than 1200 shares. I do not see how, at this late date, we can expect you to renew your previous offer or to expect you to take the position that the opportunity extended us had never been withdrawn. I shall, however, be glad to talk at length with you in regard to all of this the next time I am in New York.

Sincerely yours,

79

Government's Exhibit No. 121

CHEVROLET MOTOR COMPANY
600 West 57th Street
New York.

No.
RECEIVED
Apr 13 1916
J. J. RASKOB.

April 12, 1916.

Mr. J. J. Raskob,
Wilmington, Del.

Dear Mr. Raskob:—

Accept my thanks for your kind letter of the 10th, just received.

I am in position, as Syndicate Manager, to continue until December 1st next the offer previously made, and you can consider this a firm commitment to exchange a total of 3400 shares of General Motors common for Chevrolet, on the basis of five for one.

I shall be pleased to discuss this and other matters of importance the next time you are in New York.

Very truly yours,

(Signed) W. C. Durant
Syndicate Manager.

WCD*W

Government's Exhibit No. 122

May 9, 1916

W. C. Durant, Esquire,
New York City.

My dear Mr. Durant:

Mr. Raskob has told me of his recent conversation with you and of your kindness in offering to us the exchange of General Motors-Chevrolet stock as proposed some months back. Developments of recent months have considerably altered my opinion relative to the propriety of making this exchange; principally because of the fact that the control of General Motors is now definitely fixed beyond anybody's question. On this account I am very glad to take advantage of your offer of exchange; my only hesitation being through the fact that my failure to come in on the first offer would seem to disbar me from the advantages of the exchange now that developments have been so favorable. However, you have been so generous and so insistent on the propriety of my participation that I shall take you up at your word and am sending herewith certificates representing 2,235 shares, being my entire holdings of General Motors stock for which please send me at your convenience 11,175 Chevrolet shares, to which the exchange entitles me. You will note that the transfer of these shares would disqualify me as a General Motors director, but I am sending forward for transfer a number of other shares which I own but which have stood in the names of others. These will qualify me as a Director, but I do not think I should impose upon you further in the exchange; in fact I am not quite sure that you intended that my stock should be more than the two thousand shares which I think was the amount held by me when I became a General Motors director. If you had intended the limit to be this two thousand shares do not hesitate to say so and return the certificates accordingly. I am also forwarding to you check for $33,525 covering dividend of $15 per share on the 2,235 shares forwarded for exchange. Should not I make some interest adjustment to you account of these dividends? Not knowing the number of shares you will accept for exchange, I have not attached the necessary stamps. May I trouble you or the Central Trust Company to attend to this and send me a memorandum of the costs?

As to the General Motors Board:

I hope that you will feel that the transfer of the principal part of my holdings leaves it open for you to replace me as a director or as Chairman of the Board if you wish to do so; not that I really desire to give up my directorship, but that I wish to meet your views in every particular. Should your plans make it advisable to make the change I will not feel aggrieved in any way.

—3—

In closing let me thank you again for your generosity in maintaining the exchange offer of which I am now taking advantage.

Very truly yours,

12

NOTE. "P. S. du Pont" is stamped across each page. Handwritten "644" appears in top right-hand corner of first page and "Recd" appears in left-hand margin of first page opposite "11,175 Chevrolet."

Government's Exhibit No. 123

Letterhead of
GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

September 5, 1917

Mr. Pierre S. du Pont
du Pont Building
Wilmington, Delaware

Dear Mr. du Pont:

I hand you herewith enclosed list of the Directors and Officers of General Motors Corporation elected at the Annual Meetings held August 22d and 23d.

Very truly yours

/s/ T S MERRILL
Secretary

TSM:D

NOTE. At top right is stamped "No. — Received Sep 7 1917 P. S. Du Pont." Initials "RWE" are written at bottom.

DIRECTORS AND OFFICERS
of
GENERAL MOTORS CORPORATION

DIRECTORS

A. G. Bishop
W. P. Chrysler
R. H. Collins
W. L. Day
Pierre S. du Pont
W. C. Durant
J. A. Haskell
L. G. Kaufman
J. H. McClement
C. S. Mott
J. J. Raskob
E. VerLinden
F. W. Warner

FINANCE COMMITTEE

L. G. Kaufman (Chairman)
J. J. Raskob
Pierre S. du Pont
W. C. Durant
J. H. McClement

OFFICERS

Chairman of the Board	Pierre S. du Pont			
President	W. C. Durant			
Vice President	A. G. Bishop			
" "	C. S. Mott			
" "	W. P. Chrysler			
" "	R. H. Collins			
" "	W. L. Day			
" "	E. VerLinden			
" "	F. W. Warner			
Secretary	T. S. Merrill			
Assistant Secretary	R. E. Mason			
Treasurer	H. H. Rice			
Assistant Treasurer	T. S. Merrill			
" "	J. M. Ryan	for	Buick Motor Company	Division
" "	D. T. Smith	"	Cadillac Motor Car Co	"
" "	C. B. Eldredge		" " " "	"
" "	P. D. Larson	"	General Motors Truck	"
" "	G. H. Hannum	"	Jackson-Church-Wilcox	"
" "	Michael McMillan		Northway Motor & Mfg	"
" "	F. R. Boyd	"	Oakland Motor Car Co	"
" "	L. A. Ruggles		Olds Motor Works	"
" "	R. T. Longway		Weston-Mott Company	"
Comptroller	M. L. Prensky			

Assistant Comptroller	John D. Curry			
" "	L. F. Ohland	for	Buick Motor, Company	Division
" "	L. F. Ohland	"	Weston-Mott Company	"
" "	A. C. Anderson		Weston-Mott Company	"
" "	H. M. Kinnee	"	Cadillac Motor Car Co	"
" "	H. L. Hurst	"	General Motors Truck Co	"
" "	W. F. Maybury	"	General Motors Truck Co	"
" "	G. R. Spindler		Jackson-Church-Wilcox	"
" "	Thomas Mair	"	Northway Motor & Mfg Co	"
" "	E. H. Tinsman	"	Oakland Motor Car Co	"
" "	C. E. Stowe	"	Olds Motor Works	"
General Counsel.	Stevenson, Carpenter, Butzel & Backus			
General Manager	W. P. Chrysler	for	Buick Motor Company	Division
" "	W. P. Chrysler	for	Weston-Mott Company	"
" "	R. H. Collins	"	Cadillac Motor Car Co	"
" "	F. W. Warner	"	Oakland Motor Car Co	"
" "	W. L. Day	"	General Motors Truck Co	"
" "	E. VerLinden	"	Olds Motor Works	"
" "	G. H. Hannum	"	Jackson-Church-Wilcox	"
" "	A. L. Cash	"	Northway Motor & Mfg	"

Defendan

Government's Exhibit No. 124

December 19th, 1917.

To Finance Committee

From Treasurer

General Motors-Chevrolet Motor Stock Investment

I recommend that our Company purchase Chevrolet Motor Company and General Motors Company common stocks in accordance with plan herein outlined and with a view to bringing this formally before our company I have asked for a special meeting of the Finance Committee to be followed as soon as possible by a special meeting of the Board of Directors to consider the following resolution:

> **Resolved** that the President and Treasurer of this Company be and they are hereby authorized to purchase up to $25,000,000.00 worth of the common stocks of the Chevrolet and General Motor Companies paying for the Chevrolet Motor Company common stock an average price not to exceed $115.00 per share and for the General Motors Company common stock an average price not to exceed $95.00 per share; and
>
> *recommendations contained*
>
> **Be it further resolved** that they be and are hereby authorized to do all acts and things necessary to finance and carry out this purchase in accordance with ~~plan outlined~~ in Treasurer's report to Finance Committee, dated December 19th, 1917, *modified as follows:*

METHOD OF FINANCING

While it doubtless will be necessary for the Du Pont Company to do a good deal in the way of temporary financing, my recommendation is that we incorporate *a new* ~~the Du Pont Motors~~ Company ~~under the laws of the State of Delaware~~ with an authorized capital of $75 000 000.00, $50 000 000.00 of which shall be Class A stock and $25 000 000.00 Class B stock;

CLASS A stock to be a 12% cumulative non-voting ~~common~~ stock, callable at any time in the discretion of the Board of Directors at $150.00 per share plus accrued and unpaid dividends;

CLASS B stock to be ~~common~~ stock with sole voting power and entitled to all earnings of the Company after the payment of the 12% dividend on Class A. stock;

The Du Pont Company to subscribe immediately to $7 000 000.00 Class B stock at par payable in cash, in consideration of which the *new* ~~Du Pont Motors~~ Company will allow us to make the following offer to the common stockholders of the Du Pont Company, to-wit:

The common stockholders of the Du Pont Company will be entitled to subscribe to an amount of *the new* ~~Du Pont Motors~~ Company Class A stock at par equal to 30% of their present holdings of E. I. du Pont de Nemours & Company common stock, payable either in cash or Liberty Bonds at par *and accrued interest.* Payments may be made in full at the time of subscription or may be made in four installments of 7½% each, payable on the 20th days of March, June, September and De-

1918

cember ^ respectively. Stock will not be issued until fully paid but interest at the rate of 6% per annum will be paid on installments.

The sale of this stock will supply $18 000 000.00, which added to the $7 000 000 received from the sale of Class B stock will make the total of $25 000 000.00 necessary to pay for the stock authorized to be purchased. In the interval between the time we must make payment for the General Motors and Chevrolet Motor stocks purchased and the time we will receive payment for the Class A stock sold to stockholders, the Du Pont Motors Company will arrange to borrow the balance of money needed. It is estimated that at least $8 000 000.00. of such borrowings can be made through giving notes in part payment for General Motors and Chevrolet Motor stocks purchased, leaving the balance to be arranged for through banks or otherwise as in the judgment of the Finance Committee may seem best.

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While the writer feels that a great many of our stockholders would pay in full immediately for the Class A stock to which they will be entitled to subscribe under this plan, using the Liberty Bonds which they will receive as a 32% special dividend on the 22nd instant, it may be advisable to consider the matter of paying any extra dividend to be paid in 1918 quarterly instead of at the end of the year thus making it possible for the stockholders to use this dividend to meet their Class A stock payments as they become due. Should, for instance, we adopt the policy of declaring an extra dividend of 32% in 1918, payable 8% quarterly, our estimated cash position at the end of each quarter as shown by a revision of the cash forecast accompanying my report to the Finance Committee under date of November 19th would show as follows:

March 31st, 1918	$15 871 000.00
June 30th, 1918	— 425 000.00
September 30, 1918	15 572 000.00
December 31st, 1918	33 758 000.00

This cash position will be improved through cash advances to be received from the United States Government under our contracts with them, which advances we conservatively estimate will amount to $25 000 000.00. The suggestion contained in this paragraph is not at all pertinent to the plan but is merely injected as a matter which may well receive careful consideration by the members of the Finance Committee between now and the time the offering of Class A stock is made to our stockholders should the recommendations contained herein be approved.

Necessity for Finding Investments

In the latter part of 1915 the Directors of the Du Pont Company deemed it wise to increase the capital and surplus employed from approximately $60 000 000.00 to a capital of $120 000 000.00. In the opinion of the writer our Company, with $60 000 000.00 of debenture stock and $60 000 000.00 of common stock, aggregating a total of $120 000 000.00 stock outstanding, should carry a surplus of at least $30 000 000.00. If this is true, our Company is definitely committed to the policy of employing a total of $150 000 000.00 capital. Of this amount $60 000 000.00

was employed in 1915, leaving a balance of $90 000 000.00 as representing the minimum amount which we are committed to find investment for. To this $90 000 000.00 should be added the value of plant and working capital assets employed in the military powder business prior to the war, for the reason that present indications are that this investment will be unprofitable and valueless after the war due to the Government owning more than ample capacity to supply its needs in time of peace. The total amount we have succeeded in investing in new industries to date, counting $12 500 000.00 for the dye business ($7 500 000.00 for plant investment and $5 000 000.00 for working capital investment) is $40 000 000.00, leaving a balance of $50 000 000.00 still seeking employment and it is imperative that this amount be employed, otherwise the earnings of our Company after the war will be insufficient to support the dividend policy and the matter of properly employing this money in a way that will result in proper return to our Company is one of most serious consequence.

The recommendation to make an investment in the motor industry may come as quite a shock to many of our directors at first, due to lack of full understanding of the opportunity offered and its relation to other opportunities that may present themselves from time to time.

HISTORY AND NATURE OF THIS INVESTMENT

The General Motors Company was organized in 1908 by Mr. W. C. Durant. It was then a holding company and acquired control, through stock ownership, of the Buick, Cadillac, Oldsmobile, Oakland Motor Companies, Northway Motors Company, Weston Mott Company and fifteen other companies, since which time the General Motors Company has become an operating company and most all the subsidiaries have been dissolved. In 1910 Mr. Durant found himself with properties, which, while they were earning $10 000 000.00, were woefully short of working capital and it became necessary to borrow $15 000 000.00. This was a difficult task due to the motor industry being an infant industry and more or less discredited. The result was that in order to get the money necessary he had to create a five-year voting trust under the laws of New York, under which the bankers agreed to loan $15 000 000.00 for five years with the understanding that they would have control of the Board of Directors. During the first ten months' operation by the Bankers the net earnings applicable to the common stock of General Motors Company dropped to $2 474 000.00 and for the following four years the record shows net earnings applicable to common stock as follows:

1912	$ 2 856 000.00
1913	6 410 000.00
1914	6 201 000.00
1915	13 409 000.00

The voting trust agreement expired in 1915 and the bankers and Mr. Durant were in dispute as to who was then in control of the stock. The dispute resulted in a compromise under which Mr. Durant elected seven directors, the bankers elected seven directors and Messrs. J. A. Haskell, Lammot Belin and John J. Raskob were agreed upon as three neutral directors satisfactory to both sides. Time soon demonstrated that Mr. Durant was actually in control of affairs through stock ownership; he was elected President of the

Company and the earnings applicable for the common stock for the following year (1916) jumped to $27 740 000.00 and for 1917, after making deductions for war taxes, $27 704 000.00. The automobile year starts August 1st and the earnings for 1918

were estimated at $45 000 000.00 before deducting war taxes. The actual earnings for the first four months (which is the worst period in the automobile industry) before deducting war taxes were over $17 000 000.00, the earnings for the month of November alone being upwards of $5 000 000.00 which is the largest month in the history of the Company. The following statement comparing conditions for the first three months this year with the same period last year is of interest.

	Three months ended 10/31/1917	Three months ended 10/31/1916
Cars and Trucks sold	54 432	37.884
Net Sales	$53 668 000.	$34 520 378.
Net Earnings	9 700 000.*	6 695 733.

The cash in banks and in sight drafts with documents attached, at the close of business December 7, 1917, amounted to $24 103 700.00.

*Note. This amount is after deducting $2 500 000.00 for war taxes.

CHEVROLET MOTOR COMPANY

While Mr. Durant was a member of the Board of Directors and Vice President of the General Motors Company during the bankers' regime, he was not at all active and incorporated the Chevrolet Motor Company for the purpose of manufacturing the Chevrolet car which has become very popular and fills a need not covered by the cars of the General Motors Company. The Chevrolet Motor Company had a capital of approximately $20 000 000.00 and in 1916 increased its capital to upwards of $64 000 000.00 and acquired control of the General Motors Company, in which Company it now owns 450 000 shares of common stock out of 825 000 shares outstanding.

Balance sheets of both the General Motors Company and Chevrolet Motor Company are appended to this report.

GENERAL

The growth of the motor business, particularly the

General Motors Company, has been phenomenal as indicated by its net earnings and by the fact that the gross receipts of the General Motors-Chevrolet Motor Companes (sic) for the coming year will amount to between $350 000 000.00 and $400,000,000.00. The General Motors Company today occupies a unique position in the automobile industry and in the opinion of the writer with proper management will show results in the future second to none in any American industry. Mr. Durant perhaps realizes this more fully than anyone else and is very desirous of having an organization as perfect as possible to handle this wonderful business. Mr. Barksdale is a director of the Chevrolet Motor Company and Mr. P. S. du Pont a director and Chairman of the Board of Directors of the General Motors Company. Mr. Durant's association with Mr. P. S. du Pont, Mr. H. M. Barksdale, Mr. J. A. Haskell, Mr. Lammot Belin and the writer has been such as to result in the expression of the desire on his part to have us more substantially interested with him, thus enabling us to assist him, particularly in an executive and financial way, in the direction of this huge business. The evolution of the discussion of this problem is that an attractive investment is afforded in what I consider the most promising industry in the United States, a country which in my opinion holds greater possibilities for development in the immediate future than any country in the world; that rather than have a coterie of our directors taking advantage of this in a personal way, thus diverting their time and attention (to some degree at least) from our affairs, it would be far preferable for the Company to accept the opportunity afforded, thus giving our directors the interest so desired through their stock ownership in the Du Pont Company.

GENERAL MOTORS-CHEVROLET MOTOR CONSOLIDATION

The Chevrolet car meets a demand which the General Motors Company cannot supply and in addition the Chevrolet-Durant interests dominate the United Motors Company though they do not control through stock ownership. This is a very valuable good will asset to the Chevrolet and General Motors Companies. It is, therefore, proposed

(although the plan has not been put before the Directors and stockholders of the respective companies) that the General Motors Company purchase the entire assets of the Chevrolet Motor Company except the 450 000 shares of General Motors Company common stock in the Chevrolet Motor Company treasury and assume the entire liabilities of the Chevrolet Motor Company paying therefor approximately 318 000 shares ($31 800 000.00) common stock General

Motors Company. This 318 000 shares together with the 450 000 shares in the Chevrolet treasury aggregating 768 000 shares of General Motors Company common stock will be the sole asset of the Chevrolet Motor Company, which will then be dissolved and in dissolution each share of Chevrolet will receive 1.2 shares of General Motors common stock. While, as previously stated, this plan has not been placed before the Board of Directors and stockholders, Mr. Durant is confident that there will be no trouble in its consummation.

STOCK AVAILABLE FOR ACQUISITION

The writer took up with the Finance Committee in an informal way the matter of investment in these stocks and as the proposal as roughly presented at that time seemed to be of sufficient interest to warrant further development we arranged with Mr. Durant to secure as many options as possible on stock, with the result that if we succeed in purchasing in the open market 40 000 shares of Chevrolet at an average price of $108.00 per share and 13 340 shares of General Motors at an average price of $90.00 per share we will have a total equivalent to 223 400 shares in the enlarged General Motors Company at a cost (after deducting 2% dividend accrued January 1st. 1918) of $90.50 per share.

The total outstanding voting stock of the enlarged General Motors Company would be approximately 1 080 000 shares, 50% or control of which would require ownership of 540 000 shares. With the above purchases, control could be summarized as follows:

Durant	280 000 shares
Du Pont	223 000 "
Total	503 000 "
Additional stock to be bought by Du Pont to make our investment $25 000 000.00, say	50 000 "
	553 000 "
Stock held by Wilmington people and Du Pont friends approximately	100,000 "
Total	653 000 shares

RETURN ON INVESTMENT

If the earnings of General Motors Company for 1918 continue at the present rate they will aggregate	$53 000 000.00
Estimated earnings for the Chevrolet Company will aggregate, say	12 000 000.00
making total net earnings for the enlarged General Motors Company before deducting war taxes	$65 000 000.00
Assuming that the war taxes will aggregate	20 000 000.00
the net earnings of the consolidated company after paying war taxes would be	$45 000 000.00
Deduct preferred stock dividend	1 200 000.00
Balance	$43 800 000.00

which equals 40% on $108 000 000.00 General Motors Company common stock then outstanding.

If the Du Pont Company succeed in investing $25 000-000.00 in the enlarged General Motors Company common stock at $95.00 per share, we will acquire a total of 263 200 shares, paying 12% in dividends and on which there will be earnings of 40% as hereinbefore indicated and the income account of the Du Pont Motors Company could be stated as follows:

	Dividends	Share of General Motors Earnings
263 200 shares General Motors stock at 12% – 40%	$3 158 400.	$10 528 000.
Less 12% dividends on $18 000 000.00 Class A Stock	2 160 000.	2 160 000.
Balance equals 14¼% on $7 000-000.00 Class B Stock held in Treasury of Du Pont Company	$ 998,400.00	
Balance equals 119½% on $7 000-000.00 Class B. Stock held in Treasury of Du-Pont Company		$8 368 000.00,

The dividends of $3 158 400.00 are equal to a return of 12.6% on a total investment of $25 000 000.00 and the share of General Motors earnings of $10 528 000.00 is equal to 42% on the $25 000 000.00 investment.

VALUE OF ASSETS PURCHASED COMPARED WITH PURCHASE PRICE

A determination of the actual value of the assets back of the common stock we are purchasing is interesting and may be stated as follows:

	Current Assets	Fixed Assets
Real Estate and Equipment		$36 941 331.67
Investment Securities		8 579 223.15
Current and Working Capital	$93 253 584.79	
Deferred Charges	1 051 106.76	
Totals	$94 304 691.55	$45 520 554.82
Deduct:		
Current Liabilities	19 164 583.96	
Preferred and Subsidiary Stocks		21 031 010.50
Balance	$75 140 107.59	$24 489 544.32
which is equal to (?) % on $108-000 000. common stock valued at $95.00 per share	73%	24%

If we add the net earnings to December 31, 1918 after paying 12% dividend	35 000 000.00	
we have a total of	$110 140 107.59	$24 489 544.32
which is equal to (?) on $108-000 000 common stock value at $95.00 per share	108%	24%

In other words, valuing the good will of the Company at nothing and assuming the preferred stock is a charge against the fixed investment, we are in

purchasing stock at $95.00 per share securing an investment in which 73% of the purchase price is represented by current assets and 24% in fixed investment, making a total of 97%. If we add to the current assets a conservative estimate of the earnings that will be injected into the business during the twelve months ending December 31, 1918, the current assets will equal 108% of the cost of our investment, the fixed assets 24%, or a total of 132%. The good will of the Company valued at $30 482 771 17 as shown on the balance sheet adds 30% to the value of our investment as represented by the purchase price. In the opinion of the writer the good will of this industry is conservatively estimated at $30 000 000.00 and the value of the fixed investment is worth very much more than figures ($36 941 331.67) shown on the balance sheet.

SUMMARY

Summarizing the above we have an opportunity to make a substantial investment in the motor industry with the following points in favor thereof:

1. With Mr. Durant we will have joint control of the companies.

2. We are immediately to assume charge and be responsible for the financial operation of the Company. This involves the direction of cash balances which will aggregate upwards of $25 000 000.00 and the handling of annual gross receipts aggregating $350 000 000.00 to $400 000 000.00. From a financial standpoint, I feel that a consolidation of the financial divisions of the Du Pont and General Motors Companies will be of tremendous advantage to us as well as to the General Motors Company and is a thing to be sought and desired from our standpoint.

3. The Du Pont Company, if the Class A stock is sold to the stockholders, will share in the profits of the industry to an extent equal to 120% on our investment and will receive 14% in annual dividends thereon; or in the event of carrying Class A stock in our Treasury the dividend rate will be about 12.6% and will share in the earnings about 42% and this after paying $20 000 000.00 war taxes.

4. Our purchase is on better than an asset basis.

5. Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor.

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MANAGEMENT

Perhaps it is not made clear that the directorates of the motor companies will be chosen by Du Pont and Durant.

Mr. Durant should be continued as President of the Company, Mr. P. S. du Pont will be continued as Chairman of the Board, the Finance Committee will be ours and we will have such representation on the Executive Committee as we desire, and it is the writer's belief that ultimately the Du Pont Company will absolutely control and dominate the whole General Motors situation with the entire approval of Mr. Durant, who, I think, will eventually place his holdings with us taking his payment therefor in some securities mutually satisfactory.

During the past two years our Company has been doing big things. After the war it seems to me it will be absolutely impossible for us to drop back to being a little company again and to prevent that we must look for opportunities, know them when we see them and act with courage. If our fundamentals are sound, as they certainly seem to be in this case, the control of the General Motors Company will be a task worthy of the best there is in us and will I feel afford many opportunities to keep our important men occupied with big things after the war.

Stop

NOTE. "Finance Committee, Secy's No. 9849" stamped at top of first page of document. "Return to Executive Committee Room 9069" stamped twice at bottom of first page and once each at bottom of the second, third, and fourth pages. Italics indicate pencil notations.

Du Pont Control

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M. Sexton?	600
John Aspinwall	500
H. M. Barkedale	2250
F. L. Belin	650
H. Belin, Jr.	250
C. F. Bicta	50
Geo. P. Bissell	300
R. P. Brewer	35
E. C. Britton	40
L. H. Broadwater	200
Leon O. Bryan	45
Daniel Buckley	50
E. G. Buckner	290
Susy W. Buckner	15
M. duP. Carpenter	150
R. R. M. Carpenter	200
C. Copeland	550
Henry Davis	75
Ralph Derr	109
John T. Devine	155
Wm. W. Dole	1800
B. J. Doherty	50
A. Rae du Bell	45
L. L. Dunham	6218
Marion Dunham	22
R. H. Dunham	200
A. Felix du Pont	75
Ethel H. du Pont	500
Eugene du Pont	100
E. E. du Pont	600
H. A. du Pont	1610
H. F. du Pont	650
Irenee du Pont	1200 ← 130
Lammot du Pont	1500
P. S. du Pont	20000
T. C. du Pont	15375
J. B. D. Edge	100
R. W. Ellis	22
Van Horn Ely	200
M. Farquhar	100
E. C. Ferriday	200
Frank L. Garey	38
Fred Gerner	151
J. C. Gibson	200
Glenden Land Co.	700
Harry T. Graham	365
Willie T. Harrington	70
Margaret Jane Harrington	48
Helen Martha Harrington	15
LeRoy Harvey	50
H. Haskell	200
J. A. Haskell	350
Everett M. Hawley	100
Gertrude Swift Hawley	150
Harvey Hayward	250

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William S. Hilles	50
C. R. Holladay	1400
P. W. Hull	50
R. C. Hull	200
James H. Kane	75
Frederick Kniffen	430
C. C. Kurtz	500
Fred. W. Kurtz	36
Howard C. Kurtz	9
F. D. Lackey	3181
J. P. Laffey	100
Philp D. Laird	160
Walter J. Laird	50
W. W. Laird	300
R. A. Mc Adam	10
Lucy McDevitt	25
Frank A. McHugh	175
L. L. Maloney	110
S. Frances Martin	5
David T. Marvel	90
Charles H. Mason	25
Holladay S. Meeds	60
Catherine D. Miller	10
J. A. Montgomery	255
Bessie D. Moore	10
M. D. Murphy	125
J. B. Niles	600
C. L. Petze	300
Frank W. Pierson	95
A. F. Porter	10
J. F. Porter	10
Anna E. Quigley	5
Elizabeth P. Quigley	5
Helena S. Raskob	1100
John J. Raskob	6965
Wm. F. Raskob	250
C. A. Rudolph	75
George W. Sparks	100
L. W. Stout	235
G. P. Street	200
C. H. Ten Weeges	200
Rodney Thayer	100
Victor Thomas	10
L. Scott Townsend	235
S. D. Townsend	100
Wilmington Trust Co., Trustee	700
J. R. Winner	30
F. G. Tallman	78334
	1000
	79334

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CHEVROLET MOTOR COMPANY

COMBINED AND CONDENSED BALANCE SHEET

As at September 30, 1917.

ASSETS

	Schedule			
FIXED	A-1			
Real Estate Plant and Equipment			6,628,771.18	
Less Reserve for Depreciation			591,676.79	6,037,094.39
INVESTMENT SECURITIES	A-2			
Stock-Affiliated Companies			461,000.00	
Stock-Other Companies			50,427,900.00	
Liberty Bonds			2,000.00	50,890,900.00
CURRENT AND WORKING				
Cash	A-3		2,869,769.13	
Drafts outstanding against B/L	A-4		1,889,735.28	
Notes and Accounts Receivable	A-4	1,427,598.24		
Less Reserve for Bad & Doubtful Accounts		46,377.64	1,381,220.60	
Accounts with Affiliated Companies	A-4		2,099,001.61	
Inventories	A-5	10,530,795.47		
Less Reserve for Depreciation		279,742.83	10,251,052.64	18,090,779.26
DEFERRED CHARGES	A-6			370,654.51
GOODWILL				11,953,099.26
				$87,332,527.42

LIABILITIES

	Schedule			
CURRENT LIABILITIES				
Notes and Accounts Payable	A-7		1,605,837.39	
Dealers and Customers Deposits	A-7		459,775.95	
Accrued Items	A-8		531,583.22	
Accounts with Affiliated Co's	A-7		96,768.02	2,683,974.58
CAPITAL STOCK (Authorized $80,000,000.00)			64,250,000.00	
Less In Treasury			245,200.00	64,004,800.00
SURPLUS	A-9			
Balance-December 31, 1916		31,123,274.48		
Less Adjustments		15,401,968.07	15,721,306.41	
Current Additions	B-1		8,398,802.51	
			24,120,108.92	
Less Dividends Paid			3,840,288.00	20,279,820.92
RESERVES	A-10			363,931.92
				$87,332,527.42

NOTE. "Return to Executive Committee Room 9069" stamped at bottom of page.

BALANCE SHEET

GENERAL MOTORS COMPANY AFTER CHEVROLET CONSOLIDATION.

(ESTIMATED)

ASSETS

Real Estate Plant and Equipment Less Depreciation Reserve	$45,208,779.68 8,267,448.01	$36,941,331.67
Investment Securities		8,579,223.15
Current and Working Capital (After reserving $2,742,101.16 for Material & Supply depreciation)		93,253,584.79
Deferred Charges		1,051,106.76
Good-Will		30,482,771.17
TOTAL		$170,308,017.54

LIABILITIES

Current Liabilities	$ 19,164,583.96
Portion of Subsidiary Stocks not owned by General Motors Company	1,366,310.50
Preferred Stock outstanding	19,664,700.00
Common Stock outstanding (estimated)	108,000,000.00
Surplus	16,515,904.25
Reserves	5,596,518.83
Total	$170,308,017.54

CONDENSED CONSOLIDATED BALANCE SHEET OF GENERAL MOTORS CORPORATION AND SUBSIDIARY COMPANIES DIRECTLY CONNECTED WITH THE MANUFACTURE OF MOTOR CARS AND PARTS AS OF SEPTEMBER 30th, 1917.

ASSETS

FIXED ASSETS: Real Estate, Plants & Equip.	$38,580,008.50	
Less: Reserve for Depreciation	7,665,771.22	$30,914,237.28
PATENTS, AGREEMENTS, ETC:		298,100.00
MISCELLANEOUS INVESTMENTS:		2,688,333.15
CURRENT AND WORKING ASSETS:		
Cash in banks and on hand	$16,405,864.04	
Marketable securities and stocks of municipalities and corporations	286,000.00	
Notes ($443,237.91 in 1917) and accounts receivable	12,359,437.12	
Inventories at cost or less	46,111,504.37	75,162,805.53
DEFERRED EXPENSES		680,452.25
GOOD-WILL		18,231,571.91
TOTAL		$127,975,490.12

LIABILITIES

CAPITAL STOCK:		
Pfd. Stock (Auth. $20,000,000.) issued		$ 19,664,700.00
Com. Stock (Auth. $82,600,000.) issued	$82,558,800.00	
Less: In treasury of General Motors Corp.	4,685,500.00	77,873,300.00
Total in hands of public		$ 97,538,000.00
OUTSTANDING CAPITAL STOCK (par value) and surplus of subsidiary companies, being the portion not owned by General Motors Corporation		
Capital Stock	$ 540,500.00	
Surplus	825,810.50	1,366,310.50
CURRENT LIABILITIES:		
Accounts Payable	$13,399,808.74	
Taxes, Pay Rolls, and Sundries accrued not due	3,080,800.64	16,480,609.38
RESERVES:		
For two months' proportion of Dividend on Pfd. Stock payable Nov. 1	196,647.00	
For War Income and Excess Profits Tax	4,556,872.20	
For Sundry Contingencies	479,067.71	5,232,586.91
SURPLUS:		7,357,983.33
TOTAL		$127,975,490.12

Government's Exhibit No. 125

PT FROM

ANNUAL REPORT OF THE DU PONT COMPANY FOR THE YEAR 1918

* * *

. . .The interest of certain officers of the company in the motor field was engaged for many months prior to the making of an investment by the company. While there is no immediate relation between the explosive industry and the manufacture of motors, this investment was made in such a way as to give opportunity for our financial organization to be of service, and at the same time increase greatly our financial strength. The large engineering and construction forces of our company, the development, legal and accounting department facilities, coupled with the demands of the motor industry for talent of that kind, has furnished a connecting link which seems desirable in all investments. The consumption of paints, varnishes and fabrikoid in the manufacture of automobiles gives another common interest. In entering this field it was necessary to make investment in a thoroughly developed property. This has been found in the General Motors Corporation, already equipped in a most thorough manner which technical men of experience for the proper conduct of its business. The officers of E. I. du Pont de Nemours & Company are fortunate in having secured a 27.6% interest in this corporation, as it now stands equipped with factories for producing all kinds of cars, tractors and trucks, together with the greater part of the accessories needed in their manufacture. We feel fortunate also in our partnership with Mr. William C. Durant, President of the General Motors Corporation, and the father and leader of the motor industry, not only in the United States but in the world. This alliance leaves the management and general conduct of the General Motors Corporation as heretofore, except that the responsibility for financial management is now shared by the officers of our company. The general function of the Du Pont interests is advisory only, though already there has sprung up an intimacy between the organizations that promises great benefit through the exchange of facilities and use of important men for specific duties to which they are particularly well adapted. (Pp. 22-23)
[Emphasis supplied]

Government's Exhibit No. 126

COPY OF MINUTES OF JOINT MEETING OF EXECUTIVE COMMITTEE #178 & FINANCE COMMITTEE #85, E. I. duPONT deNEMOURS & COMPANY, HELD IN WILMINGTON, DELAWARE, DECEMBER 20, 1917.

* * * * *

E. I. duPont deNemours & Company

Joint Meeting of Executive Committee & Finance Committee.

Executive Committee Meeting #178 (Special Meeting)
Finance Committee Meeting #85 (Special Meeting)
held at the office of the Company, Wilmington, Delaware, 10:30 a.m., Thursday, December 20, 1917.

Present: Executive Committee:
Irenee duPont, Chairman,
R. R. M. Carpenter,
H. F. Brown,
F. G. Tallman,
J. J. Raskob,
Lammot duPont,
Wm. Coyne.

Absent: H. G. Haskell & F. L. Connable.

Present: Finance Committee:
P. S. duPont, Chairman
Irenee duPont,
H. F. duPont,
H. M. Barksdale,
J. J. Raskob.

Also A. Felix duPont

GENERAL MOTORS-CHEVROLET
MOTOR STOCK INVESTMENT:

Report from the Treasurer, dated December 19, 1917 (#9849) to the Finance Committee, on the above-mentioned subject, was read to the Committees by the Secretary. The matter was discussed until 1:00 p.m., at which time it was moved and unanimously carried that the meeting adjourn until 9:30 a.m., tomorrow, Friday, December 21, 1917.

Adjourned Joint Meeting of the Executive and Finance Committees was called to order by the Chairman of the Executive Committee, Mr. Irenee duPont, at 9:30 a.m., December 21, 1917:

PRESENT: All members of the Finance Committee and all members of the Executive Committee except Mr. F. L. Connable.

ALSO J. P. Laffey

The Treasurer's report to the Finance Committee, dated December 19, 1917, re General Motors-Chevrolet Motor Stock

—2—

Investment was again discussed until 11:15 a.m., at which time adjournment was taken until 2:30 p.m.

Adjourned Joint Meeting of the Executive and Finance Committees was called to order by the Chairman of the

Executive Committee, Mr. Irenee duPont, at 2:30 p.m., December 21, 1917:

Present: All members of the Finance Committee and all members of the Executive Committee except Mr. F. L. Connable.

Also Vice President J. A. Haskell.

After further discussion of the Treasurer's report of December 19, 1917 re General Motors-Chevrolet Motors Stock Investment, the following resolution was offered and unanimously adopted:—

> **Resolved**, that the President and Treasurer of this Company be and they are hereby authorized to purchase up to Twenty-five Million Dollars ($25,000,000.00) worth of the Common Stocks of the Chevrolet and General Motor Companies, paying for these stocks an average price not to exceed Ninety-five Dollars ($95.00) per share, and in the calculation considering Chevrolet stock equivalent to 1.2 shares of General Motors Company stock;
>
> **Be It Further Resolved**, that they be and are hereby authorized to do all acts and things necessary to finance and carry out this purchase in accordance with recommendations contained in the Treasurer's report to the Finance Committee, dated December 19, 1917, modified as follows:—
>
> "While it doubtless will be necessary for the duPont Company to do a good deal in the way of temporary financing, my recommendation is that we incorporate

3

a new company with an authorized capital of $75,000,000.00, $50,000,000.00 of which shall be Class "A" stock and $25,000,000.00 Class "B" stock;

"Class "A" stock to be a 12% cumulative non-voting stock, callable at any time in the discretion of the Board of Directors at $150.00 per share plus accrued and unpaid dividends;

"Class "B" stock to be stock with sole voting power and entitled to all earnings of the Company after the payment of the 12% dividend on Class "A" stock;

"The duPont Company to subscribe immediately to $7,000,000.00 Class "B" stock at par payable in cash, in consideration of which the new company will allow us to make the following offer to the Common stockholders of the duPont Company, to-wit:—

—3—

"The Common stockholders of the duPont Company will be entitled to subscribe to an amount of the new company Class "A" stock at par equal to thirty per cent (30%) of their present holdings of E. I. duPont de Nemours & Company Common stock, payable either in cash or Liberty Bonds at par and accrued interest. Payments may be made in full at the time of subscription, or may be made in four installments of 7½% each, payable on the 20th days of March, June, September and December, 1918, respectively. Stock will not be issued until fully paid, but interest at the rate of six per cent. (6%) per annum will be paid on installments."

Upon motion, the meeting was adjourned.

4

2.

EXECUTIVE COMMITTEE:

Time:
4 hrs. 45 mins.

/s/ Wm. Coyne
/s/ Irenee duPont

/s/ M. D. Fisher
Secretary

/s/ H. G. Haskell
/s/ J. J. Raskob

APPROVED AS
TO LEGALITY:

/s/ H. F. Brown
/s/ R. R. M. Carpenter
/s/ L. duPont
/s/ F. G. Tallman

/s/ J. P. Laffey

/s/ Frank L. Connable
(Not Present)

FINANCE COMMITTEE

/s/ P. S. duPont
/s/ Irenee duPont
/s/ J. J. Raskob
/s/ H. M. Barksdale
/s/ H. F. duPont

I hereby certify that the foregoing is a true copy of minutes of joint meeting of Executive and Finance Committees E. I. duPont de Nemours & Company, held in Wilmington, Delaware on December 20 and 21, 1917.

(Corporate Seal)

/s/ *F G Hess*

SEC'Y. FINANCE COMMITTEE
E. I. DU PONT DE NEMOURS AND COMPANY

April 30, 1951.

Government's Exhibit No. 128

March 8, 1918.

To Finance Committee,

From Treasurer.

I beg to summarize the conditions surrounding our acquisition of an interest in the General Motors Corporation and Chevrolet Motor Company, in accordance with authority granted.

97,875 shares of Common Stock of General Motors Corporation and 133,690 shares of stock of Chevrolet Motor Company have been acquired at a total net cost of $25,183,758.64.

The purchase was temporarily financed for account of General Industries, Inc., in the following manner:

Liberty Loan Bonds borrowed from duPont Securities Company at par,		$5,856,000.00
Liberty Loan Bonds borrowed from E. I. duPont de Nemours & Company at par,		1,384,000.00
Notes of General Industries, Inc., dated January 8, 1918, maturing September 1, 1918, given Messrs. Hofheimer and Durant, in payment for stock acquired from them,		3,000,000.00
Cash advanced by E. I. duPont de Nemours & Co., handled through special account styled "Finance Committee:		
Aggregate amount charged to "Finance Committee",	$16,144,293.43	
Less repayments credited to "Finance Committee",	1,200,534.79	
Net Cash advanced,		14,943,758.64
		$25,183,758.64

At a meeting of the Board of Directors of the General Motors Corporation February 21, 1918, it was agreed to make an offer to purchase the assets of Chevrolet Motor

Company exclusive of General Motors Corporation Common Stock which that company owns. The price to be paid will result in the Chevrolet Motor Company after disposing of its manufacturing assets having General Motors Corporation stock in its treasury equivalent to one and one seventh shares for each share of its outstanding stock. In this way 133,690 shares of Chevrolet Motor Company is equal to, ... 152,788 shares of General Motors Corporation Common Stock which, added to the General Motors Corporation stock acquired as above aggregating, ... 97,875 shares

Resulting in our owning a total equivalent to, ... 250,663 shares of the enlarged General Motors Corporation out of a total which that Corporation will have outstanding of 1,047,417 shares.

This means that we have acquired a 23.83% interest in the Common Stock of the enlarged General Motors Corporation. The authority granted was to invest $25,000,000.00 in General Motors Corporation Common Stock at par on the assumption that the exchange rate of Chevrolet Motor Company stock would be on a basis of 1.2 shares of General Motors Corporation Common Stock for each share of Chevrolet Motor Company stock.

The exchange rate of 1.2 shares would have resulted in the enlarged General Motors Corporation having approximately 1,080,000 shares of common stock outstanding and an investment of $25,000,000.00 in the stock at par would have represented a 23.14% interest. A 23.83% interest in the stock at par would, in that event, have cost $25,736,000.00. As it is we have a 23.83% interest at a cost of $25,183,758.64.

In line with authority granted, the General Industries, Inc., was formed with an authorized capital of $25,000,000.00, all one class of stock. E. I. duPont de Nemours & Company subscribed to the whole of this authorized capital and has paid in on call of the Board of Directors of General Industries, Inc., 5% or $1,250,000.00. All of the stock of General Motors Corporation and Chevrolet Motor Company acquired, as setforth above has been bought and paid for by General Industries, Inc., so that the books of E. I. duPont de Nemours & Company will show an investment in the stock of General Industries, Inc., of $1,250,000.00, and no investment in the motor companies.

—3—

General Industries, Inc., has financed the acquisition of the motor stocks out of proceeds received from the amount paid on its issued stock and from the sale of approximately $24,000,000.00 of notes. Following is an Assets and Liabilities statement of General Industries, Inc., as of February 28, 1918, after consummating the transaction.

ASSETS

Cash,	$ 36,656.91
97,875 shares General Motors Corporation Common Stock,	11,476,006.73
133,690 shares Chevrolet Motor Company stock,	13,707,751.91
Expenses to date, (See Detail)	89,811.65
Total Assets,	$25,310,227.20

LIABILITIES:

Capital Stock, authorized and issued—$25,000,000. 5% paid in,		$ 1,250,000.00
Bills Payable:		
W. C. Durant,	$1,200,000.00	
N. Hofheimer, et al.,	1,800,000.00	
New York Banks,	15,000,000.00	
duPont Securities Company,	5,856,000.00	23,856,000.00
Accounts Payable (E. I. duPont de Nemours & Co.)		204,227.20
Total Liabilities,		$25,310,227.20

DETAIL OF EXPENSES:

INCOME:		
Interest on Bank Balances,		$815.20
EXPENSES:		
Interest on Accounts Payable,	$84,466.66	
Expense,	104.00	
Internal Revenue Tax,	4,587.20	
Organization Expense,	1,468.99	$90,626.85
		$89,811.65

The notes issued by General Industries, Inc., are secured partly by General Motors Corporation and Chevrolet Motor Company stocks, and partly by United States Government securities. A detail of the collateral put up will be found in the statement annexed to this report. The United States Government securities put up as part collateral were loaned to the General Industries, Inc., by E. I. duPont de Nemours & Company under authority granted by your committee.

Notes of interest with respect to General Motors Corporation:

The Board of Directors of General Motors Corporation has been increased to include as new members,—

Messrs. H. F. duPont
Irenee duPont

so that now of a total number of 15 on the Board, we have a membership of five, as follows:

Messrs. P. S. duPont,
Irenee duPont,
H. F. duPont,
J. A. Haskell
J. J. Raskob

The Finance Committee has been altered to embrace the following members:

Messrs. H. F. duPont,
Irenee duPont,
W. C. Durant,
J. A. Haskell,
J. J. Raskob, Chairman.

The Executive Committee now has the following members:

Messrs. W. P. Chrysler,
R. H. Collins,
W. L. Day,
J. A. Haskell
E. ver Linden
F. W. Warner,
W. C. Durant, Chairman

Mr. H. M. Barksdale who is now on the Board of Chevrolet Motor Company will be placed on the Board of the General Motors Corporation as soon as the former company is wound up and upon his taking the place on the Board, he will be made a member of the Finance Committee and Executive Committee.

The financial management of General Motors Corporation is thrown very largely up to us and plans are under way to bring us into intimate contact with that end of the business.

—5—

Through our connection on the Executive Committee we will be in close contact with the operating and sales end of the business.

In order to make our position in the motor company known in the banking world, Mr. P. S. duPont arranged a dinner in New York on the night of February 21, 1918, at which were present Mr. W. C. Durant and members of our Finance Committee and other members of our Board who may take an active hand in forming the policies of the General Motors Corporation, and to which were invited the heads of our principal New York and Philadelphia banks. At this dinner Mr. P. S. du Pont formally announced our entry into the motor business and Mr. Durant took the opportunity to describe that business in a comprehensive way and there is no doubt but that the dinner resulted in the General Motors Corporation becoming better established in the minds of important bankers of the country.

As a matter of general interest, I am attaching an extract from the latest weekly letter of Moody's Investors Service wherein he comments on what he chooses to call duPont's forethought in providing for "other businesses to take the place later on of its war business". These comments are undoubtedly inspired by the news of our having entered the automobile industry and while John Moody's thoughts on the subject may not be contrasted with our own views after deliberate consideration, nevertheless, his comments are flattering and may be of passing interest to the Directors.

/s/ J. J. Raskob

FDB/GLN

Note. "Received Mar. 11, 1918, M.D.F." and "Finance Committee, Secy's No. 10267" stamped at top of first page of document. "Return to Executive Committee Room 9069" stamped at bottom.

NOTES OF GENERAL INDUSTRIES, INC., DATED FEBRUARY 28, 1918, PAYABLE AUGUST 28, 1918, WITH INTEREST AT SIX PER CENT. EXECUTED IN FOLLOWING DENOMINATIONS AND SOLD BY GENERAL INDUSTRIES, INC., TO FOLLOWING BANKS, CARRYING COLLATERAL SPECIFIED BELOW.

Bank	Amount of Loan	Collateral 4% U.S. Treasury Certificates	Amount of Second Loan	- - - Collateral - - -	
				Chevrolet Stock	General Motors Common Stock
Chase National Bank,	1,500,000.00	1,500,000.00	500,000.00	11,000 shs.	5,200 shs.
Guaranty Trust Company,	1,500,000.00	1,500,000.00	500,000.00	11,000 "	5,200 "
National City Bank,	1,500,000.00	1,500,000.00	500,000.00	11,000 "	5,200 "
Bankers Trust Company,	1,500,000.00	1,500,000.00	500,000.00	11,000 "	5,200 "
First National Bank,	750,000.00	750,000.00	250,000.00	5,500 "	2,600 "
National Bank of Commerce,	1,500,000.00	1,500,000.00	500,000.00	11,000 "	5,200 "
Equitable Trust Company,	750,000.00	750,000.00	250,000.00	5,500 "	2,600 "
Mechanics & Metals Nat. Bank,	900,000.00	900,000.00	300,000.00	6,600 "	3,120 "
Irving National Bank,	675,000.00	675,000.00	225,000.00	4,950 "	2,340 "
Hanover National Bank,	675,000.00	675,000.00	225,000.00	4,950 "	2,340 "
Totals,	11,250,000.00	11,250,000.00	3,750,000.00	82,500 "	39,000 "
duPont Securities Co.,	5,856,000.00	4,392,000.00	0.00	32,208 "	15,225 "

NOTES OF GENERAL INDUSTRIES, INC., DATED JANUARY 8, 1918, PAYABLE SEPTEMBER 1, 1918, WITH INTEREST AT SIX PER CENT. GIVEN TO FOLLOWING PERSONS IN FOLLOWING AMOUNTS.

W. C. Durant,	1,200,000.00		0.00		17,300 "
Nathan Hofheimer, Trustee,	648,000.00		0.00		9,250 "
Nathan Hofheimer,	252,000.00		0.00		2,800 "
Corinne Hofheimer,	450,000.00		0.00		6,450 "
Helen M. Hofheimer,	225,000.00		0.00		3,200 "
Arthur Hofheimer,	225,000.00		0.00		3,200 "
Grand Totals,	23,106,000.00	15,642,000.00	3,750,000.00	114,708 "	54,225 "

EXTRACT FROM MOODY'S INVESTORS SERVICE OF MARCH 7, 1918.

"After-War Production: The du Pont Powder Co is exercising forethought in providing something for its plants to do after the war is over. This contrasts rather brilliantly with the managements of a great many munition and other companies whose personnel is so puffed up with success as to blindly imagine that its good luck will hold, and that in some way plenty of business can be found for the plants and factories to turn out. The fact that the war consumption is absorbing about 20,000,000 tons of our steel per annum and 325,000 metric tons of our copper does not strike some people as being of any importance; but the du Ponts appreciate what these things mean. They are looking for after-war business now, and others will be looking for it later on.

Hence it is said that the du Pont Company has undertaken the manufacture and sale of fabrikoid, pyralin, lacquers, solvents and other chemicals. The Company has bought during the year the varnish and paint business of Harrison Bros. & Co., the Beckton Chemical Co., Cauley, Clark & Co., and the Bridgeport Wood Finishing Co. It has also purchased nitrate lands in Chile to enable it to produce all of its own nitrates. Meantime its stock earned $77.49 per share in 1917, against $133.31 in 1916; and its gross sales were $269,842,465, as compared with $318,845,685.

Here is a line of a practical kind on the business conditions we may expect to find after the war. One of the most farseeing of our corporations is using its war profits to buy up other businesses to take the place later on of its war business. In other words, it is discounting the future idle-ness of a considerable portion of its powder plants. When investors in munitions and other war shares begin to discount in like manner, we ought to witness a pretty lively swapping from war brides into standard stocks. Admittedly the war brides look a little fagged and worn after their lively downhill honeymoon of 1917, but they are apt to look a great deal more fagged when peace comes, and hundreds of other managements begin following the example of the du Pont Powder."

Government's Exhibit No. 129

January 23rd, 1918.

W. C. Durant, Esquire,
U. S. Rubber Company Building,
New York City, New York.

Dear Mr. Durant:—

Referring to our conversation of yesterday would advise that Mr. du Pont is arranging to give a dinner at the Metropolitan Club, New York, on Thursday evening, February 21st., to which he will invite you, Mr. J. A. Haskell, the members of our Finance Committee and the Presidents of the following banks, the occasion being the announcement of the partnership we have formed with you and to have opportunity of giving these banks first hand information as to the merits of the motor industry:

First National Bank	New York
National City Bank	"
American Exchange National Bank	"
Liberty National Bank	"
Chase National Bank	"
Guaranty Trust Company	"
Chatham & Phenix National Bank	"
J. P. Morgan & Company	"
Bank of New York	"
Chemical National Bank	"
Irving National Bank	"
Bankers Trust Company	"
Equitable Trust Company	"
Empire Trust Company	"
National Bank of Commerce	"
Park National Bank	"

Hanover National Bank	"
Mechanics & Metals National Bank	"
Philadelphia National Bank	Philadelphia
Fourth Street National Bank	"
Girard National Bank	

I think we should have a meeting of the Directors on the afternoon of that day to put some of our people on the Finance Committee in order that announcement may be made at the dinner of this change, and the change in the Finance Committee can also be made the basis of the announcement of this new alliance to the press on the following morning.

My understanding is that you will take up with your attorneys the matter of having a special Directors' meeting to pass on the question of amending our charter to provide an increase of capitalization to $200 000 000.00 consisting of $50 000 000.00

of preferred stock and $150 000 000.00 of common stock in order that said amendment may be voted on at the annual meeting of the stockholders in March, thus eliminating the necessity of calling a special stockholders' meeting; in addition the amendment necessary to provide for a Finance Committee and Executive Committee will be prepared—in this connection I am enclosing copy of the charter and by-laws of our company providing for Finance and Executive committees, which in practice have worked splendidly.

It may be necessary to increase the Board of Directors in order to make room for Messrs. Barksdale, Irenee du Pont and H. F. du Pont. I understand Mr. McClement will likely be willing to retire from the Directorate and possibly Mr. Kaufman, although we here doubt the advisability of asking for the resignation of Mr. Kaufman unless you think we should, as one member more or less on the Board is not material and there is no use in creating ill feeling or making bad friends.

Sincerely yours,

[*Mr. Raskob*]

P. S. If there are any other New York Bankers whom you think it would be desirable to invite will you please so advise me.

NOTE. Italics indicate pencil notations. "T-71" is written on top of first page.

Government's Exhibit No. 130

GENERAL MOTORS CORPORATION

Meeting of Board of Directors
New York, New York

February 21, 1918

PRESENT:

A. G. Bishop
W. P. Chrysler
R. H. Collins
W. L. Day
Pierre S. du Pont
W. C. Durant
J. A. Haskell
L. G. Kaufman
C. S. Mott
J. J. Raskob
E. VerLinden
F. W. Warner

* * *

Upon motion duly made, seconded and unanimously carried, it was

RESOLVED that Article IV of the By-Laws be amended to read as follows:

ARTICLE IV
EXECUTIVE COMMITTEE AND FINANCE COMMITTEE

Section 1. The Board of Directors shall elect from the Directors an Executive Committee and a Finance Committee, and shall designate for each of these Committees a

Chairman of the Committee to serve during the pleasure of the Board of Directors.

The Board of Directors shall fill vacancies in the Executive Committee or in the Finance Committee by election

from the Directors and at all times it shall be the duty of the Board of Directors to keep the membership of each of such Committees full.

All action by the Executive or by the Finance Committee, shall be reported to the Board of Directors at its meeting next succeeding such action, and shall be subject to revision or alteration by the Board of Directors, provided that no acts or rights of third parties shall be affected by such revision or alteration.

The Executive Committee and the Finance Committee each shall fix its own rules of procedure and shall meet where and as provided by such rules or by resolution of the Board of Directors, but in every case the presence of a majority shall be necessary to constitute a quorum.

In every case the affirmative vote of a majority of all the members of a committee shall be necessary to its adoption of any resolution.

Section 2. The Executive Committee shall consist of nine members.

During the intervals between the meetings of the Board of Directors, the Executive Committee shall possess and may exercise all the powers of the Board of Directors in the management and direction of all the business and affairs of the Company (except the matters hereinafter assigned to the Finance Committee) in such manner as the Executive Committee shall deem best for the interests of the Corporation in all cases in which specific directions shall not have been given by the Board of Directors.

During the intervals between the meetings of the Executive Committee, the Chairman thereof shall possess and may exercise such of the powers vested in the Executive Committee as from time to time may be conferred upon him by resolution of the Board of Directors or of the Executive Committee.

—3—

Section 3. The Finance Committee shall consist of seven members.

The Finance Committee shall have special and general charge and control of all financial affairs of the Corporation and such other matters as may be assigned to it from time to time by the Board of Directors. The Secretary, Assistant Secretaries, Treasurer, Assistant Treasurers, Comptroller, Assistant Comptrollers, the Accounting Department and their respective offices shall be under the direct control and supervision of the Finance Committee.

During the intervals between the meetings of the Board of Directors, the Finance Committee shall possess and may exercise all the powers of the Board of Directors in the management of the financial affairs of the Corporation and such other matters as may be assigned to it from time to time by the Board of Directors, in such manner as said Committee shall deem to be best for the interests of the Corporation, in all cases in which specific directions shall not have been given by the Board of Directors.

During the intervals between the meetings of the Finance Committee, the Chairman thereof shall possess and may exercise such of the powers vested in the Finance Committee as from time to time may be conferred upon him by resolution of the Board of Directors or of the Finance Committee.

On motion duly made, seconded and carried, the meeting then proceeded to the election of the additional Directors and of the Committees provided for at this meeting, to serve until the next annual meeting of the stockholders and until their successors shall be elected. Nominations of candidates for the two vacancies in the Board of Directors were declared in order. Mr. Henry F. du Pont and Mr. Irenee du Pont were

duly nominated. There being no further nominations the Secretary was instructed by unanimous vote to cast the ballot of all Directors present for Mr. Henry F. du Pont and Mr. Irenee du Pont. The Secretary reported the ballot so cast and thereupon Mr. Henry F. du Pont and Mr. Irenee du Pont were declared duly elected Directors of the Corporation.

Nominations of candidates for membership on the Executive Committee were declared in order. The following gentlemen were duly nominated:

W. P. Chrysler
R. H. Collins
W. L. Day
W. C. Durant
J. A. Haskell
E. VerLinden
F. W. Warner

There being no further nominations the Secretary was instructed by unanimous vote to cast the ballot of all Directors present for the above named gentlemen. The Secretary reported the ballot so cast and thereupon said gentlemen were declared duly elected members of the Executive Committee.

Nominations of candidates for membership on the Finance Committee were declared in order. The following gentlemen were duly nominated:

—5—

Henry F. du Pont
Irenee du Pont
Pierre S. du Pont
W. C. Durant
J. H. McClement
J. A. Haskell
J. J. Raskob

There being no further nominations the Secretary was instructed by unanimous vote to cast the ballot of all Directors present for the above named gentlemen. The Secretary reported the ballot so cast and thereupon said gentlemen were declared duly elected members of the Finance Committee.

On motion duly made, seconded and unanimously carried, it was

RESOLVED that Mr. W. C. Durant be and he is hereby designated Chairman of the Executive Committee of General Motors Corporation.

On motion duly made, seconded and unanimously carried, it was

RESOLVED that Mr. J. J. Raskob be and he is hereby designated Chairman of the Finance Committee of General Motors Corporation.

* * *

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Government's Exhibit No. 131

GENERAL MOTORS CORPORATION

Meeting of Board of Directors
New York City

March 21, 1918

Present:

A. G. Bishop
W. P. Chrysler
W. L. Day
Henry F. du Pont
Irenee du Pont
Pierre S. du Pont
W. C. Durant
C. S. Mott
J. J. Raskob
F. W. Warner

* * *

SPECIAL DUTIES OF FINANCE COMMITTEE AS ASSIGNED BY BOARD OF DIRECTORS

(a) Recommendation of dividends to be declared by Board of Directors.

(b) Approval of annual or semi-annual estimates of appropriations and the authorization of a general financial plan or plans under which the departments may act without further reference to the Finance Committee for approval of details, except that appropriations involving a commitment of the Company to expenditures of $300,000 or more shall be submitted in detail and approved by the Finance Committee before work is started under such appropriations.

(c) Authorization of appropriations not in the annual or semi-annual estimate of appropriations which may commit the company to an expenditure of $150,000 or more.

(d) Approval of financial plans whereby funds for future expenditures on capital account are to be provided. For this purpose a monthly financial forecast shall be sent to the Finance Committee by the Treasurer and Comptroller.

(e) Recommendation to the Directors of plans for the issuance or sale of securities.

(f) Determination of the compensation of the Executive Officers of the company.

(g) Authorization of the sale of any tract of real estate valued on the books of the company or by appraisal at more than $100,000.

(h) Authorization of the persons who shall have access to the safe deposit boxes of the company.

(i) Issuance of powers of attorney to officers or representatives of the company.

(j) Authorization of licenses to others under patents owned or controlled by the company.

* * *

Government's Exhibit No. 132

GENERAL MOTORS CORPORATION
Meeting of Finance Committee
New York City

June 27, 1918

PRESENT:
J. J. Raskob, in the Chair
Henry F. duPont
Irenee duPont
Pierre S. duPont
W. C. Durant
J. A. Haskell

* * *

PURCHASE OF UNITED MOTORS CORPORATION:

Reports were received from the Chairman, dated June 6th, 1918 (#12) and June 24th, 1918 (#13), recommending the above purchase.

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During discussion of this subject Mr. Alfred P. Sloan, Jr., President of the United Motors Corporation, and Mr. John T. Smith, General Counsel for General Motors Corporation, joined the meeting and gave the members certain information in connection therewith.

After full discussion, the above reports were accepted and ordered filed, and the following resolution recommended to the favorable consideration of the Board of Directors of this Company:

WHEREAS, it is deemed advisable and necessary for the business of this Corporation to acquire the entire assets and good will of the United Motors Corporation and to assume its obligations,

NOW, THEREFORE, BE IT RESOLVED, that the President and Chairman of the Finance Committee be and they hereby are authorized and empowered to offer to United Motors Corporation to purchase all of its assets and assume all of its liabilities as of July 15, 1918, and to pay therefor the sum of Forty-four million, sixty-five thousand, six hundred ($44,065,600.) dollars in full paid capital stock of this Corporation, at par, as follows:

$33,049,200. in preferred capital stock and
11,016,400. in common capital stock

with the option to deliver United Motors Corporation stock in part fulfillment thereof at the rate of thirty ($30) of preferred stock at par, and ten ($10) dollars of common stock at par, for each share of United Motors Corporation stock delivered; and

FURTHER RESOLVED, that the said properties are necessary for the business of this Corporation and of the fair value of at least Forty-four million, sixty-five thousand, six hundred ($44,065,600) dollars, in excess of the liabilities; and

FURTHER RESOLVED, that the President and Chairman of the Finance Committee be and they are authorized and empowered to do any and all things necessary or proper to acquire said property, and to cause the stock of this Corporation to be issued and delivered therefor; and

FURTHER RESOLVED, that the President and Chairman of the Finance Committee may, in their discretion, in furtherance of the foregoing plan to acquire the assets of the United Motors Corporation, or independently thereof, acquire shares of United Motors Corporation, and to cause to be issued and delivered therefor full paid stock of this Corporation on the basis of $30 of the preferred stock and $10 of the common stock, in this Corporation, for each share of United Motors stock.

* * *

Government's Exhibit No. 133

June 29, 1918

Mr. H. M. Barksdale,
White Sulphur Springs,
West Virginia.

Dear Barkie:

Ethel's letter of June 25th brings the welcome news of positive improvement which we all hope means rapidly increasing gains toward complete restoration of your health. Tell Ethel I thank her very much for the letter and for the news that it contains. It would suit Alice and me to come later and we shall do so probably toward the middle or end of July.

At the General Motors meeting day before yesterday you and Mr. Hohensee were elected to the board of directors. This completes the organization with the exception of Mr. Sloan who will join when the United Motors acquisition is finally made. We authorised the purchase of United Motors stock or the properties of United Motors, as might seem best, at a rate to give $30. of General Motors preferred and $10. General Motors common. Mr Kaufman who was present endeavored to point out the disadvantage ~~difference~~ to United Motors stockholders but the temper of the meeting induced him to take refuge in the statement that he was merely pointing out the advantages to the General Motors Company and his approval of the scheme from that viewpoint. He begged to be excused from voting on the question, however,

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because of his large stockholdings and interest in United Motors, - a legitimate excuse but not very convincingly made. John and I agreed, however, after the meeting that Mr. Kaufman would come with us; and, as this trade will give him some $4,000,000 for his 100,000 shares of stock obtained as a bonus, he has not much cause for complaint, while he has every reason to play with us. Mr. Durant came out in the meeting enthusiastically for making the purchase, although he has been holding back for some time. I think he fears an adverse attack from stockholders who purchased shares at the high figures of 70-90, but that situation cannot be cured and I think Durant realises the fact.

The General Motors Company is doing very satisfactorily but Durant warned us that the determination of Washington to cut off the steel supply would undoubtedly reduce products severely and he does not seem certain that we will have compensation in Government contracts to occupy our shops. Trucks of all kinds will have priority on the steel question but we cannot turn our entire output to that line. While the above may look badly for General Motors John and I agree that the opportunity of acquisition of shops manufacturing parts and accessories will be made broader through this slacking off in business and we will be able to liquidate quite a line of high price materials in preparation of after war conditions. I can see that the stock market may be affected by temporary adverse conditions but I cannot see that the general situation is a cause for alarm.

The Government has not yet decided upon the Louisville question excepting that we have been asked to purchase the property, - a wise move in any event. Buckner was told that they thought it might be well to defer Louisville construction until Nashville was well along or finished. He, of course, discouraged this idea as it would be better to work construction with two factories in harmony rather than attempt disposing of one problem before the other was started. Work at Nashville continues very encouraging. Pierce brought to me yesterday the most recent photographs which are even more impressive than the earlier ones. The first day guncotton produced more product than the daily output of Carneys Point before the war, - not an inconsiderable quantity. Since then they have operated all of the nitrate centrifugals which would indicate rapid increase to full production of the unit. Pierce expects to put the first powder through the presses on July 1st. This is not merely an effort to make a showing as the general condition of other units supports the advanced condition of the one that is starting operation. Undoubtedly new units will be brought in much more rapidly than first supposed. The most encouraging feature of the situation is that everything is progressing uniformly, with system and much forethought. This

June 8

systematic development on an enormous scale is a feature of Nashville construction probably not possible in the earlier days of construction. For this Pierce deserves the greatest credit.

The reports from Charleston are not quite as encouraging, although we have no detailed information. While they started their sulphuric acid plant about a week after ours, it seems unlikely that this effort is supported by development in the remainder of the plant. In my opinion it would be a miracle if the balance in the several operations is properly worked out. Of course indications are that they are not; but, again, we are not minutely informed and possibly should not attempt to criticise. The real comparison of the plants is not in the effort to first start up but in the amount of powder that is turned out prior to a certain date, say, the first of January, 1919.

Our cash position will be a matter for careful study from this time forward. Total balances of $38,000,000, of which $10,000,000 is in the DuPont Engineering Company, will ~~have~~ no cause for immediate concern but our transactions are on such an enormous scale that John is requesting a close study of the situation, especially with respect to cash outlay for acquiring new properties. It seems that we have already arranged for investment of the funds that we have agreed to employ permanently and should make decision as to further investment.

There seems a little more activity in Washington with regard to the nitrogen question but nothing definite nor hopeful. We have agreed to lend Edgar and Liljenroth for a portion of their time without cost to the Government in the belief that their influence will be helpful toward a proper solution of the problem. I have very little hope of a satisfactory outcome in reasonable time.

Recently I have been pursuaded to look into the life insurance question with a view to the difficulty of settling estates under the new, heavy inheritance taxes. I have thought for some time that it would be unfair to leave my estate in other than a fairly liquid condition lest there should be embarrassment in securing cash to pay taxes without sacrificing securities or injuring the duPont situation. Irenee and Lammot had looked into the question and made a considerable insurance investment. I think they were inspired largely through their confidence in Frederick W. Fuller, who has made a lifetime study of life insurance. I confess that this was somewhat of a factor in my decision also. While in New York on Wednesday I went through the examination, which was very long and careful on account of the amount of insurance. I was happy to find that everything is in good condition and that I cannot even get a vacation on consequence. I feel quite relieved to have this rather important question settled and off my mind.

I had another letter from Alfred asking that I arrange to send John to him with report on the General Motors situation. This I declined to do on the ground that, while I was quite willing to meet him if he called at the office and discuss with him the company's situation, I did not think it proper to divert the time of the officials of the company to presenting information for his inspection. I also declined furnishing directors' reports.

In a previous paragraph I neglected to mention that J. A. Haskell has been elected Vice President of the General Motors Company and you a member of the Finance Committee.

I look forward to another encouraging letter from you or from Ethel. All send regards and good wishes.

Sincerely yours,

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PS - Under separate cover I am sending you a copy of Buckner's Atlantic City speech which I think you will be interested in reading.

NOTE: "gmc-861" is written in lower right corner of each page. "Photostat" is written in upper left of first page.

Government's Exhibit No. 134

December 12th, 1918.

TO : FINANCE COMMITTEE
FROM: CHAIRMAN

After talking with Mr. Durant regarding the probable expansion program which the General Motors Corporation should adopt as quickly as possible, I have prepared the following estimate of capital expenditures, provision to finance which should ~~be~~ considered by the Finance Committee. The program cannot be completed in less than twelve months and the following estimates are quite liberal:

United Motors Corporation loans at banks	$ 2 000 000.00*
United Motors Corporation expansion excluding houses	2 000 000.00
United Motors Corporation subsidiary preferred stocks	1 300 000.00*
Purchase of Chevrolet-California stock to give us complete ownership	1 200 000.00*
Purchase of McLaughlin-Buick-Canadian property	6 500 000.00*
Walkerville Motor and Tractor plant	1 000 000.00*
Tractor development including working capital requirements	6 000 000.00*
Office building	4 000 000.00*
Proposed credit and insurance companies	4 000 000.00*
St. Louis assembly plant	2 500 000.00*
Other assembly plants	2 000 000.00
Light axle plant	1 500 000.00
Frame plant	1 500 000.00
Forge plant	500 000.00
Scripps-Booth plant	750 000.00
Scripps-Booth notes outstanding	750 000.00*
Scripps-Booth additional working capital	500 000.00
Scripps-Booth — purchase of outstanding stock	400 000.00*
Truck plant	3 000 000.00
Truck axle plant	500 000.00
Differential gear plant	1 500 000.00
New Cadillac plant	3 000 000.00
Houses	2 500 000.00*
Experimental laboratory	1 000 000.00*
Central Foundry plant	1 200 000.00*
Miscellaneous appropriations	1 000 000.00*
Total	52 800 000.00

Although it is not certain that this total amount will be required within the next twelve months, the items marked with a star totaling $36 150 000.00 should be arranged for immediately; the other items cover an expansion program which should be adopted and work started as soon as it is physically possible to do so after giving

careful consideration and study to the details of each particular case. It must be understood that the figures shown opposite the respective items are very rough estimates, are not made from any carefully worked out plans and are given merely to arrive at a total which will indicate to the Finance Committee the probable financial needs of the Company during the next twelve or fiteen months.

After talking with Mr. Durant and Mr. Haskell I am confident in my opinion that if the Finance Committee will provide $52 800 000.00 for expansion during the next twelve or fifteen months we will have amply provided for financing all of the construction work the Executive Committee can possibly accomplish in that period.

My recommendation for providing this money is as follows:

To be provided out of earnings after taxation and dividends	$24 700 000.00
To be provided through sale of $18 000 000.00 par value common stock at $120.00 per share, which stock will be offered to a Syndicate in which all of the common stockholders of the Company will have opportunity of participating	21 600 000.00
To be provided through issuing common stock in payment for the McLaughlin-Buick properties instead of paying for these properties in cash	6 500 000.00
Total	$52 800 000.00

To accomplish the above it will be necessary to authorize the sale of an amount of stock equal to say, 15%, of the total stock outstanding after our acquisition of the United Motors and McLaughlin Buick properties—this stock to be offered to a Syndicate at $120.00 per share, in which Syndicate all common stockholders of the Company shall have opportunity of participating pro rata.

If the foregoing recommendation meets with the approval of the Finance Committee, the Board of Directors should be called immediately together for the purpose of passing such resolutions as are necessary to consummate the transaction.

NOTE: "gmc-912b" is written in lower right corner of both pages. Stamp on first page is: "Finance Committee Secy's No. 39."

December 14th, 1918.

To Finance Committee

From Vice President J. J. Raskob

The General Motors Corporation is considering the issuance of approximately $5 000 000.00 par value of its common stock in payment for what are known as the McLaughlin-Buick properties in Canada. It is probable that we can secure opportunity to purchase this stock at $130.00 per share, payable in Liberty Bonds at $96.00. I recommend that the proper officers of the Du Pont Company be authorized to acquire this $5 000 000.00 General Motors Corporation stock on approximately the above basis if possible.

The General Motors Corporation is also considering the offering of approximately $18 000 000.00 par value of its common stock to its stockholders at $120.00 a share and is desirous of securing a syndicate to underwrite this offering, which syndicate will of necessity have to extend to each stockholder the right to participate pro rata in said syndicate. I recommend that the proper officers of this Company be authorized to underwrite the entire offering at $120.00, issuing to the stockholders the necessary participation rights with authority on the part of said officers of our company to purchase said rights in the open market at not more than $10.00 per share. In the event of our being successful in the purchase of all of these rights at $10.00 a share, the net result would be that we would acquire $18 000 000.00 par value common stock at $130.00 per share aggregating $23 400 000.00 payable in Liberty Bonds at 96, which would aggregate $24 375 000.00 par value of Liberty Bonds. In addition, if we succeed in securing the $5 000 000.00 stock from the McLaughlin interests at $130.00, the cost would be $6 500 000.00, payable in Liberty Bonds at 96 would require $6 770 833.00 in said bonds. Our total acquisition,

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therefore, would be $23 000 000.00 par value General Motors Corporation common stock, for which we would pay $31 145 833.00 in Liberty bonds, which valued at 96% would equal a cash value of $29 900 000.00. It is most unlikely that we will succeed in acquiring all of the above rights; should we do so the total du Pont Company investment in General Motors Corporation should be summarized as follows:

	Par Value	Cost to us
Stock owned at present	$27 972 100.00	$29 021 178.64
McLaughlin stock	5 000 000.00	6 500 000.00
Syndicate stock — if we could secure it all	18 000 000.00	23 400 000.00
Total	$50 972 100.00	$58 921 178.64,
Which latter figure represents an average price to us of $115.50 per share.		
Were we to make a reduction of $3.00 per share on the $23 000 000.00 stock proposed to be purchased to cover the dividend which would be payable February 1st, amounting to		690 000.00
the balance of		$58 231 178.64

would reduce the average price of our holdings to $114.25 per share.

A report addressed to the Finance Committee of General Motors Corporation, a copy of which all of the members of the Finance Committee have, shows that the General Motors Corporation in its expansion over the next year or two will doubtless pay out upwards of $50 000 000.00 and if the plan above referred to is put through the capitalization of the General Motors Corporation as shown by the books of the General Motors Corporation will be approximately as follows:

Debenture stock	$30 745 500.00
Preferred stock	19 684 300.00
Common stock	145 296 100.00
Surplus estimated	35 000 000.00
Total capital employed	$230 725 900.00*

Note—The total good will, valuing Chevrolet assets at their cost some years ago rather than at the price paid therefor, is $23 650 000.00 as shown on the books September 30th, 1918.

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It is difficult to estimate the earnings of General Motors Corporation on account of the uncertainty of Federal Taxes, but based on the first six months of this year before taxes and before the War Industries Board curtailment orders were issued, the earnings
were running at the annual rate of $62 000 000.00

To this should be added:

Estimated earnings for United Motors Corporation, say,	10 000 000.00
Estimated earnings for Canadian properties, say,	3 000 000.00
Estimated earnings for tractor plant, unknown	0
Estimated earnings of additional $50 000 000.00 to be injected into the business, unknown	0
Total	$75 000 000.00
If we deduct from this amount the 6% dividend on the debenture and preferred stock outstanding, or approximately	3 000 000.00
the balance of	$72 000 000.00

equals upwards of 50% on the $140 000 000.00 common stock outstanding. (Note that approximately $5 000 000.00 of common stock is held in the treasury, which accounts for the difference of $140 000 000.00 used here and $145 000 000.00 used at the bottom of page 2 of this report).

The above figures allow nothing for Federal taxes. If we assume that future Federal tax laws will be so drastic as to take one third of the Corporation's earnings (which to the writer seems impossible) the net earnings would be reduced from

$75 000 000.00 to	$50 000 000.00
deducting the debenture stock dividend of	3 000 000.00
leaves a net of	$47 000 000.00,

which is equal to approximately 34% on the $140 000 000.00 common stock outstanding.

We will not succeed in acquiring all of the above stock, but if we did, the position of the Du Pont Company would be as follows:

The amount required to pay the debenture stock dividend and 18% on the common stock of the Du Pont Company per annum is	$14 242 580.00
We would have approximately	
$58 000 000.00 invested in $51 000 000.00 par value General Motors common stock, the dividend on which would amount annually to	6 120 000.00
The difference leaves a balance of	$ 8 122 580.00

to be supplied from the $150 000 000.00, which the Du Pont Company will have invested outside its General Motors Corporation stockholdings. The above figures are of interest in that they indicate quite clearly that by making this investment and barring serious unforseen difficulties we should be able to continue the Du Pont common stock dividend of 18% per annum.

J. J. Raskob

Note: "Finance Committee Secy's No: 13715", "Received Dec 16 1918 M.D.F." (with "28-F" inserted between the date and initials by hand) and "Return to Executive Committee Room 9069" are stamped on the first page. "Gmc-912a" appears in the lower right-hand corner of each page. Italics indicate handwriting.

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Government's Exhibit No. 137

Report of
General Motors Corporation

FOR THE

Fiscal Year ended December 31, 1918.

GENERAL MOTORS CORPORATION

Board of Directors

PIERRE S. DUPONT, *Chairman*

A. G. BISHOP
W. P. CHRYSLER
R. H. COLLINS
W. L. DAY
H. F. DUPONT
IRENEE DUPONT
LAMMOT DUPONT
W. C. DURANT
J. A. HASKELL
F. W. HOHENSEE
L. G. KAUFMAN
J. H. MCCLEMENT
R. S. MCLAUGHLIN
C. S. MOTT
J. J. RASKOB
A. P. SLOAN, JR.
EDWARD VERLINDEN
F. W. WARNER

Finance Committee

J. J. RASKOB, *Chairman*

H. F. DUPONT
IRENEE DUPONT
PIERRE S. DUPONT
LAMMOT DUPONT
W. C. DURANT
J. A. HASKELL

Executive Committee

W. C. DURANT, *Chairman*

W. P. CHRYSLER
R. H. COLLINS
W. L. DAY
J. A. HASKELL
F. W. HOHENSEE
R. S. MCLAUGHLIN
A. P. SLOAN, JR.
EDWARD VERLINDEN
F. W. WARNER

Officers

W. C. DURANT, *President*	New York
A. G. BISHOP, *Vice-President*	Flint
W. P. CHRYSLER, *Vice-President*	Flint
R. H. COLLINS, *Vice-President*	Detroit
W. L. DAY, *Vice-President*	Pontiac
J. A. HASKELL, *Vice-President*	New York
A. W. HIGGINS, *Vice-President*	New York
R. S. MCLAUGHLIN, *Vice-President*	Oshawa, Ont.
C. S. MOTT, *Vice-President*	Flint
J. J. RASKOB, *Vice-President*	Wilmington
A. P. SLOAN, JR., *Vice-President*	New York
EDWARD VERLINDEN, *Vice-President*	Lansing
F. W. WARNER, *Vice-President*	Pontiac
T. S. MERRILL, *Secretary*	Detroit
H. H. RICE, *Treasurer*	Detroit
M. L. PRENSKY, *Comptroller*	Detroit

REPORT TO THE STOCKHOLDERS
OF
GENERAL MOTORS CORPORATION

For the Fiscal Year ended December 31, 1918

DETROIT, MICHIGAN, APRIL 9, 1919.

TO THE STOCKHOLDERS:

Your directors submit herewith the annual report of General Motors Corporation and its subsidiary companies for the fiscal year ended December 31, 1918.

The income and profit and loss accounts include the earnings and surplus of the Corporation and its share of earnings and surplus of subsidiary companies.

INCOME ACCOUNT FOR TWELVE MONTHS ENDED DECEMBER 31, 1918.

Net profits after deducting all expenses of manufacture (including maintenance), selling and administration, as well as ordinary taxes, insurance, and depreciation		$35,504,576.41
Less: Provision for Federal taxes and extraordinary expenditures		20,113,548.19
		$15,391,028.22
General Motors Corporation proportion thereof		$14,825,530.19
Preferred dividends for 12 mos. at rate of 6%	$1,180,901.00	
Debenture dividends for 5 mos. at rate of 6%	739,566.00	1,920,467.00
Undivided profits for 12 months ended December 31, 1918		$12,905,063.19

Profit and Loss Account

Profit and Loss Surplus at the beginning of the year		$11,508,392.57
Add undivided profits for 12 months ended December 31, 1918 (after making provision for all taxes and the payment of preferred and debenture dividend), as per Income Account shown on preceding page		12,905,063.19
Additions through acquisition of properties:		
Chevrolet Motor Company (of Delaware)	$8,065,083.10	
United Motors Corporation	9,714,607.59	
Other Companies	653,100.98	
Profit from sale of new common stock	4,800,000.00	23,232,791.67
		$47,646,247.43
Less: Cash Dividends paid on common stock:		
February 1, 1918— 3%	$2,292,150.00	
May 1, 1918— 3%	2,292,567.00	
August 1, 1918— 3%	3,205,704.00	
November 1, 1918— 3%	3,446,889.00	11,237,310.00
Profit and Loss Surplus December 31, 1918		$36,408,937.43

The net manufacturing profits of $35,504,576.41 are after deducting the sum of $4,616,344.37, to cover depreciation of buildings, machinery and equipment. The plants have been maintained in good operating condition.

These profits are exclusive of profits which accrued to the several companies in 1918, prior to their acquisition by the Corporation.

The combined profits of General Motors Corporation and subsidiary companies before deducting Federal taxes for the twelve months ended December 31, 1918, including the proportion of profits which accrued to the several companies in 1918, prior to the acquisition of the assets by the General Motors Corporation amounted to $45,541,726.00.

Full charges have been included in operating expenses to cover all depreciation in inventories. Inventories at the close of the year were on a thoroughly conservative basis of valuation, being valued at or below cost.

The Condensed Consolidated Balance Sheet, as of December 31, 1918, as compared with December 31, 1917, is to be found on page 16 of this report. Income and Profit and Loss accounts for twelve months ended December 31, 1918, will be found on page 17.

The books and accounts of General Motors Corporation and subsidiary companies have been audited by Messrs. Haskins & Sells, Certified Public Accountants, for the fiscal year ended Dec. 31, 1918, and their certificate is shown on page 18 of this report.

There is included in the Consolidated Balance Sheet as of December 31, 1918, the assets and liabilities of the following divisions and subsidiary companies in addition to various sales companies with nominal capital.

GENERAL MOTORS GROUP:

BUICK MOTOR COMPANY DIVISION	Flint, Mich.
CADILLAC MOTOR CAR COMPANY DIVISION	Detroit, Mich.
CENTRAL FORGE COMPANY DIVISION	Detroit, Mich.
GENERAL MOTORS TRUCK COMPANY DIVISION	Pontiac, Mich.
JACKSON-CHURCH-WILCOX COMPANY DIVISION	Saginaw, Mich.
NORTHWAY MOTOR & MFG. COMPANY DIVISION	Detroit, Mich.
OAKLAND MOTOR CAR COMPANY DIVISION	Pontiac, Mich.
OLDS MOTOR WORKS DIVISION	Lansing, Mich.
SAMSON TRACTOR COMPANY DIVISION	Janesville, Wis.
SCRIPPS-BOOTH CORPORATION	Detroit, Mich.
CHAMPION IGNITION COMPANY	Flint, Mich.
THE McLAUGHLIN MOTOR CAR COMPANY, LTD	Oshawa, Ont.
THE McLAUGHLIN CARRIAGE COMPANY, LTD	Oshawa, Ont.
GENERAL MOTORS EXPORT COMPANY	New York, N. Y.
GENERAL MOTORS (EUROPE) LTD	London, Eng.
JANESVILLE MACHINE COMPANY	Janesville, Wis.

CHEVROLET GROUP:

CHEVROLET MOTOR COMPANY OF MICHIGAN	Flint, Mich.,
CHEVROLET MOTOR COMPANY OF NEW YORK, INC	Tarrytown, N. Y.
CHEVROLET MOTOR COMPANY OF TEXAS	Fort Worth Tex.
CHEVROLET MOTOR COMPANY OF ST. LOUIS	St. Louis, Mo.
CHEVROLET MOTOR COMPANY OF CANADA, LTD	Oshawa, Ont.
CHEVROLET MOTOR COMPANY OF BAY CITY	Bay City, Mich.
ST. LOUIS MANUFACTURING CORPORATION	St. Louis, Mo.
TOLEDO-CHEVROLET COMPANY	Toledo, Ohio

UNITED MOTORS GROUP:

DAYTON ENGINEERING LABORATORIES CO.	Dayton, Ohio
HYATT ROLLER BEARINGS DIVISION	Newark, N. J.
JAXON STEEL PRODUCTS DIVISION	Jackson, Mich.
REMY ELECTRIC DIVISION	Anderson, Ind.
HARRISON RADIATOR CORPORATION	Lockport, N. Y.
NEW DEPARTURE MANUFACTURING CO	Bristol, Conn.
LANCASTER STEEL PRODUCTS CO.	Lancaster Pa.

CAPITAL STOCK

The capital stock of the Corporation outstanding on December 31, 1918 was as follows:

Debenture stock, 6% Cumulative	$ 29,175,300
Preferred stock, 6% Cumulative	19,671,000
Common stock	147,379,900

The changes since the last annual report, December 31, 1917 are:

Debenture stock increased	$ 29,175,300
Preferred stock decreased	5,800
Common stock increased	70,506,600

which are explained as follows:

		Preferred	Debenture	Common
Shares exchanged for shares of preferred stock of General Motors Company (of New Jersey)		$ 7,500		
Less: acquired in treasury through the purchase of The McLaughlin Carriage Co. Ltd.,		13,300		
Issued for Chevrolet Motor Co. (of Delaware) assets				$28,268,400
Issued for United Motors Corporation assets			$29,869,200	9,956,400
Issued for all of the capital stock of Chevrolet Motor Company of Canada, Ltd., The McLaughlin Carriage Co. Ltd., and the balance of the capital stock of The McLaughlin Motor Car Company, Ltd., not already owned by the Corporation				4,900,000
Issued for all the capital stock of Lancaster Steel Products Company and $1,566,000 par value General Motors debenture stock			500,000	1,617,500
Issued in exchange for 22,975 shares of no par value Scripps-Booth Corp. common stock				381,200
Issued in exchange for $387,100. par value of preferred stock of Harrison Radiator Corporation			387,100	
New issue common stock sold				24,000,000
Issued to employees under bonus plan, out of balance in treasury December 31, 1917				1,361,900
Issued for services				21,200
		$ 5,800	$30,756,300	$70,506,600
Less: acquired in treasury through purchase of capital stock of Lancaster Steel Products Company	$1,566,000			
Miscellaneous	15,000		1,581,000	
Increase in outstanding		$*5,800	$29,175,300	$70,506,600

*decrease

INDEBTEDNESS

The Notes Payable of $10,802,154.11 shown on the balance sheet, represent $7,000,000 borrowed from banks on account of war business which has since been paid, and the balance of $3,802,154.11 covers indebtedness assumed in the purchase of properties during the year all of which will be liquidated at maturity.

The other indebtedness of the Corporation on December 31, 1918, consisted of current accounts payable, of $18,453,316.99 (composed wholly of obligations for merchandise, etc.), and $3,769,865.29 liabilities accrued but not due, for pay rolls, ordinary taxes and other sundry items.

WORKING CAPITAL

The net working capital as shown by the balance sheet of December 31, 1918 amounted to $149,902,028.70, as follows:

	1918	1917
Current Assets:		
Cash in banks and on hand	$30,636,621.48	$18,865,645.27
Liberty Bonds	28,852,018.00	1,255,000.00
Marketable securities	172,304.86	———
Sight drafts against B/L attached	3,316,384.90	7,590,279.25
Due from U. S. Government on War contracts	7,305,626.76	449,855.83
Notes ($1,285,908.01) and accounts receivable	21,995,359.50	5,555,403.34
Inventories at cost or less	91,137,512.59	46,559,394.15
Total Current Assets	$183,415,828.09	$80,275,577.84
Less Current and Accrued Liabilities:		
Current accounts payable	$18,453,316.99	$10,665,717.52
Notes payable	10,802,154.11	———
Taxes, pay rolls & sundries accrued, not due	3,769,865.29	4,858,326.57
	$33,025,336.39	$15,524,044.09
	$150,390,491.70	$64,751,533.75
From which deduct amount reserved for two months proportion of dividend on preferred and debenture stock, payable February 1	488,463.00	196,768.00
Net working capital	$149,902,028.70	$64,554,765.75

It will be seen from the above that the net working capital has been increased during the year by $85,347,262.95 of which amount $27,164,610.04 represented the increase through the purchase of properties.

The investment in Liberty Bonds of $28,852,018.00 represents a par value of $30,238,993.00.

The large increase in the outstanding Accounts Receivable is due to the greater number of companies entering into the consolidation.

CAPITAL EXPENDITURES

Balance in real estate, plants and equipment at December 31, 1917, before deducting reserve for depreciation		$40,086,374.34
Additions through purchase of properties:		
Chevrolet Motor Co. (of Delaware)	$13,471,758.42	
United Motors Corporation	23,414,149.62	
Other companies	3,719,426.95	40,605,334.99
Expended during the year (net)		6,126,705.18
Balance in real estate, plants and equipment December 31, 1918		$86,818,414.51

The expenditure of $6,126,705.18, shown above, covers the first unit of the Central Forge Division plant in Detroit; the site for the Buick and Chevrolet assembly plants in St. Louis, Mo., the motor plant for the Olds Motor Works Division at Lansing; the site for the Samson Tractor plant at Janesville, Wis., and other miscellaneous expenditures for plant and equipment.

GOOD-WILL, PATENTS, COPYRIGHTS, ETC.

The increase during the year in Good-Will, Patents, Copyrights, Etc., is due to the acquisition of various properties, and is made up as follows:—

Chevrolet Motor Co. (of Delaware)	$6,998,991.06
United Motors Corporation	16,408,065.34
Other companies	610,333.55
Total	$24,017,389.95
Less: Patents, agreements, etc. written off during the year	274,100.00
Increase	$23,743,289.95

GENERAL

The net sales of General Motors Corporation and subsidiary companies for the twelve months ended December 31, 1918, (not including the sales of the companies purchased during the year prior to their acquisition) amounted to $269,796,829.78. The net sales of all companies for the twelve months ended December 31, 1918, amounted to $326,044,755.95. The number of cars, trucks and tractors sold during the year was 246,834.

The payrolls for the year 1918 aggregated $52,500,000. The number of employes in the service of the Corporation and its subsidiary companies on December 31, 1918 was 49,118.

MANUFACTURE OF WAR PRODUCTS

Concerning the work done by the Corporation on war products, a word at this time may not be out of place. Of the twenty-three operating units, eighteen were engaged on government contracts. The gross value of the products actually completed was approximately $35,000,000. At the time the armistice was signed, the orders and contracts in hand exceeded $50,000,000. In the execution of these various contracts too much credit cannot be given the executive heads and employes who, in many instances, succeeded in reaching volume production in record time, regardless of seemingly insurmountable difficulties.

AMBULANCES AND TRUCKS

The United States had been at war hardly a month when the Truck Division received a large order for its Model 16 chassis to be used for ambulance mounts. During the Mexican trouble this chassis, in actual service, had proven to be especially well adapted to ambulance work and was adopted by the Medical Corps for all motorized units. In the Summer of 1918, after having spent months on the design of a new chassis for universal military service, the Army finally acknowledged the sterling worth of the G.M.C. Model 16 chassis by making it the standard ¾ ton chassis for all arms. General Motors furnished over 5,000 of these vehicles.

OFFICERS' CARS

The Quartermasters Corps, supplying the majority of the vehicles used by all branches of the service, early adopted the Cadillac as the standard officers' car. A total of 2,350 Cadillac cars practically standard in all respects were supplied.

ARTILLERY TRACTOR ENGINES

The Cadillac Eight-cylinder engine, with a few slight changes, was adopted by the Ordnance Department as the power plant for the 2½ ton artillery tractor. A total of 1,157 engines were supplied for this purpose.

LIBERTY MOTORS

In the production of Liberty motors for aircraft work, the Buick and Cadillac Divisions made an exceptional record. Regardless of the delayed start, due to the fact that the General Motors Corporation had been selected to build a special type rotary engine which was afterward abandoned, Liberty motors were being delivered within five months from the time the contract was taken. The high standard of excellence of the product of these Divisions has everywhere been recognized. At the time the armistice was signed, there were orders for over 10,000 Liberty Aircraft Engines on the books and 2,528 Liberty engines were actually completed and delivered.

TRENCH MORTAR SHELLS

The Jackson-Church-Wilcox Division, operating an entire plant on trench mortar shells, reached a production of 20,000 per day. This Division holds the record as the largest producer of these shells in America.

ADJUSTMENT OF GOVERNMENT CLAIMS

It is gratifying to report that war product operations were in such condition when cancellations were desired that at this date substantially every claim against the government has been satisfactorily adjusted.

TRACTOR BUSINESS

The development of the tractor business is continuing most satisfactorily, and notwithstanding the stoppage of active construction work on the first unit of the new tractor plant at Janesville, Wisconsin, in the Fall of 1918, due to the war, the production of Samson tractors in quantities is expected to be reached shortly. The future of this business is encouraging.

ACQUISITION OF PROPERTIES

During the year the Corporation acquired the following interests:

All the assets of Chevrolet Motor Company, a Delaware corporation, (except 450,000 shares of General Motors Corporation common stock) as of May 2, 1918, paying therefor $28,268,400 par value of common stock

All of the common capital stock ($1,000,000 par value) of the Janesville Machine Company, Janesville, Wisconsin, on July 1, 1918, paying therefor $1,000,000 in cash.

A controlling interest on July 1, 1918 in the no par value common stock of the Scripps-Booth Corporation, paying therefor through an exchange of securities on the basis of one share of General Motors common stock for six shares of no par value Scripps-Booth stock.

All of the capital stock of Chevrolet Motor Company of Canada, Ltd., The McLaughlin Carriage Company, Ltd., and the balance of the capital stock of The McLaughlin Motor Car Company, Ltd., not already owned by the corporation, as of November 1, 1918, paying therefor $4,900,000 par value common stock and $550,000 in cash.

All the assets of United Motors Corporation, subject to liabilities, as of December 31, 1918, paying therefor $29,869,200 par value debenture stock, $9,956,400 par value common stock, and 106,000 shares of United Motors stock owned by General Motors Corporation; plus an amount in cash equal to the dividends on the debenture and common stock subsequent to October 1, 1918.

All the preferred and common stock of Lancaster Steel Products Company and $1,566,000 par value of General Motors debenture stock as of December 31, 1918, paying therefor $1,617,500 par value common stock and $500,000 par value debenture stock.

All of the ($387,100 par value) Harrison Radiator Corporation preferred stock as of December 31, 1918, paying therefor $387,100 par value debenture stock and $38,710 in cash.

NEW ISSUE COMMON STOCK

In order to provide additional capital to meet the expansion program adopted by your Board, there was authorized an issue of $24,000,000 par value of Common Capital Stock, which was sold without expense to the Corporation, for $28,800,000 subject to the right of the common stockholders to subscribe therefor.

BONUS PLAN

The Corporation has adopted a bonus plan under which stock of the Corporation is distributed each year as a reward to its employees, including employees of subsidiary Companies, who have contributed to its success in a special degree, by their inventions, ability, industry, loyalty or exceptional service. It is hoped thereby, not only to compensate services rendered, but also to encourage further efforts by making its employees partners in the Corporation's prosperity. Under the bonus plan, the amount which may be distributed each year is determined by taking 10% of the net earnings of the Corporation after deducting therefrom an amount equal to 6% on the capital invested. The bonus plan is in no sense a "profit sharing plan" in the meaning of that term as generally used. There was awarded for the year 1918, under this plan, a total of 24,334 shares of the common capital stock of the Corporation, at a cost to the Corporation of approximately $2,798,410.

MISCELLANEOUS

The outlook for the coming year is most promising. Since the signing of the armistice and the subsequent liquidation of the war contracts, which your Corporation was engaged in, the plants and facilities have been reconverted in an incredibly short time to their regular lines of activity, and as a result the manufacturing operations are considerably advanced, as is evidenced by the showing for the first quarter of 1919; the number of cars, trucks, and tractors sold to March 31, 1919 inclusive being 82,456; the net profits before deducting Federal taxes are estimated at upwards of $20,000,000.

The preferred dividends have been paid during the year at the full rate of six per cent. In the purchase of United Motors assets, the Debenture stock which was delivered in part payment thereof, carried with it an amount in cash equivalent to the November 1 dividend of 1½%.

Regular dividends of 3% quarterly were paid on the common stock during the year.

The number of stockholders of the Corporation is in excess of 12,000 at this date.

The General Motors Corporation is to be congratulated upon the association with the E. I. duPont de Nemours & Company resulting from the acquisition of a large stock interest by that company which insures financial stability and the cooperation of the finest engineering organization in the country.

Your directors take pleasure in acknowledging their high appreciation of the loyalty and efficiency of your officers and employees.

By order of the Board of Directors.

W. C. DURANT,
President.

DETROIT, MICHIGAN, APRIL 5, 1919.

MR. W. C. DURANT, *President*
New York, N. Y.

Dear Sir:- I submit herewith the following statements showing the results of operation and the financial condition of General Motors Corporation and its subsidiary companies, consolidated, for the periods named:

Statement 1. Condensed Consolidated Balance Sheet, as of December 31, 1918, compared with December 31, 1917.

Statement 2. Income Account for 12 months ended December 31, 1918.

Statement 3. Profit and Loss Account for 12 months ended December 31, 1918.

Yours,

M L. PRENSKY,
Comptroller.

Statement 1

CONDENSED COMPARATIVE CONSOLIDATED BALANCE SHEET OF GENERAL MOTORS CORPORATION AND SUBSIDIARY COMPANIES AS OF DECEMBER 31, 1918 AND 1917

ASSETS	DECEMBER 31, 1918	DECEMBER 31, 1917
Permanent Investment:		
Real estate, plants and equipment	$ 86,818,414.51	$ 40,086,374.34
Less: reserve for depreciation	10,061,983.38	1,428,539.28
	$ 76,756,431.13	$ 38,657,835.06
Investments in allied and accessories companies	2,839,531.23	2,030,273.48
Current and Working Assets:		
Cash in banks and on hand	30,636,621.48	18,865,645.27
Liberty Bonds	28,852,018.00	1,255,000.00
Marketable securities	172,304.86	——
Sight drafts against B/L attached	3,316,384.90	7,590,279.25
Due from United States Government on war contracts	7,305,626.76	449,855.83
Notes($1,285,908.01 in 1918) and accounts receivable	21,995,359.50	5,555,403.34
Inventories at cost or less	91,137,512.59	46,559,394.15
Total Current and Working Assets	$183,415,828.09	$ 80,275,577.84
Deferred expenses	762,651.85	854,434.61
Good-will, patents, copyrights, etc	35,714,893.43	11,971,603.48
Total	$299,489,335.73	$133,789,724.47

LIABILITIES		
Capital Stock:		
Debenture stock (authorized $150,000,000) issued	$ 30,756,300.00	——
Less: in treasury of General Motors Corporation	1,581,000.00	——
In hands of public	$ 29,175,300.00	——
Preferred stock (authorized $20,000,000) issued	$ 19,684,300.00	$ 19,676,800.00
Less: in treasury of General Motors Corporation	13,300.00	——
In hands of public	$ 19,671,000.00	$ 19,676,800.00
Common stock (authorized $200,000,000) issued	$151,301,100.00	$ 82,558,800.00
Less: in treasury of General Motors Corporation	3,921,200.00	5,685,500.00
In hands of public	$147,379,900.00	$ 76,873,300.00
Total in hands of public	$196,226,200.00	$ 96,550,100.00
Purchase Money Bonds	225,000.00	——
Outstanding Capital Stock (par value) and surplus of subsidiary companies, being the portion not owned by General Motors Corporation:		
Capital Stock	$ 2,960,400.83	$ 540,500.00
Surplus	427,754.20	859,083.18
Total	$ 3,388,155.03	$ 1,399,583.18
Current Liabilities:		
Accounts payable	$ 18,453,316.99	$ 10,665,717.52
Notes payable	10,802,154.11	——
Taxes, pay rolls, and sundries accrued not due	3,769,865.29	4,858,326.57
Total Current Liabilities	$ 33,025,336.39	$ 15,524,044.09
Reserves:		
For two months' proportion of Dividend on Preferred and Debenture stock, payable Feb. 1	$ 488,463.00	$ 196,768.00
For Federal taxes and extraordinary expenditures	25,863,823.23	6,939,018.55
For sundry contingencies	3,863,420.65	1,671,818.08
Total	$ 30,215,706.88	$ 8,807,604.63
Surplus	36,408,937.43	11,508,392.57
Total	$299,489,335.73	$133,789,724.47

MICRO CARD
TRADE MARK ®

6362

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MATTHEW BENDER & COMPANY
MB

Statement 2

INCOME ACCOUNT FOR TWELVE MONTHS ENDED DECEMBER 31, 1918

Net Profits after deducting all expenses of manufacture (including maintenance) selling and administration, as well as ordinary taxes, insurance and depreciation		$35,504,576.41
Less: Provision for Federal taxes and extraordinary expenditures		20,113,548.19
		$15,391,028.22
General Motors Corporation proportion thereof		$14,825,530.19
Preferred Dividends for 12 months at rate of 6%	$ 1,180,901.00	
Debenture Dividends for 5 months at rate of 6%	739,566.00	1,920,467.00
Undivided Profits for 12 months ended December 31, 1918		$12,905,063.19

Statement 3

PROFIT AND LOSS ACCOUNT

Profit and Loss Surplus at the beginning of the year		$11,508,392.57
Add undivided profits per Income Account above		12,905,063.19
Additions through acquisition of properties:		
Chevrolet Motor Company (of Delaware)	$ 8,065,083.10	
United Motors Corporation	9,714,607.59	
Other Companies	653,100.98	
Profit from sale of new Common Stock	4,800,000.00	23,232,791.67
		$47,646,247.43
Less: Cash dividends paid on Common Stock		
February 1, 1918—3%	$ 2,292,150.00	
May 1, 1918—3%	2,292,567.00	
August 1, 1918—3%	3,205,704.00	
November 1, 1918—3%	3,446,889.00	11,237,310.00
Profit and loss surplus December 31, 1918		$36,408,937.43

NOTE The various tangible and intangible assets acquired by the Corporation during the year were valued and written on the Corporation's books at the same aggregate amount as they had been carried on the books of the corporations so purchased. As these amounts are in excess of the par value of the securities of the General Motors Corporation issued in payment for such assets, the difference results in an addition to the surplus account of the Corporation, as shown above

The properties of the Chevrolet Motor Company of Canada, Ltd., The McLaughlin Carriage Company, Ltd., and The McLaughlin Motor Car Company, Ltd., which were acquired during the year, were appraised and the book values adjusted to agree therewith

NEW YORK
CHICAGO
DETROIT
SAINT LOUIS
BOSTON
CLEVELAND
BALTIMORE
PITTSBURGH

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
CABLE ADDRESS "HASKSELLS"
30 BROAD STREET
NEW YORK

SAN FRANCISCO
LOS ANGELES
NEW ORLEANS
SEATTLE
DENVER
ATLANTA
WATERTOWN
LONDON

GENERAL MOTORS CORPORATION,
Detroit, Michigan.

We have audited your general accounts and those of your subsidiary manufacturing companies for the year ended December 31, 1918, and, subject to our not having examined the minutes of your governing bodies,

WE HEREBY CERTIFY that, in our opinion, the accompanying Condensed Consolidated Balance Sheet, December 31, 1918, and related Summaries of Income and Profit & Loss for the year ended that date are correct.

HASKINS & SELLS

New York,
April 5, 1919.

Government's Exhibit No. 138

GENERAL MOTORS CORPORATION

Meeting of Finance Committee
New York City

September 25, 1919

PRESENT: J. J. Raskob, Chairman
W. C. Durant
P. S. duPont
Lammot duPont
H. F. duPont
Also John T. Smith, of Counsel

* * *

PURCHASE OF THREE-FIFTHS INTEREST IN THE FISHER BODY CORPORATION:

Report was received from the Chairman dated September 11th, 1919 (#105) enclosing copy of letter written to F. J. Fisher, President of the Fisher Body Corporation, dated September 11th, 1919, outlining in detail an offer by General Motors Corporation to purchase (after the Fisher Body Corporation has increased its authorized common stock from 200,000 shares of no par value to 500,000 shares) 300,000 shares of common stock of no par value at $92.00 per share, payable in cash, and as a further consideration, agreeing to give to the Fisher Body Corporation immediately such of our closed body business as it is able to handle now and in the future. The offer further provides that the Fisher Body Corporation shall immediately purchase from the General Motors Corporation $27,000,000 of its

—2—

6% notes, $5,000,000. of which shall mature with the maturities of the present outstanding $5,000,000. of Fisher Body Corporation notes recently sold, and of the balance, $1,000,000. shall mature on November 1st, 1919, and $1,000,000. each month thereafter until all of the notes are paid, interest on the notes to be payable quarterly. It is further stipulated that at least 251,000 shares of Fisher Body Corporation stock, which will then represent a majority of the stock then issued and outstanding to be supplied by the General Motors Corporation and the present managing stockholders, shall be placed in a voting trust under which there shall be four trustees consisting of two to be named by the President of the Fisher Body Corporation and Messrs. W. C. Durant and Pierre S. duPont representing the General Motors Corporation, any vacancy in the trustees to be filled by the side whose trustee is thus lost.

The Chairman orally advised the Committee of the existence of a contract under which the four younger Fisher boys receive 5% of the net earnings and further advised that it is proposed by the Fisher Body Corporation to enter into an additional contract under which the two older Fisher boys will also receive 5% of the net earnings.

The Chairman further advised that the offer as outlined in the above mentioned letter to Mr. F. J. Fisher, President of the Fisher Body Corporation, dated September 11th,

1919, has been informally approved by a majority of the members of this Committee and has also since been practically accepted by the Fisher Body Corporation.

After discussion, it was moved and unanimously carried that the above mentioned report dated September 11th, 1919 (#105) be accepted and ordered filed and the informal action taken by a majority of the members of this Committee in authorizing the offer as outlined in said report covering the purchase of a three-fifths interest in the Fisher Body Corporation be approved, ratified and confirmed.

* * *

NOTE: The various tangible and intangible assets acquired by the Corporation during the year were valued and written on the Corporation's books at the same aggregate amount as they had been carried on the books of the corporations so purchased. As these amounts are in excess of the par value of the securities of the General Motors Corporation issued in payment for such assets, the difference results in an addition to the surplus account of the Corporation, as shown above.

The properties of the Chevrolet Motor Company of Canada, Ltd., The McLaughlin Carriage Company, Ltd., and The McLaughlin Motor Car Company, Ltd., which were acquired during the year, were appraised and the book values adjusted to agree therewith.

Government's Exhibit No. 139

Report of
General Motors Corporation

FOR THE

Fiscal Year Ended December 31, 1919.

GENERAL MOTORS CORPORATION

Board of Directors

PIERRE S. DUPONT, *Chairman*

A. G. BISHOP
H. H. BASSETT
R. H. COLLINS
W. L. DAY
H. F. DUPONT
IRENEE DUPONT
LAMMOT DUPONT
W. C. DURANT
J. A. HASKELL
F. W. HOHENSEE
L. G. KAUFMAN
J. H. MCCLEMENT
R. S. MCLAUGHLIN
C. S. MOTT
J. J. RASKOB
A. P. SLOAN, JR.
JOHN THOMAS SMITH
EDWARD VERLINDEN
F. W. WARNER

Finance Committee

J. J. RASKOB, *Chairman*

H. F. DUPONT
IRENEE DUPONT
PIERRE S. DUPONT
LAMMOT DUPONT
W. C. DURANT
J. A. HASKELL

Executive Committee

W. C. DURANT, *Chairman*

H. H. BASSETT
R. H. COLLINS
W. L. DAY
J. A. HASKELL
F. W. HOHENSEE
R. S. MCLAUGHLIN
A. P. SLOAN, JR.
EDWARD VERLINDEN
F. W. WARNER

Officers

W. C. DURANT, *President*	New York
H. H. BASSETT, *Vice-President*	Flint
A. G. BISHOP, *Vice-President*	Flint
R. H. COLLINS, *Vice-President*	Detroit
W. L. DAY, *Vice-President*	Pontiac
J. A. HASKELL, *Vice-President*	New York
A. W. HIGGINS, *Vice-President*	New York
F. W. HOHENSEE, *Vice-President*	New York
R. S. MCLAUGHLIN, *Vice-President*	Oshawa, Ont.
C. S. MOTT, *Vice-President*	Flint
J. J. RASKOB, *Vice-President*	Wilmington
H. H. RICE, *Vice-President*	Detroit
A. P. SLOAN, JR., *Vice-President*	New York
JOHN THOMAS SMITH, *Vice-President*	New York
EDWARD VERLINDEN, *Vice-President*	Lansing
F. W. WARNER, *Vice-President*	Pontiac
T. S. MERRILL, *Secretary*	Detroit
M. L. PRENSKY, *Treasurer*	Detroit
FRANK TURNER, *Comptroller*	Detroit

REPORT TO THE STOCKHOLDERS
OF
GENERAL MOTORS CORPORATION

For the Fiscal Year ended December 31, 1919

DETROIT, MICHIGAN, APRIL 9, 1920.

TO THE STOCKHOLDERS:

Your directors submit herewith the annual report of General Motors Corporation and its subsidiary companies for the fiscal year ended December 31, 1919.

The income and profit and loss accounts include the earnings and surplus of the Corporation and its share of earnings and surplus of subsidiary companies.

INCOME ACCOUNT FOR TWELVE MONTHS ENDED DECEMBER 31, 1919 AND 1918

	1919	1918
Net profits for year after deducting all expenses of manufacture (including maintenance), selling and administration, as well as ordinary taxes, insurance, depreciation ($6,656,359.03 in 1919) of plant and equipment, employes' bonus stock, employes' investment fund and allowances to employes on houses	$90,517,519.38	$35,504,576.41
Less: Provision for Federal taxes and extraordinary expenditures	30,000,000.00	20,113,548.19
	$60,517,519.38	$15,391,028.22
General Motors Corporation proportion thereof	$60,005,484.49	$14,825,530.19
Preferred dividends for 12 months at rate of 6%	$ 1,032,376.00	$ 1,180,901.00
Debenture dividends for 12 months at rate of 6%	3,180,136.60	739,566.00
	$ 4,212,512.60	$ 1,920,467.00
Undivided profits for 12 months	$55,792,971.89	$12,905,063.19

PROFIT AND LOSS ACCOUNT

Profit and Loss Surplus, December 31, 1918		$36,408,937.43
Add undivided profits for 12 months ended December 31, 1919 (after making provision for all taxes and the payment of preferred and debenture dividends), as per Income Account shown on preceding page		55,792,971.89
Additions through acquisition of properties and other adjustments		3,764,529.00
		$95,966,438.32
Less: Cash Dividends paid on common stock:		
February 1, 1919—3%	$ 4,431,438.00	
May 1, 1919—3%	4,028,001.00	
August 1, 1919—3%	4,215,147.00	
November 1, 1919—3%	4,649,955.00	17,324,541.00
Profit and Loss Surplus, December 31, 1919		$78,641,897.32

The plants have been maintained in good operating condition. Ample provision has been made for depreciation of inventories, which are carried on a conservative basis, being valued at or below cost.

The Condensed Consolidated Balance Sheet, as of December 31, 1919, as compared with December 31, 1918, is to be found on page 16 of this report. Income and Profit and Loss Accounts for 12 months ended December 31, 1919, as compared with December 31, 1918, will be found on page 17.

The books and accounts of General Motors Corporation and subsidiary companies have been audited by Messrs. Haskins & Sells, Certified Public Accountants, for the fiscal year ended December 31, 1919, and their certificate is shown on page 19 of this report.

There is included in the Consolidated Balance Sheet as of December 31, 1919, the assets and liabilities of the following divisions and subsidiary companies in addition to various sales companies:

Passenger Cars and Trucks

GENERAL MOTORS GROUP:

Buick Motor Division	Flint, Mich.
Cadillac Motor Car Division	Detroit, Mich.
General Motors Truck Division	Pontiac, Mich.
Oakland Motor Car Division	Pontiac, Mich.
Olds Motor Works Division	Lansing, Mich.
Scripps-Booth Corporation	Detroit, Mich.

CHEVROLET GROUP:

Chevrolet Motor Company of Michigan	Flint, Mich.
Chevrolet Motor Company of New York, Inc	Tarrytown, N. Y.
Chevrolet Motor Company of St. Louis, Inc	St. Louis, Mo.
Chevrolet Motor Company of Texas	Ft. Worth, Texas

GENERAL MOTORS OF CANADA, LTD.:

Canadian Products, Ltd., Division	Walkerville, Ont.
Chevrolet Motor Company of Canada Division	Oshawa, Ont.
McLaughlin Motor Car Division	Oshawa, Ont.
Olds Motor Works of Canada Division	Oshawa, Ont.

Tractors and Implements

Samson Tractor Division	Janesville, Wis.
Samson Tractor Company of California	Stockton. Calif.

Accessories

UNITED MOTORS GROUP:

Buffalo Metal Goods Company	Buffalo, N. Y.
Dayton Engineering Laboratories Company	Dayton, Ohio
Harrison Radiator Corporation	Lockport, N. Y.
Hyatt Roller Bearing Division	Newark, N. J.
Jaxon Steel Products Division	Jackson, Mich.
Klaxon Company	Newark, N. J.
Lancaster Steel Products Corporation	Lancaster, Pa.
New Departure Manufacturing Company	Bristol, Conn.
Remy Electric Division	Anderson, Ind.

Miscellaneous

Champion Ignition Company	Flint, Mich.
Dayton-Wright Company	Dayton, Ohio
Delco-Light Company	Dayton, Ohio
Frigidaire Corporation	Detroit, Mich.
General Motors (Europe), Ltd	London, England
General Motors Export Company	New York, N. Y.
Sunnyhome Electric Company	Detroit, Mich.
United Motors Service, Inc	Detroit, Mich.

PARTS

CENTRAL PRODUCTS DIVISION:

Central Axle Division	Detroit, Mich.
Central Forge Division	Detroit, Mich.
Central Gear Division	Detroit, Mich.
Northway Motor and Manufacturing Division	Detroit, Mich.

MUNCIE PRODUCTS DIVISION:

Muncie Parts Division	Muncie, Ind.
T. W. Warner Plant	Muncie, Ind.

SAGINAW PRODUCTS DIVISION:

Central Foundry Division	Saginaw, Mich.
Central Motor Division	Saginaw, Mich.
Jackson-Church-Wilcox Division	Saginaw, Mich.
Saginaw Malleable Iron Company	Saginaw, Mich.

GENERAL:

Chevrolet Motor Company of Bay City	Bay City, Mich.
Michigan Crank Shaft Division	Lansing, Mich.
St. Louis Manufacturing Corporation	St. Louis, Mo.
Toledo-Chevrolet Motor Company	Toledo, Ohio

AFFILIATED COMPANIES, OUR INTEREST IN WHICH IS INCLUDED IN "INVESTMENTS."

Bearings Service Company	Detroit, Mich.
Brown-Lipe-Chapin Company	Syracuse, N. Y.
Doehler Die Casting Company	Brooklyn, N. Y.
Fisher Body Corporation	Detroit, Mich.
General Leather Company	Newark, N. J.
General Motors Acceptance Corporation	New York, N. Y.
Independent Lamp and Wire Company	Weehawken, N. J.
Novelty Incandescent Lamp Company	Emporium, Pa.

CAPITAL STOCK

The capital stock of the Corporation outstanding on December 31, 1919, was as follows:

Preferred stock, 6%	$16,957,000
Debenture stock, 6%	68,339,300
Common stock	153,411,000
Total Outstanding Capital Stock	$238,707,300

The changes since the last annual report, December 31, 1918, are:

Preferred stock decreased	$2,714,000
Debenture stock increased	39,164,000
Common stock increased	6,031,200

These changes are explained as follows:

	Preferred	6% Debenture	Common
New issue of 6% debenture stock sold		$30,000,000	
Issued for acquisition of new properties, etc.		6,450,000	$6,031,200
Issued account of conversion of General Motors preferred		2,714,000	
Cancelled in accordance with terms of conversion of 6% debenture stock	$2,714,000*		
Increase in outstanding	$2,714,000*	$39,164,000	$6,031,200

*decrease

INDEBTEDNESS

The Notes Payable of $6,812,318.68 shown on the Balance Sheet under Current Liabilities represent $4,074,118.68 borrowed by our subsidiaries and used in their operations, and the balance of $2,738,200.00 covers miscellaneous indebtedness assumed by the Corporation in the purchase of properties.

The other indebtedness of the Corporation on December 31, 1919, consisted of current accounts payable of $37,846,313.36 (composed wholly of obligations for merchandise, etc.) and $11,521,770.64 liabilities accrued but not due, for payrolls, ordinary taxes and other sundry items.

WORKING CAPITAL

The net working capital as shown by the Balance Sheet of December 31, 1919, amounted to $158,754,500.82. The following is a comparison of working capital at December 31, 1919, with that of 1918:—

	1919	1918
Current Assets:		
Cash in banks and on hand	$ 48,231,200.04	$ 30,636,621.48
United States Government Bonds	213,218.49	28,852,018.00
Marketable securities	989,448.36	172,304.86
Sight drafts against B-L attached	10,945,061.06	3,316,384.90
Due from U. S. Govt. on war contracts	304,334.80	7,305,626.76
Notes and accounts receivable	26,444,871.05	21,995,359.50
Inventories at cost or less	128,696,651.70	91,137,512.59
Total Current Assets	$ 215,824,785.50	$183,415,828.09
Less: Current and Accrued Liabilities:		
Current accounts payable	$ 37,846,313.36	$ 18,453,316.99
Notes payable	6,812,318.68	10,802,154.11
Taxes, payrolls and sundries accrued, not due	11,521,770.64	3,769,865.29
	$ 56,180,402.68	$ 33,025,336.39
	$159,644,382.82	$150,390,491.70
From which deduct amount reserved for two months' proportion of dividend on preferred and debenture stock, payable February 1	889,882.00	488,463.00
Net working capital	$158,754,500.82	$149,902,028.70

While it will be seen from the above that the net working capital has been increased during the year by $8,852,472.12, attention is called to the fact that the increase in net working capital, exclusive of United States Government Bonds, amounted to $37,491,271.63. The amount $28,852,018.00, invested in United States Government Bonds in 1918 and temporarily carried in working capital, was converted during 1919 into cash and the proceeds used for new construction, as was intended.

CAPITAL EXPENDITURES

Balance in real estate, plants and equipment at December 31, 1918, before deducting reserve for depreciation	$86,818,414.51
Addition through appraisal of properties exclusive of reserve for depreciation, per appraisal made by Manufacturers' Appraisal Co. (see appraisers' certificate on page 18)	29,888,896.13
Additions through purchase of properties	12,439,458.71
Expended during the year for real estate, plants and equipment	47,741,697.65
Balance in real estate, plants and equipment December 31, 1919	$176,888,467.00

GOOD-WILL, PATENTS, COPYRIGHTS, ETC.

Balance in this account December 31, 1918	$35,714,893.43
Additions through companies acquired during year	7,538,279.26
	$43,253,172.69
Less: Appreciation in real estate, plant and equipment through appraisal, applied to reduction of Good-Will, Patents, Copyrights, etc.	22,929,283.88
Balance in Good-Will, Patents, Copyrights, etc., December 31, 1919	$20,323,888.81

Note—The addition of $29,888,896.13 to real estate, plants and equipment, as the result of appraisal, is exclusive of $6,959,612.25, appraised depreciation applicable thereto, which ($6,959,612.25) has been added to reserve for depreciation. The net increase in present value is $22,929,283.88, which latter sum has been applied as a reduction of good will, patents, copyrights, etc.

GENERAL

The net sales of General Motors Corporation and subsidiary companies for the twelve months ended December 31, 1919, amounted to $509,676,694.80, as compared with $326,044,755.95 in 1918, an increase of $183,631,938.85, or 56.3%. The number of passenger cars, trucks and tractors sold was 406,158 as compared with 246,834 for the previous year, an increase of 64.5%.

The payrolls for the year 1919 aggregated $104,380,000. The number of employes in the service of the Corporation and its subsidiary companies as of December 31, 1919, was 85,980. This compares with 49,118 employes at the close of the preceding year.

The number of stockholders of the Corporation is in excess of 24,100, of whom 6,650 are employes of the Corporation, including its subsidiaries.

EXPANSION OF MANUFACTURING FACILITIES

The expansion of manufacturing facilities at your plants, which was necessarily interrupted during the war, has been resumed. The more important projects during the year are stated briefly as follows:

PASSENGER CAR, TRUCK AND TRACTOR PLANTS

Buick Motor Division, Flint, Michigan.—During the year the capacity of this Division was increased from a production of 350 passenger cars per day during January to 500 per day during the last quarter. Construction now under way at Flint and St. Louis will bring the total productive capacity for Buick cars to more than 700 per day. The capital expenditure during 1919 was $5,018,660.88.

Cadillac Motor Car Division, Detroit, Michigan.—Construction was started on a new factory for the Cadillac Division early in 1919. Rapid progress is being made on this plant, which will embody the very best and latest ideas for economical manufacture, and when completed this factory will have a capacity of approximately 30,000 passenger cars per annum. New construction by this Division required $4,937,160.81 during the year. The rapidly growing business also required the erection of a new sales and service building in Detroit and a service building in Chicago.

Chevrolet Group.—During 1919, the productive capacity of the plants at Flint, Tarrytown, Fort Worth, and St. Louis was increased to 800 cars and trucks per day; additional construction under way will, when completed, permit the production of 900 passenger cars and 50 trucks per day. Capital expenditures by this Division during the year required $7,420,460.19.

General Motors Truck Division, Pontiac, Michigan.—Rearrangement of the plant in Pontiac and additions to present buildings will permit the production of 20,000 trucks per annum. Congestion at the Pontiac plant will be largely relieved by the establishment of an assembly plant in Eastern territory during 1920.

Oakland Motor Car Division, Pontiac, Michigan.—With the completion of new construction started in 1919 the capacity of this Division will be increased to 350 passenger cars per day. A number of new departments will be established, making the plant more nearly self-contained, and insuring uninterrupted supply of the principal units.

Olds Motor Works Division, Lansing, Michigan.— At a cost of $2,552,090.44, the capacity of the Olds Motor Works was increased to 300 passenger cars and trucks per day, and the plant put on a much more independent basis than it formerly enjoyed by the addition of facilities to manufacture some of the more important units formerly supplied by other Divisions.

Scripps-Booth Corporation, Detroit, Michigan.—This Company was recently removed to a modern factory where its product can be built under much more efficient conditions. The new facilities will make possible the production of 100 Scripps-Booth cars per day.

Samson Tractor Division, Janesville, Wisconsin.—Your Corporation has been proceeding actively with the manufacture of the Samson line of farm tractors, implements, and trucks. New facilities, which are practically complete, provide for the manufacture of 100,000 tractors per year.

FISHER BODY CORPORATION INVESTMENT

Your Corporation was fortunate in assuring an enlarged supply of bodies through the acquisition of a majority interest in the Fisher Body Corporation, Detroit, Michigan, the largest builder of automobile bodies in the world. The Fisher Body Corporation is expanding its Detroit facilities, thereby assuring your Corporation an adequate supply of bodies, particularly of the closed type, demand for which is increasing rapidly.

The item "Notes Payable Account Fisher Body Corporation Stock Purchase," shown on the Balance Sheet, represents the balance due on account of this purchase and matures over a period of five years. The total cost ($27,600,000) of the above stock is included in Investments.

FARM AND HOME LIGHTING SYSTEMS

The acquisition of the Domestic Engineering Company, Dayton, Ohio, now known as the Delco-Light Company, adds a new line to the Corporation's activities--the manufacture of complete farm and home electric light and power plants. The enlargement of facilities now under way will give this Company approximately double its present capacity when completed.

ICELESS REFRIGERATORS

Early in the year your Corporation acquired the Guardian Frigerator Company, Detroit, Michigan, now known as the Frigidaire Corporation, which manufactures a line of mechanical domestic refrigerators. This Division is showing a healthy growth, and the desirability of its product assures a profitable future.

GENERAL MOTORS EXPORT COMPANY

The cessation of hostilities in Europe, after the production of motor cars for civilian purposes had been suspended for practically four years, provided an unusually active market, and the export business of your Corporation made notable strides during the year. A largely increased allotment of production for export has been made in order to more nearly meet the pressing foreign demand for your products.

GENERAL MOTORS ACCEPTANCE CORPORATION

Early in the year the General Motors Acceptance Corporation was organized to assist dealers in financing their purchase of General Motors' products, and also to finance, to some extent, retail sales. The gross business done by this Corporation in 1919 exceeded $20,000,000.00.

HOUSING FACILITIES FOR EMPLOYES

The extension of manufacturing facilities entailed a large increase in the number of employes, and at those points where it was impossible to provide housing facilities to meet this increase by any other means, the Corporation erected a large number of houses, which were sold to employes at cost, less a liberal allowance in recognition of present inflated construction cost.

ADMINISTRATION BUILDING

The rapid growth of your Corporation made it necessary to provide suitable executive quarters in Detroit. There was begun the construction of an office building which will furnish ample accommodations for the needs of the Corporation and its allied interests for many years. Up to December 31st, the sum of $4,219,313.24 had been expended on account of this project, and is shown in Investments.

BONUS PLAN

Under the bonus plan adopted in 1918, there was awarded to 6,450 employes, 14,088 shares 7% debenture stock and 214,659 shares of no par value common stock.

EMPLOYES SAVINGS AND INVESTMENT PLAN

During the year the Corporation established an Employes Savings Plan under which employes have the privilege of paying into an interest bearing Savings Fund a limited portion of their wage or salary. The amount so paid in by employes is duplicated by the Corporation paying a like amount into an Employes Investment Fund, which Fund is invested in securities selected by the Board of Directors. The principal and earnings of the Investment Fund are credited to employes over a period of years. While this plan was not fully in operation until the middle of 1919, there was a net amount in the Savings Fund of $2,099,283.61 at the end of the year. The amount paid by your Corporation into the Investment Fund was invested in 7,758 shares of $100 par value common stock of the Corporation. Out of the 62,297 employes eligible to participate in this plan, 33,641 have already taken advantage of its provisions.

DIVIDENDS

The preferred and debenture dividends have been paid during the year at the full rate of 6%. Regular dividends of 3% quarterly were also paid on the common stock during the year.

THE OUTLOOK

The year just closed, notwithstanding the difficulty experienced in securing certain materials and the shortage of freight cars for shipping your product, was the most successful in the history of the Corporation.

There is no diminution in the demand for your product, the number of passenger cars, trucks and tractors sold for the first quarter of 1920 to March 31st being 119,779, as compared with 82,456 for the corresponding period of the previous year, an increase of 45.2%. The net profits for this period, before deducting Federal Taxes, are estimated at upwards of $26,500,000.00.

Your directors take pleasure in acknowledging their high appreciation of the loyalty and efficiency of your officers and employes.

By order of the Board of Directors.

W. C. DURANT,

President.

Statement 1

CONDENSED COMPARATIVE CONSOLIDATED BALANCE SHEET OF GENERAL MOTORS CORPORATION AND SUBSIDIARY COMPANIES AS OF DECEMBER 31, 1919 AND 1918

ASSETS	DECEMBER 31, 1919	DECEMBER 31, 1918
Permanent Investment:		
Real estate, plants and equipment	$176,888,467.00	$ 86,818,414.51
Less: reserve for depreciation	23,084,824.58	10,061,983.38
	$153,803,642.42	$ 76,756,431.13
Investments in allied and accessories companies	$ 53,398,491.26	$ 2,839,531.23
Current and Working Assets:		
Cash in banks and on hand	$48,231,200.04	$ 30,636,621.48
United States Government Bonds	213,218.49	28,852,018.00
Marketable securities	989,448.36	172,304.86
Sight drafts against B-L attached	10,945,061.06	3,316,384.90
Due from United States Government on war contracts	304,334.80	7,305,626.76
Notes ($1,776,104.31 in 1919) and accounts receivable	26,444,871.05	21,995,359.50
Inventories at cost or less	128,696,651.70	91,137,512.59
Total Current and Working Assets	$215,824,785.50	$183,415,828.09
Deferred expenses	$ 3,301,712.82	$ 762,651.85
Good-will, patents, copyrights, etc	$ 20,323,888.81	$ 35,714,893.43
Total	$446,652,520.81	$299,489,335.73
LIABILITIES		
Capital Stock:		
Debenture stock (authorized $500,000,000) issued	$ 72,771,800.00	$ 30,756,300.00
Less: in treasury of General Motors Corporation	4,432,500.00	1,581,000.00
In hands of public	$ 68,339,300.00	$ 29,175,300.00
Preferred stock (authorized $20,000,000) issued	$ 16,957,000.00	$ 19,684,300.00
Less: in treasury of General Motors Corporation	——	13,300.00
In hands of public	$ 16,957,000.00	$ 19,671,000.00
Common stock (authorized $500,000,000) issued	$156,991,900.00	$151,301,100.00
Less: in treasury of General Motors Corporation	3,580,900.00	3,921,200.00
In hands of public	$153,411,000.00	$147,379,900.00
Total in hands of public	$238,707,300.00	$196,226,200.00
Bonus stock awarded	$ 7,848,570.00	——
Purchase Money Bonds	$ 150,000.00	$ 225,000.00
Notes payable, account Fisher Body Corp. stock purchase	$ 21,840,000.00	——
Outstanding Capital Stock and surplus of subsidiary companies, being the proportion not owned by General Motors Corporation:		
Capital Stock	$ 1,163,077.19	$ 2,960,400.83
Surplus	422,266.38	427,754.20
Total	$ 1,585,343.57	$ 3,388,155.03
Current Liabilities:		
Accounts payable	$ 37,846,313.36	$ 18,453,316.99
Notes payable	6,812,318.68	10,802,154.11
Taxes, pay rolls and sundries accrued not due	11,521,770.64	3,769,865.29
Total Current Liabilities	$ 56,180,402.68	$ 33,025,336.39
Reserves:		
For two months' proportion of Dividend on Preferred and Debenture stock, payable Feb. 1	$ 889,882.00	$ 488,463.00
For Federal taxes and extraordinary expenditures	36,262,472.70	25,863,823.23
For sundry contingencies	4,546,652.54	3,863,420.65
Total	$ 41,699,007.24	$ 30,215,706.88
Surplus	$ 78,641,897.32	$ 36,408,937.43
Total	$446,652,520.81	$299,489,335.73

Statement 2

INCOME ACCOUNT

	YEAR ENDED DEC. 31, 1919	YEAR ENDED DEC. 31, 1918
Net profits for year after deducting all expenses of manufacture (including maintenance), selling and administration, as well as ordinary taxes, insurance, depreciation ($6,656,359.03 in 1919) of plant and equipment, employes' bonus stock, employes' investment fund and allowances to employes on houses	$90,517,519.38	$35,504,576.41
Less: Provision for Federal taxes and extraordinary expenditures	30,000,000.00	20,113,548.19
	$60,517,519.38	$15,391,028.22
General Motors Corporation proportion thereof	$60,005,484.49	$14,825,530.19
Preferred dividends for 12 months at rate of 6%	$ 1,032,376.00	$ 1,180,901.00
Debenture dividends for 12 months at rate of 6%	3,180,136.60	739,566.00
	$ 4,212,512.60	$ 1,920,467.00
Undivided profits	$55,792,971.89	$12,905,063.19

Statement 3

PROFIT AND LOSS ACCOUNT

	YEAR ENDED DEC. 31, 1919	YEAR ENDED DEC. 31, 1918
Profit and Loss Surplus at the beginning of the year	$36,408,937.43	$11,508,392.57
Add undivided profits per Income Account above	55,792,971.89	12,905,063.19
Additions through acquisition of properties and other adjustments	3,764,529.00	23,232,791.67
	$95,966,438.32	$47,646,247.43
Less: Cash Dividends paid on common stock:		
February 1—3%	$ 4,431,438.00	$ 2,292,150.00
May 1—3%	4,028,001.00	2,292,567.00
August 1—3%	4,215,147.00	3,205,704.00
November 1—3%	4,649,955.00	3,446,889.00
	$17,324,541.00	$11,237,310.00
Profit and loss surplus December 31	$78,641,897.32	$36,408,937.43

Note—The net book value of real estate, plants and equipment was increased by $22,929,283.88 during the year, as the result of appraisals made, and good-will correspondently reduced. (See page 10 of report.)

CLEVELAND
[illegible]
NEW YORK
[illegible]
CHICAGO
[illegible]
PHILADELPHIA
[illegible]
ST. LOUIS
[illegible]
DETROIT
[illegible]

[illegible]

HOME OFFICE AT CLEVELAND
EXECUTIVE OFFICE AT PHILADELPHIA

WALTER W. POLLOCK
PRES'T AND GEN'L MGR.
CHARLES C. STRAWBRID
VICE PRESIDENT
JOHN WEST
SEC'Y AND TREAS.

Philadelphia, Pa., May 1, 1919.

GENERAL MOTORS CORPORATION,
Detroit, Michigan.

Gentlemen:

Pursuant to your request, we have appraised the real estate, plants and equipment of your Corporation, together with its subsidiaries, as of January 1, 1919, and do hereby certify that the values presented are in accordance with our findings.

Respectfully submitted,

MANUFACTURERS' APPRAISAL COMPANY

Walter W. Pollock
President

/s/ WALTER W. POLLOCK

NEW YORK
CHICAGO
DETROIT
SAINT LOUIS
BOSTON
CLEVELAND
BALTIMORE
PITTSBURGH

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
CABLE ADDRESS "HASKSELLS"
30 BROAD STREET
NEW YORK

SAN FRANCISCO
LOS ANGELES
NEW ORLEANS
SEATTLE
DENVER
ATLANTA
WATERTOWN
LONDON

General Motors Corporation,
Detroit, Michigan.

We have audited your general accounts and those of your subsidiary manufacturing companies for the year ended December 31, 1919, and, subject to our not having examined the minutes of your governing bodies,

WE HEREBY CERTIFY that, in our opinion, the accompanying Condensed Consolidated Balance Sheet, December 31, 1919, and related Summaries of Income and Profit and Loss for the year ended that date, are correct.

Haskins & Sells.

New York,
April 6, 1920.

Government's Exhibit No. 140

March 19th, 1920.

To: FINANCE COMMITTEE
DU PONT COMPANY

FROM: J. J. RASKOB

The General Motors Corporation, in order to carry out a development program which has been reduced to the greatest degree possible without sacrificing its position in the industry, will need $60,000,000.00 of new capital. Due to the investment conditions existing in the world and particularly in this country it is felt impossible to raise this new capital through the sale of debenture stock and as the capital will be permanently required in the business it is felt that it should not be secured through the issue of short term notes so that it becomes necessary for the common stockholders to supply the money themselves or to interest new partners.

The development of the industry during the past four years has been such as to increase the assets employed from $58,000,000. in 1915 to $452,000,000. in 1919 an increase of approximately $400,000,000. in four years or at the rate of $100,000,000. per year. There is every reason to believe that there will be ample opportunity afforded for expansion at a very rapid rate during the next few years and this affords splendid opportunity to interest new partners without the present partners sacrificing anything. In other words if the present partners have $400,000,000. employed earning 30% and the industry can employ $60,000,000. additional which will also earn 30% then there is no sacrifice in having the $60,000,000. additional supplied by others provided they are satisfactory partners.

We are in the fortunate position of having Nobels keenly interested in the matter. Sir Harry McGowan is here now and we have discussed this situation very thoroughly with him with the result that we have tentatively suggested that the General Motors Corporation which has approximately $150,000,000. of common stock outstanding make an offer of 20% additional common stock to its stockholders aggregating $30,000,000. of new common stock to be issued at $200.00 per share thus supplying the $60,000,000. required. Of this $30,000,000. of new common stock the rights accruing to the duPont-Durant stockholdings will be approximately 60% or $18,000,000. par value which at $200.00 per share will cost $36,000,000.

Mr. Durant has consented to turn his rights over to Nobels provided duPont will do likewise with the understanding that Nobels will purchase the stock and hold it as an investment and not purchase it as a speculation.

My recommendation is that Finance Committee approve the principle enunciated herein and request the DuPont American Industries, Inc. to surrender its rights to Nobels provided this arrangement can be carried through.

There is attached hereto a memorandum showing how the price of $200.00 per share is justified as a proper price for a partnership basis.

/s/ J. J. Raskob

Note. At end of document are following signatures: P. S. du Pont, J. J. Raskob, OK Wm. Coyne, H. F. Brown and L du Pont. "Return to Room 9059" stamp on page 1 and "Return to Executive Committee Room 9069" stamp on both pages.

7/AL

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

		To Purchase a 10% interest			
		Cost	Earnings	% on Investment.	Comparative % on Investment in Common stock at 200
6% Preferred and debenture stock	$ 75,000,000.	$ 7,500,000.	$450,000.		
7% Debenture Stock	25,000,000.	2,500,000.	175,000.		
Common Stock	153,750,000.	15,375,000.	4,612,500. if common earns 30%		
Total	253,750,000.				
Surplus 11/30	80,000,000.				
Contingent reserves	13,250,000.				
7 nated earnings over divi- s from December to May	40,000,000.				
timated surplus 5/1/20	133,250,000.	13,325,000.	———		
Totals	387,000,000.	38,700,000.	5,237,500.	13.6%	15%
If common stock earns 40%, add 10% or		-	1,537,500.	4.0	
		Total	6,775,000.	17.6%	20%
If common stock earns 50%, add 10% or		-	1,537,500.	4.0	
		Total	8,312,500.	21.6%	25%
If common stock earns 80%, add 30% or		-	4,612,500.	12.0%	
		Total	$ 12,925,000.	33.6%	40%

Government's Exhibit No. 141

MINUTES OF REGULAR QUARTERLY MEETING OF THE BOARD OF DIRECTORS OF DU PONT AMERICAN INDUSTRIES, INC. HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON WEDNESDAY, MAY 26TH. 1920 AT ELEVEN:THIRTY O'CLOCK A. M.

Present: Mr. P. S. duPont, in the Chair
Mr. E. G. Buckner,
Mr. C. L. Patterson,
Mr. Wm. Coyne,
Mr. H. F. Brown,
Mr. C. A. Patterson,
Mr. H. M. Pierce,
Mr. F. D. Brown,
Mr. J. P. Laffey,
Dr. C. L. Reese,
Mr. F. W. Pickard,
Mr. Lammot duPont,
Mr. Ireneé duPont.
Mr. F. G. Tallman,
Mr. H. G. Haskell,
Mr. R. R. M. Carpenter,
Mr. Eugene duPont,
Mr. Eugene E. duPont,
Mr. Alexis I. duPont.

The Chairman stated that the first business before the meeting was the election of officers for the ensuing year.

On motion duly seconded, the following officers of the Company were re-elected to serve for the balance of the year and until succeeded.

President: P. S. duPont.

Vice-Presidents:	Lammot duPont, H. F. duPont, Ireneé duPont, J. J. Raskob, Frank L. Connable, F. G. Tallman, Wm. Coyne.
Treasurer:	F. D. Brown.
Secretary:	Alexis I. duPont.
Asst.Secretary:	M. D. Fisher.

Minutes of previous meeting of the Board held on February 25th. 1920, were read and approved.

EXECUTIVE COMMITTEE REPORT:

Report was received from the Executive Committee covering action taken from February 23, 1920 to May 21, 1920, and on motion same was accepted and ordered filed.

—2—

The following motion was offered and unanimously carried:

RESOLVED, that the action taken by the Executive Committee from February 23, 1920 to May 21, 1920, be approved, ratified and confirmed.

ASSIGNMENT OF RIGHTS TO SUBSCRIBE TO GENERAL MOTORS CORPORATION COMMON STOCK, TO THE EXPLOSIVES TRADES, LIMITED:

WHEREAS negotiations have been pending between some of the officers of this Company, the Chevrolet Motor Company, W.C.Durant and other large stockholders, and the General Motors Corporation (in which last named corporation this Company, the Chevrolet Motor Company and W. C. Durant own collectively upwards of Fifty per cent of the common stock) relative to a situation confronting the General Motors Corporation, viz: The General Motors Corporation is in urgent need of approximately $65,000,000 additional capital for the purpose of carrying out an expansion of its business, commenced in the year 1919, and now in course of completion. An unsuccessful effort was recently made by the General Motors Corporation to raise the necessary additional capital to complete said expansion program by an issue of seven per cent debenture stock. Approximately $12,500,000 only of fresh capital was secured in this manner out of an offering of approximately $85,000,000. The officers of the General Motors Corporation have under consideration a pro rata offering to its common stockholders of an issue from its authorized but unissued common stock of no par value of 3,200,000 shares at the price of twenty dollars per share. In this situation and before making said offer, the officers of the General Motors Corporation have submitted to the officers of this Company, the officers of the Chevrolet Motor Company, W. C. Durant and other large stockholders, a proposition to the effect that this offer of common stock will be made only in the event that this Company, the Chevrolet Motor Company, W. C. Durant and other large stockholders, furnish it assurance that the pro rata share of the said issue coming to the afore-mentioned stockholders will be taken and paid for at the price aforesaid. Owing to the difficulty at this time of raising the money necessary to take up their pro rata share of this offering, amounting to approximately $9,758,532. for this Company and $22,291,288. for the Chevrolet Company, the officers of the last named companies have entered into negotiations with the officers of Explosives Trades, Limited, a corporation created and organized under the laws of Great Britain and Ireland, with a view to interesting Explosives Trades, Limited, et al, in the stock of the General Motors Corporation, which negotiations have resulted in a tentative proposition from Explosives Trades, Limited, to this Company and to other large stockholders to the effect that said Explosives Trades, Limited, will, in event General Motors Corporation makes said new offer of stock to its stockholders, take and pay for 1,800,000 shares, provided this Company, the Chevrolet Motor Company, W. C. Durant and other large stockholders will duly assign and transfer to it all rights received by them to subscribe for said new issue; and

WHEREAS in the judgment of the Board of Directors of this Company it is of vital interest to this Company as a large stockholder in the General Motors Corporation that the additional capital so required by the General Motors Corporation be obtained at the earliest possible date, to the end that construction operations now in process be not interrupted but that same be completed in accordance with the original program; and

WHEREAS in the judgment of the Board of Directors it will

be impossible for this Company at this time to raise the $9,758,532 necessarily required to take and pay for its pro rata share of said new stock; and

WHEREAS it is the further judgment of the Board of Directors that a distribution of the rights to subscribe for said new issue of stock to the stockholders of E. I. duPont deNemours and Company, as well as an attempt to sell said rights, would result in the market being flooded with said rights, rendering the same salable, if at all, at little value, resulting in a depression of the market value of the stock to an extent which on account of the lapsing of many rights would jeopardize the financing plan, to the great injury of the General Motors Corporation and its business and to this Company as one of its largest stockholders; and

WHEREAS it is the further judgment of the Board of Directors that it is for the best interests of this Company to accept the proposition made by Explosives Trades, Limited, and to assign and transfer all rights of this Company to subscribe to said new issue of stock upon the express consideration and undertaking of Explosives Trades, Limited, to and with this Company that it will subscribe and pay for all stock to which it so acquires the right to subscribe, as hereinbefore stated;

THEREFORE, all the premises being considered, IT IS RESOLVED that the officers of this Company be and they hereby are authorized and directed to accept the said offer of Explosives Trades, Limited, and to assign and transfer to Explosives Trades, Limited, or its nominees, as and when received, all rights of this Company to subscribe for approximately 487,926 & .6 shares of the said new issue of the no par value common stock of the General Motors Corporation; and

BE IT FURTHER RESOLVED that the officers of this Company be and they hereby are authorized and directed to make and enter into on behalf of this Company and in its name an agreement between this Company and Explosives Trades, Limited, covering the acquisition by it of this Company's rights to subscribe for stock in said new issue and its obligation to exercise said rights and pay for the stock as provided therein.

On motion, the meeting was adjourned.

OK form
J. P. L.

Alexis I. duPont.
Secretary.

NOTE: "GMC-453" appears in the lower right-hand corner of each page. Italics indicate handwriting.

6

Government's Exhibit No. 142

GENERAL MOTORS CORPORATION
Meeting of Finance Committee
New York City

June 2, 1920

PRESENT:	J. J. Raskob, Chairman
	P. S. duPont
	W. C. Durant
	J. A. Haskell
	Irenee duPont

* * *

SALE OF ADDITIONAL COMMON STOCK:

Reports were received from the Chairman dated May 26th, 1920 (#199) and April 10th, 1920 (#179), (the latter report having been laid on the table at meeting held on April 15th, 1920) advising that it has become necessary to provide additional funds if we are to carry out the program contemplated in the forecast for twelve months ending January 31st, 1921, which indicates a cash deficit of approximately $9,000,000.00, and recommending, in order to provide said funds, the authorization of an issuance of approximately 3,200,000 shares of new common stock to be offered to the present common stockholders at $20. per share, in amount equal to twenty per cent. of their present holdings. The committee was further advised that the officers of the company have been negotiating with J. P. Morgan & Company, Explosives Trades, Ltd. and Canadian Explosives,

—2—

Ltd. with a view to interesting them as partners in the General Motors Corporation, with successful result under the following arrangement:

> The General Motors Corporation to authorize an issue of approximately 3,200,000 shares of new stock (being twenty per cent. of present outstanding stock) to be offered to stockholders at $20. per share.
>
> The Chevrolet Motor Company, duPont Company, Mr. W. C. Durant and others have agreed to surrender their subscription rights which has made it possible for us to interest Explosives Trades Limited of London, England and some of their English friends to the extent of 1,500,000 shares; the Canadian Explosives Limited and some of its friends to the extent of 300,000 shares and J. P. Morgan & Company to the extent of 600,000 shares.
>
> J. P. Morgan & Company agree to form a syndicate for the purpose of giving wide distribution to our common stock, in consideration of which we are to pay them a fee of $600,000.00. J. P. Morgan & Company will take a substantial interest in this distributing syndicate and will underwrite that portion of the offering not subscribed for by Explosives Trades Limited and Canadian Explosives Limited.
>
> The name of J. P. Morgan & Company will be back of the offering.
>
> In the arrangement we secure two English directors, viz. Sir Harry McGowan, Chairman of the Board, and Arthur Chamberlain, member of the Board of Directors of Explosives Trades Limited, and William McMaster, President of Canadian Explosives Limited. In addition,

we have secured as directors the following: Edward R. Stettinius of J. P. Morgan & Company, George F. Baker, Jr., Vice President, First National

Bank, New York, Seward Prosser, President, Bankers Trust Company, New York, William H. Woodin, President, American Car & Foundry Company, C. M. Woolley, President, American Radiator Company, and Owen D. Young, Vice President, General Electric Company.

After a full discussion, the following resolutions were offered, and upon motion, unanimously adopted:

RESOLVED, that the above mentioned reports be accepted and ordered filed and that the action taken by the officers of this corporation in effecting the arrangement as outlined above, be and the same is hereby approved, ratified and confirmed, and

FURTHER RESOLVED, that the Finance Committee recommend to the Board of Directors an offering of common stock without par value, to common stockholders of record at the close of business on June 12th, 1920, to the extent of twenty per cent. of their holdings, at the price of $20. a share, and

FURTHER RESOLVED, that the Finance Committee recommend to the Board of Directors that an agreement be made between General Motors Corporation and J. P. Morgan & Company for the underwriting of said issue in accordance with the terms of a proposed letter, dated June 2nd, 1920, submitted to the meeting, as follows:

“ June 2nd, 1920.

Messrs. J. P. Morgan & Company,
No. 23 Wall Street,
New York.

Dear Sirs:

To provide the additional working capital required for the increasing business of General Motors Corporation, the Board of Directors has resolved that of the authorized and unissued common stock of the Corporation there shall be offered to the holders of its common stock at the close of business on June 12th, 1920, the right to subscribe for new common stock without par value, at the price of $20 per share, to the extent of 20% of the holdings of such common stock by such stockholders. The aggregate number of shares so to be offered to stockholders is 3,219,856 shares. The terms and conditions of such offer to such stockholders appear more fully in the proposed circular letter addressed to them by the Secretary, of which a copy is hereto attached, marked schedule A.

Arrangements have been made by which Explosives Trades Ltd., of London, England, will subscribe for or cause to be subscribed for 1,800,000 shares of the new common stock. The Corporation being thus assured of subscriptions for said 1,800,000 shares of the new common stock, now desires to have underwritten the subscription for the remaining 1,419,856 shares of stock (hereinafter called the “underwritten stock”) to be offered to the stockholders.

Accordingly, pursuant to the authority of the Board of Directors and confirming our various conversations, you are requested by the Corporation to underwrite the subscription for the said stock, and to take or guarantee to sell, at the price of $20 per share, such amount of said stock as may not be subscribed for by the stockholders on or before July 7th, 1920. The Corporation will notify you on or before July 12th, 1920, of the amount of such stock which shall not have been so subscribed for, and thereupon payment of the whole or of 10% of the subscribption price, as you shall elect, shall be made on or before July 15, 1920.

The Corporation will issue as of July 15th, 1920, any of such stock so paid for in full on or before July 15th, 1920; and as to any of such stock upon which 10% shall have been paid on or before July 15th, 1920, the Corporation will issue the subscription receipts described in Schedule A hereto attached, as issuable to stockholders who shall have paid 10% of the subscription price upon making their subscription.

In consideration of such undertaking on your part and the performance thereof, the Corporation agrees with you as follows:

—5—

A. As compensation for your services in underwriting the issue and in forming and managing a Syndicate to purchase and/or distribute so much of the stock as is not subscribed for by the stockholders, the Corporation will pay to you (1) for your own account the sum of $600,000., and (2) the sum of $1,419,856. (being $1 per share for each share underwritten), to be allowed to the Syndicate as compensation for the commitment of the participants therein. The entire amount of such compensation shall be payable and be paid to you by the Corporation on July 16th, 1920.

B. In case you desire to increase your holdings, the Corporation agrees to sell and deliver to you for your own account, on or before July 31st, 1920, out of the shares of its common stock of no par value, from its treasury, all or any part of 445,000 shares at the price of $20 a share. Such agreement to sell shall be open for acceptance by you on or before July 31st, 1920.

It is also understood by the Corporation that as a further inducement to you to assume the undertaking herein proposed, you shall be at liberty, for your own account, to enter into any and all contracts or arrangements with any one or more stockholders of the Corporation to acquire from such stockholders stock or other interests in the Corporation.

If by July 31st, 1920, the Corporation shall be unable to issue to your order the common stock deliverable as above provided, then at your option, to be exercised in writing at any time after said date and before the Corporation shall have tendered to you certificates for such common stock, the Syndicate and yourselves may withdraw from your obligations hereunder.

GENERAL MOTORS CORPORATION

By W. C. DURANT
President."

Amendment of By-Laws to Provide for Additional Directors:

The following resolution was offered, and upon motion, unanimously adopted:

> Resolved, that this committee recommend to the Board of Directors that the by-laws of this corporation be amended to provide for six additional directors, making a total of twenty-eight instead of the present number of twenty-two.

* * *

Government's Exhibit No. 143

Copy to Hot Springs, Va.

May 21, 1920

Mr. John J. Raskob,
c/o General Motors Corp.,
1764 Broadway,
New York City.

Dear John:–

Lammot and Don talked to me today about the General Motors underwriting and Lammot said you would like to have any criticism of the plan they showed that might occur to me and approval of such points as I agreed on.

Specifically, I think that 1% on the $64,000,000 of the new issue paid as a commission to Morgan is O.K. and not unreasonable, especially if they assume the responsibility of the underwriting which to my mind an underwriting carries with it.

The sale of 600,000 shares of stock for $10,000,000 to Morgan & Co. as scheduled, I think, is basicly sound and proper with the exception that it does not seem quite O.K. to have DuPont sell a block of it at $20; At the same time the Finance Committee of the General Motors Co. controlled by DuPont, selling a block at $10.

I would suggest that in lieu of DuPont selling a block at $20 that Morgan absorb for themselves from the unsubscribed rights a like amount at $20 and have DuPont agree that should there not be sufficient rights available for that purpose, they would make up the deficit by selling stock at $20.

As regards the commission of 5% for distributing stock other than that absorbed by Nobel and by Morgan, included in the $10,000,000: This seems rather high but I believe is warranted if Morgan assumes the responsibility of the transaction and does not call on DuPont to take up any losses which might occur by failure of a brokerage firm participating.

After all, the bulk of the amount paid Morgan as recited above, comes from the reduced price on the block of stock sold by General Motors. If that transaction is legal, it is all right, for I believe the benefits accruing to General Motors is worth the cost.

If there is anything not clear in this short summary I will be in Wilmington on Monday and you can call me on the phone.

Very truly yours,

Irénée du Pont

Copy to—Mr. Lammot du Pont

NOTE: "File Copy" is printed across each page and 36 is written at the top of the first page. "Gmc-864" appears in the lower right hand corner of each page.

Government's Exhibit No. 144

July 16th, 1920.

Edward R. Stettinius, Esquire,
J. P. Morgan & Company,
23 Wall St., New York City.

My dear Mr. Stettinius:

I fail to express to you in words my deep appreciation of your interest in General Motors affairs and the satisfaction that comes to us in knowing that our views of the motor industry are supported by the house of Morgan and your associates. The industry has assumed such large proportions that I have felt for a long time the necessity for having our group more closely connected with large interests, in order that harmonious action should be insured. We wish you and the other new directors to feel that General Motors is an open book to you; that all questions will be considered by all of us; that no criticism or suggestion will be received in an unfriendly way; and that we look forward to a continuation of the entire harmony that has existed in the duPont and General Motors group for many years.

With best wishes for the success of our mutual interests, I remain

Sincerely yours,

17

NOTE: "624", "FAM", "RTE" and one set of illegible initials are written at the top. "P S du Pont" is printed across each page. "GMC-792a" appears in the lower right-hand corner of this page.

Government's Exhibit No. 145

23 Wall Street
New York

July 20, 1920.

Mr. Pierre S. duPont,
Wilmington, Delaware.

My dear Mr. duPont,

I appreciate sincerely your very cordial letter of the 16th. We too look forward with pleasure to a more intimate association in General Motors with you and your colleagues and we all hope and believe that the results of our combined efforts will be satisfactory to all of us. I need not tell you that however attractive General Motors may have been to us, it would not have received the support we have given it had it not been for your active connection with and interest in the Company.

With all good wishes, and hoping that you will never fail to call upon me and my associates at any time when we can serve the cause, I am

Yours sincerely,
Edwd R Stettinius

Government's Exhibit No. 153

November 22, 1920.

To DU PONT SECURITIES COMPANY

Dear Sirs:

The undersigned hereby accept your offer of this date in reference to the lending to your Corporation by the undersigned of certain shares of common stock (without par value) of General Motors Corporation, and to the purchase or underwriting of not exceeding $20,000,000 principal amount of your One-Year Secured 8% Bonds.

The undersigned beg to advise you that they have arranged with Messrs. J. P. Morgan & Co. for account of a Syndicate of purchasers, to purchase such of the said amount of your Bonds as your Corporation shall issue, and to pay therefor in cash the principal amount plus any accrued interest. You will please deliver the Bonds to J.P.Morgan & Co. at their office.

You are also requested to issue to J.P.Morgan & Co. or their nominees 20,000 shares of your common stock out of the 60,000 shares of such stock issuable to the undersigned for the considerations stated in your said offer.

Yours very truly,

Du Pont American Industries Inc.
Irénée du Pont Presid.

Chevrolet Motor Co
J J Raskob V.P

Inc - 440

Government's Exhibit No. 154

AGREEMENT made as of the 22nd day of November, 1920, by and between

DU PONT SECURITIES COMPANY, a corporation of the State of Delaware, hereinafter called the Securities Company, party of the first part;

W. C. DURANT, of Deal, New Jersey, hereinafter called the Seller, party of the second part; and

DU PONT AMERICAN INDUSTRIES, INC. and CHEVROLET MOTOR COMPANY, hereinafter called collectively the Lenders, party of the third part.

WHEREAS, under date of November 22, 1920, the Seller entered into an agreement with the Securities Company whereby he agreed to assign and transfer or to cause to be assigned and transferred to the Securities Company 2,546,548-29/40 shares of the common stock (without par value) of the General Motors Corporation, in consideration of the payment by the Securities Company of the sum of $9.50 in cash for each and every share delivered under said contract and the issue by the Securities Company of 40,000 shares of the common stock of the Securities Company; and

WHEREAS, under date of November 22, 1920, the Lenders entered into an agreement (evidenced by the communication to them from the Securities Company and their acceptance of the proposition therein set forth) whereby they severally, in proportions in said agreement specified, agreed to lend to the Securities Company not exceeding in the aggregate 1,340,000 shares of such common stock (without par value) of the said General Motors Corporation with authority to pledge such shares as in said

agreement stated, and further agreed to cause to be purchased $20,000,000. principal amount of the One-Year Secured 8% Bonds of the Securities Company as in said agreement specified in consideration of the issue to them in the said proportions in said agreement stated of 60% of the common stock of the Securities Company; and

WHEREAS, there have been delivered under the said agreement with the Seller 2,504,273-29/40 shares of said common stock of the General Motors Corporation, on account of which there has been paid the sum of $9.50 per share, aggregating $23,790,600.40, and the Lenders have agreed to lend to ~~this~~ *the Securities* Company, in the several proportions stated in their agreement aforesaid 1,373,631-11/40 (instead of 1,340,000) shares of said common stock of the General Motors Corporation without additional consideration passing to the Lenders from the Securities Company; and

(W.C.D.)
J.J.R.

WHEREAS, the Lenders as the original subscribers for all of the preferred stock of the Securities Company, and the Seller and the Lenders, as the persons originally entitled to receive all of the common stock of the Securities Company under their said agreements, have agreed that said agreement between the Seller and the Securities Company and the said agreement between the Lenders and the Securities Company shall be amended as in this agreement set forth, and the Securities Company is willing to assent to the amendments of the said agreements in order that it may have the aggregate amount of stock necessary

to enable it to carry out the plan for the purposes of which the Securities Company was formed:

Now, Therefore, This Agreement Witnesseth:

That in consideration of the premises and of the advantages to accrue to the Securities Company in enabling it to carry out the plan for the purposes for which it was organized, and accordingly of the benefit and advantage to accrue to the *Seller* and the Lenders as persons originally subscribing for or entitled to receive all of the capital stock of the Securities Company, and of the mutual agreements of the parties herein contained, it is agreed by and between the several parties hereto as follows, viz:

(W.C.D.)
I.J.R.

First. The said agreement between the Seller and the Securities Company dated November 22, 1920, is hereby amended so that the number of shares of said common stock of the General Motors Corporation which the Seller is therein obligated to assign and transfer, or cause to be assigned and transferred, shall be reduced from 2,546,548-29/40 shares to 2,504,273-29/40 shares; and that as so amended the said agreement be and the same hereby is confirmed.

Second. The said agreement between the Lenders and the Securities Company dated November 22, 1920, is hereby amended so that the aggregate number of the shares of said common stock of the General Motors Corporation to be loaned to the Securities Company by the Lenders, for the purposes and in the several proportions in said agreement stated, shall be increased from 1,340,000 shares to 1,373,631-11/40 shares, and that as so amended said agreement be and the same hereby is confirmed.

(*W.C.D.*)
J.J.R.

THIRD. The Securities Company agrees to reissue the said 40% of its common stock to the *Seller*, and the said 60% of its common stock to the Lenders, respectively, at issue prices which shall make the same conform to the reduced number of shares delivered by the Purchaser and the increased number of shares lent by the Lenders.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

DU PONT SECURITIES COMPANY
By /s/ PIERRE S. DU PONT
President

Attest:
/s/ J. J. RASKOB
Secretary

W. C. DURANT (L. S.)

[SEAL]

DU PONT AMERICAN INDUSTRIES, INC.
By /s/ IRENEE DU PONT
Vice President

Attest:
/s/ ALEXIS I. DU PONT
Secretary

[SEAL]

CHEVROLET MOTOR COMPANY
By /s/ J. J. RASKOB
Vice President

Attest:
/s/ J. T. SMITH
Secretary

[SEAL]

THIS AGREEMENT made this 22nd day of November, 1920, by and between

W. C. DURANT of Deal, New Jersey, hereinafter called the Seller, party of the first part; and

DU PONT SECURITIES CORPORATION, a corporation of Delaware, hereinafter called the Purchaser, party of the second part.

WHEREAS, the Seller *and another, severally, are* ~~is~~ the owners of 2,546,548 29/40 shares of the common stock of no par value of General Motors Corporation, a corporation of the State of Delaware, and desire~~s~~ to sell the same to the Purchaser, and the Purchaser desires to purchase such stock, upon and for the considerations hereinafter stated; and

WHEREAS, the Purchaser has an authorized capital stock of which 100,000 shares are common stock without par value or voting power, and the remaining authorized shares are cumulative 8% preferred stock of the par value of $100 per share, (entitled to preferential dividends at the rate of 8% per annum and upon liquidation to the payment of the par value thereof and unpaid dividends, before any dividends or any payments upon liquidation shall be made on the common stock) of which 70,000 shares are presently to be issued.

NOW, THEREFORE, THIS AGREEMENT WITNESSETH:

That in consideration of the sum of one dollar by each of the parties hereto to the other in hand paid, the receipt whereof is hereby acknowledged, and of the mutual agreements hereinafter set forth, the parties hereto have agreed and hereby do agree as follows, to wit:

1. The Seller hereby assigns and transfers *or will cause to be assigned and transferred* to the Purchaser 2,546,548 29/40 shares of the common stock (without par value) of General Motors Corporation, and will deliver, or cause to be delivered, to the Purchaser at the office of J. P. Morgan & Co., on or before December 10, 1920, certificates of such stock, duly assigned in blank for transfer.

2. The Purchaser shall make payment for the said shares of the General Motors Corporation assigned, transferred and delivered as aforesaid, as follows:

(a) By the payment in cash of a sum equal to $9.50 for each and every share so delivered, upon the delivery of certificates of such stock as hereinabove provided;

(b) By the issue to the Seller, or upon his order, ~~but to be held in escrow as hereinafter provided~~, of 40,000 shares (being 40% of the authorized issue) of the common stock (without par value) of the Purchaser; such issue of such stock to be made in due course upon the completion of the delivery of the shares of stock of the General Motors Corporation sold to the Purchaser ~~by the Seller~~ as provided in Article First of this agreement.

In witness whereof the parties execute and deliver this agreement at New York City, the day and year first above written.

/s/ W. C. Durant L. S.
du Pont Securities Corporation
By /s/ Pierre S du Pont

Note. Italics indicate handwritten entries. All cross outs have been made by hand.

November 22, 1920.

To Du Pont American Industries, Inc. and
Chevrolet Motors Company.

Dear Sirs:

Referring to the Plan for the acquisition by this Corporation of certain shares of the common stock (without par value) of the General Motors Corporation, with which Plan you are familiar, the undersigned Corporation will issue to you 60% of its authorized common stock without par value or voting power, in the relative amounts to you hereinafter stated, for the following considerations:

1. The loan by you to this Corporation of such General Motors Corporation common stock in several amounts not exceeding in the aggregate 1,340,000 shares; such shares to be pledged by the Corporation with Bankers Trust Company, Trustee, under the Indenture referred to in said Plan (such Indenture to be substantially in the form of which a copy is hereto attached), as part of the security for an issue of One-Year Secured 8% Bonds of the Corporation for a principal amount not exceeding $20,000,000; the stock so pledged to be subject to all the provisions of said Indenture for the enforcement thereof or otherwise, but pending any default as set forth in said Indenture, you to be entitled to receive any and all cash dividends on such stock from time to time as received according to your respective interests, and any and all stock dividends, together with the stock loaned as aforesaid, to be returned to you upon the satisfaction of the Indenture.

2. An undertaking on your part to cause $20,000,000 of

the said bonds of the Corporation, or such lesser amount as the Corporation shall issue, to be purchased, or the sale thereof to be underwritten, at the par value plus any accrued interest.

We understand that your relative participations in the transaction herein proposed are as follows:

Du Pont American Industries, Inc.	60%
Chevrolet Motors Company	40%

Yours very truly,

Du Pont Securities Company
By /s/ George H. Gardiner
Vice President.

Note. At top of page 1 is written "(Original)"

Government's Exhibit No. 155

DU PONT SECURITIES COMPANY

Board of Directors.

* * * * * *

The first meeting of the Board of Directors of Du Pont Securities Company was held at No. 23 Wall Street, in the Borough of Manhattan, City and State of New York, on November 22, 1920, at 3: o'clock P. M.

Present: Messrs. Pierre S. duPont, Dwight W. Morrow and Edward R. Stettinius, constituting the whole Board of Directors.

Mr. duPont was chosen temporary chairman and Mr. John J. Raskob acted as temporary secretary of the meeting.

Mr. Stettinius presented his resignation as a director of the Company, and Mr. John J. Raskob was duly elected a director in his stead and thereupon appeared and took his place as such.

Mr. Morrow then presented his resignation as a director of the Company and Mr. George H. Gardiner was thereupon elected as director in his place and thereupon took his place as such.

The minutes of the first meeting of the incorporators were read and approved.

The following persons were named for officers of the Company to serve until their respective successors are chosen and qualify:

President:	Pierre S. duPont
Vice President:	George H. Gardiner
Secretary and Treasurer:	John J. Raskob
Assistant Secretary and Assistant Treasurer:	Graham Ashmead.

A ballot having been duly had and all the directors present having noted, the Chairman announced that the aforesaid persons had been unanimously elected to the offices specified respectively.

The Secretary thereupon subscribed and swore to the oath of office and entered upon the discharge of his duties.

The by-laws of the Company as adopted at the first meeting of the incorporators held this day, were presented to the meeting. Upon motion duly made, seconded and carried, it was unanimously

> RESOLVED, that the by-laws now submitted to the meeting be and they hereby are approved and adopted, as and for the by-laws of this Company.

On motion duly made, seconded and carried it was

> RESOLVED, that the Vice President be and hereby he is authorized to prepare and arrange for the printing of proper certificates of the preferred stock and common stock of the Company.

On motion duly made, seconded and carried it was

> RESOLVED, that the seal, an impression of which is herewith affixed, be adopted as the corporate seal of the Company.

The Secretary was authorized and directed to procure the proper corporate books.

On motion duly made, seconded and carried, it was

> RESOLVED, that the Treasurer of this Du Pont Securities Company be and hereby he is authorized to open a bank account in behalf of the Company with Messrs. J. P. Morgan & Co. and with Bankers Trust Company; and further

> RESOLVED, that until otherwise ordered, each of such depositaries be and hereby is authorized to make payments from the funds of this Company on deposit with it upon and according to the check of this Company signed by any two of the following persons:

Pierre S. duPont
John J. Raskob
George H. Gardiner
Walter H. Wilson
C. D. Hartman, Jr.

Upon motion duly made, seconded and carried, it was

> RESOLVED, that Irenee duPont be and hereby he is appointed the agent of this Company, in charge of the principal office in Delaware and of the books required by law to be kept in that office, and the agent upon whom process against this Company may be served in accordance with the laws of Delaware.

The President reported that Du Pont American Industries, Inc. and the

Chevrolet Motor Company would subscribe, or cause to be subscribed for, at par payable in cash, 69,980 shares (being the authorized issue less the 20 shares subscribed for by the incorporators) of the Cumulative 8% Preferred Stock of the Company and stated that it was in order for the Board fo authorise the acceptance of such subscriptions and the issue of such stock upon payment therefor.

Thereupon the following resolutions were unanimously adopted:

> RESOLVED, that the proper officers of this Du Pont Securities Company be and hereby they are authorised to receive from Du Pont American Industries, Inc., and the Chevrolet Motor Company, or from subscribers obtained by them, subscriptions at par in cash for 69,980 shares of the Cumulative 8% Preferred Stock of this Company; and that this Company issue such preferred stock to such subscribers severally and respectively for the amounts subscribed for by each, upon receiving payment of the subscription price.

The President then laid before the Board the following instruments which had been prepared to accomplish the purposes for which this Company was organised:

(1) A communication from this Company to Du Pont American Industries, Inc. and Chevrolet Motor Company, whereunder this Company is to issue 60,000 shares, being 60% of its authorised common stock for the considerations specified in said communication;

(2) Agreement between W. C. Durant and this Company whereunder this Company purchases 2,546,548-29/40 shares of the common stock (without par value) of the General Motors Corporation for the considerations therein mentioned;

(3) Form of Collateral Indenture, dated November 22, 1920, between this Company and Bankers Trust Company, Trustee, securing an authorized issue of $20,000,000 One-Year Secured 8% Gold Bonds of the Corporation and pledging thereunder shares of common stock (without par value) of the General Motors Corporation as therein provided;

(4) Form of temporary Bond to be issued by this Corporation pending the preparation of the definitive Bonds issuable under said Indenture.

The President requested the action of the Board on the proposed agreement first submitted by him.

Thereupon on motion, the following resolutions were adopted by the affirmative vote of all the Directors:

> RESOLVED, that this Du Pont Securities Company enter into an agreement with Du Pont American Industries Company and Chevrolet Motor Company, to be evidenced by an offer in writing addressed to them in the following form, and their acceptance of such offer, viz:
>
> " THIS AGREEMENT made this 22nd day of November, 1920, by and between
>
> W. C. DURANT of Deal, New Jersey, hereinafter called the Seller, party of the first part; and
>
> DU PONT SECURITIES COMPANY, a corporation of Delaware, hereinafter called the Purchaser, party of the second part.
>
> WHEREAS, the Seller and another, severally are the owners of 2,546,548-29/40 shares of the common stock of no par value of General Motors Corporation, a corporation of the State of Delaware, and desire to sell the same to the Purchaser, and the Purchaser desires to purchase such stock, upon and for the considerations hereinafter stated; and
>
> WHEREAS, the Purchaser has an authorized capital stock of which 100,000 shares are common stock without par value or voting power, and the remaining authorized shares are cumulative 8% preferred stock of the par value of $100 per share, (entitled to preferential dividends at the rate of 8% per annum and upon liquidation to the payment of the par value thereof and unpaid dividends, before any dividends or any payments upon liquidation shall be made on the common stock) of which 70,000 shares are presently to be issued.
>
> NOW, THEREFORE, THIS AGREEMENT WITNESSETH:
>
> That in consideration of the sum of one dollar by each of the parties hereto to the other in hand paid, the receipt whereof is hereby acknowledged, and of the mutual agreements hereinafter set forth, the parties hereto have agreed and hereby do agree as follows, to wit:
>
> 1. The Seller hereby assigns and transfers or will cause to be assigned and transferred to the Purchaser 2,546,548-29/40 shares of the common stock (without par value) of General Motors Corporation, and will deliver or cause to be delivered, to the Purchaser at the office of J. P. Morgan & Co. on or before December 10, 1920, certificates of such stock, duly assigned in blank for transfer.
>
> 2. The Purchaser shall make payment for the said shares of the General Motors Corporation assigned, transferred and delivered as aforesaid, as follows:

" (a) By the payment in cash of a sum equal to $9.50 for each and every share so delivered, upon the delivery of certificates of such stock as hereinabove provided;

(b) By the issue to the Seller, or upon his order, of 40,000 shares (being 40% of the authorized issue) of the common stock (without par value) of the Purchaser; such issue of such stock to be made in due course upon the completion of the delivery of the shares of stock of the General Motors Corporation sold to the Purchaser as provided in Article First of this Agreement.

IN WITNESS WHEREOF, the parties execute and deliver this agreement at New York City, the day and year first above written.

____________________________L.S.

DU PONT SECURITIES COMPANY

By "

(2) RESOLVED, that in the judgment of the Board of Directors the consideration for which this Company in said communication offers to issue 60,000 shares of its common stock is necessary for the business and purposes of this Company and is a good and sufficient consideration for the shares of common stock of this Company to be issued in payment therefor.

The Board then took a recess. The meeting having reconvened, the President presented a communication from the Du Pont American Industries, Inc., and Chevrolet Motor Company accepting the said offer of this Company authorized at this meeting, and advising this Company that in performance of their undertaking in the premises contained in the agreement constituted by said offer and acceptance, they had arranged with Messrs. J. P. Morgan & Co. in behalf of a Syndicate of purchasers formed by them to purchase such principal amount (not exceeding $20,000,000) of the said One-Year Secured 8% Bonds of this Company authorized at this meeting as the Company shall issue, and to pay therefor the principal amount (plus any accrued interest) of the Bonds issued and delivered.

Thereupon the following resolution was adopted by the affirmative vote of all of the Directors:

(3) RESOLVED, that in performance of its obligation in the premises, this Du Pont Securities Company issue 60,000 shares of its

common stock for the consideration of $10 per share, and of the aggregate consideration of $600,000, the said amount being not less than the value in the judgment of the Board of Directors of the consideration receivable by this Company therefor as set forth in the accepted offer of this Company to Du Pont American Industries, Inc., and Chevrolet Motor Company authorized at this meeting, and that certificates of such stock be issued to or in the names of the nominees of the persons entitled to said stock pursuant to said offer and acceptance..

(4) RESOLVED, that this Company sell and deliver to J. P. Morgan & Co. for account of a Syndicate formed by them, such principal amount, not exceeding the $20,000,000 principal amount authorized, as this Company shall issue of the One-Year Secured 8% Bonds of this Company referred to in the aforesaid offer and acceptance, for a consideration, to be received by this Company and to be paid by the purchasers, in cash, equal in amount to the principal amount of the Bonds issued and delivered plus any accrued interest.

The President thereupon invited the action of the Board upon the contract with W. C. Durant which had been submitted to this meeting.

Thereupon, on motion, the following resolutions were adopted by the affirmative vote of all of the Directors.

(5) RESOLVED, that this Du Pont Securities Company enter into an agreement with W. C. Durant for the purchase from him by this Company of 2,546,548-29/40 shares (without par value) of the common stock of General Motors Corporation, in consideration of (a) the payment by this Company in cash of $9.50 for each and every share delivered, and (b) the issue of 40,000 shares (being 40% of the authorized issue) of the common stock of this Company, such agreement to be substantially in the following form:

" November 22, 1920.

To DU PONT AMERICAN INDUSTRIES, INC. and
CHEVROLET MOTOR COMPANY.

Dear Sirs:

Referring to the Plan for the acquisition by this Corporation of certain shares of the common stock (without par value) of the General Motors Corporation, with which Plan you are familiar, the undersigned Corporation will issue to you 60% of its authorised common stock without par value or voting power, in the relative amounts to you hereinafter stated, for the following considerations:

1. The loan by you to this Corporation of such General Motors Corporation common stock in several amounts not exceeding in the aggregate 1,340,000 shares; such shares to be pledged by the Corporation with Bankers Trust Company, Trustee, under the Indenture referred to in said Plan (such Indenture to be substantially in the form of which a copy is hereto attached, as part of the

"security for an issue of One-Year Secured 6% Bonds of the Corporation for a principal amount not exceeding $20,000,000; the stock so pledged to be subject to all the provisions of said Indenture for the enforcement thereof or otherwise, but pending any default as set forth in said Indenture, you to be entitled to receive any and all cash dividends on such stock from time to time as received according to your respective interests, and any and all stock dividends, together with the stock loaned as aforesaid, to be returned to you upon the satisfaction of the Indenture.

2. An undertaking on your part to cause $20,000,000 of the said bonds of the Corporation, or such lesser amount as the Corporation shall issue, to be purchased, or the sale thereof to be underwritten, at the par value plus any accrued interest.

We understand that your relative participations in the transaction herein proposed are as follows:

Du Pont American Industries, Inc.	60%
Chevrolet Motor Company	40%

Yours very truly,

DU PONT SECURITIES COMPANY

By

Vice President."

(Copy of Indenture Annexed)

(6) RESOLVED, that any previous execution of said Agreement in behalf of this Company be and hereby the same is adopted, ratified and confirmed.

(7) RESOLVED, that in the judgment of the Board of Directors the acquisition of said stock is necessary for the business of this Company and is a good and sufficient consideration for the shares of common stock of this Company to be issued in part payment therefor.

(8) RESOLVED, that in performance of its obligation in the premises, this Company issue 40,000 shares of its common stock for the consideration of $383 per share, being an agregate consideration of $15,320,000, the said amount being the value in the judgment of the Boardof Directors of the property purchased under said contract in addition to the cash payment to be made therefor as provided therein, and that said stock and the certificates thereof be issued according to the order of the said W. C. Durant.

The President then stated that it was in order to authorize the proposed bond issue and the Indenture to secure such Bonds.

On motion, the following resolutions were adopted by the affirmative vote of all the Directors:

(9) RESOLVED, that the President and the Secretary of this Du Pont Securities Company be and hereby they are authorized and directed to execute under its corporate seal, and to deliver, with and to Bankers Trust Company, a Collateral Indenture dated November 22, 1920, to secure an authorized issue of $20,000,000 principal amount of One-Year Secured 8% Gold Bonds of the Company dated November 22, 1920, payable November 22, 1921, but subject to redemption at 101% of the principal sum and any accrued interest at any time prior to May 22, 1921, and at 100½% of the principal sum and any accrued interest on that date or on any date thereafter prior to maturity, the Indenture and the form of the Bonds issuable thereunder to be substantially in the form submitted at this meeting.

(10) RESOLVED, that as provided in such Indenture this Company does pledge with and deliver to said Bankers Trust Company as Trustee under said Indenture, 200 shares (without par value) of the common capital stock of General Motors Corporation for each $1,000 principal amount of Bonds issued under said Indenture; and that the proper officers of this Company be and hereby they are authorized so to pledge and deliver any or all shares of the said General Motors Corporation common stock, and the certificates thereof acquired by this Company under the agreement with W. C. Durant and under the agreement with Du Pont American Industries, Inc., and Chevrolet Motor Company, this day authorized by the Board of Directors.

(11) RESOLVED, that pending the preparation of the definitive Bonds au-

thorised to be issued under this Indenture, the proper officers of this Company be and hereby they are authorised to execute, and the Trustee under said Indenture is hereby authorised and requested to certify and to deliver to J. P. Morgan & Co or order, a Bond or Bonds in temporary form as authorised under said Indenture and of any denomination or denominations acceptable to J. P. Morgan & Co., for principal amounts bearing the ratio of $1000 principal amount of the Bonds to each 200 shares of said General Motors Corporation common stock pledged under said Indenture; and from time to time to execute, certify and deliver other temporary Bonds in exchange and upon cancellation of any temporary Bonds theretofore issued, and also definitive Bonds, if and when prepared, in exchange for any outstanding temporary Bonds, all as provided in said Indenture.

The President also reported that as part of the Plan there had been arranged in behalf of the Company a sale to this Company by a Syndicate organised under a Syndicate Agreement dated July 16, 1920, of which J. P. Morgan & Co. are Syndicate Managers, for the purchase by this Company, in addition to the shares to be acquired from W. C. Durant, of 122, 095 shares of the said General Motors Corporation common stock held by such Syndicate, at the net cost (including interest) of said stock to said Syndicate, viz., $17.72+ per share.

Thereupon on motion the following resolution was adopted by the affirmative vote of all of the Directors:

(12) RESOLVED, that this Company purchase from the Syndicate organised under a Syndicate Agreement dated July 16, 1920, of which J. P. Morgan & Co. are Syndicate Managers, 122, 095 shares (without par value) of common stock of the said General Motors Corporation held by such Syndicate, at the net cost (including interest) of said stock to said Syndicate, being $17.72+ per share, the exact price, being such net cost, to be ascertained by the Treasurer of the Company, and that the purchase price of such stock be paid by the Company in cash.

Thereupon, on motion, the following resolution was adopted:

(13) RESOLVED, that the proper officers of the Company be and hereby are authorized to execute any writings and to perform any acts necessary or proper to carry out and consummate the purpose of the resolutions adopted at this meeting,

Thereupon, on motion, the meeting adjourned.

____
Secretary.

NOTE: Seal of DuPont Securities Company appears on first and second pages.

Government's Exhibit No. 156

E. I. du Pont de Nemours & Company
Incorporated

ADVICE OF ACTION

January 18, 1921

Mr. J. J. Raskob, V. P.

Subject Proposed plan to purchase Mr. W. C. Durant's Interest in du Pont Securities Company—Loan to him of $500,000:

Action taken by Finance Committee
at meeting January 17, 1921

Remarks

Referring to your report of January 17, 1921, in connection with the above subject:

It was moved and unanimously carried that this report be received and ordered filed and that a copy of same be transmitted to the Executive Committee of duPont American Industries, Inc. with the recommendation that the plan outlined therein be approved.

M. D. Fisher (Stamp)
Sec'y Finance Committee

8

Note. "Return to Room 9059" stamped and "F-402" written at top of document; "Return to Executive Committee Room 9069" stamped at bottom.

3347

January 17, 1921.

TO: FINANCE COMMITTEE,
E. I. DUPONT DE NEMOURS & COMPANY,

FROM: J. J. RASKOB.

Mr. W. C. Durant, as you know, has a 40% interest in the common stock of the DuPont Securities Company, represented by 40,000 shares of no-par-value. I would like to recommend that an offer to purchase said 40,000 shares be made to him, paying therefor 230,000 shares of General Motors Corporation common stock.

It is understood that Mr. Durant will require approximately 95,000 shares of said stock for delivery to certain interests which he ~~represents~~ *owes* leaving a balance of 135,000 shares on which he would like to secure a loan of $500,000. for one year with the right to the lender to purchase said 135,000 shares at any time within twelve months at $15. per share.

My suggestion is that the DuPont Securities Company make this loan and take this option as they have upwards of $2,000,000 cash on hand.

Will the Finance Committee kindly approve this plan

/s/ J. J. RASKOB.

NOTE. "Return to Executive Committee Room 9069" stamped at bottom of document. Italics indicate pencil changes and notation.

Government's Exhibit No. 157

AGREEMENT

—between—

DuPONT AMERICAN INDUSTRIES, INC.
DuPONT SECURITIES COMPANY

—and—

W. C. DURANT

JOHN THOMAS SMITH
ATTORNEY AND COUNSELLOR AT LAW
224 WEST 57TH STREET
NEW YORK

AGREEMENT, made this thirty-first day of December, 1920, between DuPont American Industries, Inc., a corporation of Delaware, hereinafter called "Industries Company", first party, DuPont Securities Company, also a corporation of Delaware, hereinafter called "Securities Company", second party, and W. C. Durant, of the Borough of Deal, State of New Jersey, third party,

WITNESSETH:

Whereas the said Durant and the Industries Company have heretofore entered into an agreement dated October 26th, 1920, whereby the said Industries Company loaned to the said Durant one million three hundred seven thousand four hundred ninety-nine (1,307,499) shares of the no par Common Capital Stock of General Motors Corporation, and the said Durant pledged as security for the return thereof, ninety-five thousand (95,000) shares of the Common Capital Stock of Chevrolet Motor Company; and

Whereas the said Durant desires to sell and the Industries Company desires to purchase forty thousand (40,000) shares of the Common Stock of the DuPont Securities Company,

Now, therefore, in consideration of the premises,

—2—

the covenants herein contained and other valuable considerations, it is hereby agreed by and between the parties hereto as follows:

Article I. Said Durant hereby agrees to sell and the Industries Company hereby agrees to purchase forty thousand (40,000) shares of the Common Stock of the DuPont Securities Company, receipt whereof is hereby acknowledged, by said Industries Company, and to pay therefor two hundred thirty thousand (230,000) shares of the Common Capital Stock of General Motors Corporation, receipt whereof is hereby acknowledged by the said Durant.

Article II. The agreement between the said Durant and the Industries Company, dated October 26th, 1920 is hereby cancelled, and the said one million three hundred seven thousand four hundred ninety-nine (1,307,499) shares of General Motors common stock is acquired by the said Durant at the price of Ten ($10) Dollars a share, and payment made therefor by the delivery of the said ninety-five thousand (95,000) shares of Chevrolet stock, receipt of said Chevrolet stock being acknowledged by the Industries Company, and of the General Motors stock by the said Durant.

Article III. The Industries Company hereby agrees to cause the *DuPont* Securities Company to lend to the said Durant the sum of Five hundred thousand ($500,000) Dollars to be evidenced by the promissory note of the said Durant payable one year from the date hereof, with interest at the rate of six (6%) per cent. per annum, and secured by one hundred seventy-four thousand seven hundred twenty-one (174,721) shares of the Common Capital Stock of General

Motors Corporation, fifty-five thousand one hundred fifty-nine (55,159) shares of which shall be represented by the assignment of fifty-five thousand one hundred fifty-nine (55,159) shares of the sixty-five thousand six hundred sixty-five (65,665) shares of stock subscribed by the said DURANT, in respect of which Two ($2) Dollars a share has been paid to General Motors Corporation, and the balance of Eighteen ($18) Dollars a share was due and payable as of the first day of December, 1920.

ARTICLE IV. The said DURANT agrees to sell and deliver to the INDUSTRIES COMPANY or its nominee, all or any part of one hundred seventy-four thousand, seven hundred twenty-one (174,721) shares of the Common Capital Stock of General Motors Corporation pledged as collateral security for the said Five hundred thousand ($500,000) Dollar note at the price of Fifteen ($15) Dollars a share, payments and deliveries to be made at the office of General Motors Corporation, No. 224 West 57th Street, Borough of Manhattan, City of New York.

IN WITNESS WHEREOF, the parties hereto have hereunto

set their hands and caused these presents to be executed the year and day above mentioned.

DUPONT AMERICAN INDUSTRIES, INC.
By
/s/ J. J. RASKOB
Vice-President

Attest:
/s/ ALEXIS I. DU PONT
Secretary

DuPont Securities Company

By

/s/ Pierre S. duPont
President

Attest:

/s/ J. J. Raskob
Secretary

/s/ W. C. Durant

Note: "gmc-1011" appears in the lower right-hand corner of each page. Seal of DuPont American Industries, Inc. and illegible seal appear on page 4 of document.

4

Government's Exhibit No. 158

DU PONT AMERICAN INDUSTRIES, INC.

BOARD OF DIRECTORS.

OFFER OF CHEVROLET MOTOR COMPANY TO SELL AND DELIVER TO E. I. DUPONT DENEMOURS & CO. ITS ENTIRE INTEREST IN THE DU PONT SECURITIES COMPANY, AND ASSIGNMENT OF SAID OFFER TO THIS COMPANY:

The following resolution was introduced and, on motion duly seconded, was unanimously adopted:-

WHEREAS, the Chevrolet Motor Company has offered to sell and deliver to E.I.duPont deNemours and Company its entire interest in the duPont Securities Company consisting of 28,000 shares of the preferred stock of said Company and 16,000 shares of the common stock without par value of said Company, and to accept in payment therefor $2,800,000.00 in cash, together with accrued dividends on said preferred stock at the rate of 8% per annum to date of payment, and 92,000 shares of the common stock without par value of General Motors Corporation, and also to sell and deliver to this Company 276,000 shares of the common stock of General Motors Corporation at a price of $13. per share; and

WHEREAS, said offer was received by said E.I.duPont deNemours and Company, as sole stockholder of this Company, for the account and benefit of this Company, which offer has heretofore been duly assigned and transferred to this Company;

Resolved, that said offer be and the same is hereby accepted, provided, however, that the Chevrolet Motor Company agree to the following modification and addition thereto, viz:-

(a) That this Company shall pay for the 28,000 shares of the preferred stock of duPont Securities Company $2,800,000.00 in cash, together with accrued dividends on said preferred stock at the rate of 8% per annum to date of payment;

(b) That this Company shall pay for the 16,000 shares of the common stock without par value of said duPont Securities Company $1,564,000.00 in cash;

(c) That this Company shall purchase 184,000 shares of the common stock of General Motors Corporation without par value and pay therefor $11. per share, aggregating in all the sum of $2,024,000.00;

(d) That as a part of the consideration for the purchase of said stock the Chevrolet Motor Company shall loan to this Company up to 3,500,000 shares of General Motors Corporation common stock without par value, to be pledged under a collateral indenture, dated May 1, 1921, made by this Company and the Wilmington Trust Company, Trustee, to secure an issue of $25,000,000.00 Secured Serial 6% Gold Bonds of this Company, it being agreed that the stock so borrowed, or an equal number of shares of General Motors Corporation common stock without par value, shall be returned to the Chevrolet Motor Company on demand of the Chevrolet Motor Company.

The acceptance of said offer as herein modified to become binding upon this Company when the same as herein modified is accepted by resolution of the Board of Directors of the Chevrolet Motor Company.

FURTHER RESOLVED, that upon the acceptance of the modification of said offer by the Chevrolet Motor Company as aforesaid, the proper officers of this Company be and they hereby are authorized and directed to do all further acts and things necessary or incident to completing this transaction.

This is to certify that the above is a true and correct copy of resolution unanimously adopted by the Board of Directors of DuPont American Industries, Inc. at meeting held May 31, 1921.

M. D. Fisher, Asst. Sec'y
du Pont American Industries, Inc.

2.

[Corporate Seal]

NOTE: Italics indicate handwriting. "TD-160" is written at top of page. "gmc 1108" is written at bottom of page.

Government's Exhibit No. 161

April 2nd, 1921.

To: FINANCE COMMITTEE
E. I. DUPONT DE NEMOURS & CO.

FROM: J. J. RASKOB

Since the meeting of the Board of Directors last Monday much careful thought has been given the best method of securing;

(a). The separation of our investment in General Motors Corporation from our other properties, and

(b) The matter of permanently financing the Durant purchase, which was temporarily financed through the formation of the duPont Securities Company, whose notes come due next November.

I recommend the adoption of a plan substantially along the following lines: The details of this plan may be changed and it therefore should be merely tentatively adopted now, with the understanding that the plan as finally drawn will be presented to your committee for transmission to the Board before final adoption.

FIRST: The duPont Company will pay—

On account of bank loans, say, ...	$7,000,000.00
On account Christiana Securities Co. Note	2,800,000.00
On account of DuPont-Nobel Subscription	4,000,000.00
Take up duPont Securities Indebtedness	17,000,000.00
Purchase Chevrolet Motor Company's interest in duPont Securities—preferred stock—	2,800,000.00
TOTAL	$33,600,000.00

To secure these funds that the duPont Company will sell, through J. P. Morgan & Company, $30,000,000.00 ten-year 7½% notes, without sinking fund, but with provisions for retirement. These notes to be sold to the public at par, but the Company to sell them to a underwritng syndicate at, say, 95% and the underwriting syndicate to offer them to a distributing syndicate at, say, 96%.

—2—

This will net the Company in cash, at 95%,	$28,500,000.00
Additional cash to be secured from stockholders, under plan hereinafter outlined, approximately,	5,250,000.00
TOTAL,	$33,750,000.00

* * * * * * * * * * *

The second part of the proposed plan which I recommend for tentative adoption is as follows:—

FIRST: Form the Du Pont Securities Company under the laws of the State of Delaware, (the present company may be used for this purpose if desirable) which will purchase from the du Pont Company 7,000,000 shares of General Motors common stock, issuing to the du Pont Company in payment therefor all of its securities, as follows:

8% First Preferred Stock,	$20,000,000.00
6% Second " "	21,000,000.00

which will be retirable out of the earnings of the Company at the rate of $4,200,000.00 per year.

Common stock,	$21,000,000.00

SECOND: The du Pont Company will then offer to its 6% debenture stockholders the right to exchange 6% debenture stock for 8% first preferred stock of the du Pont Securities Company, on a share for share basis. If the subscriptions received total $20,000,000.00 this will result in the outstanding debenture stock of the du Pont Company being reduced from $70,000,000.00 to $50,000,000.00, which is highly desirable.

THIRD: The du Pont Company will offer to its common stockholders the right to subscribe to;

$21,000,000.00 6% second preferred stock of the Du Pont Securities Company at par,	$21,000,000.00
$21,000,000.00 common stock of the Du Pont Securities Company at $25. per share,	5,250,000.00
TOTAL,	$26,250,000.00
Of this amount stockholders will pay in cash	5,250,000.00
BALANCE,	$21,000,000.00

which will be payable in stockholder's notes in favor of the E. I. duPont de Nemours & Company, with the following maturities:—

1 year after date,	$4,200,000.00
2 years " " ,	4,200,000.00
3 " " " ,	4,200,000.00
4 " " " ,	4,200,000.00
5 " " " ,	4,200,000.00
TOTAL,	$21,000,000.00

To state this another way, it means that the holder of each THREE SHARES of du Pont common will be entitled to subscribe for:

One share 8% second preferred stock— Du Pont Securities Co. at par, ...	$100.00
One share common stock Du Pont Securities Company, ...	25.00
TOTAL, ...	$125.00

payable—

Cash, ...	$25.00	
Note due in 1 year, ...	20.00	
" " " 2 years	20.00	
" " " 3 "	20.00	
" " " 4 "	20.00	
" " " 5 "	20.00	$125.00

The notes so given will be secured by all of the preferred and common stock subscribed for.

It will be noted that under this plan one-fifth of the second preferred stock is retired out of earnings each year so that a subscriber secures sufficient cash each year with which to meet his note interest and the payment of the principal on his notes, as they respectively become due. At the end of five years he will be in a position of holding one share of common stock of Du Pont Securities Company, for which he paid $25.00, all of his notes will have been paid and all of the second preferred stock of the Du Pont Securities Company will have been retired.

To make it a bit clearer, let me put it this way:

If the General Motors Corporation, during the next five years, pays dividends which will average at the rate of $1.00 per share per annum the annual income of the

du Pont Securities Company would be..	$7,000,000.00
Its dividend charge of 8% of $20,000,000.00 first preferred stock would aggregate	1,600,000.00
BALANCE	5,400,000.00

which is more than sufficient to pay the 6% dividend on the second preferred stock and retire the stock over a period of five years.

If this is accomplished the status of the duPont Securities Company will be; That it will own 7,000,000 shares of General Motors Corporation common stock, which, if then worth $20.00 per share would equal $140,000,000.00 the company would have outstanding.

Its 8% first preferred stock aggregating.	$ 20,000,000.00
BALANCE	$120,000,000.00

representing the equity of the common stock (all of the second preferred stock would have been retired) for which the common stockholder would have paid but .... $ 5,250,000.00

This means that under these conditions the present holder of THREE SHARES of common stock would have, in taking out his subscription, invested $25.00 in cash and his equity in the property would be $570.00 and all his personal notes given to E. I. duPont de Nemours & Company will have been paid.

I feel confident that this plan can be improved in detail and presented to the stockholders in a very simple manner and be easily understood.

If this plan is tentatively approved by our Finance Committee I would recommend that the Treasurer be given authority to negotiate a $30,000,000.00 ten-year loan of the E. I. duPont de Nemours & Company, without sinking fund, with J. P. Morgan & Company, upon such terms and conditions as he and the president think proper, reporting back to this committee the result of these negotiations, after which the matter should be presented to the Board of Directors as a definite proposal for adoption.

—5—

It is very important that we move quickly as there are many security offerings hanging over the market ready to be sprung almost any minute and it will be but a comparatively short time before the market has to absorb a $200,000,000.00 bond issue of the C. B. & Q. Railroad Company.

Personally, my feeling is that these negotiations can be concluded within a week, directors meeting held and this whole matter explained in a way that will result in complete accomplishment of both plans to the point of making our offerings to the stockholders within two or three weeks and if the offering to the stockholders remains outstanding for thirty days the plan can be completely accomplished by the middle of May.

I have not called attention to the fact, but it is important to note the following with respect to the duPont Company's position—

First:—To meet its $30,000,000.00 note issue it will have stockholders notes aggregating	$21,000,000.00
Some General Motors stock left in its treasury, which, if it is able to sell during the next ten years at given prices, will net	$ 9,000,000.00
Total	$30,000,000.00

which is sufficient to meet payment of its own ten-year notes for $30,000,000.00, herein proposed.

Second:—7½% interest per annum on its $30,000,000.00 of note equals—$2,250,000.00.

To meet this it will have 6% on $21,000,000.00 of stockholder's notes, aggregating	$1,260,000.00
and will have relieved itself of the obligation to pay 6% on $20,000,000.00 of its debenture stock, aggregating	$1,200,000.00
Total	$2,460,000.00

Third: I have not the exact figures before me but the Company's debenture stock outstanding—

aggregating—	$50,000,000.00
will be secured by common stock outstanding—aggregating—	$63,000,000.00
and surplus account of	$47,000,000.00
TOTAL	$160,000,000.00

which is equal to 3.2 times the $50,000,000.00 of debenture stock outstanding.

NOTE: "Finance Committee Secy's No. 5234" and "Received Apr 4 1921 M. D. F." (with "28 F" inserted by hand between the date and initials) are stamped and "MDF" is written, at the top of the first page. "Return to Executive Committee Room 9069" is stamped on each page. "gmc 897k" is written in lower right corner of each page.

Government's Exhibit No. 162

Copy for — Mr. W.S.Carpenter,Jr.✓
Mr. F. Donaldson Brown.
Wilmington,Del., April 8, 1921.

Mr. John J. Raskob,
c/o General Motors Corp.
New York City.

Dear John:—

Referring to the proposed reorganization of the DuPont Securities Co., would it not be well to increase the first preferred stock to 21,000,000, the same amount as the issue of second preferred, keeping the common shares the same total number—210,000 of $25 each. At the same time lodge in the DuPont Securities treasury a number of shares of General Motors which is an even multiple of 210,000, say 6,930,000, so that should later, it be advisable to increase the holdings of General Motors in the DuPont Securities Co., they can be taken in by the issuance of a simple proportion of its securities. Thus, we might say to a stockholder, such as Pierre: "You can enter this consolidation and by putting up 33 shares of General Motors stock you can take down one share of first preferred, one share of second preferred and one share of common."

The advantage to us would be that a stronger control of General Motors could be obtained thereby. The advantage to the depositor would be that he would be able to obtain the equivalent of his dividends in redeemed second preferred stock without being subject to income tax thereon.

Possibly it would be better to reduce the amount of General Motors stock first placed in the treasury to

6,300,000, as that would probably simplify the situation, and if desirable, the Du Pont Co. itself could exchange the balance of its shares like any other proposed depositor.

Very truly yours,

Irenee du Pont

NOTE: "Received Apr 9 1921 Treasurer's Office" and "Noted W. S. C. Jr." are stamped at top. A check mark appears next to "Mr. W. S. Carpenter, Jr." and "T 131" is written at the top. "gmc 848" appears in lower right corner. Italics indicate handwriting.

Government's Exhibit No. 163 , 1921.

TO: FINANCE COMMITTEE,
E. I. DUPONT DENEMOURS & COMPANY.

FROM: J. J. RASKOB.

Referring to my report of April 2nd would advise that after very careful consideration I think the plan tentatively adopted may be tremendously simplified by the following plan which I now definitely recommend for final adoption:

First - E. I. duPont deNemours & Company to borrow $35,000,000 on its straight ten year 7½% notes without sinking fund but with provision for retirement, these notes to be sold to the public at par but the Company to sell them to an underwriting syndicate at 95% and the underwriting syndicate to offer them to a distributing syndicate at a proper price, say about 96%.

Second - Form a new DuPont Securities Company which will purchase from the DuPont Company 7,000,000 shares General Motors common stock, issuing to the DuPont Company in payment therefor all of its securities as follows:

Ten year 8% sinking fund notes secured by 7,000,000 shares General Motors common stock	$25,000,000
8% preferred stock - - - - -	20,000,000
Common stock (no-par-value) - - -	633,000 shares

E. I. duPont deNemours & Company will retain the $25,000,000 of DuPont Securities Company notes in its treasury; will offer to exchange $20,000,000 of 8% preferred stock of the DuPont Securities Company for $20,000,000 of its own debenture stock on a share for share basis; and will offer to its common stockholders the right to subscribe to 633,000 shares of common stock at $8.00 per share, making a total of $5,084,000. We can arrange so that this $8.00 per share may be paid 40% in cash, 20% in three months, 20% in six months and 20% in nine months.

The balance sheet of the Company as of December 31st, 1920 after carrying out this plan would be substantially as follows:-

ASSETS

Cash, Notes & Accounts Receivable, Claims (less advances applicable thereto), Materials and Finished Products - - - - - - - - - - - - - - - - $	86,600,000
Short Term Notes & Quickly Marketable Securities	1,500,000
Net Advances to Controlled Companies - - - - - -	3,300,000
6% ten-year Notes of DuPont Securities Company -	25,000,000
Investment in Stock of Controlled Companies and Miscellaneous Securities - - - - - - - - - - -	16,900,000
Fixed Investment in Real Estate, Plants and Equipment -	68,500,000
Good-Will -	23,600,000
	$225,400,000

LIABILITIES

Accounts Payable - - - - - - - - - - - - - - - -	7,100,000
Deferred Liabilities and Credit Items - - - - - -	4,500,000
Ten-year Notes (present issue)- - - - - - - - - -	35,000,000
Debenture Stock Issued - - - - - - - - - - - - -	50,800,000
Common Stock Issued - - - - - - - - - - - - - - -	63,400,000
Reserves -	19,600,000
Surplus -	45,000,000
	$225,400,000

It will be noted that this plan recommends a $35,000,000 ten-year note issue instead of $30,000,000 as previously recommended. This change is desirable in order to completely retire the DuPont Company floating indebtedness and to enable the Chevrolet Company to take up its entire

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indebtedness which is injuring the credit of the General Motors Corporation. The attached sheets are of interest.

The above plan is infinitely simpler than the plan tentatively recommended in my report of April 2nd and covers every condition except one which will be fully explained at the meeting and which may be briefly stated as follows:

Under this simplified plan, a common stockholder receives the right to subscribe to a share of DuPont Securities Company common stock at $8.00. By paying $8.00 he receives his certificate and it is my thought that we should arrange to pay dividends equal to, say, 12% on his $8.00 investment. He will be able to use this certificate as collateral and no stockholder should have difficulty in borrowing all or part of the $8.00 required. Should he not care to subscribe, he should be able to sell his subscription right for a substantial amount. Under the previous plan, a stockholder was required to pay his $8.00 into the Company and give his notes running for five years to the Company, which notes would carry as collateral his $8.00 payment, leaving him with nothing tangible in the way of collateral.

Considering the matter from the Company's standpoint, would advise as follows:

Under the previous plan there was issued $20,000,000 of DuPont Securities Company 8% preferred stock (which was to be used to retire $20,000,000 of 6% debenture stock) and in addition E. I. duPont deNemours & Company were to receive $21,000,000 of stockholders' notes secured by $21,000,000 6% Second Preferred Stock of the DuPont Securities Company, which notes the DuPont stockholders would be called upon to pay in the contingency that during the ten year period the second preferred stock could not be retired from the earnings of the DuPont Securities Company, which earnings consist solely of dividends on 7,000,000 shares of General Motors common stock.

Under the present plan, E.I.duPont deNemours & Co. will retire $20,000,000 of its debenture stock and will have $25,000,000 of notes of the DuPont Securities Company secured by 7,000,000 shares of General Motors Corporation common stock instead of having $21,000,000 of our stockholders' notes secured by substantially the same collateral.

In other words, in the event that 7,000,000 shares of General Motors common stock not netting $3.00 per share sometime within the next ten years, the DuPont Company would then probably have to look to its stockholders for $21,000,000 which they are not now underwriting but which, under the previous plan, was assumed by them as a contingent liability.

The matter of assuming a contingent liability running over a period of five years or ten years is a very serious matter for an individual and it seems to the writer thoroughly unnecessary to make our stockholders assume this contingent liability to cover the remote possibility of not being able to get $3.00 per share out of General Motors common stock over the next ten years. It must be remembered that the common stockholders of the DuPont Company are showing a substantial amount of good faith in contributing $5,000,000 on securities which are junior to a $25,000,000 note issue and a $20,000,000 8% preferred stock issue and if, during the course of the next year or two or five years, conditions so shape themselves as to dictate the advisability of calling on our common stockholders for additional funds, the way is always open to do so.

P.S. - I neglected to point out two important things under the revised plan, as follows:

First - The money with which to retire our $35,000,000 note issue at maturity may be provided as follows:

Through the payment of DuPont Securities Company 6% ten-year notes - - - - - - - -	$25,000,000
Through the sale of 30,660 shares Chevrolet stock (converted represents approximately 460,000 shares General Motors common stock) at, say, - - - - - - - - - - - - - - - - -	$10,000,000
Total - - - - -	$35,000,000

Second - The annual interest charge of 7½% on $35,000,000 of notes will be met as follows:

6% interest on $25,000,000 of DuPont Securities Company notes - - - - - - - - -	$ 1,500,000
Through reduction of $20,000,000 of E.I.duPont deNemours & Co. debenture stock outstanding - - - - - - - - - - - - -	1,200,000
Total - - - - - - -	$ 2,700,000

DU PONT SECURITIES COMPANY

EQUITIES AND EARNINGS

	Assets	Earnings
7,000,000 shares General Motors common stock at book value -	$105,000,000	$7,000,000
8% ten-year notes outstanding - - --	25,000,000	1,500,000
8% preferred stock outstanding - - --	20,000,000	1,600,000
Total - - --	45,000,000	3,100,000
Balance equals equity for 633,000 shares of common stock - - - - - - - - - - - - - -	$60,000,000	3,900,000

(On this basis the common stock equity would be $94.78 per share and the earnings accruing to the benefit of the common stock would be $6.16 per share)

Proposed common stock dividend of $1.00 per share (equal to 12½% on the purchase price of $8.00 per share)	633,000
Balance equals - - - -	$3,267,000

which may be used each year as a sinking fund to retire the $25,000,000 note issue. In this way, the note issue will be retired in seven years, provided General Motors Corporation pays dividends at a rate of no more or less than $1.00 per share per year.

CHEVROLET MOTOR COMPANY

CASH REQUIREMENTS AND RECEIPTS

Cash Requirements

Bank Loans	$ 5,250,000
Ball Bros. Notes	3,000,000
Accrued Interest	45,000
Total	$ 8,295,000

Cash Receipts

Cash on hand April 5th	431,959.71
General Motors common stk. dividend due May 1	1,375,224.00
Sale of DuPont Securities Company preferred stock to E. I. duPont deNemours & Company at cost plus accrued dividend	2,900,000.00
Sale of 276,000 shares General Motors common stock at 13	3,588,000.00
Total	8,295,183.71

- -

Chevrolet Motor Company holdings in General Motors Corporation common stock may be summarized as follows:

Stock now held	5,500,896 shares
Sale of DuPont Securities Company common stock to E. I. duPont deNemours & Co. should net	92,000 shares
Total	5,592,896 shares
Sale as above to provide cash to meet indebtedness	276,000 shares
Balance (equal to 14.4357 shares for each share of Chevrolet stock outstanding)	5,316,896 shares
Stock to be paid DuPont Company in exchange for 222,830 shares of Chevrolet stock on basis of 14.4357 to one	3,216,688 shares
Balance equals number of shares of General Motors common stock which will then be held by the Chevrolet Motor Company	2,100,208 shares

CONTROL OF CHEVROLET MOTOR COMPANY

Total Chevrolet stock outstanding Apr. 5th, 1921 - - - - -	368,315 shares
Amount to be exchanged by DuPont Company	222,830 shares
Balance equals number of shares then outstanding - - - -	145,485 shares
Control equaling one-half of this or -	72,743 shares

- -

CHEVROLET STOCK OWNED BY DUPONT COMPANY AND FRIENDS

Present shares of Chevrolet stock held by DuPont Company - - - -	253,490 shares
Amount to be surrendered for exchange -	222,830 shares
Balance to be retained by DuPont Company -	30,660 shares
Chevrolet stock held by friends - (see detail below) -	44,162 shares
Total - -	74,822 shares

Ethel duPont Barksdale, Wilmington		-	2,500 shares
Christiana Securities Co.	"	-	98
T. E. Doremus	"	-	15
Alice duPont	"	-	4,000
Mrs. Ethel H. duPont	"	-	700
H. A. duPont, Winterthur, Delaware		-	1,000
H. F. duPont "	"	-	850
Lammot duPont,	Wilmington	-	2,000
Pierre S. duPont,	"	-	17,600
T. C. duPont,	New York City	-	9,300
Glenden Land Company	Wilmington	-	300
Harry T. Graham	"	-	365
Hunter Grubb	"	-	50
Elizabeth D. Haskell	"	-	300
C. A. Patterson	"	-	75
Helena S. Raskob	Claymont, Del.	-	100
John J. Raskob	"	-	4,636
William F. Raskob	Wilmington	-	100
Frank Turner	Detroit	-	75
	Total	-	44,162

Note: "gmc-897g" is written in lower right corner.

DUPONT COMPANY CASH REQUIREMENTS AND RECEIPTS

Cash Requirements

Christiana Securities Company Notes	$2,800,000
Bank Loans	9,000,000
DuPont-Nobel subscription (our half)	4,000,000
Total	15,800,000
DuPont Securities Company net indebtedness	16,942,000
DuPont Securities Company preferred stock to be bought from Chevrolet Company at cost plus accrued dividend	2,900,000
Cost of 276,000 shares General Motors common to be purchased from Chevrolet at 13	3,588,000
Total	$39,230,000

Cash Receipts

Proceeds from sale of 2568 shares General Motors common at 13	33,384.
Preferred Stock dividend to be received from DuPont Securities Company	250,000
Sale of $35,000,000 notes to J. P. Morgan & Company at 95	33,250,000
Cash from common stockholders	5,280,000
General Motors dividend due May 1st	235,000
Total	$39,036,384

NOTE: "gmc-897h" is written in lower right corner of this page. "Return to Executive Committee Room 9069" is stamped on each of first eight pages.

Government's Exhibit No. 166

August 17, 1921

HISTORY OF THE DU PONT COMPANY'S INVESTMENT IN THE GENERAL MOTORS CORPORATION

(Enclosure—Exhibit "A")

YEAR 1917

On December 21, 1917, Action was taken at a joint meeting of the Finance and Executive Committees authorizing the purchase of $25,000,000 worth of Common Stock of the General Motors and Chevrolet Companies. The purchase of these stocks was begun immediately, and by December 31 of that year we had accumulated a total of 5,600 shares of General Motors and 40,200 shares of Chevrolet. The Chevrolet stock expressed in General Motors equivalent ($100 par value stock) amounted to a total of 51,540.6 shares of General Motors stock. The sum of these stocks on the present-day no-par basis amounted to 515,406 shares, representing 6.7% of the outstanding stock of that corporation. This stock was purchased at a total cost of $3,628,160 or $7.04 per share (on the present-day no-par basis).

Some statistics relating to this investment at December 31, 1917, (as will be found in Exhibit "A" wherein this stock is treated with on the present-day no-par basis) are:

			Per Share
(a) General Motors Earnings for the year available for Common Stock amounted to	$26,285,952	or	$3.42
(b) Cash Dividends Paid Amounted to	8,073,439	or	1.05
(c) Additions to Surplus Amounted to (This includes negative adjustments, details of which are not readily available)	11,508,393	or	1.50

			Per Share
(d) The Du Pont Co. received Dividends therefrom amounting to	00	or	00
(e) The Du Pont Co.'s portion of the Undivided Profits for the year amounted to	771,523	or	1.50
(f) The net asset value of our holdings amounted to	5,925,109	or	11.50
(g) The high and low market prices of General Motors stock for the year were	14.62	and	7.50

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YEAR 1918

Under date of January 4, 1918, the General Industries, Inc. was formed for the purpose of providing a holding medium for our Motors Investment. The authorized total capital of this corporation was $25,000,000, which was subscribed to in full by the Du Pont Co.

By March 8 we had purchased the full amount of General Motors and Chevrolet stocks provided for in the authorization of December 21, 1917, in fact the total purchases aggregated 99,875 shares ($100 par value) General Motors stock and 133,690 shares of Chevrolet stock at a total cost of $25,183,759. The 133,690 shares of Chevrolet stock converted into its General Motors equivalent amounted to 152,788 shares; resulting in our owning at that date the equivalent of 250,663 shares of General Motors, or 23.83% of the outstanding stock of that corporation.

The above purchases were temporarily financed for the account of the General Industries, Inc. by loans of Liberty Bonds from the Du Pont Securities Co. (Christiana Securities) and the Du Pont Co. also notes of the General Industries, Inc. together with cash advanced by the Du Pont Co. During the latter part of 1918 and early 1919 the financing of this amount was permanently cared for by the Du Pont Co. fulfilling its subscription to the Capital Stock of the General Industries, Inc.

On April 9 the name of the General Industries, Inc. was changed to Du Pont American Industries, Inc. and its authorized capital increased to $50,000,000. The Du Pont Company eventually subscribed to this stock to the extent of $49,045,300, the proceeds from the sale of the additional $24,045,300 being employed to purchase additional General Motors and Chevrolet Common Stock, and certain Investment Stocks from the Du Pont Company (such as Austin Powder Co., Equitable Powder Co., Delaware Surety Co., Bank Stocks, etc.)

On April 25 the Du Pont American Industries authorized the purchase of $3,000,000 additional General Motors in Chevrolet stock; and by July 9 the purchases under this authorization were completed, the amount purchased being 25,425 shares of Chevrolet stock at a total cost of $3,219,238.

Under date of December 14 the Du Pont American Industries, Inc. authorized the purchase of approximately $5,000,000 par value General Motors Stock from the McLaughlin interests, which stock had been issued in payment for the McLaughlin Buick properties in Canada. Also, authorization was given to underwrite $24,000,000 par value General Motors Stock which was to be offered to its stockholders at $120 per share, the total underwriting amounting to $28,800,000.

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By December 31 we had purchased the stock from the McLaughlin interests to the amount of 43,000 shares at

$130 per share, or at a total cost of $5,590,000. Also we eventually retained from the Underwriting 65,597 [sic] shares at a total cost of $8,407,833, or an average per share of $128.21 (the final results of the Underwriting were not known until early in the year 1919. However, since the total amount of the stock underwritten was shown as stock outstanding on the books of the General Motors Corporation at December 31, 1918, we have included in our 1918 figures the 65,579 shares above mentioned):

	Shares	Cost
At the end of the year 1918 we owned 206,454 shares ($100 par value) General Motors stock which cost $122.20 per share—these shares on the present-day no-par basis represented	2,064,540	$25,228,940
We also owned 159,115 shares of Chevrolet stock which cost per share $108.79—these shares converted to their General Motors equivalent, and on the present-day no-par basis represented	1,818,366	17,310,072
Total at December 31, 1918	3,882,906	42,539,012

representing an average cost of $10.96 per share, and 26.35% of the outstanding stock of the General Motors Corporation.

Some statistics relating to this investment at December 31, 1918 (as will be found in Exhibit "A" wherein this stock is treated with on the present-day no-par basis) are:

			Per-Share
(a) General Motors Earnings for the year available for Common Stock amounted to	$12,905,036	or $	.88
(b) Cash Dividends Paid Amounted to	11,237,310	or	.76
(c) Additions to Surplus amounted to (This includes adjustments; see notes on Exhibit "A").	24,900,545	or	1.69

(d) The Du Pont Co. received Dividends directly and indirectly to amount of	3,502,034	or	.90
(e) The Du Pont Co.'s portion of the Undivided Profits for the year amounted to	6,560,298	or	1.69
(f) The net asset value of our holdings amounted to	48,421,007	or	12.47
(g) The high and low market prices of General Motors stock for the year were	16.40		10.62

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YEAR 1919

In the early part of the year 1919, the Du Pont American Industries, Inc. called on the Du Pont Co. for the balance due on subscription to its Capital Stock and with the proceeds paid off its notes at banks and to certain individuals, which notes were given in the early part of 1918 as a temporary means of financing certain purchases of General Motors and Chevrolet stock.

Under date of August 4, authorization was given to purchase $5,000,000 worth of General Motors stock at $225 per share or better; and by August 14 the purchases under this authority amounted to 22,000 shares ($100 par value) General Motors stock at a total cost of $4,796,087. It was then decided that no further purchases would be made at that time.

	Shares	Cost
At the end of the year 1919 we owned 238,504 shares ($100 par value) General Motors stock which cost an average of $131.90 per share—these shares on the present-day no-par value basis represented	2,385,040	$31,448,181
We also owned 159,115 shares of Chevrolet stock which cost per share $108.79—these shares converted to their General Motors equivalent, and on the present-day no-par basis represented	1,818,366	17,310,072
Total at December 31, 1919	4,408,983	48,758,253

representing an average cost of $11.06 [sic] per share and 28.74% of the outstanding stock of the General Motors Corporation.

Some statistics relating to this investment at December 31, 1919 (as will be found in Exhibit "A" wherein this stock is treated with on the present day no par basis) are:

			Per-Share
(a) General Motors earnings for the year available for Common Stock amounted to	$55,792,972	or	$3.64
(b) Cash Dividends paid amounted to	17,324,541	or	1.13
(c) Additions to surplus amounted to (This includes adjustments; see notes on Exhibit "A").	42,232,960	or	2.75
(d) The Du Pont Co. received Dividends directly and indirectly to amount of	4,969,405	or	1.13
(e) The Du Pont Co.'s portion of the Undivided Profits for the year amounted to	12,137,331	or	2.75
(f) The net asset value of our holdings amounted to	66,689,682	or	15.13
(g) The high and low market price of General Motors stock for the year were	40.62		11.87

YEAR 1920

Under date of March 19 we were advised that it had been found necessary to raise additional capital for the General Motors Corporation to the extent of approximately $64,000,000, and that they would attempt to raise this capital through an offering of Common Stock to their stockholders. In view of the fact that the Nobels were interested to the extent of desiring to invest in General Motors stock, it was decided that we, together with the Chevrolet Motor Co. and certain individuals would assign our rights to the Explosives Trades, Ltd. Our rights and others sufficient to cover 1,800,000 shares were assigned to them to be subscribed for at $120 [sic] per share, amounting in total to $36,000,000. $6,000,000 of this amount was assigned by them to C.X.L. and Canadian friends; the balance $30,000,000 was assigned to England (Explosives Trades, Ltd., and English friends). The Canadian amount was taken up as planned. However, it later developed that due to financial and economic conditions in England only $15,000,000 of the amount assigned to England could be covered leaving a balance of $15,000,000 uncovered. The Explosives Trades, Ltd. was relieved of this amount and it was assigned to and taken up by Chevrolet $7,000,000 and C. X. L. $8,000,000 (with the understanding that eventually they would be relieved of same by the du Pont Company and the Nobels).

Under date of May 5, authorization was given to exchange all of our shares of General Motors Common stock at the rate of 1 for 10 for the no-par value stock of that corporation, as provided for in the amendments to their certificate of corporation.

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Under date of June 9, we sold 125,000 shares of no-par value General Motors stock to J. P. Morgan & Co. at $20.00 per share. This sale was made for the purpose of providing J. P. Morgan & Co. with the total amount of stock that it was previously agreed they should own.

Under date of July 1, authorization was given to subscribe up to $1,500,000 to a $10,000,000 syndicate with J. P. Morgan & Co. as managers, it being understood that any stock acquired would be sold and the syndicate liquidated. The result of our participation in this syndicate was that we obtained 1,347 shares of General Motors stock and $15.32 in cash. These shares were sold at the time the syndicate was liquidated.

Under date of November 19, it became necessary to relieve W. C. Durant of approximately 2,600,000 shares no-par value General Motors Common stock at $9.50 per share. To finance this transaction the Du Pont Securities Co. was incorporated. This new Company was authorized to issue $20,000,000 one year 8% collateral notes

$7,000,000—8% voting preferred stock and 100,000 shares no-par value non-voting common stock.

The Du Pont American Industries subscribed to $4,200,000 par value Preferred Stock for which it paid cash (this amount was borrowed from the Du Pont Co. who in turn had to borrow $2,800,000 from the Christiana Securities Co.). The Chevrolet Motor Co. took the balance of the Preferred Stock $2,800,000 for which it paid cash.

The Common Stock (100,000 shares) was assigned as follows:

40,000	shares to W. C. Durant for balance of his equity in stock purchased
20,000	shares to J. P. Morgan & Co. for underwriting the $20,000,000 notes
24,000	shares to Du Pont American Industries, Inc. in consideration for loan of 824,179 shares no-par value General Motors stock to be used as collateral on notes
16,000	shares to Chevrolet Motor Co. in consideration for the loan of 549,453 shares of no-par value General Motors stock for use as collateral on notes, the balance of the collateral for the $20,000,000 notes, amounting to 2,626,368 shares, having been acquired from Durant and Syndicate.

The $20,000,000 notes were bought by J. P. Morgan & Co., same being secured by 4,000,000 shares of General Motors Common Stock—above mentioned.

Under date of December 31 we sold W. C. Durant 1,307,499 shares no-par value General Motors stock for 95,000 shares of Chevrolet stock.

	Shares	Cost
At the end of year 1920 we owned 1,124,312 shares General Motors stock which cost per share $11.78	1,124,312	$13,249,434
We also owned 253,490 shares of Chevrolet Stock which cost per share $128.90—these shares converted to their General Motors equivalent (No par value shares) represented	3,802,350	32,674,984
Total at December 31, 1920	4,926,662	45,924,418

representing an average cost of $9.32 per share, and 23.96% of the outstanding stock of the General Motors Corporation.

Some statistics relating to this investment at December 31, 1920 (as will be found in Exhibit "A" wherein this stock is treated with on the present day no-par basis) are:

			Per Share
(a)	General Motors Earnings for the year available for Common Stock amounted to	$32,129,949 or	$1.56
(b)	Cash Dividends paid amounted to	17,893,289	.87
	(In addition to this cash the stock dividends were paid at the rate of 2½% in the May, August, and November quarters to the extent of 1,294,044 shares no par value stock		

(c) Additions to surplus amounted to (This includes adjustments; see notes on Exhibit "A"	42,631,320 or 2.07

	Per Share
(d) The Du Pont Co. received Dividends directly and indirectly to the amount of	$6,120,204 or $1.24
(e) The Du Pont Co.'s portion of the Undivided Profits for the year amounted to	10,213,612 or 2.07
(f) The net asset value of our holdings amounted to	78,320,178 or 15.90
(g) The high and low market prices of General Motors Stock for the year were	42.00 & 12.75

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YEAR 1921

Under date of January 18, authorization was given to purchase from W. C. Durant his 40% interest (40,000 shares) in the Common Stock of the du Pont Securities Co., payment therefor to be made with 230,000 shares of General Motors Stock; also authority was granted to loan W. C. Durant $500,000, this loan to be secured by 135,000 shares of General Motors stock with the option to purchase same from him at any time within twelve months at $15.00 per share.

Under date of June 27 authorization was granted to exchange 230,196 shares of Chevrolet Stock for General

Motors Stock at an exchange rate of 1 share of Chevrolet for 14.43 shares of General Motors. This resulted in the acquisition of 3,177,428.28 shares of General Motors Stock, leaving us with a balance of 33,294 shares of Chevrolet Stock unconverted.

During April of this year it was decided to take immediate steps towards permanently financing our General Motors holdings acquired from Durant, same having been temporarily financed in November 1920 through the Du Pont Securities Co. This permanent financing took the form of $35,000,000 par value 7½% Ten Year Gold Bonds of the E. I. du Pont de Nemours & Co. which were sold as of May 1 to J. P. Morgan & Co. at 95 thereby yielding $33,250,000, the proceeds from which were employed as set forth in the tabulation herebelow.

TABULATION SHOWING DISPOSITION OF PROCEEDS FROM SALE OF $35,000,000—7½% BONDS OF E. I. DU PONT DE NEMOURS & CO.

Receipts

Par value of 7½% bonds sold		$35,000,000
Cash received from liquidation of Du Pont Securities Co.		1,020,400
		36,020,400

Disbursements

Purchase from Chevrolet Motor Co. of 184,000 shares of General Motors	$2,024,000	
Purchase from Chevrolet Motor Co. 28,000 shares Du Pont Securities Preferred	2,800,000	
Purchase from Chevrolet Motor Co. of 16,000 shares Du Pont Securities Common	1,564,000	
Repayment to Christiana Securities Co. of amount borrowed from them in Nov. 1920 to aid in financing the purchase of $4,200,000 Du Pont Securities Co. Pref. Stock	2,800,000	
Purchase of $20,000,000 notes and 20,000 shares of Du Pont Securities Co. Common Stock	20,200,000	
Purchase from C.X.L. of 200,000 shares of General Motors Stock (this being our portion of the amount originally assigned to the Explosives Trades, Ltd.) it having been agreed that we and Nobels would eventually relieve C.X.L. of 400,000 shares which cost $8,000,000	4,000,000	
Expenses including discount on 7½% Bond Issue, printing and transfer taxes	1,885,600	
		35,273,600
Balance not employed in financing of General Motors Stock purchases		$ 746,800

In the above exposition we have considered all transactions as having been made in the name of E. I. du Pont de Nemours & Co. Some of these tranactions were handled in the name of the Du Pont Co. and some in the name of the Du Pont American Industries; however, upon the completion of these transactions the du Pont American Industries owned 6,882,108 shares no-par value General Motors Stock and 33,294 shares Chevrolet Stock, or the equivalent of 7,362,540 shares no-par value General Motors Stock.

The financial structure of the Du Pont American Industries was changed as the result of the following transactions:

The Du Pont American Industries sold to the Du Pont Company $25,000,000 Six Per Cent 10 Year, Collateral, Serial Notes secured by the deposit of 7,000,000 shares of General Motors Stock with the Trustees of this issue.

—9—

The American Industries declared a dividend of 10% on its Capital stock amounting to $4,904,530, this dividend being paid from the proceeds from sale to the Du Pont Co. of such stocks as Austin Powder Co., Equitable Powder Co. Bank Stocks, etc.

$20,000,000 Eight Per Cent Preferred Stock was issued to the Du Pont Co. in exchange for a like amount par value of its Common Stock which was held by the Du Pont Co., thus reducing its outstanding Common Stock held by the Du Pont Co. to $29,045,300.

Thus it will be seen that all of our General Motors holdings (equivalent to 7,362,540* Shares) is now owned through the Du Pont American Industries, Inc., all of its Common Stock, Preferred Stock and Bonds as set forth below being owned by the Du Pont Company.

Common Stock	$29,045,300
Preferred Stock	20,000,000
Bonds	25,000,000
Total Capitalization	$74,045,300

	Shares	Cost
At the present writing we own 6,882,108 shares General Motors Stock which cost $10.36 per share	6,882,108	$71,289,540
We also own 33,294 shares of Chevrolet stock which cost $128.90 per share—these shares converted to their General Motors equivalent and on the present-day no-par basis represent	480,432	4,291,719
Total at present	7,362,540*	75,581,259

representing an average cost of $10.27 per share, and 35.8 of the outstanding stock of the General Motors Corporation.

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* This does not include 200,000 shares bought from C.X.L. at a cost of $20.00 per share, or $4,000,000.

ABE:TM

Note:

The exhibit on pages 3390-3391 is on Card 56

EXHIBIT II

TABULATION SHOWING - DU PONT COMPANY'S AVERAGE INVESTMENT IN GENERAL MOTORS COMMON STOCK FOR THE YEARS 1918, 1919 and 1920, TOGETHER WITH FORECAST FOR THE YEAR 1921; ALSO DU PONT COMPANY'S PORTION OF EARNINGS AND DIVIDENDS RECEIVED BOTH IN AMOUNT AND AS A PERCENT OF AVERAGE INVESTMENT, AVERAGE COST PER SHARE AND NET ASSET VALUE PER SHARE

Year	Cost of du Pont Co's Investment in General Motors Common Stock (Average)	Du Pont Co's Portion of Earnings on General Motors Common Stock	Percent Earnings on Average Investment	Dividends Received by (and accrued in Chevrolet du Pont Co. on General Motors Common Stock	Percent on Average Investment	Average Cost per share to date - 12-31	Net Asset Value per share of General Motors Stock at 12-31
1918	$25 500 877	$10 062 332	39.46%	$3 502 034	13.73%	$ 10.96	$12.47
1919	45 181 914	17 106 735	37.86	4 969 405	11.00	11.06	15.13
1920	47 532 185	16 333 815	34.36	6 120 204	12.88	9.32	15.90
TOTAL	$118 214 976	$43 502 882	36.80%	$14 591 643	12.34%	$ 9.32	$15.90
Forecast 1921	$ 59 792 109	$ 7 349 382	12.29%	$ 4 840 369	8.10%	$ 10.27	$15.90 (Present Book (Value -6-30-21 - (is $15.75 per (Share).

STATEMENT SHOWING - ESTIMATE OF FUTURE EARNINGS ON THE DU PONT COMPANY'S INVESTMENT IN MANUFACTURE AND ALL OTHER, EXCLUSIVE OF GOODWILL AND INVESTMENT IN GENERAL MOTORS CORPORATION; ALSO ON OUR GENERAL MOTORS INVESTMENT, ASSUMPTIONS BEING MADE THAT GENERAL MOTORS CAN EARN 10%, 12½% AND 15% ON ITS GROSS ASSETS

EXHIBIT III

Du Pont Company

		Investment	(6-30-21)		An Estimate of Future Earnings
Gross Assets			$275 400 000		
Less - Good will			23 800 000		
Balance of Assets			$251 800 000		
Less Investment in Gen. Mot.			75 600 000		
Invest. In Mfg. & All Other			$176 200 000		
Detail as follows:-					
Explosives (all)	- 13%	$44 200 000			$ 5 750 000
Dyes	- 8%	29 000 000			2 300 000
Harrison Products	- 6%	12 700 000			760 000
Fabrikoid	- 10%	5 800 000		580000	~~2 230 000~~
Arlington Products	- 11%	20 300 000		2230000	~~580 000~~
Parlin Chemicals	- 8.5%	4 200 000			360 000
All Other Mfg. Invest.	- 10%	7 600 000			760 000
Subsidiary & Affil. Co's.		21 000 000			1 350 000
Miscellaneous Invest. (All other than above)		31 400 000			550 000
TOTAL		$176 200 000			$14 640 000

Less - Undistributed Expense & Miscellaneous Charges	$ 4 000 000
Total Estimated Future Earnings from All Sources Other than Investment in General Motors	$10 640 000

Return on Gross Assets, exclusive of Goodwill and General Motors Investment equals - $10 640 000 / $176 200 000 or 6%

General Motors Corporation

Gross Assets at June 30, 1921 = $581 100 000
Common Stock Outstanding = 20 529 000 (shares)
Of which, DuPont Co. owned = 7 363 000 " or 35.8%

Assumed Earnings on the Basis of Various Percentages on Gross Assets

		Based on 15% of Gross Assets	Based on 12½% of Gross Assets	Based on 10% of Gross Assets
Earnings before Interest Charges and Preferred Dividends		$87 200 000	$72 638 000	$58 100 000
Less:-				
Int. on $60,000,000 Bank Loans	$3 600 000			
Pref. Dividends	6 400 000			
	$10 000 000	10 000 000	10 000 000	10 000 000
Balance for Common Stock		$77 200 000	$62 638 000	$48 100 000
or Per share on Common Stock		$3.76	$3.05	$2.34
Du Pont Co's. Portion		$27 700 000	$22 421 000	$17 200 000
% Return on Du Pont Co's. Investment		36.7%	29.7%	22.7%

Government's Exhibit No. 167

TO: FINANCE COMMITTEE

FROM: MR. J. J. RASKOB.

Recently the duPont American Industries, Inc. which held a large block of Chevrolet Motor Company stock, surrendered that stock to the Chevrolet Motor Company for exchange of General Motors Corporation common stock, on the basis of one share of Chevrolet for 14-1/3 shares of General Motors Corporation common stock and the duPont Company likewise exchanged its Chevrolet holdings at that time. In addition to this our friends exchanged their stock, so that today the Chevrolet Motor Company is without the control of our company and its friends.

I recommend, therefore, that the Treasurer be authorized to exchange Chevrolet Motor Company stock, with such stockholders as are willing to exchange, on the basis of one share of Chevrolet Stock for 14-1/3 shares of General Motors Corporation common stock and that, as other stockholders turn their Chevrolet stock in to the Chevrolet Motor Company for exchange, the Treasurer of our Company be authorized to exchange

Government's Exhibit No. 168

Wilmington, Delaware, February 6, 1922

To: FINANCE COMMITTEE

FROM: TREASURER.

Under informal action of the Finance Committee of January 30th we have received from Chevrolet stockholders 15,802 shares of Chevrolet Motor Company stock and in payment therefor transferred 226,493 shares of General Motors Corporation common stock plus $23.33 in cash, the cash representing purchase of fractions aggregating 2⅓ shares at $10. per share.

Of the 15,802 shares of Chevrolet Motor Company received as above we have surrendered to the Chevrolet Motor Company 15,202 shares receiving in exchange 217,895 shares of General Motors Corporation common stock plus $3.33 in cash, representing the value of ⅓ of a share at $10. per share.

In this connection we will require for the Transfer Agent of General Motors Corporation resolutions of your committee approving the action of the officers of this company, and for this purpose we would suggest your passing resolutions in substantially the following form:

> "RESOLVED that the action of the officers of this company in surrendering for liquidation to the Chevrolet Motor Company 15,102 shares of Chevrolet Motor Company stock for 216,462 shares of General Motors Corporation common stock, be, and the same is hereby approved, ratified and confirmed"

and "**Be it Further Resolved** that the action of the officers of this company in surrendering for liquidation to the Chevrolet Motor Company 100 shares of Chevrolet Motor Company stock for 1,433 shares of General Motors Corporation common stock plus $3.33 in cash (the cash representing sale of ⅓ of a share of General Motors Common stock at $10. per share) be, and the same is hereby approved, ratified and confirmed".

As a result of the above we have 600 shares of Chevrolet Motor Company stock which gives us a control in that company of about 52½%.

The above is for your information.

/s/ *W. S. Carpenter Jr.*

2/11.

Note: "Finance Committee Secy's No. 7124" and "Received Feb 6 1922 M.D.F." are stamped at top and "Return to Executive Committee Room 9069" is stamped at bottom of page. "OK J P Laffey" is written in left margin next to resolutions. "gmc-898d" appears in lower right corner.

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Note:

Page 3397 is on Card 57

Government's Exhibit No. 178

December 29th, 1920.

TO: OFFICERS, DIRECTORS AND HEADS OF
DEPARTMENT,
GENERAL MOTORS CORPORATION.

Gentlemen:

Enclosed please find copy of Organizaton Chart of our Corporation promulgated by me and approved by the Board of Directors at their meeting on December 30th.

While the Chart is quite clear, a short explanatory note might not be amiss.

It will be noted that the scheme of organization outlined divides the operations of the Corporation into three distinct major branches, viz:—

Financial
Line (Operations)
Staff (Advisory)

The Finance Committee, with its Chairman and Vice President in charge of finances, heads the Financial Division and has general charge of the finances of the parent Corporation and the various subsidiary companies, and in addition has the work of the following divisions under its jurisdiction:—

General Motors Acceptance Corporation
Stockholders Service Division
Insurance & Taxes
Employes Savings & Investment Funds
Stock Transfers

Dividends
Employes Bonus
Auditing Department
Federal Taxes
Franchise & Excise Taxes
Statistical Department
General Office Accounting Dept.
  Cost Accounting

It is proposed that a Committee on Operations consisting of Mr. J. A. Haskell, Chairman, and the Managers of the following Divisions, shall have complete jurisdiction over the Corporation's operations, It is intended, however, that this in no way is to mitigate the authority which the heads of the several divisions have and must retain in order that the Corporation may enjoy the best results from the operations of these respective divisions:—

Accessory Division
Buick
Canadian Car Division
Chevrolet
Cadillac
General Motors Truck
Intercompany Parts Division
Oakland
Olds
Samson Tractor
Scripps-Booth
Sheridan Motor Car Division

It is proposed that a Staff Committee be formed, consisting of Mr. A. P. Sloan, Jr., Chairman, and the heads of the following divisions, which will have complete charge of the Staff Divisions. These Staff Divisions have absolutely no authority over the Line Divisions, nor vice versa. The duties and responsibilities of the Staff organization will be for each of its departments to keep fully informed as to the best methods the Corporation can use in handling the matters with which they are respectively concerned and to tell their ideas to respective Line Divisions, with, as previously stated, no

—3—

authority to impose their will or decisions on Line or other divisions:—

Plant Engineering, Power House Construction & Operation
Design & Research Engineering
Advisory Purchasing Department
Patent Department
Personnel (Executive & Clerical)
Traffic & Tariff
Real Estate
Cafeteria & Club House Operations
Housing Operations
Manufacturing Plant & Layout Equipment
Organization Line & Staff
Inter-Division Schedules
Durant Building Corporation
Development Department
Welfare, Medical & Sanitary Service
Sales Analysis & Development

In the event that the Staff Divisions and Line Divisions agree upon any policy as being for the best interests of the Corporation that policy may be adopted by passing cross memorandums approved by the respective divisions interested, in which event such memorandums shall have the full force of an executive order.

~~In the~~ event of disagreement between the Line and Staff Divisions as to the best method or manner of handling a given problem and in the event such disagreement cannot be settled by the Line and Staff Committees, then the matter may be placed before the Executive Committee for decision.

It will be noted form the above and from the chart that the Executive Committee really consists of the Chairman of the Line and Chairman of the Staff Divisions meeting with the President and Chairman of the Finance Committee, It is my belief that 90% of all questions arising will be settled without reference to the Executive Committee and that the time of the Executive Committee members may be fully employed to study general results and lay down general policies for the Corporation leaving the burden of management and the carrying out of instructions to the Line, Staff and Financial Divisions.

The same relationship existing between the Line and Staff Divisions shall, of course, maintain between the Financial Division with respect to both the Line and Staff Divisions.

The success of any scheme of organization adopted by our Company will depend upon the enthusiasm and sincerity manifested by the respective heads of departments in carrying the plan out and in a company as large as ours there is little question but, that in practice, changing conditions will demand changing our Organization Chart from.

friends.

I recommend, therefore, that the Treasurer be authorized to exchange Chevrolet Motor Company stock, with such stockholders as are willing to exchange, on the basis of one share of Chevrolet Stock for 14-1/3 shares of General Motors Corporation common stock and that, as other stockholders turn their Chevrolet stock in to the Chevrolet Motor Company for exchange, the Treasurer of our Company be authorized to exchange for General Motors Corporation common stock such number of shares of Chevrolet Motor Company stock as may be held by us beyond a 45% control; this 45%, together with friendly interests, making the control of 51% or better.

Approved Jany 30. 1922

gmc 898c

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Note: "Return to Executive Committee Room 9069" is stamped at bottom.

time to time and it is my intention that this shall be done as the conduct of our business demonstrates the merit of changes proposed.

(S) Pierre S. du Pont
President

It is to be noted that Messrs. Haskell and Sloan, "IN CHARGE OF OPERATIONS," are competent to settle executive questions, acting for the Executive Committee between meetings, and for the President in his absence.

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Note:

Page 3403 is on Card 57

Government's Exhibit No. 179.

E. I. du Pont de Nemours & Company
INCORPORATED

ADVICE OF ACTION

November 22, 1920.

Mr. P. S. duPont.

Copy to Mr. J.J.Raskob.

SUBJECT PRESIDENCY OF THE GENERAL MOTORS CORP.

ACTION TAKEN BY Finance Committee.

AT MEETING November 22, 1920.

REMARKS

The following resolution was offered and unanimously adopted:—

WHEREAS, this Company has indirectly an investment of approximately $70,000,000.00 in the General Motors Corporation; and

WHEREAS, the present conditions surrounding the General Motors Corporation necessitate the selection of a President who will, on account of his experience and standing in commercial affairs, have the respect and confidence of the banks, the investing public, and the General Motors Corporation personnel;

RESOLVED, that it is the earnest wish of this Committee that Mr. P. S. duPont accept the Presidency of

TABULATION SHOWING STATISTICS RELATING TO THE DU PONT COMPANY'S INVESTMENT IN MOTOR STOCKS

All "SHARES" and "PER SHARE" figures, except those shown under the heading "Chevrolet Common Stock Owned", are on the basis of the Chevrolet Conversion rate existing at the date specified and the present-day no-par value stock.

	General Motors Common Stock owned at 12-31			Chevrolet Common Stock owned at 12-31			Grand Total General Motors Owned at 12-31 on basis of Chevrolet Conversion Rate and no par value stock				General Motors Earnings, Available for Common Stock, Cash Dividends Paid and Additions to Surplus					
Year	Shares	Cost		Shares	Cost		Shares	Cost			Earnings		Cash Dividend Paid		Additions to Surplus	
		Per Share	Amount		Per Share	Amount		% Owned	Per Share	Amount	Amount	Per Share	Amount	Per Share	Amount	Per Share
1917	36 000	8.55	$ 478 992	40 200	78.34	$3 149 168	515 406	6.70	7.04	$ 3 628 160	$26 295 952	3.42	$*8 673 439	1.05	$11 509 393	1.50
1918	2 064 540	12.22	25 228 940	155 115	108.79	17 310 072	3 892 906	26.35	10.96	42 539 012	12 [illegible]05 063	.88	*11 237 310	.76	(a) 24 900 545	1.69
1919	2 395 040	13.19	31 448 181	159 115	108.79	17 310 072	4 408 993	23.74	11.06	48 758 253	55 792 972	3.64	*17 324 541	1.13	(b) 42 232 960	2.75
1920	1 124 312	11.78	13 249 434	253 490	128.90	32 674 984	4 926 662	23.96	9.32	45 924 418	32 129 949	1.56	*17 893 289	.87	(c) 42 631 320	2.07
1921 (To June 30th.)	6 862 100	10.36	71 289 540	33 294	128.90	4 291 719	7 362 540	35.80	10.27	75 581 259	6 469 551	.31	*10 147 029	.50	(d) 3 678 478	.19

	Cash Dividends Received by du Pont Co. and accrued to du Pont Co. through Chevrolet Holdings						du Pont Co. Equity in General Motors Undivided Profits for the year		Net Asset Value of General Motors Stock Owned		Market Value of General Motors Common Stock	
Year	Rec'd. by duPont Co.		duPont portion accrued thru Chevrolet		Grand Total							
	Amount	Per Share **	Amount	Per Share	Amount	Per Share **	Amount	Per Share	Amount	Per Share	High	Low
1917	$ --	--	$ --	--	$ --	--	$ 771 522	1.50	$5 925 109	11.50	14-5/8	7⅞
1918	1 166 375	.54	2 335 659	1.31	3 502 034	.90	6 560 298	1.69	42 421 007	12.47	16-2/5	10-5/8
1919	2 669 430	1.12	2 299 975	1.16	4 969 405	1.13	12 137 930	2.75	66 639 682	15.19	40-5/8	11-7/8
1920	2 482 330	2.21	3 637 873	.96	6 120 204	1.24	10 215 611	2.07	78 320 170	13.90	42	12-3/4
1921 (To June 30th.)	(1) 2 167 683	.31	(2) 831 969	1.75	(3) 2 999 652	.41	1 317 042	.19	115 995 926	15.75	16-1/4	9½

(1) This includes August 1, 1921 Dividend received by du Pont Co. direct amounting to $1,720,527.

(2) This includes August 1, 1921 Dividend, representing du Pont Co.'s portion accrued through their holdings in Chevrolet amounting to $119,395.

(3) This includes August 1, 1921 Dividend received by du Pont Co. and accrued through Chevrolet Co. amounting to $1,839,922.

(a) This amount includes:

Additions through acquisition of properties	$18 432 791.67
Profit from sale of new Common Stock	4 800 000.00
	$23 232 791.67

(b) This amount includes:

Additions through acquisitions of properties and other adjustments	5 764 529.00

(c) This amount includes:

Addition arising through adjustment of no-par value Common Stock	7 625 180.00
Addition arising from sale of Common Stock in excess of $10.00 per share	33 709 915.23
	41 335 095.23
Less Stock Dividends paid on Common Stock	12 940 435.25
	28 394 659.98

(d) This amount $3,678,478 represents the difference between the amount earned on Common Stock $6,469,551 and Common Dividends paid $10,147,029. If the total "Additions to Surplus" for years 1917 to 1921 to date - June 30th, inclusive, were added together the result $117,594,740 would not check with the total Surplus at June 30, 1921 of $117,510,792 or a difference of $83,952. This difference represents an adjustment to Surplus which is not included as a loss from Operations.

* Common Stock Dividends paid by General Motors Corp.

Cash Dividends

Year 1917 -	1st three quarters	$5 779 240
	Nov. 1, 1917 - 3%	2 294 193
		8 073 439

Cash Dividends

Year 1918 -	Feb. 1, 1918 - 3%	$2 292 150
	May 1, 1918 - 3%	2 292 567
	Aug. 1, 1918 - 3%	3 205 704
	Nov. 1, 1918 - 3%	3 446 889
		11 237 310

Cash Dividends

Year 1919 -	Feb. 1 - 3%	$4 431 438
	May 1, - 3%	4 128 001
	Aug. 1, - 3%	4 215 147
	Nov. 1, - 3%	4 549 955
		17 324 541

Cash Dividends

Year 1920 -	Feb. 1, - 3%	$4 735 325.60
	May 1, - 25¢ sh.	4 149 015.35
	Aug. 1, - 25¢ sh.	4 449 353.25
	Nov. 1, 25¢ sh.	4 559 557.00
		17 893 289.20

Cash Dividends

Year 1921 -	Feb. 1 - 2½%	$5 053 763.25
	May 1, - 2½%	5 093 266.00
		10 147 029.25

Stock Dividends

Year 1920 - May 1, 2½%	$3 931 086.50	equivalent to 393 109 shares	of which du Pont Co. received direct & thru their holdings in Chevrolet	145 166 shares
- Aug. 1, 2½%	4 449 348.25	" " 444 935 "	" " " " " " " " "	145 234 "
- Nov. 1, 2½%	4 560 000.50	" " 456 000 "	" " " " " " " " "	147 432 "
	12 940 435.25			

** Shares owned at end of year applied to Dividends received during year.

EXHIBIT "A"

Development Department
January 31,1917

FINANCIAL FORECAST OF INVESTMENTS 1917 & 1918 IN THE NEW SYSTEM OF INDUSTRIES FOR UTILIZATION OF EXCESS PLANT CAPACITY

Summary of Proposed New Industries - See Report of Dec. 30, 1916 with Appended Charts for Industries I,II,IIa,IIb,III & IV.
Summary of Financial Forecast for above Industries - See Report SU-118 of January 26, 1916.

Industries & Products	See Special Topic Index Index Numbers	Process and Good Will	Plant Value of Purchased Companies	New Plant Investment	Utilization of Plant Investment	Total Investment Exclusive of Working Capital	Working Capital	Total New Investment incl. Working Cap. Excl. Plant Util.	Total Invest. Incl. Working Cap. & Plant Utilization	Expected Profit When Plants are in Regular Operation		Location of Industry	Executive Committee Actions		Remarks
													Report	Date of Action	
I. Fats and Oils															
Oil Expressing Plant	9			$1,000,000	$300,000	$1,300,000	800,000	$1,800,000	$2,100,000	12½%	260,000	Carney's Point	6584	May 22,1916	The working cap. of these new industries will be relatively less than for Pels & Co. because the firm now employs an unusually large working cap. Furthermore the new plts. are part of a large system of allied plants, thereby reducing the stock on hand at each plant.
Soap New Plant	10,12	~~[illegible]~~	~~[illegible]~~	600,000	150,000	750,000	400,000	1,000,000	1,150,000	20 %	230,000	" "	6997	Aug.14,1916	
Soap Pels & Co.	12	$4,000,000	$1,500,000			5,500,000	2,500,000	8,000,000	8,000,000	12½%	2000,000	Philadelphia	7052	Sept.5,1916	
Fatty Acids	13	?	-	200,000	50,000	250,000	150,000	350,000	400,000	20 %	80,000	Carney's Point	7528	Dec. 4,1916	
Food Products	7	?	-	200,000	50,000	250,000	150,000	350,000	400,000	25 %	100,000	Phila. or Carney's Pt.	Oral 7836	Dec.11,1916 Jan.29,1917	
I & II. Paints & Varn.															
Harrison Bros. 20%	15	-	1,110,000	-	-	1,110,000	270,000	1,380,000	1,380,000	15 %	207,000	Phila. and Chicago	6584	May 22,1916	The Parlin tin can plant may be charged in part against other industries such as ether and lacquers.
Parlin P. & V.Branch	19	-	-	300,000	75,000	375,000	150,000	450,000	525,000	15 %	79,000	Parlin	7023	Aug.21,1916	
Parlin Tin Can Plant.	37	-	-	100,000	10,000	110,000	50,000	150,000	160,000	10 %	16,000	"	7508	Dec.11,1916	
Hopewell P.& V.Branch	20	-	-	300,000	75,000	375,000	150,000	450,000	525,000	15 %	79,000	Hopewell			
Kumaron P.& V. Linoleum Cement,etc.	16	31,000	5,000	Included Above	Included Above	36,000	Included Above	36,000	36,000	-	50,000	Phila.Parlin & Hopewell	7333 Appro.	Nov.13,1916 Nov.20,1916	
IIa Pigments															
Harrison Bros.50%	15	-	2,775,000	-	-	2,775,000	675,000	3,450,000	3,450,000	15 %	517,500	Phila. & Camden	7508	Dec.11,1916	The working cap. is placed low inasmuch as by the end of 1918 all of the new plants will not be entirely finished nor in full operation. The working capital for 1919 would no doubt be higher than shown.
Other Color & allied Companies	18	400,000	800,000	-	-	1,200,000	800,000	2,000,000	2,000,000	15 %	300,000	-			
Furnace Pigments	18	-	-	400,000	50,000	450,000	200,000	600,000	650,000			Hopewell			
Lithopone	18	-	-	400,000	50,000	450,000	200,000	600,000	650,000			Hopewell	7467	Nov.27,1916	
		100,000	200,000	-	-	300,000	200,000	500,000	500,000	10%	293,000		7606	Dec.18,1916	
Allied Chemicals(½)	33	-	-	200,000	50,000	250,000	100,000	300,000	350,000			Hopewell			
Changes to Hopewell Power & Acid Plts.60%		-	-	180,000	500,000	780,000	-	180,000	780,000						
IIb. Water Soluble Chems.															
Organic Chemicals (Incld. Tartar Chem.& Pan)	31,30	40,000	10,000	250,000	50,000	350,000	150,000	450,000	500,000			Hopewell	7430 7672	Nov.13,1916 Jan. 2,1917	
Inorganic Chemicals	33	50,000	-	250,000	50,000	350,000	100,000	400,000	450,000			Hopewell	7467	Nov.27,1916	
Allied Chems.(½)	30,31,33	100,000	200,000	-	-	300,000	200,000	500,000	500,000	10%	219,000	Hopewell	7606	Dec.18,1916	Same remarks as above
~~[illegible]~~	-	-	-	200,000	50,000	250,000	100,000	300,000	350,000				7468	Nov.27,1916	
Chgs.to Hopewell Plt. 30%	-	-	-	90,000	300,000	390,000	-	90,000	390,000						
Harrison Bros. 20%	15	-	1,110,000	-	-	1,110,000	270,000	1,380,000	1, 380,000	15%	207,000	Phila. & Paulsboro	7508	Dec.11,1916	
III. Organic Chemical Ind.															
Harrison Bros.10%	15	-	555,000	-	-	555,000	135,000	690,000	690,000	15%	103,500	Philadelphia	7508	Dec.11,1916	
Levenstein Ltd. 2yrs.	21	250,000	-	-	-	250,000	-	250,000	250,000						
Chlorine Manufacture	32	-	-	200,000	20,000	220,000	10,000	210,000	230,000			Deep Water Point	6814 7114 Appro.	July 8,1916 Sept.25,1916 Jan. 22,1917	
Indigo Manufacture	27	-	-	1,000,000	150,000	1,150,000	300,000	1,300,000	1,450,000			Deep Water Point	7131&7105 7636	Sept.25,1916 Dec.18,1916	Same remarks as above
Selected dyes mfr.	26	-	-	1,000,000	250,000	1,250,000	320,000	1,320,000	1,570,000			Deep Water Point	7151	Sept.25,1916	
Cumaron Plants	16	-	-	50,000	10,000	60,000	10,000	60,000	70,000	20%	1,790,000	Deep Water Point	7333 -	Nov.13,1916 Aug.&Sept 1,'16.	
Organic Chem.Mfr.Parlin	24	-	-	300,000	100,000	400,000	150,000	450,000	550,000			Parlin	7310	Nov.6,1916	
Organic Chem.Mfr.D.W.Pt.	24	-	-	350,000	50,000	400,000	100,000	450,000	500,000			Deep Water Point	7310	Nov.6,1916	
Deep Water Pt. Power Plt.	-	-	-	75,000	225,000	300,000	-	75,000	300,000			Deep Water Point	None as Yet		
Purchased Organic Chem.Co.	29	2,000,000	1,000,000	-	-	3,000,000	1,000,000	4,000,000	4,000,000				None as Yet		
Pur.Delaware Acid Works	25	-	11,500	10,000	-	21,500	10,000	31,500	31,500			Newark,Del.	7429 Appro.	Nov.13,1916 Nov.20,1916	
IV. Related Industries															
Artificial Silk Plants	41	100,000	-	1,100,000	300,000	1,500,000	400,000	1,600,000	1,900,000	100%	1,900,000	Haskell	None as Yet		
Cotton Spinning Mill	43	-	-	2,000,000	200,000	2,200,000	1,000,000	3,000,000	3,200,000	10%	338,000	Hopewell	6516	May 15,1916	
Changes to Hopewell 10%		-	-	30,000	100,000	130,000	-	30,000	130,000						
Linoleum & Oil Cloth	5,8	Not included at this time in connection with plant utilization													
Short Fibre for Paper Stock	44	-	-	-	300,000	300,000	150,000	150,000	450,000	15%	67,500	-			
Total		$7,071,000	$9,276,500	$10,785,000	$3,615,000	$30,747,500	$11,200,000	$38,332,500	$41,947,500	21%	$8,831,500				

Defendant's Exhibit (DP) No. 198

MOTOR VEHICLE MONTHLY July, 1924

Character and Application of Pyroxylin Enamels

Manufacture and development of "Duco." Qualities and durability of finish. How material is put on bodies. Methods used by Oakland Motor Car Co. Economies effected

By E. M. Flaherty *
Of E. I. du Pont de Nemours & Co., Wilmington, Del.

THE basis of "Duco" is a type of nitrocellulose known as pyroxylin, and for a thorough understanding of the properties of "Duco" and the reasons for its points of difference from the usual types of finishing materials, a knowledge of the methods of manufacturing this pyroxylin will be of value.

Pyroxylin, chemically, is cellulose nitrate with a degree of nitration corresponding to a percentage of nitrogen between the approximate limits of 11 and 12.5. From 11 per cent. to 11.8 the product is employed in the so-called celluloid plastic industries, and with this we are not concerned at present. The main characteristic of this product is that it, when mixed with camphor or similar agents, is readily plasticized by heat and can be moulded into almost any shape. It is not readily soluble, however, in liquid solvents.

From this nitrogen content of 11.8 up to 12.5 the solubility of the resultant product changes radically, and we have a grade which dissolves perfectly in such solvents as acetone, amyl acetate or methyl alcohol. This grade of nitro-cellulose is the basis for the whole soluble pyroxylin industry, and is the type from which "Duco" is made. It is possible to nitrate cellulose to a still higher degree, giving an ultimate nitrogen content of about 13.5 per cent., but the products in this range are not soluble in the usual solvents, and are known as gun cottons. This degree of nitration then is the essential difference between the soluble pyroxylin and the gun cottons of the explosive industries.

Manufacture of Pyroxylin

In the manufacture of pyroxylin the basic material is cotton. For economy it has been found possible to use cotton linters, that is, the shorter fibers remaining on the cotton seed after the longer fiber has been removed for spinning into thread. These linters are usually obtained from the cottonseed mills, where they are removed from the cotton seed before crushing. In color, crude linters vary from a gray to a medium brown, due to presence of oils, wax and small particles of hull fiber. Before nitration all of these impurities must be removed completely, and purification of the linters is an elaborate one, starting with the digestion with chemicals under pressure in large steel autoclaves, followed by bleaching treatments and a series of washings to remove all traces of chemicals used. The last step in the purification is a thorough drying in a machine resembling a paper mill. At this stage the cotton has been transformed from the gray or brown linter to a snow-white product resembling absorbent cotton in appearance.

The next step is the nitration, which is the introduction into the cellulose molecule of NO_2 groups, supplied by nitric acid. In this reaction sulphuric acid is present as a catalytic agent. The nitration is performed in steel tanks known as mechanical dippers, the cotton being introduced on the surface of the acid mixture and by means of rotating paddles immediately submerged. After the nitration has proceeded for the required length of time the entire mixture of cotton and acid is discharged into a centrifugal wringer, by means of which most of the acid is removed from the nitrated cotton. This acid is recovered for re-use. Following the acid removal, the cotton, still containing a great deal of mixed acid not removed by the centrifugal action of the wringer, is boiled with frequent changes of water in large wooden tubs. This boiling and washing is carried on until very delicate chemical tests show that the nitro-cellulose has attained a chemical stability sufficient to insure extremely long life of the product made from it. In our own work we perhaps carry this attainment of maximum stability to a point far beyond that which is necessary, but we do this as a result of the training most of us have had in manufacturing nitro-cellulose and nitro-cellulose powders for the U. S. Navy; as the navy officers used to tell us: "We have to sleep over this powder and we want to know that everything possible has been done to make it stable." We use the same methods and the same delicate tests in all our pyroxylin work as we worked out for the navy specifications.

It may be interesting to note here that starting with the crude linters and ending with the nitrated cellulose, or pyroxylin, it requires about 200 gallons of water in the chemical treatments given each pound of cotton, and several days are required for the complete cycle.

Our pyroxylin is now at a stage where it is readily soluble in the various solvents mentioned above, but still contains on the surface and in the microscopic canals of the fiber a large amount of water, which must be removed before mixing the cotton with solvent. This removal of water, or dehydration, as it is termed, is accomplished by displacement of the water with alcohol in large hydraulic presses. A measured volume of alcohol is forced under 3,000 pounds' pressure into and through the cotton, the effect of which is to push out ahead of it practically all the water in the fiber, leaving alcohol in its place. Alcohol mixes readily with all of the solvents used in the industry, and therefore the cotton containing the alcohol can be employed in any type solution we may wish.

It will be noted that in the cycle ined above the pyroxylin is never dry at any point. As we remove the water we automatically replace it with alcohol, and in this manner there is no particular hazard in handling the product.

It was felt that this description, although necessarily brief, would aid in the subsequent presentation of the properties of "Duco," and accordingly it has been included.

Pyroxylin as prepared above is then dissolved in amyl acetate, for instance, and the solution filtered. This type solution, either by itself or mixed with a small amount of gums or resins is a type of clear lacquer with which most of you are familiar. It is used for depositing a transparent, almost invisible coating on highly polished silver, brass or other objects to protect the metal from tarnishing. Such lacquers in appeara resemble glycerin in consistency, but, p aps, are slightly yellow in appearance as compared with pure glycerin. This type of lacquer was the original use of soluble p roxylin in industry. Collodion a mixture pyroxylin in alcohol and ether, was anoth early use.

History of Pyroxylin Enamels

A later development involved the incorporation in such lacquers of finely-ground pigments, which produced a very popular product known as pyroxylin enamels. These have been in use for many years, and you undoubtedly have many examples of them in your home and in the accessories used in the assembling of the main products of your factories. Such objects as bath-room fixtures, metal and wooden pencils, metallic lamp stands, hardware on closed automobile bodies, and an almost endless list of smaller metal objects are commonly finished with these pyroxylin enamels. They appeal to the manufacturer, not only because of the pleasing and durable finish they impart, but still more because of the rapidity with which they can be applied. The solvents used for pyroxylin are readily volatile at room temperature, and a cost of such an enamel when applied by air spray or by simple dipping dries with a speed which at first acquaintance seems almost incredible to one accustomed to the time required between coats of other finishes depending upon the oxidization of linseed oil for their drying. One of the main properties of "Duco" is its durability, and as this is explained partly by the fundamental difference in the way it dries as compared with the linseed-oil products; a few words on this distinction are in order at this point.

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* Paper read by Mr. Flaherty under title of "Pyroxylin Enamels."

You have heard how pyroxylin is made and dissolved in solvents, colors being added to produce the opaque enamels. When a film of this liquid enamel is exposed to the air these solvents immediately begin to evaporate, and in a short time have gone off entirely into the air. This leaves a hard, tough film of pyroxylin containing therein the minute particles of pigment, and once the solvents have evaporated no further change takes place. The pyroxylin and the pigment just as we put them in our mixture are now on the surface of the object we are coating. With the linseed-oil type finishes, however, there is a continuous chemical reaction taking place, once the oil is exposed to the air, and the oxidization or polymerization of the linseed or other vegetable oil used as the vehicle in these finishes continues indefinitely, probably not being complete until months have elapsed. This means a continuous chemical change in the film, and while the subject is still under investigation, it seems very probable that the progress of the oxidation brings with it an increase in the brittleness of the film. Briefly stated, varnish and paint products dry by oxidization, and pyroxylin solutions dry by evaporation.

Enamels for Car Finishing

A number of years ago various investigators in the pyroxylin industry had the [illegible] that these pyroxylin enamels, because of certain desirable properties they possessed in addition to the ease and speed of application, could be employed to advantage in finishing automobiles. A very high-grade, expensive type of pyroxylin enamel, known as "Pyralin" enamel has been manufactured by the Du Pont company for many years, and the first commercial use in the automobile refinishing industry of pyroxylin products was the employment of these "Pyralin" enamels in certain refinishing shops in California. It was found that these enamels, while not possessing much body themselves, could be used over a certain type of priming coat which was worked out especially for them, and by applying a sufficient number of coats a very satisfactory automobile finish was the result. This finish had the advantage of being easily cared for and would stand several years' hard service in the hot sun and alkali dust of the desert without appreciable deterioration, although other finishing materials would break down in a month or two under similar conditions. In addition, the finish could be cleaned with remarkable ease, since it was so hard it did not readily scratch, and dust, or even caked mud, could be wiped off with a dry cloth without injury. The finish did not have the high gloss of finishing varnish, but had a characteristic satin luster, which to many was even more attractive, especially as it was permanent.

Development of Covering Power

This successful use of a pyroxylin enamel in the refinishing trade naturally focussed attention on the possibility of adapting it to the original finishing of new automobiles in the factories, but the process had one serious drawback, which for a long time seemed insurmountable. Pyroxylin solutions at that time were mainly volatile solvents, the actual amount of pyroxylin or other solid materials in them being relatively small. This meant that to deposit from such a solution a film of sufficient hiding power to produce the solid built-up color desired, such a great number of coats was necessary that the process was not a practical one. The obvious answer seemed to be to put more solid matter into the solution. Now pyroxylin has the property of imparting a relatively high viscosity to solutions containing only a small amount of it. When an attempt was made to increase the amount of pyroxylin in the solution, in order to give it more covering power, the viscosity increased to such a degree that the solution was too stiff to work. It was felt if we could incorporate about three times the regular amount of solid matter in our solutions we would have the answer to the question of covering or hiding power, but before we were able to do this successfully several years of painstaking chemical research in our laboratory were necessary. Finally, a method was discovered which permits us to put into our solutions at least three times the amount of pyroxylin, which is the film-forming constituent, as was ever done before and yet not make the solution too thick or viscous to be used in the spray gun or the dipping tank. Once this problem had been solved the big obstacle in our way had been surmounted, but, of course, there were many things yet to be worked out.

After nearly two years more of intensive work in our laboratories and the factories of one of the large automobile companies, practical methods for the use of "Duco" in the automotive industry were perfected.

At this point we should like to acknowledge our indebtedness to many members of the Society of Automotive Engineers for the patient and valuable co-operation given us in working up the "Duco" system. At the start we knew almost nothing about what an automobile finish had to be or which methods of applying it were practical and which were impractical from efficient production viewpoints. We found the engineers and the plant superintendents of the various automobile companies with whom we have been working a progressive, intelligent, broad-minded group of men, always eager to improve their product or their methods, and from the knowledge we have been privileged to obtain of the ability and energy of these men it is not hard to understand how in less than a generation the automobile has developed from the one-cylinder horseless carriage to the multi-cylinder masterpiece of today. We are proud that it has been our privilege to contribute an improvement in finishing methods and materials in keeping with the engineering triumphs that have marked the phenomenal progress of the automobile industry.

Now we may consider briefly, first the properties of "Duco," and finally the methods of using it as well as the result in one large factory which has been using "Duco" exclusively since August, 1923.

Properties of "Duco" Finish

The car owner who buys an automobile finished in "Duco" has several new experiences in store for him if he has previously owned or taken care of a car with the varnish-type finish. In the first place, the day he gets his car the finish is just as easy to handle as it ever will be, and no special precautions of avoiding dust or rain or sunlight need to be taken while the car is new. Two or three hours after the last coat of "Duco" was applied in the factory the finish is hard, perfectly dry, tough and durable. Dust will not stick to it, water, oil, battery acid, harsh soap, road tar or mud will not injure it. In fact, except a serious collision, there is practically nothing which can happen to an automobile which will harm the "Duco" finish. If this car has the straight "Duco" finish, that is, with no varnish as a top coat, it will present a pleasing satin luster, which the owner will find gradually improves with the age of the car instead of deteriorating rapidly with exposure to sunlight and washing, as the usual type of finish does. He will find that when he does wash the car, mud and dust come off just as readily as from glass, leaving no marks of any kind. With ordinary care, he will find that at the end of the first year, instead of needing a refinishing job, his car still has its original appearance, the only change, perhaps, being an actual improvement in the luster. This means an almost complete elimination of customers' complaints on finish, and many of this audience are in a position to know what a great proportion of complaints now received by the automobile manufacturers concern the finish.

The distributor of automobiles will appreciate this improvement, as he is the first to receive the customers' kicks, and many times, when he is waiting for a shipment from the factory to satisfy impatient purchasers he has had the sad experience of having his factory cars on their arrival need immediate refinishing, either because they have been marred in transit by freight or so coated with mud when driven over the roads that the varnish has been ruined. "Duco" stands the ordinary hazards of freight transportation perfectly, and it has been found that even when the body of a car has been dented by accident it can be bumped out again without injuring the "Duco." In connection with cars driven over the road, one

(Continued on page 58)

Defendant's Exhibit (DP) No. 215

AN EPOCH-MAKING DISCOVERY— A NEW FINISH FOR MOTOR CARS

The makers of OAKLAND cars now advertise that every 1924 OAKLAND is Duco-finished. In addition, the following manufacturers are prepared to finish their cars with Duco when requested—CADILLAC, CLEVELAND, FRANKLIN, LEXINGTON, MARMON, MOON. A dozen more are arranging to do so, as a result of conclusive service tests.

AFTER TWENTY-ONE MONTHS OF SEVERE SERVICE, DUCO FINISH LOOKS BETTER THAN EVER

Gives Rich, Satin-like Lustre Hitherto Available Only On Custom-made Bodies — Used in 20 Other Industries As Well.

Since the days of the first "horseless carriage," every important feature of the automobile has been radically changed—*except the finish*.

For years a surfacing material has been sought that would combine two basically different virtues—*beauty* and *permanence*.

At last, a finish which actually does combine these qualities has been perfected on a commercial scale. After years devoted to research and tests, du Pont Chemical Engineers announce Duco—an entirely new type of material with entirely new characteristics.

In appearance, Duco possesses a beautiful, satin-like lustre very similar to ancient Chinese lacquer-ware—richer in tone than anything yet attained in the finishing art, except through the most costly processes.

Actually Improves with Age!

Even more remarkable than its beauty is the extraordinary durability of Duco. The lustre of the finish *actually improves with age*. The color *does not fade*. The hard, smooth surface is practically immune to the effects of rain, snow, sudden changes in temperature, grease, grime, even the alkali dust of the desert. Bumps and scratches do not seriously affect it.

The first Duco-finished test cars, "driven to death" (supposedly) for twenty-one months, actually look better today than when rolled off the finishing floor. Even the hoods have retained their original color tone and lustre.

A Duco-finished car can be left out in any kind of weather, with no effect on its finish. Day after day of hot sunlight will not fade it. Removing dust or mud by rubbing with a dry cloth actually *polishes* its surface — without scratching.

Duco is built on a pyroxylin base by an entirely new process. It dries almost immediately. Hence its use results in a material saving in time, labor and investment. No baking is required

Applied by Dip or Spray Only

Duco must be applied by compressed air spraying equipment or mechanical dipping. It is therefore not adapted for application by the car owner. Duco Refinishing Stations are being established as rapidly as possible.

Duco is already being used in 21 industries—to beautify and preserve almost any material from wood to steel.

We invite all manufacturers, of products which require a finish of lasting beauty which will stand up under severe service, to investigate Duco. Our technical laboratories are at their disposal and our representatives are available for a limited number of demonstrations.

E. I. du Pont de Nemours & Co., Inc.
Chemical Products Division
Parlin, N. J.

DU PONT
DUCO

Defendant's Exhibit (DP) No. 281

COMPARISON OF PASSENGER CAR PRODUCTION WITH POSSIBLE POTENTIAL IN AUTO FIELD

11 MONTHS - 1930

MAKE	PRODUCTION OF PASSENGER CARS 1930 1ST 9 MOS.	OCTOBER	NOVEMBER	DECEMBER ESTIMATED PRODUCTION OF CARS	YARDS OF POTENTIAL TO DATE 1930 WHERE FABRIC NOW USED	WHERE FABRIC COULD BE USED	TOTAL POSSIBLE POTENTIAL	DU PONT SALES FABRIKOID DIVISION YARDS FAIRFIELD	NEWBURGH	% OF FABRIC BUSINESS SECURED BY DU PONT
American Austin	9 839	380	500		65 428	14 765	80 193	9 935		15.2
Auburn Cord	13 100	305	250	150	84 871	19 130	104 001			
Buick	96 643	11 171	7 177	4 100	714 402	161 000	875 402	211 130	169 074	53.2
Cadillac-La Salle	17 591	3 000	1 410	600	135 452	52 326	187 778	67 644	9 565	57.0
Chevrolet	636 400	3 100	39 000	52 000	4 499 000	727 000	5 226 000	1 079 479	271 680	30.0
Chrysler	58 465	3 203	1 519		392 960	94 818	487 778	46 480		11.8
De Soto	34 337	769	1 039		224 606	50 570	275 176			
Dodge	66 000	4 000	1 800		524 670	23 775	548 445			
Durant	24 000	1 100	750		161 610	36 425	198 035	8 296		5.1
Ford	1 144 000	60 000	33 800	100 000	7 806 300	1 739 500	9 545 800	1 467 014	24 956	19.1
Franklin	6 152	450	592		44 742	10 075	54 817		1 000	2.3
Gardner	2 762	150	150		19 035	4 290	23 325			
Graham Paige	31 000	2 600	1 450		8 747	1 597	10 344			
Hudson Essex	103 280			8 000	752 240	34 100	786 340			
Hupmobile	21 419	767	823		164 547	31 940	196 487			
Jordan	1 514	65	55		10 155	2 290	12 445	30		
Lincoln	4 445				27 623	6 230	33 853			
Marmon	11 912	786	600		86 624	18 615	105 239	9 716	15 364	29.1
Moon Ruxton	2 340	190			15 727	3 545	19 272			
Nash	49 503	8 500	3 500	2 250	382 403	95 200	477 603	14 769	2 108	4.4
Oakland Pontiac	76 033		1 494	9 000	559 459	108 600	668 059	62 046	52 928	20.5
Olds-Viking	46 783	2 500		2 200	306 458	69 080	375 538	16 778	18 231	11.4
Packard	25 100	2 850	1 800	1 000	184 875	41 670	226 545	7 583		4.1
Peerless	3 015	325	350		35 382	13 665	49 047			
Pierce Arrow	6 414	400	350	260	44 547	17 209	61 756	11 707	7 067	42.0
Plymouth	66 334	3 075	1 918		443 165	99 925	543 090			
Reo	11 000	2 000	800	600	84 545	32 635	117 180	5 400		6.4
Studebaker	50 000	4 450	2 600	3 500	345 740	85 900	431 640	18 367	1 000	5.6
Willys	73 300	3 250	3 750	7 600	509 770	115 000	624 770	2 272		.4
Total G.M. (included above)	873 250	19 771	49 081		6 214 771	1 118 006	7 332 777	1 437 077	521 478	31.5
Total Ford	1 148 445	60 000	33 800		7 833 923	1 745 730	9 579 653	1 467 014	24 956	19.1
Total Chrysler	225 136	11 047	6 276		1 585 401	269 088	1 854 489	46 480		2.9
GRAND TOTAL	2 694 461	119 386	107 077		18 635 083	3 710 875	22 345 958	3 038 646	618 806	16.4

Government's Exhibit No. 177

GENERAL MOTORS CORPORATION
MEMBERS OF BOARD OF DIRECTORS AND PRINCIPAL EXECUTIVE OFFICES HELD AND OFFICERS WHO WERE NOT DIRECTORS
1917-1948

(REFLECTING ALL CHANGES UP TO AND INCLUDING DECEMBER 6, 1948)

Government's Exhibit No. 177
GENERAL MOTORS CORPORATION
MEMBERS OF BOARD OF DIRECTORS AND PRINCIPAL EXECUTIVE OFFICES HELD AND OFFICERS WHO WERE NOT DIRECTORS
1917-1948
(REFLECTING ALL CHANGES UP TO AND INCLUDING DECEMBER 6, 1948)

DIRECTORS AND OFFICERS	DIRECTOR		OFFICER			CURRENT COMMITTEES						SUPERSEDED COMMITTEES**					
						OPERATIONS POLICY COMMITTEE (EST. 6/3/46)		FINANCIAL POLICY COMMITTEE (EST. 6/3/46)		ADMINISTRATION COMMITTEE## (EST. 5/3/37)		POLICY COMMITTEE (5/3/37 TO 6/3/46)		EXECUTIVE COMMITTEE (2/21/18 TO 5/3/37)		FINANCE COMMITTEE (8/23/17 TO 5/3/37)	
	FROM	TO		FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO
THOMAS P. ARCHER	AUG. 7, 1944	•	VICE PRESIDENT	MAR. 1, 1943	•	JUN. 3, 1946	•			AUG. 7, 1944	•						
GEORGE F. BAKER	JUL. 15, 1920	MAY 30, 1937														JUL. 15, 1920	MAY 3, 1937‡
H. M. BARKSDALE	JUN. 27, 1918	NOV. 7, 1918														JUN. 27, 1918	NOV. 7, 1918
H. H. BASSETT	MAY 1, 1919	OCT. 17, 1926	VICE PRESIDENT	MAY 1, 1919	OCT. 17, 1926									MAY 1, 1919 SEP. 25, 1924	JAN. 13, 1921 OCT. 17, 1926		
A. G. BISHOP	AUG. 22, 1917	JAN. 22, 1944	VICE PRESIDENT	AUG. 23, 1917	MAY 1, 1930												
ALBERT BRADLEY	NOV. 6, 1933	•	VICE PRESIDENT EXECUTIVE VICE PRESIDENT	MAY 9, 1929 NOV. 2, 1942	NOV. 2, 1942 •	JUN. 3, 1946	•	CHAIRMAN JUN. 3, 1946	•	MEMBER MAY 3, 1937 VICE CHAIRMAN MAY 5, 1941	• MAY 4, 1942	MAY 3, 1937	JUN. 3, 1946‡	AUG. 6, 1934	MAY 3, 1937‡	NOV. 6, 1933	MAY 3, 1937‡
DONALDSON BROWN	MEMBER DEC. 30, 1920 VICE CHAIRMAN MAY 3, 1937	• JUN. 3, 1946	VICE PRESIDENT VICE CHAIRMAN	DEC. 30, 1920 MAY 3, 1937	MAY 4, 1942 JUN. 3, 1946			JUN. 3, 1946	•	VICE CHAIRMAN MAY 4, 1942	JUN. 4, 1945	MEMBER MAY 3, 1937 VICE CHAIRMAN MAY 4, 1942	JUN. 3, 1946‡ JUN. 3, 1946‡	SEP. 25, 1924	MAY 3, 1937‡	MEMBER JAN. 13, 1921 CHAIRMAN MAY 9, 1929	MAY 3, 1937‡ MAY 3, 1937‡
FRANCIS L. BURKE	AUG. 2, 1948	•	VICE PRESIDENT	JUN. 4, 1945	•	AUG. 2, 1948	•			JUN. 4, 1945	•						
WALTER S. CARPENTER, JR.	FEB. 10, 1927	•						JUN. 3, 1946	•			MAY 3, 1937	JUN. 3, 1946‡			FEB. 10, 1927	MAY 3, 1937‡
ARTHUR CHAMBERLAIN	APR. 28, 1920	JAN. 1, 1923															
W. P. CHRYSLER	AUG. 22, 1917	MAR. 25, 1920	VICE PRESIDENT	AUG. 3, 1917	MAR. 25, 1920									FEB. 21, 1918	MAR. 25, 1920		
R. H. COLLINS	AUG. 22, 1917	JUN. 30, 1921	VICE PRESIDENT	AUG. 3, 1917	JUN. 30, 1921									FEB. 21, 1918	JAN. 13, 1921		
CURTIS C. COOPER	AUG. 11, 1927	APR. 30, 1930	PRESIDENT, GMAC	MAR. 24, 1921	OCT. 14, 1929												
LAMMOT DUP. COPELAND	SEP. 5, 1944	•															
MARVIN E. COYLE	APR. 27, 1937	•	VICE PRESIDENT EXECUTIVE VICE PRESIDENT	MAY 3, 1937 JUN. 3, 1946	JUN. 3, 1946 •	JUN. 3, 1946	•			MAY 4, 1942	•						
HARLOW H. CURTICE	AUG. 5, 1940	•	VICE PRESIDENT EXECUTIVE VICE PRESIDENT	MAY 6, 1940 †SEP. 13, 1948	NOV. 1, 1948 •	JUN. 3, 1946	•			MAY 4, 1942	•						
W. L. DAY	AUG. 22, 1917	MAY 13, 1925	VICE PRESIDENT	AUG. 3, 1917	AUG. 13, 1925									FEB. 21, 1918	JAN. 13, 1921		
FREDERIC G. DONNER	JAN. 5, 1942	•	VICE PRESIDENT	JUL. 7, 1941	•	JUN. 3, 1946	•	JUN. 3, 1946	•	JUL. 7, 1941	•						
LEWIS W. DOUGLAS	DEC. 4, 1944	•															
HENRY B. DU PONT	OCT. 3, 1938	•															
H. F. DU PONT	FEB. 21, 1918	SEP. 5, 1944														FEB. 21, 1918	MAY 3, 1937‡
IRENEE DU PONT	FEB. 21, 1918	SEP. 6, 1938														FEB. 21, 1918	MAY 3, 1937‡
LAMMOT DU PONT	MEMBER NOV. 7, 1918 CHAIRMAN FEB. 7, 1929	JUN. 3, 1946 MAY 3, 1937	CHAIRMAN	FEB. 7, 1929	MAY 3, 1937							MAY 3, 1937	JUN. 3, 1946‡	FEB. 6, 1930	FEB. 5, 1934	NOV. 7, 1918	MAY 3, 1937‡
PIERRE S. DU PONT	MEMBER AUG. 22, 1917 CHAIRMAN AUG. 23, 1917	AUG. 7, 1944 FEB. 7, 1929	PRESIDENT CHAIRMAN	NOV. 30, 1920 AUG. 23, 1917	MAY 10, 1923 FEB. 7, 1929									MEMBER JAN. 13, 1921 CHAIRMAN JAN. 13, 1921	FEB. 7, 1929 MAY 10, 1923	AUG. 23, 1917	MAY 3, 1937‡
W. C. DURANT	AUG. 22, 1917	APR. 20, 1921	PRESIDENT	AUG. 23, 1917	NOV. 30, 1920									MEMBER FEB. 21, 1918 CHAIRMAN FEB. 21, 1918	JAN. 13, 1921 JAN. 13, 1921	AUG. 23, 1917	JAN. 13, 1921
ANGUS B. ECHOLS	AUG. 7, 1944	•						DEC. 1, 1947	•								
RONALD K. EVANS	JUN. 3, 1946	•	VICE PRESIDENT	AUG. 3, 1936	•	JUN. 3, 1946	•			MAY 3, 1937	•						
CHARLES T. FISHER	SEP. 25, 1924	NOV. 5, 1934	VICE PRESIDENT	MAY 12, 1927	NOV. 5, 1934									SEP. 25, 1924	NOV. 5, 1934		
EDWARD F. FISHER	APR. 28, 1942	•	VICE PRESIDENT	DEC. 2, 1940	AUG. 7, 1944					MAY 4, 1942	AUG. 7, 1944						
FRED J. FISHER	JUN. 30, 1921	NOV. 5, 1934	VICE PRESIDENT	FEB. 9, 1925	NOV. 5, 1934									NOV. 16, 1922	FEB. 5, 1934	SEP. 25, 1924	NOV. 5, 1934
LAWRENCE P. FISHER	SEP. 25, 1924	•	VICE PRESIDENT	FEB. 9, 1925	AUG. 7, 1944					MAY 3, 1937	MAY 4, 1942			SEP. 25, 1924	MAY 3, 1937‡		
WILLIAM A. FISHER	FEB. 10, 1927	APR. 28, 1942	VICE PRESIDENT	FEB. 10, 1927	MAY 4, 1942												
LOUIS C. GOAD	JUN. 3, 1946	•	VICE PRESIDENT	JUN. 7, 1943	•	JUN. 3, 1946	•			JUN. 4, 1945	•						
EDWARD R. GODFREY	AUG. 2, 1948	•	VICE PRESIDENT	JAN. 6, 1947	•	AUG. 2, 1948	•			APR. 5, 1948	•						
RICHARD H. GRANT	NOV. 5, 1934	•	VICE PRESIDENT	MAY 9, 1929	FEB. 7, 1944					MAY 3, 1937	MAY 4, 1942			AUG. 5, 1935	MAY 3, 1937‡		
GEO. H. HANNUM	APR. 19, 1922	MAY 13, 1925	VICE PRESIDENT	JUN. 30, 1921	AUG. 13, 1925												
A. B. C. HARDY	APR. 19, 1922	MAY 13, 1925	VICE PRESIDENT	JUN. 30, 1921	AUG. 13, 1925												
J. A. HASKELL	AUG. 22, 1917	SEP. 9, 1923	VICE PRESIDENT	JUN. 27, 1918	SEP. 9, 1923									FEB. 21, 1918	SEP. 9, 1923	FEB. 21, 1918	SEP. 9, 1923
F. W. HOHENSEE	JUN. 27, 1918	JAN. 13, 1921	VICE PRESIDENT	MAY 1, 1919	JAN. 13, 1921									JUN. 27, 1918	JAN. 13, 1921		
ORMOND E. HUNT	NOV. 5, 1934	•	VICE PRESIDENT EXECUTIVE VICE PRESIDENT	MAY 9, 1929 NOV. 2, 1942	NOV. 2, 1942 •	JUN. 3, 1946	•			MAY 3, 1937	•	AUG. 5, 1940	JUN. 3, 1946‡	AUG. 5, 1935	MAY 3, 1937‡		
EARLE F. JOHNSON	JAN. 7, 1946	•	VICE PRESIDENT	JUL. 6, 1942	DEC. 31, 1945					NOV. 2, 1942	DEC. 31, 1945						
L. G. KAUFMAN	AUG. 22, 1917	APR. 25, 1939														MEMBER AUG. 23, 1917 CHAIRMAN AUG. 23, 1917	FEB. 21, 1918 FEB. 21, 1918
CHARLES F. KETTERING	DEC. 30, 1920	•	VICE PRESIDENT	JAN. 13, 1921	JUN. 2, 1947												
WILLIAM S. KNUDSEN	APR. 16, 1924 JUL. 2, 1945	SEP. 3, 1940 APR. 27, 1948	VICE PRESIDENT EXECUTIVE VICE PRESIDENT PRESIDENT	APR. 22, 1924 OCT. 16, 1933 MAY 3, 1937	OCT. 16, 1933 MAY 3, 1937 SEP. 3, 1940					MEMBER MAY 3, 1937 CHAIRMAN MAY 1, 1939	SEP. 3, 1940 SEP. 3, 1940	MAY 3, 1937	SEP. 3, 1940	MAY 9, 1929	MAY 3, 1937‡		
BAYARD D. KUNKLE	JUN. 7, 1948	•	VICE PRESIDENT	MAY 1, 1939	•	JUN. 7, 1948	•			MAY 1, 1939 FEB. 1, 1943	MAY 4, 1942 •						
J. H. MCCLEMENT	AUG. 22, 1917	APR. 28, 1920														AUG. 23, 1917	MAR. 21, 1918
LORD MCGOWAN	APR. 28, 1920	APR. 2, 1945															
R. S. MCLAUGHLIN	NOV. 7, 1918	•	VICE PRESIDENT	DEC. 31, 1918	•									NOV. 7, 1918	JAN. 13, 1921		
WILLIAM MCMASTER	APR. 28, 1920	MAY 5, 1930															
RICHARD K. MELLON	JAN. 5, 1948	•															
JAMES D. MOONEY	NOV. 8, 1923 MAR. 5, 1945	JAN. 5, 1942 DEC. 31, 1945	VICE PRESIDENT	NOV. 16, 1922 MAR. 5, 1945	JAN. 5, 1942 DEC. 31, 1945					MAY 3, 1937 MAR. 5, 1945	JAN. 5, 1942 DEC. 31, 1945			AUG. 5, 1935	MAY 3, 1937‡		
JUNIUS S. MORGAN, JR.	SEP. 30, 1925	DEC. 1, 1941														SEP. 30, 1925	MAY 3, 1937‡
C. S. MOTT	AUG. 22, 1917	•	VICE PRESIDENT	AUG. 23, 1917	MAY 3, 1937									NOV. 16, 1922	MAY 9, 1929	MAY 9, 1929	MAY 3, 1937‡
FRITZ OPEL	MAY 8, 1929	AUG. 30, 1938															
DEWITT PAGE	APR. 18, 1923	FEB. 26, 1940	VICE PRESIDENT	APR. 19, 1923	MAY 3, 1937									MAY 13, 1920	JAN. 13, 1921		
JOHN L. PRATT	APR. 18, 1923	•	VICE PRESIDENT	NOV. 16, 1922	MAY 3, 1937			JUN. 3, 1946	•					SEP. 25, 1924	MAY 3, 1937‡		
SEWARD PROSSER	JUL. 15, 1920	JUN. 3, 1940														JUL. 15, 1920	MAY 3, 1937‡
ARTHUR B. PURVIS	JUN. 2, 1930	DEC. 4, 1939															
J. J. RASKOB	AUG. 22, 1917	MAR. 4, 1946	VICE PRESIDENT	DEC. 31, 1918	MAY 9, 1929									JAN. 13, 1921	AUG. 9, 1928	MEMBER AUG. 23, 1917 CHAIRMAN FEB. 21, 1918 MEMBER MAY 9, 1929	AUG. 9, 1928 AUG. 9, 1928 MAY 3, 1937‡
H. H. RICE	APR. 19, 1922	MAY 13, 1925	TREASURER VICE PRESIDENT	AUG. 3, 1917 JUL. 10, 1919	JUL. 10, 1919 AUG. 13, 1925												
JOHN J. SCHUMANN, JR.	NOV. 5, 1934	•	PRESIDENT, GMAC	OCT. 14, 1929	•												
ALFRED P. SLOAN, JR.	MEMBER NOV. 7, 1918 CHAIRMAN MAY 3, 1937	• •	VICE PRESIDENT PRESIDENT CHAIRMAN	DEC. 31, 1918 MAY 10, 1923 MAY 3, 1937	MAY 10, 1923 MAY 3, 1937 •			JUN. 3, 1946	•	MEMBER MAY 3, 1937 CHAIRMAN MAY 3, 1937 CHAIRMAN MAY 4, 1942	JUN. 4, 1945 MAY 1, 1939 JUN. 4, 1945	MEMBER MAY 3, 1937 CHAIRMAN MAY 3, 1937	JUN. 3, 1946‡ JUN. 3, 1946‡	MEMBER NOV. 7, 1918 CHAIRMAN MAY 10, 1923	MAY 3, 1937‡ MAY 3, 1937‡	APR. 25, 1922	MAY 3, 1937‡
JOHN THOMAS SMITH	MAR. 25, 1920	SEP. 28, 1947	VICE PRESIDENT	MAR. 25, 1920	JUN. 2, 1947			JUN. 3, 1946	SEP. 28, 1947	MAY 4, 1942	JUN. 4, 1945	MAY 3, 1937	JUN. 3, 1946‡	MAY 9, 1929	MAY 3, 1937‡		
EDWARD R. STETTINIUS, SR.	JUL. 15, 1920	SEP. 3, 1925														JUL. 15, 1920	SEP. 3, 1925
A. H. SWAYNE	JAN. 13, 1921	APR. 16, 1937	VICE PRESIDENT	JAN. 13, 1921	APR. 16, 1937												
EDWARD VERLINDEN	AUG. 22, 1917	APR. 19, 1922	VICE PRESIDENT	AUG. 23, 1917	APR. 25, 1922									FEB. 21, 1918	JAN. 13, 1921		
F. W. WARNER	AUG. 22, 1917	SEP. 22, 1921	VICE PRESIDENT	AUG. 23, 1917	SEP. 22, 1921									FEB. 21, 1918	JAN. 13, 1921		
GEORGE WHITNEY	SEP. 25, 1924	•						JUN. 3, 1946	•			MAY 3, 1937	JUN. 3, 1946‡			SEP. 25, 1924	MAY 3, 1937‡
CHARLES E. WILSON	NOV. 5, 1934	•	VICE PRESIDENT EXECUTIVE VICE PRESIDENT ACTING PRESIDENT PRESIDENT	MAY 9, 1929 MAY 1, 1939 JUN. 18, 1940 JAN. 6, 1941	MAY 1, 1939 JUN. 18, 1940 JAN. 6, 1941 •	CHAIRMAN JUN. 3, 1946	•	JUN. 3, 1946	•	MEMBER MAY 3, 1937 VICE CHAIRMAN MAY 1, 1939 ACTING CHAIRMAN JUN. 18, 1940 CHAIRMAN JAN. 6, 1941 VICE CHAIRMAN MAY 4, 1942 CHAIRMAN JUN. 4, 1945	• JUN. 18, 1940 JAN. 6, 1941 MAY 4, 1942 JUN. 4, 1945 •	MAY 3, 1937	JUN. 3, 1946‡	AUG. 5, 1935	MAY 3, 1937‡		
WM. H. WOODIN	JUL. 15, 1920	AUG. 11, 1927															
C. M. WOOLLEY	JUL. 15, 1920	JUN. 6, 1938															
OWEN D. YOUNG	JUL. 15, 1920	AUG. 1, 1938															
K. W. ZIMMERSCHIED	DEC. 30, 1920	APR. 18, 1923	VICE PRESIDENT	DEC. 30, 1920	APR. 19, 1923												
OFFICERS (EXCLUDING ASSISTANT OFFICERS) WHO ARE NOT DIRECTORS																	
ANTHONY C. ANDERSON			COMPTROLLER	MAY 4, 1936	FEB. 22, 1947												
HARRY W. ANDERSON			VICE PRESIDENT	JAN. 5, 1942	•					JAN. 5, 1942	MAY 4, 1942						
WILLIAM F. ARMSTRONG			VICE PRESIDENT	AUG. 7, 1944	•					SEP. 13, 1948	•						
IRVING B. BABCOCK			VICE PRESIDENT	OCT. 4, 1943	JAN. 8, 1945												
OLLIE V. BADGLEY			VICE PRESIDENT	JAN. 6, 1947	•												
LISLE R. BEARDSLEE			SECRETARY	JAN. 3, 1938	NOV. 3, 1947												
ERNEST R. BREECH			VICE PRESIDENT	MAY 1, 1939	FEB. 24, 1942					MAY 1, 1939	FEB. [illegible]						
GEORGE A. BROOKS			SECRETARY	NOV. 3, 1947	•												
GEORGE W. CODDINGTON			VICE PRESIDENT	JAN. 5, 1942	•												
HARRY B. COEN			VICE PRESIDENT	DEC. 2, 1946	•												
JAMES M. CRAWFORD			VICE PRESIDENT	JUN. 2, 1947	•												
JOHN J. CRONIN			VICE PRESIDENT	SEP. 13, 1948	•					SEP. 13, 1948	•						
MORGAN D. DOUGLAS			VICE PRESIDENT	JAN. 8, 1945	•					JUN. 4, 1945	•						
NICHOLAS DREYSTADT			VICE PRESIDENT	JAN. 5, 1942	SEP. 3, 1948					JUN. 4, 1945	SEP. 3, 1948						
HARLEY J. EARL			VICE PRESIDENT	SEP. 3, 1940	•												
PAUL GARRETT			VICE PRESIDENT	MAY 6, 1940	•												
ALFRED R. GLANCY			VICE PRESIDENT	MAY 9, 1929	MAY 6, 1931												
JOHN F. GORDON			VICE PRESIDENT	JAN. 6, 1947	•					JUL. 1, 1946	•						
HAROLD L. HAMILTON			VICE PRESIDENT	JAN. 5, 1942	•												
ROY E. HAMMOND			COMPTROLLER	MAR. 3, 1947	•												
HENRY M. HOGAN			VICE PRESIDENT	JUL. 7, 1941	•					JUL. 7, 1941	MAY 4, 1942						
GRAEME K. HOWARD			VICE PRESIDENT	MAY 1, 1939 JUL. 2, 1945	FEB. 20, 1942 MAY 5, 1947												
WILLIAM F. HUFSTADER			VICE PRESIDENT	†SEP. 13, 1948	•												
FREDERICK G. HUGHES			VICE PRESIDENT	JAN. 6, 1947	MAY 1, 1947												
HARRY J. KLINGLER			VICE PRESIDENT	JAN. 5, 1942	•					JUN. 4, 1945	•						
FREDERICK C. KROEGER			VICE PRESIDENT	DEC. 2, 1940	AUG. 11, 1944												
WENDELL G. LEWELLEN			VICE PRESIDENT	JUN. 4, 1945	OCT. 15, 1948												
CHARLES L. MCCUEN			VICE PRESIDENT	AUG. 5, 1940	•					SEP. 3, 1940	MAY 4, 1942						
THOMAS S. MERRILL			SECRETARY	AUG. 3, 1917	DEC. 25, 1937												
EDWARD B. NEWILL			VICE PRESIDENT	JUL. 12, 1948	•												
CYRUS R. OSBORN			VICE PRESIDENT	AUG. 2, 1943	•												
FRANK R. PIERCE			VICE PRESIDENT	JUN. 4, 1945	DEC. 2, 1946												
MEYER L. PRENTIS			COMPTROLLER TREASURER	AUG. 3, 1917 JUL. 10, 1919	JUL. 10, 1919 •												
ERNEST W. PROCTOR			COMPTROLLER	MAY 10, 1928	MAY 4, 1936												
IRVING J. REUTER			VICE PRESIDENT	MAY 9, 1929	JAN. 31, 1934												
EDWARD RILEY			VICE PRESIDENT	MAR. 2, 1942	•					APR. 5, 1948	•						
SHERROD E. SKINNER			VICE PRESIDENT	JAN. 5, 1942	•					JUN. 4, 1945	•						
EDWARD R. STETTINIUS, JR.			VICE PRESIDENT	MAY 6, 1931	DEC. 31, 1933												
EDWARD T. STRONG			VICE PRESIDENT	FEB. 10, 1927	MAY 4, 1932												
FLOYD C. TANNER			VICE PRESIDENT	MAY 3, 1937	MAY 4, 1942					MAY 3, 1937	MAY 4, 1942						
FRANK TURNER			COMPTROLLER	JUL. 10, 1919	MAY 10, 1928												
IVAN L. WILES			VICE PRESIDENT	†SEP. 13, 1948	•					SEP. 13, 1948	•						
WILLIAM C. WILLIAMS, JR.			VICE PRESIDENT	DEC. 2, 1940	NOV. 2, 1945					DEC. 2, 1940	NOV. 2, 1945						

GM CORP.-T.O.-N.Y.
DECEMBER 7, 1948

• INDICATES STILL HOLDING OFFICE.

‡ INDICATES MEMBERSHIP UNTIL ABOLITION OF COMMITTEES.

** A WAR EMERGENCY COMMITTEE EXISTED FROM JANUARY 5, 1942 TO MAY 4, 1942 AND INCLUDED THE FOLLOWING MEMBERS: ALBERT BRADLEY, DONALDSON BROWN (CHAIRMAN), FREDERIC G. DONNER, ORMOND E. HUNT, ALFRED P. SLOAN, JR., JOHN THOMAS SMITH AND CHARLES E. WILSON.

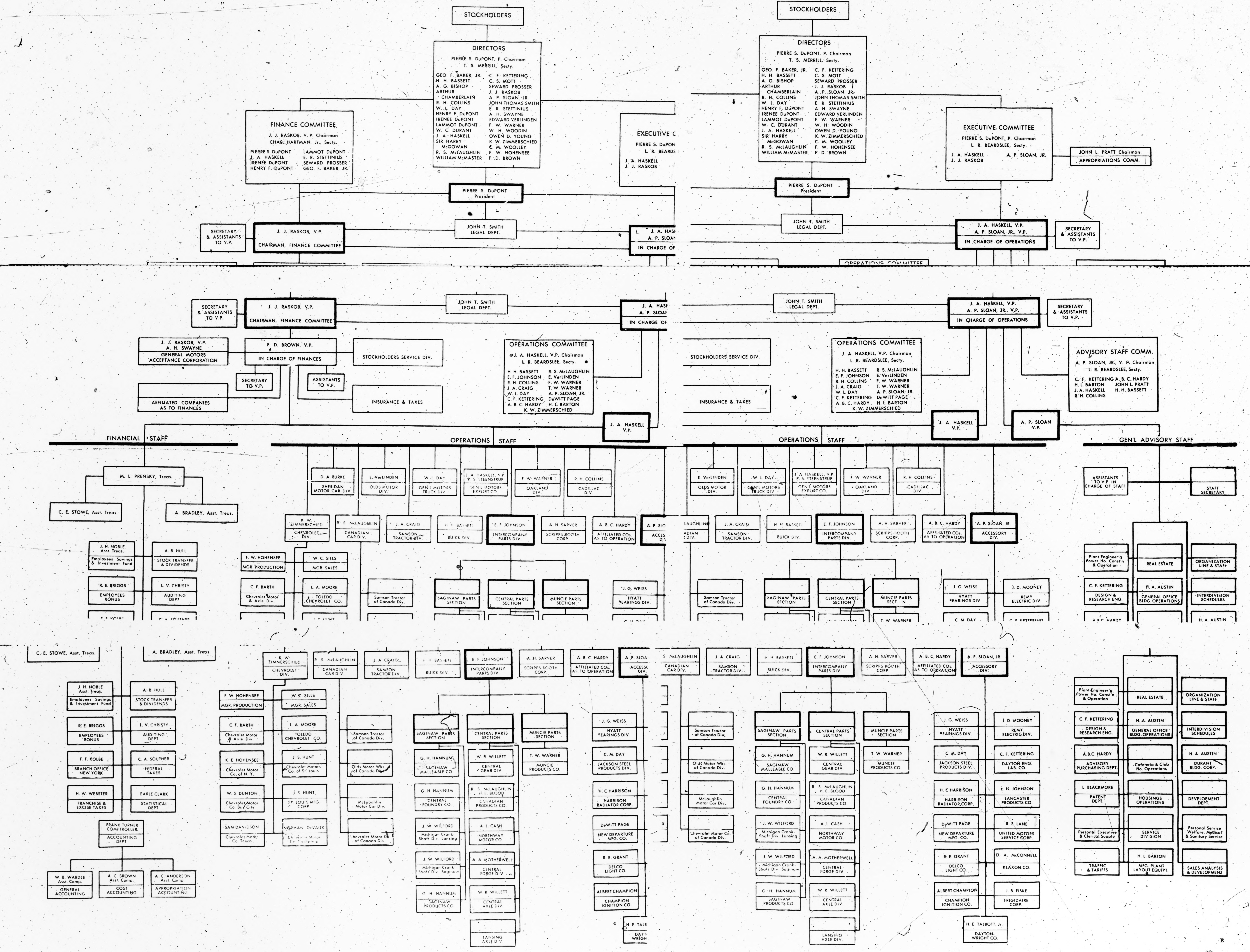
THE ADMINISTRATION COMMITTEE WAS KNOWN AS THE WAR ADMINISTRATION COMMITTEE FROM MAY 4, 1942 TO NOVEMBER 6, 1944.

† ASSUMED NEW DUTIES NOVEMBER 1, 1948.

• INDICATES STILL HOLDING OFFICE.
‡ INDICATES MEMBERSHIP UNTIL ABOLITION OF COMMITTEES.
** A WAR EMERGENCY COMMITTEE EXISTED FROM JANUARY 5, 1942 TO MAY 4, 1942 AND INCLUDED THE FOLLOWING MEMBERS: ALBERT BRADLEY, DONALDSON BROWN (CHAIRMAN), FREDERIC G. DONNER, ORMOND E. HUNT, ALFRED P. SLOAN, JR., JOHN THOMAS SMITH AND CHARLES E. WILSON.
THE ADMINISTRATION COMMITTEE WAS KNOWN AS THE WAR ADMINISTRATION COMMITTEE FROM MAY 4, 1942 TO NOVEMBER 6, 1944.
† ASSUMED NEW DUTIES NOVEMBER 1, 1948.

ORGANIZATION CHART - GENERAL MOTORS CORPORATION

ISSUE #2 JAN. 3. 1921


STOCKHOLDERS
DIRECTORS
PIERRE S. DuPONT, P. Chairman
T. S. MERRILL, Secty.
GEO. F. BAKER, JR.
H. H. BASSETT
A. G. BISHOP
ARTHUR CHAMBERLAIN
R. H. COLLINS
W. L. DAY
HENRY F. DuPONT
IRENEE DuPONT
LAMMOT DuPONT
W. C. DURANT
J. A. HASKELL
SIR HARRY McGOWAN
R. S. McLAUGHLIN
WILLIAM McMASTER
C. F. KETTERING
C. S. MOTT
SEWARD PROSSER
J. J. RASKOB
A. P. SLOAN, JR.
JOHN THOMAS SMITH
E. R. STETTINIUS
A. H. SWAYNE
EDWARD VERLINDEN
F. W. WARNER
W. H. WOODIN
OWEN D. YOUNG
K. W. ZIMMERSCHIED
C. M. WOOLLEY
F. W. HOHENSEE
F. D. BROWN
FINANCE COMMITTEE
J. J. RASKOB, V.P. Chairman
CHAS. HARTMAN, Jr., Secty.
PIERRE S. DuPONT
J. A. HASKELL
IRENEE DuPONT
HENRY F. DuPONT
LAMMOT DuPONT
E. R. STETTINIUS
SEWARD PROSSER
GEO. F. BAKER, JR.
EXECUTIVE COMMITTEE
PIERRE S. DuPONT, P. Chairman
L. R. BEARDSLEE, Secty.
J. A. HASKELL
J. J. RASKOB
A. P. SLOAN, JR.
JOHN L. PRATT Chairman
APPROPRIATIONS COMM.
PIERRE S. DuPONT
President
JOHN T. SMITH
LEGAL DEPT.
SECRETARY & ASSISTANTS TO V.P.
J. J. RASKOB, V.P.
CHAIRMAN, FINANCE COMMITTEE
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A. P. SLOAN, JR., V.P.
IN CHARGE OF OPERATIONS
J. J. RASKOB, V.P.
A. H. SWAYNE
GENERAL MOTORS ACCEPTANCE CORPORATION
F. D. BROWN, V.P.
IN CHARGE OF FINANCES
STOCKHOLDERS SERVICE DIV.
SECRETARY TO V.P.
ASSISTANTS TO V.P.
INSURANCE & TAXES
AFFILIATED COMPANIES AS TO FINANCES
OPERATIONS COMMITTEE
J. A. HASKELL, V.P. Chairman
L. R. BEARDSLEE, Secty.
H. H. BASSETT
E. F. JOHNSON
R. H. COLLINS
J. A. CRAIG
W. L. DAY
C. F. KETTERING
A. B. C. HARDY
R. S. McLAUGHLIN
E. VerLINDEN
F. W. WARNER
T. W. WARNER
A. P. SLOAN, JR.
DeWITT PAGE
H. L. BARTON
K. W. ZIMMERSCHIED
ADVISORY STAFF COMM.
A. P. SLOAN, JR., V. P. Chairman
L. R. BEARDSLEE, Secty.
C. F. KETTERING
A. B. C. HARDY
H. L. BARTON
JOHN L. PRATT
J. A. HASKELL
H. H. BASSETT
R. H. COLLINS
J. A. HASKELL V.P.
A. P. SLOAN V.P.
FINANCIAL STAFF
OPERATIONS STAFF
GEN'L ADVISORY STAFF
M. L. PRENSKY, Treas.
C. E. STOWE, Asst. Treas.
A. BRADLEY, Asst. Treas.
J. H. NOBLE Asst. Treas.
Employees Savings & Investment Fund
A. B. HULL
STOCK TRANSFER & DIVIDENDS
R. E. BRIGGS
EMPLOYEES BONUS
L. V. CHRISTY
AUDITING DEPT.
F. F. KOLBE
BRANCH OFFICE NEW YORK
C. A. SOUTHER
FEDERAL TAXES
H. W. WEBSTER
FRANCHISE & EXCISE TAXES
EARLE CLARK
STATISTICAL DEPT.
FRANK TURNER COMPTROLLER
ACCOUNTING DEPT.
W. B. WARDLE Asst. Comp.
GENERAL ACCOUNTING
A. C. BROWN Asst. Comp.
COST ACCOUNTING
A. C. ANDERSON Asst. Comp.
APPROPRIATION ACCOUNTING
D. A. BURKE
SHERIDAN MOTOR CAR DIV.
E. VerLINDEN
OLDS MOTOR DIV.
W. L. DAY
GEN'L MOTORS TRUCK DIV.
J. A. HASKELL, V.P.
P. S. STEENSTRUP
GEN'L MOTORS EXPORT CO.
F. W. WARNER
OAKLAND DIV.
R. H. COLLINS
CADILLAC DIV.
K. W. ZIMMERSCHIED
CHEVROLET DIV.
R. S. McLAUGHLIN
CANADIAN CAR DIV.
J. A. CRAIG
SAMSON TRACTOR DIV.
H. H. BASSETT
BUICK DIV.
E. F. JOHNSON
INTERCOMPANY PARTS DIV.
A. H. SARVER
SCRIPPS BOOTH CORP.
A. B. C. HARDY
AFFILIATED COs. AS TO OPERATION
A. P. SLOAN, JR.
ACCESSORY DIV.
F. W. HOHENSEE
MGR. PRODUCTION
W. C. SILLS
MGR. SALES
C. F. BARTH
Chevrolet Motor & Axle Div.
L. A. MOORE
TOLEDO CHEVROLET CO.
K. E. HOHENSEE
Chevrolet Motor Co. of N. Y.
J. S. HUNT
Chevrolet Motor Co. of St. Louis
W. S. DUNTON
Chevrolet Motor Co. Bay City
J. S. HUNT
ST. LOUIS MFG. CORP.
SAM DAVIDSON
Chevrolet Motor Co. Texas
NORMAN DeVAUX
Chevrolet Motor Co. California
Samson Tractor of Canada Div.
Olds Motor Wks. of Canada Div.
McLaughlin Motor Car Div.
Chevrolet Motor Co. of Canada Div.
SAGINAW PARTS SECTION
CENTRAL PARTS SECTION
MUNCIE PARTS SECTION
G. H. HANNUM
SAGINAW MALLEABLE CO.
G. H. HANNUM
CENTRAL FOUNDRY CO.
J. W. WILFORD
Michigan Crank Shaft Div. Lansing
J. W. WILFORD
Michigan Crank Shaft Div. Saginaw
G. H. HANNUM
SAGINAW PRODUCTS CO.
W. R. WILLETT
CENTRAL GEAR DIV.
R. S. McLAUGHLIN
H. E. BLOOD
CANADIAN PRODUCTS CO.
A. L. CASH
NORTHWAY MOTOR CO.
A. A. MOTHERWELL
CENTRAL FORGE DIV.
W. R. WILLETT
CENTRAL AXLE DIV.
LANSING AXLE DIV.
T. W. WARNER
MUNCIE PRODUCTS CO.
J. G. WEISS
HYATT BEARINGS DIV.
C. M. DAY
JACKSON STEEL PRODUCTS DIV.
H. C. HARRISON
HARRISON RADIATOR CORP.
DeWITT PAGE
NEW DEPARTURE MFG. CO.
R. E. GRANT
DELCO LIGHT CO.
ALBERT CHAMPION
CHAMPION IGNITION CO.
H. E. TALBOTT, Jr.
DAYTON WRIGHT CO.
J. D. MOONEY
REMY ELECTRIC DIV.
C. F. KETTERING
DAYTON ENG. LAB. CO.
E. N. JOHNSON
LANCASTER PRODUCTS CO.
R. S. LANE
UNITED MOTORS SERVICE CORP.
D. A. McCONNELL
KLAXON CO.
J. B. FISKE
FRIGIDAIRE CORP.
ASSISTANTS TO V.P. IN CHARGE OF STAFF
STAFF SECRETARY
Plant Engineer'g Power Ho. Const'n & Operation
REAL ESTATE
ORGANIZATION LINE & STAFF
C. F. KETTERING
DESIGN & RESEARCH ENG.
H. A. AUSTIN
GENERAL OFFICE BLDG. OPERATIONS
INTERDIVISION SCHEDULES
A. B. C. HARDY
ADVISORY PURCHASING DEPT.
Cafeteria & Club Ho. Operations
H. A. AUSTIN
DURANT BLDG. CORP.
L. BLACKMORE
PATENT DEPT.
HOUSINGS OPERATIONS
DEVELOPMENT DEPT.
Personal Executive & Clerical Supply
SERVICE DIVISION
Personal Service Welfare, Medical & Sanitary Service
TRAFFIC & TARIFFS
H. L. BARTON
MFG. PLANT LAYOUT EQUIPT.
SALES ANALYSIS & DEVELOPMENT

the General Motors Corporation in addition to retaining his present position as Chairman of the Board.

Sec'y, Finance Committee.

2.

NOTE: "Return to Room 9059" and "Return to Executive Committee Room 9069" are stamped at bottom and "F-402" is written at top of the page; "GMC 1525A" appears in the lower left-hand corner of page.

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Government's Exhibit No. 180

Wilmington, Del., December 21, 1920.

FINANCE COMMITTEE—

Mr. M. D. Fisher, Secretary.

Gentlemen:—

Messrs. P. S. du Pont and John J. Raskob believe it is essential that Mr. F. Donaldson Brown be transferred from the DuPont Company to the General Motors to act as their Vice President in charge of finances. Our investment in that company is so large that their requests must be met if possible.

This will leave a vacancy in our organization. Messrs. F. D. Brown and Raskob feel that Mr. Echols, who is in line for the advancement to Treasurership, is probably not sufficiently mature to undertake the duties as financial representative of the Company on the Executive Committee, but think that he will qualify in the course of a year or two.

This makes it seem desirable that some more seasoned executive be assigned to this duty, with the presumption that it will be a temporary duty.

After discussion with a considerable number of those in the higher ranks of the company, I have concluded that the most available man and the most fitting one is Mr. W. S. Carpenter, Vice President in charge of the Development Department.

I think Mr. Carpenter's experience in the study of financial statements of companies which we have investigated, as well as in studies of the investments in branches of our own company, and his aptitude in that kind of work, eminently qualify him for the

position. It so happens that work in the Development Department is at low ebb and certainly can be handled by the Director of that Department without requiring that the Director become a member of the Executive Committee. This situation is not analogous to any other member on the Executive Committee, as each have departments with important functions which should not be disturbed by a change in the management.

Though it would be a retrograde movement, I have carefully considered the possibilities of each member of the old Executive Committee and am convinced in my own mind that all things considered, Mr. W. S. Carpenter should undertake the work.

This, then, is to recommend that the Finance Committee indicate their approval of the change in Mr. W. S. Carpenter's duties from Vice President in charge of the Development Department to Vice President and Treasurer, and that they recommend to the Board that Mr. Carpenter be elected as Treasurer.

This action should be taken as promptly as possible and the Board should pass on the question at their meeting on the 29th of this month.

Very truly yours,

Irénée du Pont, President

Note: "GMC 1526" appears in the lower right-hand corner of each page.

Government's Exhibit No. 181

DU PONT
ESTABLISHED 1802

E I DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

Wilmington, Del.,

January 8, 1921

Mr. Irenne duPont, President,
F. I. duPont de Nemours & Co.,
Wilmington, Del.

Dear Irenee:

I just read your report of the 4th instant to the Board of Directors and it is so at variance with the thoughts I tried to convey to you in this matter that I cannot let it stand of record without recording what I have tried to convey to you and which may be briefly summarized as follows:

The needs of General Motors Corporation necessitates the best talent that we can secure. In the financial field it seems to me necessary to secure a man not alone of unquestioned ability but one who enjoys the absolute confidence of the Directors of the Du Pont Company which now controls the General Motors Corporation. Naturally I selected Mr. F. D. Brown and all of our associates concurred. This selection of course, makes it necessary for Mr. Brown to be relieved of his present duties and responsibilities as Treasurer and Member of the Executive Committee of the Du Pont Company. My feeling is that the financial interests of both Companies are so closely interwoven that Mr. Brown should be retained as a Director and Member of the Finance Committee of the Du Pont Company, in this way being enabled to keep in quite intimate touch with the directions and policies of the owners of the General Motors Corporation.

Naturally in taking this step the selection of a proper successor for Mr. Brown gave me most serious concern, feeling as I always have a great sense of responsibility for the financial organization and administration of the Du Pont Company. Mr. Brown and I had long and serious discussions about his successor with the result that I recommended to you as President, that Mr. Echols be made Treasurer and that Mr. H. G. Haskell be asked to take Mr. Brown's seat on the Executive Committee for the time being thus enabling Mr. Echols to devote his entire time and energy to mastering the treasurership, after which he would be made a member of the Executive Committee and Mr. Haskell would retire. We had, as you know, good precedent for not putting the Treasurer on the Executive Committee immediately, for the reason that the writer was made Treasurer many months before he was elected to the Executive Committee and Mr. Brown was elected Treasurer under like circumstances.

Mr. Brown preferred that for a period of two or three months Mr. H. G. Haskell be elected Treasurer, particularly on account of a certain situation in the Treasurer's Department which should be corrected forthwith and which could be much more easily accomplished with Mr. Haskell as Treasurer than with Mr. Echols. I saw good reason for respecting Mr.

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Brown's wishes in this matter and told you that it was perfectly agreeable to me and that I would recommend that Mr. Haskell be made Treasurer as an ~~extremely~~ temporary measure.

Both Mr. Brown and I feel that Mr. Echols is equipped with a splendid mathematical and analytical mind, as is Mr. Carpenter; we likewise feel that his training in the Department and financial experience better qualifies him for the position of Treasurer than Mr. Carpenter, and that this fact which is well understood by the rank and file of the employees in a very large Department must be recognized, otherwise the espirit de corps in the Department will be seriously injured and I know of several of your Directors who honestly feel that this step, if taken, will be a rash one and one that will do much to undermine the espirit de corps in the whole organization.

less than 2 yrs in a new div. only, substantially same

At no time in my association with you can I recall anything that was as distasteful to me as it is to be unable to support your recommendation and it has worried me a very great deal. A good organization certainly demands that the President be supported but in this instance, with a very keen appreciation of what is likely to happen in the failure of the President to support his immediate lieutenants, I can come to no conclusion other than that of disagreement.

I, of course, could not recommend any man for the position of Treasurer of our Company unless he enjoyed the confidence and support of the President without being grossly unfair to that man; hence my failure to suggest any names in Finance Committee meeting when the Chairman asked if there were further nominations.

Yours very truly,

NOTE: Handwriting at top of first page reads: "Read & Replied to in Directors Meeting 1/10/21. I du P". "29." is written at upper right corner. In the left margin outside the brackets are written "OK du P" and "OK". In the second paragraph on page 2 the eighth line and the first two groups of the ninth line are bracketed. In the margin near the opening brackets is written: "This is the big job, I am talking of.". A short illegible phrase is written to the left of the first line in the second paragraph. On page 3, between the seventh and eighth lines, a hand-drawn line extends from the end of the word "experience" to the beginning of the marginal note.

EXTRACT FROM MINUTES OF FINANCE COMMITTEE MEETING #271

APRIL TWENTY FOURTH, 1923

E. I. DU PONT DE NEMOURS & COMPANY

PRESIDENCY OF GENERAL MOTORS CORPORATION:

Mr. P. S. duPont, Chairman, orally advised the Committee of his desire to relinquish the presidency of the General Motors Corporation at an early date, and of his intention to recommend that Mr. Alfred P. Sloan, Jr. now Vice President in charge of Operations, be elected to that position, and asked for the views of the members on this proposed change. After discussion, the following resolution was offered and unanimously adopted:

WHEREAS, the presidency of the General Motors Corporation and the highly difficult and important task of reorganizing the management of its affairs were, in November, 1920, undertaken by Mr. P. S. duPont at the urgent request of this Committee and at the sacrifice of his own personal inclination and plans; and

WHEREAS, Mr. du Pont is now understood to be desirous of retiring from the position of President; and

WHEREAS, under his constructive leadership the critical transition period has been safely and successfully passed and the affairs of the Corporation established upon a stable and well organized basis, facilitating the transfer of its chief administrative authority; and

Whereas, there is now available a thoroughly well qualified successor, in whose ability to meet the exacting requirements of the position this Committee has the utmost confidence;

Therefore, Be It Resolved, that the Committee hereby express to Mr. du Pont its entire acquiescence in his present intention and make a matter of record its earnest and enduring appreciation of his unselfish service, and its strong sense of the inestimable value to this Company of the work he has done in safeguarding its investment in the General Motors Corporation;

Note: "Return to Executive Committee Room 9069" is stamped at the bottom and "F-402" is written at the top of the page. "GMC 1588" appears in the lower left-hand corner of page.

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E.

Government's Exhibit No. 183

P. S. du Pont
Wilmington, Del.

April 25th, 1923.

To the Directors of
General Motors Corporation,
New York City.

Gentlemen:

At the organization meeting of the Directors following the Stockholders Annual Meeting of the year 1922 I called attention to the advisability of considering the question of a new President for the Company. Another year has elapsed and much has developed to insure the stability of General Motors Corporation, so that I believe it is now time to recommend a change in the presidency, to take place as soon as possible.

Ever since you have honored me as your chief, Mr. Alfred P. Sloan, Jr., has directed the operations of the company and assumed many of the most important duties usually entrusted to a President. Experience during the years 1921, 1922 and 1923 indicates clearly that he is entirely capable in every way. I, therefore, heartily recommend him for the office of President.

This recommendation has been placed before the Finance Committee of E. I. duPont deNemours & Company, our largest stockholder, and received approval. I, therefore, address the Directors of General Motors Corporation, as I think it important that definite understanding be reached before calling a formal meeting. In the meantime, nothing has been said to Mr. Sloan on the subject.

It is appropriate at this time to express appreciation of the confidence placed in me by the Directors of the Company and for the uniform support that has been accorded me during the time I have been President, especially when the burden of adverse developments made ultimate success and prosperity seem far away in the future. The quick recovery of the motors industry has done much toward re-establishment, but I am confident that the earnest cooperation of a good organization has been even more helpful and will further prove its value in the future.

As soon as informal approval of the Directors is received, I shall present my resignation as President and request a meeting to be called for naming a successor.

Very truly yours,

/s/ Pierre S. du Pont

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Government's Exhibit No. 184

THE DATA IN THIS REPORT IS INTENDED ONLY
FOR THE PARTY TO WHOM ADDRESSED.
THE REPORT SHOULD BE TURNED OVER TO
THE SECRETARY IMMEDIATELY AFTER THE MEETING AT WHICH IT IS CONSIDERED.

Wilmington, Del.
May 8, 1923.

To BOARD OF DIRECTORS,
E. I. du Pont de Nemours & Co.

Mr. Alfred P. Sloan will doubtless be elected president of the General Motors Corporation at the meeting of their Board to be held on the tenth of this month, his selection having been approved informally by a majority of the directors of the General Motors Corporation.

In view of this Company's very large investment in General Motors, it would seem distinctly advantageous if Mr. Sloan were made a director of this Company. Beside which, his experience, good judgment and personality would bring additional strength to our Board.

This, then, is to recommend that Mr. Alfred P. Sloan be elected to the Board of Directors of this Company to fill the vacancy caused by the resignation of Mr. Frank L. Connable.

It is particularly desirable that the information herein communicated should be kept confidential until announcement is made of Mr. Sloan's election to the presidency of the General Motors Corporation, which will probably be Thursday evening, next.

Respectfully submitted,

Irénée du Pont, President.

Note: "C-2-a" is written at top; "gmc-666" appears in the lower right-hand corner of page.

2

Government's Exhibit No. 185

COPY

Wilmington, May 15, 1923.

Mr. Pierre S. duPont,
DuPont Bldg., City.

Dear Pierre:—

As promised when you first suggested electing Alfred Sloan to the duPont Board of Directors, I have given the matter careful thought and am wondering if it is wise to do so at this time.

If the doing of this results in the important men in General Motors getting the idea that we are endeavoring to put the duPont stamp on General Motors instead of recognizing it as a free and independent institution it will be unfortunate, because General Motors should stand on its own feet and never again have to look to the duPont Company or anyone else for support. Any other policy will not result in a strong, well built institution.

While the partnership idea, which prompts the thought of electing Alfred to our Board, is splendid we must remember we have little or no opportunity of explaining the partnership idea to the General Motors group and should we have such opportunity and succeed in selling the partnership idea as a valuable scheme and for the best interests of all concerned, is it not probable that Bassett, Mott, Kettering and the Fishers might feel their right to be invited into this partnership?

Should the employes of General Motors resent the idea of the duPont stamp and should the important men in the company feel slighted thru not being made partners it can only result in making Alfred's new position more difficult for him.

Time is a factor of fundamental importance in all human problems and should be taken advantage of when it can be used without cost. We have done a splendid job in electing Alfred president of General Motors Corporation, because we have promoted a good man, a man who has demonstrated his fitness and ability for the position and PRINCIPALLY BECAUSE WE HAVE PROMOTED A GENERAL MOTORS MAN, and I feel that the reaction throughout the entire organization has been splendid. Let us be careful

now not to overdo the matter and secure an anti-climax. The element of time can be used here without cost, for the reason that Alfred can be elected to the duPont Board six months from now with every advantage that accrues thru taking this action now. At that time both he and we can more accurately determine whether it is the wise thing to do.

Perhaps you have talked to Alfred about this, in which event I think he should be encouraged to quite frankly tell us how he feels about the matter, otherwise he may feel that to refuse or suggest delay in becoming a member of the duPont Board might give offense.

In the matter of partnership I think a great deal might be said along the line of a proper partnership, consisting of our group going into General Motors as partners with Alfred instead of bringing him into an institution that is foreign to him. Being a member of our Board with no substantial stock interest is quite far from a duPont partnership. But this is quite apart from the main thought I have in mind, as outlined above.

Sincerely yours,

J. J. Raskob

Copy—Messrs. Irenee duPont
Lammot duPont

Note: A check mark appears opposite the name of Irenee du Pont at the foot of the second page; "gmc-666a" appears in the lower right-hand corner of each page.

Government's Exhibit No. 186

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)

May 22, 1923.

Mr. Irenee duPont, President,

ELECTION OF MR. ALFRED P. SLOAN, JR.
AS A MEMBER OF THE BOARD OF DIRECTORS
OF E. I. DUPONT DENEMOURS & COMPANY:

At a meeting of the Board of Directors of this Company held yesterday the recommendation contained in your letter of May 8, 1923 was approved, and Mr. Alfred P. Sloan, Jr. was unanimously elected a member of the Board to fill the vacancy caused by the resignation of Mr. Frank L. Connable.

M. D. Fisher
Assistant Secretary.

2.

NOTE: "C-2-a" and "Wrote Sloan 5/22/23" are written at the top; "gmc-667" appears in the lower right-hand corner of this page.

Government's Exhibit No. 187

ALFRED P. SLOAN, JR.

Positions Held in General Motors Corporation

1918 to date

Vice President	Dec. 31, 1918 - May 10, 1923
President	May 10, 1923 - May 3, 1937
Director	Nov. 7, 1918 - to date
Chairman, Board of Directors and Chief Executive Officer	May 3, 1937 - June 3, 1946
Chairman, Board of Directors	June 3, 1946 - to date
Member, Executive Committee	Nov. 7, 1918 - May 3, 1937
Chairman, Executive Committee	May 10, 1923 - May 3, 1937
Member, Finance Committee	Apr. 25, 1922 - May 3, 1937
Member and Chairman, Policy Committee	May 3, 1937 - June 3, 1946
Member, Financial Policy Committee	June 3, 1946 - to date
Member and Chairman, Bonus & Salary Committee	June 3, 1946 - to date

Government's Exhibit No. 188

December 24, 1928.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
224 West 57th Street,
New York City, N. Y.

Dear Alfred:

I had a long talk with John Raskob last Thursday and with Pierre on Friday and have definitely come to the conclusion that there is no hope of inducing either of them to return to their former positions with General Motors. I don't think it is necessary to go into the reasons for my arriving at this conclusion or for their taking the stand which they appear to me to take. You have urged from time to time that something should be done in the matter, and I am convinced that the time to act has arrived, so that henceforth you have my full support in this matter.

It has been suggested several times that either Irenee or I should replace Pierre as Chairman of the Board. I am not anxious to secure that election, although I think I fully appreciate the honor conveyed, and if that were thought best I, of course, would be willing to do my part to the best of my ability. It seems to me, however, that Irenee would be the more normal appointment

and that he would be able to fulfill the dutues much better.

In regard to the Chairmanship of the Finance Committee, I feel that it is up to the du Pont Company to make a nomination, because it seems that du Pont has always assumed the responsibility for the financial direction of General Motors. I have not discussed the matter with any of our people, except Pierre, Irenee and Walter Carpenter, but it is my personal feeling that the appointment of Walter Carpenter to that position would be the most desirable. If, for any reason, that were not agreed, then my second suggestion would be Don Brown, and I think Don would be my first choice if it were not for the feeling that his services could be better used in the sales work, as I believe they have been to a large extent in the recent past.

John seems to be perfectly willing and glad to remain as a member of the Board and of the Finance Committee, and Pierre the same. I think this would be quite desirable.

I hope later this week to have an opportunity to talk with you further regarding the above, but wanted to give you as promptly as possible my views briefly.

With Best Wishes for a Merry Christmas, I am

Yours sincerely,

LduP/MD PRESIDENT.

P.S. I am enclosing a Mutt and Jeff cartoon which, if you

—3—

have not seen it, may interest you. The artist's sarcasm certainly "hit the nail on the head."

L. duP.

NOTE: "C-26" is written at top; "gmc-524a" appears in the lower right-hand corner of each page.

2

Government's Exhibit No. 189

February 13, 1929

MR. LAMMOT DU PONT:

As Chairman of the Board of General Motors, this is to remind you of the rather strong recommendation we had from both Pierre and John that it would be well to put Knutson on the Executive Committee, say in the place of John, and Mooney in the place of Mr. Mott, and possibly Walter Carpenter in place of Pierre.

This is just a reminder of a conversation of several months ago.

IRÉNÉE DU PONT

NOTE: "Received Feb 14 1929 Lammot du Pont" is stamped at top of page.

Government's Exhibit No. 190

Wilmington, Delaware, April 22, 1930.

Mr. A. P. Sloan, Jr., President,
General Motors Corporation,
New York City, New York

Dear Alfred:

I have yours April 14th, enclosing a list of Directors and Officers of General Motors Corporation and raising the question of the desirability of any changes.

Your proposition to not re-elect Mr. Bishop Vice-President seems justified under the circumstances you mention. Assume you intend to retain him as a Director, which seems justifiable.

You make no mention of Curtis C. Cooper, who is now a Director, but has severed all other connections with the Corporation. I have a letter written by Cooper at the time of his resignation from the Acceptance Corporation, saying that it is agreeable to him to retire as a Director of General Motors if the management think it desirable. I talked with him about it at the time and feel convinced that he was sincere in his willingness to retire from the Board if that was thought desirable. I see no particular advantage in retaining him on the Board under present circumstances, and would therefore recommend that he be not re-elected.

I like very much your idea of doing away with the Operations Committee and electing to the Executive Committee the present members of the Operations Committee, who are not now members of both. This means Bradley, Grant, Hunt and Wilson would have to be elected to the Executive Committee, and presumably would have to be elected Directors. They are all Vice-Presidents at present. I think this would be a good thing to do, the only objection being to adding numbers to the already large Board. This objection is trivial. These men are all assuming important responsibilities and I feel have handled them excellently. It will no doubt be considered an honor to be elected to the Board and I think doing away with the Operations Committee will be a constructive move.

I see no reason for dropping any other member of the Board, and have no suggestion for additional men.

If the above is carried out all of the Vice-Presidents will be members of the Board, except Glancey, Reuter and Strong, but I see no particular reason for adding any of them to the Board.

Yours very truly,

CHAIRMAN OF THE BOARD.

LduP/MD

NOTE: "File Copy" is printed across each page and "GM-20" is written at top of first page; "gmc-521" appears in the lower right-hand corner of each page.

Government's Exhibit No. 194

Wilmington, Delaware, April 6, 1937.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

At the meeting of du Pont Finance Committee yesterday, there were present Irenee du Pont, Carpenter, Echols, P. S. du Pont, Brown and L. du Pont.

We discussed the proposed General Motors reorganization for about an hour, after which Don had to leave, and the rest of us continued the discussion for another hour.

There seems to be no question but what the opinion was unanimous in favor of the objectives of your proposal, nor did there seem to be any unanimous disfavor of any particular element or feature of your proposal. There was a general feeling of misgiving with respect to discontinuing the present Finance Committee and not establishing some body whose particular function would be handling financial problems of the organization and which would also constitute a concentrated representation of stockholders' opinions on important matters.

The suggestion of having three Committees; namely, a Finance Committee, a Policies Committee and an Executive Committee was discussed, but there seemed to be general objection, not only on the ground of complication and difficulty of drawing the line of responsibility between the Finance Committee and Policies Committee, but also on the ground that the Finance Committee, in order to properly function as to its responsibilities, would have to be made up of substantially all of the present members of the Finance Committee, plus some of those on the Policies Committee, which would make a large group.

Another suggestion was offered (after Don's departure), on which I would like to get your reaction. I will describe the suggestion by outlining the procedure:

At the Board of Directors Re-organization Meeting, after the Stockholders' Meeting in April, it would be announced by you that a re-organization seemed desirable and that, to fall in with the scheme, the Board of Directors were to be called upon to meet at much more frequent intervals, say once a month, and keep in much closer touch with the Company's affairs than had been possible in the past. In view of this necessity, it would seem to be desirable to reduce the number of members of the Board very radically to say .... You would propose that this Board would be composed of the following:

Baker
Bradley
Brown
Carpenter
Irenee
Lammot
Pierre
Knudsen

Mooney
Morgan
Mott
Prosser
Raskob
Schumann

Sloan
Smith
Whitney
Wilson

thus including a number of officers of the Corporation, the present banker representation and the present du Pont Company representation, reduced by omission of Harry. It would be announced that if any of the suggested names found it impracticable or burdensome to remain on the Board, in view of the proposed increase in frequency of meetings and time required, that they could feel free to so state.

This change, if accepted by the Board of Directors at this meeting or a subseqent one, would then be made public, with the explanation that those remaining on the Board are willing to devote more of their time and attention to the Corporation's affairs, and the others hand in their resignation, on the ground that they cannot devote such time, or such other reasons as they see fit to offer.

Having thus reduced the membership of the Board, either at the same meeting or subseqent meeting, a general Policies Committee would be appointed, composed of:

Bradley
Brown
Knudsen
Sloan (as Chairman)
Smith
Wilson

This Committee would be made responsible for the formulation of general policies of the Corporation, including financial policies:

but insofar as the financial policies are concerned, they would not have authority to decide certain kinds of financial questions, the decision on which would be reserved to the Board of Directors which, as stated before, would meet monthly and keep itself intimately informed with respect to the Corporation's affairs. These matters which would be left to the Board might include purchase, sale, issue or redemption of securities, dividends, general bonus plans, working capital policies, budgets and appropriations in excess of, say, ten million dollars, not previously budgeted.

At the same time, the Board would appoint an Executive Committee, composed of:

Bradley
L. P. Fisher
Grant
Hunt
Mooney
Wilson (as Chairman) with the addition of

Knudsen and Sloan, ex officio, and any other additions which might be appropriate. It will be noted that this Executive Committee is not composed entirely of Board members. There might be added to this Executive Committee some other members; e. g., Albert Bradley's runner-up, Wilson's runner-up, R. K. Evans, etc.

It seems evident that this Executive Committee should be strengthened in some way. It also seems desirable to promptly, without delay, take such steps as will relieve each member of the Executive Committee from other duties and supply a suitable successor to such duties.

It should be noted that Mooney is suggested on the Executive Committee and also on the Board of Directors, but Fisher, Grant and Hunt are not on the Board. They are omitted to reduce numbers.

The Executive Committee would have full responsibility and be expected to take the initiative in all matters connected with the Corporation's affairs, of course subject to the policies laid down by the Policies Committee and subject to the instructions of the Board of Directors.

It might be entirely appropriate to place with the Policies Committee the responsibility and initiative in financial matters.

It seems to me that this suggestion accomplishes the same result as your proposal, except that, in effect, the Board of Directors would, to some extent, become the Finance Committee, and the Board would be made a real working group. Perhaps on this basis, some of the Board enumerated above and included in those of the banking and du Pont groups might wish to resign, because of the additional time required. Certainly, I would feel like doing so for this reason, unless the du Pont Company should desire me to remain.

Yours sincerely,

CHAIRMAN OF THE BOARD.

LduP/MD

NOTE: Lines in margin on first page are by hand. gmc-506a is handwritten on bottom of each page.

Government's Exhibit No. 195

Wilmington, Delaware, April 6, 1937.

Mr. F. D. Brown, V. P.,
General Motors Corporation,
New York City, N. Y.

Dear Don:

Referring to our telephone conversation this morning, in regard to the proposed General Motors re-organization, I have drafted a letter to Alfred, of which I am enclosing two copies.

I think I am correct in saying that Pierre approves this proposal in principle and has no objection to the details, but realizes that some of them might be improved; and, of course, it is understood that that would be done, if possible. Walter does not like the proposed plan generally, but thinks it is acceptable and as good, if not better, than anything else suggested. Irenee left for Cuba last night, hence did not see the draft, but participated in the discussion which led up to its preparation, and I guess would be in accord with Pierre's view. I think this proposal is entirely acceptable, but, like Pierre, feel sure that you and Alfred and John can make many suggestions for improvement.

If you see fit, will you forward a copy of this draft to Alfred?

Yours sincerely,

LduP/MD

CHAIRMAN OF THE BOARD.

Note: Writing in lower right corner is "gmc-506."

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Government's Exhibit No. 196

Copy: ~~Mr. Irenee~~ du Pont.

April 23, 1937.

Mr. W. S. Carpenter, Jr.,
E. I. du Pont de Nemours & Co.,
London, England.

Dear Walter:

On last Tuesday, April 20th, we had a conference in New York on the General Motors re-organization; Alfred, Don, J. T. Smith, John Raskob, John Pratt, Pierre and myself being present.

Alfred explained his suggestions at considerable length and detail, both as to plans and reasons which led up to his suggestions. He then went into considerable detail comment on my proposed compromise, written him on April 6th, which I think you will recall as the plan for a Policies Committee, an Executive Committee and a much reduced Board of Directors, which would meet more frequently and assume the duties and responsibilities heretofore lodged with the Finance Committee. This proposal of mine did not meet with unanimous approval; in fact, I don't think anyone had a good word for it.

After discussion, which lasted all day, it was finally agreed that the following plan would be acceptable:

Reduce the Board to 28, as follows:

Baker
Bradley
Brown
Bishop

3436

Carpenter
Coyle
Irenee
Lammot
Pierre
L. P. Fisher
Grant
Hunt
Kettering
Knudsen
McLaughlin
Mooney
Morgan
Mott
Page (DeWitt)
Pratt
Prosser
Purvis
Raskob
Schumann
Sloan
Smith
Whitney
Wilson

You will note the following are omitted:

McGowan
H. F. du Pont
W. A. Fisher
Kaufmann

Opel
Swayne
Woolley
Young

You, perhaps, had not heard that Alfred Swayne died a week ago.

At the re-organization meeting of the Board, a Policies Committee would be appointed, consisting of the following:

Bradley
Brown
Knudsen
Sloan
Smith
Wilson

—3—

and three representatives of the du Pont Company; the suggestion being that these three be you and myself and one other man—perhaps not an Executive Committee member.

At the same time there will be appointed an Administrative Committee, with Wilson as Chairman. It was agreed that eventually Alfred should become Chairman of the Board and Knudsen, President; but Alfred injected a new thought into the discussion—at least it was new to me; namely, that if I retire as Chairman and he were elected and Knudsen made President—all at once, that the public impression would be that he had been "kicked upstairs," which was not the intention and would not be a desirable impression. I had thought that that was just the main idea, but, of course, in an entirely different sense; namely, that Alfred intended to, and wanted it known that he was lightening his burden, but still remaining the executive head of the organization.

His alternative was to have me retire and he be elected Chairman, retaining the Presidency for, say six months, at which time Knudsen would be elected President, Alfred continuing as Chairman. The six months' interval would serve to convince the public that Alfred was still active and the head man. Two objections to this idea were made; namely, that when Alfred retired from the Presidency, the public would then get the impression that he thought was undesirable; also that the whole proposition might not "sit well" with Knudsen at all. It was left that Alfred would give some further consideration to this detail. It was also understood that Alfred would take the matter up with the bankers and get their reaction, and I was to discuss it with Harry du Pont. As you will observe, he has been omitted from the Board I thought the omission of Harry was justified on the ground that it would soften the way toward the omission of some others.

Alfred seems so insistent on this general plan and was so generally backed up by the others that I feel your objection, in which I concur, could well be waived, especially in view of the fact that you and some other man of financial experience from the du Pont Company might be named on the Policies Committee.

I would appreciate your giving some thought to this and cabling any suggestions you have as to the du Pont representative on the Policies Committee.

Yours sincerely,

PRESIDENT.

LduP/MD

Irenee:

After readingthe above, I would appreciate any suggestions you have as to du Pont representative on the Policies Committee.

L.

NOTE: gmc-505b is handwritten on bottom of each page.

5

Government's Exhibit No. 197

RECEIVED BY PRIVATE WIRE FROM
POSTAL TELEGRAPH
STANDARD TIME INDICATED IN THIS MESSAGE

Postal Telegraph
THE INTERNATIONAL SYSTEM

This is a full rate Telegram, Cablegram or Radiogram unless otherwise indicated by signal in the check or in the address.

DL	DAY LETTER
NL	NIGHT LETTER
NM	NIGHT MESSAGE
LCO	DEFERRED CABLE
NLT	NIGHT CABLE LETTER
	RADIOGRAM

RECEIVED MAY -3 1937 LAMMOT DUPONT

RECD ... PONT ... TELEGRAPH OFFICE

Jm Organization

N5 65 CABLE=LONDON 1220 P MAY 3 1937

LC PRESDUPONT=WILMINGTONDEL=

LAMMOT REFERENCE YOURS TWENTYTHIRD STOP ON ASSUMPTION RECOMMENDATION MUST BE FROM MOTORS BOARD SUGGEST IRENE OR RASKOB DEPENDING UPON WHICH WILLING AND ABLE GIVE TIME STOP FEEL WE CANNOT CONTINUE PIERRES BURDENS STOP ECHOLS ALSO EXCELLENT SELECTION IF HIS TIME AVAILABLE STOP REGRET FURTHER POSTPONING SELECTION NEW PRESIDENT INASMUCH WILL EVENTUALLY FURTHER DELAY SELECTING PERMANENT INCUMBENT STOP LEAVING TONIGHT FOR COLOGNE=

CARPENTER.

733A

Government's Exhibit No. 198

September 12, 1940.

Mr. Alfred P. Sloan, Jr.
General Motors Corporation
1775 Broadway
New York, N. Y.

Dear Alfred:

I went out to see Pierrè the other day and you will be glad to learn that he is progressing, though slowly. He endeavored to do a little too much recently and had a slight setback, but seems to be recovering from that quite satisfactorily.

Pierrè said at that time that he thought he should resign from the Board of General Motors, principally in order to make way for a younger and more active person. I asked him if he found it a burden to attend the Board meetings, about which you will recall he is very conscientious, and he said he did not, though I am not sure that this will not be more of a hardship for him in the future than in the past.

If Pierrè should resign it occurs to me that we might suggest as his successor Mr. Angus B. Echols. Mr. Echols is now Chairman of our Finance Committee here and it is our Finance Committee which has the responsibility, so far as the du Pont Company is concerned, of looking after its investment in General Motors. What would you think of this?

Pierrè also suggested that it might be well for you to again assume the title of President of the Corporation in order that it might be possible, without too much embarrassment, for Mr. Knudsen to return to the Corporation after his service in Washington. Pierre was particularly hopeful, however, that if you did this it would be feasible to so organize that this would not throw an additional burden upon you.

I had occasion to discuss these matters with Lammot and he and I, both, thought that the proposed moves would be constructive. He felt, however, that it might be well to postpone Pierre's resignation until he further recovered in order that his withdrawal at that time might not be interpreted as due to his present illness which, of course, is not the reason for it.

—2—

I am merely sending along these thoughts in order that you might have the opportunity of giving them some thought. No doubt some or all of them have occurred to you before. Perhaps we could discuss them next Tuesday.

Sincerely yours,

PRESIDENT

WSC:R

NOTE: "File Copy" is printed across each page and "33." is written at the top of the first page. gmc-845 is handwritten on bottom of each page.

Government's Exhibit No. 199

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

January 8, 1941

Mr. W. S. Carpenter, Jr., President,
E. I. du Pont de Nemours & Co.,
Wilmington, Delaware.

Dear Walter:

I have your letter of the 7th inst., and have noted its contents very carefully. I am sure we have left you, as well as Lammot, with a misconception as to the strength of personnel in the Financial Department of General Motors I was aware of this on Monday, during the discussion that took place, and it was for that reason I remarked to you that when I was in better voice I would like to discuss the matter with you fully.

In the first place I think you and Lammot have gained somewhat of a false impression from a too-literal reading of the organization chart as it has pictured the financial department. My name has appeared in blocks representing Financial Department and also representing the group of activities embracing GMAC, GEIC, and MIC giving to you the impression that I was to be regarded as in administrative charge of these branches. Such as not been the case, and the new chart that is being prepared will be corrected and thereby remove any possible misinterpretation in this respect. Schumann's name will be pictured on the chart as in charge of those activities within his jurisdiction, and Prentis, as Treasurer, will be shown as in charge of the Financial Department.

There is no need for me to mention Schumann's qualifications. In passing, I might say that I will welcome the time when it might appear suitable for some one else to be made President of GMAC and have Schumann assume the status of General Motors group executive over those allied activities which he is now looking after.

As to Prentis, he is a man of unquestioned ability. Ever since I have been with General Motors he has been the administrator in charge of accounting, auditing, tax work and the many duties pertaining to the Treasurer's office. He is ably backed up by A. C. Anderson, Comptroller, and numerous very capable men. Under existing conditions I cannot see how we have the slightest cause to worry over the fact that the Financial Department will be under the charge of Mr. Prentis, with his efficient lieutenants and well organized staff.

In General Motors over the past twenty years we have had some one recognized as head of the Financial Department to whom Prentis has reported, and who has had intimate contact with operating problems deriving from his relationship with what we have come to call financial control policies. This individual has always had his headquarters in New York with a staff there, and within that organization has rested the responsibility of gaining a reflection of operating conditions of the Corporation and of its many activities, forecasts as to forward conditions, and many other duties intended and directed along the line of furthering opportunities for constructive planning and affording the basis for effective treatment of problems of coordinated control. This work has been separate and distinct from Financial Department administration, per se, although it has concerned itself with principles and procedure in the field of accounting practice for the sake of gaining the flow of accounting facts and statistical information required in fulfillment of the purposes of forecasting and planning, and in facilitating the objectives of coordinated control.

The most effective first step taken in the direction of organizing this special field of financial control work was early in 1922 when I brought Bradley from Detroit to New York. He was Assistant Treasurer in Detroit and retained this official position in New York. He reported officially to Prentis, Treasurer, until in 1929 he was elected Vice President and placed over the Treasurer. In November 1933 he was elected a member of the Finance Committee. He was never on the Executive Committee, but was made a member of the Administration Committee as also the Policy Committee when those committees were created in May, 1937.

From 1922 to 1929 Bradley served as Assistant Treasurer reporting to Prentis, but actually was accountable to me as my chief assistant in organizing the work and attention to what I refer to as Financial Control Policies. He built up a staff of capable men and he himself, as time went on, gained more and more contact with Mr. Sloan, operating executives in Detroit and in the divisions. Then gradually as Bradley came to be respected for his applied knowledge, and assumed duties on policy group activities his own time and thought came to be extended towards participation in and attention to problems of operating policy. As this natural evolutionary process occurred in bringing Bradley into direct contact with operations the responsibility of carrying on the work of a more purely financial character passed on to the organization under him. Enjoying the contact with Bradley's supervision, and furthered greatly as he himself gained broader contact with operating problems, the organization that has been under him has grown to a state of unquestionably high competence. With all due respect to a suggestion in your letter that we might do well to consider bringing some one in from the outside to head up our financial department, ? I am convinced there is none such who could meet the situation as we would want as well as some we have within.

Donner has been Bradley's chief assistant for years. He is highly competent from the experience and training he has had to carry on this special type of work of the New York financial office. He is a man of unusually high potential and I think we can feel happy in having in him some one who can measure up to the qualities that Bradley before him has demonstrated. For his own good, as well as for the good of the organizational development, I am convinced that it would be a mistake to elevate him to a Vice-presidency at this time. I am sure it will be better for him more gradually to work into an exercise of his applied knowledge in dealing with problems of operating policy in contact with the various operating executives, having thereby the benefit of gradual evolution and gaining respect throughout the organization such as Bradley enjoyed in the years of his steadily expanding contacts.

I was struck by your reference to Mr. Sloan's background of experience in that his grasp of all aspects of business management has come in part from the fact that he came up through a small corporation. I agree so thoroughly with this observation of yours. In this same sense we hold that one of the greatest assets of General Motors lies in its basic structure of operating divisions each with a self-contained management headed by a General Manager with responsibilities corresponding with those which would obtain if his division were a separate and distinct unit. The so-called financial control policies have been deliberately aimed at nourishing the advantages of relatively small-scale business management in the training of men to carry on who would be conscious of all aspects of management, particularly the financial aspects.

[illegible]

We think the Corporation is very fortunate in that C. E. Wilson himself is highly conscious of the financial aspects of the business. As you know, he was for some years head of the Delco Remy Company during a period when the operation of that company was extraordinarily successful and during his regime as General Manager he had his fingers on every phase of operation of that business. On the side when in Anderson, and in connection with what he felt to be his duties towards the local business he was serving, he was active President of a local bank in Anderson, and furthermore engaged in extensive activities in connection with the supply of local capital to meet the problems of housing development needed in connection with the expanding employment in the community. When he was brought into the central office his primary duties in the early stages were in the direction of carrying on negotiations resulting in acquisitions of an interest in Bendix Aviation Corporation, Fokker Aircraft Company, Allison Engineering Company, and various other situations which we were studying into, some of which eventuated in acquisition by General Motors Corporation and some were passed up. In the course of those duties he exhibited marked appreciation of the financial aspects of business.

Now, as to the central organization of General Motors, as it may be concerned with the financial aspects, there is no weakness existing as I can see it. The application of Mr. Bradley's knowledge and feel of the financial aspects is not lost. In fact it is enhanced by the new duties he has assumed. The financial department remains separate, organizational-wise, from operations and is responsible to the Policy side of management. Effort will continue in the training of men in attainment of experience and skill in dealing with the financial aspects and in bringing operating executives to greater consciousness of financial considerations and of the essential principles involved in coordinated control. When I said Donner was not ripe to assume the position of V.P. in charge of finance as Bradley exercised that function, it was not with reference to his ability and knowledge of those things of a financial character. The shortcomings of the moment are entirely on the side of contact thus far with problems of operating character where decisions have to be made and where related considerations have to be taken into account. One in Donner's position may have a perfectly balanced viewpoint on problems requiring coordinated consideration, and yet be regarded as theoretical by operating executives with whom he has not been in intimate contact. It is better far, I think, to give him time to branch ?out into the field of operating policy considerations and then to move on the matter of his promotion after he has demonstrated ability, such as I

John will make decision of [illegible] Donner am sure will be the case, to apply his knowledge and experience.

In the meantime, looking at things from the standpoint of the financial department in which I have some feeling of pride, I think that department gains, as General Motors gains, from Bradley's transfer to operating duties. Enthusiasm will be engendered as a result of promotions within the department to positions of greater responsibility. I don't believe you will find the department lacking in experience and skill in dealing with problems which we will come to face.

if promoted
why are they
so short?

Sincerely yours.

D Brown
DONALDSON BROWN

DB:W

Government's Exhibit No. 200

Copy to: Mr. Lammot du Pont
Building

January 9, 1941.

Mr. Donaldson Brown
General Motors Corporation
1775 Broadway
New York, N. Y.

Dear Don:

Thanks a lot for your letter of January 8th.

I am going to reply to this as it seems to me quite clear from what you say that I did not make myself clear in my previous letter. Please don't bother to reply to this as it seems to me this exchange might become interminable. Perhaps it would be better for me to stop by there sometime and discuss it with you.

Let me first dispose of some of the points in which it may be that I have not been understood.

In the first place you have stressed the extraordinary capacities of certain men that you have in the organization there. You may be assured that I have no reservations regarding these capacities. So far as I have been able to judge they are pretty nearly "tops". My complaint from this standpoint is that, in spite of the confidence which you express in their capacities, you do not feel them sufficient to warrant recognition in a large way by promotions to greater positions in which their responsibilities will be enhanced.

Next, you point out the objections to bringing men into the organization from the outside to assume higher positions. I recognize that, and, far from advocating that it be done, I meant to urge that it be not done, but rather that the men which we have, who to me seemed to have sufficient capacity, be elevated.

I rather gather from your letter that, while you feel one or two of these men have sufficient capacity from the financial standpoint, their elevation should be delayed until they become better acquainted with the operating side. I will have more to say on this later, but meanwhile I want to stress that the aspects which I think we are discussing at the moment involve providing for the financial problems of the Corporation in the broadest sense and not operating problems.

—2—

Again I wish to stress that I do not in the slightest belittle Mr. Wilson's capacities. I do say, however, that I do not feel that he has had the background of experience that Mr. Sloan had, and for this reason I question whether he has the same sympathy with and appreciation of the financial aspects of a corporation that Mr. Sloan has. As Mr. Sloan has expressed it in referring to other people—"He has never had the job of meeting the payroll at the end of the week". The broader financial aspects of Mr. Wilson's problems as Head of certain divisions have always been provided for and this does not mean again in the slightest that he has not fully taken care of such aspects of his operating problems as had a bearing upon the financial side of those problems.

Again I might say that I have no worries that the financial departments under such men as Schumann, Prentis, Donner, etc. will not be well taken care of. However, if it is true that they are to assume the responsibilities which have been assumed heretofore by such men as Raskob, Bradley and yourself, perhaps they should be given the position, title and prestige that go with those responsibilities.

Now as to the question itself, perhaps I can best deal with this if I refer a little to the past.

It seems to me that, in the du Pont management for years back as well as in General Motors management, the activities and responsibilities have been divided into two parts; one, financial and the other, operating. The financial phase has not been merely an auxiliary of the operating department, it has been at least equal and often dominating in the considerations of major policy. Think back over the earlier days and consider the influence brought to bear on du Pont management when Pierre, Raskob and you were in charge of du Pont financial management. As a matter of fact you will recall that for years Pierre as Treasurer was the Chief Executive Officer of the Company, though to be sure he was also Acting President. Think of the long period of years in General Motors management when the influence of the financial side was so important, during the days of Pierre, Raskob, and later, yourself and the old Finance Committee.

I should have mentioned above, perhaps, that my complaint is not that your name is or is not at the top of the financial department's, but rather that now that you have passed to a more general executive position in the Corporation and Bradley has gone over to the operating end, there is no one as general financial executive.

I think that you have become more and more interested in the General Motors picture as a general over-all executive and less specifically as the financial chief. This evolution was a very natural one with the growth of Bradley, but now we must recognize that with Bradley passing out of that picture and you becoming a General Executive the broader financial aspects of the Corporation are without any major executive giving it his total time.

This trend, I think, became even more accentuated with the change in organization of the Corporation. I refer to the change that brought about the creation of the Policy Committee, the abandonment of the Finance Committee and the elevation of yourself to the Vice Chairmanship of the Board. That change in large part eclipsed the financial influence except as it was retained by Bradley. His disappearance now leaves this function entirely without a Head.

When we had the separate Finance Committee I think you will agree that the financial aspects of the Corporation were given more thought than they are today. It seems to me that under our present set-up important decisions are influenced more and more from the operating standpoint, and less and less from the financial standpoint. I am afraid that this trend will be accelerated considerably with the current changes.

It is difficult for me to cite specific examples of problems which may be overlooked under the new arrangement, not because of any shortcomings on the part of any of the departmental heads, but merely because they are not problems which are the responsibility of any one in particular. I might, however, refer to several even though I think you will feel that perhaps they will be taken care of in some way.

In the first place let me ask you to cast your mind back over the last twenty years, and think of the important moves which have been made of a financial nature in the General Motors Corporation, for which you and Raskob were responsible. Would you expect those to be handled now by Mr. Prentis as Treasurer, or by Mr. Schumann as President of the G. M. A. C.?

One of the moves which I can recall was the setting up of the G. M. A. C. Lammot has mentioned several times in Policy Committee the question of the wisdom of our continuing in the acceptance business. I do not believe that we can expect the Acceptance Corporation itself to consider the pros and cons of that question, nor would I expect it to be within the range of Mr. Prentis' province. May be it should be done and may be it should not. Our competitors, I understand, have divorced themselves from this type of business. Should we do it or should we not?

I believe that if you or Raskob were heading up the

financial policies of the Corporation you would be in a position, and would consider it your duty to explore this question exhaustively and dispassionately in view of the fact that it has been brought up on several occasions by Lammot. When he has mentioned it in the Policy Committee it has been set aside with almost no discussion.

Whose job will it be hereafter to consider in the broadest sense the question of the Corporation's credit, the standing of its securities? We can ask some one else from time to time to give us reports on this, but the general subject itself will not hereafter be anybody's responsibility as I see it.

I believe that you have been in large part responsible for the present system of financial control that we have in the Corporation. With the change in conditions over the course of years, maybe that should be changed or abandoned, and substituted by some other plan which will be a better one. I presume that problem can be assigned to someone, but whose responsibility will it be to be on the lookout for such things?

The Corporation has enormous cash balances today, so that it seems for the moment we will never require more, but who will anticipate and plan sufficiently in advance to provide for more if needed and design ways and means of getting it? We can assign the latter problem to someone if we know it should be done, but whose responsibility will it be to anticipate this? Will it be Mr. Prentis' or Mr. Schumann's? The Managers Securities plan was not conceived of and developed by a Department Head, but by someone who was considering the interests of the Corporation in its broadest way.

I think that we may easily fall into the error of feeling that all of these things have been accomplished and they merely require operating now. On the other hand, it is more probable that newer things just as important, just as influential on the eventual success of the Corporation are still unthought of and yet to be developed. Again we rest complacent with the feeling that these men, who are now able department heads, but who have enormous duties today which require all of their time, can think of these broader problems. These are the same department heads or assistants whom you do not now feel can be elevated to these higher positions. Is it therefore reasonable and fair to them or to us to expect that, while we don't regard them of sufficient capacity to elevate in position, we nevertheless expect them to solve the problems consistent with these greater positions?

I feel that the General Motors' Corporation can well afford to employ the best man we can find in this country to

—5—

head up this tremendously important function. If we have a man in the organization, and I certainly hope we have, we ought to recognize him and get him immediately to head up this function. If you are of the feeling that we have not, I don't think we can afford to wait a number of years for him to get further experience. The enormous problem for industry in this country created by the National Defense Program alone, involving as it does the unprecedented expansion of Government credit, is a problem which deserves the thought of a full-time man.

I believe that the financial problems of Corporations the size of du Pont and General Motors over the next few years will be of greater magnitude and of greater variety than they have ever been before. We have not a completed job, we are not a static organization. I believe we should organize accordingly.

Sincerely yours,

President.

WSC:R

NOTE: "File Copy" is printed across each page and "33." is written at top of first page. "gmc-840" is written at lower right corner of each page.

7

Government's Exhibit No. 201

GM-Organization Chang

DU PONT
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

Copy to: Mr. Lammot du Pont
Building

April 8, 1942.

Mr. Alfred P. Sloan, Jr.
General Motors Corporation
1775 Broadway
New York, N. Y.

Dear Alfred:

You were over here the other day to discuss organization, and I gathered when you left that you wished the reaction of both Lammot and me to the suggestions which you made. This thought occasions this letter.

Lammot and I have talked about this since you were here, and some of the points which I make are also developments of those conversations, though undoubtedly Lammot will write you separately. I particularly do not wish to commit Lammot to anything in this letter as I am quite sure there are one or two points with which he is not in agreement. In including these points I am not doing so in the thought I am urging my viewpoint as opposed to his, but I am including them as ideas which might be tossed into the general basket for later sorting out.

I agree that the Committee setup which we have over there today is one which should be altered. The developments growing out of the present critical emergency have brought out some of the weaknesses in our present setup, though I do believe the weaknesses existed even before the war and the creation of the War Committee and would have required a change in our organization in any event.

I say this because I feel we have gradually moved away from the idea which was the foundation of our present organization, namely, that the Policy Committee would set up major policies and that the Administration Committee would carry them out.

I think, as the years have gone on, the Policy Committee has become stronger and stronger, and the Administration Committee has become of gradually lesser importance. I think this is true both as respects the personnel of the two Committees as well as their activities, and I am not sure which was the cause and which the effect.

It seems to me that it has been very difficult for us to distinguish between questions which should have been matters for the Administration Committee and questions which should have been properly within the sphere of the Policy Committee. I say that it has been difficult for us to distinguish between these questions. I am inclined to think that this may have been due to the fact that it is inherently difficult to distinguish between matters of policy and administration.

In any event, it has seemed to me, as the years went on, the Policy Committee took up more and more questions of administration and operation until we gradually devoted most of our time to such matters. Then when the War Committee was organized it seemed to handle both policy questions and administrative questions until the functions of the Administration Committee more or less passed out of existence, and the Policy Committee became in large part a repetition of the War Committee. While all of this seems to be dealing with past history, I review inasmuch as it affords a background of experience out of which comes the suggestion that the division of work between the two new committees should not be the same as we have had in the past, namely, questions of policy and questions of administration, but rather that we revert more nearly to the division of functions which we had some years ago, namely, finance on the one hand, administration and operations on the other hand. [illegible] [illegible]

For the purpose of convenience I am referring to these two committees as the Finance Committee and the Executive Committee. These names define in a general way the functions of the two committees and by departing from the old names of Policy and Administration we avoid confusion and perhaps may avoid some emotional aspects of the problem. I am listing below the two committees: suggested

Finance Committee

- Sloan
- Brown
- Wilson
- Smith
- Whitney
- L. du Pont
- ? Carpenter

Executive Committee

- Sloan
- Brown
- Wilson
- Bradley
- Hunt
- Donner
- Coyle
- Curtis
- E. Fisher
- H.B. du Pont

[illegible]

It is my thought that you might be Chairman of both committees; that Brown would be Vice Chairman of the Finance Committee and Wilson Vice Chairman of the Executive Committee. You will note that Sloan, Brown and Wilson are the only members who are common to both committees.

[illegible] It would be my thought that, while Brown would be a member of the Executive Committee and Wilson a member of the Finance Committee, neither would consider their attendance at the meetings of those committees as a "must" assignment, but that, if either felt his work required his absenting himself from those meetings, he should have no hesitancy in being absent.

You will note that I have placed Smith on the Finance Committee, but not on the Executive Committee. This does not suggest in the slightest that Smith could not make a valuable contribution to the Executive Committee, but it does recognize that, at least for the period of the war, the functions of the Executive Committee will be so largely involved in operations that he could perhaps use his time and effort to better advantage than sitting through long discussions so completely involved in operating problems.

It seems to me that the presence of the names of Whitney and L. du Pont on the Finance Committee need no comment.

I have left my own name on that Committee more perhaps because it is now on the Policy Committee and certainly does not belong on the Executive Committee. The question has arisen, in my mind and that of some of my associates, whether it is desirable for me to continue on any of the committees at General Motors in view of the amount of work involved in our present program. Perhaps my continuance on the Board would serve suitably as the du Pont representative and that my place on the Committee should be taken by someone else. I think this question may not be so important if the functions of the Finance Committee should be more nearly those of the old Finance Committee, though I have felt for some time that the functions and activities of the Policy Committee were gradually broadening to an extent that I perhaps did not have the time to devote to the problems of that committee which they deserved.

I believe the other names included on the Executive Committee list are the same which you discussed over here the other day with one exception, that of H. B. du Pont. no

I am still of the feeling that the job to be done by that Committee will be found a huge one and will require a great deal more time than we now suspect. If this assumption is a correct one it will mean that Coyle, Curtis and Fisher will have to spend a great deal of time in the preparation for that committee and in attendance at its meetings. As the capacity of those men, like that of others, is limited this must mean necessarily that they will have less time to devote to their extremely important operating problems. It seems to me, however, that the points which you make in favor of their presence on that committee are important ones, and it may be their operating problems will not suffer if they organize for the handling of those problems with very capable assistants. very important

There may, in fact, be the collateral advantage that the effect of this move will be the development and broadening of certain executives under those men, in order that they will be in a position to take over more important responsibilities should the operation of the higher policies of the corporation require the continuance of these men on the Executive Boards even after the current emergency.

I have suggested the inclusion of Belin du Pont on the Executive Committee. Belin's experience has been in large measure in engineering work and I feel he would be able to contribute constructively in the capacity of a Committee member. There is the further reason for believing that he could be helpful at the present time in view of his long contact with aviation and the importance of the aviation program in the General Motors picture in the near future. There would, I believe, be this further advantage in the general interest of the General Motors-du Pont relationship in that it would afford him an opportunity to become better acquainted with the men in the operating end of General Motors and also afford them an opportunity of learning to know better one of the General Motors-du Pont Directors.

very good idea [illegible]

I might add that I, of course, have not spoken of this last point to any one else than to Lammot, and as you may suspect he was not favorably disposed toward this suggestion. I think his reasons for this are consistent with the position he has always taken, namely, that the du Pont representatives should not become too closely involved in the operating problems of General Motors, principally because of their lack of experience in such problems in General Motors.

This is no doubt a long and rambling letter, which is perhaps natural as it merely affords an opportunity of putting on paper some long and rambling thoughts. I do hope they may be of some help to you in this big problem. In any event, they constitute my reaction which you asked for.

Sincerely yours,

WSC:R

NOTE: Stamp at top of page 1 reads: "Received Apr 8 1942 Lammot du Pont"; "gmc-499b" is written in lower right corner of each page; stamp under "Sincerely yours," reads: "W. S. Carpenter, Jr."

Government's Exhibit No. 202

Copy: Mr. W.S.Carpenter,Jr

April 10, 1942.

Mr. Alfred P. Sloan, Jr., Chairman,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

Walter and I have discussed the matter of General Motors organization and I have seen his letter of April 8th to you, with which I am generally in accord. I am in accord with all of his suggestions specifically, except the following, on which I would like to give you my thoughts:

On page 2, second paragraph, Walter refers to the Policy Committee becoming in large part "a repetition of the War Committee." If I understand Walter's idea correctly, I agree with him, but would express it "that a large part of the Policy Committee's activities have been a rediscussion and approval by implication of what the War Committee has already done."

In the same paragraph, Walter refers to the division between the Finance Committee and another committee to handle administration and operations. I picture the function of a Finance Committee in this set-up as a little more than handling the policies and operations of the financial departments. The Finance Committee would be so constituted that it could appropriately be considered as an informal representation of large stockholding interests, that the personnel of the Finance Committee should be confined to representatives of large stockholders, but that its membership should constitute both those experienced and skilled in financial affairs, and also those who can properly represent large stockholders — whether or not they, themselves, are skilled in financial affairs.

At the bottom of page 2, Walter suggests personnel of the two committees. I think Walter should be omitted from the Finance Committee — entirely because of the heavy burden of duties he is obliged to carry with the du Pont Company, especially under the war conditions. Whether or not he is replaced on the Finance Committee is a secondary matter, but my preference would be that he should be replaced, and the best nominee that comes to my mind is H. B. du Pont, not because he is a substitute for Walter in financial experience, or other business experience, but he is equally competent to represent the largest single stockholder in General Motors; because he sits in on the important conferences of the du Pont Company, is fully familiar with its policies and is generally in accord with the thinking of du Pont management.

I see no particular reason to include Brown on the Executive Committee, assuming that he is on the Finance Committee, and believe his omission would improve the Executive Committee, by reducing its size, by throwing more of the burden onto the younger members of that Committee and by allowing Brown free time to exercise his valuable abilities and experiences more with respect to what I conceive to be the duties of the Finance Committee.

Donner, Coyle, Curtis and E. Fisher are excellent for the Executive Committee, but I am very strongly of the opinion that they should either be entirely relieved of their divisional duties or supplied with first-class assistants, who might take the principal burden of the divisions from their shoulders and, in a reasonable length of time, assume the whole divisional responsibility, leaving these men to devote their entire time and energy to Executive Committee matters. I have no fear that there will not be enough for them to do.

I am distinctly opposed to H. B. du Pont being on the Executive Committee, for the reason that Walter intimates and also for the same reasons which I applied to support of Brown being left off the Executive Committee.

On page 3, second paragraph, where Walter refers to attendance at committee meetings not being a "must" assignment; I agree with his thought, but not to the extent of expecting any committee member to intentionally absent himself.

On page 4, about the middle, where Walter refers to the advantages of H. B. du Pont becoming more familiar with General Motors men and operations, I agree with him, but these are advantages which I think we must forego.

You will observe that my differences with Walter are details, and the only details on which we differ are somewhat of the nature of my stressing the point rather more or less than Walter.

There is one other point which Walter does not cover, but which I feel he must have had in mind, and it seems to me important; namely a look to the future with respect to the top personnel. Omitting Smith and Brown from the Executive Committee will certainly throw a tremendous load on you, unless you force the assumption of responsibility upon the other members. I hope that the latter will come about, and that, as a result, a better supply of "timber" for the Presidency and Chairmanship may be developed. Perhaps I should emphasize another point which comes to me; namely, the intentional reduction of what might be called "du Pont influence" in General Motors operations, other than the financial departments. I grant you that my main thought is something in the nature of bowing to the trend of the times, when that trend is not all to the good, but the trend must be recognized, and in this case, the situation is such that no great harm will be done by "bowing."

Yours sincerely,

CHAIRMAN OF THE BOARD.

LduP/MD

NOTE: "gmc-499a" is written in lower right corner of each page; "FILE COPY" is printed across pages 2, 3, and 4.

Government's Exhibit No. 203

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

April 13, 1942

Mr. Lammot duPont
Chairman
E. I. duPont deNemours & Company
Wilmington, Delaware

RE: GENERAL MOTORS CORPORATION - GENERAL SCHEME OF MANAGEMENT ORGANIZATION

My dear Lammot:

I have your letter of April 10th on the above subject, and thank you very much for the thought you have given the matter.

As you know, I have been having some correspondence with Walter and I am asking him if he will be good enough to send to your office, the letters which have passed between us so that you will have a full understanding of our discussion on the subject.

In attacking problems of this kind, I always try to get at the fundamentals by dissecting the facts and circumstances so far as I can, in order to reach the fundamentals. I have come very definitely to the conclusion that the heart of this problem is to determine the respective responsibilities of the two governing Committees, whatever they may be. We can't come to a common agreement unless we start with the principles on the basis of which we are trying to reach the agreement.

I feel very strongly, as a member of the operating organization, and as a large stockholder, and having in mind the responsibility of the duPont interests (altho if that were washed out I do not think I would feel greatly different about the matter) that we can not separate the responsibilities of the two Committees, on a purely functional basis, such as finances and operating. If I am wrong on that, then my whole viewpoint, of course, is subject to change.

On the first page of your letter, third paragraph, your viewpoint is reflected quite strongly, as distinguished from mine. You say that you picture the function of a Finance Committee in this set-up as a little more than handling the policies and operations of the financial departments. To be perfectly frank, I am definitely opposed to that type of a set-up. On the other hand, you say further:- the Finance Committee would be so constituted that it could appropriately be considered as an informal representation of large stockholding interests. That is exactly what I am advocating.

I think it is essential that it should be so, and I think, in your saying this, you must accept the fact that if that is true, then certainly the interests of the large stockholders are not confined solely to operations of the financial departments. I hold most emphatically, that the major interests of the stockholders are involved in the operations department, because if the operations of the Corporation are not intelligently and aggressively conducted, then the financial departments can do very little about it.

You say further, that the personnel of the Finance Committee should not be confined to representatives of large stockholders. I agree on that. I think the personnel of the top Committee should consist, as you have already stated, of (a) the large stockholders' interests; and (b) personnel experienced and skilled in financial affairs. We have already dealt with that, and whether the representatives of large stockholders are skilled in financial affairs or not, in my judgment is not essential, because I value so much more highly the policy phase of it than I do the financial phase of it.

I would like to add one category to personnel on the top Committee, which flows entirely from my interpretation of how the management should be set up; viz., individuals who know operations and who have direct contact with the operations of General Motors, in order to bring before the deliberations of the top Committee a proper balance of opinion. If we follow such a set-up, we will have in the top Committee all the essential elements to protect the stockholders and to act as a review, or a check, on the management of the business from the standpoint of both its financial and operating affairs.

If we proceed along the lines mentioned in the third paragraph on the first page of your letter "as a little more than handling the policies and operations of the financial departments" then the Finance Committee becomes purely academic. There is no check whatsoever on the Executive Committee. There is no review of major policies. There is no relationship of the stockholders interests and the outside business viewpoint, with the operating phases. There is a barrier between them. That I think is very unsound and very ubdesirable.

I think I should add to what I have just said, that circumstances alter cases, and I can see in a set-up such as you have in Wilmington, where everything is closely tied in together and where there is a continual cross-over between executive departments and all that sort of thing, that the situation might be different, but I would still hold that it was not right, and as applied to General Motors, I very definitely think it is not right.

On the second page, the first paragraph, you pass to the personnel of the two governing Committees. Of course, again the fact remains that we can't very well deal with the personnel problem until we determine the responsibilities with which the two Committees are to be charged.

Walter, of course, would be a tremendous addition to the top Committee, from all counts. Everybody here has great confidence in him, and it would be a great loss to the Corporation to have him pass out of the picture. I realize the situation which you mention, particularly involving the war conditions. But the war will not last forever, and we are dealing with something that is going to carry on far beyond the duration of the war. It seems to me, therefore, that we could continue him as he is, with the understanding that he might be absent due to existing circumstances, or to special conditions, but that would be more or less of a temporary situation. However, if your position is, that that must be done, then of course there is nothing we can do here but to accept it, and in that case we should welcome Henry B. duPont. I agree with you that Henry would be far more helpful in the role of representing the largest single stockholder and on the operating phase of the business as distinguished from the financial phase. In other words, from the standpoint of policy rather than finances.

You speak of Don not being essential to the Executive Committee, but that he should by all means be on the Finance Committee. That probably is right, because we always finally wind up in having too large a Committee rather than one too small.

With regard to Messrs. Donner, Coyle, Curtice and E.Fisher and your suggestion with regard to them, I read into it the type of organization you employ at Wilmington. All I can say, as I have said so many times, is, that that does not apply here. The functions of the members of your Executive Committee in Wilmington are, to a very important extent, discharged in General Motors by highly organized staff activities. There is no room in the General Motors scheme of things for men such as you specify, to act as members of the Executive Committee without executive responsibility. Under normal conditions, the Executive Committee might be expected to meet, at the most, twice a month. You must remember that in General Motors we do not look upon the Executive Committee as a creative body, but rather as a judicial body. In General Motors, the creative type of thing is taken care of by the functional policy groups. That comprises, as you know, the Chairman of each functional group (who is the staff Vice President in charge of that activity) supported by the general executives of the Corporation, including members of the Policy Committee as well as of the Administration Committee. In dealing with these things, we must recognize how these functions are discharged in General Motors as distinguished from duPont. Perhaps I could emphasize that somewhat by using an illustration:

Let's suppose (speaking of normal times) that we have up for consideration, the next year's product. This problem is discussed in very great detail by the Automotive Products Policy Group. There are on that Group, executives in the Corporation who are best qualified to deal with that problem, and the Group is set up so that we have sales atmosphere, engineering atmosphere, economic atmosphere and, to some extent, the general atmosphere.

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Page #4
Mr. Lammot duPont
April 13, 1942

The Chairman of that Group is in contact with the chief engineers of the operating divisions and likewise in touch with the General Managers. The whole scheme of things for the next year's products evolves out of that creative effort. It then goes, at present, to the Administration Committee, for approval: Thus the Administration Committee is a judicial group -- not a creative group.

Altho it is a detail, I might refer to what Walter says about a "must" assignment. Frankly, I think that if anybody accepts the responsibility it ought to be a "must" assignment and it ought not to be a qualified one, except in the case of a temporary situation.

In the last paragraph of your letter you bring up the question of the so-called "duPont influence". I understand how you view that and I do not know as I differ greatly with you from the standpoint of the general trend of affairs, but at the same time I hold that while the responsibility is there, it must be discharged. It can not be dodged. And, as I said at the beginning of this letter, entirely irrespective of that situation I still feel -- and here is really the most important point I have to make in the whole discussion -- that the top Committee should be the top Committee; and not one having only equal power with the other Committees; and that it should be comprised of personnel representing the interests we have discussed; viz., that it should deal with broad questions of operating policy as well as with financial policies - the former from the standpoint of a general review and the latter from a more definite standpoint of established policy, but particularly we should always recognize the importance of having on that Committee a cross-section of interests.

Very truly yours,

APSJr./K

c/c Mr. W.S.Carpenter, Jr.

NOTE: "Received Apr 15 1942 Lammot du Pont" is stamped at top of first page; "gmc-499" is written in lower right corner of each page.

Government's Exhibit No. 205

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

Personally
no
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May 29, 1943

Mr. Lammot duPont
Chairman of the Board
E. I. duPont deNemours & Company
Wilmington, Delaware

RE: GENERAL MOTORS ORGANIZATION - 1943 POLICY COMMITTEE

My dear Lammot:

I am turning over in my mind, our top organization scheme for the forthcoming year, more particularly from the standpoint of personnel. The purpose of this letter is to present a suggestion to you. I am sending copies of this letter to Messrs. Carpenter and Whitney.

Do you think it would be helpful to increase the membership of the Policy Committee by one, and include Mr. Kettering in the group? I will explain what the situation is. no

So far as Mr. Kettering's contribution to the Corporation and to the progress of the world in general is concerned, I would be completely inadequate to properly express the conviction of all of us. I have not, down through the years - and perhaps I have made a mistake - asked Mr. Kettering to serve on Committees or in Groups outside of those directly concerned with technical matters in which, of course, he is always included. OK

My reason for this has been, that he is so engrossed with technical matters and has been relatively little interested in matters of general policy, that through his personality and the interest that he can always develop, the meetings become one of listening rather than one of doing business. It is probably good for all of us and we profit thereby, but business must be carried on. good reason

In the last two or three years, quite a change has taken place. Mr. Kettering indicates a broadened interest in matters outside of the technical area. Altho I know he was always critical of me in my tirades against the New Deal, yet, in a different way, he now finds himself in about the same position. He never used to come to the Board meetings. Now he frequently comes. Perhaps that's because in the last year or two the meetings have been more interesting due to the charts, etc. I put him on the Post-War Planning Group and he comes almost every time, and seems to be tremendously interested in what we are trying to do. perhaps well

Page #2
Mr. Lammot duPont
May 29, 1943

Now I hate to make these Committees too big. Even if after a great struggle we manage to get them set up with a reasonable number of members, and even if we consistently follow the formula that we use in setting up the membership, it seems logical to add others. Witness the present War-Administration Committee! And here we have rigidly adhered to the formula on which its membership has been planned. This is a point that should be taken into consideration.

There is another phase of it that is important, I think; viz., that Mr. Kettering, like all the rest of us, is not as young as he was at one time. The time will come perhaps - altho I do not think it applies to him as much as it might to others - when he will want to ease off on the intensive work he is doing. As one of the largest stockholders - a man of tremendous capacity, especially along the lines on which our success or failure depends - he would, if he would take a broad interest in our problems, be, for many years to come, a useful contributor to the policy phase of the Corporation's activities. — not — for lack of experience

[illegible]

I thought if Walter, George and youself thought well of it, I would discuss the matter with him. He might feel that he was not interested in matters so purely business and technical, outside of his own normal area. He might think otherwise. In any event, I really think he would be pleased to be included -- almost any one would be.

I would appreciate your reaction.

Very truly yours,

Alfred [illegible]
Chairman

APSJr./K

NOTE: "Received Jun 1 1943 Lammot du Pont" is stamped at top of first page. "GM-Policy" appears in upper right hand corner of first page.

Government's Exhibit No. 207

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK N Y (19)

September 23, 1943

Mr. Walter S. Carpenter, Jr.
President
E. I. duPont deNemours & Company
Wilmington, Delaware

RE: GENERAL MOTORS ORGANIZATION - BOARD OF DIRECTORS MEMBERSHIP

My dear Walter:

I have your letter of September 22nd, referring to the above matter and also to our discussion at your Finance Committee meeting in Wilmington, last Monday.

I certainly owe you an apology for the lack of attention to your letter of April 8th. If you had asked me whether you had ever submitted a list of proposed directors, I certainly would have bet ten to one that you had never done so, but on referring to the file I see you did. Apparently what I did was to ask Mr. Smith to have the stockholders' list examined to see whether there were any available candidates that we would not ordinarily think of. He never submitted the list until today. I think what I intended to do was to deal with it all at once and his delay in sending the list to me prevented me from doing so. I am sorry that you had to raise the question again.

Now, taking everything that has happened in the past, together with the discussion at Wilmington, and in order to make progress, I think what I will do will be to submit to you, within a few days, a list of not to exceed ten names - probably there will be eight - out of which we ought to pick four, as that was the number we discussed in the Wilmington meeting, as being desirable.

I will use the following formula, and for the following reasons:-

First: Frankly, I am opposed, and others are likewise, to further representation on the Board, of Bankers. We are all very happy with George Whitney, but if we add additional Bankers, especially now, I don't think the reaction will be favorable. I am against Bankers on Boards of industrial companies because they are accused (wrongly of course) of dominating the financial policies. Frankly, I would rather have no Bankers on the Board, for that reason. To move in that direction would, I think, be unfortunate.

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Page #2
Mr. Walter S. Carpenter, Jr.
September 23, 1943

Second: I think we should give some consideration to geographical location, and your list of April 8th, which I have referred to above, is set up on that basis.

Third: I think we must be careful to exclude those who represent interests that have relationship with General Motors, particularly in the buying and selling area.

Fourth: I will eliminate representatives of duPont and duPont affiliated companies, because I believe that you should determine what representation you want on the General Motors Board.

Fifth: I shall avoid making more than one recommendation from the same line of industry.

Sixth: I will ignore the holdings of General Motors stock, as an essential qualification.

You will hear from me shortly, with the list.

Very truly yours,

Alfred P Sloan Jr

APSJr./K

c/c Messrs. Lammot duPont
Donaldson Brown

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Government's Exhibit No. 208

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK N.Y. (19)

February 11, 1944

Mr. Walter S. Carpenter, Jr.
President
E. I. duPont deNemours & Company
Wilmington, Delaware

RE: GENERAL MOTORS ORGANIZATION - BOARD OF DIRECTORS MEMBERSHIP

My dear Walter:

I have your letter of February 10th, contents of which I have carefully noted. Thanks for the selection. As soon as I receive replies from others, which I have not as yet, I will analyze them all and then make a report and we can see what should be the next step.

You mention in your letter, you recall, certain individuals which were listed by you and which did not appear on the list of candidates selected by me. Here is the answer so far as that is concerned - perhaps it is right and perhaps it is wrong -- I don't know.

Almost everybody here feels that it would be unwise for General Motors to add to its Board of Directors, important executives in large banks. We have, of course, George Whitney. He is an outstanding citizen and makes an outstanding contribution to the Policy Committee and to the Board, and I am not so sure that if we were certain that we could get another individual who would do as much, that, from what I am saying, would be made secondary to the fact that, after all, we want results. Anyway, Leon Frazer; Alexander, Stanley, Mellon and others, were eliminated on principle and not for any other reason. Please give me your reaction on this.

I might say further on the point, that I do not feel as strongly against an important bank outside of New York as I do inside New York, but I think to have three or four of the big banks represented on the General Motors Board of Directors, needs some consideration. So far as R. K. Mellon is concerned, of course I know him very well. Here again you raise the point of having on our Board, the duPont group; J. P. Morgan, the Mellon interests, etc. Again, I would be willing to forget all this if we got the results that you have in mind.

In commenting as I have above, I do not want you to think I have accepted the philosophy that the public relations is determining the policies of General Motors. As a matter of fact, I am fighting that policy all the time because there is too much of it already, but I do think, as a practical point, we do not want to furnish too much ammunition for those who think that nothing can be done in General Motors except we consult J. P. Morgan & Company. I don't know whether you ever heard J.T. say or not, but during the bonus suit, Judge Leibell was heard to say that I, as President of General Motors Corporation, could not adopt any policy without it was approved by Mr. Morgan. You can just see how far reaching that type of thing goes.

While we are talking about the objective which you have in mind, I am wondering whether it would not be wise to add one more to our Policy Committee if we could get the right person, particularly having in mind what you say in next to the last full paragraph on Page 1 of your letter. I had in mind raising the question with Lammot, yourself and others, at the proper time, but it does seem to me that just having in mind the second point you make, that some one might well be picked out by the duPont group to serve on our Policy Committee so that over a period of years they would learn to understand the business, just the same as Lammot and yourself do, at the moment.

Again dealing with your second point and having reference to the preceding paragraph of this letter, I feel that we are all apt to exaggerate what a Director can contribute to any Corporation. I am speaking, of course, of any large Corporation. Take your own Company, as a case study. I am not talking about what they might contribute as operating people. The smaller the Company and the smaller the Board, the less of course this applies because they can get closer to the business. I do not know but what the same applies in general to our own Board here, and we must recognize that on your Board and ours here we have many Directors who have grown up through the organization and who know a great deal about the background of the business, the personnel, the problems, and all that sort of thing. When we pass from such a set-up to dealing with people who have none of these qualifications, you not only have the time element, which you point out, but you also might ask yourself the very realistic question as to whether they have an opportunity to do what we too often think ought to be done.

Expressed otherwise, what I am trying to say is, that the real opportunity to serve in the way you and I are thinking about - at least academically - is on the Policy Committee rather than on the Board of Directors. Perhaps you may say that the latter leads to the former.

Very truly yours,

Alfred P Sloan
Chairman

APSJr./K

Government's Exhibit No. 209

May 22, 1944.

PERSONAL & CONFIDENTIAL

Mr. Alfred P. Sloan, Jr., Chairman,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

At the meeting of the du Pont Finance Committee today, I orally and informally laid before the Committee the question of relieving Walter Carpenter of some of his responsibilities and work. No action was taken and none was suggested.

All of the members of the Committee were present, except Pierre, although Don had to leave to catch a train and did not participate in much of the discussion.

It seemed to be agreed unanimously, and Don concurred in this, that Walter should in some way be relieved of part of his burden of work and that it should be done promptly. It was also the unanimous opinion of those present, but I am not sure that Don concurred in this, that the best method of relieving Walter was by relieving him of the duties of G. M. Policy Committee membership. By "promptly" was meant at the first opportunity after the reorganization meeting of the G. M Board. It seemed undesirable for Walter to fail of reelection to the General Motors Policy Committee, as contrasted with separation by voluntary resignation.

There was considerable discussion as to who should replace Walter on the Policy Committee. I mentioned the suggestion that developed when you, John Pratt and I were talking of the matter recently. We all see your point of view that the most desirable member of the Policy Committee is one who has had the broadest business experience, but not necessarily longer or outstanding experience in any particular function of business management, particularly mechanical engineering; because G. M. has an ample supply of that talent in its own ranks. It seems that in the du Pont organization there is a lack of men of very broad business experience in a variety of functions, except those who are 55 years of age or upwards. The members of the Committee were impressed with the fact that if a new man goes on the G.M. Policy Committee today, he will not be thoroughly familiar with General Motors problems, its organization, its personnel, and its business for several years. Suppose it requires five years to get the "atmosphere." Consider the situation five years hence. A man over 55 now would be over 60 then and would have a useful life of a comparatively few years; whereas a younger man, aged 40 to 50, would have something like three times the prospective useful life after the process of education in G.M. affairs.

It is also true that if you selected any of the older and more mature executives for membership on the G.M. Policy Committee it would almost necessitate making some changes here to relieve him of part of his present burdens. I mentioned this in connection with the man you suggested and stated that, in my opinion, it could be done, but that would not prolong his useful activity, as compared with a man ten years his junior.

The upshot of the discussion was the consensus of opinion that we should suggest to you the selection of H.B. as Walter's successor. He is now 45 years of age. He has been a Vice-President and member of the Executive Committee since 1939. In that position and as Assistant to the President previously he has become thoroughly familiar with du Pont operations, and is thus well equipped to bring to G.M. the value of du Pont Company experience and judgment.

H.B. is now Chairman of the G.M. Audit Committee, I believe. Electing him to the Policy Committee would require a change. Although this was not discussed in the du Pont Finance Committee, my suggestion would be that Angus Echols be added to the G.M. Board, and he would be admirably equipped to be a member of, or Chairman of, the Committee on Audit. Angus, as you know, was for many years Treasurer of the du Pont Company, is now Chairman of the Finance Committee and Vice-President in Charge of Finances.

If agreeable to you, I would like to bring this matter before the Policy Committee for discussion at the next meeting.

Yours sincerely,

CHAIRMAN OF THE BOARD. Ans [illegible]

LduP/MD

Government's Exhibit No. 210

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY

July 12, 1944

MR. LAMMOT DU PONT
BUILDING

I submit the following thoughts to serve merely as a basis for more thought and discussion on the subject of du Pont's position on the General Motors Board.

I suggest that the following changes might be made in du Pont's representation on the Board. I have not considered Mr. Brown in these lists, and certainly would suggest no change in his status in this respect.

PRESENT LIST	PROSPECTIVE LIST
Lammot du Pont	Lammot du Pont
H. B. du Pont	H. B. du Pont
J. J. Raskob	J. J. Raskob
W. S. Carpenter, Jr.	W. S. Carpenter, Jr.
P. S. du Pont	A. B. Echols
H. F. du Pont	(Lammot Copeland or
	(Emile du Pont

With respect to the du Pont members on the Policy Committee, I suggest for the present that that remain as at present, namely, Lammot du Pont and W. S. Carpenter, Jr.

With respect to the Bonus Committee, I suggest my withdrawal to be replaced by H. B. du Pont. Belin is our advisor on salaries here and, therefore, has occasion to interest himself actively in this general subject of compensation. In addition this will afford him an excellent opportunity of better familiarizing himself with the personnel in General Motors. As a matter of fact, he can; because of his position there carry his inquiry with respect to important personnel as far as he may wish to. This will afford a constructive background with respect to the selection of future important personnel in the General Motors.

My present thought would be, also, that he would succeed to the first vacancy in du Pont representation on the Policy Committee. In order to better equip him for this it might be wise for him at the present time to review the Operating reports which come to the Policy Committee and offer any suggestions he may wish, through you or through me, to the Policy Committee meetings.

—2—

I suggest that H. B. du Pont retire from the Audit Committee, and that his place be taken by Mr. A. B. Echols. Mr. Echols is eminently qualified to serve as Chairman of the Audit Committee, and in that position will be able to review the performance of General Motors, not only from a purely auditor's standpoint, but that will serve him also as an excellent opportunity to keep in touch with the general financial position of the Company.

As Mr. H. F. du Pont has now retired from the Finance Committee of the du Pont I suggest that his place be taken by some member of the present or prospective Finance Committee. In this connection, I suggest the name of Lammot Copeland or possibly Emile du Pont, if it is probable that he will eventually become a member of the Finance Committee.

In addition to these changes, it seems to me that we should urge the selection of additional Directors to the

Board as we have already so many times discussed in the Policy Committee.

/s/ W. S. CARPENTER, JR.
PRESIDENT

WSC:R

NOTE. "Received Jul 12, 1944 Lammot du Pont" stamped at top of first page. In fourth paragaph the words "I suggest my" are underlined. Next to this the following note has been written: "All O. K. but does not meet the main requirement except in my minor degree as noted here." These notations do not appear on GMC-420. "File Copy" stamped across each page of GMC-420.

Government's Exhibit No. 217

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK. 19. N. Y.

May 3, 1945

Mr. Walter S. Carpenter, Jr.
President
E. I. duPont deNemours & Company
Wilmington, Delaware

RE: GENERAL MOTORS CORPORATION - BOARD OF DIRECTORS - MEMBERSHIP

My dear Walter:

I have your letter of May 1st regarding the above subject and would like to pursue the matter a little further, if I may, at the moment.

I have a letter from Lammot and he is entirely satisfied with the suggested candidates providing that neither of them are on the operating side of the business which, as I said in my first letter supplemented by my second, is not contemplated. In other words, I agree on this.

However, I don't see completely eye to eye with Lammot about outside directors. He looks upon the "duPont directors" as outside directors. They are, of course, technically. But, as I have said to him, the "duPont directors" on our Board, like the operating people on our Board, believe in concentrating about all they have in the business of duPont and General Motors whereas directors of the Whitney and Douglas type operate in quite a different atmosphere. That is probably a part of the banking business. Whether it is a part of the insurance business, I don't know.

George Whitney belongs to the Board of Directors of quite a number of industrial organizations. He gets around a lot because he lives in New York where many contacts are easily and continuously made.

Mr. Douglas is, in a way, quite a public character. He seems to spend a great deal of time in other things. How he gets along in the insurance business, I don't know.

It seems to me, therefore, that such people do bring into our councils a broader atmosphere than is contributed by the "duPont directors" and the General Motors directors.

Knowing that you have been interested in expanding our Board and that others agree, whereas perhaps some others do not feel so strong about it, do you think that with these two candidates referred to in my letter as joining with us at the proper time, that we should seek other candidates

Outside – Objective.
Cannot be accused of interest in management & bonus etc.
Eligible for Audit, Bonus Com.

Fishers
Might have both out

3479

more from the outside. This really raises the question as to whether you think an outside director can contribute much? Certainly George Whitney contributes a very great deal. He has been with us for a long time. He sits in at Policy Committee meetings and he is quite familiar with our business. A director not on the Policy Committee does not have that opportunity.

Very truly yours,

Alfred P. Sloan Jr.

Chairman

APSJr./K

E

Government's Exhibit No. 220

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK 19, N. Y.

December 10, 1945

Mr. Walter S. Carpenter, Jr.
President
E. I. duPont deNemours & Company
Wilmington 98, Delaware

RE: GENERAL MOTORS CORPORATION - BOARD OF DIRECTORS MEMBERSHIP - GENERAL MARSHALL

My dear Walter:

John Pratt has been urging upon me the consideration of General Marshall as a member of our Board of Directors, and altho for various reasons I am not very sympathetic to the idea, I think that others ought to know about it because my point of view may be wrong.

First: John has been impressed with what General Marshall has done in organizing the Army for war. He is impressed with the fact that the General has selected younger men and has promoted them over older men. In other words, in some cases he has taken associates of his at West Point - men whom he has grown up with - and given younger men preference, in one way or another. John seems to think that if he is a member of our Board of Directors he may present a point of view on that that will be helpful.

My point of view is that where the Army has been expanded 100% it is both easy and essential that the younger men be given higher places because there are not enough to go around. Personally, I don't think, on the record, that our position is at all unfavorable with regard to the promotion of younger men. John makes the point that he is not concerned with the job. What he is concerned with is the increasing age of the lower levels of administration. But he is talking about broad generalities without specific knowledge. I do not think the actual facts make that particularly important. I also make the point against the proposal that a director, as such, can do very little except make a comment once or twice about a point that he has in mind. The only way to make the point effective, if it is sound and desirable, is to hammer at it continuously day in and day out and maybe after four or five years you begin to get somewhere. A director is not in a position to do that. What I am trying to say is, that the philosophy has got to be accepted by the administration as a part of their operating technique and I feel quite certain as it stands now, the administration recognizes the point that John is trying to make. Therefore, from that point of view I think very little would be accomplished.

Second: General Marshall is 65 years old. And while he undoubtedly is very active, intelligent, experienced and all that sort of thing, the question arises as to whether we should take on, as a new director, any one in that age area. John agrees with that, in part and has technically withdrawn his recommendation on that count. But I still think that others ought to know about it because other considerations might over-balance that point.

Third: I said to John that I thought General Marshall might do us some good, when he retires, following his present assignment - assuming he continues to live in Washington; recognizing the position that he holds in the community and among the governmental people and the acquaintance he has - and he became familiar with our thinking and what we were trying to do, it might offset the general criticism as to the general negative attitude toward big business, of which we are a symbol and a profitable business, as well. It seems to me that might be some reason, and in that event the matter of age would not be particularly consequential.

I should like to have your point of view.

Very truly yours,

Alfred P. Sloan Jr.

Chairman

APSJr./K

Government's Exhibit No. 221

December 13, 1945.

Mr. Alfred P. Sloan, Chairman,
General Motors Corporation,
Broadway at 57th Street,
New York 19, New York.

Dear Alfred:

Your letter of December 10th, in regard to General Marshall as a member of the Board, was duly received.

In general, my thinking is the same as you have indicated yourself. Put briefly, I would not favor his election to the Board, although I have a great admiration for him in his military work, and have met him in that connection two or three times, and always received a favorable impression.

My reasons for not favoring his membership on the Board are: First, his age; second, his lack of stockholdings; and, third, his lack of experience in industrial business affairs.

Yours sincerely,

CHAIRMAN OF THE BOARD.

LduP/MD

NOTE: Figure after "gate-" is "534".

Government's Exhibit No. 222

DU PONT
ESTABLISHED 1802
E I DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON 98, DELAWARE

EXECUTIVE OFFICES

February 26, 1946.

Mr. Lammot du Pont
The Villas
Worth Avenue
Palm Beach, Florida

Dear Mots:

Alfred just left the office after having lunch with us. Pierre, Angus, Belin and Mots Copeland joined us. Alfred's talk, of course, was on the subject of organization.

Alfred talked at considerable length to give some of the newcomers somewhat of a background, but he led up to these rather specific suggestions, in which all of us expressed our approval. He said that it was his idea to explore the matter first with practically all of the Directors and bring the matter up for formal action at the April meeting. He seemed pretty well satisfied that the program would meet with general acceptance. His program is as follows:

> The By-laws would be amended to provide that the President would be the Chief Executive, rather than the Chairman.
>
> Alfred would retire as Chairman and Don Brown would take his place.
>
> Alfred would for a period, perhaps one year, continue to serve as Chairman of the Policy Committee, but he would actually move his office out of the General Motors Building -- probably over to Rockefeller Center where he now has a personal office.

Alfred would not serve on the several Policy groups, though possibly Don Brown would do so. However, it would be very clearly understood that the Chairman would not exercise administrative functions, except possibly that he might continue to have general supervision over finances and perhaps over that part of Public Relations involving financial questions. Except for that, the Public Relations would report to the President.

3484

Probably Donner and his office would continue in New York, though that might be a matter of further discussion and be largely influenced by Donner's own viewpoint in the matter.

✓ The Legal Department would report to the President and perhaps eventually, with the retirement of John Smith, the head office of the Legal Department would be located in Detroit.

Alfred suggested the putting of Curtice on the Policy Committee, though indicated that that might not be happily received by Wilson and Co. As an alternative to that, I suggested putting E. F. Johnson on the Policy Committee, which he seemed to accept, I thought, with some enthusiasm.

I think, generally speaking, that covers the program.

I understand that it is Alfred's plan to return to Palm Beach for a few days after staying here a couple of weeks.

Yours sincerely,

WSC/jvt

Government's Exhibit No. 224

32

May 22, 1946.

Personal & Confidential

Mr. Donaldson Brown, Vice Chairman
General Motors Corporation
New York 19, N. Y.

Dear Don:

At the present time there are five men on the General Motors' Board (L. du Pont, A. B. Echols, H. B. du Pont, L. Copeland and W. S. Carpenter, Jr.) who are members of the du Pont Board and who are not officers of General Motors. In addition there are, of course, you and Mr. Sloan, who are members of the du Pont Board and also officers of General Motors.

You will recall that at the last Finance Committee meeting here Lammot indicated his disposition to resign from that Board at its next meeting, which will be on June 3rd. There was also some discussion regarding a successor to Lammot, in order that our representation there might continue in the future substantially as it is at present.

Later in the day you, Lammot and I discussed the question of your own withdrawal as an active officer in General Motors. While I regretted that very much at the time, and still do, I gathered that you had pretty well made up your mind to do so. While I am still not hopeless in this connection, I do presume that it is appropriate to consider what alternatives might hang upon your decision to go through with your present plans and it is in that connection, and only in that connection, that I bring up the following.

Specifically, my inquiry is this -- If you should decide to resign as an officer of General Motors, may we assume for the present that you would be willing to continue at least as a member of the du Pont Board and Finance Committee and also that you would continue to remain as a member of the General Motors' Board, and, in that way, serve as a replacement of Lammot on that Board as a representative of du Pont's interest on that Board?

I can think of many reasons why this would be a desirable arrangement.

It goes without saying that your knowledge and background of experience of the General Motors' situation equips you eminently well to serve in this capacity, with benefit both to du Pont and General Motors.

I think that your continuance as a member of the General Motors' Board would tend to soften somewhat the shock at this time of the withdrawal of both you and Lammot at the same time.

I feel that by your continuing this interest in General Motors, it tends to dissipate any unhappy feeling upon the part of the General Motors' official family that your withdrawal from active service there might otherwise create.

You will recall that at our last Finance Committee meeting here it was suggested that we have a meeting on Wednesday, the 29th, to consider a replacement for Lammot. I have not discussed this question with any members of the Finance Committee since our last meeting, so that, in that respect, I am not in any position to suggest this as a definite plan, but offhand I cannot feel that there would be anything but an enthusiastic acceptance of this arrangement if agreeable to you.

Will be very glad to hear from you at the earliest date you feel you care to reply.

Yours sincerely,

WSC/jvt

NOTE: "gmc-404" is written in lower right corner of each page.

Government's Exhibit No. 228

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK 19, N.Y.

September 30, 1947

Mr. Walter S. Carpenter
President
E. I. duPont deNemours & Company
Wilmington 98, Delaware

RE: GENERAL MOTORS ORGANIZATION - BOARD OF DIRECTORS

My dear Walter:

Our loss in the death of John Thomas Smith creates, of course, a vacancy on our Board of Directors, also on our Financial Policy Committee. The purpose of this letter is to deal with those facts.

I wrote you some time ago suggesting that Nick Dreystadt be elected to the Board of Directors. Almost since the beginning, the chief executive in charge of Chevrolet, has been on the Board. Nick Dreystadt qualifies in every way plus, and I think that he is entitled to the recognition. I am sure you do too except for the fact that it drives us more into an increase in the membership among those who are in the operating organization. However, time will take care of this, up to a point. I am inclined to think that irrespective of the point, which I appreciate, we ought to go ahead and elect Nick at the October meeting.

seriously ill ?

OK

With regard to the Financial Policy Committee, it was my thought in dealing with the membership of first Policy Committee, that we should have some operating people and some people completely detached - preferably large stockholder interests and also others who were familiar with the operating organization, who would concern themselves only with the policy phase of the business. With the separation of the Policy Committee into two parts, I think that the same rule applies and that we should give consideration in the membership of this Committee again to large stockholder interests and, again, those who knew something about the operations of the business itself. This latter group would naturally include executives who had retired and who would still be effective from the policy point of view - at least for a certain number of years. I feel quite strongly that we should not increase the membership of the Financial Policy Committee by bringing in executives who are still active in the administration end of the business. They belong in the Operations Policy Committee, according to my point of view.

Agree think Smith Fin. [illegible]

OK

?

If this is correct thinking, then E.F.Johnson would be eligible; likewise Ed.Fisher. There are no retirements pending that would make other candidates available within the formula I have suggested, within the next three years. O.E.Hunt would be the next eligible candidate on the basis of that formula, but before that time other changes will certainly develop. The question also arises whether you feel that there should be another representative of the duPont Company on this Committee. Technically, you already have two members - Don and yourself, but Don is not active in the duPont organization and perhaps you might think you would rather have somebody who was more active. For instance, Echols or perhaps Henry duPont. Either of these would add weight to the Committee, I am sure, particularly Echols because of the financial and other problems that arise. Such candidates also would be within the formula which I have already mentioned. yes

no C.F.Kettering would also be eligible under the rule; likewise C.S.Mott. I don't think C.S. would fit into the picture very well, for a good many reasons and I do not think he would be enthusiastically received by the administration end. So far as Ket is concerned, I do not think he would contribute much to the particular problems that come before the Financial Policy Committee and I think he would perhaps be likely to reduce the efficiency of our meetings by leading us into most interesting subjects but not in any sense related to the purposes of this particular activity.

There is no reason why we should take action on these matters at the October meeting unless we are ready to do so.

Very truly yours,

Alfred P. Sloan Jr.
Chairman

APSJr./K

NOTE: Figure after "gmc-" is "394".

Government's Exhibit No. 231

GO-3

To LAMMOT DU PONT

DATE 9-16-48

FROM W. S. CARPENTER, JR

I would like to talk to you about this sometime.

I am wondering whether an objection to the inclusion of a director solely on the ground that he may be a supplier comes with good grace from us, in view of our own position.

It is true that because of our stockholdings we are surely entitled to representation on the G. M. Board but in spite of this we cannot urge too strongly that a supplier is, irrespective of other merits, to be disqualified.

true, but how be
the "other merits"? I
think being a stockholder is
a very important one.

du Ponts position as
a supplier or customer is
overshadowed by the stock
holdings

Note: "gmc-800" is written at lower right. "Received SEP 16 1948 Lammot du Pont" is stamped at top.

Government's Exhibit No. 232

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK 19, N. Y.

September 15, 1948

Mr. Walter S. Carpenter, Jr.
Chairman - Board of Directors
E. I. duPont deNemours & Company
Wilmington 98, Delaware

RE: GENERAL MOTORS - BOARD OF DIRECTORS - MEMBERSHIP

My dear Walter:

I am rather disappointed that I shall be unable to be in Wilmington on Monday at the time of the next Board of Directors meeting because, of necessity, I am leaving that day for Murray Bay - a fact which you of course fully appreciate. I am inclined to think perhaps I will ask for an appointment in Wilmington within a week or two because I would like to get some further action on the above subject. In the meantime I would like to ask for what I might call a ruling, or point of view on your part, as to one specific phase of the matter.

I have in mind two or three industrialists who would add
prestige and bring experience into our Board of Directors. They are people
who I am sure would be helpful in the years to come. In one case the in-
dividual is head of a corporation which is a supplier to General Motors to
A the extent of 20%; the other is Chairman of the Board representing a stock-
holder interest having very little to do with operations of a corporation
B which also has about 20% of General Motors business.

Allyn Goodrich?

I realize the importance of having not only men of experi-
C ence and ability, but I would like to have industrial experience in a
financial line rather than pure banking experience which, unless it is
supported by a good deal of contact with industrial problems, is, from my
point of view, more or less academic. In trying to pick out candidates of
this type, with our ramifications so broad, we usually find some relation-
ship such as I have mentioned above.

Now I realize that it would be better to have members on our Board having no relationship whatsoever with a corporation of a business character; at the same time should we accept this as a definite rule? If we should say that an individual is not a candidate if he was connected with a corporation which was supplying us material to the extent of not to exceed 20% of our needs, should that be a barrier and prevent us from considering men in that position?

3491

I have just written a letter to Henry Hogan asking for opinion from the Corporation's point of view. As a matter of fact, I am inclined to think that my question perhaps has more bearing on the men who accept the appointment than it would as to General Motors.

D

What I am really asking, therefore, is:- Would you be prepared to accept as eligible for our Board of Directors, men whom you would be glad to have, from every point of view except that they might have relationships as a supplier to the extent of 20% of General Motors needs.

Very truly yours,

Alfred P. Sloan Jr.

APSJr./K

Chairman

NOTE: "gmc-800" is written in lower right corner of each page.

60-3

Government's Exhibit No. 233

MEMORANDUM

MR. W. S. CARPENTER, JR.:

Here are some of my thoughts as to the attached.

Du Pont's position as a supplier or customer of General Motors is overshadowed by its stockholdings.

It is true that du Pont should not urge too strongly that a representative of a supplier should not become a member of General Motors' Board, but should always consider whether the nominee has the "other merits." I think being a stockholder is a very important one.

At point "A", on Alfred's letter, I would remark that it is not the per cent of requirements supplied to General Motors that counts, so much as the dollars involved. The question is whether the amount of money involved is large enough to support charges of "conspiracy" or evil doing; 20% of General Motors' buyer requirements might be large enough.

At point "B" on Alfred's letter, I would remark that apparently neither "case" owns any General Motors stock.

At point "C" on Alfred's letter, I would remark that experience and ability are desirable, but General Motors is well supplied with those. What it lacks, or may in future lack, is Directors who are stockholders, but who are not employes or former employes.

At point "D" on Alfred's letter, I would remark that the question does not seem to me to be a legal one. I am satisfied that there is no illegality in stockholders electing anyone they see fit. Election of some individuals might cause suspicion, but, of course, would not constitute proof.

LAMMOT DU PONT.

Wilmington, Delaware,
September 17, 1948.

LduP/MD

NOTE: "gmc-799" is written in lower right corner of each page.

Government's Exhibit No. 235

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

June 21, 1923.

J. P. Laffey, Esquire,
E. I. du Pont de Nemou s & Company,
Wilmington, Delaware.

Dear Judge:

Enclosed please find copy of letter which I have just written to Mr. du Pont together with copy of report referred to therein. I should like very much to have you study this over and let me talk with you about it either Saturday or Sunday on my return from Detroit.

Very truly yours,

J J Raskob
Vice President

June 20, 1923.

To: FINANCE COMMITTEE
E. I. DU PONT DE NEMOURS & COMPANY

FROM: JOHN J. RASKOB, VICE PRESIDENT

Mr. Donaldson Brown and I have worked out the enclosed plan which we submit and recommend for the careful consideration and approval of your Committee.

In the year 1917 the Directors of the du Pont Company after very careful consideration accepted the invitation of Mr. W. C. Durant to become interested with him as partners in the control and management of General Motors Corporation. This involved our investing a substantial sum of money and taking over the direction of the financial management of the General Motors Corporation. Mr. Durant in turn agreed to assume responsibility for the Executive Management of the company.

The management of the General Motors Corporation was carried along under this arrangement until the latter part of 1920 when Mr. Durant became so seriously involved financially that the du Pont Company much against its will was forced to take over Mr. Durant's personal common stock holdings in the General Motors Corporation, involving a net increase in the du Pont Company's investment in this security of upwards of 2 500 000 shares at a cost of upwards of $25 000 000.00, with the result that today we own 7 519 000 shares of General Motors Corporation common stock valued on our books at $ This gave the du Pont Company approximately 38% of the total common stock of the General Motors Corporation which is practical control and made it necessary to assume complete responsibility for the management. To properly assume this responsibility our Finance Committee called upon Mr. Pierre S. du Pont, Chairman of our Board, to take the presidency of the General Motors Corporation which he consented to do with the clear understanding that he was to occupy the position temporarily only, pending the time when a man capable of assuming the presidency permanently could be found or developed.

After occupying this position for about two and a half years Mr. du Pont felt that Mr. Alfred P. Sloan, Jr., was thoroughly competent and capable to handle the presidency of the Corporation and presented his resignation with the recommendation that Mr. Sloan be elected to succeed him which was done.

Mr. du Pont feels that the best manner in which to attain the greatest success possible in the conduct of the affairs of the General Motors Corporation is for that Corporation to interest its principal men in the corporation as substantial stockholders or partners. He not only feels this very keenly, but feels too that the du Pont Company with its large and controlling interest in the General Motors Corporation has now a splendid opportunity to enhance the value of its own investment in the General Motors Corporation through giving to the General Motors Corporation an opportunity to interest its important employes as managing partners in this great enterprise. The du Pont Company is in the happy position on account of its own bonds not maturing for eight years of being able to supply a plan under which employes can purchase stock on payments deferred over a long period of time and Mr. du Pont, therefore, requested that a plan be developed to accomplish this object.

The plan which has been developed by Mr. Donaldson Brown and the writer provides:

1st. That we place 7 500 000 of General Motors Corporation common stock at $15.00 a share, aggregating $112 500 000. in the Du Pont American Industries.

3

2nd. That the Charter of the Du Pont American Industries be amended to change its name to General Motors Securities Company and to provide a total capitalization of 600 000 shares of common stock of the par value of $100.00 per share.

3rd. The General Motors Corporation believes that the greatest enthusiasm and cooperative effort on the part of the principal men in the corporation in the direction of serving the permanent interests and securing the best results for the corporation and its stockholders, can be secured through having these men financially interested in a substantial way in its common stock under a plan, such as hereinafter outlined, whereby their personal interests will be synonymous with those of all stockholders.

4th. The General Motors Corporation will create the Managers Securities Company under Delaware laws and will subscribe and pay in its entire capital of $5 500 000. common stock and will then cause the Managers Securities Company to purchase 200 000 shares of General Motors Securities Company common stock for $37 500 000.00 (being ⅓ of the total stock of this company and representing ⅓ of 7 500 000 shares of General Motors Corporation common stock or 2 500 000 shares at $15.00, or $37 500 000) payable $4 700 000.00 in cash and $32 800 000.00 in 7% notes maturing April 1, 1931 and secured as hereinafter recited.

5th. In order to further carry out the intent and purpose of this plan in a still more substantial manner Mr.

Pierre S. du Pont is ready to sell 433 334 shares of General Motors Corporation common stock to the Managers Securities Company at $15.00 a share, aggregating a total of $6 500 000.00 taking in payment therefor $800 000.00 in cash and $5 700 000.00, 7% eight year notes of the Managers Securities Company hereinbefore referred to.

6th. The General Motors Corporation will then sell to a list of its important men to be selected by its Finance Committee substantially all of the $5 500 000.00 stock of the Managers Securities Company, reserving for future allotment not more than $1 000 000. of stock if in the judgment of the Finance Committee this seems desirable. The General Motors Corporation in consideration of all of the foregoing and of the willingness of the du Pont Company and Mr. P. S. du Pont to assist it in the carrying out of this plan to interest its important men in a substantial way as managing partners will enter into an agreement with the Managers Securities Company under which it will pay to the Managers Securities Company each year an amount equal to 6% of the net earnings of the General Motors Corporation after deducting Federal taxes and after deducting from net earnings an amount equal to 7% on net capital employed, which net capital shall constitute the aggregate sum total of issued and outstanding preferred, debenture and common stock, plus surplus as represented by the published annual satement of the company as of December 31 of the year preceding that calendar year in which the earnings were realized. Any new captial injected through the

issuance of preferred, debenture or common stock during any calendar year shall constitute invested capital and 7%

shall be allowed thereon for the period of time in which it is employed.

In the sale of this $5 500 000.00 stock of the Managers Securities Company to its principal men the General Motors Corporation will trustee the stock under an agreement which will provide that the corporation shall have the option to repurchase all or any part thereof at the end of any year prior to April 30, 1931, in the event of the death, disability, discharge or resignation of any employe for any reason which in the sole discretion of the directors of the General Motors Corporation shall lead them to believe that the best interests of the corporation will be served through said repurchase. In the event of the corporation exercising its option to repurchase stock from its employes as hereinbefore provided the price paid shall be determined by determining the book value of the stock of the Managers Securities Company, which book value in turn shall be determined by appraising its holdings in the General Motors Corporation and the General Motors Securities Company on the basis of the book value of the common stock of the General Motors Corporation, and payment for purchases so made shall be made to the employe in common stock of the General Motors Corporation valued at the same book value as used in the calculation above mentioned.

7th. From the foregoing it will be noted that the assets of the Managers Securities Company consist of the equivalent of 2 933 334 shares General Motors Corporation common stock

valued at $15.00 a share		$44 000 000.

And its liabilities consist of

7%—8 year bonds	$38 500 000.	
And Capital Stock	5 500 000.	44 000 000.

The $38 500 000 7%—8 year bonds of the Managers Securities Company will be secured by all of its assets, plus the aforesaid agreement between the Managers Securities Company and the General Motors Corporation and the terms of the bond issue will provide that the total net income after expenses of the Manager's Securities Company shall be used—

1st. To pay the interest on its bonds. And

2nd. to amortize the principal of its bonds. Provided, however, that if the Managers Securities Company in any year shall receive dividends from its holdings in stock of the General Motors Corporation or General Motors Securities Company, then and in that event it may pay to its own stockholders in dividends an amount not to exceed 7% on its own total capital and surplus.

There are attached hereto sheets showing that the Managers Securities Company will be able to pay off its entire issue of $38 500 000.00 bonds at the end of eight years, based on the assumption that General Motors Corporation will earn an average of 15% on capital employed over this period. And in addition to the payment of its total bond issue the Managers Securities Company during this eight year period will be able to pay to its own stockholders dividends arrgegating $12 465 000.00. These figures are based on the assumption that no new captial will be provided for the General Motors Corporation through the sale of senior securities, but that the corporation will put back in the business substantially one-half of its net earnings during that period which will result in the total capital employed by the General Motors Corporation growing from about $425 000 000.00 at the beginning of 1923 to approximately $748 000 000.00 at the end of eight years.

8th. The net result of the foregoing plan is that the du Pont Company will sell to important and desirable General Motors partners one-third of its interest in General Motors Corporation common stock (which is less than the interest we acquired when we bought out our former partner — Mr. W. C. Durant) for $37 500 000.00. We will be in position to liquidate our entire indebtedness of $35 000 000.00 of 7½% notes created in order to finance this Durant purchase; will retain the

—8—

"6"

same control of General Motors Corporation that we have today through controlling two-thirds of the stock of General Motors Securities Company with its 7 500 000 shares of General Motors Corporation common stock and will definitely tie up with us in the management and control of this huge investment the men in the General Motors Corporation who are definitely charged with the responsibility and success of the corporation.

8

GENERAL MOTORS CORPORATION

Apr. 30, 1923—Capital Stock		$316 000 000.
Surplus		112 000 000.
Reserves ex Dep.		13 000 000.
Pur. Money Mtg.		1 000 000.
		442 000 000.
Est. earns. on com. stock 8 mos. to 12/31/23	$54 000 000.	
Dividends " " " 1.20 reg. .70 extra	33 000 000.	21 000 000.
Est. Capital Employed 12/31/23		463 000 000.

	Est. Earns. (15% on Cap. Employed)	Pfd. Div.	Com. Div.	Total Divs.	
1924	70 000 000.	6 800 000.	(1.50)— 30 900 000.	37 700 000.	32 300 000.
					495 300 000.
1925	75 000 000.	6 800 000.	(1.50)— 30 900 000.	37 700 000.	37 300 000.
					532 600 000.
1926	80 000 000.	6 800 000.	(2.00)— 41 200 000.	48 000 000.	32 000 000.
					564 600 000.
1927	84 000 000.	6 800 000.	(2.00)— 41 200 000.	48 000 000.	36 000 000.
					600 600 000.
1928	90 500 000.	6 800 000.	(2.00)— 41 200 000.	48 000 000.	42 500 000.
					643 100 000.
1929	96 000 000.	6 800 000.	(2.00)— 41 200 000.	48 000 000.	48 000 000.
					691 100 000.
1930	105 000 000.	6 800 000.	(2.00)— 41 200 000.	48 000 000.	57 000 000.
Totals	600 500 000.	47 600 000.	267 800 000.	315 400 000.	$748 100 000.

	Earnings	**7% on Cap. & Sur.**	**Balance**	**6% of Bal. to Mgrs. Sec. Co.**	**Divds. on 2 933 333 shs. G.M. com. to Mgr. Sec. Co.**	
1923	90 000 000.	30 000 000.	60 000 000.	3 600 000.	(.60 reg.) (70 Sp.)	3 813 000.
1924	70 000 000.	32 000 000.	38 000 000.	2 300 000.	(1.50)	4 400 000.
1925	75 000 000.	35 000 000.	40 000 000.	2 400 000.	(1.50)	5 866 000.
1926	80 000 000.	37 000 000.	43 000 000.	2 600 000.	(2.00)	5 866 000.
1927	84 000 000.	40 000 000.	44 000 000.	2 600 000.	(2.00)	5 866 000.
1928	90 500 000.	42 000 000.	48 500 000.	2 900 000.	(2.00)	5 866 000.
1929	96 000 000.	44 000 000.	52 000 000.	3 100 000.	(2.00)	5 866 000.
1930	105 000 000.	48 000 000.	57 000 000.	3 400 000.	(2.00)	5 866 000.
Totals	690 500 000.	308 000 000.	382 000 000.	22 900 000.		43 409 000.

"2"

			Payable	
			Cash	**7% Notes**
Buy from du Pont Company 30% of G. M. Sec. Co. Equivalent of 2 500 000 G. M. com. @ 15.		$37 500 000.	4 700 000.	32 800 000.
From P. S. du Pont	433 334 " " " "	6 500 000.	800 000.	5 700 000.
Totals	2 933 334	44 000 000.	5 500 000.	38 500 000.

MANAGERS SECURITIES COMPANY

Estimated Income and Disbursements.

End of year	1923	1924	1925	1926	1927	1928	1929	1930
Income:								
Dividends	3 813 000.	4 400 000.	5 866 000.	5 866 000.	5 866 000.	5 866 000.	5 866 000.	5 866 000.
G.M.Payments	3 600 000.	2 300 000.	2 400 000.	2 600 000.	2 600 000.	2 900 000.	3 100 000.	3 400 000.
Total	7 413 000.	6 700 000.	8 266 000.	8 466 000.	8 466 000.	8 766 000.	8 966 000.	9 266 000.
Expenditures:								
Fed. Taxes	450 000.	300 000.	300 000.	325 000.	325 000.	350 000.	390 000.	430 000.
Bond Int. (7%)	1 347 000.	2 320 000.	2 100 000.	1 760 000.	1 400 000.	1 050 000.	690 000.	310 000.
Expenses	76 000.	70 000.	66 000.	61 000.	41 000.	66 000.	71 000.	76 000.
	(7%)	(14%)	(18%)	(24%)	(30%)	(40%)	(43%)	(55%)
Dividends	190 000.	760 000.	1 000 000.	1 320 000.	1 650 000.	2 100 000.	2 365 000.	3 050 000.
Amortization	5 350 000.	3 250 000.	4 800 000.	5 000 000.	5 050 000.	5 200 000.	5 450 000.	4 400 000.
Total	7 413 000.	6 700 000.	8 266 000.	8 466 000.	8 466 000.	8 766 000.	8 966 000.	9 266 000.
Capital Stock	5 500 000.	5 500 000.	5 500 000.	5 500 000.	5 500 000.	5 500 000.	5 500 000.	5 500 000.
Surplus	0	5 350 000.	8 600 000.	13 400 000.	18 400 000.	23 450 000.	28 650 000.	34 100 000.
Total	5 500 000.	10 850 000.	14 100 000.	18 900 000.	23 900 000.	28 950 000.	34 150 000.	39 600 000.
7% on Cap. Sur.	385 000.	760 000.	987 000	1 323 000	1 673 000.	2 016 500.	2 390 050.	2 772 000.

End of 1930	
Capital	5 500 000.
Surplus	38 500 000.
Inc. value (book) G.M.shs $15 to $30 per sh.	
2 933 334 shs @ $15	44 000 000.
Total	88 000 000.

Dividends Rec. from 1923 to 1930—$12 465 000.
equal 226% on $5 500 000 Investment

Annual Income thereafter with G. M. com.	
Divds. @ $2.00 per share	$5 866 000.
Equals 107% on Investment of	5 500 000.

Increase on original $5 500 000. Investment 16 times.

MANAGERS SECURITIES COMPANY

	Bonds	Amortised	Balance	Interest
1923	38 500 000	5 350 000	33 150 000	1 347 000
1924	33 150 000	3 250 000	29 900 000	2 320 000
1925	29 900 000	4 800 000	25 100 000	2 100 000
1926	25 100 000	5 000 000	20 100 000	1 760 000
1927	20 100 000	5 050 000	15 050 000	1 400 000
1928	15 050 000	5 200 000	9 850 000	1 050 000
1929	9 850 000	5 450 000	4 400 000	690 000
1930	4 400 000	4 400 000	0	310 000

NOTE: "GMC 1593" is written at the bottom of the first page and "GMC 1593A" at the bottom of the remaining pages. Italics indicate handwriting.

Government's Exhibit No. 237

GENERAL MOTORS CORPORATION
224 West 57th Street
New York, N. Y.

CABLE ADDRESS.
"GENMOT"
NEW YORK

July 20, 1923.

W. S. Carpenter, Jr., Vice President,
E. I. duPont de Nemours & Co.,
Wilmington, Delaware.

Dear Walter:

Thanks very much for your letter of the 19th, and I have noted the suggestions bearing upon certain important points connected with the contemplated plan.

The first point which you touch upon is one of objection to what you style the "rigidity" of the plan. I have discussed this particular feature with you briefly and I think you understand that in the views of some of us this feature is not objectionable, but, on the contrary, is advantageous, provided the plan is administered in the way that we have in mind. I appreciate the point you make that the proposed measures to maintain a proper relative distribution of the stock in the hands of the executives may prove impracticable, but, personally, I am of the opinion that these measures would not be much more difficult in practice than are the difficulties that are experienced from time to time in connection with the annual award of bonuses under our Bonus Plan. I won't attempt to discuss this question in this letter as it would require a good deal of space, but I believe your point is one of the most important ones to be fully discussed before the plan is adopted.

In connection with your second point of objection, there is no unanimity of opinion as to the tax feature. Judge Laffey, for instance, has considered carefully the point of view advanced by Mr. Mudge and yourself and, nevertheless, is convinced, I believe, that there is more than an even chance that the holder of stock of the management company will be immune from personal tax on account of any undistributed earnings of the management company. This question is possibly anyone's guess. The ultimate answer to this question is admittedly uncertain, and, as a matter of fact, the General Motors Corporation can be concerned with this particular feature only in an indirect way. However, from the duPont Company standpoint, the application of your suggestion, as contrasted with the conditions of the contemplated plan, affords a distinction that is very real and important. Your suggestion would ~~be~~ lead to the duPont Company selling a substantial block of General Motors' stock at 15 and receiving 12½% of the purchase price in cash and the balance in notes secured solely by the stock sold. In many cases, the ability of the obligator to pay his note would be largely contingent upon his enjoying bonuses awarded by General Motors Corporation, and except insofar as the duPont Company might feel assured that this ability would be rendered likely by virtue of future services to be performed by the individual, I do not believe that the duPont Company would be justified in selling the stock under such circumstances. If the justification lies in the probability of bonuses being earned by General Motors' employes

plus bonus

no worse than holding the stock so far as security is concerned.

To extent bonus not paid original plan was faulty.

participating in the acquisition of stock then I feel the duPont Company would be in a very awkward position in view of the fact that, by reason of its representation on the Finance Committee of General Motors Corporation, it would be in a position to largely control the award of bonuses. I have thought over this particular feature a great deal, and, although I have not discussed it particularly with Judge Laffey or with Mr. Smith, my feeling is very clear that the application of your suggestion would be so awkward and embarrassing to the duPont Company in the continued administration of the Bonus Plan as to render it highly undesirable.

The pointswhich you touch upon are absolutely fundamental to the plan under contemplation, and unless these points are judged to be unobjectionable, the plan itself cannot be adopted. I do not believe that a practicable alternative course lies in the adoption of such a plan as the one which you suggest, and while I have not attempted to outline in detail my views on the matter, I believe I have given you the basis of my thought and would be glad to know how the question strikes you on further consideration.

Yours sincerely,

Donaldson Brown
Vice President.

DB:K

Note: Italics indicate handwriting. "TD-188" is written at top of first page; "GMC 1594" appears at lower right-hand corner on all pages.

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Government's Exhibit No. 238

July 24, 1923.

Mr. F. D. Brown, Vice Pres.,
General Motors Corporation,
New York, N. Y.

Dear Don:

Your letter of the 20th I have received and I am following out your suggestion of letting you know how this question strikes me on further consideration.

It is my recollection that your idea of the advantage of the rigid plan as distinguished from the adjustable plan, is that it encourages a broader company interest on the part of the employees as distinguished from a departmental interest.

The broader interest has always appealed to me. There are those, however, who contend, and with some force, that the interests of the whole company are best served by a highly developed departmental interest on the part of heads of departments. Is this not the reason which has prompted the idea advanced from time to time that the compensation of employees should be measured, at least in part, by the profits of their department?

The Finance Committee in their administration of the flexible or bonus plan as suggested, can make it very readily known to even better advantage than under the rigid plan, that breadth of view point on the part of the employees will be appreciated or at least that such an attitude on their part will not be permitted to prejudice their personal interest.

The advantages which the bonus plan has over the rigid or profit sharing plan in reaching a proper determination of the compensation due each employee, are those advantages which favor 'hindsight' as against foresight. Further, in the former plan, there are those advantages over an inflexible plan which flow from the presence of that incentive for the employee to do his best knowing that his efforts will be appropriately recognized afterwards as opposed to the feeling that increased effort will probably not much alter his own compensation. Of course the original plan is not entirely inflexible, but to the extent that it approaches it, this incentive is absent.

It has been said in discussing the original plan that it will be adjustable because the Finance Committee will have the courage to adjust the quotas of the participants. The hesitation on the part of the administering body to alter the quotas will be due, in my opinion, not to absence of courage but on the contrary to the presence of a lively appreciation of the discouraging and demoralizing effect upon the part of the participants which will follow the adjustment of ratios except in extraordinary cases. The effect will be similar to that which would follow an adjustment of salaries.

If the idea of interesting the employes in an important way in the stock of the company is a good one, and in this there seems to be general assent, the advantages of an important move in this direction would probably go far to offset any necessary important disadvantages. If, however, a plan can be designed which embodies the large idea of interesting the employees in the stock but at the same time avoids the disadvantages, the net benefit should be greater in the latter plan.

With respect to the taxable features of the two plans you say that there is not today unanimity of opinion. It is quite possible that there will be some uncertainty. There can be no differen of opinion among us, however, that this payment which would flow from the General Motors Corporation to the management corporation, in case the original plan should be adopted, would be for services rendered by the stockholders of the management corporation and that the purpose of the payment is to compensate those stockholders in addition to their salaries, not for any services performed for General Motors by the management corporation but for the services performed by the stockholders of that corporation as employees of General Motors. Thus it can be only through some technicality of the law or ingenuity in design of the plan that could enable these stockholders to avoid taxes. We must assume in advance that every effort will be used by Washington to see that it is taxable.

Let us assume for the moment, however, that the bonus payments flowing from the General Motors Corporation to the management company would not be taxable to the employee as if received directly by him, and let us examine whether this feature would be a more desirable one in the long run either for the plan or the employee than a pay-as-you go policy.

In making this assumption it naturally follows that the value of the stock of the management company which is held by the employee is gradually increased year by year by the amount of the undistributed earnings of the management company which are used toward the payment of the notes of that company. These earnings by the way would be after the Government has taken a capital stock tax plus a

a corporation income tax on the bonus payment received. It thus follows that if in time the employee disposes of his stock in the management company; he will be obliged to return in that year a profit equal to the difference between the price which he receives for his stock and his initial cash payment for that stock. This profit will probably represent, roughly, his pro-rata of the accumulated surplus in the management company to that date. Due to the recent amendment to the tax law, this taxable profit will not be altered, I understand, by the exchange of the stock of the management company for common stock of the General Motors Corporation as is contemplated in case the General Motors Corporation should exercise its option for any reason to repurchase from the participants all or any portion of the stock originally subscribed to by them.

The original subscribers to the stock of the management company can be divided into two clases; those who make good to the extent that there is no desire on the part of the General Motors to repurchase any of their original subscription, and those who do not make good and whose stock may be repurchased under the plan.

Revised plan compels repurchase.

It is quite probable that those original participants who continue to hold their stock will accumulate in this enhancing value of the management corporation stock, a large portion of their total savings throughout the period and it is not improbable that this increased value of their stock may represent a large portion of their entire wealth. In any event, if the General Motors earnings are as contemplated this increased value will, at the end of a few years, be a large item in itself and particularly so with respect to the individual's normal earning capacity.

If this is so, any step which might be taken by the employee in the disposition or exchange of his stock, which can be

construed by the Department as a realized transaction, would subject that employee to a tax which would be a very severe blow to him as it would mean that the entire accumulation would then be considered as income for that one year. The conditions which might bring about a ruling on the part of the Department that would make this accumulation taxable might take one of a number of forms, among which might be mentioned, a change in the tax law or its interpretation by the Department, a change of fortune on the part of the individual necessitating a cashing in to meet an obligation, or with a desire to put some of his savings in securities of a different character, or a dissolution on the part of the management company made necessary for some reason not now apparent.

Under revised plan not merely a chance

The other class of employees, viz. those who have not made good or those who for any reason leave the service of the corporation would be subject to the chance of having their stock repurchased by the General Motors under the option agreement. In that one year their accumulation to that date would be taxable and would be taxed at increasingly higher rates of surtaxes. The knowledge of the Finance Committee that such a serious consequence would follow their exercising of their option to repurchase this stock would neither be agreeable to them nor would it encourage their taking this action. From the employee standpoint, to the extent that this possibility might be recognized, there would always be the uncertainty of this serious consequence.

Under these circumstances would sufficient benefit attach to the non-taxable features of these bonus payments to make them preferred over the policy of getting these tax payments behind the men so they may know just where they stand? You are no doubt familiar with the discouragements and annoyances which our own bonus beneficiaries are still suffering as the result of the uncertain status of the tax on the bonuses given for 1915 and subsequent years.

You question the justification for the du Pont Company selling the stock under the circumstances outlined in my letter of the 19th which you have described as selling the stock for $15 and receiving 12½% of the purchase price in cash and the balance in notes secured solely by the stock sold. I am wondering whether I made my previous letter clear.

The revised plan calls for the sale of the stock at $15 receiving say, 12½% in cash and the balance in notes secured by the stock sold, plus dividends on the stock, plus assignment of future bonuses which may be granted to the individual. From this total must be deducted some portion of it to be used by the employee for taxes and other personal disbursements as in the original plan.

In both plans the ultimate payment for the stock is dependent upon the value of the General Motors stock. In both cases the notes could have a maturity date which in the new plan might be more remote than in the original one.

As I understand your point it is that in those cases where the original subscriber has been an unfortunate selection and will, under the new plan, receive less money in bonus than would be his share of the profits under the old plan, to that extent he is less able to meet his notes. That is correct.

What are the offsetting advantages in this respect of the new plan which brings about this condition and what are the complications under the old plan in the case of this same unfortunate selection?

—7—

There is an equal chance that the lower bonuses in the few unfortunate cases will be offset by higher bonuses in the happier selections which should bring about roughly the same rapidity of reduction in the notes down to the point where the great bulk of the debt has been paid off.

The cases will be very few where the subscriber will not be entitled to some bonus over the first year or two. It will be after that time that the complications may develop. Meanwhile his initial cash payment plus his bonus have resulted in a margin on his purchase and note of substantial size, and there is left also to the company all of the security in the General Motors stock there would have been if it had not been sold. Thereafter his continued ownership of the stock, though held by us as collateral, should continue to have the beneficial effect which is the fundamental thought of the entire plan.

Under the original plan the case of the same individual brings about action of the Finance Committee on the option they retain on his stock, with the attendant difficulties mentioned, or he is permitted to continue to enjoy his equity of the profits as represented by his stock holdings but to which he is not entitled.

You say that under the new plan the du Pont men who are also on the General Motors Finance Committee are placed in an awkward position in passing on future bonuses. The conditions in this respect are very much alike in both plans with this important exception, that in the old plan this same Finance Committee fixes the amount of extra compensation for a period of years dependent upon the profits of General Motors in accordance with their expectations of services to be rendered by these men over this period which can be altered to an extent through repurchase of their stock, whereas, under the new plan it will be their responsibility, which presumably will be conscientiously discharged, to pass upon the bonuses of these men solely on the basis of merit as shown by the services rendered by those men over the year just past. Is there not every reason to believe that the latter is susceptible of greater accuracy and equity to all concerned than the former?

I will try to get an opportunity of talking these matters over with you as I am far from satisfied with this hasty reply which seems necessary under the circumstances.

I have given the original plan suggested quite a little thought and I believe that I appreciate the advantages to be gained by it. I have, however, been very uncertain in my mind as to whether those advantages could justify what appeared to me to be very distinct disadvantages which seem centered about the rigidity of the plan and the very unusual form of contract necessary between the General Motors Corp., and the management company. For this reason I feel very much relieved that a plan can be designed to retain the virtues while eliminating the disadvantages. I am not at all sure that the plan covered in my previous letter is the best plan. It might develop that a far better plan can be arranged. In any event it will surely require careful rounding out.

I have discussed this matter from time to time with both Mr. Irenee and Mr. Lammot du Pont and have therefore sent them a copy of my previous letter to you. I sent also a copy to Mr. P. S. duPont. I am now sending them a copy of your letter to me of the 20th and this letter.

Yours sincerely,

V. P. AND TREAS.

wsc:w.

NOTE: Italics indicate handwriting. "T D 188" is written at top of first page and "File Copy" is printed across each page. "GMC 1596" appears in the lower right-hand corner of each page.

E. I. du Pont de Nemours & Company
(incorporated)

July 26, 1923.

Mr. Walter S. Carpenter, Jr.

Have read with interest letters attached to yours of the 24th. Am taking the liberty of forwarding them to Pierre.

I think you have properly answered Don's objections. As a member of the General Motors Finance Committee, I am sure I would have less embarrassment in passing on bonuses after the fact than in determining them in advance.

Irénée du Pont

Irénée du Pont

Note: "TD-188." is written at the top of the page. "GMC 1597" appears in the lower right-hand corner of this page. Italics indicate handwriting.

Government's Exhibit No. 240

Lake Placid, N. Y.,
July 26, 1923.

To: FINANCE COMMITTEES:

GENERAL MOTORS CORPORATION
E. I. DU PONT DE NEMOURS & COMPANY

FROM: J. J. RASKOB

The enclosed plan, conceived by Donaldson Brown, designed to interest the managers of the General Motors Corporation as partners in its business by and through the ownership of common stock of that company, has been discussed between the officers of your respective companies and is now transmitted for your consideration and approval.

It is the consensus of opinion of the officers carrying on these discussions that it would be to the advantage of General Motors Corporation and of the duPont Company as the owner of about 38% of the common stock of the General Motors Corporation, if the managers of General Motors Corporation were more largely interested as owners of stock in said company; and to that end that stock for this purpose should be acquired by purchase upon the terms set forth in attached plan, and that the respective companies should take such actions as are necessary to consummate said plan.

The plan, including forms of agreements, etc., has been approved by counsel for both companies.

On the duPont Company's part it will be necessary for the DuPont American Industries, Inc. to

(a) Change its name to General Motors Securities Company.

(b) Acquire and cancel its $20,000,000 outstanding preferred stock.

(c) Increase its authorized common stock to 452,670 shares.

(d) Redeem and cancel its $25,000,000 6% Gold Bonds.

(e) Purchase additional General Motors common stock to make its total holdings equal 7,800,000 shares.

(f) Pay all its debts so that its balance sheet will show sole assets of 7,800,000 shares General Motors Common stock with no liabilities.

(g) Sell to Managers Securities Company an amount of its stock equal to 30% of its total stock then outstanding for $35,100,000 payable $4,250,000 cash and $30,850,000 in 7% Collateral Trust Gold Bonds of Managers Securities Company.

(S) J. J. RASKOB
Vice President

Plan of Managers Securities Company

1. The General Motors Corporation will cause a corporation (Managers Securities Company or other appropriate name) to be organized under the laws of Delaware, with an authorized capital stock of 50,000 shares of the par value of $100 each. Upon the organization of this Company it will enter into a written contract with the General Motors Corporation wherein it will be covenanted and agreed—

(a) Upon the part of Managers Securities Company that it will sell and deliver to General Motors Corporation its entire unauthorized issue of capital stock at par payable in cash.

(b) Upon the part of the General Motors Corporation that in consideration of the premises and the sale of the entire issue of authorized capital stock aforesaid at par, the General Motors Corporation shall, on or before April 15th in each year, commencing with April 15th, 1924, and ending April 15th, 1931, pay to the Managers Securities Company 5% of the net earnings of the General Motors Corporation for the preceding calendar year after deducting from said net earnings 7% on the capital employed during said year. (See contract attached hereto).

2. The General Motors Corporation will thereupon sell to such managers (including directors who are occupying managerial positions) of the General Motors Corporation and subsidiary companies, as the Finance Committee of the General Motors Corporation, or a sub-committee thereof, shall from time to time determine, such amounts of the capital stock of the Managers Securities Company

as said committee shall determine and in such amounts to individual managers as said committee shall fix, at not less than cost upon such terms as to time of payment as may be agreed upon between the purchaser and said committee or sub-committee. All sales of stock of the Managers Securities Company to managers as aforesaid shall be covered by a written contract between the seller and the purchaser (form attached) wherein it shall be provided that in consideration of the sale upon the terms provided in said contract and the purposes for which said sale is made to the purchaser and of all the premises, the purchasers shall give and grant to General Motors Corporation an irrevocable option to repurchase the shares of stock so sold at any time between January 1st and May 15th in any year up to and including May 15th, 1930, at the net asset value thereof as of April 30th in the year in which such option is exercised. For the purpose of determining said net asset value, the General Motors Corporation common stock and the General Motors Securities Company stock owned by the Managers Securities Company shall be appraised on the basis of the net asset value of General Motors Corporation common stock as shown by the published statement of assets and liabilities of General Motors Corporation as of December 31st of the year preceding the year in which said option is exercised. Payment for purchases so made under option herein granted shall be made by the General Motors Corporation in common stock of the General Motors Corporation at the same net asset value as used in determining the net asset value of the Managers Securities Company stock as hereinabove set forth. If any purchaser dies or ceases to be employed by the General Motors Corporation or a subsidiary corporation thereof during the life of said option the General Motors Corporation shall exercise said option and purchase his stock on the terms and at the price aforesaid. Further, in view of the fact that this plan is designed to have substantially interested as stockholders in the Corporation only men who are actively contributing to the General Motors Corporation's success, it shall be the duty of the Finance Committee, on or before May 15th of each year, to review the list of the stockholders of the Managers Securities Company for the purpose of determining whether the stockholding of any manager is disproportionate to the service being currently rendered by him to the General Motors Corporation and, if so, to this extent to repurchase his Managers Securities Company stock. The discretion of the Finance Committee in all these matters shall be final and conclusive. In order to facilitate the repurchase of said stock the certificates evidencing the stock, duly endorsed in blank, shall at the time of sale and delivery by the seller to the purchaser be placed in escrow with an escrow holder appointed by the Finance Committee of General Motors Corporation, to be held by him under an escrow agreement in the usual form during the existence of said option. In case the option is not exercised on or before the 15th day of May 1930, the right and

obligation to repurchase shall end and the escrow holder shall deliver the stock certificates to the said purchaser or his order on April 15, 1931. At the time the said certificates are placed in escrow the escrow holder shall issue to the said purchaser a negotiable certificate evidencing the number of shares so deposited. The purchaser shall have the right to vote and to receive all dividends paid on the Managers Securities Company stock.

3. The Managers Securities Company will purchase thirty per cent. of the stock of the General Motors Securities Company (hereinafter described) representing the equivalent of 2,340,000 shares of General Motors Corporation common stock and will also purchase 416,667 shares of General Motors Corporation common stock. These purchases will represent the equivalent of a total of 2,756,667 shares of General Motors Corporation common stock. Payment therefor shall be made $5,000,000 in cash and $36,350,000 in 7% Collateral Trust Gold Bonds of Managers Securities Company maturing April 15, 1931, which bonds shall be secured by a collateral trust indenture with the Wilmington Trust Company of Wilmington, Delaware, under which all the General Motors Securities Company stock and the General Motors Corporation common stock so purchased and the said contract with the General Motors Corporation shall be pledged to secure the payment of the interest and principal of said bonds.

At present, the common stock holdings of E. I. duPont de Nemours & Company in the General Motors Corporation are in the name of DuPont American Industries, Inc. It is proposed that the name of this Corporation be changed to General Motors Securities Company, that its sole assets consist of 7,800,000 shares of General Motors Corporation common stock with no liabilities and that its capital stock be owned, 70% by E. I. duPont de Nemours & Company and

30% by Managers Securities Company. From the foregoing it will be noted that the duPont Company, owning 70% of the stock of the General Motors Securities Company, will be in control of that Company. It is, therefore, provided that in the event the Directors of the General Motors Securities Company elect for any reason to sell all or any part of its holdings of General Motors Corporation common stock, then and in that event the Managers Securities Company shall, before such sale is made, have the right to purchase 30% of the total assets of the General Motors Securities Company and make full payment therefor by assuming or providing for the payment of 30% of the debts, if any, of the corporation and surrendering to the corporation for retirement 30% of its (General Motors Securities Company) capital stock.

4. The Indenture securing the issue of $36,350,000 7% Gold Bonds of the Managers Securities Company shall in addition to the usual provisions contained in such instruments provide as follows:

(a) That the Managers Securities Company shall on or before April 15th in each year, commencing with April 15th, 1924, and ending with April 15th, 1931, pay to the Wilmington Trust Company, Trustee, as a sinking fund to be used first for the payment of interest and then for the retirement of said bonds, an amount of money equal to 5% of the net earnings of the General Motors Corporation for the preceding calendar year after deducting from said net earnings 7% on the capital employed during said year as set forth in paragraph 1(b) herein.

(b) That the Managers Securities Company shall within thirty days after the end of each calendar year, commencing with the year 1923 and ending with the year 1930, pay to the Wilmington Trust Company, Trustee, as a sinking fund to be used first for the payment of interest if not already paid as provided for in (a) above and then for the retirement of said bonds, the balance of this net income for the said calendar year, provided always that in case the Managers Securities Company is not in default on its bonds and has net income in any year beyond that necessary to meet payments provided in (a) herein, it may with respect to said year declare and pay therefrom dividends on its outstanding stock in an amount not exceeding 7% on its paid in capital and earned surplus as shown by its books on April 30th of said year. And provided further, that the Managers Company shall not be required to make payments to the Trustee out of its income as provided in this paragraph until it shall have set aside $2,500,000 as a reserve fund to provide for the payment of interest on its bonds in any year in which its income is not sufficient to meet its interest payment and in the event that any portion of this fund should be used for the payment of interest the Company shall have the right to restore said fund to $2,500,000 out of dividends received by it in subsequent years before making payments to the Trustee hereunder. The Managers Company shall, however, in its discretion have the right to use all or any part of this $2,500,000 fund to retire the principal of its bonds if it so desires.

(c) That all amounts paid into the sinking fund shall be applied semi-annually by the Trustee to the payment of interest and retirement of said bonds in the manner provided for in the trust indenture.

Failure for six months after the same shall become due and payable, to make any payment required to be made to the sinking fund (including the obligation to pay in each year as aforesaid a sum equal to 5% of the net earnings of the General Motors Corporation for the preceding year, after deducting therefrom 7% on the capital employed during said year) shall constitute a default on the part of the Managers Securities Company.

Agreement, made this day of 1923, between General Motors Corporation, a corporation of Delaware, herein called General Motors, party of the first part, and Managers Securities Company, also a Delaware corporation, hereinafter referred to as the Managers Company, party of the second part,

Witnesseth:

Whereas, the Managers Company has been incorporated to acquire 30% of the common capital stock of General Motors Securities Company, representing a thirty per cent interest in 7,800,000 shares of the common capital stock of General Motors, the balance, or 70% of the common capital stock of the said General Motors Securities Company being owned by E. I. duPont de Nemours & Company; and to acquire in addition thereto 416,667 shares of the common capital stock of General Motors, in furtherance of a plan to insure in the future the continued successful management of General Motors by increasing through a substantial ownership of its common stock the interest and enhancing the loyalty of certain of the managers and executives of General Motors and,

Whereas, General Motors has offered to acquire 50,000 shares, being all of the authorized capital stock of the Managers Company and to pay therefore in cash $100.00 a share, and further to pay to said Managers Company a portion of its net earnings upon the terms and conditions hereinafter set forth,

Now therefore, in consideration of the premises, the covenants herein contained and other valuable considerations, it is hereby agreed by and between the parties hereto as follows:

1. The Managers Company does hereby allot and agree to deliver to General Motors, or upon its order 50,000 shares of its full paid non-assessable capital stock, being the entire authorized issue thereof.

2. General Motors hereby subscribes for the said 50,000 shares of the capital stock of the Managers Company and agrees to pay therefor $5,000,000.00, and in addition thereto to pay to the Managers Company yearly on or before the 15th day of April in each year, commencing April 15th, 1924 and ending April 15, 1931, 5% of the net earnings of General Motors for the preceding calendar year before deducting payment herein provided but after deducting all taxes of whatsoever kind or nature and by whatsoever authority imposed and after subtracting from said net earnings an amount equal to 7% of the net capital employed by General Motors. Said net capital shall constitute the sum of the issued and outstanding capital stock of General Motors plus the surplus account, as set forth in the published annual statements of General Motors as of December 31st of the year preceding the year in which said earnings are computed.

3. The amount of said net earnings and net capital employed as shown by the regular published statement of General Motors shall be final and conclusive and the Managers Company waives all right to an accounting in respect thereto or to question the amount or manner of computation thereof, provided, however, that if the regular published statement of earnings of General Motors in any year shall reflect any extraordinary charges or credits of substantial

amount which in the sole judgment of the Board of Directors of General Motors should not in good faith be considered in determining earnings within the intent and meaning of this contract, then and in that event the Directors of General Motors may in their sole discretion modify said regular published statement accordingly and declare that the net earnings of the corporation for the purposes of this contract shall be as set forth in the said modified statement, a copy of which shall be furnished the Managers Company by General Motors.

4. This agreement is personal to and not assignable by the MANAGERS COMPANY, except that it may be assigned and the benefit thereof pledged as collateral security for its 7% Collateral Trust Gold Bonds.

IN WITNESS WHEREOF, the parties hereto have caused these premises to be executed at the City of , State of the day and year first above written.

GENERAL MOTORS CORPORATION

By:

....

Attest:

....

MANAGERS SECURITIES COMPANY

By:

....

Attest:

....

Agreement made this day of August, 1923, between General Motors Corporation, a corporation of Delaware, herein called General Motors, first party, the undersigned employees of General Motors, sometimes referred to collectively as the Managers, second parties, and of hereinafter called the Depositary, third party,

Witnesseth:

Whereas, General Motors has caused to be organized under the laws of the State of Delaware, a corporation known as the Managers Securities Company, with a capital stock divided into 50,000 shares of the par value of $100.00 each, and has entered into a contract with the said Managers Securities Company to subscribe for all of said shares at the price of $100.00 a share and to pay to said Securities Company 5% of the net earnings of General Motors, after certain deductions and allowances, for the period of eight years commencing as of January 1st, 1923 and ending December 31st, 1930, upon certain terms and conditions; and

Whereas, the Managers Securities Company is to acquire 30% of the common capital stock of General Motors Securities Company, representing a 30% interest in 7,800,000 shares of General Motors common stock and in addition thereto 416,667 shares of General Motors common stock; and

Whereas, General Motors has designated the undersigned Managers who are to participate in the benefits of said plan and to acquire shares of the Managers Securities Company in the amounts specified; and

Whereas, it is desired to give to General Motors the right at any time on or before April 15th, 1930, to repurchase all or any part of the stock of said Managers Securities Company and to render said right effective by depositing said stock with the Depositary,

Now, Therefore, in consideration of the premises, the covenants herein contained and other valuable considerations, it is hereby agreed by and between the parties hereto as follows:

1. General Motors hereby allots to each of the Managers the number of shares of Managers Securities Company set opposite his respective name and each of the Managers for himself severally agrees to pay therefor the amount set opposite his name and upon receipt of said stock to deposit the certificates representing said shares with   as Depositary, duly endorsed in blank, to be returned to the owner thereof on April 15th, 1931, against receipt by the Depositary of the certificate of deposit issued therefor as herein prescribed, subject to the right of General Motors to purchase the same prior thereto as herein set forth.

2. The managers and each for himself severally gives and grants irrevocably unto General Motors the right and option to repurchase the whole or any part of the stock allotted to him hereunder, at any time between January 1st and May 15th in any year up to and including May 15th, 1930, at the net asset value thereof as of April 30th in the

year in which such option is exercised. For the purpose of determining said net asset value the General Motors common stock and the General Motors Securities Company stock owned by the MANAGERS SECURITIES COMPANY shall be appraised on the basis of the net asset value of General Motors Corporation common stock as shown by the published statement of assets and liabilities of General Motors Corporation as of the 31st of December preceding the year in which said option is exercised. Payment shall be made by GENERAL MOTORS in common stock of General Motors Corporation at the same net asset value as used in determining the net asset value of the Managers Securities Company stock. In the event of any dispute as to the said net asset value of shares of the Managers Securities Company the matter shall be referred to Messrs. Haskins & Sells or any other certified public accountants of recognized standing to be selected by GENERAL MOTORS and the decision in regard thereto of the accountants so designated shall be final and conclusive upon all parties. The cost of the said reference shall be borne one-half by General Motors Corporation and the balance by the person demanding the reference. If any such manager dies or ceases to be employed by GENERAL MOTORS or a subsidiary corporation thereof GENERAL MOTORS hereby agrees to exercise said option and to purchase said stock on the terms, conditions and at the price herein set forth.

3. The DEPOSITARY, upon receipt of said shares, shall issue a receipt therefor substantially in the form set forth below:

3535

No. .... Shares

MANAGERS SECURITIES COMPANY

Depositary's Certificate for Stock.

THIS IS TO CERTIFY that, as hereinafter provided, ... will be entitled to receive on April 15th, 1931, a certificate or certificates, expressed to be fully paid, for .... shares of the capital stock of Managers Securities Company (hereinafter called the Company), a corporation of Delaware.

This Certificate is issued pursuant to, and the rights of the holder hereof are recited in and subject to the terms and conditions of a certain Deposit Agreement dated between General Motors Corporation, owners of stock of the Company and the undersigned as Depositary, (a copy whereof is set forth below).

(TAKE IN AGREEMENT)

This Certificate is transferable at the office in Wilmington, Delaware of General Motors Corporation by the registered holder, either in person or by attorney duly authorized, in accordance with rules established for that purpose by the Depositary and on surrender hereof; and until so transferred the Depositary may treat the registered holder as owner hereof for all purposes whatsoever.

IN WITNESS WHEREOF, the Depositary has caused this Certificate to be signed this day of , 1923.

....
Depositary.

16

Endorsement.

For Value Received .... hereby sell, assign and transfer unto .... the within Certificate and all rights and interests represented thereby, and do hereby irrevocably constitute and appoint .... Attorney, to transfer the same on the books of the Company, with full power of substitution in the premises.

Dated, ..., 19...

In presence of: ....

—4—

4. Upon receipt of said purchase price for the account of the owner of record of the shares purchased by GENERAL MOTORS, the DEPOSITARY shall upon demand pay the same to the owner of record of said shares upon surrender of the certificate of deposit representing the same and shall deliver the stock certificates representing said shares of Managers Securities Company subject to the order of GENERAL MOTORS, which shall have the right to retransfer them from time to time to its nominees and to cause them, or any part thereof to be redeposited hereunder with the same force and effect as if by an original party hereto.

5. Each of the MANAGERS shall be entitled to vote the stock of the Managers Securities Company acquired by each hereunder and to receive the dividends or benefits payable thereon or in respect thereto.

6. The DEPOSITARY hereunder may resign or may be removed and his successor shall be designated by GENERAL

MOTORS. Such successor shall succeed to all the rights and title of his predecessor as such DEPOSITARY.

7. This agreement shall be binding upon and inure to the benefit of the parties hereto, their successors, personal representatives and assigns.

8. This agreement may be executed on counterparts with the same force and effect as if on one original and additional MANAGERS to be designated by GENERAL MOTORS may from time to time become parties hereto by executing a copy hereof.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed at the City of
State of , the day and year first above written.

GENERAL MOTORS CORPORATION

By

....

Attest:

....

Resolution for du Pont Company

Whereas, it is the judgment of this committee that the adoption of plan outlined in report # from V. P. J. J. Raskob is for the best interests of this company.

Now therefore be it resolved, that this committee recommend the adoption of this plan to the Board of Directors of the DuPont American Industries, Inc. and that said company authorize and perform all acts and things necessary to carry out said plan including the following:

(a) Changing its name to General Motors Securities Company

(b) Acquiring and cancelling its $20,000,000 outstanding preferred stock

(c) Increasing its authorized common stock to 452,670 shares

(d) Redeeming and cancelling its $25,000,000 6% Gold Bonds

(e) Purchasing additional General Motors common stock to make its total holdings equal 7,800,000 shares

(f) Paying all its debts so that its balance sheet will show sole assets of 7,800,000 shares General Motors common stock with no liabilities

(g) Selling to Managers Securities Company an amount of its stock equal to 30% of its total stock then outstanding for $35,100,000 payable $4,250,000 cash and $30,850,000 in 7% Collateral Trust Gold Bonds of Managers Securities Company.

RESOLUTION FOR GENERAL MOTORS CORPORATION

WHEREAS, it is the judgment of this committee that the adoption of the plan outlined in report # from V. P. J. J. Raskob is for the best interests of this corporation,

NOW THEREFORE BE IT RESOLVED, that the proper officers of this company are authorized to do all acts and things necessary, proper and appropriate to put this plan into effe

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NOTE: "Finance Committee Secy's No. 9754" is stamp and "Sectys Office 11" is written at the top of the first pag "Sectys Office 12" is written at the top of the first page of the annexed memorandum. "GMC 1598" is written the bottom of the first page, and "GMC 1598A" is writt at the bottom of the remaining pages.

Government's Exhibit No. 241

Minutes of Meeting of Board of Directors, August 9, 1923.

GENERAL MOTORS CORPORATION

A regular meeting of the Board of Directors of General Motors Corporation was held, pursuant to due notice thereof, at No. 224 West 57th Street, New York City, on Thursday, August 9, 1923, at 3:00 o'clock in the afternoon.

The following directors were present:

Harry H. Bassett
Donaldson Brown
William L. Day
Irenee duPont
Pierre S. duPont
George H. Hannum
Alex B. C. Hardy
Charles F. Kettering
R. Samuel McLaughlin
William McMaster
Charles S. Mott
John L. Pratt
John J. Raskob
Herbert H. Rice
Alfred P. Sloan, Jr.
John T. Smith

The Chairman of the Board of Directors, Mr. Pierre S. duPont, called the meeting to order and presided.

The Secretary recorded.

* * *

A report was received from the Finance Committee dated August 7, 1923 of which the following is a copy:

"New York, N. Y.
August 7, 1923

To: Board of Directors,
General Motors Corporation

From: Finance Committee

At meeting held today the Finance Committee adopted the following resolution:

Resolved, that report from the Chairman dated July 26, 1923, with regard to the proposed Managers Securities Company be approved in principle and referred to the Board of Directors for discussion and comment with request that authority be givin the Finance Committee to work the plan out in detail after the Board indicates its approval thereof; it being understood that the plan as finally drawn will be submitted to the stockholders for ratification and with the further understanding that the entire scheme is subject to the duPont Company being willing to enter into an arrangement such as outlined in the above mentioned report. (Copy attached hereto.)

(s) C. D. HARTMAN, JR.
Secretary, Finance Committee."

Mr. Irenee duPont moved that consideration of the matter be postponed until the duPont Company has had time to consider it, and if so disposed to submit an offer for the sale of the stock involved in the plan. The motion was seconded by Mr. McMaster. After a full discussion Mr. Raskob offered the following resolution as a substitute for the pending motion:

> RESOLVED, that the Board of Directors approves in principle the plan with regard to the proposed Managers Securities Company recommended by the Finance Committee in its report of August 7, 1923, and refers said plan back to the Finance Committee to be worked out in detail and submitted to the stockholders for ratification, provided the duPont Company is willing to enter into the arrangement outlined in said plan.

The motion was seconded and the resolution duly adopted.

On motion duly made and unanimously carried, it was

> RESOLVED, that a committee of three directors be appointed, consisting of Pierre S. duPont, Seward Prosser and Arthur G. Bishop, none of whom shall be eligible to participate in the said Plan, with power to designate the employes of General Motors Corporation and its subsidiaries to be invited to acquire shares of said stock of the Managers Securities Company, to fix the amounts thereof, and to arrange the terms of payment therefor, and their judgment, or the judgment of a majority thereof, in all respects shall be final and conclusive.

* * *

Government's Exhibit No. 242

COPY TO MR. WALTER CARPENTER, Jr.

Au[illegible]st 14, 1923.

Mr. P. S. du Pont,
Building.

Dear Pierre:—

Thinking over the Finance Committee discussion of Friday, I have the impression that you have wrongly gotten the feeling that Walter and I are not in sympathy with obtaining owner management in the General Motors Corporation. In talking to Walter today he had somewhat the same impression. I know it is not true in either case. I am more than in accord with that principle, in fact, believe it is almost invaluable, so much so that I think the advantages outweigh the disadvantages of the rather unusual and intricate route of interesting them through a Managers' Company.

I am very much opposed to the du Pont Co. selling along the lines of the report which was submitted to us. I think it would be an improvident sale and brings a needless jeopardy to the du Pont Company's financial status and a needlessly heavy burden on the du Pont stockholders. It also has the disadvantage of putting us as controlling interests in both corporations in the position of being both, as it were, buyers and sellers.

These difficulties can be avoided by the simple expedient of the General Motors Co. sending a circular letter to their stockholders, explaining the reasons for the Directors desiring to interest the active management as owners in the company and call upon the stockholders to submit to an uninterested third party, such as the Bankers Trust Co., secret tenders of the number of shares and price per share at which they would sell all or any part of their stock to the General Motors Corporation for that purpose, with the understanding that if the plan were promulgated, it would be through the purchase of those shares offered at the lowest figure to an extent which would make a total investment of not over say $40,000,000. That for the purchase of this stock the General Motors would loan to the Managers' Company, or to the employes direct, as would be outlined in the plan, 7/8 of the purchase price, the Managers putting up the balance.

I would be in favor of du Pont making a tender under such an arrangement and if we happen to offer the stock at a price which would be accepted, it would put us in a position of retiring our bonds, possibly in whole, this year. This would enormously increase the strength of our balance sheet and would be such a "sweetener" to those who advanced the money for our bond issue that we could expect little difficulty in borrowing again should we so desire in the future, even to the extent of possibly borrowing $50,000,000 or $100,000,000 should an extraordinary opportunity requiring such a sum come to our attention. It would have the distinct advantage of the General Motors Directors passing on not only the value of the advantage of owner management as compared with the cost of obtaining it but would pro-rate that cost as measured by the burden of loaning the funds required on the remaining

General Motors stockholders who are the beneficiaries of the plan.

Would like to have an opportunity of talking to you about this before our Directors' Meeting, so as to head off, if possible, discussion of Don's plan by the Board.

Sincerely,

Irénée du Pont

NOTE: At the top of the first page, a check mark appears next to Mr. Carpenter's name. Lines are drawn through "Mr. P. S. du Pont, Building" and "TD-150" is written by hand at the top of the first page. "gmc-806" is written at the bottom of each page. Italics indicate handwriting.

Government's Exhibit No. 243

Sectys. Office 7

MINUTES OF SPECIAL MEETING OF THE BOARD OF DIRECTORS OF E. I. DU PONT DE NEMOURS & COMPANY, HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON THURSDAY, AUGUST 30, 1923, AT ELEVEN-FIFTEEN O'CLOCK A. M.

Present: P. S. duPont, in the Chair,
H. F. Brown,
R. R. M. Carpenter,
W. S. Carpenter, Jr.,
Chas. Copeland,
H. F. duPont,
Irenee duPont,
Lammot duPont,
J. B. D. Edge,
H. G. Haskell,
F. W. Pickard,
H. M. Pierce,
M. R. Poucher,
Chas. L. Reese,
F. G. Tallman. *15*

Absent: Donaldson Brown,
J. Thompson Brown,
Wm. Coyne,
A. Felix duPont,
Eugene duPont,
Eugene E. duPont,
J. A. Haskell,
J. P. Laffey,
C. L. Patterson,
J. J. Raskob,
Alfred P. Sloan, Jr.,
W. C. Spruance.

PLAN FOR INTERESTING MANAGERS OF GENERAL MOTORS CORPORATION AS PARTNERS IN ITS BUSINESS BY AND THROUGH OWNERSHIP OF COMMON STOCK OF THAT COMPANY:

The Chairman stated that the meeting had been called for the purpose of considering a communication from the Finance Committee relative to the sale of an interest in part of our General Motors Corporation common stock holdings, and presented a letter from that Committee, dated August 30, 1923, advising of action which had been taken on reports from Vice-President J. J. Raskob, dated July 26, 1923 (#9754) and from the President, dated August 28, 1923 (#9881), giving details of the plan above mentioned, copies of which reports were attached. The action of the Finance Committee was read to the Board and the plan which had been approved by that Committee was outlined by the Chairman. Whereupon, after discussion, the following resolution was offered and unanimously adopted:—

—2—

WHEREAS, there has been presented to this Board a plan designed to interest the managers of the General Motors Corporation as partners in its business by and through the ownership of common stock of that Company; and

WHEREAS, it is the judgment of this Board that the adoption of plan outlined in report from Vice-President J. J. Raskob to the Finance Committee, dated July 26, 1923 (#9754) and modified by report of the President, under date of August 28, 1923 (#9881), is for the best interests of this Company;

Now Therefore be it Resolved, that this Board recommend the adoption of this modified plan to the Board of Directors of the duPont American Industries, Inc. and that said company authorize and perform all acts and things necessary to carry out said modified plan including the following:

(a) Changing its name to General Motors Securities Company;

(b) Acquiring and cancelling its $20,000,000 outstanding preferred stock;

(c) Increasing its authorized common stock to → shares:

This figure to be supplied by Mr. W. S. Carpenter

(d) Redeeming and cancelling its $25,000,000 6% Gold Bonds;

(e) Purchasing additional General Motors Corporation common stock to make its total holdings equal 7,000,000 shares;

(f) Paying all its debts so that its balance sheet will show sole assets of 7,000,000 shares General Motors common stock with no liabilities;

(g) Selling to Managers Securities Company an amount of its stock equal to two-sevenths of its total stock then outstanding for $30,000,000 payable $15,000,000 cash and $15,000,000 in 7% Cumulative Convertible Preferred stock of Managers Securities Company.

Resolved Further, that the Finance Committee of this Company be and it is hereby authorized to take such action as is necessary on its part to carry out this plan.

provided that all other General Motors Corporation common stockholders are given their pro rata right to sell stock at $15.00 per share on the same terms of payment.

Upon motion, the Finance Committee's letter of August 30, 1923, was then accepted and ordered filed.

Upon motion, the meeting was adjourned.

C. Copeland
Secretary

NOTE: Italics indicate handwriting; "GMC 1600" appears at bottom of each page.

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Government's Exhibit No. 244

October 15, 1923.

To Finance Committee

From Board of Directors.

Plan for interesting managers of General Motors Corporation as partners in its business by and through ownership of common stock of that company:

At meeting of the Board of Directors held today, the following resolution was unanimously adopted in connection with the above subject:

Resolved, that this Board approve amending the charter of DuPont American Industries, Inc. to provide for changing its name to General Motors Securities Company, which Company shall be brought to the position of owning 7,500,000 shares of General Motors Corporation Common Stock as its sole assets, with no liabilities, and the sale of 30% of the stock of General Motors Securities Company, representing the equivalent of 2,250,000 shares of General Motors Corporation Common Stock, to the Managers Securities Company for $33,750,000.00, payable $5,000,000.00 in cash and $28,750,000.00 either in 7% bonds due on April 15, 1931, or in other form of security satisfactory to the Finance Committee of this Company;

Resolved further, that this sale be made effective as of October 15, 1923;

RESOLVED FURTHER, that previous action taken by this Board under date of August 30, 1923 on this subject be and the same is hereby rescinded.

23.

M D Fisher
Assistant Secretary.

NOTE: "Return to Executive Committee Room 9069" and "Return to Room 9059" are stamped at the bottom on the first page. "Finance Committee Secy's No. 10069" and "Received Oct. 11, 1923 M.D.F." (with "28F" inserted by hand between the date and the initials) are stamped, and "MDF" is written, at the top of the first page of the annexed report from Mr. Raskob. "Return to Executive Committee Room 9069" is stamped at the bottom of each page of Mr. Raskob's report and at the bottom of the first, third and fourth pages of the memorandum annexed to Mr. Raskob's report. "GMC-882" is written at the bottom of the first page, "GMC-882a" at the bottom of each page of Mr. Raskob's report, and "GMC-882b" at the bottom of each page of the attached memorandum. Italics indicate handwriting.

October 10, 1923.

TO: FINANCE COMMITTEE
(E. I. duPont de Nemours & Company)

FROM: J. J. RASKOB

SUBJECT: MANAGERS SECURITIES COMPANY

On July 26th, 1923, I presented a report to the Finance Committee dealing with a plan to form a managers company, designed to interest the managers of General Motors Corporation as partners in its business by and through the ownership of common stock of that Company, which plan involved the sale of the equivalent of 2,340,000 shares of General Motors common stock at $15. per share by the duPont Company under the terms of payment recited therein, and which plan as presented was not satisfactory to the duPont Company.

Since that time there has been almost constant discussion between the officers of the duPont and General Motors Companies, which discussions have finally resulted in a revised plan (transmitted herewith) which in principle differs from the original plan in the following particulars:

First. The amount of stock sold shall be 30% of the capital stock of General Motors Securities Company (DuPont American Industries, Inc.), which Company shall own 7,500,000 shares of General Motors Corporation common stock and be free from debt. This 30% interest represents 2,250,000 shares instead of 2,340,000 shares of General Motors Corporation common stock provided in the original plan.

Second. The contract between the General Motors Corporation and the Managers Securities Company is amended to provide that the General Motors Corporation shall pay to the Managers Securities Company on or before January 1st of each year, beginning January 1st, 1924, and ending January 31st, 1931, the sum of $2,000,000. on account of said contract and if at any time the cumulative amount due the Managers Securities Company under said contract from its beginning is less than the rate of $2,000,000. per annum from and including the year 1923, then and in that event the difference shall, nevertheless, be paid by the General Motors Corporation to the Managers Company and treated as a loan, which loan, with interest at the rate of 6% per annum, shall be repaid by the Managers Company to the General Motors Corporation when the amount due under the contract shall equal the accumulation of these $2,000,000. annual payments; otherwise the amount shall not be due until the maturity or payment of the bonds of the Managers Company.

Third. The modification recited in the preceding paragraph, providing a minimum annual payment to the Trustee, makes it possible to declare bonds in default for non-payment of interest, which will be done.

The above are the only changes affecting the duPont Company. Other changes have been made in the plan, principally providing for two classes of stock for the Managers Securities Company which facilitates greatly the ability of the General Motors Corporation to buy out employes either in whole or in part.

This amended plan has been adopted by the General Motors Corporation, subject only to the Executive Committee determining whether the men in managerial positions in General Motors Corporation desire to avail themselves of the advantages thereof. The plan is now submitted to your Committee for approval and, if approved, a special meeting of the stockholders of the General Motors Corporation will be called to ratify the plan, and my suggestion is that the sale be made effective as of October 15, 1923.

It will be noted that while the plan provides for the deferred payments to be made in 7% bonds, the General Motors Corporation in approving the plan agreed that the Managers Securities Company could issue any form of senior security other than the 7% bonds contemplated so long as the provisions surrounding the creation and issue of such securities are in line with the provisions of the plan. In view of this I think the Finance Committee should authorize the sale, empowering the officers to work out the details including the form of security to be accepted, if securities other than the 7% bonds are desired.

J. J. Raskob

PLAN OF MANAGERS SECURITIES COMPANY

1. The General Motors Corporation will cause a corporation (Managers Securities Company or other appropriate name) to be organized under the laws of Delaware with an authorized capital of $5 000,000., divided into

$4,000,000. of Class A stock, and
$1,000,000. of Class B stock.

In liquidation the Class A stock shall be preferred as to the par value thereof plus the total net amount after taxes accruing to the credit of the Company by reason of a certain contract between the Company and the General Motors Corporation, dated ; and there shall be credited to a Class A surplus account for the benefit of the Class A stock on the books of the Corporation, when and as received, the net amount earned under the aforesaid contract after providing for taxes. This Class A surplus may be used for the payment of special dividends on Class A stock or for the purpose of retiring such Class A stock pro rata either in whole or in part at any time at a price equal to the par value thereof plus its pro rata share of this Class A surplus account. All other net income of the Corporation shall be credited to a general surplus account.

Class B stock in liquidation shall receive all of the balance of the property.

All dividends paid, except special dividends on the Class A stock as herein provided, shall be paid from general surplus, and the amount of dividends paid from general surplus to the Class A and Class B stocks, respectively, shall be in the proportion that the Class A capital and surplus and the

Class B capital and general surplus, respectively, bear to each other.

Upon the organization of the Managers Securities Company it will enter into a written contract with the General Motors Corporation (hereinbefore referred to) wherein it will be covenanted and agreed

(a) Upon the part of the Managers Securities Company that it will sell and deliver to General Motors Corporation its entire authorized issue of capital stock for $5,000,000. cash.

(b) Upon the part of General Motors Corporation that in consideration of the premises the General Motors Corporation shall, on or before April 1st

—2—

in each year, commencing with April 1st, 1924, and ending April 1st, 1931, pay to the Managers Securities Company 5% of the net earnings of the General Motors Corporation for the preceding calendar year after deducting from said net earnings 7% on the capital employed during said year. This contract will further provide that on or before January 1st of each year beginning on or before January 1st, 1924, and including January 1st, 1931, the General Motors Corporation will pay $2,000,000. in cash to Managers Securities Company on account of amount due under this contract and the balance due shall be paid on or before April 1st following as aforesaid. Furthermore, in the event that the cumulative amounts due under this contract at any time equal an amount less than the cumulative payments of $2,000,000. per annum above mentioned, then and in that event the General Motors Corporation will continue to make the $2,000,000. annual payments as herein provided and the difference between the cumulative amounts of such payments and the cumulative amounts due hereunder shall be treated as an unsecured loan by General Motors Corporation to the Managers Securities Company, bearing 6% interest, which loan shall be repaid when the amounts due under said contract equal the total amounts paid by General Motors Corporation, plus interest as aforesaid; and this loan shall not become due otherwise until after the payment of the bonds of the Managers Securities Company hereinafter mentioned.

2. The General Motors Corporation will thereupon sell to such managers (including directors who are occupying managerial positions) of the General Motors Corporation and subsidiary companies, as the Finance Committee of the General Motors Corporation, or a sub-committee thereof, shall from time to time determine, such amounts of the capital stock of the Managers Securities Company as said committee shall determine and in such amounts to individual managers as said committee shall fix, at not less than cost upon such terms as to time of payment as may be agreed upon between the purchaser and said committee or sub-committee. All sales of stock of the Managers Securities Company to managers as aforesaid shall be covered by a written contract between the seller and the purchaser wherein it shall be provided that in consideration of the sale upon the terms provided in said contract and the purposes for which said sale is made to the purchaser and of all the premises, the purchasers shall give and grant to General Motors Corporation an irrevocable option to repurchase all or any part of the shares of either or both classes of stock so sold at any time between January 1st

and May 15th in any year up to and including May 15th, 1930, as follows:

Class A stock purchased under this option on account of the death of an employe or from an employe leaving the Company through no fault of his own shall be purchased at a price equivalent to the par value of said stock plus its portion of the Class A surplus account as shown on the books as of April 30th in the year in which said purchase is made; in all other cases the price paid shall be the par value of the stock plus 80% of its portion of the Class A surplus as aforesaid. In all events the purchase price of Class A stock shall be payable, at the option of General Motors Corporation, either in cash or in common stock of General Motors Corporation on the basis of its net asset value as shown by the published statement of assets and liabilities as of December 31st of the year preceding the date of said purchase.

Class B stock shall be purchased at the net asset value thereof as of April 30th in the year in which said option is exercised. For the purpose of determining said net asset value of Class B stock the General Motors Securities Company stock or General Motors Corporation common stock owned by the Managers Securities Company shall be appraised on the basis of the net asset value of General Motors Corporation common stock as shown by the published statement of assets and liabilities of General Motors Corporation as of Decmeber 31st of the year preceding the year in which said option is exercised. Payment for purchases so made under option herein granted shall be made by the General Motors Corporation in common stock of the General Motors Corporation at the same net asset value is used in determining the net asset value of the Managers Securities Company stock as hereinabove set forth. If any purchaser dies or ceases to be employed by the General Motors Corporation or a subsidiary corporation thereof during the life of said option the General Motors Corporation shall exercise said option at least with respect to the Class A stock and purchase his Class A stock on the terms and at the price aforesaid. Further, in view of the fact that this plan is designed to have substantially interested as stockholders in the Corporation only men who are actively contributing to the General Motors Corporation's success, it shall be the duty of the Finance Committee, on or

before May 15th of each year to review the list of the stockholders of the Managers Securities Company for the purpose of determining whether the stockholding of any manager is disproportionate to the service being currently rendered by him to the General Motors Corporation and, if so, to this extent to repurchase either or both classes of his Managers Securities Company stock. The discretion of the Finance Committee in all these matters shall be final and conclusive. In order to facilitate the repurchase of said stock the certificates evidencing the stock, duly endorsed in blank, shall at the time of sale and delivery by the Seller to the purchaser be placed in escrow with an escrow holder appointed by the Finance Committee of General Motors Corporation, to be held by him under an escrow agreement in the usual form during the existence of said option. In case the option is not exercised on or before the 15th day of May, 1930, the right and obligation to repurchase shall end and the escrow holder shall deliver the stock certificates to the said purchaser or his order on April 15, 1931. At the time the said certificates are placed in escrow the escrow holder shall issue to the said purchaser negotiable certificates evidencing the number of shares so deposited. The purchaser shall have the right to vote and to receive all dividends paid on the Managers Securities Company stock.

3. The Managers Securities Company will purchase stock of the General Motors Securities Company (hereinafter described) representing the equivalent of 2,250,000 shares of General Motors Corporation common stock at $15. per share, aggregating a total of $33,750,00. Payment therefor shall be made $5,000,000. in cash and $28,750,000. in 7% Collateral Trust Gold Bonds of Managers Securities Company maturing April 15, 1931, which bonds shall be secured by a collateral trust indenture with the Wilmington Trust Company of Wilmington, Delaware, under which all the General Motors Securities Company stock so purchased and the said contract with the General Motors Corporation shall be pledged to secure the payment of the interest and principal of said bonds.

At present the common stock holdings of E.I. duPont deNemours & Company in the General Motors Corporation are in the name of DuPont American Industries, Inc. It is proposed that the name of this Corporation be changed to General Motors Securities Company, that its sole assets consist of 7,500,000

shares of General Motors Corporation common stock with no liabilities and that its capital stock be owned by E. I. duPont deNemours & Company and Managers Securities Company. The duPont Company will be in control of the General Motors Securities Company, owning 70% of its stock outstanding. It is, therefore, provided that in the event the Directors of the General Motors Securities Company elect for any reason to sell all or any part of its holdings of General Motors Corporation common stock, then and in that event the Managers Securities Company shall, before such sale is made, have the right to purchase its pro rata share of the total assets of the General Motors Securities Company and make full payment therefor by assuming or providing for the payment of its pro rata share of the debts, if any, of the corporation and surrendering to the corporation for retirement all of its stockholdings in the General Motors Securities Company.

4. The indenture securing the issue of $28,750,000. 7% gold bonds of the Managers Securities Company shall in addition to the usual provisions contained in such instruments provide as follows:

(a) That the Managers Securities Company shall pay to the Wilmington Trust Company, Trustee, on or before April 15th in each year, as a sinking fund to be used first for the payment of interest and then for the retirement of said bonds, its entire net income for the preceding twelve months ending April 1st including an amount equal to the amount, less taxes, provided to be paid to it under its contract with the General Motors Corporation. The Managers Securities Company, however, may withhold from amounts which would otherwise be paid each year to the Trustee under this paragraph an amount of money not to exceed 7% of its total paid in capital and earned surplus as of April 15th of said year, provided always that the total cumulative payments to the Trustee shall never equal an amount less than $2,000,000. per annum accumulated from the beginning to date of such withholding.

(b) That all amounts paid into the sinking fund shall be applied by the Trustee to the payment of interest and retirement of said bonds in the manner provided for in the trust indenture.

(c) Failure for six months after the same shall become due and payable to make any payment required to be made to the sinking fund (including the

obligation to pay in each year as aforesaid the amounts provided in said contract between General Motors Corporation and the Managers Securities Company) shall constitute a default on the part of the Managers Securities Company.

5. Should the seller prefer taking a form of senior security other than the 7% bonds herein contemplated, it is understood that such securities may be issued in whole or in part so long as the provisions surrounding the creation and issuance of same are in line with the provisions of this plan.

Government's Exhibit No. 246

GENERAL MOTORS CORPORATION

OFFICE OF THE
FINANCE COMMITTEE

October 19, 1923

Walter S. Carpenter, Esq.,
E. I. duPont de Nemours & Company,
Wilmington, Delaware.

Dear Walter:

I am enclosing for your perusal corrected draft of plan of Managers Securities Company. Please note the changes on page 2, which are in line with discussions at the duPont Finance Committee meeting, and also particularly note the re-writing of paragraph 3 on pages 4 and 5, which is changed to eliminate the bonds and incorporate the Trustee feature advocated by you.

I think that from the standpoint of both the General Motors and duPont Companies it is particularly desirable to eliminate the duPont Company's name from the plan, and my present notion is to forward this plan to the stockholders for ratification with a letter which will explain that the duPont Company has agreed to supply the equivalent of its pro rata share of stock and in addition will agree to supply any deficit to make up the equivalent of 2,250,000 shares. This letter is not yet written and, hence, I cannot enclose it.

Sincerely yours,

J. J. Raskob

NOTE: "TD-188." is written at the top of the page and "GMC 1606" is written at the bottom. Italics indicate handwriting.

Government's Exhibit No. 247

1.—DATA IN THIS REPORT IS INTENDED ONLY FOR THE PARTY TO WHOM ADDRESSED.
THE REPORT SHOULD BE TURNED OVER TO THE SECRETARY IMMEDIATELY AFTER THE MEETING AT WHICH IT IS CONSIDERED.

October 27th, 1923.

To: Board of Directors (E. I. duPont de Nemours & Company)

From: J. J. Raskob, Vice-President

Subject: Plan of Managers Securities Company

For your information there is enclosed herewith plan of Managers Securities Company, adopted by the General Motors Corporation, together with copy of letter to the stockholders of General Motors Corporation issued in connection with a special meeting of the stockholders called to ratify this plan.

In accordance with authority conferred by your Board, the Finance Committee of your company has authorized the following program:

(a) The DuPont American Industries, Inc., shall amend its charter, changing ~~its~~ name to General Motors Securities Company, and increasing its authorized capital stock;

(b) That an amount of such increase of stock of the General Motors Securities Company (equal to 30%

of the total stock outstanding) shall be sold to the Managers Securities Company for $33,750,000., payable $4,950,000. in cash and $28,800,000. in 7% cumulative preferred stock, convertible into 7% bonds of the Managers Securities Company, maturing April 15, 1931, as more fully described in the plan. The price to be paid, $33,750,000., is equivalent to $15. per share of General Motors Corporation common stock.

With the completion of the above steps, the position will be that the General Motors Securities Company will have 7,500,000 shares of General Motors Corporation common stock, with no liabilities other than its own capital stock which will be owned 70% by E. I. duPont de Nemours & Company and 30% by the Managers Securities Company.

[STAMP] J. J. RASKOB

NOTE: "TD-188." is written at the top of the page and "GMC 1609" is written at the bottom. "W. S. C. Jr." is written at the upper left corner.

2

Government's Exhibit No. 248

MINUTES OF SPECIAL MEETING OF THE BOARD OF DIRECTORS OF DU PONT AMERICAN INDUSTRIES, INC., HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON MONDAY, NOVEMBER 5, 1923, AT ELEVEN FORTY-FIVE O'CLOCK A. M., PURSUANT TO WAIVER OF NOTICE SIGNED BY ALL OF THE DIRECTORS

President: P. S. duPont, in the Chair,
Donaldson Brown,
W. S. Carpenter, Jr.,
H. F. duPont,
Lammot duPont,
H. G. Haskell,
J. J. Raskob.

Absent: Irenee duPont.

Reading of Minutes of previous meeting held on August 20, 1923, was waived.

PLAN OF MANAGERS SECURITIES COMPANY:

There was presented to the meeting copy of letter from Vice President J. J. Raskob to the Finance Committee of E. I. duPont de Nemours & Company, dated October 27, 1923 (#10134) enclosing copy of above mentioned Plan as finally submitted to the common stockholders of General Motors Corporation for approval with the President's letter of October 27, 1923; also copy of action taken by the Finance Committee of E. I. duPont deNemours &

Company at meeting held on October 15, 1923 in connection with this subject. After discussion, the following resolution was offered and unanimously adopted:—

> Resolved, that the Plan for the organization of the Managers Securities Company, now submitted for approval to the common stockholders of General Motors Corporation, be and the same is hereby approved and adopted, and the proper Officers of this Company are hereby authorized and directed to take all proper and necessary action to carry out said Plan and to make the same effective, provided it is approved by the stockholders of General Motors Corporation.

Upon motion, the meeting was adjourned.

OK form J. P. L. (Signed) M. D. Fisher
Asst. Secretary.

Note: "GMC 1610" is written at the bottom of the page.

2

Minutes of Meeting of Board of Directors, November 8, 1923.

GENERAL MOTORS CORPORATION

A regular meeting of the Board of Directors of General Motors Corporation was held, pursuant to due notice thereof, at No. 224 West 57th Street, New York City, on Thursday, November 8, 1923, at 3:00 o'clock in the afternoon.

The following directors were present:

George F. Baker, Jr.
Arthur G. Bishop
Donaldson Brown
William L. Day
Irenee duPont
Lammot duPont
P. S. duPont
Fred J. Fisher
George H. Hannum
A. B. C. Hardy
Charles F. Kettering
Charles S. Mott
DeWitt Page
John L. Pratt
Seward Prosser
John J. Raskob
Herbert H. Rice
Alfred P. Sloan, Jr.
John T. Smith
Alfred H. Swayne
William H. Woodin
Clarence M. Woolley

The Chairman of the Board of Directors, Mr. Pierre S. duPont, called the meeting to order and presided.

The Secretary recorded.

* * *

Report dated October 27, 1923 was received from J. J. Raskob, Vice President regarding "Plan of Managers Securities Company."

Thereupon, on motion duly made and unanimously carried, the following preambles and resolutions were adopted.

> WHEREAS, pursuant to a resolution of this board adopted August 9, 1923, negotiations have been conducted with reference to a proposed plan to cause to be organized a company to be known as Managers Securities Company and there has been formulated the annexed proposed plan and a special meeting of stockholders has been called to be held on November 20th, 1923, to take action thereon.
>
> RESOLVED, that said plan be and it hereby is approved and subject to the ratification thereof by said stockholders, the proper officers of the Corporation are hereby authorized and empowered to do any and all things necessary or proper to put into effect the said plan or any modification thereof approved by said stockholders;
>
> RESOLVED, that subject to said approval of the stockholders, a committee of three directors be appointed, consisting of Pierre S. duPont, Seward Prosser and Arthur G. Bishop, none of whom shall be eligible to participate in the said plan, with power to designate the employes of General Motors Corporation and its subsidiaries to be invited to acquire shares of said stock of the Managers Securities Company, to fix the amounts thereof, and to arrange the terms of payment therefor, and their judgment, or the judgment of a majority thereof, in all respects shall be final and conclusive.

A copy of the "Plan of Managers Securities Company" referred to in the foregoing preambles and resolutions is appended to these minutes at the end thereof.

(The "Plan of Managers Securities Company" submitted to and approved by the stockholders on November 20, 1923 is set out in full on page 392.)

Government's Exhibit No. 252

MINUTES OF REGULAR QUARTERLY MEETING OF THE BOARD OF DIRECTORS OF GENERAL MOTORS SECURITIES COMPANY, HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON FRIDAY, MAY 16, 1924, AT TWELVE O'CLOCK NOON.

PRESENT: P. S. duPont, in the Chair,
W. S. Carpenter, Jr.,
H. F. duPont,
Lammot duPont,
J. J. Raskob.

ABSENT: Donaldson Brown,
Irenee duPont,
H. G. Haskell.

The Chairman stated that the first business before the meeting was the election of officers for the ensuing year.

Mr. P. S. duPont was nominated for President, and on motion duly made and seconded was elected to serve for the ensuing year and until succeeded.

Messrs. Irenee duPont, Lammot duPont, and J. J. Raskob were nominated for Vice-Presidents, and on motion duly made and seconded were elected to serve for the ensuing year and until succeeded.

Mr. W. S. Carpenter, Jr., was nominated for Treasurer of the Company and on motion duly made and seconded was elected to serve for the ensuing year and until succeeded.

Mr. Charles Copeland was nominated for Secretary of the Company and on motion duly made and seconded was elected to serve for the ensuing year and until succeeded.

The following resolutions were offered and unanimously adopted:—

RESOLVED, that M. D. Fisher be and he hereby is appointed Assistant Secretary of this Company with all of the powers and authority conferred upon the Secretary of the Company in the absence of the Secretary or of his inability to act.

FURTHER RESOLVED, that W. F. Raskob be and he hereby is appointed Assistant Treasurer of this Company with all of the powers and authority conferred upon the Treasurer of the Company in the absence of the Treasurer or of his inability to act.

COMMON STOCK DIVIDEND:

Upon recommendation of the Treasurer, as per letter of May 13, 1924 (#10), the following resolution was offered and unanimously adopted:—

RESOLVED, that a dividend of $4.55 per share, payable in cash, be paid on the Common Stock of this Company on June 14, 1924, to stockholders of record at the close of business on June 4, 1924.

—2—

GENERAL MOTORS CORPORATION—
REARRANGEMENT OF CAPITAL ACCOUNT:

Upon recommendation of the Treasurer, as per letter of May 15, 1924 (#11), the following resolutions were offered and unanimously adopted:—

RESOLVED, that the President, or any Vice-President, and Secretary be and they are hereby authorized to execute proxy appointing P. S. duPont, A. P. Sloan, Jr., J. J. Raskob and T. S. Merrill, or any of them, as agents or attorneys to vote any and all shares of stock of General Motors Corporation owned by this Company, at Special Meeting of the Stockholders of said corporation to be held on June 16, 1924.

Resolved, that the Treasurer be and he hereby is authorized to exchange the present common shares of General Motors Corporation owned by this Company for a new issue of no par value common stock on the basis of one share of new for four shares of present common stock.

Upon motion, the meeting was adjourned.

M D Fisher
Assistant Secretary.

Note: "O.K. form J.P.L." is written in the left margin at the end. "gmc-468" is written at the bottom of each page.

Government's Exhibit No. 253

MINUTES OF THE ANNUAL MEETING OF THE STOCKHOLDERS OF THE GENERAL MOTORS SECURITIES COMPANY HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON WEDNESDAY, MARCH 17TH. 1926 AT ELEVEN O'CLOCK A.M.

The meeting was organized with Mr. Lammot duPont as Chairman and Mr. Charles Copeland as Secretary of the Meeting.

The Stockholders of the Company were represented by proxy as follows:

E. I. duPont deNemours & Company, by proxy to L. duPont and C. Copeland,	346,521 shs.
Managers Securities Company, by proxy to L. duPont and C. Copeland,.....	148,509 shs.
a total of	495,030 "

being the entire amount of Capital stock issued and outstanding.

The minutes of the last annual meeting of the Stockholders, held on March 18th. 1925, were read and approved.

It appearing that the Board of Directors had appointed no inspectors for the meeting, the Chairman appointed Mr. MacMillan Hoopes and Miss Mary A. Dougherty (neither of them being a candidate for the office of Director) Inspectors of Election and Ballots.

The Chairman thereupon declared the polls open for the election of eight Directors by ballot in accordance with the By-Laws.

A ballot being taken the Inspectors reported that the following gentlemen had each received 495,030 votes and were thereupon declared by the Chairman duly elected Directors for the ensuing year and until their successors are elected and qualified.

Donaldson Brown,
W. S. Carpenter, Jr.,
H. F. duPont,
Irenee duPont,
Lammot duPont,
P. S. duPont,
H. G. Haskell,
J. J. Raskob.

It was moved and seconded that all action by the Officers and Directors of this Company since the last annual meeting of the stockholders, as the same appear in the Books and Records of the Company be and the same are hereby approved, ratified and confirmed. This motion being put to a ballot, 495,030 shares voted in favor of the motion and no shares voted against the motion. The Chairman thereupon declared the motion carried unanimously.

On motion, the meeting was adjourned.

C. Copeland

Secretary.

Note: "gmc-471" is written at the bottom of the page.

Government's Exhibit No. 254

GENERAL MOTORS SECURITIES COMPANY

ANNUAL MEETING OF STOCKHOLDERS

March 16, 1932

The Annual Meeting of the Stockholders of General Motors Securities Company was held in Room 9068, duPont Building, Wilmington, Delaware, on Wednesday, March 16, 1932 at eleven o'clock a. m., pursuant to notice mailed to each stockholder as provided by the By-Laws.

In the absence of the President, Mr. H. C. Haskell was chosen Chairman of the Meeting with Mr. Charles Copeland, Secretary, present and acting. The Secretary presented a copy of the Notice of the Meeting with proof of mailing thereof which was ordered appended to the Minutes of this Meeting.

The Chairman reported that 3,441,400 shares of the Class A Stock and 346,521 shares of the Common Stock, or a total of 3,787,921 shares of issued and outstanding stock entitled to vote, were represented at the Meeting.

Minutes of the Special Meeting of Stockholders held on February 10, 1931 were read, and on motion were unanimously approved.

The Chairman announced that it was in order to proceed with the election of Directors for the ensuing year.

The following persons were nominated as Directors of the Company for the ensuing year, two of whom, as set forth below, being nominated by the holders of the Class A Stock as a class, i. e.:

Donaldson Brown
W. S. Carpenter, Jr.
H. F. duPont
Irenee duPont
Lammot duPont
P. S. duPont
A. B. Echols
H. G. Haskell
J. J. Raskob
Alfred P. Sloan, Jr.

Nominated by
Holders of Class A Stock:
Fred J. Fisher
John T. Smith

Thereupon, on motion duly seconded, Messrs. J. L. Bradley, T. R. Hanley and K. T. Prigg were unanimously appointed Inspectors of Election to decide upon the qualifications of voters at the Meeting and to receive the ballots for Directors. Said Inspectors being present and having been sworn to the faithful performance of their duties, proceeded to determine the qualifications of voters present, and thereupon reported that 3,441,400 shares of the Class A Stock of the Company entitled to vote were issued and outstanding, 3,170,691 shares of which were represented at the Meeting in person or by duly authorized representative as follows:

Sundry Class A Stockholders by proxies
to W. S. Carpenter, Jr., 3,170,691 shares;

and that 346,521 shares of the Common Stock of the Company entitled to vote were issued and outstanding, 346,521 shares of which were represented at the Meeting by duly authorized representative as follows:

Sundry Common Stockholders by proxies
to W. S. Carpenter, Jr., 346,521 shares.

The polls were duly opened at 11:30 o'clock, and remained open until 12:30 o'clock in accordance with the By-Laws. The polls being closed, the ballots for Directors were taken in charge by said Inspectors, and on the votes being counted by said Inspectors, they reported that the above named persons had been duly elected Directors of the Company, two of whom, viz. Messrs. John T. Smith and Fred J. Fisher having been elected by the holders of Class A Stock, as a class.

Thereupon, said Inspectors made out a Certificate accordingly stating the number of shares of Class A Stock and of the Common Stock issued and outstanding entitled to vote, and the number of votes cast for each of the nominees for Directors of the Company, and delivered the same to the Secretary of the Company. It appearing from

said Certificate of said Inspectors that Messrs. Donaldson Brown, W. S. Carpenter, Jr., H. F. duPont, Irenee duPont, Lammot duPont, P. S. duPont, A. B. Echols, H. G. Haskell, J. J. Raskob and Alfred P. Sloan, Jr., had each received 378,227.91 votes, and that Messrs. Fred J. Fisher and John T. Smith had each received 31,706.91 votes cast by the holders of the Class A Stock, as a class, the Chairman thereupon declared that the above persons had been duly elected Directors of the Company, to hold office until the next Annual Meeting of the Company and until their successors shall be elected and qualified.

It was moved and seconded that all acts taken by the Officers and Directors of the Company since the last Annual Meeting of the Stockholders, as the same appear on the

Books and Records of the Company, be and the same are hereby approved, ratified, and confirmed. Upon being put to a vote, all shares represented at the Meeting voted in favor thereof and the Chairman thereupon declared that the motion had been unanimously carried.

There being no further business, on motion, the Meeting adjourned.

C Copeland
Secretary

NOTE: The pages are numbered by stamp at the top from 93 to 95, inclusive. The initials "H.F.H." are written at the bottom of the last page. "gmc-479" is written at the bottom of each page. Italics indicate handwriting.

Government's Exhibit No. 256

GENERAL MOTORS SECURITIES COMPANY

ANNUAL MEETING OF STOCKHOLDERS

MARCH 15, 1933

The Annual Meeting of the Stockholders of General Motors Securities Company was held in the Directors' Room, Ninth Floor, DuPont Building, Wilmington, Delaware, on Wednesday, March 15, 1933, at 11:00 a. m., pursuant to notice mailed to each stockholder as provided by the By-Laws.

Mr. W. S. Carpenter, Jr., Vice-President presided at the meeting, with Mr. E. A. Howard, Assistant Secretary, acting as Secretary.

The Secretary presented a copy of the notice of the meeting with proof of mailing thereof, which was ordered appended to the minutes of this meeting.

The Chairman reported that 2,743,244 shares of the Class A Stock and 346,521 shares of the Common Stock, or a total of 3,089,765 shares of issued and outstanding stock entitled to vote, were represented at the meeting.

Minutes of the Last Annual Meeting of the Stockholders, held on Wednesday, March 16, 1932, were read and, upon motion, unanimously approved.

The Chairman announced that it was in order to proceed with the nomination and election of Directors for the ensuing year. The following persons were thereupon nominated, two of whom, as set forth below, being nominated by the holders of the Class A Stock as a class, i.e.:

	Nominated by the Holders of Class A Stock
Donaldson Brown,	
W. S. Carpenter, Jr.	
H. F. duPont,	Fred J. Fisher
Irenee duPont,	John T. Smith
Lammot duPont,	
P. S. duPont,	
A. B. Echols,	
H. G. Haskell,	
J. J. Raskob,	
Alfred P. Sloan, Jr.	

The Chairman appointed Messrs. J. L. Bradley, D. Irving Cashell and H. B. Robertson as Inspectors of Election to decide upon the qualification of voters at the meeting and to receive the ballots for Directors. Said Inspectors being present, and having been sworn to the faithful performance of their duties, proceeded to determine the qualifications of voters present, and thereupon reported that 3,171,189 shares of the Class A Stock of the Company entitled to vote were issued and outstanding, 2,743,244 shares of which were represented at the meeting in person or by duly authorized representative as follows:

Sundry Class A Stockholders by proxies to W. S. Carpenter, Jr.	2,743,244 shares;

and that 346,521 shares of the Common Stock of the Company entitled to vote were issued and outstanding, 346,521 shares of which were represented at the meeting by duly authorized representative as follows:

Sundry Common Stockholders by proxies to W. S. Carpenter, Jr.	346,521 shares.

The polls were duly open at 11:00 o'clock, and remained open until 12:00 o'clock in accordance with the By-Laws. The polls being closed, the ballots for Directors were taken in charge by the Inspectors, and on the votes being counted by said Inspectors, they reported that the above-named persons had been duly elected Directors of the Company, two of whom, viz: Messrs. Fred J. Fisher and John T. Smith were elected by the holders of Class A Stock, as a class.

Thereupon, said Inspectors made out a Certificate accordingly stating the number of shares of Class A Stock and of the Common Stock issued and outstanding entitled to vote, and the number of votes cast for each of the nominees for Directors of the Company, and delivered same to the Secretary of the Company. It appearing from said Certificate of said Inspectors that Messrs. Donaldson Brown, W. S. Carpenter, Jr., H. F. duPont, Irenee duPont, Lammot duPont, P. S. duPont, A. B. Echols, H. G. Haskell, J. J. Raskob and Alfred P. Sloan, Jr., had each received 373,953.44 votes, and that Messrs. Fred J. Fisher and John T. Smith had each received 27,432.44 votes cast by the holders of the Class A Stock, as a Class, the Chairman thereupon declared that the above-named persons had been duly elected Directors of the Company, to hold office until the next Annual Meeting of the Stockholders or until their successors have been elected and qualify.

The Annual report of this company for the year 1932, printed copy of which had been mailed to each stockholder, was presented to the meeting, and upon motion duly made and seconded, it was voted that the report be accepted and approved.

It was moved and seconded that all acts taken by the Officers and Directors of the Company since the last Annual

Meeting of the Stockholders, as the same appear on the books and records of the Company, be approved, ratified and confirmed. Upon being put to a vote, all shares represented at the meeting voted in favor thereof, and the Chairman thereupon declared that the motion had been unanimously carried.

There being no further business to come before the Stockholders, upon motion, the meeting was adjourned.

E A Howard
Secretary of the Meeting

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Note: Number stamped in upper right corner of page 2 is "109"

Government's Exhibit No. 257

GENERAL MOTORS SECURITIES COMPANY

ANNUAL MEETING OF STOCKHOLDERS

MARCH 21, 1934.

The Annual Meeting of the Stockholders of General Motors Securities Company was held in the Directors' Room, Ninth Floor, DuPont Building, Wilmington, Delaware, on Wednesday, March 21, 1934, at 11:00 a.m., pursuant to notice mailed to each stockholder as provided by the By-Laws.

Mr. W. S. Carpenter, Jr., Vice-President, presided at the meeting, with Mr. E. A. Howard, Assistant Secretary, acting as Secretary.

The Secretary presented a copy of the notice of the meeting with proof of mailing thereof, which was ordered appended to the minutes of this meeting.

The Chairman reported that 1,532,454 shares of the Class A Stock and 346,521 shares of the Common Stock, or a total of 1,878,975 shares of issued and outstanding stock entitled to vote, were represented at the meeting.

Minutes of the last Annual Meeting of the Stockholders, held on Wednesday, March 15, 1933, were read and, upon motion, unanimously approved.

The Chairman announced that it was in order to proceed with the nomination and election of Directors for the ensuing year. The following persons were thereupon nominated, two of whom, as set forth below, being nominated by the holders of the Class A Stock as a class, i.e.:

Donaldson Brown
W. S. Carpenter, Jr.
H. F. du Pont
Irénée du Pont
Lammot du Pont
P. S. du Pont
A. B. Echols
H. G. Haskell
J. J. Raskob
Alfred P. Sloan, Jr.

Nominated by the holders of Class A Stock

Albert Bradley
John T. Smith

The Chairman appointed Messrs. J. H. Cassidy, J. A. Horty and K. T. Prigg as Inspectors of Election to decide upon the qualification of voters at the meeting and to receive the ballots for Directors. Said Inspectors being present, and having been sworn to the faithful performance of their duties, proceeded to determine the qualification of voters present, and thereupon reported that 2,114,904 shares of the Class A Stock of the Company entitled to vote were issued and outstanding, 1,532,454 of which were represented at the meeting in person or by duly authorized representative as follows:-

Sundry Class A Stockholders by proxies to W. S. Carpenter, Jr.,	1,532,454	shares

and that 346,521 shares of the Common Stock of the Company entitled to vote were issued and outstanding, 346,521 shares of which were represented at the meeting by duly authorized representative as follows:-

Sundry Common Stockholders by proxies to W. S. Carpenter, Jr.,	346,521	shares.

The polls were duly opened at 11:00 o'clock, and remained open until 12:00 o'clock, in accordance with the By-Laws. The polls being closed, the ballots for Directors were taken in charge by the Inspectors, and on the votes being counted by said Inspectors, they reported that the above-named persons had been duly elected Directors of the Company two of whom, viz:- Albert Bradley and John T. Smith were elected by the holders of Class A Stock, as a class.

Thereupon, said Inspectors made out a Certificate accordingly stating the number of shares of Class A Stock and of the Common Stock issued and outstanding entitled to vote, and the number of votes cast for each of the nominees for Directors of the Company, and delivered same to the Secretary of the Company. It appearing from said Certificate of said Inspectors that Messrs. Donaldson Brown, W. S. Carpenter, Jr., H. F. du Pont, Irénée du Pont, Lammot du Pont, P. S. du Pont, A. B. Echols, H. G. Haskell, J. J. Raskob and Alfred P. Sloan, Jr. had each received 361,845.54 votes, and that Messrs. Albert Bradley and John T. Smith had each received 15,324.54 votes cast by the holders of the Class A Stock, as a Class, the Chairman thereupon declared that the above-named persons had been duly elected Directors of the Company, to hold office until the next Annual Meeting of the Stockholders or until their successors have been elected and qualify.

The Annual report of this Company for the year 1933 printed copy of which had been mailed to each stockholder, was presented to the meeting, and upon motion duly made and seconded, it was voted that the report be accepted and approved.

It was moved and seconded that all acts taken by the Officers and Directors of the Company since the last Annual Meeting of the Stockholders, as the same appear on the books and records of the Company, be approved, ratified and confirmed. Upon being put to a vote, all shares represented at the meeting voted in favor thereof, and the Chairman thereupon declared that the motion had been unanimously carried.

There being no further business to come before the Stockholders, upon motion, the meeting was adjourned.

E A Howard
Secretary of the meeting.

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APPROVED AS TO LEGALITY

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Government's Exhibit No. 258

INTERROGATORIES PROPOUNDED BY PLAINTIFF TO GENERAL MOTORS CORPORATION

(Interrogatories 7 and 8)

7. State with respect to the operation of Managers Securities Company during the whole of the period of time it was in active existence:

(a) The name and official position of each of the General Motors (including subsidiaries) directors, officers, executives, or employees to whom was allocated Class A and/or Class B stock of the Managers Securities Company;

(b) The number of shares of Class A and Class B stock (separately) allocated to each such person, when the allocation was made, the consideration, if any, paid for the stock by the person to whom it was allocated, and how such consideration was paid;

(c) The dividends or other returns paid to each person on each class of such allocated stock during each year of the period of time after the stock was allocated;

(d) State the amount of consideration, whether in cash, shares of General Motors stock, or otherwise, paid to each such holder of Class A and Class B stock upon the liquidation or dissolution of the Managers

Securities Company or on the holder taking advantage of any arrangement for the turning in of such Class A and/or Class B stock in exchange for other stock.

8. State for each year during which a General Motors Bonus plan (other than that of the Managers Securities Company), however described, organized, or operated, for the benefit of your officers and executives, was in operation up to and including June 30, 1949:

(a) The total number of persons receiving cash and/or stock bonus awards during the year, stating also:

(1) The total amount of cash awarded;

(2) The total number of shares of stock awarded; and

(3) If stock was awarded, the kind of stock and the approximate market value thereof at the time the award was made.

(b) The name and the then held official position of each director and officer of your company who received a bonus award, stating further:

(1) The amount of the cash award made to each;

(2) The number of shares of stock awarded to each, the kind of stock, and the approximate market value of such stock at the time the award was made;

(3) Whether or not the recipient of a stock award was required to make any payment therefor and, if so, how much and under what conditions as to payment (as whether in cash or on installments and, if the latter, whether out of normal income, cash bonus awards, or otherwise);

(4) The annual salary, commission, or other compensation (other than the bonus award) paid by you to each such person during the year the bonus award was made.

(c) The name and the then held official position of each of the fifty persons receiving the fifty highest bonus awards (excluding from this listing the persons and the awards involved in subparagraph (b) above) made by your company each year, stating further with respect to each such person the information called for in (1) to (4), inclusive, of subparagraph (b) above.

SCHEDULE F

INTERROGATORY 7 (a) and 7 (b)

Managers Securities Company

(All stock was purchased from General Motors Corporation and was paid for in cash.)

Name	Position	Date	Class A Stock Purchased		Class B Stock Purchased	
			No. of Shares	Price Per Share	No. of Shares	Price Per Share
George G. Allen	General Purchasing Agent-Buick	Nov. 1923	200	$ 100.00	200	$ 25.00
B. H. Anibal	Chief Engineer-Oakland	July 1926	120	211.23	120	673.34
R. T. Armstrong (a)	General Manager-Armstrong Spring	Dec. 1924	200	146.54	200	25.00
Charles F. Barth	General Manager-Flint Plant-Chevrolet	Nov. 1923	240	100.00	240	25.00
	Vice-President in Charge Manufacturing-Chevrolet	May 1925	80	150.98	80	25.00
H. H. Bassett	General Manager-Buick	Apr. 1924	2,400	100.00	2,400	25.00
Henry L. Barton	Director of Factory Section-Advisory Staff	Nov. 1923	320	100.00	320	25.00
Eric L. Bergland	Director of Power and Construction Section-Advisory Staff	Nov. 1923	200	100.00	200	25.00
	Executive Secretary-Works Managers Committee	Apr. 1925	80	150.98	80	25.00
Elmer G. Biechler	Acting General Manager-Delco Light	Jan. 1924	200	141.13	200	25.00
	General Manager-Delco Light	May 1925	120	150.98	120	25.00
	" " " "	July 1926	80	211.23	80	673.34
Ferdinand A. Bower	Assistant Chief Engineer-Buick	Nov. 1923	200	100.00	200	25.00
	" " " "	June 1925	120	150.98	120	25.00
A. Bradley	Assistant Treasurer	Feb. 1925	200	129.04	200	25.00
A. J. Brandt	Production Manager-Oakland	July 1926	120	211.23	120	673.34
Donaldson Brown	Vice-President in Charge of Financial Staff	Nov. 1923	1,200	100.00	1,200	25.00
	" " " " " " "	May 1925	400	150.98	400	25.00
A. L. Cash	General Manager-Northway	Nov. 1923	200	100.00	200	25.00
H. Winfield Chapin	General Manager-Brown-Lipe-Chapin	Nov. 1923	400	100.00	400	25.00
W. A. Chryst	Chief Engineer-Dayton Engineering Lab.	Nov. 1923	200	100.00	200	25.00
Samuel H. Cook	Assistant General Manager-Brown-Lipe-Chapin	Nov. 1923	200	100.00	200	25.00
Curtis C. Cooper	President-GMAC	Nov. 1923	480	100.00	480	25.00
M. E. Coyle	Comptroller-Chevrolet	Nov. 1923	200	100.00	200	25.00
	Assistant to President-Chevrolet	May 1925	80	150.98	80	25.00
C. E. Dawson	Assistant General Sales Manager-Chevrolet	Nov. 1923	200	100.00	200	25.00
Clarence M. Day	General Manager-Jaxon Steel Products	Nov. 1923	200	100.00	200	25.00
W. L. Day	General Manager-General Motors Truck	Nov. 1923	400	100.00	400	25.00
A. L. Deane	Vice-President-GMAC	Nov. 1923	200	100.00	200	25.00
Enos A. DeWaters	Chief Engineer-Buick	Nov 1923	200	100.00	200	25.00
	" " "	May 1925	120	150.98	120	25.00
H. C. Dunning	Assistant General Manager-Oldsmobile	Nov. 1923	200	100.00	200	25.00
C. B. Durham	Assistant General Manager-Buick	Nov. 1923	400	100.00	400	25.00
John H. Dwight	General Manager-Saginaw Products	Nov 1923	280	100.00	280	25.00
D. S. Eddins	General Sales Manager-Oldsmobile	May 1925	200	150.98	200	25.00
A. J. Fisher	Member of Executive Committee-Fisher Body	Nov. 1924	600	100.00	600	25.00
Charles T. Fisher	Director and Member of Executive Committee	Nov. 1924	1,720	100.00	1,720	25.00
E. F. Fisher	Member of Executive Committee-Fisher Body	Nov. 1924	600	100.00	600	25.00

Name	Position	Date	Class A Stock Purchased		Class B Stock Purchased	
			No. of Shares	Price Per Share	No. of Shares	Price Per Share
Fred J. Fisher	Director and Member of Executive Committee	Nov. 1924	1,720	$ 100.00	1,720	$ 25.00
Lawrence P. Fisher	Director and Member of Executive Committee	Nov. 1924	880	100.00	880	25.00
	General Manager-Cadillac	May 1925	400	150.98	400	25.00
W. A. Fisher	President-Fisher Body	Nov. 1924	880	100.00	880	25.00
Thomas B. Fordham	Factory Superintendent and Works Manager-Delco Light	Jan. 1924	200	141.13	200	25.00
Homer J. Forsythe	General Manager-Hyatt Roller Bearing	Nov. 1923	200	100.00	200	25.00
A. R. Glancy	General Manager-Oakland	Feb. 1925	400	129.04	400	25.00
	" " "	July 1926	200	211.23	200	673.34
Richard H. Grant	General Manager-Delco Light	Nov. 1923	400	100.00	400	25.00
	Assistant to President-Chevrolet	Jan. 1924	400	100.00	400	25.00
A.B.C. Hardy	General Manager-Oldsmobile	Nov. 1923	800	100.00	800	25.00
Herbert C. Harrison	General Manager-Harrison Radiator	Nov. 1923	400	100.00	400	25.00
Omar L. Harrison	Sales Manager-Dayton Engineering Lab.	Nov. 1923	200	100.00	200	25.00
	General Manager-Dayton Engineering Lab.	Apr. 1925	120	150.98	120	25.00
George H. Hannum	General Manager-Oakland	Nov. 1923	800	100.00	800	25.00
A. Lawrence Haskell	General Manager-General Motors Export	Nov. 1923	200	100.00	200	25.00
E. C. Howard	Assistant to President-Cadillac	May 1925	200	150.98	200	25.00
O. E. Hunt	Chief Engineer-Chevrolet	Nov. 1923	200	100.00	200	25.00
	" " "	Apr. 1925	120	150.98	120	25.00
J. B. Jackson	Staff Manager-General Services	Apr. 1925	120	150.98	120	25.00
E. F. Johnson	Group Executive-Inter-Company Parts Div.	Nov. 1923	200	100.00	200	25.00
	Assistant to Group Executive-Accessory Divs.	Apr. 1925	200	150.98	200	25.00
W. H. Johnson	Managing Director-General Motors, Ltd.	Nov. 1923	240	100.00	240	25.00
Kaufman T. Keller	Manager of Manufacture-Chevrolet	Nov. 1923	400	100.00	400	25.00
C. F. Kettering	President-G.M. Research	Nov, 1923	1,200	100.00	1,200	25.00
W. S. Knudsen	Vice-President in Charge of Manufacture-Chevrolet	Nov. 1923	1,200	100.00	1,200	25.00
Bernard G. Koether	Director of Sales Section-Advisory Staff	Nov. 1923	200	100.00	200	25.00
Ralph S. Lane	President-United Motors Service	Nov. 1923	200	100.00	200	25.00
A. N. Lawrence	Sales Director-General Motors Ltd.	Nov. 1923	144	100.00	144	25.00
Gordon Lefebvre	General Manager-G.M. of Canada, Ltd.	July 1926	160	211.23	160	673.34
Robert T. Longway	Assistant Treasurer-Buick	Nov. 1923	200	100.00	200	25.00
James Lynah	Executive Secretary-General Purchasing Comm.	Mar. 1925	200	150.98	200	25.00
James McEvoy	Director of Patent Section	Feb. 1925	200	146.54	200	25.00
R.S. McLaughlin	President-G.M. of Canada, Ltd.	Nov. 1923	600	100.00	600	25.00
Lynn McNaughton	Sales Manager-Cadillac	Nov. 1923	320	100.00	320	25.00
Harvey J. Mallery	Comptroller-Buick	Nov. 1923	200	100.00	200	25.00
C. W. Matheson	General Sales Manager-Oakland	July 1926	120	211.23	120	673.34
Thomas Midgley, Jr.	Vice-President-General Motor Chemical	Nov. 1923	200	100.00	200	25.00
J. D. Mooney	Vice-President in charge of Export Operations	Nov. 1923	320	100.00	320	25.00
	" " " " " " "	Dec. 1924	80	100.00	80	25.00
G.D. Moore	General Manager-Toledo Plant-Chevrolet	Nov. 1923	120	100.00	120	25.00
Charles Stewart Mott	Vice-President in charge of Car and Truck Group	Nov 1923	2,400	100.00	2,400	25.00
C. J. Nephler	General Sales Manager-Oakland	May 1924	200	141.13	200	25.00
Don P. O'Keefe	Purchasing Agent-Chevrolet	Nov. 1923	120	100.00	120	25.00
	" " "	May 1925	80	150.98	80	25.00

Name	Position	Date	Class A Stock Purchased No. of Shares	Class A Stock Purchased Price Per Share	Class B Stock Purchased No. of Shares	Class B Stock Purchased Price Per Share
E.M. Orr	Assistant General Manager-Oakland	Nov. 1923	200	$ 100.00	200	$ 25.00
DeWitt Page	General Manager-New Departure	Nov. 1923	800	100.00	800	25.00
James Parkhill (a)	General Manager-Armstrong Spring	Dec. 1928	25	(a)	100	(a)
G.H. Peasley	Sales Manager-Olds Motor Works	Apr. 1924	200	141.13	200	25.00
John L. Pratt	Group Executive in charge of Accessory Divisions	Nov. 1923	800	100.00	800	25.00
	" " " " " " "	Jan. 1925	400	100.00	400	25.00
	" " " " "	May 1925	400	150.98	400	25.00
M.L. Prentiss	Treasurer	Nov. 1923	400	100.00	400	25.00
Ernest W. Proctor	Assistant Comptroller	Nov. 1923	200	100.00	200	25.00
J.J. Raskob	Chairman-Finance Committee	Nov. 1923	2,400	100.00	2,400	25.00
I.J. Reuter	General Manager-Remy Electric	Nov. 1923	400	100.00	400	25.00
	General Manager-Olds.	Feb. 1925	200	150.98	200	25.00
H.H. Rice	General Manager-Cadillac	Nov. 1923	800	100.00	800	25.00
E.C. Riley	Managing Director-General Motors Ltd.	Mar. 1925	200	150.98	200	25.00
Coleman J. Ross	General Superintendent-Buick	Nov. 1923	200	100.00	200	25.00
L.M. Rumely	General Manager-G.M. Export	Aug. 1925	120	150.98	120	25.00
John J. Schumann, Jr.	Vice-President-GMAC	Nov. 1923	320	100.00	320	25.00
John M. Scott	Manufacturing Engineer-Olds.	Nov. 1923	200	100.00	200	25.00
Ernest W. Seaholm	Chief Engineer-Cadillac	Nov. 1923	100	100.00	100	25.00
	" " "	May 1925	100	150.98	100	25.00
Livingston L. Short	Vice-President-GEC	Nov. 1923	200	100.00	200	25.00
Alfred P. Sloan, Jr.	President	Nov. 1923	2,800	100.00	2,800	25.00
	"	May 1925	400	150.98	400	25.00
John T. Smith	General Counsel	Nov. 1923	400	100.00	400	25.00
Chester A. Souther	Advisory Staff, in charge Income Taxes	Nov. 1923	200	100.00	200	25.00
D.M. Spaidal	Vice-President-GMAC	Nov. 1923	200	100.00	200	25.00
W.R. Strickland	Asst.-Chief Engineer-Cadillac	May 1925	100	150.98	100	25.00
A.H. Swayne	Vice-President	Mar 1925	200	150.98	200	25.00
David O. Thomas	General Manager-Muncie Products	May 1925	100	150.98	100	25.00
Frank Turner	Comptroller	Nov. 1923	200	100.00	200	25.00
E.W. Webb	General Attorney	Nov. 1923	200	100.00	200	25.00
W.S. Whittaker	General Manager-Inland Mfg.	July 1926	80	211.23	80	673.34
A.U. Widman	Manager of Manufacturing-Cadillac	Nov. 1923	320	100.00	320	25.00
Charles E. Wilson	Factory Manager-Remy Electric	Nov. 1923	200	100.00	200	25.00
	General Manager-Remy Electric	Apr. 1925	120	150.98	120	25.00
H.G. Zimmerman	Regional Manager-G.M. Export	Aug. 1925	120	150.98	120	25.00

(a) Mr. R.T. Armstrong, General Manager, Armstrong Spring Division, in December 1928, transferred, with the consent of General Motors Corp., to his successor in that capacity, Mr. James Parkhill, one-half his holdings of Managers Securities Company stock, namely 25 shares of Class A stock (after reflecting redemptions of 150 shares of his original holdings of Managers Securities Company, and 100 shares of Class B stock.

Government's Exhibit No. 260

INTERROGATORY 7 (a) and 7 (b)

General Motors Management Corporation

(All common stock was purchased from
General Motors Corporation and
was paid for in cash.)

Name	Position	Date	General Motors Management Corp. Common Stock Purchased	
			No. of Shares	Price Per Share
Robert H. Ahlers	Factory Manager-Delco Products	Apr. 1930	55	$ 100.00
Don E. Ahrens	Asst. Gen. Sales Mgr.-Cadillac	Apr. 1930	70	100.00
Cecil L. Alexander	Regional Sales Mgr.-Chevrolet	Apr. 1930	55	100.00
Anthony C. Anderson	Asst. Comptroller	Apr. 1930	70	100.00
Charles R. Anderson	Resident Comptroller-New Departure	Apr. 1930	55	100.00
Harry W. Anderson	Asst. Gen. Mgr.-United Motors	Apr. 1930	40	100.00
Benjamin H. Anibal	Vice-Pres.-Oakland	Apr. 1930	175	100.00
Walter Appel	Dir. Engineering Dept.-Adam Opel, A.G.	Apr. 1930	75	100.00
Thomas P. Archer	Pres.-Ternstedt;Asst. to Vice-Pres.-Fisher Body	Apr. 1930	175	100.00
William F. Armstrong	Asst. to Vice-Pres.-Central Office	Apr. 1930	125	100.00
Ollie V. Badgley	Factory Manager-Delco-Remy	Apr. 1930	90	100.00
D. K. Banker	Comptroller-Frigidaire	Apr. 1930	55	100.00
E. Judson Barney	Supt. of Materials -Frigidaire	Apr. 1930	40	100.00
Charles Bartlett	Managing Director-Gen. Motors Ltd.	Apr. 1930	80	100.00
Arthur Bassett	Managing Director-G.M. Export	Apr. 1930	65	100.00
George F. Benkhart	Vice-Pres.-G.M.A.C.	Apr. 1930	40	100.00
Louis B. Berg	Works Manager-A.C. Spark Plug	Apr. 1930	40	100.00
	" " " "	June 1930	15	100.00
Gray H. Bernard	Factory Manager-Olds Motor Works	Apr. 1930	100	100.00
Henry E. Beyster	Works Engineer-Fisher Body	Apr. 1930	40	100.00
Elmer G. Biechler	Pres. & Gen. Mgr.-Frigidaire	Apr. 1930	350	100.00
William A. Blees	General Sales Mgr.-Oakland	Apr. 1930	175	100.00
Ben V.Borella	Asst. Treasurer	Apr. 1930	40	100.00
Ferdinand A. Bower	Chief Engineer-Buick	Apr. 1930	175	100.00
Albert Bradley	Vice-President	Apr. 1930	1,000	100.00
Ernest R. Breech	Gen. Asst. Treasurer	Apr. 1930	90	100.00
Doran P. Brother	Asst. to Director Sales	Apr. 1930	40	100.00
Donaldson Brown	Vice-President	Apr. 1930	1,500	100.00
Hanson A. Brown	Gen. Mgr.-GM of Canada, Ltd.	Apr. 1930	150	100.00
Paul R. Buergin	Managing Director-GM (France)S.A.	Apr. 1930	65	100.00
H. J. Carmichael	Pres. & Gen. Mgr. McKinnon Ind.	Apr. 1930	70	100.00
T. Monte Carpenter	Gen. Mgr.-Saginaw Crankshaft	Apr. 1930	35	100.00
Charles R. Carroll	Attorney	Apr. 1930	50	100.00
John J. Carter	Special Assignments-Adam Opel	Apr. 1930	140	100.00
John C. Chick	Asst. Gen. Sales Mgr.-Chevrolet	Apr. 1930	105	100.00
	General Sales Manager-Cadillac	Feb. 1931	70	100.00
George T.Christopher	Chief Inspector-Olds Motor Works	Apr. 1930	55	100.00

GENERAL MOTORS MANAGEMENT CORPORATION (cont.)

Name	**Position**	**Date**	General Motors Management Corp. Common Stock Purchased **No. of Shares**	 **Price Per Share**
Leslie V. Christy	Asst. Treasurer	Apr. 1930	40	$100.00
Charles W.Churchill	General Sales Mgr.-Buick	Apr. 1930	175	100.00
Henry L. Clark	Sales Representative-Chevrolet	Apr. 1930	35	100.00
George W.Codrington	Pres. & Gen. Mgr.-Winton Engine	Apr. 1930	140	100.00
Jerome T. Collins	Gen.Sales Mgr.-Olds Motor Works	Apr. 1930	100	100.00
Bert Conway	Asst.Plant Mgr.-Chevrolet	Apr. 1930	35	100.00
Berry W. Cooper	Resident Compt.-Delco-Remy	Apr. 1930	55	100.00
Lewis K. Cooper	Regional Sales Mgr.-Chevrolet	Apr. 1930	70	100.00
Carl A. Copp	Asst. to Pres.-Frigidaire	Apr. 1930	55	100.00
Sidney Corbett,3rd	Mgr. Com.Car Div.-Chevrolet	Apr. 1930	40	100.00
Lonny S. Costley	Regional Sales Mgr.-Chevrolet	Apr. 1930	55	100.00
M.E. Coyle	Vice-Pres. & Gen. Auditor-Chevrolet	Apr. 1930	210	100.00
Edward B. Craig	Plant Mgr.-Fisher Body Corp.	Apr. 1930	35	100.00
Leroy V. Cram	Asst. Chief Engineer-Chevrolet	Apr. 1930	60	100.00
	" " " "	Dec. 1930	10	100.00
Charles S. Crawford	Chief Engineer -Adam Opel	Apr. 1930	55	100.00
James M. Crawford	Chief Engineer-Chevrolet	Apr. 1930	105	100.00
	" " "	Dec. 1930	70	100.00
Claude A. Crusoe	Director of Purchases-Fisher Body	Apr. 1930	70	100.00
Lewis D. Crusoe	Cost Supervisor-Fisher Body	Apr. 1930	55	100.00
	" " " "	Mar. 1931	15	100.00
Harlow H. Curtice	Pres. & Gen. Mgr.-A. C. Spark Plug	Apr. 1930	175	100.00
William J. Davidson	Executive Secretary, Gen. Tech. Com.	Apr. 1930	35	100.00
Glyn Davies	Vice-Pres.-G.M.A.C.	Apr. 1930	40	100.00
William E. Davis	Asst. to Gen. Mgr.-GM of Canada, Ltd.	Apr. 1930	70	100.00
C. E. Dawson	Mgr., National Users Dept.	Apr. 1930	105	100.00
Hugh Dean	Plant Manager-Chevrolet	Apr. 1930	70	100.00
Albert L. Deane	Pres.-Motors Holding	Apr. 1930	140	100.00
Albert M. deTonnay	Managing Dir.-G.M. Argentina S.A.	Apr. 1930	55	100.00
Harry M. Denyes	General Mgr.-Saginaw Steering Gear	Apr. 1930	40	100.00
Felix Doran, Jr.	Regional Sales Mgr.-Chevrolet	Apr. 1930	55	100.00
Morgan D. Douglas	Parts & Service Mgr.-Chevrolet	Apr. 1930	105	100.00
Charles F. Dye	Director of Employe Relations	Apr. 1930	50	100.00
Harley J. Earl	Director Art & Color Section-Fisher Body	Apr. 1930	90	100.00
D. S. Eddins	General Manager-Olds Motor Works	Apr. 1930	350	100.00
Frank M. Edgar	Vice-Pres. & Gen. Mgr.-Ternstedt	Apr. 1930	70	100.00
Joseph R. Eggert	Plant Mgr.-Chevrolet	Apr. 1930	55	100.00
Forrest T. Ellis	Supt. of Mfg.-Cadillac	Apr. 1930	55	100.00
Rodger J. Emmert	President-G.M. Radio Corp.	Apr. 1930	125	100.00
Joseph Engelhard	Chief Body Engineer-Fisher Body	Apr. 1930	90	100.00
Ronald K. Evans	Manager Dir.-Vauxhall	Apr. 1930	95	100.00
	General Manager-Adam Opel	Mar. 1931	105	100.00
Alfred J. Fisher	Vice-Pres.-Fisher Body	Apr. 1930	280	100.00
	" " "	Apr. 1935	970	155.89
Charles T. Fisher	Vice-Pres. & Member Exec. Comm.	Apr. 1930	1,500	100.00

GENERAL MOTORS MANAGEMENT CORPORATION (cont.)

Name	Position	Date	General Motors Management Corp. Common Stock Purchased	
			No. of Shares	Price Per Share
Edward F. Fisher	Vice-Pres.-Fisher Body	Apr. 1930	280	$100.00
	" " " "	Apr. 1935	970	155.89
Fred J. Fisher	Vice-Pres. & Member Exec. Comm.	Apr. 1930	1,500	100.00
Lawrence P.Fisher	Pres. & Gen. Mgr.-Cadillac	Apr. 1930	1,000	100.00
	" " " " "	Apr. 1935	250	155.89
William A. Fisher	Pres. & Gen. Mgr.-Fisher Body	Apr. 1930	280	100.00
	" " " " " "	Apr. 1935	970	155.89
Charles P. Fiske	Vice-Pres. G.M.A.C.	Apr. 1930	40	100.00
William McH. Forman	Managing Dir.-GM New Zealand, G.M. Export	Apr. 1930	40	100.00
Homer J. Forsythe	Gen. Mgr.-Hyatt Roller Bearings	Apr. 1930	70	100.00
Edward W. Fox	Production Mgr.-Fisher Body	Apr. 1930	140	100.00
August Freise	Vice-Pres.-G.M.A.C.	Apr. 1930	55	100.00
Edward W. Fuhr	Regional Sales Mgr.-Chevrolet	Apr. 1930	70	100.00
R.D. Funkhouser	Vice-Pres.-Frigidaire	Apr. 1930	35	100.00
Charles M. Gearing	Div. Mgr.-New Departure	Apr. 1930	90	100.00
Harvey D. Geyer	Chief Engineer-Inland	Apr. 1930	35	100.00
Alfred W. L. Gilpin	Regional Sales Mgr.-Chevrolet	Apr. 1930	70	100.00
Alfred R. Glancy	Pres. & Gen. Mgr.-Oakland	Apr. 1930	350	100.00
Edward J. Gleason	Asst. Plant Mgr.-Fisher Body	Apr. 1930	35	100.00
Edward R. Godfrey	Works Mgr.-Frigidaire	Apr. 1930	50	100.00
	" " "	May 1930	50	100,00
Richard H. Grant	Vice-President	Apr. 1930	1,000	100.00
John E. Grimm, Jr.	Vice-Pres. & Director of Sales-G.M. Radio	Apr. 1930	105	100.00
William G. Guthrie	Plant Mgr.-Adam Opel A.G.	Apr. 1930	65	100.00
Edward A. Halbleib	Pres. & Gen. Mgr.-North East Appliance	Apr. 1930	105	100.00
Frank M. Hardiman	Pres. & Gen. Mgr.-Harrison Radiator	Apr. 1930	125	100.00
J. A. Harlan	Sales Mgr. Dist. Div.-Frigidaire	Apr. 1930	75	100.00
George P. Harrington	Managing Director-Java	Apr. 1930	65	100.00
J. Garfield Harris	Mgr. Fisher Body St. Louis	Apr. 1930	65	100.00
O. Lee Harrison	Sales Mgr.-Delco Remy	Apr. 1930	105	100.00
William Harvey, Jr.	Gen. Supply Manager-G.M. Export	Apr. 1930	80	100.00
F. Leslie Hayford	Economic Statistician	Apr. 1930	35	100.00
Herbert J.C.Henderson	Director Sales & Advertising-Fisher Body	Apr. 1930	70	100.00
Max L. Hillmer	Gen. Mgr.-Saginaw Steering Gear	Apr. 1930	45	100.00
Henry M. Hogan	Attorney	Apr. 1930	70	100.00
William E. Holler	Regional Sales Mgr.-Chevrolet	Apr. 1930	60	100.00
	Assistant General Sales Mgr.-Chevrolet	Dec. 1930	30	100.00
Harry L. Horton	Regional Sales Mgr.-Chevrolet	Apr. 1930	70	100.00
Graeme K. Howard	Regional Director-G.M. Export	Apr. 1930	90	100.00
Frederick G. Hughes	Vice-Pres.-New Departure	Apr. 1930	125	100.00

GENERAL MOTORS MANAGEMENT CORPORATION (cont.)

			General Motors Management Corp. Common Stock Purchased	
Name	**Position**	**Date**	**No. of Shares**	**Price Per Share**
Daniel F. Hulgrave	Manager of Purchases-Cadillac	Apr. 1930	55	$100.00
Ormond E. Hunt	Vice-President	Apr. 1930	1,000	100.00
Roger G. Hutchison	Vice-Pres.-G.M.A.C.	Apr. 1930	40	100.00
Wilson S. Isherwood	Sales Mgr.-Jobbing Business-AC Spark Plug	Apr. 1930	90	100.00
Edson W. Ivey	Div. Compt.-Chevrolet	Apr. 1930	55	100.00
John B. Jackson	Gen. Mgr.-Jaxon Steel Products	Apr. 1930	90	100.00
James A. Jamieson	Div. Compt.-Chevrolet	Apr. 1930	55	100.00
	General Mgr.-Chevrolet Com'l Body Div.	Dec. 1930	35	100.00
Charles M. Jessup	Production Manager-Delco-Remy	Apr. 1930	55	100.00
C. F. Kettering	Pres.-Gen. Motors Research Lab.	Apr. 1930	700	100.00
Wallace G. Kileen	Div. Head-Accounting	Apr. 1930	55	100.00
Fred S. Kimmerling	Gen. Mgr.-Guide Lamp	Apr. 1930	95	100.00
William A. Kirby	Supervising Mgr.-Fisher Body	Apr. 1930	70	100.00
Harry J. Klingler	Vice-Pres. & Gen. Sales Mgr.-Chevrolet	Apr. 1930	210	100.00
Wm. S. Knudsen	Pres. & Gen. Mgr.-Chevrolet	Apr. 1930	875	100.00
Victor A. C. Koch	Supervision of Lumber Mills & Layout-Fisher Body	Apr. 1930	90	100.00
Bernard G. Koether	Dir. Sales & Service	Apr. 1930	140	100.00
Frederick C. Kroeger	Pres. & Gen. Mgr.-Delco-Remy	Apr. 1930	265	100.00
Bayard D. Kunkle	Pres.-Delco Products	Apr. 1930	95	100.00
	" " "	Nov. 1930	30	100.00
Loron G. Kurtz	Gen. Superintendent-Buick	Apr. 1930	90	100.00
Raymond L. Kurtz	Gen. Purchasing Agent-Buick	Apr. 1930	35	100.00
David F. Ladin	Managing Dir.-GM Inter-National S.A.	Apr. 1930	60	100.00
Augustin N. Lawrence	Managing Dir.-G.M. (Australia) Pty. Ltd.	Apr. 1930	65	100.00
Meredith F. Lawrence	Special Asst.-G.M. Export	Apr. 1930	75	100.00
Thomas L. Lee	Vice-Pres. & Chief Engineer-North East Appliance	Apr. 1930	70	100.00
Ernest R. Leeder	Plant Mgr.-Fisher Body Corp.	Apr. 1930	50	100.00
Gordon Lefebvre	Vice-President-Oakland	Apr. 1930	175	100.00
Arnold Lenz	Plant Manager-Chevrolet	Apr. 1930	70	100.00
Wendell G. Lewellen	Sales Promotion Manager-Chevrolet	Apr. 1930	35	100.00
Joseph P. Little	President-Motor Accounting	Apr. 1930	105	100.00
Robert T. Longway	Assistant General Manager-Buick	Apr. 1930	195	100.00
George B. Low	Plant Manager-Chevrolet	Apr. 1930	70	100.00
Benito F. Loygorri	Managing Director-G.M. Peninsular, S.A.	Apr. 1930	50	100.00
Levis L. Lukes	Vice-President-G.E.I.C.	Apr. 1930	40	100.00
Persus H. MacGregor	General Superintendent Production-Chevrolet	Apr. 1930	55	100.00
Ferdinand Marschner	Western Sales Manager-New Departure	Apr. 1930	55	100.00
Reune Martin	Treasurer-G.M.A.C.	Apr. 1930	40	100.00
Pierre J. Mauck	Supervising Engineer-Fisher Body	Apr. 1930	90	100.00
Richard A. May	Managing Director-G.M. Japan	Apr. 1930	50	100.00
Ira G. McCreery	Vice-President-G.M.A.C.	Apr. 1930	135	100.00
Charles L. McCuen	Chief Engineer-Olds Motor Works	Apr. 1930	125	100.00

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GENERAL MOTORS MANAGEMENT CORPORATION (cont.).

Name	Position	Date	General Motors Management Corp. Common Stock Purchased No. of Shares	Price Per Share
Taine G. McDougal	V-P in Charge of Ceramic Eng. & For.Oper.-A.C. Spark Plug	Apr. 1930	75	$100.00
James McEvoy	Acting General Attorney	Apr. 1930	140	100.00
H.O.K. Meister	Assistant General Manager-Hyatt Roller Bearings	Apr. 1930	35	100.00
Harry G. Mengel	Div. Comptroller-Buick	Apr. 1930	55	100.00
Edward A. Meyer	Comptroller-Olds Motor Works	Apr. 1930	35	100.00
Clarence A. Michel	V-P in charge of Engineering-Guide Lamp	Apr. 1930	35	100.00
Charles O. Miller	Purchasing Agent-Oakland	Apr. 1930	70	100.00
Robert S. Montgomery	Plant Manager-Chevrolet	Apr. 1930	55	100.00
James D. Mooney	V-P in charge of Export	Apr. 1930	1,000	100.00
William J. Mougey	Managing Director-G.M. Nordiska, A.B.	Apr. 1930	55	100.00
Joseph L. Myers	Vice-President-G.M.A.C.	Apr. 1930	50	100.00
Edward B. Nevill	Chief Engineer-Frigidaire Corp.	Apr. 1930	70	100.00
I. Herbert Nie	Supt. Planning and Specification-Fisher Body	Apr. 1930	55	100.00
William Notman	General Superintendent Plants-Chevrolet	Apr. 1930	40	100.00
Fred A. Oberheu	Assistant General Manager-United Motors	Apr. 1930	90	100.00
Don P. O'Keefe	General Purchasing Agent-Chevrolet	Apr. 1930	105	100.00
Cyrus R. Osborn	General Manufacturing Manager-G.M. Export	Apr. 1930	75	100.00
William M. Packer	Regional Sales Manager-Chevrolet	Apr. 1930	60	100.00
Edwin R. Palmer	Treasurer-Adam Opel,A.G.	Apr. 1930	40	100.00
	" " " "	July 1930	20	100.00
Edwin F. Papworth	Assistant General Manager-Brown-Lipe-Chapin	Apr. 1930	35	100.00
Evan J. Parker	Plant Manager-Fisher Body	Apr. 1930	65	100.00
James Parkhill	General Manager-Armstrong Spring	Apr. 1930	90	100.00
Geo. C. Paterson	Plant Manager-Fisher Body	Apr. 1930	40	100.00
Arthur G. Phelps	Service Manager-Delco-Remy	Apr. 1930	40	100.00
Hosea B. Phillips	Regional Director, Far East-G.M. Export	Apr. 1930	75	100.00
Jerome T. Potter	Branch Manager-G.M. (Australia) Pty. Ltd.	Apr. 1930	55	100.00
John L. Pratt	V-P in charge Accessory Divisions	Apr. 1930	1,500	100.00
Meyer L. Prentis	Treasurer	Apr. 1930	265	100.00
Frank H. Prescott	Chief Engineer-Delco-Remy	Apr. 1930	125	100.00
Ernest W. Proctor	Comptroller	Apr. 1930	140	100.00
David E. Ralston	Assistant General Sales Manager-Chevrolet	Apr. 1930	105	100.00
Harry L. Randall	Plant Manager-Fisher Body	Apr. 1930	35	100.00
Conrad Rehbein	Manager, Dies & Metal Tooling-Fisher Body	Apr. 1930	105	100.00
Irving J. Reuter	Managing Director-Adam Opel, A.G.	Apr. 1930	700	100.00
George D. Riedel	European Manager-Frigidaire	Apr. 1930	55	100.00
Edward C. Riley	Managing Director-G.M. Continental S.A.	Apr. 1930	75	100.00
William S. Roberts	Plant Manager-Chevrolet	Apr. 1930	55	100.00
Clinton R. Scharff	Traffic Director-Chevrolet	Apr. 1930	55	100.00
Ernst Schebera	General Manager-Fleetwood-Fisher Body	Apr. 1930	55	100.00
James M.Schoonmaker,Jr	President-Gen. Aviation Corp.	Apr. 1930	80	100.00

GENERAL MOTORS MANAGEMENT CORPORATION (cont.)

			General Motors Management Corp. Common Stock Purchased	
Name	**Position**	**Date**	**No. of Shares**	**Price Per Share**
John J. Schumann, Jr.	President-G.M.A.C.	Apr. 1930	440	$100.00
Ernest W. Seaholm	Chief Engineer-Cadillac	Apr. 1930	175	100.00
George C. Seers	Managing Director-G.M. India Ltd.	Apr. 1930	60	100.00
Paul W. Seiler	General Manager-Yellow Truck & Coach	Apr. 1930	240	100.00
Lewis C. Shannon	Foreign Sales Manager-Frigidaire	Apr. 1930	55	100.00
Livingston L.Short	President-G.E.I.C.	Apr. 1930	135	100.00
Herbert E. Shutt	Assistant Production Manager-Fisher Body	Apr. 1930	55	100.00
Lester G. Sigourney	Sales Manager-New Departure	Apr. 1930	55	100.00
Charles B. Simmons	Production Superintendent-New Departure	Apr. 1930	90	100.00
E.Glenn Simpson	Engineer-Fisher Body	Apr. 1930	65	100.00
Alfred P. Sloan,Jr.	President	Apr. 1930	2,250	100.00
Edward W. Sly	Purchasing Agent-Chevrolet	Apr. 1930	55	100.00
Edgar W. Smith	Assistant to President-G.M. Export	Apr. 1930	80	100.00
John T. Smith	General Counsel	Apr. 1930	1,500	100.00
Donald M. Spaidal	Executive V-P-G.M.A.C.	Apr. 1930	175	100.00
Louis M. Spencer	Patent Attorney	Apr. 1930	70	100.00
Keith M. Spurrier	Plant Manager-Fisher Lumber Corp.	Apr. 1930	45	100.00
Robert Staudinger	General Finance Manager-G.M. Export	Apr. 1930	75	100.00
Peter S. Steenstrup	Managing Director-G.M. Nordiska	Apr. 1930	75	100.00
Edward R.Stettinius,Jr	Assistant to J. L. Pratt	Apr. 1930	90	100.00
Lewis A. Stewart	Production Manager-Olds Motor Works	Apr. 1930	35	100.00
Charles B. Stiffler	Comptroller-Oakland	Apr. 1930	70	100.00
Raymond H. Sullivan	Personnel Director-Fisher Body	Apr. 1930	40	100.00
William D. Sullivan	Asst. General Manager-G.M. Export	Apr. 1930	95	100.00
Floyd O. Tanner	Asst. Mgr. of Mfg.-Chevrolet	Apr. 1930	105	100.00
David O. Thomas	General Mgr.-Saginaw Malleable Iron	Apr. 1930	55	100.00
Earl A. Thompson	Asst. Chief Engineer-Cadillac	Apr. 1930	55	100.00
Harry Tipper	General Sales Mgr.-G.M. Export	Apr. 1930	80	100.00
Roy B. Townsend	Asst. Plant Mgr.-Chevrolet	Apr. 1930	45	100.00
Nathaniel C.Tuxbury	Managing Director-G.M. So. Africa Ltd.	Apr. 1930	75	100.00
Edwin M. VanVoorhees	Managing Director-G.M. of Brazil	Apr. 1930	75	100.00
Albert Vuilleumier	Plant Superintendent-New Departure	Apr. 1930	55	100.00
Benson A. Waderlow	Plant Superintendent-Chevrolet	Apr. 1930	55	100.00
Edward S. Wallace	Plant Mgr.-Chevrolet	Apr. 1930	55	100.00
George H. Wallace	Asst. General Sales Mgr.-Buick	Apr. 1930	125	100.00
Wilfred B. Wardle	Comptroller-Cadillac	Apr. 1930	55	100.00
Henry G. Weaver	Spec. Assign. on Pub. & Wel. Work	Apr. 1930	40	100.00
Horace W. Webster	In charge Gen Tax Dept.	Apr. 1930	40	100.00
Herman L. Weckler	Works Mgr.-Buick	Apr. 1930	195	100.00
Charles E. Wetherald	Asst. Mgr. of Mfg.-Chevrolet	Apr. 1930	175	100.00

GENERAL MOTORS MANAGEMENT CORPORATION (cont.)

Name	Position	Date	General Motors Management Corp. Common Stock Purchased No. of Shares	Price Per Share
William T. Whalen	Vice-Pres.-Fokker Aircraft Corp.	Apr. 1930	140	$100.00
Raleigh K. White	Advertising Mgr.-Chevrolet	Apr. 1930	70	100.00
Wallace S.Whittaker	General Mgr.-Inland	Apr. 1930	90	100.00
Albert V. Widman	Works Mgr.-Cadillac	Apr. 1930	175	100.00
Arthur J. Wieland	Managing Dir.-G.M. G.m.b.H.(Germany)	Apr. 1930	65	100.00
Erwin K. Wild	Managing Dir.-G.M. Near East S.A.	Apr. 1930	60	100.00
Robert L. Wilkinson	Sales Mgr.-Delco Products	Apr. 1930	55	100.00
Dale E. Williams	Asst. Comptroller, Oakland-Chevrolet	Apr. 1930	35	100.00
Harry M. Williams	Mgr. Research Engineering-Frigidaire	Apr. 1930	65	100.00
William C.Williams,Jr.	General Superintendent Assembly Plants-Chevrolet	Apr. 1930	105	100.00
George W. Wolf	Managing Dir.-G.M.W. Polsce	Apr. 1930	55	100.00
Charles E. Wilson	Vice-President	Apr. 1930	1,000	100.00
John G. Wood	General Manager-Muncie Products	Apr. 1930	125	100.00
Sydney A. Woodmancy	Plant Manager-Chevrolet	Apr. 1930	55	100.00
	" " "	Dec. 1930	35	100.00
Ellery L. Wright	Plant Manager-Chevrolet	Apr. 1930	55	100.00
Manfred Wronker-Flatow	Adam Opel, A.G.	Apr. 1930	95	100.00
Austin F. Young	Regional Sales Mgr.-Chevrolet	Apr. 1930	70	100.00
Harold T. Youngren	Asst. Chief Engineer-Buick	Apr. 1930	55	100.00
Joseph Zubaty	Chief Development Engineer-AC Spark Plug	Apr. 1930	35	100.00

Government's Exhibit No. 262

COPY

7 August 1929

Copy to

Irenee du Pont
Lammot du Pont,
Henry du Pont,
H. G. Haskell,
Walter S. Carpenter Jr.
M. D. Fisher.

General Motors Securities Company,
Wilmington, Delaware.

Gentlemen:

I wrote to the General Motors Corporation suggesting that that Corporation purchase my Managers Securities Company stock paying me therefor in General Motors Corporation common stock. In my letter I said:

> "For example my rough figures show the Managers Securities Company B stock worth about $341,000,000 with General Motors valued at $80. per share. My proportion is six per cent or about $20,460,000. Deducting $500,000 would leave $19,960,000 to be paid to me in General Motors common stock at $80. per share."

The Finance Committee of the General Motors Corporation felt that it was not advisable to do this unless the

Corporation was in position to make a similar offer to the other Managers Securities Company stockholders, as it was felt important to treat everyone alike. Discussion developed the fact that if the du Pont Company was willing to dissolve the General Motors Securities Company, delivering its assets consisting wholly of General Motors Corporation common stock to the stockholders, then the du Pont Company and the Managers Securities Company would both hold common stock of the General Motors Corporation and the Managers Securities Company would then be in a position to deliver General Motors stock to its stockholders, should they so desire.

If it is the intention of the du Pont Company to agree to a dissolution of the General Motors Securities Company at the end of 1930 when the Managers Securities Company contract with General Motors terminates then it would seem to the advantage of the du Pont Company or the General Motors Securities Company to consider the purchase of my Managers Securities Company stock which I am willing to sell on the basis offered to the General Motors Corporation.

During the past fourteen years I have devoted my best efforts to the General Motors Corporation and tried in every way possible to do my part in making it a success, and while connected with it was perfectly willing to have practically my entire fortune invested in it. But now that I am no longer an active partner engaged with those responsible for shaping the policies and carrying on the management of the Corporation, I feel it unwise to have such a large portion of my total fortune tied up in the Managers

Securities Company which accounts for my anxiety to convert this stock into a security that will enable me to have a marketable security both for collateral purposes and for sale at such time in the future as it may seem to me desirable to reduce the large investment I have in this one security.

I sincerely hope that this will receive most sympathetic consideration as certainly it is not constructive to be forced to remain in a partnership of which I am no longer a part.

Very truly yours,

(s) John J. Raskob

NOTE: "Received Aug. 8 — 1920 Lammot du Pont" is stamped at the top of the first page. "GMC-530b" is written at the bottom of each page.

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Government's Exhibit No. 263

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

August 13, 1929.

Mr. Lammot duPont,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:—

I note Mr. Raskob's letter to General Motors Securities Company of August 7th.

While it must be admitted that I have no authority or responsibility to speak particularly for the General Motors Securities Company, on the other hand the various interests are so interwoven that it really becomes a matter of general policy affecting, to a certain degree, all those concerned.

The decision so far as General Motors Corporation is concerned, was made by the Finance Committee and that is that, so to speak. So far as General Motors Securities Company is concerned or the duPont Company, it seems to me that irrespective of any concessions that Mr. Raskob might want to make, that that is a secondary consideration. As I stated to the Finance Committee, I go so far as to feel that a partner ought not to be penalized in withdrawing his partnership and so far as I am concerned I am perfectly satisfied to work out something if it can be done, whereby Mr. Raskob gets everything that is coming to him, assuming that the equities of all concerned are properly maintained.

Mr. Raskob makes the point that he is no longer a partner and, therefore, should not be tied up with his former partners. While this, to a certain extent is true, yet I think we all agree that if we had been in partnership and all the partners had profited tremendously as he has profited as a result of the partnership relationship, that one partner stepping out should not want to do anything that in any way influenced adversely his former partners.

I feel it might be constructive if the duPont Company would indicate as to whether they are willing to make the exchange, in principle, and if they are then it seems to me that we ought to sit around the table and discuss and decide how that could be done in the most constructive manner possible, not only recognizing the present but the future as well. Naturally, I will be glad to take this up if you think that it is the right way to proceed.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

Note: "Received Aug. 14, 1929 Lammot du Pont" and "Answered Aug. 19, 1929 Lammot du Pont" are stamped, and "GM-3" is written at the top of the page. "gmc-530a" is written at the bottom. Italics indicate handwriting.

Government's Exhibit No. 264

Wilmington, Del., August 20, 1929.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

Referring to yours of August 13th, in regard to Mr. Raskob's offer to General Motors Securities Company; would state that we held yesterday a meeting of the General Motors Securities Board and discussed this matter rather informally.

Walter Carpenter has been giving some study to the question of how to get the General Motors' stock out of the General Motors Securities Company and into the hands of the Managers' Securities Company without the payment by someone of very large taxes. It looks as though it were going to be very difficult to accomplish this without du Pont or a corporation owned by du Pont, paying a very heavy tax, and it looks almost a certainty that the managers' Securities Company or its stockholders will have to pay a very large tax on the General Motors' stock when it eventaully gets into the beneficiaries' hands.

Walter is still trying to figure out some way to either avoid the tax or make it as small as possible, but I am afraid he will be a serious obstacle to doing

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what we want to do. Pierre was present at this discussion, although John was not. Pierre gave it as his view that very likely John had failed to think about the tax situation.

Yours very truly,

CHAIRMAN OF THE BOARD.

LduP/MD

P. S. Walter tells me just now that he thinks he "has it".

L. du P.

Government's Exhibit No. 265

MINUTES OF SPECIAL MEETING OF THE BOARD OF DIRECTORS OF GENERAL MOTORS SECURITIES COMPANY, HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON MONDAY, JANUARY 6, 1930, AT 11:00 A. M.

PRESENT:	P. S. duPont, in the Chair, W. S. Carpenter, Jr., H. F. duPont, Irenee duPont, Lammot duPont, H. G. Haskell.
ABSENT:	Donaldson Brown, Fred J. Fisher, J. J. Raskob, Alfred P. Sloan,

PARTIAL LIQUIDATION OF COMPANY:

The following resolution was offered and, after discussion, was unanimously adopted:-

WHEREAS, the business and purpose of this Company is to hold securities and to distribute the proceeds therefrom among its stockholders; and

WHEREAS, certain of the stockholders, other than Managers Securities Company and E. I. duPont deNemours & Company, have signified a desire to liquidate their interests in the Company by surrendering for cancellation the full amount of stock held by them and receiving their proportionate interests in the assets of the Company;

NOW, THEREFORE, BE IT RESOLVED, that it is advisable to effect a partial liquidation of this Company by distributing to the stockholders, other than those above-mentioned, the assets represented by their ownership of the stock of this Company, upon the surrender by them for cancellation, on or before March 1, 1930, of the certificates evidencing said stock; and

FURTHER RESOLVED, that the officers of this Company be and they hereby are authorized and directed to request the written consent of the stockholders of the Company to the proposed partial liquidation, and, upon securing such consent, to execute on behalf of this Company and to file with the proper authorities a Certificate of Reduction of Capital, as provided by Section 28 of the Corporation Laws of Delaware, to distribute the proportionate part of the assets of this Company to the stockholders, other than Managers Securities Company and E. I. duPont deNemours & Company, and to do such further acts and things as may be necessary or requisite in order to accomplish said reduction of capital.

There being no further business to come before the Board, upon motion, the meeting was adjourned.

M D Fisher
Asst. Secretary.

"41" is stamped at upper right corner.

Government's Exhibit No. 266

October 24, 1930.

Mr. W. S. Carpenter, Jr.:

At the General Motors Operations Committee meeting yesterday the question of liquidation of the old Managers' Securities Company was discussed.

Apparently, the reason for this coming up at this time is that some stockholders of Managers' Securities felt the need of additional collateral. If their Managers' Securities stock were in a form for use as collateral it would be very helpful.

There was only one new thought in the discussion. J. T. Smith suggested that Managers' Securities might be merged with du Pont Company, thereby avoiding any tax resulting in the Managers' Securities stockholders having du Pont Stock and du Pont Company having General Motors Securities stock. That would be turning back to duPont 100% of the General Motors Securities.

My off-hand comment was that that would be a good deal for du Pont if the consolidation was put through on a basis of market value; i.e., General Motors stock at 35 and du Pont at 95. I even gave it as my personal view that the market value of du Pont might be cut a few

—2—

points, making the basis; General Motors, 35; du Pont, 90.

Having the Managers' Securities group important stockholders would certainly tend to tie together further du Pont and General Motors. That would seem to me worth something to du Pont. It would surely be an advantage to the Managers' Securities stockholders; because they would receive not only a marketable security, but also one considerably more diversified than their Managers' Securities stock.

Smith felt that the Managers' Securities stockholders would not be warranted in making the exchange at anything like market value, but some others who were present didn't seem to have this view.

What do you think of this suggestion?

PRESIDENT.

LduP/MD

NOTE: "File Copy" is printed across each page. "GM-22" is written at top of first page and "gmc-533" is written at bottom of each page.

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Government's Exhibit No. 267

TO: FINANCE COMMITTEE - DU PONT COMPANY
BOARD OF DIRECTORS - GENERAL MOTORS SECURITIES COMPANY

FROM: CHAIRMAN, FINANCE COMMITTEE

REORGANIZATION OF GENERAL MOTORS SECURITIES COMPANY AND ACQUISITION OF ASSETS OF MANAGERS SECURITIES COMPANY

You have previously discussed above proposal as embodied in letters exchanged with the Commissioner of Internal Revenue enclosed with my letter of December 1st. Since the Internal Revenue Department gave reasonable assurance that no gain or loss for income tax purposes will be realized by either Managers Securities Company or General Motors Securities Company on account of the reorganization and/or liquidation, the Managers Securities Company desire to proceed with the reorganization and have called a meeting of their stockholders for December 29th to approve or disapprove the plan. It is necessary that du Pont Company thru General Motors Securities Company give its consent to the plan. The plan includes indemnification of General Motors Securities Company and its stockholders against any and all expense or liability arising from reorganization or liquidation, and it is now submitted to your committee for approval.

Attached are the following Exhibits representing documents for which it is necessary to have your approval before proceeding with the various steps of reorganization:

Exhibit 1 - Reorganization agreement between General Motors Securities Company and Managers Securities Company.

Exhibit 2 - Amendment to charter of General Motors Securities Company, and resolution calling special meeting of stockholders on December 22, 1930 to authorize the amendment.

Exhibit 3 - Form of indemnity to be furnished General Motors Securities Company by the stockholders of Managers Securities Company coincident with receipt of General Motors Securities Company Class "A" stock from Managers Securities Company in liquidation.
This indemnifies General Motors Securities Company and its stockholders against tax and expense arising from the reorganization.

Exhibit 4 - Form of indemnity to be furnished General Motors Securities Company by the holders of Class "A" stock when exchanging for General Motors common stock.
This indemnifies General Motors Securities Company and its stockholders against tax and expense arising from liquidation.

It will be noted that in the Reorganization Agreement - Exhibit 1 - Managers Securities Company undertakes as follows:

> "Managers Company hereby undertakes, on behalf of itself and its stockholders, to indemnify and save harmless Motors Company and its stockholders from and against any and all expenses, taxes, penalties and interest which may be imposed upon or demandable from said company, resulting from or attributable to said reorganization or any of the steps contemplated by this plan, together with any and all charges or outlays incidental thereto, including a reasonable amount as attorneys' fees, it being understood that Motors Company and its stockholders shall be saved harmless from any and all expense or liability which may be incurred by or imposed upon it as transferee of the assets of Managers Company or otherwise as a result of said transactions; and to this end Managers Company agrees to procure from each of its stockholders, on or before December 29, 1930, or within a reasonable time thereafter, such form of indemnification as shall be satisfactory to counsel of Motors Company."

It may not be possible to obtain an indemnity agreement from each stockholder of Managers Securities Company by the time specified for one reason or another and it is also possible that there may be a few who will not consent to the plan; nevertheless we have the assurance of the officers of Managers Securities Company that every effort will be made to obtain the indemnification agreement from each of its stockholders before delivery of the Class "A" stock.

With respect to indemnity agreement - Exhibit 4 - it is company that the holders of Class "A" stock execute and deliver such agreement to General Motors Securities Company before they will be permitted to exchange for General Motors Common stock.

It will be noted that this plan provides for delivery to Managers Securities Company of 4,509,060 shares of General Motors Securities Company's newly created Class "A" stock in exchange for 48,509 shares of General Motors Securities Company's common stock (equivalent to 4,218,750 shares of General Motors common stock) and

290,310 shares of General Motors common stock owned directly by Managers Securities Company. Said General Motors common stock aggregating 4,509,060 shares will be ear-marked in a class "A" asset account which will be liquidated as and when Class "A" shares are deposited for exchange.

It is expected that a few of the Class "A" stockholders will immediately exchange for General Motors common stock including General Motors Corporation who are entitled to about 290,000 shares of General Motors common stock. We are unable to state at this time the amount to be exchanged by other stockholders.

The Committee is reminded that on December 30, 1929 it approved a plan similar in principal to the plan herewith submitted, the essential features of the plan previously approved are as follows:

> "E. I. du Pont de Nemours & Company hereby recognizes that Managers Securities Company shall be entirely free at any time or times to demand and receive such portion of the capital and surplus of General Motors Securities Company as may be represented by its ownership of the stock of said company, upon the surrender for cancellation of the certificates evidencing said stock, conditioned upon its furnishing such indemnification as shall adequately protect General Motors Securities Company and E. I. du Pont de Nemours & Company against any State or Federal tax liability that might result therefrom; and E. I. du Pont de Nemours & Company agrees that it will, upon the granting of such indemnification, approve or consent to such corporate action on the part of General Motors Securities Company as may be requisite in order to effect such distribution or distributions."

It is recommended that the action taken at meeting held on December 30, 1929 be rescinded.

With respect to the plan submitted herewith, attached resolution, Exhibit 5, has been drawn by the Legal Department for adoption by your committee, if the plan meets with your approval.

Resolution to be adopted by Board
of Directors, General Motors Securities Company

Attached resolution - Exhibit 6 - which is for adoption by the Board of Directors of General Motors Securities Company approves this plan and directs the officers to take all steps necessary to carry into effect such plan of reorganization.

W. S. CARPENTER

NOTE: Stamp at top center of first page reads: "RECEIVED M.D.F. DEC 12 1930". Stamp at upper right reads: "FINANCE SECY'S NO. 3785 COMMITTEE".

AGREEMENT OF REORGANIZATION

THIS AGREEMENT, made this day of December, A. D. 1930, between MANAGERS SECURITIES COMPANY, a corporation of the State of Delaware (hereinafter referred to as "Managers Company"), party of the first part, and GENERAL MOTORS SECURITIES COMPANY, a corporation of the State of Delaware (hereinafter referred to as "Motors Company"), party of the second part,

WITNESSETH:

WHEREAS, the activities of Managers Company have been reduced to the mere holding of securities, which is likewise the nature of the business of Motors Company; and

WHEREAS, it is mutually desired by the parties to enter into a plan of reorganization for the consolidation of their interests, whereby Motors Company may acquire substantially all of the assets of Managers Company upon the basis hereinafter set forth;

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and conditions hereinafter set forth to be kept and performed, the parties hereto have agreed as follows:

1. Managers Company shall transfer and deliver to Motors Company, as of December 29, 1930, all of the property and assets shown on its books as of November 30, 1930, other than cash and notes of General Motors Acceptance Corporation.

2. In exchange for said property and assets, Motors Company shall issue and deliver to Managers Company, as of December 29, 1930, four million, five hundred nine thousand, sixty (4,509,060) shares of the Class "A" stock of Motors Company, to be created for such purpose. The special rights and limitations of said class of stock shall be defined substantially as follows in Article 4 of the Certificate of Incorporation of Motors Company:

(See Exhibit 2 attached)

EXHIBIT 1

3. Immediately after the transfer of substantially all of its assets to Motors Company as aforesaid, and as a component part of this plan, Managers Company shall take whatever action is required to dissolve its corporate existence, wind up its affairs, and distribute among its stockholders ~~the stock~~ of Motors Company received in the exchange aforesaid, together with all other assets remaining after payment of its debts and liabilities.

4. Upon the distribution of the stock of Motors Company among the stockholders of Managers Company as aforesaid, fractional shares to which any stockholder would be entitled shall be purchased by Motors Company on the basis of the market value, as of the close of business on December 27, 1930, of the assets of the company represented thereby.

5. In further consideration of the benefits derived or to be derived by Managers Company and its stockholders from the carrying out of this plan of reorganization, Managers Company hereby undertakes, on behalf of itself and its stockholders, to indemnify and save harmless Motors Company and its stockholders from and against any and all expenses, taxes, penalties and interest which may be imposed upon or demandable from said company, resulting from or attributable to said reorganization or any of the steps contemplated by this plan, together with any and all charges or outlays incidental thereto, including a reasonable amount as attorneys' fees, it being understood that Motors Company and its stockholders shall be saved harmless from any and all expense or liability which may be incurred by or imposed upon it as transferee of the assets of Managers Company or otherwise as a result of said transactions; and to this end Managers Company agrees to procure from each of its stockholders, on or before December 29, 1930, or within a reasonable time thereafter, such form of indemnification as shall be satisfactory to counsel of Motors Company.

6. This agreement is further conditioned upon proper authorization being given by the stockholders of each of the parties hereto, on or before December 29, 1930, of such acts as the respective parties have hereinabove undertaken to perform; otherwise this agreement shall become null and void.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be signed by their officers thereunto duly authorized, and their corporate seals to be hereto affixed, duly attested by their secretaries, this day of December, A. D. 1930.

MANAGERS SECURITIES COMPANY

By____________________
President

Attest____________________
Secretary

GENERAL MOTORS SECURITIES COMPANY

By____________________
President

Attest____________________
Secretary

NOTE: Stamp at bottom of first page of "Exhibit 1" reads: "4". On page 2, "5" is stamped below page number.

WHEREAS, it is deemed advisable to amend Article 4 of the Certificate of Incorporation by providing for an issue of 4,509,060 shares of Class "A" stock of the Corporation;

THEREFORE, BE IT RESOLVED, that Article 4 of the Certificate of Incorporation of this Corporation be amended to read as follows:

"4. A - The authorized capital stock of the Corporation shall consist of two classes of stock aggregating five million, nine thousand and sixty (5,009,060) shares, divided into five hundred thousand (500,000) shares of Common Stock of the par value of One Hundred Dollars ($100.00) per share, amounting in the aggregate to Fifty Million Dollars ($50,000,000), and four million, five hundred nine thousand, sixty (4,509,060) shares of Class "A" Stock of the par value of One Dollar ($1.00) per share, amounting in the aggregate to Four Million, Five Hundred Nine Thousand, Sixty Dollars ($4,509,060). From time to time, the authorized amount of the Common Stock and Class "A" Stock may be increased or decreased according to law.

B - "There shall be created for the sole benefit of the Class "A" Stock an appropriate asset account (hereinafter referred to as the Class "A" account), to which shall be allocated all shares of the common stock of General Motors Corporation acquired by the Corporation by the issue of shares of its Class "A" Stock, and such number of shares of the common stock of General Motors Corporation owned by the Corporation as are represented by shares of the Common Stock of the Corporation acquired by the Corporation by the issue of shares of its Class "A" Stock, including any increases thereof or substitutes therefor as a result of stock dividend, exchange, or otherwise. A Class "A" Surplus account shall be created to which shall be credited all income, rights and profits received in connection with assets carried in the Class "A" account. There shall be debited to the Class "A

EXHIBIT 2

7

Surplus account all taxes and expenses of the Corporation resulting from the creation, issue, exchange and/or redemption of the Class "A" Stock, and all taxes and expenses resulting directly or indirectly in respect of the assets carried in such Class "A" account, and also such reasonable share of all administrative and general expenses of the Corporation as shall be determined by the Board of Directors.

C - "Dividends on the Class "A" stock shall be paid exclusively from Class "A" surplus. The Class "A" stock shall not participate in nor benefit from any assets of the Corporation other than the assets carried in the Class "A" account. Dividends on the Common Stock shall be paid from surplus and/or net profits derived by the Corporation in respect of all assets of the Corporation other than assets carried in the Class "A" account. The Common Stock shall not participate in nor benefit from any assets carried in the Class "A" account.

D - "In the event of any liquidation or dissolution or winding-up of the Corporation, whether voluntary or otherwise, after paying all debts, bonded or otherwise, taxes and all administrative expenses of the Corporation, each holder of the Class "A" Stock shall be entitled, before any distribution be made to stockholders of any other class, to receive his pro rata share of the assets allocated thereto; viz., one such present share of common stock of General Motors Corporation, or its future equivalent, increased by any stock dividend and/or net income applicable thereto, or decreased by any deficit and/or liability properly applicable thereto, as the case may be.

E-1 - "The Corporation by action of its Board of Directors may at any time, and at the request of any holder of Class "A" stock upon ninety (90) days notice in writing to the Corporation shall, redeem the whole or any part of the Class "A" stock held by such holder, upon receiving an undertaking from such holder satisfactory to the Board of Directors agreeing to indemnify and hold the Corporation and its stockholders free and harmless from any tax liability arising or which may arise from such redemption, in cash and/or property at its option, upon surrender and cancellation of such shares, and if in cash at the closing bid price per share for common stock of General Motors Corporation on the New York Stock Exchange on the day preceding the day of redemption, and if in property, one share of the present General Motors common stock with any stock dividend declared and paid thereon, or the future equivalent thereof for each share of Class "A" stock so surrendered for redemption; in either case, however, increased by any net income applicable thereto or decreased by any deficit and/or liability properly applicable thereto, as the case may be; provided, however, that of the Class "A" Stock originally issued (or its future equivalent) not more than 80% shall be redeemable as aforesaid prior to January 1, 1934, and that to evidence such classification separate certificates shall be issued for shares redeemable with and for shares redeemable without such limitation. Shares of the Class "A" stock so redeemed or purchased, and shares of the Common Stock which may be surrendered to the Corporation on the conversion or exchange thereof into or for other shares of the Corporation, shall not thereafter be re-issued but shall be retired and the capital of the Corporation decreased accordingly.

E-2 - "The Corporation may apply to such redemption or purchase an amount out of its capital which shall not be greater than the sum of (1) that part of the consideration received for such shares which shall be capital pursuant to provisions of Section 14 of the General Corporation Law of the State of Delaware, and that part of surplus which shall have been transferred and treated as capital in respect of such shares pursuant to the provisions of said Section and (2) any amounts by which the capita of the Corporation shall have been increased by other transfers from surplus in accordance with the provisions of said Section 14 of said Law, but no such redemption or purchase shall be made out of capital unless the assets of the Corporation remaining after such redemption or purchase shall be sufficient to pay any debts of the Corporation, the payment of which shall not have been otherwise provided for.

E-3 - "Whenever any capital of the Corporation is applied to the redemption or the purchase of shares pursuant to the provisions aforesaid, a certificate shall be made accordingly under the seal of the Corporation and the hands of its President or a Vice-President and its Secretary or an Assistant Secretary and the President or such Vice-President shall acknowledge said certificate before an officer authorized by the laws of Delaware to take acknowledgments of deeds, and said certificate, so executed and acknowledged, shall be filed and a copy thereof shall be recorded, in the same manner as Certificates of Incorporation are required to be filed and recorded by the provisions of Section 6 of the General Corporation Law of Delaware; and thereupon the capital of the Corporation shall be deemed to be and shall thereby be reduced by the amount so applied without the necessity of any other proceedings. If the shares so redeemed or purchased, or surrendered on conversion or exchange or liquidation, constitute all the outstanding shares of Class "A" stock, the Board of Directors shall have power, by the Certificate so filed and recorded, to amend the Certificate of Incorporation, so as to eliminate all reference to the shares so redeemed or purchased or surrendered or liquidated and on the filing and recording of such certificate the Certification of Incorporation shall be deemed to be amended accordingly.

E-4 - "Nothing herein contained shall in any way affect the rights of the Corporation to redeem or purchase any of its shares from surplus and to hold such shares or to resell them for such consideration as shall be fixed from time to time by the Board of Directors.

F - "Each holder of the Common Stock shall be entitled to one (1) vote, and each holder of the Class "A" stock shall be entitled to one one-hundredth (1/100) of a vote in person or by proxy for each share of the capital stock held by such holder respectively, except that at an election of Directors of the Corporation the holders of shares of Class "A" stock shall be entitled as a class to elect two (2) Directors.

G - "The holders of each class of stock, as a class, shall be entitled, to the exclusion of any other class, as such holders, in proportion to their respective holdings and under such reasonable regulations as to period or otherwise as the Board of Directors may determine, to purchase or subscribe for any stock of their respective classes, or any warrant or warrants, option or options, or other instrument or instruments that shall confer upon the holder or holders thereof the right to subscribe for or purchase or receive from the Corporation any stock of such class which the Corporation may issue or sell for cash.

H - "From time to time the Common Stock and Class "A" stock may be issued in such proportions and for such consideration as shall be determined by the Board of Directors and as may be permitted by law.

I - "The amount of capital stock with which this Corporation shall commence business is One Thousand Dollars ($1,000.00)."

FURTHER RESOLVED, that a meeting of the stockholders of this Corporation to take action upon the foregoing Resolution be called to be held at the principal office of the Corporation, No. 7 West Tenth Street, in the City of Wilmington, Delaware, at 10:00 o'clock A. M. on the twenty-second day of December, 1930.

NOTE: The successive pages of "Exhibit 2" are stamped with the numbers, 7 to 11, inclusive, respectively, at the bottom center. The proviso clause in large type at the middle of page 3 of "Exhibit 2" is typed on a separate strip and stapled to left margin at middle of page.

AGREEMENT OF INDEMNIFICATION

WHEREAS, upon the request and in the interests of the stockholders of Managers Securities Company, a corporation of the State of Delaware, an agreement of reorganization has been entered into by said company and General Motors Securities Company, subject to approval by the stockholders of each company, which agreement provides for the transfer of substantially all of the assets of Managers Securities Company to General Motors Securities Company in exchange for Class "A" stock of the latter, and the distribution of said stock among the stockholders of Managers Securities Company; and

WHEREAS, Managers Securities Company has undertaken to procure from each of its stockholders an agreement to indemnify General Motors Securities Company and its stockholders against expenses and liabilities resulting from or attributable to such reorganization;

NOW, THEREFORE, in consideration of the benefits to be derived from said reorganization, the undersigned hereby binds himself, his heirs, executors, administrators and assigns, to indemnify and save harmless General Motors Securities Company and its stockholders from and against any and all expenses, taxes, penalties and interest which may be imposed upon or demandable from said Company, or its stockholders, resulting from or attributable to said reorganization, together with any and all charges and outlays incidental thereto, including a reasonable amount as attorneys' fees, and upon demand by the Company on behalf of itself or any stockholder, shall pay over to it the proportionate amount of such liability or shall furnish such adequate security as may be acceptable to the Company; it being understood that said indemnification shall be limited to such proportion of the expenses and liabilities aforesaid as amount of stock of Managers Securities Company held by the undersigned as of December 27, 1930, bears to the total stock of the company outstanding on that date.

It is understood that the undersigned shall not be relieved of his obligation hereunder by failure of General Motors Securities Company or its stockholders to contest the correctness of any such liability which may be imposed upon, or demandable from it or them; provided, however, that it shall be the duty of the Company, or of any stockholder directly affected, promptly after receipt or knowledge of any such demand or assessment to notify the undersigned in writing, mailed to his last known address, of the nature and amount of the liability asserted and of its intention either to concede or to contest the vailidity thereof.. The decision not to contest said liability or claim shall rest exclusively with the Directors elected by the Class "A" stockholders.

Dated at ____________, ____________, this day of December, A. D. 1930.

____________________(L. S.)

Witness:

____

EXHIBIT 3

AGREEMENT OF INDEMNIFICATION

WHEREAS, the undersigned is the owner of shares of the Class "A" stock of General Motors Securities Company, a corporation organized under the laws of the State of Delaware; and

WHEREAS, under the provisions of Article 4 of the Certificate of Incorporation of said Company, shares of Class "A" stock may be surrendered by a holder thereof in exchange for a proportionate part of the Class "A" net assets of the Company, which right is conditioned upon the undertaking by the stockholder to indemnify the Company against expenses and liabilities resulting from or attributable to such exchange; and

WHEREAS, the undersigned desires to surrender ________ shares of the Class "A" stock of said Company upon the terms and basis of exchange set forth in the Certificate of Incorporation aforesaid;

NOW, THEREFORE, in consideration of the distribution to him, upon the surrender of said shares, of a proportionate part of the Class "A" net assets of General Motors Securities Company, on the terms and basis of exchange aforesaid, the undersigned hereby binds himself, his heirs, executors, administrators and assigns, to indemnify and save harmless General Motors Securities Company and its stockholders from and against any and all expenses, taxes, penalties and interest which may be imposed upon or demandable from said Company, or its stockholders, resulting from or attributable to the acceptance of the shares so surrendered by the undersigned and the distribution to him of such assets, together with any and all charges and outlays incidental thereto, including a reasonable amount as attorneys' fees; and the undersigned agrees that upon demand by the Company on behalf of itself or any stockholder, he will pay over to it the amount of such liability or will furnish such adequate security in lieu thereof as may be acceptable to the Company.

It is understood that the undersigned shall not be relieved of his obligation hereunder by failure of General Motors Securities Company or its stockholders to contest the correctness of any such liability which may be imposed upon or demandable from it or them; provided, however, that it shall be the duty of the Company, or of any stockholder directly affected, promptly after receipt or knowledge of any such demand or assessment to notify the undersigned in writing, mailed to his last known address, of the nature and amount of the liability asserted and of its intention either to concede or to contest the validity thereof. The decision not to contest said liability or claim shall rest exclusively with the Directors elected by the Class "A" stockholders.

Dated at ________________, ________________, this day
of ________ A. D. 193 .

Witness: ______________________(L. S.)

____

EXHIBIT 4

NOTE: Stamp at bottom of page reads "13".

FINANCE COMMITTEE

E. I. duPONT de NEMOURS & COMPANY

WHEREAS, the officers and directors of General Motors Securities Company propose to enter into a plan of reorganization with Managers Securities Company which contemplates the acquisition by General Motors Securities Company of substantially all of the assets of Managers Securities Company in exchange for certain shares of a new class of stock (to be known as Class "A" Stock) to be created by General Motors Securities Company by amendment of its Certificate of Incorporation; and further contemplates the subsequent submission by General Motors Securities Company to its stockholders of a plan for partial or complete liquidation of said new class of stock to be effected by the distribution of the assets to be allocated to the account to be established for the sole benefit of said new class of stock to such of the stockholders of said new class of stock, pro rata to their stock holdings, as may elect to surrender their stock for cancellation; and

WHEREAS, there have been submitted to this Committee

(a) a proposed form of agreement of reorganization between said companies;

(b) a proposed form of amendment of Article 4 of the Certificate of Incorporation of General Motors Securities Company;

(c) a form of agreement of indemnification to cover direct or indirect income tax liability resulting from such reorganization; and

(d) a form of agreement of indemnification to cover direct or indirect income tax liability resulting from such partial or complete liquidation of said new class of stock;

RESOLVED, that the proper officers of this Company be and they hereby are authorized to vote the stock of this Company in favor of the proposed plan of reorganization, the amendment

EXHIBIT - 5

to the Certificate of Incorporation of General Motors Securities Company, the issuance of Class "A" Stock of said company in exchange for substantially all of the assets of Managers Securities Company, and the distribution of the assets of General Motors Securities Company in partial or complete liquidation to such of the stockholders of said new class of stock as may elect to participate therein, conditioned upon its receiving the indemnification against liability referred to in said agreement of reorganization; and to do all acts and things which may be necessary to carry into effect the plan of reorganization referred to in said form of agreement, and the further steps to be taken pursuant thereto.

NOTE: Successive pages of "Exhibit 5" are stamped, 14 & 15, respectively, at the bottom center.

BOARD OF DIRECTORS

GENERAL MOTORS SECURITIES CO.

WHEREAS, it is deemed advisable (a) that this Company enter into an agreement of reorganization with Managers Securities Company, whereby this Company shall acquire substantially all of the assets of said Managers Securities Company consisting of 148,509 shares of common stock of General Motors Securities Company (equivalent to 4,218,750 shares of common stock of General Motors Corporation) and 290,310 shares of common stock of General Motors Corporation in exchange for 4,509,060 shares of Class "A" Stock of this Company to be created for such purpose, and (b) that Article 4 of the Certificate of Incorporation of this Company be amended to provide for the authorized issue of 4,509,060 shares of the par value of $1 each of Class "A" Stock of the Corporation:

RESOLVED, that to effectuate the acquisition of the assets of Managers Securities Company above referred to, the proper officers of this Company be and they hereby are authorized and directed to execute on behalf of this Company an agreement with Managers Securities Company in substantially the form submitted to this meeting.

FURTHER RESOLVED, that Article 4 of the Certificate of Incorporation of this Company be amended to read as follows:

(See Exhibit "2")

FURTHER RESOLVED, that a meeting of the stockholders of this Corporation be called to be held at the principal office of the Corporation, No. 7 West Tenth Street, in the City of Wilmington, Delaware, at 10 o'clock A. M. on the 22nd day of December, 1930, for the following purposes:

(a) to consider authorization of the performance of the acts undertaken in the aforesaid agreement of reorganization between this Company and Managers Securities Company;

EXHIBIT 6

(b) to take action upon the adoption of the proposed amendment to the Certificate of Incorporation of this Company.

FURTHER RESOLVED, that upon the ratification of said agreement and the authorization of said amendment to the Certificate of Incorporation by the stockholders of this Corporation and the filing and recording thereof, the proper officers of this Corporation be and they hereby are authorized and directed to issue 4,509,060 shares of such Class "A" Stock of this Corporation in exchange for the assets of Managers Securities Company, as aforesaid, and to do all acts and things which may be necessary and proper to carry into effect the plan of reorganization aforesaid.

FURTHER RESOLVED, that the assets of Managers Securities Company proposed to be acquired as aforesaid by the issuance of proposed Class "A" shares of this Corporation shall be deemed to be of a value at least equivalent to the aggregate par value of the Class "A" shares hereby authorized to be issued, and upon acquisition of said assets as aforesaid an amount of $4,509,060 shall be capital, and any excess of such consideration so received represented by said assets as aforesaid shall be surplus.

FURTHER RESOLVED, that upon surrender in accordance with provisions of Certificate of Incorporation by any Class "A" stockholder of the Corporation of shares of the Class "A" Stock in exchange for his pro rata share of the Class "A" net assets, the proper officers of this Corporation be and they hereby are authorized and directed to assign, transfer and deliver to such Class "A" holder his pro rata share of cash and/or common stock of General Motors Corporation.

NOTE: Successive pages of "Exhibit 5" are stamped, 16 & 17, respectively.

December 1, 1930.

TO: FINANCE COMMITTEE

FROM: CHAIRMAN, FINANCE COMMITTEE

Attached will be found a copy of an exchange of letters between the General Motors Corporation and the Commissioner of Internal Revenue on the proposed plan contemplating the dissolution of the Managers Securities Company and certain other steps. This plan you will recall was discussed in some detail at the meeting of the Finance Committee today.

W. S. CARPENTER, JR.

GENERAL MOTORS CORPORATION

November 25, 1930.

Commissioner of Internal Revenue,
Washington, D. C.

Re: Managers Securities Company

Dear Sir:

Since my letter of January 7, 1930, the situation in regard to the proposed reorganization of Managers Securities Company has considerably changed, and the plan at that time considered has been abandoned. In its stead is a new plan under consideration in regard to which, as counsel for the company, I beg to submit the following questions for a ruling:

Managers Securities Company was organized in 1923 under the laws of Delaware for the purpose of dealing in securities. About the time of its organization it entered into a contract with General Motors Corporation by which it was entitled to receive for the period of eight years, a considerable sum of money annually. At the time of its organization, it purchased a large amount of General Motors Securities Company stock, which was a holding corporation organized under the laws of the State of Delaware, and owned a large block of General Motors common stock.

From time to time Managers Securities Company has purchased and sold General Motors Common stock, and at the present time its assets consist of shares of General Motors common stock, shares of General Motors Securities stock, and cash. It has no liabilities.

The stock of Managers Securities Company is divided into two classes: Class A and Class B stock. The Class A stock was entitled to the exclusive benefit of the payments made by General Motors Corporation to Managers Securities Company. As the contract under which these payments were made has been terminated, the principal difference between the two classes of stock has ceased to exist. The fact that these payments have expired, and as a result, the activities of the corporation in the future will be considerably different from those in the past, has led to serious consideration being given to a plan or reorganization along the following lines: (For the sake of convenience, arbitrary figures are used in the examples given below, but of course the real figures are available if they are desired.)

Managers Securities at the present time, let us say, has assets consisting of 1000 shares of General Motors common stock and 10,000 shares of General Motors Securities common stock, and there are outstanding 1000 shares of the Class A stock, and 4000 shares of the Class B stock of Managers Securities Company.

> 1. As the first step in the reorganization, it is proposed that the General Motors Securities Company will classify its stock into two classes, to be designated as Class X and Class Y stock. The fundamental difference between the two classes will be that each share of Class Y stock will have as an asset behind it, one share of General Motors stock; and on liquidation, retirement, or redemption, will be limited to its interest therein.

2. As the second step, it is proposed that General Motors Securities Company will acquire all of the assets of the Managers Securities Company in exchange for, say, the Class Y stock of General Motors Securities Company.

3. It is further proposed that the stock of General Motors Securities Company so acquired will be distributed to the stockholders of Managers Securities Company, and the Managers Securities Co. liquidated.

4. General Motors Securities Company will offerto retire the whole or any part of its Class Y stock byissuing in exchange therefor a corresponding amount of General Motors common stock represented thereby.

It is assumed that the foregoing plan, if carried out, will result in no tax to any of the corporations involved, nor to the stockholders thereof until such time as the former stockholder of Managers Securities Company sells or otherwise disposes of the Class Y stock of the General Motors Securities Company received by him pursuant to the reorganization. So far as the re-classification of the stock of General Motors Securities Company is concerned, I take it that this is already covered by your letter of January 8, 1930, which involved the same considerations with respect to a re-classification of the stock of Managers Securities Company.

As pointed out in my earlier letter, the problem is of great importance to a great number of share-holders, andthis is the reason that it has seemed wise to submit the matter to the Department in advance. We shall, of course, be very glad to give any further information and to submit the exact figures or any documents that may be desired.

Respectfully yours,

John T. Smith

General Counsel.

GENERAL MOTORS CORPORATION

November 29, 1930.

Mr. C. R. Mudge,
E. I. du Pont de Nemours & Co.,
Wilmington, Delaware.

Dear Mr. Mudge:

Confirming my telephone conversation of this morning, I am enclosing a copy of the letter of November 28, 1930, from J. C. Wilmer, Deputy Commissioner of Internal Revenue, covering the question of tax and proposed reorganization of Managers Securities Company and General Motors Securities Company. This seems to cover the situation in a very satisfactory manner, and seemingly opens the way to proceed with the reorganization along the lines discussed.

I am glad to see that the Tax Department in express terms covers the point that you have always had in mind relative to the possible danger to the General Motors Securities Company upon partial liquidation of its own stock.

The opinion of the Commissioner seems to cover this flatly, and I make no doubt that it will be a great source of satisfaction to the Managers to realize that the reorganisation can be made effective during the current year.

Upon receipt of the Certificate of Incorporation and By-laws of the General Motors Securities Company, we will be very glad to start in a preliminary way drafting some of the papers involved in order to try to help expedite the reorganization.

Very truly yours,

John T. Smith

General Counsel.

TREASURY DEPARTMENT
Washington.

November 28, 1930.

Office of
Commissioner of Internal Revenue.

General Motors Corporation.
Detroit, Michigan.

Attention: John T. Smith, General Counsel.

Sirs:

Reference is made to your letter of November 24, 1930, in which you request information concerning the effect, for income tax purposes, of a certain plan or reorganization involving the General Motors Securities Company and the Managers Securities Company.

From the information furnished it appears that the Managers Securities Company was organized in 1923 under the laws of Delaware for the purpose of dealing in securities, and that about the time of its organization it entered into a contract with your corporation by which it was entitled to receive for the period of eight years a considerable sum of money annually. At the time of its organization [redacted] company purchased a large amount of General Motors Securities Company stock. This latter company was a holding corporation organized under the laws of the State of Delaware and owned a large block of General Motors Corporation common stock. From time to time, it is stated, the Managers Securities Company has purchased and sold General Motors common stock and at the present time its assets consist of shares of General Motors Corporation common stock, shares of General Motors Securities Company stock and cash. It has no liabilities.

Under the reorganization plan in question the General Motors Securities Company stock will comprise two classes, designated as Class X and Class Y stock. The fundamental difference between these two classes will be that each share of Class Y stock will have as an asset behind it one share of General Motors Corporation stock; and upon liquidation, retirement or redemption will be limited to its interest therein. The General Motors Securities Company will then acquire all of the assets of The Managers Securities Company in exchange for the Class Y stock of the General Motors Securities Company. The stock of General Motors Securities Company so acquired by the Managers Securities Company will then be distributed to the stockholders of Managers Securities Company which will be liquidated. It is further stated that the General Motors Securities Company will subsequently offer to retire the whole or any part of its Class Y stock by issuing in exchange therefor a corresponding amount of General Motors Corporation common stock represented thereby.

Upon consideration of the particular information furnished it is held that the transactions involving the reclassification of the stock of General Motors Securities Company, the acquisition by the Managers Securities Company (in exchange for its assets) of the Class Y stock of General Motors Securities Company, and the distribution to the stockholders of the Managers Securities Company of the General Motors Securities Company stock so acquired fall within the scope of Section 112(b)(3), (4) and (i) of the Revenue Act of 1928, concerning exchanges in connection with corporate reorganisations. You are advised generally, therefore, that in the transactions up to and including the distribution by the Managers Securities Company of the General Motors Securities Company stock to its stockholders, no gain or loss will be recognized for income tax purposes; nor will General Motors Securities Company realise any gain or loss upon distribution of its assets in kind in partial or complete liquidation of its stock.

The exchange by the former stockholders of the Managers Securities Company of the General Motors Securities Company stock for common stock of the General Motors Corporation will, of course, result in a gain or loss for income tax purposes, measured by the difference between the basis of the General Motors Securities Company stock in the hands of the former stockholders of the Managers Securities Company and the fair market value of the General Motors Corporation common stock as of the date of the exchange.

Respectfully,

J. C. Wilmer

Deputy Commissioner.

NOTE: Stamp at top center of cover letter reads: "RECEIVED M.D.F. DEC 2—1930"; what appears to be "2" is written to the left of the initials. Stamp at upper right reads: "FINANCE COMMITTEE Secy's No. 3692". Page numbers on pages 2 & 3 are blurred; below them are stamped "2" & "3", respectively. At bottom center of fifth page is stamped "5".

Government's Exhibit No. 268

MINUTES OF SPECIAL MEETING OF THE BOARD OF DIRECTORS OF GENERAL MOTORS SECURITIES COMPANY, HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON MONDAY, DECEMBER 15, 1930, AT 1:30 P.M.

PRESENT: P. S. duPont, in the Chair,
Donaldson Brown,
W. S. Carpenter, Jr.,
H. F. duPont,
Irenee duPont,
Lammot duPont,
A. B. Echols,
H. G. Haskell.

ABSENT: Fred J. Fisher,
J. J. Raskob,
Alfred P. Sloan, Jr.

REORGANIZATION OF GENERAL MOTORS SECURITIES COMPANY AND ACQUISITION OF ASSETS OF MANAGERS SECURITIES COMPANY:

Letter was presented from the Finance Committee of E. I. duPont deNemours & Company, dated December 15, 1930 (#35), enclosing copy of two reports from the Chairman of that Committee, dated December 1, 1930 and December 12, 1930, on the above subject, and advising as to action taken thereon by the Committee at meeting held to-day. After discussion, it was moved and unanimously carried that the letter and enclosures be received and ordered filed. It was then moved and carried (Mr. Donaldson Brown not voting), that the following resolution be adopted:-

WHEREAS, it is deemed advisable (a) that this Company enter into an agreement, of reorganization with Managers Securities Company, whereby this Company shall acquire substantially all of the assets of said Managers Securities Company consisting of 148,509 shares of common stock of General Motors Securities Company (equivalent to 4,218,750 shares of common stock of General Motors Corporation) and 290,310 shares of common stock of General Motors Corporation in exchange for 4,509,060 shares of Class "A" Stock of this Company to be created for such purpose, and (b) that Article 4 of the Certificate of Incorporation of this Company be amended to provide for the authorized issue of 4,509,060 shares of the par value of $1 each of Class "A" Stock of the Corporation;

RESOLVED, that to effectuate the acquisition of the assets of Managers Securities Company above referred to, the proper officers of this Company be and they hereby are authorized and directed to execute on behalf of this Company an agreement with Managers Securities Company in substantially the form submitted to this meeting;

FURTHER RESOLVED, that Article 4 of the Certificate of Incorporation of this Company be amended to read as follows:-

"4. A - The authorized capital stock of the Corporation shall consist of two classes of stock aggregating five million nine thousand and sixty (5,009,060) shares, divided into five hundred thousand (500,000) shares of Common Stock of the par value of One Hundred

Dollars ($100.00) per share, amounting in the aggregate to Fifty Million Dollars ($50,000,000.00), and four million, five hundred nine thousand sixty (4,509,060) shares of Class "A" Stock of the par value of One Dollar ($1.00)per share, amounting in the aggregate to Four Million, Five Hundred Nine Thousand, Sixty Dollars ($4,509,060.00). From time to time, the authorized amount of the Common Stock and Class "A" Stock may be increased or decreased according to law.

B - "There shall be created for the sole benefit of the Class "A" Stock an appropriate asset account (hereinafter referred to as the Class "A" Account), to which shall be allocated all shares of the common stock of General Motors Corporation acquired by the Corporation by the issue of shares of its Class "A" Stock, and such number of shares of the common stock of General Motors Corporation owned by the Corporation as are represented by shares of the Common Stock of the Corporation acquired by the Corporation by the issue of shares of its Class "A" Stock, including any increases thereof or substitutes therefor as a result of stock dividend, exchange, or otherwise. A Class "A" Surplus account shall be created to which shall be credited all income, rights and profits received in connection with assets carried in the Class "A" Account. There shall be debited to the Class "A" Surplus account all taxes and expenses of the Corporation resulting from the creation, issue, exchange and/or redemption of the Class "A" Stock, and all taxes and expenses resulting directly or indirectly in respect of the assets carried in such Class "A" account, and also such reasonable share of all administrative and general expenses of the Corporation as shall be determined by the Board of Directors.

C - "Dividends on the Class "A" stock shall be paid exclusively from Class "A" surplus. The Class "A" stock shall not participate in nor benefit from any assets of the Corporation other than the assets carried in the Class "A" account. Dividends on the Common Stock shall be paid from surplus and/or net profits derived by the Corporation in respect of all assets of the Corporation other than assets carried in the Class "A" account. The Common Stock shall not participate in nor benefit from any assets carried in the Class "A" account.

D - "In the event of any liquidation or dissolution or winding-up of the Corporation, whether voluntary or otherwise, after paying all debts, bonded or otherwise, taxes and all administrative expenses of the Corporation, each holder of the Class "A" Stock shall be entitled, before any distribution be made to stockholders of any other class, to receive his pro rata share of the assets allocated thereto; viz., one such present share of common stock of General Motors Corporation, or its future equivalent, increased by any stock dividend and/or net income applicable thereto, or decreased by any deficit and/or liability properly applicable thereto, as the case may be.

E -1-"The Corporation by action of its Board of Directors may at any time, and at the request of any holder of Class "A" stock upon ninety (90) days notice in writing to the Corporation shall, redeem the whole or any part of the Class "A" stock held by such holder, upon receiving an undertaking from such holder satisfactory to the Board of Directors agreeing to indemnify and hold the Corporation and its stockholders free and harmless from any tax liability arising or which may arise from such redemption in cash and/or property at its option, upon surrender and cancellation of such shares, and if in cash at the closing bid price per share for common stock of General Motors Corporation on the New York Stock Exchange on the day preceding the day of redemption, and if in property, one share of the present General Motors common stock with any stock dividend declared and paid thereon; or the future equivalent thereof for each share of Class "A" stock so surrendered for redemption; in either case, however, increased by any net income applicable thereto or decreased by any deficit and/or liability properly applicable thereto, as the case may be; provided, however, that of the Class "A" Stock originally issued (or its future equivalent) not more than 80% shall be redeemable as aforesaid prior to January 1, 1934, and that to evidence such classification separate certificates shall be issued for shares redeemable with and for shares redeemable without such limitation. Shares of the Class "A" stock so redeemed or purchased, and shares of the Common Stock which may be surrendered to the Corporation on the conversion or exchange thereof into or for other shares of the Corporation, shall not thereafter be re-issued but shall be retired and the capital of the Corporation decreased accordingly.

E -2- "The Corporation may apply to such redemption or purchase an amount out of its capital which shall not be greater than the sum of (1) that part of the consideration received for such shares which shall be capital pursuant to provisions of Section 14 of the General Corporation Law of the State of Delaware, and that part of surplus which shall have been transferred and treated as capital in respect of such shares pursuant to the provisions of said Section and (2) any amounts by which the capital of the Corporation shall have been increased by other transfers from surplus in accordance with the provisions of said Section 14 of said Law, but no such redemption or purchase shall be made out of capital unless the assets of the Corporation remaining after such redemption or purchase shall be sufficient to pay any debts of the Corporation, the payment of which shall not have been otherwise provided for.

E -3- "Whenever any capital of the Corporation is applied to the redemption or the purchase of shares pursuant to the provisions aforesaid, a certificate shall be made accordingly under the seal of the Corporation and the hands of its President or a Vice-President and its Secretary or an Assistant Secretary, and the President or such Vice-President shall acknowledge said certificate before an officer authorized by the laws of Delaware to take acknowledgments of deeds, and said certificate, so executed and acknowledged, shall be filed and a copy thereof shall be recorded, in the same manner as Certificates of Incorporation are required to be filed and recorded by the provisions of Section 6 of the General Corporation Law of Delaware; and thereupon the capital of the Corporation shall be deemed to be and shall thereby be reduced by the amount so applied without the necessity of any other proceedings. If the shares so redeemed or purchased, or surrendered on conversion or exchange or liquidation, constitute all the outstanding shares of Class "A" stock, the

Government's Exhibit No. 269

January [illegible], 1931

BOARD OF DIRECTORS
GENERAL MOTORS SECURITIES COMPANY

FROM: TREASURER

REORGANIZATION OF GENERAL MOTORS SECURITIES COMPANY

On December 26th and 29th, 1930, respectively, the stockholders of General Motors Securities Company and Managers Securities Company approved a plan which involved a reorganization of General Motors Securities Company and acquisition by the latter company of substantially all of the assets of Managers Securities Company. The plan had previously been approved by your Board and by the Finance Committee of du Pont Company.

Accordingly, on December 29, 1930, Managers Securities Company surrendered 148,509 shares of General Motors Securities Company common stock and 290,310 shares of General Motors Corporation common stock and received in exchange 4,509,060 shares of General Motors Securities Company newly created Class "A" stock. Managers Securities Company immediately dissolved and directed that said 4,509,060 Class "A" shares be reissued in the names of its stockholders.

General Motors Securities Company, upon reorganization, set aside as belonging to Class "A" shares, 4,509,060 shares of General Motors Corporation common stock, as follows:

Shares	Cost per share on books of G.M. Sec. Co.	Classified as
4,106,250	$ 5.49 +	Main Account
112,500	11.18 +	Nobel Purchase
239,800	39.89 +	Managers 1929 Purchase
50,510	59.29 +	Managers 1928 Purchase

and also set aside for the benefit of said Class "A" shares, 30% of its Earned Surplus.

When transferring General Motors Corporation stock in exchange for Class "A" stock, each Class "A" stockholder shall be issued a proportionate share of each of the four blocks of General Motors Corporation stock as set forth above.

It is the opinion of the Legal Departments of du Pont Company and General Motors Corporation that no gain or loss for income tax purposes will be realized by any of the parties involved on account of reorganization and/or liquidation, and reasonable assurance on this important point has also been obtained from the Internal Revenue Department. However, as a safeguard to the interests of General [illegible] Securities Company there is obtained from each Managers Securities stockholder receiving Class "A" stock, a properly executed indemnity agreement indemnifying General Motors Securities Company against Federal Tax and/or other expense in connection with reorganization. At this date eleven stockholders have failed to execut such an agreement, and delivery of their stock has not been made. However, we are assured by Managers Securities Company that these agreements will be executed, at which time stock will be delivered.

In addition, there is obtained from each stockholder electing to receive General Motors Corporation common stock in exchange for Class "A" stock, a properly executed indemnity agreement indemnifying General Motors Securities Company in connection with liquidation. As collateral against such indemnification, 20% of the Class "A" shares issued to each stockholder, the aggregate of which shall at all times represent 901,812 shares, are not exchangeable for General Motors Corporation stock until after January 1, 1934, by which time it is felt that the tax points involved will be definitely disposed of.

As of December 31, 1930, there had been 724,129 shares of Class "A" stock exchanged for a like number of shares of General Motors Corporation stock, or 20.1% of Class "A" shares eligible for exchange prior to January 1, 1934. There has since been 16,181 shares exchanged, making a total of 740,310 shares exchanged, or 20.5% of the eligible.

Appropriate accounts have been opened on the books of General Motors Securities Company to cover income and expense applicable to Class "A" assets, and procedure established to insure a proper distribution of all income and expenses of the company between common stock and Class "A" stock.

Attached is Balance Sheet of General Motors Securities Company as of December 31, 1930.

A. B. ECHOLS, TREASURER

BK:a

GENERAL MOTORS SECURITIES COMPANY

STATEMENT OF ASSETS AND LIABILITIES

December 31, 1930

(After exchange of 724,129 Class "A" Shares)

ASSETS

Cash	$27 538.87
Common Stock Asset Account: 9,843,750 shares General Motors Corporation Common Stock	55 589 114.29
Class "A" Asset Account: 3,784,931 shares General Motors Corporation Common Stock	30 554 379.50
TOTAL ASSETS	$86 171 032.66

LIABILITIES

Common Stock Liability Account:			
Capital Stock (346,521 shs.)		$34 652 100.00	
Surplus-Paid In		20 937 014.29	
Surplus-Earned		19 942.46	$55 609 056.75
Class "A" Liability Account:			
Accounts Payable		$ 2 396.23	
Capital Stock:		3 784 931.00	
Issued	4,509,060 shs.		
In Treasury	724,129 "		
Outstanding	3,784,931 "		
Surplus-Paid In		26 769 448.50	
Surplus-Earned		5 200.18	30 561 975.91
TOTAL LIABILITIES			$86 171 032.66

NOTE: "36" is written at upper right corner of first page. "gmc-1024" is written at lower right corner of second page. "gmc-1024a" is written at lower right corner of third page.

E

Government's Exhibit No. 270

February 12, 1932

TO: BOARD OF DIRECTORS
GENERAL MOTORS SECURITIES COMPANY

FROM: TREASURER

The following is the status of the Class "A" stock of this Company, 80% of which is exchangeable for General Motors Corporation common stock prior to January 1, 1934:

		Shares	$
Total Original Issue		4,509,060	100
Shares exchanged per report of November 13, 1931 -	1,044,352		
Shares exchanged since last report -			
Prescott Walker & Co.	1,062		
Albert Bradley, Trustee, u/i dtd. 1/5/27 and 12/22/27	1,846		
Gordon Lefebvre	3,000		
Chester A. Souther	3,000		
Samuel H. Cook	6,000		
Clarence M. Day	1,000		
Ernest W. Seaholm	5,000		
Clarence M. Day	100		
" " "	100		
" " "	100		
" " "	100		
" " "	1,000		
" " "	1,000		
Total Shares Exchanged		1,067,660	23.68
Total shares outstanding February 12, 1932		3,441,400	76.32

For your information, there is given herewith a complete list of

Clarence M. Day	1,000		
Ernest W. Seaholm	5,000		
Clarence M. Day	100		
" " "	100		
" " "	100		
" " "	100		
" " "	1,000		
" " "	1,000		
Total Shares Exchanged		1,067,660	23.68
Total shares outstanding February 12, 1932		3,441,400	76.32

For your information, there is given herewith a complete list of stockholders who have availed themselves of the exchange privilege and their number of shares exchanged:

	No. Shares Exchanged
Elmer G. Biechler	13,082
Albert Bradley, Trustee u/i dated 1/5/27 and 12/22/27	3,845
Ernest R. Breech	694,846
Broseco Corporation	90,000
Louise N. Cook	1,108
Samuel H. Cook	7,120
Curtis C. Cooper	10,000
M. E. Coyle	7,500
Clarence M. Day	8,400
Albert L. Doane	12,545
Enos A. De Waters	15,000
First National Bank & Trust Co., at Flint, as Trustee under agreement dated Dec. 17, 1930 with George G. Allen	5,382
General Motors Securities Company	39
Richard R.H. Grant, Trustee, under a trust agreement dated February 11, 1929	5,000
Ralph S. Lane	36
Gordon Lefebvre	6,000
James McEvoy	5,545

Board of Directors shall have power, by the Certificate so filed and recorded, to amend the Certificate of Incorporation, so as to eliminate all reference to the shares so redeemed or purchased or surrendered or liquidated and on the filing and recording of such certificate the Certificate of Incorporation shall be deemed to be amended accordingly.

E-4 - "Nothing herein contained shall in any way affect the rights of the Corporation to redeem or purchase any of its shares from surplus and to hold such shares or to resell them for such consideration as shall be fixed from time to time by the Board of Directors.

F - "Each holder of the Common Stock shall be entitled to one (1) vote, and each holder of the Class "A" Stock shall be entitled to one one-hundredth (1/100) of a vote in person or by proxy for each share of the capital stock held by such holder respectively, except that at an election of Directors of the Corporation the holders of shares of Class "A" stock shall be entitled as a class to elect two (2) Directors.

G - "The holders of each class of stock, as a class, shall be entitled, to the exclusion of any other class, as such holders, in proportion to their respective holdings and under such reasonable regulations as to period or otherwise as the Board of Directors may determine, to purchase or subscribe for any stock of their respective classes, or any warrant or warrants, option or options, or other instrument or instruments that shall confer upon the holder or holders thereof the right to subscribe for or purchase or receive from the Corporation any stock of such class which the Corporation may issue or sell for cash.

H - "From time to time the Common Stock and Class "A" Stock may be issued in such proportions and for such considerations as shall be determined by the Board of Directors and as may be permitted by law.

I - "The amount of capital stock with which this Corporation shall commence business is One Thousand Dollars ($1,000.00)."

FURTHER RESOLVED, that a meeting of the stockholders of this Corporation be called to be held at the principal office of the Corporation, No. 7 West Tenth Street, in the City of Wilmington, Delaware, at 10 o'clock A. M., on the 22nd day of December, 1930, for the following purposes:-

(a) To consider authorization of the performance of the acts undertaken in the aforesaid agreement of reorganization between this Company and Managers Securities Company;

(b) To take action upon the adoption of the proposed amendment to the Certificate of Incorporation of this Company;

FURTHER RESOLVED, that upon the ratification of said agreement and the authorization of said amendment to the Certificate of Incorporation by the stockholders of this Corporation and the filing and recording thereof, the proper officers of this Corporation be and they hereby are authorized and directed to issue 4,509,060 shares of such Class "A" Stock of this Corporation in exchange for the assets of Managers Securities Company, as aforesaid, and to do all acts and things which may be necessary and proper to carry into effect the plan of reorganization aforesaid;

FURTHER RESOLVED, that the assets of Managers Securities Company proposed to be acquired as aforesaid by the issuance of proposed Class "A" shares of this Corporation shall be deemed to be of a value at least equivalent to the aggregate par value of the Class "A" shares hereby authorized to be issued, and upon acquisition of said assets as aforesaid an amount of $4,509,060.00 shall be capital, and any excess of such consideration so received represented by said assets as aforesaid shall be surplus;

FURTHER RESOLVED, that upon surrender in accordance with provisions of Certificate of Incorporation by any Class "A" stockholder of the Corporation of shares of the Class "A" Stock in exchange for his pro rata share of the Class "A" net assets, the proper officers of this Corporation be and they hereby are authorized and directed to assign, transfer and deliver to such Class "A" holder his pro rata share of cash and/or common stock of General Motors Corporation.

There being no further business to come before the Board, upon motion, the meeting was adjourned.

Assistant Secretary.

NOTE: Stamp at upper right corner of first and fifth pages reads "10AJW".

Lynn McNaughton	24,000
J. D. Mooney	30,000
George P. Moore	3,000
Prescott-Walter & Co.	5,307
I. J. Reuter	54,108
L. M. Rumely	3,000
Florence F. Schumann	10,000
John J. Schumann, Jr.	14,429
Ernest W. Seaholm	5,536
Livingston L. Short	7,636
Chester A. Souther	8,000
D. M. Speidel	12,545
A. R. Strickland	500
Frank Turner	1,923
E. W. Webb	2,228
Total	1,067,660

[illegible]

A. [illegible]

NOTE: Stamp at top center of first page bears date "FEB 12 1932"; to the left of the initials, "M.D.F.", is written, "2"—to the right, "8". At upper right is stamped, "GENERAL MOTORS SECURITIES CO. Secy's No.————"; written above the line is "50". The initials "JSD" are written beneath the reference initials on page 2.

135

Government's Exhibit No. 273

January
4th
1939

To: FINANCE COMMITTEE

FROM: TREASURER

LIQUIDATION OF GENERAL MOTORS SECURITIES COMPANY

At meeting of your Committee on December 19th, 1938, the proposed Plan of Complete Liquidation of General Motors Securities Company, in the form presented in report from Treasurer December 14th, 1938, was approved. Pursuant to recommendation by your Committee, appropriate resolutions approving and adopting the plan and authorizing appropriate officers of the Company to do any and all acts necessary to carry out the plan were adopted by Board of Directors at meeting December 19th, 1938.

The Bureau of Internal Revenue issued its ruling approving the plan as tax-free to General Motors Securities Company and to its stockholders, and, pursuant thereto, executed closing agreements with General Motors Securities Company, with E. I. duPont de Nemours & Company and with a number of Class "A" Stockholders of General Motors Securities Company; these agreements were approved by Acting Secretary of the Treasury.

On December 29th, 1938, the stockholders of General Motors Securities Company voted in favor of the plan and thereupon the several successive steps contemplated therein were taken in their proper order.

Just prior to liquidation, General Motors Securities Com-

pany owned 11,682,761 shares of General Motors Corporation common stock, as follows:

9 843 750	shares underlying the common stock of General Motors Securities Company (all owned by duPont)
1 839 011	shares underlying the Class "A" stock of General Motors Securities Company (held by individuals, corporate entities, etc.)

The liquidation of General Motors Securities Company has had the following effects:

1. DuPont now owns directly 10,000,000 shares of the common stock of General Motors Corporation; before the liquidation duPont owned directly 156,250 shares and owned 9,843,750 shares indirectly, through ownership of all the common stock of General Motors Securities Company.
2. At liquidation, G M Shares, Inc. became the owner of 1,839,011 shares of the common stock of General Motors Corporation.
3. DuPont's vote as a holder of common stock of General Motors Corporation is now 22.99% instead of the 26.86% effective just prior to liquidation of General Motors Securities Company when DuPont, through its ownership of all of the common stock of that company, controlled the vote of the 11,682,761

shares of common stock of General Motors Corporation owned by General Motors Securities Company.

4. After 1938, duplication of tax on dividends from 9,843,750 shares of common stock of General Motors Corporation will cease because these dividends will be paid directly to DuPont instead of through the intermediate General Motors Securities Company.

J. B. Eliason
J. B. Eliason

Note: "Finance Committee Secy's No. 8" and "Received M.D.F. Jan. 5—1939" (with "2" inserted by hand in front, and "8" inserted by hand after, the initials) are stamped at the top of the first page.

"MDF" is written at the top of the first page, and "Return to Executive Committee Room 9069" is stamped at the bottom of the first page.

Illegible initials appear in the left margin at the end of the second page.

"gmc-874" is written at the bottom of each page.

Italics indicate handwriting.

36433

Government's Exhibit No. 274

Department of the Treasury
Bureau of Internal Revenue

PROPOSED COMPLETE LIQUIDATION
of
GENERAL MOTORS SECURITIES COMPANY

Application for Ruling and Closing Agreements

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September 28, 1938

Honorable Guy T. Helvering,
Commissioner of Internal Revenue,
Bureau of Internal Revenue,
Washington, D. C.

Sir:

Request is herewith made for a ruling with respect to a proposed complete liquidation of General Motors Securities Company and for closing agreements under section 606 of the Revenue Act of 1928, as amended by sections 801 and 802 of the Revenue Act of 1938.

This request is made on behalf of General Motors Securities Company; E. I. duPont de Nemours and Company, holder of all the common stock of Securities Company; the holders of a substantial majority of the Class A stock of Securities Company; General Motors Management Corporation; and the holders of a substantial majority of its stock.

I—Facts

The facts with respect to the proposed complete liquidation are as follows:

(1) General Motors Securities Company (hereinafter referred to as "Securities") was organized under the laws of Delaware in 1918. From 1918 to 1923, all its outstanding stock was owned by E. I. duPont de Nemours and Company (hereinafter referred to as "duPont").

(2) In 1923, Managers Securities Company (hereinafter referred to as "Managers") was organized under the laws of Delaware as a medium for the investment in stock of General Motors by its executives. Substantially all the stock of Managers (other than its preferred stock) was acquired by these executives.

Managers effected its investment in General Motors through the acquisition of 148,509 shares of common stock of Securities—the sole asset of which (except for necessary cash) was at that time, and has since continued to be, common stock of General Motors. At the time of this acquisition by Managers, duPont owned 346,521 shares of the common stock of Securities. After this acquisition by Managers, therefore, the total outstanding stock of Securities amounted to 495,030 shares of common stock, 70% of which was owned by duPont and 30% by Managers.

(3) On December 29, 1930, a reorganization of Managers and Securities was effected under a plan which provided for the transfer to Securities of substantially all the assets of Managers, consisting of the 148,509 shares of Securities common stock and 290,310 shares of General Motors common stock, in exchange for 4,509,060 shares (the entire authorized issue) of a newly created Securities Class A stock of a par value of $1 a share and with 1/100th of a vote per share (with the right to elect two directors, of the present number of thirteen). The stockholders of Managers exchanged their Managers stock for the Class A stock of Securities in accordance with the plan. Managers was thereupon dissolved and a certificate of dissolution was issued on December 30, 1930.

(4) The charter of Securities was duly amended, in accordance with the reorganization plan, to provide for a separate Class A asset account which was set up on the books of Securities and to which were allocated 4,509,060 shares of General Motors stock, or one share for each share of Securities Class A stock. A separate surplus account was likewise provided for and set up to be credited with all income, rights and profits received in connection with the assets in the Class A account and to be debited with a reasonable share of the general expenses of Securities and all taxes and expenses resulting from the creation and disposition of the Class A stock and the holding of the assets in the Class A account. The Class A surplus and asset accounts represent the exclusive source of dividends and other benefits payable or accruable on the Class A stock, while the common stock in Securities is excluded from any interest therein.

(5) The charter of Securities was further amended to provide, in accordance with the plan, that in the event of a liquidation of Securities the Class A shareholders would be entitled to receive one share of General Motors stock for each share of Class A stock with proper adjustments for any future rights or liabilities applicable thereto. In addition, the Class A stockholders were given the right (subject to certain limitations which are not now in effect) to have any part of their stock redeemed, either in kind or, at the option of the Company, in cash at the quoted market value of General Motors stock at the time of redemption, with adjustment for any accrued rights or liabilities.

(6) The plan of reorganization of Securities and Managers was submitted to the office of the Commissioner of Internal Revenue on November 24, 1930. It was held that the acquisition by Managers, in exchange for its assets, of the Class A stock of Securities constituted a tax-free reorganization within the meaning of section 112(i) of the Revenue Act of 1928, and that the exchanges pursuant to that reorganization were tax-free under section 112(b) (3) and (4) of that Act. (See letter of J. C. Wilmer, Deputy Commissioner of Internal Revenue, to General Motors Corporation, Detroit, Michigan, dated

November 28, 1930, symbols IT:E:RR:HMcG, a copy of which is attached hereto, for convenience, as Exhibit I.)

(7) On the completion of the reorganization in 1930, Securities had outstanding 346,521 shares of common stock and 4,509,060 shares of Class A stock. Between the date of the reorganization in 1930 and August 31, 1938, the holders of 2,637,099 shares of Class A stock elected to have their shares redeemed for the same number of shares of General Motors stock. Of this number redeemed, 2,622,958 shares have been retired by amendment of the charter of Securities, and 14,141 shares are held awaiting retirement by means of a charter amendment which, in ordinary course, will be made in October, 1938.

(8) A balance sheet of Securities as of August 31, 1938, is attached hereto as Exhibit II.

(9) The outstanding shares of Class A stock of Securities are owned by various individuals and corporations. duPont owns all the outstanding common stock of Securities but none of the Class A stock. Since the Class A stock has only 1/100th of a vote per share, while the common stock has one vote per share, duPont is the owner of shares possessing approximately 95% of the voting power of all classes of stock entitled to vote. There is no other class of stock.

(10) In addition to the 9,843,750 shares of General Motors stock in Securities attributable to duPont, duPont owns directly 156,250 shares of General Motors stock—thus bringing duPont's investment in General Motors, both direct and indirect, to 10,000,000 shares.

(11) From 1923 to the present time, Securities has distributed currently all its earnings, which have consisted solely of dividends received by it upon its General Motors stock.

(12) In 1930, General Motors Management Corporation (hereinafter referred to as "Management") was organized by General Motors under the laws of Delaware to serve as a medium for the further investment in the shares of General Motors by its executives. All the stock of Management other than that retained by General Motors was acquired by its executives. The principal asset of Management is common stock of General Motors. At present, there are outstanding, in addition to the common stock, two special classes of stock, Class A and Class B. These two classes of stock represent (as in the case of the Class A stock of Securities) segregated holdings of General Motors stock.

(13) A balance sheet of Management, as of August 31, 1938, is attached hereto as Exhibit III.

[13475]

II—Summary of Facts

The foregoing facts may be summarized realistically as follows

(1) duPont owns 10,000,000 shares of General Motors stock—9,843,750 indirectly through Securities; and 156,250 directly.

(2) The Class A stockholders of Securities have an interest in over 2,000,000 shares of General Motors stock, now diffused partly in the segregated Class A assets of Securities and partly in Management.

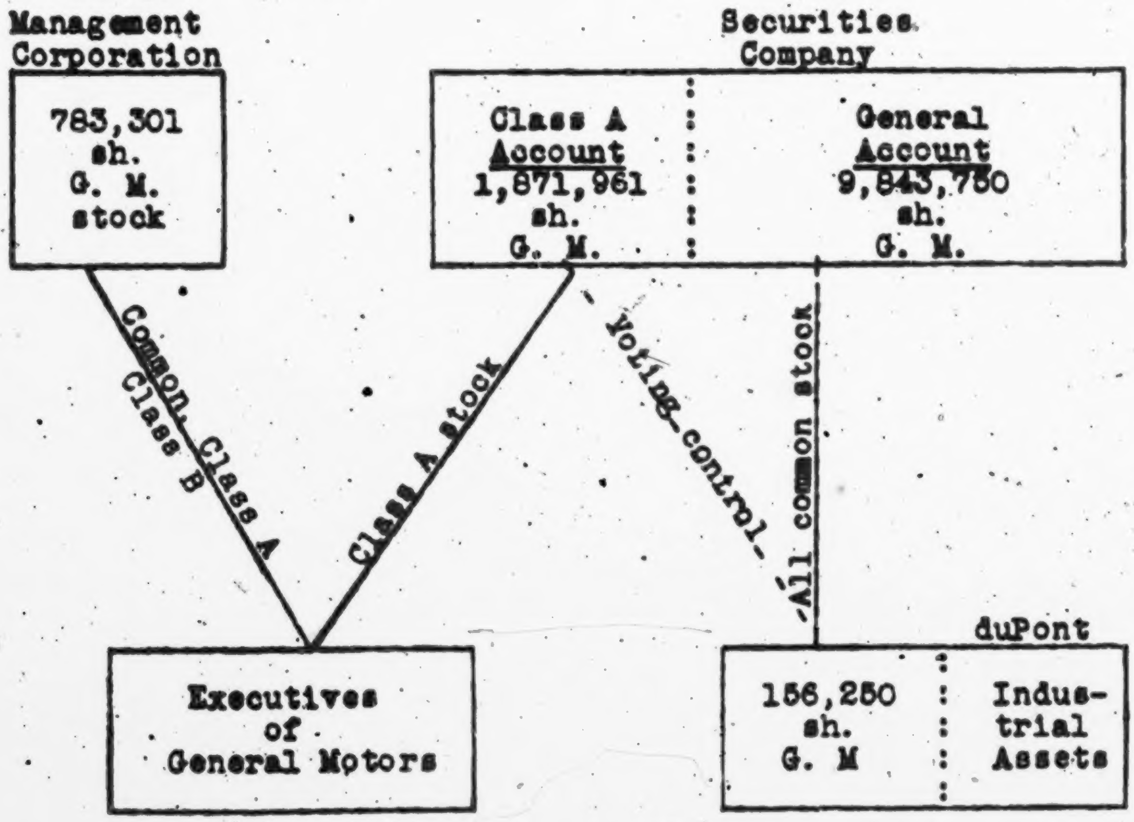
(3) duPont has voting control of 11,871,961 shares of General Motors (although it owns, directly and indirectly, but 10,000,000 shares) since the Class A stockholders of Securities have but a five per cent voting interest.

(4) The interests of the Class A stockholders of Securities as executives of General Motors are more nearly identified with the interests of the Management stockholders than with the interests of duPont.

(5) Securities pays a substantial intercorporate dividend tax upon the dividends it receives upon its General Motors stock; and duPont pays a second intercorporate dividend tax upon the same dividends when received from Securities.

(6) There is no business necessity for the continued existence of Securities.

The following chart gives graphically the approximate present interests of the respective parties:


Management Corporation
783,301 sh. G. M. stock
Securities Company
Class A Account 1,871,961 sh. G. M.
General Account 9,843,750 sh. G. M.
Common, Class A
Class B
Class A stock
Voting control
All common stock
Executives of General Motors
duPont
156,250 sh. G. M
Industrial Assets

III—Purposes of Proposed Liquidation

Sound business judgment demands that:

(1) duPont's investment in General Motors should be consolidated.

(2) The investment of the Class A stockholders in General Motors through Securities should be consolidated with their investment in General Motors through Management.

(3) duPont should manage and control directly its entire interest in General Motors, and should have no management or control of the interests of the Class A stockholders.

(4) Double taxation of the dividends on the duPont investment held by Securities should be eliminated.

(5) Finally, existing corporate structures should be simplified.

The following Plan will accomplish all the above purposes.

IV—The Plan

It is now proposed to completely liquidate Securities, as follows:

(1) A Plan of Complete Liquidation (a copy of which is attached hereto, as Exhibit IV), will be duly adopted and carried out.

(2) Pursuant to such Plan, all the property of Securities will be distributed concurrently by a liquidating distribution to duPont of the property attributable to the common stock and by the consolidation of Securities with Management pursuant to the General Corporation Law of the State of Delaware.

(3) Upon such distribution of all the property of Securities, both the common stock and the Class A stock of Securities will be completely cancelled and redeemed and the Class A stockholders of Securities (as well as the stockholders of Management) will become stockholders of the new corporation resulting from such consolidation (hereinafter referred to as the "new corporation").

(4) Securities will thereupon be completely liquidated and will cease to exist pursuant to the General Corporation Law of the State of Delaware.

(5) Securities has no funded or floating debt. Prior to any distribution in complete liquidation, Securities will pay, so far as possible, all its current liabilities and will file its Federal income tax return for 1938 and pay the amount shown thereon as due. Other liabilities (if any) will, by operation of law, become the liabilities of the new corporation to the extent provided by Section 60 of the General Corporation Law of the State of Delaware.

(6) The liquidation will be completed, if possible, on or before December 31, 1938 (i. e., within the current taxable year of each of the corporations involved) and in any case on or before December 31, 1941.

(7) The Plan expressly provides that duPont must continue to own all the common stock of Securities until the completion of the transfer of all the property of Securities under the Plan and that no additional stock will be issued by Securities.

V—Taxpayers' Position

(1) Recognition of Gain or Loss

No gain or loss will be recognized under the Revenue Act of 1938 upon the proposed complete liquidation for the following reasons:

(a) *Securities Company and Management Corporation.*—Under corporate law, the statutory consolidation of Securities and Management will involve no sale or exchange of property by either corporation. The property of the two corporations will become vested in the new corporation by operation of law under the Delaware statute (sec. 60 of the General Corporation Law of the State of Delaware).

For income tax purposes, however, the transaction is treated as equivalent to a transfer of property by the consolidated corporations to the new corporation in exchange for stock of the new corporation. (See, for example, the illustration in Article 112(b)(6)-1 of Regulations 94 involving a parent-subsidiary merger.) Nevertheless, this constructive exchange of property for stock constitutes a tax-free exchange under sections 112(b)(4), 112(g)(1)(A) and 112(g)(2). The statutory consolidation constitutes a reorganization under section 112(g)(1)(A). Securities, Management, and the new corporation are all parties to the reorganization under section 112(g)(2) and Article 112(g)-2 of Regulations 94, as amended by T. D. 4759. Accordingly the constructive transfers of property by each of the consolidated corporations to the new corporation in exchange for the new corporation's stock constitutes, in each case, an exchange of property by a corporation a party to a reorganization, in pursuance of the plan of reorganization, solely for stock in another corporation a party to the reorganization under section 112(b)(4).

The distribution of property by Securities to duPont in complete cancellation of the common stock of Securities owned by duPont and the constructive distribution by Securities of the stock of the new corporation to the Class A stockholders in complete cancellation of their Class A stock (and by Management to its stockholders) constitute distributions in liquidation resulting in no realization of gain or loss by Securities or Management under Article 22(a)-21 of Regulations 94.

(b) *Class A stockholders of Securities Company and stockholders of Management Corporation.*—The receipt of the stock of the new corporation by the Class A stockholders of Securities and the stockholders of Management in exchange for their stock in Securities and Management, respectively, constitute tax-free exchanges under section 112(b)(3). In each case, stock in a corporation a party to a reorganization is exchanged, in pursuance of a plan of reorganization, solely for stock in another corporation a party to the reorganization. The foregoing does not purport to apply to the stockholders who elect to demand payment for their stock under section 61 of the General Corporation Law of the State of Delaware.

(c) *duPont.*—The receipt of the property by duPont from Securities constitutes a tax-free distribution in complete liquidation of Securities under section 112(b)(6)—

> (i) Under the Plan of Complete Liquidation, duPont must continue to own all the common stock of Securities until the transfer of all the property of Securities under the Plan has been completed and no additional stock of Securities can be issued. Since the common stock possesses approximately 95 per centum of the total combined voting power of all classes of stock entitled to vote and there is no other class of Securities stock outstanding, duPont qualifies with respect to stock ownership under section 112(b)(6)(A) and Article 112(b)(6)-1(b) of Regulations 94 and will continue to qualify until the liquidation has been completed.
>
> (ii) The requirements of section 112(b)(6)(B) are met, since no distribution under the liquidation will have been made before the first day of the first taxable year of Securities beginning after December 31, 1935.
>
> (iii) The requirements of section 112(b)(6)(C) are met, since the distribution by Securities (including the constructive distribution of the stock of the new corporation to the Class A stockholders) is in complete cancellation of all its stock, and the transfer of all the property occurs within the taxable year in which the Plan is adopted. Otherwise there will be compliance with section 112(b)(6)(D).
>
> (iv) In accordance with Article 112(b)(6)-1(b) of Regulations 94, a status of liquidation exists in respect of Securities at the time the first distribution is made under the Plan—and such status will continue until Securities ceases to exist under the General Corporation Law of the State of Delaware—and Securities is finally divested of all its property (both tangible and intangible).
>
> (v) There is full compliance not only with the literal requirements of section 112(b)(6) and Article 112(b)(6) of Regulations 94, but also with the underlying purposes of the section—i. e., simplification of corporate structures. (See statement of Senator George on behalf of the Senate Finance Committee, Vol. 80, Cong. Rec. 8799, and statement by Chairman Doughton, Vol. 80, Cong. Rec. 10270.

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(2) Basis

The property and securities transferred and exchanged pursuant to the Plan will have the following bases in the hands of the recipients:

(a) *The new corporation.*—The property acquired by the new corporation from Securities and Management pursuant to the consolidation will have the same basis as such property had in the hands of the predecessor corporations (Sec. 113(a)(7)).

(b) *Class A stockholders of Securities and stockholders of Management.*—The stock of the new corporation received by the Class A stockholders of Securities and the stockholders of Management will have the same basis in their hands as the Class A stock of Securities and the stock of Management which they will surrender therefor (Sec. 113(a)(6)).

(c) *duPont.*—The property acquired by duPont from Securities will have the same basis in the hands of duPont as that property has in the hands of Securities (Sec. 113(a)(15)).

VI—Requested Ruling and Closing Agreements

A ruling, and closing agreements in accordance therewith, are respectfully requested to the effect that—

(1) No recognition of gain or loss will result to any of the parties (named in V, above) involved in the liquidation or reorganization incident thereto; and

(2) The bases of the property and securities transferred or exchanged will be as set forth in V, above.

Respectfully submitted,

Paul E. Shorb,

Ellsworth C. Alvord.

Of Counsel:
Covington, Burling, Rublee,
Acheson & Shorb,
Union Trust Building,
Washington, D. C.

Alvord & Alvord,
Munsey Building,
Washington, D. C.

Exhibit I

(Copy)

TREASURY DEPARTMENT
WASHINGTON

November 28, 1930.

OFFICE OF
COMMISSIONER OF INTERNAL REVENUE
IT:E:RR
HMcG

GENERAL MOTORS CORPORATION,
Detroit, Michigan.
Attention: John T. Smith, General Counsel.

SIRS:

Reference is made to your letter of November 24, 1930, in which you request information concerning the effect, for income tax purposes, of a certain plan of reorganization involving the General Motors Securities Company and the Managers Securities Company.

From the information furnished it appears that the Managers Securities Company was organized in 1923 under the laws of Delaware for the purpose of dealing in securities, and that about the time of its organization it entered into a contract with your corporation by which it was entitled to receive for the period of eight years a considerable sum of money annually. At the time of its organization such company purchased a large amount of General Motors Securities Company stock. This latter company was a holding corporation organized under the laws of the State of Delaware and owned a large block of General Motors Corporation common stock. From time to time, it is stated, the Managers Securities Company has purchased and sold General Motors common stock and at the present time its assets consist of shares of General Motors Corporation common stock, shares of General Motors Securities Company stock and cash. It has no liabilities.

Under the reorganization plan in question the General Motors Securities Company stock will comprise two classes, designated as Class X and Class Y stock. The fundamental difference between these two classes will be that each share of Class Y stock will have as an asset behind it one share of General Motors Corporation stock; and upon liquidation, retirement or redemption will be limited to its interest therein. The General Motors Securities Company will then acquire all of the assets of the Managers Securities Company in exchange for the Class Y stock of the General Motors Securities Company. The stock of General Motors Securities Company so acquired by the Managers Securities Company will then be distributed to the stockholders of Managers Securities

Company which will be liquidated. It is further stated that the General Motors Securities Company will subsequently offer to retire the whole or any part of its Class Y stock by issuing in exchange therefor a corresponding amount of General Motors Corporation common stock represented thereby.

Upon consideration of the particular information furnished it is held that the transactions involving the reclassification of the stock of General Motors Securities Company, the acquisition by the Managers Securities Company (in exchange for its assets) of the Class Y stock of General Motors Securities Company, and the distribution to the stockholders of the Managers Securities Company of the General Motors Securities Company stock so acquired fall within the scope of Section 112(b) (3), (4) and (i) of the Revenue Act of 1928, concerning exchanges in connection with corporate reorganizations. You are advised generally, therefore, that in the transactions up to and including the distribution by the Managers Securities Company of the General Motors Securities Company stock to its stockholders, no gain or loss will be recognized for income tax purposes; nor will General Motors Securities Company realize any gain or loss upon distribution of its assets in kind in partial or complete liquidation of its stock.

The exchange by the former stockholders of the Managers Securities Company of the General Motors Securities Company stock for common stock of the General Motors Corporation will, of course, result in a gain or loss for income tax purposes, measured by the difference between the basis of the General Motors Securities Company stock in the hands of the former stockholders of the Managers Securities Company and the fair market value of the General Motors Corporation common stock as of the date of the exchange.

Respectfully,

J. C. WILMER
Deputy Commissioner.

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Exhibit II

GENERAL MOTORS SECURITIES COMPANY

BALANCE SHEET—AUGUST 31, 1938

		Applicable To: Common Stock	Applicable To: Class "A" Stock	Total
ASSETS				
Cash		554,894.53	106,727.79	661,622.32
Dividend receivable from General Motors Corporation—declared August 1, 1938, payable September 12, 1938 to stockholders of record August 11, 1938		2,460,937.50	468,490.25	2,929,427.75
Investment stocks				
9,843,750 shares General Motors Corporation common stock		55,589,114.29	....	55,589,114.29
1,871,961 shares General Motors Corporation common stock		....	15,119,134.87	15,119,134.87
TOTAL ASSETS		58,604,946.32	15,694,352.91	74,299,299.23
LIABILITIES				
Federal Income Tax—1937		414,729.90	81,418.02	496,147.92
Reserve for Federal Income Tax—1938		187,405.74	35,857.50	223,263.24
Dividend payable—declared August 15, 1938, payable September 13, 1938 to stockholders of record August 16, 1938		2,397,925.32	454,435.62	2,852,360.94
Capital Stock				36,524,061.00
Common	346,521 shares	34,652,100.00		
Class "A"—				
Issued	1,886,102 "			
In Treasury awaiting cancellation	14,141 "			
Issued and Outstanding	1,871,961 "		1,871,961.00	
Surplus—Paid-in		20,937,014.29	13,247,173.87	34,184,188.16
Surplus—Earned		15,771.07	3,506.90	19,277.97
TOTAL LIABILITIES		58,604,946.32	15,694,352.91	74,299,299.23

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Exhibit III

GENERAL MOTORS MANAGEMENT CORPORATION

BALANCE SHEET—AUGUST 31, 1938

ASSETS

Cash	$ 93,972.46
Notes of the General Motors Acceptance Corporation	$ 657,605.70
Investments in General Motors Common Stock:	
Allocated to Class A Stock (52,061 shares at average cost of $40.58 per share)	$ 2,112,741.96
Allocated to Class B Stock (287,609 shares at cost of $40.00 per share)	11,504,360.00
Unallocated (444,602 shares at cost of $40.00 per share)	17,784,080.00
TOTAL INVESTMENTS IN GENERAL MOTORS COMMON STOCK	$31,401,181.96
TOTAL ASSETS	$32,152,760.12

LIABILITIES

Federal income taxes	$ 555,457.92
Class A Stock—Authorized, 64,667 shares of $10 par value; 12,606 shares held for cancellation; issued and outstanding, 52,061 shares at an average of $40.58 per share	$ 2,112,741.96
Class A Surplus	2,295.03
TOTAL CLASS A STOCK AND SURPLUS	$ 2,115,036.99
Class B Stock—Authorized, 315,204 shares of $10 par value; 27,595 shares held for cancellation; issued and outstanding, 287,609 shares at $40 per share	$11,504,360.00
Class B Surplus	13,830.63
TOTAL CLASS B STOCK AND SURPLUS	$11,518,190.63
Common Stock—Authorized and outstanding, 50,000 shares of $10 par value	$ 500,000.00
Paid-in Surplus	4,500,000.00
General Surplus	12,964,074.58
TOTAL COMMON STOCK AND SURPLUS	$17,964,074.58
TOTAL LIABILITIES	$32,152,760.12

NOTE: At August 31, 1938, 147,160 shares of General Motors Corporation Common Stock had been loaned to General Motors Corporation.

Exhibit IV

PLAN OF COMPLETE LIQUIDATION OF GENERAL MOTORS SECURITIES COMPANY

I. Complete Liquidation

General Motors Securities Corporation (hereinafter referred to as "Securities") shall proceed in good faith and without delay, in accordance with the General Corporation Law of the State of Delaware and in accordance with this Plan of Complete Liquidation, to effect a distribution of all its assets in complete liquidation and in complete cancellation and redemption of all its stock.

II. Method of Liquidation

The complete liquidation of Securities shall be effected in the following manner:

(1) All the property of Securities shall be distributed concurrently by a liquidating distribution of all the property attributable to the common stock to E. I. duPont de Nemours and Company (hereinafter referred to as "duPont"), the owner of all the outstanding common stock; and by the consolidation of Securities with General Motors Management Corporation (hereinafter called "Management") into a new corporation, pursuant to the General Corporation Law of the State of Delaware. (A copy of the Agreement of Consolidation is attached hereto and made a part of this Plan.)

(2) Upon such distribution of all the property of Securities, both the common stock and Class A stock of Securities shall be completely cancelled and redeemed and the Class A stockholders of Securities (as well as the stockholders of Management) shall, in accordance with the Agreement of Consolidation, become stockholders of the new corporation.

(3) Securities shall thereupon be completely liquidated and cease to exist pursuant to the General Corporation Law of the State of Delaware.

(4) The distribution of the assets under this Plan shall be made in kind insofar as possible.

(5) The liquidation shall be completed, if possible, on or before December 31, 1938, and in any case on or before December 31, 1941.

III. Compliance with Revenue Act of 1938

The liquidation shall be carried out and completed in such a manner as to comply in all respects with section 112(b)(6) of the Revenue Act of 1938. To this end—

(1) Upon the adoption of the Plan, Securities shall have the status of a corporation in liquidation, which status shall continue to exist until Securities ceases to exist in accordance with this Plan;

(2) No distribution under the liquidation will have been made before the adoption of this Plan;

(3) duPont, the owner of all the common stock and possessing approximately 95 per cent of the voting power of all classes of stock entitled to vote, shall continue to own all such common stock until the completion of the transfer of all the property of Securities under this Plan. There are no other classes of stock and no additional stock shall be issued by Securities. Accordingly, at no time during the period of liquidation will duPont be the owner of a greater percentage of stock of Securities of any class than the percentage which it will own at the time of the transfer of all the property.

IV. Effective Date of Plan

This Plan shall be submitted to the stockholders of Securities promptly after the stockholders of Management have considered and acted favorably upon the consolidation of Management and Securities provided for in this Plan. This Plan shall become effective and be deemed to be adopted when, and only when, it has been approved by the Board of Directors of duPont and by vote of at least two-thirds of the total number of shares of the capital stock of Securities, at meetings duly called for such purpose and held in accordance with law.

Dated ....

AGREEMENT OF CONSOLIDATION

AGREEMENT OF CONSOLIDATION, entered into as of October , 1938, between GENERAL MOTORS SECURITIES COMPANY, a corporation organized and existing under an Act of the Legislature of the State of Delaware entitled "An Act Providing a General Corporation Law" (approved March 10, 1899), and the Acts amendatory thereof and supplemental thereto, having its principal and registered office in Delaware at No. 100 West 10th Street, City of Wilmington, County of New Castle, and the directors thereof, parties of the first part; and, GENERAL MOTORS MANAGEMENT CORPORATION, a corporation organized and existing under said Act of the State of Delaware, as amended and supplemented, having its principal and registered office in Delaware at No. 100 West 10th Street, City of Wilmington, County of New Castle, and the directors thereof, parties of the second part;

WHEREAS, General Motors Securities Company under its Certificate of Incorporation filed in the office of the Secretary of the State of Delaware, on the 4th day of January, 1918, and recorded in the office of the Clerk of the County of New Castle, on the .... day of January, 1918, has, in accordance with said Certificate as since amended, an authorized capital stock of Two Million Two Hundred Thirty-seven Thousand Five Hundred Ninety-Three (2,237,593) shares, divided into Three Hundred Fifty-One Thousand Four Hundred Ninety-One (351,491) shares of common stock of the par value of One Hundred Dollars ($100) per share, amounting in the aggregate to Thirty-Five Million One Hundred Forty-Nine Thousand One Hundred Dollars ($35,149,100) (all of which will be retired and completely cancelled and redeemed simultaneously with the filing of this Agreement of Consolidation), and One Million Eight Hundred Eighty-Six Thousand One Hundred Two (1,886,102) shares of Class "A" stock of the par value of One Dollar ($1) per share, amounting in the aggregate to One Million Eight Hundred Eighty-Six Thousand One Hundred Two Dollars ($1,886,102); of which .... (..........) shares of said Class "A" stock amounting in the aggregate to .... Dollars ($..........) are outstanding and .... (..............) shares amounting to .... Dollars ($..............) are held for retirement, all of which shares of common stock and Class "A" stock are full paid and non-assessable; and

WHEREAS, General Motors Management Corporation, under its Certificate of Incorporation filed and recorded in the office of the Secretary of the State of Delaware on the 2nd day of April, 1930, and recorded in the office of the

Clerk of the County of New Castle, on the .... day of April, 1930, has an authorized capital stock of Four Million Two Hundred Ninety-Eight Thousand Seven Hundred Ten Dollars ($4,298,710), divided into Fifty Thousand (50,000) shares of common stock of the par value of Ten Dollars ($10) per share, amounting in the aggregate to Five Hundred Thousand Dollars ($500,000), all of which is issued and outstanding; Three Hundred Fifteeen Thousand Two Hundred Four (315,204) shares of Class "B" stock of the par value of Ten Dollars ($10) per share, amounting in the aggregate to Three Million One Hundred Fifty-Two Thousand Forty Dollars ($3,152,040) of which Two Hundred Eighty-Four Thousand Six Hundred Fourteen (284,614) shares, amounting to Two Million Eight Hundred Forty-Six Thousand One Hundred Forty Dollars ($2,846,140), are issued and outstanding and Thirty Thousand Five Hundred Ninety (30,590) shares amounting to Three Hundred Five Thousand Nine Hundred Dollars ($305,900) are held for retirement, and Sixty-Four Thousand Six Hundred Sixty-Seven (64,667) shares of Class "A" stock of the par value of Ten Dollars ($10) per share, amounting in the aggregate to Six Hundred Forty-Six Thousand Six Hundred Seventy Dollars ($646,670), of which Fifty-One Thousand Five Hundred Fifty-Six (51,556) shares, amounting to Five Hundred Fifteen Thousand Five Hundred Sixty Dollars ($515,560) are issued and outstanding and Thirteen Thousand One Hundred Eleven (13,111) shares amounting to One Hundred Thirty-One Thousand One Hundred Ten Dollars ($131,110) are held for retirement, all of which shares of common, Class "B" and Class "A" stock are full paid and non-assessable; and

Whereas, the respective Boards of Directors of said corporations deem it advisable, and to the advantage and welfare of said corporations and each of them, and of their respective stockholders, to consolidate said corporations under and pursuant to the provisions of said Act of the State of Delaware, all Acts amendatory thereof and supplemental thereto, and all other legal powers and authority for that purpose conferred;

Now, Therefore, in consideration of the premises and the mutual agreements, provisions, covenants and grants herein contained, it is hereby agreed by and between the parties, that General Motors Securities Company and General Motors Management Corporation shall be and the same are hereby consolidated pursuant to and in accordance with the said authority of the State of Delaware, the terms and conditions thereof, and the mode of carrying the same into effect, being as follows:

ARTICLE I.

Upon the filing of this Agreement in the office of the Secretary of State of Delaware, General Motors Securities Company (hereinafter referred to as "Securities Company") and General Motors Management Corporation (hereinafter referred to as "Management Corporation") shall be consolidated into a

single corporation which shall be a new corporation formed by means of such consolidation. Upon such filing hereof, Securities Company and Management Corporation, their respective names, franchises and organizations shall cease and determine.

ARTICLE II.

The name of the new corporation formed by this consolidation (hereinafter referred to as the "Corporation") is GM. Shares, Inc

ARTICLE III.

The principal office in the State of Delaware is to be located at 100 West 10th Street, in the City of Wilmington, County of New Castle. The agent in charge thereof is The Corporation Trust Company, No. 100 West 10th Street, Wilmington, Delaware.

ARTICLE IV.

The nature of the business and the objects and purposes proposed to be transacted, promoted and carried on are to do any or all things herein mentioned, as fully and to the same extent as natural persons might or could do, and in any part of the world, viz:

1. To purchase, take, own, hold, deal in, mortgage or otherwise deal with and to lease, sell, exchange, transfer or in any manner whatever dispose of real property, wherever situated, whether within or without the State of Delaware.

2. To manufacture, produce, buy, hire, or otherwise acquire, use, sell, lease, license others to use, or otherwise deal in or dispose of goods, wares and merchandise and personal property of any and every class and description and whether situated within or without the State of Delaware.

3. To acquire by purchase, subscription, contract or otherwise, and to hold for investment or otherwise, sell, exchange, mortgage, pledge or otherwise dispose of, or turn to account or realize upon, and generally to deal in and use any and all kinds of securities issued or created in any and all parts of the world by corporations, associations, partnerships, firms, trustees, syndicates, individuals, governments, states, municipalities, or other political or governmental division or subdivision, or any thereof, or by any combinations, organizations or entities whatsoever, irrespective of their form or the name by which they may be described, and to issue in exchange therefor or in payment thereof in any manner permitted by law and this Agreement of Consolidation, its own securities of any kind or to make payment therefor by any other lawful means of payment whatsoever; to exercise any and all rights, powers, and privileges in respect of any and all such securities, including the right to vote thereon the same as if owned by a private individual; to do any and all acts and things for the preservation, protection, improvement and enhancement in value of any and all such securities;

to acquire or become interested in any such securities, as aforesaid, by original subscription, underwriting, loan, participation in syndicates or otherwise and irrespective of whether or not such securities be fully paid or subject to further payments; to make payments thereon as called for, or in advance of calls or otherwise; and to underwrite or subscribe for the same conditionally or otherwise and either with a view to investment or for resale or for any other lawful purpose. The term "securities" shall for the purposes of this subdivision of Article Fourth without limitation of the generality thereof be deemed to include any shares, stocks, bonds, debentures, notes, mortgages or other obligations, and any certificates, receipts or other instruments representing rights to receive, purchase or subscribe for the same, or representing any other rights or interests therein or in any property or assets.

4. To acquire by purchase, exchange or otherwise, all, or any part of, or any interest in, the properties, assets, business and good will of any one or more persons, firms, associations, corporations or syndicates, engaged in any business for which a corporation may now or hereafter be organized under the laws of the State of Delaware; to pay for the same in cash, property or its own or other securities; to hold, operate, reorganize, liquidate, sell or in any manner dispose of the whole or any part thereof; and in connection therewith, to assume or guarantee performance of any liabilities, obligations or contracts of such persons, firms, associations, corporations or syndicates, and to conduct in any lawful manner the whole or any part of any business thus acquired.

To the extent now or hereafter permitted by the laws of the State of Delaware, to lend its uninvested funds from time to time to such extent, to such persons, firms, associations, corporations, syndicates, governments or subdivisions thereof, and on such terms and on such security, if any, as the Board of Directors of the Corporation (hereinafter called the Board of Directors) may determine.

To endorse or guarantee the payment of principal, interest, or dividends upon, and to guarantee the performance of sinking fund or other obligations, of any securities, and to guarantee the performance of any of the contracts or other undertakings in which the Corporation may otherwise be or become interested, of any corporation, association, partnership, firm, trustee, syndicate, individual, government, state, municipality or other political or governmental division or subdivision, domestic or foreign, in so far as may be permitted by law.

To cause to be formed, merged, reorganized or liquidated, and to promote, take charge of and aid in any way permitted by law, the formation, merger, liquidation or reorganization of any corporation, association, syndicate or organization of any kind, domestic or foreign, and to form, organize, promote, manage, control, maintain, dissolve, merge or consolidate one or more corporations in any of the securities of which the Corporation may be or become interested, for such purpose or purposes as may aid or advance the objects and purposes of the Corporation.

5. To develop, apply for, obtain, purchase, lease, take licenses in respect of, or otherwise acquire, and to hold, own, use, operate, enjoy, turn to account, grant licenses in respect of, manufacture under, introduce, sell, assign, mortgage, pledge or otherwise dispose of:

(a) any and all inventions, devices, formulae, processes and any improvements and modifications thereof;

(b) any and all letters patent of the United States of America, or of any other country, and all rights connected therewith or appertaining thereunto;

(c) any and all copyrights granted by the United States of America or any foreign country;

(d) any and all trade-marks, trade names, trade symbols and other indications of origin and ownership granted by or recognized under the laws of any state or country; and,

(e) any and all franchises, licenses, grants or concessions granted by or recognized under the laws of the United States of America or of any state or subdivision thereof or of any foreign country or subdivision thereof.

6. To enter into, make, perform and carry out contracts of every sort and kind which may be necessary or convenient for the business of the Corporation or business of a similar nature with any person, firm, corporation, private, public or municipal, body politic, any state, territory or municipality of the United States of America or any foreign government or body politic.

7. To draw, make, accept, endorse, execute and issue promissory notes, drafts, warrants, debentures and other negotiable or transferable instruments.

8. To borrow money for any purposes of the Corporation, from time to time, and without limit as to amount; to issue and sell its own bonds, debentures or other securities in such amounts, on such terms and conditions, for such purposes and such prices, now or hereafter permitted by the laws of the State of Delaware and by this Agreement of Consolidation, as the Board of Directors may determine; and to secure such securities, to the extent now or hereafter permitted by the laws of said State and by this Agreement of Consolidation by mortgage upon, or the pledge of, or the conveyance or assignment in trust of, the whole or any part of the properties, assets, business and goodwill of the Corporation then owned or thereafter acquired.

9. To purchase, hold, cancel, reissue, sell, exchange, transfer or otherwise deal in its own securities (including shares of its capital stock of any class) from time to time to such an extent and in such manner and upon such terms as the Board of Directors shall determine; provided that the Corporation shall not use its funds or property for the purchase of its own shares of capital stock when

such use would cause any impairment of its capital; and provided further that shares of its own capital stock belonging to the Corporation shall not be voted upon directly or indirectly; and provided, further, that nothing herein contained shall be construed as limiting or restricting the exercise of the rights and powers permitted by the laws of the State of Delaware and Article Fifth, paragraph 5 of this Agreement of Consolidation in respect of the purchase and retirement of the Class A and/or Class B Stock out of the capital of the Corporation.

10. To organize or cause to be organized under the laws of the State of Delaware, or of any other state, district, territory, nation, colony, province or government, a corporation or corporations for the purpose of accomplishing any or all of the objects for which the Corporation is organized, and to dissolve, wind up, liquidate, merge or consolidate any such corporation or corporations or to cause the same to be dissolved, wound up, liquidated, merged or consolidated.

11. To carry out all or any of the foregoing objects and purposes, as principal or agent and alone or with associates or, to the extent now or hereafter permitted by the laws of the State of Delaware, as a member of, or as the owner or holder of any stock of, or any shares or interest in, any firm, association, trust, corporation or syndicate, and generally the Corporation shall be authorized to exercise and enjoy all other powers, rights and privileges granted by an Act of the Legislature of the State of Delaware, entitled, "An Act Providing a General Corporation Law", approved March 10, 1899, to corporations of the character of the Corporation, and all the powers conferred upon such corporations by the then existing laws of the State of Delaware, so far as not in conflict therewith or which may be conferred by all acts heretofore or hereafter amendatory of said Act of March 10, 1899, or of said laws, or supplemental thereto, or the laws of said State now or hereafter in force; provided, however, that the Corporation shall not in any state, territory or country, carry on any business, or exercise any powers, which a corporation organized under the laws of said state, territory or country could not carry on or exercise, except to the extent permitted or authorized by the laws of such state, territory or country.

The Corporation shall not, however, have power or authority to issue bills, notes or other evidences of debt for circulation as money, or to carry on the business of receiving deposits of money or the business of buying gold or silver bullion or foreign coins or to engage in the business of banking or insurance or to carry on the business of constructing or maintaining public utilities in the State of Delaware; and all other provisions of this Article Fourth are subject to the provisions of this paragraph.

ARTICLE V.

The amount of the total authorized capital stock of the corporation is Two Million Seven Hundred Fifty-Nine Thousand One Hundred Sixty Dollars ($2,759,160) divided into Fifty Thousand (50,000) shares of common stock of the par value of One Dollar ($1) per share, amounting in the aggregate to Fifty Thousand Dollars ($50,000), Eight Hundred Thirty-Eight Thousand Six Hundred Ninety-Nine (838,699) shares of Class "B" stock of the par value of One Dollar ($1), amounting in the aggregate to Eight Hundred Thirty Eight Thousand Six Hundred Ninety-Nine Dollars ($838,699), and One Million Eight Hundred Seventy Thousand Four Hundred Sixty-One (1,870,461) shares of Class "A" stock of the par value of One Dollar ($1) per share, amounting in the aggregate to One Million Eight Hundred Seventy Thousand Four Hundred Sixty-One Dollars ($1,870,461). The common stock and the Class "B" stock and the Class "A" stock may be issued from time to time at or above par for cash, real or personal property, or services, as may be fixed from time to time by the Board of Directors, as may be permitted by law.

The description of the different classes of stock, and a statement of the designations and powers, privileges and rights, and qualifications, limitations or restrictions thereof, are as follows:

(1) There shall be created for the sole benefit of the Class A Stock an appropriate asset account (hereinafter referred to as the Class A asset account) in which shall be carried one share of General Motors Corporation Common Stock, or its future equivalent by way of exchange, stock dividend, or otherwise, for each share of Class A Stock issued and outstanding. There shall also be created for the sole benefit of the Class A Stock a Class A surplus account to which shall be credited all income received in connection with assets carried in the Class A asset account and to which shall be debited all such taxes and expenses as the Board of Directors shall determine to be fairly attributable to the Class A Stock. Dividends on the Class A Stock shall be paid exclusively from Class A surplus. The Class A Stock shall not benefit from the assets or income of the Corporation except as hereinbefore set forth and as hereinafter provided in paragraph 4.

(2) There shall be created for the sole benefit of the Class B Stock an appropriate asset account (hereinafter referred to as the Class B asset account) in which shall be carried one share of General Motors Corporation Common Stock, or its future equivalent by way of exchange, stock dividend, or otherwise, for each share of Class B Stock issued and outstanding. There shall also be created for the sole benefit of the Class B Stock a Class B surplus account to which shall be credited all income received in connection with assets carried in the Class B asset account and to which shall be debited all such taxes and expenses as the Board of Directors shall determine to be fairly attributable to the Class B Stock. Dividends on the Class

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B Stock shall be paid exclusively from Class B surplus. The Class B Stock shall not benefit from the assets or income of the Corporation except as hereinbefore set forth and as hereinafter provided in paragraph 4.

(3) All income, expenses, and/or taxes of the Corporation not allocated to the Class A Stock or Class B Stock as herein provided, shall be credited or debited to an account entitled "General Surplus" for the benefit of the Common Stock. Dividends upon the Common Stock shall be paid exclusively from General Surplus.

(4) In the event of any liquidation, dissolution or winding up of the Corporation, whether voluntary or otherwise, after paying all debts, bonded or otherwise, taxes and all expenses of the Corporation, each holder of the Class B Stock shall be entitled, before any distribution be made to stockholders of any other class, to receive his pro rata share of the assets in the Class B asset account, viz. one share of General Motors Corporation Common Stock, or its future equivalent by way of exchange, stock dividend, or otherwise, increased by any surplus or decreased by any deficit or liability applicable thereto, as the case may be. After said payment in full to the holders of the Class B Stock, each holder of Class A Stock shall be entitled, before any distribution be made to Common stockholders, to receive his pro rata share of the assets in the Class A asset account, viz. one share of General Motors Corporation Common Stock, or its future equivalent by way of exchange, stock dividend, or otherwise, increased by any surplus or decreased by any deficit or liability applicable thereto, as the case may be. After said payments in full to the holders of the Class B Stock and Class A Stock, the holders of the Common Stock shall be entitled to the net remaining assets according to their respective shares.

(5) The Corporation by action of its Board of Directors may at any time, and, subject to the General Corporation Law of Delaware, at the request of any holder of Class A Stock and/or Class B Stock upon ninety (90) days' notice in writing to the Corporation, shall, subject to the General Corporation Law of Delaware, redeem the whole or any part of the Class A Stock and/or Class B Stock held by such holder, in cash and/or property at its option, upon surrender and cancellation of such shares; if in cash, at the closing bid price per share for General Motors Corporation Common Stock on the New York Stock Exchange on the day preceding the day of redemption, and, if in property, with one share of the

present General Motors Corporation Common Stock, or its future equivalent by way of exchange, stock dividend, or otherwise, for each share of Class A Stock and/or Class B Stock so surrendered for redemption; in any event, however, increased by any surplus or decreased by any deficit or liability applicable thereto, as the case may be; or the Corporation may, at any time or from time to time, purchase such shares of Class A Stock and/or Class B Stock at not exceeding the price or prices at which the same may be redeemed. Shares of Class A Stock and/or Class B Stock so redeemed or purchased shall not thereafter be reissued but shall be retired and the capital of the Corporation decreased accordingly.

The Corporation may apply to such redemption or purchase an amount out of its capital which shall not be greater than the sum of (1) that part of the consideration received for such shares which shall be capital pursuant to the provisions of Section 14 of the General Corporation Law of the State of Delaware, and paragraph 8 of Article Fifth of the Agreement of Consolidation, and that part of surplus which shall have been transferred and treated as capital in respect of such shares pursuant to the provisions of said Section 14 of the Delaware Corporation Law and said paragraph 8 of Article Fifth of this Agreement of Consolidation and (2) any amounts of which the capital of the Corporation shall have been increased by other transfers from surplus in accordance with the provisions of said Section 14 of the Delaware Corporation Law and said paragraph 8 of Article Fifth of this Agreement of Consolidation; but no such redemption or purchase shall be made out of capital unless the assets of the Corporation remaining after such redemption or purchase shall be sufficient to pay any debts of the Corporation, the payment of which shall not have been otherwise provided for.

Whenever any capital of the Corporation is applied to the redemption or the purchase of shares pursuant to the provisions aforesaid, a certificate shall be made accordingly under the seal of the Corporation and the hands of its President or a Vice-President and its Secretary or an Assistant Secretary and the President or such Vice-President shall acknowledge said certificate before an officer authorized by the laws of Delaware to take acknowledgments of deeds; and said certificate, so executed and acknowledged, shall be filed and a copy thereof shall be recorded, in the same manner as certificates of incorporation are required to be filed and recorded by the provisions of Section 6 of the General Corporation Law of Delaware; and thereupon the capital of the corporation shall be deemed to be

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and shall thereby be reduced by the amount so applied without the necessity of any other proceedings. If the shares so redeemed or purchased or surrendered on conversion or exchange constitute all the outstanding shares of Class A or Class B Stock, the Board of Directors shall have power by the certificate so filed and recorded to amend the Agreement of Consolidation so as to eliminate all reference to the shares so redeemed or purchased or surrendered and on the filing and recording of such certificate the Agreement of Consolidation shall be deemed to be amended accordingly.

Nothing herein contained shall in any way affect the rights of the Corporation to redeem or purchase any of its shares from surplus and to hold such shares or to resell them for such consideration as shall be fixed from time to time by the Board of Directors pursuant to paragraph (9) of Article Fourth of this Agreement of Consolidation.

(6) Each holder of the Common Stock shall be entitled to one vote, each holder of the Class A Stock shall be entitled to one vote, and each holder of the Class B Stock shall be entitled to one vote, in person or by proxy, for each share of the capital stock held by such holder, respectively.

(7) No holder of stock of the Corporation of whatever class or classes shall have any preferential right or any right whatever to subscribe for any share of any class of stock of the Corporation issued or sold, or to be issued or sold whether now or hereafter authorized, or to subscribe to any of the obligations convertible into stock of the Corporation, or any right of subscription to any thereof other than such, if any, as the Board of Directors in its absolute and uncontrolled discretion may from time to time determine.

(8) This Corporation may, by resolution of its Board of Directors, determine that only a part of the consideration received for any of the shares of its capital stock which it shall issue from time to time shall be capital; provided, however, that the amount of the part of such consideration so determined to be capital need be only equal to the aggregate par value of such shares. The capital of the Corporation may be increased from time to time by resolution of the Board of Directors directing that a portion of the net assets of the Corporation in excess of the amount so determined to be capital be transferred to capital account. The Board of Directors may direct that the portion of the excess net assets so transferred shall be treated as capital in respect of any shares of the Corporation of any designated class or classes. The excess, if any, at any given time, of the

total net assets of the Corporation over the amount so determined to be capital shall be surplus.

(9) The amount of capital with which the Corporation will commence business is .... Dollars ($............).

ARTICLE VI.

The number of the first directors of the Corporation shall be twelve, which number may be increased or diminished from time to time by amendment of the By-Laws of the Corporation as therein provided; and the names and places of residence of the first directors, who shall hold office until their successors are elected or chosen and qualified as provided in the By-Laws of the Corporation are as follows:

Names of Directors	Places of Residence
....	....
....	....
....	....
....	....
....	....
....	....
....	....
....	....
....	....
....	....
....	....
....	....

The number of the first officers of the Corporation shall be nine, which number may be increased or diminished from time to time in accordance with or by amendment of the By-Laws of the Corporation as therein provided. The first officers of the Corporation shall be a Chairman, President, two Vice-Presidents, Treasurer, Secretary, two Assistant Treasurers and an Assistant Secretary, who shall hold office until their respective successors are chosen or appointed and qualified, as provided in the By-Laws; and their names and places of residence are as follows:

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Office	Name	Residence
Chairman	Alfred P. Sloan, Jr.	Great Neck, N. Y.
President	John Thomas Smith	South Hampton, N. Y.
Vice-President	Ormond E. Hunt	Detroit, Mich.
Vice-President	John J. Schumann, Jr.	Montclair, N. J.
Treasurer	Albert Bradley	Greenwich, Conn.
Assistant Treasurer	F. G. Donner	Port Washington, N. Y.
Assistant Treasurer	W. Harry Howe	Detroit, Mich.
Secretary	Lisle R. Beardslee	Cranford, N. J.
Assistant Secretary	J. C. Davidson	Detroit, Mich.

ARTICLE VII.

The Corporation is to have perpetual existence.

ARTICLE VIII.

The private property of the stockholders of the Corporation shall not be subject to the payment of corporate debts to any extent whatever.

ARTICLE IX.

For the regulation of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders, it is further provided:

(1) The number of directors of the Corporation shall be fixed by its By Laws and may be altered from time to time by amending the By Laws as therein provided. In the case of any increase in the number of directors of the Corporation, the additional directorship created may be filled in the first instance in the same manner as a vacancy in the Board of Directors. A director need not be a stockholder. The election of directors of the Corporation need not be by ballot unless the By Laws so require.

The Board of Directors may, by resolution or resolutions, passed by a majority of the whole Board designate a committee to consist of two or more of the directors of the Corporation, which to the extent provided in said resolution or resolutions or in the By Laws of the Corporation, shall have and may exercise the powers of the Board of Directors in the management of the business and affairs of the Corporation, and may have power to authorize the seal of the Corporation to be affixed to all papers which may require it. Such committee shall have such name or names as may be stated in the By Laws of the Corporation or as may be determined from time to time by resolution adopted by the Board of Directors.

(2) Any director or any officer elected or appointed by the stockholders or by the Board of Directors may be removed at any time in such manner as shall be provided in the By Laws of the Corporation.

(3) In furtherance and not in limitation of the powers conferred by the laws of the State of Delaware, the Board of Directors is expressly authorized and empowered:

(a) To make, alter, amend and repeal the By Laws of the Corporation, in any manner not inconsistent with the laws of the State of Delaware or of the Agreement of Consolidation of the Corporation, subject to the power of the holders of the voting capital stock to alter or repeal the By Laws made by the Board of Directors.

(b) Subject to the applicable provisions of the By Laws then in effect, to determine, from time to time, whether and to what extent and at what times and places and under what conditions and regulations the accounts and books of the Corporation, or any of them, shall be open to the inspection of the stockholders; and no stockholder shall have any right to inspect any account or book or document of the Corporation, except as conferred by the laws of the State of Delaware, unless and until authorized so to do by resolution of the Board of Directors or of the stockholders of the Corporation.

(c) Without the assent or vote of the stockholders, to authorize and issue obligations of the Corporation, secured or unsecured, to include therein such provisions as to redeemability, convertibility or otherwise, as the Board of Directors, in its sole discretion, may determine, and to authorize the mortgaging or pledging, as security therefor, of any property of the Corporation, real or personal, including after-acquired property.

(d) To determine whether any, and if any, what part, of the annual net profits of the Corporation or of its net assets in excess of its capital shall be declared in dividends and paid to the stockholders, and to direct and determine the use and disposition of any such annual net profits or net assets in excess of capital.

(e) To fix from time to time the amount of the profits of the Corporation to be reserved as working capital or for any other lawful purpose.

In addition to the powers and authorities hereinbefore or by statute expressly conferred upon it, the Board of Directors may exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, subject, nevertheless, to the provisions of the laws of the State of Delaware, this Agreement of Consolidation and the By Laws of the Corporation.

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(4) No contract or other transaction between this Corporation and any other corporation and no act of this Corporation shall in any way be affected or invalidated by the fact that any of the directors of the Corporation are pecuniarily or otherwise interested in, or are directors or officers of, such other corporation. Any director individually or any firm of which any director may be a member may be a party to, or may be pecuniarily or otherwise interested in, any contract or transaction of the Corporation, provided that the fact that he or such firm is so interested shall be disclosed or shall have been known to the Board of Directors, or such members thereof as shall be present at any meeting of the Board of Directors at which action upon any such contract or transaction shall be taken; and any director of this Corporation, who is also a director or officer of such other corporation or who is so interested may be counted in determining the existence of a quorum at any meeting of the Board of Directors of the Corporation which shall authorize any such contract or transaction, and may vote thereat to authorize any such contract or transaction, with like force and effect as if he were not such director or officer of such other corporation or not so interested.

Any contract, transaction or act of the Corporation or of the directors or of any committee, which shall be ratified by a majority of a quorum of the stockholders of the Corporation at any annual meeting, or at any special meeting called for such purpose, shall, in so far as permitted by law or by this Agreement of Consolidation, be as valid and as binding as though ratified by every stockholder of the Corporation.

(5) From time to time any of the provisions of Articles II to X, inclusive, of this Agreement of Consolidation may be amended, altered or repealed, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted in the manner at the time prescribed by said laws for certificate of incorporation generally, and all rights at any time conferred upon the stockholders of the Corporation by this Agreement of Consolidation are granted subject to the provisions of this subdivision.

(6) The stockholders and directors shall have power to hold their meetings, to have an office or offices and to keep the books of this Corporation at such places as may from time to time be designated by them.

ARTICLE X.

Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof, or on the application of any receiver or receivers appointed for this Corporation under the provisions of

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Section 3883 of the Revised Code of 1915 of said State, or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under the provisions of Section 43 of the General Corporation Law of the State of Delaware, order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as a consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

ARTICLE XI.

The manner of converting the shares of each of the constituent corporations into shares of the Corporation shall be as follows:

(1) Upon the filing of this Agreement of Consolidation in the office of the Secretary of State of Delaware—

(a) Each of the shares of the outstanding Class "A" stock of Securities Company shall, by such filing and without the necessity of further act or deed, be converted into, and shall constitute, One (1) share of the Class "A" stock of the Corporation and the holders of the certificates for such shares of the Class "A" stock of Securities Company, upon surrender of such certificates to the Corporation or its agent designated for the purpose, duly endorsed if required, shall be entitled to receive in exchange therefor a certificate for One (1) share of the Class "A" stock of the Corporation for each One (1) share of such Class "A" stock of Securities Company represented by the certificate so surrendered;

(b) Each of the shares of the outstanding Class "A" and of the Class "B" stock of Management Corporation shall be converted into and shall constitute One (1) share of the Class "B" stock of the Corporation and the holders of the certificates of such shares of the Class "A" and Class "B" stock of Management Corporation, upon surrender of such certificates to the Corporation or its agent designated for the purpose, duly endorsed if required, shall be entitled to receive in exchange therefor a certificate for One (1) share of Class "B" stock of the Corporation for each One (1) share of such Class "A" stock or such Class "B" stock of Management Corporation represented by the certificate so surrendered; and

(c) Each of the shares of the outstanding common stock of Management Corporation shall be, by such filing and without the necessity of further act or deed, converted into, and shall constitute, One (1) share of the common stock and Eight (8) shares of the Class "B" stock of the Corporation and the holders of the certificates for the common stock of Management Corporation, upon surrender of such certificates to the Corporation or its agent designated for the purpose, duly endorsed if required, shall be entitled to receive in exchange therefor certificates for One (1) share of the common stock and Eight (8) shares of the Class "B" stock of the Corporation for each One (1) share of the common stock of Management Corporation represented by the certificates so surrendered.

(d) Each of the shares of stock of the constituent corporations, held for retirement, shall, by such filing and without the necessity of further act or deed, be retired and cancelled; and such shares shall not be convertible into shares of the Corporation.

Delay in the exchange of the certificates for the outstanding Class "A" stock of Securities Company or the outstanding common or Class "A" or Class "B" stock of Management Corporation shall not affect the conversion of such stock, by the filing of this Agreement, into stock of the Corporation as hereinbefore provided; and upon such filing of this Agreement all of the stock of Securities Company and all of the stock of Management Corporation shall be completely cancelled and redeemed as stock of such corporations.

(2) Upon the filing of thi Agreement of Consolidation in the office of the Secretary of State of Delaware—

(a) All of the property in the Class A asset account and Class A surplus account of Securities Company (which, at the time of such filing, will constitute all of the property of Securities Company) shall, by the filing of this Agreement, and without the necessity of any further act or deed, become property in the Class A asset account and Class A surplus account, respectively, of the Corporation;

(b) All of the property in the Class A and Class B asset accounts of Management Corporation and Four Hundred Thousand (400,000) shares of stock of General Motors Corporation in the General asset accounts of Management Corporation shall, by the filing of this Agreement and without the necessity of any further act or deed, become property in the Class B asset account of the Corporation; and all of the property in the Class A and Class B surplus accounts and Ten Thousand Eight Hundred and Fifty-Six Dollars ($10,856) in the General Surplus account of Management Corporation shall, similarly, become property in the Class B surplus account of the Corporation.

(c) All of the remainder of the property of Management Corporation shall, by the filing of this Agreement and without the necessity of further act or deed, become property in the general fund of the Corporation.

ARTICLE XII.

This Agreement shall be submitted to the stockholders of Securities Company and Management Corporation, at meetings thereof, called separately for the purpose of taking the same into consideration; of the time, place and objects of which meetings due notice shall be given according to law and if the votes of stockholders of each such corporation shall be for the adoption of this Agreement, then that fact shall be certified hereon by the secretary of each of said corporations under the seal thereof; and the Agreement so adopted and so certified, duly executed and acknowledged, shall be filed in the office of the Secretary of State of Delaware and shall thence be taken and deemed to be the Agreement and Act of Consolidation of General Motors Securities Company and General Motors Management Corporation, and said corporations shall thereupon cease as hereinbefore in this Agreement and by law provided, and all property, rights, privileges, powers and franchises, and all and every other interest, of each of said corporations owned or had at the time of the filing of this Agreement, shall, by such filing and without the necessity of any further act or deed, be thereafter as effectively the property of the new corporation, G M Shares, Inc., as they were of Securities Company or Management Corporation.

In Witness Whereof, the said corporations, parties to this Agreement, in pursuance of resolutions unanimously adopted by their respective boards of directors at meetings duly called for the purpose, have caused their respective corporate seals to be hereto affixed and these presents to be signed by their respective presidents or vice-presidents and attested by their respective secretaries or assistant secretaries, all duly thereunto authorized and these presents have been signed by a majority of their respective directors as of the day and year first above written.

General Motors Securities Company,

By ....

President.

(Corporate Seal)

Attest:

....
Secretary.

....

....

....

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....

Directors of General Motors
Securities Company.

General Motors Management Corporation

By ....
President.

(Corporate Seal)

Attest:

....
Secretary.

....

....

....

....

....

....

....

....

Directors of General Motors
Management Corporation."

PLAN OF COMPLETE LIQUIDATION OF GENERAL MOTORS SECURITIES COMPANY

I. Complete Liquidation

General Motors Securities Corporation (hereinafter referred to as "Securities") shall proceed in good faith and without delay, in accordance with the General Corporation Law of the State of Delaware and in accordance with this Plan of Complete Liquidation, to effect a distribution of all its assets in complete liquidation and in complete cancellation and redemption of all its stock.

II. Method of Liquidation

The complete liquidation of Securities shall be effected in the following manner:

(1) All the property of Securities shall be distributed concurrently by a liquidating distribution of all the property attributable to the common stock to E. I. duPont de Nemours and Company (hereinafter referred to as "duPont"), the owner of all the outstanding common stock; and by the consolidation of Securities with General Motors Management Corporation (hereinafter called "Management") into a new corporation, pursuant to the General Corporation Law of the State of Delaware. (A copy of the Agreement of Consolidation is attached hereto and made a part of this Plan.)

(2) Upon such distribution of all the property of Securities, both the common stock and Class A stock of Securities shall be completely cancelled and redeemed and the Class A stockholders of Securities (as well as the stockholders of Management) shall, in accordance with the Agreement of Consolidation, become stockholders of the new corporation.

(3) Securities shall thereupon be completely liquidated and cease to exist pursuant to the General Corporation Law of the State of Delaware.

(4) The distribution of the assets under this Plan shall be made in kind insofar as possible.

(5) The liquidation shall be completed, if possible, on or before December 31, 1938, and in any case on or before December 31, 1941.

III. Compliance with Revenue Act of 1938

The liquidation shall be carried out and completed in such a manner as to comply in all respects with section 112(b)(6) of the Revenue Act of 1938. To this end—

(1) Upon the adoption of the Plan, Securities shall have the status of a corporation in liquidation, which status shall continue to exist until Securities ceases to exist in accordance with this Plan;

(2) No distribution under the liquidation will have been made before the adoption of this Plan;

(3) duPont, the owner of all the common stock and possessing approximately 95 per cent of the voting power of all classes of stock entitled to vote, shall continue to own all such common stock until the completion of the transfer of all the property of Securities under this Plan. There are no other classes of stock and no additional stock shall be issued by Securities. Accordingly, at no time during the period of liquidation will duPont be the owner of a greater percentage of stock of Securities of any class than the percentage which it will own at the time of the transfer of all the property.

IV. Effective Date of Plan

This Plan shall be submitted to the stockholders of Securities promptly after the stockholders of Management have considered and acted favorably upon the consolidation of Management and Securities provided for in this Plan. This Plan shall become effective and be deemed to be adopted when, and only when, it has been approved by the Board of Directors of duPont and by vote of at least two-thirds of the total number of shares of the capital stock of Securities, at meetings duly called for such purpose and held in accordance with law.

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Government's Exhibit No. 276

BONUS AND SALARY COMMITTEE OF GENERAL MOTORS 1941-1948

(No separate Bonus and Salary Committee listed in Annual Reports of 1916-1940)

	Name	1941	1942	1943	1944	1945	1946	1947	1948
	Walter S. Carpenter, Jr.	═	═	═					
	John J. Raskob	═	═	═	═	═			
CH	Lammot du Pont	═	═	═	═	═			
	John L. Pratt	═	═	═	═	═	═		
	George Whitney	─	─	─	─	─	─	─	─
	Henry B. du Pont				═	═	═	═	═
CH	Alfred P. Sloan, Jr.						═	═	═
	Angus B Echols						═	═	═
	Earle F. Johnson							─	─

═ denotes du Pont directors, officers, or former employees

CH denotes Chairman

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GO Government's Exhibit No. 277

SERIAL No. SU-133

April 17, 1918.

EXECUTIVE COMMITTEE,
Building.

Gentlemen:

I am handing you report of The Flint Varnish & Color Works and The Flint Varnish & Color Works of Canada, Ltd.

Yours very truly,

[Stamp] R.R.M.CARPENTER.
VICE PRESIDENT.

L.

[1397]

To: Mr. R. R. M. Carpenter, Vice President

From: Excess Plant Utilization Division
Development Department

Serial No. SU-133

April 17, 1918

THE FLINT VARNISH & COLOR WORKS

THE FLINT VARNISH AND COLOR WORKS OF CANADA, LTD.

The Executive Committee has approved of the general policy of the acquisition of one or more suitable going concerns in the development of our paint and varnish department. The exact lines on which this development should take place have been the subject of an exhaustive study of this Department, following the advice of action of the Committee on December 29, 1917. This report is complete and is now being typed, but it is necessary to anticipate in part the conclusions reached therein in order to present this proposition; i.e. the purchase of a large common stock interest in the Flint Varnish & Color Works at Flint, Michigan, and the Flint Varnish and Color Works of Canada, Ltd. of Toronto, Ontario.

That report will conclude that the proper and logical expansion of our paint and varnish business is along industrial lines and will recommend the purchase of one or two additional concerns of that type. The opportunity presented herewith is such that complete ownership is not desirable nor necessary at this time, for the relations of the two varnish companies are so close with the motor car interests that their cooperation as well as the present management is desired. It is planned that about 20% of the common stock will be divided with General Motors Company, Willys Overland and W. W. Mountain, the president and general manager.

It will be seen that the American company is much more desirable than the Canadian company, but they are so closely allied that it may not be good policy to not include both. It is also possible that we could not obtain an interest in the American company without a corresponding interest in the Canadian.

In any event, it is possible that a Canadian Overland plant will be built which would add some business. The Canadian field has been overcrowded by the numerous branch factories built by American varnish houses and competition is keen. It does not appear probable that very much profit can be expected but the sales may be made sufficient to break even.

If par is paid for the stock of the Canadian company it is about $25,000 in excess of the asset value, but any lower figure than par would probably not be accepted nor would such an offer be advisable.

Assume our total investment as follows:

7200 shares of Flint Varnish & Color Works	@ 120	$864,000
2000 shares of Flint Varnish & Color Works of Canada, Ltd.	@ 100	200,000
		$1064,000
American company earnings (annually)		268,000
Canadian " " "		0
		$268,000
Deduct preferred dividends		35,000
		$233,000
Applicable to our investment		186,400
or return on our investment		17.5%

Cooperation from the American company will assist our Harrison line in a very weak place, i.e industrial varnishes and will also assist the Chicago plant in the matter of varnish vehicles and similar supplies.

—3—

RECOMMENDATIONS:

We recommend the purchase of 80% of the common stock of the Flint Varnish & Color Works of Flint, Michigan at $120 per share or better, provided the remaining 20% is held as outlined in this report.

We recommend the purchase of only sufficient interest in the stock of the Flint Varnish & Color Works of Canada, Ltd. if any is required, to enable the purchase of the American company as above recommended, but believe if found necessary that a maximum of 80% can be acquired in the Canadian company rather than lose the other.

APPROVED BY: PREPARED BY:
[Stamp] W. S. CARPENTER, JR. [Stamp] F. S. MAC GREGOR

The Flint Varnish Works at Flint, Michigan was incorporated under the laws of the State of Michigan on December 2, 1909 for a period of thirty years with an authorized capital stock of $500,000, divided into 5000 shares of $100.00 each, of which 1000 shares were 6% Cumulative Preferred, and 4000 Common. The corporation took over the varnish works of the Durant Dort Carriage Company of Flint, Michigan.

On November 15, 1913 the company was reorganized and the capital stock increased to $1,000,000, consisting of $500,000 Preferred Stock changed from 6% to 7%, and $500,000 Common, par value, all the new shares remaining the same. No cash was paid in at this time as the Board of Directors on the same date declared a stock dividend of $589,550.00, payable out of surplus, which was divided as follows: $475,000 to the Preferred Stock and $114,550.00 to the Common Stock.

This surplus out of which the dividend was paid was created, for the most part, by the addition to the book value of the assets, $495,000 representing Good Will, Formulae, Trade Names, Trade Marks, etc. as authorized by the Directors under date of November 15, 1913. The amount of $101,000.00 was paid to the former company (Durant Dort Carriage Company) for their development work on formulae. These two figures give the value of the intantible assets of $596,000 shown in the Balance Sheets of December 31, 1913 and 1917. (Exhibits A and B)

The fixed assets were increased from $179,024.10 at the end of 1913 to $507,403.39 at the end of 1917. This addition of $328,379.29 is represented by actual plant additions of $271,138.72 increase in value shown by appraisal of

January 1917 $56,982.63 and adjustment of inventory $257.94. A new varnish plant was constructed and some new buildings. Suitable depreciation has been allowed.

The inventory at the end of 1917 may, be compared with that of 1913:

	1913	1917
Raw Material	$83,992.81	$267,369.81
Finished Stock	68,931.03	123,657.81
	$152,923.84	$391,027.62

Considering the volume of sales for 1917 was more than four times that of 1913 this inventory value is very satisfactory.

About $18,000 of the fixed assets represent a farm 40 miles from Flint on which there is a deposit of iron oxide. It is not developed but samples tested at the color works indicate its good qualities. If further investigation does not show its value the land and timber can be sold at sufficient price to prevent any great loss.

The volume of sales to December 31, 1913 are as follows:

	Net Sales
Year ending Aug. 1, 1910	$317,412.32
" " " " 1911	350,489.43
" " " " 1912	406,162.20
" " " " 1913	472,946.83
5 mos. ending Dec. 31, 1913	275,609.03

The sales for the succeeding four years are shown below, together with the net profits:

	Net Sales	Net Profit	% of Sales
1913 (17 mos.)	$743,122.10	$102,485.39	13.8%
1914 (12 mos.)	612,106.25	135,805.91	21.9
1915	998,467.74	256,986.26	25.7
1916	1,472,108.33	397,795.51	27.0
1917	1,927,480.03	413,207.69	21.4
1917		276,686.09	14.4 (after deducting reserve for Federal taxes.)

Of the total profit of $1,169,759.16 for the 5½ years approximately, only $272,291.73 has been passed to dividends, the rest has been returned to the business as working capital and to cover plant additions. Of the amount paid in dividends $100,000.00 was two 10% cash dividends on the common stock, paid in 1915 and 1916, the balance being annual dividends on the preferred.

Again in 1916, the directors declared an 80% stock dividend of $400,000 in common stock, bringing the total common stock issued to $900,000.00, which does not represent any new capital introduced from sources other than earnings, at the same time the common stock was increased to $1,000,000, $100,000 remaining unissued.

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Reference to Exhibit C — Comparative Statement of Profit & Loss — shows the real net earnings for 1917 to be somewhat reduced due to a reserve of $136,521.60 being set up for Federal Income and Excess Profits Taxes.

The cost of sales has risen due to increased cost of raw materials but there is still a sufficient margin of gross profit to give satisfactory net profits, this company is an example of a strategically located plant doing an industrial paint and varnish business in a limited area. This point will be brought out in another report on the general paint and varnish industry now being typed.

To anticipate the conclusions of this other report, it is sufficient to say at this time that it will show that the development of our paint and varnish business should be along industrial lines and that distribution is a very important factor. That report will also recommend the purchase of one or more suitable plants doing an industrial business. Since that report was completed this proposition——Flint Varnish & Color Works——has come to our attention, which is explained by reference to Exhibit D.

Reference to Exhibit E shows the distribution of sales, first in the three general divisions and secondly, the manufacturing portion in further detail to show the relation of the various motor companies' consumption.

While the value of the common stock on an asset basis (with the exception of the arbitrary increase of $64,918 in the appraisal) gives $87 as the value of the common shares, the price of $120 per share suggested by Mr. Durant is not excessive. It allows an intangible asset and good will value of 237,600 for a 80% ownership, but in view of the unusual service rendered by the varnish company to their customers, they have an extraordinary amount of good will. It is a policy to furnish a customer any class of goods on short notice, which is an important factor in industrial varnish and paint lines.

As the preferred stock is non-voting, it is not deemed necessary to purchase it at this time. The return on our investment should be extremely satisfactory. Allowing for the reserve for Federal Taxes for 1917 the earnings for that year were $276,686.09, and the expected return on the investment should be as follows:

Annual net earnings average for four years	$268,000
Deduct preferred stock dividend	35,000
	$233,000
Applicable to common (9000)	$25.90 per share

or $\frac{25.90}{120} = 21.6\%$

A Canadian factory is closely connected with this company and a report on this is now inserted before making any recommendations as it is probable that the United States plant could not be purchased without the Canadian plant.

THE FLINT VARNISH & COLOR WORKS OF CANADA, LIMITED.

As far as corporate ownership is concerned, the above is entirely separate from the company of the same name in the United States. Mr. W. W. Mountain is president of both, however, and the Canadian company is to all intents and purposes, a branch of the Flint factory.

It was incorporated March 1916 under a Dominion Charter. The authorized capital is $500,000,par value of shares $100.00; no preferred stock. $250,000 has been issued and paid in (cash). The company purchased the old carriage factory of the Durant-Dort Carriage Company at Toronto, and has converted it into a varnish and color works by alteration and addition.

Operations were started in December 1916 and therefore the concern has hardly had an opportunity to show a profit. The total sales for 1917 were $139,960.51 divided as follows:

Chevrolet	$44,333.07	31.5%
McLaughlin	48,708.73	34.8
Manufacturing	46,918.71	33.7
	$139,960.51	100.0%

Fortunately the two motor accounts have given a volume of manufacture to start that helped considerably on costs and the years loss was $25,657.57. It might be stated that the McLaughlin account is the firm making Buicks for Canada.

Reference to Exhibit A' indicates that the concern made a slight profit. This statement was furnished by Mr. Mountain, but an inspection of the accounts shows that the profit is only apparent. A balance sheet of December 31, 1917 (Exhibit B^1) shows a net loss for the 13 months of operation to that date of $25,657.57.

This was neutralized by an appraisal of the plant early in 1918, which gave the following change of values:

	Replacement Costs	Depreciated Values
Book a/c 1917	$211,294.63	$201,114.79
" " 1918	247,103.43	229,100.72
Increase		$27,985.93

This value was added to the plant account values. Of the

bills payable $36,000 is a mortgage on the plant, the notes being held by the Dort Motor Car Company. This is due in lots of $12,000 in October 1918, 1919 and 1920 and bear 5%. The balance of $60,000 is an unsecured loan with the Standard Bank of Canada.

Since January 1st, 1918 the company has lost about $4,089.99. While it is realized that this is a new business venture, yet the conditions are not yet present that make for a similar success as the United States plant has had. That plant is located in a section with large demands and quick delivery, but the local industrial section served by the Canadian plant is not large enough to carry the business profitably. They have accordingly attempted to cover the whole of the Dominion and the sales expenses are very high. Contrary to the policy of the U.S. company they are calling on small users, and while this trade may be developed, competition from the numerous other branch factories of the U.S. varnish houses is very keen. The selling expense of their western trade is 52%, which eats into the profit made from their motor company sales. At present they have the

Ford account which assists somewhat. The stock is owned by W. C. Durant, R. S. McLaughlin and W. W. Mountain. The officers are:

President	W. W. Mountain, Flint, Mich.
Vice Pres.	Geo. W. McLaughlin, Oshawa, Ont.
Sec. Treas & Gen. Mgr.	W. T. Glidden, formerly at Flint Works
Directors:	R. W. McLaughlin, Oshawa, Ont. J. J. Carton, Flint, Mich.

Respectfully submitted,

[Stamp] E. S. MacGregor

Approved by:

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FLINT VARNISH WORKS—BALANCE SHEET.

December 31, 1913.

ASSETS.

	Varnish Department	Paint Department	Together		
PROPERTY and PLANT ACCOUNT:					
Intangible Value—Goodwill, Formulae, Trade Marks, etc.				$596,000.00	
Real Estate, Buildings, Machinery and Equipment Reproductive Value Now, as appraised by the American Appraisal Co. as of December 1 1913, plus additions since—					
Land			$ 9,500.00		
Buildings			107,859.36		
Machinery and Equipment			77,017.13		
Auto Truck			1,862.00		
			$196,238.49		
Less—Depreciation Accrued to date			17,214.39	179,024.10	$ 775,024.10
CURRENT ASSETS:					
Inventories of Raw Material, Supplies and Finished Stock—					
Raw Material	$69,528.49	$14,464.32	$83,992.81		
Packages and Supplies	8,698.13	1,827.12	10,525.25		
Finished Stock	51,464.09	17,466.94	68,931.03	163,449.09	
Notes and Accounts Receivable—					
Accounts Receivable		$161,451.04			
Notes Receivable		650.02	$162,101.06		
Less—Reserve for Bad and Doubtful Accounts and Notes			2,535.00	159,566.06	
Cash in Banks and on Hand				12,535.47	335,550.62
DEFERRED CHARGES TO FUTURE OPERATIONS:					
Unexpired Insurance Premiums				$3,349.51	
Advances for Electric Power				458.56	3,808.07
					$1,114,382.79

(1408)

LIABILITIES

CAPITAL STOCK:			
Authorized and Issued—			
7% Cumulative Preferred— 5,000 Shares of $100.00 each		$500,000.00	
Common— 5,000 Shares of $100.00 each		500,000.00	1,000,000.00
CURRENT LIABILITIES:			
Bankers Loans on Notes Payable		$53,000.00	
Accounts Payable		40,852.64	
Accrued Taxes (Federal Income Tax)		4,845.54	
Accrued Interest		594.15	99,292.33
SURPLUS:			
Balance at Aug. 1, 1912 as adjusted		$11,987.36	
Net Profits for the year and 7 months ending December 31, 1913 as per Profit and Loss Account	$98,403.10		
Deduct—Cash Dividend paid on the 6% Preferred Stock of $25,000.00 for the 6 months ending 2-1-13	750.00	97,653.10	
		$109,640.46	
Add—Book Surplus arising from additional value placed upon Intangible Assets as at October 31 1913, as per resolution of Board of Directors dated Nov. 15, 1913		495,000.00	
		$604,640.46	
Deduct—Stock Dividend paid November 15 1913		589,550.00	15,090.46
			$1,114,382.79

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(1415)

FLINT VARNISH & COLOR WORKS—BALANCE SHEET.

ASSETS

			December 31, 1917	
PROPERTY ACCOUNT:				
Intangible Values—Goodwill, Formulae Trade Marks, etc.			$596,000.00	
Land, Buildings, Machinery and Equipment, based upon appraisal by the American Appraisal Company as of January 1 1917, and adjusted in respect of additions and deductions since—				
Land		$50,650.84		
Buildings		313,545.41		
Machinery and Equipment		211,000.00		
Auto Trucks		5,705.00		
Together		$580,901.25		
Less—Reserve for Depreciation		73,497.86	507,403.39	$1,103,403.39
CURRENT ASSETS:				
Inventories of Raw Material, Supplies and Finished Stocks, at or below Cost—				
Raw Material		$267,369.81		
Finished Stock—				
Varnish	$102,148.76			
Paint	21,509.05	123,657.81		
Factory Supplies		36,003.92		
Advertising Supplies		4,177.51		
Goods in Transit		7,784.26	438,993.31	
Accounts and Notes Receivable—				
Accounts Receivable		215,445.37		
Notes Receivable		4,634.98		
Together		220,080.35		
Less—Reserve for Bad and Doubtful Accounts and Notes and Unrealized Profit on packages in hands of Customers		10,222.25	209,858.10	
Advances to Officers and Employees			27,559.15	
Marketable Securities—U. S. Government Bonds, par value			31,400.00	
Cash in banks and on hand			267,110.52	974,921.08
DEFERRED CHARGES TO FUTURE OPERATIONS:				
Prepaid Insurance Premiums				3,584.75
				$2,081,909.22

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(1917)

LIABILITIES.

CAPITAL STOCK:			
Authorized—			
Preferred—			
5,000 Shares of $100.00 each		500,000.00	
Common			
10,000 Shares of $100.00 each		1,000,000.00	
		$1,500,000.00	
Issued—			
Preferred—5,000 Shares		500,000.00	
Common—9,000 Shares		900,000.00	
			$1,400,000.00
CURRENT LIABILITIES:			
Accounts Payable		$35,219.74	
Accrued Pay Roll, Bonus, etc.		12,483.87	
Accrued Dividend on Preferred Stock		17,500.00	
Reserve for Federal Income & Excess profits Taxes		136,000.00	201,203.61
SURPLUS:			
Balance at Jan. 1, 1917 as per last report		174,100.93	
Net Profits for year ending 12-31-17	$276,686.09		
Deduct—Dividends paid or declared			
7% on Preferred Stock	35,000.00	241,686.09	
Together		415,787.02	
Surplus arising from appraisal of properties as at January 1 1917		64,918.59	480,705.61
			$2,081,909.22

FLINT VARNISH & COLOR WORKS

COMPARATIVE STATEMENT OF PROFIT AND LOSS—FOR THE TWO YEARS ENDING DEC. 31, 1917.

	Year ending December 31			
	1916		1917	
	Amount	% to Sales	Amount	% to Sales
Sales, less Price Allowances, etc.	$1,472,108.33	100.00	$1,927,480.03	100.00
Deduct—Manufacturing Cost of Sales	893,892.86	60.72	1,307,574.18	67.84
Balance—Gross Profit before deducting Outward Freight, etc.	578,215.47	39.28	619,905.85	32.16
Deduct				
Outward Freight	11,227.13	—	11,273.71	—
Rebates and Allowances	5,573.16	—	11,601.15	—
Together	16,800.29	1.14	22,874.86	1.19
Balance—Gross Profit	561,415.18	38.14	597,030.99	30.97
Add—Other Income	545.34	.04	2,895.89	.15
Together	561,960.52	38.18	599,926.88	31.12
Deduct—Selling General and Administration Expense	158,391.37	10.76	190,050.30	9.86
Balance—Net Profit from Operation	403,569.15	27.42	409,876.58	21.26
Add:				
Discount on Purchases	8,637.77	.59	11,054.90	.58
Less—Cash Discount Allowed	6,354.97	.43	7,430.46	.39
Net	2,282.80	.16	3,624.44	.19
Total Profits and Income	405,851.95	27.58	413,501.02	21.45
Deduct—Interest on Borrowed Money		—	293.33	.02
	405,851.95	27.58	413,207.69	21.43
Less—Reserve for Federal Income and Excess Profits Taxes	8,056.44	.55	136,521.60	7.08
Balance—Net Profit and Income, carried to Balance Sheet	$397,795.51	27.03	$276,686.09	14.35

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April 10th, 1918.

R. R. M. Carpenter, Vice President,
du Pont Building.

Dear Ruly:

Yesterday while in New York Mr. Durant told me that Mr. W. W. Mountain, President of the Flint Varnish and Color Works had approached him with a view to consolidation of that company with Harrison's. Mr. Mountain knowing that we had bought a substantial interest in the General Motors Company and are extensively interested in the paint industry felt that the Flint Varnish and Color Works would perhaps lose a very valuable customer—the General Motors Company—and wrote Mr. Durant as follows:

"March 30th, 1918.

Mr. W. C. Durant,
1764 Broadway,
New York City.

Dear Sir:

In reply to your favor of March 26th, I am sending you copy of our balance sheet as of December 31st, 1917, and these are the figures of Price-Waterhouse Company who make our audit each year. The figures are taken from their audited balance sheet.

The item "Laboratory Cost of Formulas" of $101,000.00 is what we actually paid the Durant-Dort Carriage Company for their development work covering nine years, before we took over the business. Mr. Dort had been giving prizes, bonuses, etc., for the development of formulas, and this is the account as put in at the time the business was taken over.

Our Preferred Stock is 7% stock, par value, and the book value of our Common is $113.50. The sales of Common Stock have been very few and all at 200 or better. The stock in our Flint plant is held as follows:

PREFERRED:

J. N. Willys	2750	shares
Mrs. J. N. Willys	1000	"
C. S. Mott	250	"
C. W. Nash	250	"
C. F. Stephenson (For Swift)	250	"
Mrs. R. C. Durant	275	"
W. C. Orrell	100	"
Geo. C. Willson	70	"
E. Strubel	27.5	"
A. Kratz	27.5	"
	5000	"

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"2"

COMMON:

J. N. Willys	5886.8	shares
W. W. Mountain	2261.6	"
C. F. Stephenson (For Swift)	315	"
R. S. McLaughlin	280	"
J. R. Mountain	180	"
E. Strubel	35.1	"
A. Kratz	35.1	"
C. W. Nash	1.8	"
J. J. Carton	1.8	"
W. T. Glidden	1.8	"
J. E. Kepperly	1	"
	9000	"

Our Toronto plant is the finest plant of its character in Canada. The Flint Varnish & Color Works of Canada, Limited, is incorporated for $350,000.00, $250,000.00 of which has been issued as follows:—

N. J. Willys	1260	shares
R. S. and Geo. McLaughlin	500	"
W. W. Mountain	740	"

We have been operating in Canada one year and have established a nice line of business and the plant has just reached the place where it is operating on a paying basis. Balance sheet as of February 28, 1918, is enclosed.

The plan I had in mind is simply as follows:

The Duponts had acquired the Harrison Brothers Company who make their own base materials, and with them the control of Cawley-Clark who are fine color

(1415)

makers, and the Bridgeport Wood Finishing Company. I do not know just what the latter make that would have any influence in the automobile game, but of course, they would have influence in the broader field of house paints, furniture, etc.

We make nothing but automobile and railroad finishes; paints, enamels, varnishes, etc. for the complete finishing operations on automobiles, railroad coaches and engines, but not freight car materials or depot paints or goods of such character.

We are now, and have been for a long time as you know, furnishing all the material for all the different constituent companies of the General Motors except the Cadillac, and for all the different plants of the Chevrolet, for all the Willys-Overland factories, and accessory interests. We also have all the business of the Nash, Hupp, Dort, and a number of other automobile manufacturers we furnish a part of their materials to, such as Packard, Dodge Brothers, and others, together with the business of quite a large number of automobile accessory manufacturers more or less connected with the automobile companies mentioned above, where our goods are specified, such as the manufacturers of bow-sockets, wind-shields, springs, speedometers, wheels, etc. Since the

war, we have been able to do quite a considerable amount of government business direct, in the sale of Spar Varnishes, Enamels, etc. We are also furnishing the Curtis Aeroplane people large amounts of material. Our railroad business last year was in excess of half a million. This is all good profitable business.

(1417)

Some sort of a merger taking in the companies enumerated above, acquired by the du Pont's together with the Flint Varnish & Color Works, considering their position in the automobile and railroad trade, the splendid reputation we have on our line, the large, growing, established business we have on our lines on a profitable basis, our splendid financial condition, would, I believe, make the merged institution without any question the strongest paint and varnish house in the United States.

This plan would give the Harrison allied division whatever they need in liquids, such as driers, varnishes, etc., at cost. It would open up to us our materials such as leads, zinc, oxides, dry colors, etc., on the same basis and this would furnish a source of supply to General Motors, Chevrolet and Willys interests on the most favorable basis that could be arranged.

Then, it could be managed so as not to interfere with our building up and controlling a very large outside business. It would put us, for all sources of raw material, on the most favorable basis, would also put us in a favorable position to build up a very large railroad business or enter any other field of competition for paint, color, enamel or varnish trade.

Just the plan for bringing this about would, of course, have to be worked out by the interested parties. Just the amount of money required I could not tell until after taking the whole proposition up further with Mr. Willys. The last times I talked with him he simply told me to go ahead if I believed that it would be best for all of us. Of course, he would have to be interviewed further and a definite statement gotten as to just what he would want.

I will be very pleased to come to New York and go more into detail regarding anything further you wish to know, whenever you want me.

Yours very truly,

(S) W. W. Mountain.

WWM/S President."

Mr. Durant told Mr. Mountain that he felt the du Pont's would not consider a consolidation but suggested that they deliver control of the common stock to du Pont's letting Mr. J. N. Willys, who is the Willys-Overland Company, Mr. Mountain and the General Motors Company retain about a 20 to 25% interest in the common stock selling the rest to the du Pont Company at some fair price. Mr. Durant suggested $120.00 per share as being a fair price.

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"4"

I am enclosing copy of balance sheet as of December 31st.; also balance sheet of the Canadian Corporation as of February 28th. I am not certain whether the thought was to sell the Canadian Corporation stock on the same basis or not but I should think we ought to secure this also if possible.

I strongly urge and recommend that we make this investment and I am sending you nine copies of this letter in order that you may transmit it to the Executive Committee for consideration at their meeting on Friday should you so desire with your recommendations.

[Stamp] J. J: Raskob.

7/ET

FLINT VARNISH AND COLOR WORKS

STATEMENT

December 31, 1917.

ASSETS.

PROPERTY ACCOUNT:		
Land, Buildings, Machinery and Equipment (Less Depreciation)	507,403.39	
Laboratory Cost of Formulae	101,000.00	608,403.39
Goodwill, Trade Marks, etc.		495,000.00
CURRENT ASSETS		
Inventories of Raw Materials and Finished stocks, at or below cost	438,993.31	
Accounts and notes Receivable, less Reserve for Doubtful Accounts	209,858.10	
Cash in Banks and U. S. Bonds	298,510.52	
Working Funds Advanced	27,559.15	974,921.08
Prepaid Insurance		3,584.75
		2,081,909.22

LIABILITIES

CAPITAL STOCK ISSUED:		
Preferred	500,000.00	
Common	900,000.00	1,400,000.00
CURRENT LIABILITIES		
Accounts Payable and Accrued Pay Roll, Bonus, etc.	47,703.61	
Accrued Dividend on Preferred Stock	17,500.00	65,203.61
SURPLUS		616,705.61
		2,081,909.22

STATEMENT OF OPERATION, 1917.

SALES AND MISCELLANEOUS INCOME		1,934,000.36
FACTORY COST OF GOODS SOLD	1,307,574.18	
COMMERCIAL EXPENSES	213,740.09	1,521,314.27
NET PROFITS FOR 1917		412,686.09

3703

(1420)

FLINT VARNISH & COLOR WORKS OF CANADA, LIMITED

BALANCE SHEET

February 28th, 1918.

ASSETS

CURRENT CASH ASSETS		$ 42,827.73
Accounts Receivable	$31,936.48	
Bills Receivable		
Cash in Bank	10,891.25	
MERCHANDISE		98,951.44
Stores	68,231.16	
In Process	30,720.28	
PLANT ACCOUNT		228,049.86
Total Plant	247,103.43	
Less Depreciation	19,053.57	
MISCELLANEOUS ASSETS		4,259.15
Working Funds Adv.	2,395.06	
Deferred Charges to Operation	1,864.09	
TOTAL		374,088.18

LIABILITIES

CURRENT LIABILITIES		116,949.56
Audited Vouchers	20,949.56	
Bills Payable	96,000.00	
PROFIT & LOSS		2,893.63
UNDIVIDED PROFITS		10,032.25
CAPITAL STOCK		250,000.00
Common	250,000.00	
TOTAL		374,088.18

FLINT VARNISH COMPANY

DISTRIBUTION OF SALES

	VARNISHES		ENAMELS, COLORS etc.		TOTAL	TOTAL
	1916	1917	1916	1917	1916	1917
Railroad	$116,184	$92,016	$203,900	$185,125	$320,084	$277,141
Trade	32,740	33,851	29,928	32,640	62,668	66,491
Manufacturing	268,042	376,739	838,523	1,219,965	1,106,565	1,596,704
	416,966	502,606	1,072,351	1,437,730	1,489,317	1,940,336
DETAIL OF MANUFACTURING PORTION						
Willys	96,577	112,416	264,761	307,936	361,338	420,352
Buick	62,720	98,857	300,848	392,557	363,568	491,414
Chevrolet	33,230	38,926	84,588	217,367	117,818	256,293
General Motors	25,756	63,394	61,834	94,204	87,590	157,598
Dort Motor Co.	8,428	12,744	32,242	31,597	40,670	44,341
Swift & Co.	1,285	2,603	2,315	1,080	3,600	3,683
General Mfg.	35,655	42,963	80,358	155,101	116,013	198,064
City Mfg.	4,417	4,836	11,576	19,235	15,993	24,071

(1422)

DESCRIPTION OF PLANT AND OPERATION.

The plant, as shown in Exhibit H, is located at Flint, Mich. on the Pere Marquette Railroad and near the Buick plant. The larger portion of the buildings are fairly new, the old varnish plant being used only for storage. The buildings cover an area 540′ x 120′, completely occupying the lands as far as the storage yard. The yard is 180′ x 120′ and an unusual area of 360′ x 125′ is available for still further extensions.

The varnish plant has 24 fires, is thoroughly modern and up-to-date and is equal to if not superior to both Pratt & Lambert and Lowe Bros. The tank capacity for raw material storage is 268,670 gallons, and for finished stock is 272,047 gallons.

The color and enamel department is well laid out, machinery in excellent condition and the whole plant extremely neat and clean. A list of machinery is on hand but the mention of 48 Ross grinding mills and 13 roller mills indicates the extent of the accompanying equipment.

The plant is running 50% of capacity, giving ample room to take care of Harrisons Chicago needs and any increase in volume of goods without any equipment additions.

For the year ending December 31, 1917, the following figures show the output:

Pounds of paste, color, etc. manufactured	4,383,162
Pounds of Paste shipped	1,037,904
Gallons of enamel, etc. manufactured	793,370
Gallons of clear varnish manufactured	1,293,235

The plant carries a fire insurance rate of 20¢, as there is a complete sprinkler system, with elevated tower tank. Electric power is purchased. A complete testing laboratory is maintained, also excellent cost system.

There are 105 factory employes and 35 office employes. A considerable attention is paid to welfare work. While Mr. Mountain attends to all large sales there are ten salesmen who cover the manufacturing trade. No graft has been paid with one or two exceptions and for this reason the furniture trade is not very large.

It should be noted that the personal element of Mr. Mountain is the success of this company and the attention which he is able to give all departments is a real factor in their operation. No prices are made without his knowledge, no purchases without his general knowledge of prices, and at the same time he covers the important customers.

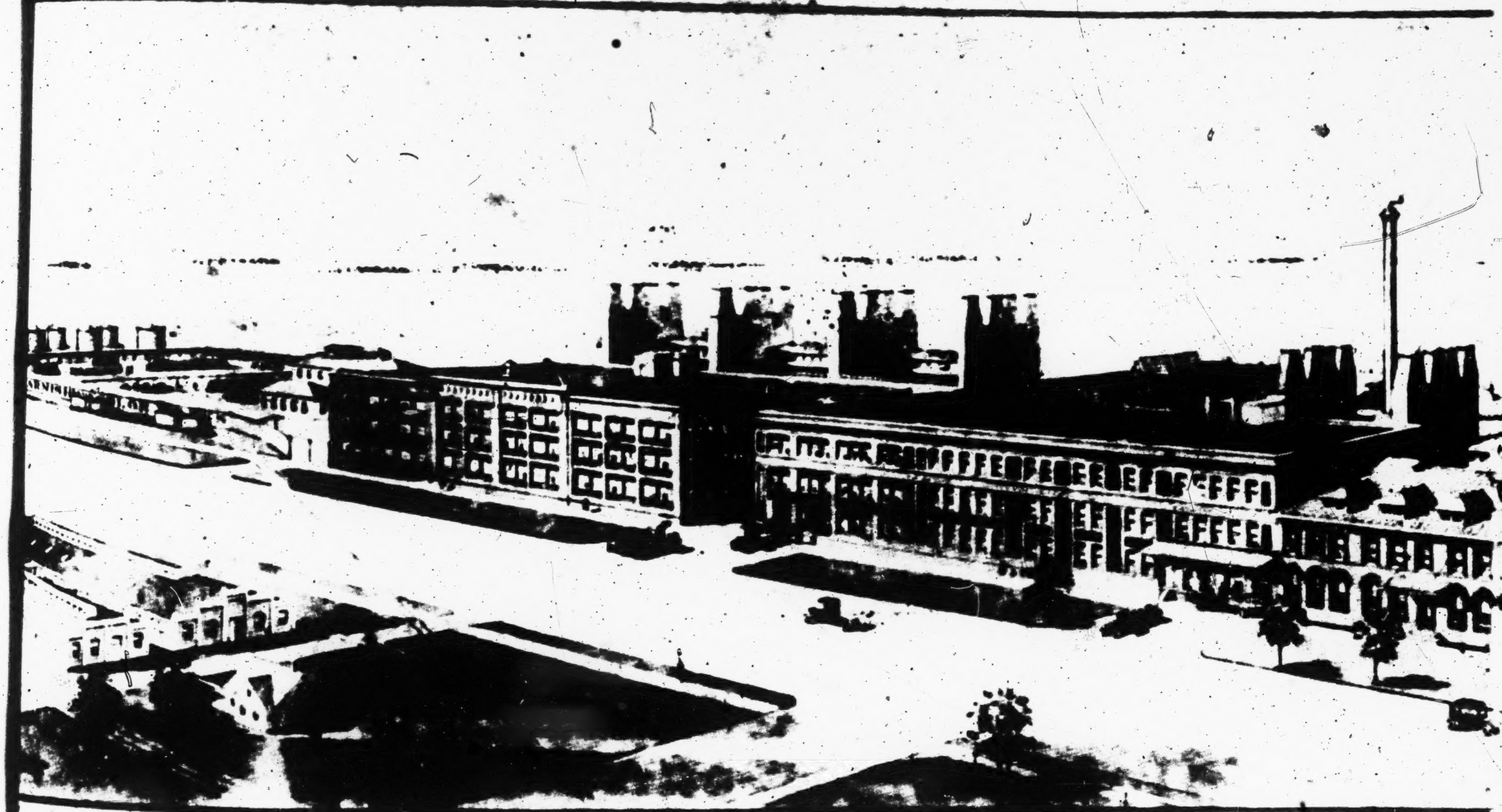
Another feature brings attention to the point of "service". All his salesmen are able to demonstrate their goods and are familiar with the needs and troubles of their customers.

As to deliveries, there are several trucks maintained for daily deliveries to the nearby factories. In fact, the motor car plants do not carry stocks but depend on the varnish

factory service daily. This will be still further improved when the proposed system of stone roads in that state is perfected. Deliveries can be made in Chicago over night as the freight car service out of Flint is excellent.

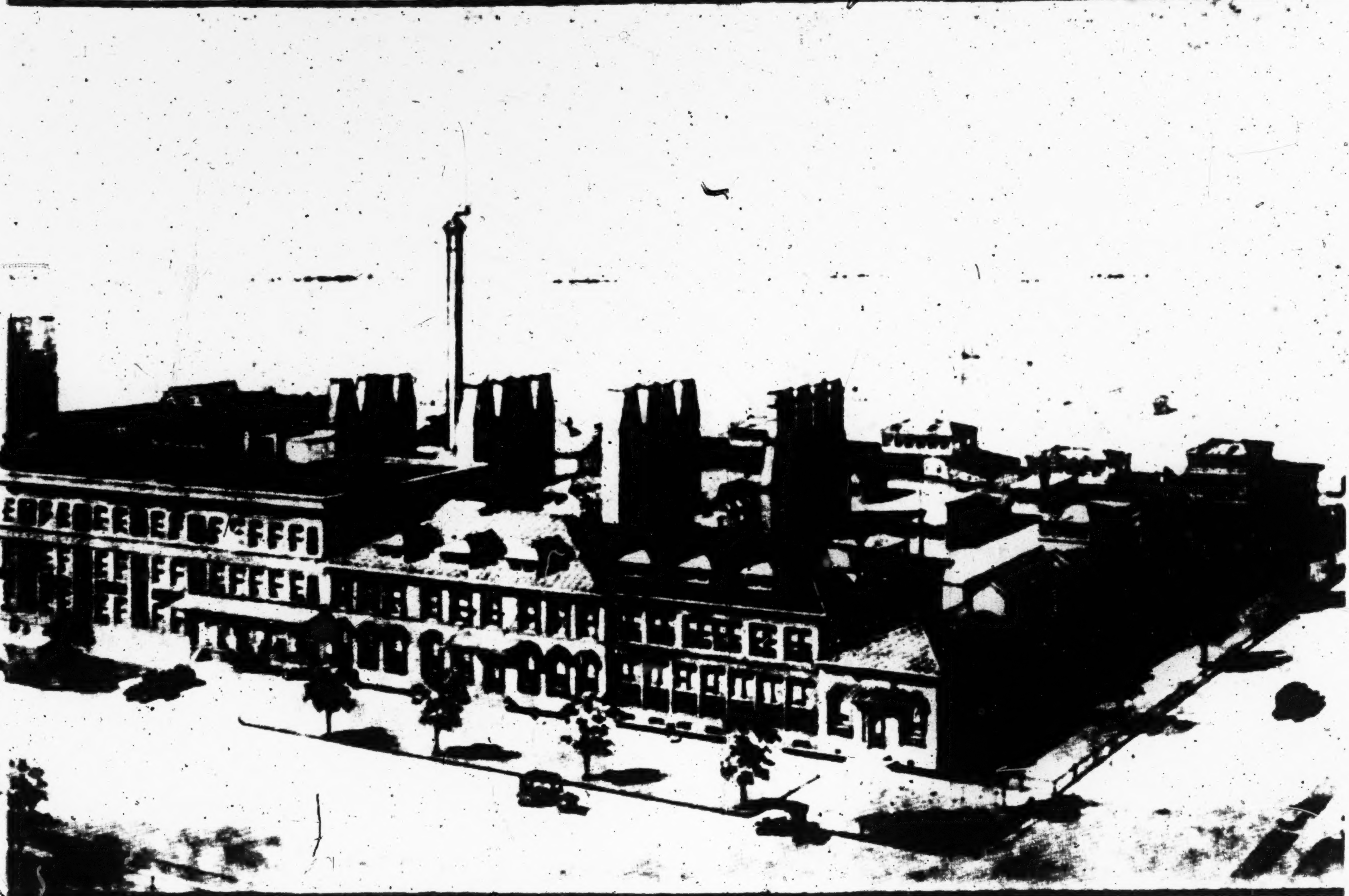
A list of quantities and kinds of raw material consumed is on hand and there will be an appreciable business for Harrisons goods, such as white lead, lithopone, and dry colors.

(3708-1424-; 28)



FLINT VARNISH AND COLOR WORKS, FLINT, MICHIGAN

The largest Paint and Varnish Manufacturer [illegible]



OR WORKS, FLINT, MICHIGAN, U. S. A.

[illegible] Trade [illegible]

3

FLINT VARNISH COMPANY

OFFICERS AND DIRECTORS

PRESIDENT and General Manager —W. W. Mountain, Formerly with Murphy Varnish Company and then Varnish Sales Manager for Sherwin-Williams Company

VICE PRESIDENT—J. W. Kepperly—Attorney for Mr. Willys and President of Curtis Aeroplane Company

SECRETARY —D. A. Green—Purchasing Agent for company

TREASURER —F. H. Howard—Auditor for Company

ASST. MANAGER —W. J. Sohlinger. Formerly with Lowe Bros. then with Sherwin-Williams Company

BOARD OF DIRECTORS:

J. E. Kepperly

C. W. Nash, President Nash Motors Company

J. J. Carton, local attorney for General Motors Co. and Flint Varnish Company

W. W. Mountain

D. A. Green

Main Office and Works—Flint, Michigan.

Branch Offices —96 Broadway, New York
605 Railway Exchange, Chicago

FLINT VARNISH & COLOR WORKS OF CANADA, LIMITED.

BALANCE SHEET.

February 28th, 1918.

ASSETS.

CURRENT CASH ASSETS		$42,827.73
Accounts Receivable	$31,936.48	
Bills Receivable		
Cash in Bank	10,891.25	
MERCHANDISE		98,951.44
Stores	68,231.16	
In Process	30,720.28	
PLANT ACCOUNT		228,049.86
Total Plant	247,103.43	
Less Depreciation	19,053.57	
MISCELLANEOUS ASSETS		4,259.15
Working Funds Adv.	2,395.06	
Deferred Charges to Operation	1,864.09	
TOTAL		374,088.18

LIABILITIES

CURRENT LIABILITIES		116,949.56
Audited Vouchers	20,949.56	
Bills Payable	96,000.00	
PROFIT & LOSS		2,893.63
UNDIVIDED PROFITS		10,032.25
CAPITAL STOCK		
Common	250,000.00	
TOTAL		374,088.18

BALANCE SHEET.

December 31, 1917.

ASSETS.

CURRENT CASH ASSETS		20,597.23
Accounts Receivable	19,634.91	
Bills Receivable		
Cash in Bank	1,962.32	
MERCHANDISE		85,691.99
Stores	57,247.15	
Sales Warehouse	28,444.84	
PLANT ACCOUNT		201,151.76
Total Plant	211,331.60	
Less Depreciation	10,179.84	
MISCELLANEOUS ASSETS		3,425.14
Working Funds Advanced	2,067.68	
Deferred Charges to Operation	1,357.46	
TOTAL		310,866.12

LIABILITIES.

CURRENT LIABILITIES		85,523.69
Bills Payable	66,000.00	
Audited Vouchers	20,523.69	
PROFIT & LOSS		25,657.57*
CAPITAL STOCK		250,000.00
Common	250,000.00	
TOTAL		310,866.12

*Loss

(1428)

DESCRIPTION OF CANADIAN PLANT AND OPERATIONS.

The plant of the Flint Varnish & Color Works of Canada, Ltd., is located in West Toronto, Ont. Reference to Exhibit D' shows the general view. It is located on the Canadian Pacific Railroad and the land area is 296′ x 309′ or 91,000 sq. ft. An old sheet iron warehouse 72′ x 174′ – 195′ is ample for storage purposes. The former carriage factory building is mill construction and with some sharing of floors will take additional grinding machinery. It is 80′ x 224′ – 250′, and a diagonal corner rests on C.P.R.R. property, for which a nominal rental is charged.

In 1916 a new varnish plant with 16 fires was built, well laid out and constructed. The entire insurance rate is 25¢ and the plant is sprinkled. There is sufficient yard room for expansion and storage, but this is a long time in the future as the present plant is only 20% utilized as to capacity.

The staff and salaries are as follows:

Office	5	$5520 annually
Factory	15	10000
Salesmen	4	8700
Gen. Mgr. & Sales Mgr.	2	10000

The cost of sales is as follows for 1917:

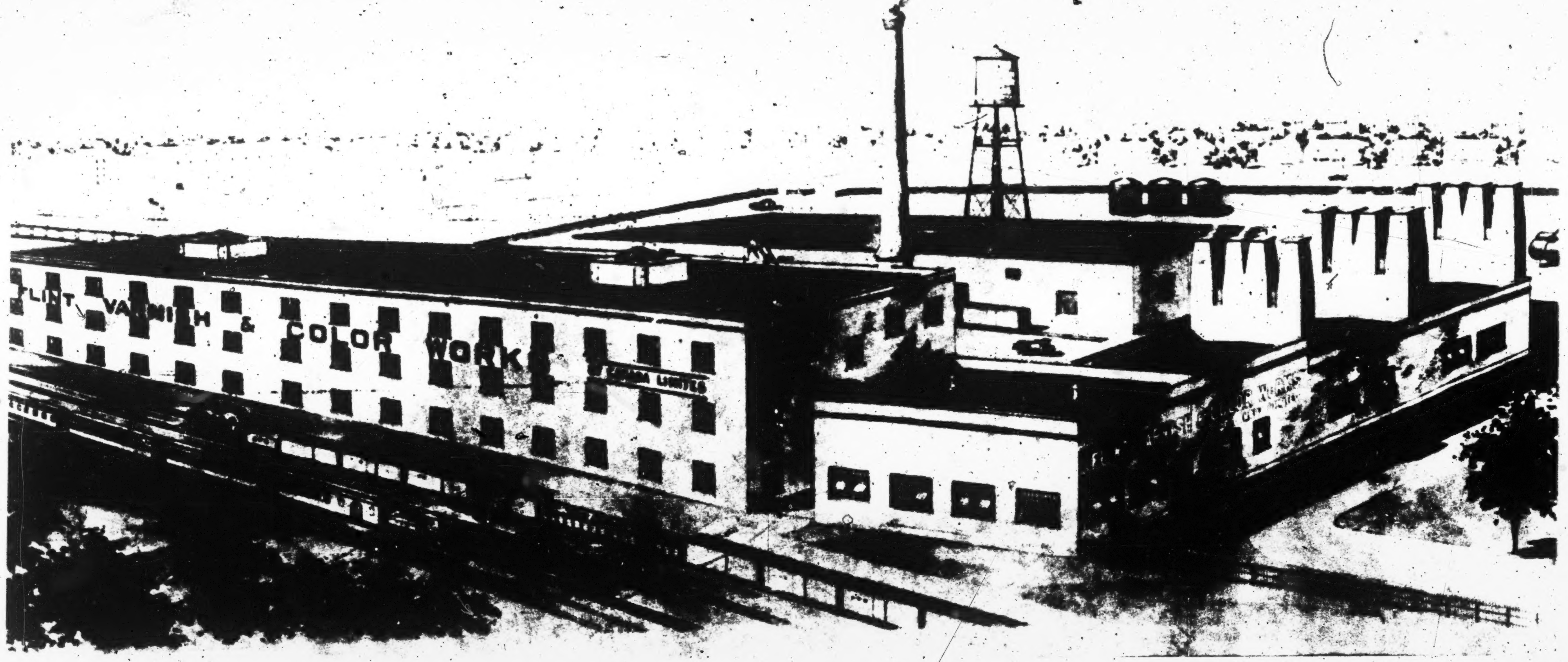
Selling expense	$26,149.45
Selling management	4,470.78
Factory Cost	144,271.03
	$174,891.26

Less Inventory excess	$9,273.03
	$165,618.23
Net sales	139,960.51
Net Loss	$25,657.72

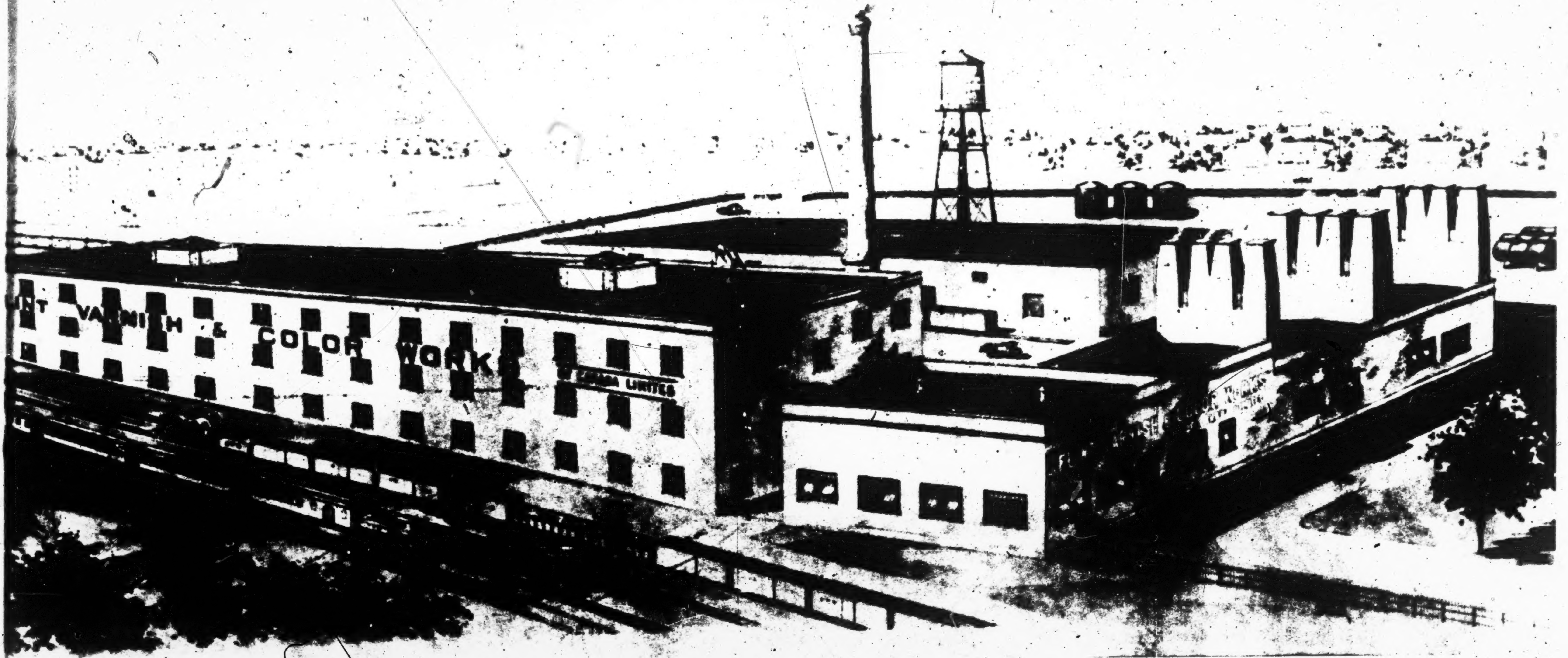
The machinery equipment is in good shape and sufficient for business for sometime. There are two roller mills and 5 stone mills (Ross). Sixteen mixers of assorted sizes and about 7000 gallon storage for finished product and 120,000 gallon raw material storages.

The raw materials consumed have been listed as to kinds and quantities and offer a field for Harrison goods, although the total quantity is not large.

371


FLINT VARNISH & COLOR WORKS
OF CANADA LIMITED

3711


INT VARNISH & COLOR WORKS
OF CANADA LIMITED

NOTE: "gmc 1427" appears in the lower left-hand corner of each page. "Executive Committee Secy's No. 10499", "Return to Room 9059", and "Return to Executive Committee Room 9069" are stamped on the memorandum from R.R.M. Carpenter to the Executive Committee. "X" is marked before date on page 1. The following are marked with an "X" at the beginning and end:

Heading on page 1.
First paragraph on page 1.
Paragraph beginning at bottom of page 1.
Paragraph at foot of page 2.
Paragraph at top of page 3.
Stamped signatures on page 3.
First and second paragraphs on page 4.
Fourth paragraph on page 5.
Text on pages 14-15 (from the words "The plan I had in mind . . ." on p. 14) through the signature on p. 15.
Paragraph at foot of page 15.
Table on page 19.

The third paragraph of page 4 has a line drawn, and the letter "a" written, in the margin. The last paragraph on page 6 has a line and "b" in the margin. The last full paragraph on page 14 has a line drawn in the margin.

35 "

Wilmington, Delaware,
August 14, 1918.

EXECUTIVE COMMITTEE:

EXPANSION IN PAINT BUSINESS.

Referring to action of the Committee on August 12th, referring to the undersigned the question of the advisability of proceeding with the previously approved program for expansion in the paint business, involving a total additional investment of $2,500,000; would state that this question was discussed at the Sales-Operating meeting of Harrisons yesterday, and we report as follows:

We still feel that the paint business is a basic, profitable industry which, although disorganized to-date, is susceptible of rapid and great improvement if the large controlling concerns in the line handle the business in the proper way. We further believe that the du Pont Company can bring this about by moderate expansion as involved in the previously approved program.

In view of the fact that the paint business has many features of an essential industry and in view of the fact that the Government has full authority to curtail industrial activities where necessary, we feel that there is no reason, either patriotic or otherwise, why the du Pont Company should not proceed with expansion in the paint business, even though it involves construction. We realize that Government requirements upon the labor and material market and upon the du Pont Company may seriously interfere with the prompt carrying out of the program, but there is nothing to indicate that these factors would stop the

progress entirely.

We still feel that the previously approved program is the minimum to adequately take care of the demands, both present and prospective, for paint material; and therefore recommend that the Committee renew their approval of the program involving $2,500,000, and authorize the purchase of the New England Oil, Paint and Varnish Company, as recommended by the Development Department in their report of August 8th.

Should the Committee not feel justified in proceeding with the program, we feel that it is most important that the construction project for expansion at Gray's Ferry (already authorized) be continued and that the New England Oil, Paint & Varnish Company be purchased in order to supply the New England trade, and in order to supply the Gray's Ferry plant with varnish vehicles, which can be done by water shipments. If these two items are carried out, the construction at Whiting, the enlargement at Chicago and the construction of a varnish plant at Paulsboro may be postponed without very serious injury to the paint branch of our business. It will be noted that this modification requires shipment of varnish from New England to Gray's Ferry, instead of supplying Gray's Ferry from the prospective plant at Paulsboro.

L. du Pont
Wm. Coyne
Committee.

LduP/MD

Note. Initials "I. du P." appear in pencil at top of left hand corner of first page of document. In top right hand corner appears stamp "Executive Committee Secy's No. 13030" and just below in pencil, the same initials "I duP." At bottom of first page appear stamps "Return to Room 9059" and "Return to Executive Committee Room 9069". This is the same document as G M C 1457.

2
E

Government's Exhibit No. 279

NEW ENGLAND OIL, PAINT & VARNISH CO., EVERETT

Continuing their efforts to build a Paint Department, the Committee, which consisted of Mr. Lammot du Pont and Mr. William Coyne, on August 14, 1918, wrote the Executive Committee that they felt that the addition of the New England Oil, Paint and Varnish Company would fit right into the expansion program "and the purchase of this plant is recommended solely for the part it will play in the general plan of the Du Pont Company along Industrial Paint and Varnish Lines. The Trade Sales or Dealer business which would come by this acquisition can be handled through the Harrison and Bridgeport lines as we will take over no stock of canned goods and an opportunity is presented to make a clean-cut start of Industrial Paint manufacturing. The excess manufacturing capacity which the plant now has can be immediately utilized which, under present conditions, is of considerable value to us."

The New England Oil, Paint and Varnish Company was purchased by the Du Pont Company on September 18, 1918 for $650,000, and the plant consisted of nine buildings, some of which were old but some quite modern. The plant was located in metropolitan Boston, in the City of Everett, situated on the double track line of the Saugus Branch of the Boston & Maine Railroad. A spur track of approximately 700' enabled several freight cars to be handled so that raw materials could be received in tank cars and pumped into adequate storage tanks. The main buildings were of brick and mill construction, all sprinkled. The varnish melting, boiling and thinning rooms were of fireproof construction. The walls of the office building, while one story in height, were strong enough to hold three additional stories. Electrical power was used throughout the buildings. The plant had a total capacity of one million gallons per year. Before the New England Oil, Paint and Varnish Company acquired the Everett Plant, it was formerly known as the Everett Foundry, in which were manufactured castings for the frames of pianos. It is believed that these buildings were built somewhere around 1865.

The sales of the New England Oil, Paint & Varnish Company from 1914 to 1917 and for six months of 1918, along with the percent of earnings of the company, based on percent of sales, are shown below:

	Volume Sales	
1914	413,888.16	7.8%
1915	436,046.15	7.3%
1916	585,097.00	10.5%
1917	658,332.00	11.6%
1918 (June 30)	384,026.10	12.3%

The principal attraction of the New England business was the fact that the volume of sales was supposed to be largely Industrial, but apparently the term Industrial then was quite different from Du Pont's interpretation of the term today, because shortly after the business was acquired, it was learned that most of the New England Industrial Sales were special products made for private companies or large volume cheap items and did not represent the substantial type of paint-on product business which they term as Industrial business today. A breakdown of the 1917 business shows the following:

Industrial	$347,705.17	53%
Trade	174,435.17	26
Boston Store	62,408.88	9.5
Not Manufactured	73,782.78	11.5
Total	$658,332.00	100.0%

Of the $658,000 total, it is interesting that the largest item was Varnish, which amounted to $328,000, or almost 50% of their total sales. Paint was only $170,000, Putty $63,000 and Raw Materials and Miscellaneous approximately $100,000.

A picture of the companies which were consolidated into the New England Oil, Paint & Varnish Company is very interesting. It really was a combination of smaller companies, the principal firms being: The Hoffman Paint & Varnish Company, Burbank & Ryder Company, Craftsman Chemical Company, and Richardson and Bracket.

The Hoffman Company dates back to 1842 and it was a combination of smaller companies not in line of descent but rather because of changing connections and personnel.

The Burbank & Ryder business was even more interesting, and it is believed that Silas Burbank was one of the earliest varnish makers in America. It is said that this business began in 1825. Silas Burbank was one of the pioneer itinerant varnish makers whose "formulas" were carried "under his hat", and "factories" carried from place to place, perhaps in a covered wagon. He made varnish in a small copper kettle and Du Pont has somewhere in the archives the original kettle which he used. Silas Burbank and his son carried the business along until about 1877 or 1878, when Nathaniel F. Ryder joined forces and the firm name was then changed to Burbank & Ryder. Their plant was located at Charlestown, near Malden Bridge, and because this was near Bunker Hill, they sold their varnishes under the trade name "Bunker Hill Varnishes".

In 1911, Lyford A. Merrow of the Underhay Oil Company purchased the J. W. Hoffman Paint Company, and a few months later acquired the Burbank & Ryder Company. These two companies were combined under the name of the New England Oil, Paint and Varnish Company, and they moved to the Everett Plant in 1912, which is the property Du Pont acquired. At the time, this plant was regarded as one of the most modern Paint and Varnish plants in the country.

Of the personnel taken over at the time, A. H. Avery continued with the business until February 1, 1927, at which time he retired. Harry S. Chandler is now a Division Manager of Canadian Industries Limited.

E

Government's Exhibit No. 280

TO: MR. W. S. CARPENTER, JR., VICE PRESIDENT

FROM: DEVELOPMENT DEPARTMENT

March 15, 1920

Serial No. S-917

PAINT AND VARNISH SITUATION AND OUTLOOK

The question of the advisability of further capital investment in the paint and varnish business has been brought up by the request of the Sales and Operating Departments for an investigation of the Chicago Varnish Company of Chicago, Illinois, with a view of possible purchase. The features of this particular purchase are presented in report of this Department No. S-920 and the present time is not inopportune to make a general review of our paint and varnish situation and an outlook for the future. Our present investment in the paint and varnish business totals approximately $7,400,000, divided into two portions, $6,000,000 in the Harrison group and $1,400,000 in the Flint Company. In the former case we have direct ownership and operation of the business and in the latter case we are over 90% stockholders and operate the business indirectly. In the Harrison case we are doing a business at present of $4,000,000 a year and losing at the rate of $489,000 per year, and in the latter case we are doing a business of $2,500,000 and earning at the rate of $189,000 per year. In the Harrison case our factories are well below their rated capacity in production of Harrison business, while in the Flint case the facilities are taxed to the limit and overflowing into the Harrison plants and a request for additional facilities has been made.

The Harrison paint and varnish business has continuously shown a loss since our purchase:

	Gross Receipts	Loss
1917	$1,265,000	$109,000
1918	2,958,000	321,000
1919	4,016,000	489,000

The losses are before special adjustments which are purely financial and do not affect actual earning power. Inspite of these losses additional capital investment was made on a large scale, the items being the purchase of three additional businesses and plants all of which were operating at a small profit. The Flint business has been profitable since our purchase. Be the reasons as they may for losses of the Harrison group up to January 1, 1919, we find that there are no special factors for this last year which would adversely affect either Flint group or the Harrison group; in fact in both cases we have a very large demand for the goods. With particular respect to the Harrison group the demand was unprecedented in the history of the paint trade and our volume of sales was larger than ever before. For the year 1918 the Harrison group did a business of approximately $3,000,000 and lost $321,000. During that year, however, there were special adjustments, which losses did not occur in 1919. For the year 1919 then we find that without special losses such as incurred in 1918 we lost nearly $500,000 on $4,000,000 sales.

It was recognized by the Executive Committee practically a year ago that the Harrison paint and varnish was in a very unhealthy state and investigation was made at that time, the report somewhat later, showed what would be the proper conditions under which that business could satisfactorily exist, and recommendations made for the carrying out of the necessary changes. In the absence of reports showing the progress to date we may briefly show the present condition.

—4—

One year ago our total investment in the Harrison group was $5,000,000 and the business was about $3,000,000. It was recognized that this was a very unfortunate ratio and that the invested capital must be reduced. Accordingly it was determined at that time that on January 1st the invested capital must be $4,400,000 with a volume of business of approximately the same. The changes bringing this about were such that earnings of 10% would be realized on the invested capital. Without determining the question whether the recommendations were correct and not properly carried out, or whether the plans outlined were in error, the fact remains that the outlook for 1920 is slightly worse than the outlook for 1919 a year ago. Showing the above figures a little more in detail we have below:

Condition on March 31, 1919.

Cash	$394,000	
Receivables	500,310	
Materials & Supplies	1,207,496	
Finished Product	1,172,800	
Total Working Capital	3,274,606	
Permanent Investment	1,829,983	
Total Investment		$5,104,589

Predicted Figures January 1, 1920.

Cash & Accounts Receivable	$870,000	
Materials & Supplies	750,000	
Finished Product	900,000	
Total Working Capital	2,520,000	
Permanent Investment	1,800,000	
Possible Warehouse Additions	75,000	
Total		$4,395,000

Actual Conditions

Cash & Accounts Receivable	$1,429,670 —	
Materials & Supplies	1,241,066 —	
Finished Product	1,393,954 —	
Total Working Capital	4,064,690	
Permanent Investment	1,974,000 X	
Total		$6,038,691

The volume of sales we may conservatively assume for this next year at the same rate as 1919 which may be called four million dollars. Therefore, 15% net margin must be made on the gross receipts to get 10% on investment (ten percent has been reported as the best we can expect in this line although 15% is the expected return for du Pont capital invested in our own industries).

taking the gross receipts as a unit of one, we have the following table where all expenses are figured in percentages of gross receipts:

Year 1919.

Gross Receipts	1.000
Net Receipts required	.150
Balance	.850
Raw Materials	.721
Margin for doing business.	.129
Freight and Delivery	.055
Administrative	.015
	.070
Margin for selling and factory operation	.059
Selling Expense	.201
Factory Operation	.130
	.331
Excess Cost	.272

We may assume the raw material percentage is essentially fixed as the gross receipts will vary as the cost of raw materials in this business. Having fixed the required net receipts, we have a margin left for doing business of .129. Assuming that freight and delivery is necessarily a fixed factor and administrative the same, we have a final margin left for selling expense and factory operation of .059. As a matter of fact, however, our selling expense actually was .201 and our factory operation .130, making a total of .331. It will thus be seen that we have an excess cost of selling and factory operation of .272. If we divide this excess between selling expense and factory operation on the basis that the two expenses now bear to each other, we find that selling expense would have to be reduced to .038, and factory operation to .022.

In the absence of an official forecast for 1920, we may assume these above figures as fairly representative of the situation to be expected under our present status so that we may figure an investment of six million dollars for one year, on which investment we may expect a loss of 8% or 12% on gross sales.

—6—

Owing to the new method of transferring items at cost, this investment may be somewhat reduced but at the same time there will be a corresponding increase in cost of raw materials; so that the net analysis of profit remains about the same as long as we work on a percentage basis. It is also agreed that we have an excess investment in this group of $2,000,000. We are, therefore, interested in reducing this investment to a figure on which a satisfactory return can be made, and if the means can be found of converting this investment in some manner to give us a profit the project is worthy of considerable attention.

We feel, therefore, that on the basis ~~of~~ record and prospects the Flint business deserves additional facilities. The question remains how that can be best obtained without undue expenditure of capital.

We find that the Flint Company has been nominally operated by the du Pont Company under contract but actually has been running itself for the last year. The only reduction in organization or saving of importance has been the non replacement of Mr. Mountain in the office of president by another active man devoting his whole time to the business. The present operating contract of the du Pont Company for the year 1919 has shown a profit to us of $133,631, that is the difference between the 18.72% payment agreed upon and our actual cost, which situation of course is unfair to the Flint Company and is under consideration for remedy. It will be well at this time to consider whether it is advisable to have any more than a few nominal charges for actual cost of services rendered by the du Pont Company to the Flint Company in view of this demonstrated ability to carry on a profitable paint and varnish business by itself. We, therefore, feel that the Flint Company should be given an opportunity to run quite independent of the du Pont Company, and in that case, the purchase of additional facilities for the Flint business should be made by the Flint Company, but as we are over 90% stockholders in that company we can properly consider the question of this capital expenditure. Similar data has been presented in Report No. S-920 showing that the Flint Company can furnish sufficient profitable business to operate another good sized plant.

We feel that the capital furnished by the du Pont Company for this purpose should not be additional to our present invested capital in the paint business but should be obtained by the liquidation of some of our excess assets and their conversion into a position whereby they will earn money instead of losing it as at present. It is apparent that about $2,000,000 should be liquidated from the Harrison paint and varnish investment and this may be partially accomplished in the following manner:

If the investment of $1,000,000 outlined in the Report No. S-920 is approved, then the Flint Company may borrow from us this amount on some suitable security. If so, then the Chicago Varnish Company's plant should be devoted exclusively to Flint business and inasmuch as our present Harrison plant in Chicago is devoting 75% of its capacity to exclusively Flint business, that business will naturally be transferred to their own plant. The Harrison plant in Chicago having lost money both before and after our purchase, will then be in a position of having only 25% of its capacity utilized and that on an unprofitable kind of business. We feel, therefore, that the grinding equipment of that plant should be sold to the Flint Company as it is grinding equipment they essentially require, and the buildings and real estate disposed of to outside parties. The Chicago Varnish Company plant being short of raw materials, there is an opportunity to still further dispose of the raw material stock in Chicago to Flint. Any desirable Harrison business handled in the Chicago plant can be transferred to Philadelphia. Liquidation of these Harrison assets will take care of a portion of the million dollars required and the balance can be taken out of the other portions of the Harrison business, thereby calling for no additional capital.

This reduction should take place in any event as it has already been determined as desirable six months ago, that the Harrison investment should have been reduced by a million dollars instead of increased a million, making the total excess capital tied up two million dollars at present.

In general we find that Flint needs only additional buildings and equipment and capital to obtain them, and therefore it is only on the basis of providing these that their problem should be considered.

Our problem on the other hand is the profitable utilization of our paint and varnish facilities and a step in the right direction for the solution of both problems lies in our disposal of the Harrison Chicago plant and the transfer of this present Harrison type of business to Philadelphia or to the Flint Company as a manufacturing proposition only, if they elect to accept any order from our Harrison branch.

We feel that the Chicago Varnish Company should be purchased for its plant and equipment only, if the terms can be satisfactorily arranged by the Flint Company, and that the necessary capital should be obtained from the du Pont Company. In turn the du Pont Company should obtain the necessary capital from the liquidation of a part of the present Harrison paint and varnish investment, and that no new capital be provided. If such a plan is adopted then the Harrison plant at Chicago should be sold.

If the purchase of the Chicago Varnish Company's facilities is not attractive, then our Harrison Chicago plant should be either sold or leased in its entirety to the Flint Company as only 25% of its facilities are now used by the Harrison branch of our business.

It should be noted that the general paint and varnish trade as typified by the present Harrison type of business has experienced a year of unusual volume of sales and prosperity, that during that time, while other companies have enjoyed the fruits thereof, we have lost nearly one half million dollars, and therefore our apprehensions regarding this branch of our business for the last few years are still further augmented by this situation.

RECOMMENDATIONS:

We recommend that the Flint Company be divorced from the du Pont Company as far as management is concerned and that the business be carried on by an active president or general manager having sole charge of the conducting of the business, but matters of general policy be controlled by an active board of directors representing du Pont Company, and that we dispose of our Harrison Chicago plant to the Flint Company in case it does not buy the Chicago Varnish Company, and if it does buy the Chicago Varnish Company, that we dispose of the Harrison Chicago plant by the sale of equipment to Flint, and real estate and buildings to outsiders.

APPROVED BY: PREPARED BY:
[Stamp] FIN. SPARRE [Stamp] F. S. MACGREGOR

EXHIBIT "A"

PROPOSED METHOD FOR OBTAINING CAPITAL FOR PURCHASE OF ADDITIONAL FACILITIES FOR FLINT VARNISH AND COLOR WORKS.

	Additions to Capital	Reduction in Capital
Net purchase price Chicago Varnish Co.	$800,000	
Bonds Assumed	400,000	
Total	$1,200,000	
Additions and Improvements	100,000	
Sale of Harrison Chicago Plant		$150,000
Reduction in Harrison Working Capital within 6 months		1,500,000 X
Total	$1,300,000	$1,650,000
Allow Bonds to mature	400,000	
Portion as deferred payment from sale of Harrison plant		100,000
Net change	$900,000	$1,550,000

Reduction in paint and varnish investment $1,550,000 and $900,000 of which is transferred from an 8% loss to at least a 12% earning basis.

NOTE: The underscoring on page 2, the line on page 3, the short lines and the "X" on page 4, the line on page 6, and the "X" on page 10 are by hand. "gmc 1428j" appears in the lower left-hand corner of each page.

Government's Exhibit No. 281

To —W. S. CARPENTER, JR., VICE-PRESIDENT
FROM—DEVELOPMENT DEPARTMENT

SERIAL No. S-920
MARCH 17, 1920

CHICAGO VARNISH COMPANY

INTRODUCTION:

On December 23, 1919, Mr. F. W. Pickard, Vice-President, prepared a report for the Executive Committee (#2112) on the subject of additional capacity for the Flint Varnish and Color Works. By way of obtaining such capacity, the purchase of the Mountain Varnish and Color Works at Toledo, Ohio, was suggested. On December 29, 1919, the Executive Committee referred the matter to the Development Department for attention.

Underlying reasons for acquiring additional capacity are;

(a) A considerable volume of General Motors business was being diverted to competitors, Mr. Durant estimated that the requirements of this company (in colored varnish) would increase very rapidly and requested protection from the du Pont Company.

(b) Purchase of the Mountain Plant in which Mr. J. N. Willys was largely interested, might be effected in such was as to obtain a large part, or all, of the Willys-Overland business.

(c) The Flint Varnish and Color Works, which are advantageously located for industrial sales, were operating at about capacity. In addition seventy-five per cent of Chicago Harrison's capacity has been allotted to Flint business. The protection desired by Mr. Durant, therefore, is not readily available from existing capacity.

Consultation at various times between Messrs. Durant, Haskell, Pickard, Meade and Sohlinger disclosed that the selection of additional capacity should not be influenced by the prospect of obtaining the Willys-Overland business. This point

was strongly emphasized by Mr. Durant, who with Mr. Meade and Mr. Sohlinger favored Chicago as the proper location for expansion—both for General Motors requirements and other industrial sales.

Consideration of the Mountain Varnish and Color Works at Toledo was therefore discontinued. For some time a rumor had been current in the trade that the Chicago Varnish Company might be purchased. Because of the reputation and location of this company it was felt advisable to investigate the matter futher.

CHICAGO VARNISH COMPANY:

The company is an Illinois corporation (1883) which succeeded a partnership established in 1867. The plant is located at 2100 Elston Avenue, Chicago and occupies a tract of land of 306,400 square feet. The number of buildings is twenty-five with an aggregate floor area of 133,000 square feet. Construction is entirely of brick and timber — of the "slow burning type". The plant has its own siding which is served by the Chicago and Northwestern Railway. The location of the real estate and the condition of the buildings are excellent.

The capacity of the plant based on a forty-eight (48) hour week is:

Varnish — 700,000 gallons per year
Paint — 500,000 " " "

Additional mills are being installed in the paint department which will bring the capacity up to 800,000 gallons per year.

—4—

Storage capacity is:

Varnish	434,400 gallons
Oils	122,400 "
Turpentine, etc.	208,400 "

Reference is made to the report of the Production Department, Exhibit "E", attached for a detailed description of the plant and to the appraisal of the American Appraisal Company, Exhibit "B", for a full list of equipment.

Offer to Sell:

With the assistance of Mr. F. A. Wetmore, President and Mr. A. W. Newton, Vice-President, of the First National Bank of Chicago, the question of selling was opened without direct approach from us. Through the efforts of these gentlemen, the writer, on February 25th last, met the following officers of the Chicago Varnish Company:

O. H. Morgan, President
R. K. Buckman, Vice-President

A. C. Morgan, General Manager
W. M. Turner, Treasurer

A. C. Morgan is the son and R. K. Buckman the son-in-law, of O. H. Morgan. The latter gentleman is 85 years of age and the only member of the firm who knows the factory side of the Paint and Varnish business.

While the meeting was intended to be entirely informal, it quickly developed that the Morgans would sell and that the family controlled the ownership of the business. The price mentioned was $1,600,000. for either the business or stock — and existing mortgage of $400,000. to be assumed by us. The elder Morgan stated that the price quoted contemplated payment in cash and that the real estate and plant could not be bought without the business and good will of the corporation. Great difficulty was experienced in obtaining information regarding the condition of the corporation although subsequent meetings were partially successful in overcoming this attitude.

Balance Sheet
Chicago Varnish Co.

Reference is now made to Exhibit "A" which is a balance sheet of the corporation as of December 31, 1919. This statement shows a net wroth of $1,407,577.12, as follows:

Total Assets		$2,350,939.94
" Liabilities & Mortgage		943,362.82
NET WORTH		$1,407,577.12
Capital —	$1,270,067.00	
Surplus —	137,510.12	$1,407,577.12

The price suggested ($1,600,000.) is, therefore, approximately $200,000. in excess of the net assets — assuming all of the latter to be sound. Inspection of the balance sheet and of the writer's notes attached thereto will show that none of the assets, excepting plant, equipment and certain real estate, would be of interest to the du Pont Company.

Appraisal of Plant:

Attention is also invited to the appraisal of May 31st, 1919, Exhibit "B" and "C", in which the following values are set forth:

Land	$308,800.00
Buildings	380,604.00
Machinery and equipment	220,628.00
Office furniture, etc.	12,080.00
Automobiles	5,951.00
	$928,063.00
Building, S. E. Cor. of Dearborn Avenue and Kinzie Street	92,918.00
TOTAL	$1,020,981.00

The items of immediate interest to the du Pont Company are those comprising the total of $928,063.00, although the office building and real estate if purchased, could probably be sold at the appraisal value. It should be noted that the Kinzie Building is located three (3) miles from the plant and is rented for general office purposes, the Chicago Varnish Company occupying no part of it.

The property above noted is not carried at its appraised value on the 1919 balance sheet. For example, the plant and equipment is appraised at $928,063.00 and is carried on the balance sheet at $773,509.91 (total capital assets $712,734.91 plus cottages $60,775.00). Mr. Morgan stated that the company felt it conservative to carry the buildings at less than their appraised value and this has always been the company's policy.

The values placed on the plant buildings ($380,604.) have been checked and vary from $2.00 to $3.00 per sq. foot of floor space. The replacement cost, based on present day prices would be between $4.00 and $4.25 per square foot. The appraisal, considering depreciation, is undoubtedly very fair.

Comparison with Flint Investment:

The Chicago Varnish Company's plant is rated by the Production Department at 80% of Flint capacity. The Flint business, with plant operating at practically 100% capacity, is now averaging $250,000. per month. It is the belief of the Production Department (expressed to the writer) that the Chicago Varnish Company, if acquired, could readily obtain a volume of business equal to 80% of the Flint sales or $200,000. per month. In order to compare an investment in the Chicago Varnish Company with our present investment in the Flint Varnish and Color Works, it is necessary to make the following assumption:

"During the first year of operation by us the volume of business obtained by Chicago Varnish

Company would be:

1st six months	50% of Flint Sales
2nd " "	80% " " "
Average for first year	65% " " "

Thereafter, the volume of business obtained by Chicago Varnish Company would equal 80% of Flint sales with approximately the same percentage of profit as now made by the Flint Plant."

Flint Net Return	$ 56,849.08
Excess charged by du Pont Company under 18.72 contract	133,631.62
Net Operating Profit 1919	$190,480.70

Gross Sales 1919 .... $2,532,419.00

Profit on sales = 7.52%

The du Pont Company's investment in Flint Varnish and Color Works is $1,419,568.00 which is equivalent to 94% of the total stock issued. Our share of profits is, therefore, 94% of $190,480.70 or $179,051.85. For the year 1919, the du Pont Company's return on the Flint investment, using the above distribution of profits, was 12.5%. The total investment in Flint Varnish and Color Works at the price paid by the du Pont Company for its stock is $1,580,000. and the return on this investment ($190,480.70) is 12%.

Taking a five year period of operation and keeping in mind the assumption just made, the purchase of Chicago Varnish Company would show as follows:

1st year — 65% of present Flint sales	$1,950,000.
Next four years — 80% of present Flint sales.	9,600,000.
First five years (total sales)	$11,550,000.
Average sales per year	2,310,000.
Average profit at 7.52%	173,712.
Capitalization of profit at 12%	1,448,100.
" " " " 12.5%	1,378,600.
" " " " 15%	1,148,800.

It thus appears that if 15% is considered a proper return on the Paint and Varnish business, the purchase of the Chicago Varnish Company would be warranted at a price not exceeding $1,148,800. provided this sum includes adequate working capital. The latter (based on Flint working capital) is estimated to be $600,000. which leaves $548,800. as applicable to the plant and equipment.

As the plant is carried on the balance sheet at $773,509.91 (capital assets $712,734.91 plus cottages $60,775.00) it does not appear probable that a purchase can be made on this basis. However, by eliminating certain assets and assuming the existing mortgage, as is shown later, it is possible to acquire the plant and provide adequate working capital with a net return of about 12%

Existing Mortgage on Plant:

The existing mortgage of the company amounting to $400,000. is a lien on the real estate, buildings, machinery, equipment, trade marks and good will. The Central Trust Company of Illinois is Trustee under the mortgage by indenture dated August 1, 1919 but not executed until September

5, 1919. The bonds bear interest at the rate of 6% per annum payable on February 1st and August 1st and are subject to call and redemption on any interest day at 102 and accrued interest.

The effect of this issue, assuming the bonds are not retired, is as follows:

Year	Bonds Outstanding	Annual Interest	Bonds Maturing Aug. 1st each Year	Total Annual Payments
1919-20	$400,000.	$24,000.	$10,000.	$34,000.
1921	390,000.	23,400	20,000.	43,400.
1922	370,000.	22,200.	20,000.	42,200.
1923	350,000.	21,000.	25,000.	46,000.
1924	325,000.	19,500.	25,000.	44,500.
1925	300,000.	18,000.	30,000.	48,000.
1926	270,000.	16,200.	30,000.	46,200.
1927	240,000.	14,400.	30,000.	44,400.
1928	210,000.	12,600.	30,000.	42,600.
1929	180,000.	10,800.	180,000.	190,800.
Totals		$182,100.	$400,000.	$582,100.
Less Interest Paid February 1, 1920				12,000.
Total remaining payments				$570,100.
Average per year				57,010.

A purchase subject to this mortgage must contemplate average annual payments on account of principal and interest of $57,010. for the next ten years. The establishment of a sinking fund would reduce the annual payments somewhat but for the purpose of illustration this refinement is thought unnecessary.

Additional Capital Investment:

It will be noted from a report of the Production Department that improvements estimated at $120,000. will be necessary to bring the Chicago plant up to the same operating efficiency as the Flint plant. It is assumed that the Chicago Harrison plant would be sold if the Chicago Varnish Company were purchased. The Real Estate Department estimates that between $100,000. and $125,000. could be realized from the sale of the land and buildings comprising this plant. The proceeds of such sale might properly be applied as a credit against the cost of improvements recommended by the Production Department.

SUMMARY:

It is believed that the best way in which to acquire the plant of the Chicago Varnish Company would be to purchase the net worth on the basis of the balance sheet (subject to such deductions as our investigation might require). The present owners could be permitted to sell for their own account the following assets:

Kinzie Building	$113,150.83
Stocks and Bonds	108,706.87
Notes Receivable	37,295.36
Interest "	725.39
Liberty Bonds	85,634.00
Cash	17,436.92
Varnish Finished	143,300.37
Paint Finished	137,659.68
Printed Matter, etc.	12,000.00
Total	$655,909.42

It is believed that a further reduction of assets may be possible (deferred charges $84,112.23 for example) but the above list includes those which appear capable of quick conversion.

Price Paid To Present Owners }

Net Worth	$1,407,577.12
Less Deductions	655,909.42
→ ~~Assets Purchased by du Pont Co.~~	$ 751,667.70
Add Mortgage	400,000.00
Total PURCHASE PRICE	$1,151,667.70
Or in round figures say	$1,152,000.00

The assets thus acquired will consist of the following:

(a) Total Purchase Price		$1,152,000.00
(Less Plant	$712,734.91	
(b) (" Cottages	60,775.00	773,509.91
(c) Accounts Rec. Inventory, etc.		$ 378,490.09

The total project now becomes:

Total Purchase Price	$1,152,000.00
Plant Improvements—Production Department's report	120,000.00
	$1,272,000.00
Credit by sale of Chicago Harrison's Real Estate	110,000.00
	$1,162,000.00
Additional Working Capital to bring (c) up to $600,000	232,000.00
TOTAL INVESTMENT	$1,394,000.00

The final result of a purchase on this basis will depend on the manner of financing. If the mortgage of $400,000. be deducted from the total investment, $1,394,000., and the remainder, $994,000., be represented one-half cash and one-half debenture stock issued at $88., the following results would be obtained:

6% First Mortgage Bonds...	$400,000.	
5648 Shares Debenture Stock @ $88.	497,024.	
Cash	496,976.	
	$1,394,000.	
Discount 5648 Shares Debenture Stock @ $88.	67,776.	
Total Investment	$1,461,776.	
Profit based on 80% of Flint Sales......		$173,712.
Annual payments a/c Int. and Maturity of Bonds.......	$57,010.	
Interest on 5648 Shares Deventure Stock @ 6%.........	33,888	
Total Fixed Capital Charges per Annum	$90,898	90,898.
		$82,814.

Which is equivalent to a return of 16.7% on the cash portion of the investment and 11.8% on the total investment of $1,461,776.

Much uncertainty exists as to the acquisition of the plant of the Chicago Varnish Company on the above basis. It has been assumed that sufficient incentive to sell exists by reason of the poor condition of the business of the company and this assumption may prove to be incorrect. In this connection, reference is made to Exhibits "D" and "F" as throwing further light on the condition of the company's affairs.

—12 & 13—

RECOMMENDATIONS:

Subject to approval by the Executive Committee of the question of policy involved in acquiring additional paint and varnish capacity at this time, it is recommended that purchase be made of the plant and business of the Chicago Varnish Company less certain undesirable assets which would be retained by the present owners as set forth in this report.

Authority is, therefore, requested to negotiate on the basis of a maximum purchase price of $1,152,000., which, by assuming the existing mortgage of $400,000. will leave a net balance of $752,000. Payment of approximately $500,000. of this sum to be made in debenture stock at not less than $88. per share and the remaining $252,000. in cash.

Only approved Acts. Rec. & Def. Charges to be acquired—subject to payment in full as and when collected. The initial payment at the time of transfer of the business will accordingly be materially less than $252,000—probably one half of this sum.

→ It is understood that the Development Department will endeavor to obtain better terms, if possible, and that this subject will be again referred to the Executive Committee for final rejection or approval.

Approved by: Prepared by:
[Stamp] Fin. Sparre [Stamp] E. M. Hoopes

Note: "gmc 1429c" appears in the lower left-hand corner of each page. The correction on page 10 is by hand. The italicized material on pp. 12 & 13 is written by hand in the margin with an arrow indicating that it should be inserted before the last paragraph.

Government's Exhibit No. 282

Serial No. S-917
March 18, 1920

EXECUTIVE COMMITTEE
Building

Gentlemen:

PAINT AND VARNISH SITUATION —
CHICAGO VARNISH COMPANY ——

An investigation has been made of the Chicago Varnish Company relative to possible purchase of same, this subject being covered by our report (Serial No. S-920—March 17th) which has been transmitted to the Executive Committee today.

In considering the question of a possible purchase of this Chicago Company it seemed that it would not be sufficient to submit only a report on such possible purchase and its use in connection with the Flint Company's operations, but in order to give proper consideration to this subject it was felt desirable to submit simultaneously a review of the paint and varnish situation with particular reference to the influence of a possible purchase of the Chicago Company on the du Pont Company's paint and varnish industry. The report on the possible purchase of the Chicago Company has been prepared by Mr. E. M. Hoopes, Jr. who made the investigation in connection therewith and the attached report on the general paint and varnish situation has been prepared by Mr. F. S. MacGregor who is particularly familiar with this subject. These two reports are submitted instead of one report because it was found that a good deal of time could be saved in presenting the subject to the Executive Committee by having two members of the Development Department work on the subject.

As a result of the study made of this subject it is recommended that viewed by itself as a going company the purchase of the Chicago Varnish Works cannot be justified on any possible

—1a—

earning basis, and even in conjunction with the Flint Company it is very questionable whether an investment in the Chicago Varnish Company would be justified.

However, it is believed that the purchase of the Chicago Varnish Company may be justified under certain conditions, these being that the purchase be made by the Flint Company which would operate same strictly in conjunction with its business so that similar earnings should be obtained from the Chicago operations as would be obtained by the Flint factory, and further it is considered an essential condition that the investment in the Chicago Varnish Company would be justified only if the present Harrison Chicago plant would be sold and its business transferred entirely to the Flint Company for operation as judged best by the latter. Finally it is considered essential as a justification for this capital investment in the Chicago Varnish Company that the investment in the Harrison paint and varnish line should be reduced in accordance with the recommendations of the report to the Executive Committee on July 17th (Secretary

Serial No. 1162) from the special sub-committee (Messrs. F. W. Pickard, C. A. Meade, and W. S. Carpenter, Jr.)

It is recommended that on these conditions a purchase of the Chicago Varnish Company would be justified because it seems possible to effect the purchase and make a decided improvement in the present plant and business situation without any net increase in the du Pont Company's investment in the paint and varnish industry. In other words, the Harrison Chicago plant would be exchanged for the desirable plant of the Chicago Varnish Company, and the present unprofitable business could be eliminated, in its place enlarging the profitable Flint business. It is clear however, that there would be a capital expenditure during March or April but a corresponding or even larger amount of money should be recovered as an essential part of this project during the second and third quarters of the present year through

—1b—

liquidation of a substantial portion of the Harrison paint and varnish business.

If the conditions for such purchase of the Chicago Company mentioned above are not found acceptable or possible, then our recommendation is that the purchase should not be made.

If it should be decided that the Chicago Company should not be purchased, then it is recommended that the du Pont Company should sell its Harrison Chicago plant and business to the Flint Company.

It is to be noted that we know the Chicago Varnish Company is for sale and can be bought at a fair figure, but exact terms have not been negotiated pending the Committee's approval or rejection of the proposition as a matter of policy.

Yours very truly,

[Stamp] W. S. Carpenter, Jr.
Per FSp.
Vice President

Note: "gmc 1428j" appears in the lower left-hand corner of each page. Lines in margin on pages 1 and 1a are by hand. "Executive Committee Secy's No. 2595", "Return to Room 9059", and "Return to Executive Committee Room 9069" are stamped on first page.

Italics indicate handwriting.

Government's Exhibit No. 283

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated

ADVICE OF ACTION

March 23, 1920.

Mr. W. S. Carpenter, Jr., V.P.
Attention of Dr. Fin Sparre.
Copy to Messrs. W.C.Spruance
C.A.Meade
F.W.Pickard

SUBJECT PAINT AND VARNISH SITUATION—QUESTION OF PURCHASING THE CHICAGO VARNISH COMPANY:

ACTION TAKEN BY Executive Committee

AT MEETING March 22, 1920.

REMARKS

The following resolution was unanimously adopted:

WHEREAS, the business of the Flint Varnish & Color Works now exceeds present plant capacity, with accompanying difficulties in giving suitable service to customers; and

WHEREAS, there is no possibility of plant expansion at Flint, and Chicago offers a better location for plant expansion in the business of the Flint Varnish & Color Works than Flint; and

WHEREAS, present estimates point to a return on the investment of twenty to twenty-five per cent. (20% to 25%)

for the year 1920 on the Flint Varnish & Color Works business; and

WHEREAS, it is believed that this prospect indicates an improvement in the status of the varnish industry, thus causing this Committee to feel that it can look with confidence upon a permanent average return on the investment in the Chicago plant of fifteen per cent (15%);

RESOLVED, that report from the Development Department dated March 18, 1920 (#2596), re question of purchasing the Chicago Varnish Company, be accepted; that the recommendations contained therein be approved, and that the Development Department be authorized to negotiate on the basis of the terms stated in said report;

RESOLVED FURTHER, that report from the Development Department dated March 18, 1920 (#2595), re general paint and varnish situation and the question of purchasing the Chicago Varnish Company, be accepted and ordered filed, and that it be again brought before this Committee when final report is received from the Development Department.

[Stamp] M. D. FISHER
Sec'y. Executive Committee.

3.

NOTE: "gmc 1429" appears in the lower left-hand corner of each page. "Return to Room 9059" (with a pencil line through the number) and "Return to Executive Committee Room 9069" are stamped on the document. "X-1008-F" is written in the upper right-hand corner.

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Government's Exhibit No. 284

Serial No. S-926
April 7, 1920

EXECUTIVE COMMITTEE
Building

Gentlemen:

I am attaching hereto report No. S-926 on the subject of the purchase of the plant and certain other assets of the Chicago Varnish Company. These negotiations resulting in the situation presented were instituted and carried on by this Department at the joint request of the Sales and Operating Departments. On the subject of earnings, certain data is set forth to show the result under certain conditions to these figures, but the Committee should not construe that presentation as being a forecast by this Department of the conditions to be hoped for. This entire project has been taken up quite hurriedly, the understanding being that this Department should provide readily available capacity and not that it should endeavor to justify the acquisition of such capacity.

You will note in the report that certain recommendations are made by this Department of a general nature regarding our paint and varnish industry. This Department as the result of a careful study of the subject of our paint and varnish industry over the course of a couple of years or more has been consistently opposed to the expansion of that business along the lines on which it has been conducted. Our position has been set forth strongly in a number of reports heretofore but we believe very unfortunately for the Company, the expansion has continued along these, to us, objectionable lines. Briefly our opinion is that in the so-called trade sales and small in-

—1-a—

dustrial business there is not to be made a profit to attract our capital, but in spite of all which we have been able to do we continue dumping hundreds of thousands of dollars into that very business, and unfortunately have suffered staggering losses.

If the additional facilities afforded by the acquisition of the Chicago Varnish Company will result in our further extending our efforts in the present Harrison paint line, we are strongly against it, inasmuch as we see no prospects of the profits on the better class paint and varnish industrial business being sufficient to off-set the shortcomings of that business and the trade sales and small scale industrial business.

The attached report as above stated, will show a calculation of a return on our prospective investment in Chicago under certain hypothetical conditions. We have been advised by the Sales Department that they have in prospect very heavy increased orders from the General Motors and other automobile companies, which has prompted their interest in an additional plant. We have seen no calculations of the amounts of this business in prospect so cannot even hazard a guess at the percent of capacity at which the new plant will be operated. There is undoubtedly a demand at present in excess of our ability to supply from Flint. This new plant, however, will afford facilities for manufacturing about 80% of Flint capacity. To expect to fill up this capacity at once and continue that plant with such an amount of orders seems a little too sanguine. The present prices of the products are unprecedented in recent years at least, and

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basing the profit on the turnover at these prices also seems a little too hopeful. The resolution of the Committee in considering this same matter on March 23rd stating that "whereas present estimates point to a return of 20 to 25% on the Flint varnish and color business should indicate a permanent average return on the investment in the Chicago plant of 15%", is also in my opinion an optimistic hope.

If the Executive Committee is in sympathy with

the recommendations in the attached report regarding the general policy to be adopted in our paint and varnish industry, I am inclined to favor the acquisition of this Chicago plant, as I believe that the resulting advantages will, together with the benefits from the Chicago operations, and our obligation to our principal customer, the General Motors Company to take care of their requirements, warrant this expansion. If on the other hand this new plant is to serve as an instrument to increase our present type of trade sales and small industrial business, I am very much opposed to it.

Yours very truly,

[Stamp] W. S. Carpenter, Jr.
Vice President

Note: "gmc 1428i" appears in the lower left-hand corner of each page. The lines on pages 1-a and 1-b are by hand. "Executive Committee Secy's No. 2728" and "Return to Room 9059" are stamped on the first page.

November 4, 1921

IRENEE DU PONT, PRESIDENT

In accordance with your request of October 26th, I have asked Mr. MacGregor to review his several reports on the paint industry made in the last five years and present herewith that information.

In 1915 it was apparent that the duPont Company would be left with large excess plants on its hands should the war end in 1917, as was considered a possibility at that time. In order to utilize to most advantage these excess plants as well as such employees as it would be desirable to continue after the war was over, the Development Department was authorized to make a general study of possible new industries, in which the duPont Company could advantageously and profitably engage. Consideration was given to many varied lines but it was felt that a policy of becoming interested only in lines which were allied to the activities of the duPont Company would be the best. Accordingly the chemical industry was given first consideration, as the Company already was a large manufacturer of chemicals and particularly of acids.

The paint and varnish industry was also given careful consideration at the same time for two reasons. It was a consumer of pigments and colors which were in turn consumers of acids and lakes. The lakes would be received from a possible entry into the dye business. Linseed oil, a chief ingredient of paint and varnish, would be received from a possible vegetable oil industry. The other reason for considering the paint and varnish business is the fact that in 1916 the condition of the paint and varnish business was very similar to the dynamite business previous to 1903. It was made up of many small manufacturers and some large but all on a very keen competitive basis, using a multiplicity of brands, labels, shades and containers. The average earnings of the industry over a period of years while not large had at least been consistent and most of the large paint concerns had built up large assets from earnings. It was apparent then there was opportunity for consolidation and economy in such an industry, as there were no particular secret processes, patents or other causes which would interfere with a new concern engaging in that business, but that the advantages of careful business management on a large scale would be fully realized.

There was only one large paint concern; namely, Sherwin-Williams which worked from the raw material clear through to the finished product and they were the most successful of all the companies. They combined also a chemical and color business and one of the policies of the duPont Company has always been a satisfactory control of its raw materials and an effort to market its products direct to the consumers.

Consideration was given to the embarking on our new lines by the formation of new departments and the acquiring of the necessary talent versus the purchase of going concerns. It was decided that the purchase of going concerns on a reasonable asset basis gave us the best foundation for future development as well as an immediate position in the business, which could not be obtained under several years' intensive development from a new start.

Examination of various possible companies indicated that the best opportunity seemed to be in Philadelphia through the purchase of Harrison Bros. & Co., Inc.

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That concern formerly had a very large and successful paint business but had neglected it since 1914 for the more profitable war chemical business. It had, however, the nucleus for us to start in three lines; namely, heavy chemicals, lithopone and paints & varnish, and plants in Philadelphia, Pa., Newark, N. J., Paulsboro, N. J., Camden, N. J. and Chicago, Illinois. It was not contemplated that we would immediately take hold of a dry color business but owing to the stock ownership of the Beckton Chemical Co., manufacturers of lithopone, being equally divided with Cawley-Clark & Co., Newark, N.J., it was felt advisable to immediately purchase the other half of the Beckton Chemical Company's stock. This resulted in the acquisition of the whole of the Cawley-Clark Company.

It was expected that further development of these companies would take place at one or more of our war plants and that we would gradually transfer the business; but the entry of the United States into the war and its further continuance prevented any utilization of our war plants in the manner above described. It was necessary to make our development on the properties purchased.

Further development of the chemical end was deferred, as immediately the acid capacity of the Harrison Company was placed at the disposal of our military requirements, and we therefore did not attempt to develop an outside business. The development of the dry color end was logical along the lines of lakes, as this country did not have much of an industry for the manufacture of lakes, and it was expected that our dye plants would include a line of dyes suitable for lake manufacture. However, as the development of the dye business proceeded, other dyes were developed and further expansion of the color business was not possible.

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The remaining line of development was the paint and varnish business and steps were taken to increase this business.

It happened that the entry of the duPont Company into the paint business through the acquisition of Harrison Bros. created some furor in the paint trade and we had the opportunity to examine some twenty or thirty paint companies, which offered themselves for sale. The Bridgeport Wood-Finishing Co. was one of the early ones and was favorably recommended, because it did not involve the purchase of additional plant facilities but gave us additional agencies and distributors, which at that time Harrison Bros. & Co., Inc. needed. It also offered a new plan of merchandising, which in view of the disadvantages of the methods in force by all the paint companies indicated an opportunity for considerable improvement.

About the end of 1917 and the early part of 1918, our own figures on our conduct of the paint business began to show such losses that we were hesitant to taking on additional companies, particularly as the business of many of these companies was entirely a trade sales proposition, which was exactly the class of business which Harrison had. Examination of many of the concerns offered to us showed that some of the concerns which had a large amount of industrial business were very much more profitable and in the purchase of the Flint Varnish & Color Works, Flint, Mich., we obtained a company which was 100% industrial sales and a very satisfactory earner. Based on this class of business we purchased the plant and business of the New England Oil Paint & Varnish Co. of Everett, Mass., which had both classes of trade, but the majority was industrial sales. This industrial business was immediately allowed to slip from our hands and our sales efforts concentrated on trade sales.

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Our losses in the paint and varnish business continued to be large in 1918 and with the acquisition of this last company we were practically forced to discontinue any efforts towards further expansion of our paint and varnish business by the purchase of going concerns. At the beginning of and during 1918 a very large expensive advertising campaign was launched but we did not reap the benefits because our distributing facilities were not in keeping with the size of this campaign.

The plan of expansion which we were forced to abandon contemplated the acquisition of various plants throughout the country at strategic points as the question of freight rates and service is an important factor in the paint and varnish business.

It was evident by the end of 1918 that there was nothing further to be done about our plan of consolidation of many of the paint and varnish companies and that we should turn our attention to making the large paint business which we then possessed a satisfactory contributor to earnings, as mere addition of new business did not help matters. The showing for 1919 was not such as to cause much optimism for our paint business and while our volume in 1920 was the largest in our history, it also was the year of largest losses which would seem to indicate that the more paint and varnish we sold the more money we lost. In the beginning of 1920, it was felt that the multiplicity of brands which we were using; that is, keeping alive purchased brands from the companies which we absorbed, was interfering with our business and it was decided to put everything under a duPont label. At the end of 1920 a steering committee was appointed, which had the following for two of its main policies:

1. To abandon our efforts to become one of the largest paint manufacturers in the country until we could make our own business pay its way; and to work on a volume of business that could be reasonably obtained.

2. The budgeting of our expenditures so that if this volume of business was obtained there was a sure profit.

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The year to date, 1921, does not see the paint business show a profit but this has been due to the fact that the steering committee was not permitted to reach its budget and therefore the expenses were greater than our receipts.

The above description has applied only to the duPont paint and varnish sales. During 1918 and 1919 when our trade sales business was showing such a loss, our subsidiary; namely, the Flint Varnish & Color Works, was showing continued good earnings. It had been for some years a considerable question with the duPont Company whether trade sales were profitable or not, as apparently our industrial business was very profitable and our trade sales were not. At the same time, however, we were faced with the facts that there were many large trade sales concerns that made a satisfactory profit. Early in 1920 the business of the Flint Varnish & Color Works was so large that it was turning away business for lack of manufacturing facilities and at their request the duPont Company undertook to obtain additional facilities.

Examination of a limited number of firms which would furnish these additional requirements resulted in the purchase of the Chicago Varnish Works. This purchase was not particularly approved by the duPont Company on analysis of business conditions but on the guarantee of the Flint Company that they could make this investment show a satisfactory return, the business and plant were purchased for the account of the Flint Company. Shortly after, the automobile business, which was the main source of revenue to the Flint Company, entered a period of depression and the Flint Company was faced immediately with excess facilities at its own plant in Flint as well as the facilities of its newly acquired plant in Chicago. The trade sales which the Chicago Varnish Company had were discarded by both Flint and duPont. From 1920 to date we also find that the other portion of our paint business; namely, that handled by Flint was also in bad shape, due to shrinkage of sales. At the time of purchase of the Chicago Varnish Works our Chicago paint plant acquired with Harrisons was dismantled and our Chicago district trade handled by a warehouse.

Turning now to our chemical business, we find it has been more or less sacrificed to the demands of our other plants; particularly, the Dye Works, after our military needs had disappeared and no effort had been made to enlarge our chemical business through adding other plants, as the years 1919 and 1920 were the period of great prosperity to other chemical manufacturers, and there was no opportunity to purchase any concern at a reasonable price.

The pigment end, which includes our lithopone and dry colors, had ridden along without any particular effort to develop new lines. There was an opportunity in 1919 to obtain a western lithopone plant but our entire chemical and pigment business was not even then showing earnings in keeping with the prosperous times and it was not felt advisable to make any addition to our lithopone facilities.

Our lead business was very unprofitable and by the middle of 1921 we were practically out of the business. A careful study of the lead industry by the Development Department indicated that if properly handled with respect to purchase of pig lead we had a satisfactory margin between that price and the average selling price of white lead. Accordingly, this industry has been revived and a plant at Philadelphia started up on the Carter process only. This is the short process and does not tie up our capital as long as is the case of the Dutch process.

The following table shows the figures available for the last few years. It will be noted that the total of the gross sales of the four divisions in 1920 and 1921 is greater than the totals shown in the first table. The difference of $638,494 in the case of 1920 is due to transfer of products between the four

divisions of the Paint Department and while they are properly shown as included in gross sales with respect to each division it is not proper to show as gross total of the Paint

Department as a whole. The figures for 1921 are an annual basis based on the actual to September 30, 1921.

	Total Investment	Gross Sales	Net Receipts
1917	$11,504,757	$8,867,820	$143,680
1918	13,781,714	10,939,345	531,332
1919	15,794,192	9,981,745	1,215,744*
1920	18,147,145	14,721,435	1,030,709*
1921	13,171,803	5,823,143	1,526,492*

PAINT & VARNISH

	Working Capital	Plants	Total Investment	Gross Sales	Net Receipts
1917	—	—	—	$1,265,328	$108,720*
1918	—	—	—	2,958,999	321,492*
1919	$4,156,754	$4,901,382	$6,058,136	4,015,769	489,337*
1920	4,509,714	1,495,044	6,004,758	5,098,705	959,363*
1921	2,393,546	1,462,849	3,856,395	2,698,793	457,616*

PIGMENTS & COLORS

1917	—	—	—	1,977,420	350,884
1918	—	—	—	2,526,935	280,761
1919	1,824,605	1,842,935	3,667,540	2,340,189	182,871*
1920	2,250,285	2,073,121	4,323,406	4,754,301	197,384*
1921	1,292,232	2,235,133	3,527,365	1,561,271	326,955*

LEAD PRODUCTS

1917	—	—	—	1,022,664	539,352*
1918	—	—	—	1,282,874	76,792
1919	1,250,444	550,462	1,800,906	1,566,933	159,586
1920	1,299,920	626,882	1,926,802	1,855,113	126,649
1921	492,700	580,854	1,073,554	555,554	272,094*

CHEMICALS

1917	—	—	—	4,602,408	710,868
1918	—	—	—	4,170,537	495,271
1919	1,423,494	2,912,332	4,335,826	2,058,854	383,954*
1920	1,939,598	3,952,582	5,892,180	3,651,810	142,080*
1921	1,138,119	3,576,368	4,714,487	1,161,444	469,827*

A casual inspection would seem to indicate a rather hopeless situation but the past events have been reviewed in order that our apparent inability to show a satisfactory return on our investment in the paint & varnish, pigment, lead and chemical businesses has not been due to any inherent defect in the industries themselves.

With the exception of chemicals, the other lines have shown moderate earnings in the peace years preceding our ownership. The chemical business of Harrison Bros. & Co. had just about broken even and the war business made the profit in 1917 and 1918.

Taking the situation as of October 5, 1921, which is the turning point, we find that our investment (excluding Flint) is approximately:

Working Capital	Permanent Investment	Total
$4,273,758	$7,807,769	$12,081,527

If Flint is included as is proper for the purposes of this report since we have sold to them our western business formerly handled by a Chicago Branch Office and Warehouse and consider in the future the earnings of the Paint Department to be the sum of Flint plus duPont we have these figures:

	Working Capital	Permanent Investment	Total
Paint & Varnish	$3,573,973	$3,405,142	$6,979,115
Lead	333,694	600,302	933,996
Pigments & Colors	1,233,128	2,207,236	3,440,364
Chemicals	780,601	3,543,528	4,324,129
Total duPont & Flint	$5,921,396	$9,756,208	$15,677,604

Taking the paint & varnish business—at the present time we have four plants strategically located; Chicago, Ill., Flint, Mich., Philadelphia, Pa. and Boston (Everett), Mass. The grief of consolidating our lines is over and the trade satisfied with our goods and container from a merchandising point of view. Our eastern industrial goods have not a very strong following as yet but conditions are improving. Our western industrial goods under the Flint name are well known and favorably received and with the addition of the duPont trade sales line to Flint to support the Chicago plant, they are in excellent position to reach for all kinds of business. Philadelphia & Boston each have good surrounding markets.

Irrespective of the devious manner in which such a position is reached we feel that our paint and varnish facilities

are ready as fast as business can be obtained. We are one of the leading paint companies and while in no position to dominate the industry we are not outclassed on either source of raw material or condition of plants by any competitor.

Taking the lead business—at the present time we find ourselves only a small factor as compared with the National Lead Company but our plant and process is as good or better than any other. We are not well established as a white lead manufacturer as no attempt has been made to feature the fact. With our excess stocks, both finished and raw, now gone, our lead business has a good chance.

Taking our pigment business—at present we find that our former leadership in lithopone manufacture has been lost but we are still one of the strong factors. With the development and marketing of our new light stable lithopone, we are now in position to re-establish ourselves. Our two plants, Philadelphia, Pa. and Newark, N.J., are well located for eastern territory and the necessity for a western location will be decided by barytes supply.

Our dry colors are well and favorably known and our one plant at Newark is in good shape and well located. The addition of a line of lake colors now in process of development will materially strengthen our position.

Taking our chemical business—we are not in a very satisfactory position in some respects. The Philadelphia plant is not in good physical shape which handicaps us on costs and production. The Paulsboro plant is a war plant as far as markets go and we are very small producers of acid as compared with some of our competitors. Freight limits our market range and it will take a little time to find the best solution of the problem of this division of the Paint Department.

In all our divisions it is obvious that our turnover

per year is too small and this is one of the most important factors affecting our profits. We would like to see a turnover of at least once a year, thereby giving us a 10% return on our investment, as at this writing we do not see where our investment can be lowered under $14,000,000 and therefore our present rate of annual sales of $7,400,000 must be doubled as one cannot expect to average more than 10% on our sales as profit.

Some of our more important policies have been determined at this time. The fundamental and most important is a control of expense before the fact coupled with a strict adherence to our budget. Our budgets are in process of preparation and will be reflected in the No. 1 Forecast for 1922.

Certain economies are possible; for example, in our sales end, the consolidation of our western business with Flint Varnish Works enables us to use an excellent office building at our Chicago Varnish Works and puts our western sales effort directly in touch with that plant. Separate offices and warehouses have been eliminated. This removes some business from our eastern plants but our policy of concentrated effort in a concentrated territory will bring in the necessary additional business.

Our Chicago Branch Office and Warehouse for pigments and colors have also moved to the Chicago Varnish Works where inexpensive space has been rented.

A small office in New York City has been obtained for chemical and pigments sales only and paint and varnish are sold from the Philadelphia plant office and a warehouse only maintained at Jersey City.

As a guide to what we expect to do in 1923, the following table is given, which includes duPont plus total Flint. The figures for 1920 are given for comparison, but these figures are quite approximate and are used to illustrate the relative position of the 1920 business with respect to our new basis.

	Paint & Varnish	Lead Products	Pigments & Colors	Chemicals
Gross Receipts	$7,000,000	$750,000	$2,500,000	$3,000,000
Freight & Delivery	350,000	22,500	75.000	120,000
Selling Expense	1,077,300	37,500	125,000	120,000
Mill Cost	4,661,700	600,000	2,000,000	2.520,000
Administrative	246,000	15,000	75,000	90,000
Net Receipts	665,000	75,000	225,000	150,000

	1920 (Approx.)	New Basis
Gross Receipts	$18,788,000	$13,250,000
Freight & Delivery	819,000	567,500
Selling Expense	1,862,000	1,359,800
Mill Cost	16,184,000	9,781,700
Administrative	546,600	426,000
Net Receipts	623,600	1,115,000
Total Investment	$20,147,145	$14,000,000
% on Investment	3%	8%

If business conditions continue as they are, however, we will feel that we have accomplished a satisfactory position if we break even but thereafter with any sort of normal business conditions, we should increase our per cent on investment to 8%.

Coupled with our budget idea, which of itself indicates what many of our policies will be, we are not losing sight of the future and our plans for sales expansion, plant development and improvement of products and processes are being worked out on not only a basis of giving the most immediate return on our investment but assuring us of a definite sequence of moves that will ultimately make our position in our several industries within the Paint Department 100% correct; namely, giving 10% return on our investment plus a reasonable addition to surplus for investment in the business itself.

H Grubb
GENERAL MANAGER

NOTE: The asterisks on page 8 have been added to indicate figures which appear in red on the original. Italics indicate handwriting. "gmc 1424" appears in lower left-hand corner of each page.

Government's Exhibit No. 286

November 30, 1921.

To: **Board of Directors**
Flint Varnish & Color Works

From: **Hunter Grubb**
A. B. Echols

SALE OF COMMON STOCK—FLINT VARNISH & COLOR WORKS

Complying with action taken at meeting of this Board on Friday, November 4, 1921, as follows:

> "**********that Mr. Grubb and Mr. Echols be appointed a special committee to prepare a plan setting forth a financial re-organization of this company, such plan to be presented at the next meeting of this Board for approval **********".

You will find attached the actual Assets & Liabilities Statement of the Flint Varnish & Color Works, as of September 30, 1921; also, the forecasted condition as of December 31, 1921.

It will be noted that the estimated open account with the Du Pont Company, as of December 31st, amounts to $1,981,621, which bears interest at the rate of 6% per annum. The interest charges on this account for the year 1921 will amount to approximately $103,000. the estimate of the amount of Open Account at December 31st, $1,981,621, includes $300,000 to cover the purchase from the Du Pont Company of the Finished Product stocks, Accounts Receivable, and Miscellaneous Equipment incident to taking over the western paint business.

Also, it will be noted that the estimated Surplus, as of December 31, 1921, is $156,757*. Assuming that the estimated condition is attained, this Board will be unable to declare, in January, the semi-annual dividend on the preferred stock. And, in view of the burdensome nature of the interest charges on the Open Account with the Du Pont Company, it is recommended hereinafter that this Open Account with the Du Pont Company be permanently financed through the sale of common stock.

The common stock of the Flint Varnish & Color Works is held as follows:

E. I. du Pont de Nemours & Company	8,490.4	shares
Directors' shares	7.8	"
C. W. Nash	1.8	"
General Motors Corporation	500.	"
	9,000.	"

It is suggested that we recommend to our principal stockholder, E. I. du Pont de Nemours & Company, that they purchase the shares held by the General Motors Corporation and C. W. Nash, amounting in total to 501.8 shares. (This purchase could probably be made at par). This would result in the Du Pont Company owning 100% of the outstanding common stock.

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It is further suggested that, after the above has been effected, the Flint Varnish & Color Works offer to sell to the Du Pont Company, additional common stock to the extent of say, 16,500 shares at $120.00 per share, which would result in the following effect on the Surplus of the Flint Varnish & Color Works:

PRINTER'S NOTE: Asterisk denotes red figures in original.

16,500 shares at $120.00 per share—	$1,980,000
16,500 shares at par, $100. per share—	1,650,000
resulting in addition to Surplus of—	$ 330,000
Estimated Surplus at December 31, 1921	156,757*
Leaving Estimated Surplus at December 31, 1921, after sale of common stock	$ 173,243
The proceeds from the sale of common stock to Du Pont Company amounting to—	$1,980,000
would be employed for the purpose of liquidating the open account with the Du Pont Company, amounting to	1,981,621
Leaving Balance in Open Account of	$ 1,621

The authorized capitalization of the Flint Varnish & Color Works, under its present charter, is as follows:

	Authorized	Outstanding
Preferred Stock	$ 500,000	$ 500,000 (50 shs. in Treasury)
Common Stock	1,000,000	900,000
Total	1,500,000	1,400,000

Thus, it will be seen that the charter will have to be amended to increase the authorized common stock, and it is suggested that the charter be amended, increasing the authorized common stock by $2,000,000, bringing the total of that class of stock up to $3,000,000. The carrying out of this recommendation would involve increasing the capital stock outstanding by $1,650,000, which would result in an increase in capital stock tax of $1,650. per year. However, it is our

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PRINTER'S NOTE: Asterisk denotes red figures in original.

feeling that this additional tax is more or less negligible as compared with the benefits derived.

It is recommended that the suggestions set forth above be approved by this Board, and that authority be granted to make such recommendations to our principal stockholder, E. I. du Pont de Nemours & Company.

Hunter Grubb
A. B. Echols

ABE:13.

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Government's Exhibit No. 287

Extract from Minutes of Meeting of the Board of Directors of General Motors Corporation duly held on the 8th day of January, 1923.

* * * * * * * * * *

The following directors were present:

Harry H. Bassett
Arthur G. Bishop
Donaldson Brown
William L. Day
Henry F. duPont
Irenee duPont
Lammot duPont
Pierre S. duPont
Fred J. Fisher
George H. Hannum
Alex B. C. Hardy
Charles F. Kettering
R. Samuel McLaughlin
Charles S. Mott
Seward Prosser
John J. Raskob
Herbert H. Rice
Alfred P. Sloan, Jr.
John T. Smith
Alfred H. Swayne
Clarence M. Woolley
Owen D. Young

* * * * * * * * * *

The Board was advised that an offer had been made by E. I. duPont de Nemours & Company to purchase at

$120.00 per share 500 shares of the common stock of Flint Varnish & Color Works owned by General Motors Corporation, that said offer had been presented to the Finance Committee of the Corporation, and by that Committee referred to the Board of Directors. Thereupon on motion duly made and unanimously carried, it was

> RESOLVED that General Motors Corporation sell to E. I. duPont deNemours & Company
>
> —2—
>
> 500 shares of common stock of Flint Varnish & Color Works at $120.00 a share provided a Committee consisting of Mr. Seward Prosser and Mr. Owen D. Young decides after investigating the matter that $120.00 a share is a fair price for the stock and so reports to the President.

* * * * * * * * * *

A true copy.

Signed *George A. Brooks*
Secretary

NOTE: Italics indicate handwriting.

Government's Exhibit No. 288

EXTRACT FROM MINUTES OF FINANCE COMMITTEE MEETING #267

FEBRUARY SIXTEENTH, 1923

E. I. DU PONT DE NEMOURS & COMPANY

AT O'CLOCK
ROY H. JOHNSON, CLERK

FLINT VARNISH & COLOR WORKS:

Letter was received from the Executive Committee, dated February 1, 1923 (#8862), enclosing report from the Development Department in connection with the above subject, and advising that at meeting held on January 31st it was moved and unanimously carried that this report be referred to the Finance Committee with the recommendation that such steps be taken as will result in our acquiring all of the stock, both common and preferred, of the Flint Varnish & Color Works. Authority having already been given to purchase the common stock, it was moved and unanimously carried that the Treasurer be authorized to purchase the outstanding preferred stock of the Flint Varnish & Color Works at such price as in the discretion of the Treasurer seems advisable, and that the above-mentioned letter and report be accepted and ordered filed.

Government's Exhibit No. 289

To: Executive Committee
From: Development Department

Serial No. S-1060
January 27, 1923

FLINT VARNISH & COLOR WORKS.

During November a study was commenced of the possible desirability of a dissolution of the Flint Varnish & Color Works. This study was undertaken because it was apparent that a certain saving could be made through a consolidation of the business of the du Pont Paint Department and the Flint Company. It was further believed that a dissolution of the Flint Company would be found advisable at an early date in view of possible serious conflict between the interests of the du Pont Company and the Flint Company on account of the Viscolac and Duco varnish developments.

In undertaking this study it was assumed that the dissolution could be effected whenever desired in the manner which has been followed in dissolution of other companies controlled by the du Pont Company. However, the writer was informed about a month ago that one of the officials of the Flint Company had in the course of a conversation expressed his personal satisfaction due to the apparent fact that the du Pont Company was not in a position to dissolve the Flint Company, which therefore henceforth would have to operate as an independent corporation. Accordingly the Legal Department was requested to make a careful study of this subject of possible dissolution of the Flint Company with special reference to whether the minority stockholders could prevent dissolution of the company if they were inclined to take such position. As a result of this investigation Mr. Sparge of the Legal Department has expressed the rather firm opinion that the minority stockholders in fact are in a position to prevent the dissolution of the Flint Company if that should be the decision of any of them, and it is my understanding that Judge Laffey concurs in this opinion. A copy of the opinion is attached as Exhibit "A".

In view of this opinion the study of the possible dissolution of the Flint Company has been discontinued and only the following facts are submitted for the Committee's information.

In the event of a dissolution of the Flint Company the possible savings with respect to change in income and state taxes would be very small, probably only in the neighborhood of $700 per annum in favor of the dissolution of the company. It is also believed that a dissolution would save very little in the way of traveling expenses or expenses of the Board of Directors, nor would there be any appreciable change either with respect to cash requirements or working capital in general. On the other hand it is estimated as a result of investigation made by Mr. Farmer of the Paint Department that the merger of the Paint Department and Flint Company might save approximately $13,000 per annum, largely through the saving in salaries of employes whose services would no longer be required. Against this saving it will be held by some connected with the Flint operations that the business of the Flint Company will be conducted to better advantage as a separate organization, but there would appear to be room for divided opinion on this subject. However, in view of the fact that the du Pont Company is not in a position to order a dissolution of the Flint Company, it is considered unnecessary to go into a discussion of this matter in this report.

It is the purpose of this report only to call to the Committee's attention that the du Pont Company is not in a position to cause a dissolution of the Flint Company whenever this

may appear desirable, and this matter would appear to require special attention inasmuch as it apparently places the Flint Company in a position in this regard different from all other of the du Pont Company's subsidiary companies. It seems to the writer that on general principles it is very undesirable for the du Pont Company to have any subsidiary company which cannot be dissolved if and when such action might appear desirable, due to changes in organization of the du Pont Company itself, due to changes in the business conditions, or due to radical changes in state legislation or federal legislation which might make it unduly burdensome to operate such separate corporation. It is therefore believed desirable that this situation should be clearly understood and that steps should be taken if possible to place the du Pont Company in a position to effect such dissolution of the Flint Company if and when it may appear desirable. This suggestion is made not because it appears important to dissolve the Flint Company in the very near future but because it might require several years time to place the du Pont Company in a position to control the question of dissolution, whereas strong reasons in favor of dissolution may be found on relatively short notice.

Govt. Trial Ex. No. 289

The stockholders of the Flint Company are as follows:

Common Stock		
du Pont Company	24996.4	shares
General Motors	500	"
C. W. Nash	1.8	"
J. J. Carton	1.8	"
Total	25500	"
Preferred Stock		
du Pont Company	4275	shares
G. C. Wilson	70	"
C. W. Nash	250	"
Margaret Strubel	27.5	"
W. C. Orrell	100	"
Albert Krats	27.5	"
Edith M. Davis	200	"
Treasury Stock	50	"
Total	5000	"

It will be seen that the du Pont Company owns 98.0% of the common stock and 85.5% of the preferred stock. It is believed that Mr. Nash and Mr. Carton are connected with the General Motors Corporation and presumably therefore all of the outstanding minority common stock can be acquired on short notice.

With respect to the preferred stockholders the writer is not familiar with the position of these stockholders and has felt it undesirable to make any inquiries in this connection at this time.

With respect to the probable cost of acquiring the outstanding minority stock, it should be noted that the General Motors Corporation paid $120 per share when they acquired this stock and presumably it can be purchased by the du Pont Company at any time at this figure, which would be $60,432 for the outstanding 503.6 shares. When the Flint Company was acquired which was at the same time the General Motors Corporation acquired their minority interest, the book value of the common stock was $87 per share, whereas as of December 1st, 1922 the book value was close to $92 per share. However, a substantial dividend was paid on the common stock during December so that presumably the common stock is worth about the same now or a little less than it was when the Flint Company was purchased. However, there is no particular urgency to consider the common stock at this time because this stock can be readily obtained when wanted and there is no strong reason at present to acquire the common stock until all of the outstanding preferred stock has been secured.

There is an outstanding bond issue of $343,000, but this does not concern the possible dissolution of the Flint Company inasmuch as this bond issue can be taken over by the du Pont Company. This obligation was incurred in 1920 due to the purchase of the Chicago Varnish Works when the bonds were assumed by the du Pont Company and thereupon transferred to the Flint Company. These same bonds may be taken over again at any time by the du Pont Company.

With respect to the outstanding minority preferred stock, this stock is worth $67,500 at par excluding the 50 shares of treasury stock. The writer has no opinion to offer as to whether it is possible to purchase this at par or what price would have to be paid.

No definite recommendation is submitted relative to the possible dissolution of the Flint Varnish & Color Works and it is the only purpose of this report to call the situation to the attention of the Executive Committee, inasmuch as the facts in the case are probably not known. The suggestion, however, is made that it appears desirable to take steps to place the du Pont Company in a position to control this situation within a reasonable time in view of possible developments, and for this purpose the outstanding minority preferred stock in the amount of 675 shares should be acquired.

Respectfully submitted,

Fin. Sparre

Note. At the upper right of the first page appears a rubber stamp reading: Executive Committee Secy's No. 8832. gmc 1500c appears in the lower left hand corner.

FILE 78

April 15, 1918

Mr. William Coyne,
Vice President,
Wilmington, Delaware.

My dear Coyne:

Mr. Warner, General Manager of the Oakland Division of the General Motors, was present at part of the conference on Fabrikoid matters the other day, but was called away to meet an engagement with Mr. Durant before he had made some suggestions which he had in mind.

He felt, that it would be desirable to get each of the divisions using artificial leather and other material such as Py-ra-lin, etc., samples of sufficient size to enable us to see exactly what was being used and to pave the way for perhaps a more general adoption of our material.

He told the various participators in the conference that if a vote were to be taken by the various agents handling General Motors goods as to whether it would be wise to adopt artificial leather, coupling with it a substantial reduction in the price of the car, 90% would be against the discontinuance of the use of real leather for upholstering purposes.

He told me he believed artificial leather could be adopted which would give exactly as good results as the grade of split leather they are using at a higher price, but he felt that each manufacturer of motor cars would be disinclined —even if thoroughly satisfied regarding quality, etc.,—to change to artificial leather unless competitors in similar grades were to take the step at the same time, which of course might not be impossible of accomplishment.

I know that both he and Mr. Durant think that the leather conditions may become sufficiently acute to force the use of artificial leather, at least in part.

Would it not seem therefore the proper course of procedure would be to determine and place ourselves in position to furnish Fabrikoid of required quality and also consider how best to get cooperation whereby makers of such of the low priced cars as it would seem possible and wise to get transferred will be put in the frame of mind necessary for its adoption?

I talked with Mr. Warner also regarding the top material and he spoke of a test which had been made comparing our

top materials with those manufactured by Chase and one other concern in which our materials made an unfavorable showing,—not because the material went to pieces or was in any way less serviceable, but because it did not retain its color.

Yours very truly,

Vice President.

Copy to
Mr. P. S. duPont
Mr. J. J. Raskob

Government's Exhibit No. 291

DU PONT FABRIKOID

Du Pont Fabrikoid Company
INCORPORATED

CABLE ADDRESS
"FABRIKOID"
WILMINGTON

MANUFACTURERS OF
ARTIFICIAL LEATHER

SALES DEPARTMENT
~~WILMINGTON, DELAWARE~~

120 Bway., New York, Apr. 19, '18.

Mr. J. A. Haskell,
c/o Chevrolet Motor Co.,
Broadway & 57th St., N. Y.

Dear Sir:-

We are to a great extent familiar with the various Companies, comprising the General Motors, but we are afraid we have not the entire list, and persuant to a plan, or thought, which we wish to work out, which came up at a recent meeting, our people had with Messrs. Hohensee and Durant, at which conference, I had the pleasure of meeting you, it is necessary we have a complete list of all of the firms, comprising the General Motors Organization.

Won't you kindly favor me with such a list?

Yours very truly,
Du Pont Fabrikoid Co. Inc.
Sales Agent.

CHS/WLD.

Government's Exhibit No. 292 —

April 20, 1918

Mr. C. Hallock Silkman,
Sales Agent DU PONT FABRIKOID COMPANY
130 Broadway, New York.

Dear Sir:

Answering your inquiry of the 19th instant would say that the following is a list of the companies comprising the General Motors:

Buick Motor Company	Flint
Cadillac Motor Car Company	Detroit
Oakland Motor Car Company	Pontiac
Olds Motor Works	Lansing
General Motors Truck Company	Pontiac
Chevrolet Motor Company	New York

The Chevrolet Company is also largely interested in the Scripps-Booth Corporation of Detroit.

Yours very truly,

-# Vice President.

NOTE:—"-#" appears to the left of signatory's title.

Government Exhibit No. 275

Government's Exhibit No. 293

3786

Copy to - J. A. Haskell,
J. A. Burckel,
Arlington Wks.,
New York, N.Y.

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE
VICE-PRESIDENT

May 23, 1918.

To - C. L. Patterson,

From - Wm. Coyne.

SALES TO GENERAL MOTORS COMPANY.

May 18th, Mr. Burckel writes as follows,

"I called upon Mr. J. A. Haskell this afternoon and had a very pleasant and satisfactory talk with him in regard to the requirements of General Motors Company for Pyralin sheeting.

Mr. Haskell is in full agreement with my views which had previously been approved by you, viz., that we cannot afford to jeopardise our business with other Motor Companies by giving preferential treatment to the General Motors Company or to any of their units.

I gave Mr. Haskell a synopsis, presenting what I believe to be the full and true facts regarding our relations with the various automobile manufacturers, and it is Mr. Haskell's opinion that a continuation of our present policy should result in our securing practically all of the business of the General Motors Company without jeopardising our relations with other manufacturers.

Mr. Haskell makes the suggestion, which I consider a good one, that I advise him periodically as to the business shipped and business booked with the different motor branches, of General Motors, and also advise him what proportion of their business is going elsewhere. With this information in his possession, he will be able to keep in touch with the relations between the Arlington Works, and the General Motors Company, and will give me his suggestion at any time when the conditions indicate the need of special attention."

Quotation Ends.

I would suggest that you likewise advise Mr. Haskell, periodically as to business shipped and business booked, with the different Motor Branches, and also what proportion of their business is going elsewhere.

WC/R

NOTE: Illegible handwritten symbol appears at upper right corner. Stamp at upper right bears date, "MAY 28 1918", and name, "J.A. HASKELL". Second paragraph of quoted letter is bracketed in the right margin with two short, diagonal, hand-drawn lines, as is the third paragraph.

Government's Exhibit No. 294

3287

The Arlington Works

OWNED AND OPERATED BY

E. I. DU PONT DE NEMOURS & COMPANY, INC.

DU PONT
ESTABLISHED 1802

725 BROADWAY, NEW YORK

IVORY PY-RA-LIN
PY-RA-LIN SHEETING
CHALLENGE
CLEANABLE
COLLARS

HOME OFFICE
DU PONT BUILDING
WILMINGTON, DEL.

SALES DEPARTMENT

June 15, 1918.
Dict. June 15

Mr. J. A. Haskell, Vice President,
E. I. du Pont de Nemours & Company,
57th Street & Broadway,
New York City.

My dear Mr. Haskell:

You will recall that I had a talk with you recently in regard to business done with The Arlington Works by the General Motors Company in the line of transparent Pyralin sheeting, and you suggested that I keep you advised in regard to orders received, shipments made, etc..

I am enclosing herewith a memorandum in three divisions, showing:

1. Orders received during month of May..
2. Shipments made during month of May.
3. Competitive conditions.

Yours very truly,

J A Burckel

SALES MANAGER.

JAB/FCS

June 15, 1918.

ORDERS RECEIVED DURING MONTH OF MAY

Name	Date of Order	Amount
Olds Motor Works	5/15/18	10,700 Sheets
Chevrolet Motor Co.	5/8/18	75,000 " "

SHIPMENTS MADE DURING MONTH OF MAY

Name	Date Shipped	Amount Shipped	Back Orders
Olds Motor Works	5/10	1,540	13,584
Chevrolet Motor Co.	--	--	75,000
Cadillac Motor Co.	5/1	2,950	
	5/14	1,350	
	5/18	2,925	
	5/22	1,550	9,185

COMPETITIVE CONDITIONS

Buick Motor Company	Letter of 5/27/18 states order placed with competitor (approximately 100,000 sheets).

FCS

Government's Exhibit No. 295

DU PONT FABRIKOID

Du Pont Fabrikoid Company

INCORPORATED

MANUFACTURERS OF

ARTIFICIAL LEATHER AND RUBBER CLOTH

CABLE ADDRESS
"FABRIKOID"
WILMINGTON

SALES DEPARTMENT

WILMINGTON, DELAWARE

1-615 – Purchases
Leather substitute
Rubber Cloth &c – G.M.

July 2nd, 1920.

Our file WSS

Mr. J. A. Haskell, Vice Pres.
General Motors Corporation,
224 West 57th St.,
New York City.

Dear Sir:-

File F-114.

We are today in receipt of a letter from Mr. Earle Clark, enclosing reports showing purchases of Leather Substitutes, Rubber Cloth and Mohair Top material by the Olds Motor Works for the months of December 1919 to May 1920, inclusive.

We want to assure you that we very much appreciate your assistance in securing this information for us.

Yours very truly,

W. S. Simpson

WSS-LMM.

Manager Statistical Bureau.

Government's Exhibit No. 296

OLDS MOTOR WORKS
Lansing, Michigan

ED. VERLINDEN,
President

JULY 11, 1918.

Mr. J. A. Haskell, V. P.,
General Motors Corporation,
New York, N. Y.

Dear Mr. Haskell:—

With reference to our purchases of Imitation Leather during the years 1917 and 1918, wish to advise that we did not purchase any of this material from the L. C. Chase Company. We did, however, buy from DuPont and Textileather Companies as follows:

	1917	1918
Dupont 50" Imitation Leather	87049 Yds	676 Yds to 2/26/18
Textileather Imitation Leather	45587 Yds	67708 Yds to 5/31/18

Yours very truly,

/s/ EDW VERLINDEN

NOTE. At top time stamp "Received Jul 13 1918 J. A. Haskell". To right of addressee caption is pencil notation "wrote 8/5". Pencil notation at bottom: "how much top and curtain material for 1917 & 1st half 1918?"

Government's Exhibit No. 297

ALL QUOTATIONS SUBJECT TO CHANGE WITHOUT NOTICE

3791

DU PONT FABRIKOID

Du Pont Fabrikoid Company

INCORPORATED

MANUFACTURERS OF

ARTIFICIAL LEATHER AND RUBBER CLOTH

CABLE ADDRESS
"FABRIKOID"
WILMINGTON

SALES DEPARTMENT

WILMINGTON, DELAWARE

July 12, 1918.
OUR FILE "COT"

Mr. J. A. Haskell,
℅ Chevrolet Motor Co.,
57th & Broadway,
New York, N. Y.

Dear Sir:-

We attach hereto report of General Motors Units for month of June showing unfilled yardage June 1st, yardage placed during June, yardage shipped during June and unfilled yardage as of July 1st. Also Report showing competitive Sales to June 30th.

Very truly yours,

DU PONT FABRIKOID COMPANY.

PER: C O Terpening

COT/lg.

To Mr. J.a. Haskell

3792

REPORT OF GENERAL MOTORS UNITS FOR MONTH OF JUNE 1918.

BUICK.
FABRIKOID.

Unfilled yardage June 1st,	520
Yardage placed during June	41500
Yardage shipped during June	500
Unfilled yardage July 1st.	41500

FAIRFIELD.

Unfilled yardage June 1st.	4993
Yardage placed during June	600
Yardage shipped during June	5593
Unfilled yardage July 1st.	none

OLDS

Unfilled yardage June 1st.	35110
Yardage placed during June	75700
Yardage shipped during June	20110
Unfilled yardage July 1st.	90700

Shipments of unfilled yardage July 1st are dated for shipment up to September 1st.

CADILLAC

Unfilled yardage June 1st.	none
Yardage placed during June	6500
Yardage shipped during June	6500
Unfilled yardage July 1st.	none

OAKLAND

Unfilled yardage June 1st	24000
Yardage placed during June	none
Yardage shipped during June	19794
Unfilled yardage July 1st.	4206

3793

GENERAL MOTORS TRUCK.

Unfilled yardage Junet 1st.	2000
Yardage placed during June	none
Yardage shipped during June	1000
Unfilled Yardage July 1st.	1000

CHEVROLET FABRIKOID

Unfilled yardage June 1st	430,800
Yardage placed during June	30,000
Yardage shipped during June	120,800
Unfilled yardage July 1st.	340,000

FAIRFIELD

Unfilled yardage June 1st	none
Yardage placed during June	12,393
Yardage shipped during June	2031
Unfilled yardage July 1st	10,362

C. O. Terpenning
7-10-15

COMPETITIVE SALES TO GENERAL MOTORUS UNITS TO JUNE 30, 1918.

NAME AND LOCATION	COMPETITOR	2nd QUARTER UPHOLSTERY	2nd QUARTER AUTO TOP	FROM JUNE 1st to 30th. UPHOLSTERY	FROM JUNE 1st to 30th. AUTO TOP
Olds Motor Works Lansing Michigan	Chase	94,500	20,070	31,500	9,685
	Textileather	49,995	3,695	16,665	2,805
Chevrolet Motor Car Co. N. Y.	Barrell		374,090		124,120
" " " " St. Louis	Chase	24,830	25005	12,500	8,335
" " " " Flint	-----	-------	------	--------	------
" " " " Fort Worth	-----	-------	------	--------	------
" " " " Oakland	------	-------	-------	--------	------
Cadillac Motor Car Co. Detroit	Pantasote	41,715	32,505	14,055	10,835
Oakland Motor Car Co. Pontiac	Chase	7, 300	------	-------	------
	" Rubber	------	62,505	-------	20,835
	Boston Woven Hose & Rubber	------	62,505	-------	20,835
General Motors Truck Co. Pontiac	--------	------	------	--------	------
Buick Motors Car Co. Flint	Chase	208,735	------	75,090	------
	" Rubber	-------	18,750	------	6,250
Scripps-Booth Detroit	I. S. Carr Co.	-------	8,130	-----	2,710
	Pantasote	25,005	8,130	8,335	2,710
TOTAL		452,080	615,385	158,145	209,120

Government's Exhibit No. 298

3795

CADILLAC MOTOR CAR COMPANY

DETROIT, MICHIGAN

OFFICE OF THE PRESIDENT

RECEIVED
JUL 15 1918
J. A. HASKELL

July 12, 1918.

Mr. J. A. Haskell,
General Motors Corporation,
New York City.

My dear Mr. Haskell:

If the enclosed memorandum does not give you the information you are seeking, please advise me further. I will be very glad to furnish same.

Yours very truly,

RHCollins

President.

RHC/C

Encl.

DU PONT FABRIKOID COMPANY,

Artificial Long Grain Leather.

1917	30,000 yds.
1918	18,500 "

HODGMAN RUBBER COMPANY.

Curtain and Deck Material.

1917	325 yds.
1918	73,000 "

DU PONT FABRIKOID COMPANY.

Rayntite Top Material.

1918	3,000 yds.

PANTASOTE COMPANY.

Curtain and Deck Material.

1917	189000 yds.
1918	54050 "

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Government's Exhibit No. 299

Letterhead of
GENERAL MOTORS TRUCK COMPANY
PONTIAC, MICHIGAN

FILE 78 July 13th, 1918

Mr. J. A. Haskel, Vice Pres.,
General Motors Corporation,
1764 Broadway,
New York City.

My dear Mr. Haskel:

Answering your valued favor 5th inst. with reference to the number of yards of artificial leather purchased by us during 1917 and thus far in 1918 beg to say.

During the year of 1917 we purchased from the Chicago Decorative Leather Company, 6000 yards✓ Elkhide XX 50" Grain, H S Medium Dull.

Thus far in 1918 we have purchased all artificial leather from the DuPont Company amounting up to this time to 5000 yards Grain M, finish 96, 50" napped; 2500 yards, 10000 quality, Grain M, B finish, Color 96 black.

We are not supplying the Government with seats on ambulances and therefore, our constumption of trimming leather is lighter than it would be otherwise.

Very truly yours,

W. L. Day
General Manager

WLD

NOTE: "Received Jul 15 1918 J. A. Haskell" is stamped, and "78" is written at top of page. Italics indicate handwriting.

Government's Exhibit No. 300

Letterhead of
OAKLAND MOTOR CAR COMPANY
PONTIAC, MICHIGAN

July 15, 1918.

Mr. J. A. Haskell,
1764 Broadway,
New York City.

Dear Mr. Haskell:—

Referring to your favor of the 5th inst., I beg to hand you herewith statement showing the amount of imitation leather, top material, and side curtain material received by us from January 1st, 1917, to June 1st, 1918. These figures are accurate because they are taken from our receiving slips.

I also attach hereto a memorandum from Mr. O'Rourke in reference to troubles we have had with this class of material.

If there is any additonal information that I can give you, please advise me.

Yours very truly,

Fred W. Warner,
General Manager,
OAKLAND MOTOR CAR COMPANY.

FWW-GFB
2 Enc.

RECAPITULATION OF IMITATION LEATHER, TOP MATERIAL, & SIDE CURTAIN MATERIAL RECEIVED BY OAKLAND MOTOR CAR COMPANY FROM JANUARY 1st, 1917 to JUNE 1st, 1918

7-11-18

Firm Name	Material	Quantity 1917	Quantity 1918
DuPont Fabrikoid Company	50" Imitation Leather	13152¼ Yds.	10257¾ Yds.
"	54" " "	2168-7/8 "	
L. C. Chase & Company	50" " "	32469¼ "	16061 "
"	52" " "	299 "	
"	53" " "	132 "	
"	54" " "	15358¾ "	
L. J. Mutty Company	36" Side Curtain Material	~~81272½ Yds.~~	1835 Yds.
"	54" " "	20139½ "	9828¼ "
Boston Woven Hose & Rubber Co.	36" " "	41890½ "	15874½ "
L. C. Chase & Company	36" " "	154022½ "	72166½ "
L. J. Mutty Company	54" Top Material	65305½ "	
Boston Woven Hose & Rubber Co.	54" "	42134½ "	12463¼ "
L. C. Chase & Co.	54" "	90081½ "	36234 "

COPY

Office Memoranda Must Receive Prompt Attention

OFFICE MEMORANDUM

OAKLAND MOTOR CAR COMPANY

Division of General Motors Corporation

FOR THE ATTENTION OF Mr. Warner:—

DATE July 9, 1918.

SUBJECT:

Replying to your Memorandum of the 8th, with reference to Imitation Leather that we have purchased from the L. C. Chase Company and the DePont Fabrikoid Company, would say that our experience has been that the L. C. Chase Company material is very much superior to that manufactured by Du Pont.

We have never had any trouble whatever with the Chase material and have had two very serious complaints to enter with the Du Pont people.

Under date of November 2, 1916 we returned 8,444 yards of material to Du Pont on account of the great variance of shade that their finish was running. As a matter of fact individual rolls of this shipment would have two or three different colors of finish.

Under date of March 11, 1918 we wrote the Du Pont people in regard to the fact that we were having trouble making paste stick to the back of their imitation leather. They immediately sent their representative to investigate this condition and we have recently received another shipment from them which we are just starting to cut into, and I will advise you further as to whether or not this trouble has been eliminated.

J. S. O'Rourke

JSR:MG

NOTE: The line in margin on the third page is by hand. "Received Jul 17 1918 J. A. Haskell" is stamped, and "78" is written, at top of first page. Italics indicate handwriting.

Government's Exhibit No. 301

Letterhead of

OAKLAND MOTOR CAR COMPANY

Division of General Motors Corporation

Date July 20, 1918.

For the Attention of Mr. Warner:—

SUBJECT:

I have carefully read over Mr. Haskell's letter of the 16th, and enclosing a copy of a letter from Mr. Petze, Director of Sales of the Du Pont Fabrikoid Company, and in reference to our recent purchases.

To even up our materials in connection with the releases of the last 15,000 cars, we needed 6,000 yards of Imitation Leather. This we purchased from the Zapon Company at a net price of 81¢ per yard.

We also have a contract with the O'Bannon Corporation for our requirements, of not to exceed 25,000 yards, of their C-XX, 50" Imitation Leather, and on which they allowed us the old list price of 39¢ per yard, from which we receive a discount of 10%.

The DuPont Fabrikoid Company's best price to us at the time this contract was closed, was made against their list, effective June 24th, and which listed their 3000 Grade at $1.10½, from which they would have allowed us 10-5%.

/s/ J. S. O'ROURKE

R

JSO:MG

Government's Exhibit No. 302

Letterhead of
DU PONT FABRIKOID COMPANY
OPERATING DEPARTMENT
WILMINGTON, DELAWARE

July 3, 1918.

Mr. J. A. Haskell,
Chevrolet Building,
57th St. & Broadway,
New York, N. Y.

Dear Mr. Haskell:—

OUR FILE FO-CHEVROLET MOTOR CO.—FK

If we are ultimately to furnish all, or the greater part, of the top material for the Chevrolet and General Motors cars would it not be well for these several users to agree upon a uniform shade of drab for the back, or lining?

The several gentlemen with whom we have thus far come in contact upon this point have worked with us and have usually agreed to take our present standard shade. However, most of them were using and preferred a different shade, though they were not alike in the case of each manufacturer. It is therefore apparent that something different from our Newburgh standard of drab would be generally preferable with the Chevrolet and General Motors top makers; if a uniform shade can be decided upon we shall be glad to try to produce it.

This letter is written to you because I am not quite sure just how we should go about getting action, but know that if you approve of the idea you will put it into the proper hands. If somewhat premature kindly disregard it.

Very truly yours,

F. Kniffen
Vice-President.

FK/IRB

NOTE.—"Received Jul 5 1918 J. A. Haskell" is stamped at top, and "78" and "Ans 7/6" are written at top of page. Italics indicate handwriting.

2

Copy to F. W. Pickard,
Vice President.

November 18, 1919.

BOARD OF DIRECTORS,
DU PONT FABRIKOID COMPANY.

SUBJECT: CONTRACT WITH BUICK MOTOR CO.

Your communication November 13 received, and as requested I am giving you below circumstances surrounding the acceptance of the contract withthe Buick Company:

Our contract with the above Company, taken on April 17, called for the following materials:

525,000 yards Double Texture top material at 1.0045¢ per yd.
950,000 yards Single Texture curtain material at 59.78¢ per yd.,
and 200,000 yards of Bow Lining at 34.055¢ per yd.

At the time this contract was taken, the estimated replacement cost for the three above mentioned materials, was respectively 93.70¢ per yd.; 50.90¢ per yd., and 29.60¢ per yard, and the grey goods required for the contract was purchased at the prices used in arriving at the estimated replacement cost.

The total estimated cost of the three types of material sold, including the usual estimate for selling expense and administrative, was $1,100,718.08. The total selling price of the three types, taking off 2% cash discount, is $1,163,-

382.50, or a net estimated profit of $62,664.42, equivalent to 5.39% on sales price.

Referring to my statement at the last Directors' meeting that instructions had reached me from Mr. P. S. du Pont to accept this contract at cost, I have investigated this statement and report as follows:

At the time negotiations were on, Mr. Pickard was familiar with the fact that on account of our relations with the General Motors Corporation, our competitors were naming abnormally low prices, either with the intention of taking the business which they had heretofore enjoyed, even at a loss or a small profit, or with the idea of making the business unprofitable to us, and so informed Mr. Du Pont who stated to him that he thought it was wise, in order that we might open business relations with the Buick Company, for materials which we had not heretofore sold them, to go even as low as our cost price. You will note however, from the above, that based on estimated cost, our sales price showed a 5.39¢ return.

The percentage of profit actually made in the four months June to September (deliveries on the Buick contract started in June), was 15.90% on sales price, and the return on investment for this same period was 24.80%. Using the April estimated profit on the Buick contract of 5.39%, the return on investment on this contract, providing estimated costs had been realized, would have been 8.40%.

Having accepted the Buick contract, it was necessary that we modify our prices on like material to other General Motors Units with which we had contracts, viz., Chevrolet 132,280 yards; Olds 65,234 yards and Oakland 180,000 yards.

The cost June to September of the three types of material was as follows:

Double Texture Top material 1.2656
Single Texture curtain material 55,21¢
Bow Lining, 36.57¢,

and if we include selling and administrative expenses, the difference between estimated and actual costs is respectively as follows:

34.95¢ per yd.
04.59¢ per yd.
07.41¢ per yd.

The explanation for these increased costs I am leaving to the Operating Department.

One thing however that it seems to me should be given due consideration, is the fact that prior to our acceptance of the General Motors contracts, the Fairfield Plant was to all intents and purposes a one-customer plant (Ford Motor Company), and the trade to a very material extent regarded it as a Ford, or low-priced product plant. This made it difficult to interest higher-grade cars to the point of contracting with us. The fact that we had contracted with Buick and other General Motors cars placed us in a position to write contracts in other directions at considerably higher prices than our General Motors Contracts.

In changing Fairfield from a Ford Plant to a diversified Motor Plant, we encountered difficulties and extraordinary expenses; explanations of both of these however should come from the Operating Department rather than from me, but I do feel that attention should be called to the fact

3

that we have materially raised the standard of quality of Fairfield's production and are now able to, and are, making as good a quality as anyone in the business. In this connection it might not be amiss to call attention to the fact that the Buick Company have quite recently stated that not only were our deliveries 100% efficient, and it was not true of many of our competitors, but also that the quality of material that they were receiving was the best they had ever had from anyone.

Chas L Petze
VICE PRESIDENT?

CLP*mlm

NOTE: "GMC 1510" is written in lower left corner of both pages. "DU PONT FABRIKOID COMPANY SECY'S NO." is stamped in upper right corner of first page; "440" is inserted by hand in the blank after "No." "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of both pages. Initials which appear to be "F D B" are written in upper left of first page. Italics indicate handwriting.

Government's Exhibit No. 304

December 19,1919.

To — EXECUTIVE COMMITTEE,
E. I. DUPONT DENEMOURS & COMPANY.

FROM— BOARD OF DIRECTORS,
DUPONT FABRIKOID COMPANY.

CONTRACT WITH BUICK MOTOR COMPANY:

We attach hereto copy of report from the Sales Department dated November 18,1919, (#440) in connection with the above-mentioned subject:

At meeting of the Board of Directors of the duPont Fabrikoid Company held yesterday, it was moved and unanimously carried that this communication be accepted and ordered filed, and that a copy be referred to the Executive Committee of E.I. duPont deNemours & Company for their information.

M D Fisher
Assistant Secretary,
duPont Fabrikoid Company.

3.-encl.

NOTE: "Executive Committee Secy's No. 2090" and "Received Dec 19 1919 Lammot du Pont" are stamped at top and "Return to Executive Committee Room 9069" is stamped at bottom of page. "L du P" is written at top and "GMC 1512" is written at bottom of page. Italics indicate handwriting.

Government's Exhibit No. 305

224 West 57th Street
February 3d, 1920

Mr. M. L. Prensky,
Treasurer General Motors Corporation,
Detroit, Michigan.

Dear Mr. Prensky:

I am this morning in receipt of a letter from Mr. W. S. Simpson, Manager of the Statistical Bureau of the duPont Fabrikoid Company, calling attention to the fact that they are not now receiving the statistical information formerly received from Detroit regarding purchases of Leather Substitutes and Rubber Cloth by the several units of the General Motors Corporation, and I am writing to ask if there is any reason why we cannot continue to supply this information, which is exceedingly valuable to the duPont people for statistical purposes.

Awaiting your kind consideration of and advices regarding the matter, I remain

Yours very truly,

Vice President.

Government's Exhibit No. 306

Copy to – Irene DuPont, Pres. DuPont Co. ✓
" " – R.R.M.Carpenter, Pres. Fab. Co.
" " – F.W.Pickard, Vice Pres. DuPont Co.

du Pont Fabrikoid Company
Wilmington, Delaware

VICE PRESIDENT'S OFFICE

July 29, 1920.

Mr. John J. Raskob,
Vice President,
Bldg.

Dear Sir:—

Subject: Contract With Buick Motor Co.

Early this year we contracted with the Buick Company for approximately 1,300,000 yards of deck and curtain material, for delivery July 1, 1920 to June 30, 1921, which on a basis of their schedule at that time, viz., 170,000 open cars, represented 2/3 of the total quantity they required, and bought the necessary grey goods to supply the finished product required by them for the period July 1 to December 31, 1920.

In April, following the receipt by them of lower quotations from one of our competitors, at a meeting at which Messrs. Pickard and Bassett were present, we agreed to reduce the yardage to 780,000 yards, which left us with a surplus of grey goods; a part of which has been disposed of, the balance however present conditions indicate will have to be sold at a loss.

I am enclosing herewith copy of contract which as you will note also includes drab dyed drill in amount of 480,000 yards. When this contract was negotiated, the Buick Company asked that it provide for a minimum and maximum yardage, but on account of the condition of the grey goods market we told them that this was impossible, that they would have to contract for a specific yardage and positively agree to take delivery of it.

They now ask that we reduce the several yardages called for in the contract approximately 55%, and further, that we postpone shipment of material which we now have made up and ready to ship, and at the suggestion of Mr. Irenee Du Pont I am now taking the matter up with you with the request that it be taken up by you with the officials of the General Motors Corp.

I attach hereto copies of Buick telegram of July 21; my reply of July 24 and theirs of July 27.

Our policy does not contemplate acceptance of cancellation on contracts, and if we accepted the requested Buick cancellation we can hardly justify a refusal to accept cancellations from other customers. If cancellations should be accepted by us it would necessitate the sale of grey goods which we are at present committed for, at a material loss, for the reason that even if our views of

—2—

business integrity would permit us to ask grey goods sellers to cancel their contracts, we know through statements which they have voluntarily made they would not accept cancellation, and would only agree to postponement of delivery providing we paid for the goods when ready for shipment, and also paid the necessary storage and insurance expense. In addition to this loss we would of course suffer a loss due to decreased factory production and the loss of our prospective profit.

2

Please note in a previous paragraph attention is called to the fact that we are requested to cancel 55% of the deck and curtain material they contracted for. Our information is that the original contract was based on a schedule of approximately 170,000 open cars and the reduced schedule is for approximately 135,000 open cars. This naturally brings out the question to what extent have they asked our competitor to cancel his contract with them, and has he agreed to do it? If the information in our possession is correct, seemingly they have not asked for any cancellation on his part. Please note attached memorandum. Competitor referred to is J. C. Haartz, Inc., of Boston, Mass.

If in addition to cancellation, postponements of the nature of the 20,000 yards referred to in the Buick telegram of July 21 are requested, the question immediately becomes one of finance rather than of sales, and narrows down to whether the Du Pont Fabrikoid Company shall to some degree finance the General Motors Corp.

I will appreciate as early reply as it is possible for you to get, in order that factory operations may not be materially interfered with.

Yours very truly,

Chas. L. Petze
VICE PRESIDENT.

CLP*mlm

NOTE: "50" is written in upper right corner of first page. Check mark after "Irenee DuPont, Pres. DuPont Co" at top of first page is by hand. Line is drawn through addressee's name and address. "NOTED I. du P." is stamped at upper right of first page. Italics indicate handwriting.

Government's Exhibit No. 307

August 25, 1920,

Mr. C. L. Patse, Vice President,
DuPont Fabrikoid Company,
Wilmington, Delaware.

Subject: CONTRACT WITH BUICK MOTOR CAR COMPANY

I have delayed treating your communication of August 10th because I wanted to have an opportunity of talking to Mr. Bassett about the matter. An opportunity arose last Friday when I had a short talk with him together with Mr. Durant from which it appears that it is not improbable that because of the lower price of your competitor who received a portion of the Buick contract, the curtailment came more quickly on our contract.

It was explained that the matter we were interested in was not a cancellation but merely a deferment, and this morning I am in receipt of a letter from Mr. Bassett after his investigation of the matter, the gist of which is the following:

> "Regarding the curtain materials which we are buying from the duPont Company, which we discussed with Mr. Durant last Friday at Detroit, Mr. Allen is writing a letter to the duPont people telling them that if they do not wish to cancel the material, they can leave it on order and we will take it in as needed."

At the Finance Committee Meeting several days ago, the general matter of deferment of orders for materials was discussed and I referred briefly to this particular instance which had remained unanswered because I had been unable to get in touch with Mr. Bassett. Mr. Durant said frankly that it had become to be the custom of the automobile trade whenever change in conditions arose which necessitated that contracts for materials should be cancelled or deferred, that the suppliers of such materials had willingly accepted such orders for deferment in order to maintain the good will of the automobile companies.

At this discussion Mr. P. S. duPont and Mr. Irenee duPont were present and they perhaps will tell you the attitude taken by Mr. Durant. If the duPont Company feel they want to pursue the matter further, I think better results would be accomplished by your taking it up directly with Mr. Bassett or getting Mr. P. S. duPont or Mr. Irenee duPont to discuss the matter as one of principle with Mr. Durant.

Regretting that I cannot offer a more satisfactory solution in the matter,

Yours very truly,

Vice President.

(over)

3815

P. S. Please don't take this as indicating any unwillingness on my part to help further in the matter, as I stand ready to do anything I can.

JAH

NOTE: Signature is "JAH".

Government's Exhibit No. 308

Govt. Trial Ex. No. 308

NT DE NEMOURS & COMPANY
INCORPORATED
SALES DEPARTMENT
WILMINGTON, DELAWARE

VICE PRESIDENT

September 15th, 1920.

Mr. J. A. Haskell, Vice Pres.,
General Motors Corporation,
1764 Broadway,
New York City.

Dear Mr. Haskell:

CONTRACT WITH BUICK MOTOR COMPANY

Confirming and supplementing our conversation of last Friday, relative to contract between duPont Fabrikoid Company and the Buick Motor Company for certain material, you have, I believe, Mr. Petze's letter to Mr. Raskob dated July 29th, which sets forth the circumstances under which this contract was made.

The customary form of contract used by the General Motors organization has a clause under which is reserved the right to cancel or hold up the proportionate amounts of the material ordered. The contract in question, however, is not drawn in this form, and is an outright purchase and sales contract, for definite amounts and definite deliveries.

There are three points which, it strikes me, we should consider most carefully, namely,

1. The most intimate and friendly co-operation between the units of the General Motors organization and the duPont organization.
2. That the duPont Fabrikoid Company must feel that its contracts are real contracts, to be observed both by buyer and seller.
3. The contract between the Buick and the Fabrikoid companies was a firm contract, in which was involved the purchase of a large yardage of grey goods specifically for this business, which goods were purchased at a time and price designated by the Buick Company.

I appreciate the circumstances under which the General Motors organization is reducing its inventories. Our

Govt. Trial Ex. No. 308

3817

A. Haskell, Vice Pres.,
eral Motors Corporation,
764 Broadway,
New York City.

concerns here are in a similar position, and merely shifting the obligation from one inventory to another does not materially help the general interest.

I understand from our conversation that the Buick people expect to begin almost immediately to order out material under the contract in question, and if, as I inferred from your mention of their production schedule, the amount so ordered is likely to be within about 17% of what was contemplated, apparently they will use up the goods covered by the six months contract in a period of eight months or less. They would then be in a position to begin the use of material under the second contract say about March 1st instead of January 1st. If this estimate is in accordance with the facts, I feel that the Fabrikoid management will be content to stand the rather heavy carrying charges on these goods for the excess period as a matter of accommodation in the common interest, but without prejudice to the terms of the contract itself.

If, on the contrary, conditions should shape themselves so that very material postponement of deliveries became necessary, the matter should in my judgment be subject to further consideration along the lines of some adjustment for carrying charges or other losses occasioned by the postponement.

The foregoing is along the lines of our discussion Friday, and will be, I hope, satisfactory to all concerned.

Very truly yours,

F. W. Pickard

VICE-PRESIDENT.

FWP:JMQ

Government's Exhibit No. 309

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

TREASURER'S OFFICE

April 28, 1921.

Mr. F. Donaldson Brown, Vice Pres.
General Motors Corporation
New York City.

Dear Sir:

You will recall an arrangement which was made between the Du Pont Company and the General Motors Corporation in connection with damages on account of changes in certain Fabrikoid contracts which the Fabrikoid Company had with the General Motors Corporation, providing for the payment to the Du Pont Company of some $700,000.00. It is my understanding that the details of this arrangement were arranged between Mr. Raskob, Mr. Petze, and yourself.

In this connection, several days ago we received a check from the Oakland Company for some $24,000.00, which they say they were forwarding as their part of this payment to be made to the Du Pont Company. They followed this up, however, with a subsequent communication requesting the return of that $24,000.00 advising that it had been sent on by mistake, inasmuch as they had since learned that that adjustment was merely to be of the nature of a bookkeeping adjustment. You are, of course, familiar with the fact that this is not the case.

In view of the facts, I requested Mr. Mason to hold the check here and to advise the Oakland Company that it was being held pending a discussion of the matter at this end.

—2—

I should be pleased to have you let me know why the Oakland Company should take the position which they do now, and also would like to have you advise me of any information why this payment should be returned.

I am advised by Mr. Mason that, according to Mr. Petze, no definite time was set for the payment of this some $700,000.00. I have not yet had an opportunity to look into that adjustment, but, if it is true that no definite date was set for the payment of this sum, we should, of course, be pleased at this end to have you do anything there to expidite its payment.

Very truly yours,

W S Carpenter Jr
TREASURER.

WSC/m

NOTE: Italics indicate handwriting.

Government's Exhibit No. 310

April 29, 1921.

Mr. W. S. Carpenter, Jr., Treasurer,
E. I. du Pont de Nemours & Co.,
Wilmington, Delaware.

Dear Sir:-

It is quite true, as you say in your letter of the 28th inst., that the agreement reached between General Motors Corporation and Du Pont Company in respect to fabrikoid contracts was definite and held no contemplation of any readjustment to follow. Since then, however, a great deal has arisen to throw new light on the situation and there is the matter of policy involved which should be given close consideration by the Du Pont Company. Possibly this consideration, in the light of circumstances such as I refer to, has been had and with decision that no readjustment of the Du Pont claim is in order or will be permitted. On the other hand, it is possible that Mr. Petse has been proceeding on the basis of policy determined during the latter part of last year, with an understanding that no reconsideration was desired.

I am not agitating a readjustment or change of policy, but merely suggesting the advisability of a thorough consideration of all the circumstances in order that there may be no danger of Du Pont Company suffering the consequences of ill will of the General Motors units. Du Pont Company undeniably has the right to insist upon settlement in accordance with the understanding reached, but by such insistence they would be following a course contrary to the treatment accorded by the vast majority of suppliers holding contracts with General Motors similar to the fabrikoid contracts.

It seems to me that the matter is one which may well be laid before the Executive Committee for determination of policy. If this has been done or is done and the Executive Committee concludes that Du Pont Company should adhere to its position, you can notify me and I will be glad to follow the matter up at this end and see that, so far as possible, settlements are made by the various General Motors units in accordance with the agreement.

Yours very truly,

DF:W

Government's Exhibit No. 311

November 1, 1922.

Mr. F. S. MacGregor,
Paint Department,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. MacGregor:

Yours of the 23rd ult., in regard to paint requirements of Hyatt Roller Bearing Company, received.

I am today writing Mr. H. J. Forsythe, General Manager, to look into this situation.

Are you really making a good paint today, and something that we can conscientiously recommend to General Motors divisions? I personally know that two or three years ago the paint that you turned out was not of such a quality that I personally would like to recommend. What I have in mind is the Harrison paint that was used at Wawaset, and from the experience that I had there I have not felt that I could, in justice to General Motors' interests, urge the use of Harrison paint.

If you have positively corrected what I suppose were your manufacturer's difficulties, and now have a paint that is of equal quality, and from a price and service standpoint you can meet other paint makers, I will gladly recommend the use of Harrison paint to those divisions of General Motors Corporation that I come in contact with, but I would like to have some assurance that you have accomplished the above before taking any definite position in this regard.

With kind personal regards, I am

Very truly yours,

General Manager
Accessory Divisions

JLP:V

c/c to Mr. Forsythe

Government's Exhibit No. 312

HYATT BEARINGS DIVISION
GENERAL MOTORS CORPORATION
NEWARK, NEW JERSEY

December 18, 1922

J. L. Pratt, Vice President
General Motors Corporation
New York, N. Y.

Dear Mr. Pratt:

PAINTS AND OILS
MANUFACTURED BY DU PONT COMPANY

This replies to your letter of November 1. Please pardon delay in acknowledgment which is due to correspondence having been temporarily misplaced.

I took up this matter with our Purchasing Agent and I am attaching hereto copy of his note to me, dated November 16, together with a list of paint purchases during 1922, to November 16.

I trust that this gives you the information you desire.

Government's Exhibit No. 313

TO: Mr. Forsythe - #109

FROM: Mr. F. A. Weiss, #112 November 16, 1922.

SUBJECT: PAINTS AND OILS

In accordance with your wishes am attaching hereto list of items purchased thus far this year, involving miscellaneous paints and oils.

You will observe, in several instances the DuPont Company has been favored with this business, and even when we purchase small quantities locally we have the DuPont product in mind. Furthermore, in the event that the quantities wanted are sufficient to interest the DuPont people they are always given an opportunity to quote. It is the desire of their representative that we purchase all small quantities locally and of course in those instances we always specify DuPont goods. To this there is an exception, pertaining to the under-coat. In these instances we have simply been purchasing what is specified on the order, and I can explain this, for the reason that some several years ago I endeavored to have our people use Mill White Paint, of DuPont Manufacture, and they take exception to its quality, insisting on a brand we formerly received; however, since receiving your note I have gone into the matter further and regardless of the wishes of the Paint Department I will purchase Du-Lite Mill White, as I feel it will serve our purpose equally as good.

Att.

3824

MISCELLANEOUS PAINTS USED IN PAST YEAR

DESCRIPTION	QUANTITY	P. O. NO.	SUPPLIER
Red Lead Suspended in Oil	140 lbs.	3246	Paint Spec. Co.
Black Asphalt Roof Paint	175 gals.	135471 130646 5382	Du Pont
Japan Dryers	10 gals.	685	Hockenjos
Dry Red Lead	1600 lbs.	2494 135936 135704	Seidler
		2596 4546 131996	Hockenjos
White Lead in Oil	100 lbs.	4694 134150	Hockenjos "
Chrome Green in Oil	30 "	2596	"
" Yellow " "	50 "	135936	Seidler
Light Steel Grey Machinery Paint	1200 "	132146 3358	Hockenjos "
Lamp Black in Oil	100 "	132551 135124 3506 5173	" " Seidler "
Terra Cotta Antoxide Paint	200 gals.	135417 1077 3673 5582	Du Pont " " "
Turpentine Substitute	100 gals.	131346 3121	Seidler Hockenjos
Turpentine Pure	40 "	134322 2596	" "
East India Vermillion in Oil	25 lbs.	132551 134150	" "
White Enamel	50 gals.	1837	"
Flat White Undercoat	250 "	131996 132552 133577 5851 1954	" " " " "

1540

3825

DESCRIPTION	QUANTITY	P. O. NO.	SUPPLIER
Wood Oil-Finishing Varnish	20 gals.	685	Hockenjos
White Copal Varnish	10 "	151996 152551 154810	" " "
Raw Sienna in Oil	100 lbs.	151199 154810 685	" " "

Government's Exhibit No. 314

Paints & Oils manufactured by ✓
DuPont Company

December 20, 1922.

Mr. H. J. Forsythe, General Manager,
Hyatt Bearings Division,
Harrison, New Jersey.

Dear Mr. Forsythe:

✓ Please accept my thanks for your letter of the 18th instant. The information attached is all that I need.

Very truly yours,

VICE PRESIDENT.

JLP:V

Government's Exhibit No. 315

3827

DUPONT
ESTABLISHED 1802
E. I. DU PONT DE NEMOURS & COMPANY
INCORORATED
WILMINGTON, DELAWARE
DEVELOPMENT DEPARTMENT

August 27, 1924

Mr. John Pratt, Vice-President,
General Motors Corp.,
57th & Broadway,
New York City.

Dear Mr. Pratt:

It will be of much interest to us if you can conveniently find out the total quantity of ethyl alcohol which will be consumed annually by all of the General Motors units combined. Confidentially, we may in the near future consider a proposition to produce alcohol for the duPont Co.'s requirements and if we should have a small surplus it would be much more desirable for us to find an outlet for this alcohol by turning it over to the General Motors Co. rather than attempting to sell it in the open market.

Should imagine that the General Motors Co. will use considerable alcohol in making an anti-freeze mixture for the radiators during the winter months and in addition you would probably use some alcohol in the manufacture of various products.

Any information you can give us in this connection will be greatly appreciated.

Yours very truly,

Z Phelps

DEVELOPMENT DEPARTMENT

ZP FHC

NOTE: Routing stamp bearing initials "A.P.S.", "J.L.P." and "L.R.B.", with a check mark inserted by hand after "J.L.P.", appears in lower right hand corner. Italics indicate handwriting.

GOVE Government's Exhibit No. 316

September 2, 1924.

Mr. Z. Phelps,
Development Department,
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. Phelps:

✓

I have your letter of August 27th in regard to General Motors' requirements of ethyl alcohol.

I do not have this information before me but will undertake to have same developed. However, I feel confident that General Motors' requirements of ethyl alcohol are comparatively small and would not in any way influence the DuPont Company's plans as to whether or not they should enter into the production of ethyl alcohol.

Very truly yours,

Vice President.

JLP:V
Copy to Mr. J. Lynah

NOTE: Check mark is by hand.

Government's Exhibit No. 317

Sept. 2, 1924.

Mr. James Lynah:

I am enclosing herewith correspondence with Mr. Z. Phelps of the DuPont Company, in regard to General Motors' requirements of ethyl alcohol.

Won't you please, at your convenience, develop approximately General Motors' requirements of ethyl alcohol. I think this need only apply to the Car Divisions that may use alcohol for winter driveaways. The small amount of alcohol used by our various laboratories for experimental work would be negative.

Vice President.

JLP:V
enclosure

NOTE: "Accessory—Products—Supplies & Materials—Alcohol S.K." is written across top of page; "J.L.", followed by a check mark, is written at left of page; routing stamp bearing initials A.P.S., J.L.P and L.R.B., with a check mark inserted by hand after "J.L.P." appears in lower right corner. Check marks and "9-15" ~~are~~ written above the routing stamp.

Government's Exhibit No. 318

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
DETROIT MICHIGAN

SUBJECT ETHYL ALCOHOL.

September 4, 1924.

ATTENTION OF

Mr. J.L.Pratt,
General Motors Corporation,
New York City.

Dear Sir:

✓

Replying to your letter of 2nd inst. enclosing correspondence with Mr. Z. Phelps of the DuPont Company in regard to General Motors requirements of Ethyl Alcohol: we have to advise that from information available in this office, and without further development by questionnaire, that a figure of 75,000 gallons per year for General Motors divisions proper and 50,000 gallons per year for Fisher Body Corporation will be fair estimates of our requirements.

Very truly yours,

James Lynah

James Lynah:EB.

Secretary.

Government's Exhibit No. 319

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY

WILMINGTON, DELAWARE

EXECUTIVE OFFICES

3832

November 13, 1925.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
New York City, N. Y.

RECEIVED
NOV 14 1925
A. P. SLOAN, Jr.

My dear Mr. Sloan:

As you probably know, this Company has joined with the Kentucky Alcohol Corporation in the formation of the Eastern Alcohol Corporation, which will manufacture industrial alcohol at Deep Water Point on the Delaware River.

My attention has been called to a news clipping from the New York Sun of November 11th in which the impression is given that glycerin has an advantage over alcohol as an anti-freeze mixture in automobile radiators. The sale of alcohol for this purpose is a very important item in the business of the Kentucky Alcohol Corporation, and presumably will be of similar importance to the new Corporation.

The Kentucky ~~Alcohol Corporation~~ inquires whether the General Motors Corporation is giving their official approval to publicity favoring glycerin rather than alcohol. If so, it is suggested that their attention be called to the advantages of alcohol and to the interest which the duPont Company will have in the future in its manufacture and sale.

I shall be glad to have your comments.

Yours very truly,

H. Fletcher Brown

VICE-PRESIDENT.

L.

E

LIBRARY
SUPREME COURT, U.S.

Vol. VII

TRANSCRIPT OF RECORD

(Pages 3833 to 4761)

(GOVERNMENTS EXHIBITS)

LIBRARY
SUPREME COURT, U.S.

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

VOL. VII

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No. 358—Letter dated August 4, 1926, from W. F. Harrington (du Pont) to John L. Pratt (GMC)	1603	3886
No. 359—Letter dated August 10, 1926, from J. L. Pratt to W. F. Harrington (du Pont)	1604	3887
No. 360—Letter dated September 23, 1925, from W. F. Harrington (du Pont) to J. L. Pratt (GMC)	1605	3888
No. 361—Letter dated September 29, 1925, from "Vice President" to W. F. Harrington (du Pont)	1606	3889
No. 362—Letter dated October 9, 1925, from Delco-Light Company to W. F. Harrington (du Pont)	1607	3890
No. 363—Letter dated October 28, 1926, from L. du Pont to Alfred P. Sloan	1608	3891
No. 364—Letter dated October 29, 1926, from J. L. Pratt to Lammot du Pont	1609	3893
No. 365—Letter dated November 8, 1926, from Alfred P. Sloan, Jr. to Lammot du Pont	1611	3895
No. 366—Letter dated November 9, 1926, from Lammot du Pont to Alfred Sloan	1613	3897
No. 366A—Communication (date illegible) from W. P. Allen to L. du Pont re "Extract from 'Weekly Report' to H. E. Lackey"	1616	3900
No. 366B—Handwritten notations with respect to production schedules	1620	3904
No. 367—Letter dated November 11, 1926, initialled APSJr to Lammot du Pont	1622	3906

Government Exhibits:

	Original	Print
No. 368—Communication dated November 15, 1926, from "Vice President" to A. P. Sloan, Jr.	1624	3908
No. 369—Letter dated November 16, 1926, from Alfred P. Sloan, Jr. to Lammot du Pont	1627	3911
No. 371—Letter dated December 7, 1934, from J. L. Pratt to Fred G. Hughes (New Departure Mfg. Co.)	1628	3912
No. 372—Letter dated December 10, 1934, from F. G. Hughes to John L. Pratt (GMC)	1629	3913
No. 373—Letter dated December 14, 1934, from J. L. Pratt to Robert McClellan (National Ammonia Company)	1631	3915
No. 374—Letter dated December 14, 1934, from J. L. Pratt to F. G. Hughes (New Departure Division)	1632	3916
No. 377—Letter dated October 19, 1922, from P. S. du Pont to Irenee du Pont	1633	3917
No. 378—Memorandum dated October 19, 1922, from P. S. du Pont to A. P. Sloan, Jr.	1634	3918
No. 379—Communication dated October 13, 1922, from Cellulose Products Department to Executive Committee	1635	3919
No. 380—Letter dated October 20, 1922, from Irenee du Pont to P. S. du Pont	1640	3924
No. 381—Excerpts from Cellulose Products Department Monthly Report—October 1922	1642	3926
No. 382—Advice of action from M. D. Fisher dated February 16, 1923, to W. P. Allen, G. M.	1647	3931
No. 383—Report by General Motors Research Corporation on Methods of finishing automobiles using Duco material dated February 21, 1923	1648	3932
No. 384—Letter dated February 28, 1923 from "President" to F. O. Clements (GM Research Corp)	1654	3938
No. 385—Letterdated April 18, 1923, from F. O. Clements (General Motors Research Corp.) to Alfred P. Sloan, Jr.	1657	3941
No. 386—Letter dated January 28, 1924, initialled APSJr to Wm. P. Allen (du Pont)	1658	3942
No. 387—Letter dated February 4, 1924, initialled APSJr. to F. O. Clements (General Motors Research Corp.)	1660	3944
No. 388—Letter dated February 4, 1924, initialled APSJr to W. P. Allen (du Pont)	1661	3945
No. 394—Letter dated March 25, 1924, initialled APSJr. to Wm. P. Allen (du Pont)	1663	3947
No. 399—Excerpts from Minutes of Meeting No. 660 of Executive Committee of du Pont, December 31, 1924	1664	3948

Government Exhibits:

	Original	Print
No. 401—Excerpts from Monthly Report—August 1926—Paint, Lacquer and Chemical Department, dated September 27, 1926	1666	3950
No. 402—Communication dated July 9, 1945, from John Marshall to Dr. Roy B. Davis, et al.	1672	3956
No. 403—Communication dated October 7, 1921, initialled RRMC to P. S. du Pont	1674	3958
No. 404—Monthly report of Cellulose Products Department for April 1922 dated May 15, 1922	1677	3961
No. 405—Memorandum initialled JL for General Purchasing Committee-February 7, 1923 "Leather Substitute—Gimp and Welt—Rubber Coated Fabrics—Cotton Fabrics"	1680	3964
No. 406—Memorandum dated February 12, 1923, from Cellulose Products Department to Executive Committee "Relations With the General Motors Corporations"	1682	3966
No. 407—Memorandum dated July 18, 1923, from Wm. Coyne to P. S. du Pont "Chevrolet Top Business"	1698	3982
No. 408—Communicatino dated July 19, 1923, from "Chairman of the Board" to Wm. Coyne	1699	3983
No. 410—Unsigned communication dated July 27, 1923, to William S. Knudsen (Chevrolet Motor Car Company)	1700	3984
No. 411—Excerpt from August 18, 1922 Cellulose Products Department Final Report for June and Preliminary Report for July 1922 to Executive Committee of du Pont Company (GMC 1052)	1701	3985
No. 412—Memorandum dated September 27, 1923, to Purchasing Agents, (GMC) re Minutes: 9th Meeting, Detroit	1702	3986
No. 413—Communication dated October 6, 1923, from Wm. P. Allen to Irenee du Pont	1704	3987
No. 415—Memorandum dated October 16, 1923, initialled APSJr to Wm. P. Allen	1708	3989
No. 416—Letter dated October 18, 1923, from Wm. P. Allen to Alfred P. Sloan, Jr.	1710	3991
No. 417—Excerpts from Monthly Report of Cellulose Products Manufacturing Department for April 1921	1711	3992
No. 418—Excerpts from Monthly Report-Cellulose Products Department September 1923	1720	4001
No. 419—Communication dated August 12, 1921 from C. W. Phellis (du Pont) to Lammot du Pont	1728	4009
No. 420—Communication dated August 10, 1921 from "Vice President" to P. S. du Pont	1729	4010
No. 421—Communication dated August 23, 1921, from P. S. du Pont to Lammot du Pont	1731	4012

Government Exhibits:

	Original	Print
No. 422—Communication dated September 2, 1921, initialled LduP to P.S. du Pont	1733	4014
No. 423—Communication dated September 12, 1924, from "Vice President" to Z. Phelps (du Pont)	1734	4015
No. 424—Communication dated September 11, 1919, from J. J. Raskob to Finance Committee	1735	4016
No. 425—Communication dated September 11, 1919, from "Chairman" to F. J. Fisher (Fisher Body Company)	1736	4017
No. 426—Unsigned communication dated September 25, 1919, to General Motors Corporation	1741	4022
No. 427—Unsigned memorandum dated September 25, 1919, to Messrs. Fisher	1747	4028
No. 428—Notice dated October 18, 1919, to Stockholders of Fisher Body Corporation	1748	4029
No. 429—Voting Trust Agreement between Fisher Body Corporation and Fred J. Fisher, et al., dated November 24, 1919	1751	4032
No. 430—Agreement dated December 9, 1919, between Fisher Body Corporation and Fred J. Fisher	1767	4048
No. 431—Letter dated February 11, 1925, from Bankers Trust Company to Fred J. Fisher, et al.	1770	4051
No. 432—Letter dated February 14, 1925, from Bankers Trust Company to John J. Raskob	1771	4052
No. 433—Letter dated March 16, 1925, from "Chairman" to Bankers Trust Company	1772	4053
No. 434—Letter dated October 20, 1922, from Flint Varnish & Color Works to Fred Fisher	1773	4054
No. 435—Letter dated October 31, 1922, from P. S. du Pont to (GMC) to Lammot du Pont	1775	4056
No. 436—Letter dated November 3, 1922, from "Vice President" to P. S. du Pont	1777	4058
No. 437—Letter dated December 2, 1922, from "Vice President" to Fred Fisher	1778	4059
No. 438—Telegram dated January 5, 1923, from L. du Pont to L. P. Fisher	1780	4061
No. 439—Telegram dated January 6, 1923, from L. du Pont to Lawrence P. Fisher	1781	4062
No. 440—Telegram dated January 6, 1923, to L. du Pont from L. P. Fisher	1782	4063
No. 441—Communication dated January 5, 1923 from "Chairman of the Board" to L. P. Fisher	1783	4064
No. 442—Communication dated January 27, 1923, from "Vice President" to H. H. Rice (Cadillac Motor Car Company	1785	4066
No. 443—Communication dated January 21, 1923, from "Vice President" to Lawrence P. Fisher (Fisher Body Corp.)	1786	4067

Government Exhibits:

	Original	Print
No. 444—Letter dated January 29, 1923, from H. H. Rice (Cadillac Motor Car Company) to Lammot du Pont	1787	4068
No. 445—Letter dated February 5, 1923, from "Vice President" to H. H. Rice	1789	4070
No. 446—Letter dated March 29, 1923, from A. U. Widman (Cadillac Motor Car Company) to Lammot du Pont	1791	4072
No. 447—Letter dated May 5, 1923, from "Vice President" to Cadillac Motor Car Company	1792	4073
No. 448—Letter dated May 21, 1923, from Cadillac Motor Car Company to Lammot du Pont	1794	4075
No. 449—Letter dated May 26, 1923, from "Vice President" to W. S. Widman (Cadillac Motor Car Company)	1796	4077
No. 450—Letter dated February 25, 1923, from "Vice President" to L. P. Fisher	1797	4078
No. 451—Communication dated March 9, 1923, from W. P. Allen (du Pont) to Lammot du Pont	1798	4079
No. 452—Letter dated March 10, 1923, from "Vice President" to L. P. Fisher (Fisher Body Corporation)	1800	4081
No. 453—Excerpts from Minutes of Meeting No. 18 of Interdivisional Relations Committee—General Purchasing Committee (GMC) (February 6, 1925	1801	4082
No. 454—Excerpts from Monthly Report-June, 1925-Paint, Lacquer & Chemicals Department	1803	4084
No. 455—Letter dated March 22, 1924, from W. F. Harrington (du Pont to J. L. Pratt (GMC)	1813	4094
No. 456—Letter dated March 26, 1924, from "Vice President" to W. F. Harrington (du Pont)	1814	4095
No. 458—Communication dated August 6, 1923, initialled APSJr to P. S. du Pont, et al.	1815	4096
No. 460—Memorandum dated January 27, 1927, from L. du Pont to P. S. du Pont et al.	1819	4100
No. 461—Minutes of meeting of Interdivisional Relations Committees (GMC) August 12, 1926	1823	4104
No. 462—Letter dated September 23, 1926, from "General Manager" to James Lynah (GMC)	1830	4111
No. 463—Letter dated September 23, 1926, from "General Manager" to James Lynah (GMC)	1834	4115
No. 464—Letter dated September 30, 1926, from James Lynah (GMC) to W. P. Allen (du Pont)	1836	4117
No. 465—Letter dated October 2, 1926, from "General Manager" to James Lynah	1838	4119
No. 466—Communication dated October 2, 1926, from W. P. Allen to Lammot du Pont	1839	4120

Government Exhibits:

	Original	Print
No. 467—Excerpt from December 23, 1926 Monthly Report—November 1926—Paint, Lacquer & Chemicals Department to the Executive Committee of the du Pont Company	1840	4121
No. 468—Excerpt from January 24, 1927 Monthly Report—December, 1926—Paint, Lacquer & Chemicals Department to the Executive Committee of the du Pont Company	1841	4122
No. 469—Excerpt from Minutes of Meeting No. 25 of Interdivisional Relations Committee—General Purchasing Committee held January 26, 1927 (GMC)	1842	4123
No. 470—Letter dated October 28, 1926, from Lammot du Pont to Alfred P. Sloan	1843	4124
No. 471—Letter dated October 29, 1926, from J. L. Pratt (GMC) to Lammot du Pont	1844	4125
No. 472—Letter dated October 29, 1926, from J. L. Pratt to Ed Fisher (Fisher Body Corp.)	1845	4126
No. 475—Letter dated November 8, 1926, from Alfred. P. Sloan, Jr. to Lammot du Pont	1846	4127
No. 476—Letter dated November 12, 1926, from E. F. Fisher (Fisher Body Corp.) to John. L. Pratt (GMC)	1847	4128
No. 477—Letter dated November 15, 1926, from "Vice President" to Lammot du Pont	1849	4130
No. 478—Letter dated November 16, 1926, from "President" to W. P. Allen	1850	4131
No. 479—Letter dated December 17, 1926, from Lammot du Pont to John Pratt (GMC)	1851	4132
No. 490—Excerpts from Monthly Report, March 1928, of Paint, Lacquer & Chemicals Department	1852	4133
No. 492—Excerpts from Monthly Report, September, 1927, of Paint, Lacquer & Chemicals Department	1864	4145
No. 494—Communication dated July 12, 1928, from James Lynah to G. G. Allen, et al.	1874	4155
No. 495—Letter dated July 10, 1928, from William Richter (du Pont) to James Lynah (GMC)	1875	4156
No. 496—Excerpt from July 20, 1929 Fabrics & Finishes Department Monthly Report—June 1929—to Executive Committee of du Pont Company (GMC)	1877	4158
No. 497—Letter dated July 20, 1928, from "Vice President" to George Staples (du Pont)	1878	4159
No. 498—Letter dated August 8, 1928, from G. A. Staples (du Pont) to J. L. Pratt (GMC)	1880	4161
No. 499—Communication dated November 10, 1930, from A. J. Campau (GMC) to Purchasing Agents, All Divisions	1881	4162

Government Exhibits:

	Original	Print
No. 500—Communication dated June 30, 1937, from J. J. Moosmann (du Pont) to A. B. Echols	1883	4164
No. 501—Communication dated June 17, 1937, from E. M. Flaherty (du Pont) to J. J. Moosmann (du Pont)	1885	4166
No. 502—Communication dated January 15, 1940, from J. J. Moosmann (du Pont) to A. B. Echols	1888	4169
No. 503—Communication dated July 17, 1941, from Fabrics & Finishes Department—Automotive Finishes Division, to Chairman, Sub-committee on Purchases & Sales	1890	4171
No. 504—Summary of du Pont Purchases from and Sales to General Motors Corp. and Subsidiraies for the Years 1938 to 1947 inclusive and Seven Months 1948	1891	4172
No. 505—Minutes of Meeting No. 116, Finance Committee, General Motors Corporation, May 4, 1926	1892	4173
No. 506—Notice to Stockholders of Fisher Body Coporation dated May 17, 1926	1894	4175
No. 507—Notice to Stockholders of Fisher Body Corporation dated June 30, 1926	1895	4176
No. 508—Communication dated July 12, 1927, from J. J. Raskob to Walter S. Carpenter, Jr. (General Motors Securities Company)	1898	4179
No. 509—Extract from Minutes of Regular Monthly Meeting, Board of Directors—July 18, 1927	1899	4180
No. 510—Communication dated October 20, 1931, from M. D. Fisher (du Pont) to Donaldson Brown (GMC)	1900	4181
No. 511—Letter dated October 22, 1931, from M. D. Fisher (du Pont) to Donaldson Brown (GMC)	1902	4183
No. 512—Letter dated October 29, 1931, from J. P. Morgan & Co. to W. S. Carpenter, Jr. (du Pont)	1903	4184
No. 514—Memorandum dated July 6, 1933, from "Treasurer" to "Finance Committee"	1904	4185
No. 515—Memorandum dated November 29, 1935, from "Treasurer" to "Finance Committee"	1905	4186
No. 516—Memorandum dated March 20, 1918, to "Heads of Departments" from "Sec'y Executive Committee" re Purchase of Motor Equipment	1907	4188
No. 517—Memorandum dated July 23, 1918, to "Heads of Departments" from "Sec'y Executive Committee" re Purchase of Motor Equipment	1908	4189
No. 518—Memorandum dated December 6, 1923, to "Heads of Departments" from "Secy. Executive Committee" re Motor Equipment—Purchase of	1909	4190
No. 519—Communication dated January 15, 1921, From Ed. H. Ford (du Pont) to H. R. Kinsley	1911	4192

Government Exhibits:

	Original	Print
No. 520—Communication dated January 17, 1921, from H. R. Kinsley to Ed. H. Ford (du Pont)	1913	4194
No. 521—Communication dated January 19, 1921, from Ed. H. Ford to G.D.A. Belin	1915	4196
No. 522—Letter dated November 4, 1921, from C. A. Patterson (du Pont) to A. Felix du Pont, et al.	1917	4198
No. 523—Letter dated January 20, 1922, from C. A. Patterson (du Pont) to Alfred P. Sloan, Jr.	1920	4201
No. 524—Communication dated July 10, 1922, from Irenee du Pont to C. F. Brown	1921	4202
No. 525—Communication dated January 3, 1931, from E. W. Furst (Grasselli Chemical Co.) to William Richter	1924	4205
No. 526—Letter dated January 8, 1931, from E. W. Furst (Grasselli Chemical Co.) to Lammot du Pont	1925	4206
No. 527—Communication dated April 13, 1923, from "Vice President" To R. R. M. Carpenter (du Pont)	1926	4207
No. 528—Letter dated April 20, 1923 initialled JAB, (du Pont) to J. L. Pratt (GMC)	1928	4209
No. 529—Communication dated January 19, 1924, from L. R. Beardslee to J. W. Main	1931	4212
No. 530—Communication dated March 31, 1924 from G. H. Kerr to P. S. du Pont	1932	4213
No. 531—Unsigned communication dated April 7, 1924, to Alfred P. Sloan, Jr.	1935	4216
No. 532—Letter dated April 12, 1924, from Alfred P. Sloan, Jr. to P. S. du Pont	1936	4217
No. 533—Letter dated April 18, 1924, from G. H. Kerr to P. S. du Pont	1937	4218
No. 534—Letter dated April 18, 1924, from G. H. Kerr to P. S. du Pont	1938	4219
No. 535—Letter dated April 30, 1924, from G. H. Kerr to Alfred P. Sloan, Jr.	1942	4221
No. 536—Letter dated August 13, 1924, initialled APSJr. to James Lynah (GMC)	1945	4224
No. 537—Excerpt from Minutes of Meeting No. 16 of Interdivisional Relations Committee-General Purchasing Committee, September 5, 1924 (GMC)	1947	4226
No. 538—Letter dated August 13, 1924, from James Lynah (GMC) to G. H. Kerr	1949	4228
No. 539—Letter dated September 6, 1924, from James Lynah (GMC) to Irenee du Pont	1951	4230
No. 540—Letter dated September 8, 1924, from Irenee du Pont to James Lynah (GMC)	1953	4232
No. 541—Letter dated September 11, 1924, from H. Grubb (du Pont) to John Lee Pratt (GMC)	1955	4234
No. 542—Communication dated September 22, 1924, from "Vice President" to Hunter Grubb (du Pont)	1956	4235

Government Exhibits:

	Original	Print
No. 543—Communication dated January 23, 1928, from L. P. Mahoney to Lammot du Pont	1957	4236
No. 544—Letter dated January 29, 1929, from W. F. Harrington (du Pont) to J. L. Pratt (GMC)	1962	4241
No. 545—Letter dated January 31, 1929, from "Vice President" to W. F. Harrington (du Pont)	1963	4242
No. 546—Letter dated August 30, 1934, from J. W. Fitterer (du Pont Rayon Company) to John Lee Pratt (GMC)	1964	4243
No. 54 —Letter dated August 31, 1934, from "Vice President" to J. W. Fitterer (du Pont Rayon Company)	1965	4244
No. 548—Letter dated September 5, 1934, from J. W. Fitterer (du Pont Rayon Company) to J. L. Pratt (GMC)	1966	4245
No. 554—Letter dated April 6, 1934, from M. du Pont Lee (du Pont Rayon Company) to John Lee Pratt (GMC)	1967	4246
No. 555—Letter dated April 9, 1934, from "Vice President" to M. du Pont Lee (du Pont Rayon Company)	1968	4247
No. 557—Communication dated March 25, 1919, from M. D. Fisher to R. R. M. Carpenter	1969	4248
No. 558—Communication dated January 13, 1920, from "Secretary, Executive Committee" (du Pont) to Lammot du Pont	1973	4252
No. 575—Communication dated April 22, 1920, from Lammot du Pont to Executive Committee	1975	4254
No. 576—Communication dated May 3, 1920, from Irenee du Pont to Lammot du Pont	1979	4258
No. 577—Communication dated April 28, 1920, from "Chemical Director" (du Pont) to Lammot du Pont	1980	4259
No. 579—Memorandum of Discussion of Proposed Agreement between the du Pont Company and General Motors Corporation by Which the Services of the Chemical Department of the du Pont Company Might Be Made Available to the General Motors Corporation	1982	4261
No. 580—Communication dated June 15, 1920, from Lammot du Pont to Executive Committee transmitting form of agreement between General Motors Corporation and Chemical Department of du Pont Company	1986	4265
No. 581—Letter dated October 10, 1921, from "Vice President" to C. F. Kettering (General Motors Research Corp.)	1993	4272
No. 582—Letter dated October 21, 1921, from C. F. Kettering (GMC) to L. du Pont	1995	4274

Government Exhibits:

	Original	Print
No. 583—Letter dated October 24, 1921, from "Vice President" to C. F. Kettering (General Motors Research Corp.)	1997	4276
No. 584—Letter dated November 5, 1921, from C. F. Kettering to Lammot du Pont	1999	4278
No. 585—Letter dated October 31, 1921, from L. du Pont to P. S. du Pont	2000	4279
No. 589—Letter dated March 27, 1922, from L. du Pont to C. F. Kettering	2001	4280
No. 590—Letter dated March 29, 1922, signed "Ket" to L. du Pont	2003	4282
No. 591—Letter dated April 1, 1922, from L. du Pont to C. F. Kettering	2004	4283
No. 592—Letter dated April 3, 1922, from C. F. Kettering to L. du Pont	2006	4285
No. 593—Letter dated April 14, 1922, from L. du Pont to C. F. Kettering	2011	4290
No. 594—Letter dated May 8, 1922, from C. F. Kettering to L. du Pont	2014	4293
No. 595—Letter dated May 2, 1922, from C. F. Kettering to P. S. du Pont	2015	4294
No. 598—Memorandum dated November 6, 1922, by L. du Pont	2016	4295
No. 599—Letter dated October 28, 1919, from K. W. Zimmerschied (GMC) to C. M. Stine (du Pont)	2017	4296
No. 601—Letter dated August 5, 1920, from General Motors Research Corporation to E. I. du Pont de Nemours & Company	2019	4298
No. 602—Letter dated August 14, 1920, from L. du Pont to C. F. Kettering	2020	4300
No. 610—Memorandum dated March 24, 1922, from P. S. du Pont to Irenee du Pont transmitting report on "gasoline 'dope' situations"	2022	4302
No. 611—Communication dated April 15, 1922, from "Chief Engineer, Fuel Section" to Doctor C. M. Stine (du Pont)	2024	4304
No. 612—Letter dated July 10, 1922, from Irenee du Pont to C. F. Kettering	2026	4306
No. 613—Communication dated July 12, 1922, from Irenee du Pont to Dr. C. M. Stine, et al.	2027	4307
No. 615—Communication dated September 5, 1922, from General Motors Research Corporation to Executive Committee (GMC)	2028	4308
No. 617—Letter dated September 27, 1922, from "Vice President" to C. F. Kettering	2031	4311
No. 618—Agreement dated October 6, 1922, between E. I. du Pont de Nemours & Company and General Motors Corporation	2032	4312

Government Exhibits:

	Original	Print
No. 620—Agreement dated January 7, 1924, between General Motors Chemical Company and Standard Oil Company	2039	4319
No. 621—Memorandum dated June 15, 1923, from F. W. Pickard (du Pont) to Irenee du Pont	2053	4333
No. 622—Letter dated January 28, 1924, from Alfred P. Sloan, Jr. to Irenee du Pont	2057	4337
No. 623—Letter dated February 2, 1924, from Irenee du Pont to Alfred P. Sloan, Jr.	2060	4340
No. 624—Letter dated February 5, 1924, from Alfred P. Sloan, Jr. to Irenee du Pont	2062	4342
No. 625—Letter dated January 12, 1924, from "President" (GMC) to Irenee du Pont	2067	4347
No. 626—Communication dated January 14, 1924, from Irenee du Pont to W. F. Harrington	2068	4348
No. 628—Communication dated January 14, 1924, from Irenee du Pont to Executive Committee	2069	4349
No. 630—Letter dated January 18, 1924, from Irenee du Pont to Alfred P. Sloan, Jr.	2070	4350
No. 631—Letter dated September 8, 1924, signed "Ket" to A. P. Sloan, Jr.	2071	4351
No. 640—Letter dated October 10, 1924, from Fin Sparre, Director to Inspector General Militaire Patart	2072	4352
No. 641—Letter dated December 27, 1924, initialled APSJr to Irenee du Pont	2073	4353
No. 642—Letter dated December 30, 1924, from Irenee du Pont to Alfred P. Sloan, Jr.	2074	4354
No. 647—Letter dated April 8, 1925, from Thomas Midgley, Jr. (Ethyl Gasoline Corporation) to Irenee du Pont	2076	4356
No. 648—Letter dated April 9, 1925, from Irenee du Pont to Thomas Midgley, Jr.	2078	4358
No. 657—Telegram dated June 5, 1924, from C. F. Kettering to A. P. Sloan	2080	4360
No. 659—Communication dated June 5, 1924, from P. S. du Pont for attention of Alfred P. Sloan, Jr.	2081	4361
No. 660—Letter dated June 26, 1924, from Irenee du Pont to Alfred P. Sloan, Jr.	2083	4363
No. 661—Letter dated June 27, 1924, from Alfred P. Sloan, Jr. to Irenee du Pont	2085	4365
No. 662—Communication dated June 30, 1924, from Irenee du Pont to W. F. Harrington	2088	4368
No. 663—Letter dated June 30, 1924, from Irenee du Pont to Alfred P. Sloan, Jr.	2089	4369
No. 664—Letter dated July 8, 1924, from Alfred P. Sloan, Jr. to Irenee du Pont	2091	4371
No. 665—Extract from Minutes of Meeting of Executive Committee (GMC) February 27, 1924	2094	4374

Government Exhibits:

	Original	Print
No. 666—Letter dated July 25, 1924, initialled APSJr to C. F. Kettering	2096	4376
No. 667—Extract from Minutes of Meeting of Finance Committee (GMC) August 27, 1924	2101	4381
No. 668—Agreement dated August 1, 1924, between General Motors Corporation and Standard Oil Company	2103	4383
No. 670—Copy of bill of sale dated August 28, 1924, from General Motors Company to Ethyl Gasoline Corporation	2147	4427
No. 672—News release dated August 15, 1924, "Ethyl Gasoline Corporation Organized"	2150	4430
No. 673—Memorandum of Conference August 11, 1924, between P. S. du Pont, et al., and A. P. Sloan, Jr., et al.	2154	4434
No. 675—Agreement dated October 10, 1924, between E. I. du Pont de Nemours and Company and Ethyl Gasoline Corporation	2156	4436
No. 676—Memorandum of meeting of Board of Directors of Ethyl Gasoline Corporatino December 23, 1924	2165	4443
No. 677—Letter dated March 28, 1925, from Frank A. Howard to Irenee du Pont	2167	4447
No. 678—Letter dated March 28, 1925, from A. P. Sloan, Jr., to Irenee du Pont	2172	4452
No. 679—Letter dated April 3, 1925, from Irenee du Pont to Frank Howard (Ethyl Gasoline Corporation)	2176	4456
No. 680—Letter dated April 10, 1925, initialled APSJr to Irenee du Pont	2179	4459
No. 681—Letter dated May 21, 1925, from E. W. Webb (Ethyl Gasoline Corp.) to Irenee du Pont	2180	4460
No. 682—Letter dated May 22, 1925, from Irenee du Pont to John J. Raskob	2184	4464
No. 683—Letter dated June 9, 1925, from Irenee du Pont to E. W. Webb (Ethyl Gasoline Corp.)	2185	4465
No. 684—Letter dated June 12, 1925, from A. E. Mittnacht (Ethyl Gasoline Corporation) to Alfred P. Sloan, Jr.	2188	4468
No. 685—Letter dated June 27, 1925, from E. W. Webb (Ethyl Gasoline Corporation) to Alfred P. Sloan, Jr.	2190	4470
No. 686—Letter dated June 29, 1925, from Frank A. Howard (Standard Oil Company) to E. W. Webb (Ethyl Gasoline Corporation)	2195	4475
No. 687—Communication dated June 30, 1925, from W. S. Carpenter, Jr. to Irenee du Pont	2199	4479
No. 688—Letter dated July 1, 1925, read by Irenee du Pont to E. W. Webb (Ethyl Gasoline Corporation)	2200	4480

Government Exhibits:

	Original	Print
No. 690—Letter dated July 27, 1925, from E. W. Webb (Ethyl Gasoline Corporation) to Irenee du Pont	2202	4482
No. 691—Letter dated August 6, 1925, from E. W. Webb (Ethyl Gasoline Corporation) to Alfred P. Sloan, Jr.	2207	4487
No. 692—Letter dated August 7, 1925, initialled APSJr to Earle W. Webb (Ethyl Gasoline Corporation)	2208	4488
No. 693—Letter dated August 12, 1925, from E. W. Webb (Ethyl Gasoline Corporation) to Alfred P. Sloan, Jr.	2207	4491
No. 694—Letter dated March 10, 1925, from A. M. Maxwell (Ethyl Gasoline Corporation) to Donaldson Brown (GMC)	2214	4494
No. 695—Communication dated March 16, 1925, from Donaldson Brown to Finance Committee	2216	4496
No. 696—Communicated dated April 13, 1925, from C. D. Hartman, Jr. (GMC) for attention of Donaldson Brown	2217	4497
No. 697—Extract from Minutes of Meeting of Finance Committee (GMC) April 13, 1925	2218	4498
No. 698—Extract from Minutes of Meeting of Finnace Committee (GMC) Aprli 27, 1925	2219	4499
No. 699—Extract from Minutes of Meeting of Finance Committee (GMC) June 1, 1925	2220	4500
No. 700—Extract from Minutes of Meeting of Finance Committee (GMC) July 24, 1925	2221	4501
No. 702—Letter dated May 7, 1925, from Irenee du Pont to E. W. Webb (Ethyl Gasoline Corporation)	2222	4502
No. 703—Letter dated January 26, 1926, from Alfred P. Sloan, Jr. to Earle W. Webb (Ethyl Gasoline Corporation)	2223	4503
No. 704—Letter dated February 8, 1926, initialled APSJr to Irenee du Pont	2225	4505
No. 705—Letter dated February 10, 1926, from Irenee du Pont to Alfred P. Sloan, Jr.	2230	4510
No. 706—Agreement dated March 31, 1926, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2232	4512
No. 708—Letter dated December 3, 1924, from Irenee du Pont to Alfred P. Sloan, Jr.	2246	4526
No. 709—Letter dated December 4, 1924, from Alfred P. Sloan, Jr. to Irenee du Pont	2248	4528
No. 710—Letter dated December 12, 1924, initialled APSJr to Irenee du Pont	2250	4530
No. 711—Letter dated June 2, 1926, from Irenee du Pont to E. W. Webb (Ethyl Gasoline Corporation)	2252	4532

Government Exhibits:

	Original	Print
No. 712—Extract from Minutes of Meeting of Executive Committee (GMC) December 30, 1924	2254	4534
No. 713—Extract from Minutes of Meeting of Executive Committee (GMC) January 5, 1925	2256	4536
No. 714—Cable dated March 22, 1926, from London Office (du Pont) to Irenee du Pont	2257	4537
No. 715—Letter dated June 8, 1926, from Irenee du Pont to Alfred P. Sloan, Jr.	2259	4539
No. 716—Interoffice communication dated June 25, 1926, (Ethyl Gasoline Corporation) transmitting suggested form of letter to I. G. Farbenindustrie, A. G.	2262	4542
No. 717—Letter dated July 24, 1926, from "President" to A. P. Sloan, Jr.	2266	4546
No. 718—Communication dated November 18, 1926, from Irenee du Pont to Lammot du Pont	2267	4547
No. 720—Letter dated January 11, 1927, from E. W. Webb to Alfred P. Sloan, Jr.	2269	4549
No. 721—Letter dated January 11, 1927, initialled ES to Frank A. Howard	2270	4550
No. 722—Letter dated December 22, 1926, from I. G. Farbenindustrie Aktiengesellschaft to Frank A. Howard (Standard Development Company)	2271	4551
No. 723—Agreement dated January 10, 1927, between I. G. Farbenindustrie Aktiengesellschaft and Ethyl Gasoline Corporation	2276	4556
No. 745—Agreement dated March 31, 1928, between E. I. du Pont de Nemours and Company and Ethyl Gasoline Corporation	2279	4559
No. 746—Agreement dated October 1, 1928, between E. I. du Pont de Nemours and Company and Ethyl Gas Line Corporation	2285	4565
No. 747—Agreement dated August 26, 1929, between Ethyl Gasoline Corporation and E. I. du Pont de Nemours and Company	2290	4570
No. 748—Letter dated March 28, 1930, from Alfred P. Sloan, Jr. to Earle W. Webb (Ethyl Gasoline Corporation)	2297	4577
No. 749—Letter dated April 3, 1930, from E. W. Webb (Ethyl Gasoline Corporation) to Alfred P. Sloan, Jr.	2299	4579
No. 750—Letter dated April 5, 1930, from Alfred P. Sloan, Jr. to Earle W. Webb (Ethyl Gasoline Corporation)	2302	4582
No. 751—Letter dated April 18, 1930, from Alfred P. Sloan, Jr. to Lammot du Pont	2305	4585
No. 752—Memorandum of Agreement dated February 26, 1930, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2308	4588

Government Exhibits:

	Original	Print
No. 753—Memorandum of Agreement dated September 26, 1931, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2315	4595
No. 754—Memorandum of Agreement dated August 18, 1933, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2322	4602
No. 755—Supplemental Agreement dated December 22, 1933, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2330	4610
No. 756—Agreement dated May 29, 1930, between E. I. du Pont de Nemours & Company and Ethyl Ethyl Gasoline Corporation	2335	4615
No. 757—Agreement dated August 24, 1934, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2341	4621
No. 758—Agreement dated December 20, 1935, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2349	4629
No. 759—Agreement dated July 1, 1936, between E. I. du Pont de Nemours & Company and Ethyl Gasoline Corporation	2356	4636
No. 762—Letter dated July 17, 1931, from Alfred P. Sloan, Jr. to Lammot du Pont	2363	4643
No. 763—Letter dated July 22, 1931, from "President" to Alfred P. Sloan	2365	4645
No. 764—Letter dated July 28, 1931, from Alfred P. Sloan, Jr. to Lammot du Pont	2367	4647
No. 766—Letter dated February 25, 1932, from L. du Pont to Alfred P. Sloan, Jr.	2370	4649
No. 767—Letter dated February 27, 1932, initialled APSJr to Lammot du Pont	2371	4651
No. 768—Letter dated September 15, 1933, from E. G. Robinson (du Pont) to Mr. A. E. Mittnacht (Ethyl Gasoline Corporation)	2375	4655
No. 769—Letter dated September 20, 1933, from "President" to Alfred P. Sloan, Jr.	2379	4658
No. 770—Letter dated September 19, 1933, from A. E. Mittnacht (Ethyl Gasoline Corporation) to E. G. Robinson (du Pont)	2380	4659
No. 773—"Origins and Early History of the Tetraethyl Lead Business" from N. P. Wescott to F. Sparre, Director, dated June 9, 1936	2384	4663
No. 774—Appendices to foregoing report	2454	4733

Government's Exhibit No. 320

3833

November 17, 1925.

Mr. H. Fletcher Brown, Vice Pres.,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Mr. Brown:-

Replying to your letter of November 13th regarding the use of alcohol vs. glycerin as an anti-freeze mixture in automobile radiators, would state that the subject came up in the way of general information before our General Technical Committee the other day and, as I take it, the glycerin people have lined their situation up so that they apparently are able to offer something which compares, from the economic standpoint, fairly well with alcohol; at least that, as I recollect it, is the impression I took away from the meeting.

As a corporation, we do not usually take any position in matters of this kind; i.e., as a corporation we are concerned of course, with seeing that our cars give satisfaction and I think our position would be in this particular thing that although we would like to be helpful, yet we could not consistently refuse to say that glycerin was satisfactory if it was simply because friends of ours, like your good selves, were interested in the alcohol side of the argument. We must, of course, be guided by the facts in the case. Therefore, I do not see how we really could, unless we did something unusual, be very helpful in this particular situation.

If your good selves or the Kentucky Alcohol Corporation could give us any technical information which would be helpful in developing any facts which would enable us to deal with the matter on its merits in favor of alcohol, then of course that would be an entirely different matter. I would suggest that perhaps that might be possible and there might be something that we had overlooked in our analysis of the situation.

There is one very important consideration which it appears to me has got to be dealt with and that is, I am informed that when alcohol is used it has a very bad reaction on the Duco finish. Of course, in view of the fact that we use Duco practically exclusively, it means that it has a bad affect on all our cars, wherever it is used. That in itself would appear to almost place us in a position

Page #2,
Mr. E. Fletcher Brown,
November 17, 1925.

where we would have to perhaps not intentionally, but through necessity and in our interests as well as yours, favor glycerin as against alcohol.

Will you kindly think the above points over and advise me further regarding same.

Very truly yours,

APSJr./K

NOTE: Initials in routing stamp at lower right on first page are: "A.P.S.", "J.L.P.", "H.M.C.", "F.C.H.", "A.K.H.", "L.R.B.", "A.T.B." and "W.F.A.".

Government's Exhibit No. 321

January 11, 1926.

Mr. F. LaMotte, Jr.,
Director of Purchases,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

Dear Ferd:

I have your letter of January 8th in regard to non-freeze mixture s for automobile radiators.

I believe our people have concluded that the mixture called "Prestone"—made by the Union Carbide Company—is the most satisfactory anti-freeze mixture on the market. I know that our Research Corporation recently made a study of anti-freeze mixtures and as a result of this study we are recommending the use of "Prestone". I am also advised that the Yellow Cab operating companies are using this mixture.

I don't know whether or not this combination contains glycerine, but the next time I am in Detroit I will try to get the true dope and let you have whatever part of it that may be of interest to you.

Very truly yours,

Vice President.

JLP:V

NOTE: "G. M. C.—Products—Supplies & Materials—Anti-Freeze Mixture", followed by illegible initials, is written across top of page; check mark appears above "8th" in first line.

Government's Exhibit No. 322

January 22, 1926

Mr. J. B. Jackson:

The duPont Company are very much exercised by the increased use of glycerine as an anti-freeze mixture for automobile radiators. They claim that the price of glycerine has advanced considerably and they think it is due to the increased use of this material as an anti-freeze mixture.

I know that the Research Corporation in recent months made a study of various anti-freeze mixtures of glycerine, alcohol, and the new mixture brought out by the Union Carbide Company which I think is glyacol.

Won't you please look into this subject and have for me, when I get in Detroit next week, any information that the Research Corporation may have as to the amount of glycerine and alcohol that is being used as anti-freeze mixtures, together with their opinion as to the relative merits of alcohol, glycerine, and glyacol.

....
Vice President

JLP:V

NOTE: "G. M. C.—Products—Supplies & Materials—Anti Freeze Mixture", followed by illegible initials, is written across top of page.

Government's Exhibit No. 323

C M 478

GENERAL MOTORS CORPORATION

INTER-ORGANIZATION LETTERS ONLY

January 28, 1926

A. P. S.	
J. L. P.	
L. R. H.	

SUBJECT

FROM J. B. Jackson ADDRESS

TO Mr. John L. Pratt ADDRESS

My understanding is that you have the information you wanted, concerning the merits and usage of glycerine as an anti-freeze agent.

Glycerine and glycol are gaining favor very rapidly and have caused a shortage of this commodity. The Carbide and Carbon Chemicals Company are reported to be increasing their capacity 800 % for next season. They market glycol under the trade name of "Prestone."

Proctor and Gamble, Armour and Lever Bros. have been quite active in popularizing the use of glycerine for anti-freeze purposes. They make many claims in which the Research Section concurs. These claims are, that the finish, Duco, now used very extensively, is spoiled by alcohol but not by glycerine, that alcohol will volatilize rapidly at engine temperatures and glycerine does not, with the result that, unless alcohol is replaced from time to time, there is serious danger of a weak mixture and frozen motors. It is reckoned that, during the season, the necessary additions of alcohol bring the cost of the alcohol mixture up to or above the cost of a glycerine mixture.

The claim that the glycerine mixture has a viscosity that interferes with circulation seems to have no merit.

We would suggest to the duPont Company, if they have not them, the following reports and literature:

"Distilled Glycerine as an Anti-Freeze for Automobile Radiators", prepared by Proctor & Gamble, Chemical Division,
"Prestone, Ethylene Glycol - The Scientific Anti-Freeze for Automobiles", by the Carbide and Carbon Chemicals Corporation, 30 East 42nd St., New York, the date of this report being Sept. 1, 1925.
Chemical & Metallurgical Engineering for January, 1926, pages 25, 55, 59 and 60.
Industrial and Engineering Chemistry, News Edition, January 20, 1926, page 1.

J B Jackson
Business Director,
Research Laboratories.

JBJ:CLM

E

Government's Exhibit No. 324

DU PONT
ESTABLISHED 1802
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE
DEVELOPMENT DEPARTMENT

March 23, 1926

Mr. John Pratt, Vice President
General Motors Corporation
57th & Broadway
New York

Dear Mr. Pratt:

At the suggestion of Dr. Sparre, I am writing you to learn whether you can give us any information relative to the merits of Ethylene Glycol when used as an anti-freeze mixture in the radiators of automobiles.

Confidentally the du Pont Company is interested in ethylene glycol as a raw material for dynamite and we wish to consider the advisability of producing ethylene glycol by a process which we have developed. Therefore we are now making a commercial study of ethylene glycol and in this connection we are keenly interested to learn more about the potential market for this product. Apparently the sale of ethylene glycol for anti-freeze purposes may offer an outlet for considerable volume and it will be helpful if we can learn how the General Motors people feel about the future use of ethylene glycol for anti-freeze purposes.

No doubt your people are familiar with the comparative tests made by the U.S. Bureau of Standards with alcohol, glycerin and ethylene glycol and you have probably made some tests for your own account so that you can give us an opinion as to the future use of ethylene glycol in radiators. As far as you know, does ethylene glycol have any properties which make it undesirable for use as an anti-freeze mixture?

This past winter the only ethylene glycol which was available for anti-freeze purposes was a product manufactured by the Carbide & Carbon Chemicals Corporation under their trade name "Prestone". Prestone was available in very limited quantities and sold to the consumer at not less than $3 per gallon.

Do you know what has been the experience of the automobile owners who used glycerin and ethylene glycol instead of alcohol during the past winter?

I might also state that the du Pont Company is now entering into the production of ethyl alcohol for industrial use and we are also interested to learn to what extent the future use of denatured alcohol for anti-freeze will be curtailed as the result of the use of ethylene glycol and glycerine.

Obviously the difference in price between glycol and alcohol will have some bearing upon the consumption and we would like to get your opinion as to whether this will be an important factor. ? We expect Prestone to be sold this coming winter to the consumer at about $3.50 per gallon, while denatured alcohol will be sold at prices ranging from $.60 to $1 per gallon. The 1926 price which the garages will probably pay for alcohol in drums will be about $.40 to $.45 per gallon.

Any information you can give us on this subject will be very helpful and greatly appreciated.

Very truly yours,

Z Phelps
DEVELOPMENT DEPARTMENT

ZP:N

April 5, 1926.

Mr. Z. Phelps,
Development Dept.
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. Phelps:

Referring to your letter of March 23rd. in regard to Ethylene Glycol when used as an anti-freeze mixture in radiators of automobiles.

Mr. Ferd. LaMotte, Jr., wrote me on January 8th regarding this subject, and I am enclosing herewith copy of my letter dated February 2nd in reply thereto.

The only thing I can add to this is that I understand the Yellow Cab Company of Chicago used Ethylene Glycol during the past winter and are very well pleased with it. However, there is a question whether the average consumer would be willing to pay $2.00 or $3.00 per gallon for Ethylene Glycol as compared with alcohol at 60¢ to $1.00. notwithstanding that alcohol has to be renewed, due to evaporation, while glycerin or Ethylene Glycol can be used year after year if the automobile owner will conserve it.

As pointed out in my letter to Mr. LaMotte, glycerin and Ethylene Glycol solutions are more satisfactory from an engineering standpoint on account of the effect on Duco paint, as alcohol when it boils over ruins the paint; also because it permits the engine to operate at more normal temperature. With the present fuels the temperature of boiling water seems to be more satisfactory for engine operation.

Years ago when commercial gasoline was more volatile the operating temperature of 160 to 170 was considered the best operating temperatures. Today most engineers feel that 200 to 212 Fahrenheit is more satisfactory for operating temperatures.

Very truly yours,

Vice President.

JLP:V
enc.

NOTE: "G.M.C.—Products—Supplies & Materials—Anti-Freeze Mixture", followed by illegible initials is written across top of page; check mark appears over "23rd" in first line.

Government's Exhibit No. 326

August 23, 1926.

Mr. O. E. Hunt, Chief Engineer,
Chevrolet Motor Company,
Detroit, Michigan.

My dear O.E.

Dealing with yours of the 10th relative to Mr. Trautman's letter of June 23rd and to the discussion of the Technical Committee relative to same, would state that I have written Mr. Trautman and think it will cover the matter satisfactorily.

Curiously enough, I have recently received a letter from Armour & Company, who apparently are interested in the manufacture and distribution of glycerine, taking exception to our position and claim we are discriminating against glycerine, a fact which I have not been able to substantiate as yet.

Regarding your instruction book, frankly, I would suggest that when opportunity presents itself, you cut out the words "are to be preferred" in the second paragraph under 'Winter Driving' and simply state the facts. It seems to me that if we indicate a preference we are discriminating against some manufacturers and distributors and all that sort of thing, all of whom are potential users of General Motors products. It is all very well, I believe, to state that alcohol evaporates and glycerine doesn't; that alcohol is likely to cause damage and glycerine is not; that alcohol is much cheaper and glycerine is much more expensive. Let us submit all that to our users, but let them judge which is most preferable after listening to the facts. Don't you think that is the best way to do it?

With regard to 'dope fuels', I agree with you that that paragraph ought to be rewritten. I would suggest that when the Technical Committee has before it the experience of the divisions on the tests, that we frame up a statement and adopt it as a Corporation policy and that our Engineering Departments put it in to their respective instruction books as they might desire. It is important, not only in view of ethyl gas but these other anti-knock fuels, that we deal with the matter constructively and I think also that before we can do all this we shall have to deal with it from the standpoint of high compression as well and take some position one way or the other.

—2—

Anyway, let's bring it up and discuss it. In the meantime I think it might be feasible to modify your statement if you have new instructions going into the territory, or if not, let it ride along until we can settle it once and for all.

Very truly yours,

APSJr./K

Government's Exhibit No. 327

CHEVROLET MOTOR COMPANY

INTER-ORGANIZATION LETTERS ONLY Sept. 1, 1926.

TO Mr. A. P. Sloan, Jr., ADDRESS

FROM Mr. O. E. Hunt. ADDRESS

SUBJECT

We have eliminated the paragraph expressing preference for glycerine as an anti-freeze solution from our instruction book in the issue just going to press.

I am asking Mr. W. J. Davidson to bring the matter of a uniform statement on "doped fuels" in the instruction books of all divisions of the Corporation before the Technical Committee.

This in answer to your note of August 23rd.

O. E. Hunt R

O. E. Hunt,
Chief Engineer.

NOTE: Bottom initials in routing stamp read: "W.F.A.".

Government's Exhibit No. 328

DU PONT
ESTABLISHED 1802
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE
DEVELOPMENT DEPARTMENT

3845

October 14, 1928.

Mr. John Pratt,
Vice Pres., General Motors Corp.,
57th & Broadway,
New York City.

Dear Mr. Pratt:

We wanted to advise you that the du Pont Company is now engaged in the manufacture of ethyl alcohol for industrial purposes. While we understand that the General Motors requirements of alcohol are not particularly large, we would like very much to have the opportunity to quote your company, or any of its subsidiaries, at any future time when they are in the market to purchase alcohol. It may be probable that during the winter months some alcohol is used in the radiators for anti-freeze purposes when testing out automobiles.

If the Delco people use alcohol we would also like to have the opportunity to supply them.

Yours very truly,

Z Phelps

DEVELOPMENT DEPARTMENT.

Note: Illegible initial is written in upper right corner.

Government's Exhibit No. 329

October 19, 1926

Mr. Z. Phelps,
Development Department
E. I. duPont de Nemours & Company
Wilmington, Delaware

Dear Mr. Phelps:

Answering yours of October 14th in regard to ethyl alcohol, I would suggest that you take this matter up with Mr. James Lynah, Executive Secretary of our General Purchasing Committee in Detroit. There are representatives of the various divisions on this committee and in this way you can have the matter brought to the attention of the Purchasing Departments of the various divisions.

Yours very truly,

J. L. Pratt
Vice President

NOTE: "G.M.C.—Products—Supplies & Materials—Misc." followed by an illegible initial, is written across top of page. Check mark appears above "14th" in first line.

Government's Exhibit No. 330

FORM 2681

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

WILMINGTON, DELAWARE
DEVELOPMENT DEPARTMENT

3847

October 21, 1926

Mr. J. L. Pratt, Vice President
General Motors Corporation,
224 West 57th St.
New York

Dear Mr. Pratt:

Since the du Pont Company is now engaged in the manufacture of ethyl alcohol we are particularly interested in its use for anti-freeze purposes. As you probably know, completely denatured alcohol was the only anti-freeze solution which was used in the radiators of automobiles up to about two years ago when glycerin and ethylene glycol were sold to some consumers for this purpose and while this competition is not as yet serious, we are interested to determine to what extent these substitutes may cut in on alcohol for anti-freeze purposes.

We are particularly interested to try to find out just what merit glycerin and ethylene glycol have for anti-freeze and whether the disadvantages of these materials will cause them to diminish rather than increase over a future period of time.

We attach a memorandum covering the Yellow Taxicab Company's (of Chicago) experience with using glycerin and ethylene glycol. It will be appreciated if we could find out through your laboratories whether these statements are true and whether this report can be verified by you.

Very truly yours,

Z. Phelps

ZP:M
Encl.

3848

October 18, 1926

The Yellow Taxicab Company of Chicago, during the late Fall of 1925, decided to use glycerin as an anti-freeze solution and contracted for a supply.

After using glycerin, it was found that on account of leaks developing in the radiator the fan threw the solution back onto the motor and caused an unpleasant odor in the taxicabs, to which their customers objected.

They then went to ethylene glycol, and it was apparently a success; other than on account of the changing temperatures of Chicago, due to ~~the~~ evaporation of water, the taxicab drivers diluted the solution below the freezing point. They had considerable trouble during the severe cold snap, and several service men were sent from the Union Carbide Company to show them how to successfully use ethylene glycol. They arrived at the solution by instructing all drivers of Yellow Taxicabs to fill the radiators to within 4 to 5 inches of the over-flow pi

mechan. losses

They had apparent success throughout the winter months, but with the arrival of spring, when the solution was drained from the radiators, it was found that the 5 inches of the radiator uncovered by the solution had corroded to such an extent that all cabs having used ethylene glycol had to be reserviced with new radiators.

no more trouble than [illegible] companies doing same winter

The General Motors Company of Detroit, who are the parent company of the Yellow Coach Manufacturing Company of Chicago, whose president owns the Yellow Taxicab Company, were watching the success of ethylene glycol for its adoption on all cars put out by the General Motors Company. When they learned of the failure of ethylene glycol in Chicago, they abandoned it as a consideration for an anti-freeze solution for the winter of 1926.

true due to [illegible] 41-20

They have, however, delegated the Armour Institute of Chicago to make a thorough investigation and find out the reason for corrosion. The Purchasing Agent of the Yellow Taxicab Company made mention of the fact that the General Motors Company had tried out glycerin and had not met with success on account of considerable engine trouble caused by glycerin making the gaskets soft and water percolating through the motor, and that they were required to replace numerous motors, especially on the Cadillac model. No

No

Note: This information is given as it was told to the writer by Purchasing Agent of the Yellow Taxicab Company, from whom we secu d contract for 500 drums denatured alcohol, and learn that they also

1564

placed a contract for 300 drums with David Berg Company.

We also inserted a clause in our contract that in appreciation of our cancelling contract which we held with them for the winter of 1925, that in the event they used alcohol for the winter of 1927 we would receive their order at the opening price of the U.S. Industrial.

Government's Exhibit No. 331

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
DETROIT, MICHIGAN

JECT ANTI-FREEZE SOLUTIONS. November 13, 1926

TENTION OF Mr. J. L. Pratt,
General Motors Corporation,
New York City.

Sent to files.

Replying to your letter of October 22nd enclosing correspondence with Mr. Z. Phelps of the duPont Development Department (returned herewith), at the time of receipt of your letter it was found that the Research Section was about to complete some exhaustive experimental work on the suitability and effects of several Anti-Freeze solutions so that reply was delayed.

I enclose herewith report #234393 on "Effect of Anti-Freeze Solutions on Engine Parts". The report indicates that some of the statements made in memorandum of October 18th attached to Mr. Phelps' letters to you are in error. However, as they recommend Alcohol-Water solutions for any class of service, and in view of the indifference in participation in the Prestone contract of last year, it is evident that our divisions will largely employ Alcohol-Water Anti-Freeze Solutions.

It has been the practice of our divisions to purchase this item for themselves and I have written Mr. Phelps that if they have any price consideration to offer on a volume purchase I will ascertain from our divisions what their requirements will be.

Very truly yours,

James Lynah

James Lynah:EB. Executive Secretary.

Government's Exhibit No. 332

DU PONT
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE
DEVELOPMENT DEPARTMENT

3851

November 17, 1926

Mr. J. L. Pratt, Vice President
General Motors Corporation
57th & Broadway
New York

Dear Mr. Pratt:

I am taking the liberty of writing you in regard to the use of glycerin for anti-freeze because it is important that the General Motors Corporation give this matter serious consideration.

As shown by Exhibit "A", some of your Divisions are recommending the use of glycerin in preference to alcohol. These two letters have been photostated by Procter & Gamble who produce glycerin, and are bound in a booklet containing various advertising matter which is placed in the retail dealers' hands to promote the sale of their glycerin. It does not require much sales effort to sell glycerin when the owner of a Cadillac car is shown a statement from the manufacturer, namely, the Cadillac Motor Car Company, telling him to use glycerin.

In Exhibit "B" are statements secured from various sources showing the harmful effects which are now coming to light, due to the use of glycerin for anti-freeze and we know of many consumers who have had sad experiences from trying out glycerin last year and who are now going back to the use of alcohol.

You will note that the General Motors recommendation to use glycerin conflicts with statements from the car owners who in many instances have suffered serious damage by using this material for anti-freeze. This has caused us some embarrassment because we are manufacturing alcohol and are advocating its use for anti-freeze since we believe that it is best for the car owner.

In Exhibit "C" is an office memorandum prepared by the writer giving my own ideas on this subject and I want to call your particular attention to pages four and five which I believe is the logical position for an automobile manufacturer to take when considering what is best for his own interests. For example, the Nash Motors Company has done the right thing to specify in their instruction book to the car owner, that alcohol should be used to protect radiators in Nash cars against freezing.

We trust that you will see that this subject is given prompt consideration because it is none too early to start making plans for next year to instruct the car owners what is best for anti-freeze; also when the General Motors Corporation is finally convinced that glycerin is causing trouble, you may desire to take steps to have Procter and Gamble discontinue using General Motors' letters (exhibit "A") to promote the use of glycerin.

Very truly yours,

Z. Phelps
DEVELOPMENT DEPARTMENT

P.S. We have just received (see Exhibit "D") "cold weather hints" put out by the Buick Motor Company and it is particularly pleasing to find that alcohol is recommended in preference to other anti-freeze solutions. This makes it appear rather inconsistent for some branches of your company to recommend glycerin when other divisions advise the car owner to use alcohol.

ZP:N
Encls.

Government's Exhibit No. 333

MEMORANDUM

November 16, 1926

DISADVANTAGES OF GLYCERIN FOR ANTI-FREEZE

Probably the most serious objection to the use of glycerin is that it deteriorates and softens the rubber hose connection and gaskets which frequently cause leaks that result in serious damage to the motor. All instructions for the use of glycerin lay special stress upon the importance of having an absolutely tight system, and while there are some automobile owners who will take precautions to tighten up the connections, it is generally found that the owner will do nothing so long as there is no evidence of a serious leak. As a result, a water system that is apparently tight will, after a time, begin leaking when glycerin is put into the radiator because of the effect which glycerin is known to have upon the hose and gaskets. Furthermore, even if precautions are taken to tighten the water system before putting glycerin into the radiator, there is always some speculation that a leak will develop and cause damage.

A leaky water system containing glycerin will ruin the motor when it gets into the cylinders. There have been numerous instances where the fan threw back the glycerin solution, which was leaking from the hose connection, upon the electric wires which caused them to short. Furthermore, the glycerin solution is decomposed when thrown upon a hot motor which causes it to give off an extremely bad odor.

Another unfavorable feature is that glycerin is more viscous than water and consequently does not flow as freely through the cooling system. Due to the effect of glycerin, the rubber hose swells and the inside diameter of the hose is reduced which retards the circulation in the cooling system and results

in overheating the motor, particularly on warm days. The fact that manufacturers of cooling systems which operate without a pump (such as the one in the Essex) advise against the use of glycerin, indicates that it is recognized that the glycerin solution will not flow as readily through the system as water. One reason that the glycerin sold for anti-freeze is diluted with 40 to 50% water, is because 98% glycerin is so viscous that when cold it can not be readily poured into the radiator.

Either through carelessness or neglect, it is frequently found that the car owner will not drain the radiator after the winter season and as the result of leaving the glycerin in the system, we know of cases where the cooling system was clogged up and ceased to function. This resulted in serious damage to the motor.

It is found that glycerin has a tendency to loosen up the rust inside the radiator and that radiators which were tight began to leak after the glycerin was put into the system. By removing this rust scale which is a protective coating, it is claimed that the life of the radiator will be shortened.

One of the advantages claimed for glycerin is that when it is put into the cooling system, the car owner has protection against freezing throughout the entire winter. It was found by one large taxicab company who tried out glycerin and later went back to the use of alcohol, that the water in the radiators had to be frequently replenished and that when the water was added there was some dilution of the glycerin content occasioned by overflowing the water or filling the radiators so full that they later overflowed when the mixture expanded upon becoming heated.

When glycerin is put into the radiator, the temperature of the water is raised when operating the motor, resulting in a faster rate of evaporation of the water and requiring

more frequent filling of the radiator.

The cost of glycerin for anti-freeze is much more expensive than alcohol. Procter & Gamble's glycerin, containing 40% water, is sold under their brand "Ivo" and retails for $3.00 per gallon.

Alcohol (188 proof or 94%) is now sold to the consumer at prices ranging from 45¢ to 75¢ per gallon. The average car owner will consume between 1½ and 3 gallons of alcohol per year which is purchased at intervals when a replenishment of alcohol is required. This feature is particularly attractive to the average car owner because he obtains protection against freezing on the instalment plan and is not required to make a large cash expenditure at one time. On the other hand, the cost for a glycerin anti-freeze mixture will range between $5 and $11, depending upon the make of automobile. It is thought that the car owner when using glycerin will find that the cost for protection against freezing will be at least double the total cost for the alcohol required for the entire winter season. In addition the expense of tightening the cooling system should be included in the cost when using glycerin.

We quote below the instructions put out by the manufacturers of glycerin for anti-freeze purposes:

> "Although the permanence of Radiator Glycerin makes it cheaper in the end, its first cost is greater

than that of other anti-freeze agents, so it is important to prevent its waste. Above all, be sure the cooling system is tight. Remember glycerin takes advantage of minor leaks. Your garage-man can easily tighten hose connections, cylinder head gaskets, and pump packing so there can be absolutely no question that the system is leak-proof.

Also don't waste glycerin through the overflow pipe inside the radiator. Never fill radiator higher than within 3 inches of the top of this pipe (Fords 4 inches). This allows the solution to expand without overflowing when heated up.

Remember only leakage or overflow can impair the permanence of glycerin's protection. No replacement for evaporation is necessary except an occasional replenishment of the water in the solution as in summer.

Use only pure distilled radiator glycerin solutions vouched for by a reliable maker and be sure your car is carefully seviced according to the instructions. You can then drive your car in all kinds of weather free from all worry over the possibility of a frozen motor."

It would appear that the glycerin producers themselves recognize the difficulties which the car owner may have when using their material for anti-freeze purposes and this is in a sense poor advertising because it points out where the consumer may expect trouble.

The automobile manufacturers naturally want to encourage winter driving and it is to their interest that the owners have as little trouble as possible due to the use of an anti-freeze mixture. Furthermore, it is desirable that the owners be required to go to as little expense as possible to get protection against freezing.

The use of glycerin will frequently cause trouble and will certainly shorten the life of a radiator and for this reason the owner is always subjected to some speculation in the way of doing serious damage to his car. These troubles arising from the use of glycerin are of a character that may reflect upon the merits of the automobile and cause the owner some dissatisfaction because it will frequently be questionable whether or not parts of the motor were defective, and it will be difficult to convince the owner that his troubles were caused by the use of glycerin.

Indiscriminate use of glycerin without service attention has and will result in trouble and damages for the car owner while alcohol is practically fool proof, and has been successfully used in radiators over a long period of time.

—5—

The particular feature I want to bring out is that all automobile manufacturers in their instruction book to the car owner, will find it decidedly to their interests to advocate that alcohol be used for anti-freeze and make no mention of glycerin or any other mixtures. The instructions should imply that a car owner using any anti-freeze mixture other than alcohol will do so at his own risk. This will relieve the automobile manufacturer from any "come-back" from the owner because alcohol will not do any damage and if the owner should let his motor freeze, he has no claim nor can he become dissatisfied with his car because of his own carelessness to protect same against cold weather.

It is a simple matter by use of a hydrometer to test the percentage of alcohol in the radiator at any time and make the addition of sufficient alcohol to get protection against freezing at low temperatures. This test can be made by either the car owner or the garage and the time required will be one-quarter as long as it takes to gauge the air pressure in the four tires on the car.

JACK PHELPS (Stamp)

ZP:N

NOTE: Handwritten "Exhibit C", underlined, appears in the upper left hand corner. "Exhibit C" in parenthesis and handwritten is at the bottom of the first page.

Government's Exhibit No. 334

DU PONT
ESTABLISHED 1802
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE
DEVELOPMENT DEPARTMENT

3859

November 19, 1926

Mr. J. L. Pratt, Vice President
General Motors Corporation,
57th & Broadway
New York

Dear Mr. Pratt:

✓ With further reference to my letter of November 17th regarding the use of glycerin instead of alcohol for anti-freeze.

The Industrial Alcohol Manufacturers Association has just completed a survey of forty-four automobile manufacturers whose recommendations are as follows:

29	manufacturers	only alcohol
5	"	only glycerin
10	"	varying mixtures of alcohol and glycerin

The Cadillac Shop Manual "314" page 50, item 375, states that a solution of glycerin and water is recommended. It is evident that the Cadillac Company is one of the few to advocate the use of glycerin and it will be of much interest to us to learn whether the Cadillac Motor Company is still of the opinion that glycerin is best after having some experience with the difficulties resulting from the use of this material for anti-freeze.

Very truly yours,

Z Phelps
DEVELOPMENT DEPARTMENT

ZP:M

Government's Exhibit No. 335

DU PONT
ESTABLISHED 1802
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE
DEVELOPMENT DEPARTMENT

December 3, 1926

Mr. John L. Pratt, V.P.
General Motors Corporation,
57th & Broadway,
New York

Dear Mr. Pratt:

Referring to our previous correspondence regarding the use of glycerin vs. alcohol for anti-freeze. We were much pleased to find that the Cadillac Motor Car Company, who advocated the use of glycerin last year, have now been compelled to alter their statement in this matter and in their new "Operator's Manual" on pages 38 and 39, recommend that only alcohol be used for anti-freeze.

We also attach a circular letter which shows that the Buick Motor Company recommends alcohol in preference to glycerin.

It therefore appears that all of the General Motors units manufacturing automobiles should profit by the experience of the Cadillac and Buick companies and should recommend, in their instruction books, that only alcohol be used. What we had in mind was that if the Cadillac and Buick found that alcohol is best for anti-freeze, it would then be consistent for the Chevrolet, Oakland and Oldsmobile to recommend in their instruction books to the owner that alcohol be used in the radiators. It will be of much interest to us to learn the position which the Chevrolet, Oakland and Oldsmobile companies take relative to the use of alcohol in preference to glycerin for anti-freeze.

Very truly yours,

Z. Phelps
DEVELOPMENT DEPARTMENT

ZP:N
Encl.

Government's Exhibit No. 336

December 8, 1926.

Mr. J. L. Pratt

Mr. . P. Sloan, Jr.

ANTI-FREEZE SOLUTION.

I return herewith papers on the above subject. I believe I told you the policy which had been decided upon by the General Technical Committee and approved by the chief engineers of all the car divisions, which was as follows:-

That we would point out that there were two anti-freeze materials - alcohol and glycerin and components of glycerin, like ethylene glycol and prestone; that we would explain the advantages of alcohol and that the disadvantage was that if it was spilled on Duco it disfigured same. We would then deal with glycerin and materials having it as a major ingredient and would point out that it was satisfactory if used in strict accordance with the manufacturer's recommendation, but that any air allowed to get into the system would cause decomposition and corrosion of the engine operating parts and further, that the material was likely to clog up the radiator. In other words, our purpose is to state the facts as we found them in the report which was submitted to the Technical Committee.

We try to deal with the matter fairly and state the facts, feeling that our customers are entitled to know same and hoping that they would use alcohol, which we would much prefer they would use. In view of the fact, however, that some people prefer glycerin - Mr. Kettering would use nothing else - it did not seem to us that the conditions warranted discrediting same. We must bear in mind that glycerin interests are large and varied. They are all potential users of General Motors product and we do not want to discredit them beyond the necessities of the case, providing we can, in so doing, protect our customers interests.

I believe I told you further that the Glycerin Manufacturers' Association was in touch with our findings and had no fault to find with the facts as we had established them.

I will take this matter up further at the next meeting of the General Technical Committee and also the principle that greater care be exercised in establishing the principle so that conflicting information does not go out.

APSJr./K

att.

Government's Exhibit No. 337

December 20, 1926.

Mr. J. L. Pratt

I was looking over my file and noted the correspondence you have had with the duPont Company on the matter of alcohol and glycerine for anti-freeze.

I believe you know that at the last meeting of the General Technical Committee a decision was reached to the effect that we would put in all our instruction books, in such a way as each Engineering Department thought best, a statement setting forth the advantages and disadvantages of both materials, particularly pointing out that under certain conditions glycerine was unsatisfactory but that if those conditions were not present and it was used strictly in accordance with the manufacturer's recommendation, there was no objection to its use.

APSJr./K

Government's Exhibit No. 338

January 11, 1926.

Mr. James Elms,
Paint & Varnish Division,
E.I.duPont deNemours & Co.,
35th & Grays ~~Ferry Road~~,
Philadelphia, Pa.

Dear Jim:

I have your letter of January 9th in regard to rubber and finishing varnish purchased by Delco-Light from Lowe Brothers.

I am under the impression that Delco-Light Company have plans whereby they are going over to the use of Duco practically 100%. However, I will discuss this situation with Mr. Biechler, General Manager of Delco-Light Company, and if I can be helpful in straightening out your situation I will be glad to do so.

I shall not be disappointed if the Paint and Varnish Division becomes like the stone rejected by the builder, which according to Scripture became the head of the corner.

You had better plan to run up to New York this week to the Automobile Show, as Brook Jackson, E.F.Johnson, Jim Lynah and a lot of the boys you know will be here.

Very truly yours,

JLP:V

NOTE: A handwritten check appears over the word 9th in the first sentence of the first paragraph. An illegible word is crossed out in the upper right hand corner. The word "omit" is written in the right hand corner.

Government's Exhibit No. 339

CABLE ADDRESS "DELCOLIGHT" TELEGRAPHIC CODES WESTERN UNION, A B C 5TH EDITION, LIEBER'S STANDARD

DELCO-LIGHT COMPANY
ELECTRIC LIGHT AND POWER PLANTS WATER SYSTEMS
FRIGIDAIRE AND OTHER ELECTRIC DEVICES
DAYTON, OHIO, U.S.A.

Subsidiary
General Motors Corporation

OFFICE OF
PRESIDENT AND GENERAL MANAGER

January 21, 1926.

Mr. J. L. Pratt, Vice President,
General Motors Corporation,
New York City.

Dear Mr. Pratt:-

You read a letter to me from a duPont official regarding an inquiry and order he had received from us for black enamel. Since my return, I have gone into the situation thoroughly, and the picture is something like this.

The enamel we have used on our lighting plants and on the sides of our ice cream cabinets has practically all been purchased through Lowe Brothers Company here in Dayton, or through some other local paint company. When we started operation at Moraine and began using the automatic dipping method, we naturally ran into a different condition from a paint application standpoint than in our previous hand dipping or spray method. The Dayton concern, that is, Lowe Brothers, were not coping with the situation as rapidly as we wanted them to, and some members of our organization went to the Chevrolet factory in Cincinnati to look into their automatic paint dipping methods.

Due to that visit, a request was sent to Chevrolet Company, Detroit, to send one of their enamel experts to us, and he recommended our using duPont enamel. We then sent an inquiry to duPont, they acted on it very promptly, we gave them an order, but in the meantime, Lowe Brothers came through with what looked like a satisfactory enamel. It was at this point that the duPont order was held up.

I find, however, that our manufacturing, chemical and purchasing divisions feel that we would be in better hands possibly by dealing with duPont than with Lowe Brothers. We will know sure about this within a few days, at which time we will communicate with duPont, and will also advise you.

Hoping the above satisfactorily explains the situation up to date, I am

Yours very truly,

DELCO-LIGHT COMPANY
E. G. Biechler
President and
General Manager

EGB/CL

There's a satisfied user near you.

NOTE: "1/23/26" in upper right margin is inserted after "J.L.P." in a routing stamp bearing initials "A.P.S.", "J.L.P." and "L.R.B.".

Government's Exhibit No. 340

January 23, 1926.

Mr. E. G. Biechler, General Mgr.,
Delco-Light Company,
Dayton, Ohio.

Dear Mr. Biechler:

Please accept my thanks for your letter of January 21st in regard to the question of paint supplied to you by local paint companies and the situation as applying to the duPont Company.

I am glad to know that your manufacturing, chemical and purchasing divisions feel they would be in better hands possibly by dealing with duPont than with local companies. From a business standpoint no doubt your organization would be influenced to give the business, under equal conditions, to the local concerns. However, I think when General Motors divisions recognize the sacrifice that the duPont Company made in 1920 and 1921, to keep General Motors Corporation from being put in a very bad light publicly—the duPont Company going to the extent of borrowing $35,000,000 on its notes when the company was entirely free of debt, in order to prevent a large amount of General Motors stock being thrown on the open market—they should give weight to this which in my mind more than over-balances consideration of local conditions. In other words, I feel that where conditions are equal from the standpoint of quality, service and price, the duPont Company should have the major share of General Motors divisions' business on those items that the duPont Company can take on the basis of quality, service and price. If it is possible to use the product from more than one company I do not think it advisable to give any one company all of the business, as I think it is desirable to always keep a competitive situation, otherwise any supplier is liable to grow slack in seeing that you have the best service and price possible.

I have expressed my own personal sentiments in this letter to you in order that you might have my point of view, but I do not wish to influence your organization in any way that would be against your own good judgment, keeping in mind that above all the prime consideration is to do the best thing for Delco-Light Company, and that considerations in regard to the duPont Company or other concerns are secondary, and I am sure this is your feeling.

Very truly yours,

Vice President.

JLP:V

copy to Mr. Elms

NOTE: A check mark appears above "21st" in the first line of the body of the letter.

2

Government's Exhibit No. 341

PERSONAL

Mr. James Elms
Paint & Varnish Division,
E. I. duPont deNemours & Co.,
35th & Grays Ferry Road,
Philadelphia, Pa.

Dear Jim:

In regard to your letter of January 9th, I am enclosing herewith copy of letter I have today written Mr. Biechler. This is solely for your own personal information.

I was very glad to learn that you will be able to go to Pinehurst with us. I have made reservation for you for two weeks, beginning March 7th. Put this date on your calendar, as I won't accept any alibis that you have to go to Chicago, Boston, or somewhere else.

Very truly yours,

JLP:V
enc.

NOTE: "Accessory—Delco Light—Products—Supplies & Materials—Paints" is written at top of page and illegible initials or other mark are written in upper right-hand corner. A check mark appears above "9th" in first line of the body of letter.

Government's Exhibit No. 342

3868

MEMORANDUM

To Mr. Curtice
C - Messrs. Champion, de Guichard,
Vessey, Proctor.

April 15th '26 19

The writer has been making some experiments with the idea in mind of securing a cheaper clear lacquer for our odometer wheels and speed cups. At the present time we are using DuPont material and pay $3.05 per gal. for the lacquer and $1.38 per gal. for the Thinner in fifty gallon drum lots. The Zapon Company will furnish us the material known as "Aquanite D" at $2.10 per gal. and Thinner to go with it at $1.60, total savings $1.23 per gallon.

I have sprayed a sufficient quantity of parts and believe this material will be entirely satisfactory for our use. I am turning over to Mr. Smith some of the parts so that same can be given a weather test and if same proves O.K., I would suggest that we change the material.

We are receiving very poor service from the DuPont Company and it is my opinion that it would be greatly to our advantage to change our source of supply. It usually takes DuPont from two to three months to submit us a sample of material and we can secure from one to two weeks service from Zapon or Egyptian Lacquer Company.

R. G. Knight.

Government's Exhibit No. 343

A C SPARK PLUG COMPANY
FLINT, MICHIGAN

**OFFICE OF
THE PRESIDENT**

April 16th, 1926

Mr. J. L. Pratt,
General Motors Corporation,
224 W. 57th St.,
New York City, N.Y.

My dear Mr. Pratt:—

I am attaching herewith memorandum I have received from one of our Experimental Engineers, which is self-explanatory.

The reason I am bringing this to your attention is because naturally we want to do business with the Du Pont Company and I thought perhaps you would know whom to approach who would see that we receive proper attention, not only in supplying material on the basis that other firms are able to do, as there is no doubt but what DuPont should be in a position to do the same as other firms, but also that we are given the proper service.

Thanking you in advance for your favor, I am,

Very truly yours,

A. Champion
President

AC:GR

NOTE: Routing Stamp bearing initials A.P.S., J.L.P. and L.R.B., with "4/21" inserted by hand after "J.L.P.", appears in upper right corner. Illegible initial is written in upper right corner.

Government's Exhibit No. 344

April 19, 1926.

PERSONAL

Mr. J. J. Moosman,
DuPont Chemical Co.,
Parlin, New Jersey.

Dear Joe:

I am enclosing herewith a letter I received from Mr. Albert Champion which I thought would be interesting to you.

Won't you please indicate to me the kind of a reply we should make, and return this letter to me in order that I may reply to same.

Very truly yours,

Vice President.

JLP:V

Government's Exhibit No. 345

ADDRESS ALL CORRESPONDENCE TO THE COMPANY SALES DEPARTMENT AT PARLIN, N. J.

FORM 16786

DU PONT

ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

CHEMICAL PRODUCTS DIVISION
PARLIN, NEW JERSEY

3871

April 20, 1926.

Mr. John L. Pratt,
Vice President,
General Motors Corp.,
224 West 57th Street,
New York, N. Y.

Dear Mr. Pratt:

We very much appreciate the opportunity that you and Mr. Champion have given us to see Mr. Knight's complaint regarding our unsatisfactory service in connection with the adaptation of our products to their requirements.

While I would not presume to exactly diagnose the cause of the trouble from this distance, it is my opinion, after looking over our records on this account, that it is due to lack of technical knowledge and experience on pyroxylin products on the part of the man upon whom we are depending for our contact with the A. C. Plant. He has been with us for many years, but until recently his experience has been confined to products of the paint and varnish type; and the records seem to indicate that he has been unable to do much more than act as messenger in connection with technical pyroxylin problems.

You may assure Mr. Champion that this condition will be corrected immediately, and that we are fully aware of the fact that we cannot expect to continue to enjoy this business unless we are able to provide quality, service and price at least equal to that of any of our competitors.

With renewed thanks for your kind cooperation, I remain

Very truly yours,

J J Moosmann

Division Manager

JJM:ML

Government's Exhibit No. 346

April 21, 1926.

Mr. Albert Champion, President,
A. C. Spark Plug Company,
Flint, Michigan.

Dear Mr. Champion:

Referring to your letter of April 16th in regard to service of the DuPont Company on lacquer finishes, I have had this subject up with Mr. J. J. Moosman, Division Manager of the Chemical Products Division of the DuPont Company, who is handling this part of the business, and he asks me to assure you that conditions experienced in your plant will be corrected immediately, and that he does not expect to continue to enjoy your business unless he is able to provide quality, service and price at least equal to that of any of his competitors.

I have sufficient confidence in Mr. Moosman to know that he will do anything he undertakes to do, so I look forward to your having the unsatisfactory situation, complained of by your Mr. Knight, corrected.

Thanking you for bringing this matter to my attention,

Very truly yours,

Vice President.

JLP:V

copy to Mr. J.J.Moosman

Government's Exhibit No. 347

A C SPARK PLUG COMPANY

FLINT, MICHIGAN

OFFICE OF
THE PRESIDENT

April 23rd, 1926.

Mr. J. L. Pratt,
General Motors Corporation,
224 W. 57th St.,
New York City, N.Y.

My dear Mr. Pratt:

I am in receipt of your letter of the 21st and certainly appreciate your taking up with the DuPont Company, the trouble we have been experiencing, and am glad to know that they will see that we get satisfaction.

Thanking you for the favor,

I am,

Very truly yours,

President.

AC:GP

Government's Exhibit No. 348

Mr. deGuichard,
C-Messrs. A. Champion,✓ Curtice,
File.

July 12th, 1926.

According to your request, the following is an outline covering the Dupont situation:—

At the present time all our production oil base enamels and paints with the exception of tin coating white used on odometer wheels and speed cups are furnished by Dupont. Also you will note by the following list that the bulk of our nitro-cellulose enamels are Dupont:

#4101 — Clear Lacquer Dupont
3500 — Thinner "
1309 — Clear Lacquer "
2302 — Black Enamel "
20132 — Black Enamel "
201247 — Grey Enamel "
540 — White Enamel Zapon
CN-H225 — Ivory "

On April 11th Mr. Champion wrote Mr. J. L. Pratt with reference to the service we were receiving at that time. Mr. Pratt took the matter up with Mr. J. J. Mooseman, Divisional Manager, Chemical Products Division, and since that time the action we have been securing has been very much better, though from our standpoint it could be greatly improved.

There seems to be too much lost motion, for instance the matter is taken up through the Flint office and then sent to the Detroit Office and then to Parlin. For example I would site our latest experience:—

On June 18th I wrote the Detroit office direct to the attention of Mr. Hamaker, regards submitting samples of cream enamel to match the sample dial sent us by Peerless. I received no acknowledgment to my letter and followed it up with another on June 25th. I received a reply dated June 28th from their Mr. Strong advising that they were in constant touch with the Parlin Plant and a suitable material was being developed. I called Mr. Strong on July 3rd and was advised that he would secure more information from Parlin. Mr. Strong on July 8th phoned me that Parlin had promised to make shipment on July 10th.

According to the above it will take us at least 25 days to secure sample materials from Parlin. This is altogether too long because when a manufacturer requests a sample face of special material it is impractical for us to mix up some of the available material in our plant and submit a sample because it would be very difficult to duplicate same. We have to depend upon the paint manufacturer to work out a formula that can be standard.

It seems to me that if we could deal direct with Parlin when requesting samples that a lot of our trouble would be eliminated.

R. B. Knight.

Note: Illegible initial is written in upper right corner of page.

Government's Exhibit No. 349

A C SPARK PLUG COMPANY
FLINT, MICHIGAN

OFFICE OF
THE PRESIDENT

July 14, 1926

Mr. J. L. Pratt,
General Motors Corporation,
New York City

My dear Mr. Pratt:

Referring to correspondence I had with you some time ago regarding material we purchased from duPont I am sending you copy of memorandum which shows the difficulty we still have and if we do, I suppose all other manufacturers must have the same trouble.

I believe it is perfectly all right if we have some standards established on material we use to go possibly to all the steps with the different offices the duPont Company have. When we are doing some development work it would be very much better if we could establish direct contact between Pyralin and ourselves. It is expensive to duPont and to us and neither of us can get results.

Parlin

Would appreciate it if you could take that up with the person in authority and see what you can do for us regarding this matter.

Thanking you in advance for your favor, I remain

Very truly yours,

A. Champion
President

AC/A

NOTE: Routing stamp bearing initials A.P.S., J.L.P. and L.R.B., appears in upper right corner. "Pyralin", in sixth line in second paragraph, is encircled by a pencil line. Illegible initial is written in upper right corner.

Italics indicate handwriting.

2

Government's Exhibit No. 350

3878

Letterhead of
E. I. du PONT de NEMOURS & COMPANY
INCORPORATED
Wilmington, Delaware
DEVELOPMENT DEPARTMENT

May 1, 1926

Mr. John L. Pratt, Vice President
General Motors Corporation
57th & Broadway
New York City

Dear Mr. Pratt:

We are again looking into the possibility of manufacturing oilcloth and it will be of much interest to us to learn the approximate quantity of oilcloth and black enamels which is now used annually by the General Motors Corporation. If you can conveniently get this information for us, it will be very helpful and greatly appreciated.

Very truly yours,

Z Phelps
DEVELOPMENT DEPARTMENT

ZP:N

NOTE: Routing stamp bearing initials A.P.S., J.L.P. and L.R.B., with "5/17" inserted by hand after "J.L.P.", appears in lower right. Illegible initials or other writing appears in upper right corner. Italics indicate handwriting.

Government's Exhibit No. 351

May 4, 1926.

Mr. James Lynah:

I am enclosing herewith copy of letter from Mr. Z. Phelps, of the Development Department of the DuPont Company, from which you will note that he is interested in the quantity of oilcloth and black enamel used annually by General Motors Corporation.

If you can obtain this information readily won't you please forward same.

....

Vice President.

JLP:V

enc.

NOTE: Illegible initials or other writing appears in upper right corner.

Government's Exhibit No. 352

GENERAL MOTORS CORPORATION
General Purchasing Committee
Detroit, Michigan

May 15, 1926.

Subject Black Enamels.

Attention of Mr. J. L. Pratt,
General Motors Corporation,
New York City.

In reply to your letter of May 4th enclosing letter from Mr. Z. Phelps of the duPont Company relative to consumption of Oil Cloth and Black Enamels:

1—Our divisions use no oil cloth.

2—Consumption of Black Enamel for year 1925 as reported; totals 597,145 gallons.

Buick's quantity—201,974 gallons

Chevrolet's " —260,629 "

Reported as purchased from duPont Company.

Yours very truly,

James Lynah
Executive Secretary.

James Lynah:EB.

Note: Routing stamp bearing initials A.P.S., J.L.P. and L.R.B., with illegible notation inserted by hand after "J.L.P.", appears in right margin; check mark appears above "4th" in first line. Illegible initials or other writing appears in upper right corner. Italics indicate handwriting

Government's Exhibit No. 353

3881

May 17, 1926.

Mr. Z. Phelps,
Development Department,
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. Phelps:

Referring to your letter of May 1st. A canvass of our Divisions shows that we are using no oilcloth.

Our consumption of black enamel in the year 1925 was 597,145 gallons, of which 462,600 gallons were reported as purchased from the duPont Company.

The above figures do not include Fisher Body—of these purchases we do not keep any statistics.

Very truly yours,

Vice President.

JLP:V

NOTE: "G.M.C. — Products — Supplies & Materials — Misc.", followed by illegible initals, is written across top of page; check mark appears over "1st" in first line.

Government's Exhibit No. 354

Letterhead of

E. I. du PONT de NEMOURS & COMPANY
Wilmington, Delaware

DEVELOPMENT DEPARTMENT

July 7, 1926

Mr. J. D. Brown, Vice President
General Motors Corporation,
57th & Broadway,
New York City

Dear Sir:

At the suggestion of Dr. F. Sparre we are writing to learn if you can conveniently ascertain the approximate quantity of oilcloth consumed per year by the Fisher Body Corp. We imagine that the Fisher Body Corporation's oilcloth requirements are comprised largely of black enamels and it is not necessary to make any separation of the different classes of oilcloth material consumed since one lump figure will serve our purpose.

Confidentially the du Pont Company is considering the production of oilcloth and this information will be of much interest to us.

Very truly yours,

Z. Phelps
DEVELOPMENT DEPARTMENT

ZP:N

NOTE: Illegible initial is written in upper right corner. Italics indicate handwriting.

Government's Exhibit No. 355

July 8, 1926.

Mr. Charles T. Fisher,
Fisher Body Corporation,
Detroit, Mich.

Dear Mr. Fisher:

The Du Pont Company is contemplating the possible production of oilcloth and are checking up on the market for such product. In connection with their check-up of the market condition they are inquiring as to the extent of General Motors purchase of oilcloth.

Would you mind having some one let me know what Fisher Body Company's requirements for oilcloth are, and a general indication of the grade, or grades, that are used? Incidentally, it would be interesting to have your personal observations as to the general commercial situation existing in the oilcloth business, from your own viewpoint.

Would appreciate your attention to this matter, and of course the fact that the Du Pont Company is contemplating entering into the oilcloth business should be treated confidentially.

Donaldson Brown,
Vice President

DB:W

Note: "Fisher Body—Products—Supplies & Materials —Oilcloth" followed by illegible initial, is written across top of page. Check mark appears in lower right corner; "7/15", through which a line has been drawn, is written immediately above check mark.

Government's Exhibit No. 356

FISHER BODY CORPORATION
DETROIT, MICH.

July 30, 1926.

Mr. Donaldson Brown,
General Motors Corp.,
New York, N. Y.

Dear Mr. Brown:

Your letter of July 8 regarding the oil cloth business was received and in checking over our requirements I find that we are using approximately twenty thousand yards of enameled drill per month and fifty thousand yards of enameled duck per month.

Present price on the drill is 33¢ per yard, 50" width, which is the standard; on the duck, 75¢ per yard, this being 54" width which is the standard.

Enameled drill and duck are made on the same principle as oil cloth but are heavier in weight, the oil cloth being made on a fine sheeting in various colors while the enameled drill is made on drill material and the enameled duck on duck material, this making the difference in weight. They are all made in the same plant where they produce oil cloth.

We buy most of our material from the Landers Bros. Co., Toledo, and the Columbus Union Cloth Co., Columbus.

Prices quoted by the different concerns are usually just about the same.

Yours very truly,

Chas T Fisher

CTF/F

NOTE: Check mark appears above "July 8" in first line. Illegible initial is written in upper right corner. Italics indicate handwriting.

Government's Exhibit No. 357

3885

August 2, 1926

Mr. Z. Phelps,
Development Department,
E. I. du Pont de Nemours & Co.,
Wilmington, Delaware.

Dear Sir:—

Referring to your letter of the 7th ulto., beg to advise that the Fisher Body Corporation use approximately twenty thousand yards of enameled drill per month and fifty thousand yards of enameled duck per month. As you probably know, enameled drill and duck are made on the same principle as oil cloth, but are heavier in weight.

Yours very truly,

DONALDSON BROWN,
Vice President

NOTE: "Fisher Body—Products—Supplies & Materials—Oilcloth" followed by an illegible initial, is written across top of page; check mark appears above "7th" in first line.

Government's Exhibit No. 358

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
DYESTUFFS DEPARTMENT
WILMINGTON, DELAWARE

Mr. John L. Pratt, Vice-President,
General Motors Corporation,
New York City.

Dear Jack:-

Mr. Robinson tells me that you called last Friday to find out surely who it was that I suggested to you as a source of supply for Methyl Chloride. I believe he told you that Dow seemed to be the best possibility, and as I recollect it that is the name I previously gave you. At the present time, the only manufacturers in this country is the Roessler & Hasslacher Chemical Company. However, we feel Dow undoubtedly could make it.

I find that Dr. Chambers has been talking to your Mr. Williams regarding possibility of your use of Methyl Chloride. If you have decided definitely to go into the use of this product, we would like very much to be given the opportunity to be considered as one of your suppliers. In the manufacture of tetraethyl lead we use Ethyl Chloride. So far, on account of the difficulty in getting started with tetraethyl lead we have had Dow manufacture Ethyl Chloride for us. It is quite probable that in the near future, owing to the saving, we will want to manufacture our own Ethyl Chloride and in such event the manufacture of Methyl Chloride would be a logical associate manufacturing problem.

I do not wish to leave this in the position of assuming that if we manufacture Ethyl Chloride we will also manufacture Methyl Chloride, but that if you are going to use the latter item we want to be in position to bid on some of your requirements.

While in New York the latter part of last week I stopped in to see you but found you were out in Detroit, and was sorry to have missed you. With best regards,

Sincerely yours,

W. P. HARRINGTON,
GENERAL MANAGER.

H-H

Government's Exhibit No. 359

August 10th, 1926.

Mr. W.F. Harrington,
General Manager,
Dyestuffs Department,
E.I. Du Pont De Nemours & Co.,
Wilmington, Delaware.

My dear Buck:

Referring to your letter of August 4th, it is true we have about decided to use Methyl Chloride in a new electrical refrigerator that we expect to shortly put on the market.

Mr. Robertson told me that you were considering the manufacture of Methyl Chloride along with Ethyl Chloride, so I have asked our Delco-Light Division to make no contracts for Methyl Chloride for a period greater than one year so that we would be in a position to deal with you, if you should later decide to enter into the manufacture of this product.

Thanking you for your interest in same, I remain, with very best regards,

Yours very truly,

J. L Pratt

Vice President

JLP:F

Government's Exhibit No. 360

3888

DUPONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
DYESTUFFS DEPARTMENT
WILMINGTON, DELAWARE

September 23, 1925.

Mr. John L. Pratt, V.P.,
General Motors Corporation,
224 W. 57th Street,
New York City, N. Y.

My dear Jack:-

It is our understanding that in the manufacture of your refrigerating machines in the Delco System you are using Liquid SO_2 as a refrigerating agent. We are interested to know if it would not be possible for you to purchase this from us as we have an available supply, and, if so, to whom we should write to get the information regarding containers, etc. for its sale.

With kindest personal regards, I am,

Sincerely yours,

W. F. HARRINGTON,
GENERAL MANAGER.

Government's Exhibit No. 361

September 29, 1925.

Mr. W. F. Harrington, General Mgr.,
Dyestuffs Department,
E.I.duPont deNemours & Company,
Wilmington, Delaware.

Dear Buck:

You are correct in your understanding as expressed in your letter of September 23rd, that we use liquid SO_2 in our Frigidaire machines, and if you are in position to supply SO_2 of the quality we require and at the right price I know of no reason why you should not be able to obtain the business. You might address the Purchasing Agent, Mr. F. L. Riehle, Delco-Light Company, Dayton, Ohio, in regard to specifications.

However, I would like to impress on you that it is necessary for us to have an exceptionally pure and dry SO_2 gas and I would not like you to consider supplying us unless you can promise absolutely uniform product. We have had some unfortunate experiences in the past in attempting to use DuPont acid in connection with our pickling operations at Lancaster, and I would not like to take chances on repeating this by trying to use SO_2 gas. Therefore, please don't put forward the use of your SO_2 gas unless you are absolutely sure it will meet our specifications.

Very truly yours,

Vice President.

JLP:V

copy to E.G.Biechler

Note. At top of letter is written: Accessory - Delco Light - Products - Supplies & Materials - Misc.

Government's Exhibit No. 362

October 9, 1925.

Mr. W. F. Harrington, General Mgr.,
Dyestuffs Department,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

Dear Mr. Harrington:-

Mr. J. L. Pratt sent me copy of his letter to you of September 29 regarding SO^2.

We will be very glad to have you get in touch with us regarding this subject. You will find the people in our Purchasing Department in a receptive mood and we will cooperate with you in every consistent way, provided price, quality, deliveries, etc., meet our requirements.

Yours very truly,

DELCO-LIGHT COMPANY

General Manager

BGB/CL

CC Mr. Pratt.

Government's Exhibit No. 363

Letterhead of

E. I. du Pont de Nemours & Company
Wilmington, Delaware
Executive Offices

October 28, 1926.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
224 West 57th Street,
New York City, N. Y.

Dear Mr. Sloan:

Our Paint Department recently has been considerably upset because of the difficulty in getting accurate information as to the probable requirements of the various General Motors units for Duco. A month ago they were being pressed for deliveries and led to believe that there was no prospect of a material reduction in demand. To-day they are receiving cancellations and postponements "right and left," and cannot make out what it all means. Personally, I am mystified, because the forecast schedules submitted to the Finance Committee do not seem to agree at all with the dope that our Paint Department gets from its representatives in Flint and Detroit.

I have always considered the General Motors Finance Committee reports as strictly confidential. Do you see any objection to my giving our Paint Department such forecast figures as are included in these reports?

Yours very truly,

L. du Pont
PRESIDENT.

LduP/MD

NOTE: Routing stamp bearing initials A.P.S., J.L.P. and L.R.B., with "10/29" inserted by hand after J.L.P., appears in upper right corner; "RECEIVED OCT 29 1926 A. P. SLOAN, Jr." is stamped at top of page. Illegible initial is written in upper right corner. Italics indicate handwriting.

Government's Exhibit No. 364

October 29, 1926.

Mr. Lammot duPont, President,
E. I. duPont de Nemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

Referring to your inquiry of October 28th as to giving your Paint Department the General Motors forecast figures included in the Finance Committee reports.

We prefer you to continue to consider the production figures given in the finance forecast as confidential and not make them available to your various operating departments.

It is our practice to require our accessory divisions to develop from the car divisions the requirements of the car divisions upon the accessory divisions and we do not allow our various accessory divisions to make programs on the forecasts which the car divisions submit for the purpose of the financial statements. We have found that this policy is necessary because the banks of material, or, in other words, stock of materials at our various car divisions plants ahead of production must vary with the volume of production. When our schedules are increasing, the bank of material is increased; when schedules are decreasing, the bank of material is decreased. These necessary adjustments in banks of material have considerable influence on the amount of material ordered and may vary materially from the production schedules. We have also found by experience that if we supply our accessory divisions with the car divisions forecasts, the accessory divisions are inclined to try to tell the car divisions how much material they should take which thereby leads to friction between the selling and purchasing divisions.

I cannot understand why your Paint Department is so upset in the schedules coming from General Motors. Our General Motors accessory divisions have dealings with all of the automobile companies and the changes in schedules in recent weeks in our outside business have been a great deal more marked than they have in General Motors divisions and I do not see why the same thing that is affecting our accessory divisions would not be reflected in your Paint Department.

Mr. Lammot duPont -- 2.

I know you realize that the statistics placed before the Finance Committee are forecasts and that a forecast can be nothing but an estimate made on the best information obtainable at that time. I have before me a comparison of our September 25th forecast and October 25th forecast made by our car divisions. Our October 25th forecast for October production is 8.7% less than our September 25th production forecast. Our October 25th forecast for November production is 18.8% less than the September 25th forecast for November. Our December forecast as of October 25th is 17.4% less than our September 25th forecast for December. For the period October, November and December, our October 25th forecast is 13.9% less than we forecast September 25th. The forecast of September 25th was made at a time when we had had twelve months continuous increasing business, practically every forecast of the preceding month being exceeded by the following month. This probably had a tendency in September to make our divisions somewhat over-optimistic as to October, November and December business. There has also been a moderate slowing up of business in October. Taking these two facts into consideration, I do not think that the 13.9% indicated less business than anticipated in September is anything to get excited about, or upset anyone.

In October and November normally there would be a decrease in the bank of materials carried at our car divisions due to the fact that November, December and January are usually months of low production, together with the indicated slowing up of under 14% from the viewpoint of September is all the change that we definitely know of. There may be one other factor - I know there has been considerable dissatisfaction on price of Duco thinner as purchased from the duPont Company by some of our divisions and steps are being taken to mix our own thinners, this may have become effective to the point of reducing somewhat the volume of duPont business.

Yours very truly,

J. L. Pratt

Vice President.

JLP:L

NOTE: Illegible initial is written in upper right corner of both pages.

Government's Exhibit No. 365

3895

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK

November 8, 1926.

[illegible]
NOV 9 1926
LAMMOT DUPONT

Mr. Lammot duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:-

On my return from an absence abroad of several weeks and going over my accumulated mail, I find your letter of October 28th, answered by Mr. Pratt under date of October 29th, dealing with the matter of our schedules. Mr. Pratt's letter I think should cover the matter satisfactorily.

You will note, if you will study our forecasts, that there has been quite a curtailment in our production schedules, necessitated by keeping them in harmony with a somewhat reduced consumer demand. This is due to two circumstances; first, the probable change in trend to a more or less degree; second, to the fact that our better performance in getting new cars into the territory in August and September has tended to move the retail deliveries forward as compared with last year.

It is our policy, as Mr. Pratt has pointed out to you, to require all our suppliers to adjust their schedules in line with our schedules in order that our inventory may not rise excessively or, in other words, should be kept in alignment with any change in production schedule. This sort of thing is recognized in the industry. As a matter of fact, the manufacturer has always been, in principle, looked upon as the agent of the supplier rather than in the relationship of buyer and seller in the ordinary commercial sense. In other words, the supplier always takes the obligation to supply what material is needed for the manufacturer's requirements and accepts increases or decreases in schedules as the demand on the part of the manufacturer's products may necessitate.

As I have often said, when the matter has come up for discussion at the Finance Committee meetings, in the case of any curtailment of business our control of inventory is such that it can be adjusted as circumstances may require. Naturally, that can only be done by throwing part of the burden at least on the suppliers of the material. We take the position that it is their duty to cooperate with us and, naturally, the duPont Company is no exception to the rule.

GOVT. TRIAL EX. No. 365

Government Exhibit No. 431

Page #8,
Mr. Lammot duPont,
November 8, 1926.

3896

I hope that this letter, together with Mr. Pratt's, will make it perfectly satisfactory to you, but if not, I will be glad to discuss the matter more in detail some time when you are over here.

Very truly yours,

Alfred P. Sloan Jr

APSJr./K

Government's Exhibit No. 366

:. John Pratt, V.P.
General Motors Corp.

E.I. du Pont de Nemours & Company
Incorporated
Wilmington, Delaware
Executive Offices

November 9, 1926.

Mr. Alfred Sloan, President,
The General Motors Corporation,
New York City, N. Y.

Dear Alfred:

Yours of November 8th, in reply to mine of October 28th, to which Mr. Pratt had already replied on October 29th, received.

I am afraid I did not make myself clear to either of you.

It never entered my head that our Paint Department would attempt to dictate to the General Motors Corporation or any of its car divisions how much Duco they should order or how far ahead they should keep themselves supplied; nor would I have permitted our Paint Department to make a program based on forecasts of the G.M. car divisions; whether such forecasts were received from the Purchasing Agents or by the Finance Committee route. You, of course realize that any sudden change in demand for a product is much more disconcerting than if that change were forecast several months or even weeks ahead, even though the forecast may be a very hazy one. What is anticipated as a possibility is never as much of a shock as that which has been thought of as an impossibility.

In the present case the decline in car production was expected as far back as August - at least the August forecast prepared for the Finance Committee indicated that the production for November would decline to 87,000 cars, where it was forecasted 147,000 for September. The September forecast and the October forecast confirm this tendency. None of these forecasts were conveyed in any shape or form to our Paint Department; and when about November 1st I told Mr. Allen, head of the Paint Department, that a decline in automobile production in the last quarter of the year should be anticipated, he came back with the statement that it did not occur in 1925, thus proving to me better than he could have by any long dissertation that he, at least, had never had this probability drawn to his attention this year.

I cannot get through my head why it is harmful for two organizations that are trying to work together to each know the other's best guess as to what the other is to be called upon to do. In the absence of the G.M. guess as to car production, our Paint Department is bound to make their own guess. They cannot avoid it; business prudence requires it; they must make that guess, whether they put it down in writing or not and be governed by that guess. How can it be other than advantageous to have this guess as correct as possible?

Of course, I would much rather the car divisions would give their forecast figures to our Duco representative direct, because he would thus get them very much earlier than if they came by way of the Finance Committee, but there may be some good reason why that cannot be done. I can think of no reason why forecast figures given to our Paint Department could be harmful.

Perhaps you do not realize what information we are getting to-day. I recently asked Mr. Allen to give me a statement of the information as to G.M. production which he had available on November 1st. He gives this to me in the form of a tabulation with comments. The tabulation shows the output for the different cars for September, for October and the current rate on October 30th. In the comments, this paragraph appears: "In the case of Chevrolet their production will continue to drop off until early in December, when they will begin building the new line, and it will be the first of January before there will actually be an operation at about 1300 jobs per day." This is the only information in the nature of a forecast, and you will note it applies only to Chevrolet.

There is an old saying that "a little knowledge is worse than none." This, however, is only true when the possessor of that "little knowledge" thinks he knows it all.

Yours very truly,

PRESIDENT.

LduP/MD

Note: Date in stamp on first page is "NOV 10 1926".

Government's Exhibit No. 366-A

3900

L. du Pont, President

This is the kind of information we receive. This report came in this morning.

NOV 2 - 1928

LAMMOT DUPONT

W T Allen

[redacted]

3901

EXTRACT FROM "WEEKLY REPORT" TO H. E. LACKEY. 10-30-26.

. . . .

As a matter of interest, we are outlining the approximate schedules of the most important automobile units with whom we do business. In the case of General Motors, we will show September schedule, October and the current schedule:

	September	October	Current
Buick	1150	800	800
Cadillac	140	105	75
Pontiac	250	200	180
Chrysler	100	156	156 (Bodies by Fisher)
Oakland	350	200	180
Oldsmobile	275	225	Plant closed.

In the case of Oldsmobile, an explanation is necessary "Plant closed" means that the Fisher Plant are not building any jobs as they have sufficient bodies in storage to keep their small production for approximately five weeks. It looks very much to us like the Oldsmobile Plant will probably not do any operating of any account before the first of the year.

Chevrolet	3500	2800	1800

In the case of Chevrolet, their production will continue to drop off until early in December when they will begin building the new line, and it will be the first of January before there will actually be an operation at about 1300 jobs a day.

NOTE: "gmc-594f" is written in lower right corner of this document.

1617

Up to this writing, Seaman Body and Nash Motors have been going at their normal rate - about 600 jobs per day. This morning we received a request from Seaman Body to hold up all materials and make no further shipments until advised. This indicates that Nash Motors have suddenly hit a slump and their orders will no doubt be small for the next sixty days.

Chrysler Corporation are going at a rapid pace - making approximately a total of 800 jobs per day - including bodies from Budd, Fisher and their own body plant. At their own plant, they are turning out close to 500 jobs per day, which are finished in our materials complete.

Hudson and Essex Production has been very low, but their present schedule is as follows:

Essex	400	jobs	per	day
Hudson Brougham	60	"	"	"
Sedan	12	"	"	"
Coach	90	"	"	"

The Hudson business is fluctuating so much that it is almost impossible to give anything definite as to what their future will be.

NOTE: "gmc-594f" is written in lower right corner of this document.

3903

• • • • • • • •

Hupp production is running about 150 jobs per day, which is 50 less than in September. No further shut-down is anticipated.

Marmon production is 15 jobs per day and some time during November, they plan to get in their new job which will increase their production to possibly 100 jobs per day.

• • • • • • • • • •

R. C. W.

Asst. Mgr. Automotive Sales

E

Government's Exhibit No. 366-B

Recd Oct 10, 1926	Actual August	Sept	Oct	Nov	Dec
Buick	28000	28000	26000	26000	17000
Cadillac	2900	3000	2800	2500	2100
Chevrolet	68000	70000	65000	44000	15000
Oakland	9700	8400	6800	5800	5300
Pontiac	10000	11000	12000	10000	7000
Olds	8600	9100	6900	3500	6500
G.M. Canada	6200	8100	6000	4300	2200
Total	133400	137600	125500	96100	55100

Sept 25th forecast

10/9/26
Rec'd 10/28/26

	Actual Aug	Prod'n Sept	Oct	Nov.	Dec
Buick	29355	29131	27217	26679	18517
Cadillac	2802	2915	2700	2400	2000
Chevrolet	73323	75382	70490	49065	15000
Oakland	8713	7422	5802	4781	4297
Pontiac	9264	10457	11285	8780	5534
Olds	7623	8106	5931	2462	5477
G.M. Canada	5168	7063	5035	3348	1232
Total	136248	140476	128510	4 97515	98 52057
Aug forecast	132725	137984	114452	87608	—

[illegible]

Government's Exhibit No. 367

November 11, 1926.

Mr. Lammot duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:—

Dealing with yours of the 9th and referring to my conversation with you this afternoon after the Board meeting, let me say that I have no objection to your giving our schedules to Mr. Allen confidentially, but I am only willing to do that because you are a member of our family, for under no circumstances would we wish our schedules to get into outside hands and the only midification is the argument that you are not an outside party.

As I told you, we take the position that our schedules, i.e. our manufacturing schedules, are of no concern to our suppliers. On the other hand, our suppliers are entitled to shipping schedules predicated upon our schedules as they may be modified by our inventory.

I feel very keenly that our divisions should cooperate closely with their suppliers and that modifications either up or down of our shipping schedules, should be minimized to the fullest possible extent, otherwise it tends to increase the cost which in turn we must pay. Therefore, the nearer we can come to a level line in our shipping schedules, the lower our costs and the better our product is sure to be.

As I explained to you, four of five years ago our organization was far from satisfactory in this respect and these things were not properly taken care of. We have, however, made tremendous progress, as you know, since then and for a long time now I have had no complaint on this score and I believe, in view of the fact that our shipping schedules to suppliers must be predicated upon our manufacturing schedules, that the very great stabilization of our manufacturing schedules which has been developed is bound to be reflected in our suppliers shipping schedules. However, you have raised an important and interesting point and I am going to look into the matter and see just what the present situation is.

I hope, therefore, in giving our schedules to Mr. Allen you will be sure to impress upon him that they are strictly confidential and should be used exclusively for his personal information, and should

—2—

under no circumstances be bulletined out to his organization because in that event leaks will occur and our position is sure to be prejudiced.

Very truly yours,

APSJr./K

c/c Mr. J.L.Pratt

NOTE: "gmc-prod-Supp & Materials-paints-Duco-1926", followed by an illegible initial, is written across top of 1st page; check mark appears over "9th" in 1st line; "11/25" is written above a check mark in right margin of 1st page; routing stamp bearing initials A.P.S., J.L.P., H.MC., F.C.H., A.K.H., L.R.B., A.T.B., and W.F.A., with check marks inserted by hand after "A.P.S." and "A.T.B.", appears in lower right hand corner of first page. Underscoring in 1st paragraph of first page is by hand.

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E

Government's Exhibit No. 368

November 15, 1926.

Mr. A. P. Sloan, Jr.,
President.

I note from your letter of November 11th to Mr. Lammot duPont that you have no objection to Mr. duPont giving our schedules, as shown in Finance Committee reports, confidentially to Mr. Allen, head of the DuPont Paint Division.

Personally I think this is wrong, as I do not feel the DuPont Company should be put in any different position whatever than other suppliers from whom General Motors is buying many times the amount we are purchasing from the DuPont Company. In taking this position it is not primarily from a General Motors' standpoint but because I feel that the DuPont organization will be a better organization for us to do business with when they realize they must stand on their own and expect to get business and hold same from General Motors Corporation on the same basis that we try to treat all of our suppliers—three considerations—namely, quality, service and price.

In the recent slowing-up of business the complaint of the DuPont Company on change in our schedules is the only one that has been reflected to us from thousands of suppliers. Does it seem reasonable that there should be any reason why the DuPont Company would not have received information to guide them as well as our other suppliers? Notwithstanding this complaint, Mr. Knudsen advises me that the Chevrolet Division have more Duco on hand, from the standpoint of requirements, than any other material. The only reason I know of for this is that this material was taken in on account of special consideration given the DuPont Company.

I can not help but feel that if the DuPont Company could be made to thoroughly realize that they can expect no special consideration except what they earn through service to our Divisions, they would have established—through their contact men in Detroit—a relationship with our Divisions that would enable them to have information which would be better to guide them, from a production standpoint, than any information that could be gleaned from the reports of the Finance Committee, which may be anywhere from ten to forty days behind the true conditions at our plants.

—2—

The trouble here may largely be due to our policy of making General Motors contracts rather than allowing each Division to contract for its own requirements, but as far as I know all of our suppliers under General Motors contracts realize that General Motors contracts do not in any sense relieve them of the responsibility of keeping in close touch with the various Divisions in order to render proper service as to deliveries and requirements. If Mr. Allen feels that he can count on information from Mr. duPont, as to what General Motors' requirements of Duco are going to be, then Mr. Allen's organization in Detroit is not going to be as close to General Motors' Divisions as they should be in order to render the service General Motors has a right to expect. Mr. Allen can get together a personnel in Detroit that can establish a relationship with our Divisions, which could secure for him the information such as our other suppliers are getting to satisfactorily guide them in their production schedules.

For us to make it possible for the DuPont organization to get this information otherwise, in my judgment is doing the DuPont organization more harm than good, and is placing us in the position of not dealing evenly with all of our suppliers.

....

Vice President.

JLP:V

NOTE: "G.M.C.—Products—Supplies & Materials—Paint—Duco", followed by an illegible initial, is written across top of 1st page; check mark appears over "11th" in 1st line of 1st page; "11th" is scored by hand.

Government's Exhibit No. 369

GENERAL MOTORS CORPORATION
224 West 57th Street
New York

November 16, 1926.

Mr. Lammot duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:—

Referring to my correspondence with you with regard to the matter of schedules, etc., I sent copy of my last letter; viz., November 11th, to John L. Pratt as Chairman of our General Purchasing Committee who is interested in matters pertaining to schedules, etc.

He has looked over this letter and has sent me a memorandum on the subject, dated November 15th. I am enclosing herewith copy of said memorandum as it has a bearing on the matter and I am sure you will be glad to know what he has to say.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

att.

Note: "gmc-592" is written in lower right corner; "C-26" is written in upper right corner; "file" is written in upper left corner; "Received Nov 18 1926 Lammot Du-Pont" is stamped at top of page. Italics indicate handwriting.

Government's Exhibit No. 371.

Mr. Fred G. Hughes, Gen. Mgr.,
New Departure Mfg. Co.,
Bristol, Conn.

J. L. Pratt, Vice President
New York, N.Y.

December 7, 1934.

Dear Fred:

Some of my friends in the duPont Company called me today in regard to the fact that their subsidiary, The National Ammonia Company, were losing the ammonia business which they had formerly enjoyed with the New Departure Mfg. Company. They tell me that their price and service is in every sense competitive.

If this is true, I would be interested if you would look into this and advise me of the reason why it is desirable to give your ammonia business to others than the duPont subsidiary; namely, The National Ammonia Company.

Yours very truly,

J. L. Pratt

JLP:P

Note: "Accesry—New Dept—Products—Supp & Mat—Natl Ammonia Co" is written across top of page. A small "R" is written in upper right corner.

Government's Exhibit No. 372

NEW DEPARTURE DIVISION
General Motors Corporation
Inter-Organization Letters Only

December 10, 1934

Subject
From
For Attention of

Mr. John L. Pratt
Vice President
General Motors Corp.
Broadway at 57th St.
New York City, N. Y.

Dear Mr. Pratt:

Subject: Ammonia Requirements

In reply to your letter of December 7th, this is to advise that while we are not very large users of ammonia, we have for sometime past purchased our requirements through the National Ammonia and the Barrett Company.

When we began to use National Ammonia for bright annealing our separator blanks, we had considerable trouble with water in their anhydrous ammonia which ruined the product.

We had no such trouble with that from the Barrett Company. In the meantime, the General Motors Fleet Sales Company called our attention to the fact that the Barrett Company were large users of General Motors trucks and that anything we could do to help them would be greatly appreciated.

In view of the unsatisfactory quality of the National product, and the Barrett ammonia being more satisfactory, and also that our business would be helpful to the Fleet Sales Company, we changed to the Barrett Company as supplier. We did not know that the National Ammonia Company was a duPont subsidiary, but I do not believe that under the circumstances it should have made any difference.

Very truly yours,

F. G. Hughes
General Manager

NOTE: "Accessry—New Dept—Products—Supp & Mat—Natl Ammonia Co" is written across top of page; check mark appears over date in first line; "J.L. Pratt Answered Noted" stamp appears in upper right with "12/14" inserted by hand after "J.L. Pratt". Italics indicate handwriting.

2

Government's Exhibit No. 373

December 14, 1934.

Mr. Robert McClellan,
National Ammonia Company,
duPont Building,
Wilmington, Delaware.

Dear Bob:

You will remember calling me last week in regard to purchases by General Motors Divisions of ammonia other than from the National Ammonia Company. I think you would be interested in seeing a copy of letter of December 10th from Mr. F. G. Hughes, General Manager, New Departure Division, on this subject.

Don't you think it would be desirable for your organization to contact more closely with General Motors Divisions that you hope to interest in your product from two standpoints: first, see whether or not your ammonia really is suitable for the work in our division (note second paragraph of Mr. Hughes' letter); and second, that you might inform the management of your relationship to the General Motors Corporation.

And now, you will pardon me if I get a little personal, and advise that last week I was four nights on the sleeper and four nights this week, and suggest that it might do some of the desk warmers in the duPont Company good to get around once in a while. What do you think?

Please call me any time that you think I can be helpful.

Very truly yours,

J. L. Pratt
Vice President

JLP:P

Mr. F. G. Hughes, General Manager,
New Departure Division,
Bristol, Connecticut

J. L. Pratt, Vice President
New York, N.Y.

December 14, 1934.

Dear Fred:

Please accept my thanks for yours of December 10th in regard to your ammonia requirements.

The reasons given for your purchase of ammonia from the Barrett Company are entirely satisfactory. However, I have suggested that a duPont representative call on you and see if they cannot make their product satisfactory to your requirements.

Yours very truly,

J. L. Pratt

JLP:P

NOTE: "Accesry — New Dept — Products — Supp & Mat — Natl Ammonia Co." is written across top of page.

Government's Exhibit No. 377

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK, N.Y.

OFFICE OF THE PRESIDENT

October 19, 1922.

Mr. Irenee duPont, President,
E. I. duPont deNemours & Co.
Wilmington, Delaware.

Dear Sir:

13 In view of the great promise of the duPont products called "Duco" and "Viscolac" and the large quantities of these materials that may prove necessary for General Motors business, I request that all negotiations with other possible consumers be stopped and also the plans for selling these products in the open market, until such time as a suitable conference may determine whether it is possible for General Motors Corporation to obtain the entire product of the duPont factories over a period of time in order to insure a satisfactory quantity of material.

I recommend that representatives of the duPont Company prepare rough estimates of the total material necessary for the finishing of the several General Motors cars, including bodies finished by the Fisher Body Corporation, in order that a rough plan may be drawn up with a view to producing a sufficient quantity of material. The importance of this subject is so great as to warrant the careful attention of your best men until proper arrangements are made.

Very truly yours,

President.

NOTE: Number written in lower right is "gmc-567a".

Government's Exhibit No. 378

MEMORANDUM

New York, October 19, 1922.

To Mr. A. P. Sloan, Jr. SUBJECT

Attached please find copy of letter to Mr. Irenee duPont. Will you please instruct the several Divisions to give the duPont Company some rough estimate of duPont enamels that may be required by them. This business may prove to be a large one and will require the construction of additional facilities. If the materials develop successfully, no time should be lost in their introduction on all of our models.

P. S. du Pont
President.

1/*m
Enclosure.

NOTE: "RECEIVED OCT 20 1922 A. P. SLOAN, Jr." is stamped twice at top of page. Italics indicate handwriting.

Government's Exhibit No. 379

Wilmington, Del., October 13, 1922

To: Executive Committee

From: Cellulose Products Department

Cellulose Products Department
Monthly Report—September, 1922

Important Features:

During September we secured fifteen new lacquer customers, with an approximate annual consumption of 4,400 gallons, twenty-one new enamel accounts with an annual consumption of 11,000 gallons, seven new bronzing liquid accounts with an annual consumption of approximately 6,700 gallons, and four new bronze powder accounts with an annual consumption of approximately 7,250 pounds.

We are hopeful of doing a larger volume of bronze powder business, at a better margin, as a result of the new tariff, as reported separately to the Executive Committee last week.

Duco Finish—General Motors:

There is a rather well defined feeling in the General Motors Company that they would like to have us give the General Motors Company exclusive right to the use of this new finish. This first came to our attention thru Mr. Irenee DuPont, and in a recent meeting at Detroit of the General Motors Paint Committee, at which we had the privilege of having one of our representatives present, this same feeling was very definitely expressed.

We have seriously considered this whole matter, not only from our selfish standpoint, but also from the bigger standpoint of the ultimate best benefit to the DuPont stockholders, having in mind their very considerable stock interest in General Motors. After weighing all the factors we have come to the definite opinion that it would not be to our best interests, nor General Motors', to give them this exclusive right.

In the first place the Viscolac and Duco finishes have wide application in lines other than automobiles. It has not been expected that such exclusive right to General Motors would be intended to apply to anything but the automobile field. It can be seen, however, that if other automobile interests really wanted this material we could not control their getting it if purchased indirectly for use in some other industry.

Further, even in the automobile industry a large field is in the re-painting of cars and the finishing of automobile parts, from which again we do not understand General Motors would expect us to exclude the use of this material, but which on the other hand would open further possibility for this material to get to other automobile manufacturers who really were seriously interested in having it.

And, finally, our patent situation is not clear or definite enough to make us sanguine that imitations, at least, of our material will not be offered by competitors. We know for a fact that several of the larger paint companies are already going into the business, and if we were to give General Motors Company the right to exclusive use of our material we feel that, if anything, it would spur on competitors to work the problem out in order to supply the demand from the remainder of the automobile industry, and so only excite competition.

Our thought is that any competitive advantage that General Motors might obtain by getting the exclusive use of our finishes must be temporary only, and if, as we reason it, this would have the effect of encouraging competition in the field, we believe that we would be better off all around to take full advantage of the advantageous start that we now have in the matter by being first in the field and getting entrenched just as widely as possible, and in the end General Motors cannot help but benefit by the resulting economies and further improvements that would naturally follow.

In this connection, also, we have to report that discussion has arisen as the result of question raised by the Flint Varnish Works in connection with Duco Finish. The Paint Department feel that we should, in effect, turn the entire distribution and part of the manufacture of this product over to them. We have not been convinced by their reasons and do not think the ultimate best interests of the DuPont Company would be served by such procedure. The Development Department are at the present time making a study of the whole subject. We hope that the light that they will be able to throw on the matter, looking at it from the broad interests of the whole Company rather than from a departmental point of view, will permit an early decision.

PROMOTION OF NEW LINES (Manufacture and/or Sales):

In the promotion of sales of Duco Finish to automobile manufacturers considerable progress was made during September. The detailed status of our work at each of the General Motors Plants is as follows:—

CHEVROLET—

Duco Finish has been officially adopted for instrument boards on all models. Several cars finished with Duco

Finish are undergoing service tests and frequent inspection under the personal supervision of Mr. Knudsen, General Manager. Chevrolet is now considering the adoption of Duco Finish as standard for delivery cars, several hundred of which are made daily at their St. Louis Plant. We have been asked to develop a new Black Duco Finish suitable for their regular production of touring cars, and when this is turned over to them it is expected that later 100 or 200 cars will be finished with it for regular sale.

BUICK—

This plant has the most comprehensive series of tests under way of any of the General Motors units. About twenty cars representing various methods of using our finish, and including a number with the standard Buick finishing varnish as a top coat, are undergoing service tests. At present Buick is so rushed in production that no time can be spared for experimental work, but it has been decided as soon as possible to finish twenty cars with Duco and finishing varnish for unrestricted sale.

OLDS:

After only brief tests, the officials of this company had sufficient confidence in Duco Finish to put it gradually into regular production, and one car finished in Duco now goes out every three days.

CADILLAC:

Our first demonstration at this factory was made in September, and the two cars finished then must undergo a rigorous service test before the adoption of the finish will be considered. It was evident, however, that Duco has made a very favorable impression on Cadillac officials.

OAKLAND:

The situation here is practically the same as at Cadillac. Two cars were finished in September and are now on service tests.

We are also now offering Duco Finish outside of General Motors. The Franklin Company is to have a demonstration during October, and through Mr. H. J. Haon we have established a connection with the Pierce-Arrow Company which is expected to lead to a demonstration in October.

Our campaign for the sale of Duco to refinishers has been speeded up somewhat, and a number of demonstrations were made in September. The most important connection established was with the Dunham Company of Newark, one of the largest body builders and refinishers in the east. The Brewster Body Company has asked for demonstration early in October.

The adoption of Clear Viscolac for steering wheels by Dayton-Wright was reported last month, and in September another manufacturer, Allerding of Mansfield, Ohio, began using it on his wheels. The Franklin Automobile Company has also been very much pleased with the sample wheels we sent them, and expect to adopt it as soon as their present contracts for wheels expire.

Two furniture manufacturers in Grand Rapids have started using Viscolac in a small way, but we feel that an opening has at last been obtained which will lead to greatly increased sales soon in this ind stry.

Government's Exhibit No. 380

Copy for Mr. Wm. Richter

October 20, 1922.

Mr. P. S. du Pont, President,
General Motors Corporation,
57th & Broadway,
New York City.

Dear Pierre:—

This will acknowledge your letter of the 19th:

The Chemical Products Division will be pleased to have their representative meet with whomever you may designate to estimate the quantity of "Duco" and "Viscolac" which may be required for General Motors business. We have very little doubt that we can supply all that they need, given a reasonable time to enlarge our plant facilities if this should be necessary.

We are embarrassed at your request to stop all negotiations with possible consumers and plans for selling these in the open market, this because we have already started a number of small users in business and cannot now cut them off from their source of supply. Also, the rumors of the value of these products are spreading and inquiries will be received from others who are users of Fabrikoid, Pyralin, etc., and we would be in a most embarrassing position to have to refuse sale of "Viscolac" or "Duco." This might even result in their ceasing to use Fabrikoid and Pyralin by way of retaliation. Finally, if we don't sell on the outside the demand will be filled by other manufacturers which will entrench competition for us at a later date.

Have discussed this question with Mr. R. R. M. Carpenter, Mr. Richter in the absence of Mr. Allen, and Lammot du Pont, all of whom feel we would be making a serious mistake to at once act on your letter. We all feel sure that if we agreed to supply nobody but General Motors it would not yield General Motors any advantage excepting for the first few months while others are getting ready to manufacture this product. In fact, we have already heard of one of our competitors starting to manufacture a similar product for one of the larger varnish concerns.

Sincerely yours,

IRÉNÉE DU PONT, President

NOTE. "File Copy" is printed diagonally across the face of both pages.

Government's Exhibit No. 381

EXCERPTS—

Wilmington, Del., November 17, 1922

To: EXECUTIVE COMMITTEE

FROM: CELLULOSE PRODUCTS DEPARTMENT

CELLULOSE PRODUCTS DEPARTMENT MONTHLY REPORT — OCTOBER 1922

W. P. Allen
GENERAL MANAGER

A representative of this department was present at a meeting of the General Motors Paint Committee held early in October at Detroit. The General Motors people plan to proceed more rapidly now altho they still consider Duco as an experimental finish yet under test. The outstanding development of this meeting was the unanimous agreement of those present (all G.M. units being represented except Fisher Body) that Duco, on the basis of the tests already finished, is superior in durability to any of the Paint & Varnish finishes now in use.

The "exclusive right" question was talked of and was based on the fear that our facilities would not be adequate to insure General Motors an uninterrupted and sufficient supply for their requirements. We assured the General Motors people that we will provide ample equipment to care for their needs if they will tell us how much Duco they want, and when it will be required.

It is probable that future work on Duco for General Motors will be delegated by the Paint Committee to two men, one representing General Motors and one representing the duPont Company.

A successful demonstration of Duco was made at the plant of the Franklin Company, at Syracuse, and five cars finished by our process are now out in service tests. Later their representative came to Parlin to follow the matter up.

Progress was made with both Viscolac and Duco in the furniture field, particularly in the North Carolina section, and it seems probable that an active campaign in that district to follow up our demonstration work will prove profitable.

Progress with the sale of Duco to the automobile refinishing trade can also be reported, the most important de-

4

velopment being the decision of the Dunham Company of Newark to install our process at once. Demonstrations are now being made in the larger cities of New York State.

COMPETITION:

The price situation during the month on lacquers and enamels remained about the same as reported last month, with two exceptions; the first being a circularization campaign on the part of the Eastman Kodak Company in which they are offering good grades of lacquer at prices appreciably below ours. So far we have not heard of their making any progress with any of our customers, but the amount of harm that they can do by pursuing these policies should not be minimized.

Call their attn to this?

The other exception is the activities of the Palmer-Price Company (Flood & Conklin) whose policy seems to be to work on our old customers. So far they have not been able to show a customer a better material than our Viscolac, altho some customers tell us that their lacquer is as good as ours.

UNFILLED YARDAGE

	Newburgh	Fairfield	Total
At once	398,904	43,768	442,672
Indefinite	92,958	59,079	152,037
November	142,125	141,597	283,722
December	73,772	61,633	135,405
January	18,460	1,800	20,260
TOTAL	726,219	307,877	1,034,096
Booked, not specified	248,820	1,080	249,900
GRAND TOTAL—OCTOBER	975,039	308,957	1,283,996
" " —SEPTEMBER	670,647	207,374	878,021

Yardage booked in October is about 75% greater in volume than September bookings and is about the same as that for August.

Prospects in the auto field continue to be rosy. The question of price will be the deciding factor in securing this trade, however, as evidenced by the result of our quotations to Maxwell, Willys-Overland, Paige, etc., all of which business went to competitors at prices lower than ours. (This is set out in detail further along in this report under the caption "Competition").

We have been handicapped in going after the increasing number of inquiries and orders for limousine quality for closed job decks, due to our inability to furnish Cobra roller grained material. At present we can only supply this in plate grain which is not free from plate marks. Textileather and O'Bannon have landed Fisher Body business due to their having Cobra rollers. It will be two or three months before we are in shape to submit samples, and probably next spring before we can go after this type of business.

Why are we so slow

Trunk covering trade is going strong with excellent prospects for the future. The furniture field is quiet and we feel this is partly due to the larger firms being stocked up on leather substitutes to last until the end of this year.

Case covering prospects are bright particularly for next year's business, and we are now working on inquiries for an appreciable yardage covering first half of 1923. Due to the continued low prices of real leather the holiday business in the novelty field shows no indications of picking up.

During October we received orders from the Ordinator Co. for some 70,000 yards of Tontine, leaving unfilled orders of 126,000 yards on the books.

Good orders from trade in the bookbinding field were received, including 39,000 yards of sheetings from two of our accounts to be used for Alexander Hamilton Institute book work. However, the volume of business coming in from the bookbinding trade is somewhat below normal with the prospects of no material increase until after the first of the year.

NOTE: Italics indicate handwriting. Lines in left margin, and underscoring in 1st paragraph, on page 10 are by hand. "gmc 1379" and "gmc 1380" are written in the lower right corners of pages 10 and 19, respectively.

Government's Exhibit No. 382

E. I. du Pont de Nemours & Company
INCORPORATED

ADVICE OF ACTION

February 16, 1923

Mr. W. P. Allen, G.M.

SUBJECT RELATIONS WITH GENERAL MOTORS CORPORATION:

ACTION TAKEN BY Executive Committee

AT MEETING February 14, 1923

REMARKS

Your report of February 12th:

It was moved and unanimously carried that this report be accepted and ordered filed, and that the Cellulose Products Department be advised it is the opinion of this Committee that the General Motors Corporation should not be given exclusive right to the use of Duco Finish.

[Stamp] M. D. FISHER

23. Sec'y. Executive Committee.

NOTE: "gmc-920" is written in lower right corner; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom; "X-1100" is written in upper right corner.

Government's Exhibit No. 383

TEST No.
FILE REFERENCE
Sheet #1.
DATE February 21, 1923.

GENERAL MOTORS RESEACH CORPORATION
DAYTON, OHIO.

REPORT ON Methods of finishing automobiles using Duco material.

REPORT FOR Mr. F. O. Clements.

The finishing of surfaces with paint materials of any kind may be classified under the following headings.

1. Preparation of the surface.
2. Priming coat.
3. Surfacing coats.
4. Color coats.
5. Operations required for obtaining a smooth surface.
6. Finishing coat.

Before discussing the application of the duPont material under the above headings, attention should be called to the composition of the present Duco material and its relation to the lots of duPont material previously tested at the different plants.

The first cars which were finished with duPont materials were finished at the Buick plant and started on road test about Decoration Day, 1922. These cars are holding up very well. The material used on these cars was poor in hiding power and in order to overcome this fault, the duPont Company developed a new line of materials known as Duco materials. The early Duco materials used at the Buick, the Olds and the Oakland plants were of this material. The early Duco materials covered well, but in getting this increased covering power, the toughness was lost. This matter was taken up with the duPont Company and they have been working on the problem of increasing the toughness of the Duco materials.

On February 10, 1923, we received from the duPont Company a sample of new Duco black #2442 and new Duco blue #244341. On February 12, 1923, we received from Mr. Kavanaugh, a sample of the Duco green which is now being used on experimental cars at the Cadillac. On comparing these new materials with the former duPont materials, we find that although the newest materials have excellent hiding power, they are much tougher than any of the former duPont materials, even including the materials originally used on the cars put out at the Buick plant Decoration Day, 1922. When tested under the ultraviolet light, we find that they hold their toughness much longer than any of the former duPont materials.

It is our understanding that none of the blue received at any of the plants prior to February 1923 is this tough

material. The black which was being used by Mr. Rogers at the Oakland plant in January 1923, was much tougher than any black which Mr. Rogers had previously used, and it may be that this latest black used by Mr. Rogers is the same as the black we received from the duPont Company, February 10, 1923.

We believe that cars properly finished with either the green, such as we received from Mr. Kavanaugh, February 12, 1923, or the black or blue, such as we received from the duPont Company, February 10, 1923, will give much better results in service than the best results which we have previously obtained using the duP[illegible]t materials.

Attention should be called to the fact that this new Duco material requires a longer time for drying between coats. If coats are applied one on top of the other, without allowing proper time for each coat to try, we believe that the advantages of this tough material will be lost and in order to secure the best results, we strongly recommend a thorough drying between coats, or a light bake, for example, about 1½ hours at 150° F. If baking is not considered desirable, equally good results can be obtained by allowing a longer air drying time.

APPLICATION.

1. Preparation of the Surface.
2. Priming Coat.
3. Surfacing Coats.

The metal may be prepared for painting in a number of ways.

(a) Washing to remove dirt and grease.
(b) Washing and treating with rust removers, such as deoxidine or removaline.
(c) Etching with acid to give a surface which has a "tooth".
(d) Sand blasting.

If the duPont material should be applied directly to the bare metal, poor adhesion will be obtained unless the metal is either acid etched or sand blasted. It is possible to obtain a satisfactory tooth with acid etching, but this method is very unreliable and we do not recommend its use.

The amount of etching required to enable the duPont material to have good adhesion is very great and rust removers, such as deoxidine or removaline do not accomplish the desired results.

If the duPont material is applied direct to steel, certain colors of duPont material may tend to cause corrosion on the surface of the steel. The white or grey duPont material appears to be freest from this trouble.

If a sand blasted surface is used, then such a large amount of duPont material is required to cover this surface and the imperfections in the metal, resulting from sand blasting that the cost of obtaining a smooth surface is very great with the present duPont material. The duPont Company are working on the preparation of primers and surfacers for sand blasting steel but are not ready to offer these for our use at present. Under these conditions we believe that best results will be obtained by using a sand blasted surface and following this with a priming coat of paint material. The paint primer should be thoroughly baked and should not be air dried.

It has been found that air dried under-coats, regardless of the length of time of drying, are softened by the solvents in the duPont materials as these solvents are paint and varnish removers. It has been found that by baking the under-coats, the action of the solvents in the duPont material can be reduced to such an extent that no trouble is experienced due to their action as paint and varnish removers.

Although we believe that our greatest chances of success lie in using sand blasted metal, followed by a well baked out paint primer, yet it appears that it may be possible to secure good results on smooth metal if a well baked out baking paint primer is applied to the smooth metal before the duPont material is applied.

4. Color Coats.
5. Operations required for obtaining a smooth surface.

When regular paint materials are used, ground color, color varnish and rubbing varnish are applied over the primer or surfacer in order to obtain the desired color and these materials are then rubbed in order to obtain a smooth finish. We believe that at present the greatest use of duPont materials is in replacing ground color, color varnish

and rubbing varnish. Enough coats of the duPont material must be applied to give a surface which may be rubbed. The number of coats of duPont material required depends on the smoothness of the under-coats, the smoothness with which the duPont material is applied and the smoothness desired in the final finish.

Under very favorable conditions, cars have been finished using two coats of duco material over the surfacing coats

and a smooth satisfactory finish obtained. Mr. Rogers
the Oakland plant has done the most work along these lin

6. Finishing Coat.

At present we have several methods available as the fi
finish obtained on cars using the duco material.

(a) The natural finish left by spraying duPont mater
over the proper under-coats.

(b) The finish obtained by rubbing the duco material a
then obtaining a semi-gloss by means of oil rub.

(c) Rubbing the duPont material to a smooth surface a
then using a wax finish over the rubbed surface.

(d) Rubbing the duPont material to a smooth surface a
then applying a finishing varnish in accord with o
present practice on paint jobs.

(e) Rubbing the duPont material and then applying
finishing varnish of much greater durability than an
finishing varnish now used by General Motors Com
panies.

We recommend that methods (b) (c) and (e) be tried ou
in Production to get service data on cost of applicatio
durability, etc. We suggest that the selection of severa
finishing varnishes for use on test cars be made by havin
several varnish companies recommend the most durabl
finishing varnishes that they make and having these var
nishes checked up for drying, flowing, lustre, etc. by Mr
Rogers.

H. C. Mougey.

M:B

February
Twenty-eighth,
1 9 2 3.

Mr. F. O. Clements,
General Motors Research Corp.,
Dayton, Ohio.

Dear Mr. Clements:

At the Cadillac, we are greatly interested in the paint investigation and I have read the report enclosed in your letter of February 22nd with approval in general but with this reservation, which to me is very important—your suggestion making "all speed possible."

I agree that all speed should be used in making the investigation but I think one of the most dangerous things the Corporation could do would be to adopt, generally, the new method of painting before it had been tried out in every conceivable fashion. I can conceive of a bad engine or other mechanical fault in a car which would do less damage, from an advertising standpoint, than poor paint. We know we have troubles enough as it is and our investigations are being made for the purpose of correcting them but we must be very sure of ourselves before making any wholesale change.

When the du Pont people were here a couple of weeks ago, they admitted that materials they had already finished were not just right but they had corrected them. I think we should take nobody's word on paint.

Unfortunately, testing of paint requires time and we cannot make speed in the test themselves. We can only be expeditious in making our tests immediately of every new and changed material.

With this thought in mind, I cannot help commenting on Mr. Mougey's report. The first line of materials was poor in "hiding power," so that to overcome this fault a "new line"of materials was developed but " the toughness was lost."

Now,as late as February 10th of this year, new materials which are expected to have both covering qualities and toughness are submitted and Mr. Mougey reports that they do have excellent hiding powers and when tested under the ultra-voilet light, show greater toughness than any former du Pont materials but "none of the blue as yet received is of this tough material."

—2—

Black, as we know, is easy to control and that we have been testing only since January of this year.

Mr. Mougey " believes that cars properly finished with green or the black or blue received from the du Pont Company February 10th and 12th, will give much better results."

Attention is called to " longer time for drying needed between coats, in order to attain the toughness," but experiments have not yet been made to tell how much "longer air drying time," is needed.

It seems to me that there is still considerable uncertainty as to the best way to prepare the surfaces and that sheet #3 indicates how much pioneer work in this respect is still to be done. Sheet #4, likewise is suggesting that experiments be made as to the best finishing varnishes to use in connection with the Duco.

I merely quote the above from the report because I am exceedingly anxious that neither Cadillac or any of the other divisions should go too fast in paint changes.

I am not lacking in faith that Duco will be a great help to us. When it comes to paint, we should put it to every test possible including the alkali districts of the country and your statement that you are anxious to make all possible speed as you owed it to the du Pont Company"who are besieged with requests for this material from various motor car companies, makes me feel that the whole paint question is likely to be approached from the wrong point of view because of the apparent urge for a decision.

I sensed that when we were called upon by Mr. Allen and others from the du Pont Company, the other day.

I am heartly in accord with any of the divisions putting out a reasonable number of test jobsand keeping them under observation, as well as shipping them to all different parts of the country to see what will happen when in the hands of the public when exposed to alkali, mud and other troubles. But I think our committee should not permit itself to make its recommendations until we are quite sure and I believe the report by Mr. Mougey of February 21st, is sufficient to show that this policy should be followed.

Very truly yours,

HHR*H President.

NOTE: On first page, "1-615 Paint. y" is written in upper left corner, illegible initials or other writing appears in upper right corner, and check mark is drawn above "22nd" in first paragraph. Routing stamp bearing initials A.P.S., J.L.P., . . ., W.J. ., A.T.B., & W.P.A., with check marks inserted by hand after "A.P.S." and "A.T.B.", appears in lower left corner of first page. Underscoring in first line of sixth paragraph on second page is by hand.

Government's Exhibit No. 385

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

April 18, 1923

RECEIVED
APR 21 1923
A. P. SLOAN, Jr.

Mr. A. P. Sloan, Jr., Vice-President,
General Motors Corporation,
New York, N. Y.

Dear Mr. Sloan;

I wish to thank you for your participation in our Enameling and Paint Committee conference, yesterday morning. It was a great pleasure for us to discuss the points involved, having you with us to counsel and help formulate our future program.

The boys suggested that you discuss with Mr. Irenee duPont the question of keeping this development for the General Motors Corporation exclusively. Really, I do not believe that this need concern us very much. In the first place, the duPonts are having a very difficult time finding sufficient solvents to keep us going in our experimental work alone. Oakland's requirements, if they go into production with this material, the first of July, will be about one hundred and fifty (150) gallons per day. If Mr. Fisher carries through his program of finishing a thousand or two thousand Chevrolet closed bodies with this material, another quite appreciable order will be placed with the duPont Company for materials. Understanding the situation as well as I do, with reference to scarcity of solvents, I am certain that they cannot furnish Duco to other automobile concerns.

It really is unfair to ask them to delay everything for us, due to the fact that some of their competitors are also making this material and a binding contract with the duPonts would not give exclusive right to this type of material. We will, however, have the Paint Section do everything possible to build finishes around their ways of utilizing this material.

We shall be glad to have your comments, relative to the finishing-cost figures, as soon as you have had time to peruse them in some detail.

Very respectfully yours,

F.O. Clements

Director of Research

FOC-G

Government's Exhibit No. 386

January 29, 1924.

Mr. Wm. P. Allen, General Manager,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

RE: MATTER OF DUCO FINISH

My dear Mr. Allen:-

I have your letter of January 11th and thank you very much for the information therein contained. I personally am very much interested in your Duco finish and without any disrespect to the very excellent people we have dealing with the matter, it is impossible to get a thing of this kind across without there are more or less objections and difficulties in the way of selling it to people who do not take kindly to making changes and who are liable to consider the always present first difficulties of insurmountable character and for that reason let me inject a little psychology into the situation which I hope will be helpful.

Regarding Cadillac, they are a very conservative organization. I personally do not agree with them at all in the necessity of having a higher finish than they now obtain with finishing varnish. That might have been an argument a year ago but the Oakland Company blew it to pieces and it is no longer an argument to any reasonable person. I will see what I can do toward helping the situation along.

Regarding Oakland, so far as I know, when I last contacted with that particular situation they were entirely satisfied. Mr. Hannum is an enthusiastic booster for Duco. I understand, however, that they are having a great deal of difficulty in getting closed bodies from the Fisher organization. Fisher does not seem to have got the knack of it in some way or other. I was talking to these boys the other day and I asked them if they would not contact more with the Oakland people. Mr. Hannum feels that if they would be guided by his extensive experience there would be no trouble but he feels that they feel they want to do it their own way and all that sort of thing. Just what the real facts in the case are, I do not know, but anyway Oakland is very desirous of getting this matter straightened out.

Page #2,
Mr. Wm. P. Allen,
January 28, 1924.

Regarding Olds, I did not know just exactly what they are doing and I thank you for the information.

Regarding Buick, I think it would be very desirable if you could contact with Mr. Bassett of the Buick Company. I think it would help the matter along very much. They are used to contacting with the man that is at the head of the institution they are dealing with and although Dr. Clements and Mr. Mougey are doing excellent work in promoting this thing, at the same time I think a little atmosphere from you to Mr. Bassett direct would be helpful. I only make this as a suggestion.

I am pleased to note that your difficulties with butyl alcohol are well worked out and that that need not be considered a limiting factor from now on.

To sum up the situation, you realize as well as I do that if we are going to be extensive users of Duco on increased lines for the season beginning August first, we ought to be right in it now and there ought to be a very complete understanding with all our Divisions as to the possibilities in the case and to my mind this should come directly from you who are the responsible agent in the matter rather than through a third party. I think also it would be helpful if you yourself could get the opinion of our different Divisions on the various subjects confronting them and if you care to do this and will then advise me what your impressions are, I shall be very glad indeed to do anything I can to push the matter along.

Very truly yours,

A.P.S.Jr./K

Government's Exhibit No. 387

DUCO FINISH

February 4, 1924.

Mr. F. O. Clements, Director of Research,
General Motors Research Corporation,
Dayton, Ohio.

My dear Mr. Clements:-

I have your very interesting letter of January 26th together with copy of report of the meeting held on Tuesday, January 22nd which I looked over very carefully.

I note there still seems to be a considerable reluctance to accept Duco notwithstanding the tremendous gain from the standpoint of durability due to the fact that the high finish or lustre can not as yet be provided, at least to the degree they would like to have it. Personally, my own viewpoint is that this is a very great mistake and I should think with the experience Oakland has had and the demand for Duco finish even without the lustre, should be conclusive evidence that it can be put across in a big way. Personally, from the information I have I see no advantage at all in using Duco if we are to insist on a highly polished finish due to the break down of the outside varnish. Perhaps we better go along as we are.

I believe it is important to develop the real facts if they can be developed at this time relative to the cost of this job. I think that this is most important. Speaking frankly and perhaps confidentially, I am of the opinion that the sale of our lower priced cars will be much enhanced if we bring them out in colors, yet in view of the fact that they are low priced cars we of course can not sacrifice durability. I recognize that that means that we have either got to use Duco or black enamel and I understand that if Duco is used without the outside varnish coat that the durability is about an even break. I would not hesitate at all to do this if it were not for the cost factor and in the cost must be recognized time of handling the job here, affecting as it does inventory and all that sort of thing. As a matter of fact, we have before us at the present time quite an important consideration which would be materially influenced if we had specific information on this subject.

Very truly yours,

A.P.S.Jr./K

Government's Exhibit No. 388

February 4, 1924.

Mr. W. P. Allen, General Manager,
Cellulose Products Department,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

RE: DUCO FINISH

My dear Mr. Allen:—

Many thanks for your letter of January 31st. I sincerely hope that as a result of your visit to Detroit you will have been able to have contacted with our Divisions to the end that they have a very complete understanding of the various phases of this situation in order that they may act intelligently. Personally, I am very anxious to have them weigh fully and seriously the desirability of using Duco finish in a very large way on our models forthcoming August 1, 1924.

I have just received a very complete report from our Paint & Enameling Committee who met in Detroit Tuesday, January 22nd and discussed the progress made in the development of this situation since the last meeting. I am a little disappointed to find that there seems to be considerable reluctance on the part of at least Cadillac and perhaps Buick, to accept the fact that a car with a dull finish is as constructive as a car with a highly polished finish. In view of the experience of the Oakland Division I do not see how this can still exist, but there always seems to me a very great inclination not to accept a change rather than the feeling that we should progress and improve things. I recognize the desirability of being conservative and all that sort of thing, but that can be over-done as well as everything else.

Very truly yours,

A.P.S.Jr./K

NOTE: Check mark is drawn above "31st." in first line; routing stamp bearing initials A.P.S., J.L.P., H.M.C., F.C.H., A.K.H., L.R.B., A.T.B., and W.F.A., with check marks inserted by hand after "A.P.S." and "A.T.B.", appears in lower right corner.

Government's Exhibit No. 394

March 25, 1926.

Mr. Wm. P. Allen, General Manager,
Cellulose Products Department,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

RE: DUCO FINISH

My dear Mr. Allen:-

I have your letter of March 21st and have carefully noted contents of same. I am glad that you have seen Mr. Bassett and have gone into this matter so thoroughly. Mr. Bassett, I appreciate, undoubtedly has a better measure of the situation than I have, but my personal feeling is that there is plenty of evidence in the way the public is taking the Oakland finish to warrant the feeling that Buick could get away with it equally satisfactorily. Certainly, it is impossible to assume that if Cadillac can do it and Oakland can do it that Buick can not do it.

I will make a note to discuss this matter at the next meeting of our Operations Committee with a view perhaps of developing a little more atmosphere in the mind of Mr. Bassett.

Very truly yours,

A.P.S.Jr./K

Government's Exhibit No. 399

EXCERPT FROM MINUTES OF MEETING #660 OF THE EXECUTIVE COMMITTEE,

E. I. duPONT deNEMOURS & COMPANY,

HELD IN WILMINGTON, DELAWARE, ON DECEMBER 31, 1924.

* * * * *

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SALES AND PURCHASE CONTRACTS:

The Secretary read to the Committee copies of letters dated December 26th and December 29th, 1924, from the Sub-Committee on Purchases and Sales to Mr. Wm. P. Allen, General Manager, Cellulose Products Department, advising of the approval of the following sales contracts:-

1) Contract with Showers Brothers, Bloomington, Indiana, covering their requirements of Duco and Thinnerfor furniture for the calendar year 1925, at prices of $2.75 per gallon for Duco and $1.75 per gallon for Thinner, all f.o.b., Parlin, N.J., these prices being guaranteed against any price decline made by us for similar quantity.

2) Contract with General Motors Corporation,Detroit,Mich., covering their requirements of Duco and Duco thinner for period December 1, 1924 to June 30, 1925, at prices of $4.40 per gallon for Duco in all colors and $2.00 per gallon for Duco thinner, all f.o.b. Parlin, N.J., and all subject to a discount of 6% and an additional 1% cash discount 10th proximo; net cash end of month following date of invoice, with no price decline guarantee.

The Secretary also read to the Committee copy of letter from the Sub-Committee on Purchases and Sales, dated December 27, 1924, authorising the Pyralin and Purchasing Departments to cable the London Office to negotiate for German Synthetic Camphor, - minimum 125,000 pounds, maximum 175,000 pounds per month - three months' supply at 50¢ per pound, or six months' supply at 48¢ per pound; in event six months is accepted we are to be protected against market decline for the last three months; terms, cash against shipping papers New York.

After discussion, it was moved [illegible] unanimously carried that the above-mentioned letters be received and ordered filed, and that the action taken by the Sub-Committee, as noted therein, be approved.

....

I hereby certify that the foregoing is a true excerpt from minutes of meeting #60 of the Executive Committee, E. I. duPont [illegible] & Company, held in Wilmington, Delaware, on December [illegible].

F. G. [illegible]ESS
[illegible]Y. EXECUTIVE COMMITTEE
E. I. DU PONT DE NEMOURS & COMPANY

[illegible]ember 29, 1948

Government's Exhibit No. 401

Excerpts —

September 27, 1926

To: Executive Committee

From: Paint, Lacquer & Chemicals Department

MONTHLY REPORT — AUGUST, 1926 — PAINT, LACQUER & CHEMICALS DEPARTMENT

GMC-1055

increased every month since April, sales in August exceeding those of April by approximately 30%. August sales are 10% higher than July, 20% higher than June and 25% over the average monthly sales during the first half of this year. Sales for the first eight months of 1926 amounted to $9,865,000 as compared with $8,258,000 for a corresponding period of 1925. The increase of $87,000 in August sales of Duco and Duco Thinner represents chiefly effect of larger sales to the automotive trade, particularly to the General Motors Units. Sales to the general industrial field exclusive of railroads and furniture manufacturers constitute approximately $16,000 of the increase.

August sales of colored Duco to automobile manufacturers amounted to 130,356 gallons, of which 86,985 gallons represent sales to the General Motors group, while July sales were 109,221 gallons and 71,006 gallons respectively.

Sales of colored Duco to automobile refinishers in August were 24,798 gallons, as compared with 23,874 gallons in July.

August total sales of colored Duco amounted to 184,000 gallons domestic, and 6,000 gallons export, or a total of 190,000 gallons, distributed as follows:

General Motor Units	46%
Other Motor Manufacturers	23
Auto Refinishers	11
Railroads	2
Furniture Manufacturers	6
General Industrial	9
Export	3
	100%

Increase of $21,000 in August over July in sales of Parlin Chemicals other than Duco and Duco Thinner offset somewhat the decrease that occurred in the month previous, bringing the August sales on about a level with June. Since March, the peak month in sales of Parlin Chemicals, sales have shown a decline each month up to July inclusive, August representing the first

CP-6

tions to their product. They no doubt will be the first concern of this kind to get under way, and estimated consumption of our material in their business runs in excess of $500,000 annually.

SALES PROMOTION

Preparation for entry into a new field of the linoleum industry was started recently, through the manufacture of a plastic to be used as a binder for cork, wood flour, and pigment, the finished mixture to be calendered out in sheets, either clear or attached to a backing of burlap, felt or heavy paper. A preparation of this kind will compete directly with battleship linoleum, and has appealed considerably to the manufacturers. Developments have reached a point where we have a satisfactory product to offer and tests to date have been very successful. Bird & Company, large linoleum manufacturers, are very enthusiastic about it, and have under consideration plans for a factory to manufacture linoleum using this product. This should provide a very large outlet for pyroxylin materials.

COMPLAINTS

During August a further complaint was received from the Frigidaire Division of General Motors that the Duco we were furnishing them for an outside finish on their cabinets was unsatisfactory from several viewpoints. They also told us that the Sherwin Williams Company, without having had the opportunity to do experimental work in their plant, had offered a finishing schedule to them which was unconditionally guaranteed and which was cheaper than ours. To retain business of this important customer we were accordingly forced to lower our prices at the same time that we perfected new products more nearly meeting their requirements, and even this proved only a temporary measure. With rapidly increasing production their manufacturing problems have proved too much for their

own organization to handle, and they have now asked us to station several of our experts in their factory and practically take charge of the finishing operations. For the present two of our most capable chemists, one of whom has had considerable engineering experience, are permanently assigned to the Frigidaire factory, and other chemists and engineers are brought out for consultation as needed.

As an instance of the length to which we are expected to go, they have asked us to work up a satisfactory packing and crating standard for their cabinets. This we are doing by bringing in outside experts employed by friendly customers in similar fields.

FAB-3

FAIRFIELD BRANCH:

Sales.

FAIRFIELD BILLINGS COMPARISON—DOLLARS

	August 1926	July 1926	Jan-Aug. 1926	Jan-Aug. 1925
Carriage Cloth—G M C	$257 298	243 929	1 352 618	393 055
" " —All others	25 396	78 190	460 461	496 191
Specialties—Ventube	10 686	13 779	122 689	130 291
" " —All others	89 792	81 828	672 495	276 967
Export—All products	45 649	46 391	411 299	491 318
Total	$429 021	$464 117	$3 019 562	$1 787 822

Business Booked.

FAIRFIELD BOOKINGS COMPARISON—YARDS

	August 1926	July 1926	Jan-Aug. 1926	Jan-Aug. 1925
Carriage Cloth—G M C	254 409	46 500	1 391 848	1 161 394
" " —All others	82 296	71 631	281 742	692 204
Specialties—Ventube	12 234	3 829	109 968	111 384
" —All others	233 711	126 112	1 294 471	738 996
Export—All products	46 903	45 485	457 489	779 485
Total	629 553	293 557	3 935 518	3 483 463

Large orders from Chevrolet Motor and Fisher Body Corporation account for the increase in General Motors bookings. Orders for raincoat material account for increase in specialties business.

Prices and Competition. The general price list has thus far been maintained on the domestic automotive business, though competitive pressure is increasingly strong for reduction. Some reduction from list has been necessary on export business. In the raincoat field, prices have been advanced slightly.

FAB-5

NEWBURGH BRANCH:

Sales.

NEWBURGH BILLINGS COMPARISON—DOLLARS

	August 1926	July 1926	Jan-Aug. 1926	Jan-Aug. 1925
General Motors	$118 599	$ 78 743	$ 631 132	$ 786 463
Domestic—General	262 440	220 721	2 138 284	2 228 652
Tontine—Domestic	97 876	66 698	561 903	405 159
Export—All products	76 249	94 883	720 364	679 839
Total	$555 164	$461 045	$4 051 683	$4 100 113

Business Booked.

NEWBURGH BOOKINGS COMPARISON—YARDS

	August 1926	July 1926	Jan-Aug. 1926	Jan-Aug. 1925
General Motors	124 460	134 645	1 065 084	869 261
Domestic—General	361 903	377 329	3 887 789	4 025 917
Tontine—Domestic	181 223	137 907	1 141 404	915 027
Export—All products	71 052	73 327	701 797	768 971
	738 638	723 208	6 776 074	6 579 176

Prices and Competition. A number of smaller competitors continue to quote prices ranging from 10% to 15% below schedule. We are meeting these quotations only where it is necessary to do so to protect established trade, and in a few instances have succeeded in holding business without meeting such reductions.

Export. During August we booked 71 000 yards as compared with 73 000 yards during July. Export business during the early part of September has shown quite an increase, during which period we booked 99 000 yards of heavy qualities for shipment to the Ford Motor Company in Australia. We are figuring on inquiry from the Argentine Government for about 157 000 yards of sheeting to be used for identification

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NOTE: "gmc-1055" appears in lower right of each page. "8", "11", "17", and "19" are stamped at bottom of successive respective pages of Excerpts.

Government's Exhibit No. 402

Copy to:

Dr. H. H. Hopkins)
) IN TURN
Mr. Matt Denning)

Wilmington 98, Delaware,
July 9th, 1945.

CONFIDENTIAL

DR. ROY B. DAVIS
FLINT LABORATORY

MR. G. E. CONDE
PARLIN LABORATORY

MR. J. B. BULLITT JR.
PHILADELPHIA LABORATORY

POLICY WITH GENERAL MOTORS ON DUCO versus DULUX

Attached is copy of letter of July 5th from Mr. Denning to Dr. Hopkins which states the future policy of the Department on this subject as endorsed by Mr. Kinsman.

Please be guided by this policy in the handling of your future technical relations with General Motors.

JOHN MARSHALL

JM:BL

Attachment.

CC: Mr. H. R. Lounsbury
July 5, 1945

Dr. H. H. Hopkins:

POLICY WITH GENERAL MOTORS ON "DUCO" VERSUS "DULUX"

It is our understanding, following several discussions on the subject, that we are to keep General Motors fully posted at all times on all developments in automotive finishes, whether these represent improvements in the lacquer or the synthetic type finish. Regardless of our investment in lacquer producing capacity, we must let the question of the adoption of synthetic finishes by General Motors stand or fall on its own merits, without bias or prejudice on our part.

It is also part of our policy to see that not only the technicians of General Motors, but also the general management, are kept informed as to developments in the finishes field.

Mr. Williams is to be sure that the management of the General Motors Corporation know what would be involved as far as we are concerned, if they should suddenly switch all or a major part of their production to synthetic finishes. We should make every effort to see that we have from six months' to one year's advance notice of such a change.

In general, we have been guided by the above policies in the past. This memorandum is written to clarify these policies and make them a matter of record.

D
Matt Denning.

MD:CM

Note: "File Copy" is printed across first page. The number 537 underlined appears in the upper right hand corner and T M reversed are in the lower right hand corner of first page. Also on first page is stamped "Noted Jul 9 1945 H. E. E." On second page, in upper left-hand corner is written "Mr. John Marshall For your information D". In upper right-hand corner is written "Endorsed by J. W. K. 7/6" under which are three illegible initials. Italics indicate handwriting.

Government's Exhibit No. 403

Letterhead of
E. I. du Pont de Nemours & Company
INCORPORATED
Wilmington, Delaware
EXECUTIVE OFFICES

October 7, 1921.

Personal

Mr. P. S. duPont, President,
General Motors Corporation,
Wilmington, Delaware.

Dear ~~Sir:~~ *Pierre*

Our File "General Motors"—Fabrikoid for General Motors—

We would like to present to the General Motors Company in the proper way the subject of entering into negotiations with us for the supplying of all of the artificial leather and rubber which they use, on some mutually advantageous basis.

1st—From the duPont point of view we feel that we are today at a disadvantage rather than advantage owing to the connection between the two companies, for the reason that the other artificial leather companies, particularly the less reliable ones, believing that we will for policy reasons take all of the business anyway, quote perfectly ridiculous prices to the different branches of the General Motors Company, thus forcing us to accept the business at a loss.

This may or may not be a fact, but it is the fact in several different cases. For example, recently the O'Bannon Company, which is in the hands of receivers, named a price of 53¢ on a Buick order, as compared with our price of 67¢, if I remember the figures correctly, our price even being below cost. The Fabrikoid Sales Department accepte the order for policy reasons, although it might have been better to let the O'Bannon Company take it. The Fabrikoid Sales Department's argument on this is that while the executive end of the General Motors Company would not in any way be influenced by our losing some orders, that if this continued the Plant Managers might be influenced against us, believing that we always bid higher than was in any way necessary or fair.

From another point of view, if an arrangement could be made, especially at this time, whereby the duPont Company could secure all of the artificial leather and rubber business, we could operate our plant, I believe, on a fairly economical basis, thus getting considerably lower costs (which the General Motors Company would secure the advantage from) and we would not be compelled to operate at a considerable loss all the time.

Without being familiar with all the little details, what I am afraid happens is that three or four different artificial leather companies are getting small dabs of the General Motors business, all of them running at small capacities. It seems uneconomical, fromthe general duPont pocketbook point of view, not to be able to make some arrangements whereby we could run our artificial leather plants fairly full, and in the long run it would not cost the General Motors Company any more money, if as much, as if they kept us on a competitive basis when the competition, owing to the circumstances, is not altogether a fair one.

In discussing this question with Irenee this morning (and you know he has not been in sympathy with the general cost plus contract with the General Motors) I put it to him in rather a different point of view than he had thought of it before, by comparing it with the general contracting business. Both from a point of view of a high class reliable contractor, and from the point of view of the client, I think it has always been accepted that considerable money is saved to both parties in the long run if work is done on this basis. In other words, if either you or I, doing a considerable amount of building over a period of years, had absolute faith in a certain contractor, a great deal of money and time could be saved if we simply ordered them to do the work each time and charge us on a charge plus basis.

I was told a few days ago that the argument that some of the General Motors Managers have put up against a cost plus contract for Fabrikoid, is that the duPont Company overhead was so high that they would not favor any such basis. Referring to my department only, from the study we have made during the past week and the re-arrangement that we have made or expect to make, a great many thousand dollars per month will be saved. Of course, we cannot guarantee this at the minute, but everything points that way.

Of course, I appreciate that you, personally, can take no steps in this direction, but I was anxious to learn whether you are personally opposed to such a policy. If you have time when you are in Wilmington this week, I would be glad to discuss it further with you and get your ideas.

Very truly yours,

R R M C

~~GENERAL MANAGER,~~
~~CELLULOSE PRODUCTS DEPARTMENT.~~

RRMC/R

NOTE: Italics indicate handwriting. The word "Personal" is written at top of first page. "Sir:" in salutation and the words under the signature on the second page are crossed out by hand. "gmc-795" is written at bottom of each page.

Government's Exhibit No. 404

EXCERPTS—

May 15, 1922

To: EXECUTIVE COMMITTEE

FROM: CELLULOSE PRODUCTS DEPARTMENT

MONTHLY REPORT OF CELLULOSE PRODUCTS DEPARTMENT FOR APRIL, 1922

3962

May 15, 1922.

TO—EXECUTIVE COMMITTEE,

FROM—CELLULOSE PRODUCTS DEPARTMENT.

MONTHLY REPORT OF CELLULOSE PRODUCTS DEPARTMENT FOR APRIL 1922

We are reporting herewith the results of the April operations of the Chemical Products (Parlin) Division and Fabrikoid Division.

The net profits for April for the Cellulose Products Department we estimate will run upward of $140,000.—made up as follows:

Newburgh	$67,000.
Fairfield	29,000.
Parlin	47,000.
	$ 143,000.

Our net profits for the first four months of 1922 have figured as follows:

1922	Fabrikoid	Parlin	Total Cellulose P.D.
January	$10,922.	$10,465.	$21,387.
February	12,386.	25,102.	37,488.
March	70,744.	40,689.	111,433.
April	96,000.	47,000.	143,000.
Four mos. total	$ 190,052.	$ 123,256.	$ 313,308.

In the Fabrikoid Division the bulk of our sales continued to go to the Motors industries. In April, 50.4% of our Fabrikoid billings were to General Motors, so that our future net profit in Fabrikoid is pretty closely tied in with the further developments in the automobile industry. At

present we expect May to continue at about the same gait as April, and also to continue strong into June. Beginning with July, however, we expect to see a falling off.

In the Chemical Products Division the automobile industry again looms up big, but in gross sales only, not in net profit. 25% of our Chemical Products April gross sales were to Henry Ford (amounting to $61,000.) covering shipments of Powder Dope. One million pounds (being 68% of our total Parlin chemical mixtures) is practically "no profit" business; the "net" to Parlin out of this business being the manufacturing overhead which it absorbs, to the extent of about $5,000., and about the same sum toward Selling and Administrative Expense. However, our profitable enamel, thinner and lacquer business continued to hold up in April; the outlook is bright, and at Parlin we are addressing ourselves to the problem of corraling more of this sort of profitable and permanent business to gradually replace the Ford and Sanford Mill type of tonnage-no-profit sales.

Government's Exhibit No. 405

LEATHER SUBSTITUTE – GIMP AND WELT – RUBBER COATED FABRICS – COTTON FABRICS.

MEMORANDUM FOR GENERAL PURCHASING COMMITTEE —February 7, 1923.

Annual Purchases of Leather Substitute $1,243,273.00; Gimp and Welt $323,522.00; Rubber Coated Fabrics $2,266,928.00, and Cotton Fabrics as such $473,034.00, totaling $4,306,721.00, represent 12,037,650 square yards, or 5,063,179 pounds of Cotton Fabrics, or 12,459 Bales of raw Cotton.

On today's market, cost of raw cotton alone would be $1,744,260.00.

These figures warrant close touch with cotton growing and manufacturing industries and market.

It should be undertaken to work out with suppliers of Leather Substitute and Rubber Coated Fabrics a plan for purchasing cotton fabrics at most favorable time to cover our estimated minimum annual requirements or any part thereof authorized by forward commitment.

If cotton mills would not accept annual contracts from our suppliers, consideration might be given to purchase of raw cotton for resale to mills. At best the matter involves speculative features.

Requirements of Cotton Fabrics in Grey might reasonably be lumped with those of supplier of Leather Substitute, etc. and purchased direct from mills.

Requirements of Cotton Fabrics, dyed, could be likewise purchased and converted by supplier at a fixed charge.

Large consumption of Leather Substitute and Rubber Coated Fabrics should enable us to secure from suppliers a definite price for each finished quality based upon a small percentage of profit.

Or, we might agree upon a fixed charge for each finished quality over and above the cost of Cotton Fabrics (assuming we have a voice in purchase of fabrics).

Leather Substitute purchased under General Contract could be supplied to Gimp Manufacturers for converting, on a schedule of fixed charges.

The duPont Company which now supplies all Car Divisions with nearly their entire requirements of Coated Fabrics, have ample facilities. They have excellent cotton mill connections, manufacture their dyestuffs, pigments, and some colvents. They have large stocks of nitro-cellulose in the form of smokeless powder obtained at low cost. Castor Oil, which with pigment, nitro-cellolose, and solvents, composes the coating solution, does not have a widely fluctuating market.

The problem of Rubber Coated and combined Fabrics is not widely different.

Large savings are indicated.

The Cotton Market is steadily advancing.

[Stamp] J L

Government's Exhibit No. 406

February 12, 1923.

TO: EXECUTIVE COMMITTEE
(M. D. Fisher, Sect'y)

FROM: CELLULOSE PRODUCTS DEPT.

RELATIONS WITH THE GENERAL MOTORS CORPORATIONS

The writer spent last week making a personal investigation of the present status of our relations with the General Motors Corporation with respect to Duco Finish, Fabrikoid, and auto top materials, and inasmuch as this whole subject is of such vital importance to the Company the Executive Committee will probably be interested in receiving a brief resume of the conditions found and conclusions reached.

DUCO FINISH:

It will be remembered that our first work on high solids pyroxylin enamels for automobile finishing was based upon the incorporation of pigments into Viscolac, which was our first high solids lacquer. All of the early work, extending from April to August 1922, was done with this material. The chief difficulties with pigmented Viscolac were unsatisfactory adhesion to metal and insufficient covering power. In August 1922 we had succeeded in materially increasing its adhesive properties and at the same time improving its covering power, by increasing its pigment content.

This was brought about by a study of the grinding of pigments and the method of incorporation of the pigments in the pyroxylin materials. After a few months experience, however, it was found that we had gone a little too far in increasing the pigment content of these enamels, the effect of too high a percentage of pigments being brittleness in the finished film. In recent months this difficulty has been overcome by a reduction in pigment content coincident with increase in softeners, so that the material being made at the present time represents not only the most recent developments in our knowledge of the effect of various components upon the physical characteristics and durability of the material, but it represents we believe a finished product in so far as any further radical changes in composition are likely to be found necessary.

The Dayton Laboratories and the various units of the General Motors Corporation have shown a keen interest in this material thruout the entire period of its development, and while normally a problem of this kind would be worked out by the Dayton Laboratories before work was undertaken by any of the individual units, the interest of the units themselves in this material has been such as to lead each of them to do independent experimental work on its method of application. This of course has resulted in the accumulation of an amount of knowledge as to technique of application which it would otherwise have been very difficult for us to obtain. Below is given a brief synopsis of the work undertaken by each of the units, together with its present attitude toward the use of this material:-

1—Cadillac:

The Cadillac organization has displayed very keen interest in this material for the reason that the method of finishing used by the Cadillac plant is the most expensive and time consuming used by any of the units of General Motors, involving 14 separate coats of under-coatings, color varnishes, and finishing varnish, and requiring twenty-eight days to finish a body. The Cadillac organization have satisfied themselves on the following points:–

a—Duco Finish cannot be used satisfactorily without the usual under-coatings, because (1) A built-up rich looking finish cannot be obtained without undercoatings, (2) The metal cannot be made absolutely clean by sand blasting in factory practice to insure perfect adhesion, and (3) Even the 1 and 2 were possible Duco Finish built up from the bare metal without the use of undercoatings gives what they call a "tin pan" appearance, which is unsatisfactory on a high priced car.

b—To secure durability the undercoatings must be thoroughly baked to a hard surface, air drying giving undependable results.

c—The Cadillac "Brewster Green" is the most difficult color to match, and thus far we have been unable to secure an exact match without mixture of incompatible pigments. The Flint Varnish and Color Works advise us that this color is the most difficult one in the automotive industry to match, and are giving us assistance in this particular.

d—On account of the policy of extreme conservatism that has always been followed by the Cadillac Company they advise that they will not adopt Duco Finish until they have had at least ten months experience with care under observation in regular service. At the present time they are entirely convinced as to the durability of the material and its superiority to color varnish, and as soon as we are able to make an exact duplication of their standard color they will finish a number of cars and put they in service in the city of Detroit, where they can be kept under observation.

2—Buick:

Considerable work has been done at the Buick factory and we have succeeded in duplicating the Buick standard blue and red bodies. This company is also convinced that our finish must be used over baked under-coatings, and while they are satisfied that it has greater durability than color varnish, they have the most efficient finishing process of any of the motors units and are loath to introduce a material which will increase their cost of finishing and upset their present efficient finishing schedule until they have determined—(1) The increase in cost which will be involved (which will be perhaps approximately $1.00 per car), and (2) The relative advantage in durability which Duco Finish possesses over color varnish.

They are at the present time finishing five cars in blue and five in maroon to be put into regular service under observation, and the writer saw these cars in process of finishing at the Buick plant. On the question of length of time required before they will feel justified in reaching a decision, we were advised that six months should be considered minimum.

3—Oakland:

Considerable interest in our finishes has been shown by the Oakland organization, primarily because the foreman of the finishing department is an unusually intelligent, progressive and competent man. As a result of his individual efforts a spraying technique has been developed at the Oakland factory which is superior to that heretofore used by any of the Units or by the men in our own organization. The importance of this lies in the fact that they are able to spray a coat of Duco Finish which after drying has a smoother surface and consequently requires less hand rubbing than we have heretofore considered possible. One of the important items in cost of body finishing is the labor involved in rubbing the finishes by hand to a smooth surface before the final coat of finishing varnish is applied. Due to the fact that our material is very much tougher than color varnish the labor involved in hand rubbing it to a smooth surface is considerably greater than that required for rubbing their present finishes. At Oakland we were advised that Duco Finish, if properly applied, can be hand rubbed at very little increased cost for rubbing.

The development of this spraying technique is important to us not only in simplifying the application of our material in automobile factories, but will also be useful in the development of a technique for refinishers, where up to the present time we have not been successful in spraying to a smooth finish. For example, the refinishing which has been done by the Auto Refinishing Company, Wilmington, who have done the best work thus far in refinishing, has a rough orange peel effect, which is unsatisfactory to some users.

The regular method of finishing at the Oakland factory consists in applying color varnishes over air dried, as contrasted with baked under-coatings. They have found that in the use of our material it is necessary to air dry their under-coatings for a longer time than is the case with their regular finishes, and have installed one oven to be used for baking undercoatings in future applications of our material. As in the case of Cadillac and Buick, they are convinced that our material should be used only in substitution for color varnish, and should be applied over baked undercoatings. We saw a number of finished jobs at Oakland which are beautiful in appearance, and which as a matter of fact were superior in this respect to the very expensive and time consuming method used by Cadillac. Here again, however, as in the case of the other two industries, they are unwilling to come to a decision regarding the use of our material until they have had extended experience ~~with it in~~ service, for the reason that the increased cost both of the material itself and of labor in applying it must be compensated for by substantially greater durability.

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4—Chevrolet:

At the outset it should be stated that it is our opinion that Duco Finish will never seriously compete with a black baked enamel finish for the reason that this is the cheapest method of finishing automobiles, and produces the most durable finish. The question which the Chevrolet Company, and other manufacturers of cheap cars, face at the present time, is whether or not to adopt an all steel body which will permit the use of a black high baked enamel, as is done by the Dodge Company, and secure a finish which is so durable that it will last as long as the car. Chevrolet uses a black baking enamel, which is baked at the maximum temperature which will not injure the wood in the body, but in being forced to use a lower temperature in baking it is not securing as great durability as does the Dodge, which has eliminated all wood from the body.

Some time ago theChevrolet Company finished a few of our cars in Duco over bare metal and without the useof finishing varnish. These were placed in the hands of dealers, and in every case they received the report that the cars were not saleable on account of the dullness of the finish. The dealers themselves converted these cars to so-called sport models by having them refinished in colors.

The Chevrolet Company has an export business which at the present time amounts to about thirty cars per day. These cars are sold at a higher price and are finished in colors, principally grey, and it is probable that if the other units adopt our finishes Chevrolet will use this material on their export cars.

5—Oldsmobile:

The Oldsmobile Company has done a considerable amount of work in the application of Duco Finish, and unlike the other Units has confined its work to the application of Duco Finish over sand blasted metal, without the use of under-coatings. They have in all finished about fifty cars, most of which were finished and put in service within the last few months. Owing to the new program for this company, which involves the manufacture of a much cheaper car, their feeling has been that the expense of the usual method of finishing, involving under-coatings, color varnish, and finishing varnish, would be prohibitive, and that unless our finishes can be applied over bare metal, with the minimum of expense for rubbing, they would be forced to fall back upon the cheap baked enamel finish. The method of application used by Olds has consisted of a—A priming coat of Duco Finish

b—A coat of glaze applied to rough places with a knife

c—Two or three coats of Duco Finish

In some cases they have used finishing varnish to secure high lustre, as the final coat, but in others have put their cars out with the dull finish produced by Duco itself. They have not yet succeeded in obtaining a satisfactory glazing paste to be used with this method, nor have we succeeded in finding one on the market or developing one ourselves. This method has the disadvantage of requiring a scrupulously clean surface before application of our material, which condition is very difficult to meet in ordinary shop practice.

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On the whole we think that it is extremely unlikely that the Oldsmobile Company under its new manufacturing program will be able to use our finish on account of cost, and that they will finally decide to turn out the bulk of their production in black models finished with cheap baking enamel.

6—Dayton Laboratories:

The Dayton Laboratories have done a considerable amount of experimental work with our finishes and have done it in a thoroughgoing manner. Most of the results which they have thus far obtained have been based upon the use of (a) Viscolac and (b) Duco enamels containing too high a percentage of pigment, so that we are now unfortunately in the position of having developed a material which is superior to either of those but which has not been in their hands long enough to have had the opportunity to undergo the long time service tests under exposure to weather, on which tests they base their conclusions. They have, however, developed a lot of useful information in connection with their study of this whole proposition. This information may be summarized briefly as follows:–

a—There is very little likelihood that a method of finishing based exclusively on the use of our finishes will be developed for use in finishing new automobiles. They believe that the field for our finishes is in substitution for color varnishes, and they have already convinced themselves that our type of finish is vastly superior in durability to color varnish. To solve the general problem of durable finishes in colors, which of course is their main interest, their goal is to secure a colored finish which will be as durable as the high baked enamel finish used on all-metal bodies. In other words, they are seeking a finish in colors which will last practically as long as the car itself, and while this may be an ideal which is not susceptible of attainment they entertain high hope at the present time that it will eventually be found that our present finish will meet this requirement.

b—They have satisfied themselves by numerous tests, as have the other General Motors Units, that our material must be applied over baked under-coatings rather than over air dried surfaces, as has been done at the Oakland factory. Their explanation of this is that the solvents in our materials act very much in the nature of paint removers when applied to drying oils, unless the drying oils have been completely oxidized. They feel that altho' we have thus far had excellent results with the Oakland method of applying our material over air dried under-coatings, sufficient time has not elapsed to permit us to draw conclusions as to durability. Experimental results seem to amply justify this conclusion, and, as mentioned in an earlier part of this report, the Oakland factory is installing one oven to permit them to bake their under-coatings before application of our material.

c—The Dayton Laboratories have demonstrated conclusively that finishing varnish has a very much longer life when applied to our material than it has when applied to color varnish, and the reasons for its behavior in this respect are simple. Color varnish absorbs the oil from finishing varnish, giving eventually a thick layer consisting of two or three coats of color varnish plus a coat

of finishing varnish, all having the same consistency and resulting in one thick layer of varnish which dries rapidly at the surface. When finishing varnish, on the other hand, is applied to Duco Finish it is laid upon a material which has a hard, impervious surface, and a permanent film, and the finishing varnish in this case lasts as long as it can withstand the effects of sunlight and weather, without action by the materials which underlie it.

d—The three main classes of materials used in finishing automobiles, i.e. under-coatings, color varnishes, and finishing varnish, produce a finish which is as durable as the weakest link in the chain, viz., color varnish. By the substitution of Duco Finish for the color varnish the weak link in the chain becomes finishing varnish. Future work at the

Dayton Laboratories, in addition to further extensive tests on the durability of Duco Finish, will be directed toward developing a finishing varnish which will have a longer life than any at present on the market, or developing some other method of giving our material a sufficiently high lustre to meet the requirements of the motor car manufacturers. In this connection it may be said that all of the units of General Motors, together with Dayton Laboratories, are convinced that new motor cars cannot be sold unless they are finished with a high lustre. The general opinion seems to be that a dull or satin finish gives a new automobile a second-hand appearance, and while dull finish has been talked about for many years in the automobile industry, and has been tried a number of times by different manufacturers, it has always been given up as the result of sales resistance. At the present time there are three well known makes of automobiles which are offering to the public models finished with a flat, lustreless appearance, viz., Reo, Jordan, and Davis. The materials used are ordinary paint finishes, but it is the opinion of the General Motors people with whom I talked that these companies will be unsuccessful in interesting the public in this type of finish.

In view of the long time which it will be necessary for us to wait until the Dayton Laboratories and the various units of the General Motors Corporation make up their minds to use our material in production, and in view of the fact that other motor car manufacturers are anxious to have us start experimental work with them, it is my opinion that we should begin an aggressive campaign with other leading motor car manufacturers to test our materials. It is altogether likely that the important motor car manufacturers will take the same attitude toward our finish as does the

General Motors Corporation, that is, they will desire to place cars finished with our material in service under observation for a considerable length of time before adopting it.

We have felt under considerable obligation to General Motors in the development of this material on account of the assistance which they have rendered us, but it seems to us that a large amount of very valuable time will be lost if we refrain from working with other motor car manufacturers for a period of from six months to one year, pending decision by the units of General Motors as to whether or not they will adopt our material. In any event it will be impracticable for us to give General Motors the exclusive use of our material for the reason that it is used in many other industries besides the motor car industry, and our sales are rapidly increasing in some of these other lines. Possible patent protection is very uncertain, and would be only partial if all of our patent applications

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are allowed and will withstand litigation. While some correspondence has passed between the Presidents of the General Motors Corporation and E. I. duPont de Nemours & Company on this subject, in which Mr. Irenee duPont took the very definite position that we could not agree to extend to the General Motors Corporation exclusive rights in the use of this material on automobiles, I would like to be relieved of any obligations to the General Motors Corporation in connection with the use of this material, and thus be free to negotiate with other automobile manufacturers for its use.

FABRIKOID & AUTO TOP MATERIALS:

All of the General Motors units expressed satisfaction with the quality of the leather substitute and rubber coated

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fabrics which they have been receiving from us during the past year, and are more than pleased with the extraordinarily good service which we have given them. This service has not only taken the form of quick deliveries on short notice, but they have in addition received valuable assistance in operation of their trim shops from Mr. H. J. Haon, who has spent a considerable amount of time during the past year on this work. The Units are, however, facing a dilemma at the present time, which is brought about by a resolution of the General Motors Corporation Executive Committee instructing each Unit to develop at least two sources of supply for all essential materials which they use. At the present time all leather substitute and top material is furnished by the Fabrikoid Division, and while several of our competitors are large enough to constitute a satisfactory source of supply the fact that under present conditions none of our competitors are called upon to furnish any material constitutes a violation of this resolution. As I have advised the Executive Committee in the past, the prices on which our motors contracts are based are determined by quotations which the individual motors units obtain from our competitors, and while we are satisfied that none of our competitors would render the General Motors Corporation the same high standard of service which they have been receiving from us it must be admitted that their account is such a large and valuable one that any manufacturer would be glad to get it on a very narrow margin of profit.

A meeting was arranged while I was in Detroit to enable me to confer with Messrs. Main, Director of Purchases, Lynah, Assistant Director of Purchases, J. L. Pratt, who is on the purchasing committee; O'Keefe, Purchasing Agent for Chevrolet, and Halgrave, Purchasing Agent for Cadillac. At this meeting I discussed the whole situation very freely with these men, pointing out the very large risk which we were assuming in covering their grey goods requirements for six months and in turn selling our finished material to them on a requirements basis, without protection against a sudden slump in the motor industry, and they advised me that every supplier with whom they do business assumes this risk, and they can see no reason why we should not assume it so long as other manufacturers in our line of business are anxious to get their business on similar terms. During this meeting the question of an additional source of supply was discussed very freely and the conclusion was reached that the General Motors units should purchase 20% of their leather substitute and top materials from one of our competitors, leaving us 80% of their consumption at prices which would be determined by competition.

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The question of centralization of purchases of our material is under active consideration by the Purchasing Committee at the present time, and if this centralization is effected it will make our problem somewhat simpler, as at the present time we make separate contracts with each of the Units and these contracts are more or less influenced by the particular kind of competition encountered as well as the particular viewpoint of the Unit concerned. They have now calculated their requirements for the last half of this year and the central purchasing department has been instructed by the Purchasing Committee to secure bids on this material from the various reputable manufacturers in our line. I advised them that in my opinion this was not a good time to contract for their July to December requirements, for the reason that the prices which they will have to pay for these deliveries will depend very largely on the price of cotton at the time, and this in turn cannot be forecasted until the Department of Agriculture's figures on acreage planted become public. I offered to cooperate with them in every way to enable them to decide for themselves the proper time at which to make these contracts, giving them the benefit of all of the information which we have as to the probable course of the cotton market, and I am confident that even though they decide to place 20% of their business with our competitors there will be no question about our securing the remaining 80%. On the other hand, I am convinced that we will always have to take this business on a very narrow margin and may have to assume risks which would seem to be disproportionate to the profit which can be made out of this business. However, we need the capacity which the General Motors business enables us to get, and our position will remain weak until we have succeeded in getting a greater diversification of our sales, which will involve less dependence upon the motor industry.

As I have advised the Executive Committee on several occasions, this whole problem is under intensive study, as our dependence upon one industry constitutes the gravest danger to the permanent success of this business.

RELATIONS WITH FLINT VARNISH AND COLOR WORKS

I advised the Executive Committee several weeks ago regarding the outcome of a discussion with Messrs. Grubb and Sohlinger on the question of cooperation between the Flint Varnish and Color Works and the Cellulose Products Department, and the further development and marketing of pyroxylin finishes. Since that conference Mr. Merkle of the Flint Company made a visit to Parlin, when the whole matter was gone into very thoroughly.

During my visit to the General Motors plants I arranged a conference at the Flint Varnish and Color Works between Messrs. Sohlinger, Egerly, and Merkle, and Messrs. Flaherty, Williams, Cavanaugh, and myself.

As a result of these conferences we believe that we will receive considerable assistance from the Flint Company in the use of pigments, and they in turn will be able to improve the quality of

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their glazes and under-coatings for use with our material. The whole problem has now reached a stage where active cooperation is essential and we believe that the way has been paved on both sides to bring this about. It is very likely that the ultimate result of this cooperation will be beneficial to both branches, for the reason that our materials will give the Flint Company an opportunity to sell undercoatings and finishing varnish to accounts which they otherwise would not secure, and their present entrée to automobile concerns which now use their material will facilitate the introduction of our materials.

[Stamp] W. P. Allen
General Manager.

WPA/IRB

Note: The line through the words on the first page and the period immediately before such words are by hand, and the line in the margin of page 7 is by hand. "Executive Committee Secy's No. 8930" is stamped and "T" is written at top of first page. "Return to Executive Committee Room 9069" is stamped on pages 1 and 9. "gmc-920a" is written at bottom of each page.

Government's Exhibit No. 407

E. I. du PONT de NEMOURS & COMPANY
(Incorporated)
WILMINGTON, DELAWARE

VICE-PRESIDENT

July 18th, 1923.

TO: P. S. du Pont

FROM: Wm. Coyne

CHEVROLET TOP BUSINESS

At our Directors of Sales meeting July 17th, in Wilmington, statement was made that for the last six months of 1923 we lost 25% of the Chevrolet top business, our price and quality being admittedly as good as our competitors.

Further statement was made that Mr. Knudsen had gotten your permission to give 25% to our competitors, the O'Bannon Corporation, which is in the hands of a receiver.

I wondered if you would care to tell me just what the reasons were for this attidude on the part of the Chevrolet people, so that we may, if possible, "put our house in order" to the extent that next time we may get 100% of the Chevrolet business.

/s/ Wm. Coyne
Vice President

WC/emm

Government's Exhibit No. 408

July 19th, 1923.

Mr. Wm. Coyne, Vice-President,
Building.

Dear Sir:

Replying to your letter of July 18th:

I have always thought that it was a very foolish business plan to divide orders for raw materials for the satisfaction of saying "we have two sources of supply", even though one source of materials might be more satisfactory in many ways. I think the duPont Company indulges in this foolish practice, as well as General Motors. At any rate I do not think it advisable to interfere in any case unless the Executive Committee of the company outlines a policy advocating one source of supply generally where such course seems advisable.

As to the policy of General Motors, I cannot refuse permission to Mr. Knudsen if he wishes to divide his orders for Fabrikoid. I do not approve of the policy or of this particular act.

Very truly yours,

17 Chairman of the Board.

Note. File Copy stamped across face of letter. Initials "FAM" in right hand margin at middle of page.

Government's Exhibit No. 410

July 27th, 1923.

Mr. William S. Knudsen, Vice-President,
Chevrolet Motor Car Company,
Detroit, Michigan.

My dear Mr. Knudsen:

I have learned recently that Chevrolet is dividing its orders for coated fabrics in order to have two sources of supply. While you have authority to make these arrangements, I do not wish to appear as approving. I am a firm believer that one good source of supply, properly maintained, is more reliable than two sources. I particularly condemn switching large orders from one source to another unless for very good reason. The temporary advantage gained through a contract at a lower price does not compensate having to support two plants where one would suffice. Doubtless you have given personal consideration to the case in question. I have no fault to find with the principle which would apply as well to other manufacture as of the duPont Company.

Very truly yours,

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Note. "RWE" and "FAM" written in right margin. "P. S. du Pont" stamped across document.

EXCERPT FROM

Government's Exhibit No. 411

AUGUST 18, 1922 CELLULOSE PRODUCTS DEPARTMENT
FINAL REPORT FOR JUNE AND PRELIMINARY REPORT
FOR JULY 1922 TO EXECUTIVE COMMITTEE OF DU PONT
COMPANY (GMC-1052)

* * *

COMPETITION:

Rubber

Very low prices are still being quoted by our competitors. On Ford rubber our minimum price is around 52¢. During the month quotations of 40¢ by Athol, 42-1/2¢ by O'Bannon, and as low as 36-1/2¢ by Seherer came to our attention. Our quotation of 80¢ on 40 oz. double texture was beaten by Duratex at 70¢. Chase price of 61¢ on 38 oz. 1.43 drill for American Motor Body Corporation got the business over our price of 64¢ on 1.65 drill.

In the East a slight tendency toward stiffening of prices is noted, but the Middle Western concerns still maintain keen price competition; getting the most of the available business thru their advantage in the way of freight rates.

We find that 25% of Chevrolet's rubber business for July, August and September (some 96,000 yards) was placed with O'Bannon at 40¢ for July and 42-1/2¢ for the balance. Our price since April 1st has been 55.6¢.

During the month advices came to us that both Hodgman Rubber and F. S. Carr are in the hands of receivers.

Artificial Leather

The leather substitute situation is about the same as last month. O'Bannon quotes 60¢ to Baltimore trade against our minimum price of 65¢ for 4000 quality. Western Shade and Textileather are selling qualities equivalent to our 1100 grade at 24¢ net; Duratex and Keratol are quoting 23¢ while our minimum is 26¢; Athol on 700 quotes 30.55¢ against our 33¢ price.

* * *

PRICES CHANGES MADE AND CONTEMPLATED:

On August 1st we advanced the price on Heavy qualities of Fabrikoid approximately 5% and issued a new price list showing this change. We will not get the full benefit of this at once, as a considerable amount of heavy goods is sold to General Motors and no change has been made in our price to General Motors units."

[fol. 1702] GOVERNMENT'S EXHIBIT NO. 412

GENERAL MOTORS CORPORATION
General Purchasing Committee
Detroit, Michigan

September 27, 1923.

Subject: Minutes: Ninth Meeting, Detroit.
Attention of: Purchasing Agents, all Divisions.

2. Miscellaneous Matters:

(a) Matter of Tire Contracts.

Secretary reported that on September 24 letter was sent to the Car & Truck Divisions requesting estimate of requirements for 1924, based on NORMAL consumption and asking for expression of preferences in percentages for the following sources: Goodyear, Goodrich, United States, Firestone, Ajax and Kelly Springfield.

[fol. 1703] (c) Leather Substitute—Rubber Coated Fabrics.

It was brought out that the DuPont Company has enjoyed the larger portion of General Motors requirements of these items. That on account of constantly increasing consumption, sound judgment demands the maintenance of more than one source of supply. That the DuPont Company had been afforded the opportunity of meeting competitive prices and that competitors now believe that no matter what price they put in they would receive no business.

It was agreed that on an equal competitive basis at least 25% of the business should be placed with sources other than the DuPont Company. That the Dupont Company be notified that they should make their best price in their initial offer and not count upon having an opportunity to meet competitive prices, and that on the basis of competitive prices the Divisions were free to place their business to the best advantage. Inasmuch as Divisions have no facilities for making complete chemical and physical tests of these items the Factory Section was instructed to immediately

install apparatus and equipment. Secretary advised that suppliers of these items would afford representative from the Factory Section every possible facility in developing the proper methods and securing equipment necessary for making such tests.
Secretary was instructed to write Mr. C. L. Petze, Division Manager of DuPont Company relative to decision of the Committee and to send copies to the Purchasing Agents of interested Divisions.

[fol: 1704] GOVERNMENT'S EXHIBIT NO. 413

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
Wilmington, Delaware

October 6, 1923.

CELLULOSE PRODUCTS DEPARTMENT
CONFIDENTIAL

Copy to: Mr. Irenee duPont.
~~Newburgh C. L. Petze.~~
~~Parlin J. W. Elms~~

~~Mr. Alfred P. Sloan, Pres.,~~
~~General Motors Corporation,~~
~~General Motors Bldg.,~~
~~57th & Broadway,~~
~~New York, N. Y.~~

~~Dear Mr. Sloan:~~

I wish to confirm my conversation with you of yesterday regarding Duco finish and our present relations with the individual General Motors units in connection with the sale to them of fabrikoid and rubber-coated fabrics.

[fol. 1705] 4. Fabrikoid & Rubber-Coated Fabrics:

You advised that at a recent meeting of the G. M. Purchasing Committee, of which you are Chairman, a resolution had been adopted which in substance outlines a policy of purchasing not more than 75% of your require- [fol. 1706] ments of these materials from the duPont Company so as to enable the G. M. units to obtain bona fide prices from our competitors by actual purchases. I suggested to you the desirability from the standpoint of advantage to the G. M. Corporation over a long period of making contracts with the duPont Company covering your entire requirements of these materials and based upon raw material prices plus a definite conversion charge. While it is true that experience generally with long term contracts on a cost plus basis has shown such contracts to be unsatisfactory in many respects, these particular materials lend themselves to such treatment by reason of the fact that a very large percentage of the cost is in raw materials and

—3—

the factory conversion cost is relatively small. For this reason it would be comparatively easy to arrive at a basis for price determination that would be fair to both sides and which would in the long run be advantageous to the buyer for the reason that it would permit a degree of cooperation in the purchase of raw materials which is not possible under the present competitive conditions. In other words, the opportunities for saving in these purchases lie very largely in our ability to purchase cotton fabrics at the right time and from the right sources of supply, based upon expert knowledge of the cotton and fabrics markets. We are very well fortified with such knowledge both inside our organization and thru our contact with outside experts, but under the present competitive conditions this expert knowledge is not used to the best advantage for the reason that we quote the individual units only when they decide to ask for offerings and we cannot afford to cover our fabric requirements in the [fol. 1707] absence of specific commitments from the various units. You suggested that I discuss this with the individual units and I advised you that I expected to be in Detroit within the next week or ten days, at which time I will take the matter up in detail with Messrs. Main, Lynah and the purchasing agents of the individual units.

The above, I think, covers substantially the subject matter of our discussion.

Yours very truly,

[Stamp] W. P. Allen,
General Manager.

WPA:AR

Government's Exhibit No. 415

COPY

October 16, 1923

Mr. Wm. P. Allen, Gen. Mgr.
Cellulose Products Department,
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

RE: FABRIKOID & RUBBER-COATED FABRICS

My dear Mr. Allen:

Replying to that part of your letter of October 6th with reference to a different type of arrangement between you and ourselves in connection with the above products, would state that I am fundamentally against anything like a cost plus contract and although I recognize that the conditions in this case make it perhaps less objectionable than generally is the case, such a contract is bad enough in ordinary cases, but in our type of organization where we have a central viewpoint and a divisional viewpoint, it makes it most difficult and no matter how constructive the plan may be if competition comes in and for any reason, legitimate or otherwise, can make a lower price it produces very bad psychology and one difficult to overcome.

However, irrespective of all this as a matter of fact it is something for our General Purchasing Committee to decide and I am therefore sending copy of your viewpoint to our Secretary and will ask him to bring it up at the next meeting.

Very truly yours,

A.P.S. Jr./Ko

c/c Mr. P.S. duPont
Irenee duPont
James Lynah

NOTE: A check mark appears above "6th" in first line of body of letter and "11/1" is written at bottom of page.

2

Government's Exhibit No. 416

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE.

CELLULOSE PRODUCTS DEPARTMENT

October 18, 1923

Mr. Alfred P. Sloan, Jr. President,
General Motors Corporation,
224 W. 57th Street,
New York City, N. Y.

RECEIVED
OCT 19 1923
A. P. SLOAN, Jr.

My dear Mr. Sloan:

FABRIKOID & RUBBER-COATED FABRICS:

Replying to your letter of October 16th, on the above subject, I quite appreciate your position and that of the individual units in this matter, but think that the whole subject presents opportunities for an improvement in the relationship of the two companies and that some scheme of genuine cooperation might be worked out whereby each company would benefit. I realize, however, that it is entirely up to us to take the initiative in a matter of this kind and I shall discuss it with the Purchasing Agents of the individual units before attempting to formulate a definite plan.

With kind regards, I am

Yours very truly,

Wm F Allen

GENERAL MANAGER.

WPA.D

NOTE: Check marks at lower right are inserted after "A.P.S." and "A.T.B.", respectively, in a routing stamp bearing the initials "A.P.S.", "J.L.P.", "P.F.", "W.J.", "A.T.B." and "W.F.A.".

Government's Exhibit No. 417

EXCERPTS—

June 9, 1921

To: EXECUTIVE COMMITTEE
(M.D.Fisher, Sec'y.)

FROM: A. FELIX DU PONT, VICE PRESIDENT

MONTHLY REPORT OF CELLULOSE PRODUCTS MANUFACTURING DEPARTMENT FOR APRIL—1921:

May 31, 1921

April Report

To: A. F. Porter, Director—

ALL PLANTS OF FABRIKOID DIVISION

Eliminated

4 2034
4 2035
4 2036

3993

May 31, 1921.

APRIL REPORT

To:—A. F. PORTER, DIRECTOR—

ALL PLANTS OF FABRIKOID DIVISION

April gave us the most encouragement we have had for months. This was chiefly due to Ford Motor Company orders, although exclusive of these there would have been some improvement over March conditions, March having in turn shown an appreciable improvement over February.

The advantage of operating the plants rather than shutting down, assuming a continuation unchanged of the forecasted extra-plant charges, is shown as follows:

	Monthly Loss Operating at April Rate	Monthly Loss Complete Plant Shutdown
Newburgh	$1,400	$69,000
Fairfield	$97,000 (Gain)	$23,000
Parlin	$75,000	$120,000

At date of writing (May 31st) it may be noted that while the incomplete figures thus far available for May show a small decrease from the April total plant productions at Newburgh and Parlin, and a material decrease at Fairfield, nevertheless if the Ford orders be disregarded May's production would be higher than that of April, in general, and therefore continues the upward trend from the lowest month (February). May orders, largely received in the latter part of the month, show a greater increase over April, excluding Ford, than does production.

Stocks for ~~this~~ Division taken as a unit were reduced in April by $798,408, or 17.7%

While this report nominally covers April, the importance of our efforts along plant efficiency lines is considered sufficiently great to warrant a continuation of including in each monthly report the latest data thereupon available. During the present abnormal condition as to earnings this procedure will be followed unless objection is made.

Since the fall of 1920 the personnel of the Wilmington Main Office, Fabrikoid Division, Production Department, has shrunken by 50%.

—2—

FABRIKOID PLANTS

Construction appropriations authorized:—

Newburgh	—Major Construction—	0
"	—Minor Construction*—	$2,100.00
Fairfield	—Major Construction—	0
"	—Minor Construction*—	0
Amount authorized during April—		$2,100.00
Amount previously authorized this year—		$4,813.34
Amount authorized to date this year—		$6,913.34

* Because Accounting Department records from which these figures are compiled are never available at the time of writing the report, Minors taken up on the Accounting Department books during the previous month are shown.

For the first time in many months net receipts for the Fabrikoid Industry (Newburgh and Fairfield grouped together) show in black. Although there is a special reason for this (Ford orders) the condition is nevertheless very welcome. April Fabrikoid profits from sales of both finished product and dyed goods totaled $168,079; deducting the write-down upon grey goods received in April upon contracts made a year ago reduces this figure to the month's net of $130,775.

In addition to grey goods consumed in manufacture, substantial reductions in fabric investments took place. The Ford Company purchased large yardages of grey goods, which we dyed before shipping. Part of the dyed goods shipped to Ford in April was purchased from us by Ford in July 1920. The price was so far above current prices that the average for the entire month's shipments of grey and dyed fabrics, totaling 1,636,312 yards, shows in black to the extent of $72,325. Also, large consignments of incoming stocks purchased more than a year ago were found so defective as to prevent acceptance, and it is understood that the Purchasing Department was able to prevent replacement of these defectives, although the original purchase price was far above the present market. Considerable sales of obsolete materials were also made.

The Promotion Bureau, installed February 1st, is producing results beyond our expectations. Its first product, Fabrikoid window shade material (nearly completed before the formal installation of the Bureau but resulting from procedures similar to those of the Bureau) is now well established, with orders coming in at the rate of one-quarter million yards per year. A series of Fabrikoid mine products, nearly ready for the market, appear to have possibilities running into the millions of yards annually, in a field which has formerly not been touched by leather substitutes. These mine products comprise rubber tubing for supplying fresh air ("Vent Tubing"), rubber curtains for preventing the spread of fire ("Brattice" sheeting), and pyroxylin coated coverings for washing tables ("Minefab"). Not since the days when Fabrikoid for automobile upholstering was being developed has the outlook for expansion of our product into new lines with large yardage possibilities been so bright.

—3—

NEWBURGH

Calculating in the usual way upon the basis of finished product only, Newburgh ran at 14% capacity, compared with 15% for March, 13% for February, and 7% for January. However, while the Ford Company took none of Newburgh's finished product, Newburgh profited thru dyeing of Fairfield's Ford goods and dyeing of grey goods purchased by Ford, to such an extent as to raise the April total plant activity by 50% beyond the figures given above, when this extra dyeing is reduced to stad values.

The following figures show pay and salary roll charges per unit of product compared for different dates:—

	Average Weekly Stads Produced	Plt Payroll Cost per Stad	Plt. Salary Roll Cost per Stad	Total Plt. Pay & Sal. Roll Cost per Stad
January 1920	235 356	$.0737	$.019	$.0927
July 1920	134 174	.1011	.033	.1341
4 Wks. ending Feb.26, 1921	44 000	.148	.034	.182
4 " " Mar.26, 1921	56 000	.124	.029	.153
5 " " Apr.30, 1921	74 060	.0952	.021	.1164
3 " " May 21, 1921	41 660	.0992	.022	.1212

May's efficiency showing to date is not so satisfactory as April's. April was favored by an unusually large proportion of the stads produced being of the bulk rather than the specialty type, as well as the total stads being swelled by the Ford dyeing above referred to. However, further economies have been made, and others are in contemplation.

FAIRFIELD

Operated at 49% capacity, contrasted with 8% for March, 3% for February and 11% for January.

The outstanding feature for Fairfield is the emphatic swing of its profit statement over into black. Appreciable orders for the general trade, including General Motors, were received, but of course the belated release of Ford 1920 orders was the one important reason. In considering Fairfield's April book earnings of $93,000 it should be noted that these were calculated from the present written-down values for stocks. The original Ford Fairfield orders ~~were~~ taken in 1920 at a very narrow margin of profit, as calculated from actual cost. All stocks in connection therewith, in either the finished, semi-finished, or essential material forms, being on hand December 31, 1920, were written down on our books and April profits calculated from those written-down figures. As a partial off-set to April's profits there should be mentioned the April transfer of 130,000 yards from firsts to seconds. The charges have not yet been figured, but will probably total $40,000 and appear against some of the summer months. These were goods manufactured in 1920 upon orders in hand but with shipments suspended by customers. The deterioration of rubber products upon storage is well known, but the yardage to be transferred to seconds is determinable only upon re-inspection. This is made only at time of shipment since deterioration is progressive, and therefore any protracted period of storage before shipment always makes necessary re-inspection at time of shipment.

Comparative pay and salary roll charges at Fairfield are:—

	Average Weekly Yds Produced	Plt. Payroll Cost per Yd.	Plt. Salary Roll Cost per Yd.	Total Plt. Pay & Salary Roll Cost per Yd.
January 1920	170 360	$.045	$.0065	$.0515
April 1920	123 700	.058	.0093	.0673
September 1920	51 920	.079	.0280	.1070
4 wks. ending Mar. 1, 21	8 000	.147	.0350	.1820
4 " " Mar 28, 21	27 000	.057	.0190	.0760
5 " " May 3, 21	101 940	.0415	.0071	.0486
3+" " May 24, 21	27 820	.0489	.0152	.0641

Factory operation at 49% of capacity represented almost a return to normalcy and was the main factor in reducing plant costs. The Plant Manager, Mr. Cathcart, very creditably handled the difficult problem presented by increasing operations from the March 8% of capacity to April's 49%.

¶ The Sales Department is now securing for Fairfield nearly all the General Motors orders for rubber coated fabrics. With the community of interests which exist between that Corporation and our own, it would appear that some plan should be worked out whereby this condition should be made permanent and the profits from the manufacture of rubber coated fabrics retained within our organizations. ¶ For instance, at date of writing, General Motors' actual production, all plants combined, is in the neighborhood of one thousand cars per day, consuming, very roughly, 16,000 yards of products which can be made at Fairfield. 16,000 yards per day would consume 64% of Fairfield's capacity. Entirely apart from the point of preventing profits going outside, production of these goods would introduce a stabilizing element into that plant's operations which would be beneficial in every way and of course tend to reduce costs.

¶ Two years ago we started a fixed program of giving the best product and catering generally to the wishes of General Motors units in an endeavor to overcome the latent resentment which we experienced at the outset against the partial obligation under which the General Motors units felt themselves to be with respect to using our goods. Both Sales and Production departments have concentrated upon our standing with General Motors; we believe that the object sought has been accomplished and that today Fairfield is "solid" with General Motors. In general, our reports are that our products are considered by the several General Motors units as equal or superior to those of competitors, and in addition we have at some slight increase in cost to ourselves, sent out our product in a form somewhat better adapted to the factory practices of the General Motors plants than have some of our competitors. Therefore the time appears to have arrived when we might capitalize this condition by some arrangement insuring to us all the General Motors' purchases which we can handle.

PARLIN

Construction appropriations authorized:

Major Construction—	0
Minor Construction*—	$2,757.00
Amount authorized during April—	$2,757.00
Amount previously authorized this year—	$131,913.00
Amount authorized to date this year—	$134,670.00

* Because Accounting Department records from which these figures are compiled are never available at the time of writing the report, Minors taken up on the Accounting Department books during the previous month are shown.

Comparison of percentages of capacity operated:

	April	March	February	January	December
Nitrocellulose	20%	14%	5%	3%	2%
Solvents	17%	12%	7%	12%	3%
Mixtures	20%	20%	12%	11%	9%
Bronze Powder	48%	31%	16%	10%	1%
Purified Cotton	11%	3%			
Whole Plant taken as a Unit	19%	15%	8.6%	10%	6%

The increase in production of nitrocellulose and solvents was chiefly due to Ford orders, including both orders received direct by Parlin and orders placed by Ford with Parlin's customers.

Pay and salary roll charges per average unit of product, while not strictly comparative because of the wide difference in the nature of the products, show:—

NOTE: The pages of the attached report are numbered by stamp at the bottom from 17 to 21, inclusive, and "gmc-1050" is written at the bottom of each page of the report. "+" on page 4 is handwritten. Paragraph symbols on p. 4 are handwritten. Line at end of first sentence of last paragraph on page 4 is hand-drawn.

Government's Exhibit No. 418

EXCERPTS—

Wilmington, Delaware
October 27, 1923

TO: EXECUTIVE COMMITTEE

FROM: CELLULOSE PRODUCTS DEPARTMENT

MONTHLY REPORT—CELLULOSE PRODUCTS DEPARTMENT—SEPTEMBER, 1923

Eliminated

4 2088

New Accounts Gained

Geo. R. Carter Co., Connersville, Ind.	order for	5,000 yards
Miller-Closman Co., Philadelphia, Pa.	" "	1,000 "
Thomas G. Plant Co., Boston, Mass.	" "	300 "
Buffalo Trunk Co., Buffalo, N. Y.	" "	3,800 "
Franklin Leather Goods Co., N.Y.C.	" "	5,000 "

COMPETITION:

The competition continues to be most severe on Sheetings. Development here is not only along the lines of lower prices on standard quality but the offering of goods of special construction.

In connection with the sale of heavy fabrikoid two important developments have just taken place in connection with the sale of 6200 (heavy) quality to Chevrolet. In the first place, following the reduction of the price of Chevrolets last month, the Chevrolet Motor Company in turn called on all their suppliers to assume a share of the burden, and this resulted in Newburgh taking a reduction of 6% in the contract price on this quality, even tho there was a firm contract with Chevrolet which ran to the end of the year. Immediately following this development Chevrolet served notice on us that they were offered a contract over the first six months of 1923 on their rubber and on this same 6200 quality. The price was still lower than the reduced price just referred to and this in the face of a strong and strengthening cotton market. It was decided advisable to meet this situation with regard to the leather, but the rubber item was left open.

MISCELLANEOUS:

Smokeless Powder

Newburgh consumed 87,498 pounds of Smokeless Powder during September, making a total of 1,717,177 pounds consumed since January 1922.

P-6

TREND OF BUSINESS:

At the end of September Parlin's unfilled orders totalled $245,358 for delivery within 60 days. This compares with August of $190,561.

New Accounts Gained

10 lacquer accounts	— estimated annual consumption	5,400	gal.
5 enamel "	— " " "	3,200	"
3 bronzing liquid	— " " "	2,000	"

The increase in sales of Duco and Viscolac is offsetting and overcoming the halt and decline in Parlin's regular lines.

PROMOTION OF NEW LINES (MANUFACTURE AND/OR SALES):

Duco for Automobiles

The campaign to promote the sale of Duco is now producing more tangible results. Orders from Oakland in September amounted to $45,000. Active interest in this finish is also noted from other prominent automobile makers. Our own efforts have been supplemented by remarkable free publicity in the trade journals.

It was learned that during September the Franklin Company received orders from various sections of the country for 15 cars on which customers specified Duco finish. This is ascribed to this publicity and the appearance of the Duco finished Oaklands.

Franklin, Chandler, Moon, Jordan and Cleveland are the most active companies (outside of General Motors) experimenting with Duco at present. The prospects for selling Cleveland at an early date are good. Demonstrations at Hupp and Moon were successful and both have asked for assurance that an uninterrupted supply of Duco in the required quantities is available.

The solvent situation is the fly in the ointment. This necessitates confining promotion work to those companies who have asked for demonstrations and not offering Duco to the trade in general.

Oakland is using Duco exclusively on their open models

and is asking Fisher Body Corp. to use it on Oakland closed bodies. Gradual improvement is noted at Oakland in the finish obtained with Duco as the workmen become more skilled in handling it. Slight modifications in the formula are also adding to the appearance of the finish and probably to its durability.

Any apprehension that may have been felt by General Motors and Parlin as to the reception by the trade and the public of the satin semi-gloss finish with Duco on the Oakland cars is dispelled by the enthusiastic reports from Oakland distributors from all over the country and the repeated urgings that Duco be used on the closed as well as the open models.

A renewal of interest in Duco is noted at both Olds and Buick. About 10 cars per day in Duco are planned by Buick in order to hold the interest of their men and to gain experience in the handling of Duco and learn more about its qualities.

Duco to match a new weathered bronze shade desired by Olds for sport models has been submitted and will probably be used in October. Olds hopes to attain the sales of 50 sport models per day in this color.

The publicity given Duco has also resulted in wide spread interest in the refinishing field. This is somewhat embarrassing as no way has yet been developed of serving this trade economically. The annual sales to even a large firm in the refinishing business are so small and the proper application of Duco involves such training even after the first demonstration that the expense of handling these accounts is prohibitive. Duco prices to the refinishers already established have been advanced nearly 50% to $5.75 per gallon.

During September a substantial order was received.

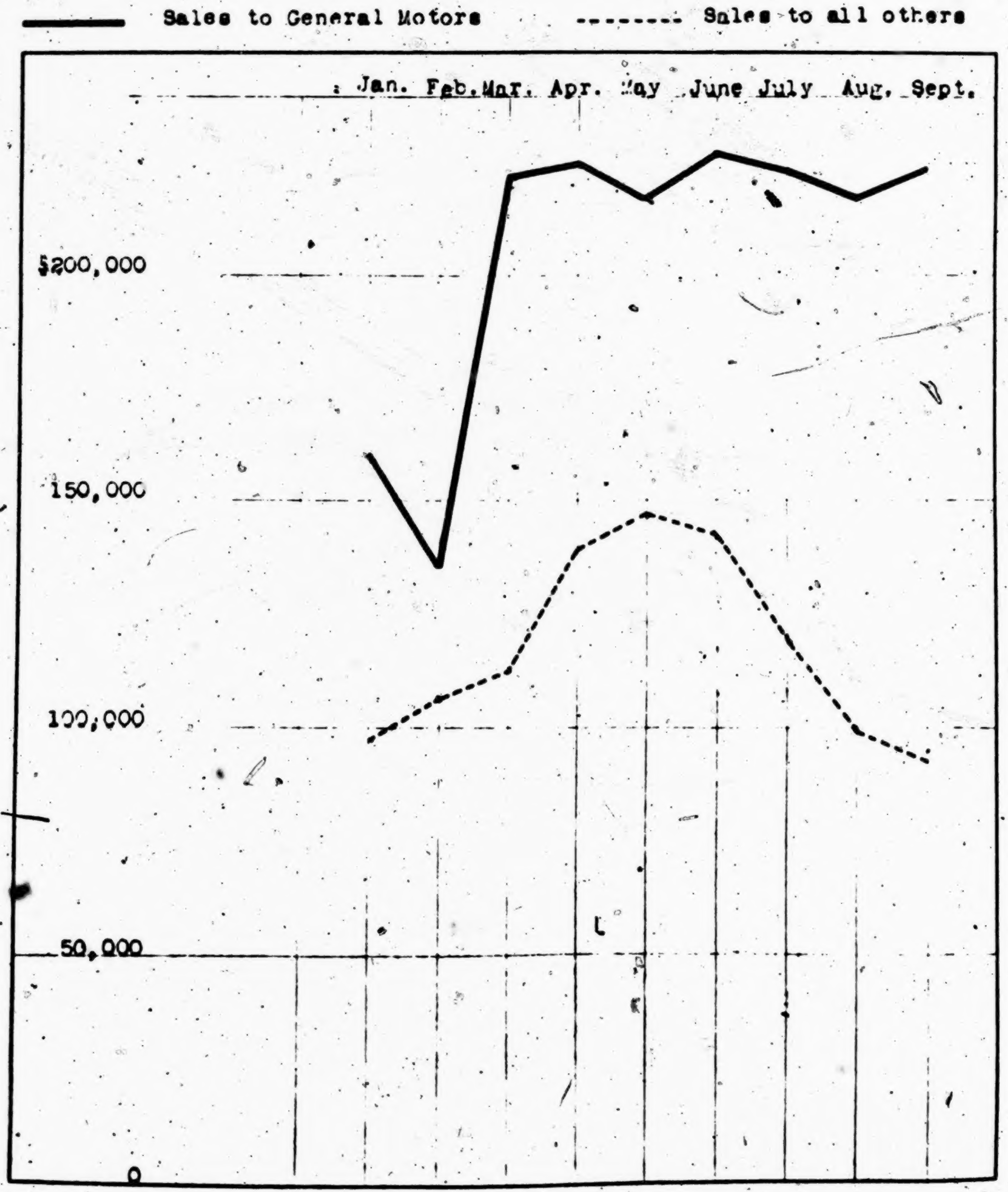
NOTE: "gmc-1058" is written in lower right of first three pages of Excerpts. Lines in right margin of second page are by hand. Italics indicate handwriting.

FAIRFIELD

General Motors Business vs. All Other Trade

January to September, 1923 Inclusive

4007



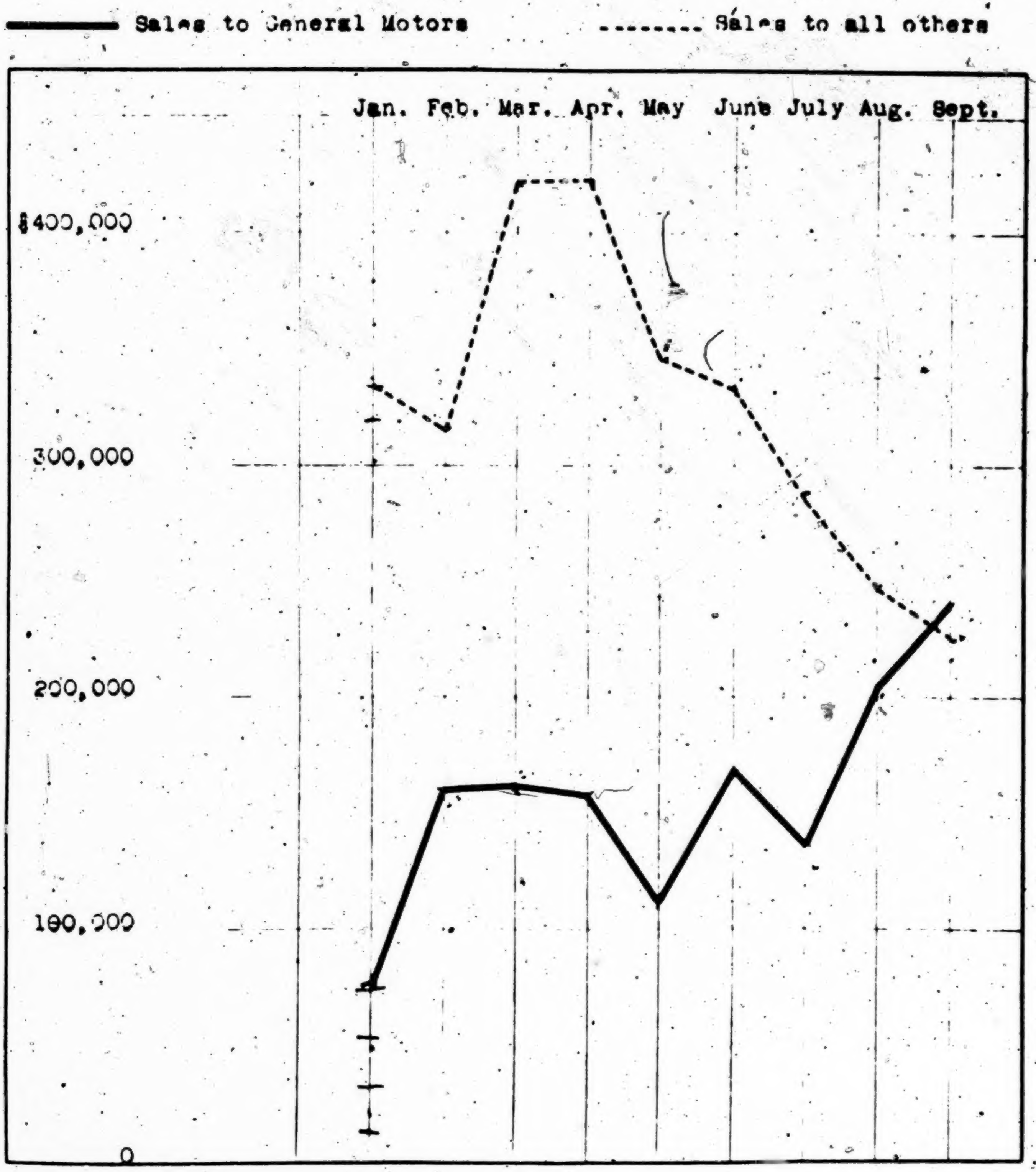
7

4008

NEWBURGH

General Motors Business vs. All Other Trade

January to September, 1923 Inclusive



Government's Exhibit No. 419

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
SALES DEPARTMENT
WILMINGTON, DELAWARE

GENERAL DIRECTOR OF SALES

August 12th, 1921.

MR. LAMMOT DU PONT, VICE-PRESIDENT,
BUILDING.

Business relations with General Motors on DuPont Products

Referring to your verbal inquiry and Mr. Pickard's letter of August 2nd, it is the opinion of our Pyralin Division Sales organization that we are securing 100% of General Motors Pyralin Sheeting business, and have no basis for any complaint as regards co-operation, etc.

C. W. PHELLIS, GENERAL DIRECTOR OF SALES
C W Phellis

CWP:NAM

NOTE: "Received Aug 12 1921 Lammot du Pont" is stamped at top and "Return to Executive Committee Room 9069" is stamped at bottom of page. "X-1100" and "8" (with a check mark) are written at top of page. "GMC 1530" is written at bottom of page. Italics indicate handwriting.

Government's Exhibit No. 420

August 10, 1921.

MR. P. S. DU PONT, CHAIRMAN,
BOARD OF DIRECTORS:

Sometime ago you inquired whether General Motors was taking its entire requirements of du Pont products from du Pont. My understanding at that time was that they were not. I have made inquiry and find the situation at present is as follows: (O.K. means that du Pont is enjoying all the business in their respective lines. Where I specify "No reason," there appears to be no reason for General Motors withholding the business from us. Where I say "With good reason," there is a logical explanation).

	Paint and Varnish	Fabrikoid	Rubber Cloth	Transp. Pyralin
Cadillac	Very little No reason	O.K.	O.K.	O.K.
Buick	O.K.	O.K.	60%	O.K.
Olds	O.K.	Part No reason	O.K.	O.K.
Oakland	50% No reason	O.K.	Part With reason	O.K.
Chevrolet	O.K.	O.K.	O.K.	O.K.
Scripps-Booth	None	None	None	O.K.
Fisher Body	None			
G.M.Truck	O.K.	O.K.	O.K.	O.K.

Sales Department seems to feel that the condition is improving and that eventually satisfactory conditions will be established in every branch, but they wouldn't mind seeing things going a little faster.

I am enclosing letter from Mr. Pickard and memorandum of Mr. Lindsey giving more details, if you care to go into them.

VICE-PRESIDENT.

LduP/MD

NOTE. "Return to Executive Committee Room 9069" is stamped at bottom of each page.

Government's Exhibit No. 421

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK, N, Y.

OFFICE OF THE PRESIDENT

August 23, 1921

Lammot duPont, Vice President,
E.I.duPont de Nemours & Company,
Wilmington, Del.

My dear Lammot: .

Your letter of August 10th was received shortly before I left for my vacation. It would seem from your summary that the Flint paint and varnish and fabrikoid interests are doing pretty well with General Motors, Scripps Booth being the only division that does no business with these companies. However, Scripps Booth is a small part of the General Motors and may be disregarded for the present.

With the change in management at Cadillac, Oakland and Olds, I believe that you should be able to sell substantially all of the paint, varnish and fabrikoid products needed; especially is this true of Cadillac.

A drive should be made for the Fisher Body business. Is there any reason why they have not dealt with us?

Very truly yours,

/s/ P. S. DU PONT
President.

1/*m

Mr. Pickard:

Please note for your information. This is the result of the data which you obtained for me. Can you answer the question in the last sentence?

L. du Pont.

9/1/21

O.K. Fisher in process. If no results in 60 days will let you know.

FWP

NOTE. Italics indicate handwritten entries. There is check-mark before Mr. Pickard at bottom left. Lines have been drawn through addressee caption at top and there are Received and Answered stamps of Lammot du Pont. At bottom is stamped "Return to Executive Committee Room 9069".

Government's Exhibit No. 422

September 2, 1921.

Mr. P. S. du Pont, President,
General Motors Corporation,
New York City.

Dear Pierre:

I have your letter of August 23d in regard to use of du Pont products by General Motors Corporation.

There appears to have been no real reason why the Fisher Body Corporation has not used Flint Varnish Company products, but in the recent past the subject was taken up actively, and after a conference between Mr. Sohlinger of the Flint Company, and Mr. Fisher, it was agreed that the Flint products would be tried out, and these tests are now in progress. There is every expectation that Fisher Body will in future use our products.

Sincerely yours,

LduP/MD

Note. Following stamps appear: "File Copy" and "Return to Executive Committee Room 9069".

Government's Exhibit No. 423

September 12, 1924.

Mr. Z. Phelps,
Development Department,
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. Phelps:

Referring to your inquiry of August 27th as to the amount of ethyl alcohol used by General Motors Corporation, beg to advise that from information supplied me it would appear that 75,000 gallons per year would cover General Motors' requirements.

In addition to the above, the Fisher Body Corporation—in which, as you know, General Motors has a controlling stock interest but does not control from a management standpoint—has a requirement of approximately 50,000 gallons per year.

Trusting this information is in sufficient detail,

Very truly yours,

Vice President.

JLP:V

Note: Check mark appears above "27th" in the first line.

Government's Exhibit No. 424

September 11th, 1919.

To: FINANCE COMMITTEE

FROM: CHAIRMAN

In accordance with the informal approval of the majority of the members of the Finance Committee of General Motors Corporation I have today written a letter to the Fisher Body Corporation, copy of which is attached hereto, making them a definite offer for a three-fifths interest in the Fisher Body Corporation.

It is my hope that this offer will be accepted by them and their decision known before the next meeting of the Finance Committee at which meeting formal action should be taken on this matter.

J. J. Raskob

7/TL

NOTE: An oval stamp appears in the center with the number 105. At the bottom appears the handwritten words "Explain 10% of Profits as Com and Managers for operation". Italics indicate handwriting.

Government's Exhibit No. 425

Wilmington, Delaware.
September 11th, 1919.

F. J. Fisher, President,
Fisher Body Company,
Detroit, Michigan.

Dear Mr. Fisher:

Referring to our recent conferences I now submit the following offer for your consideration:

I understand the Fisher Body Corporation is a New York Corporation and under its charter and the laws of the state of New York it is possible to increase its authorized common stock from 200,000 shares of no par value to 500 000 shares and to offer new stock for sale without opportunity on the part of the stockholders to purchase.

If your corporation will increase its capital the General Motors Corporation will offer to purchase 300 000 shares of common stock of no par value at $92.00 per share, payable in cash, and as a further consideration will agree to give to the Fisher Body Corporation immediately such of its closed body business as it is able to handle now and in the future. The price of the work the Fisher Body Corporation does for the General Motors Corporation is to be determined by you and Mr. Durant; our present feeling being that the work should be billed at cost plus 12 to 18% thereof depending upon the grade of the work, the thought being that the percentage will be fixed so that the net result to the Fisher Body Corporation on all General Motors Corporation work will be to net 15% on sales cost to you. It is understood, however, that in no case shall the General

Motors Corporation be charged more for product sold to it than is charged for your products sold to others.

The Fisher Body Corporation will immediately purchase from the General Motors Corporation $27 000 000.00 of its 6% notes—$5 000 000.00 of which shall mature with the maturies of the present outstanding $5 000 000.00 of the Fisher Body Corporation notes recently sold and of the balance $1 000 000.00 shall mature on November 1st, 1919, and $1 000 000.00 each month thereafter until all of the notes are paid. Interest on the notes shall be payable quarterly.

It is agreed that at least 251 000 shares of Fisher Body Corporation stock, which will then represent a majority of the stock then issued and outstanding to be supplied by the General Motors Corporation and the present managing stockholders shall be placed in a voting trust under which there shall be four trustees consisting of two to be named by you and Messrs. W. C. Durant and Pierre S. du Pont representing the General Motors Corporation. In case of vacancy in the trustees the vacancy shall be filled by the side whose trustee is thus lost.

There shall be fourteen directors consisting of the seven members of the Finance Committee of the General Motors Corporation and seven members to be chosen by you which fourteen directors shall serve for one year and until their successors are elected and qualified.

It is understood that the voting trustees and the directors will be told that it is the desire of the majority stockholders that the Fisher Body Corporation stock be put on a dividend basis of $10. per share per annum payable quarterly and continued on this basis for at least five years provided, however, that the payment of such dividend will not require more than two thirds of the company's earnings after deducting taxes, note interest and preferred stock dividends.

It is suggested that the Board of Directors of the Fisher Body Corporation have an Executive Committee in complete charge of the operations of the company except finances, the responsibility of which shall be lodged with the Finance Committee in order to lift this burden from the management and operation of the company. It is further suggested that the Executive Committee consist of seven members, two of whom shall be chosen from the General Motors Corporation and the balances from the Fisher Body Corporation and that the Finance Committee consist of five members, three of whom shall be selected from the Finance Committee of the General Motors Corporation and two from the present management of the Fisher Body Corporation.

CLEVELAND SITUATION. We understand that a certain group in Cleveland have made a proposition to the Fisher Body Corporation under which it is proposed that they form a company supplying $10 000 000.00 for the treasury of such company through sale of its senior securities and give to the Fisher Body Corporation 51% of common stock of the company in consideration of the Fisher Body Corporation supplying the management of the Cleveland Company in building automobile bodies which will be its sole business. I understand further that while there may be no legal obligation to continue with this matter you feel that negotiations have been carried on seriously and to a point where there is a moral obligation on your part, but that it is likely that the Cleveland people will be willing to drop the whole matter if our negotiations are consummated. It is our desire that everything be done to have this whole matter dropped and with a view to accomplishing this that you will visit Cleveland, explain the new condition to the Cleveland group and endeavor to close that matter up. In the event, however, of failing in this and you still feel morally bound to go ahead the Fisher Body Corporation will continue the negotiations along the lines indicated with a very distinct understanding, however, that under no circumstances will any division of territory be considered and agreed to informally or otherwise.

ACCESSORY PLANTS. We understand that there are three accessory companies not owned by the Fisher Body Corporation which it is desirable to acquire and which are friendly, to-wit:

The Turnstead Manufacturing Company which manufacture window regulators, curtain rollers, etc.

The International Stamping Company which does stamping work principally stamping metal doors and supplying perhaps 75 to 80% of the stamped doors of this quality made in this country; also high class automobile fenders.

The Shepard Art Metal Company which manufactures interior ornamental fixtures, silver and gold plating and enameling.

It is felt that these companies should be taken over by the Fisher Body Corporation and that negotiations to this end will be started as soon as possible after the consummation of the present deal.

If the above proposition is acceptable to you my suggestion is that our counsel, John T. Smith, get into immediate communication with your lawyers with a view to doing all of the things necessary to quickly consummate the deal it being understood that many details of minor importance will arise and be straightened out in such conference.

Assuring you of my appreciationof the frank discussion and courteous treatment received at the hands of Mr. Mendelssohm and your goodself and with kindest personal regards, I remain

Sincerely yours,

Chairman

7/ET

NOTE: (Copy) appears in the center.

Government's Exhibit No. 426

September 25, 1919.

General Motors Corporation,
New York City.

Dear Sirs:-

I. Referring to the letter of your Chairman addressed to F. J. Fisher, President of Fisher Body Corporation, dated September 11, 1919, and to the subsequent conferences which the undersigned have had with your representatives, we confirm that the proposition for the acquisition by the General Motors Corporation of a block of common stock of the Fisher Body Corporation will be satisfactory to us and will receive our active cooperation and support.

II. We own or control at present approximately 140,000 shares, or 70 per cent., of the outstanding 200,000 shares of no par value common stock of the Fisher Body Corporation, which is a corporation organised under the laws of the State of New York, having at present outstanding, in addition to the said common stock, approximately 41,000 shares of Seven Per Cent Cumulative Preferred Stock. We are advised that under its charter and the laws of the State of New York it has the power, by consent of three-fifths of each class of its stockholders, to increase its authorized common stock to 500,000 shares having no par value, and to offer the 300,000 shares of new common stock thus created for sale without first offering the same for subscription by the stockholders of the Corporation.

III. Subject to the action of stockholders in authorizing the increase of its capital stock, in favor of which we shall vote our stock, we agree to cause Fisher Body Corporation to sell to General Motors Corporation 300,000 shares of its common stock having no par value at the price of $92 per share, provided that General Motors Corporation will simultaneously enter into an agreement with the Fisher Body Corporation to give to the latter Corporation forthwith all of the open and closed body business of the General Motors Corporation which the Fisher Body Corporation may be able to handle now and in the future, provided, however, that the General Motors Corporation shall have the right to continue to manufacture its own open bodies in existing plants to the same extent as they are at present doing and that any contracts at present existing for bodies shall not be renewed but shall run to maturity unless they can be cancelled to mutual advantage. Such agreement shall be in writing, shall provide in substance that the price to be paid by the General Motors Corporation for bodies thereunder shall be regulated according to the grade of the work, but in such manner that the average net profit to the Fisher Body Corporation on all such work will be 17.6 per cent. on cost price; provided that in no case shall the General Motors Corporation be charged more than is charged to other customers for like products; and said contract shall in other respects be in form satisfactory to our respective counsel.

IV. Payment for said 300,000 shares of the stock of the Fisher Body Corporation shall be made by the General Motors Corporation as to 10 per cent. thereof in cash; as to the balance, by the delivery to the Fisher Body Corporation of notes of the General Motors Corporation, bearing interest at the rate of six per cent. per annum, $5,000,000 of which shall mature with the maturities of the present outstanding $5,000,000 Six Per Cent. Serial Gold/Notes of the Fisher Body Corporation, and as to the balance $1,000,000 thereof on or before November 1, 1919, and $1,000,000. thereof on or before the first day of each month thereafter until all of the notes shall have been paid. Interest on said notes shall be payable quarterly commencing October 1, 1919.

V. Upon the purchase of said 300,000 shares of common stock of the Fisher Body Corporation by General Motors Corporation, all of said 300,000 shares together with 35,000* shares of the common stock of the Corporation now held by us shall be deposited with the Trustees under a Voting Trust Agreement, in form mutually satisfactory to your counsel and to ourselves, whereby the right to vote said stock for five years shall be placed in four Trustees, who in the first instance shall be Messrs. F. J. Fisher and Louis Mendelssohn, representing the undersigned, and Messrs. W. C. Durant and Pierre S. duPont, representing the General Motors Corporation. In case either of said two Trustees representing the undersigned shall die, his successor shall be named by his executors or administrators; in case he shall cease to act for any other reason, he shall name his own successor. In case either of the Trustees representing the General Motors Corporation shall for any reason cease to act, his successor shall be named by the General Motors Corporation and their successors if any, shall be likewise chosen.

VI. Provision shall be made by appropriate amendment

* This figure secured over phone from Mr Robertson of J. T. Smith's office 7/6/20

of the by-laws of the Fisher Body Corporation for a board of fourteen directors, and it is agreed, and the Voting Trust Agreement shall provide, that the voting Trustee shall vote the stock of the Corporation held by them for a board consisting of seven members to be nominated by the Finance Committee of the General Motors Corporation, and seven members to be nominated by F. J. Fisher and Louis Mendelssohn, and that said stock shall be similarly voted at each succeeding meeting for the election of directors during the continuation of the voting trust.

VII. It is further agreed that effective provision shall be made by appropriate amendment of the by-laws of the Fisher Body Corporation so that not less than two-thirds of the net earnings of the Corporation in each fiscal year, after deducting taxes, interest and preferred stock dividends, shall be distributed in dividends to the common stock until such stock shall have received at least a dividend of $10 per share during such year; such provision to continue for at least five years. This amendment of the by-laws shall be adopted by the Stockholders at the special meeting called to authorize the increase of capital stock, and the Certificate of Incorporation of the Fisher Body Corporation shall at the same time be so amended as to provide that this amendment of the by-laws shall not be amended, repealed or otherwise altered except by a majority vote of the stockholders.

VIII. Provision shall be made by amendment of the by-laws of the Fisher Body Corporation, in form mutually satisfactory to you and ourselves, for the creation of an Executive Committee which shall have complete charge of the operations of the

Corporation, except finances. Such Committee shall consist of seven members, two of whom shall be chosen from the representatives of the Board of the General Motors Corporation, and the balance from the members of the Board nominated by Messrs. Fisher and Mendelssohn. Provision shall further be made for a finance Committee, to consist of five members, three of whom shall be selected from the members of the Board nominated by the General Motors Corporation and two from the members of the Board nominated by Messrs. Fisher and Mendelssohn, of whom one shall be Louis Mendelssohn so long as he shall be a director. Such Finance Committee shall have general charge of the financial affairs of the Corporation, subject however to the control of the Board of Directors.

IX. A certain group in Cleveland have made a proposition to the Fisher Body Corporation under which it is proposed that they form a company supplying $10,000,000 for the treasury of such company through sale of its senior securities, and give to the Fisher Body Corporation 51 per cent. of the common stock in consideration of the Fisher Body Corporation supplying the management of such company in building automobile Bodies, which will be its sole business. It is understood that this negotiation will be dropped if possible, but that in the event that we shall feel either legally or morally bound to proceed, th Fisher Body Corporation will continue the negotiations along the lines indicated, provided, however, that under no circumstances will any division of territory between the new Cleveland corporation and the Fisher Body Corporation be considered or agreed to, informally or otherwise.

X. There are three accessory plants not owned by the Fisher Body Corporation which it is desirable to acquire and the ownership of which is in friendly hands. to-wit:

> The Ternstead Manufacturing Company, which manufactures window regulators, curtain rollers, etc.
>
> The International Metal Stamping Company, which does stamping work principally, stamping metal doors and supplying perhaps 75 or 80 per cent of the stamped doors of this quality made in this country; also high class automobile fenders.
>
> The Shepard Art Metal Company, which manufactures interior ornamental fixtures, silver and gold plating and enameling.

We understand it is felt that these companies should be taken over by the Fisher Body Corporation, and negotiations to this end will be started as soon as possible after the consummation of the plan for the increase of capital and other matters herein specified.

Upon receipt of your confirmation of the terms of this letter, which in some respects modified the letter of your Chairman to Mr. Fisher of September 11, 1919, and that you are prepared to purchase 300,000 shares of the no par value common stock of the Fisher Body Corporation for the price and upon the terms and conditions herein set forth, we will proceed forthwith to initiate the necessary corporate proceedings for the increase of the capital stock of the Corporation, and will consummate said sale and all the other matters herein referred to as soon as practicable.

Yours very truly,

Government's Exhibit No. 427

September 25, 1919.

Messrs. F. J. Fisher,
Charles T. Fisher.

Dear Sirs:

Referring to the letters exchanged between this Corporation, on the one part, and yourselves together with Messrs. Louie Mendelssohn and Aaron Mendelson, on the other part, dated September 25, 1919, which provide for the increase of the capital of the Fisher Body Corporation, the purchase by this Corporation of 300,000 shares of the no par value Common stock of said Corporation, and for the reorganization of its Board of Directors, this is to confirm our understanding that upon the consummation of our purchase and the reorganization of said Board of Directors as therein provided, and in view of the great expansion of the business of the Fisher Body Corporation which will follow, a contract or contracts are to be entered into between Fisher Body Corporation and yourselves whereby, in addition to your present salaries, there shall be paid to you, for the period of five years 5 per cent of the net profits of the Fisher Body Corporation in each year, before deducting Federal taxes or reserves for Federal taxes, special compensation of 5% to four Fisher boys under existing contract, and before payment of any dividends, and with normal allowances for depreciation; such sum to be divided among you as you may determine, as part compensation for your services to the Corporation in your respective positions connected with its management, or if you so direct any portion of said sum to be paid to any other person or persons connected with the management of the Company. At the same time your present contracts of employment are to be so modified as to give you the option of terminating the same at the end of five years.

Yours very truly,

Government's Exhibit No. 428

FISHER BODY CORPORATION

New York, October 18, 1919.

To the Holders of Preferred and
Common stock of Fisher Body Corporation:

You will receive herewith notice of a special stockholders' meeting to be held November 6, 1919, to act upon a recommendation of the Board of Directors that the authorized amount of the common stock of the Corporation having no par value be increased from 200,000 shares to 500,000 shares, and that the Certificate of Incorporation and by-laws of the Corporation be amended in the respects specified in said notice.

Your directors proposed to sell the additional 300,000 shares of common stock to General Motors Corporation at the price of $92 per share, and at the same time to enter into a manufacturing agreement whereby General Motors Corporation will agree to give to your company substantially all of its open and closed body business which your company can handle except to such extent as General Motors Corporation now carries on such business at its own and affiliated plants or under existing contracts, the basis of such agreement to be cost plus an agreed manufacturing profit.

Your directors feel sure that the close business relations with the General Motors Corporation which will thus be established will be of great advantage to your company and to all its stockholders. The new capital provided by the sale of the 300,000 shares of common stock will, it is estimated, be sufficient to provide for all present needs of the greatly increased business afforded by the proposed manufacturing contract, as well as to retire at maturity the present outstanding Serial Gold Notes of the company.

The financial position of your company will be improved, not only by the proceeds of the sale of the new stock, but also through the advantages which will come from close affiliation with an organization of great strength.

Page 2

General Motors Corporation has been and is one of your company's principal customers, and continuity of the demand for our products will now be assured. The immediate result of the proposed arrangement will be a substantial increase in production through the erection of additional facilities already planned.

By acquisition of the new capital and the establishment of the proposed new facilities the asset value of the common stock will be measurably increased upon the consummation of the sale, while the position of the preferred stock will be immensely strengthened. The by-laws of your company are to be amended so as to provide for at least five years from October 1, 1919, two-thirds of the net earnings of the company, after all fixed charges, including preferred stock dividends and sinking fund requirements, will be paid in dividends to the holders of the common stock until they have received dividends at the rate of at least $10 per share per annum. The greatly increased earnings which may reasonably be anticipated from the use of the new capital and expansion of business, applied under this by-law, which cannot be altered except by stockholders' vote, should provide a prompt and satisfactory dividend basis for the common stock.

A Voting Trust will be created which will insure for at least five years from October 1, 1919, the continuity of the present operating management, and of the other features of the proposed transaction outlined above.

Your directors have no hesitation in expressing their gratification at the proposed arrangement, and in urging all holders of stock, preferred as well as common, to approve the increase of capital, and the amendments of the Certificate of Incorporation and by-laws referred to in the accompanying notice of meeting.

Fred J. Fisher,
President.

By order of the
Board of Directors.

Government's Exhibit No. 429

GENERAL MOTORS CORPORATION
OFFICE OF THE SECRETARY

FILE NO. 1889

BETWEEN Fisher Body Corporation OF Detroit, Mich.

AND
Fred J. Fisher — Detroit, Mich.
Louis Mendelssohn OF "
W. G. Durant — New York, N. Y.
Pierre S. duPont — "

SUBJECT Voting Trust Agreement Covering stock of Fisher Body Corporation.

DATE November 24, 1919

TERM To October 1, 1924

TIME FOR PERFORMANCE

AMOUNT

METHOD OF PAYMENT

OPINIONS, NOTICES AND REMARKS

RECEIVED FROM — SECRETARY BY LWC

RECORDED AND NUMBERED — COMPTROLLER BY *H Howe*

INDEXED December 22, 1924 — SECRETARY BY LWC

FISHER BODY CORPORATION

OWNERS OF STOCK IN FISHER BODY CORPORATION

AND

FRED J. FISHER
LOUIS MENDELSSOHN
W. C. DURANT
PIERRE S. DU PONT
VOTING TRUSTEES

VOTING TRUST AGREEMENT

Dated November 24, 1919.

AGREEMENT, made in the City of New York, the 24th day of November, 1919, between such OWNERS OF STOCK IN FISHER BODY CORPORATION, as may become parties to this Agreement, in the manner hereinafter provided (hereinafter termed Stockholders), parties of the first part, and FRED J. FISHER, LOUIS MENDELSSOHN, W. C. DURANT and PIERRE S. DU PONT (hereinafter called the Voting Trustees), parties of the second part.

WHEREAS Fisher Body Corporation (hereinafter called the Company) is a corporation organized under the laws of the State of New York, with an issued capital stock consisting of $4,213,500 par value, of preferred stock divided into 42,135 shares of the par value of $100 each, and 500,000 shares of common stock having no par value; and

WHEREAS in order to secure continuity of management and policy of the Company it is deemed desirable that the stockholders deposit their stock with the Voting Trustees hereunder:

NOW, THEREFORE, IN CONSIDERATION OF THE PREMISES:

FIRST: Each stockholder subscribing this Agreement hereby agrees to transfer to the Voting Trustees the stock in the Company held by him, by delivering to the Voting Trustees the certificates for said Stock, duly endorsed in blank or accompanied by proper instruments of assignment and transfer thereof in blank duly executed, and in either case properly stamped for transfer. Any owner of stock in the Company may at any time become a party to, and shall be bound by the provisions of, this Agreement by signing the same and by such delivery of certificates. The Voting Trustees, however, may at any time, in their discretion, permit any owner of stock in the Company to become a party to this Agreement, without signing the same, solely by delivery of certificates of stock in the manner aforesaid and by accepting in respect thereof one or more Voting Trust Certificates issued under this Agreement, and such owner by such acceptance shall become a party to, and be bound by the provisions of, this Agreement.

SECOND The Voting Trustees hereby agree with the Stockholders, and with each and every holder of Voting Trust Certificates issued as hereinafter provided, that, from time to time, upon request, they will cause to be issued to the Stockholders, or upon their order, in respect of all stock so transferred to the Voting Trustees and so by them received from the Stockholders, Voting Trust Certificates which in respect of common stock so transferred shall be in substantially the following form:

(FORM OF VOTING TRUST CERTIFICATE FOR COMMON STOCK)

No. Shares

STATE OF NEW YORK

FISHER BODY CORPORATION

VOTING TRUST CERTIFICATE

for Common Stock.

THIS IS TO CERTIFY that, as hereinafter provided, will be entitled to receive on October 1, 1924, a certificate or certificates, expressed to be fully paid for shares having no par value, in the Capital Stock of Fisher Body Corporation (hereinafter called the Company), a corporation of New York, and in the meantime will be entitled to receive payments equal to the dividends, if any, collected by the undersigned Voting Trustees upon a like number of such shares standing in their names. Until after the actual delivery of such stock certificates, the Voting Trustees shall possess, in respect of any and all such stock, and shall be entitled, in their discretion, to exercise, all rights of every name and nature, including the right to vote and consent for every purpose; it being expressly stipulated that no voting right as a stockholder passes to the holder of this Voting Trust Certificate by implication or otherwise.

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This Voting Trust Certificate is issued pursuant to, and the rights of the holder hereof are recited in, and subject to, the terms and conditions of a certain Voting Trust Agreement dated the day of November, 1919, and filed with Bankers Trust Company at its office in the City of New York, between Owners of Stock in the Company and Fred J. Fisher, Louis Mendelssohn, W. C. Durant and Pierre S. du Pont, Voting Trustees.

No stock certificates shall be due or deliverable hereunder before the first day of October, 1924, but the Voting Trustees in their discretion may make earlier delivery.

This Voting Trust Certificate is transferable at the agency of the Voting Trustees by the registered holder, either in person or by attorney duly authorized, in accordance with rules established for that purpose by the Voting Trustees and on surrender hereof; and until so transferred, the Voting Trustees may treat the registered holder as owner hereof for all purposes whatsoever, but they shall not be required to deliver stock certificates hereunder without the surrender hereof. In connection with, and as a condition of, making or permitting any transfer or delivery of stock certificates or Voting Trust Certificates, the Voting Trustees under said Agreement may require the payment of a sum sufficient to pay or reimburse them for any stamp tax or other governmental charge in connection therewith.

This Voting Trust Certificate is not valid unless duly signed on behalf of the undersigned Voting Trustees by , their agent, and also registered by , registrar.

In witness whereof the Voting Trustees have caused this Voting Trust Certificate to be signed by , their duly authorized agent for that purpose, this day of 19

Fred J. Fisher)
Louis Mendelssohn) Voting Trustees.
W. C. Durant)
Pierre S. du Pont)

by

Their Agent.

Registered,

Registrar,

by

—5—

In case any holder of preferred stock of the Company shall become a party to this agreement and deliver certificates for preferred stock to the Voting Trustees, such holder of preferred stock shall be entitled to receive a Voting Trust Certificate similar in form to that hereinabove provided in respect of the common stock; but with an appropriate reference to the rights of such holder of preferred stock in the event of the exercise by the Company of its right to redeem such preferred stock, and with such other additions or modifications as the Voting Trustees may determine to be appropriate for a preferred stock Voting Trust Certificate issued under this Agreement.

THIRD. The certificates for stock of the Company transferred to the Voting Trustees as aforesaid shall be surrendered by the Voting Trustees to the Company and cancelled, and the certificates therefor shall be issued to the Voting Trustees, in which it shall appear that such certificates are issued pursuant to this Agreement, and in the entry of the Voting Trustees as owners of such stock in the proper books of the Company that fact shall also be noted. Duplicates of this Agreement shall be filed in the office of the Company in the City of Detroit, Michigan and in the office in the City of New York of the Registrar of said Voting Trust Certificates.

FOURTH. On the first day of October, 1924, or whenever, earlier, the Voting Trustees in their discretion shall decide to make such delivery, the Voting Trustees in exchange for, and upon surrender of, any Voting Trust Certificate then outstanding, will, in accordance with the terms thereof and subject to Article Seventh hereof, deliver, at their office or agency in the Borough of Manhattan, in the City of New York, certificates of stock of Fisher Body Corporation, aforesaid, to the amounts and of the class called for by the respective Voting Trust Certificates, and may require the holders of the Voting Trust Certificates to exchange them for such certificates of stock, subject, however, to the redemption of preferred stock by the Company in accordance with the terms of the certificates for such stock. In case of redemption of preferred stock as aforesaid the Voting Trustees on receipt by them of the redemption price pay the same over to the holders of the preferred stock Voting Trust Certificates representing preferred stock so

redeemed, upon the surrender of such Voting Trust Certificates.

Whenever, pursuant to the foregoing provisions of this Article Fourth, certificates for stock of the Company shall become deliverable, or at any time thereafter, the Voting Trustees may deposit with any bank or trust company in good standing having an office in the Borough of Manhattan, in the City of New York, the stock certificates so deliverable, duly endorsed in blank or accompanied by proper instruments of assignment and transfer in blank, duly executed, for a number of shares equal to the number of shares of stock of each class called for by the outstanding Voting Trust Certificates, with authority to such depositary to make delivery of such stock certificates, subject to Article Seventh hereof, in exchange for the proper Voting Trust Certificates, and thereupon all further obligation or duty of the Voting Trustees under this Agreement to the holders of Voting Trust Certificates shall terminate.

FIFTH. The Voting Trustees may cause to be issued hereunder temporary printed Voting Trust Certificates conforming generally to the form hereinbefore set forth and may cause the same to be exchanged for definitive Voting Trust Certificates in substantially said form.

The Voting Trust Certificates issued hereunder shall be transferable by delivery thereof when duly assigned in writing by the registered holders thereof, either in person or by attorney duly authorized; but until transfer thereof on the books of the Voting Trustees in accordance with rules established for that purpose by them, the Voting Trustees may treat the registered holders as owners thereof for all purposes whatsoever, but the Voting Trustees shall not be required to deliver stock certificates hereunder without the surrender of the Voting Trust Certificates calling therefor. The transfer books for Voting Trust Certificates of both classes may be closed by the Voting Trustees, at any time prior to the payment or distribution of dividends, or for any other purpose.

In connection with, and as a condition of, making or permitting any transfer or delivery of stock certificates or Voting Trust Certificate, the Voting Trustees may require the payment of a sum sufficient to pay or reimburse them for any stamp tax or other governmental charge in connection therewith.

—7—

SIXTH. Prior to the delivery, pursuant to Article Fourth hereof, of certificates of stock of the Company in exchange for Voting Trust Certificates, or the deposit, pursuant to said Article, of stock certificates for the purpose of such delivery, the holder of each Voting Trust Certificate shall be entitled to receive from time to time payments equal to the dividends, if any, collected by the Voting Trustees upon a like number of shares of stock of the Company as is called for by such Voting Trust Certificate; provided, however, that if any such dividend shall be paid in fully paid stock of the Company the Voting Trustees shall likewise hold, subject to the terms of this agreement, the certificates for stock which shall be received by them on account of such dividend, and the holder of each Voting Trust Certificate shall be entitled to receive one or more proper Voting Trust Certificates issued under this Agreement for stock to the amount received by the Voting Trustees in payment of the dividend upon the number of shares of stock called for by such Voting Trust Certificate. The Voting Trustees shall not in any event be required, in spect of any such dividend in stock, to deliver Voting Trust Certificates calling for a fraction of a share but may, in lieu thereof, deliver in respect of fractional interests scrip in such form as the Voting Trustees may, in their discretion, determine, and said increased stock, so subscribed by the Voting Trustees, shall become and be subject to the terms of this Voting Trust agreement.

In case the Company shall determine to increase the amount of its outstanding stock and such stock shall be offered to its stockholders for subscription, then in such case upon receiving from the holder of any Voting Trust Certificate, prior to the time limited by the Company for subscription and payment, a request to subscribe in his behalf and the money required to pay for a stated amount of such increased stock (not in excess of the ratable amount subscribable in respect of the stock represented by such Voting Trust Certificate), the Voting Trustees will make said subscription and payment and, upon receiving from the Company the certificates for the stock so subscribed for, will issue one or more Voting Trust Certificates in respect thereof to the holder of the Voting Trust Certificate who shall have made such request or payment.

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SEVENTH: Any Voting Trustee may at any time resign by instrument in writing addressed to the other Voting Trustees and delivered at the office of the Transfer Agent. In case of the death, resignation, or inability to act, of Fred J. Fisher, the following persons shall automatically succeed him as Voting Trustee and shall succeed each other as such Voting Trustee in any of the events above stated, in the order following: Charles Fisher, William Fisher, Lawrence Fisher. In case of the death, resignation or inability to act, of Louis Mendelssohn, the following persons shall automatically succeed him as Voting Trustee and shall succeed each other as such Voting Trustee in any of the events above stated, in the order following: A. Mendelson, ______________________. In case of the death, resignation, or inability to act, of the last surviving successor of either said Fred J. Fisher, or Louis Mendelssohn, as herein designated, his successor shall be appointed by such surviving successor's executor or other legal representatives. In case of the death, resignation or inability to act of either the said W. C. Durant or said Pierre S. du Pont (or of any successor to either of them), his successor shall be appointed by General Motors Corporation. In case the appointment of any successor Voting Trustee shall not be made as hereinabove provided within sixty days after the occurrence of the vacancy to be filled by such successor, such vacancy may be filled by appointment by the remaining Voting Trustees. Any appointment of a Voting Trustee shall be by instrument in writing, filed in the office of the Transfer Agent. Any successor Voting Trustee appointed or designated as aforesaid shall have all the powers of a Voting Trustee hereunder, and the term "Voting Trustees" as used herein, and in said Voting Trust Certificates, shall apply to the parties of the second part and their successors hereunder. Notwithstanding any change in the Voting Trustees, the Voting Trustees for the time being may adopt and issue Voting Trust Certificates in the names of the original Voting Trustees, the parties hereto of the second part. The Voting Trustees shall have full power to appoint a secretary of the Voting Trustees and also from time to time agents to receive deposits of stock in the company on their behalf, and agents and registrars to sign in their behalf and transfer and register the Voting Trust Certificates, and to fix the compensation of such secretary and other agents and registrars. Such agent to sign Voting Trust Certificates shall at all times be a bank or trust company and shall as depositary have custody of the certificates for all stock deposited hereunder, subject to the orders of the Voting Trustees. The Bankers Trust Company is hereby appointed in the first instance to act as such agent and depositary, and the Central Union Trust Company of New York to act as Registrar. Every such order shall be full protection to the depositary acting in accordance therewith. The compensation of any agents and registrars appointed by the Voting Trustees, and all other expenses of the Voting Trustees, shall be paid by the Company.

Eighth: Only the unanimous action of the Voting Trustees expressed from time to time at a meeting at which all are present in person or by proxy, or expressed by writing signed by all in person or by attorney duly authorized without a meeting shall constitute the action of the Voting Trustees hereunder and no action of the Voting Trustees shall be valid or effective unless such action is unanimous. In case of a vacancy in the Voting Trustees, no action shall be taken by the remaining Trustees until such vacancy has been filled. At any meeting of the Voting Trustees, any Voting Trustee may vote in person or by proxy to any other Voting Trustee or other person; and any Voting Trustee may give a power of attorney to any other Voting Trustee or other person to sign for him in case of action of the Voting Trustees taken in writing without a meeting. The Voting Trustees may adopt their own rules of procedure. Any Voting Trustee may act as a director or officer of the Company or any controlled or subsidiary company; and he, or any firm of which he may be a member, or any corporation of which he may be a stockholder, director or officer, may, to the extent permitted by law, contract with the Company or any controlled or subsidiary company as fully as though he were not a Voting Trustee.

NINTH: Until delivery or deposit of all the stock certificates, in accordance with Article FOURTH hereof, the Board of Directors of the Fisher Body Corporation shall consist of fourteen directors, and the Voting Trustees shall, at each stockholders' meeting, for the election of directors of the Company, vote for seven directors, who shall be nominated to them in writing by the General Motors Corporation; and said Voting Trustees shall also, at each stockholder's meeting, for the election of directors, vote for seven directors, who shall be nominated by the Fisher-Mendelson interests.

in the following manner: Six of the nominees are hereby designated and shall be elected directors at the first election of directors next following the execution hereof, viz: Fred J. Fisher, Louis Mendelssohn, Charles Fisher, A. Mendelson, William Fisher, and Lawrence Fisher. The Seventh director shall be nominated in writing by Fred J. Fisher and Louis Mendelssohn, or their successors, as Voting Trustees. The seven directors so nominated and elected shall continue to be nominated and elected during the continuance of this voting trust, unless the said Fred J. Fisher and Louis Mendelssohn, their successor or successors, shall in writing nominate a substitute or substitutes for any one or more of said directors, in which event said substitute or substitutes shall be elected. In case such nominations shall not be made the Voting Trustees shall at any such meeting vote for the election of such directors as in their judgment they shall deem suitable, and in all other respects said Voting Trustee shall possess, in respect of any and all stock deposited hereunder, and shall be entitled, in their discretion, to exercise, all the powers of absolute owners of said stock, including the right to vote and consent for every purpose and to receive dividends on said stock; and no such voting or other right or power shall pass to holders of Voting Trust Certificates or to others by or under the Voting Trust Certificates, or by or under this Agreement, or by or under any agreement, whether by implication or otherwise.

In voting the stock held by them (which they may do either in person or by proxy to any one or more of them or to any other person or persons), for any purpose hereby committed to their discretion, the Voting Trustees will exercise their best judgment; but they assume no responsibility in respect of the management of the affairs of the Company or in respect of any action taken by them or in pursuance of their consent thereto as such stockholders, or pursuant to their votes so cast, and no Voting Trustee incurs any responsibility by reason of any error of law or of any matter or thing done or omitted under this Agreement, except for his own individual malfeasance.

TENTH: All notices to be given to the holders of Voting Trust Certificates hereunder shall be published in a daily newspaper of general

circulation published in the City of New York once in each week for four successive weeks and a copy of such notice shall also be mailed postpaid addressed to each holder of Voting Trust Certificates at his address as registered on the books of the transfer agent appointed by the Voting Trustees on or before the day of the first publication thereof. Any notice whatsoever, when so published and mailed, shall be taken and considered as though personally served on all holders of Voting Trust Certificates, and upon all parties becoming bound hereby, as of the date of the commencement of publication thereof, and such notice shall be the only notice required to be given under any provision of this Agreement.

ELEVENTH: This Agreement may be executed in several counterparts, each of which, so executed, shall be deemed to be an original; and such counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF the Voting Trustees, the parties of the second part, have signed this Agreement in the City of New York, and the parties of the first part have signed this Agreement or have transferred and delivered their stock and accepted Voting Trust Certificates issued under this Agreement, all as of the day and year first hereinabove mentioned.

(Signed) F. J. Fisher)
" L. Mendelssohn)
" W. C. Durant) Voting Trustees
" Pierre S. du Pont)

Owners of Stock in Fisher Body Corporation

NAMES	NUMBER OF SHARES.

NOTE: In the upper left hand corner appears the words "Receipt—Contracts." A handwritten signature appears in the lower righthand corner.

Government's Exhibit No. 430

AGREEMENT, made this ninth day of December, 1919, by and between FISHER BODY CORPORATION, a corporation organized and existing under the laws of the State of New York (hereinafter called the Corporation), party of the first part, and FRED J. FISHER, of Detroit, Michigan, party of the second part.

WITNESSETH:

WHEREAS the parties hereto entered into a certain agreement under the date of August 25,1916, whereby upon the terms and conditions therein stated the Corporation agreed that the said party of the second part should continue, and the said party of the second part agreed to serve, as President of the Corporation for a period of ten years from August 21,1916; and

WHEREAS, owing to the fact that the Corporation is about to increase its capital and to greatly expand its business operations, the parties hereto desire to modify said agreement:

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

FIRST, The term for which said party of the second part shall be employed by the Corporation shall continue until, and terminate on, the 1st day of October,1924.

SECOND: In addition to the compensation provided to be paid to the said party of the second part by said Agreement Schedule A hereto, said party of the second part shall receive, and the Corporation agrees to pay to him in each fiscal year (and pro rata for each portion of a fiscal year) between the date hereof and said October 1,1924, two and one-half per cent. of the net earnings of the Corporation, before deducting Federal taxes or reserves for Federal taxes, before payment of any dividends and normal allowances for depreciation, and before payment to any other officer or employee of the Corporation as compensation of any stated percentage of its net earnings, in addition to fixed salary; or in the alternative to pay the whole or any portion of such percentage of said net earnings in any such year or years to any person or persons in the employ of the Corporation to whom he may by instrument in writing assign or transfer the same.

THIRD: Except as herein modified, said agreement Schedule A hereto is hereby ratified and confirmed.

IN WITNESS WHEREOF the Corporation has caused this instrument to be signed by its President or Vice-President and its corporate seal to be hereunto affixed and attested by its Secretary or Assistant Secretary, and the party of the second part has hereunto set his hand and seal the day and year first above written.

FISHER BODY CORPORATION
By Charles T. Fisher,
Vice-President.
FRED J. FISHER (L.S.)

ATTEST:
A. Mendelson,
Secretary.

SCHEDULE A.

AGREEMENT made this 25th day of August, 1916, by and between FISHER BODY CORPORATION, a corporation organized and existing under the laws of the State of New York (hereinafter called the Corporation), party of the first part, and FREDERICK J. FISHER, of Detroit, Michigan, party of the second part.

WITNESSETH:

FIRST: Said Fisher has been elected a director and President of the Corporation, and has assumed or is about to assume the duties of said office. The Corporation agrees that said Fisher shall be continued, and said Fisher agrees to serve, as President of the Corporation for a period of ten years from August 21, 1916.

SECOND: In addition thereto and independently of whether the said Fisher shall at any time be reelected as President and director of the Corporation, said Fisher shall be employed by the Corporation for said period of ten years from August 21, 1916, to perform such duties in connection with the general management of the company's business as is properly to be performed by the President of the Corporation, and as may be designated from time to time by the by-laws of the Corporation or by resolution of its Board of Directors and shall and will during such period devote his entire time and energy to the performance of such duties in connection with the management of the Corporation, and of any companies which may be controlled by it. As compensation for such services said Fisher shall receive, and the Corporation agrees to pay him, a salary of Thirty three thousand dollars ($33,000.00) per annum, in addition to the salary which he shall receive from Fisher Body Company of Canada, Limited, a company controlled by the Corporation, which salary it is agreed shall be the sum of $7200. per annum. Said salaries shall be payable in equal monthly installments on the first day of each and every month, a proportionate payment being made on September 1, 1916, for the period from August 21, 1916 to said September 1, 1916. If at any time during said period of ten years said Fisher should not be elected President and a director of the Corporation, as herein provided, said salaries shall nevertheless be continued as long as he shall be ready, willing and able to render the services herein specified.

THIRD: The said Fisher covenants and agrees that he will not, prior to July 1, 1926, enter into, engage in, or participate in, directly or indirectly, or accept employment in, or in connection with, any automobile or wagon body manufacturing or selling business, or any automobile manufacturing business in the United States or in Canada, wherever located, other than the Corporation or a company controlled by the Corporation. This covenant is made in consideration of the sale to the Corporation of the assets of the Fisher Body Company, Fisher Closed Body Company, and the stock of the Fisher Body Company of Canada, Limited, in which companies the said Fisher has heretofore been heavily interested as a stockholder and officer. This covenant shall not apply, however, to any automobile accessory business which does not include the manufacture, use or sale of automobile bodies or complete automobiles.

IN WITNESS WHEREOF the Corporation has caused this instrument to be signed by its President or Vice-President and its corporate seal to be hereunto affixed, attested by its Secretary or Assistant Secretary, and the said Fisher has hereunto set his hand and seal the day and year first above written.

FISHER BODY CORPORATION

By Louis Mendelssohn
Treasurer.

ATTEST:
Aaron Mendelson,
Secretary.
(Corporate seal)

FREDERICK J. FISHER (L.S.)

Government's Exhibit No. 431

BANKERS TRUST
COMPANY

16 WALL STREET
NEW YORK

February 11,1925.

Mr. Fred J. Fisher :
Mr. Louis Mendelssohn: Voting Trustees
Mr. John J. Raskob : Fisher Body Corporation
Mr. Pierre S. DuPont :

Gentlemen:

ATTENTION : Mr. John J. Raskob

According to the terms of the Voting Trust Agreement dated November 14, 1919 it is provided that on October 1, 1924 the holders of the Voting Trust certificates issued under such agreement will be entitled to receive a certificate or certificates for no par value common stock of the Fisher Body Corporation in exchange for voting trust certificates.

Article Fourth of the Voting Trust Agreement provides for the deposit by the Trustees of the stock, duly endorsed for transfer with some bank or trust company in New York, with authority to such depositary to make delivery thereof in exchange for Voting Trust Certificates. As your Agent we now hold the stock certificates, but which have not been endorsed by you as Voting Trustees.

As several holders of Voting Trust Certificates are endeavoring to have their Voting Trust Certificates exchanged we would thank you to advise and direct us in the premises.

Very truly yours,

Assistant Secretary

[illegible]/T

BANKERS TRUST COMPANY

4052

16 WALL STREET
NEW YORK

February 14th, 1925.

Mr. John J. Raskob,
C/o General Motors Corporation,
57th Street and Broadway,
New York City.

Dear Sir:

Supplementing our letter of February 11th addressed to the Voting Trustees of the Fisher Body Corporation, it occurred to us that if a distribution of the free common stock in exchange for the Voting Trust certificates is to be made by us as Agent for the Voting Trustees, a formal letter of instructions and a Power of Attorney to be executed by the Voting Trustees may be of use.

We accordingly enclose a suggested form of letter and Power of Attorney for your consideration and we await your advice in the matter.

Very truly yours,

Assistant Secretary.

GMM:GC
14

1771

Government's Exhibit No. 433

224 W. 57th St.
New York, N.Y.,
March 16, 1925.

H. B. Watt, Assistant Secretary,
Bankers Trust Company,
New York City.

Dear Sir:—

As per your request of February 14th, enclosed please find letter of instructions and power of attorney authorizing the Bankers Trust Company to act as agent for the Voting Trustees of Fisher Body Corporation in effecting an exchange of Fisher Body common stock for voting trust certificates of said Corporation.

Delay in getting the papers signed was occasioned by the fact that they had to be sent to Detroit for the signature of Mr. Mendelssohn and to California for the signature of Mr. Fisher.

Very truly yours,

Chairman.

Wilmington, Delaware,
October 20, 1922.

Mr. Fred Fisher, President,
Fisher Body Corporation,
Detroit, Michigan.

Dear Mr. Fisher:

I note the fact that Flint Varnish & Color Works is not getting any substantial amount of business in paint or varnish from the Fisher Body Corporation.

In view of the stock ownership relations between Fisher Body Corporation, Flint Varnish & Color Works, General Motors Corporation and du Pont Company, it would seem that Flint Varnish & Color Works should enjoy a large part, if not all, of Fisher Body's paint and varnish business, unless there is some good reason for not having it.

I understand the situation is as follows:

Fisher Body Corporation has tested Flint products, and, in the opinion of our men, and I understand in the opinion of your men, the quality of Flint products is as good as the product you are using. Flint Varnish & Color Works is in as good position to furnish service as the party from whom you are now buying.

—2—

Flint Varnish & Color Works prices are as low as the price of the product you have been buying. The above-mentioned stock ownership relation assures Fisher Body Corporation that its orders will be given preference by Flint over any other customer (except, of course, General Motors Corporation and its subsidiaries) whenever contract conditions are equal between Fisher Body Corporation and Flint's other customers.

Would it be imposing upon you to ask your assistance toward Flint securing a portion, or all, of Fisher Body Corporation's paint and varnish business? The assistance I ask is a frank statement of the respects in which the above statement of conditions is incorrect, or, if that statement is correct, statement of why Flint should not have the business, so that such reason may be overcome if it is within our power.

Yours very truly,

FLINT VARNISH & COLOR WORKS,

....

CHAIRMAN OF THE BOARD.

LduP/MD

NOTE: "Return to Room 9059" is stamped at top of first page and "Return to Executive Committee Room 9069" is stamped on each page. "X-1100" and a large check mark are written at top of first page. "GMC 1560" is written at bottom of each page. "File Copy" is stamped across second page.

2
E

GENERAL MOTORS CORPORATION
224 West 57th Street
New York, N. Y.

OFFICE OF THE PRESIDENT

October 31, 1922.

Mr. Lammot duPont,
DuPont Building,
Wilmington, Del.

Make ex cm membership
coincident with resol.

My dear Mr. duPont:

At the time of purchase of the controlling interest of the Fisher Body Corporation, a contract was made between the General Motors Corporation and Messrs. Fisher under which the latter agreed to remain with the joint interests until the year 1925.

General Motors Corporation owns 60% of the Fisher stock, Messrs. Fisher about 20%, interests friendly to them about 10% and the balance scattering. Recently, the Messrs. Fisher have brought up the question of their future relations with General Motors and have expressed a desire to become more intimately associated with the proposition as a whole and, with that end in view, have requested a study of relative values of General Motors and Fisher assets with a view to an exchange of Fisher Body common stock for General Motors shares.

I believe that a closer association with the Messrs. Fisher and closer cooperation between the two corporations would be of great benefit, and have proposed that Mr. Fred J. Fisher, President of the Fisher Body Corporation, now a Director of General Motors, be elected a member of our Executive Committee in order that he may become better acquainted with our problems and assist in the administration of the business as a whole. It would also be agreeable to the Executive Committee to have Mr. C. S. Mott elected a member of the Executive Committee, making a Committee of six, instead of four, as at present. I have already spoken with about ten of our Directors on the subject of Mr. Fisher's association with us and have obtained their approval. As I expect to talk with Mr. Fisher on the subject of our relations next week, I should like to have the opinion of members of the board on the subject of the new Executive Committee, in order that I may speak to Mr. Fisher on the subject, if the majority of the Board approve.

Very truly yours,

P. S. du Pont
President.

Note: "GMC 1561a" is written in lower left corner; "Return to Executive Committee Room 9069" is stamped at bottom; "Received Nov. 2 [or 3] 1922" and "Answered Nov 3 1922 Lammot duPont" are stamped at top; check mark is drawn above "Motors" in letterhead. Italics indicate handwriting.

√2

Government's Exhibit No. 436

November 3, 1922.

Mr. P. S. du Pont, President,
General Motors Corporation,
New York City, N. Y.

Dear Pierre:

I have yours of October 31st in regard to relationship between the Fisher Body Corporation and General Motors Corporation; and also the election of Mr. Mott and Mr. Fisher to the General Motors Executive Committee.

It seems to me a closer relationship between the companies is very desirable and that the addition of Messrs. Mott and Fisher to the Executive Committee would be helpful.

In order to avoid the situation of having an important official of General Motors Corporation personally interested in a controlled subsidiary, would it not be desirable to have Mr. Fisher's election to the Executive Committee co-incident with whatever arrangement is made with respect to consolidation?

Sincerely yours,

VICE-PRESIDENT

LduP/MD

Note: "GMC 1561" is written in lower left corner; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom; "FILE COPY" is printed across page; check mark under handwritten figure 8 appears at top; "X-1100" is written in upper right corner.

Government's Exhibit No. 437

December 2, 1922.

Mr. Fred Fisher, President,
Fisher Body Corporation,
Detroit, Michigan.

Dear Mr. Fisher:

On October 20th I wrote you in regard to the fact that Flint Varnish & Color Works was not getting any substantial amount of business in paint or varnish from the Fisher Body Corporation. I am sorry that oversight has caused me to not take this matter up further again; for I have received no reply from you to my letter of October 20th and fear that same may have gone astray, and thus a month or more delay has been caused by my oversight.

I am enclosing copy of my previous letter.

It seems to me that this matter is of extreme importance, for I am sure that Flint Varnish & Color Works goods are the equal of, or superior to, any goods on the market, and therefore should be used by Fisher Body Corporation in any event. The close stock relationship of the companies makes it appear almost ridiculous that no business should be done between Flint and Fisher.

If you have had time to consider this matter or talk with your men about it, I would appreciate

—2—

your views. If a clearer understanding of the situation can be had by a personal conference, I would be glad to meet you or whoever you say when a suitable time can be arranged.

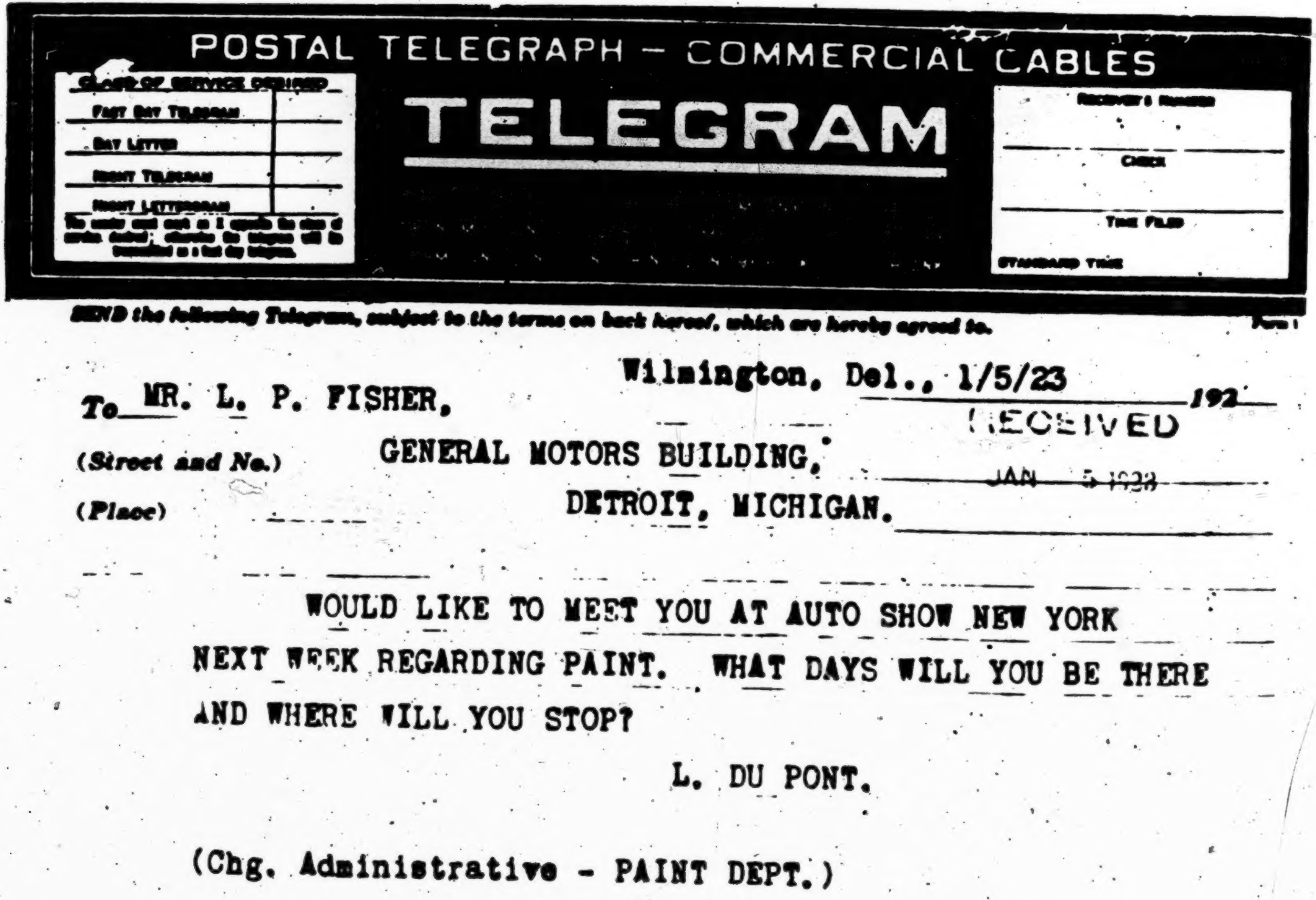
Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "GMC 1563" is written in lower left corner of both pages; RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped on both pages, "FILE COPY" is printed across both pages. At top center of first page is written what appears to be "Grubb Fri 12/22 vrbly" and at top right of first page what appears to be: "12/19 I J Larry Fisher reports Flint product not good."

Government's Exhibit No. 438



POSTAL TELEGRAPH — COMMERCIAL CABLES

TELEGRAM

CLASS OF SERVICE DESIRED	
Fast Day Telegram	
Day Letter	
Night Telegram	
Night Lettergram	

The sender must mark an X opposite the class of service desired; otherwise the telegram will be transmitted as a fast day telegram.

Receiver's Number

Check

Time Filed

Standard Time

SEND the following Telegram, subject to the terms on back hereof, which are hereby agreed to.

Wilmington, Del., 1/5/23 192

To MR. L. P. FISHER,

(Street and No.) GENERAL MOTORS BUILDING,

(Place) DETROIT, MICHIGAN.

RECEIVED
JAN 5 1923

WOULD LIKE TO MEET YOU AT AUTO SHOW NEW YORK NEXT WEEK REGARDING PAINT. WHAT DAYS WILL YOU BE THERE AND WHERE WILL YOU STOP?

L. DU PONT.

(Chg. Administrative - PAINT DEPT.)

NOTE: Stamp at upper right reads: "RECEIVED JAN 5 1923 LAMMOT DUPONT".

Government's Exhibit No. 439

POSTAL TELEGRAPH — COMMERCIAL CABLES

TELEGRAM

CLASS OF SERVICE DESIRED
FAST DAY TELEGRAM ☐
DAY LETTER ☐
NIGHT TELEGRAM ☐
NIGHT LETTERGRAM ☐
Patrons should mark an X opposite the class of service desired; otherwise the telegram will be transmitted as a fast day telegram.

RECEIVER'S NUMBER
CHECK
TIME FILED
STANDARD TIME

SEND the following Telegram, subject to the terms on back hereof, which are hereby agreed to.

Wilmington, Del., 1/6/23 192

To Mr. Lawrence P. Fisher,
(Street and No.) Hotel Biltmore,
(Place) New York City, N. Y.

RECEIVED
JAN 6 1923
L...

WILL BE IN NEW YORK MONDAY ABOUT ONE. WOULD LIKE TO SEE YOU REGARDING PAINT BEFORE GENERAL MOTORS DIRECTORS MEETING AT FOUR. IF CONVENIENT TO YOU PLEASE WIRE TIME AND PLACE.

L. DU PONT.

(Chg. Adminis. Paint Dept.)

NC 1366

NOTE: Stamp at upper right reads: "RECEIVED JAN 6 1923 LAMMOT DUPONT".

E

Government's Exhibit No. 440

POSTAL TELEGRAPH—COMMERCIAL CABLES
TELEGRAM

DELIVERY NO. *1008*

RECEIVED AT
Main Office
8*th* & Shipley Sts.
Phones 3152–3193

86 P R 538 Pm 10
BE Newyork Jan 6-23
L Dupont,
Wilmington Del

Will be at General Motors offices three Oclock monday afternoon

L P Fisher

NOTE: "GMC 1567" is written in lower left corner; "8" is written at top; "X-1100" is written and "RECEIVED JAN 8 1923 LAMMOT DU PONT" is stamped in upper right corner; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom. Written at bottom is what appears to be: "D & A BW Rise 5.42 PM—Mr. L"

Government's Exhibit No. 441

Wilmington, Delaware,
January 5, 1923.

Mr. L. P. Fisher,
General Motors Building,
Detroit, Michigan.

Dear Sir:

Referring to our recent conversation in regard to Flint Varnish & Color Works products, it is my recollection that you told me that the Flint "rough stuff" color standards and rubbing varnish were not satisfactory for your purposes, and that Mr. Sohlinger in conversation with you had admitted that they were not satisfactory. I further understood that you had explained—or had had someone else explain to Mr. Sohlinger—in what respects the Flint products were not satisfactory, and that you had hopes that Mr. Sohlinger would be able to correct the troubles, as you felt it would be desirable for Fisher Body Corporation to use the Flint products whenever they were made in a satisfactory quality.

I have just had a conversation with Mr. Sohlinger today and tried to impress upon him the importance of making the Flint products satisfactory. It is important to us not only in order to acquire and keep the Fisher business, but in order to put us in position to furnish the best quality to our other principal customer; namely; General Motors Corporation.

—2—

I was astonished to have Mr. Sohlinger tell me that he had never had any complaint from your men on any "rough stuff;" that the only complaint he had ever had on colors not being properly standardized was with respect to the color used on Buick closed jobs not matching; that in this case investigation showed that Flint color was not used and that he had never been allowed to see the results of tests of rubbing varnish to determine what was the cause if the Flint product did not hold up.

In our conversation I asked Mr. Sohlinger if he would not call on you again and go into this matter further; for, as you know, I feel that it is of the very greatest importance that we should straighten out all difficulties with the Flint products and have them used throughout by Fisher Body Company.

Trusting that you will look upon this matter in the same light that I do, and that you will not fail to let me know if there appears to be any laxity on the part of the Flint men in meeting your requirements, I am

Yours very truly,

Chairman of the Board.

LduP/MD

Note: GMC 1565 is written in lower left of each page; "Return to Executive Committee Room 9069" is stamped on each page; "File Copy" is printed across each page.

Government's Exhibit No. 442

January 27, 1923.

Mr. H. H. Rice, General Manager,
Cadillac Motor Car Co.,
Detroit, Michigan.

Dear Sir:

I have been discussing with Mr. Grubb, in charge of our Paint & Varnish Department, the matter of supplying Cadillac with paint and varnish. Mr. Grubb tells me that his information indicates that Cadillac is using on its open cars imported English varnish (which the manufacturer claims has been aged for four years), and that the closed bodies are being supplied by Fisher Body Corporation and are finished with the same goods that Fisher is using on other work.

If the Flint Varnish & Color Works can manufacture as good, or better, varnish than you are using, we would like to have an opportunity to do so. It surely seems improbable that, in view of the great increase in automobile production in the last few years, any varnish imported from England can be aged four years, and personally I doubt whether such ageing has any material effect on the product.

Would it be asking too much for you to have someone advise me what varnish you are using and what the claims of the manufacturer are with respect to it? and also price of the varnish

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "Return to Executive Committee Room 9069" is stamped in left margin and "GMC 1571" is written at bottom of page.

Government's Exhibit No. 443

January 31, 1923.

Copy: Mr. Hunter Grubb. G. M.
Mr. Lawrence P. Fisher,
Fisher Body Corporation,
Detroit, Michigan.

Dear Sir:

At the time of the conversation between Mr. Sohlinger, you and myself in New York City, you stated that you expected the new Flint plant to start up on January 29th. I had expected that we would receive some orders for Flint varnish before that date, and through Mr. Grubb have made some inquiries and learn from Mr. Sohlinger that you do not expect to start now before the first of March. I hope that by that date you will be running and will be having satisfaction with the Flint Varnish & Color Works product.

Thanking you again for the trial of these products which you promised, I am

Yours very truly,

LduP/MD VICE-PRESIDENT.

NOTE: "GMC 1573" is written in lower left corner; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of page; check mark appears at top of page, "X-1100" is written in upper right coner.

E

Government's Exhibit No. 444

CADILLAC MOTOR CAR COMPANY
DETROIT, MICHIGAN

OFFICE OF THE PRESIDENT

January
Twenty-ninth
1923

Mr. Lammot duPont,
E. I. duPont deNemours & Company, Inc.,
Wilmington, Delaware.

Dear Mr. duPont:

Probably paint trouble has been one of the most annoying difficulties since the automobile began to be used extensively.

We have advanced a great deal since the time when I was first building bodies, but still paint is a source of much complaint from customers, particularly because it is something they see and is ever present.

We all know that paint is much abused, and paint failure is due, in 90% of the cases, to the treatment it gets, rather than to defective work or materials. Still, for this very reason, and because it takes time to test paint, it is something about which we always want to move with great caution.

As to the Flint paints, perhaps you do not know that we are already using their primer. We are starting to use their color and finish varnishes on our chasses, and will probably use them more extensively as soon as the present stocks are exhausted.

The enamel so far has not passed our test and we are not satisfied to make a change yet.

We have samples of the body varnishes which have been put on panels and are being tested on our roof. As you know, some use of the Duco looks promising.

We are using at the present time the following varnishes:

Valentine for rubbing and color.
Valentine and Harland mixed for finish.

—2—

While our experience with all our paint materials has been good, it never will be satisfactory until we can get a more durable finish and one that will resist the abuse customers are wont to give it. For that reason we are very glad of the paint inquiry which is being made through the Research Laboratory and on which committee we are represented.

Thanking you for your inquiry, I am

Very truly yours,

H H Rice

HHR:V

NOTE: The underscoring on first page is by hand. "Received Jan 31 1923 Lammot du Pont" and "Answered Feb 8 1923 Lammot du Pont" are stamped at top of first page and "Return to Executive Committee Room 9069" is stamped on each page. "HG" is written at top of first page. In the left margin next to the fifth paragraph of the letter, "X" has been marked by hand the words "what one" are written, and in the right margin next to the same paragraph there is a hand drawn bracket and the handwritten words "What enamel". "GMC 1572" is written at bottom of each page. Italics indicate handwriting.

Government's Exhibit No. 445

February 5, 1923.

Mr. H. H. Rice, General Manager,
Cadillac Division,
Detroit, Michigan.

Dear Mr. Rice:

Yours of January 29th, in regard to paint and varnish received, and I thank you for same. The Flint Varnish & Color Works is making very earnest efforts to turn out the very highest quality product from the consumers' point of view, and sincerely believe that it is now doing so. I want to do everything possible to aid them, and it is very pleasing to note what you say in regard to the prospect of using Flint primer color and finish on chassis.

You state that "the enamel" so far has not passed your test and you are not satisfied to make a change. I hope that the failure and your dissatisfaction was clearly made known to the Flint Company representative; for I find, on inquiry at the Wilmington Office, that they are not aware of any difficulty on fender enamel, which we suppose is the enamel you refer to.

We are all in hopes that "Duco" will turn out as it now promises, but for the present, at least, the Flint Company is working on the assumption that "Duco" is not the finish of the future and are trying to do the very best possible with regular varnish.

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "File Copy" is printed across each page and "Return to Executive Committee Room 9069" is stamped on each page. "GMC 1574" is written at bottom of each page.

Government's Exhibit No. 446

4072

CADILLAC MOTOR CAR COMPANY

DETROIT, MICHIGAN

RECEIVED
MAR 31 1923
LAMMOT DU PONT

Mar. 29, 1923.

Mr. Lammot DuPont,
c/o E. I. Du Pont de Nemour & Co.,
Wilmington, Del.

Dear Mr. DuPont:

I have your letter addressed to Mr. Rice who at the present time is out of town.

In regard to enamel will state that we have been playing along with enamel from Flint for some time. They have made several changes and tried to conform to what we want. We are working on this diligently and I think in the very near future they will be able to give us something that will answer our purpose. After we have arrived at this point, of course we would want to give this particular material our regular roof tests covering a period of seven or eight months, to see that the enamel would stand up. To date they have not been able to give us enamel which when applied looks as brilliant and as satisfactory as the enamel we have been using, but as stated above we are working together and we hope in the near future they will be able to give us this product which will be satisfactory.

not so!

want
Duco not
enamel

are not
working
at all

Very truly yours,

CADILLAC MOTOR CAR COMPANY

A. H. Widman

Manager of Manufacturing.

Standard

AUW/s

NOTE: Stamp at upper right bears date, "MAR 31 1923".

Government's Exhibit No. 447

May 5, 1923.

Copy: Mr. H. Grubb, G. M.

Cadillac Motor Car Co.,
Detroit, Michigan.

Atten. Mr. Widman.

Dear Sir:

Some weeks ago I had some correspondence with Mr. Rice in regard to the use of Flint paint and varnish products on Cadillac cars. As a result of it, Mr. Sohlinger called on you and discussed the matter. After leaving, Mr. Sohlinger wrote of his interview and stated that you had made a memorandum to write me further on the subject. This was on April 12th, but I have heard nothing from you.

We believe that Flint is making as good quality paint and varnish products as any competitor, and, in many cases, better quality. I feel that it is to the advantage of both General Motors Corporation and the du Pont Company to have GMC use the Flint products 100 per cent. If our idea of the Flint quality is wrong with respect to any item, we desire to know it and ascertain the reason, and can assure that anything you can do in the way of reporting your difficulties or objections to the Flint products will

be a very great help to us.

Won't you drop me a line, giving us a summary of the present situation?

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "File Copy" is printed across first page and "Return to Executive Committee Room 9069" is stamped in left margin of first page. "X-1100" and "8" (with a large check mark) are written at top of first page. "GMC 1589" is written at bottom of each page.

Government's Exhibit No. 448

Letterhead of
CADILLAC MOTOR CAR COMPANY
DETROIT, MICHIGAN

May 21, 1923.

Mr. Lammot DuPont,
c/o E. I. DuPont de Nemours & Co.,
Wilmington, Del.

Dear Mr. DuPont:—

In reply to your letter of the 5th in regard to going entirely to Flint Varnish Company's material, would state that Cadillac feels that is is absolutely necessary to move very slowly. I don't mean to move slowly in the point of investigation, but to make very long investigations and tests because we cannot afford to take any chances whatever in the matter of our paint.

This is a troublesome thing at best, and it is most difficult when we have paint failure, to determine whether it is the fault of the painter, the material, the surface or its preparation.

Of course, we are not only friendly toward the Flint products, but anxious to use them. However, we feel we should go most cautiously in any change in paint, adopting new things only after long trial.

The next time he sees you Mr. Rice says he will discuss this subject with you. We do, however, expect to gradually from time to time, as the Flint material proves out, to adopt it on Cadillac cars.

Very truly yours,

CADILLAC MOTOR CAR COMPANY

S. W. Widman
Manager of Manufacturing.

SWW/s
Mr. Hunter Grubb, G. M.

Please note and return.
L. du Pont.

5/26/23

NOTE: "Received May 24 1923 Lammot du Pont", "Answered May 26 1923 Lammot du Pont" and "Noted May 28 1923 A.S." are stamped at top of page. "Return to Executive Committee Room 9069" is stamped at bottom of page and in left margin. "X-1100", "8" and "noted H.G." are written at top of page. A check mark appears in front of Mr. Grubb's name at bottom of page. "GMC 1591" is written at bottom of page. Italics indicate handwriting.

Government's Exhibit No. 449

May 26, 1923.

Mr. W. S. Widman,
Cadillac Motor Car Co.,
Detroit, Michigan.

Dear Sir: I have yours May 21st in regard to use of Flint paint and varnish on Cadillac cars, and thank you very much for the attention you have given this subject. I think we are entirely in accord, and we will look forward to a time when the Flint products have proved their value to you.

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "Return to Executive Committee Room 9069" is stamped at bottom and "X-1100" and "8" (with a large check mark) are written at top of page. "GMC 1592" is written at bottom of page.

Government's Exhibit No. 450

Copy: Mr. W. P. Allen, G. M.,
Fabrikoid Dept.

February 25, 1923.

Mr. L. P. Fisher,
Detroit, Michigan.

Dear Sir:

Mr. Raskob has sent me your letter of February 16th in regard to Fabrikoid. I have only had time to make a preliminary inquiry, but find that our Fabrikoid Department is working actively on your problem.

I appreciate very much the manner in which you have taken this up, and can assure you that we will do the very best we can to meet your requirements in every respect, as we greatly desire your business.

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "GMC 1575" is written in lower left corner; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of page; "FILE COPY" is printed across page.

Government's Exhibit No. 451

E. I. Du Pont de Nemours & Company
(Incorporated)
Wilmington, Delaware

Cellulose Product Department

March 9, 1923.

Lammot Du Pont, Vice-President:

Fisher Body

Referring to your letter of February 25th to Mr. L. P. Fisher, which was in answer to Mr. Fisher's letter of February 16th to Mr. J. J. Raskob, you will perhaps be interested to know that our Mr. H. J. Haon was working at the Fisher Body plant in Detroit at the time your letter was written.

I have explained to the Executive Committee, and in fact have covered the matter in our monthly reports, that the Textileather Company, who have enjoyed Fisher Body business for a number of years, were several steps ahead of us and other artificial leather manufacturers in having developed a method of graining artificial leather by the roller process without injury to the film. This has been an old problem with us and a great deal of work has been done on it within the past few years. We finally solved it by having a steel roller hand engraved with a modification of our regular line grain. It took about four months to get this roller made, and it was delivered to us about one month ago. The material which it turns out is satisfactory and equal in all respects to that made by the Textileather Company. I was advised yesterday by wire that Mr. Haon has secured a trial order of 50,000 yards from the Fisher Body Corporation, and I am hopeful that with this beginning we will be able to seceure a large share of this business.

W. P. ALLEN.
W. P. A.

WPA/IRB

NOTE: "GMC 1579" is written in lower left corner; letterhead of E. I. du Pont de Nemours & Company, Chronicle Building, San Francisco, Cal., Sales Department appears in upper left corner overprinted with "XX"; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of page: "RECEIVED MAR. 10, 1923 LAMMOT DU FONT" is stamped at top; "Fisher 3/10" is written at top. Italics indicates handwriting.

2

Government's Exhibit No. 452

March 10, 1923.

Mr. L. P. Fisher,
Fisher Body Corporation,
Detroit, Michigan.

Dear Mr. Fisher:

Referring further to the matter of line grain Fabrikoid, about which you wrote me recently, I am very much pleased to learn from Mr. Allen, General Manager of our Fabrikoid Department, that you have been kind enough to give us a trial order of 50,000 yards of the material which we have just placed ourselves in position to turn out. I trust that the material will be satisfactory, and assure you that, if for any reason it is not, we will continue our efforts to produce a product which will meet your requirements.

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "GMC 1580" is written in lower left corner; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom; check mark appears at top; "X-1100" is written in upper right corner of page.

Government's Exhibit No. 453

GENERAL MOTORS CORPORATION

Excerpts from Minutes of Meeting No. 18 of Interdivisional Relations Committee—General Purchasing Committee held February 6, 1925

Duco.

Attention was called to the use by Fisher Body Corporation of a pyroxylin finish manufactured by Forbes Varnish Company. The very complex nature of pyroxylin compounds was described and the experience required for the production of stable and durable compounds emphasized. The Forbes product has not been put through the exhaustive durability tests that Duco has been subjected to. It is known that the durability of such finishes can be determined only by long time exposure tests. It was agreed that General Motors Research be requested to begin durability tests of pyroxylin finishes manufactured by—

Acme White Lead & Color Works
Beckwith-Chandler Company
Forbes Varnish Company
Murphy Varnish Company
Patton Pitcairn Div. of Pittsburgh Plate Glass Co.
Valentine Varnish Company
The Zapon Company

Our contract with the DuPont Company covers supplying Duco for production uses only. Question was raised by Cadillac regarding availability of these prices on purchases for branches for repaint work. Report of practices of other companies supplying similar class of materials will be mad at the next meeting.

At the foregoing meeting, held at Detroit, Michigan, on February 6, 1925, at 9:00 a.m., the minutes disclose that the meeting was called to order by Mr. Pratt and that the minutes were recorded by James Lynah, Executive Secretary.

There is no statement in the minutes as to the names of the persons present. An examination of the minutes does not give any information as to any other persons present.

Government's Exhibit No. 454

EXCERPTS—

July 24, 1925

To: EXECUTIVE COMMITTEE

From: PAINT, LACQUER & CHEMICALS DEPARTMENT

MONTHLY REFORT—JUNE, 1925—PAINT, LACQUER & CHEMICALS DEPARTMENT

July 20, 1925

Mr. W. P. Allen,
General Manager:

Chemical Products Division Executive Committee Report—June, 1925

Eliminated
4 2052

ceptable to the furniture manufacturer who had to apply it. In planning the duPont furniture lacquer the ultimate consumer was mostly in mind, and while there is no question but what the duPont furniture Duco was more durable and gave better value to the consumer, we were handicapped in merchandizing it to the furniture manufacturer because of its greater expense to him; it cost the furniture manufacturer more labor to rub; it required the application of heavier coats (or more coats) to produce the required depth of finish; and it was a more expensive formula for Parlin to manufacture in the first place. It has recently been concluded, therefore, to revise the formula of clear Duco for furniture, and Parlin is now offering a product which is the equal of the Glidden lacquer and which can be marketed at their price and show a very satisfactory margin.

Mr. Moosmann is due to land in London on Monday, July 27th, to complete negotiations with the Nobel Company for the formation of a subsidiary company to manufacture Duco in England to supply the British Empire, except Canada. Mr. Moosmann will take the occasion also to investigate the possibilities of manufacturing Duco or having it manufactured in the other European countries.

The negotiation of a contract for supplying Duco to all Generol Motors units on a sliding scale price, based on quantity discounts, was originally on the basis of a period of one year, ending June 1926, but they have recently asked us to agree to a period of six months only. While this is not as satisfactory it has been thought best to acquiese in it.

Parlin is just about completing an important step in the manufacture of Duco in changing the grinding from pebbecause of an almost universal change to the new colors for 1926 models, our automobile customers, many of whom are now in production on these models, allowed their stocks of the older colors to run out completely. This accounts for our lower sales in June, and also means that our customers are without very heavy stocks and must purchase in relatively large amounts as soon as the new production is well under way. The trend toward a greater variety of colors and the use of two and three color schemes on many of the new models means that we shall be called upon to produce a much greater variety of colors than has been the case in the past. We expect Flint sales in July to be approximately the same as June.

It has been decided to make a radical change in our policy on automobile refinishing, and to permit our shops to use Duco over old paint instead of requiring the complete removal of the old finish as has been our standard practice. This decision has been arrived at for two major reasons: First, our refinishers have been complaining constantly that they were losing business to other lacquer shops who were doing this work with competitive lacquers and in most cases telling their customers that they were using Duco, so that in the event of failure Duco was blamed in any case, so we are losing the business without safe guarding our reputation.

In addition to this, and in connection with a new General Motors contract which is mentioned below, we have been compelled to permit General Motors to furnish Duco to its direct factory branches for use in reconditioning second hand cars. This will always be done over the old finish, and it was felt that it would be unfair to our other refinishers to prevent them from following this practice while permitting the General Motors shops to do so.

In our announcement to the trade on this change in policy which is just going out now, we are describing the safest plan we know for this work, and recommending to them that they have a clear understanding with their customers that such work is not standard Duco finish and cannot be guaranteed.

We are negotiating a one year's contract dating from July 1st with General Motors which will cover the entire requirements of the General Motors units for pyroxylin finishes and a minimum of 50% of Fisher Body requirements. The Committee has approved an extension of the discount scale which has been in force this year, and by purchasing maximum amounts during any given quarter General Motors may gain up to 12% discount from the present standard price. It is hoped that, since almost all of the Fisher Body business must be included if General Motors as well as Fisher is to obtain this maximum discount, that this will prove such a strong inducement for Fisher to give us this business that competition for Fisher business will be greatly lessened.

To increase the sales of No. 7 Polish a new and more liberal scale of discounts was put in force during the month; and arrangements made to sell this through other divisions as well as Chemical Products and Paint.

Early in July our main sales office for automotive products which has been at Flint was moved to the General Motors Building in Detroit. This is a more central location, and it is expected that our work can be carried on more efficiently in our new headquarters.

The training in Duco manufacture of the superintendent of the Necol Factory in England has been completed, and he has returned to England accompanied by a representative of this Division who is to negotiate final contract with the Nobel interests and details incidental toward formation of the new english Duco Company. There seems to be little hope that we can use the Duco name in England, because it has already been trade marked and used for many years by Brown Brothers, manufacturers of automobile accessories.

FAB-2

continuing firmness in export sales. Of the $8 800 profit, $6 500 is yielded by export trade, and $2 300 by domestic.

OUTLOOK:

Newburg earnings for July should at least approximate the June level. Billings will be considerably higher but will contain a large proportion of the light sheeting qualities, on which the margin of profit is narrow. Also, there will be a further substantial charge to reclamation for defective deck material of 1924 manufacture. Fairfield's volume of sales will be substantially larger than for June, but profits will be adversely affected by the extreme high and rapid advance in the rubber market.

NEWBURGH BRANCH:

Sales. June billings for Newburgh, with comparative past figures, were as follows:

	June	May	Jan-June 1925	Jan-June 1924
General Motors	$ 60 268.	98 646.	472 521.	728 554.
Domestic; Excl. G.M. & Tontine	232 776.	246 355.	1 649 888.	1 503 215.
Tontine	48 865.	69 929.	308 035.	144 226.
Export	91 678.	97 488.	497 665.	341 999.
TOTAL	433 587.	512 418.	2 928 109.	2 717 994.

June billings were 9% less than forecast. This was due in part to a change by Chevrolet from black to dark gray upholstery, resulting in some interruption of our shipments, and in part also to congestion on the plant, resulting in numerous delayed shipments.

FAB-3

Business Booked in June amounted to 1 278 551 yards, against 658 000 yards in May. The increase is mainly attributable to large bookings from Chevrolet, Fisher Body and Hartmann Trunk Co.

Prices and Competition. In the artificial leather field, the general competitive situation continues fairly satisfactory. Trade resistance to the new quantity discount policy appears to have about disappeared. Aside from this general statement, there are no special new developments worth reporting.

Trend of Business. The normal summer decline in sales has thus far largely failed to materialize, and the near future outlook for Newburgh is favorable. Our automobile business has been very good, owing especially to the unexpected volume of the bookings by Chevrolet. In bookbinding, business has been very good in the middle west, and substantial improvement in the east is expected in the fall. The outlook in the trunk and case covering field is favorable, as is also the case in the novelty field, corresponding with the general healthy condition of retail business. In short, our present expectation is for satisfactory volume over the remainder of the year.

Export. In the export field, the outlook for volume continues promising altho on the more general and active competition it appears probable that prices will have to be figured closer than over the first six months of the year. Production in the French Fabrikoid plant is now scheduled to begin about October first. This, of course, will result in the loss to us of the French business, with some offset thru the profits expected from the new enterprise. However, some foot-hold is being secured in Great Britain, and present indications justify the hope of our doing some business also in Germany.

FAB-4

Sales of Special Significance. In June, the Hartmann Trunk Co. released 140 000 yards; all, however, of the cheap sheeting type. During the month also 60 000 yards of sheeting qualities were sold to Morris White, of New York, for pocket-book linings. In June, we booked 25 000 yards of material for closed car curtains. Thus far we have been unsuccessful in selling Fisher Body on this item, owing apparently to price considerations; but during June Fisher Body placed various orders with us for a total of approximately 40 000 yards of Fabrikoid. Included in our export bookings was an order for 15 000 yards of upholstery material for use on the Fiat car.

Complaints. In June, 63 complaints were received on Newburgh products against 72 in May, with a total of only 22 complaints unadjusted at the end of the month against 36 for the month preceding. On the 77 Newburgh complaints adjusted during the month, the total estimated loss is roundly $7 700.

Production. Production in June was roundly 701 000 stads, against 782 000 stads in May.

Solvent Recovery. Total plant recovery for June, including both activated carbon and the old type machines, was 53.1%, against 64.8% for May. Substantial losses have resulted from delays in our receipt of the necessary fans and coolers for reforming our activated carbon system; and the ill-effects of these delays, both in reduced recovery and some slowing up of production, will continue to be apparent in our July report. At this writing, however, most of the replacement units are on the plant and installed or in course of installation; and prompt relief from the adverse conditions of the past six or eight weeks is expected.

FAB-7

Pyro consumed during June was roundly 92 000 lbs. In addition about 1 100 lbs. were shipped to Canadian Fabrikoid.

FAIRFIELD BRANCH:

Sales. Fairfield billings for June, with comparative past figures, were as follows:

	June	May	Jan-June 1925	Jan-June 1924
General Motors	$ 86 598.	14 001.	132 126.	619 574.
Domestic, Excl. G.M. & Ventube	87 168.	42 609.	533 094.	668 398.
Ventube	10 169.	27 577.	88 908.	60 229.
Export	71 191.	73 619.	350 800.	155 387.
TOTAL	255 126.	157 806.	1 105 928.	1 503 588.

Fairfield's June billings show an increase of 60% over May and 10% over forecast. This is principally due to the Chevrolet contract, which was supposed to cover July, August and September, but under which a considerable volume of releases was given us in June.

For the first six months of 1925, our Fairfield sales were 27% lower than for the first half of 1924. This was due entirely to our lack of the Chevrolet and Buick business over the first half of this year. This, it will be recalled, we had the opportunity of taking at competitive prices, but refused to book on an unprofitable basis. Against the loss of volume and consequent impairment of current profits resulting from this refusal, we feel there is a substantial offset in the form of a somewhat improved general tone of the market in which we must operate.

Business Booked in June amounted to 670 000 yards, against 315 000 yards booked in May.

Trend of Business. Fairfield's June billings are larger than for any month since last November, owing chiefly to large orders

FAB-8

from Chevrolet and from Holden Body Co., of Australia. The present abnormally high prices of rubber will, of course, retard sales as well as restrict profits, particularly in the new Specialty line. Apart from this obstacle, the further development of which it is difficult to foresee, the prospects for the Fairfield plant appear favorable.

Sales of Special Significance. In June, an order was secured from Maxwell Motors for 6 500 yards of a special whipcord; and every effort is being made to use this footing for getting a larger share of their business. Both Chevrolet and Buick have abandoned drills for whipcord in their top material for open models; and a general trend to this fabric appears to be in progress.

Prices and Competition. On July 15, prices on the standard Fairfield line were increased about 7% to take care of the advance in rubber; and similar advances are being made at frequent intervals in our quotations on Specialties. In the automobile field, the general price situation continues much less satisfactory on rubber-coated than on pyroxylin-coated products. One recent Fisher Body order of 100 000 yards has been lost to Chase, and another of the same size is believed to have been lost to Haartz on prices. With respect to Fisher Body's rubber business, we have some very slight encouragement through the receipt of the recent very small order for less than 2 000 yards of double texture material for use on the open Cadillac bodies which they are now building.

Complaints. A total of 13 complaints on Fairfield products was received during June, including none believed to be of any very serious nature.

NOTE: "gmc-1054" is written in lower right corner of each page of excerpts; "PAINT LACQUERS & CHEMICALS DEPT. RECEIVED JUL 24 1925" is stamped at bottom of last 5 pages. Stamped at bottoms of successive pages of the excerpts are the numbers "4", "15", "16", "35", "36", "37", "40" and "41". Lines in left margins on pages FAB-4, FAB-7 and FAB-8 are by hand; next to handdrawn line on page FAB-7 is written: "Last Half?".

Government's Exhibit No. 455

DUPONT
ESTABLISHED 1802

E.I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

DYESTUFFS DEPARTMENT
WILMINGTON, DELAWARE

4094

March 22nd, 1924.

Personal & Confidential

Mr. J. L. Pratt, V.P.,
General Motors Corporation,
224 W. 57th Street,
New York, N. Y.

My dear Jack:-

The last two times I have been in New York I have tried to see you, but found that you were still on your vacation in the South. I would have liked very much to have been with you, for I am sure you must have had a very fine time.

What I wanted to see you about was to ask your advice on a particular subject, so I am writing you now so that I may get your advice anyhow. I have noticed considerable trouble with fading of the upholstery in my Cadillac closed car. I was wondering if you would think it possible for us to offer service to the Fisher Body people as to dyes to be used in making their upholstery which would be fast, and whether, if we could offer such service, the Fisher Body people would specify the type of dyes to be used, - not necessarily ours. Of course, if we could get them to specify ours we would be delighted, but I realize that would be difficult. This business should be very large and I do not believe we are enjoying a very large quantity of it at the present time.

I realize this is a delicate subject and one on which I would like to have your advice as to whether it is an angle which we could approach at all, and if it is, what is the proper method of approach.

Thanking you for your advice, I remain,

Sincerely yours,

W F Harrington

WFH-M

NOTE: Stamp at lower right contains initials "A.P.S.", "J.L.P." and "L.R.B." with "3/26" written after "J.L.P.".

Government's Exhibit No. 456

CONFIDENTIAL

March 26, 1924.

Mr. W. P. Harrington,
Dyestuffs Department,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

Dear Buck:

Yours of the 22nd inst., in regard to the upholstery in your Cadillac closed car, received.

As you have probably sensed, the Fisher Body outfit is pretty difficult to deal with and I hardly know how to advise you to approach them on this subject.

I am expecting to be in Detroit next week and if Fred Fisher is back from California I will try to feel him out on this subject and may be able to get some leads that would indicate whether or not it is possible for you to work along the lines you have in mind. I will advise you when I have been able to develop anything.

Very truly yours,

Vice President.

JLP:V

NOTE: Stamp at lower right contains initials "A.P.S.", "J.L.P." and "L.R.G."; above the stamp, handwritten illegible figures appear partly obliterated. Illegible writing at top is "Fisher Body".

Government's Exhibit No. 458

August 6, 1923.

Messrs. P.S.duPont
J.J.Raskob
~~G.S.Kett~~ C. S. M.
Fred J.Fisher

FOR INFORMATION ONLY

The General Purchase Committee met in Detroit last week and we spent from two o'clock in the afternoon until nearly seven in the evening discussing some very important matters, all of which I believe were constructive. I personally left the meeting very enthusiastic about the way the thing was developing: primarily the economies that are being effected by this particular thing which in the end is going to aggregate a very large sum and secondarily, the splendid atmosphere that is developing among those contributing to this work in the line of working for General Motors Corporation.

There was brought up at the meeting, and the object of this memorandum is to advise you of same, the fact that certain of our Purchasing Agents were not playing fair and for your information permit me to say that each Purchasing Agent is asked to develop the best picture he can as to his requirements of anything in which concerted buying is thought to be productive of a more effective result. Having presented his picture we then do better if we can and in the event that a general contract is made, we expect the Purchasing Agent to support the general contract. It has come to the attention of various members of the Committee that certain Purchasing Agents after receiving the general contract, the terms of which are perhaps more favorable than they themselves have been able to obtain, deal with the disappointed supplier and buy independently on a lower basis. Manifestly, such a procedure simply nullifies any action that the Committee may take for if a supplier knows that after making a bid to the Committee it can always deal with the Divisions individually on the lowest bid plus a small discount, naturally the Committee might just as well go out of business.

I presented this picture to the Operations Committee at which all the Car Division Managers were present, and they agreed with me that it was not a constructive way to do it and that it was not fair to the Committee. Therefore, following this as Chairman of the Committee I wrote to the Purchasing Agents of all Divisions and told them that they were not to be permitted to purchase outside of the General Purchase Committee's contracts and indicated that anything of that kind that was done would certainly have the disapproval of the Corporation and in a way would not be tolerated.

—2—

In view of the fact that this is the first time any Committee or even Mr. Mott or myself have laid down a definite policy or, in other words, has taken away from any Division any of its prerogatives; I want you to know all about why we did it and what support we asked before it was done for it is very likely that there may be some flare-backs from it which if not understood would lead to the belief that we have taken an arbitrary position.

I am thoroughly convinced that there is tremendous economy to the Corporation in handling matters pertaining to all the Divisions in the manner we are handling purchasing. I want it distinctly understood by everybody that neither Mr. Mott nor myself nor any Central Office authority or any part of the staff is taking any position whatsoever in this matter. It is to be clearly understood that the Divisions themselves through their appointees acting solely on and in behalf of themselves and in no sense in the interest of the central organization, are taking a position which in their judgment is constructive ~~and to~~ the benefit of the ~~stockholders of~~ General Motors Corporation.

I want to make this perfectly plain because this is the beginning of many activities of similar nature and unless the policy that I am developing is reversed by the Executive Committee these Committees representing the functional activities of the Divisions and with the full support of the Divisions will take positions in the interest of the Corporation which some Divisions may consider more or less arbitrary.

I think that the time has come when we have got to take a little stronger position of capitalizing the advantages of General Motors Corporation. I will assure you and will take full responsibility that it will have the support of the most important and most capable Divisions and the best men in those Divisions. I can not say that it will have the support of everyone because there are always people in a big organization that will take advantage of a situation for their individual profit or the profit of their particular Operation as against the whole simply because they do not always understand the picture and perhaps they think that it is a very shrewd piece of business.

Very truly yours,

A.P.S.Jr./K

1818

Government's Exhibit No. 460

MEMORANDUM.

MESSRS. P. S. DU PONT
J. J. RASKOB

At the last meeting of the Finance Committee the question of purchases by General Motors from du Pont was mentioned and I gathered that you were somewhat surprised at the statement that General Motors was not buying anywhere near all of their requirements of products, which du Pont makes, from the du Pont Company. I asked Mr. Allen to prepare a statement of those things which du Pont makes and which General Motors buys from du Pont competitors, and enclose herewith a letter from Mr. Allen which gives these figures in some detail.

L. DU PONT.

Jan. 27, 1927.

LduP/MD

NOTE: Handwritten "GMC-Products—Supplies and Materials—du Pont, E. I. de Nemours & Co." appear across top of page.

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
(Incorporated)
PAINT, LACQUER & CHEMICALS DEPARTMENT
WILMINGTON, DELAWARE

January 25, 1927.

MR. LAMMOT DU PONT, PRESIDENT.

SALES TO GENERAL MOTORS AND FISHER BODY

In response to your verbal request for a statement of the volume of business on products of this Department that are consumed by General Motors and Fisher Body, but which was not enjoyed by the du Pont Company for the year 1926, this is estimated to have amounted to a total of $5,339,500, made up as follows:—

FABRIKOID DIVISION

	Fabrikoid	Rubber	Total
G. M. Truck	$ —	$ —	$ —
Oakland	—	90,000	90,000
Olds Motor	—	13,000	13,000
Buick	—	106,000	106,000
Chevrolet	—	—	—
Cadillac	—	—	—
Yellow Truck	45,000	53,000	98,000
Fisher — Ohio	1,100,000	350,000	1,450,000
Fisher — Detroit	500,000	70,000	570,000
TOTAL FABRIKOID DIV.	$1,645,000	$682,000	$2,327,000

Chemical Products Division (*Parlin*)

Fisher Body Primer	$ 28,500
Fisher Body Surfacer	1,371,750
Fisher Body Miscellaneous, ground coats, slush coats, etc	185,000
Fisher Body — Black Duco	1,099,500
Fisher Body — Thinner used with Black Duco placed with competitors	327,750
Total Chemical Products Div	$3,012,500

The above figures for Parlin do not mention General Motors car Units. The reason for this is that Buick, Chevrolet and Olds purchased practically 100% of their requirements, so that Oakland was the only Unit who purchased anything worth while from competitors. This was mostly on Undercoaters and amounted to approximately $100,000 for the year 1926.

When we were discussing with the General Motors Purchasing Committee in the middle of last year the question of granting them a super discount as an inducement to place with the du Pont Company more of the General Motors business, they admitted that for the year up to that time General Motors and Fisher Body Company had bought a total of $12,000,000 worth of materials made by the du Pont Company, of which $8,000,000 had been placed with us and 4,000,000 with competitors.

During the last half of 1926 Fisher Body placed the greater portion of their Rubber business with Fairfield so that the above figure of $5,339,500 would be reduced approximately half a million dollars as a result of this change during the last half of 1926.

W. P. ALLEN.
/s/ W. P. A.

Year in this case means "12 months ending June 30, 1926."

NOTE. At top of first page appears handwritten notation:

"Copy Mr. P. S. duPont
" Mr. J.J. Raskob"

Also at top of first page is stamp "Received Jan. 27, 1927 Lammot duPont." In next to last paragraph word "year" has been circled in pencil and an arrow drawn to sentence which appears after signature. Italics indicate pencil insertion.

Underscoring on first page is by hand.

Government's Exhibit No. 461

GENERAL MOTORS CORPORATION

MINUTES OF MEETINGS OF INTERDIVISIONAL RELATIONS COMMITTEES

STANDING SUB-COMMITTEE

GENERAL PURCHASING COMMITTEE

(State above, name of Committee)

29th Meeting Held at Detroit, Michigan.
On Thursday, August 12, 1926.
At 10:00 A. M.

CONFIDENTIAL

Present: Messrs: G.G.Allen Messrs: C.O.Miller
D.F.Hulgrave D.P.O'Keefe
James Lynah

Meeting called to order by Mr. Allen.

1. General Matters:

(a) Report of Sub-committee on Office Furniture.

After analysis and comparison of general contract proposals on office furniture submitted by the leading distributors of such items, the Sub-committee recommended that a general contract for General Motors requirements of such office furniture and equipment as supplied by Shaw-Walker Company be awarded to that company for period of one year from Sept. 1, 1926. Contract authorized. The committee records the fact that participation in this contract by all divisions, branches, and other units of the Corporation will lead to substantial economies not only because the net prices are very low, but because there is a cumulative quantity discount provision in the contract.

Secretary was instructed to address a letter to the Purchasing Agents of all divisions urging their support and participation in this contract.

(b) Summary of Lists of Sources of Machinery and Equipment.

Secretary submitted lists supplied by Car Divisions showing sources of machinery and equipment from whom purchases, by individual divisions, for the year 1925 exceeded $5,000.00, for the purpose of selecting several companies with whom negotiations for supplying equipment on contracts with sliding scale of quantity discounts on total volume of business placed might be carried out.

The committee will determine from the results of these negotiations whether to extend the development of such proposals. The companies designated to be dealt with are—

The Fellows Gear Shaper Company
Cincinnati Milling Machine Company
Landis Tool Company
Norton Company
Potter and Johnson Machine Company

(c) Disposition of Penalty under Evans-Winter Hebb Inc. Printing Contract. Under the printing contract with Evans-Winter Hebb Inc. it is provided

—2—

that if in any one year we shall not place a minimum of $1,000,000.00 of business, we agree at the end of such year to pay the contractors the sum equivalent to 10% of the difference between the amount of business actually placed during the year and $1,000,000.00.

Secretary read a letter from Evans-Winter Hebb, Inc. recording the fact that for the year beginning July 1, 1925 and ending June 30, 1926, business placed amounted to $906,675.03 which warranted a penalty of $9,332.50. Contractors offer to waive temporarily the penalty for the first year for a period of six months, pending the results of the first half of the second year (period July 1, 1926 to December 31, 1926), with the statement that if results come up to their expectations they will feel justified in cancelling the penalty, with the understanding that this would have no bearing on succeeding years.

The committee accepted the offer.

(d) Application of Quantity Discount Schedule to Combined Purchases of Duco, Thinner, and Other Items Purchased from duPont Company. Secretary presented statement showing volume of business done with the duPont Company and additional volume of business which they could supply, compiled from statements submitted by divisions.

Mr. W. P. Allen of the duPont Company was invited to discuss with the committee the feasibility of an arrangement whereby a sliding scale of quantity Belts discounts could be applied to the aggregate purchases made from the duPont Company. This would include Duco, Thinner, Fabrikoid, Rubber Covered Fabrics, Pyralin, Paints for Maintenance Purposes, etc.

After thorough discussion of all phases of the matter, Mr. Allen agreed that such an arrangement is feasible, and that he would work out a tentative proposal for submission to the committee.

(e) Standardization of Drill Jig Bushings.

The committee approved the suggestion of the Standards Section that efforts be made to standardize Drill Jig Bushings, the range of which includes plain, slip, press fit, and liner bushings, and authorized submission to Sub-committee on Taps and Gages, with the request that they conduct a preliminary study to determine the desirability of such a standard and if so found, conduct a complete study leading to development of standards.

2. Specifications Approved for Submission to Divisions.

(a) Gloves and Mits.

(b) Brooms and Brushes.

(c) Buffing and Polishing Wheels—Polishing Cloths.

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3. General Contracts Authorized.

   (a) Trisodium Phosphate.

   Contract with Industrial Chemical Company for General Motors requirements of Trisodium Phosphate authorized for the period of one year from September 1, 1926.

—3—

4. General Contracts Extended.

   (a) Cleveland Graphite Bronze Company. Brief No. 281.

   Extension of contract for period of one year from January 1, 1927 authorized because this company agreed to increase the sliding scale of quantity discounts beyond the present minimum of 10% for $1,000,000.00 to include 11% for $11,000,000.00, 12% for $12,000,000.00 etc., and to make this new scale retro-active to January 1, 1926. On account of the volume of business done so far this year there will be a substantial cash refund.

5. Items Approved for Submission to Sub-committee on Non-Productive Materials of Works Managers Committee for Study.

   (a) Abrasive Paper and Cloth.

   (b) Acetylene Welds and Welding Materials.

   (c) Belts.

   (d) Cut Off Wheels.

   (e) Paint Brushes.

   (f) Files.

6. Items Approved for Questionnaire.
   - (a) Mimeograph Machines and Supplies.
   - (b) Cardboard Boxes and Shipping Containers.
   - (c) Time Clocks and Cards.
   - (d) All Rubber Parts Used on Automobiles.

7. General Contracts Approved for Redevelopment.
   - (a) Carbon Paper.
   - (b) Typewriter Ribbons.
   - (c) Elliott Fisher Rolls.

8. General Contracts Approved for Renewal for Seller's make of Items.
   - (a) Brief 316. Goggles and Head Masks. American Optical Company for period of one year from expiration of present contract.
   - (b) Brief 359. Mailing Machines. Postage Meter Company for period of one year from expiration of present contract.
   - (c) Brief 367. Files. Continental File Company for period of one year from expiration of present contract.

9. Unfinished Business:

   Authorized for general contract.
   - (a) Hospital Supplies.
   - (b) Lubricating Fittings.
   - (c) Carbon Paper.
   - (d) Typewriter Ribbons.
   - (e) Elliott Fisher Rolls.

Authorized for Questionnaire.

(f) Mill White Paint.

(g) Refractory Materials.

(h) Mimeograph Machines and supplies.

(i) Cardboard Boxes and Shipping Containers.

(j) Time Clocks and Cards.

(k) All Rubber Parts Used on Automobiles.

General Matters.

(l) Summaries of Monthly By-Products Reports and Standardization of Scrap Specifications.

(m) Application of Quantity Discount schedule to combining purchases of items from Standard Oil Company.

(n) Horton Chucks.

(o) Items for consideration for Quantity Discount.

Items for Study by Non-Productive Materials Subcommittee.

(p) Abrasive Paper and Cloth.

(q) Acetylene Welds and Welding Materials.

(r) Belts.

(s) Cut-Off Wheels.

(t) Paint Brushes.

(u) Files.

James Lynah
Executive Secretary.

Government's Exhibit No. 462

"COPY"

September 23, 1926

Personal & Confidential

Mr. James Lynah,
Executive Secretary,
General Purchasing Committee,
General Motors Corporation,
Detroit, Michigan.

Dear Sir:

I received your letter of September 20th advising me that the next meeting of your Committee will be held in Detroit on Wednesday, September 29th, and I find that I am booked up for an important meeting on the same day in New York from which I cannot be excused without great embarrassment. We have given the question of an additional sliding scale of quantity discounts based on total dollars of purchases by the General Motors group from the duPont Company a great deal of study since my discussion with your Committee last month, and, since I shall be unable to present this in person to the Committee, I have decided to outline the plan to you by letter. The plan itself, I believe, leaves little or nothing for discussion as it involves the largest concessions which it is possible for us to make, and I believe is in the form which the Committee desires. Moreover, it involves no obligation whatever on the part of General Motors group, and is wholly in the nature of an incentive to the members of the group to place a larger proportion of their purchases with the duPont Company. It likewise is entirely aside and beyond the individual purchase contracts which are at present in effect or which may be made in the future.

—2—

In deciding upon the discounts which are offered in this plan, we have waived aside all questions of variation in margin of profit between different products, realizing that to be successful the plan must offer the greatest possible incentive to your group and at the same time secure an advantage for the duPont Company as a whole. As applied to some of the products which we sell to your group, the operation of the plan will result in actual loss; but, as applied over the entire range of our products, we believe that it will be profitable both to the General Motors group and the duPont Company. The plan itself follows.

Confidential Discount Plan
Effective October 1, 1926, to September 30, 1927, Covering all Purchases Made by the G.M.C. Group from E. I. duPont de Nemours & Company

The plan outlined herein will apply to all purchases made by the American Divisions of the General Motors Corporation and the Fisher Body Corporation, but will exclude purchases made by the General Motors Export Company, General Motors of Canada, Ltd., and any overseas divisions or plants of the G.M.C. It is necessary to exclude the Export Company and foreign subsidiaries because our business in Canada and in the United Kingdom of Great Britain is handled by subsidiary companies in which we own only a minority stock interest and whose price policy is beyond our control. Moreover, production costs in these countries are generally much higher than ours due to lower output, higher taxes and protective and/or revenue tariffs on essential ingredients. Likewise, in foreign countries where our business is not conducted through subsidiaries, we are committed by contract with agents whose resale prices are similarly beyond our control. Moreover, the total volume of such purchases is of little significance. For the year ending June 30, 1926, our total sales to the Export Company amounted to only $179,000 out of total purchases by the General Motors group of $8,109,000, or 2.2%.

During the year beginning July 1, 1925, and ending June 30, 1926, the G.M.C. group purchased from the duPont Company (exclusive of export purchases) $7,930,034 worth of products. Your current purchases are at a much higher rate. During the months of July and August, 1926, they were at the annual rate of $10,750,494. We have decided to use as the base line for this plan your purchases for the year ending June 30, 1926, of approximately Eight Million Dollars ($8,000,000).

On September 30, 1927, or as soon thereafter as the figures can be obtained, we will return to the General Motors Corporation, in cash, the following amounts based upon purchases made from us in excess of $8,000,000 during the year ending on that date.

Amount of Purchases	Amount to be Returned
$8,000,000	o
9,000,000	$75,000.
10,000,000	175,000.
11,000,000	300,000.
12,000,000	450,000.
Each additional 1,000,000	150,000.

As explained by me at the time of my discussion with your Committee, the success of this plan hinges largely on the ability of the members of your Committee to treat the details of this arrangement as a confidential matter between the two companies. You will readily understand that our continuing to make adjustments of this size is contingent upon our ability to maintain our price structure to customers other than the General Motors group, and if this arrangement is translated into cents per gallon, yard or pound of individual commodities and becomes general knowledge in the trade, our entire price structure will collapse, and we will thereafter have insufficient earnings to continue the arrangement.

I regret very much indeed that I shall not be able to present this matter to your Committee in person, but will be very glad to attend any subsequent meeting or to call on individual members of the Committee, if any of them so desire, at any other time which suits their convenience.

Yours very truly,

General Manager.

W. P. Allen
AMG

NOTE: "D 6410" is written in lower right corner of each page

Government's Exhibit No. 463

"COPY"

PERSONAL & CONFIDENTIAL

September 23, 1926

Mr. James Lynah, Exec. Secretary,
General Purchasing Committee,
General Motors Corporation,
Detroit, Michigan.

Dear Jim:

I am enclosing a letter addressed to you as Secretary of the Purchasing Committee, outlining the plan which we have developed to put into effect the suggestions made by your Committee at the time of my discussion with them. In this plan we have gone the extreme limit, and I sincerely hope that it will appeal to the Committee and will produce the desired result.

I want to say a word to you about the desirability of keeping this matter confidential and treating it as an arrangement within the duPont-G.M. family rather than as a mere concession in prices on individual commodities. A few days after I had my last discussion with the Committee, I received an urgent call from the General Manager of the Flint Paint and Varnish, Ltd. of Canada, advising me that General Motors of Canada had asked Flint to reduce prices immediately in accordance with the new scheme which duPont was putting into effect with General Motors in the States. I have explained in my formal letter to you why it is not possible for us to include the Export Company and your foreign subsidiaries in this arrangement, and I again want to emphasize the importance of treating this whole matter in a

—2—

confidential manner. It is obvious that we would be unable to continue this arrangement unless we can secure much higher prices from our other customers; and, if the terms of this arrangement become public knowledge in the trade, we would inevitably be forced to reduce prices generally, which would in turn wipe out the earnings which we purpose to return to you as a rebate under this plan.

With kind regards, I remain,

Sincerely yours,

W. P. Allen
AMG

encl.

Note: "C 6410" is written in lower right corner of each page.

2

Government's Exhibit No. 464

"COPY"

GENERAL MOTORS CORPORATION
DETROIT MICHIGAN

September 30, 1926.

Mr. W. P. Allen,
E. I. duPont de Nemours & Company,
Wilmington, Delaware.

Dear Sir:

At the meeting of our Standing Sub-committee on 29th inst. it was agreed to accept the confidential discount plan, effective October 1, 1926, covering all purchases made by the General Motors group from E. I. duPont de Nemours & Company, with the following provisions which we assumed would meet with your approval.

1—That in order to make the plan end with the Car Division year, the first period effective October 1, 1926; expire June 30, 1927. Thereafter renewals would be for the full car year.

2—That the above period being for nine months the base line would be $6,000,000 instead of $8,000,000, and the amounts to be returned pro-rated accordingly.

3—That with respect to amount of purchases; on amount of purchases intermediate between the figures there would be returned to us an amount pro-rated on any amounts of purchases intermediate to those listed in your letter.

We assumed this was the spirit of your letter but desired to confirm it.

The urgent necessity of keeping your plan confidential was emphasized and it was agreed that instead of issuing our usual contract brief and recording this transaction in the minutes of the meeting, that copies of your letter, under confidential cover, would be sent to the Purchasing Agents only, with the request that they exercise the greatest care in holding the plan confidential.

Very truly yours,

GENERAL PURCHASING COMMITTEE,
James Lynah
Executive Secretary.

NOTE: "B 6410" is written in lower right corner.

2

Government's Exhibit No. 465

E. I. du Pont de Nemours & Company
(INCORPORATED)
WILMINGTON, DELAWARE

PAINT, LACQUER & CHEMICALS DEPARTMENT

Mr. James Lynah, October 2, 1926.
Executive Secretary,
General Purchasing Committee,
General Motors Corporation,
Detroit, Michigan.

Dear Sir:

This will acknowledge your letter of September 30th, advising me of the acceptance by your standing sub-committee of the confidential discount plan which I presented to you in my letter of September 23d. The three provisions which you have added to the plan as presented by me are, as you have assumed, entirely within the spirit of our proposal, and you may take this letter as our acceptance of these provisions.

I am glad to note from the last paragraph of your letter that you have adopted a method of handling this transaction which will reduce to a minimum the likelihood of the information leaking out. Such a result, as I pointed out to you in my original letter, would be equally disastrous to the General Motors group and ourselves as it would make it impossible for the plan to be continued.

Yours very truly,

W. P. Allen General Manager.
AMG

Note: "A 6410" is written in lower right corner.

Government's Exhibit No. 466

4120

C-17

FORM [illegible] 3M 7-26

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
WILMINGTON, DELAWARE
PAINT, LACQUER & CHEMICALS DEPARTMENT

RECEIVED
OCT 4 1926
LAMMOT DUPONT

CONFIDENTIAL

October 2, 1926

15 % too much
& I should separate
st.f. selling effort by duP to GM
Will lose [illegible], in future business

Mr. Lammot duPont,
President.

Re: Confidential Discount Arrangement
with General Motors Group. ROY H.

I advised the Executive Committee verbally at a recent meeting of our plans with respect to a confidential arrangement with the General Motors Purchasing Committee by the operation of which we hoped to get a larger proportion of the total G. M. C. business through the use of a sliding scale of quantity discounts applying to all purchases made by the G. M. C. group from duPont Company.

While I do not think it necessary to report this matter in detail to the Committee, it being within the authority of the department, I am enclosing copies of the correspondence which, I think, you will find of interest.

W. P. Allen ✓

mp 2858-T

W. P. A.
AMG

ENCLS.

Government's Exhibit No. 467

EXCERPT FROM

DECEMBER 23, 1926 MONTHLY REPORT - NOVEMBER, 1926 - PAINT, LACQUER & CHEMICALS DEPARTMENT (MR. W. P. ALLEN, GENERAL MANAGER) TO THE EXECUTIVE COMMITTEE OF THE DU PONT COMPANY (GMC-1057)

* * *

The General Motors Corporation are unwilling to make a requirements contract for 1927. We have reduced the price of thinners from $1.75 per gallon to $1.50 per gallon in one instance, and from $1.40 to $1.20 in another instance, these prices being subject to a quantity trade discount, which would in the latter named instance mean a delivered price to General Motors of $1.026 per gallon. Competition in the pyroxylin finish field has apparently caused the General Motors to adopt this attitude.

In addition to the above, some divisions of the General Motors Corporation at least will undoubtedly make their own thinners.

* * *

Sales of Special Signifiance. We have further releases for 58 000 yards of heavy qualities from Chevrolet Motor, shipments to be made during the latter part of December and early part of January, following present schedule against which we are now shipping. We were successful in closing with Buick Motor Co. for their Fabrikoid requirements for the first half of 1927 at our prices, notwithstanding competition from Federal Leather Co. at a differential of 11¢ per yard under our quotations; and orders have been received from them for 10 000 yards of 6200 quality for shipment over the balance of December and early January. . . ."

Government's Exhibit No. 468

EXCERPT FROM

JANUARY 24, 1927 MONTHLY REPORT--DECEMBER, 1926--
PAINT, LACQUER & CHEMICALS DEPARTMENT TO THE
EXECUTIVE COMMITTEE OF THE DU PONT COMPANY (GMC-1059)

* * *

"On our 1927 contract with General Motors we are unable to get any definitely specified amount of business in the contract. Last year we had a provision in the contract giving us all the General Motors business with minimum of 50% of the Fisher Body purchases of pyroxylin materials. In the 1927 contract General Motors agree only to purchase their requirements of our make of pyroxylin materials which, of course, may be as little or as great as they care to purchase from us.

* * *

Insistence of General Motors on cheaper thinner prices with the ever present possibility of that customer manufacturing its own requirements, will necessitate a further drastic cut in thinner prices if we are to retain this business at all. General Motors has been offered a usable mixture by the U. S Industrial Alcohol Company on a requirements contract for the first half of 1927 at 81¢ per gallon delivered. It is our understanding that General Motors specified the composition of this material, but they did not give us an opportunity of bidding on this kind of a proposition. We feel that we must hold this business and are making an offer now at approximately this same net price when all discounts are included. We shall, of course, have to extend this to other customers, and it means that profits from thinner business during 1927 will be about $400,000 less than in 1926.

* * *

Sales of Special Significance. In the automotive field, we were successful in closing with Oakland Motor Company for their requirements for the first six months of 1927, notwithstanding lower prices being quoted by Federal Leather and Cotex. Releases against this contract, amounting to 12 000 yards for at once shipment, have been received. Orders for 27 000 yards were received from Fisher Body Company, most of which was for Chevrolet work for shipment during January and February. . . .

EXCERPT FROM

Government's Exhibit No. 469

GENERAL MOTORS CORPORATION

Excerpts from Minutes of Meeting No. 25 of Interdivisional Relations Committee - General Purchasing Committee held January 26, 1927

* * *

DUCO AND DUCO THINNER.

Because the U. S. Industrial Alcohol Sales Company required a general contract for a specified minimum of thinner to be taken in six months, and because of marked reductions in prices on Duco and Thinner by the duPont Company, the matter was re-submitted to the Committee for consideration. Considering the interest of the Corporation from every angle, and particularly the initiative of the U. S. I. A. Sales Company in setting the lowest levels yet reached for thinner prices, it was agreed to offer them a contract for six months on 601 and 614 thinner for 50% of the entire Corporation's requirements.

The duPont Company's prices on duco, effective January 24, and new prices on thinners, effective as of that date, were accepted to apply on contract for our requirements of Seller's make.

At the foregoing meeting, held at Detroit, Michigan, on January 26, 1927, at 9:30 a.m., the minutes disclose that the meeting was called to order by Mr. Pratt and that the minutes were recorded by James Lynah, Executive Secretary.

The following persons were present:

G. G. Allen
W. F. Armstrong
D. F. Hulgrave
James Lynah
C. O. Miller

D. P. O'Keefe
J. L. Pratt
J. T. Stratman
Charles Fisher

Government's Exhibit No. 470

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

4124

October 28, 1926.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
224 West 57th Street,
New York City, N. Y.

Dear Mr. Sloan;

Our Paint Department tell me they have developed a pyroxylin surfacer for automobile bodies which has been adopted by some important automobile manufacturers, and which in the opinion of our men, produces better finish than the ordinary surfacers.

General Motors and Fisher have not adopted this new surfacer, apparently because it is somewhat more expensive than what they are using. Our men are perfectly sure that they can prove that wherever Fisher builds a new plant for body finishing it is more economical to use the new surfacer than that now used, simply because the new surfacer does not require as expensive an installation in ovens, etc.

Recalling the difficulty that was had in "selling" Duco to the General Motors units, I am impelled to drop you a line in this case, feeling that the same inertia is acting against this pyroxylin surfacer as delayed the adoption of Duco.

Yours very truly,

L du Pont

PRESIDENT.

LduP/MD

Note: "RECEIVED OCT 29 1926 A.P. SLOAN, Jr." is stamped at upper right; above and to the right of it appears a routing stamp bearing the initials "A.P.S.", "J.L.P." and "L.R.B.", with "10/29" written after "J.L.P.".

Government's Exhibit No. 471

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK

RECEIVED
OCT 30 1926
LAMMOT DUPONT

October 29, 1926.

ANSWERED
OCT 30 1926
LAMMOT DU PONT

Mr. Lammot duPont, President,
E. I. duPont de Nemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

In Mr. Sloan's absence your letter of October 28th in regard to the new pyroxylin surfacer for automobile bodies has been referred to me.

I think the reason General Motors and Fisher have not adopted this new surfacer is because they believe our Research Department have developed less expensive thinners and pyroxylin mixtures that will be perfectly satisfactory for automobile finishes than the duPont Company are now supplying and, naturally, they resist the effort of your organization to sell them on something that from a cost standpoint instead of being less is more expensive.

There is an unfortunate feeling in our organization that the duPont Company never takes the initiative in bringing costs down. All lowering of cost has to be initiated by us through bringing in competition. This is not the case with most of our suppliers, who, recognising that the increased volume of automobile business has been largely developed through lowering cost of the automobile, are always working with us and quite frequently on their own initiative give us price reductions through methods that they have developed in lowering their own costs. The impression in our organization in this regard toward the duPont Company may be unjust, but, nevertheless, it exists and I think some real effort should be made in your organization to counteract this impression.

Notwithstanding the above, I am calling the new development to the attention of Mr. Ed Fisher, who has charge of the installation of equipment in the Flint Body plant, as indicated by the enclosed letter.

Yours very truly,

J. L. Pratt

Vice President.

JLP:L
Encl.

Government's Exhibit No. 472

October 29, 1926.

Mr. Ed Fisher,
Fisher Body Corporation,
Detroit, Michigan.

My dear Ed:

I have learned for the first time that the duPont people claim to have a new type of Duco that produces a better finish than their present Duco. They also claim that this new Duco does not require as expensive an installation in ovens and other equipment for application and that in a new plant the installation could be so much simpler than the present installation for application of Duco that notwithstanding that this new Duco will cost more money, it will be more economical to use and will produce a better finish than that at present used.

I do not know whether this has been brought to your attention, but thought if it had not, you would be very glad to know of it so that if the claims of the duPonts can be substantiated, you would like to take advantage of anything that it offers in the new plant which you are now equipping at Flint.

Yours very truly,

J. L. Pratt
Vice President

JLP:L

CC – Mr. Lammot duPont, President
E. I. duPont de Nemours & Co.
Wilmington, Del.

NOTE: "gmc-594 1" is written in lower right corner. Italics indicate handwriting.

Government's Exhibit No. 475

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK

NOV 10 1926
LAMMOT DUPONT

November 8, 1926.

Mr. Lammot duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

Ackn 11/12

My dear Lammot:-

I have been looking over your correspondence with Mr. Pratt, started by your letter of October 28th in which you advised us of some developments in your Paint Department.

I appreciate the point made in the last paragraph of your letter regarding difficulty in selling "Duco". I do not think, however, that "Duco" is any different from anything else. It is a case of selling most everything and it gets most discouraging at times. I sometimes come to the conclusion that a big organization like General Motors can not lead due to the fact that there is so much inertia within itself. However, that is not going to cause us to put forth any less effort to overcome the resistance.

I have gone over Mr. Pratt's reply and hope the proper department in your organization will go into the matter and if, with all the facts before you, you still feel that there are any bets we are overlooking, I would appreciate it if you would write me a letter stating exactly the picture as you see it and I will endeavor, in a proper way, to work it along in the hopes that we can, as soon as possible, capitalize any suggestions that you may have to make.

Very truly yours,

Alfred P. Sloan Jr

APSJr./K

E

Government's Exhibit No. 476

Letterhead of
FISHER BODY CORPORATION
DETROIT, MICH.

November 12, 1926.

Mr. John L. Pratt,
General Motors Corporation,
New York City.

My dear John:

✓

Your letter of October 29th regarding Duco with copy of Mr. Lammot DuPont's letter to you on this subject at hand. For your information, we have done a whole lot of experimental work with pyroxylin under coats and up to the present time we have not discovered anything that would equal, taking everything into consideration, our present system, which is the oil under coats. The experience we have had is that we might save a lot of time in the drying of the pyroxylin under coats over our present system, but the cost is far greater and would by far offset the saving made in the drying time. We have been using this method since we started to use Duco and have never had any trouble. At the present time there is one concern that is using pyroxylin under coats and they are having a great deal of trouble out on the road, which is causing them a heavy expense.

I am writing you this information as I think you will be very glad to become acquainted with same if this question comes up again in the future.

Yours very truly,

E. F. Fisher.

EFF.S

Note: Routing stamp bearing initials "A.P.S.", "J.L.P." and "L.R.B.", with "11/15" written after "J.L.P." appears in upper right corner. Check mark and underscoring is by hand. Italics indicate handwriting. Illegible initial is written in upper right corner.

November 15, 1926.

Mr. Lammot duPont, President,
E. i. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

Referring to our recent correspondence in regard to the subject of pyroxylin undercoating, the use of which the DuPont Company are now promoting among the automobile industry.

Won't you please have a check made and advise if those companies which you have been able to get to use pyroxylin undercoats are having an excessive amount of trouble with same in the field, as I have been advised that one automobile concern using pyroxylin undercoats is having a great deal of trouble out on the road, which is causing them a heavy expense.

Very truly yours,

Vice President.

JLP:V

copy to Mr. A. P. Sloan, Jr.

NOTE: "G.M.C.—Products—Supplies & Materials—Paints—Duco" is written across top of page, followed by an illegible initial. A hand-drawn line appears under "pyroxylin undercoating" in the first paragraph.

Government's Exhibit No. 478

November 16, 1928.

MR. [illegible]. P. ALLEN, GENERAL MANAGER:

As you know, I took up with Mr. Sloan the matter of adopting a pyroxylin surfacer in the plant being built at Pontiac, having understood from Mr. Moesmann that the pyroxylin surfacer had been offered them but they had not adopted it and were proceeding to build the Pontiac plant with necessary ovens, etc. for using old type surfacer.

On November 8th Mr. Sloan wrote me, stating among other things, that he hopes "the proper department in your organization will go into the matter and if, with all the facts before you, you still feel that there are any bets we are overlooking, I would appreciate it if you would write me a letter stating exactly the picture as you see it and I will endeavor, in a proper way, to work it along in the hopes that we can, as soon as possible, capitalize any suggestions that you may have to make." If it is possible to have Mr. Moosmann set this matter out in writing, I think I could arrange to have him present the matter directly to Mr. Sloan and perhaps some good might be accomplished.

LduP/MD

PRESIDENT.

Government's Exhibit No. 479

E. I. du Pont de Nemours & Company
Incorporated
Wilmington, Delaware
Executive Offices

December 17, 1926.

4132

Mr. John Pratt, V. P.,
General Motors Corporation,
New York City, N. Y.

Dear John:

Referring to your letter of November 15th, in regard to pyroxylin undercoatings, in which you asked whether any companies have been having trouble with their use; would state that, after a survey, our Paint Department report to me that our Mr. Moosmann discussed this matter with you and pointed out that, as far as our information goes, the Peerless, which uses a competitive product, is probably the one you had in mind.

As far as we know, there are no companies using our pyroxylin undercoating which are having any serious difficulty. From such information as I can secure I am convinced that G. M. is making a mistake in not adopting pyroxylin undercoatings, and hope that you or someone else will see that the matter is given careful consideration.

Yours very truly,

L du Pont

PRESIDENT.

LduP/MD

NOTE: Marks below and to the right of date appear after "J.L.P." in routing stamp bearing initials "A.P.S.", "J.L.P." and "L.R.B.".

Government's Exhibit No. 490

EXCERPTS—

April 21, 1928

To: EXECUTIVE COMMITTEE

FROM: PAINT, LACQUER & CHEMICALS DEPARTMENT

PAINT, LACQUER & CHEMICALS DEPARTMENT
MONTHLY REPORT — MARCH 1928

April 17, 1928

To: W. Richter, General Manager

From: Fabrikoid Division

Report for March, 1928

Eliminated

4 2149

Profit over direct cost on transfers of Brush Duco materials to Philadelphia are $4,874.71 for March and $11,225.52 for the year to date.

SALES	March 1928	February 1928
Duco (Domestic)		
Parlin & Flint	$1,201,486.48	$1,079,602.84
Other Products (Domestic)		
Parlin	245,808.77	243,966.05
Flint	219,638.17	164,379.38
Transfers		
Duco (P. & F.)	27,885.39	11,362.50
Parlin Other Products	112,357.59	85,931.95
Flint Other Products	76.90	62.95
Export		
Duco (P. & F.)	110,167.56	86,841.12
Parlin Other Products	6,997.96	3,554.87
Flint Other Products	5,667.55	744.11
TOTAL	$1,930,086.37	$1,676,445.77
Duco	1,339,539.43	1,177,806.46
Parlin Other Products	365,164.32	333,452.87
Flint Other Products	225,382.62	165,186.44

Distribution of Duco sales:

	March 1928	To Date 1928
COLORED DUCO	257,631 gals.	743,750 gals.
General Motors Units	36%	45%
Other Motor Manufacturers	18	17
Automotive Refinishers	18	14
Railroads	2	2
Furniture Manufacturers	10	7
General Industrial	8	6
Export	8	9
TOTAL	100%	100%
CLEAR DUCO	40,692 gals.	131,091 gals.
General Motors Units	4%	6%
Other Motor Manufacturers	2	1
Automotive Refinishers	3	3
Railroads	2	1
Furniture Manufacturers	70	68
General Industrial	15	17
Export	4	4
TOTAL	100%	100%

Total sales exceeded forecast by 2.18% and established a new record month, being 2% higher in value and 13% higher in quantity than our previous record month of March, 1927.

The high sales of colored Duco and Thinner reflect the continued activity in the autmotive industry.

While the March sales of Parlin Products other than Duco were not much greater than February, they included items which carry a higher rate of profit, which accounts for the increase in net from $39,416 in February to $60,893 in March shown above.

OUTLOOK

The outlook for April in the general industrial field indicates that some increase will be made over March.

The present outlook is for a continuation of a high rate of production in the automotive field. There may be a slight slowing-down on the part of Chevrolet.

PRICE & COMPETITIVE SITUATION

The price of automotive Duco has been reduced from a list of $3.00 to a list price of $2.75 per gallon, subject to the usual quantity discounts, which leaves General Motors' net price at $2.53 per gallon. This new price is effective as of April 1st.

Naturally the manufacturers welcomed this reduction, although several of them did not fail to remind us that our competitors had long since favored them with lower prices. On the part of Fisher Body they expressed their satisfaction, but at the same time they wrote Parlin, under date of April 2nd, as per attached. Parlin's response, under date of April 7th, is also attached hereto.

4136

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FISHER BODY CORPORATION
DETROIT, MICH.

April 2, 1928.

E. I. DuPont de Nemours & Co.,
Parlin, New Jersey.

"Attention Mr. Flaherty"

Gentlemen:

Acknowledging receipt of your letter of March 30 in which you confirm revised prices on 244 and 235 line of Ducos, as well as the 233 line of Pyroxylin Surfacers and Primers.

In revising the prices of the above mentioned material we wish it thoroughly understood that you will not, in any way, cheapen the product of your merchandise, or use any substitute in lieu of the ingredients used in the past without first bringing any such change to our attention.

Trusting that we may have an early acknowledgment of this letter.

Yours very truly,

FISHER BODY CORPORATION
Division of General Motors Corporation.

By (Signed) J. T. STRATMAN
Director of Purchases

JTS:FA

C.C. To Mr. R. C. Williams
General Motors Bldg.
Detroit, Mich.

C
O
P
Y

April 7, 1928.

Fisher Body Corporation,
Detroit, Michigan.

Gentlemen: Attention of J. T. Stratton, Director of Purchases

In acknowledging receipt of your letter of April 2nd, we should like to take advantage of this opportunity of outlining to you our policy regarding the maintenance of standards of quality in Duco.

We have no intention of lowering the quality of value of Duco, but naturally shall be stimulated by the low prices now prevailing on this product to make every legitimate effort to lessen its cost; in fact, we definitely contemplated making such changes when putting the recent price reduction into effect, because only in this way can the business be made to yield a fair return. In continuing to maintain as a fixed policy our present high standard of quality, our responsibility for the product we furnish will continue in the future exactly as it has been in the past.

In taking advantage of any opportunities of lowering our costs as new solvents may be made available, or changes in solvent market conditions may offer less expensive combinations, we shall, of course, advise you in advance of any impending changes, provided they will in any material way affect or require changes in your shop practice. Any minor formula changes, however, which do not affect working qualities, we would not expect to call to your attention.

In the past it has been our practice to take up any important formula matters with Mr. Mougey, and we should like to inquire if this will be acceptable as due notice to you of such changes or should we in addition bring them to the attention of some individual in your own corporation?

Very truly yours,

EMF:MAP

Assistant Division Manager

GENERAL

There is a trend in the automotive industry to specify their own chemical composition for lacquers rather than to accept the standard Duco formulation. An outstanding instance of this is at Dodge, where the sale that had been made to them of 17,000 gallons of Duco fell through because of our refusal to alter the composition of Duco to conform to their ideas. While this is put in the guise of striving for improved quality, the fact of the matter is that in practically all cases a lacquer of higher film-forming constituents is specified. The net result of this is that such a higher solids lacquer would take more thinning and go further per gallon on the job. In other words, what they are looking for is a still further reduction in the price of their lacquer. In the case of Chevrolet, who have approached Parlin for a product of this type, it was been estimated that the Parlin cost of manufacture would be increased 25¢ per gallon.

Parlin faces a problem in the increasing burden of supplying special small lots of individual colors, either for refinishing purposes or to meet the individual tastes of customers in the higher quality car such as Cadillac. Some of these specials are for as little as a pint at a time, and in the case of Cadillac the average order for these special jobs runs from a gallon to two gallons. All of this is quite ex-

FAB-2

At Newburgh, in consequence of heavy releases from practically all lines of business, March billings reached the highest figure in our history. It is expected that our volume for the next two months will be at a high level, but probably 10% less than the high figure for March. A good volume of business is expected from the kitchen shelving and tablecloth markets. Reports from the bookbinding and case covering trades indicate that both these industries are looking forward to a good spring business. In the automotive field, our expectations have recently encountered a severe setback thru the loss to Textileather of probably the major part, and perhaps all, the business in pyroxylin materials for Buick bodies. This business was taken, according to our information, at an extremely low price (reported to be at least ten cents a yard under our quotation) evidently on the policy of sacrificing profits in order to become re-established in the enjoyment of this part of the Fisher business. On Tontine we expect an increased volume during April and May, in line with the customary spring demand in the shade industry. Owing mainly to a well distributed volume of general business, earnings at Newburgh are expected to continue at a substantial rate for the near future months, and our hopes are for maintaining this position throughout the year.

Gray Goods Position April 1st. Fairfield requirements for the automotive trade are about 90% covered for the period April-June; while no coverage has been made for the months of July, August and September. Requirements of Specialty fabrics are 100% covered for April-June and 10% covered for July-September. Stocks are estimated to be held at about 1% above the market.

Newburgh Fabrikoid requirements are 55% covered for April-June and 5% covered for July-September. Tontine requirements are 60%

covered for April-June. Fabrikoid stocks are estimated to be held at about 2% above the market and Tontine stocks at about market.

FAIRFIELD BRANCH:

Sales

FAIRFIELD BILLINGS COMPARISON—DOLLARS

	Mar. 1928	Feb. 1928	To Date 1928	To Date 1927
Carriage Cloth—G M C	$244,021	$251,446	$734,285	$734,636
" " All Others	19,761	19,669	57,745	168,759
Specialties—Ventube	27,006	8,316	54,281	56,218
" All Others	94,819	121,242	305,808	261,798
Export—All Products	38,525	33,331	115,107	264,054
Transfers—Newb. Cement	5,299	9,158	24,559	3,235
Total	$429,431	$443,162	$1,291,785	$1,488,700

Production. Fairfield production for the month totaled 880,000 stads or 80% of the rated normal capacity as compared to 980,000 stads for February.

Safety. There were no major accidents at Fairfield during the month and sub-majors totaled three.

Construction Appropriations. At Fairfield, two major projects were drawn amounting to $7,664 and nine Minors totaling $9,000.

Prices and Competition. The Fairfield automotive price schedule was reduced approximately 3% on March 15th and additional 2% reduction was made to Fisher Body Corporation on April 7th on the principal item that we sell to them. Leatherette prices were reduced 8% on March 15th and an additional 3% on April 1st. The decline in price of crude rubber

Experimental Development. During the past quarter, $14 700 was spent for experimental work. It is expected that expenditures for the ensuing quarter will total $12 000.

In co-operation with the Newark Plant, we have succeeded in developing a line of non-fading, non-crocking and non-bleeding colors for our leatherette line. We know of no other make of leatherettes for which these claims can be made.

Fairfield Inventories.

	Actual	Standard
Raw Materials	$322 526	$398 000
Finished Product	202 057	212 500
Total	$524 583	$610 500

NEWBURGH BRANCH:

Sales

NEWBURGH BILLINGS COMPARISON—DOLLARS

	Mar. 1928	Feb. 1928	To Date 1928	To Date 1927
General Motors	$131 816	$155 195	$429 891	$322 295
Domestic—General	479 659	377 830	1 189 975	834 877
Tontine—Domestic	120 069	89 515	289 204	232 353
Export—All Products	66 726	69 188	218 673	266 656
Total	$798 270	$691 708	$2 127 743	$1 656 181

Complaints. No complaints of serious consequence were received at Newburgh during the past month.

Export. Newburgh bookings for March totaled 82 000 yards as compared with 88 000 yards in February, and for the first quarter of the year are about in line with those for the same period last year. Our business from Europe and South America is showing an increase. Australian demand, however, continues light because of poor conditions in the motor industry, and the latest report from our agents indicates that the majority of automotive body manufacturers are practically closed down.

PVL-3

GROSS RECEIPTS

Sales	March 1928	% Inc. over March 1927	February 1928	March 1927
Trade	$422,073	9.3	$400,143	$385,995
Industrial	164,948	5.0	121,583	173,705
Automotive	47,689	40.5	29,950	80,184
Railway	76,059	4.7	50,034	72,659
Export	32,251	63.5	35,951	19,722
Total Paint & Varnish	743,020	1.5	$637,661	$732,265
Total Lead	33,496	8.1	29,595	36,461
Total Brush Duco	233,631	26.4	202,179	317,466
Grand Total P.V. & L. Div.	$1010,147	7.0	$869,435	$1086,192
Transfers				
Total P. & V. Trans.	29,576	22.6	25,124	38,212
Total Lead Transfers	27,348	8.9	25,992	30,004
Total B. Duco "	3,978	112.4	874	1,826
GRAND TOTAL	$1071,049	7.4	$921,425	1156,234

Total outside sales were $140,000 greater than last month, but $76,000 (7%) less than March 1927. The decrease over last year was chiefly the result of lower volumes of Automotive and Brush Duco Sales. Although General Motors are known to be exceeding last year's business, the particular units we are supplying apparently are not sharing in this increase. The decrease in Brush Duco Sales over last year is chiefly the result of heavy shipments of initial Duco Clear orders last year.

PAINT & VARNISH TRADE SALES:

Paint and Varnish Trade Sales exceeded last month and were 9.3% ahead of March last year. March business was characterized by a large number of small orders, indicating the "hand-to-mouth" policy of the Trade. Cold weather also had a retarding influence on sales.

BRUSH DUCO SALES:

Brush Duco Sales and Transfers were $34,000 greater than in February, but $82,000 (26%) under March last year due mainly to the shipment last March of initial orders ($70,000) of Clear Duco.

INDUSTRIAL SALES:

Industrial Sales showed a substantial increase over last month, due to two cars of paint shipped to the American Radiator Company and increased sales to the Steel Fabricating Industry. General Industrial Sales also improved. Sales were 5% less than March of last year due to lack of buying on the part of the Petroleum Industry in the West. Last year's business also included two carloads shipped to the Austin Company (for the Oakland Motor Plant), from whom we have received only a small amount of business this year.

AUTOMOTIVE SALES:

Automotive Sales were $17,000 greater than February due to heavier shipments to Chevrolet and Nash. Although sales were 40% behind March 1927, as mentioned above, this does not mean that we are losing any business but merely that we are getting less business from the same accounts than last year, which was our record-breaking month for Automotive business.

RAILWAY SALES:

The gain over last month in Railway business was caused by a resumption in buying on the part of a number of roads, particularly those in the Southwest, which were affected by the flood. Sales for March represent a normal month, whereas Febru-

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NOTE: "gmc-1066" is written in lower right of every page. "7", "8", "9", "10", "11", "15", "16", "18", "24" and "25" are stamped at bottom of successive respective pages of the excerpts.

Government's Exhibit No. 492

EXCERPTS—

October 21, 1927

To: EXECUTIVE COMMITTEE

From: PAINT, LACQUER & CHEMICALS DEPARTMENT

PAINT, LACQUER & CHEMICALS DEPARTMENT
MONTHLY REPORT—SEPTEMBER, 1927

October 20, 1927

To: W. P. Allen, General Manager

From: Fabrikoid Division

Report for September, 1927

Eliminated

4 2124

GMC-1063

1864

fields we serve.

The distribution of Duco sales follows:

	September 1927	To Date 1927
Colored Duco	190 250 gals.	1 922 000 gals.
General Motors Units	33%	33%
Others Motor Mfgs.	21	23
Automotive Refinishers	21	19
Railroads	2	2
Furniture Manufacturers	6	7
General Industrial	7	7
Export	10	9
	100%	100%
Clear Duco	40 000 gals.	341 000 gals.
General Motors Units	3%	5%
Other Motor Mfgrs.	1	1
Automotive Refinishers	3	3
Railroads	–	–
Furniture Manufacturers	75	72
General Industrial	13	15
Export	5	4
	100%	100%

Sales of Parlin products other than Duco increased as a result of new business developed for lacquers, the linoleum trade and for waterproofing Cellophane, also treated powder and base solutions for our Duco competitors. These increases, however, were offset by $11,000 decline in sales to the Film Company.

RAILWAY SALES

Railway sales continued at about the same level for September as during the month of August, and while no new accounts have been gained, successful demonstrations conducted during the month point to increased purchases on the part of already established accounts. Various developments in the railway field continue to come to light, which tend to bring transportation concerns in contact with

CP-6

with Nobel Chemical Finishes, Ltd. The decrease is caused mainly by lighter sales to General Motors and to the French Company.

Preliminary information from our Paris office indicates that the recent Franco-German "chemical alliance" may affect the profits of our French plant by making German low viscosity nitrocellulose readily available to lacquer manufacturers in France at low prices. Heretofore the manufacture of nitrocellulose has been a French Government monoply, and the low viscosity type required for modern lacquers has not been available.

OUTLOOK

Automotive production did not reach its customary September and early October peak, and our sales of Duco and allied products have suffered accordingly. The delay in the marketing of the new Ford car is commonly given as the most important single cause of lower automobile sales. Manufacturers, however, feel that this is in no way a permanent loss of business and that greater than normal sales next year will make up for lower figures during the present year. Decreased sales in the automobile field may continue for the balance of the year, and we expect that October sales will be lower than those of September. Recent developments in the automotive field, however, point to the probable acquisition of new Duco business and the regaining of other business previously lost.

We have conducted successful demonstrations at the Studebaker plant, which is an account that heretofore had been very difficult for us to approach. The success of the demonstrations was reported to the Management of the Studebaker concern by the person in charge of their testing, and we are now more hopeful than we have been at any time in the past of getting some Studebaker business.

We have been greatly encouraged by recent developments at the Nash plant and feel now that we are likely to get back at least 50% of this company's requirements. Superior working qualities of Duco is admitted by the Nash officials, and while we naturally expect the Pittsburgh Plate Glass Company to make every effort to improve their product in the respects in which it is now deficient as compared wtih Duco, we still believe that it is the intention of the Nash Company to give us an appreciable share of the business in the future.

Renewed interest on the part of the General Motors people has been aroused in the question of the volume oil-type undercoats and black "Duco" business that is being placed with competitors by the Fisher Body Division. Their own estimate is that General Motors Corporation might save as much as $500,000 a year by placing this business with us, due to our lower prices on undercoats and the increased discount this added volume would enable them to obtain on all other purchases under our so-called "super discount" agreement. Our latest information is that this subject is being actively agitated by the G. M. Purchasing Committee but have not yet heard to what extent the operation of the super discount plan is swinging sentiment in our favor.

an option to switch from these fabrics to other constructions if it should prove necessary to do so.

FAIRFIELD BRANCH:

Sales.

FAIRFIELD BILLINGS COMPARISON—DOLLARS

	Sept. 1927	Aug. 1927	To Date 1927	To Date 1926
Carriage Cloth —G M C	$ 79 284	$146 282	$1 840 104	$1 596 828
" " —All others	43 629	42 390	425 349	519 436
Specialties—Ventube	20 931	16 506	156 243	150 529
" —All others	282 112	224 344	1 388 538	804 255
Export—All products	39 736	60 717	709 439	503 964
Total	$465 692	$490 239	$4 519 673	$3 575 165

Production. Fairfield production for the month totaled 1 020 000 stads, or 104.2% of the rated normal capacity, as compared to 1 080 000 stads in August.

Safety. At Fairfield, there were no Major accidents during the month, and only one sub-major.

Construction Appropriations. One major project was approved for Fairfield, amounting to $3 680; and one minor, for $350.00.

Experimental Development. Expenditures for the quarter just past amounted to $12 400, and it is expected that $12 000 will be spent during the ensuing quarter. Tests have now been completed on the use of un-pigmented undercoats for Everbright, in place of the first coat of Everett Bright varnish, which has regularly been used up to this time; and the indications are that this substitution can be made without any loss of quality and with a probable saving of ¾¢ a yard. Brominated casein finish is now being applied to all satinette, with a resultant improvement in finish and in percentage of first class material. Titanox has been adopted for use in sheet gum products in place of lithopone, since, although the initial cost of this pigment is higher, it is more readily incorporated into the compound, results in fewer pinholes and produces better colors.

Prices and Competition. On September 19th a new automotive fabrics price list was issued showing increases of approximately 9%. This increase was made necessary by the greatly advanced cost of gray goods. Similar increases have been made by four of our chief competitors, though the others have apparently not advanced their prices to date, and there is a strong tendency on the part of one or two of the principal factors in this industry to avoid loss in volume by taking business at disastrously low prices. We have just succeeded in securing from Fisher Body additional orders to a total of about 150 000 to 200 000 yards for double texture deck material and visor material for Chevrolet and Pontiac cars to about January 10th. The new prices, corresponding with present gray goods costs, were quoted; but the receipt by Fisher of a competitive offer 10¢ under our price necessitated a concession to hold this business; and the matter was adjusted to their apparent satisfaction, by our agreeing to bill the first half of the current order at the old figure. Stocks of cloth which we are fortunate in having below the present market will enable us to do this without loss.

Complaints. No new complaints of apparently serious consequence were received on any of Fairfield's products during September.

Fairfield Specialties. September was the best month we have had on specialty business, and, as indicated above, our entire profits for the month were earned on products other than automotive. Approximately 345 000 yards of first quality leatherette material were shipped, as compared with 278 000 yards in August. Capacity business in leatherette is on the books for October and, with a fair amount of rain, November should be a good month also. For gum rubber products, the demand is apparently again increasing. Owing to the large volume of leatherette production, we have capacity left at present for only 400 pounds a day of such products, as against a normal goal figure of 1 000 pounds daily; but we are hopeful of expanding production on gum rubber to offset some probable decline in raincoat volume in November.

FAB-6

Fairfield Inventories.

	Actual	Standard
Raw Materials	$399 592	$411 360
Finished Products	181 820	338 960
Total	$581 412	$750 320

NEWBURGH BRANCH:

Sales.

NEWBURGH BILLINGS COMPARISON—DOLLARS

	Sept. 1927	Aug. 1927	Jan.-Sept. 1927	Jan.-Sept. 1926
General Motors	$115 256	$121 715	$1 186 970	$ 703 457
Domestic—General	332 068	289 119	2 559 902	2 381 427
Tontine—Domestic	140 507	121 708	890 984	676 333
Export—All products	64 978	97 836	751 196	797 954
Total	$652 809	$630 378	$5 389 052	$4 559 171

Complaints. No Newburgh complaints of serious consequence were received during the past month.

Export. Business booked from foreign markets during September amounted to 92 000 yards, as compared with 82 000 yards for the preceding month. Conditions in Europe and South America continue favorable, and orders from our Agents in England continue in good volume. In Australia, however, conditions are very unfavorable, due mainly to a slump in the automotive industry in that territory, and this market, generally one of our large export outlets, is practically at a standstill.

FAB-7

Prices and Competition. In our last month's report we mentioned the issuance of new Fabrikoid prices, representing an advance of 6% on Sheetings and 3% on heavy goods, over previous list. Our ability to book considerable new business at the higher prices, confirmed by other information, leads us to believe that other manufacturers in the industry have taken similar price-increase action. While we still hear of lower prices being quoted by some of our smaller competitors, we are hopeful that the higher price level will become firmly established, in view of the existing higher cotton and gray goods prices.

Sales of Special Significance. By virtue of somewhat larger releases from the automotive trade, together with heavier demand from our other general trade, our September bookings again exceeded the million yard mark, the total for the month being 1 115 000 yards. Outstanding bookings during the month were sales to Fisher Body, 80 000 yards; Chevrolet Motor Company, 47 000 yards; Buick Motor Company, 10 000 yards; Ferguson Bros., 35 000 yards; Weiss & Klau Company, New York City distributors, 25 000 yards; and Henry B. Day Company, California distributors, 20,000 yards.

Sales Development—Department Store Field. Our actual and prospective sales in this market, so far as now apparent, are divided between two channels; first, material cut into strips, edges pinked, etc., for kitchen shelving and other decorations, together with yard goods to match; and second, Fabrikoid in yard or roll goods for sale in the art and needlework departments, to be used, in general, for further hand fabrication by the department store customers. For distribution through the first channel, additional orders amounting to 65 000 yards have been received from the Marcus Diamond Company of New York since our last report; and this concern

FAB-9

On most of these developmental ideas, of course, the volume directly aimed at is small; but, in accord with the strategy already successfully applied in the bookbinding field, the underlying purpose is to break down sales resistance and secure a friendlier attitude and a more favorable reception of our main volume products. In the automotive field, of course, the special resistance which we must constantly contend against on account of our company's connection with General Motors makes this aim doubly important. Through Captain Towle, of the Duco Color Advisory Service, we have been afforded the opportunity of furnishing Fabrikoid for the rear and quarter portions of a special custom built job which Fleetwood-Fisher will display at the Automobile Salon in New York in November, this being, as far as we know, the first time any fabricated covering material has been applied on the top of any custom built body in place of natural leather.

Suede Development. While further improvement is naturally expected to a company manufacturing experience, our production of artificial suede by embedding a mass of small particles of dyed, ground cotton flock upon the cement-coated surface of a suitable fabric, can now fairly be said to have reached the point of successful factory application. The machine designed by the Engineering Department in accord with the experimental results worked out by the Chemical Department and the Newburgh plant is now operating satisfactorily and turning out a uniform product; and our deliveries of a substantial part of our initial order of five thousand yards from Coty (the French perfumery manufacturers) have been approved and accepted. In view of the attractiveness and the essential cheapness of this new product, we are hopeful of being able to develop the sale of it into substantial volume.

Tontine. Our Tontine sales in September of 253 500 yards

Note: "gmc 1063" is written in lower right corner of each page of Excerpts. "10", "12", "13", "23", "24" "25", "26" and "28" are stamped at bottom center of respective successive pages of Excerpts.

Government's Exhibit No. 494

[illegible]

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
DETROIT, MICHIGAN

SUBJECT Du Pont Company
Super-Discount.

CONFIDENTIAL

ATTENTION OF Messrs. G. G. Allen
W. F. Armstrong
D. F. Mulgrave
W. E. Kreitzer

Messrs. C. O. Miller
D. P. O'Keefe
J. T. Stratman.

There is attached copy of letter from Mr. Richter of the du Pont Company, showing the volume of purchases by divisions from the du Pont Company for the 12 months ending June 30, 1928. Checks covering the discount earned will be forwarded to each division as promptly as possible from our Treasurer's Department in Detroit.

Attention is called to the Delco-Light and Frigidaire discounts, as it is indicated that almost the entire discount should go to Frigidaire because of the separation from Delco-Light, effective January 1, 1928. Proper distribution between these divisions will be made by the Frigidaire organization.

For your convenience, the discount scale is repeated herewith: ✓

Amount of Purchases	Amount to be Returned
$ 8,000,000	0
9,000,000	$ 75,000.
10,000,000	175,000.
11,000,000	300,000.
12,000,000	450,000.
Each additional 1,000,000	150,000.

It is noted that the super-discount amounts to approximately 3% on the total purchases. It should be carefully noted, however, that had total purchases been increased by $800,000 there would have been an additional $100,000 discount, or 12½% of the $800,000. Had the purchases aggregated $12,000,000 there would have been a further discount of 15% on the additional $1,000,000 of business.

We all agree that it is desirable to maintain some healthy competition. However, if 80% of our purchases of material such as the du Pont Company is in position to supply, are given to them on an even basis, the earnings under the super-discount contract will be materially increased, and it is urged that you cooperate to this end.

We will ascertain from the smaller using divisions the total volume of their purchases of such items and endeavor to gain their cooperation in increasing the volume of such purchases from the du Pont Company in case they are now placing more than 20% of such business outside.

Very truly yours,

Executive Secretary.

CC: Mr. J. L. Pratt ✓

NOTE: First group of letters in writing at top of page reads "G.M.C."

Government's Exhibit No. 495

COPY

E. I. duPONT deNEMOURS & COMPANY
Wilmington, Delaware.

July 10, 1928.

PERSONAL AND CONFIDENTIAL

Mr. James Lynah, Executive Secretary
General Purchasing Committee,
General Motors Corporation,
Detroit, Michigan.

Dear Sir:

With respect to the confidential super-discount plan in effect between our Company and the General Motors Corporation, we are pleased to enclose herewith our check for $200,136.79, representing the discount earned on total purchases by your company of $10,201,094.33 for the twelve months ending June 30, 1928, as set out in the attached memorandum.

You will note that the Fisher Body units earned $98,547.36 of this super-discount, based on purchases of $5,022,097.45. Chevrolet Motor Company was second with total purchases of $2,754,749.14, which earned a super-discount of $54,036.93, and Buick Motor Company was third, earning $15,510.60, based on purchases of $789,986.51.

The purchases and the amount of discount earned for the past twelve months' period by the larger units are summarized as follows:

	Purchases	% of Total	Discount
Fisher Body Corp.	$5,022,097.45	49.24%	$98,547.36
Chevrolet Motor Co.	2,754,749.14	27.00	54,036.93
Buick Motor Co.	789,986.51	7.75	15,510.60
Oakland Motor Car Co.	404,050.64	3.96	7,925.42
Frigidaire Corp.	287,369.08	2.81	5,623.84
Delco Light Co.	228,803.65	2.24	4,483.06
Olds Motor Works	151,876.39	1.49	2,982.04
A. C. Spark Plug Co.	108,364.89	1.06	2,121.45
All Others	453,796.58	4.45	8,906.09
	$10,201,094.33	100.00%	$200,136.79

We trust that your accounting records will confirm our own figures. In case there are any differences we shall expect to hear from you.

Very truly yours,

Wm. Richter.
GENERAL MANAGER

Copy to: —J. T. Stratman, Dir. of Purchases, Fisher Body Corp.
Geo. Allen, Dir. of Purchases, Buick Motor Co.
D. J. O'Keefe, Dir. of Purchases, Chevrolet Motor Co.
C. O. Miller, Dir. of Purchases, Oakland Motor Car Co.
D. F. Hulgrave, Dir. of Purchases, Cadillac Motor Co.
E. C. Beichler, (Frigidaire Corp.)

NOTE: Illegible initial or other mark is written in top right corner of first page.

Government's Exhibit No. 496

EXCERPT FROM

JULY 20, 1929 FABRICS & FINISHES DEPARTMENT
MONTHLY REPORT - JUNE 1929 - TO EXECUTIVE
COMMITTEE OF DU PONT COMPANY (GMC-1068)

* * *

"The third settlement under the special discount plan in effect with General Motors has just been made by the payment of $379,000, representing discount earned by total purchases of duPont products amounting to $11,528,000 during the year ended June 30th. For the previous year the discount amounted to $200,000 on purchases of $10,201,000, while the first payment (which covered a nine-months period) was $77,000 on purchases of $6,960,000.

June earnings include an unusual charge of $39,000, representing the amount by which the General Motors discount for the year exceeded the forecast for which provision had been made.

While the value to us of this arrangement has been subject to question at times, there appears to be no longer any doubt that it has had and is continuing to have a very beneficial effect in fostering a friendly attitude toward duPont products in general, which serves to minimize the occasional differences that must of necessity arise in the handling of such a large volume of varied products.

Due to the expanding duPont interests in the direction of safety glass, Grasselli, Eastern Alcohol, etc., which were not anticipated when the plan was devised, its operation was limited to the products of this Department when it was renewed for the next 'car year' of General Motors, ending June 30, 1930.

* * *

For several years Fisher Body has used for an intermediate coat a product manufactured by Rinshed Mason known as a "Japan ground coat". We have recently succeeded in interesting them in a pyroxylin product to be used for this purpose and it now seems fairly certain we will obtain at least a portion of this business. They are now testing our Dux/(Crystal) Surfacer in production at the Cleveland factory."

July 20, 1928

Mr. George Staples,
E.I. duPont deNemours & Co.,
General Motors Building,
Detroit, Michigan.

Dear George:

Last week when in Detroit you advised me that General Motors super-discounts from the DuPont Company on our purchases for the twelve months ending June 30, 1928, would have been considerably greater if Ternstedt Manufacturing Company, General Motors Truck, and Yellow Truck & Coach Mfg. Company had been purchasing their paint requirements from you.

In looking over the summary of total purchases made by General Motors I noticed that General Motors Truck purchases amounted to $87,709.94; Ternstedt $19,731.33; Yellow Truck & Coach $66,985.60.

From your remarks I assume that you have information to the effect that the above figures do not represent a sizable part of the paint requirements of the above companies.

For my own information, so that I may take up this matter intelligently, I would appreciate it if you would indicate to me what percentage of the possible paint business of the above companies the DuPont Company received for the twelve months ending June 30, 1928. We are anxious to benefit as far as possible under the super-discounts arrangement with the DuPont Company, always keeping in mind, however, that we do not want to extend our purchasing of DuPont products to the point where we will not always have competition. In my own mind I had arbitrarily set a figure that we should not buy in excess of 75% to 80%. In other words, I would be inclined to encourage our divisions to purchase at least 20% to 25% of their paint requirements from competitive sources.

With kind regards,

Very truly yours,

Vice President

JLP:V
copy to Mr. Lynah
(not shown on original)

NOTE: "G. M. C.—Products—Supplies & Materials—Paints—du Pont de Nemours, E. I." is written across top of page, followed by illegible initial; and "7-30" and "8-4" are written in lower right corner, with a check mark under each and with a line drawn through each.

2

Government's Exhibit No. 498

4161

DU PONT
ESTABLISHED 1802
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
CHEMICAL PRODUCTS DIVISION
DETROIT, MICH.

August 8th, 1928.

Mr. J. L. Pratt, Vice President,
General Motors Corporation,
Broadway at 57th Street,
New York City, N. Y.

Dear John:

The total purchases given in your letter of July 20th included Fabrikoid and Du Pont products other than those ~~made~~ by the Chemical Products Division.

During the twelve months ending June 30th 1928, Ternstedt Manufacturing Company's purchases from us of Duco, other finishes, Thinner, Enamels and other chemical products amounted to $19,731.33. We understand that their total purchases from all sources amounted to approximately $250,000.00.

The Yellow Truck and Coach Company, Chicago, Illinois purchases amounted to $46,494.58. General Motors Truck Company's purchases amounted to $26,334.23. We received the bulk of the business from the Yellow Truck and Coach Company of Chicago, Illinois. We have not, however, been able to check the General Motors Truck Company's total purchases, but we estimate them to be in the neighborhood of $100,000.00.

According to our information the Fisher Body Corporation use approximately $2,000,000.00 worth of primers, surfacers and ground coat materials per year. At present we are not getting any of this business. We are about to bring out a new product, however, which we believe will prove very attractive to the Fisher Corporation and should result in our getting some of their undercoat business.

I am very grateful to you for your interest and would like very much to discuss our problems with you whenever you have the time to spare.

Will very kindest regards, I remain

Yours very truly,

E. I. du Pont de Nemours & Company

1880

Ass't Division Manager

GAS:OB

Government's Exhibit No. 499

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
Detroit, Michigan

SUBJECT duPont Super Discount Agreement

November 10th, 1930

ATTENTION OF PURCHASING AGENTS
ALL DIVISIONS

CONFIDENTIAL

We desire to call your particular attention to the confidential super-discount agreement between ourselves and the duPont Company. This agreement has been in effect for some time but starting July 1st of this year the volume discount brackets have been reduced, which should make this new arrangement much more profitable to the Corporation. All purchases of products manufactured by the Fabrics and Finishes Department of the duPont Company are included in this arrangement. By this is meant purchases of Pyroxylin Finishes including Duco and Duco Thinners, Undercoaters, Dulux Enamels, Old Line Paints—Varnishes—Enamels—Lacquers, Factory or Maintenance Paints, Fabricoids or Body Trimming Materials.

During the year ending June 30th, 1928, under the old plan, there was distributed to the Divisions a refund of $200,136.79; during the year ending June 30th, 1929, $379,176.60. For the year ending June 30th, 1930, purchases were not sufficient to earn any refund. We believe the year ending June 1928 can probably be considered a normal year, therefore, with the lowering of the volume brackets and b including purchases of the Export Company which have not been included in previous years, our earnings for the period ending June 30th, 1931, under this arrangement, should show a very material increase.

Assuming, therefore, that the duPont Company is competitive at all times, not only in price but service and quality, a substantial refund can be earned under this new arrangement and greater benefits derived according to the extent of our purchases of duPont products in question Your cooperation on this basis; therefore, will help toward a maximum refund.

Very truly yours,

GENERAL PURCHASING COMMITTEE
Purchase Contract Investigation Section

By: *A. J. Campau*
Director

A.J.Campau/DL

NOTE: "GMC - Org - Gen Purch Com - Detroit - Contracts" is written across top, followed by illegible mark; "Noted F.H." is written in lower left corner. Italics indicate handwriting.

Government's Exhibit No. 500

(DP)
GMC-744

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
Incorporated
WILMINGTON, DELAWARE

FABRICS AND FINISHES DEPARTMENT

June 30, 1937

Mr. A. B. Echols, Chairman
Sub-Committee on Purchases & Sales

FISHER BODY CORPORATION
Fabrikoid Sales Contract
July 1, 1937, to March 31, 1938

It is customary for the Fisher Body Division of General Motors to purchase their requirements of leather substitute materials on definite yardage contracts covering periods of from six to eight months.

The current contracts expire today, and quotations are requested on new contracts for a total of 607,000 yards of four different qualities for delivery during the nine months ending March 31, 1938.

It is believed that prices approximately 10% higher than those in the expiring contracts can be obtained, which would show a 129-Sheet profit of 17%, as follows:

Gray Goods	$114 650
Other Ingredients	31 861
Labor	22 194
Overhead	33 292
Total Factory Cost	$201 997

Selling Expense–Freight–Administrative	18 400
Cash Discount	5 486
Net Receipts	48 397
Gross Sales	$274 280

—2—

We are covered on gray goods at prices slightly under the current market (shown above) for approximately 75% of the proposed new contract, and can purchase the remainder promptly upon execution of the contract.

The other two important ingredients are smokeless powder and castor oil. We are fully covered on the former, and for 20% of the new contract period on the latter. The additional castor oil required to fulfill the contract could be purchased promptly at current market cost of $7500.

This is not a requirements contract involving any risk of over or under coverage on raw materials. It is for a specified yardage on which we are in position to protect ourselves practically 100% on the required raw materials.

Authority is requested to submit quotations in accordance with the foregoing.

J. J. Moosman
/s/ J. J. M.

JJM:EEM

Note. At end of document the following notation has been written: "Approved by Committee June 30th."

Government's Exhibit No. 501

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated

NEW YORK, N. Y.

FABRICS DIVISION

June 17, 1937.

MR. J. J. MOOSMANN (2)
WILMINGTON

CONTRACT FOR RUBBER UPHOLSTERY MATERIAL
CHEVROLET-COMMERCIAL BODY DIVISION

Chevrolet has asked us to quote on June 20th on their requirements for rubber upholstery material for the Commercial Body Division, from July 1, 1937 to April 1, 1938.

This definitely means that Chevrolet has decided to switch from pyroxylin material to rubber coated material as standard upholstery on commercial work. Newburgh for fifteen years or more has had the pyroxylin business for these trucks, so while the amount of material involved is not definite, our experience with the account is of so many years' standing that we are quite sure that our estimate of 400,000 yards is approximately correct. It makes allowance for some portion of the total purchase which Chevrolet may ask us to ship to the welt manufacturer who does some of the work for these trucks.

Our estimated cost and net receipts statement is as follows:—

400 000 yards—"Cavalon" #6028

Gray Goods	—	$115 200
Other Ingredients	—	66 520
Damage	—	13 000
Labor	—	16 400
Overhead	—	26 400
Contingencies	—	2 360
Total Factory Cost	—	$239 880
Selling Expense, Frt.&Adminsitrative	—	27 000
Cash Discount	—	6 000
Net Receipts	—	27 120
Gross Sales	—	$300 000

—2—

We are covered for 250 000 yards of the fabric required at 24 cents, leaving 150 000 yards to buy which can be bought at today's market of 28 cents. We used the 28 cent figure as the estimated cost of the entire 400 000 yards in the above calculation.

The only other important ingredient is rubber. We have not purchased any rubber for this specific contract, but the amount required can be bought today at 19⅜ cents, which is the figure we have used in our calculation.

We have made some allowance for unexpected or unforecastable increases in costs due to labor or other variables over the period of this contract by arbitrarily raising our calculated costs for everything about 1%. In addition, while we have shown full freight as part of the estimated cost, there is a fair chance that we can get this business on an F. O. B. Fairfield basis, which would add approximately $6 000 to the estimated net receipts shown above.

This is extremely desirable business for Fairfield, representing as it does the first important adoption by General Motors of rubber upholstery, and since we have always had the business in pyroxylin coated materials at Newburgh, our only protection against the Company's losing this volume is for Fairfield to be successful in obtaining this award. This business will net Fairfield about 25% over full factory costs, which is approximately the same net that Newburgh has been realizing on the pyroxylin business which it replaces.

The approval of a bid on the above basis is requested.

E. M. Flaherty

EMF:me

P. S.

We have discussed with Mr. Staples the possibility of limiting our bid to a maximum of 400 000 yards and while Chevrolet has never in the past agreed to any such restriction he is willing to try it this time, so we will bid on this basis.

E. M. F.

Note. "J.J.M." stamped at top of document. "J.J.M. - I gave one copy to W.R. 6/17 - E.M.F." is written and crossed out at top. An illegible hand written word appears to the right of Mr. Moosmann's name on first page. "Received June 16, 1939 F. & F. Dept." stamped at end of document. In lower right corner appears gmc - 964 in writing.

Government's Exhibit No. 502

Letterhead of

E. I. du PONT de NEMOURS & COMPANY
Wilmington, Delaware
FABRICS AND FINISHES DEPARTMENT

January 15, 1940

Mr. A. B. Echols
Chairman, Sub-Committee

Chevrolet Motor Co.

It is customary for Chevrolet to require semi-annual contracts covering their requirements of finishing materials. The present contract originally was made for the six months ending January 31st, but last October was extended with Sub-Committee approval to cover a total of 666,000 cars of the 1940 model.

Present indications are that the 666,000 cars will be produced by April 15th, and Chevrolet are now asking for a contract covering their requirements during the remaining 3-½ months of the normal six months contract period. Quantities are estimated as follows:

$290 000	Duco
105 000	Dulux
220 000	Other Finishes
$615 000	Total

No price changes are proposed on Duco and Dulux, due to general market and competitive situations on these products, but on Other Finishes prices will be advanced to offset increased costs of China Wood Oil and substitutes

(DP)
GMC-731

therefor. The total of $615,000 sales is estimated to yield a 129-Sheet Net of $128,000, equivalent to about 20%.

Present stocks and purchase contracts are sufficient to cover all of the raw materials that will be required.

It is therefore recommended that authority be granted to extend our sales contract with Chevrolet to cover their requirements of finishing materials for the remainder of the six months period ending July 31, 1940, estimated at $615,000.

J. J. Moosmann

JJM:EEM

Note. The stamp "Received Jan 16 1940 Treasurer's Dep't" and the handwritten note "Noted J. L. B." appear in upper right corner. "Approved by A. B. Echols 1-16-40 G. F. A." written in lower left corner.

E

Government's Exhibit No. 503

Date July 17, 1941

TO: CHAIRMAN, SUB-COMMITTEE ON PURCHASES & SALES

FROM: FABRICS & FINISHES DEPARTMENT - AUTOMOTIVE FINISHES DIVISION

REQUEST FOR MEETING TO CONSIDER CONTEMPLATED SALES CONTRACT

1. WHEN MEETING REQUESTED - July 18th, 1941

2. PRODUCT INVOLVED - Paint, Varnish, Lacquers and Thinners.

3. DURATION OF CONTRACT - August 1, 1941 to January 31, 1942, inclusive.

4. NAME OF BUYER - Chevrolet Motor Division of General Motors Corporation.

5. AMOUNT INVOLVED -
   - UNITS - 1,165,000 gallons
   - DOLLARS - $1,390,000

6. PRICE - At prices averaging $1.19 per gallon

   ADJUSTMENT ALLOWED SELLER - No price adjustment or escalator clause.

   PRICE PROTECTION ALLOWED BUYER - Prices fixed for duration of contract.

7. CANCELLATION PRIVILEGES - Buyer has right to cancel forthwith in event of unauthorized publicity of buyer's use of seller's products, or for any breach of terms.

   Seller shall not be responsible for delays or defaults in deliveries, nor the buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

8. ESTIMATED NET RECEIPTS FROM SALES (before Undistributed Expense) - $305,000 or 22% of sales.

9. ADDITIONAL PERMANENT INVESTMENT REQUIRED - None

10. RETURN ON INVESTMENT - 29.4% (before Undistributed Expense)

    22% after Undist Exp.

11. RAW MATERIALS COVERAGE - 37% of dollar value of raw materials are on hand, 22% contracted for, and 19% manufactured by other Departments, principally Krebs. Coverage can be arranged promptly for the remaining 22%.

12. COMMENTS OF A PERTINENT NATURE - Contract is for approximately 100% of Chevrolet paint requirements for duration of contract, and is in accordance with Chevrolet's regular contract procedure with all suppliers.

ACTION BY SUB-COMMITTEE

PERSON MAKING REQUEST

J. Moosmann

Government's Exhibit No. 504

November 2, 1948

SUMMARY OF DU PONT PURCHASES FROM AND SALES TO
GENERAL MOTORS CORP.
And Subsidiaries for the Years 1938 to 1947 inclusive and Seven Months 1948

PURCHASES

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948(7Mos)
	$ 46,933	101,312	229,032	217,277	90,141	42,843	52,113	73,278	146,449	301,666	268,678

SALES

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948(7Mos)
Explosives	$ 227	8,896	16,023	12,139	15,460	16,570	26,456	38,018	22,497	26,032	21,082
Fabrics & Finishes	6,854,644	9,861,301	13,979,459	15,719,153	2,585,294	3,104,025	3,529,893	4,221,615	12,541,159	22,639,885	14,257,069
Organic Chemicals	96,340	138,709	140,818	170,701	160,009	174,036	95,631	55,540	69,532	83,254	58,810
Electrochemicals	160,609	286,711	355,604	746,029	412,631	1,297,775	1,045,111	876,760	826,779	1,019,272	556,804
Ammonia	302,571	415,920	851,477	770,735	419,889	679,909	412,853	523,164	691,731	1,742,416	229,918
Miscellaneous	49,548	5,353	8,869	9,656	14,236	8,602	7,513	15,422	18,167	4,692	27,659
Rayon	3,749	6,684	931	6,921	1	—	—	712	40	—	—
"Cellophane"	—	—	14,915	13,465	14,494	23,872	46,253	24,542	23,723	45,565	25,774
Nylon	—	—	382	1,766	92	—	—	—	116	51	—
Grasselli	353,953	448,574	605,428	706,329	333,190	519,128	482,117	451,558	753,062	1,024,320	703,197
American Zinc	5,701	10,485	13,544	32,721	1,782	—	Sold				
Plastics	90,943	202,370	134,717	48,606	191,263	266,205	723,406	354,676	129,479	105,422	72,982
Pigments	587	140	712	1,650	465	120	1,639	1,832	3,931	3,530	84
Photo Products	8,424	8,475	12,512	21,578	2,780	114	104	2,188	2,502	867	34
	7,887,296	11,393,618	16,135,385	18,261,449	4,151,580	6,090,356	6,370,976	6,566,027	15,082,168	26,695,306	15,953,413

TRADE ANALYSIS DIVISION

Inf. for Mr. O. A. Provost
Legal Department

Kb-pr-ws-e

Government's Exhibit No. 505

GENERAL MOTORS CORPORATION

FINANCE COMMITTEE

Minutes of meeting No. 116, held at the office of the Corporation, No. 224 W. 57th St., New York City on May 4, 1926, at 3:00 P.M.

PRESENT: J. J. Raskob, Chairman
George F. Baker, Jr.
Donaldson Brown
H. F. duPont
Lammot duPont
P. S. duPo
Fred J. Fisher
Seward Prosser (for part of meeting)
A. P. Sloan, Jr.

Also John Hertz (for part of meeting)

ABSENT: Irenee duPont
Junius S. Morgan, Jr.
George Whitney

* * *

CONSOLIDATION OF FISHER BODY CORPORATION AND GENERAL MOTORS CORPORATION:

Reports were received from the Chairman dated April 28th, 1926 (#1489) and April 29th, 1926 (#1487) with respect to the advisability and cost of General Motors Corporation purchasing the assets, business, property and good will of the Fisher Body Corporation as a going concern, and assuming its liabilities.

The Chairman advised that said purchase had already been informally approved by a majority of the members of the Finance Committee and also by stockholders of Fisher Body Corporation owning sufficient stock to guarantee completion of the consolidation along the lines of the following resolution, which resolution, upon motion, was adopted (Mr. Fred J. Fisher not voting), the above mentioned reports being accepted and ordered filed:

> WHEREAS, ~~is~~ it deemed advisable for General Motors Corporation to purchase the assets, business, property and good will of Fisher Body Corporation as a going concern, and to assume its liabilities,
>
> NOW, THEREFORE, BE IT RESOLVED, that this Committee recommend to the Board of Directors that they authorize and empower the proper officers of the Corporation to make said purchase and to pay therefor 1,600,000 shares of the common stock of General Motors Corporation on the basis of one share of General Motors common stock for each one and one-half shares of the capital stock of the Fisher Body Corporation, the assets of Fisher Body Corporation to be taken over as of June 30, 1926, and the General Motors common stock to carry all dividends declared payable to common stockholders of record on or after June 30, 1926, such purchase to be made in proceedings for the dissolution of Fisher Body Corporation. (Note: The General Motors Stock will not carry dividends declared payable June 12 and July 2, 1926—added per H. Howe, 5-28-26).

* * *

Government's Exhibit No. 506

FISHER BODY CORPORATION

Detroit, Michigan, May 17, 1926.

To The Stockholders
of Fisher Body Corporation:

General Motors Corporation (hereinafter referred to as General Motors) has made an offer to purchase all of the assets of Fisher Body Corporation (hereinafter referred to as Fisher Body), such purchase to be made in proceedings for the dissolution of Fisher Body pursuant to the New York laws, and to pay therefor 1,600,000 shares of General Motors common stock and in addition to assume all obligations and liabilities of Fisher Body. A copy of such offer is enclosed herewith.

In 1919 General Motors acquired a sixty per cent. (60%) interest in the common stock of Fisher Body and at the same time entered into a ten-year contract for its automobile body requirements. As you are aware, this contract has been exceedingly profitable to Fisher Body, and at the present time about 90% of its business consists of bodies made for General Motors.

In 1919 less than twenty-five per cent. (25%) of the automobiles put on the market were equipped with closed bodies. Today ninety per cent. (90%) are so equipped. The closed body business has thus reached a point where its future growth can be very little greater than the growth of the automobile business.

As the contract made with General Motors in 1919 has but a relatively short term remaining, your officers and directors have given serious thought to the future prospects of Fisher Body. In 1929 a new contract must be negotiated, or General Motors will be free either to build its own bodies or purchase them elsewhere. In view of these facts and in order to fully ascertain and provide for the conditions which might have to be met by Fisher Body upon the expiration of the present contract, many conferences have been had with officials of General Motors, and as a result of such conferences your Board of Directors received the offer mentioned in the first paragraph of this letter.

Your officers and directors have carefully considered the offer, which in effect results in a plan for the consolidation of the two corporations and gives the stockholders of Fisher Body an opportunity to acquire an interest in the business of General Motors as well as the business now conducted by Fisher Body. The price offered will yield to each stockholder who accepts it substantially the present market value, and greatly in excess of the book value of his stock.

The effect of the proposed transaction will be that each stockholder of Fisher Body will receive two-thirds of a share of General Motors common stock for each share of Fisher Body common stock. On the basis of the current earnings of the two companies, the amount earned on the General Motors stock received by a stockholder of Fisher Body who avails himself of the offer will be substantially greater than that earned on his stock in Fisher Body.

The holders of over 85% of the total outstanding capital stock of Fisher Body, and of over two-thirds of such stock other than the stock held by General Motors, have already signified their approval of the proposed plan. The Messrs. Fisher, Mendelssohn and other large stockholders, as well as all of the officers and directors of Fisher Body, approve and recommend this plan as being in the best interests of the stockholders.

The Board of Directors of Fisher Body have called a special meeting of the stockholders to consider the plan outlined herein and to take appropriate corporate action thereon. This meeting is to be held at the office of the Corporation Trust Company, No. 120 Broadway, New York City, on June 3, 1926, at 2.00 o'clock in the afternoon as shown by notice of such meeting enclosed herewith.

If you cannot be present in person you are requested to promptly execute the enclosed proxy and return it in the stamped and addressed envelope sent you herewith so that as large a proportion as possible of the outstanding capital stock will be represented at such meeting.

Stockholders will be notified in due course when the certificates for the common stock of General Motors distributable to them pursuant to the proposed plan will be ready for delivery, and will then be asked to make deposit of their stock with some designated depositary or depositaries.

By order of the Board of Directors.

LOUIS MENDELSSOHN,
Chairman of the Board.

WILLIAM A. FISHER,
President.

Aaron Mendelson,
Secretary.

Government's Exhibit No. 507

Detroit, Michigan, June 30, 1926.

To Stockholders of Fisher Body Corporation:

Fisher Body Corporation has been dissolved pursuant to Article 10 and Section 105 of the Stock Corporation Law of New York. You are hereby notified that, in accordance with said Article 10 and Section 105, all of the assets of said corporation have been sold and transferred to General Motors Corporation on this date, pursuant to the offer of General Motors Corporation, dated May 13, 1926, in exchange for 1,600,000 shares of common stock of General Motors Corporation fully paid and non-assessable, entitled to all dividends declared payable to common stockholders of record on and after June 30, 1926.

Certificates for the shares of said common stock of General Motors Corporation deliverable in distribution in exchange for shares of common stock of Fisher Body Corporation at the rate of one (1) share of common stock of General Motors Corporation for each one and one-half (1½) shares of common stock of Fisher Body Corporation are now available for delivery to stockholders of Fisher Body Corporation upon delivery of certificates for their stock endorsed in blank, or accompanied by a stock transfer power executed in blank, at the Stock Transfer Office, General Motors Corporation, 224 West 57th Street, New York City, which will act for the directors of Fisher Body Corporation in making such distribution. The transfer books of Fisher Body Corporation will close on July 15, 1926.

Unless otherwise requested, only one certificate will be issued to each shareholder, and such certificate will be in the name of the holder of common stock of Fisher Body

Corporation as it appears on the certificate surrendered No fractional shares of common stock of General Motors Corporation shall be deliverable. To adjust such fractional shares, General Motors Corporation will *until further notice* purchase any such fractional share or at your option will sell to you any fractional share requisite to make up full shares, in either case at the closing bid price per share of General Motors Corporation common stock on the New York Stock Exchange on the business day next preceding the purchase or sale of such fractional share. In the case of each stockholder, General Motors Corporation will buy or sell only one-third or two-thirds of a share of its common stock as may be required to avoid issuing fractional shares of said stock.

Certificates for common stock of Fisher Body Corporation endorsed in blank or accompanied by a stock transfer power executed in blank, should be delivered or sent by registered mail to the Stock Transfer Office, General Motors Corporation, 224 West 57th Street, New York City, forthwith, together with the enclosed form filled out to indicate your option as to such purchase or sale of any fractional share of the common stock of General Motors Corporation to which you may be entitled.

If common stock of General Motors Corporation is to be issued in the name of another person (a) the full name and address of the person in whose name the shares are to be issued should be set forth on the enclosed form, (b) the signature of the stockholder to the assignment on the back of the certificate for common stock of Fisher Body Corporation should be guaranteed by a national bank or trust company located in, or having a correspondent bank or trust company in, New York, or by a New York Stock Exchange firm, or acknowledged in regular form with a County Clerk's certificate attached, certifying to the notary's signature and authority, and (c) certificates for common stock of Fisher Body Corporation should be accompanied by 4 cents in New York funds for each share of the common stock of General Motors Corporation so to be issued, which amount is necessary to cover New York State and Federal transfer taxes.

In case you have already delivered your certificates for shares of common stock of Fisher Body Corporation for exchange you should deliver or mail the enclosed form to General Motors Corporation to indicate your option as to the purchase or sale of fractional shares.

FISHER BODY CORPORATION,

by W. A. FISHER,
President.

NOTE: In the upper right hand corner appears the handwritten words "GMC—Taxes Fisher Body Acquisition".

Government's Exhibit No. 508

(COPY)

GENERAL MOTORS CORPORATION.
Broadway at 57th Street
NEW YORK

July 12, 1927

Walter S. Carpenter, Jr., Treasurer,
General Motors Securities Company,
DuPont Building,
Wilmington, Delaware.

Dear Walter,—

We should like to borrow from the General Motors Securities Company 247,600 shares of General Motors Corporation common stock in order to enable us to complete payment for the purchase of the Fisher Body Company of Ohio. If, therefore, you will loan us 247,600 shares of General Motors common stock, represented by certificate for this number of shares in the name of the General Motors Securities Company with properly executed power of attorney attached, we will guarantee to return this same certificate to you very shortly and after it has served the purpose of the above transaction.

This request is exactly in line with a similar request we made of you some time ago for the loan of some General Motors common stock to complete the purchase of the assets of the Fisher Body Company of New York.

Sincerely yours,

(s) J. J. RASKOB
CHAIRMAN

NOTE: "GMC 1630 B" is written in lower left corner; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom.

Government's Exhibit No. 509

EXTRACT FROM MINUTES OF REGULAR MONTHLY MEETING

BOARD OF DIRECTORS - JULY EIGHTEENTH, 1927

E. I. DU PONT DE NEMOURS & CO.

LOAN TO GENERAL MOTORS CORPORATION OF 247,600 SHARES OF GENERAL MOTORS CORPORATION COMMON STOCK BY GENERAL MOTORS SECURITIES COMPANY:

The Chairman presented a communication dated July 12, 1927 from Mr. J. J. Raskob, Chairman of the Finance Committee of General Motors Corporation, addressed to General Mtorods Securities Company, requesting that the last named Company lend to General Motors Corporation 247,600 shares of the common stock of General Motors Corporation to enable General Motors Corporation to complete payment for the purchase by it of the Fisher Body Company of Ohio, said stock being loaned with the understanding and agreement of General Motors Corporation that it will be returned within the period of 30 days from the date thereof.

The following resolution was offered and unanimously adopted:-

> RESOLVED, that this Company recommend to General Motors Securities Company that it lend to General Motors Corporation for a period of 30 days 247,600 shares of the common stock of General Motors Corporation, registered in the name of General Motors Securities Company, in compliance with request made by Mr. J.J.Raskob, Chairman of the Finance Committee of General Motors Corporation dated July 12, 1927, addressed to General Motors Securities Company; and
>
> RESOLVED FURTHER, that Mr. W.S.Carpenter, Jr., Vice-President, be and is hereby authorized and directed to transmit this recommendation to General Motors Securities Company.

Government's Exhibit No. 510

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

ADVICE OF ACTION

October 20, 1931

Copy to:
Mr. J. B. Eliason
Mr. A. B. Echols

Mr. Donaldson Brown, Vice-President,
General Motors Corporation

SUBJECT QUESTION OF ADDITIONAL INVESTMENT IN THE COMMON STOCK OF GENERAL MOTORS CORPORATION:

ACTION TAKEN BY: Finance Committee

AT MEETING October 19, 1931

REMARKS

Mr. Donaldson Brown orally reported to the Committee that it had recently come to his attention that a group of very large stockholders of General Motors Corporation would shortly be compelled to dispose of from 500,000 to 700,000 shares of the Common Stock of that Corporation, and spoke of the detrimental effect of having such a large block of stock placed for sale in the open market. He further advised that it is possible that quite a substantial part of this stock might be acquired by the Opel group of Germany at a price of $24.00 a share or less.

After full discussion of this matter, it was moved and unanimously carried that Mr. Brown be advised it is the sense of the Finance Committee that the duPont Company would be willing to purchase up to 200,000 shares of the aforesaid block of General Motors Corporation Common Stock provided the Opel group will acquire approximately 300,000 shares, it being the feeling of the Finance Committee that a price of not to exceed $24.00 a share, and not to exceed the price paid by the Opel group, would be satisfactory.

M D Fisher
Sec'y Finance Committee

29

NOTE: "gmc 1098" is written in lower right corner; check mark appears opposite "J. B. Eliason"; "152.16", preceded by a paragraph sign, is written in upper right corner; what appears to be "Art 29" with a circle around the "29" is written at top. Italics indicate handwriting.

2

Government's Exhibit No. 511

E. I. du Pont de Nemours & Company
(incorporated)

October 22, 1931

Copy to:
Mr. A. B. Echols
Mr. J. B. Eliason

Mr. Donaldson Brown, Vice-President,
General Motors Corporation,
Broadway at 57th Street,
New York, N. Y.

QUESTION OF ADDITIONAL INVESTMENT IN COMMON STOCK OF GENERAL MOTORS CORPORATION:

Referring to my letter of the 20th, advising as to action taken by the Finance Committee on the above subject at meeting held on the 19th:

This is to inform you that I have been advised by the President that since the aforesaid action was taken a majority of the members of the Finance Committee have approved the purchase by duPont of up to three hundred thousand (300,000) shares of the block of G.M.C. Common stock in question, with the understanding that the Opel group will acquire approximately two hundred thousand (200,000) shares of the same block, the price to be the same as that quoted in the October 19th action.

M. D. Fisher
29 Sec'y Finance Committee

NOTE: "gmc 1097" is written in lower right corner; check mark appears after "J. B. Eliason"; "152.16", preceded by a paragraph sign is written in the upper right corner. Italics indicate handwriting.

Government's Exhibit No. 512

J. P. MORGAN & CO.
Wall St. corner Broad
New York
DREXEL & CO.
Philadelphia
MORGAN GRENFELL & CO.
London
MORGAN & CIE
Paris

New York, October 29, 1931.

PRIVATE AND CONFIDENTIAL

W. S. Carpenter, Jr., Esq., Vice President,
E.I. du Pont de Nemours & Company, Inc.
Wilmington, Delaware.

Dear Sir:

Referring to your letter of October 27th, addressed to Mr. Francis D. Bartow in connection with the purchase through us of 300,000 shares of General Motors Corporation common stock, we have today charged your account on our books $7,200,000, being the purchase price of these shares.

In accordance with your instructions, we have delivered to Mr. A. B. Hull the certificates representing the above shares.

Yours very truly,

J.P. Morgan & Co.

Government's Exhibit No. 514

July 6, 1933

TO: FINANCE COMMITTEE

FROM: TREASURER

4185

GENERAL MOTORS COMMON STOCK

We originally purchased General Motors common from the Fisher Brothers -

300,000	shs. @ $24.00 per share	$7,200,000.00
	Subsequently, there was transferred to our so-called permanent investment in General Motors	
18,780	shs. @ $16.90 per share	317,382.00
	Leaving a balance remaining of	
281,220	shs. at an average price of $24.47+ per share	$6,882,618.00
	Acting under authority granted at your meeting on May 15, 1933, there has been sold	
46,000	shs. (book value $24.47 +)	1,125,810.50
	Leaving a balance at close of business July 5, 1933, of	
235,200	shs. (at average price $24.47 +)	5,756,807.50

The shares sold were at prices ranging from 24-1/2 thru 30-1/8, for a total of .	$1,250,917.50
Book value of shares sold	1,125,810.50
Profit.	$ 125,107.00

J. B. Eliason
J. B. ELIASON

NOTE: Date in "RECEIVED" stamp is "JUL 7 1933". Handwritten initials in lower left corner are: "W.F.R."

Jmc-888

Government's Exhibit No. 515

November
29th
1935

To: FINANCE COMMITTEE

FROM: TREASURER

ACQUISITION OF ADDITIONAL GENERAL MOTORS CORPORATION COMMON STOCK.

On October 29th, 1931 the Company acquired 300,000 shares of General Motors Corporation Common stock at $24 a share. 218,780 shares out of this purchase are now owned by the Company. 200,000 of these shares are regarded as current and temporary investment while 18,780 of the shares have been identified with our permanent investment in 10,000,000 shares of General Motors Corporation Common stock.

At their meeting November 18th, 1935, the Directors authorized the distribution of these 200,000 shares as a special dividend to the stockholders in the ratio of 1/55 of a share of General Motors Corporation Common stock for each share of the common stock of this Company. This dividend on our Common stock will require 200,950 and 52/55 shares, all of which is to be paid from the stock purchased October 29th, 1931.

After payment of this dividend, it will be desirable for us to purchase 950 and 52/55 shares in order to maintain our investment in General Motors Corporation Common stock at the round 10,000,000 share figure. It is accordingly recommended that your Committee pass the following resolution:

4187

RESOLVED, that the Treasurer of this Company be and he is hereby authorized to purchase in the name of E. I. duPont de Nemours & Company on or after December 27~~th~~, 1935, 950 shares of the Common stock

—2—

of General Motors Corporation and receipt or receipts representing fractional interest or interests aggregating 52/55 of a share of the common stock of General Motors Corporation.

J. B. Eliason
J. B. ELIASON

NOTE: "gmc-895" is written in lower right corner of both pages; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of first page; "Finance Committee Secy's No. 3643" is stamped in upper right of first page; "Received M.D.F. Dec 2 1935" is stamped at top of first page (with a "2" inserted by hand before "M.D.F."). Italics indicate handwriting.

2

Government's Exhibit No. 516

March 20, 1918.

To—HEADS OF DEPARTMENTS

PURCHASE OF MOTOR EQUIPMENT:

At meeting of the Executive Committee, held on the 19th inst., the following resolution was unanimously adopted:

> "RESOLVED, that the Heads of Departments of this Company be advised that the du Pont Company has acquired a very substantial interest in the General Motors and Chevrolet Motor Companies, and that it is the wish of the Executive Committee that all motor equipment purchased in the future for this Company be of General Motors or Chevrolet manufacture."

Sec'y. Executive Committee.

F.L.Connable

Messrs. P.S.duPont
Alexis I.duPont
J.J.Raskob
C.Copeland
Frank Turner
E.N.Wead
Lammot duPont
H.G.Haskell
Irenee duPont

HMBarksdale
H.F.Brown
C.L.Reese
H.M.Pierce
Wm.Coyne
F.G.Tallman
J.P.Laffey
Daniel Cauffiel
R.R.M.Carpenter
E.G.Buckner

C.M.Barton

NOTE: "X-1100" is written at top. Check mark by hand appears in front of each name at bottom. Italics indicate handwriting.

Government's Exhibit No. 517

July 23, 1918.

HEADS OF DEPARTMENTS:

PURCHASE OF MOTOR EQUIPMENT:

Referring to the following resolution adopted by the Executive Committee at meeting March 19, 1918, in connection with the above-mentioned subject:–

> "RESOLVED, that the Heads of Departments of this Company be advised that the du Pont Company has acquired a very substantial interest in the General Motors and Chevrolet Motor Companies, and that it is the wish of the Executive Committee that all motor equipment purchased in the future for this Company be of General Motors or Chevrolet manufacture."

At Executive Committee meeting July 22nd, it was moved and unanimously carried that the various Departments be advised that they are expected, if practicable, to purchase equipment of General Motors manufacture, but in special cases where such procedure is not practicable the Departments are expected to use their own judgment in the matter.

/s/ *M. D. Fisher*
Sec'y. Executive Committee.

NOTE: "Return to Executive Committee Room 9069" is stamped at bottom and "X-1100" is written at top.

Government's Exhibit No. 518

December 6, 1923.

To — HEADS OF DEPARTMENTS

FROM— SECRETARY

W.P.A.
JFB
HG.
FBD.
AFduP
WFH
JBDE.
WSC Jr
HMP
CLR
CFB
WBF
FS
PSduP
JJR
CC
JBE
CMB
Gd.AB
HG. for F.V.&C.W.
H.G. for Am Glyc. Co

MOTOR EQUIPMENT—PURCHASE OF

At meeting of the Executive Committee held yesterday, the following resolution was unanimously adopted:

X-5

"RESOLVED, that the actions taken by this Committee under date of March 19, 1918 and July 22, 1918 regarding purchase of motor equipment be rescinded and that the various Departments of this Company be advised that they are expected, other things being equal, to purchase equipment of General Motors manufacture."

The actions taken by the Committee under date of March 19, 1918 and July 22, 1918 were as follows:

March 19, 1918:

"The following resolution was unanimously adopted:-

RESOLVED, that the Heads of Departments of this Company be advised that the duPont Company has acquired a very substantial interest in the General Motors and Chevrolet Motor Companies, and that it is the wish of the Executive Committee that all motor equipment purchased in the future for this Company be of General Motors or Chevrolet manufacture."

July 22, 1918:

"It was moved and unanimously carried that the various Departments be advised that they are expected, if practicable, to purchase equipment of General Motors manufacture, but in special cases where such procedure is not practicable the Departments are expected to use their own judgment in the matter."

M. D. Fisher

Sec'y. Executive Committee.

23.

Note: Italics indicate handwriting. "X-1100" is written at top and "Return to Executive Committee Room 9069" is stamped at bottom.

Government's Exhibit No. 519

Government

E. I. du Pont de Nemours & Company
(incorporated)
Production Department
Wilmington, Delaware

EXPLOSIVES MANUFACTURING DEPT.

January 15, 1921.
File ED— EHF.

Mr. H. R. Kinsley, Asst. to Pres.

Copies to:
Mr. Lammot duPont
Mr. L. P. Mahony,Dir.of Sale

Motor Trucks:

Mr. Lammot duPont just called me up and told me that from a conversation with Mr. Beardsley of the General Motors Corporation in New York, he had learned that you were in the market for a new truck. Also that you had a truck in service of other make than that of General Motors'. He drew my attention to a decision that was arrived at some two years ago, that whenever practicable, General Motors' trucks should be used by this company. Wherever impracticable,the decision of using equipment of other makes was left to the heads of the Departments. Mr. Beardsley told Mr. duPont that the Scranton Agent of the General Motors had made a proposition upon a truck and you had turned it down and decided to purchase one of another make.

I believe, if you have not yet made the purchase, that it would be well for you to present to us your reasons for not using General Motors' equipment and for desiring to make this purchase. The Divisional Council (the new form of
obtain from Dept. Head
control) would then consider your reasons and ~~give~~ you,^or withhold, the necessary permit.

have
If you ^ made the purchase, this advice will undoubtedly guide you in future transactions.

It is very obvious that duPont Co. ought to be able to use the equipment of the corporation in which it is so

—2—

largely
interested. If their trucks are not adequate for our use, they should be advised as to their deficiency. I am sure that your President will agree in this feeling. At any rate, we should follow the order of the Executive Committee in this matter and perhaps you were not advised at the time it was made; but please understand now that they did make this ruling and that we should be governed thereby.

Ed. H. Ford, Asst. Director.

EHF-P

Note: Italics indicate handwriting. A handwritten arrow points to Mr. Lammot du Pont's name at top of first page and lines are drawn through the name of the addressee. "Received Jan 17 Lammot du Pont" is stamped at top of first page. "Return to Executive Committee Room 9069" is stamped at bottom of each page. "X-1100" and "8" (with a large check mark) are written at top of first page. "GMC 1527" is written at bottom of each page.

Government's Exhibit No. 520

E. I. DU PONT DE NEMOURS & COMPANY
OF PENNSYLVANIA

ADDRESS ALL COMMUNICATIONS
TO THE COMPANY

REFER TO OUR FILE NO. 2621

SCRANTON, PA., January 17, 192

To: ED. H. FORD, ASST. DIRECTOR,

FROM: SCRANTON.

AUTO TRUCKS. YOUR LETTER JANUARY 15th.

We note with interest what you say in regard to conversation of Mr. Lamotte DuPont with Mr. Beardsley of the General Motors Corporation. The matter of the truck in question was one of replacement and not additional new equipment. We had on hand a Maccar truck which was worn out and upon which the repairs would have cost more than it would have been worth to us. It was decided therefore to replace this with a new one. The proposition was submitted to the General Motors agent here and naturally also to the Maccar people. The Maccar truck is assembled in Scranton We have several of them in our Division.

The General Motors agent knew just what the proposition was, and upon submission of their terms we found that they did not compare with those submitted by the Maccar for this replacement. As we know what the Maccar truck can do here, and as it was a better business proposition, we of course accepted the Maccar offer.

In this connection would say that the General Motors people here did not make as good an offer as they could have done. We know this from what they told outside afterwards. We feel in this division that it is up to us to make as good terms on purchases of equipment as possible. We do not feel that the General Motors agents are entitled to any particular advantages if they don't appreciate the situation

At any time that we are in the market for entirely new equipment we will of course consider that we should buy General Motors products, but in replacement propositions, if it is possible to get better terms from manufacturers whose trucks are up for replacement we think it good business to accept those better terms.

H. R. Kinsley
ASST.TO PRESIDENT.

HRK

NOTE: "Return to Executive Committee Room 9069" is stamped, and "GMC 1528A" is written, at bottom of page. Italics indicate handwriting.

Government's Exhibit No. 521

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
PRODUCTION DEPARTMENT
WILMINGTON, DELAWARE

EXPLOSIVES MANUFACTURING DEPT.

January 19, 1921.
File ED— EHF.

Copies to:

Mr. Lammot duPont
Mr. L. P. Mahony, Dir. Sales
Mr. A. J. Abrams.

MR. G. D:A. BELIN, PRES.

AUTO TRUCKS:

Mr. Kinsley's letter Jan. 17, 1921

Your file 2621.

I beg to thank you for yours of above date. It was read at the Council Meeting held this morning. The consensus of opinion was (Mr. Mahony being absent from the meeting) that even replacements should be made with General Motors' products and that such was the intent of the Executive resolution. A few instances in the past were referred to by the Purchasing Department's representative; the decisions in the cases confirmed this.

However, I will discuss this matter with you when you come on for the next meeting. I am sure that we will do nothing in the future which will merit censure.

Ed. H. Ford, Asst. Director.

EHF-p

Note: A handwritten arrow points to Mr. Lammot du Pont's name at top and "Received Jan 20 Lammot du Pont" is stamped at top of page. "X-1100" is written at top of page and "Return to Executive Committee Room 9069" is stamped at bottom of page. "GMC 1528" is written at bottom of page. A large check mark appears at the top center of the page.

Government's Exhibit No. 522

Form 12180-6800 5 19

E. I. DU PONT DE NEMOURS & CO.
INCORPORATED

WILMINGTON, DELAWARE

EXPLOSIVES MANUFACTURING DEPARTMENT

VICE-PRESIDENT'S OFFICE

Irene

This is good"

Did the other Divisions do same thing?

Presume they did all right

Guess we have to ask? W Coyne 11/5/31

November 4, 1931
File Ex-227.

MESSRS. A. FELIX DUPONT
J. THOMPSON BROWN
J. B. MC COY
E. N. FORD
H. T. STAKERS

L. F. MAHONEY
L. O. BRYAN
A. B. GALVIN
K. K. V. CASEY
F. A. BRODKAY

For your information, I am enclosing herewith copy of letter which I have just sent out to all the Sales Managers, Plant Managers, and Plant Superintendents of this Department.

I feel that whenever we can say a good word about any General Motors product and encourage a possible sale thereby, we should do so. I also feel that everyone in this Department agrees with me in that the products turned out by the General

4199

November 3, 1921.

I am enclosing herewith extract from a letter which was written by Mr. Pierre S. duPont, President of the General Motors Corporation, to all of the Corporation's stockholders. You probably have seen this letter. However, when I read it the thought struck me that as the duPont Company owns a very large block of the General Motors Corporation's stock, it might be in order for me to write to a few of this Company's important employes with the object in view of encouraging, through them to their assistants and to any employes with whom they may come in contact, a feeling which would encourage the boosting of General Motors products whenever there is an opportunity.

The General Motors Corporation turns out, as we all know, a complete line of very high-class cars, any one of which is, in my opinion, superior to other cars at or near their prices; and I feel that each and every one of us can honestly and proudly help all of our friends who are handling the Chevrolet, Oakland, Buick, Oldsmobile, and Cadillac passenger cars, or the Chevrolet, Oldsmobile and G.M.C. commercial cars, by encouraging the purchase of one of these makes whenever and wherever the opportunity offers.

GENERAL MANAGER.

EAH

1918

November 1st, 1921.

TO THE STOCKHOLDERS:

There are 133,500 in the General Motors immediate family—68,000 stockholders, 53,000 employes, and 12,500 dealers and distributors. All are financially concerned in the success and the prosperity of the Corporation. And there are many others interested besides the immediate members of the family.

Since 1909 the Corporation has produced over two million passenger and commercial cars, of which approximately 72% are now in use in this country. As there are over nine million motor cars in this country, one out of every six is a General Motors product.

Members of the immediate family share in the profits from every sale. The dealers and distributors receive commissions, the employes their wages, the stockholders their dividends; obviously, the greater the number of cars sold, the large the amount of money available for these purposes. Users of General Motors cars also benefit because behind the product is the strength of a financially successful institution.

Employes and Stockholders are potential missionaries for General Motors, the institution—and users of General Motors cars are word-of-mouth advertisers of the products General Motors sponsors. If each of the employes and stockholders would interest himself to the extent of helping to convert but one new buyer a year, sales would be 33% greater and profits accordingly larger.

Pierre S. du Pont,
PRESIDENT.

gmc-776b

NOTE: Stamp at upper right corner of first page bears date "JAN 4 1922". Stamp beneath that reads: "GENERAL MANAGER PYRALIN DEPARTMENT RECEIVED JAN 14 1922". At lower right corner of third page, handwriting reads: "gmc-776b".

Government's Exhibit No. 523

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

EXPLOSIVES DEPARTMENT

24-1010

Jan. 20th 1922.

Copy to:
Mr. Irenee du Pont

Mr. Alfred P. Sloan, Jr.,
V.P., General Motors Corporation,
224 West 57th st.,
New York City.

Dear Sir:-

Your letter, dated January 13th, ✓ addressed to Mr. Irenee du Pont, on the subject of the possible purchase by us of five 3/4-ton Sampson trucks, has been referred to me for attention.

In the first place, I wish to advise you that for some time past this Department has given positive orders to the effect that nothing but General Motors trucks and cars are to be purchased by any of our divisions, unless specific authority to the contrary is given by the Head of the Department.

We have a number of General Motors trucks, and a few Chevrolet trucks, together with fifteen or twenty Ford trucks which have been in use for some years. When the Ford trucks are replaced the new trucks will be General Motors products, although we cannot approve of their replacement by the Sampson truck where the transportation of explosives is concerned. This is on account of our ruling that trucks used for the transportation of explosives must be of a type which has the engine well separated from the gasoline tank, it being obvious that if the engine is located practically below the gasoline tank a fire in or about the engine might cause us a great deal of trouble.

For your personal information I wish to state that at present we are having a study made of the cost of operation per mile of the various trucks which we have used in the past and from the rough estimates which the writer has been able to accumulate, it looks as though, from a dollars and cents point of view, we should not use anything but Ford trucks for our light hauling.

When the figures are complete, if the investigation shows that they can be relied upon, I shall submit them to you. However, we want to assure you that, regardless of the figures, it is our intention to replace our trucks and cars, as they are discarded, with a General Motors product.

Yours very truly,

C A Patterson

GENERAL MANAGER.

Note: Stamp at right, near center, reads: "RECEIVED JAN 23 1922 A. P. SLOAN, JR.". Pencil notation at end of last paragraph appears after "A.P.S.", the check mark beneath it after "[Illegible]", and check mark below the first check mark after "A.T.B.", of routing stamp containing the initials "A.P.S.", "J.L.P.", "P. [Illegible]", "[Illegible]" and "A.T.B.".

Government's Exhibit No. 524

E. I. du Pont de Nemours & Company
INCORPORATED

July 10,1922.

√

Mr. C. F. Brown, Director of Advertising.

Attached is a suggestion from Mr. Naylor of the Treasurer's Department. I think the principle is a good one. Could you not draw up a letter which, starting on the idea of boosting General Motors sales, would end with a boost for duPont products, and which might be sent out to our employes and stockholders in the form of a letter from the President. Please return the memo with your suggestion.

Irenee duPont
Irenee duPont

Encl.

Effect on other car mfgrs.
Fab
Top material
Pyr Sheeting
Flint

NOTE: "GMC 1556" is written in lower right corner. Italics indicate handwriting.

4203

E. I. du Pont de Nemours & Company
(incorporated)

July 14,1922.

Mr. W. S. Carpenter, Jr:

I have forwarded the attached to Mr. Brown. He has replied orally that he fears following Mr. Naylor's suggestion would result in a loss of business by duPont that we now enjoy from competitors of General Motors. What do you think of the situation?

enclosure.

Irénée duPont.

Note: "GMC 1556a" and "26" is written in lower right corner; "ID-152" is written in upper right corner; "Noted W. S. C. Jr." is stamped twice at top of page.

1922

For your information, I am enclosing herewith copy of letter which I have just sent out to all the Sales Managers, Plant Managers, and Plant Superintendents of this Department.

I feel that whenever we can say a good word about any General Motors product and encourage a possible sale thereby, we should do so. I also feel that everyone in this Department agrees with me in that the products turned out by the General Motors Corporation are worthy of our best recommendations.

O. W. PATTERSON.

GENERAL MANAGER.

OAP:M

Print Dept
were done to appear
to Stockholders
H H Sewell

NOTES
JAN 12 1921
E. C. T.

Pyralin Dept has
followed up [illegible] Dept
lead on this
1/14/22

gmc-776

Irenee
Naylor sent this on to me as
a suggestion

W S C Jr.

MEMORANDUM

June 23, 1922.

RE. EMPLOYEES PURCHASING GMO CARS.

Having observed that quite a number of employees have purchase*d* this year, cars of other than GMO make, it occurs to me that a letter from the President sent to all employees calling their attention to following points should have the effect of turning the most of future purchases of cars by employes in favor of GMO.

1. The Company's large investment in GMO.

2. 37% of GMO earnings accrue to Du Pont Company, and the larger GMO earnings, the larger will be the amount distributed, resulting in

3. Larger sales of Du Pont Products, larger distribution to stockholders, and larger amounts available for Du Pont Welfare plans (Bonus and Participating Stock Subscription).

4. A "Boost" for GMO is a "Boost" for Du Pont.

Closing with a paragraph asking the employees to give same support to increasing GMO sales as they would to sale of Du Pont products.

G. L. NAYLOR.

"Good [followed by an illegible word]"

NOTE: "GMC 1556b" is written in lower right corner. Italics indicate handwriting.

Government's Exhibit No. 525

Cleveland Office

Cleveland, Ohio,
January 3, 1931.

Mr. Wm. Richter, General Manager,
Fabrics and Finishes Department,
Wilmington, Delaware,

Referring to your telegram reading:

> "Still feel from Company viewpoint we ought not to buy White truck. Stop. We should look at it from viewpoint of considering GM member of family. Stop. If GM were duPont subsidiary or duPont department we wouldn't think of buying White truck, would we. Stop. Will be in Cleveland with Martin tomorrow and have made another appointment at your office for two oclock after which we ought to have opportunity to talk about this truck question finally."

I feel you know the interest of the duPont Company is always foremost in the minds of all of our people here; it is, therefore, apparent that we should use nothing but G.M. trucks in view of the duPont Company's large interest in General Motors, and that policy will be followed.

Personally, I believe the meeting our people recently had with representatives of the General Motors at Detroit has been helpful, since it gave us an opportunity to acquaint those at the top with the difficulties we have experienced with some of their equipment and service. In any event, it developed the fact that they expect to have on the market in the near future a new heavy duty truck which we are hopeful will answer our special purposes, of which we expect to buy at least two as soon as they are available.

We welcome suggestions looking toward the improvement of our products and service, and I think it is pretty safe to assume the G.M. likewise is desirous of establishing not only close but enduring relations with its customers; at least, that was the impression our people gained on their Detroit visit.

(E.W.Furst.)

EWF:RJL

E

Government's Exhibit No. 526

THE GRASSELLI CHEMICAL CO.
INCORPORATED

Cleveland, Ohio,
January 8, 1931.

RECEIVED
JAN 12 1931
LAMMOT DUPONT

Mr. Lammot duPont, President,
E. I. du Pont de Nemours & Company,
Wilmington, Delaware,

Dear Mr. duPont -

We very much appreciate your letter of the 2nd., re trucks, with which we are in full accord.

You may be interested in knowing that our experience with G.M. light trucks has been entirely satisfactory.

Since the performance of G.M. heavy duty trucks in use at Grasselli, N. J., has been a matter of some concern, in that mechanical difficulties developed, resulting in rather high repair bills, we, a couple of weeks ago, suggested to Mr. Richter that we acquaint the Management of General Motors Truck Department at Detroit with the situation, as we saw it, in the belief that a full discussion of the problem would be of benefit not only to the General Motors but to us. This met with Mr. Richter's approval, and a very satisfactory conference was recently had in Detroit, at which the defects which have developed in the G.M. equipment we have in use were thoroughly gone into.

The conference developed the fact that the G.M. expect to place on the market within the next sixty or ninety days a new heavy duty truck which we have every reason to believe will fully answer our purposes. The attitude of their representatives was co-operative in every respect, and we are pretty well satisfied that our visit was worth while.

We are attaching a copy of our letter of January 3, to Mr. Richter, which explains our attitude on the use of G.M. equipment, which we hope will meet with your approval.

Very truly yours,

E.W. Furst

E.W.Furst/RJL
Encl.

Government's Exhibit No. 527

April 13, 1923.

Mr. R.R.M.Carpenter, General Manager,
Pyralin Division,
E.I.duPont deNemours & Company,
Wilmington, Delaware.

Dear Sir:

It has recently come to our attention that a number of the automobile companies outside of General Motors Corporation are looking on their purchases from the various General Motors Accessory Divisions and from the duPont Company as purchases from one interest.

Since this is the case, it would appear that we might have a better viewpoint, when considering these automobile companies as our customers, if we realize the entire volume of sales that the duPont Company and General Motors Corporation are making to outside automobile companies.

I have taken steps to bring together the sales from the various Accessory Divisions and Parts Companies of General Motors Corporation so as to show the total sales that we make to each competing automobile company, and I was wondering whether you would have any objection to supplying me with the total value, in dollars and cents, of your sales for the year 1922 to each of the outside automobile companies which you sell.

If you see fit to supply me with this information I assure ✓ you same will be treated as confidential.

With kind personal regards,

Very truly yours,

Vice President.

JLP:V

NOTE: Routing stamp bearing initials A.P.S., J.L.P., and L.R.B., with "4-20 Ans. recvd." inserted by hand after "J.L.P.", appears in lower right corner; a check mark and what appears to be "4/22" are written above the routing stamp. "1X-1010 Competing Automobile Mfgs." is written in upper left corner.

Government's Exhibit No. 528

4209

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
PYRALIN DEPARTMENT
ARLINGTON, N.J.

Pyralin TOILETWARE
SHEETING, RODS & TUBES

April 20, 1923.
Reference: JAB.

Mr. J. L. Pratt, Vice President,
General Motors Corporation,
224 West 57th Street,
New York City.

Dear Sir:

✓

Your letter of April 13th addressed to Mr. R. R. M. Carpenter.

We are giving you herewith information as to our 1922 actual sales to all Automobile manufacturers other than General Motors units. This amounts to approximately $273,882 for the year.

Bear in mind this does not represent the consumption of these Companies, as many of them are partly competitive. You will also understand that there are many other manufacturers not shown on our list which indicates that their purchases during 1922 were entirely from competitive companies. The most important of the latter class are Dodge Brothers, Willys-Overland, and Hudson Motor Car Co. We are now doing some business with Hudson but are still not getting any part of their business from Willys or Dodge.

Yours very truly,

ASST. GENERAL MANAGER.

JAB:ELM.

4210

AUTOMOBILE MANUFACTURERS - Pleasure cars & Trucks.

Pyralin

NAME.	TOWN.	STATE.	1922 SALES
✓Gardner Motor Co.	St. Louis.	Mo.	✓$4917✓
✓Moon Motor Car Co.	"	"	✓$6550✓
Patriot Mfg. Co.	Havelock,	Nebr.	$175
✓Reo Motor Car Co.	Lansing,	Mich.	✓$32315✓
✓Peerless Motor Car Co.	Cleveland.	Ohio	✓$1633✓
✓F. B. Stearns Co.	"	"	✓$2222✓
✓White Motor Co.	"	"	✓$2098✓
✓Winton Motor Car Co.	"	"	$7✓
✓Westcott Motor Car Co.	Springfield	"	$238✓
✓Nash Motors Co.	Kenosha	Wisc.	✓$12854✓
R. & L. Baker Co.	Cleveland	Ohio	$101
Seneca Motor Car Co.	Fostoria	"	$45
✓Harley-Davidson Motor Co.	Milwaukee,	Wisc.	$63✓
Elgin Motor Car Corp.	Argo	Ill.	$1626
✓Velie Motors Corp. Co.	Moline	"	✓$1014✓
✓H.C.S. Motor Car Co.	Indianapolis,	Ind.	$393✓
Monroe Automobile Co.	"	"	$528
✓Nordyke & Marmon Co.	"	"	✓$4831✓
✓Indiana Truck Corp.	Marion	"	$373✓
✓Durant Motors Inc.	Muncie	"	✓$16118✓
Acme Motor Truck Co.	Cadillac	Mich.	$200
✓Ford Motor Co.	Detroit	Mich.	✓$135103✓✓
✓Hupp Motor Car Co.	"	"	✓$13956✓
✓Studebaker Corp.	"	"	✓$21425✓
✓Dort Motor Car Co.	Flint	"	✓$2389✓

1929

NAME,	TOWN	STATE	1922 SALES
✓Pierce Arrow Motor Car Co.	Buffalo	N.Y.	✓$779✓
✓Stewart Motor Corp.	"	"	$876✓
✓Brockway Motor Truck Co.	Cortland	"	$175✓
✓H. H. Franklin Mfg.Co.	Syracuse	"	✓$3823✓
Winston-Vehicle Co.	Winston Salem	N.C.	$560
✓James Cunningham & Sons Co.	Rochester	N.Y.	$61✓
Larrabee-Deyo Motor Tr.Co.	Binghamton	"	$96
✓Rainier Motor Corp.	Flushing, L.I.		$147✓
Brewster & Company	Long Island City		$148✓
✓International Motor Co.	Allentown,	Pa.	✓$2357✓
✓Anderson Motor Co.	Rock Hill,	S.C.	✓$1451✓
✓Daniels Motor Co.	Reading.	Pa.	$47✓
✓Fageol Motors Co.	Oakland.	Cal.	$2189.✓
✓J. I. Case Threshing Mach. Co.	Racine.	Wis.	✓$3,475.✓

1930

Government's Exhibit No. 529

Jan. 19, 1924

Mr. J. H. Main
Purchasing Staff
Advisory Section
Detroit, Michigan

Dear Mr. Main:

I enclose letter from Mr. H. G. Haskell which is self-explanatory and if you have no objection will be glad if you will furnish him with the information requested.

You know the du Pont Company has a very large business with the Steel Corporation and other kindred lines and I presume such information might be helpful in securing orders for explosives.

Personally, I cannot see any objection to giving them the names of the companies from whom we are buying coal and steel but, of course, it is entirely within your discretion.

Thanking you,

Yours very truly,

LRB:S

L. R. Beardslee

Enc.

Government's Exhibit No. 530

(Letterhead of)
E. I. DU PONT DE NEMOURS & COMPANY
EXPLOSIVES DEPARTMENT
WILMINGTON, DELAWARE

March 31st, 1924.

Subject: Reciprocity.

Mr. P. S. du Pont,
9012 Du Pont Building,
Wilmington, Dela.

Dear Mr. du Pont:

Two years ago I conceived the idea that it might be of value for the DuPont Company to use their purchasing power for the purpose of influencing concerns from whom we buy to in turn buy from us.

Having secured the co-operation of the Purchasing Department, who agreed to send us copies of all their orders and contracts entered into, we devised a system to take care of this data, carding up all the names and indicating by signals important information. In addition, we advise our Sales executives and branch offices of purchases not only daily, but also by means of statements monthly and a general summary semi-annually, showing the status of all the concerns from whom we buy, as of those dates, i.e. if they have been purchasing from competitors, are they continuing to purchase from them,—and various other details of interest to the Purchasing Department.

This plan has grown in favor and I am glad to say that the Explosives and Paint Departments, who have been using it most diligently and intelligently, have secured a great deal of business.

The thought suggested itself to me (as mentioned to you in our conversation) that if the purchasing power of the General Motors was added to that of the Du Pont Company, it would be irresistible, and if used intelligently, would doubtless result in securing a large amount of business for us.

This is evidenced by the letter which I left with you from Mr. Donohue, Manager of the Acid and Heavy Chemical Division of the Paint Department, which sets forth in detail the consideration shown him by the Bethlehem Steel Company, because of the purchases made from the Bethlehem Steel Company by the General Motors.

This is only one instance of dozens, and you will note that the Bethlehem Steel Company have a reciprocity file with the purchases of the Du Pont and General Motors Companies listed on the one card, and that they consider the reciprocity idea valuable enough to have a reciprocity board, consisting of five executives.

I would suggest therefore, for your consideration the linking up of the purchasing power of the Du Pont and General Motors Companies and the inauguration of a system to take care of the details to fully advise the different units in order that we will not be "treading on each others toes" (so to speak) using the reciprocity files at present in my office and the system generally as a basis for the establishment of combined files.

The Bethlehem Steel Company is not by any means the only company we have heard of who are using reciprocity to the limit, but we are confronted with it wherever we go, and it seems to me we are overlooking a valuable adjunct to our business if we do not take full advantage of our purchasing power.

I will be pleased to take this up further with you, and, if the idea meets with favor, to work out the details of a general reciprocity file for all the companies. It should be made an administrative matter, of course, in order to secure the full value of it based on the co-operation of all the units by interchange of data.

I will await your further advices with interest, as from my knowledge of what has been accomplished, I feel much good will result from the adoption of this suggestion.

Very truly yours,

/s/ G. H. Kerr

GHK:L

E

Government's Exhibit No. 531

April 7th, 1934.

Alfred P. Sloan, Jr., Esquite,
President, General Motors Corporation,
New York City.

Dear Alfred:

I am informed that a number of companies have established a file on reciprocity and that this file is continually referred to in placing orders in order to insure that as much trade as possible is thrown to those who use the product of the corporations in question. The other day one of our representatives was with the Bethlehem Steel people and happened to see their file card in which they classified duPont and General Motors as one. The duPont Company is now looking into the advisability of establishing a system of this kind, and Mr. George Kerr has already carried out the preliminary work. I should be glad to have him explain the details to General Motors people, if you approve.

Very truly yours,

17

NOTE: "gmc-856c" is written in lower right corner; what appears to be "RTE" is written under initials in lower right.

Government's Exhibit No. 532

GENERAL MOTORS CORPORATION
225 West 57th Street
New York, N. Y.

OFFICE OF THE PRESIDENT

April 12, 1924.

Mr. P. S. duPont,
Wilmington, Delaware.

My dear Mr. duPont:—

Re: Matter of Reciprocity.

I have your letter of April 7th and will be glad to have Mr. Kerr send me a memorandum of what he has in mind. I certainly think this is a very constructive thing to do.

Very truly yours,

/s/ Alfred P. Sloan, Jr.
B

APSJr./K

Government's Exhibit No. 533

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

EXPLOSIVES DEPARTMENT

April 18th, 1924.

Mr. P. S. duPont,
Wilmington, Dela.

Dear Mr. duPont:

I am returning copy of your letter of the 7th to Mr. Sloan, and his reply to you.

I am also sending you a complete report of my trip to Detroit in regard to the manuals and reciprocity methods.

Notwithstanding I have explained in my report, the value of using the purchasing power of the Du Pont and General Motors Companies, I would suggest,—if it meets with your approval—as I will be in New York early next week on my way to Chicago, that it might be worth while for me to see Mr. Sloan personally and give him further details, so that he will have a thorough understanding of the matter.

Kindly call me on the telephone tomorrow (Saturday) morning, telling me when I can see you for a few minutes.

Very truly yours,

/s/ G. H. KERR

K:L
encl.

[fol. 1938] GOVERNMENT'S EXHIBIT No. 534

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
Wilmington, Delaware

EXPLOSIVES DEPARTMENT

April 18th, 1924.

Mr. P. S. du Pont,
Building.

Dear Mr. duPont:

[fol. 1939] **Reciprocity:**

In pursuance with your instructions, I took this matter up with Mr. Kother and Mr. Lynah (Mr. Mayne being engaged). I went into the matter very thoroughly with Mr. Kother and he seemed favorably impressed.

Mr. Lynah and I discussed this matter thoroughly from a purchasing point of view, and he agreed with me that if it is possible to combine the purchasing power of the General Motors and Du Pont Companies, if it is used intelligently and diplomatically, and records are available which will furnish reliable information when needed, that it would be very desirable, particularly as he stated the General Motors Truck Co. are using it with good results and that some other units are using it (as he termed it) in a haphazard manner, which he felt was apt to be dangerous and unsatisfactory.

[fol. 1940] I explained to Mr. Lynah the excellent results we have obtained; that we had in Wilmington reciprocity files containing all the data of the different divisions of the DuPont Company and that I was of the opinion that similar files could be established for the main Purchasing Department and the different units of the General Motors Corporation, and that they could be worked in harmony.

Mr. Lynah made this statement—that he is willing to and approves of bringing this matter to the attention of the General Sales Managers at their next meeting, but in order to accomplish the best results he suggested that the matter could be more effectively handled if you would express in writing your approval of this method of handling Du Pont and General Motors' purchasing data.

Inasmuch as I have in my office very complete reciprocity files, embodying all the data of the Du Pont purchases, I feel confident that I could inaugurate the same system for the General Motors Corporation and make such arrangements as would result in an intelligent interchange of data so that there would be no harmful results.

I would be pleased to have an opportunity to talk the reciprocity matter over with you in the near future as, if [fol. 1941] you consider favorably Mr. Lynah's suggestion, it will take some time to get the machinery in motion.

I will await your further advices.

Yours very truly,

(S.) G. H. KERR.

Enclosures.
K:L.

Government's Exhibit No. 535

April 30th, 1924.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
New York City.

Reciprocity:

Dear Mr. Sloan:

Referring to conversation and your suggestion to give you an outline of my thoughts on this subject, I would call your attention to the following:

Having secured the co-operation of the Purchasing Department of the DuPont Company, who agreed to send us copies of all their orders and contracts entered into, we devised a system to take care of this data, carding up all the names and indicating by signals important information. In addition, we advise our Sales Executives and branch offices of purchases not only daily, but also by means of statements monthly and a general summary semi-annually showing the status of all the concerns from whom we buy, as of those dates, i.e. if they have been purchasing from competitors, are they continuing to purchase from them, and various other details of interest to the Purchasing Department, Executives and Branch Offices.

The plan has grown in favor and I am glad to say that the units using it diligently and intelligently, have secured a great deal of business.

There have been numerous instances where the use of our purchasing power on a reciprocity basis has resulted in securing business which we otherwise would not have had an opportunity to get. One instance in particular is that of the Bethlehem Steel Company where our Acid and Heavy Chemical Division was anxious to have an opportunity to get the approval of their purchasing agent to try one of our products. It developed in consultation with the Bethlehem Steel officers that they have a reciprocity file and have they consider the purchases of the DuPont Company and the General Motors Corporation as one. The volume of our purchases on their reciprocity card was sufficient to influence the Bethlehem Steel Company's purchasing agent to not only try out the product of our Acid and Heavy Chemicals Division, but it finally resulted in a large trial order, and there is every prospect of our securing their entire business for that particular product.

The Acid and Heavy Chemical representative also developed that the Bethlehem Company has a Reciprocity Board, consisting of five executives.

There is no doubt that many large concerns of the country are using their purchases from other concerns to secure business, and we have been confronted with it in many instances; it would seem, therefore, we are overlooking a valuable adjunct if we do not take advantage of our purchasing power, and the combining of the purchases of the DuPont and General Motors Companies would undoubtedly make it irresistible.

To give you some further idea of the functioning of the DuPont reciprocity files, and the great value of the information which we are able to develop as to the affiliations of different concerns from whom we buy, I attach copy of letter to Mr. Leach, Sales Manager of the Pyralin Division, New York office. You will note our heavy purchases from the concerns mentioned and the very small purchases they are making from us.

I would therefore, suggest if it meets with your favor, that this plan be given consideration, and I will be very glad not only to explain it more in detail at the Sales Managers' meeting which you mentioned, but, also, to assist in working out the details of a reciprocity file for all the companies, which would enable us to secure the full value of it, based on the co-operation of all the units by interchange of data.

Yours very truly,

/s/ G. H. KERR
G. H. Kerr.

GHK:L

Copy to:
Mr. Wm. Coyne,
Mr. P. S. du Pont.

Government's Exhibit No. 536

MATTER OF RELATION BETWEEN FISK RUBBER COMPANY AND DUPONT COMPANY

August 13, 1924.

Mr. James Lynah, Secretary,
General Purchasing Committee,
General Motors Corporation,
Detroit, Michigan.

My dear Mr. Lynah:—

The above proposition is not sent to you with the thought that the Purchasing Committee will take any particular action but just in the line of general information.

It appears that some time ago Mr. Pickard, Vice President in Charge of Sales of the duPont Company got in touch with Mr. Swayne to see if Mr. Swayne knew anybody in the Fisk Rubber Company. There followed a meeting here in Mr. Swayne's office in which the duPont people and the Fisk people got together and following that a very valuable business has been given to the duPont interest by the Fisk people.

The principle in General Motors is that each proposition should stand on its own foundation and, as I said before and repeat it to emphasize the point, we are not suggesting that any exception be made in this case but simply to let the Committee know that this has taken place, in the line of general information.

Very truly yours,

APSJr./K

Enc.

NOTE: "gmc-Corres-Misc-du pont, E. I. de Nemours & Co.", followed by illegible initials, is written across top of page; routing stamp bearing initials A.P.S., J.L.P., H.M.C., F.C.H., A.K.H., L.R.B., A.T.B., and W.F.A., with check marks inserted by hand after "A.P.S." and "A.T.B.", appears in lower right corner.

Government's Exhibit No. 537

GENERAL MOTORS CORPORATION

Excerpts from Minutes of Meeting No. 16 of Interdivisional Relations Committee—General Purchasing Committee held September 5, 1924

RECIPROCITY.

This subject considered at meeting on July 2nd was again discussed as a result of requests from the DuPont Company for information regarding volume of business done by General Motors with various suppliers who are prospective customers of the DuPont Company. The matter was discussed at great length.

It was believed that the possession by DuPont salesmen of information regarding volume of business done by General Motors' Divisions with any suppliers would per se indicate a relationship between the two Corporations which would influence the supplier in the placing of his business. It is further believed that our buying position would be prejudiced in that suppliers who had been influenced to place business with the DuPont Company through their relationship with General Motors might reasonably expect our divisions to place business with them.

Finally it was agreed that as a practice General Motors could not undertake to supply information showing the volume of business done with any suppliers to the DuPont Company but that in special cases, upon request by the President of the DuPont Company to the President of General Motors, the situation would be properly dealt with, and that if the DuPont Company were to furnish to General Motors a list of suppliers whom it is desired to favor with inquiries, our divisions would endeavor to meet their wishes in this regard.

At the foregoing meeting, held at Detroit, Michigan, on September 5, 1924, at 9:00 a.m., the minutes disclose that the meeting was called to order by Mr. Sloan and that the secretary attended.

There is no statement in the minutes as to the names of the persons present. An examination of the minutes does not give any information as to any other persons present.

Government's Exhibit No. 538

GENERAL MOTORS CORPORATION
General Purchasing Committee
Detroit, Michigan

SUBJECT
ATTENTION OF

August 13, 1924.

Mr. G. H. Kerr,
E.I.DuPont deNemours & Co.,
Wilmington, Delaware.

My dear Mr. Kerr:

We acknowledge receipt of your letter of August 11 enclosing letters requesting data covering General Motors purchases from various concerns.

The information requested in connection with Manhattan Rubber Company and Nairn Linoleum Company will be secured as promptly as possible as this will be available without the expenditure of time on the part of our divisions.

The information requested in connection with the several Standard Oil Companies and the Bethlehem Steel Company would require the issuance of circular letters to all of our divisions and we would prefer not to begin this practice just now.

It is understood that information in connection with our purchases such as I have tentatively agreed to endeavor to secure for you, is not to be used to influence our sources to place business with the DuPont Company, or to place the DuPont Company in a preferred position as a source to them because of its interest in General Motors.

There would be no objection to your advising our sources that the DuPont Company holds a large interest in General Motors and solicit their earnest consideration on this account.

While it is our desire to assist you in your efforts to secure business for the DuPont Company we feel, as we previously advised you, that we consider it best to stand on our own equities as regards sales and purchases, that is, that our products should be sold strictly on their merit and our purchases likewise so made.

Agreeable to you we will take up in the beginning a few cases only in order to determine just how they will work out and whether or not any embarrassment is caused to General Motors.

Very truly yours,

GENERAL PURCHASING COMMITTEE.

/S/ James Lynah
Secretary.

James Lynah :EB.

CC: to Mr. J.L.Pratt.

Note. "Not sent to files" written above "August 11" first line. Stamped box and initials A. P. S., J. L. P. and L. R. B. lower left. Check mark after J. L. P. in box and after J.L.Pratt at bottom.

Government's Exhibit No. 539

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

September 6, 1924.

Mr. Irenee DuPont,
E. I. DuPont deNemours & Co.,
Wilmington, Delaware.

My dear Mr. DuPont:

Your Mr. George H. Kerr has, from time to time, requested our General Purchasing Committee to supply him with information as to the volume of our purchases from various vendors who are customers or prospective customers of the DuPont Company, this information presumably to be used by DuPont Company's salesmen in dealing with such customers who are suppliers of General Motors. This subject has been discussed at length at two meetings of our General Purchasing Committee and as we are following a very definite policy in General Motors of having our Sales activities and Purchasing activities maintain their own status without the one influencing the other, it was felt that to supply the DuPont Company with the information requested by Mr. Kerr would convey the impression that the DuPont Company could influence General Motors purchases, and in this belief the following action has been taken by our General Purchasing Committee.

"Whereas it is believed that the possession by DuPont salesmen of information regarding volume of business done by General Motors' Divisions with our suppliers would per se indicate a relationship between the two Corporations which would influence the supplier in the placing of his business; and whereas it is further believed that our buying position would be prejudiced in that suppliers who would be thus influenced to place business with the DuPont Company might reasonably expect our divisions to place business with them in return; and whereas it is the definite policy in General Motors to have their Sales activities and Purchasing activities stand on their own equities, it is agreed that as a practice General Motors cannot undertake to supply to the DuPont Company information showing the volume of business done with its suppliers, but that in special cases upon the request of the President of the DuPont Company to the President of General Motors, the situation would be properly dealt with, and further that if the DuPont Company were to supply to General Motors a list of vendors whom it is desired to favor with inquiries from the divisions, endeavor would be made to meet their wishes in this regard."

The committee was very anxious that its action be communicated to you in the belief that you would fully appreciate the situation.

Very truly yours,

GENERAL PURCHASING COMMITTEE.

/s/ JAMES LYNAH
Secretary.

James Lynah:EB.

CC to Mr. J. L. Pratt.

NOTE. Indecipherable short-hand notations in upper right corner. Also stamp "Answered Sept 9 (this superimposed over Aug 3) 1924 Irenee duPont."

Government's Exhibit No. 540

COPIES TO—MESSRS. J. B. D. EDGE
F. W. PICKARD.

September 8, 1924

Mr. James Lynah, Secretary,
General Purchasing Committee,
General Motors Corp.
Detroit, Mich.

Dear Mr. Lynah:—

This will acknowledge your letter of the 6th. Of course any action which the General Motors takes is entirely their own affair and the du Pont Company should not be critical.

I think it was while you were with the du Pont Co. they adopted a very much similar principle of letting both sales and purchases stand on their own bottoms. I think that policy was a very good one and at least it avoided the endless complications resulting from an endeavor to carry out reciprocity, especially as the little fellow can work it far better than can a big corporation.

Since our Company adopted a new type of organization definitely segregating its management by industries, there has been a material departure from that principle. In other words we find ourselves more in the shoes of the little fellow and it was felt that reciprocity yielded very excellent results. I am not prepared to discuss in detail which is right but think it might be well when you get an opportunity that you discuss this with such men of our organization as Mr. J. B. D. Edge and Mr. F. W. Pickard, representing purchasing and selling—not that I am asking that you change the ruling of the General Motors but purely as a matter of information.

I believe that this company has not improperly used information of the General Motors purchases to influence prospective buyers who sell to you.

Sincerely yours,

Irénée du Pont, President

Note. "File Copy" appears across both pages of document.

Government's Exhibit No. 541

4234

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

PAINT DEPARTMENT

September 11, 1924.
FILE 77-HG.

PERSONAL & CONFIDENTIAL

Mr. John Lee Pratt,
c/o General Motors Corporation,
General Motors Building,
Detroit, Mich.

Dear Doctor:-

For your personal and confidential information, advise we are very desirous of securing the acid contract of the Bethlehem Steel Co., for their Steelton, Pa. Plant, and I was wondering if you would object to telling me what the prospect is of the G. M. placing any business with the Bethlehem Co. in the near future.

Yours very truly,

General Manager.

C

Government's Exhibit No. 542

PERSONAL & CONFIDENTIAL

September 22, 1924.

Mr. Hunter Grubb, Gen. Manager,
Paint Department,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. Grubb:

Your letter of Sept. 11th, in regard to General Motors' business with Bethlehem Steel Company, received.

Our Lancaster Steel Products Corporation, Brown-Lipe-Chapin Division, and other divisions from time to time place orders for steel with Bethlehem or some of its subsidiaries. With the present state of the steel market we are buying steel from hand to mouth. In fact, with the inventories we have, we are purchasing a very small amount of steel. Our steel purchases are made after securing quotations from the various steel companies. Some months the order will go to Bethlehem or some of the other independent companies; other months the same requirements will go to the Steel Corporation's plants.

It is practically impossible for me to give you any information as to where our steel requirements will be placed from month to month, as our Purchasing Agents in the various divisions do not know themselves until a day or so before the order is placed.

Our Brown-Lipe-Chapin Division were buying quite extensively from the Bethlehem Steel Company during the first six months of this year, and will continue to buy from them according to their needs if the Bethlehem's price and quality continue to be favorable in comparison with other companies.

The above is about all the information I can give you on this subject.

Very truly yours,

Vice President.

JLP:V

Government's Exhibit No. 543

Form 11676 [illegible] 3-57

Date 1/23

To: Mr Lammot duPont Pres.

From L. F. Mahony

	Please discuss with
	For approval
	For attention
	For information
	Note and forward to file
	Note and return to sender.

REMARKS: Thanks. The figures were very useful

M Gme-590

1957

4237

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK. N.Y.

January 20, 1928.

Mr. Lammot duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:-

I have your letter of January 18th. I will get the necessary data together and advise you in due course.

Brown 2/18

Very truly yours,

Alfred P. Sloan Jr.

APSJr./K

Tom,
This re Hardy's request
for G M prices for
Jones & Laughlin
Inland Steel
L

NOTE: "RECEIVED JAN 21 1928 LAMMOT DU PONT" is stamped at top of page.

January 18, 1928.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

Our Explosives Department is confronted with the prospect of losing explosives trade in the Lake Superior district through a competitor taking its customers away in what is generally known as the "reciprocity" argument.

In order to combat this competition we desire to put before the Jones & Laughlin Steel Company interests and the Inland Steel Company interests the facts as to what of their products the du Pont Company and its affiliated companies buy from them. For this purpose, could you have someone send me a statement of the 1927 purchases by General Motors Corporation and its subsidiaries from the Jones & Laughlin interests, as represented by their subsidiary companies, as follows:

Blair Limestone Co., Pittsburg, Penna.
Shanopin Coal Co., " "
Vesta Coal Co., " "
Pittsburg Merc. Co. " "
Alliguppa & Sou.R.R.Co. " "
Woodlawn Water Co. " "

Also purchases from the Inland Steel Company, as represented by their subsidiary companies, as follows:

Inland Collieries Co.,	First Natl.Bank Bldg., Chicago,Ill.
Stover Coal Co.	Nuttallburg, Fayette Co., W. Va.
C. W. & W. Mng. Co.,	407 McCormick Bldg., Chicago, Ill.

It is, of course, understood that in presenting these figures to our customer it will be for the purpose of retaining trade now enjoyed. There will be no promise or assurance that these purchases will continue or that the du Pont Company's efforts in the past have caused G. M. to place this business. We simply want to be in a position to place before the steel companies the actual facts as they have existed. This is very important trade to us and I would greatly appreciate the assistance you can render by giving us this information.

Yours sincerely,

PRESIDENT.

LduP/MD

Home Addresses
Inland Steel Co Interests

Inland Collieries Co, 1st Natl. Bank Bldg, Chicago, Ill
Stover Coal Co ---- Nuttallburg, Fayette Co W Va
C W & F Mng Co 407 McCormick Bldg Chicago, Ill

Jones & Laughlin Steel Co Interests
Blair Limestone Co ---- Pittsburg, Pa
Shanopin Coal Co ---- " "
Vesta Coal Co ---- " "
Pittsburg Merc Co " "
Aliquippa & Southern RRCo " "
Woodlawn Water Co ---- " "

Government's Exhibit No. 544

DUPONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
DYESTUFFS DEPARTMENT
WILMINGTON, DELAWARE

January 29, 1929

Mr. J. L. Pratt, V.P.,
General Motors Corp.,
224 W. 57th St.,
New York City, N. Y.

Dear Jack:

I want to ask you advise. In our efforts to sell dyestuffs through our various contacts with the mills that supply fabrics to General Motors, we find that there are considerable rejections by General Motors for quality of fabric, the rejections largely having to do with the color and fastness character which really come back to the quality of dyestuffs used. Your Company obviously buys materials on rigid specifications, where tests are susceptible of being applied to the product as received, etc. This type of specification purchase is all right, but when it comes to the question of the purchase of fabrics which goes back to the question of the quality of the dyestuffs used, I am not so sure but what there is a little lack of detailed technical information.

I am wondering if we could be of any help to General Motors by offering the services of our laboratories as a place for certain people from the Inspection Division of General Motors, who have to do with the inspection of fabrics, to visit and let us give them all the information that we have in connection with the properties of dyestuffs. I really believe that we could be of assistance and if rejections are largely eliminated through the selection and use of proper dyestuffs, obviously the fabrics will be gotten from the textile mills cheaper in the long run, because the textile mills have to figure on what the probable percentage of rejections are going to be.

We are interested in making sure that the best quality and most suitable type of dyestuffs for a specific requirement is used, and in that is our chief interest. If we can be sure that General Motors knows what is the best product to use and really asks for it, we would be satisfied to take our chances as to what percentage of this business in dyestuffs we could get.

I really believe that we can be helpful and I am just wondering if you see it in the light that I have attempted to present it and if you do, whether you would advise who would be the person for us to get in touch with to see whether we could sell this idea of the possibility of helpfulness on our part. I believe my idea is sound. If you do not think so, I would appreciate your telling me so.

Very truly yours,

W F Harrington

W. F. HARRINGTON, GENERAL MANAGER

WFH-M/L

E

Government's Exhibit No. 545

January 31, 1939

Mr. W. F. Harrington,
General Manager,
E. I. duPont de Nemours & Co.,
Dyestuffs Dept.,
Wilmington, Del.

Dear Buck,

I have your letter of January 29th and will undertake to develop sufficient information to form an opinion as to whether anything can be accomplished along the lines you suggest.

My own reaction is that it would be a very constructive thing.

Very truly yours,

Vice-President.

JLP:CLH

Government's Exhibit No. 546

4243

DU PONT RAYON
REG. U.S. PAT. OFF.

DU PONT RAYON COMPANY
INCORPORATED
"ACELE" DEPARTMENT
EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

August 30, 1934

Mr. John Lee Pratt
Vice-President
General Motors Corporation
1775 Broadway
New York City

Dear John:

We are interested in expanding our market for Cellulose Acetate and recently learned that one of the rubber companies, who are one of our smaller consumers, use our acetate in an acetone solution as an "anti-stick" on the metal parts of rubber motor mounts where they do not want the moulded rubber to adhere.

I assume that General Motors are purchasers of these rubber motor mounts and wonder if I could trouble you to send me the names of your sources of supply so that we might approach them for what material of our manufacture they could use.

It has been a long while since I have run across you and I hope you are well and happy.

Very truly yours,

J. W. Fitterer
MANAGER
CELLULOSE ACETATE SALES

JWF:GH

ACELE
REG. U.S. PAT. OFF.

E

Government's Exhibit No. 547

August 31, 1934

Mr. J. W. Fitterer, Manager,
Cellulose Acetate Sales,
DuPont Rayon Company,
380 Fifth Ave., New York City.

Dear John:

General Motors produces its own rubber motor mounts in its Inland Manufacturing Company, at Dayton, Ohio. If your organisation has not contacted with Inland on this problem, we would be glad for you to have someone tell them just what you know about same.

Our Inland boys are working very close with the DuPont Company on their synthetic rubber, and I am sure you will have no trouble in getting a hearing for your cellulose acetate.

It was indeed a pleasure to hear from you, because I have often wondered where you were. There was a fellow named Smith in here recently. He was one of the research fellows in our early days at Parlin. I suppose most of the old gang have passed on or moved to other fields, but we did have good times even thought we didn't recognise them as such in those days.

With kind personal regards,

Very truly yours,

Vice President

JLP:V

Government's Exhibit No. 548

4245

DU PONT RAYON COMPANY
INCORPORATED
"ACELE" DEPARTMENT
EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

September 5, 1934

Mr. J. L. Pratt
Vice-President
General Motors Corporation
Broadway at 57th Street
New York City

Dear John:

Thank you indeed for the promptness with which you have responded to my recent letter concerning the producers of your rubber motor mounts. We are contacting the Inland Manufacturing Company at Dayton on this subject as you suggest.

It was mighty nice of you to write me - and with kindest personal regards,

Very truly yours,

J W Fitterer
J. W. Fitterer
MANAGER
CELLULOSE ACETATE SALES

JWF:GH

ACELE
REG. U.S. PAT. OFF.

Government's Exhibit No. 554

DU PONT RAYON

DU PONT RAYON COMPANY
INCORPORATED
P O STATION B
BUFFALO, N. Y.

April 6, 1934

TECHNICAL DEPARTMENT

Mr. John Lee Pratt, Vice-President
General Motors Corporation
59th and Broadway
New York, N. Y.

Dear John:

Since our last discussion of the manufacture of small electric motors by Delco for the Rayon Company, very gratifying and substantial progress has been made. Two types have been developed; one, termed the combined bucket and motor, which is a unique development of Du Pont and Delco, is still held in the confidential category; the other, known as the Delco 7104 motor, is generally used by the rayon industry and is manufactured by Westinghouse and G.E. as well as by Delco.

Our last tests on a relatively small number of 7104 Delco motors were very gratifying. The workmanship seems to be somewhat better than that of your competitors and the price slightly less. Since this is a well known type and design of machine, we are writing to say that there is no objection on our part to your selling this motor to any of the rayon manufacturers who may be in the market. At the present time some of our competitors are either expanding their plants or contemplating doing so, and, like ourselves, are undoubtedly investigating operation at higher speeds, which would mean the replacement of some of their present motor equipment and a possible outlet for your production. We see no reason why you should not take advantage of this if you care to. Some of the rayon manufacturers have processes which do not use these spinning motors. The following tabulation will indicate those that do:

American Viscose Company - As far as we know they use mostly General Electric motors and will probably be difficult to persuade otherwise.
American Enka Corporation - Use some spinning motors.
Delaware Rayon Company - Expanding.
New Bedford Rayon Company - Expanding.
Skenandoa Rayon Corporation - Expanding.
Acme Rayon Corporation - Small users.

We have had the best of cooperation from the Delco organization, and if we can be of any service to you in return we will be glad to do so.

With kindest regards.

3-1639

Very truly yours,
TECHNICAL DEPARTMENT

GENERAL MANAGER

MDL:OLB

Government's Exhibit No. 555

April 9, 1934

Mr. M. duPont Lee, Manager,
Technical Department,
DuPont Rayon Company,
Buffalo, N. Y.

Dear Maurice:

I appreciate very much your letter of April 6th, in regard to the status of the motor development for the DuPont Rayon Company, on the part of our Delco Products Division.

I note that for the time being you would like our organization to continue to hold the combined bucket and motor, that is being developed jointly by DuPont and Delco Products, in a confidential way but that you are very agreeable to their offering the Delco 7104 motor generally to the rayon industry, of which fact I am advising Mr. Kunkle, together with the names of the companies you suggest.

I want to express to you my thanks for your cooperation with our Delco Products organization, and am sure you can count on the Delco Products boys for the best they have—or which there is no better, when it comes to building good motors.

With kind personal regards,

Very truly yours,

Vice President

copies to Messrs. Kunkle
Wilson

Note: The words "Accessory—Delco Products"—, a crossed out word, and "du Pont Rayon Co." are handwritten across the front of the document. A handwritten check appears above the word 6th in the first sentence.

Government's Exhibit No. 557

E. I. du Pont de Nemours & Company

ADVICE OF ACTION

March 25, 1919

Mr. R.R.M. Carpenter, V.P.

Subject AGREEMENT BETWEEN DUPONT COMPANY AND GENERAL MOTORS CORP. FOR USE OF DEVELOPMENT DEP'T AND PERSONNEL DIV. OF DUPONT COMPANY BY GENERAL MOTORS CORPORATION:

Action Taken by Executive Committee

At Meeting March 24, 1919

Remarks

Referring to your letter of March 19, 1919 (#451), on the above-mentioned subject:

It was moved and unanimously carried that the Executive Committee approve the suggested draft of letter to the General Motors Corporation attached to your letter of March 19th, re. use of the Development Department and Personnel Division of the duPont Company by the General Motors Corporation.

[Stamp] M. D. Fisher
8 Sec'y Executive Committee

4249

MARCH 19, 1919.

SERIAL NO. S-813

EXECUTIVE COMMITTEE,
Building.

Gentlemen:

As the Development Department and Personnel Division are doing considerable work for the General Motors Company, I suggest that the attached letter be written to the General Motors Company, this letter being based on the same general ideas as that of the Engineering Department.

Personally, I think that both this arrangement and the Engineering Department arrangement should be considered as more or less temporary, and I gather this is the general idea of the Executive Committee.

Very truly yours,

[Stamp] R. R. M. CARPENTER
Vice President.

COPY

General Motors Corporation,
New York, N. Y.

Gentlemen:

Referring to your desire to secure the services of our Development and Personnel Departments, we hereby agree that you may have the benefit of the services of our Development and Personnel Departments to such an extent as you may from time to time advise, by written request to this company, for such work as:

(a) Consultants on Development work

(b) Consultants on Personnel work

(c) Investigations, study and reports on new sources of material, general expansion into new lines, etc.

For any work done for you by the Development Department or Personnel Department, the following charges will be made.

(d) The total expense, incurred by this Company for this work or expense directly attributable to the work. This includes the proportion of the salaries and expenses of the departments, represented by time spent upon the work, and includes also the pro-rata share of office rent, office supplies and expenses, general clerical and stenographic help, and salaries of the important men of the departments who devote themselves to general, rather than specific work of the departments, etc., but does not include any proportion or pro-rata share of the Administrative work or general overhead expenses of the Company other than the salaries and expenses of the Director of the Department and of his lieutenants.

(e) Plus an indirect or overhead charge amounting to 10% of item (d) to cover a pro-rated share of the general overhead expenses of the company, and a small margin of profit to the duPont Company.

Also, should any bonus be granted members of Development or Personnel Departments for work applicable to General Motors, the General Motors Co. to be billed with the cost of such bonus, provided granting of such bonus has been approved by the General Motors Company.

The foregoing upon the condition that it is your desire and intention to have the Development and Personnel Departments serve the operations of your company in the same manner that it now serves the operations of the duPont Company.

This agreement to remain in effect until such time as either party shall give to the other written notice of its desire to discontinue the arrangements at any time after giving six months' notice.

If the foregoing proposition is satisfactory to you and you will accept it on this letter, this will be sufficient to put the arrangement into effect:

Yours very truly,

Vice President.

Accepted:

....

NOTE: "Return to Room 9059" is stamped twice at top of first page and "Return to Executive Committee Room 9069" is stamped at bottom of first and second pages. "X-1100" is written at top of first page and "F" is written at top of second page. "Executive Committee Secy's No. 451" is stamped at top of second page. "gmc-916" is written at bottom of first page, "gmc-916a" at bottom of second page and "gmc-916b" at bottom of third page.

Government's Exhibit No. 558

4252

ADVICE OF ACTION

January 13,1920

Mr. Lammot duPont, Chairman.   Copy to Dr. C.L.Reese.

SUBJECT WORK DONE BY CHEMICAL DEPARTMENT FOR GENERAL MOTORS CORPORATION:

ACTION TAKEN BY Executive Committee

AT MEETING Jan. 13,1920

REMARKS

The following resolution was unanimously adopted:

RESOLVED, that report from the Chemical Director dated January 5,1920, (#2166) in connection with cost of work which the Chemical Department may do for the General Motors Corporation or its subsidiaries during 1920, be accepted and ordered filed; that the Chemical Department be authorized to continue with the work for the General Motors Corporation always provided that the full expense for such work will be borne by the General Motors Corporation; and that the Chairman be requested to give some thought to perfecting an arrangement covering both the Chemical and Engineering Department work carried on by the duPont Company for account of the General Motors Corporation, in a manner which would overcome the objections, particularly regarding expense and lack of efficient service to the duPont Company, which have been experienced under the present arrangement between our Engineering Department and the General Motors Corporation.

Sec'y.Executive Committee.

NOTE: "3" is printed to the left of signatory's title. "M.D. FISHER." is stamped above signatory's title, and "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped above "M.D. FISHER".

4253

January 5, 1920.

RECEIVED
1920
LAMMOT DUPONT

RETURN TO EXECUTIVE COMMITTEE

TO- EXECUTIVE COMMITTEE;

FROM- CHEMICAL DEPARTMENT - DIRECTOR;

OUR FILE RW-501-2-1.

In accordance with understanding arrived at with Mr. Lammot duPont, we did not include in our Appropriation Request for 1920 any amount to cover the cost of work which we may do for the General Motors Corporation or its subsidiaries. We are now advised by the Treasurer that any such expenditures which we incur should be charged against our Appropriation.

We are at present making a study of motor fuels for the General Motors Corporation and of cements for the Champion Ignition Company. It is expected that the amount of such work for the General Motors Corporation will be extended, but we have no basis whatever at the present time on which we could forecast what our expenditures for such work during 1920 will amount to. We have been authorised by the President to go ahead with such work for the General Motors Corporation, as is agreed to by them, and understand from Mr. F. D. Brown that it will be satisfactory to take out an additional Appropriation to cover the cost of this work later on during the year, when we have some basis on which to arrive at the probable amount of money to be expended for such work.

CHEMICAL DIRECTOR.

NOTE: "LduP" is written at upper left. Stamp at upper right reads: "EXECUTIVE COMMITTEE Secy's No. 2166". "RECEIVED" stamp bears date, "JAN 6 1920". Handwriting at top center is "R" with a check mark. Room number of stamp in left margin is "9069". Signatory's name, "CHAS. L. REESE.", is stamped. Writing in lower right corner is: "gmc-917a". Reference initials are: "LOB:SJB".

LOB:SJB

E

Government's Exhibit No. 575

Wilmington, Delaware,
April 22, 1920.

To: EXECUTIVE COMMITTEE

FROM: CHAIRMAN

CHEMICAL WORK FOR GENERAL MOTORS.

1. At a conference April 22d, attended by Messrs. J. J. Raskob, C. F. Kettering, Irenee du Pont, Dr. Reese and other representatives of the Chemical Department, the question of the basis upon which the du Pont Chemical Department would undertake work for General Motors Corporation was discussed. As a result, Mr. Raskob made a suggestion which appears to be reasonable and which I recommend the Executive Committee approve, in principle, as follows:

2. General Motors will be free to call upon du Pont Chemical Department for any advice or work that General Motors desires du Pont to undertake. When so called upon, du Pont is obliged to undertake the work.

3. It is understood that General Motors Corporation will establish, at such of their plants as seem to be proper, chemical laboratories to handle their routine problems, in view of which it is not intended that General Motors Corporation will request the du Pont Chemical Department to handle any routine work.

4. It is understood that a representative of the du Pont Chemical Department will be appointed a member of any Experimental Board or Board for the control of chemical experimental work of General Motors Corpora-

—2—

ation. The salary of this representative may be included in charges to General Motors Corporation in either Group 1 or Group 2.

5. When the request has been made and accepted, it will be classified either in Group 1 or Group 2. In Group 1 will be included those projects which at start appear to be such that the results will influence the General Motors operation or will result in General Motors making some variation in their methods of manufacture, either by addition to plant or otherwise.

6. Group 2 shall include such cases where it appears that, as a result of the work, du Pont Company will desire to enter into some line of manufacture, or General Motors will desire to enter into some new line of manufacture, or some kind of deal will be made with an outside manufacturer to take up some line of work. The decision as to classification in Group 1 or Group 2 will be by a Committee of two General Motors representatives and two du Pont representatives. If this Committee fails to agree, each case will be decided by agreement between the Presidents of the two corporations. The intention is to decide the classification beforehand.

7. Any work upon the modifications or improvement of any du Pont product that may be requested by General Motors Corporation will be undertaken solely at the option

THIS AGREEMENT made this day of , 1920, between E. I. DUPONT DE NEMOURS AND COMPANY, of the first part (hereinafter called the du Pont Company), and GENERAL MOTORS CORPORATION, of the second part (hereinafter called the Motors Company), both corporations organized and existing under the laws of the State of Delaware.

WITNESSETH:

WHEREAS, Motors Company has numerous problems of a character requiring mixed mechanical and chemical skill and ability, and for this purpose maintains laboratories and organizations at certain of its plants, and such problems have recently become so increasingly important to the automobile industry as to necessitate either a substantial expansion of such laboratories and organizations or the employment of existing facilities of a similar character; and

WHEREAS, du Pont Company, in connection with its extensive chemical business, maintains elaborate chemical laboratories and a large chemical organization, which are used for research and development work in almost all branches of chemistry, which organization and laboratories are especially well adapted to utilization for research and development work along lines beneficial to the Motors Company, and the parties hereto are desirous of entering into an agreement under which such facilities of du Pont Company can be utilized by the Motors Company in such manner as not to interfere with the business of du Pont Company.

THEREFORE, in consideration of the premises and the mutual promises, conditions and stipulations hereinafter set forth, the parties have agreed as follows:

2

FIRST:—The Motors Company may from time to time present to du Pont Company its problems in any way connected with the

promotion or development of the automobile industry when the same are solely of a chemical nature or of a mixed chemical and mechanical nature; and du Pont Company shall submit such problems to its Chemical Department, and the best energies and skill of its chemists shall be devoted to the solution thereof. PROVIDED, HOWEVER, that work on such problems shall at no time be permitted to interfere with work on du Pont Company's own chemical problems.

The du Pont Company shall designate, in writing, from time to time, one or more persons to whom the Motors Company shall submit its problems as aforesaid.

SECOND:— The Motors Company shall forthwith establish and maintain a committee whose duty it shall be to consider and determine chemical research problems which are to be submitted to du Pont Company, and one member of said committee shall be appointed from the Chemical Department of du Pont Company. All matters for the consideration of said committee shall be taken up at stated meetings thereof, and the Motors Company shall pay such proportion of the salary of du Pont Company's representative as his time employed solely on the work of said committee bears to his entire time; and shall also pay actual traveling expenses incurred by such du Pont Company's representative while engaged solely on work of said committee.

THIRD:— For the purpose of apportionment between the two companies of the expense of experimental, development and research work on or in connection with the problems aforesaid and the determination and disposition of the ownership of the property and property rights resulting therefrom, said problems, and (whenever separate classifications of distinct parts of a problem is practicable) divisions thereof, shall be separated into groups as follows:

(a) Group I shall include all such problems as involve the improvement of processes, methods, products or materials

which have theretofore been used by the Motors Company; example,—improvement of a cement used for spark plugs.

(b) Group II shall include all problems submitted by the Motors Company which cannot properly be classified in Group I; example,—a new motor fuel; a new process or method of producing a motor fuel; an improvement of a motor fuel not theretofore used by the Motors Company.

(c) If in the course of experimental or research work on problems theretofore classified in one or the other of the above groups, one or more collateral or independent problems shall arise which are properly otherwise classified, such reclassification shall be made promptly.

FOURTH:—The classification of problems into Groups I and II, as herein provided, shall be made by the Chemical Director of du Pont Company and the Director of Research of the Motors Company, and in the event of the failure of these two to agree the matters in controversy shall be referred to ...., whose decision shall be final.

FIFTH:—The Motors Company shall pay or reimburse du Pont Company for all expenditures made or incurred by du Pont Company on or in connection with problems submitted to it as above provided, and shall, in addition, pay to du Pont Company ten per cent. (10%) of amounts so expended or incurred on or in connection with problems classified under Group I aforesaid. Such expenditures shall be understood to include those made or incurred in necessary capital investments; PROVIDED that no such capital investment in excess of $..........shall be made or incurred without the prior written approval of the .... OF THE MOTORS COMPANY. Cost of work on such problems shall be determined by the usual du Pont Company method of determining costs of its own experimental work, and shall include overhead expense and a proportionate part of the general expense of maintenance and operation of du Pont Company's Chemical Dept. and laboratories, in the proportion which the amount of expense otherwise chargeable to the Motors Company as above provided is to the total amount of expense of such Chemical Department and laboratories.

All property which may be purchased for the Motors Company as herein provided shall at all times after purchase be the property of the Motors Company and shall be removed at the expense of the Motors Company from the premises of du Pont Company within
after written request of the du Pont Company on the Motors Company to effect such removal in whole or in part. In event removal as so requested shall not be made, du Pont Company may sell the same in whole or in part at public or private sale, for such price as du Pont Company shall deem proper, and the payment of the proceeds of such sale

by du Pont Company to the Motors Company shall be a complete discharge from all liability whatsoever arising out of the purchase, maintenance or custody of said property.

SIXTH:—The Motors Company shall be entitled to the entire right, title and interest in and to any invention which may result from work on problems aforesaid, classified under Group I, and in and to any letters patent which may be secured thereon (subject, however, to the right of du Pont Company to use such patents or inventions in its own business), and shall be entitled to a one-half interest in such property rights resulting from work on problems aforesaid, classified under Group II; in the latter case neither party hereto being entitled to use or in any manner dispose of such inventions without the prior written consent of the other party.

SEVENTH:—Nothing herein contained shall operate to bind the du Pont Company to perform experimental or research work at the request of the Motors Company which shall have for its object the modification or improvement of any of du Pont Company's products/.

EIGHTH:—IT IS AGREED that any employe of du Pont Company who may be detailed on the experimental or research work provided for under this agreement shall be eligible for bonus under the bonus plan of du Pont Company, and such bonus as may be awarded to such employe shall, subject to the approval of the Motors Company, be included in the cost of experimental and research work provided for under this agreement.

Ninth:—Either party hereto may terminate this agreement at any time by giving to the other written notice of its intention so to do; and after such termination, both parties shall be relieved from all obligation or liability hereunder except as to obligations or liabilities assumed or accrued prior to the date of such termination and except that such termination shall in no way effect any of the property rights which have accrued prior to such termination.

In witness whereof the parties hereto, by their proper officers, have caused these presents to be executed on the day and year first above written.

E. I. du Pont de Nemours and Company

By ....

Attest: ....

General Motors Corporation

By ....

Attest: ....

Form approved
Legal Dept.
C.M.Spargo

Note: "Executive Committee Secy's No. 3220" and "Received Jun 16 1920 Lammot du Pont" are stamped at top of first page. "R" is written at the top of the first page with a check mark under it. "Return to Executive Committee Room 9069" is stamped at bottom of first and fifth pages. "GMC 1523." is written at bottom of first page and "GMC 1523A." is written at bottom of remaining pages.

Government's Exhibit No. 581

October 10, 1921.

Mr. C. F. Kettering, President,
General Motors Research Corporation,
Dayton, Ohio.

Dear Mr. Kettering:

AGREEMENT—GENERAL MOTORS—DU PONT
RESPECTING CHEMICAL WORK.

On June 22, 1920, the Executive Committee of du Pont Company approved a proposed agreement between General Motors and du Pont Company, covering chemical investigation done by du Pont Company for General Motors, and providing how the charges should be paid and how the rights to any inventions developed might be apportioned between the two companies.

As stated above, this agreement was approved by the du Pont Executive Committee, and the Chemical Department—which at that time was reporting to me as Chairman of the Executive Committee—took up with you, representing General Motors Corporation, the approval of the agreement on General Motors' part. The Chemical Department call my attention to the fact that General Motors has never approved this agreement and it has not been executed. I further understand that a copy of the agreement was sent you and that, at least recently, your approval has not been secured, nor have you mentioned any

specific objection to the proposed form of agreement.

It appears to me desirable that this question should be settled and definite agreement between the companies executed. It would be preferable, in my opinion, if this were accomplished through the channels designated; namely, between you and our Chemical Department. However, if there is anything I can personally do to assist I would be glad if you would call on me.

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "File Copy" is printed across each page. "Return to Executive Committee Room 9069" is stamped at bottom of each page. "Return to Room 9059" is stamped at top of first page. "X-1100", "see X-234" and "8" (with a large check mark) are written at top of first page. "GMC 1532." is written at bottom of the first page and "GMC 1532" is written at bottom of the second page.

GENERAL MOTORS RESEARCH CORPORATION
Dayton, Ohio.

Oct. 21, 1921.

Mr. L. duPont, Vice President,
E. I. duPont de NeMours & Company,
Wilmington, Del.

My dear Mr. duPont:—

I have delayed the reply to your letter of October 10th pending some investigations which I have been making.

I found, after my visit to Wilmington, in which this contract was discussed, that the then Executive Committee of the General Motors organization was quite antagonistic to this proposition and asked us to delay signing the agreement. However, since the change in our organization, our problem, as we now see it, is entirely changed from what it was at that time. I talked with Mr. Pierre S. duPont yesterday and in consequence I want to arrange a meeting in New York during the week of the Auto Show between the General Motors and the duPont organizations to lay fully before them this whole problem, as we see it, and particularly the problem with relation to the fuel development work. Therefore, we will just consider the matter of the contract out of the picture at the present time and when we get together at this meeting I think we can quickly organize so that we can get co-operation between the two companies.

With kindest personal regards, I am

Yours very truly,

C. F. Kettering
President.

NOTE: Received and answered stamps of Lammot du Pont, both dated October 24, 1921 appear at the top and "Return to Executive Committee Room 9069" is stamped at bottom of page. "GMC 1533." is written at bottom of page. Italics indicate handwriting.

2

Government's Exhibit No. 583

October 24, 1921.

Mr. C. F. Kettering, President,
General Motors Research Corporation,
Dayton, Ohio.

My dear Mr. Kettering:

I have yours of October 21st in regard to agreement between General Motors and du Pont with respect to chemical experimental work.

It seems that the du Pont Company's position in this matter and the object of the contract has not been made clear, or else we have a misunderstanding of what we are expected to do for General Motors under present conditions.

Our understanding of present conditions is that we are expected to take up experimental chemical work for the General Motors Corporation when requested. We have taken up such work from time to time and have consulted and advised from time to time.

At present we have no definite authority for doing this and have no mutually agreed upon basis of charging for the work or dividing the results in the shape of rights. The purpose of the agreement is to give the du Pont Company definite authority and a basis for charging, and either reserving or turning over to General Motors any rights that may be developed. It seems to me that this purpose must be accomplished regardless of what arrangement is made with respect to any of the work, and that, therefore, the agreement should be executed at once.

Yours very truly,

VICE-PRESIDENT.

LduP/MD

NOTE: "File Copy" is printed across each page and "Return to Executive Committee Room 9069" is stamped at bottom of each page. "X-1100" and "8" (with a large check mark) are written at top of first page. "GMC 1534" is written at bottom of each page.

of the du Pont Company and, if undertaken, shall be paid for entirely by du Pont Company.

8. In all cases coming in Group One, General Motors will pay du Pont the actual cost of the work, including overhead, plus 10%. The actual cost to be determined in the usual way according to accounting methods of du Pont Company. All right and interest in any patents or inventions or information is to belong to General Motors. except that du Pont shall have the right to use such inventions, patents or processes in its own business.

9. In all cases in Group 2, General Motors shall pay du Pont the actual cost of the work, including overhead, but no profit. The actual cost and overhead to be determined in the usual way according to accounting methods employed by du Pont Company. In such cases du Pont and General Motors will each have a 50% right in any information, processes, inventions or patents resulting from the work; but either General Motors or du Pont desiring to use these results will have to make a satisfactory arrangement by purchase or otherwise in order to acquire the full right to use of such results.

10. Any employes of du Pont Company working on subjects in either Group 1 or Group 2 will be eligible for bonus under the du Pont Bonus Plan. Any bonus awarded shall not be charged to General Motors Corporation except by approval of General Motors Corporation.

11. This agreement will be subject to cancellation by either party without notice with respect to work under-

taken in future, but cannot be revoked by either party with respect to work previously taken up.

[Stamp] LAMMOT DUPONT

LduP/MD

NOTE: "Executive Committee Secy's No. 2900" is stamped, and "AFduP" and "8" are written, at top of first page. "Return to Executive Committee Room 9069" is stamped at bottom of first page. "gmc-918" is written at bottom of each page.

4

Government's Exhibit No. 576

E. I. du Pont de Nemours & Company
Incorporated

May 3, 1920.

Mr. Lammot du Pont;—

Referring to Executive Committee Report #2900:

Think it would be well to insert at the end of the second line of the second paragraph—"which does not encroach on du Pont Company's business" in order to make perfectly clear that we would not of necessity undertake work for them to put them in a business which we already occupy.

Irenee du Pont, President

Irenee du Pont

Note: "Received May 4 1920 Lammot du Pont" is stamped at top and "Return to Executive Committee Room 9069" is stamped at bottom of page. "Reese 5/4" is written at the top and "GMC 1518." is written at the bottom of the page. Italics indicate handwriting. At lower left corner is written "146" with a pencil line through it.

Government's Exhibit No. 577

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
CHEMICAL DEPARTMENT
WILMINGTON, DELAWARE

MR. LAMMOT DU PONT:

OUR FILE RW-126-4.

CHEMICAL WORK FOR GENERAL MOTORS.

I beg to return herewith your memorandum of April 22nd, addressed to the Executive Committee, with regard to chemical work for General Motors in which most of the points brought up at the conference referred to are very well brought out.

Although I do not remember that anything was said in the conversation which brought out the fact that duPont shall have the right to use such inventions, patents or processes as may be developed in Group I, this is in the third paragraph from the last on the second page of your memorandum. There was also nothing said about cancellation of the agreement, although I believe both the points brought out in your memorandum are quite proper and should be included.

I am also enclosing herewith copy of Dr. Stine's memorandum of the conference in which you will notice there are several points not covered by your memorandum. The second paragraph, page 1, refers to the fact that the General Motors Corporation proposes to establish laboratories in their various units so that we will not be requested to do routine work for those units.

The last paragraph, page 3, of Dr. Stine's memorandum with regard to bonuses is not covered in your memorandum and is, I feel, an important item.

The last paragraph in Dr. Stine's memorandum is also an important one, although I do not know that it is necessary to include this in your memorandum, but it would seem advisable to include it in a contract.

I wish to call attention to one important point which is not brought out in either memorandum and which was not discussed at the conference. In your memorandum, page 1, paragraph 3, the following statement occurs:- "when so called upon, duPont is obliged to undertake the work". This would mean that duPont is required to undertake any work requested of them by the General Motors Corporation through Mr. Kettering or his duly authorised representative. Although it is unlikely that such a case as I have in mind would come up, still it is possible that General Motors might request us to work upon some subject which might involve a line of manufacture in which we are already engaged or in which we contemplate engaging and which might also be of interest to the General Motors such as paints, varnishes, fabrikoid, pyralin, lacquers, etc. It seems to me that requests for work along such lines as these for the purpose of improving products of this nature might be made and if they are made both the General Motors and ourselves would readily understand that the results of such work should more properly be paid for by the duPont Company and the results owned entirely by them.

Chas L Reese

CHEMICAL DIRECTOR.

CLR:AR

"ANSWERED" stamp at top center of first page bears date "APR 29 1920"; handwriting below reads "Ex Com 4/29"; stamp to the right reads: "RECEIVED APR 29 1920 LAMMOT DUPONT". A check mark appears to the left of each of the third and fourth paragraphs. On page 2, "4." is written to the left of the last paragraph. Signature is "Chas L Reese".

Government's Exhibit No. 579

MEMORANDUM OF DISCUSSION OF PROPOSED AGREEMENT BETWEEN THE DUPONT COMPANY AND GENERAL MOTORS CORPORATION BY WHICH THE SERVICES OF THE CHEMICAL DEPARTMENT OF THE DUPONT COMPANY MIGHT BE MADE AVAILABLE TO THE GENERAL MOTORS CORPORATION

There was a conference on April 22d in Dr. Reese's office attended by Messrs. Irenee duPont, Lammot duPont, John J. Raskob, C. L. Reese and other members of the Chemical Department of the duPont Company and by Mr. C. F. Kettering, Director of Research for General Motors Corporation. At this conference various phases of the proposal to use the Chemical Department of the duPont Company in a consultant capacity and for research work for the General Motors were discussed. The question of a suitable basis for such an arrangement received principal attention. The following suggestions were made by Mr. Raskob to serve as a basis for an agreement:—

In the first place, the General Motors Corporation will provide itself with the necessary chemical facilities to handle routine chemical work at the various plants where occasion may arise for such facilities. These facilities correspond in general to the duPont Company's works laboratories.

In addition to the routine work referred to above, it is anticipated that the General Motors Corporation will have a considerable amount of chemical work which will call for the services of consultants as well as for research chemical laboratory facilities.

It is proposed that the General Motors Corporation may call upon the Chemical Department of the duPont Company at will to undertake such chemical work for the General Motors Corporation as the Director of Research of General Motors, or persons designated by him, may request. When requested through the proper channels duPont is obliged to undertake such chemical work.

A committee consisting of an equal number of representatives of the General Motors and duPont Companies shall classify such chemical work as may be requested into two classes. In the event of the failure of this committee to agree as to the classification, such disagreement will be adjusted by reference to the Presidents of the two corporations.

This classification of the chemical work is intended to be preliminary to starting any work and will divide the work into Class "A" and Class "B" subjects.

Class "A" work shall consist of all problems which directly concern the General Motors Corporation in connection with its production problems.

Class "B" work shall consist of such problems as may result in developing the possibility of some line of manufacture which the duPont Company might enter or which the General Motors might enter as a new line.

For all Class "A" work the duPont Company shall charge actual cost, including the proportion of overhead, plus 10%. This 10% shall be considered as profit. For Class "B" work the duPont Company shall charge actual cost including overhead. The cost of such work in Class "A" or Class "B" shall be determined by the usual duPont accounting methods.

The results, such as process modifications, new processes or inventions, of Class "A" work shall be the exclusive property of the General Motors Corporation. The results of Class "B" work shall be equally for the account of duPont and General Motors shall each have a 50% right in the information, process, patent rights, etc. resulting from Class "B" work.

For example, if Experiment No. 23 under Class "B" should result in a patent, secret process or other operation which might be sold for, say, $3,000,000, and such sale is actually made, there would be deducted from the said $3,000,000, the cost of the experimental work and the balance or profit would be divided equally between the duPont Company and General Motors Corporation.

Should either General Motors or duPont desire to use the results of some particular experiment, piece of research or investigation falling in Class "B", it will be necessary for the Company desiring to use the work to purchase or otherwise arrange with the other Company for acquiring its rights to the same. The price to be paid for these exclusive rights shall be determined by some Committee or Board selected by mutual agreement.

Arrangements should provide the means under which the Chemical Department at the end of each year may determine to what extent, in their opinion, the problems involved entitle the men in the duPont organization, who have been working thereon, to bonuses. After consultation with the General Motors' Director of Research the award of such bonuses shall be recommended to the duPont Bonus Committee for their consideration. In case bonuses are granted, the cost of such bonuses shall be charged to Classes "A" and "B", respectively, in accordance with the original recommendations of the Director of Research of the General Motors Corporation and the Chemical Director of the duPont Company.

4264

A duPont man, who should be an employe of the duPont Chemical Department, should be a member of the Committee or Board of Directors which Mr. Kettering may establish in the General Motors Corporation's experimental department for the consideration of experimental problems and research work. This man should devote his entire time and attention to General Motors work and his salary be charged against said work, prorated between Classes "A" and "B".

CMS:AR
4-28-20.

Government's Exhibit No. 580

Wilmington, Delaware,
June 15, 1920.

To: EXECUTIVE COMMITTEE

FROM: CHAIRMAN

Herewith please find form of agreement between General Motors Company and the Chemical Department of du Pont Company, for your approval.

[Stamp] LAMMOT DUPONT

LduP/MD

Government's Exhibit No. 584

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

Nov. 5, 1921

Mr. Lamont duPont, Vice Pres.,
The E.I. duPont deNemours & Co.,
Wilmington, Del.

My dear Mr. duPont:—

I have delayed answering your letter of Oct. 24th because our Mr. Midgley was going to make a trip to your plant and he has just returned from there this morning.

I understand that a very good understanding is now being worked out between the two companies and there is reason to believe that the matter will be settled to our mutual satisfaction in the near future.

With kind regards, I am

Yours very truly,

C. F. Kettering
President.

NOTE: "Received Nov 7 1921 Lammot du Pont" and "Answered Nov 19 1921 Lammot du Pont" are stamped at top and "Return to Executive Committee Room 9069" is stamped at bottom of page. "GMC 1536" is written at bottom of page. "S" is stamped at top right of page. Italics indicate handwriting.

Government's Exhibit No. 585

E. I. du Pont de Nemours & Company
(Incorporated)
Wilmington, Delaware

VICE-PRESIDENT

October 31, 1921.

Mr. P. S. du Pont:

You recently asked me for a copy of the proposed agreement between General Motors Corporation and du Pont, covering chemical experimental work done by du Pont for General Motors. I am enclosing copy.

You will recall that this agreement was approved by du Pont Executive Committee and sent Mr. Kettering with the belief that he would approve and forward with recommendation to the proper authority in General Motors Company.

L du Pont
Vice-President.

LduP/MD

Note: A check mark and "see ? marks" in handwriting appear next to name of addressee at top. "gmc-796d" is written at bottom of page. Italics indicate handwriting.

Government's Exhibit No. 589

Copy: Dr. C. L. Reese.

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

March 27, 1922.

Mr. C. F. Kettering, President,
General Motors Research Corp.,
Dayton, Ohio.

My dear Mr. Kettering:

GENERAL MOTORS—DU PONT CONTRACT REGARDING EXPERIMENTAL CHEMICAL WORK.

On October 21st you wrote me that you expected to arrange a meeting in New York during the week of the Automobile Show and take up the whole problem of an arrangement between General Motors and du Pont with respect to experimental work, and particularly the problem with relation to the fuel development work.

On October 24th I replied to your letter, pointing out the unsatisfactory conditions which existed while there was no contract in force, and urging that an agreement be executed.

On November 5th you replied, stating that "a very good understanding is now being worked out between the two companies and there is reason to believe that the matter will be settled to our mutual satisfaction in the near future."

Since then I have heard nothing from you or anyone else on this subject, except some correspondence with Mr. P. S. du Pont in regard to the meaning of the draft-

—2—

ed contract which had been previously prepared, and except some correspondence I have seen between your men and our Chemical Department with respect to the fuel problem. Please understand that the fuel problem is in no way the cause of my writing this letter.

I feel that a general contract should be prepared and executed in order to clear up the present situation, which appears to me undesirable. The draft that was prepared and submitted to you before, appears to me satisfactory, but if it is unsatisfactory to you, I have no objection to its change.

Is there anything I can do to insure a mutually satisfactory contract being drafted and executed?

Yours very truly,

L du Pont
VICE-PRESIDENT.

LduP/MD

NOTE: "Mar 28 C.F.K." is stamped at top of first page. Italics indicate handwriting.

Government's Exhibit No. 590.

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

March 29, 1922.

Mr. L. duPont, Vice President,
E. I. duPont de Nemours & Company,
Wilmington, Del.

My dear Mr. duPont:—

In reply to your letter of March 27th, I had talked to Mr. P. S. duPont in Detroit last week with reference to this matter. Our fuel work here is reaching a point where we are considering marketing more or less of this product and I suggested to him that it would be well, after a meeting of some of the officials here this coming week, to get some representatives of the duPont Company to come to Dayton so that they might get a picture of what our problems really are.

I think, after that time, if we find that it would be desirable to enter into a contract, such a thing could be readily worked out.

Yours very truly,

Ket
President.

NOTE: "Received Mar 31 1922 Lammot du Pont" and "Answered Apr 1 1922 Lammot du Pont" are stamped at top of page and "Return to Executive Committee Room 9069" is stamped at bottom of page. "GMC 1547" is written at bottom of page. Italics indicate handwriting.

Government's Exhibit No. 591

Letterhead of
E. I. du Pont de Nemours & Company
(incorporated)
Wilmington, Delaware

EXECUTIVE OFFICES

April 1, 1922.

Mr. C. F. Kettering, President,
General Motors Research Corp.,
Dayton, Ohio.

Dear Sir:

I have yours of March 29th in regard to contract between General Motors and du Pont Company, covering chemical experimental work. You seem to have missed my point entirely. May I go over the ground briefly again?

General Motors, in its research work, frequently runs into chemical problems. du Pont Company, in its research work, is continually dealing with all kinds of chemical problems, and therefore carries at all times a large and experienced chemical staff. Duplication of this staff can be avoided by an arrangement whereby General Motors has a contract with du Pont, whereby it can assign chemical problems to du Pont whenever desired. This arrangement must provide for some form of compensation or payment of expenses and for the assignment of valuable rights resulting from the work; for otherwise the assignment of each particular problem would require a conference and settlement of each case before work could proceed, which obviously would cause delay and loss.

Why can we not execute a general contract to cover any and all future cases?

The only reason I can see for not doing so is the decision by General Motors to establish their own chemical staff. If you have come to this conclusion, I have no objection as a representative of the du Pont Company, and have nothing more to say.

Yours very truly,

L du Pont
VICE-PRESIDENT.

LduP/MD

NOTE: Italics indicate handwriting.

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Government's Exhibit No. 592

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

April 3, 1922.

Mr. L. duPont, Vice President,
E. I. duPont de Nemours & Company,
Wilmington, Del.

My dear Mr. duPont:—

I am in receipt of your letter of April 1st and I certainly want to thank you for writing to me because it is evident that we have been looking at this problem from an entirely different point of view.

We have always had, in our Dayton organization, and this is true in some other General Motors plants, a chemical department whose work has been a cross between the routine chemical work to be found in any manufacturing plant, and the research work that the writer has been attempting to do for a number of years. When we were all brought together under the head of the Research Corporation we, naturally, brought our work into this chemical division.

I am giving you, herewith, the organization which we now have, and have had for a great many years. We have, as you can see from this outline, a metallurgical division, in which the general questions of materials and their applications are studied, together with such research work as may be found necessary in the production of new materials. In the control division, routine analyses are made. There is also a large laboratory in Detroit which is working as a control laboratory for the plants in Detroit and that vicinity. This comes under the supervision of Mr. J. B. Daily.

We have had a fuel program here at Dayton in which we have, perhaps, done more real chemical development work than any other division. We have been working something over seven years in trying to analyze the fundamentals of combustion and those things which control combustion. It is in this particular phase of the work where the duPont Company could be of a great deal of value. And that is the reason why, in my last letter, I mentioned the fact that after the meeting which we expect to have here tomorrow, it would be a good thing if you or one of your representatives could come here so we could get together on this subject, because I feel that the work which you did for us here at the laboratory has fallen way short of the net value that it should have for the reason that the two organizations did not understand their problems in the same way.

—2—

There has never been any question in my mind but that the duPont organization could supplement the work of our laboratory to a tremendous degree and it has always been my desire that this should be done, but we have never been quite able to couple up, even though we attempted at one time, as you know, to get such an agreement through.

We have had, in connection with the research work here, some consulting work which has been done through the Massachusetts Institute of Technology and different ones of the larger Universities. This, of course, cost us a relatively small amount of money, which has aided somewhat in keeping the cost of our research work as low as possible.

I feel sure that if some of your associates could come out and spend a day with us here and see specifically what we are aiming at, there would be no difficulty whatever in getting together and working this matter out. We believe, and I think you will agree with us, that it is necessary to have our own organization, so far as our specific work is concerned.

Yours very truly,

C F Kettering.
President.

NOTE: "Received Apr 10 1922 Lammot du Pont" and "Answered Apr 14 1922 Lammot du Pont" are stamped at top of first page. "Return to Executive Committee Room 9069" is stamped at bottom of first two pages. "GMC 1549" is written at bottom of each page. Italics indicate handwriting.

CHEMICAL AND PHYSICAL TESTS CONDUCTED DURING MONTH OF MARCH:

DIVISION	NUMBER OF TESTS
The Dayton Wright Airplane Company	242
The Dayton Engineering Laboratories Company	160
The Delco-Light Company	57
Research Laboratory (Tests in connection with incoming inspection, broken car-parts, regular research work, paint and enamel investigation)	625
TOTAL	1084

SPECIAL INVESTIGATIONS UNDER WAY (APRIL 1, 1922):

1. Corrosion (Cadillac chains);
2. Ignition contact points;
3. Brake lining;
4. Specifications;
5. Broken car-parts;
6. Sulphur-base cutting oil;
7. Oilless bushings;
8. Wheels;
9. Balances on the dynamometer;
10. Enameling and varnish drying practices;
11. Ignition and generator for light cars;
12. Standardization of test equipment;
13. Brushes.

THE CHEMICAL & METALLURGICAL ORGANIZATIONS BELONGING TO THE GENERAL MOTORS RESEARCH CORPORATION AND THEIR DUTIES

FUEL SECTION

THOMAS MIDGLEY, JR.
Chief Engineer

FUEL RESEARCH

Thomas A. Boyd,
Fuel Engineer

James P. Andrew
Ass't Chemist

Ultimate fuel of future;
How to eliminate the knock;
Prevention of carbon formation
Burning of heavy hydrocarbons;
Crankcase dilution;
Lubrication;
Special:
(1) Study of possibility of utilization of energy from sunlight by fixation thru vegetation
(2) Synthetic production of hydrocarbons from the elements.
(3) Bibliographic study of the possibility of converting heat or light into electrical energy.

(2) Synthetic production of hydrocarbons from the elements.
(3) Bibliographic study of the possibility of converting heat or light into electrical energy.

CARBURETION

F. E. Aseltine,
Research Engineer

Carburetors and manifolding systems

EXPERIMENTAL AND DYNAMOMETER LABORATORY

C. P. Harding

Experimental construction;
Instrumentations;
Special tools;
Etc.

SPECIAL ASSIGNMENTS

John Sheats

CHEMICAL AND METALLURGICAL CONTROL SECTION

H. C. MOUGEY
Control Chemist

H. R. Wolf
Principal Ass't

CHEMISTRY DEPARTMENT

R. J. Wirshing
Assistant Chemist

Chemical analysis;
Chemical standards;
Electroplating;
Records.

ENG. MATERIALS TESTING LABORATORY

H. R. Wolf

Heat treatment;
Standards (SAE);
Pyrometer calibration;
Production of test bars and chemical samples;
Mechanical testing;
Routine testing;
Fatigue testing.

Heat treatment;
Standards (SAE);
Pyrometer calibration;
Production of test bars and chemical samples;
Mechanical testing;
Routine testing;
Fatigue testing.

TECHNICAL STANDARDS

H. C. Mougey

Technical control;
Raw materials inspection;
Processing;
Reduction of design to metallurgical practice

CONSULTING ENGINEERING SERVICE TO ANY 'GENERAL MOTORS' PLANT NEEDING SAME

OUTLINE OF CHEMICAL LABORATORY ORGANIZATION

	NO. OF MEN
Office work, charts, etc.	1
Steel	3
Non-ferrous alloys	1
Petroleum products, misc.	1
Misc.	1
Enamels	1
	8

CHEMICAL AND METALLURGICAL RESEARCH SECTION

H. M. WILLIAMS
Metallurgist

Miscellaneous research problems;
Special assignments;
New methods of finishing sheet steel;
Alloy development
Bearing metals;
Anti-rust alloys;
Heat-resisting alloys;
Induction-furnace development;

SPECIAL PROBLEMS

A. L. Boegehold
Research Engineer

Magnet steel;
High-duty cast iron;
Low-melting-point solder;
Aluminum casting alloys;
Metallography;
Grapho-bronze bushings

METALLOGRAPHIC DEPARTMENT

Andreas Hartel, In Charge

Metallography;
Grapho-bronze bushings

METALLOGRAPHIC DEPARTMENT

Andreas Hartel, In Charge

FOUNDRY

T. B. Terry, Supervisor
J. F. McClintic, Foreman

Grey iron, brass, bronze and aluminum castings
Synthetic cast iron;
Plastic molding;
Permanent molds;
Attaching aluminum fins to cast iron;
Casting copper fins into cast iron;
Copper heads;
Welding methods;
Sound steel castings

V. W. Bihlman, Physicist

Physical constants;
Conductivity (heat) studies;
Problems pertaining to air-cooling and heat relationships in general;
Expansion measurements;
Etc.

Government's Exhibit No. 593

Letterhead of
E. I. du Pont de Nemours & Company
INCORPORATED

Wilmington, Delaware

EXECUTIVE OFFICES

April 14, 1922.

Mr. C. F. Kettering, President,
General Motors Research Corporation,
Dayton, Ohio.

My dear Mr. Kettering:

I am in receipt of yours April 3d in regard to contract between General Motors and du Pont with respect to chemical research, and am very pleased to note that there is no question in your mind that co-operation between the two companies on chemical work will be advantageous; and am also glad to note that it is your desire that this co-operation should be obtained.

The first thing to decide is the general manner in which the co-operation should be obtained. I feel that, for the present at least, an arrangement should be made whereby General Motors can, when General Motors desires, call on the services of the du Pont organization and not be obligated to call for any work or to bear any charges or expense unless General Motors does call for such work. I think you agree in this also.

The next thing to decide is how the charges shall be divided if, and when, General Motors calls for work by du Pont Company. This question of division of charges was outlined in the contract which was drawn up, approved by du Pont Company, and sent you for signature many months ago. I am enclosing copy of this agreement

—2—

in case you desire to refresh your mind on its provisions.

Assuming that we have agreed on the method of apportioning the expense of any work done by du Pont Company, and assuming that the contract enclosed (or a similar one) is executed, then we can proceed to get together and find out what work is to be done, either by a conference or, in my opinion, better by sending one or more of our men to your laboratory to study your problems and find out what can be done to aid your work and make recommendations to you as to what work you should call upon the du Pont organization to do.

You will note that this contract does not refer to any specific problem: the fuel problem or any other, but provides a basis of handling any problems that may arise in the future, and applies only when, and if, General Motors requests the du Pont Company to take up any work, so that after the contract is signed, control of the work is entirely in your hands.

Won't you consider this matter entirely from the standpoint of the future? and advise me whether you do not approve executing a contract to accomplish the purposes we desire to accomplish, stating in what respects the contract enclosed is unsatisfactory and how it may be modified to make it satisfactory.

Yours very truly,

LduPont
VICE-PRESIDENT.

LduP/MD

NOTE: "Apr 17 C.F.K." is stamped at top of first page and "Return to Executive Committee Room 9069" is stamped at bottom of second and third pages. "GMC 1551" is written at bottom of each page. Italics indicate handwriting.

Government's Exhibit No. 594

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

May 8, 1922.

Mr. L. duPont, Vice Pres.,
E.I. duPont de Nemours & Co.,
Wilmington, Del.

My dear Mr. duPont:-

Your letter, together with proposed contract between the General Motors Corporation and the duPont Company, has been received.

In going through this matter I consider that this is entirely outside the range of the Research Laboratory to enter into a contract of this kind. I am, therefore, turning the matter over to the head of our Corporation and any plan which they may work out will be entirely satisfactory to us.

Yours very truly,

C F Kettering
President.

NOTE: "Received May 10 1922 Lammot du Pont" is stamped at top and "GMC 1553B" is written at bottom of page. Italics indicate handwriting. A check mark appears at the top of the page.

Government's Exhibit No. 595

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

May 2, 1922.

Mr. P.S. duPont, President,
General Motors Corporation,
224 W. 57th St., New York.

My dear Mr. duPont:—

Enclosed, herewith, is a copy of contract, together with letter from Mr. L. duPont, and a copy of my letter to him. This whole matter is self explanatory.

Yours very truly,

C F Kettering
President.

NOTE: "Return to Executive Committee Room 9069" is stamped at bottom and "PS's Desk" is written at top of page. "GMC 1552" is written at bottom of page. Italics indicate handwriting. Illegible mark appears at upper left.

Government's Exhibit No. 598

MEMORANDUM FOR FILE.

In conversation with Mr. P. S. du Pont he advised that it does not seem possible at this time to institute any plan for co-operation on chemical research work between General Motors Corporation, his feeling being that, as problems come up, special arrangements with reference to each should be made between the two Companies, rather than attempt now to make a general arrangement to cover prospective cases.

L. DU PONT, VICE-PRESIDENT.

LduP/MD
Novemner 6, 1922.

NOTE: "Return to Executive Committee Room 9069" is stamped at bottom of page. "X-1100" and "8" (with a large check mark) are written at top of page. "GMC 1562" is written at bottom of page.

Government's Exhibit No. 599

COPY

General Motors Corporation
1764 Broadway
New York, N.Y.

October 28, 1919.

C.M.Stine,
E.I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Sir:—

With reference to the matter of fuel investigations, I have discussed the situation with Mr. Durant and Mr. Kettering at length. Replying to your letter of October 2nd, to Mr. Durant, and referring to your memorandum of September 27th to the Eastern Laboratory, I find that the Dayton Metal Products Company is arranging to send you immediately a single cylinder engine and indicator, as covered in your discussion of a plan for carrying out your fuel investigation, with Mr. Kettering. The Dayton Laboratories will continue the broad subject of fuel utilization in internal combustion engines, and your people will take up the development of chemicals which may be added to undesirable fuels for the purpose of converting them into usable products. I believe it is Mr. Kettering's idea to produce, if possible, something that may be added at slight expense in small quantities, in a convenient form.

It is presumed that the marketing of this chemical will be a matter of interest to the duPont organization, and that the expense of developing it will be borne by your Research Department. We are glad to lend the mechanical equipment indicated above without charge for the purpose of this investigation.

For your information, Mr. Kettering has been appointed Director of all our technical and engineering developments and research work, and I am sure he will be glad to know that you are ready and anxious to begin work on this important subject.

Yours very truly,

K. W. Zimmerschied.
Assistant to the President.

KWZ:M.

Note: At lower right is written "GMC-781a".

Government's Exhibit No. 601

August 5, 1920.

E. I. DuPont De Nemours & Company,
Wilmington, Delaware.

Attention: Dr. Reese,
Chemical Director.

Gentlemen:—

Confirming our conference on my recent visit to Wilmington: I understand that the DuPont Company will co-operate ✓ with our Company in placing aniline on the market for use as an anti-knock material, in connection with the aniline injector which we are developing.

The first phase of this program would consist in one of ✓ the General Motors Companies marketing an aniline injector thru the ordinary channels of accessory dealers. The DuPont Company would simultaneously put aniline in small quantities, such as pints, or quarts, or perhaps, gallons, which could be sold in conjunction with the injector.

A further working out of this program would comprise the sale of aniline in bulk by the DuPont Company thru some ✓ satisfactory distributing agency, such as has been suggested by the Standard Oil Company, who could give aniline national distribution, similar to lubricating oil, selling same in bulk at the filling stations.

In connection with the above, it was agreed that we would co-operate with DuPont in securing satisfactory patent protection on the above mentioned devices.

Other matters came up for discussion, such as the advisability of serious research upon the production of liquid fuel from cellulose and other vegetable matter, but no definite program was decided upon.

The above outlines the writer's impression of the conference, and this letter is to confirm same.

Very truly yours,

General Motors Research Corporation.

TM/M

NOTE: Check marks are by hand

Government's Exhibit No. 602

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

August 14, 1920.

EXECUTIVE OFFICES

Mr. C. F. Kettering,
Director of Research,
Dayton-Wright Division,
General Motors Corporation,
Dayton, Ohio.

Dear Sir:

Dr. Stine has handed me a draft of Mr. Midgley's letter of August 5th addressed E. I. du Pont de Nemours & Company, for attention of Dr. Reese, confirming the results of conference in Wilmington between Mr. Midgley and various representatives of the du Pont Company in regard to the co-operation between General Motors and du Pont for the handling of aniline for use as an anti-knock material.

I believe Mr. Midgley's letter is a correct condensed memorandum of the results of that conference, except in one respect, and that a very important respect: We agreed that the du Pont Company would co-operate with General Motors on this aniline subject, provided the manufacture, distribution and sale of aniline for this purpose appeared sufficiently attractive from the profit standpoint.

In view of this provision it seems to me the first step would be a thorough investigation of the market and the possibilities and a report showing the

✓

reasonable expectation, from the profit standpoint, of General Motors and du Pont taking up the project. Assuming that this step was taken first, it would appear that the other steps mentioned by Mr. Midgley would be next in order.

Yours very truly,

L du Pont
VICE-PRESIDENT.

LduP/MD

NOTE: Italics indicate handwriting.

Government's Exhibit No. 610

GENERAL MOTORS CORPORATION

Mr. Irenee duPont

DETROIT March 24, 1922

I am enclosing herewith brief report on the gasoline "dope" situation. The development looks very promising.

Very truly yours,

1/•

Memo Re: DOPING OF FUEL. Detroit, 3/24/22

Mr. Kettering stated that his new doping compound, Tetra-Lead-Ethyl, may be used effectively in the proportion of one gallon to 1,000 or 1,500 of gasoline. The use of this dope will result in a saving of at least one quarter of the gasoline ordinarily consumed in an engine, and will permit of increasing compression very materially. The cost of the compound, at the rate of 100 gallons per day, should be not more than $5 or $6 per gallon, and he believes the factory can be erected for $50,000.

The compound is made by preparing ethyl iodide from alcohol and iodine, permitting this to be acted upon by zinc dust plated with copper, the plating being necessary to produce the reaction. Zinc-ethyl is formed and is distilled off. Zinc ethyl is highly inflammable when exposed to the air, but Kettering believes no more dangerous to work with than hot oils. Zinc Ethyl is brought into contact with dry lead chloride, which forms zinc chloride a compound $Pb_2(C2H5)_4$. This compound further breaks down into metallic lead and tetra lead ethyl $Pb (C2H5)_4$. Lead ethyl is a colorless liquid of sweetish odor, very poisonous if absorbed through the skin, resulting in lead poisoning almost immediately. In practice Kettering recommends that the material be made ill-smelling through the addition of some pungent material, in order to avoid danger of poison by inhaling the fumes.

In order to start the use of this material, Kettering proposes that Cadillac design a new cylinder head, increasing compression (this is now being done). Every Cadillac car equipped with this new head will be provided a gas tank containing in a separate compartment two metallic bottles, each containing a quart of lead ethyl. These bottles will be sealed with a metallic seal, which will be punctured automatically when the bottle is placed in position for use. A small hand pump will deliver a charge sufficient for five gallons of gasoline at one stroke, so that as the gasoline tank is filled, one stroke of the pump to each five gallons will supply the necessary dope. An over-supply does not result in any injury, and an under-supply would quickly be shown in the knocking of the engine, so that mistakes would not be serious. The two flasks would run a Cadillac car 7,500 miles, so that the recharging feature would not be serious.

Without dope the car could be operated successfully at half throttle, i.e. would not be useless. With the dope, the car would have an additional 25% horsepower, and gasoline consumption would be materially reduced.

In order to make this program effective, a plant of 100 gallons daily capacity should be erected. The next step in the program would be to try to introduce the dope as a commercial article supplied with the gasoline. It would require about 4,500,000 gallons per annum to dope the entire gasoline supply.

Kettering would like to take up the question of manufacture with the duPont company representatives at an early date.

1/e

Government's Exhibit No. 611

COPY

M—E. I. du Pont

April 15, 1922.

Doctor C. M. Stine,
E. I. du Pont deNemours & Co.,
Wilmington, Delaware.

Dear Doctor Stine: —

Thanks very much for your recent favor and your suggestion about tannic acid. We have tried tannic acid as an antiknock material and find it has no value whatsoever. The anti-oxidation catalysts have failed to show any such property and I do not think we can associate these two characteristics in any wise.

It becomes my very pleasant privilege to tell you about the new antiknock material which we have recently discovered. This is tetra-ethyl-lead and is 50 times as powerful by volume as anilin. It has no corrosive action whatever and remains water white, has no unpleasant odor nor does it give rise to any obnoxious products in the exhaust. In other words it appears to be a perfect anti-knock material. We are very hopeful of producing it at the same cost as anilin.

We recently produced some "tetraline" for the United States Rubber Company. You have undoubtedly seen the publicity the Germans have given tetrahydronaphthaline, in fact, I think you called my attention to this matter. After producing tetrahydronaphthaline we naturally paid some attention to its possibility as a motor fuel and to be perfectly frank, it has none ~~known.~~ Ordinary grade of kerosene would be far superior. Consequently I am under the opinion that the Germans are very cheerfully lying and I am wondering if this may not be a camouflage for a base for high explosives. As such, I should like to call your atetntion to the matter and suggest that if you desire a small quantity of this material we could produce it for you at cost.

Please do not misunderstand the attitude our laboratory has taken toward your Company with respect to cooperative research. We are very heartily in favor of doing everything we can for you and having you do everything you

—2—

can for is. It is simply the matter of a formal agreement, which I personally believe would be out of place, that is causing all the misunderstanding.

Always with the kindest personal regards, I am

Very truly yours,

Chief Engineer,
Fuel Section.

TM—Jr—D

NOTE: In the lower right corner of both pages is written "GMC-973".

[2025]

Government's Exhibit No. 612

July 10, 1922.

Mr. C. F. Kettering,
c/o Dayton Engineering Laboratories,
Dayton, Ohio.

Dear Mr. Kettering:

Am just dropping you a line to thank you for the very pleasant time I had while visiting your laboratories on Thursday last. The visit was certainly most interesting and instructive.

On returning I find the attached circular of A. A. Hassan. I do not suppose this topic is of material interest to you but am sending it to you thinking that it might be included in your files rather than mine.

Am looking forward to a visit from you next week. I am trying to arrange it so that you will meet some of our men in the Dye Division as well as those in our Research Department. When you come, will you bring your latest information on the production of "dope" by the bromine method.

Yours sincerely,

Irenee duPont

NOTE: "C-26" is written in upper right corner of page and "FILE COPY" is printed across page.

Government's Exhibit No. 613

4307

July 12, 1922.

Dr. C. M. Stine
Mr. W. F. Harrington
Dr. C. L. Reese

Mr. C. F. Kettering, Manager of the Dayton Engineering Laboratories will be in Wilmington on Thursday, July 20th. I am very anxious that we "sell" our ability to help them on the Tetra-ethyl lead proposition.

Trust that you will be available.

Irénée duPont

NOTE: "C-26" is written at top right and "FILE COPY" is printed across page. Scoring in third line is by hand.

Government's Exhibit No. 615

September 5, 1922

To: Executive Committee, General Motors Corporation,
Mr. L. R. Beardslee, Sec'y

From: General Motors Research Corporation

Subject: REPORT OF RESEARCH LABORATORIES FOR THE MONTH OF AUGUST

* * *

FUEL RESEARCH SECTION:

The principal developments during the past month in the work on the use of lead compounds as antiknock materials were as follows:

(1) The method for the preparation of tetraethyl lead using ethyl bromide instead of ethyl iodide was developed to the point at which very good yields were obtained.

(2) A satisfactory method was worked out for the recovery of the bromine from the residue obtained in the synthesis of tetraethyl lead.

(3) Production work on a small scale, using our sodium-lead and ethyl bromide process, was begun at the dye works of the duPont Company. They are now producing about a gallon of lead tetraethyl per day.

(4) Very satisfactory progress has been made at Massachusetts Institute of Technology in studying the mechanism of reactions occurring in the synthesis of tetraethyl lead.

(5) The most important development of the month is the discovery of conditions under which other materials can be used in place of sodium for the synthesis of lead tetraethyl. It has been found that either

zinc or aluminum may be substituted for sodium, and that, with these metals, it is not necessary to make an alloy with lead in order to get the reaction to go. The results so far obtained in this work indicate that probably any metal that will liberate hydrogen from water may be used instead of sodium, and further that catalytic reduction with hydrogen is a possibility.

(6) In view of the satisfactory progress that is being made on the production program and of certain problems incident to the use of lead compounds as antiknock materials, it has been decided to drop production, as well as research on production here. Production will be continued at the duPont Company, and research on methods of production will be actively continued at the Massachusetts Institute of Technology. The research work at this laboratory will be concentrated on the solution of the spark-plug and exhaust-valve troubles that have been experienced in the use of lead compounds as antiknock materials.

• • •

Respectfully yours,

F. O. CLEMENTS

Director of Research

I hereby certify that the foregoing is a true excerpt from a report entitled "Report of Research Laboratories for the Month of August" from General Motors Research Corporation to the Executive Committee, General Motors Corporation, dated September 5, 1922.

J. C. Davidson
Assistant Secretary
General Motors Corporation

May 18, 1951

Government's Exhibit No. 617

September 27, 1922.

Mr. C. F. Kettering, President,
General Motors Research Corporation,
Dayton, Ohio.

My dear Ket:—

I was just talking over the telephone with Mr. Irenee duPont and he believes it would be desirable, as I think you do as evidenced by our discussion in Detroit week before last, that a more definite arrangement be made between the duPont Company and ourselves relative to the work that they are doing.

Mr. duPont asked me when you were going to be in New York next and knowing you had promised to be here Friday of next week, October 6th, I have taken the liberty of making an appointment with Mr. Irenee duPont and Mr. Huntington, I believe it is, here in my office at 12 o'clock on Friday. This will mean that you will have to leave on the afternoon train Thursday, arriving here about 9:30, I believe it is, in the morning. We are now on Eastern standard time so that allowing for the train to be late, you could be here probably somewhere around noon.

Unless you advise me by wire upon receipt of this, that there is some reason why you can't make this or do not think it advisable, we will consider the date definitely set.

Very truly yours,

A.P.S.Jr./K
VICE PRESIDENT.
c/c Mr. Irenee duPont

NOTE: "1-802 Policy Construction Work." is written in upper left corner.

Government's Exhibit No. 618

THIS AGREEMENT, made this sixth day of October, 1922, between E. I. duPONT deNEMOURS & COMPANY, a corporation of the State of Delaware, hereafter referred to as "Manufacturer", party of the first part, and GENERAL MOTORS CORPORATION, also a corporation of the State of Delaware, hereinafter referred to as "Purchaser", party of the second part,

WHEREAS, the Purchaser is now engaged in developing certain anti knock compounds known generally as "tetra valent lead compounds", and

WHEREAS, the Purchaser is desirous that said compounds be manufactured for and sold to it by the Manufacturer, and the Manufacturer is willing so to do in accordance with the following terms and conditions,

NOW, THEREFORE, this agreement witnesseth that in consideration of the premises and of the sum of Five Dollars ($5.00) paid by each of the parties hereto unto the other, the receipt of which is hereby acknowledged by each of said parties, it is hereby agreed:

FIRST: The Manufacturer agrees to install such equipment and apparatus as may be necessary to produce at least thirteen hundred pounds (1300) a day of said anti knock compound, the formula for which has been heretofore furnished to it by the Purchaser, and shall sell and deliver the same to the Purchaser f.o.b. Wilmington at the rate of two dollars ($2.00) for each of such pounds, such delivery of said compound to the Purchaser shall begin not later than four months from the date that the Purchaser may notify the Manufacturer that it is prepared to accept the same, and

shall continue at the rate of approximately thirteen hundred pounds per day for the period of one year after the date of such notification, it being understood however that the aggregate number of daily shipments embraced within said year shall not exceed three hundred.

Invoices shall be rendered by the Manufacturer to the Purchaser on the first day of each month during the continuance of this agreement for all such deliveries made to it during the preceding month and paid promptly and in due course by the Purchaser.

SECOND: Should the Purchaser desire to change or alter the formula of said compound at any time during the continuance of this agreement, it shall have the right so to do, but such change shall not become effective until three months after written notice of such desire has been delivered by it to the Manufacturer, unless the Manufacturer elects to furnish the same within a shorter time.

Should any such change in said formula occasion a change or alteration in the premises or apparatus used by the Manufacturer in manufacturing said compound, the full cost thereof shall be borne by the Purchaser and the Purchaser shall also pay the Manufacturer any additional cost incident to such manufacture. If, however, such change of formula results in a less cost to the Manufacturer, the Manufacturer shall give the Purchaser the benefit thereof.

THIRD: If during the aforementioned period of one year the Purchaser shall desire the Manufacturer to deliver to it a greater quantity of said compound than thirteen hundred pounds per day, and the Manufacturer is unwilling

or unable so to do, the Purchaser shall be at full liberty to manufacture ~~the same itself.~~ *or cause to be manufactured any such remaining quantity.*

PSduPont
IduP.

FOURTH: The Purchaser shall, not later than three months from the termination of the period of one year mentioned in the first paragraph hereof, and prior to three months from the termination of each succeeding year thereafter, notify the Manufacturer in writing of its daily requirements for said compound for the succeeding twelve months and the Manufacturer shall, within thirty days from the date it receives said notice, advise the Purchaser in writing whether or not it will furnish the same, the price thereof, the dates of delivery and the approximate number of pounds to be delivered. Should the Manufacturer be unable or unwilling to furnish the whole number of pounds of said compound desired by the Purchaser, it shall so advise the Purchaser within thirty days from the date it receives said notice, and shall at the same time advise the Purchaser of the number of pounds it will furnish per day and the price thereof, and the Manufacturer shall then be at full liberty to manufacture or cause to be manufactured for it such remaining number of pounds.

FIFTH: The price of Two Dollars ($2.00) per pound for said compound as stated in the first paragraph hereof, shall not be subject to change during the period of one year as therein mentioned, except as provided in the second paragraph hereof, but the price quoted for such compound for the yearly requirements of the Purchaser, as mentioned in the third paragraph hereof, shall if greater than the Purchaser finds it can produce or manufacture the same for on its own behalf, plus a reasonable profit to the Manufacturer, or the cost thereof to it by some other manufacturer, then the manufacturer shall reduce its price accordingly, and if unwilling so to do, the

IduP.
PSduPont

matter shall be referred to arbitration, as provided in the eighth paragraph hereof.

Sixth: It is understood that this agreement is to be a continuing one, and is subject to cancellation by the Purchaser only in the event of the Manufacturer failing to perform its obligations hereunder, but the Manufacturer may cancel the same at any time after a notice in writing of such intention given by it to the Purchaser at least twelve months prior to the date of such intended cancellation. The Manufacturer shall also undertake to deliver to the Purchaser during each year of this agreement, including the twelve months succeeding the date of said cancellation notice, if given, a number of pounds of said compound at least equal to the number thereof furnished by it during the preceding twelve months.

Should the Purchaser desire to discontinue the use of anti knock compound during the first year of this agreement, it may cancel the same but should it do so, it shall take over, at cost, such materials as may have been provided by the Manufacturer for the purpose of complying with its obligations hereunder and shall purchase all such finished product as the Manufacturer may have produced at $2.00 a pound. The Purchaser shall also pay the Manufacturer the portion of the cost of the plant constructed for such production as the unfilled portion of the order bears to the total order.

Seventh: The Manufacturer agrees that it will not manufacture said compound for any other person and will not during the continuance of this agreement manufacture or sell any anti knock compound for or on account of any person other than the Purchaser, whether of a like or similar nature without the consent of the Purchaser. Further, the Manufacturer agrees that if at any time during the term of this agreement it invents, originates or develops an anti knock compound or any apparatus, device or other matter or thing in anywise connected with or relating to the manufacture of an anti knock compound and which may be capable of being patented in the United States of America or elsewhere, that it will take all necessary steps so to do, and will promptly assign all applications for such patents to the Purchaser upon its request. It also agrees to keep the Purchaser fully advised of all developments made by it in connection with any such invention and will accept the advice and assistance of the Patent Department of the Purchaser in connection with any questions relating to the patent situation surrounding any such invention. The Purchaser agrees to pay the cost of filing and maintaining any such patent ~~so acquired~~ or applied for by the Manufacturer.

EIGHTH: In the event of any dispute arising hereto as to the price to be charged by the Manufacturer for anti knock compound, or the amount to be received by it from the Purchaser should this agreement be cancelled by the Purchaser as hereinbefore provided, the question at issue shall be submitted to arbitration. In such case the party aggrieved or moving in the matter shall give to the other party written

notice of its desire to have an arbitration, in which it shall state generally its grievance and name an aribtrator, and the other party thereupon shall name an arbitrator within ten (10) days after the receipt of such notice, and in case of failure to do so, the moving party may appoint the second arbitrator. The two arbitrators thus appointed (in either manner) shall select a third, and the board of arbitration thus constituted shall thereupon proceed to determine the matter in dispute, and the decision of any two (including the cost of the arbitration) shall be final and conclusive on both parties as to all questions of fact involved in such arbitration. It is understood that all arbitrators appointed hereunder shall be persons who are not connected in any manner with either of the parties hereto or interested, directly or indirectly, in any matter or thing provided for or growing out of this agreement, except and in so far as may be consistent with their duties as arbitrators hereunder.

NINTH: Neither party shall be held liable for damage arising from failure to deliver or to receive anti knock compound hereunder to the extent that it may be prevented by war or insurrections, riots, fires, floods, strikes, lockouts, differences with workmen, accidents to plants of either party or by other delays or hindrances beyond their reasonable control.

TENTH: It is expressly agreed that the deliveries of anti knock compound hereunder shall be made either to the Purchaser, or by its direction to any corporation owned, affiliated with, or controlled by it, and that any and all rights and

interest possessed by the Purchaser hereunder in this agreement or any of the provisions thereof, shall inure, if it so desires, to the benefit of any such corporation.

WITNESS the hands and seals of the parties hereto.

E. I. duPONT de NEMOURS & COMPANY

By: *Irénée du Pont*

President

Attest:

C Copeland

~~Assistant~~ Secretary

GENERAL MOTORS CORPORATION

By: *Pierre S. du Pont*

President

Attest:

John T. Ardis

Assistant Secretary

NOTE: Deletion, interlineation, and underscoring on third page, and deletion on seventh page, is done by hand. Corporate seal of General Motors Corporation appears over signature of John T. Ardis on seventh page; illegible corporate seal appears to left of signature of Irenee du Pont on seventh page. Italics indicate handwriting.

Government's Exhibit No. 620

AGREEMENT

between

GENERAL MOTORS CHEMICAL COMPANY

and

STANDARD OIL COMPANY (NEW JERSEY)

THIS AGREEMENT, made this 7th day of January, 1924, between GENERAL MOTORS CHEMICAL COMPANY, a corporation organized and existing under the laws of the State of Delaware, having its principal offices at the City of Dayton, State of Ohio, hereinafter termed "Seller"

and

STANDARD OIL COMPANY, a corporation organized and existing under the laws of the State of New Jersey, having its principal offices at the City of Bayonne, State of New Jersey, hereinafter termed "Buyer"

WHEREAS, the Seller has been and is now engaged in devising and developing certain materials to be mixed with the fuel (gasoline, kerosene or other motor fuel) for internal combustion engines, the object of such admixture being to render such fuel non-knocking, and thereby make it possible to use higher compression pressures in such engines without producing the detonation commonly known as "knock"; and with the further advantage of increasing the power output of said engines with attendant economy in fuel consumption; and

WHEREAS, the Seller represents that the preferred material thus far developed for such admixture is an organic compound known as "tetraethyl lead"; and

Whereas, the Seller represents that when tetraethyl lead is mixed in the proportion of about three cubic centimeters per U. S. Standard gallon with a straight run petroleum distillate consisting mainly of paraffin hydrocarbons (for example, straight run distillate from Penn. crude), and just conforming to the "New Navy" Specifications for gasoline now in force, there is produced a motor fuel suitable for use in motors of sufficiently higher compression to warrant their general adoption, and which may be described as a non-knocking fuel equal in this property to a mixture of sixty percent (60%) of the original fuel plus forty per cent (40%) Benzene (commercial (90%) Benzol); and

Whereas, the Seller represents that it has discovered the necessary additions in the way of other materials or compounds necessary to prevent certain harmful secondary effects attendant upon the use of tetraethyl lead, the mixture of said materials or compounds with said tetraethyl lead constituting the mixture hereinafter referred to as "anti-knock mixture"; and

Whereas, the Buyer represents that it is engaged in the business of selling gasoline to the public, and is now selling and intends to sell during the continuance of this agreement a gasoline which is a sufficient improvement in non-knocking characteristics over the straight run distillate hereinbefore described so that it requires a lesser quantity of tetraethyl lead to produce a satisfactory non-knocking fuel for use in the aforementioned higher compression motors. The Buyer further represents that it is desirous of distributing a gasoline which will in non-knocking characteristics be equivalent to 60% of the hereinbefore described straight run distillate plus 40% benzene (benzol) and that if the said anti-knock mixture will enable the Buyer to accomplish such purpose, it is willing to purchase the same from the Seller in accordance with and subject to the hereinafter expressed terms and conditions:

Now Therefore, This Agreement Witnesseth:

That in consideration of the premises and of the covenants and agreements hereinafter set forth, the said parties hereby agree as follows:

1.

(a) The period of this contract shall be for no longer than three (3) years from date and shall sooner terminate eighteen months after there shall have been delivered, under this agreement, the first eighteen thousand (18,000) of the Seller's mixing meters and the attachments therefor at a like number of locations.

(b) The Seller hereby grants to the Buyer, for the period of this contract and for the territory hereinafter defined, the exclusive right to sell and/or use the Seller's anti-knock mixture, subject only to conditions hereinafter mentioned.

The territory comprises the District of Columbia and the States of Maryland, Virginia, North Carolina, South Carolina, New Jersey, New York, Vermont, Connecticut, Massachusetts, Rhode Island, New Hampshire and Maine.

The Buyer may license, subject to the terms hereof, others to sell and/or use and to license the sale and/or use of the Seller's anti-knock mixture with in the defined territory, and the expression "Buyer's Licensees" shall be deemed to mean all such parties as may from time to time be licensed hereunder.

(d) Buyer agrees that it will not knowingly sell the Seller's anti-knock mixture or any gasoline treated therewith for resale at any point which at the time is covered by any exclusive license contract made by the Seller with any third party, and the Seller agrees that in all future license contracts it will embody substantially this same clause for the protection of the Buyer's exclusive right.

2.

(a) The Seller shall, at its own expense, deliver to the Buyer, or its licensees, on Buyer's orders from time to time given within twelve months from date, eighteen thousand (18,000) mixing meters and attachments therefor above mentioned. The Buyer shall cause these to be installed as promptly as practicable, after demonstration and instruction to be furnished at the Seller's cost. The Seller shall furthermore, reimburse the Buyer for the expense of such installation, which should be assumed to be One Dollar ($1.00) for each installation until actually determined.

The Seller shall have the right to install any ethylizer thirty days after shipment if the Buyer has for any reason failed to do so.

There shall also be delivered by the Seller, and installed under the same conditions as specified in paragraph (a), such further mixing meters and attachments therefor as the Buyer shall from time to time order for use at other locations not previously equipped with antiknock apparatus.

—4—

(b) A sample of the mixing meters and attachments therefor shall be submitted by the Seller to the Buyer for the Buyer's approval before installation of the same, but such approval shall not be unreasonably withheld. The Seller shall keep all mixing meters and attachments therefor in good operative order and repair at its own expense during the continuance of this agreement, and shall, upon being notified by the Buyer that any thereof need attention, repair or replace the same promptly. The Seller shall be afforded every reasonable facility and opportunity to enable it properly to inspect any of said meters and attachments therefor whenever it may so desire.

(c) All of said mixing meters and attachments therefor shall be and remain the exclusive property of the Seller. Any of them at any time may be surrendered to the Seller or removed by the Buyer to any new location not previously equipped with anti-knock apparatus. The Buyer shall exercise reasonable diligence for the care and protection of all said mixing meters and attachments and shall be liable or responsible therefor, only for want of the exercise of such reasonable care and caution, and shall not be liable if, although having exercised all such care and caution, the same are lost, stolen or injured.

(d) The Seller further agrees, without expense to the Buyer and promptly upon the Buyer's request, to equip any or all bulk stations with apparatus suitable for mixing said anti-knock mixture with gasoline in bulk, to enable the said mixture to be dispensed from bulk supplies. All such apparatus shall be kept in good order and repair by the Buyer and surrendered to the Seller in good order, less ordinary wear and tear, upon the Buyer wholly ceasing to vend said mixture. The Seller agrees to furnish and deliver without cost to the Buyer, at such place or places as may be designated by the latter, all such extra parts as may be reasonably required to keep the said apparatus in good order and repair.

(e) The Seller agrees to sell to the Buyer at cost, plus a handling charge, additional mixing meters for use by the Buyer at locations where the Buyer desires more than the one mixing meter furnished by the Seller. The Seller agrees to repurchase these from the Buyer at any time the Buyer wishes to discontinue their use, provided they are in good condition,

at a price that shall equal their cost less twenty percent (20%) for each year or proportionate part thereof they have been in service.

(f) The Buyer agrees to order from the Seller such quantity of anti-knock mixture as may be reasonably necessary to supply the demands of the public in all such portions of the aforesaid territory as have been equipped with mixing meters, and the Seller will fill all such orders barring unavoidable delay.

(g) The Seller will ship for account of the Buyer and on Buyer's orders and instructions, freight prepaid, anti-knock mixture in suitable containers, which containers shall be the property of the Seller and shall be returned to it at such place or places as the Seller may from time to time designate and at the Seller's cost.

(h) The Buyer agrees that during the continuance of this agreement it will, in adding such anti-knock mixture to gasoline, use such proportion of anti-knock material as may be necessary to maintain the standard of anti-knock value set forth in the preamble of this agreement.

(i) None of the mixing meters, attachments therefor, or apparatus mentioned in this paragraph shall be removed by the Seller without the consent of the Buyer so long as the same continue to be used for the purpose of vending said mixture.

3.

The price to be paid by the Buyer to the Seller for said anti-knock mixture shall be based upon the quantity of tetraethyl lead contained in the anti-knock mixture furnished to the Buyer and shall be Ten Dollars ($10.00) for each liter thereof contained in said mixture. The proportion of tetraethly lead in said mixture shall, however, at no time during the continuance of this agreement, be less than one and three-quarters liters in each five liters of said mixture, unless some agreement as to the cost thereof be arrived at between the Buyer and Seller.

Should the Seller reduce the price of said tetraethyl lead or sell the same at a less price to any other purchaser during the continuance of this agreement, it will give a similar reduction to the Buyer.

4.

The Seller elects to call the gasoline when mixed with the said anti-knock mixture "Ethyl Gas", unless adverse trade-mark rights should develop, and the Buyer agrees that all its advertisements of the same and those of its licenesees shall embody the word "Ethyl" or "Ethylized", though not if such adverse trade-mark right develop, in which event the Buyer agrees that said advertisement may embody some other suitable word or words free to be used and which the Seller may elect to be employed therein.

It is understood and agreed, however, that any and all responsibility for trade-mark, label, or analogous infringement, including rights relating to unfair competition, with which the Buyer, and/or its licensees, may be charged for employing in such advertisements any word or words which Seller shall so elect to employ, shall be assumed by the Seller, and the Buyer, and/or its licensees, shall be held harmless therefrom; and the Seller shall, at its own expense, defend any or all litigation based on such employment and pay any judgment or judgments that may be awarded to the plaintiff in the premises, or the amount of any settlement therein, if settlement be made. In the event of any such litigation or threats thereof, the Seller shall be promptly notified thereof by the Buyer and be entitled to representation by its own counsel in all negotiations or proceedings relative thereto and amy assume charge thereof if it shall so desire; but no such settlement shall be made unless by mutual agreement of the parties hereto.

5.

The Seller shall advertise in its own name and at its own expense the said anti-knock mixture, in and for the territory covered by this contract, the character of such advertising and the medium thereof to be solely in the Seller's discretion. All such advertising, however, that contains the Buyer's name or refers in any way to the Buyer's products shall be submitted to the Buyer and its approval obtained before being published. The cost of all such advertising shall be as determined by the Seller but shall not be less, in the aggregate amount during any six months period of this agreement than two per cent, (2%) of the cost to the Buyer of the anti-knock mixture purchased from the Seller during the corresponding period. Where any such advertising, however, partakes of a general character and is not solely confined to the aforesaid territory, but may be of benefit to the Buyer a fairly proportionate amount of the cost thereof shall be allocated to and included in said two per cent.

6.

No sale of gasoline treated with anti-knock mixture under this contract shall be made at a price in excess of three cents (3¢) per gallon of treated gasoline above the then current price of untreated gasoline.

7.

For the purposes of this agreement, anti-knock mixture or material is defined to mean any substance which, when added in a very small amount to gasoline or other motor fuel, tends to suppress detonation.

During the period of this contract, the Buyer agrees:

a. Not to use commercially or sell any anti-knock mixture or material which infringes upon Seller's patent rights;

b. Not to use other than Seller's anti-knock mixture in Seller's mixture.

8.

During the continuance of this agreement, the Seller will not sell any of the said anti-knock mixture within the aforesaid territory, nor will it knowingly sell any thereof to any person to be sold therein with the exception, however, that it shall have the right to sell said mixture direct to consumers in said territory where and while there shall not be operating apparatus installed under this contract adequate to take care of such business.

9.

The Seller shall prepare and submit for the Buyer's approval two forms of information and instruction, one for the guidance of service station and garage employees and any others who may handle the anti-knock mixture or dispense the gasoline, and a second form of directions and information for the consumer. After approval by the Buyer, these forms shall be printed in convenient form by the Seller and delivered to the Buyer in sufficient quantities for distribution, and the Buyer shall cause them to be distributed in its territory; and should any suit or suits be brought against the Buyer, and/or its licensees, for injury to person or property arising from the handling or use of any of said mixture that may have been furnished by the Seller and it be established in the prosecution of such suit or suits that, although all of the provisions of said directions were fully complied with by the claimant, such injury nevertheless occurred, the Seller will defray the entire expense of settling the same, or, if not settled out of Court, the Seller shall pay all of the costs of any such litigation, together with the full amount of any judgment that may be rendered against the Buyer, and/or its licensees. The Seller shall be promptly notified by the Buyer of any such suit and it shall be represented by its own counsel in all negotiations or proceedings relative thereto and may assume exclusive charge thereof if it so desires. In case of any other liability for injury to person or property arising from the handling or use of any of said mixture other than that covered by the foregoing portion of this paragraph, such liablity and any and all expense incident thereto shall be borne equally by the Seller and Buyer, it being understood that no settlement of any claim for liability shall be made except by mutual agreement of the parties hereto.

If the Seller finds and brings to the attention of the Buyer that any employee of the Buyer, and/or its licensees, is disregarding the aforesaid printed instructions, the Buyer will take such steps as may be necessary to see that the instructions are properly obeyed by him thereafter.

10.

The seller has not as yet obtained Letters Patent of the United States for or relating to any of the anti-knock materials or compounds named in this agreement, but has applications therefor pending in the United States Patent Office and will procure the issuance as soon as practicable of Letters Patent upon at least one of such applications to broadly protect the use and sale of the aforesaid anti-knock material.

11.

The Seller agrees at its own expense to defend the Buyer, and/or its licensees, in any action or actions that may be brought alleging that the use and/or sale of anti-knock mixture so supplied by the Seller, and whether or not containing any admixtures added by the Seller, infringes any Letters Patent of the United States; and the Seller agrees to pay any and all judgments for damages or profits arising out of such litigation that may be assessed against the Buyer, and/or its licensees, thereby saving them harmless therefrom, it being understood that the Seller shall be entitled to representation by its own counsel in any such litigation.

12.

The Seller hereby agrees that it will, at its own expense, bring and prosecute diligently through the Court or Courts of last resort, or otherwise to final adjudication, proceedings against infringers of any United States Letters Patent which may be granted to the Seller for anti-knock materials and/or mixtures, in the aforesaid territory, to the end of establishing its rights under such Letters Patent and protecting the Buyer, and/or its licensees, in their rights hereunder, it being understood that the Buyer shall be entitled to representation by its own counsel in any such litigation.

Any money recovery which may be had in any such proceeding shall be first applied toward defraying the expenses of the Seller therein; any balance for defraying the expenses of the Buyer therein; and, of any further balance, one-half shall be paid to the Buyer to the extent that such recovery shall have been based on acts of infringement committed within the territory covered by this agreement.

13.

It is intended that the rights of the Buyer in respect to anti-knock mixture furnished by the Seller under this contract shall apply under any and all Seller's Letters Patent and Patent applications for or relating to anti-knock materials and/or mixtures, so that if the Seller should dispose of any of its patents or applications therefor, to another or others, such rights of the Buyer shall nevertheless continue under

the terms of this agreement.

14.

While tetra-ethyl lead has herein been specified as the anti-knock material particularly considered, it is understood and agreed that this agreement shall equally apply to and cover any or all other anti-knock materials and/or mixtures (meaning any material which, when added in very small amount to gasoline or other motor fuel tends to suppress detonation) which the Seller may have devised or developed or may hereafter acquire, devise or develop, and covered by U. S. Patents, or pending applications therefor, and with which the Buyer may desire or prefer to be supplied. The price of such material shall be the cost to the Seller of the material plus an additional charge for the quantity thereof required to treat each gallon of gasoline equal to the existing difference between the cost and the selling price of the equivalent quantity of tetra-ethyl lead.

15.

All of said mixture that may be sold by the Seller to all person other than the Buyer shall be practically the same in effect as the mixture sold to the Buyer hereunder, and, if the Seller at any time sells or licenses said mixture to anyone on more favorable terms than those hereof, the Buyer shall be so advised by the Seller and be entitled to the benefit thereof.

16.

Within twelve months after the termination of this agreement, the Seller will offer to Buyer a further license to purchase and to use and sell Seller's anti-knock mixture within the territory covered by this agreement, upon terms as favorable as those offered by Seller to any other distributor of gasoline, and will agree, in the event of Buyer's acceptance of said offer, to give Buyer the benefit of any more favorable contract which Seller may make during the term of such further license.

During the time intervening between the termination of this present agreement and Buyer's acceptance of Seller's offer, or the expiration of the twelve months, whichever shall first occur, the Buyer shall be deemed to be operating under a non-exclusive license on the same basis as the present contract.

17.

The Buyer agrees for and during the term of this contract to acknowledge the validity of all Letters Patent issuing upon the aforesaid applications or upon applications hereafter filed by the Seller that are subject to this agreement, and agrees not to contest the validity of the said Letters Patent or to directly or indirectly aid or abet others in doing so.

All of the terms and provisions of this agreement as well as any extension or continuation thereof shall inure to the benefit of and be binding upon the successors of each of the parties hereto.

IN TESTIMONY WHEREOF, the parties hereto have, each by due authority to the subscribing officers, executed these presents the day and year first above written.

GENERAL MOTORS CHEMICAL COMPANY

By C. F. Kettering
President.

Attest:

T. S. Merrill
Secretary

STANDARD OIL COMPANY (New Jersey)

By F. D. Asche, Vice
President

Attest:

E. A. Manning
Assistant Secretary

(Seal)

Conformed:
L.D.M.

NOTE: At upper right on first page is written "Exhibit B1".

Government's Exhibit No. 621

Letterhead of
E. I. du Pont de Nemours & Co.
DYESTUFFS DEPARTMENT

June 15, 1923.

Mr. Irenee du Pont, President,
Building.

TETRA ETHYL LEAD SITUATION.

Relative to discussions occasioned by Mr. C.F. Kettering's letter of June 8th, I wish to submit for your consideration for our proposed meeting Saturday afternoon with the General Motors people a few facts, figures and recommendations.

As the party originating the general subject and as the holder of what is presumably the basic patent, the General Motors Corporation is the central point in this affair. They have a contract with us covering a limited output for a year with the understanding that the contract is to be a continuing document provided both parties work together satisfactorily.

It now appears that the Standard Oil people have some sort of a patent on Tetra Ethyl Lead produced from Sodium Chloride on which they have indicated that they can produce at considerably below $10 per gallon, and have asked for a year's contract for 100 gallons a day as a trial, though our information does not state that the $10 figure applies to this small trial contract.

Our own preliminary cost figures have been high because of sad mistakes in the past due to optimistic figuring. Moreover, they are not of recent date. I have had this proposition refigured with certain reasonable assumptions on yields and recoveries indicating that when the 100 gallons per day plant gets into its stride, we should have a goal cost, including overhead and depreciation, of 70½¢ per lb. or $9.17 a gallon of 13 lbs. Furthermore, if the 2,000 gallons a day figure mentioned in Mr. Kettering's letter was reached on the same basis of figuring, a price of 61.4¢ is a reasonable goal, or $7.98 per gallon, which you will observe, is within the range of figures indicated by the Standard Oil people.

The foregoing figures are, I believe, the ones on which we should base our calculations, but it is possible, and I think probable, that actual operation over a period would result in a higher yield, better recoveries and more economical operations

generally than indicated in the foregoing which is based on 65% yield on Bromide and 75% on Sodium. If we assume an 80% yield on Bromide and 85% yield on Sodium, we reach a goal cost on 2000 gallons a day of 49¢ per lb., or $6.37 a gallon.

The foregoing figures make it clear that there is nothing inherently impossible in our cost situation unless the Standard Oil people have an entirely new process through Sodium Chloride, which, in the opinion of our department, would have to be something essentially different from the ~~Greenyard~~ *Grignard* reaction. Our opinion is that the chances of this are slight.

I believe the subject might well be approached in this general manner.—General Motors people are familiar with our general situation, and their knowledge of what we have done and are doing can be made more exact at Saturday's conference.

As the Standard Oil people have come to them with a tentative proposition, General Motors is in a position to suggest to the Standard Oil Company that, in view of the importance of the proposition as a whole and the fact that we have done certain important work on it, they feel a very frank conference is desirable, at which they would learn what the Oil people think they can do and why they think they can do it, i.e., whether their cost predictions, etc., are predicated on theory and laboratory experiments, or whether they have proceeded through semi-works production so that they know their process is feasible on a works basis.

With this information General Motors will have a clear view of the situation. On one hand will be the Standard Oil proposition as disclosed by them, and on the other the recognized facts in our own case, namely, that in cooperation with them and under our contractual relationship with them, we have spent approximately $50,000 in research and semi-works operation, have reasonable costs practically assured to us, have a plant actually under construction with a capacity of 100 gallons per day, which presumably will be in operation within six or seven weeks, and stand ready to back up the whole proposition with whatever maybe necessary in the line of research, process development and plant investment.

It seems to me that the picture thus presented will be clear enough to indicate definitely what the next step should be, and from all information this department possesses, we see no reason to fear the direct comparison.

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I have mentioned research work only incidentally. This is bound to be an important factor, but the particular point of research along specific lines can best be determined, I think, after we know more about the claims of the Standard Oil people, provided, of course, the foregoing program, or something akin to it, is adopted.

Mr. Harrington and I will discuss this with you on Saturday morning before the meeting, but I thought it well to present these figures and thoughts in time for you to give them some consideration before we enter on detailed discussions with the General Motors representatives.

F. W. Pickard, General Manager.
F. W. Pickard

FWP:JMQ

Note: "C-26-D" is written at upper right of first page. Letterhead of E. I. du Pont de Nemours & Co. Sales Department in upper left corner of first page has been overprinted by two large "X's". Italics indicate handwriting.

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Government's Exhibit No. 622

GENERAL MOTORS CORPORATION
224 West 57th Street
New York, N. Y.

OFFICE OF THE PRESIDENT

January 28, 1924.

Mr. Irenee duPont, President,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

My dear Irenee:—

I have just had a talk with two or three of the high officials of the Standard Oil Company of New Jersey, covering our relations with them: i.e., their relations with the General Motors Chemical Company, with reference to this tetra ethyl lead picture, dealing with distribution here and abroad and various other phases of the matter that they wanted to discuss. In connection with the situation I would like to pass on to you the following in order that you might consider it and I might profit by your reaction.

There apparently has been more or less discussion between Mr. Kettering and these people in the past month regarding the manufacture of tetra ethyl lead. They say —whether they are right or not I do not know—that six or seven months ago in discussing this particular point with Mr. Kettering and Mr. Midgley they were encouraged to see what they could do in developing a process for making tetra ethyl lead, hoping thereby to discover something that would result in a much lower cost of production. They take the position now that they feel they have a method which is covered by patents which in effect will give, so far as their studies go, a lower cost of production but, naturally, that can only be demonstrated by an actual works development.

Our contract with them provides for distribution throughout practically all the Eastern Seaboard and the contract was made after we had convinced ourselves that they offered the broadest possible distribution. The contract is exclusive for a period of eighteen months after a certain preparatory time and after that time we have the right to open the territory to whom and on such conditions as we see fit.

With the above atmosphere, which is given you in order to intelligently reach the point I want to make, the Standard Oil people are urging very strongly a deal whereby they want to capitalize the present exclusive contract by exercising the right

—2—

they have to license competitors covering the use of tetra ethyl lead, thereby getting a broader distribution which they claim will be to our interest and in return for that they want the right to manufacture for our account tetra ethyl lead at a price competitive with the duPont Company.

I feel, and have held right along, that in view of the fact that we are in the development stage we should not in any way discuss with these people anything to do with the manufacture of tetra ethyl lead. I question whether it will be good business from our standpoint for them to manufacture tetra ethyl lead and at the same time have such a large slice of the distribution on same. I do not say that I fear we will not get a square deal, but that naturally comes into my mind. Anyway, I do not think it is constructive. I feel that in the final analysis the duPont Company can manufacture the material at the lowest cost plus a reasonable return and that under such a consideration there would only be a manufacturer's profit in it for the Standard Oil Company and that they could employ their capital to equal, if not better, advantage in their own business than in the manufacture of tetra ethyl lead and that our permitting them to get into that manufacture will be a disturbing influence and would throw an uncertainty on the whole situation that would not be constructive. If it develops that these people have a process which, due to the nature of same, it should be cheaper from the standpoint of manufacture, I personally would much rather obtain a license from them, pay for it and get the duPont Company to use it in reducing the cost than I would to deal with the Standard Oil Company as a manufacturer.

Will you be good enough to think this matter over and advise me whether you think I am thinking soundly or not and if not, just what reasons you can advance to the contrary.

Very truly yours,

Alfred P. Sloan, Jr.
B

A.P.S.Jr./K
c/c Mr. P.S.duPont

NOTE: What appears to be "W. F. [illegible]" is written and encircled by hand at top center of first page; line is drawn between those initials and "OFFICE OF THE PRESIDENT" at top left. Check mark in right margin of first page is by hand. Italics indicate handwriting.

Government's Exhibit No. 623

Letterhead of
E. I. du Pont de Nemours & Company
Wilmington, Delaware

EXECUTIVE OFFICES

February 2, 1924.

Mr. Alfred P. Sloan, Jr.
General Motors Corp.
224 W. 57th Street,
New York City.

Dear Mr. Sloan:—

✓

I have talked over your letter of the 28th with Mr. Harrington and find we are all in accord as to the proper course of procedure. I think to put it into effect it would be well for General Motors Co. to write a letter to the Standard Oil Co., something to the effect:

"We have contracted with E.I.duPont de Nemours & Co. for our estimated requirements of ethyl lead, believing that they are the best equipped company to handle complicated organic chemical problems. We, therefore, suggest that you get in touch with them to see if they are in any wise interested in your proposed method for the manufacture of that compound."

You will recall that in the division of the work on tetraethyl-lead we had no part in investigating the chlorine method. Recently, however, we have carried on a few experiments in the laboratory as a matter of information and at no material cost. In the light of our experience with the Bromine/method, we have found that very fair yields can be obtained using the same general precautions and it may well be that the straight chlorine method has not the difficulties which it was formerly supposed existed. Of course, anyone starting would naturally suppose the chlorine route was the simplest and cheapest.

Very truly yours,

Irenee du Pont
IRENEE DU PONT, President

NOTE: "RECEIVED FEB [illegible] A. P. SLOAN, Jr." is stamped at top of page; illegible initials are written at upper right of page. Check mark above first line is by hand. Italics indicate handwriting.

Government's Exhibit No. 624

GENERAL MOTORS CORPORATION
224 West 57th Street
New York, N Y

OFFICE OF THE PRESIDENT

February 5, 1924.

Mr. Irenee duPont, President,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

My dear Irenee:—

Dealing with your letter of February 2nd, I note that we are all in accord with what should be done. In view of the nature of my conversation with the Standard Oil people of New Jersey, I think it might be best—and I believe you would agree with me if you had been in the conference—to write them along somewhat different lines but essentially covering the same point.

I have therefore taken the liberty of modifying your suggestion and I will attach hereto copy of letter which I have written them which deals with two or three other points which it was necessary to deal with at this time, all of which I hope will be satisfactory.

Very truly yours,

Alfred P. Sloan Jr
B

A.P.S.Jr./K
Enc.

Note: "C-26-E" is written in upper right corner of page. "Mr. Irenee du Pont" and "W F Harrington" are written in upper left of page and a line is drawn through "W F Harrington". A check mark is drawn through salutation and addressee's name and address. "Very Good [illegible initials]" is written at lower left. Italics indicate handwriting.

February 4, 1924.

Mr. Joseph H. Senior,
Standard Oil Company of N. J.,
26 Broadway,
New York, N. Y.

My dear Mr. Senior:-

Permit me to go back to our conversation of a week ago Saturday, I believe it was, when you and Mr. Moffett were in my office, at which time you raised certain matters of policy dealing with the relations between your good selves and the General Motors Chemical Company, a Subsidiary of ours, with reference to the distribution of tetra ethyl lead. I have considered this very carefully and discussed the matter with my associates and our position in the premises is substantially as follows:-

1. Dealing with the foreign situation. I regret exceedingly that there should have been any question arise as to a change in our attitude toward this question. In discussing the matter with Mr. Kettering, since your call here, he is under the impression that at no time during the negotiations which lead up to the now existing contract, did we knowingly make any commitments that we would necessarily deal with your Company as to the foreign rights of tetra ethyl lead. If there has, and I believe there has been, created in your minds a contrary viewpoint, there is a misunderstanding somewhere which we very much regret. However, I do not think any damage has been done. Our position and attitude, naturally, is to do the best we can for the stockholders of General Motors Corporation, and in view of the statements that Mr. Moffett in particular made the other day, it would appear as if the interest of our stockholders was to do the same thing in the foreign field as we had already determined to do on the Eastern Seaboard: i.e., deal

with your Company. Our only hesitancy in the matter has been lack of definite knowledge and when one is not familiar with the situation it is better perhaps to do nothing. You must appreciate that we are not in the oil business; we know nothing about the commercial situation, and therefore you can not blame us for a desire to go slow and find out as much as we can in the way of atmosphere before we take a definite position. In view of your insistence in the matter, however —if I might put it that way—we will be glad to arrange, without undue delay, to look into the matter definitely and we have no doubt that this study, which you have been good enough to afford us an opportunity to discuss in detail with your people, will lead us to the belief that we might go ahead now and arrange some sort of a plan whereby you would represent us in this connection.

2. Dealing with your right to license to sell. This question came up, I believe, in answer to my inquiry as to whether you had or had not made an arrangement with the Gulf Refining Company. As it undoubtedly has been pointed out to you many times, we are anxious to effect as broad a distribution as possible of tetra ethyl lead. It means more to us, as you appreciate, than the specific profit that we may gain from this particular thing. Therefore, anything that would tend to more rapidly and broadly cause such distribution would be of interest and pleasing to us. Furthermore than that, we feel that if the material could be handled by two or perhaps three of the largest distributors in a broad and constructive way that such a development would be a better workout than perhaps having it handled by one distributor and the others more or less in an antagonistic frame of mind. Therefore, if it was, in view of the terms of the contract, your viewpoint to make a deal with the Gulf Re-

fining Company, as the writer personally told Mr. E. C. Bedford, it would appear that it was to our interest and I believe ultimately it will be to yours. However, it is your privilege to elect your own position in view of the contract as it now stands. I might add that our position in limiting the time of the exclusive arrangement was largely dictated by our desire to effect as broad a distribution and not to build up antagonism against a product in the field which might result, by limiting the use of same, to one distributor. Therefore, it would logically appear from this viewpoint that if it was your policy at this time to definitely determine to license one or two other large distributors and if you cared to raise the point, we might be willing to consider a modification of the terms of the now existing contract so far as the exclusive part of same is concerned. In any event, we would be glad to discuss this matter with you if you should care to raise the point.

3. As to your manufacturing tetra ethyl lead for our account. As I told you in our conference, we feel that the rapid developments of the plant that we have built for the manufacture of tetra ethyl lead and the fact that the whole picture is more or less in the development stage, makes it desirable to refrain from discussing this situation at the present time. You must appreciate, as I have no doubt you do, that the present price of tetra ethyl lead has nothing to do with the ultimate price and the ultimate price will be based upon the lowest possible cost that can be developed through large production and effective manufacturing means plus a reasonable return on the capital employed. In other words, a manufacturer's profit. What this will ultimately be we can not say at this time for reasons already explained, but we have every reason to believe that we shall be able to ultimately reach a cost that

will be entirely competitive, but until our plans, etc. are fully matured, we can not say just what this will be. As I understand the question further—perhaps I am wrong in the impression—you are connecting your willingness to license other large distributors in the exclusive territory now controlled by you, permitting them to deal with tetra ethyl lead, with our willingness to deal with you as a manufacturer of said tetra ethyl lead. So far as this point is concerned, our position is, for reasons herein stated, that we prefer to live strictly up to the terms of the contract as now existing, you to elect your own position as to whom you will deal with. We shall at all times, however, be glad to discuss with you the relative value of your process versus ours and after such analysis if it appears that your process has value, we shall be glad, in co-operation with you, to work out some plan which will be constructive and preserve all the equities in the case.

Mr. C. F. Kettering will be in New York some time the latter part of this week and I have asked him to see you in connection with various operating matters connected with the workout of the present agreement.

Very truly yours,

Alfred P. Sloan Jr
B

A.P.S.Jr./W

c/c Mr. C. F. Kettering
Thomas Midgley, Jr.
Irenee duPont ✓
P.S.duPont

NOTE: "FILE COPY" is printed across each page. Check mark after "Irenee duPont" on third page is by hand. Italics indicate handwriting.

✓

Government's Exhibit No. 625

GENERAL MOTORS CORPORATION

OFFICE OF THE
FINANCE COMMITTEE

January 12, 1924.

Irenee du Pont, President,
Wilmington, Dela.

Dear Irenee:

Confirming our discussion of this afternoon this is to request that the DuPont Co. proceed immediately to increase its capacity of tetra ethel lead by adding two units of six or eight hydrolizers each which it is estimated will give you a total capacity of a minimum of 7800 lbs. per working day. In consideration of this our company will agree to xxxxxxxx modify its present contract with you to provide for the purchase of a total of 1,100,000 lbs. from Feb. 1st, 1924 to be supplied by you at the rate of at least

2600 lbs. per working day from Feb. 1st to July 1st, 1924
5200 " " " July 1st to Aug. 15th, 1924
7800 " " " Aug. 15th to date of completion of delivery of the 1,100,000 lbs. herein mentioned.

Yours truly,

President.

Note: Row of x's in second sentence is typed over "purchase".

January 14, 1924.

MR. W. F. HARRINGTON:—

Attached is the original copy of Mr. Sloan's letter of Jan. 12th ordering from the du Pont Company 1,100,000 lbs. tetra ethyl lead in lieu of amount specified in our present contract. This order is given in consideration of our undertaking to build two additional units of about 200 gallons per day each. It is essential that we treat this undertaking like a war order so far as making speed and producing the output, not only in order to fulfill the terms of the contract as to time but because every day saved means one day advantage over possible competition and bringing one day nearer the huge production which I think will come about.

IRÉNÉE DU PONT, President

NOTE: "C-15" is written in upper right corner. "FILE COPY" is printed across page.

Government's Exhibit No. 628

Wilmington, Del., January 14, 1924

EXECUTIVE COMMITTEE,
BUILDING.

Gentlemen:—

This is simply to report that I have orally assented to an arrangement with the General Motors under which we are to build two additional tetra-ethyl-lead units of 200 gallons per day each, and the General Motors in consideration thereof have modified the quantity in our present contract increasing it to 1,100,000 lbs., price to remain as today—$2.00 per lb.

Mr. Harrington will shortly bring in a rush appropriation for this work which must be done as quickly as possible.

Very truly yours,

IRENEE DU PONT, Chairman.

NOTE: At upper left is written "W.C."; at upper right is stamped "Executive Committee Sec'ys No. 66"; at lower left is written "GMC 1616"; stamped across the bottom of the page is "Return to Room 9059" below which is stamped "Return to Executive Committee Room 9069"; an illegible notation is written above the text of the letter followed by the figures "1/15".

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

January 18, 1924.

Mr. Alfred P. Sloan, Jr. President,
General Motors Corporation,
224 W. 57th St.
New York City.

Dear Mr. Sloan:—

Am advised that we have covered purchase of sodium bromide for our estimated requirements to produce the ethyl lead as per our modification of the contract arrived at Saturday last.

It seemed to me essential that as a safeguard for the future supply and to insure a proper price we should have our Development Department make a confidential study of sources of bromine and cost of producing sodium bromide. They are proceeding to do this and I think can do it in a way which will not excite producers.

Very truly yours,

IRÉNÉE DU PONT, President
Irénée du Pont
D

NOTE: To right of address is stamped "Received—A. P. Sloan, Jr." (date illegible); the word "contract" is underlined in pencil; italics indicate handwriting.

Government's Exhibit No. 631

Letterhead of

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

Sept. 8, 1924.

Mr. A.P. Sloan, Jr.,
General Motors Corporation,
New York City.

My dear Alfred:

We went over to Pomeroy last week to investigate the possibilities of securing bromine and had a very profitable trip so far as getting a real understanding of the bromine situation. Our boys, here at the Laboratory, are devoting their entire time to studying methods of extracting bromine from low percentage brine and we feel that, once this problem is out of the road, we are in shape to go ahead in very good style with the Ethyl Gasoline Corp.

The duPonts are still falling down in their deliveries of lead and I think the new method of handling this proposition is going to work out very satisfactorily.

I thought you would be interested in knowing just what we were doing along this line because I am sure if the bromine problem is solved that the Ethyl Gasoline proposition can go ahead in good shape.

I do not think I can come down this week. Midge is going down and inasmuch as he has to go over to duPonts he can drop in and report progress to you.

Yours very truly,
Ket.

NOTE: Across top is written "Gen. Mot. Chemical Products—Suppt. Materials—Antiknock SK"; beneath the letterhead is an illegible initial followed by a stamp, "Received Sept. 10, 1924—A. P. Sloan, Jr."; beneath the signature is a circular scrawl; italics indicate handwriting.

Government's Exhibit No. 640

October 10, 1924

Inspecteur General Militaire Patart,
Directeur du Service des Pondres,
Ministere de la Gueree,
Paris, France

Dear General Patart:

This letter will introduce to you Mr. F. C. Kettering a Vice President of the General Motors Corporation, which Company as you probably know is closely affiliated with our Company. Mr. Kettering is very much interested in the bromine supply and in fact the study which the du Pont Company has been making of bromine supply in connection with the possible operation of the Tunis plant has been on account of our association with the General Motors Corporation. Inasmuch as Mr. Kettering is about to leave for a business trip to Europe and as he is very much interested in the bromine subject, it is quite probable that he may call upon you for which reason I have given him this letter of introduction to you. In the event that Mr. Kettering, should call on you, our Company and myself would appreciate very much anything you may be able to do for him.

Very truly yours,

FIN SPARRE
Director

FS:N

NOTE: At lower right is written "GMC-698"; diagonally across page is stamped "File copy"; signature "Fin Sparre" is stamped.

Government's Exhibit No. 641

December 27, 1924.

Mr. Ireneé duPont, President,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

My dear Ireneé:—

After the meeting of the Ethyl Gasoline Corporation the other day we started to outline a letter to your Company regarding the development of the Bromine Plant and it occurred to me that it was really understood at the meeting that you were to submit us a proposition so I will do nothing about it pending hearing from you which letter I presume, as a matter of orderly procedure, should be sent to Ethyl Gasoline Corporation rather than to myself.

As I understand the proposition, we really appropriated $150,000. and it was understood that when that was expended we were to have another look at the picture, recognizing that it would probably cost more. You said something to me personally about a fee of $20,000. for doing the work which, so far as I am concerned, is perfectly satisfactory.

I write the above so there will be no misunderstanding and I might add that so far as I can see there would be no harm to discuss the matter with Mr. Howard and Mr. Kettering on Monday because, as I have pointed out to you several times in this whole situation, we have got to work in harmony with all parties that are interested in the matter.

Very truly yours,

APSJr./K

Letterhead of

E. I. du Pont de Nemours & Company
Wilmington, Delaware

EXECUTIVE OFFICES

December 30, 1924.

Mr. Alfred P. Sloan, Jr.
224 W. 57th Street,
New York City.

Dear Alfred:—

✓

Thank you for your letter of the 27th. It is immaterial to me who writes the document and consequently I have outlined it as per attached copy.

Incidentally, on the strength of the oral discussion with you and the other members of the Board last Tuesday, I immediately started men to work on determining some of the data which must be used in the construction of the proposed plant. Yesterday we shipped down equipment by automobile to a point on the Atlantic Coast below Rehoboth with instructions to try a test in a temporary sump in an endeavor to find out data on the flotation of anilin tribromide. The cost of this work was included in my requirement as to what a commission should be; i.e. $20,000, and it was my intention to so charge it.

I think we are all open to criticism on being rather loose in the making of arrangements as between Ethyl Gas, General Motors, Standard Oil and du Pont. What would you think of the general propsition on miscellaneous work done by any of the three partners for account of Ethyl Gas to charge Ethyl Gas actual cost of materials and labor plus actual cost of supervision with an allowance of 25% of the latter only to cover uncharged overhead. This not in connection with the bromine plant but as a general proposition. For instance, we have

—2—

from time to time done work in our London office and are now undertaking negotiations there with lengthy cables to and fro. This may appear to be a trifling matter and if we never get paid I really don't think it is at all serious. However, I think it would make for better feeling among the partners if we were to come out on the square and say the combination must pay the petty accounts run up by its members as above.

Before suggesting this to Ket would like to get your reaction on it.

Sincerely yours,

Irénée du Pont, President
Irenee du Pont.

Note: Beneath date line is stamped "Received Dec. 31, 1924—A. P. Sloan, Jr."; the date "27th" in the first line is checked by hand; italics indicate handwriting.

Government's Exhibit No. 647

Copy

ETHYL GASOLINE CORPORATION

New York, April 8, 1925

Mr. Irenee du Pont,
E. I. duPont de Nemours & Co.
Wilmington, Del.

Dear Mr. du Pont:—

I have considered your letter of April 6th.

It is quite apparent that, in view of your uncertainty as ✓ to whether you will be able to operate your ethyl chloride plant, it would be wise to be looking around for additional sources of bromine.

I do not quite see why we should attempt to divide the field, as you suggest, in this matter. Rather, it would seem to me that we should cooperate and that you should be quite at liberty to fully investigate all of the possible sources of bromine which we know of, as well as to cover any additional sources which your experts may run down. I quite agree with you in thinking that this work should be undertaken immediately, that is, assuming that you really feel there is some prospect of your being required tocontinue the operation of your bromine plant as you say.

As to the contract clause covering the bromine plant operation, I have no doubt at all that the Directors necessarily would approve a waiver of this clause if you should present to them that you have no prospect of getting your ethyl chloride plant again in operation. There would be no other course for us, since we must have as much lead as we can get.

My understanding is, however, that you would not expect to be able to turn out from the bromine plant, for some time at least, more than 700 gal. per day, which would be considerably short of your minimum deliveries under the contract. This, of course, would bring up the question of the penalty under the contract, and all of these things, I think, would have to be considered at one time by the Board in connection with the proposals which you make. The officers of the Company could not on their own authority, undertake to dispose of this complicated matter.

Summarizing, therefore, my conclusion is that we ought to pitch in with you at the present time and try to find all the bromine that either one of us can get hold of, with the assurance that some equitable method of working out its development will be arrived at when and if you decide that it is required.

Yours very truly,

(S) Thomas Midgley, Jr.
Vice President and General Mgr.

NOTE: At lower right is written "GMC-693a"; check mark is by hand.

Government's Exhibit No. 648

E. I. du Pont de Nemours & Company
(Incorporated)

Copies To — Dr. Fin Sparre
Mr. W. F. Harrington

April 9, 1925

Mr. Thomas Midgley, Jr.
Ethyl Gasoline Corp.
25 Broadway,
New York City.

Dear Mr. Midgley:

Referring to yours of the 8th, my object in suggesting a division of the field of possible bromine supplies was in order to definitely fix the responsibility for the development of any particular source on one company or the other. Manifestly, it would not be to our interests to examine into all the possible sources of bromine, arriving at a conclusion that one particular site was the best, and then have it developed by and for the benefit solely of the Ethyl Gasoline Corp. Similarly, it would be unfair for you to develop the possible sources and have us pick out the best after you had spent money proving it.

Harrington tells me that he does not expect to be able to run the Ethyl Chloride plant at its rated capacity at an early date. He is running one digestor and proposes to continue to do so for a number of days still before gradually increasing the operation; this because he is unwilling to jeopardize his men and the whole success of the undertaking by hurrying the manufacture, thereby increasing the hazard of a repetition of our previous trouble.

He is writing you on this subject in connection with his reply to Mr. Howard's letter in relation to adjustment for the reduction in output beginning January 20th, made at your request about which we have been corresponding.

Very truly yours,

Irénée du Pont, President
Irenee du Pont

Note: Following name "Fin Sparre" at upper right appears a check mark; at upper right appear three stamps: "Referred to F. S. MacGregor, for attention", "Noted R&M", and "Received Apr. 10, 1925 Development"; a diagonal line is drawn through the address; at lower right is written "GMC-643"; italics indicate handwriting.

WESTERN UNION TELEGRAM

114FY FFY 61

GM DAYTON OHIO 949A JUNE 5 1924

A P SLOAN 99

GENERAL MOTORS CORPN NEW YORK NY

TO INFORM YOU ON ETHYL GAS SITUATION STOP ORGANIZATION HERE IN EXCELLENT SHAPE STOP WE ARE UNABLE TO GET SUFFICIENT LEAD FROM THE DU PONT COMPANY TO MEET OUR REQUIREMENTS STOP WHOLE PROGRAM IS BEING PREJUDICED ON THIS ACCOUNT STOP CAN YOU GET IN TOUCH WITH ME IF THEY ARE UNABLE TO MEET SCHEDULE WE WILL CHANGE OUR PRGRAM RELATIVE TO ETHYLIZER

C F KETTERING

1112A

NOTE: At upper right is stamped "Received June 5, 1924—A. P. Sloan, Jr."; above the date line in a column are written the figures "200", "400" and "600", each followed by an illegible notation.

GENERAL MOTORS CORPORATION

INTER-ORGANIZATION LETTERS ONLY

SUBJECT

New York, June 5, 1924.

FOR ATTENTION OF Mr. Alfred P. Sloan, Jr.

I have had Irenee duPont on the phone and he reports as follows in regard to tetra-ethyl lead:

Midgely will visit Harrington tomorrow and receive latest information specifically as follows:

The duPont contract called for delivery of 200 gallons per day, February to July, 1924. The actual schedules of deliveries to date are —

	Delivered	Contract	Shortage
February	1588	5600	4012
March	2347	6200	3853
April	4627	6000	1373
May-June 5th	6891	7200	309
		25000	9547

During the first five days of June 400 gallons per day were delivered, but part of this was evidently manufactured in May. During June Harrington expects to ship his 200 gallons per day. The contract calls for following deliveries beyond that:

	Gallons per day
July 1 — August 15	400
August 15 to end of contract	600

Harrington expects to meet these schedules, though Kettering wants 700 gallons per day immediately.

Only two serious troubles have been experienced recently, accounting for some disappointment in shipments:— First, receipt of a bad lot of sodium, which results in making bad alloy that works very slowly. This sodium was sufficiently bad to warrant its return to makers. Second, the new grinding mill for alloy did not work well at first, but it is now all right. It seems unlikely that either of these delays will be of moment in the future, although, of course, minor troubles may continue to crop up. Altogether the situation seems hopeful.

P. S. du Pont
Chairman.

Note: At upper right is stamped "Received June 6, 1924 —A. P. Sloan, Jr."; italics indicate handwriting.

Government's Exhibit No. 660

4363

Letterhead of
E. I. du Pont de Nemours & Company
INCORPORATED
Wilmington, Delaware

EXECUTIVE OFFICES

June 26, 1924.

Mr. Alfred P. Sloan, Jr.
General Motors Corporation,
224 W. 57th Street,
New York City.

Dear Alfred:—

We had a very interesting interview with Mr. Howard, Dr. John and Dr. Peck yesterday and went over the tetra-ethyl-lead plant with them. In view of my impression received orally from you that the Standard Oil of New Jersey are substantially your partners in the tetra-ethyl-lead distributing game, I was entirely frank in talking every phase of the question.

I feel sure from their laboratory results, confirmed by our laboratory, that the ethyl chloride method will be found cheaper both as to construction cost and operating cost than the ethyl bromide method and in any case additional capacity must be by the former owing to the very definite shortage in the amount of bromine available at reasonable figures.

Mr. Howard was very keen to start a 100-gallon plant which I understand would be by your joint company and located at their plant, Bayway. My first thought was, and still is, that quicker ultimate production progress would be made if that unit were installed at the Dye Works.

I appreciate that there would be some advantage in having an independent plant operated by your joint organization as a check on prices charged by the du Pont Co. and also to obtain such advantage

as there may be in the enthusiasm of the Standard Oil men to put across their own "baby". I am sure from the figures submitted that costs on a basis of the chlorine method will form no indication of what a proper price via the bromine method should be and that the present plant will doubtless have to operate all of this year and quite likely all of next year.

It is essential that work be started on a chlorine method plant at once if forecasts of the probable needs of tetra-ethyl-lead are even reasonably borne out and if you are convinced that a check on prices by an independent plant is desirable and you should go ahead at once with the hundred-gallon unit at Bayway, you should give us a contract for enough additional output so that we also could build at once a hundred-gallon plant by the chlorine method of Deepwater and add to it, as rapidly as experience determined desirable, 900 gallons per day of additional capacity.

Very trulyl yours,

IRÉNÉE DU PONT, President
Irénée du Pont.

NOTE: Illegible initials are written in upper right corner of first page. Scoring in last paragraph and line in left margin are by hand. Italics indicate handwriting.

Government's Exhibit No. 661

GENERAL MOTORS CORPORATION
NEW YORK CITY

June 27, 1924.

Mr. Irenee du Pont, President,
E. I. du Pont de Nemours & Company.
Wilmington, Delaware.

My dear Irenee:—

I have your letter of June 26th confirming our telephone conversation.

As I told you over the telephone, I have given this thing a lot of thought and I would be most happy and entirely satisfied to leave the matter entirely in your hands and the only thought that I have given in any other direction is simply to give due consideration to the psychological side and the opinion of our partners, the Standard Oil Company of N. J. in the enterprise. Naturally, they have their viewpoint. They are contributing in a large way to the commercial side of the tetra-ethyl lead development and for that reason I am bound to listen to what they have to say.

I feel, therefore, that what we ought to do is substantially as follows and I wrote you somewhat along these lines yesterday.

1. We should immediately lay down a 1,000 gallon a day tetra-ethyl lead plan under your supervision at deep water, and make some sort of a deal concerning which I wrote you yesterday that is satisfactory to all parties—and there will be no difficulty as to this—which will serve to protect the capital you put into the enterprise and give you a reasonable return on the capital employed.

2. We should then give thought to the development of an additional plant; in my judgment located elsewhere but under your supervision, for something like 500 gallons. Perhaps by the time we get into it we might think it desirable to make it 1,000 gallons.

3. For psychological reasons we should permit the Standard Oil Company of N. J. to expend $35,000 or $40,000 of their own money to experiment with the 100 gallon a day outfit in one of their plants, I believe in Bayway, in a building which they could use temporarily for the purpose. This will serve to satisfy them from the psychological standpoint and it is certain that it will be impossible to operate such an experimental plant successfully when the larger units are running, but it will give them a means to work out their viewpoint which certainly can do us no damage when we approach it from the bigger way.

4. Any further thought of developing any real production other than under the auspices of the du Pont Company will be deferred until some later time.

I really feel that the weight of the argument in favor of a geographical separation of units is absolutely essential because you must not fail to appreciate, assuming that no other antiknock material is developed in the meantime and that we have the field to ourselves

that in the event of universal distribution which ought to come fairly promptly with the advent of the high compression engine, a contingency would arise whereby the whole automotive industry would be dependent upon tetra-ethyl lead, and irrespective of what any individual opinion might be as to the propriety of putting all our eggs in one basket, I feel sure that none of us would want to carry such a hazard because it is not inconceivable that a fire, a strike or some other catastrophe that could not be forecast might put the plant out of business for even a short time and if the supply at that time is not enough to carry over the interval, every motor car in the United States would be out of business. All this, of course, is full of assumptions, nevertheless, if we are successful in what we are attempting to do it is a contingency that we must recognize.

So far as I am concerned I am absolutely confident that with the experimental work behind us and a suitable cost established and a routine definitely established as well, that there is no reason at all why you should not be able to make a lower price than anyone else and at the same time make a larger return on the capital employed. Mr. Howard feels that way too.

Will you kindly advise me if this entirely satisfactory, at east for a temporary argument.

Very truly yours,

(S) Alfred P. Sloan, Jr.

APAJr./K

NOTE: At lower right of both pages is written "GMC 1622A"; at upper right of first page is written "Or. Chem. Depts. General File" beneath which appears an illegible initial.

E. I. Du Pont De Nemours & Company
(Incorporated)

~~MR. W. F. HARRINGTON.~~

June 30, 1924.

Attached is copy of Mr. Sloan's letter of the 27th.

To my mind there is no question that if we wish to make the quickest progress we will have to make them a proposition. I think the one less likely to create friction and insure us against loss by reason of further capital expenditures would be an extension of our present contract to produce tetra-ethyl-lead at $2 per lb.

I understand from our conversation over the phone you will work this up at the earliest moment possible and in the meantime note that no time is being lost on accumulating data to guide us in the design of the ethyl chloride plant.

Irénée Du Pont
Irénée Du Pont, President

Note: At lower right is written "GMC 1622"; at upper right is written "Or. Chem. Dept's General File" beneath which appears an illegible initial; italics indicate handwriting.

~~COPY TO MR. W. F. HARRINGTON~~

E. I. du Pont de Nemours & Company
(INCORPORATED)

June 30, 1924

Mr. Alfred P. Sloan, Jr.Present,
General Motors Corporation,
224 W. 57th Street,
New York City.

Dear Mr. Sloan:—

I have your letter of the 27th and appreciate the difficulty of your formulating any sort of a deal which would take care of General Motors interests and our interests. I believe from my more or less neutral position that it would be better if I submit you a proposition. I wish to do this in a way which will put every incentive on the boys at the Dye Works to make the best possible showing in output and costs. A cost plus contract or return on the investment contract does not accomplish that result but rather, if anything, puts a premium on inefficiency. I will not be a party to take such an uneconomic step. On the other hand, I think it seems clear that the present bromine plant must be run for the balance of the year and probably through next year. So far it has yielded the du Pont Co. no profit and has amortized only $14,000 out of $700,000 or $800,000 capital expenditure but I am in no wise discouraged as to the outcome and feel sure that we can get the cost down in the course of a few months.

Am, therefore, asking Mr. Harrington to make up a computation of how long he would have to run the bromine method plant at his estimated production in order to accumulate sufficient profit to wipe out the capital cost of that plant which will shortly be obsolete and adequately amortize a plant by the chlorine method. This will take him probably a few days but no time is being wasted here as they are proceeding with research required to guide us in the design of the chlorine method plant.

Very truly yours,

IRÉNÉE DU PONT, President
I. du P.

NOTE: The typed words "Copy to Mr. W. F. Harrington" which appear at the top of the first page are scratched out by pencil; above the text of the letter on the first page is stamped (upside down) "Noted W. F. H." (date illegible except for year 1924); at lower right on both pages is written "GMC 979"; italics indicate handwriting.

2

Government's Exhibit No. 664

Letterhead of
GENERAL MOTORS CORPORATION
NEW YORK, N. Y.

Mr. Ireneé duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

July 8, 1924.

My dear Mr. duPont:—

Replying to your letter of June 28th regarding mine of the 26th with reference to development of tetra-ethyl lead and also referring to another letter I have written you on the subject would state that Mr. Kettering has been here for two or three days and we have discussed the matter at some length. Mr. Kettering is arranging to go down to Wilmington and spend part of tomorrow with you and he can tell you verbally what our ideas are. From what he says you will learn that we haven't any fixed ideas at all. All we want to do is to do the thing that is most constructive, all things considered.

As I told you in my other letter, I dislike a cost-plus arrangement more than anyone else I believe or certainly as much as any one else possibly could dislike it but, as I also said before, I did not see how we could handle it any differently where you have so many uncertainties as we have in this case especially dealing as we are now with a process covering which we at the present time, I presume, know comparatively little so far as the actual cost of operating is concerned. It might be profitable to get the best cost possible and determine the profit with some regard to return on capital but make it a fixed price. Whatever is satisfactory to you will be satisfactory to me.

There is only one thing that I want to point out to you that I do feel very keenly on that is this:– That we have injected into the picture, as you know, the Standard Oil Company of N.J.. Naturally, they are looking at the situation a little differently so far as the cost of tetra-ethyl lead is concerned than we are. I am anxious to preserve the psychology of the situation so far as possible and for that reason I believe it would be much more satisfactory if the amortization of the plant or, put it in another way, the risk to your capital, be provided by a specific guarantee on the part of our new organization and guaranteed, if you wish, by the Standard Oil Company of N.J. and ourselves and let us deal with that as we see fit in our own way rather than to have the amortization injected into the cost of the material which makes the material appear a lot higher than it otherwise would. I will admit that it is the same way in the end but it gives an entirely different aspect to the picture. In other words, what I think should be done from the psychological standpoint would be, first, to make a price on tetra-ethyl lead which is safe to the duPont Company and reflect a reasonable return on the capital employed; second, include in the cost a depreciation on the plant and third, to have us guarantee the duPont Company the return on their capital if at any time we discontinue the purchase of tetra-ethyl lead up to the time that the plant had been written off through depreciation. Some such plan as this I think should be satisfactory to you and I believe will be satisfactory to the Standard Oil

Company of N.J. and please remember that it is satisfactory to me personally whatever it may be.

Very truly yours,

Alfred P. Sloan Jr
B

APSJr./K

NOTE: Through the address appears a large check mark; at lower right on both pages is written "GMC 980"; italics indicate handwriting.

Government's Exhibit No. 665

Extract from Minutes of Meeting of the Executive Committee of General Motors Corporation duly held on the 27th day of February, 1924.

* * * * * * * * * * *

Present:

Mr. Alfred P. Sloan, Jr., in the Chair,
Mr. P. S. du Pont,
Mr. J. J. Raskob.

* * * * * * * * * * *

TETRAETHYLLEAD (ETHEL GAS)

The President brought up for general discussion the question of our future policy in the development and marketing of Tetraethyllead.

The Committee was advised that in view of the enthusiastic reception of this material by the Oil Companies, it might be possible to work out a plan whereby a company could be formed to control our patents and the distribution of the material which would be jointly controlled by the large oil companies and ourselves.

It was also pointed out that a limiting factor in the broad development of this market at present is the small available supply of bromine, which is now used in the manufacture of Tetraethyllead, and while we understand it may be possible to use chlorine in place of bromine, the Committee did not have sufficient information to judge whether the use of chlorine would make an equally satisfactory product.

It was the general feeling that it would be unfortunate to take any steps in the development of a plan along the broad lines discussed until we are sure that we can manufacture in the quantities required a product that will be reasonably satisfactory.

* * * * * * * * * * *

A true copy.

(Signed) *George E. Brooks*
Secretary

Note: Italics indicate handwriting.

Government's Exhibit No. 666

New York.
July 25, 1924.

Mr. C. F. Kettering, President,
General Motors Research Corporation,
Dayton, Ohio.

My dear Ket:—

I greatly regret that you have not been feeling very well and that you were unable to attend the meeting of the Technical Committee in Oshawa last week. We had a splendid meeting not only so far as the meeting itself went but the boys stayed over Saturday and some of them Sunday and some went fishing and others played golf and that helps a lot in bringing men who are thinking in the same direction, more closely together. I can't help but feel, considering the magnitude of our picture and all that sort of thing, that this co-operation in engineering is working out just splendidly. We must be patient, but I am sure that as time goes on we are going to be fully repaid for the way we have handled it as compared with a more military style which I do not think would have ever put us anywhere.

I hope you are feeling better and are on the job again. As a matter of fact, I haven't been feeling very keen myself during the past two or three weeks and am going to take next week off. Therefore, I will not be in Detroit until the week following. If you could arrange to be there a day or so the week following it will be very nice. My present plan is to leave New York on August 4th, going right through to Lansing. I want to look over the new line and get into that picture a little more in detail.

The object of this letter is simply to advise you regarding the tetra-ethyl lead situation and I will enumerate the points as follows:—

1. At the Operations meeting last week in Detroit I brought the matter up and gave the boys a little picture of what we were doing with Standard Oil group and also discussed the physiological uncertainty as well as the deposit of the material. These men must necessarily deal with this thing sooner or later and it is much better for them to know all there is to it rather than feel that through lack of knowledge the thing isn't being constructively developed. Following this we discussed the matter at length in Oshawa. I am speaking now of the deposit, and it was agreed that Midgley would go right to that and try to seek, irrespective of cost, definite information as to just what the field experience has been. As I size up the situation, we have been investigating things that have been called to our attention

but we have not perhaps gone as far as we might have in trying to develop information of our own. I think it is most important that a big thing like this where so much money is involved, that we know all about it.

2. We had a conference here in my office with the Standard Oil group Tuesday, at which time Midgley was present and we covered the following points:—

(a) Our partners brought up as to whether we were entitled to a specific royalty on tetra-ethyl lead consumed in foreign countries. They started to argue that this was a different picture than domestic. It did not take us long, however, to show them that there was no reason for this segregation and with very little argument they agreed that the royalty would apply on tetra-ethyl lead wherever sold and under any conditions.

(b) There was quite a discussion regarding the desirability of taking in additional partners.—the point I raised in view of Col. Stewart's and Mr. Mellon's conferences with me since the last meeting. It was again agreed that we would not do anything about this at the present time. Counsel for Standard Oil strenuously objected to bringing other Standard Oil Companies into a common corporation.

(c) The next point was a decision as to the name. We can't incorporate the company until we have a name. It was argued out at length. We finally arrived at the name—Ethyl Gasoline Company. I do not know whether that will please you or not but it seemed to be a compromise and although many names were discussed this seemed to suit everybody the best. Mr. Howard accepted it although he, like myself, felt that we ought to inject into the name some idea that we were working on standards rather than that it was a commercial proposition. This, however, did not seem to have the support of the group.

(d) It was agreed that Mr. Midgley as Operating Vice President should have an important assistant to deal with commercial matters and look after things in his absence and that the interest of everybody would be better conserved by Mr. Midgley devoting most of his time to the technical side of it, both manufacturing, etc.—that a great deal of constructive work had to be done as the thing developed from that standpoint. Everybody agreed that it was most

desirable and highly essential and I suggested that we should have a man who knew something about the oil industry. They nominated a Mr. Maxwell. Mr. Midgley met Mr. Maxwell the following day; found a number of points of common interest, and seemed to be very happy with Mr. Maxwell as being the right man to work with him on the proposition.

(e) It was agreed that offices should be established in the downtown section rather than uptown. It was absolutely immaterial to Midgley and to me, therefore we accepted this suggestion.

(f) It was agreed that an appraisal would be effected of the physical property that we were turning into the proposed corporation for which we would take stock and it was agreed that Standard Oil would send a man to Dayton to appraise the value of this. That has been arranged for.

(g) There was also a discussion regarding the proposed licensing agreement and it was agreed that we would continue the present basis of distribution until the cost of tetra-ethyl lead had been reduced to something like $1.00 a lb. In other words, we would not permit the distributor to have anything specifically out of the premium until that point was reached.

(h) It was agreed also that we would get together as soon as the duPonts were ready to discuss the matter with us and decide the basis on which the 1,000 gallons a day chlorine plant would be operated. We had some discussion regarding the matter of charging off the plant but nothing definite was understood. It was agreed we would go over it again when the duPont Company had something definite.

(i) There was quite a discussion regarding the amount of tetra-ethyl lead we were now getting and Mr. Howard expressed his opinion as being very sympathetic toward the trouble that duPont was experiencing. Mr. Harrington was contacted with over the telephone and stated that he hoped to get 350 gallons a day this week; that he was having one mechanical trouble after another but felt that he must necessarily be getting along toward the end of that. Further, that substantial progress was being made in the studies of the best plan to use the chlorine process and that the time taken to do this was well worth while and that we felt,all matters would be faily well defined not later than August 1st.

—4—

(j) It was agreed that as soon as possible after the 1,000 gallon plant was started that we ought to provide another 500 gallon plant in the middle west. We then discussed the possibility of making a thousand gallons as the extra cost perhaps would not be particularly great. It was sort of felt that that might be the best proposition. It was agreed that there would be nothing constructive in trying to analyze that at the moment as it could be best determined about October 1st at the time we would have more information available.

The above will just give you a brief summary of what the picture developed into so that you will be informed as to each step that is being taken.

With best regards, I remain,

Very truly yours,

APSJr./K

Note: Across the top of the first page is written "Ethyl Gasoline Co.—Org.—Org. 3K"; in right margin opposite third paragraph on first page is written "8/11", subsequently changed to "8/18", and finally scratched out; beneath this notation appears a large check mark and a routing stamp containing in part the initials "A.P.S.", "L.R.B.", "A.T.E.", and "W.F.A."; check marks appear in the space provided in this routing stamp opposite the intials "A.P.S." and "A.T.E."

Government's Exhibit No. 667

Extract from minutes of meeting of the Finance Committee of General Motors Corporation duly held on the twenty-seventh day of August, 1924.

* * * * * * * *

Present: J. J. Raskob, Chairman,
Donaldson Brown,
Irenee duPont,
P. S. duPont,
Seward Prosser,
A. P. Sloan, Jr.,

* * * * * * * *

ETHYL GASOLINE COMPANY:

Report was received from Vice President Donaldson Brown dated August 25, 1924 (#1078) advising of the formation of a company known as Ethyl Gasoline Company, for the purpose of taking over the business of General Motors Chemical Company, which company has been merchandising tetra ethyl lead, an anti-knock compound developed by General Motors Research Corporation. The Ethyl Gasoline Company has an authorized capital of $5,000,000., all common stock of $100. par value and has two stockholders, viz., Standard Oil Company of New Jersey and General Motors Corporation, each having a 50% interest. The Board of Directors consists of ten members, each stockholder having equal representation on the Board. As a consideration for the patent applications assigned by General Motors Chemical Company and agreement covering the exclusive right to use any future patents issued or knowledge obtained in respect to the maufacture and use of tetra ethyl lead, General Motors Chemical Company wi l receive from Ethyl Gasoline Company, as a royalty, 25% of the amount by which the net earnings of Ethyl Gasoline

Company derived from the sale of tetra ethyl lead shall exceed 22½% of the capital employed. Capital required for the conduct of business by Ethyl Gasoline Company will be derived from the issuance and sale of its capital stock, at par, the Standard Oil Company of New Jersey and General Motors Corporation subscribing equally to such amounts as it may be necessary to issue from time to time. The amount of capital required will of course depend upon the magnitude of operations and for some time to come the capital requirements will not likely exceed $3,000,000. due to the restricted supply of essential materials.

After discussion, it was moved and unanimously carried that the aforementioned report be accepted and ordered filed; that the plan of formation and organization of the Ethyl Gasoline Company be approved; and that the proper officers of this Corporation be authorized to subscribe and pay for our pro rata share of common stock of Ethyl Gasoline Company up to an aggregate not exceeding $1,500,000. representing at all times a one-half interest in the common stock of said company.

* * * * * * *

A true copy.

(Signed) *George A. Brooks.*
Secretary

Note: Italics indicate handwriting.

Exhibit I

AGREEMENT, made this 1st day of August, 1924, between GENERAL MOTORS CORPORATION, a corporation of Delaware, hereinafter called "GENERAL MOTORS", first party, and STANDARD OIL COMPANY, a corporation of New Jersey, hereinafter referred to as the "STANDARD COMPANY", second party, WITTNESSETH:

WHEREAS, GENERAL MOTORS, directly and through its subsidiaries, is engaged in the manufacture and sale of automobiles and parts thereof in the United States of America and abroad, and has heretofore conducted research and experimental work for the purpose of increasing the efficiency of gasoline engines, and expects to continue such work; and is the owner of certain inventions relating to improvements in anti-knock agents for motor fuels, and is presently engaged through one of its subsidiaries, General Motors Chemical Company, in the exploitation of said inventions, and has entered into contracts with various gasoline distributors, including, among others, the STANDARD COMPANY and the Standard Oil Company of Louisiana, granting to said distributors for a limited time the exclusive right to use said inventions within the territory prescribed; and

WHEREAS, the STANDARD COMPANY, directly and through subsidiaries, is engaged in the production, transportation and refining of crude oil for the production of gasoline or motor fuel, in the United States and abroad, and has heretofore conducted research work directed toward increasing the supply, reducing the cost and improving the quality of motor gasoline, and expects to continue such work and is now the owner of certain inventions relating to processes of producing materials to be used for addition to motor fuel to improve the same with respect to its susceptibility to detonation; and

WHEREAS, at the present time there are subsbtantial differences in the quality and performance characteristics of the various brands of gasoline and motor fuel sold in the United States and abroad, especially with respect to volatility and resistance to detonation, and

there is no satisfactory method by which the consumer may determine the brand best suited to his requirements; and

WHEREAS, it is deemed desirable by the parties hereto to provide for the general distribution and sale in the United States and abroad of a high quality non-detonating motor fuel under a name or names capable of identification by the consumer; to secure a workable means for defining and insuring the maintenance of a minimum quality standard for such motor fuel based upon sound technical and economic principles and flexible with regard to varying conditions, and to devise or discover and to employ commercially such improvements in anti-knock agents so as to raise without additional cost the standard of quality of gasoline with respect to resistance to detonation, or to reduce the cost of gasoline while maintaining the same standard of quality,

NOW, THEREFORE, in consideration of the premises, the covenants herein contained and other valuable considerations, the parties hereto hereby agree as follows:

1. To form a corporation under the laws of the State of Delaware, or such other jurisdiction as may be agreed upon, to be called "ETHYL GASOLINE CORPORATION", here-

inafter referred to as the "ETHYL COMPANY", with an authorized capital stock of Five Million Dollars ($5,000,000.00), or such other amount as may in the judgment of the parties hereto be required to carry out the purposes of this agreement.

The stock of said Company shall be issued from time to time in equal portions to the parties hereto at par, payable in cash. Said Company shall acquire from the General Motors Chemical Company all of its physical assets now used in connection with its business of the sale and distribution of anti-knock mixture, at the replacement cost thereof.

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2. The STANDARD COMPANY agrees to grant to the ETHYL COMPANY an exclusive license in the United States and abroad under its patent rights on anti-knock mixtures, which license will be in the form of Exhibit A hereto attached.

3. The STANDARD COMPANY further agrees on behalf of itself and the Standard Oil Company of Louisiana that on request of the General Motors Chemical Company each of them will surrender its present exclusive license for the sale of antik-knock mixture and will take in lieu thereof a non-exclusive contract from the ETHYL COMPANY substantially in the form of Exhibit B hereto attached, or in such other form as may be satisfactory to all the parties; and GENERAL MOTORS agrees that the General Motors Chemical Company will assign to the ETHYL COMPANY its business and good will of selling anti-knock mixtures, its interest in any and all existing contracts for the purchase and distribution of said mixtures, the constitutents thereof and apparatus used in connection therewith, together with any and all trade names, trademarks or rights in respect

thereto in the United States of America and foreign countries, such assignment to be effective as of August 1st, 1924.

4. GENERAL MOTORS agrees that the General Motors Research Corporation will grant to the ETHYL COMPANY an exclusive license under its patent rights on anti-knock mixtures for the United States of America and foreign countries, subject to the terms and limitations therein expressed, for a royalty equal to one-fourth of the net profits of the ETHYL COMPANY resulting from the distribution and sale, and not the manufacture, of royalty bearing compounds, which license will be in the form of Exhibit C attached hereto.

5. The control of the affairs of the ETHYL COMPANY shall be vested in its Board of Directors, consisting of an even number, for the election of which cumulative voting shall be provided, to the end that the parties hereto as owners of one-half of the outstanding stock of said ETHYL COMPANY, may each elect one-half of the directors. To constitute a quorum at least one director in addition to one-half of the total number of the Board must be present, and action by the Board shall require at least the concurrence of a like number of directors.

6. In the event that either party hereto desires to sell, transfer, assign or mortgage any of its shares in the ETHYL COMPANY, the other party, subject to the prior right granted to the ETHYL COMPANY, shall have the right at its option to purchase all or any part of the shares then owned by the party desiring to sell or transfer any of the stock owned or

held by it. The price per share shall be the book value thereof as set forth on the books of the ETHYL COMPANY as of the end of the month preceding the date when notice in writing is given of the desire to sell, and in the event of a dispute in regard thereto the price shall be determined by a firm of public accountants in the same manner as provided for the determination of differences in respect to royalties in the license agreement (Exhibit C), and their award in respect thereto shall be final and conclusive.

7. It shall be the policy of the ETHYL COMPANY to license generally distributors of motor fuels in the United States on the same basis as nearly as may be, having regard to the quantity of their purchases, and all other corporate matters shall be determined solely with reference to the interests of the ETHYL COMPANY in cases where there may be conflict between its interests and the interests of either or both of the parties hereto.

8. The ETHYL COMPANY shall purchase tetraethyl lead or other anti-knock agent in the open market at the lowest price at which it is offered and, to permit competitive bidding, shall offer to instruct and license any bona fide probable supplier, including the STANDARD COMPANY; provided, however:

Purchases shall be made from E. I. duPont de Nemours & Company under the existing contract between it and GENERAL MOTORS, copy of which is attached hereto (Exhibit D), until the expiration of said contract

or until a substitute therefor is made direct with the ETHYL COMPANY.

In witness whereof, the parties hereto have, each by due authority to the subscribing officers, executed these presents the day and year first above written.

General Motors Corporation

By

/Alfred P. Sloan, Jr./
President

Attest:

/L. R. Beardslee
Asst. Secretary

Standard Oil Company

By:

/S. B. Hunt/
Vice President

Attest:

/C. T. White/
Secretary

"EXHIBIT A"

For and in consideration of One Dollar ($1.00) and certain other valuable considerations, the receipt of all of which is hereby acknowledged, STANDARD OIL COMPANY, a corporation of New Jersey, and STANDARD DEVELOPMENT COMPANY, a corporation of Delaware, do hereby grant and agree to grant unto the ETHYL GASOLINE CORPORATION, a corporation of Delaware, the exclusive right and license under their "patent rights" relating to anti-knock mixtures, for the full term of any patent or patents included within said patent right, and for all of the territory within which said patent or patents are effective, to make, use and sell the machines, articles of manufacture, arts or compositions of matter which constitute the subject matter of said "patent rights", and to license others to make, use and sell the same;

AND the Standard Oil Company and Standard Development Company do further agree to protect the Ethyl Corporation against the competition of infringers of the said "patent rights" by promptly bringing and diligently prosecuting to a conclusion, at their own expense, suits for patent infringement against such infringers if and when the Ethyl Corporation shall give them notice of the fact of any claimed infringement.

It is understood that certain "patent rights" of the Standard Oil Company and Standard Development Company are or may be held or acquired by the said Companies or one of them, subject to certain limitations created by existing contracts with others, and that as to such "patent rights" the Standard Oil Company and/or Standard Development Company grant hereunder only such rights as lie within their power to grant under the said existing contracts without the permission or consent of the other parties thereto. Subject to the foregoing, the Standard Oil Company and Standard Development Company warrant that they are directly or indirectly the sole, exclusive and lawful owners of the aforesaid patents and patent applications and the inventions upon which they are based, that said inventions comprise all the inventions relating to said subject matter owned by them or either of them, or by any company owned or controlled directly or indirectly by the Standard Oil Company, and that they have the right and capacity to grant the license herein specified.

The "patent rights" relating to anti-knock mixtures herein referred to are hereby defined as follows:

1. Any letters patent which may in the future issue for or upon the following applications for patents owned by the Standard Development Company (or held in trust by it) or upon any renewal or division or continuation thereof:

Country	Serial Number and Date	Title	Inventor
United States	403,656 8/16/20	Motor Fuel & Internal Combustion Operation	F. A. Howard
United States	628,734 3/30/23	Alloys	Kraus & Callis
Canada	292,485 6/13/24	Alloys	Kraus & Callis
United States	630,089 4/5/23	Art of Preparing Metallo-Organic Compounds	Kraus & Callis
United States	630,090 4/5/23	Preparation of Metals for Chemical Uses	Kraus & Callis
Canada	292,485 6/13/24	Preparation of Metals for Chemical Uses	Kraus & Callis
United States	630,091 4/5/23	Processes of Alkylation	Kraus & Callis

United States	631,940	Art of Making Metallo-Organic Compounds	Kraus & Callis
Argentine	27,562 4/8/24	"	"
Australia	17,173 4/4/24	"	"
Austria		"	"
Belgium	3,146 3/17/24	"	"
Brazil	9,747 4/2/24	"	"
Canada	286,139 3/24/24	"	"
Czecho-Slovakia	———————	"	"

Country	Serial Number and Date	Title	Inventor
England	7,382 3/22/24	Art of Making Metallo-Organic Compounds	Kraus & Callis
France	185,624 3/19/24	"	"
Germany	37,795 3/24/24	"	"
India	10,213 3/31/24	"	"
Japan	2,637 4/4/24	"	"
Italy	Pat No. 228,844 4/3/24	"	"
Hungary	4,488 3/19/24	"	"
Holland	26,633 5/23/24	"	"
Norway	30,246 3/17/24	"	"
Poland	13,795 4/4/24	"	"
Spain		"	"
Sweden	937,24 3/19/24	"	"
United States	631,941 4/13/23	Processes of Preparing Alkyl Compounds of Lead	"

Country	Serial Number and Date	Title	Inventor
United States	655,752 8/4/23	Making Metallo-Organic Compounds	"
Canada	292,486 6/13/24	"	"
United States	608,486 12/22/22	Vaporizer Control Devices	McKensie-Martyn
United States	609,913	Art of Controlling Combustion in Internal Com Engines	Howard & Writht

2. Any letters patent of the United States or of any foreign country which may in the future issue to or be acquired by the Standard Oil Company and/or the Standard Development Company and/or any corporation owned by the Standard Oil Company for any invention which is made before August 1, 1940, and which invention relates to or consists in or comprises:

(a) Any substance which, added to the explosive charge of an internal combustion engine in minute proportions as compared with the fuel, has an effect in preventing detonation which is equivalent to the effect produced by the addition of lead tetra-ethyl to present United States Government specification gasoline from Pennsylvania Crude petroleum in the proportion of three cubic centimeters per gallon of gasoline.

(b) Any composition or anti-knock mixture, including the substance defined in Paragraph (a) as its effective detonation suppressing agent and one or more other constituents having auxiliary utility.

(c) Any method or process for manufacturing or using the substance defined in Paragraph (a) or the mixture defined in Paragraph (b),—(not including however processes for the manufacture or refining of petroleum oil or of secondary alcohols from the unsaturated hydrocarbons of petroleum oil or products of refining the same.)

(d) Any equipment or apparatus for use in manufacturing, mixing or dispensing the substance defined in Paragraph (a) or the mixture defined in Paragraph (b).

The Standard Oil Company and the Standard Development Company agree that they will perform all acts and execute all instruments required under the laws of any country to vest in the Ethyl Gasoline Corporation the exclusive right and license herein granted.

In witness whereof, the Standard Oil Company and the Standard Development Company have caused this instrument to be executed by their duly authorized officers at the City of New York this 28th day of August , 1924.

STANDARD OIL COMPANY

By:

....

President

Attest:

....

Secretary

STANDARD DEVELOPMENT COMPANY

By:

....

President

Attest:

....

Secretary

ACCEPTED.

ETHYL GASOLINE CORPORATION

By:

....

President

THIS AGREEMENT, made this day of , 1924, between Ethyl Gasoline Corporation, a corporation organized and existing under the laws of the State of Delaware, having its principal offices at the City of New York, State of New York, hereinafter termed "Seller" and Standard Oil Company, a corporation organized and existing under the laws of the State of New Jersey, having its principal offices at the City of Bayonne, State of New Jersey, hereinafter termed "Buyer", Witnesseth:

Whereas, the Seller and its licensors have been and now are engaged in devising and developing certain materials to be mixed with the fuel (gasoline, kerosene or other motor fuel) for internal combustion engines, the object of such admixtures being to render such fuel nonknocking, and thereby to make it possible to use higher compression pressure in such engines without producing the detonation commonly known as "knock", and with the further advantage of increasing the power output of said engines with attendant economy of fuel consumption; and

Whereas, the Seller represents that the preferred material thus far developed from such admixture is an organic compound known as "tetraethyl lead"; and

Whereas, the Seller represents that when tetraethyl lead is mixed in the proportion of about three cubic centimeters per U. S. standard gallon with a straight run petroleum distillate consisting mainly of paraffin hydrocarbons (for example, straight run distillate from Pennsylvania crude), and just conforming to the "New Navy" Specifications for gasoline now in force, there is produced a motor fuel suitable for use in motors of sufficiently higher compression to warrant their general adoption, and which may be described as non-knocking fuel equal in this property to a mixture of sixty per cent. (60%) of the original fuel plus forty per cent. (40%) benzene (commercial 90%); and

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Whereas, the Seller represents that it has ascertained additions in the way of other materials or compounds necessary to prevent certain harmful secondary effects attendant upon the use of tetra-ethyl lead, the mixture of said materials or compounds with said tetra-ethyl lead constituting the mixture hereinafter referred to as "anti-knock mixture"; and

Whereas, the Buyer represents that it is engaged in the business of selling gasoline to the public, and is now selling and intends to sell during the continuance of this agreement a gasoline which is of high quality in all respects; and the Buyer further represents that it is desirous of distributing a gasoline which will in non-knocking characteristics be equivalent to 60% of the hereinbefore described straight run distillate plus 40% benzene (benzol) and that if the said anti-knock mixture will enable the Buyer to accomplish such purpose it is willing to purchase the same from the Seller in accordance with and subject to the hereinafter expressed terms and conditions,

Now therefore, in consideration of the premises and of the covenants and agreements hereinafter set forth, the said parties hereby agree as follows:

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1.

(a) The period of this contract shall be for two (2) years from date.

(b) The seller hereby appoints the Buyer, for the period of this contract and for the territory hereinafter defined, a distributor of its anti-knock mixture, and subject to the provisions hereinafter contained, agrees to fill the Buyer's requirements for such mixture for use and sale within said territory, which comprises the State of New Jersey, West Virginia, District of Columbia, Maryland, Virginia, North Carolina and South Carolina. *Note "A"

(c) The Buyer agrees that it will diligently push the sale and use of the Seller's anti-knock mixture in and throughout said territory, and that it will comply with the instructions of the Seller as to the manner of use of said mixture and as to the amount to be used with each grade of gasoline in order to secure the best results

therefrom and maintain the reputation and good will thereof, and that it will give similar instructions and advice to those to whom it may sell said mixture for use in said territory, and that it will devote its energies in this connection to the use and to the marketing of said mixture within said territory only.

(d) The Seller may, at its option, refuse to sell said anti-knock mixture to the Buyer and may terminate this contract upon thirty days' written notice whenever, in the opinion of the Seller, the Buyer is not diligently pushing and advocating the sale and use of the Seller's anti-knock mixture in said territory, or is failing to comply with the aforesaid instructions of the Seller, or is using or selling said mixture in or for use in other territory, or is in any respect failing to comply with its obligations hereunder.

2.

(a) The Seller shall, at its own expense, deliver to the Buyer, or to others designated by the Buyer in said territory, on Buyer's orders from time to time, mixing meters and attachments for the sale and mixing of anti-knock mixture, but not more than one for each location unless, in the opinion of the Seller, more than one is warranted by the business in any such location. The Buyer shall cause these to be installed within said territory as promptly as practicable, after demonstration and instruction to be furnished at the Seller's cost, and shall notify the Seller as to the location of each installation. The Seller shall furthermore reimburse the Buyer for the expense of such installation, not to exceed One Dollar ($1.00) for each installation.

The Seller shall have the right to install any Ethylizer thirty days after shipment if the Buyer has for any reason failed to do so.

(b) The Seller shall keep all mixing meters and attachments therefor in good operative order and repair at its own expense during the continuance of this agreement, and shall, upon being notified by the Buyer that any thereof need attention, repair or replace the same promptly. The Seller or the Seller's agent shall be afforded every

reasonable facility and opportunity to enable its properly to inspect any of said meters and attachment therefor whenever it may so desire.

(c) The Seller further agrees, without expense to the Buyer and upon the Buyer's request, to equip any or all bulk stations within said territory with apparatus suitable for mixing said anti-knock mixture with gasoline in bulk, to enable the said mixture to be dispensed from bulk supplies. All such apparatus shall be kept in good order and repair by the Buyer and surrendered to the Seller in good order, less ordinary wear and tear, upon the Buyer wholly ceasing to vend said mixture. The seller agrees to furnish and deliver without cost to the Buyer, at such place or places as may be designated by the latter, all such extra parts as may be reasonably required to keep the said apparatus in good order and repair.

(d) All of said mixing meters and attachments therefor and bulk station apparatus and parts shall be and remain the exclusive property of the Seller, and are hereby leased to the Buyer (with the right to sub-lease to its customers) at $1.50 per annum for each mixing meter and attachments therefor and $ per annum for bulk station equipment, which the Buyer hereby agrees to pay. Any of them at any time may be surrendered to the Seller or, on notice to and consent of the Seller, may be removed by the Buyer to any new location in said territory, the expense of reinstallation at a new location to be borne by the Buyer. The Buyer shall exercise reasonable diligence for the care and protection of all said mixing meters and attachments and shall be liable or responsible therefor, only for want of the exercise of such reasonable care and caution, and shall not be liable if, although having exercised all such care and caution, the same are lost, stolen or injured.

(e) None of the Mixing meters, attachments therefor or apparatus mentioned in this paragraph shall, during the life of this contract, be removed by the Seller without the consent of the Buyer so long as the same continue to be used for the purpose of vending said anti-knock mixture. Reasonable access thereto shall at all times be granted to the Seller and its representatives.

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(f) The Buyer agrees to order from the Seller such quantity of anti-knock mixture as may be reasonably necessary to supply the demands of the public at all such locations in said territory as shall have been equipped with mixing meters and bulk station apparatus, and the Seller will fill all such orders with reasonable business promptness barring unavoidable delay.

(g) The Seller will ship for account of the Buyer and on Buyer's orders and instructions, freight prepaid, anti-knock mixture in suitable containers, which containers shall be the property of the Seller and shall be returned to it at such place or places as the Seller may from time to time designate and at the Seller's cost.

(h) The Buyer recognizes that in order to secure reasonably satisfactory results from adding such anti-knock mixture to gasoline, there should be used such proportion of anti-knock mixtures as may be necessary to maintain the standard of anti-knock values set forth in the preamble of this agreement, and that it would be detrimental to the good will in, and reputation of, said mixture if it were used in gasoline not conforming to at least the following standard of quality;

(Insert-Summer Spec.) To be different according
Winter Spec.) to time and conditions.

and that the use of said mixture in such proportions as not to maintain said minimum standard or in gasoline not conforming to at least the said standard will constitute a cause for termination of this agreement under paragraph I hereof.

The Buyer agrees to supply to the Seller on the first of each month a laboratory inspection report in substance the same as that hereto attached, showing the quality of all current deliveries of gasoline in which Seller's anti-knock mixture has been or will be used, and the Seller and its representatives shall at all times be permitted to sample the gasoline sold by the Buyer treated with said mixture and in general to inspect the premises where and the manner in which said mixture is being sold by the Buyer.

3.

The price to be paid by the Buyer to the Seller for said anti-knock mixture shall be based upon the quantity of tetraethyl lead contained in the anti-knock mixture furnished to the Buyer and shall be Ten Dollars ($10.00) for each liter thereof contained in said mixture, delivered at such points as may be designated by the Buyer from time to time, payment to be made within ten days after delivery. The proportion of tetra-ethyl lead in said mixture shall, however, at no time during the continuance of this agreement, be less than one and three quarters liters in each five liters of said mixture, unless some agreement as to the cost thereof be arrived at between the Buyer and Seller.

The Buyer shall be entitled to and shall receive the following quantity discounts: For all purchases above 50,000 liters of anti-knock mixture in any one year, a discount of 10%; for all purchases above 100,000 liters in any one year, a further discount of 5%.

Should the Seller reduce the price of said tetraethyl lead or sell the same within the United States at a less price or with a greater or more favorable discount to any other purchaser during the continuance of this agreement, it will give a similar reduction to the Buyer.

4.

The Seller elects to call the gasoline when mixed with the said anti-knock mixture "Ethyl Gas", unless adverse trademark rights should develop, and the Buyer agrees that all its advertisements of the same and the advertisements of those to whom it sells for resale shall embody the word "Ethyl" or Ethylized", though not if such adverse trademark right develop, in which event the Buyer agrees that said advertisements shall embody some other suitable word or words free to be used and which the Seller may elect to be employed therein.

It is understood and agreed, however, that any and all responsibility for trademark, label or analogous infringement, including rights relating to unfair competition, with which the Buyer or those to whom it sells for resale, may be charged for employing in such advertisements any word or words which the Seller shall so elect to employ, shall

be assumed by the Seller, provided that it is promptly notified of such claims and permitted to have full control of defending against the same; and, under such circumstances the Buyer and its customers shall be held harmless from all such claims, and the Seller shall, at its own expense, defend any or all litigation based on the use of such word or words and pay any judgment or judgments that may be awarded to the plaintiff in the premises, or the amount of any settlement therein, if settlement be made by the Buyer with its consent.

5.

The Seller shall advertise in its own name and at its own expense, the said anti-knock mixture, in and for the territory covered by this contract, the character of such advertising and the medium thereof to be solely in the Seller's discretion. All such advertising, however, that contains the Buyer's name or refers in any way to the Buyer's products shall be submitted to the Buyer and its approval obtained before being published. The cost of all such advertising shall be determined by the Seller but shall not be less, in the aggregate amount during any six months' period of this agreement than two per cent (2%) of the amount paid by the Buyer for the anti-knock mixture purchased from the seller during the next preceding six months' period. Where any such advertising, however, partakes of a general character and is not solely confined to the aforesaid territory, a fairly proportionate amount of the cost thereof shall be allocated to and included in said two percent.

6.

If the Buyer or those to whom it sells for resale charges the user for gasoline treated with anti-knock mixture under this contract more than three cents (3¢) per gallon of treated gasoline in excess of the then sales price of untreated gasoline, it shall be considered that the sale of said mixture is not being properly and adequately pushed under this contract, and that the Seller may thereupon terminate this contract under the provisions of paragraph 1 hereof.

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7.

For the purposes of this agreement, anti-knock mixture or material is defined to mean any substance which, when added in a very small amount to gasoline or other motor fuel, tends to suppress detonation.

During the period of this contract the Buyer agrees:

(a) Not to use commercially or sell any anti-knock mixture or material which infringes upon Seller's patent rights, as they may exist from time to time during the term hereof.

(b) Not to use other than Seller's anti-knock mixture in Seller's mixing meters or attachments or bulk station apparatus.

8.

The Seller shall prepare and supply to the Buyer two forms of information and instruction, one for the guidance of service station and garage employees and any other who may handle the anti-knock mixture or dispense the gasoline, and a second form of directions and information for the consumer. These instructions shall be printed in convenient form by the Seller and delivered to the Buyer in sufficient quantities for distribution, and the Buyer shall cause them to be distributed in its territory; and should any suit or suits be brought against the Buyer, or its customers, for injury to person or property arising from the handling or use of any of said mixture that may have been furnished by the Seller and it be established in the prosecution of such suit or suits that, although all of the provisions of said directions were fully complied with by the claimant, such injury nevertheless occurred. the Seller will defray the entire expense of settling the same, or if not settled out of Court, the Seller shall pay all of the costs of any such litigation, together with the full amount of any judgment that may be rendered against the Buyer and/or its customers. The Seller shall be promptly notified by the Buyer of any such claim or suit and it shall be represented by its own counsel in all negotiations or proceedings relative thereto and may assume exclusive charge thereof if it so desires. In case of any liability

for injury to person or property arising from the handling or use of any of said mixture other than that covered by the foregoing portion of this paragraph and not due to the negligence or carelessness of either party hereto, their employees, agents and representatives, for which they shall be exclusively liable, such liability and any and all expense incident thereto shall be borne equally by the Seller and Buyer, it being understood that no settlement of any claim for liability shall be made except by mutual agreement of the parties hereto.

If the Seller finds and brings to the attention of the Buyer that any employee of the Buyer, and/or its customers, is disregarding the aforesaid printed instructions, it will be considered that the Buyer is not properly handling the business under this contract.

9.

The Seller agrees at its own expense to defend the Buyer, and/or its customers, in any action or actions that may be brought alleging that the use and/or sale of anti-knock mixture so supplied by the Seller infringes any Letters Patent of the United States, and agrees to pay any and all judgments for damages or profits arising out of such litigation that may be assessed against the Buyer and/or its customers, thereby saving them harmless therefrom; all provided, however, that the Seller shall be given prompt notice of any claim of infringement or suit therefor and is permitted to have full charge of the defense of any such suit or suits.

10.

The Seller has not as yet obtained Letters Patent of the United States for or relating to any of the anti-knock materials or compounds or mixers or other apparatus named in this agreement, but has applications therefor, or for some thereof, pending in the United States Patent Office and will procure the issuance as soon as practicable of Letters Patent upon at least one of such applications relating to said mixture. The Seller hereby grants and agrees to grant to the Buyer such non-exclusive licenses under any such patents as may be

necessary in connection with the sale and use of the mixture under this contract.

And the Seller hereby agrees that it will, at its own expense, bring and prosecute diligently through the Court or Courts of last resort, or otherwise, to final adjudication, proceedings against infringers in said territory of any United States Letters Patent which may be granted to the Seller for anti-knock materials and/or mixtures (but it shall not be obliged to prosecute more than one such suit at one time), to the end of establishing its rights under such Letters Patent and protecting the Buyer, and its customers, in their rights hereunder, it being understood that the Buyer shall be entitled to representation by its own counsel in any such litigation.

11.

All of said mixture that may be sold by the Seller to any distributors of gasoline within the territory other than the Buyer shall be practically the same in effect as the mixture sold to the Buyer hereunder, and, if the Seller at any time sells said mixture to anyone in the territory of the United States on more favorable terms than those hereof, the Buyer shall be so advised by the Seller and be entitled to the benefit thereof.

12.

The Buyer agrees for and during the term of this contract to acknowledge the validity of all Letters Patent issuing upon the aforesaid applications or upon applications hereafter filed by the seller relating to or to the use of the mixtures, mixers and apparatus under this agreement, and agrees not to contest the validity of the said Letters Patent or to directly or indirectly aid or abet others in doing so.

13.

All of ~~the~~ terms and provisions of this agreement as well as any extension or continuation thereof shall inure to the benefit of and be binding upon the successors of each of the parties hereto. So much thereof relating to the sale, distribution, ownership, installa-

tion and inspection of said mixture and apparatus as is deemed desirable by the Seller may be executed by corporations or a corporation formed by the Seller for said purpose.

In testimony whereof, the parties hereto have, each by due authority to the subscribing officers, executed these presents the day and year first above written.

Ethyl Gasoline Corporation
By:
....
President

Attest:
....
Secretary

Standard Oil Company
By:
....
President

Attest:
....
Secretary

Note "A"—In the case of the Standard Oil Company of Louisiana, the territory of the contract shall be the States of Louisiana, Tennessee and Arkansas.

Exhibit C

AGREEMENT, made this 28th day of August, 1924, between General Motors Corporation, a corporation of Delaware, herein referred to as "General Motors", first party, General Motors Research Corporation, a corporation of Delaware, herein called "Research Company", second party, and Ethyl Gasoline Corporation, also a Delaware corporation, hereinafter referred to as "Ethyl Company", third party, witnesseth:

Whereas, the Ethyl Company has been formed by General Motors and the Standard Oil Company, a corporation of New Jersey, pursuant to the terms of an agreement between them dated August 1st, 1924, for the purpose, among other things, of becoming the exclusive licensee under the inventions hereinafter referred to; and

Whereas, the Research Company is a subsidiary of General Motors and is the owner of various inventions in anti-knock agents or mixtures for motor fuels and in particular of the following pending applications for Letters Patent and Letters Parent of the United States of America and the foreign countries specified below:

United States Patent Number	Title	Date	Inventor
1,296,832	Fuel for Internal Combustion Engines	Mar. 11, 1919	Thomas Midgley, Jr.
1,467,905	Hydrogenation Furnace	Sept. 11, 1923	Thomas Midgley, Jr.
1,446,984	Method of Revivifying Spent Catalysts & Apparatus Therefor	Feb. 27, 1923	Thomas Midgley, Jr.

Serial Number	Title	Inventor
256,874	Motor Fuel	Thomas Midgley, Jr.
362,139	Fuel	Thomas Midgley, Jr.
663,505	Prevention of Fuel Knocks	Thomas Midgley, Jr.
553,040	Method and Means for Increasing Efficiency of Internal Combustions Engines	Charles F. Kettering and Thomas Midgley, Jr.
684,255	Method and Means for Using Low Compression Fuels	Charles F. Kettering and Thomas Midgley, Jr.
592,435	Method and Means for Treating Motor Fuels	Thomas Midgley, Jr.

Serial Number	Title	Inventor
553,270	Method and Means for Using Motor Fuels	Thomas Midgley, Jr
640,274	Fuel	Thomas Midgley, Jr
663,494	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,495	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,497	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,498	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,499	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,500	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,501	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,502	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
663,503	Method and Means for Using Low Compression Fuels	Thomas Midgley, Jr
553,021	Process of Making Anti-Knock Fuel	Thomas Midgley, Jr
645,465	Method for Producing Lead Compounds	Brian Head
640,275	Process for Making Compounded Metallic Elements	Thomas Midgley, Jr
661,515	Process of Making Lead Alkyls	Merrill A. Youtz
648,782	Method for Producing Lead Compounds	George Calingaert

Serial Number	Title	Inventor
686,924	Process of Producing Alkyl Compounds of Lead	George Calingaert
417,162	Aniline Injector	Thomas Midgley, Jr.
431,528	Method and Means for Incorporating an Anti-Knock Substance with a Motor Fuel Mixture	Fred E. Aseltine
636,892	Method of Cracking Hydrocarbons	Thomas Midgley, Jr.
663,478	Method and Means for Removing Carbon Deposits from Engine Cylinders	Thomas Midgley, Jr. and Carroll A. Hochwalt
663,487	Method and Means for Removing Carbon Deposits from Engine Cylinders	Carroll A. Hochwalt
666,260	Process of Producing Dialkly Selenides and Telluridas	Carroll A. Hochwalt
695,846	Fuel Mixing Apparatus	Thomas Midgley, Jr.

British Patent Number	Title.	Date	Inventor
196,237	Improvements in and relating to Fuels for Internal Combustion Engines	Dec. 27, 1923	Thomas Midgley

together with all applications for Letters Patent in foreign countries now pending in respect to the said subject matter covered by the foregoing or any part thereof; and

WHEREAS, the ETHYL COMPANY is desirous of acquiring certain license rights thereto, including the right to sell to motor fuel distributors the royalty bearing compounds or mixtures manufactured under the inventions herein referred to.

NOW, THEREFORE, in consideration of the promises, the covenants herein contained and other valuable consideration, it is hereby agreed by and between the parties hereto as follows:

1. General Motors and Research Company warrant that they are directly or indirectly the sole, exclusive and lawful owners of the aforesaid patents and patent applications and the inventions upon which they are based, that said inventions comprise all the inventions relating to said subject matter owned by them, or either of them, or by any company owned or controlled directly or indirectly by General Motors, and that they have the right and capacity to grant the license herein specified.

2. General Motors and Research Company do, and each of them does, hereby grant unto the Ethyl Company the exclusive right and license to make, use and sell, and to license others to make, use and sell, within the United States of America, its territories and possessions, and in the foreign countries embraced in the patents and patent applications specified above, the inventions constituting the subject matter of said patents and patent applications, or any of them, to the end of the term or terms for which said letters Patent have been or may be granted.

3. The Ethyl Company agrees to pay General Motors at its office, No. 224 West 57th Street, in the City of New York, commencing January 1, 1925, and continuing during the lives of the aforesaid patents and of any patents to be issued upon said applications, or any of them, or any division or renewal of any of them, as royalty, a sum of money equal to one-fourth of its yearly profits resulting from the distribution and sale (not the manufacture) of royalty bearing compounds adapted for use as anti-knock agents or mixtures and covered by any of the aforesaid patents or any claim of any patent granted upon any of the

aforesaid patent applications, or divisions or renewals thereof. In determining said royalty there shall be first deducted from said yearly profits as shown by the books of the Ethyl Company an amount equal to the income or profits taxes which will be payable for or on account of the year's business, and a further sum equal to Twenty-two and One-half Per Cent. (22½%) of the average capital and surplus (mathematical mean of capital and surplus employed at beginning and end of accounting period) employed by the Ethyl Company during the accounting period in its business of selling and distributing (but not manufacturing) said royalty bearing compounds or mixtures. After the first yearly payment of royalty as above provided, payments based upon estimates arrived at from the preceding yearly figures and upon the current business, shall be made monthly on the tenth of each month, subject to adjustment at the end of such yearly period.

For the purpose of determing the profits of the Ethyl Company from the manufacture of anti-knock agents or mixtures, products so manufactured shall be billed by the Manufacturing Department to the Sales Department at the average price (weighted average) paid by the Ethyl Company to outside suppliers of the same products during the same period.

4. Ethyl Company agrees to keep true and accurate books of account showing said profits, and to give unconditional access thereto

during business hours to General Motors and its representatives, and further agrees to render at the time that royalties are due hereunder a true and accurate statement in writing showing the profits as aforesaid and the details of the computation thereof, the yearly statement thereof to be certified to by either Haskins & Sells, Price Waterhouse & Company or Barrow, Wade & Guthrie, certified public acountants, or by a substitute firm to be selected by the parties hereto in case of the inability of any of said firms to act. Either party dissatisfied with the report of the first of said accountants selected shall have the right to have either of the other accountants render a statement and the amount of royalty due in respect of said period shall be the average of said two statements.

5. All undertakings by the ETHYL COMPANY on its part to be kept and performed are each and all of the essence of this agreement, for the default in the performance of any of which for a period of sixty (60) days after notification in writing of such claimed default the GENERAL MOTORS and/or RESEARCH COMPANY shall have the right to terminate forthwith all the herein granted rights of the ETHYL COMPANY in and to said inventions, patent applications and patents to be issued thereon free of any claim of said ETHYL COMPANY, by notifying said ETHYL COMPANY in writing to that effect at its last known place of business; provided, however, that said default or violation has not theretofore been rectified, cured and made good within said sixty (60) days.

6. The omission of the first or second party to exercise any right hereunder shall not be construed as a waiver of any other default, and it is further agreed that proof of any violation or default by the ETHYL COMPANY and of the giving of the notice herein provided shall be sufficient forthwith to completely reinvest GENERAL MOTORS and the RESEARCH COMPANY with all the right and interest of the ETHYL COMPANY under said Letters Patent and Patent

applications without any further step or proceeding whatsoever, subject, however, to the right of the ETHYL COMPANY to rectify, cure and make good any default as hereinbefore provided.

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7. The ETHYL COMPANY hereby agrees to acknowledge the validity of each and all of the Letters Patent that may be issued on the applications recited herein and agrees not to contest the same or to directly or indirectly aid or abet others in so doing.

8. The ETHYL COMPANY agrees that on each and every container or package of compound or mixture manufactured or sold by it under this agreement, after receipt of notice from the first party of the issuance of any patent on the above-recited patent applications, it will mark the word "Patented", the dates of the patents involved and any other notation requested by the first party to protect the rights of the first party in the observance of the requirements of the United States Patent Statutes or the Patent Laws of any foreign country under which patents may be issued.

9. In any of the following events, this agreement shall cease and terminate, and all payments provided for herein shall immediately become due and payable, without any notice or act by the first party: the filing by the third party of a voluntary petition in bankruptcy, the making by the third party of a general assignment for the benefit of creditors, with or without preference, the application by the third party for a receiver of its property, and the determination of its property, and the determination of its insolvency, in any proceedings brought against the third party, or the admission of insolvency by the third party.

10. The license herein granted shall also extend to any Letters Patent of the United States or of any foreign country, which may in the future issue to or be acquired by GENERAL MOTORS and or the RESEARCH COMPANY and/or any corporation owned by GENERAL MOTORS, for an invention which is made before August 1, 1940, and which invention relates to or consists in or comprises:

(a) Any substance which, added to the explosive charge of an internal combustion engine in minute proportions as compared with the fuel, has an effect in preventing detonation which is equivalent to the effect produced by the addition of lead tetraethyl to present navy specification gasoline from Pennsylvania crude oil in the proportion of three cubic centimeters per gallon of gasoline;.

(b) Any composition or anti-knock mixture including the substance defined in Paragraph (a) as its effective detonation-suppressing agent and one or more other constituents having auxiliary utility;

(c) Any method or process for manufacturing or using the substance defined in Paragraph (a) or the mixture defined in Paragraph (b),—(not including however processes for the manufacture or refining of petroleum oil or of secondary alcohols from the unsaturated hydrocarbons of petroleum oil or products of refining of the same):

(d) Any equipment or apparatus for use in manufacturing, mixing or dispensing the substance defined in Paragraph (a) or the mixture defined in Paragraph (b).

It is expressly agreed that the ETHYL COMPANY shall not be obligated to pay any royalties for or on account of the license granted in this Paragraph, payment of royalties being limited to the license granted in Paragraph "2" hereof.

11. The first and second parties agree to protect the ETHYL COMPANY against competition of infringers. Upon receipt of notice from the ETHYL COMPANY of the fact of said claimed infringement of the patent rights covered hereby, they will promptly bring and diligently prosecute to final adjudication, at their own expense, suits for patent infringement against such infringers.

12. After two years from the date of execution hereof all liability of the ETHYL COMPANY as to royalty on account of the use of any invention in any country upon which no patent shall then have issued in such country shall cease, and shall be revived only if and when a patent or patents shall have issued in such country for such invention; except that if at the end of said two years an application for patent for such invention shall contain allowed claims which are involved in interference proceedings in the United States Patent Office or in analogous proceedings in any foreign country, then the ETHYL COMPANY's obligation to pay royalties thereon shall extend for a further period of two (2) years unless such interference shall have been finally determined prior to the expiration

of such two years. If any patent included within the scope of this license shall be held invalid or not infringed by a court of last resort, or by a lower court from whose decision no appeal is seasonably taken, then thereafter no royalties shall be payable hereunder on account of the use by the

ETHYL COMPANY of the subject matter covered by the claim or claims so held invalid, or on account of the use of processes of apparatus or anti-knock agents or mixtures in such decision held not to infringe such patent; the liability of the ETHYL COMPANY for royalties under other applications or patents not held invalid nor held not infringed remaining, however, unaffected by such decision. In the event, however, that in a second suit brought by GENERAL MOTORS the claim or claims so held invalid shall be held to be valid, or the process or apparatus or anti-knock agents or mixtures held to be non-infringing shall be held to be infringing, then the ETHYL COMPANY shall be obligated to pay any royalties which may have accrued between the date on which royalty payments ceased in pursuance of the results of the first case and the date of the second decision, and shall thereafter continue to pay royalties just as though the first adjudication of the patent had not taken place, and the ETHYL COMPANY shall continue to pay royalties until said second decision shall be reversed by a court of last resort or by a lower court from whose decision no appeal is seasonably taken.

13. The first and second parties further agree to perform all acts and execute any and all instruments that may be necessary under the laws of any country, to vest in the ETHYL COMPANY the exclusive right and license herein granted.

14. It is understood that the present agreement is subject to outstanding license agreements heretofore granted by the General Motors Chemical Company to the Standard Oil Company of Indiana, the Standard Oil Company of New Jersey, the Standard Oil Company of Louisiana; the Refiners Oil Company, of Ohio, the Gulf Refining Company

and the Waverly Oil Company (Pittsburgh) for exclusive rights within the territory in said agreements specified for a definite time.

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In Witness Whereof, the parties hereto have caused these presents to be executed by their respective officers thereunto duly authorized, and their corporate seals to be hereto affixed, the day and year first above written.

General Motors Corporation

By:

....

President

Attest:

....

Ass't. Secretary

General Motors Research
Corporation

By:

....

President

Attest:

....

Secretary

Ethyl Gasoline Corporation

By:

....

President

Attest:

....

Secretary

Exhibit D

THIS AGREEMENT, made this sixth day of October, 1922, between E. I duPont de Nemours & Company, a corporation of the state of Delaware, hereafter referred to as "Manufacturer", party of the first part, and General Motors Corporation, also a corporation of the State of Delaware, hereinafter referred to as "Purchaser", party of the second part.

Whereas, the Purchaser is now engaged in developing certain anti-knock compounds known generally as "tetra valent lead compounds", and

Whereas, the Purchaser is desirous that said compounds be manufactured for and sold to it by the Manufacturer, and the Manufacturer is willing so to do in accordance with the following terms and conditions.

Now, therefore, this agreement witnesseth that in consideration of the premises and of the sum of Five Dollars ($5.00) paid by each of the parties hereto unto the other, the receipt of which is hereby acknowledged by each of said parties, it is hereby agreed:

First: The Manufacturer agrees to install such equipment and apparatus as may be necessary to produce at least thirteen hundred pounds (1300) a day of said anti-knock compound, the formula for which has been heretofore furnished to it by the Purchaser, and shall sell and deliver the same to the Purchaser f.o.b. Wilmington at the rate of two dollars ($2.00) for each of such pounds, such delivery of said compound to the Purchaser shall begin not later than four months from the date that the Purchaser may notify the Manufacturer that it is prepared to accept the same, and shall continue at the rate of approximately thirteen hundred pounds per day for the period of one year after the date of such notification, it being understood however, that the aggregate number of daily shipments embraced within said year shall not exceed three hundred.

Invoices shall be rendered by the Manufacturer to the Purchaser on the first day of each month during the continuance of this agreement for all such deliveries made to it during the preceding month and paid promptly and in due course by the Purchaser,

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SECOND: Should the Purchaser desire to change or alter the formula of said compound at any time during the continuance of this agreement, it shall have the right so to do, but such change shall not become effective until three months after written notice of such desire has been delivered by it to the Manufacturer, unless the Manufacturer elects to furnish the same within a shorter time.

Should any such change in said formula occasion a change or alteration in the premises or apparatus used by the Manufacturer in manufacturing said compound, the full cost thereof shall be borne by the Purchaser and the Purchaser shall also pay the Manufacturer any additional cost incident to such manufacture. If, however, such change of formula results in a less cost to the Manufacturer, the Manufacturer shall give the Purchaser the benefit thereof.

THIRD: If during the aforementioned period of one year the Purchaser shall desire the Maunfacturer to deliver to it a greater quantity of said compound than thirteen hundred pounds per day, and the Manufacturer is unwilling or unable so to do, the Purchaser shall be at full liberty to manufacture or cause to be manufactured any such remaining quantity.

FOURTH: The Purchaser shall, not later than three months from the termination of the period of one year mentioned in the first paragraph hereof, and prior to three months from the termination of each succeeding year thereafter, notify the Manufacturer in writing of its daily requirements for said compound for the succeeding twelve months and the Manufacturer shall, within thirty days from the date it receives said notice, advise the Purchaser in writing whether or not it will furnish the same, the price thereof, the dates of deliver and the approximate number of pounds to be delivered. Should the Manufacturer be unable or unwilling to furnish the whole number of pounds of said compound desired by the Purchaser, it shall advise the Purchaser within thirty days from the date it receives said notice, and shall at the same time advise the Purchaser of the number of pounds it will furnish per day and the price thereof, and the Manufacturer shall then be at full liberty to manufacture or cause to be manufactured for it such remaining number of pounds.

—33—

FIFTH: The price of Two Dollars ($2.00) per pound for said compound as stated in the first paragraph hereof, shall not be subject to change during the period of one year as therein mentioned, except as provided in the second paragraph hereof, but the price quoted for such compound for the yearly requirements of the Purchaser as mentioned in the third paragraph hereof, shall if greater than the Purchaser finds it can produce or manufacture the same for on its own behalf, plus a reasonable profit to the Manufacturer, or the cost thereof to it by some other manufacturer, then the Manufacturer shall reduce its price accordingly, and if unwilling so to do, the matter shall be referred to arbitration, as provided in the eighth paragraph hereof.

SIXTH: It is understood that this agreement is to be a continuing one, and is subject to cancellation by the Purchaser only in the event of the Manufacturer failing to perform its obligations hereunder, but the Manufacturer may cancel the same at any time after a notice in writing of such intention given by it to the Purchaser at least twelve months prior to the date of such intended cancellation. The Manufacturer shall also undertake to deliver to the Purchaser during each year of this agreement, including the twelve months succeeding the date of said cancellation notice, if given, a number of pounds of said compound at least equal to the number thereof furnished by it during the preceding twelve months.

Should the Purchaser desire to discontinue the use of anti-knock compound during the first year of this agreement, it may cancel the same but should it do so, it shall take over, at cost, such materials as may have been provided by the Manufacturer for the purpose of complying with its obligations hereunder and shall purchase all such finished product as the Manufacturer may have produced at $2.00 a pound. The Purchaser shall also pay the Manufacturer the portion of the cost of the plant constructed for such production as the unfilled portion of the order bears to the total order.

SEVENTH: The manufacturer agrees that it will not manufacture said compound for any other person and will not during the continuance of this agreement manufacture or sell any anti-knock compound for or on account of any person other than the Purchaser, whether of a like or similar nature without the consent of the Purchaser. Further, the Manufacturer agrees that if at any time during the term of this agreement it invents, originates or develops an anti-knock compound or my apparatus, device or other matter or thing in anywise connected with or relating to the manufacture of an anti-knock compound and which may be capable of being patented in the United States of America or elsewhere, that it will take all necessary steps so to do, and will promptly assign all applications for such patents to the Purchaser upon its request. It also agrees to keep the Purchaser fully advised of all developments made by it in connection with any such invention and will accept the advice and assistance of the Patent Department of the Purchaser in connection with any questions relating to the patent situation surrounding any such invention. The Purchaser agrees to pay the cost of filing and maintaining any such patent so acquired or applied for by the Manufacturer.

EIGHTH: In the event of any dispute arising hereto as to the price to be charged by the Manufacturer for anti-knock compound, or the amount to be received by it from the Purchaser should this agreement be cancelled by the Purchaser as hereinbefore provided, the question at issue shall be submitted to arbitration. In such case the party aggrieved or moving in the matter shall give to the other party written notice of its desire to have an arbitration, in which it shall state generally its grievance and name an arbitrator, and the other party thereupon shall name an arbitrator within ten (10) days after the receipt of such notice, and in case of failure to do so, the moving party may appoint the second arbitrator. The two arbitrators thus appointed (in either manner) shall select a third, and the board of arbitration thus constituted shall thereupon proceed to determine the matter in dispute, and the decision of any two (Including the cost of the arbitration) shall be final and conclusive on both parties as to all questions of fact involved in such arbitration. It is understood that all arbitrators appointed hereunder shall be persons who are not connected in any manner with either of the parties hereto or interested, directly or indirectly, in any matter or thing provided for or growing out of this agreement,

except and in so far as may be consistent with their duties as arbitrators hereunder.

NINTH: Neither party shall be held liable for damage arising from failure to deliver or to receive anti-knock compound hereunder to the extent that it may be prevented by war or insurrections, riots, fires, floods, strikes, lockouts, differences with workmen, accidents to plants of either party or by other delays or hindrances beyond their reasonable control.

TENTH: It is expressly agreed that the deliveries of anti-knock compound hereunder shall be made either to the Purchaser, or by its direction to any corporation owned, affiliated with, or controleed by it, and that any and all rights and interests possessed by the Purchaser hereunder in this agreement or any of the provisions thereof, shall inure, if it so desires, to the benfit of any such corporation.

WITNESS the hands and seals of the parties hereto.

E. I. DUPONT de NEMOURS & COMPANY

By:

Irenee duPont

....

President

Attest:

C. Copeland

....

Secretary

GENERAL MOTORS CORPORATION

By:

P. S. duPont

....

President

Attest:

John T. Ardis

....

Asst. Secretary

44

Government's Exhibit No. 670

COPY

Bill of Sale from General Motors Chemical Co. to Ethyl Gasoline Corporation

KNOW ALL MEN BY THESE PRESENTS, that GENERAL MOTORS CHEMICAL COMPANY, a corporation organized and existing under the laws of the State of Delaware, of the first part, hereinafter referred to as "Vendor", in consideration of the sum of Ten Dollars ($10.00), and other valuable considerations to it in hand paid by ETHYL GASOLINE CORPORATION, a corporation organized and existing under the laws of the State of Delaware, of the second part, hereinafter referred to as "Vendee", receipt whereof is hereby acknowledged, has bargained, sold, conveyed, transferred, assigned and delivered, and by these presents does hereby bargain, sell, convey, transfer, assign and deliver unto the said Vendee all of the Vendor's physical property and assets of whatsoever kind, nature and description, and wheresoever situate, including the good will of its business and all of its trademarks, trade names and brands and all of its machinery, tools and appliances, and all of its raw materials, manufactured product and partially manufactured product, wheresoever situate, together with all its right, title and interest in and to all outstanding contracts with the Standard Oil Company of Indiana, the Standard Oil Company of New Jersey, the Standard Oil Company of Louisiana, the Refiners Oil Company, of Ohio, the Gulf Refining Company and the Waverly Oil Company (Pittsburgh) for the sale to them of anti-knock compounds or mixtures; excluding herefrom, however, all accounts and bills receivable together with all cash in bank or on hand.

To have and to hold all and singular the said property and property rights unto the said Vendee, its successors and assigns, absolutely, to its and their own use and behoof forever.

It is understood that any contract of the Vendor now existing that is not legally assignable without the consent of the other party or parties thereto is hereby sold and assigned subject to the assent of such other party or parties to such assignment, and in the event that any such other party or parties shall not assent to the sale and assignment of any such contract, the Vendor shall and does hereby agree to perform or cause to be performed the said contract for the use and benefit of the Vendee, but at the sole cost and expense of the Vendee, and all moneys due or thereafter becoming due thereon shall belong to said Vendee.

Vendee hereby agrees as part of the consideration for the sale of the property and rights sold hereunder to assume and discharge all obligation of the Vendor in respect of contracts assigned to the Vendee hereunder.

Vendor for itself, its successors and assigns, hereby covenants and agrees with the Vendee, its successors and assigns, that upon the request but at the cost of the Vendee it will execute any and all such further assurances as shall reasonably be required for vesting in the Vendee, its successors and assigns, the property and rights hereby sold, and giving to it and them the full benefit of this conveyance.

In witness whereof, the parties hereto have caused these presents to be executed in duplicate by their respective officers thereunto duly authorized, and their corporate seals to be hereto affixed this 28th day of August, 1924.

General Motors Chemical Company

By: Thomas Midgley, Jr. (S)
Vice President

Attest:

Merrill (S)
Secretary

Ethyl Gasoline Corporation

By: A. M. Maxwell (S)
Vice President

Attest:

A. E. Mittnacht (S)
Secretary

Note: At upper right is written "Exhibit B2".

Government's Exhibit No. 672

GENERAL MOTORS CORPORATION
Department of Publicity
New York Detroit

Aug. 15
1924

ETHYL GASOLINE CORPORATION ORGANIZED

(For Release, Thursday, August 21, 1924)

Walter C. Teagle, President, Standard Oil Co. of New Jersey, and Alfred P. Sloan, Jr., President, General Motors Corporation, announced today the organization, under the laws of Delaware, of the Ethyl Gasoline Corporation, a $5,000,000 concern in which their respective companies are equal shareholders. The new Company will take over the promotion and sale of ethyl fluid, which has in the past been handled by the General Motors Chemical Co., and will continue the marketing policies of that Company.

The distribution of ethyl fluid will not in any way be confined to the Standard Oil Co. of New Jersey, or to any other single company or group of companies; the policy and purpose will be to furnish it generally and on equal terms to all of the responsible gasoline marketing organizations, subject only to the limited exclusive contracts originally made by the General Motors Chemical Co. for the purpose of introducing the new product to the trade.

This association of the General Motors and the Standard Oil of New Jersey marks the culmination of years of research and experimental work, conducted independently but with rather free cooperation between the parties, in the effort to find a commercially satisfactory and feasible method of controlling the combustion characteristics of gasoline so as to avoid the detonation, or "knock", which is experienced in automobile engines under extreme load or adverse weather conditions, or because of carbon accumulation or slight mechanical irregularities.

The credit for initiating this research work, as well as for first reaching a satisfactory conclusion thereof, belongs to C. F. Kettering and his associates in the General Motors Corporation; and Thomas Midgley, Jr., Vice-President of the General Motors Chemical Co., who was awarded the Nichols Medal of the American Chemical Society for 1922 in recognition of his personal contributions to this achievement. The research work of the Standard Oil Co. of New Jersey on the same problem resulted in the development of commercially essential improvements in the manufacture of the material which General Motors had found to be satisfactory for the purpose, thus opening the way to the immediate expansion of the business on an economical basis. It is an interesting coincidence that Dr. Kraus, of Brown University, and of the consulting staff of the Standard Oil Company's Research Laboratories, was awarded the Nichols Medal of the American Chemical Society in 1923 for his contributions to the difficult and little known field of metallo-organic chemistry, upon which the ultimate process of manufacture of the ethyl fluid was based.

The experience, research staffs, patents and trade connections of both the General Motors Corporation and Standard Oil Co. of New Jersey will be available to the new Company, and it is believed that this will make possible, in the most economical and efficient manner, the expansion of the ethylized gasoline business to cover all countries in which gasoline is used in substantial quantities for motor fuel.

Aside from the strictly commercial aspects of the new association, both parties feel that the relationship thereby created will be of benefit to their respective industries in dealing with the problem of the relation between quality of gasoline and engine design which have arisen out of the unprecedented expansion of the automobile industry.

The newly organized Ethyl Gasoline Corporation takes over the present business of the General Motors Chemical Co., and will immediately undertake to increase the production and enlarge the distribution of ethyl fluid. It is confidently expected that by the year 1925 there will be available an adequate supply of the material to meet the demands of the United States.

The directors of the new Corporation are:

W. C. Teagle	Alfred P. Sloan, Jr.
J. A. Moffett, Jr.	Charles F. Kettering
E. M. Clark	Donaldson Brown
F. A. Howard	Thomas Midgley, Jr.
A. M. Maxwell	John Thomas Smith

The officers are:

Charles F. Kettering, President
F. A. Howard, First Vice-President
Thomas Midgley, Jr., Second Vice-President and General Manager
A. M. Maxwell, Third Vice-President and Sales Manager
~~Donaldson Brown, Secretary and Treasurer~~ *A. E. Mittnacht*
Chester O. Swain, General Counsel

The offices of the Ethyl Gasoline Corporation are in the Cunard Building, 25 Broadway, New York City.

Note: At first page upper right is written "Bowling Green 6428"; in the list of prospective officers on the second page, the words "Donaldson Brown, Secretary and Treasurer" are struck in pencil following which is written "A. E. Mittnacht"; italics indicate handwriting.

Government's Exhibit No. 673

MEMORANDUM OF CONFERENCE
between
MESSRS. P. S. duPONT, IRENEE duPONT and
W. F. HARRINGTON
of E. I. duPONT de NEMOURS & COMPANY
and
MESSRS. A. P. SLOAN, JR. and T. MIDGLEY, JR., of the
GENERAL MOTORS CHEMICAL CO.

Subject: TETRA ETHYL LEAD.

New York City, August 11, 1924.

FIRST: The present agreement between the General Motors Chemical Company and the duPont Company requires the delivery of 1,100,000 lbs. of tetra ethyl lead at $2.00 per pound. The delivery of same is approximately half completed and it is expected that completion of this order will take place on or about November 30th.

SECOND: It is proposed at this time to enter into a contract between the Ethyl Gasoline Company and the duPont Company upon the following basis:

(a) The quantity to be the output of the plant operating on the bromide process, hereafter referred to as the Bromide Plant, for the balance of 1924, after the expiration of the present agreement, and the first six months of 1925.

(b) The price is to be $1.66 per pound tetra ethyl lead F.O.B. Carneys Point, N. J., which was determined as the best cost price to date of pure tetra ethyl lead for any one month, exclusive of amortization.

(c) The material to be delivered shall be 95% or over pure tetra ethyl lead and shall be paid for on the basis of the tetra ethyl lead content.

(d) It is understood that the duPont Company will, as soon as practicable, start the erection of a plant using ethyl chloride as the ethylating medium and having a capacity of 1,000 gallons of tetra ethyl lead per day and upon the completion of this plant will operate and sell to the Ethyl Gasoline Company tetra ethyl lead at the same price and conditions as from the Bromine Plant.

(e) The quantities to be delivered by this plant shall be solely at the discretion of the duPont Company up to July 1st, 1925 but shall be not less than 1,000 gallons per day thereafter up to September 1st, 1925, at which time negotiations will be entered into concerning price, etc , and future quantities.

—2—

(f) Between March 1st and July 1st, the total tetra ethyl lead delivered by the duPont Company shall be not less than seven hundred (700) gallons per day.

(g) Such contract as may be entered into between the Ethyl Gasoline Company and the duPont Company is to be guaranteed by the General Motors Corporation and the Standard Oil Co. of N. J.

Note: Across top of first page is written "Ethyl Gasoline Co. Contracts – Du Pont de Nemours" followed by three illegible sets of initials; underlining on first page is in pencil; at lower right on first page is a routing stamp; the initials contained in this routing stamp are obscure; a check mark appears in the first and seventh spaces provided in the routing slip.

2

Government's Exhibit No. 675

AGREEMENT, entered into this *10th* day of ~~September~~ *October*, 1924, between E. I. duPONT de NEMOURS and COMPANY, a corporation of the State of Delaware, hereinafter referred to as the "Seller", and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter called the "Buyer", WITNESSETH:

WHEREAS, the SELLER is now engaged in the manufacture of tetra-ethyl lead hereinafter sometimes referred to as "lead", under a process known as the "Bromine Process", pursuant to the terms of a contract with General Motors Corporation dated October 6, 1922; and

WHEREAS, said contract was amended by a letter dated January 12th, 1924, providing for the purchase of one million one hundred thousand (1,100,000) pounds of said lead from February 1st, 1924, to be supplied at the rate of at least

2,600 pounds per working day from February 1st, 1924, to July 1st, 1924;

5,200 pounds per working day from July 1st, 1924, to August 15, 1924;

7,800 pounds per working day from August 15th, 1924, to date of completion of delivery;

and

WHEREAS, said agreement has been assigned by the General Motors Corporation to the BUYER with the consent of the SELLER, and the BUYER is desirous of purchasing the entire tetra-ethyl lead production of the SELLER upon the terms and conditions hereinafter set forth, Now, THEREFORE, in consideration of the premises, the covenants and agreements herein contained and other valuable considerations, it is hereby agreed by and between the parties hereto as follows:

1. The SELLER shall continue to deliver to the BUYER and the BUYER agrees to accept and pay for at the price of two dollars ($2.00) a pound, the balance of approximately four hundred thousand pounds (400,000) of lead due under and according to the said agreement dated October 6, 1922, as modified, and thereupon the said agreement shall terminate.

In addition to said amount, upon the completion of said deliveries, the BUYER agrees to purchase and pay for at the price of one and 66/100ths Dollars ($1.66) a pound, f. o. b. SELLER's plant, the entire production of the SELLER, not to exceed three hundred fifty-three thousand (353,000) pounds per month of said 100% tetra-ethyl lead, to be delivered to it, however, prior to April 15th, 1925.

2. The SELLER further agrees to erect a plant at Deepwater, New Jersey, for the manufacture of tetra-ethyl lead under what is known as the "Ethyl Chloride Process", with sufficient equipment and capacity to enable it to produce therein between April 15th, 1925, and April 15th, 1926, not less than four million (4,000,000) pounds of said lead.

3. The SELLER agrees to sell and deliver and the BUYER agrees to purchase and pay for the entire production of said plant during said period, not, however, exceeding five million (5,000,000) pounds, at the price of one and 17/100ths dollars ($1.17) a pound, of 100% tetra-ethyl lead, deliverable f. o. b. SELLER's plant, commencing with the month April 15th, 1925, to May 15th, ~~1925~~ 1925, in monthly instalments

of not less than three hundred thirty-three thousand three hundred thirty-four (333,334) pounds, and not more than four hundred fifty-eight thousand (458,000) pounds.

Payments shall be made against invoices on or before the 10th day of the month following the calendar month in which deliveries are made.

All lead delivered hereunder shall be of a quality and purity at least equal to that heretofore supplied by the SELLER.

4. If SELLER shall fail to deliver the monthly minimum requirement in respect of any calendar month beginning May, 1925, and ending March, 1926, and by reason of such failure the BUYER shall have suffered or incurred substantial loss or damage, the SELLER agrees to pay the BUYER as liquidated damages in full of said loss or damage the sum of twenty-five cents (25¢) a pound for each pound of said lead less than three hundred thirty-three thousand three hundred thirty-four (333,334) pounds not so delivered in said monthly period. Payments for such damage are to be made on or before the 10th day of the month following the month of the default.

5. It is intended that the ethyl chloride plant to be erected by the SELLER shall have sufficient production by April 15th, 1925, to enable the SELLER to fulfill its total obligations hereunder, and the SELLER agrees upon receipt of written notice from the BUYER on or before March 15th, 1925, to discontinue as of April 15th, 1925, the operation of its Bromine plant, and thereupon the BUYER shall purchase from the SELLER at cost all stocks of Bromine on hand on

such date and shall assume all of the SELLER's liability with reference to outstanding commitments at the time of receipt of said notice, it being understood and agreed however that should the SELLER, at the request of the BUYER, or otherwise, resume the operation of its Bromine plant, then all such commitments shall be reassigned by the BUYER to the SELLER at the SELLER's request.

6. On or before October 15th, 1925, the SELLER shall advise the BUYER in writing concerning prices and terms for tetra-ethyl lead manufactured in its plants, to be effective on and after April 15th, 1926, and within thirty days from the receipt by the BUYER of such information regarding said prices and terms, the BUYER shall advise the SELLER whether it desires to enter into a new contract for further purchases of tetra-ethyl lead, and if such prices and terms are satisfactory to the BUYER, the SELLER shall continue to sell, and the BUYER shall continue to buy, the entire production ~~of the~~ SELLER, ~~in accordance therewith,~~ for such a period of time as shall then be agreed upon.

—4—

7. Neither the BUYER nor the SELLER shall be liable to the other for any failure to deliver or accept tetra-ethyl lead, where such failure shall be caused by fire, inundations, acts of God or the public enemy; and, in the event of delays in performance due to any such causes, performance hereunder shall be suspended during the continuance of such delay, but the party affected thereby shall use due diligence to remove the same and resume performance hereunder as soon as the causes for any such delay have ceased to operate. In any such event, however, any such delay shall not affect the obligation of the parties hereto to deliver or accept the maximum quantities provided for under this

agreement; but the time during which this agreement shall remain in force shall be extended by such a period of time as shall equal such delay in performance.

8. The SELLER agrees that it will not manufacture tetra-ethyl lead for any other person, firm or corporation and will not during the continuance of this agreement manufacture or sell any anti knock compound for or on account of any person other than the BUYER, whether of a like or similar nature without the consent of the BUYER. Further, the SELLER agrees that if at any time during the term of

F.A.H.
I du P
or acquires an invention relating to

this agreement it invents, originates or develops an anti knock compound or any apparatus, device or other matter or thing in anywise connected with or relating to the manufacture of an anti knock compound and which may be capable of being patented in the United States of America or elsewhere, that it will take all necessary steps so to do, and will promptly assign all applications for such patents to the BUYER upon its request. It also agrees to keep the BUYER fully advised of all developments made by it in connection with any such invention and will accept the advice and assistance of the Patent Department of the BUYER in connection with any questions relating to the patent situation surrounding any such invention. The BUYER agrees to pay the cost of filing and maintaining any such patent so acquired or applied for by the SELLER.

IN WITNESS WHEREOF, the parties hereto, by their officers duly authorized, have caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. duPont de Nemours and Company

By:

~~F.~~ *Irénée du Pont*
President.

Attest:

C Copeland
Secretary.

Ethyl Gasoline Corporation

By:

Frank A Howard
vice-President.

Attest:

A E Mittnacht
Secretary.

V. P. Jr.

In consideration of the execution of the foregoing contract by E. I. duPont de Nemours and Company, the undersigned being the owners of all of the capital stock of the Ethyl Gasoline Corporation, do hereby guarantee that the foregoing Agreement shall be fully and faithfully performed by the ETHYL GASOLINE CORPORATION, in accordance with the terms thereof.

STANDARD OIL COMPANY (NEW JERSEY)

By *x J. A. Moffett*
[STAMP] Vice-President

I. W. P. Jr.
OK
FAH

Attest: *C T White*
[STAMP] SECRETARY

GENERAL MOTORS CORPORATION

By *Alfred Sloan Jr.*
President

OK
JTS

Attest: *C D Hartman Jr*
Ass't. Secretary

NOTE: Deletions and interlineations in Agreement are by hand. On fifth page of Agreement appear corporate seals of E. I. duPont de Nemours & Company, Ethyl Gasoline Corporation, Standard Oil Company and General Motors Corporation. "~~Fr~~" before signature of "Irénée duPont" is by hand. Italics indicate handwriting.

Government's Exhibit No. 676

Memorandum of Meeting of Board of Directors of Ethyl Gasoline Corp. Held in the Office of the Standard Oil Co.,26 Broadway, Dec.23,1924

I attended the meeting of the Directors at the request of Mr. Alfred Sloan who stated that both the Standard Oil and the General Motors personnel of the Ethyl Gasoline Corporation desired that I take a place on their Board. At the opening of the meeting resignation of Mr. Smith was accepted and I was elected a Director. The points of discussion at the meeting (beginning about 10:30 A.M.) which seemed to me of sufficient importance to record as follows:—

A lengthy discussion of the substitute for tetraethyl lead discovered by Dr.Bosch, of the National Anilin Soda Fabrik of Germany. During the meeting a cable was read indicating that a patent had been applied for by the Badische Co. on iron carbonyl; that Kettering stated he was sure that was the substance that had been shown him; that he found tests had been run on nickel carbonyl and ~~iron~~ carbonyl had been discussed as a possible anti-knock material a year or two ago; that it had been set aside because it was doubtful if the material could be produced commercially at a reasonable figure.

Discussing the patent protection it was thought likely that the general patents owned by the Ethyl Gas would not hold for all anti-knock materials. Opinion of an eminent patent attorney was read indicating that to be the case. The particular patent on nickel carbonyl covered other nickel salts but apparently did not cover other carbonyls. They would try to get this patent extended for that purpose. In the meantime a fight on the Badische patent on iron carbonyl would probably delay its use for a protracted period. It was felt that it would be desirable, however, to obtain patent on iron carbonyl from

the Badische Company if it could be arranged.

Kettering advised that the nitrogen fixation laboratories at Washington had at their request prepared some iron carbonyl and that it had been tested at Dayton disclosing that it was approximately ⅓ as efficient as tetraethyl lead, not quite so good as the 40% efficiency indicated at Ludwigshaven.

At my suggestion the cable replying to Dr. Bosch was worded in a way that indicated lack of urgent interest and that the matter of negotiating with Badische had been referred to the du Pont Co. The object of this was so that we could get a better deal for the Ethyl Gas Corporation on the one hand and give du Pont a better opportunity to deal with Badische on other questions.

The question of a bromine supply was discussed. Kettering showed photographs and maps of the French war plant in Tunis. It was the concensus of the Board that owing to the import duty and the delay in starting up a works at such a great distance it would be better to go ahead at once with the proposition of extracting bromine from sea water along the lines of the experiment originated in the laboratory at Dayton and checked by the du Pont laboratory. It was unanimously agreed that the best way of handling the project would be to start a plant of reasonable size without wasting time for a semi-works scale demonstration; that we had better build a plant to produce about 100,000 lbs. of bromine per month; that a rough throw-down guess of the cost of such a plant built on the Atlantic Coast would be $150,000. I told them that this rough guess might be materially overrun and that quite likely the operation would not work for the reason that we had not tried floating out the tri-brom-anilin on a large scale but that it would separate in a flask in the laboratory if shaken.

Midgley said that the best guess of those in the du Pont Co. with whom he had consulted was that there were two chances out of three that the process would work. I suggested that the du Pont Co. undertake to build the plant at cost plus a fee of $20,000 to cover engineering expense, purchasing expenses and the consultation of such of our experts as was needed until the time when a trial of the plant demonstrated either that it would work or would not work. In the former case we could then get together and arrange how would be the best method of operating the plant; i.e. whether du Pont Co. should acquire it and sell bromine at a fixed price or whether it should be operated for the account of Ethyl Gasoline Corp. on some sort of commission basis. That seemed satisfactory to the Directors and it was arranged that a committee, composed of Kettering, Sloan, Howard and I, draft a letter to the du Pont Co. outlining the nature of the arrangement.

The Standard Oil representatives produced a memorandum of an agreement dated September 29, 1924, being a letter from Mr. Howard to the Ethyl Gasoline Corp. reciting that they were building a plant of about 100 gallons per day tetraethyl lead at Bayway which they were doing for the account of and would operate it for the account of the Ethyl Gasoline Corp. charging $2 per lb. for ethyl lead made until such time as the profit over manufacturing cost equalled the lay-out for plant and thereafter would bill the product at cost.

They stated that the cost of that project up to the time of its discontinuance on account of the accident was as follows:—

Capital cost of plant	$58,000.	
Cost of operating	35,000.	
Cost of damage suits	100,000.	
Total	$193,000.	
Lead produced 34,000 lbs. at $2 —		$68,000.
Net Loss —		125,000.

Mr. Howard said that on attempting to obtain payment some question was brought up as to whether Ethyl Gas was responsible. Kettering said he thought that the Ethyl Gas did nothave any responsibility; it was a matter for the Standard Oil to take care of.

I stated that it seemed to me that as the contract was purely an agency for the Ethyl Gas they were responsible for the acts of their agent unless there had been gross carelessness; that we could hardly take that position and that it seemed to me right and proper that the Ethyl Gas should pay the entire bill. This was agreed to by all the Directors present who voted to that effect.

Irénée du Pont

Note: At lower right on each page is written "GMC 972."

March 28, 1925.

Adjustment of Lead Price.

Mr. Irenee du Pont,
E. I. du Pont de Nemours & Co.,
Wilmington, Del.

My dear Mr. du Pont:

At the last Board Meeting of the Ethyl Corp., the matter of adjustment of our contract on the $1.66 lead was brought up by Mr. Midgley, and the circumstances fully gone into. After hearing the pro's and con's of the situation, the Board decided that the matter was much too complicated to be dealt with on its merits by the Board of Directors, and Mr. Midgley and I were instructed, therefore, to arrange the matter with you according to our best judgment.

After thoroughly discussing the situation, we have arrived at the conclusion that there is no proper way to deal with the question save to present to you very briefly the reasons which may be urged against the propriety of the Ethyl Corp.'s deviating from its contract with the du Pont Co., and, this having been done, to accept your decision as final. Mr. Midgley has accordingly asked that I write you this letter.

It seems to be agreed by every one concerned that the du Pont Co. has no clearly enforcable legal claim for an adjustment. We are therefore discussing the situation simply from the standpoint of its merits as a matter of fair business dealing. From this angle, the facts to be urged in support of the view that the Ethyl Corp. should not make any adjustment are as follows:

1. At the time when the contract of Oct. 10th was negotiated, the figure of $1.66 per pound was accepted by

the Ethyl Corp. on the statement of the du Pont representative (Mr. Harrington) as being the approximate cost of production of tetraethyl lead in the bromine plant.

2. It was not contemplated by either party at that time that there would be any substantial profit to the du Pont Company in deliveries of lead from its bromine plant previous to April 15th at the $1.66 price.

3. It was contemplated that the price of $1.66 per pound for lead produced from the chloride plant would produce a substantial profit to the du Pont Co.

—2—

4. The date at which deliveries of the lead, under the contract of Oct. 10th, from the chlorine plant at the price of $1.17 per pound was to begin was advanced to April 15th from an earlier date first fixed by agreement between the parties, to permit the du Pont Co., if it were able by extra efforts to get its chloride plant in operation sooner than might be conservatively estimated, to thereby gain an additional profit, represented by the difference between $1.17 and $1.66 per pound.

5. It was urged by the Du Pont Co. as an argument in the negotiation of the said contract that a benefit accruing to the Ethyl Corp. from this entire arrangement would be that the du Pont Co. would use every effort to get its chloride plant in operation at the earliest moment and gain the benefit of the lower manufacturing cost of the chloride operation, and that thereby bromine would be conserved because deliveries would come from the chlorine plant and bromine would thereby be conserved.

On the basis of the foregoing, it may be urged in behalf of the Ethyl Corp., therefore, that while it expected and hoped to benefit by conservation of bromine through the closing of the bromine plant at the earliest moment, the consideration to the du Pont Co. for this was the acceptance by the Ethyl Corp. of a price of $1.66 per pound, instead of $1.17 per pound, for these antecedent deliveries from the chlorine plant, and the further consideration of the extension fo the period for the beginning of deliveries at $1.17 per pound from April 1st, the date first agreed upon, to April 15th.

This being the situation at the time of the negotiation of the contract and the considerations in the minds of the parties at that time, the situation has since changed to the following extent:

1. From the standpoint of the du Pont Co., it proved to be possible to produce lead in the bromine plant at a price considerably less than $1.66 per pound, thus affording a substantial profit from such deliveries.

2. The unforeseen accidents in the chlorine plant have prevented the production from that plant of the amount of lead which the du Pont Co. had hoped and expected to be able to produce from the plant prior to April 15th.

From the standpoint of the Ethyl Corp., the situation has likewise changed to the following extent:

1. The poison dificulties at the Bayway plant resulted in the temporary cessation of the marketing of lead in large territories, thus causing accumulation of lead stocks.

2. The withdrawal of all small ethylizers from service, following the conclusion that they were not a safe method for distributing the product,has resulted in a still further

accumulation of lead stocks by the Ethyl Corp., which accumulation is still going on at a rapid rate. In other words, the Ethyl Corp. has been for some months, and is yet, unable to dispose of its lead at any rate approaching that at which deliveries are made by the du Pont Co.

It therefore appears that, while owing to conditions over which neither party has had any control it would have been to the advantage of the du Pont Co. to have continued uninterruptedly to produce lead from its bromine plant and its failure to do so out of consideration for the interests of the Ethyl Corp., resulted in some loss to the du Pont Co., this is a loss of profit which neither party contemplated at the beginning the du Pont Co. would make. On the other hand, the du Pont Co. is suffering a loss of profits which the parties did contemplate the du Pont Co. would make, through the failure of the chloride plant to deliver the quantity of lead which both parties hoped and expected it would deliver prior to April 15th.

Owing to conditions over which neither party has had any control, the Ethyl Corp. at the same time finds itself with a stock of over $1,000,000. worth of lead on hand and deliveries still coming in very much more rapidly than the goods can be marketed at present. This situation was not contemplated by the Ethyl Corp., but, on the contrary, the Ethyl Corp. had hoped and expected to be able to market immediately and at a profit to itself any lead supplied to it by the du Pont Co. prior to April 15th, even though such lead bore a price of $1.66 per pound.

With the foregoing statement of the matter, we are entirely content to leave the decision in your hands, with entire confidence in your reaching a fair conclusion.

If you will advise Mr. Midgley what your conclusion is, he will either execute the adjustment contract which has been tentatively arranged between him and your officials or dismiss the matter, as the case may be.

With best regards and the hope that you enjoyed your vacation in the South, I remain

Yours very truly,

Frank A. Howard.

hv

Copies to: Mr. Teagle
Mr. Sloan
Mr. Midgley

Note: At upper right of first page appear illegible initials (possibly "AR"); to left of date line appear illegible initials; to right of address is stamped "Received Mar. 31, 1925—A. P. Sloan, Jr."; underlining on first page is in pencil; on fourth page the number following the word "Page" has been obliterated and "4" has been written in.

March 28, 1925.

Mr. Ireneé duPont, President,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

My dear Ireneé:—

I appreciate that this letter will come on your desk when it is piled high with things that have accumulated during your absence, therefore you can set it aside and take it up whenever an opportunity presents itself.

The object of this letter is to deal with the organization of the Ethyl Gasoline Corporation as it continues the letter I wrote Lammot a few days ago, copy of which I sent you.

I believe I pointed out in that letter that I have felt from the beginning of the formation of this Company; in fact, I felt a year before it was formed, that we would make progress much more rapidly and more constructively if we had more of a business side to the development. Mr. Kettering, however, was violently opposed to any such thing. When the Ethyl Gasoline Corporation was actually formed, Mr. Brown and I both raised the same question with our associates, the Standard Oil Company of New Jersey, and pointed out to them that we felt it was a great mistake to leave the management of the property so largely in the hands of Midgley who is entirely inexperienced in organization matters. We, however, recognize his ability from the technical standpoint. Without appearing more or less arbitrary, we could not get our idea across and I therefore thought it best to go ahead, recognizing that the point we made would either wash out or it would become so necessary that it would have to be recognized. I have felt for several months past that I personally was subject to more or less criticism for letting the matter remain as it is and, to make a long story short, in an interview I had with Mr. Teagle this week I was prepared to insist that something be done but found that he had come to the same conclusion so we agreed, without much discussion, that Mr. Kettering and Mr. Howard—President and Vice President respectively—should resign and that an active President should be appointed of proper ability, administrative and otherwise, to deal with the problems that confront the Corporation, in a constructive way.

—2—

The question then came to appointing a man and it just so happened, through force of circumstances which I need not to annoy you with, we have a man who has headed up our Legal and Real Estate Departments in Detroit. He is a lawyer by profession but a good business man as well. He has the confidence of our organization and I feel sure that when it comes to sound judgment and an orderly method of handling things, recognition of all the factors that enter into a decision, he will amply fill the bill. I discussed this matter with Mr. Teagle and subsequently arranged for Mr. Webb to meet Mr. Teagle, also Mr. Howard. Mr. Howard feels that Mr. Webb has a training that should qualify him for the job. Mr. Teagle feels likewise except that he has a natural reservation for any man who is legally trained entering into a proposition requiring more or less business administration. That, of course, is a point that we recognize.

Mr. Teagle suggested that we tentatively accept Mr. Webb as the right man for the place; that we recognize the vital necessity of having a man and that we ask Mr. Webb before he starts in, to study the situation and make the directors a report as to the operations of the Company; what he recommends; what his viewpoint is as to the different matters that are up before the Corporation. In other words, give us a complete picture. I think Mr. Teagle's idea is that it would be well to have this anyway and that as a basis of the report we can judge best whether Mr. Webb's viewpoints are in harmony with our own.

This certainly will do no harm and although Mr. Teagle will accept our recommendation, I would much rather follow along the lines of Mr. Teagle's position as he is a partner in the enterprise and although he said that whatever I did would be satisfactory, I am very anxious to have just the right man for the place and do not want to make a mistake and the mere fact that he is a General Motors man makes no difference to me. All I want is the best man from the stockholders' standpoint.

I want you to know the above for two reasons:—First, because we have taken on a matter which I feel sure you have realized should have had attention before and, second, because Mr. Webb will call upon you in due course and I would appreciate it if you would discuss with him frankly with all the cards face up on the table, exactly what you think as to the whole situation so that he can get the benefit of all the atmosphere preparatory to submitting his recommendations.

With very best regards.

Very truly yours,

Alfred P. Sloan, Jr.
B

APSJr./K
c/c Mr. P. S. duPont
Mr. Lammot dupont

3

Note: At upper middle of first page is drawn a check mark; at lower left on both pages is written "GMC 1625"; across bottom of both pages is stamped "Return to Executive Committee Room 9069"; diagonally across both pages is stamped "Copy"; following the name of Mr. Lammot du Pont at the bottom of the second page is drawn a small check mark; italics indicate handwriting.

4

Government's Exhibit No. 679

COPIES TO:—MR. ALBERT SLOAN, JR.

MR. W. F. HARRINGTON

April 3, 1925.

Mr. Frank Howard,
Ethyl Gasoline Corp.
25 Broadway,
New York City.

Dear Mr. Howard:—

I have delayed replying to your letter of March 28th because of the accumulation of work awaiting me on my return from what was for me a rather protracted holiday. Although it may have no effect on the propriety of adjustment of time of delivery of tetraethyl lead which we abstained from shipping you at the request of the Ethyl Gas Corp. in January, I would like to first point out that your paragraph marked 1, on page 1, is a little misleading. The $1.66 was arrived at, and in fact was the best cost for any month up to the date of our October contract. It was not supposed to be in any sense a forecast of what tetraethyl lead would cost in the bromine plant but was simply set up as a figure which we/ought to be able to duplicate and with effort improved on.

Similarly, your paragraph marked 2 is misleading because the question of whether or not we would get a profit was not discussed except that it was admitted that if we could do better we would get a profit and that was an incentive for great effort.

The extension of the date from April 1st to 15th, referred to in paragraph 4 on page 2, and again on the paragraph in the middle of page 2, was more or less of the nature of a tolerance or allowance well within the limit of error of any forecast that could have been made as to when the ethyl chloride plant could be put in full operation. Owing to the personal injuries it will have proven an insufficient time although in January it appeared to us to have been quite liberal but this was because we spared no expense of rushing work day and night to complete the plant, and actually I believe the cost was materially increased by the rather phenominal speed in constructing this from piles to completion in twelve weeks' time.

All this, however, is immaterial in view of the fact that we are not asking to change the original contract in any particular. Apart from the contract we were asked to defer deliveries of material which we could make in January and would have made at a profit. We suggested that these deliveries be simply deferred and not cut out entirely, an eminently fair proposition to make. Owing to the fact that the Ethyl Gas executives were very busy and/or away, delay would have ensued detrimental to your interests if we had stood "pat" and waited for you to "come across." In our desire to be helpful to the "picture" we acted on your orders without getting approval for a deferment of the deliveries in question. It seems to me only equitable that you should have accepted our offer of deferment and not take advantage of our efforts to be of service to you.

It is, therefore, my judgment that you should accept delivery at $1.66 per lb. of the amount of tetraethyl lead which we voluntarily abstained from making and shipping in January, and that, further, if owing to our misfortune at the ethyl chloride plant you are sufficiently short of ethyl lead so as to make a loss thereby, the amount up to that accruing by reason of the lead not delivered in January, should not be assessed to us on the damage paragraph.

—3—

I will admit from a law point of view that probably you might get away with the contention that a signed and sealed contract cannot be changed except by a similarly official action and that, therefore, we could not successfully exact this adjustment at law. I am not competent to pass on that point but I will say that if we are dealt with unfairly in this particular case it will have to be of necessity a warning to not make a similar error in the future and as the companies will probably do large business together, it would be most unfortunate if either party started in to make money or save it at the other's expense. In other words, we will both make more in the long run by avoiding setting up technical defenses which are not in accord with justice.

Very truly yours,

Irénée Du Pont, President

Note: Following the name of Mr. Albert Sloan, Jr. (sic) at upper right on first page appears a check mark; also at upper right appear the initials "AR"; two diagonal lines are drawn through the address; above the text of the letter on the first page is stamped "Received Apr. 4, 1925 — A. P. Sloan, Jr."; above the date "28th" on the first page appears a check mark.

Government's Exhibit No. 680

April 10, 1925.

Mr. Ireneé duPont, President,
E. I. DuPont deNemours & Company,
Wilmington, Delaware:

My dear Ireneé:—

I notice your letter of April 3rd addressed to Mr. Howard. This matter came up at a meeting of the Ethyl Gasoline Corporation which I attended. I was not in sympathy with the position that was taken and think it was largely due to a misunderstanding of the equities in the case and so far as I am concerned I believe your position is absolutely correct. I hope you will stick to it.

Due to my relations with the duPont Company and General Motors Corporation, I am quite handicapped in saying very much about these things, therefore until we get somebody to head up the institution the way we all want it to be headed up, we will have to get along the best we can.

Very truly yours,

APSJr./K

NOTE: Across top of page is written "Ethyl Gas. Contracts—du Pont E. I. de Nemours & Co."; also at upper right appear the initials "AR"; above the date "3rd" is a check mark; at lower right is a routing stamp containing the initials "A. P. S.", "J. L. P.", "H. M. C.", "F. C. H.", "A. K. H.", "L. R. D.", "A. T. B." and an eighth initial which is obscure; check marks appear opposite the initials "A. P. S." and "A. T. B.".

Government's Exhibit No. 681

Letterhead of
ETHYL GASOLINE CORPORATION
NEW YORK

May 21, 1925

IN REPLY PLEASE REFER TO

Mr. Irenee du Pont,
E. I. du Pont de Nemours & Company,
Wilmington, Del.

Dear Mr. du Pont:

On my return from Washington this morning, I have reviewed the cash position of the Company and find we require about $800,000. within the next week to meet our current obligations and make some settlements that are contingent on immediate payment.

Mr. Sloan and Mr. Brown, as you know, are both out of the City and I am therefore writing you as the other member of our Board that represents the General Motors interest, asking you if you will kindly take such steps as may be necessary to obtain a loan of $ 400,000. from the General Motors Corporation. This method of loaning us funds rather than buying additional stock has been the procedure on the last two occasions we required cash. The Standard Oil Company of New Jersey of course, furnish an equal amount and I am writing their Treasurer today in accordance with the attached copy of letter.

We have on hand this morning $140,000. and our current debts are as follows:

Current Debts

du Pont—Lead delivered in May		$ 103,000.
" —Badische dibromide billed	$ 40,000.	
enroute	38,000.	78,000.
" —Balance due S/S Ethyl		205,000.
Dow Chemical Co.—dibromide delivered in May		19,000.
Standard Oil Co. (N.J.)—Ethyl fluid returned in methyliters		20,000.
" —Bayway accident		83,000.
Barton, Durstine & Osborn—Advertising		14,000.
Miscellaneous Accounts Payable		26,300.
		$ 548,300.

Dow Settlement

On dibromide contract with Ethyl Co. up to October 1, 1925.	$ 100,000.

Dow Settlement (continued)

For dibromide now on hand at Dows	$19,000.	
Complete settlement, sodium bromide contract with du Pont	30,000.	
Complete settlement, chloride contract with du Pont	*70,000.	
Chloride Dow has on hand	28,000.	$247,000.
(*This figure may be $75,000.)	Total	$795,300.

The first half of the above statement is self explanatory. In regard to that portion that relates to the Dow settlement, since my talk with you I came before the Board of Directors of the Dow Company and they practically agreed to accept the settlement previously discussed but stated their fiscal year ended May 31, 1925 and frankly said they were anxious to get the money before the end of the fiscal year. Inasmuch as you and the respresentatives of the Standard Oil Company have indicated your approval of the settlement of the three Dow contracts in which we are interested on the basis mentioned above, and as the Board of Directors of that Company attach some importance to the adjustment being made prior to May 31 and as part of their terms, I deem it advisable to meet their condition and pay them the cash by May 31, 1925. This is a complete settlement of all contracts with Dow, with the exception of this Company's contract direct with them for ethylene dibromide which contract provides for liquidated damages of $192,000. to be paid Dow for the last four years of the contract but this is not due until October 1, 1925, and as indicated to you if we elect to proceed under the contract at that or some subsequent date which is to be definitely set up in our adjustment agreement, then such payment may be obviated. Furthermore in the event of resumption the Dow Company has indicated a willingness to incorporate in the settlement agreement a clause giving us proper credit for such payments. This credit feature is to be worked out more in detail at a meeting I have with their representative in Detroit Saturday morning.

The above payments include all raw materials we have on hand at Dayton, and in fact all items of liability except the undelivered portion of the Badische dibromide contract and one or two very small items,—and of course excepting your lead contract.

In regard to the lead contract, I appreciate and agree with your views regarding a prompt disposition of it but feel it is a question of such proportions that it should have the approval of our Board. As soon as Mr. Sloan and Mr. Brown return we intend to call a meeting of the Board at which time this question will be fully covered, and I feel confident to our mutual satisfaction. This meeting will undoubtedly take place not later than June 15th.

—3—

I expect to be in Detroit for a few days, but if you will communicate with the Ethyl Company office advising them of the arrangements you make for our obtaining this cash, it will be greatly appreciated.

Yours very truly,

Ethyl Gasoline Corporation

E. W. Webb
President.

JCM

Note: Italics indicate handwriting.

Government's Exhibit No. 682

Letterhead of.

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

May 22, 1925.

Mr. John J. Raskob,
General Motors Corporation,
224 W. 57th Street,
New York City.

Dear John:—

In accordance with our telephone conversation of this morning, I am attaching Mr. Webb's letter of May 21st. Would like to record my approval of the Ethyl Gasoline Corp. borrowing the funds as recited therein from its two stockholders—General Motors and Standard Oil.

As the amounts due the du Pont Co. are in some particulars overdue, I am very glad that you can arrange to immediately send the necessary cash to Ethyl Gasoline Corp.

Very truly yours,

Irénée du Pont
Irénée du Pont

COPY TO – Mr. E. W. Webb, President,
Ethyl Gasoline Corp.
25 Broadway,
New York City.

NOTE: At upper right is stamped "Noted DB"; beneath letterhead is written "Don" followed by an illegible name (possibly "Brown"); through the address and following the name of the addressee apear check marks; italics indicate handwriting.

Copy

E.I. du Pont de Nemours & Co.
Wilmington, Del.

Executive Offices

June 9, 1925.

Mr. E. W. Webb, President,
Ethyl Gasoline Corporation,
25 Broadway,
New York City.

Dear Mr. Webb:—

Attached is a bill rendered as a proposed settlement of our company of the liability of the Ethyl Gasoline Corp. on account of our contract for the production of some 5,000,000 lbs. tetraethyl lead by the ethyl chloride process. You will note that no prospective profit is included in that bill. This latter is omitted with the proviso that settlement of the matter will be made on or before July 1st coming.

This contract also provided that you are to take over from us stocks of bromine compounds left over from the production of tetraethyl lead by the ethyl bromide method. We cannot give exact figures on this pending a recovery of some of the liquors, but from the stocks on hand and an approximation of that in solution, we estimate there will be about 180,000 lbs. of a value of $49,000.

I have carefully considered your suggestion that some arrangement of an optional nature be made under which should additional supplies of tetraethyl lead be required we would be obligated to furnish it at a price to be determined at this time. I don't think this is at all desirable for the reason that we cannot forecast what the prices of such elements as lead and sodium will be at that future date nor have we data to show the degree of deterioration which may take place in the plant between its shut-down and reopening. We can, however, agree that in making a price, should you desire it, we will not include in cost any item of amortization of the plant which has already been paid for, and I can assure you that if I am "at the helm" the company will pursue the same practice of offering fair prices for its work and will not take advantage of its customers because of a particularly urgent need by them.

Very truly yours,

IRENEE DU PONT, President

COPY

Loss incurred by E. I. du Pont de Nemours & Company in connection with manufacture of Tetra Ethyl Lead by the Chloride Process, due to cancellation by the Ethyl Gasoline Corporation of the contract for the purchase of Tetra Ethyl Lead. Nothing has been included in this invoice for loss of profits under said contract, which item is waived subject to full settlement on or before July 1st, 1925.

Loss on Plant:		
Cost of Plant for manufacture of Tetra Ethyl Lead by the Chloride Process,	$1,324,205.88	
Less—Amortization included in Cost of Manufacture,	44,568.00	
Difference	$1,279,637.88	
One-half cost of additional power equipment which was needed for operation of plant, and is no longer required,	84,582.00	
		$ 1,364,219.88
Loss due to Manufacturing Tetra Ethyl Lead by the Chloride Process:		
Cost of production, including research accidents and expense of closing down,	721,346.34	
Less—Receipts from Sales,	326,856.97	
		394,489.37

Loss on Inventories and Contracts:

Ethyl Chloride	450,600#	(Cost)	83,715.44	
Ethyl Chloride Drums	179	(Cost)	2,529.00	
Alloy	43,496#	(Cost)	5,043.47	
Nitrogen	35,800 Ft.	(Cost)	1,027.04	
Total Cost of above materials which become your property on payment of this invoice,			92,314.95	
Miscellaneous Supplies and Repairs Parts,			1,000.00	
Estimated Loss on Pig Lead—1,239,502#			12,264.00	
Cost of canceiling orders for Pig Lead to be delivered after May 1, 1925,			1,380.00	
Estimated Cost to cancel contract for Nitrogen			5,000.00	
				111,959.04
				1,870,668.29

Interest on Investment:

Interest on capital invested in the manufacture of Tetra Ethyl Lead by the Chloride Process to July 1, 1925.	51,806.74
Total,——	$1,922,475.03

NOTE: Underlining on first page is in pencil; interwoven with certain of the figures on the second page are pencilled designs; a circle appears around the figure "1,364,219.88".

Government's Exhibit No. 684

Letterhead of
ETHYL GASOLINE CORPORATION

NEW YORK June 12, 1925

Mr. Alfred P. Sloan, Jr.
General Motors Export Corporation
224 West 57th Street
New York

Dear Sir:

One of the matters that is to be brought before the Board of Directors' meeting to be held on Tuesday, June 16, is the adjustment of the du Pont lead contract. We have had some negotiations with the du Pont Company and in order that you may be familiar with this subject, we attach hereto a copy of the last letter and statement from the du Pont Company, which is dated June 9.

Yours very truly,

ETHYL GASOLINE CORPORATION
A. E. Mittnacht
Secretary and Treasurer

AEM AK
Encs

NOTE: Across top of page is written "Ethyl Gas – Contracts – du Pont, E. I. de Nemours & Co." followed by illegible initials (possibly "AG"); to right of address is stamped "Received Jun. 12, 1925 – A. P. Sloan, Jr."; above the word "Letter" in the sixth line of the text appears a check mark; at lower right appears a routing stamp with the initials "A.P.S.", "J.L.P.", "H.M.C.", "F.C.H.", "A.K.H.", "L.R.B.", "A.T.B.", "W.F.A."; check marks appear opposite the initials "A.P.S." and "A.T.B."; italics indicate handwriting.

Government's Exhibit No. 685

ETHYL GASOLINE CORPORATION
25 BROADWAY

NEW YORK June 27, 1925.
In reply please refer to E. W. Webb

Mr. Alfred P. Sloan, Jr.,
224 West 57th Street,
New York, N. Y.

Dear Mr. Sloan:

Confirming conversation with Mr. Brandt, beg to advise that Mr. Teagle requested that you and Mr. du Pont have luncheon with him on Monday, at 1 o'clock. I so informed Mr. du Pont, but he says that it will be very inconvenient for him to be in New York on Monday, and asked that his regrets be extended to Mr. Teagle.

Mr. du Pont expressed the hope that settlement terms will be reached on Monday, along the lines of his letter of June 9th and the statement attached thereto, copies of which were sent to you and other members of the Board on the 12th; he also said he would be in his office all day Monday and would be pleased to have you or Mr. Teagle communicate with him if any questions should arise regarding the terms of settlement, as he is very anxious to come to a definite understanding and, if possible, to get a check before the close of business on Tuesday, the 30th, which is the end of the fiscal year of his Company.

We have already informed the du Pont Company that we would reimburse them for the cost of building the chloride plant and any expenditures or obligations incurred in connection with it, or, I believe the precise language was that we should make them whole (excluding profits.).

I would like to call your attention to the material points upon which there might be some differences of opinion:.

(1) Cost of Research.

You will observe from the du Pont statement that this item is included in "Cost of Production, including Research, Accidents and Expense of Closing Down, $721,346.34". I am informed that the cost of research is quite a substantial portion of this amount, perhaps in the neighborhood of $150,000. In reference to same, Mr. du Pont's language to me was: "A part of the cost of making tetraethyl lead by the ethyl chloride method was determined by the exact method of procedure in the operation of the plant. This was done on a semi-works scale apparatus and at very considerable expense. This, in itself, of course, involved a great deal of laboratory work, which, in the aggregate, I refer to as 'Cost of Research' ".

I understand that any amount which we pay the du Pont Company, whether for research or any other reimbursement, or is agreed to be paid, will be subject to audit by us, and of course, if, by chance, any of the cost of research in connection with the bromide plant should be included in the chloride plant research, we will receive proper credit for same.

It seems to me that we should get from the du Pont Company at the time of settlement, assurances of placing us in possession of all facts and data relative to this work, so that we may have the benefit of any information or knowledge gained in such research work. This has not been suggested to the du Pont Company as a part of settlement, but I feel confident that Mr. du Pont will not raise the slightest objection to giving us full and complete copies of or access to this data.

(2) Salvage Value of Plant.

I have discussed this aspect of the settlement with Mr. du Pont several times. In a letter to Mr. du Pont some time ago, I stated:

"Furthermore, this approval, except as noted, is based upon the plant becoming ours when we have made payments to you as indicated. Frankly, I do not know whether I am entirely correct in setting up this condition or not, but I naturally assume that if operation of the plant is not resumed during our present contract period and meanwhile it has been paid for by us in accordance with the terms of the understanding which we are now attempting to reach, then it would seem to me that the building, its equipment and appurtenances (excluding land) would be our property."

Mr. du Pont replied:

"It will not be practical for the Ethyl Gas Corporation to take title to the tangible property amortized by the contract, the plant being too closely intermingled with previously existent facilities, and not capable of operation apart from our other facilities. If it is your desire that the plant be scrapped at your expense, the proceeds of the scrapping should properly be yours under a general proposition that we shall be made whole. However, the economics of such a procedure are not good, which being the case, it seems essential that the physical property of unknown and somewhat doubtful value should be left in our hands, perhaps as a compensation for our having waived any profits on the contract."

—3—

He has further stated that at the time the contract was made the subject was then brought up by representatives of this Corporation that inasmuch as the cost price of the lead was on the basis of amortizing the plant in one year, the plant should become ours at the expiration of the contract period; that he refused absolutely to subscribe to such suggestion; that the contract does not anywhere indicate that we should have title to the plant under any conditions.

However, upon my suggestion, he indicated not only willingness, but desire to reserve this plant for an extended period of time, for the manufacture, for us, of tetra ethyl lead or any other commodity to which it can be converted.

I also urged that because of the peculiar condition under which operation of the lead contract was suspended, and Mr. du Pont's statement that his Company did not ask or expect any profit, if the du Pont Company should finally not resume the manufacture of any commodity in it on our behalf, but should convert it to some other use, then we should be credited with its conversion value.

I believe I am fairly representing Mr. du Pont's views when I say that he subscribed in a general way to this thought. He expressed doubt, however, that the plant could be used for the manufacture of anything but tetra ethyl lead, and as there was no one but us to purchase that product, it was quite unthinkable to him that anything would be done with the plant until we have definitely decided exactly what we are going to do; he also indicated serious doubt as to any conversion of scrap value.

On the adjustment, I would like to suggest that the du pont Company agree to set this plant apart for a generously reasonable length of time for the manufacture of tetra ethyl lead or any other product which we might later on desire the du Pont Company to manufacture for us and to which the plant might be made adaptable; and that if it should not ultimately be used to manufacture something for us that we be paid the salvage value, whether demolished or converted to some other purpose.

(3) Of course, in the settlement we would want to include agreement on the part of the du Pont Company to fix a future price for the article manufactured in the plant and to be purchased by us, which "will not include in cost any item of amortization of the plant which has already been paid for" (quoting Mr. du Pont's language in his letter of June 9th.

Yours very truly,

E. W. Webb
E. W. Webb.

ES

cc to Mr. W. C. Teagle,
26 Broadway, New York.

Note: Written across the top of the page is "Ethyl Gas —Contracts—du Pont, E. I. de Nemours & Co."; at upper right appeal illegible initials; beneath letterhead appear illegible initials; to right of address is stamped "Received Jun 29, 1925—A. P. Sloan, Jr."; at far right appears the routing stamp containing the initials "A. P. S.", "J. L. P.", "H. M. C.", "F. C. H.", "A. K. H.", "L. R. B.", "A. T. B.", "W. F. A."; check marks appear opposite the initials "A. P. S." and "A. T. B."; on the third line of the second paragraph on the first page a check mark is superimposed on the date "9th"; italics indicate handwriting.

5

Government's Exhibit No. 686

Letterhead of
STANDARD OIL COMPANY
(Incorporated in New Jersey)
DEVELOPMENT DEPARTMENT

NEW YORK June 29, 1925.

Adjustment of du Pont Contract.

Mr. E. W. Webb,
Ethyl Gasoline Corp.,
25 Broadway, N. Y. C.

Dear Mr. Webb:

Pursuant to the arrangements made by you, Mr. Teagle and Mr. Sloan, Mr. Donaldson Brown and the writer discussed the adjustment of the du Pont contract today and arrived at the following unanimous conclusion as to a basis of settlement:

The broad basis is that the du Pont Company is entitled to be made whole for its operations under the ethyl chloride contract, without profit, but with interest on its capital actually invested up to the time of the settlement.

In applying this principle, the following points were specifically considered and agreement reached as follows:

1. Recognizing the fact that the ethyl chloride manufacturing contract carried with it the agreement on the part of the du Ponts to assign patent rights relating to improvements in the manufacture of antiknock to the Ethyl Corp., and in further consideration of the fact that the cost of all research work is included in the sum for which we reimburse the du Pont Co., the Ethyl Corp. is to have the full benefit of all of this research work, so as to be able to employ the results thereof, either itself or through others, just as effectively as the du Pont Co. is able to employ it.

X *We don't undertake to teach only give information*

2. The du Pont Company is to agree that it will hold the ethyl chloride manufacturing plant in readiness for to Apr 16 '26 only operation [for such period as may be requested by the Ethyl Corporation, all expenses of maintenance to be borne by the Ethyl Corp., and the scale or manner and cost of maintenance to be agreed on by the du Pont Co. and the Ethyl Corp.] 0175.

x—

No 3. If at any time the du Pont Co. wishes to make use of the ethyl plant for any purpose, it shall then pay to the Ethyl Corp. the then value of the plant to the du Pont Co. for the purpose for which they contemplate its use.

4. The du Pont Co. to agree that in any new contract for the production of lead in the ethyl chloride plant the principle will be recognized that the plant has already been paid for by the Ethyl Corp. and that the losses of initial operations and cost of obtaining the experience necessary to operate the plant on a production basis have also been paid for by the Ethyl Corp.; this latter being upon the theory that the position taken by the du Pont Co. as to the propriety of the present basis of settlement assumes that but for our cancellation of the contract at the present moment they were in a position in all respects to continue manufacture in the plant on a production basis in accordance with the terms of the contract.

After arriving at the foregoing settlement in principle with the du Pont Co., it is the understanding that there will be an audit of the du Pont Co.'s books covering the matters No in question, by the Ethyl Corp. with such assistance as it may wish from the General Motors and Standard Oil accounting departments, and that final payment will be based on the results of this audit.

In view of Mr. du Pont's desire to get this matter as nearly settled as it could be at the present time, it was agreed

Our proposition specified for acceptance by 7/1/25

We don't agree to waive profit if not accepted

that the sum of $1,500,000. should be paid to the du Pont Co. immediately by the Ethyl Corporation as a payment on account of the settlement of this contract, this payment being made at the present time, rather than after the audit is completed, at the request of Mr. du Pont and with the understanding on our part that it is not now expected that the results of the audit will show any less sum to be due and that the du Pont Co. is therefore entitled to definitely credit this amount on their books as having been received on account of its claim against the Ethyl Corporation. If the audit should show a sum less than a million and a half to be due the du Pont Co., we should therefore have no legal claim for reimbursement, but should rely upon the good faith of the du Pont Co. in making a satisfactory adjustment.

I was instructed by Mr. Teagle and Mr. Sloan to write out this memorandum for you giving the results of our meeting today, and to ask you to proceed to work ~~out~~ the definite settlement with Mr. du Pont on the basis of the foregoing. We all appreciate that some of the points above enumerated may require to be more fully and definitely stated in the settlement agreement.

Although I do not remember that the matter was discussed by our conference, it occurred to me as soon as I began to write this memorandum that Mr. du Pont should have a copy at once, and since you agreed with me in this I am sending him a copy today.

Yours very truly,

(Stamped) FRANK A. HOWARD

fah/ve

NOTE: At lower right of both pages is written "GMC-557a"; beneath the letterhead on the first page is written "Copy for Mr. du Pont"; underlining and marginal lines are by hand; notation in left margin opposite first paragraph of second page is illegible; italics indicate handwriting.

4
E

Government's Exhibit No. 687

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
WILMINGTON, DELAWARE

TREASURER'S OFFICE

June 30, 1925.

MR. IRENEE DU PONT, PRESIDENT

Attached will be found copy of Mr. Howards letter to Mr. Webb which I phoned to you about today.

After talking with you I talked with Mr. Webb and after some discussion he advised that he would deliver checks totaling $1,500,000 to Mr. Raskob today for our account without any strings attached to it at all, and that he would endeavor to get in touch with you today or tomorrow regarding the further provisions of the settlement.

Mr. Webb advised that the fact that you had received a copy of this attached communication should mean in no sense a commitment on our part to agree to anything and in fact he felt that one or two of the provisions were not in line with your ideas and that this fact had been confirmed by his conversation with Mr. Sloan.

W. S. Carpenter, Jr.
VICE PRES. AND TREASURER.

WSC:W.

NOTE: At upper right is written "C-26-E"; beneath this is drawn the figure "5" surrounded by a circle; check mark is by hand; at lower right is written "GMC-557"; italics indicate handwriting.

Government's Exhibit No. 688

Letterhead of
E. I. du Pont de Nemours & Company
INCORPORATED
Wilmington, Delaware

EXECUTIVE OFFICES

July 1, 1925.

Mr. E. W. Webb, President,
Ethyl Gasoline Corp.
25 Broadway,
New York City.

Read to Webb but not
sent to him
IduP.

Dear Mr. Webb:—

This is to serve as a record of what I shall expect to say to you orally when you visit me tomorrow:

Mr. Howard's letter to you, dated June 29th, "Adjustment of du Pont Contract" is not satisfactory. It differs in principle materially from the proposition which we have submitted to you in writing and if analyzed will be found to be intolerable.

We cannot cede ownership of the ethyl lead plant which is the tacit meaning of Mr. Howard's letter. It would result in endless discussion as to what should or should not be done if the up-keep is to be paid for by the Ethyl Gas Corp. Manifestly we cannot agree to settle on a basis determined by your auditors regardless of the correctness of their reasoning. I expect that they will approve our bill as rendered. If they can find any errors we will, of course, correct them but that is quite different from accepting their opinion if they should differ from us in their findings.

As I stated at the Directors meeting the du Pont Co would not dismantle or destroy the ethyl lead plant as long as there was any reasonable likelihood of its being needed and I think we would

—2—

be willing to agree not to dismantle before April 15th next but thereafter any disposition of it must be left to our judgment. Further we would/ not, as a matter of fairness, on any future contract "load" our costs by re-amortizing investment already amortized.

Our contract speaks for itself as regards ceding to you any inventions on anti-knock compounds but we could not undertake to teach you, or your appointees, how to carry on that manufacture as well as we could do. We can tell you what we have leanred but that does not of necessity mean that your appointee could do it himself without a good deal of coaching.

Very truly yours,

IRÉNÉE DU PONT, President

NOTE: At upper right of first page is written "C-26-E" beneath which is drawn the figure "5" surrounded by circle; at lower right on both pages is written "GMC—558"; line in left margin on second page is handwritten; italics indicate handwriting.

2

Government's Exhibit No. 690

ETHYL GASOLINE CORPORATION
25 BROADWAY
NEW YORK

COPY

July 27, 1925.

IN REPLY PLEASE REFER TO
E. W. Webb

Re: Chloride Process Contract Adjustment

Mr. Irenee du Pont, President,
E. I. duPont de Nemours & Company,
Wilmington, Delaware.

Dear Mr. duPont:

We received the Auditors' report on the cost of the chloride process plant and the cost factors in connection with same.

There are several items of cost on which we would appreciate more information.

Power Plant Cost — $ 84,582.00

Our information is that on June 29, 1920, your Executive Committee authorized an appropriation for $ 549,268.00 for the construction of an additional power house and equipment, together with the purchase of six boilers, four of which were to be installed in the new addition. Due to the decline in business the latter part of the year 1920, construction was suspended. However, work re-commenced in the year 1923. On this date four boilers were installed to meet the additional demands for power. The completion of this work cost $ 169,163.59. I understand that your company claims that the completion of two of the boilers was made necessary by the increase in power demands attendant upon the production of tetra ethyl lead by the chloride process, and that upon this ground, we are being charged with one-half of the cost necessary to complete the installation of the four boilers, to wit, $ 84,582.00.

Inasmuch as the additional power plant and equipment were authorized for potential power requirements without relation to the tetra ethyl lead plant, the question arises as to whether this charge of $ 84,582.00 would reflect an actual loss to you even if the tetra ethyl lead operations were never continued. Have you not at hand, by reason of this additional equipment, a reserve power to meet any future requirements of your general business, ignoring completely any use of the lead plant? If so, is it correct to charge the lead plant with one-half of this cost?

Research Expense

I observed in the report that this expense include monthly items from January 1924 to October 1924, amounting to $ 65,824.00. Inasmuch as these are for a period prior to the making of the contract, I would be pleased to be informed the reason for the charges.

Changing the Riverside Club — $21,400.34

I am advised this charge is for converting the Riverside Club building into an eight-family apartment.

We have not sufficient facts before us to formulate an opinion as to whether or not this is a proper charge against the chloride lead plant.

Item 2590 — Comfort Station — $2,467.80

I am advised that this station was built for the use of the men employed in the bromide as well as the chloride plant.

If so, it would appear there should be some division of cost between the two plants.

Estimated Loss on Pig Lead

Your bill shows an estimated amount of $ 12,264.09. The pig lead has now been entirely disposed of; the actual loss was $ 1,985.34 less than this estimate. The Dyeworks Department, I understand, have agreed to a corresponding reduction of this item.

I consider the salvage or conversion value of the chloride process plant as the principal matter to be adjusted between us. At our last interview regarding this and the other points, I left you with the impression that you were agreeable to the following:

1. That we should have the benefit of the research work in connection with this operation. Your Company is to give us all the information you have on the subject.
2. You to assign any patent rights relating to improvements in the manufacture of anti-knocks to date, to this company.
3. That in any future contract with us for the production of lead in this plant, you will, in fixing the price, take into consideration the fact that we have paid for the plant, and the other items mentioned in your bill.
4. You to hold this plant for the manufacture of lead for us until July 1, 1926.

At that time, you stated you were unwilling to consider our having the whole or any part of the salvage or conversion value of this plant. As I re-call it, your position was that if you had continued to manufacture lead until the termination of the contract, this plant would have been paid for at the conclusion of the contract, and therefore, you were entitled to at least that consideration.

✓

I stated then, and still am of the same opinion, that I thought you were in error, regarding this assumption on your part, and I would like very much for you, if you please, to hear me further on this subject.

—3—

The fact is that at the time of the shut-down you were producing but a trifle more than one-third of the minimum requirements set up in the contract. When this production could have been increased, to what extent and how long you could have continued without serious interruption, is problematic. Under the contract we were not obliged to take in excess of 458,000 lbs. any one month.. Naturally, none of us will ever know whether you would have been able to have met the minimum requirements of the contract in any single month, but I think there can be no serious question that the conditions as they were at the time of the shut-down and with the limitation on the amount which we were obliged to take any month, you would not have been able to deliver and oblige us to take anywhere near the minimum of 4,000,000 lbs., but assumingthat you had been able to reach such production, you would have had to make a profit of 50¢ per lb. in order to have netted you an amount equal to that which you are now demanding from us in settlement of the contract.

I believe from information obtained that your records do not warrant the confident belief that any such profit as that would have been made.

This conclusion has been strengthened by the verbal statements of the Auditors after going over your books and the information given to me, that the price of $1.17 was based on a plant cost around $ 600,000 to $750,000, and which you did not take into consideration the extraordinary expenses which you subsequently incurred by reason of the unexpected sickness, closing down, etc. and the statement made by Mr. Harrington at the interview in your office about a week before our Board decided to suspend, at which time you and Mr. Howard and I were present, that the plant had cost about $500,000 more than was anticipated at the time the contract was made.

There have been no figures or estimates presented to me to warrant the inference that the statement I have just made are not fairly correct and it therefore appears to me that if we paid your bill in full, to wit, $ 1,922,475.03, we would be paying you greately in excess of what you would have made had the contract been continued. This would be adding a premium on the contract rather than effecting a settlement on the full amount, which under any and all circumstances, you would have been entitled to receive.

I know it is the mutual desirof each of us to effect as equitable an adjustment asis practicable under the circumstances. I have not intended and shall not now, to ask something of your Company which I would not request from a concern that did not bear to us the friendly and close relationship which yours does, however, I feel that the payment of your demands amply justifies us in expecting to reach a settlement upon the basis that when we have paid your bill we shall be entitled to the salvage or conversion value of the plant in the event it shall not be used for the manufacture of tetra ethyl lead or some other article by you and to be purchased by us.

Very truly yours,

EWW/ES E. W. WEBB
dB.

NOTE: The initials "AR" appear at upper right of first page.

5

Government's Exhibit No. 691

Letterhead of
ETHYL GASOLINE CORPORATION
NEW YORK

August 6, 1925.
LEAD CONTRACT

Mr. Alfred P. Sloan, Jr.,
224 West 57th Street,
New York City.

My dear Mr. Sloan:

Instead of writing to Mr. Howard directly relative to the present status of lead contract (he has recently written me on the subject) I thought perhaps it was timely to report to you and Mr. Teagle about the negotiations, particularly since Mr. duPont and I do not seem to agree on terms. A copy of the enclosed letter is being sent to Mr. Howard, but none will be sent to Mr. duPont until you and Mr. Teagle tell me to send it.

I thought in view of what you recently told me about the possible embarrassment of leaving the adjustment to you, that you would prefer to have it left to the Board, hence my suggestion to Mr. duPont. He seemed very agreeable to this.

I regret we were unable to arrive at mutually agreeable terms of settlement. I beg to assure you I have endeavored to give the matter fair consideration, but have been unable to concur entirely with the views advanced on behalf of the duPont Company, although I realize it is a very uncertain, therefore,debatable, question we are striving to solve.

Yours very truly,
E. W. Webb

EWW/CH

NOTE: At upper right is written "AR"; to right of address is stamped "Received Aug 7, 1925, A. P. Sloan, Jr."; italics indicate handwriting.

August 7, 1925.

Mr. Earle W. Webb, President,
Ethyl Gasoline Corporation,
25 Broadway,
New York, N. Y.

RE: LEAD CONTRACT

My dear Mr. Webb:—

✓

I have your letter of August 6th and have gone over same carefully as well as the letter to Mr. Teagle and myself. I have looked over the examination of the duPont Company's records, same being an audit of the various items recently submitted to the Ethyl Gasoline Corporation.

This is a very embarrassing and perplexing situation and I regret very much that it has arisen. It is embarrassing to everybody concerned. In view of the fact that my mind apparently is not in harmony with Mr. Irenee' duPont or Mr. Howard's, it makes it additionally difficult for me to make any suggestions that might be helpful.

I feel that we are trying to determine an impossible thing. I mean by this—we have established the principle that the duPont Company should be let out whole and yet the picture is not sufficiently developed to enable us to define that principle in terms of dollars and cents. If we go ahead and make tetra-ethyl lead, it is one thing. If we do not, it is another. If we do not and we still adhere to the principle that the duPont Company should be let out whole, that again can't be translated into dollars and cents until we see what becomes of the property that has been created. If the property is of no use to them then to make them whole we have got to make them pay the full cost of same. If the property is of some future use to them, then to make them whole we have got to determine what use that is which the future can only determine.

8/25
✓

It means to me, therefore, that if Mr. duPont insists that a definite settlement be reached now and our friends the Standard Oil Company fuel likewise, I can't see how this is possible unless we depart from the principle that the duPont Company is to be let out whole and nothing but whole and nothing else than whole and in its place adopt the principle that it is a bad mess and we have got to make a compromise settlement, that is satisfactory to all concerned irrespective of any principle whatsoever.

—2—

If you can explain to me how we can live rigidly up to the principle that we have outlined and not have the ability to look into the future at the same time, in that event if you can do that I think I could help you and make some concrete suggestions. I will say this, however, that I do not think it will do any good to put it before the Board. There are a lot of people on the Board that have really nothing to say about it anyway. In the final analysis it must come down to what Mr. Teagle thinks about it, I presume, as influenced by Mr. Howard and the others and what I may think of it so what is the use of putting it to the Board? This is not in any way disrespectful to the Board because things are bound to work out that way in the final analysis. It is much more embarrassing to deal with it in a large meeting than it is in a small meeting.

Will you kindly consider the above and let me have your viewpoint and as soon as Mr. Howard returns from his vacation perhaps something could be accomplished if you, he and myself had a little argument about it.

Very truly yours,

APSJr./K

2

Note: At upper right is written "AR"; above the figure "6th" in the first line appears a check mark; in the right margin opposite the fourth paragraph of the first page appears a large check mark beneath which is a routing stamp containing the initials "A.P.S.", "J.L.P.", "H.M.C.", "F.C.H.", "A.K.H.", "L.R.B.", "A.T.B.", "W.F.A."; check marks appear opposite the initials "A.P.S." and "A.T.B."; in the right margin of the first page opposite the space between the third and fourth paragraphs is written "8/25".

Government's Exhibit No. 693

Letterhead of
ETHYL GASOLINE CORPORATION
NEW YORK

August 12, 1925.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
224 West 57th Street,
New York, N. Y.

My dear Mr. Sloan:

It seems to me that the third paragraph of your letter of August 7th is unassailable. Certainly nobody can now state the amount which will make the du Pont Company whole. If (on the principle of being made whole) the plant is never used again for the manufacture of lead and it should turn out that it had no sales or conversion value to the du Pont Company, then we should pay them every cent they spent for the construction and on account of the plant; on the other hand, if it proved to have some value, then we should be credited with whatever that value is.

I would say that our inability to reach an agreement has been due to the fact that Mr. du Pont apparently has never subscribed to the policy of being made whole when looked at from the above standpoint. He has repeatedly said to me that any adjustment which does not involve the payment of their full costs, and the plant to remain theirs, is not making them whole. He says to make him whole is to place him in the position he would have been had we not cancelled the contract; that if the contract had worked out to its end they would have made enough out of it to have fully paid for the plant and all other items for which they are now billing us. I have urged the best I know how that such an adjustment would be on the basis of profit rather than on the principle we contend for.

The difficulty about reaching an adjustment predicated on profit is that because of the past experiences with the plant it would be humanly impossible to calculate what the profits would have been had we not asked them to discontinue manufacturing. There is involved so much speculation as to what would or would not have occurred in this respect that I fear there would never be the sense of satisfaction of all parties concerned, which I would like to see, if we attempt to arrive at an understanding based upon profit. It seems to me that if Mr. du Pont is willing to forget all about profits and will accept the principle of placing his Company in as good position as it was before the contract was made insofar as any financial investment is concerned, then we should await the Committee's report and see what is to be done with the plant. Once he has subscribed to this basis of adjustment it seems to me we all would have the feeling that there will be some time in the future when an amount can be arrived at which will truly reflect the fulfillment of this obligation.

Frankly I entertain not the slightest doubt that a settlement based upon being made whole, because of the peculiar conditions under which this contract was being performed, will be a better settlement for the du Pont Company than for it to waive this principle and confine itself to its strict legal rights, to wit: provable profits. I have made this statement to Mr. du Pont at the same time saying that from the standpoint of justice to his Company it would not be fair to oblige them to show what their profits would have been and that it was our desire to reimburse them for their expenditures on the principle above stated.

I am pleased to know that it is your desire to have this matter taken up outside of the Board Meeting and beg to assure you that my only reason for suggesting otherwise was because sometime ago Mr. Howard stated that if there should be any difference of opinion between Mr. du Pont and myself regarding the adjustment, he felt quite sure that Mr. Teagle would want to leave the matter to you entirely. You may recall I mentioned this to you and you stated that this would place you in a most unenviable position.

Mr. Howard is expected back August 23rd and if agreeable to you I would like to make an appointment, as suggested in your letter, during that or the following week.

Yours very truly,

E. W. Webb

EWW/M

NOTE: Beneath the letterhead and at upper right appear illegible initials; to right of address is stamped "Received Aug. 13, 1925, A. P. Sloan, Jr."; above figure "7th" in first sentence appears a check mark; italics indicate handwriting.

Government's Exhibit No. 694

ETHYL GASOLINE CORPORATION
25 Broadway,
New York

March 10th, 1925.

In Reply Please Refer to A. M. MAXWELL

$250,000.00 LOAN

Mr. Donaldson Brown, Vice-President,
General Motors Corporation,
224 West 57th Street,
New York, N.Y.

Dear Mr. Brown:

With reference to telephone conversation of even date concerning our necessity to ask for additional funds both from you and the Standard Oil Company of New Jersey for the financing of our business, please be advised that our bank balance today is $560,387.00. Our accounts payable for February are approximately $549,000.00. Of this amount we owe $506,613.00 to the du Pont Company for February deliveries of Tetraethyl Lead. After paying these accounts payable you can see that the balance will practically be wiped out.

On the other hand, we have at Dayton $781,000.00 in raw material—Tetraethyl Lead and Ethylene Dibromide, and $265,000.00 in finished stock—Ethyl fluid. Accounts receivable, $294,000.00.

Accordingly, we believe, due to the slowness of sales of Ethyl Gasoline by our customers and until such time as our new territory which we are opening up will begin drawing upon our finished product, that we will need $250,000.00 each from General Motors Corporation and Standard Oil Company of New Jersey. It may be possible we will have to call for some additional funds until the summer season sets in and sales begin to increase, as has been the case last year. We make this statement due to the fact, as you are aware, our Board has approved the purchasing and equipping of a vessel to produce Tribromaniline from sea water, which will cost between $350,000.00 and $400,000.00.

I have taken this matter up with the Standard Oil Company of New Jersey and they suggest, if same meets with your approval, rather than purchase out-right additional stock in the Ethyl Gasoline Corporation, that General Motors Corporation and Standard Oil Company of New Jersey each loan Ethyl Gasoline Corporation $250,000.00 at interest rate of 5%, it being understood this interest rate will be subject to change semi-annually. In other words, on July 1st this rate may be raised or lowered, depending upon the money market.

If this meets with your approval, will you kindly have your Treasurer, at his earliest convenience, make arrangements for this loan of $250,000.00 at 5% interest.

Very truly yours,

Ethyl Gasoline Corporation

Per A. M. Maxwell
Vice-President and Sales Manager.

2

Government's Exhibit No. 695

March 16, 1925.

To: **FINANCE COMMITTEE**

From: **DONALDSON BROWN**, V.P.

LOAN TO ETHYL GASOLINE CORPORATION

The Ethyl Gasoline Corporation have called upon General Motors Corporation and the Standard Oil Company of New Jersey for an advance in each instance of $250,000, the circumstances necessitating said request being set forth in the attached copy of letter from the Ethyl Gasoline Corporation under date of March 10th.

This additional capital is requested in the form of a loan rather than as a subscription to additional stock, for the reason that the present inventory of Tetraethyl Lead is abnormally high, and the Ethyl Gasoline Corporation will probably be able to pay off the loans later in the year. We have agreed to carry the loan at 5% interest up to June 30th, with adjustment of interest rate then.

Will the Committee please approve the action taken in extending this loan?

Donaldson Brown

NOTE: At upper right is written "J. J. R."; at upper middle is stamped "GMC Finance Committee, Secy's No." and the figure "2010" is written in; at upper right appears a check mark with a circle around it; italics indicate handwriting.

Government's Exhibit No. 696

GENERAL MOTORS CORPORATION

INTER-ORGANIZATION LETTERS ONLY

April 13,1925.

SUBJECT

FOR ATTENTION OF Donaldson Brown, Vice Pres.

This is to advise that the Finance Committee, at meeting held today authorized a loan of $250,000. to the Ethyl Gasoline Corporation with interest at 5%, which rate/subject is to adjustment July 1st.

I understand this loan has already been effected and the Finance Committee's action was a confirmation thereof.

C. D. Hartman, Jr. ✓

H.

Copy to M. L. Prentis, Treasurer.

NOTE: At upper right is written "F-207"; check mark is by hand; italics indicate handwriting.

Government's Exhibit No. 697

Extract from Minutes of Meeting of the Finance Committee of General Motors Corporation duly held on the 13th day of April, 1925.

* * * * * * * * * * * * * *

PRESENT: J. J. Raskob, Chairman
H. F. duPont
Lammot duPont
Irenee duPont
Donaldson Brown
A. P. Sloan, Jr.
George Whitney

* * * * * * * * * * * * * *

LOAN TO ETHYL GASOLINE CORPORATION

Report was received from Vice President Donaldson Brown, dated March 16 1925 (#2010), advising that due to the present high inventory of tetraethyllead which the Ethyl Gasoline Corporation is carrying, it is necessary for said Corporation to borrow $500,000, half from General Motors Corporation and half from the Standard Oil Company of New Jersey, each of which owns 50% of the capital stock of Ethyl Gasoline Corporation. Mr. Brown advised the Committee that this loan has been made at 5%, which rate is subject to adjustment July 1, 1925.

Upon motion the above mentioned report was accepted and ordered filed, and the action taken by Mr. Brown in effecting said loan was approved.

* * * * * * * * * * * * * *

A true copy.

(Signed) *George A. Brooks*
Secretary

NOTE: Italics indicate handwriting.

Extract from Minutes of Meeting of the Finance Committee of General Motors Corporation duly held on the 27th day of April, 1925.

* * * * * * * * * * * * * *

PRESENT: J. J. Raskob, Chairman
Donaldson Brown,
H. F. duPont,
Lammot duPont,
P. S. duPont,
Fred J. Fisher,
Seward Prosser,
A. P. Sloan, Jr.,
George Whitney.

* * * * * * * * * * * * * *

LOAN TO ETHYL GASOLINE CORPORATION:

The Chairman advised the Committee that due to the necessity of having to carry at this time very high inventories, the Ethyl Gasoline Corporation finds it necessary to borrow additional funds. Therefore, upon motion, the proper officers of the Corporation were authorized to loan to Ethyl Gasoline Corporation the sum of $300,000 at 5%, which rate is subject to adjustment on July 1, 1925, it being understood that Standard Oil Company of New Jersey will advance a like amount.

* * * * * * * * * * * * * *

A true copy.

(Signed) *George A. Brooks*
Secretary

NOTE: Italics indicate handwriting.

Government's Exhibit No. 699

Extract from Minutes of Meeting of the Finance Committee of General Motors Corporation duly held on the 1st day of June, 1925.

* * * * * * * * * * * * * *

PRESENT: J. J. Raskob, Chairman,
Donaldson Brown,
H. F. duPont,
Irenee du Pont,
Lammot duPont,
P. S. duPont,
Fred J. Fisher,
Seward Prosser,
A. P. Sloan, Jr.,
George F. Baker, Jr.

* * * * * * * * * * * * * *

LOAN TO ETHYL GASOLINE CORPORATION:

The Chairman advised that he had authorized an additional loan of $400,000. to the Ethyl Gasoline Corporation; interest at the rate of 5% but subject to change July 1, 1925, it being understood that Standard Oil Company of New Jersey would advance a like amount. Upon motion, the action taken by the Chairman in this connection was approved.

* * * * * * * * * * * * * *

A true copy.

(Signed) *George A. Brooks*
Secretary

NOTE: Italics indicate handwriting.

Extract from Minutes of Meeting of the Finance Committee of General Motors Corporation duly held on the 24th day of July, 1925.

* * * * * * * * * * * * * * *

PRESENT: Alfred P. Sloan, Jr., Chairman pro tem,
Donaldson Brown
H. F. duPont,
Irenee duPont,
Lammot duPont,
Fred J. Fisher,
George F. Baker, Jr.

* * * * * * * * * * * * * * *

LOANS TO ETHYL GASOLINE CORP.

Report was received from Vice President Donaldson Brown dated July 20, 1925 (#1298) advising that under agreement between General Motors Corporation and the Standard Oil Company of New Jersey whereby any advances required by the Ethyl Gasoline Corporation would be supplied equally by ourselves and the Standard Oil Company of New Jersey (each being the owner of 50% of the stock of Ethyl Gasoline Corporation) there has been advanced by General Motors an aggregate of $1,700,000. Mr. Brown requested authority to advance additional amounts up to a total of $500,000. with the understanding that the Standard Oil Company of New Jersey would match any amounts advanced by us, the interest rate on all loans to be 5%.

Upon motion, the above mentioned report was accepted and ordered filed, all loans to date as well as Mr. Brown's recommendation being approved.

* * * * * * * * * * * * * * *

A true copy.

(Signed) *George A. Brooks*
Secretary

NOTE: Italics indicate handwriting.

Government's Exhibit No. 702

COPY FOR MR. W. F. HARRINGTON.

May 7, 1925.

Mr. E.W.Webb, President,
Ethyl Gasoline Corp.
25 Broadway,
New York City.

Dear Mr. Webb:—

Some days ago I mentioned to you the inadvisability of injecting into the tetraethyl lead contract the provision that should du Pont discover or acquire improvements in anti-knock materials they should be ceded without cost to the Ethyl Gasoline Corporation.

Manifestly, this simply means that we will never acquire such inventions but would simply refer the owner to you, and, manifestly, it prohibits our spending money in research for improvements of anti-knock material because the cost would be du Pont's and any valuable finds would be the property of the Ethyl Gasoline Corp. It seems to me that it is an opportune time in view of the cancellation of our contract for making tetraethyl lead that this question be taken up and definitely settled on a more common sense basis.

Will you give it some attention?

Very truly yours,

IRÉNÉE DU PONT, President

NOTE: "FILE COPY" is printed across page.

Government's Exhibit No. 703

Letterhead of
GENERAL MOTORS CORPORATION
NEW YORK

January 26, 1926.

Mr. Earle W. Webb, President,
Ethyl Gasoline Corporation,
25 Broadway,
New York, N. Y.

My Dear Mr. Webb:—

I called up Mr. Howard yesterday on the telephone in connection with an entirely different matter and we got talking about the proposed program that we were to deal with in the near future and he pointed out to me the very great importance that the cost of tetra ethyl lead, concentrated, as received from the duPont organization, would assume in the operations of Ethyl Gasoline Corporation. Naturally, in an offhand telephone conversation one can not get the complete picture, but I took it, from what Mr. Howard had in mind, that due to the necessary expense of operating the organization with all its ramifications, etc., like any other business, that the question of volume was an important one and until we got our volume up to large figures, we would have difficulty in making 'both ends meet', so to speak.

Naturally, we here need no education on the effect of volume on price. It is our middle name, so to speak, or, in other words, we have been brought up on it and it is why, as you know, the automotive industry has assumed such large magnitude.

I mention this because in dealing with the duPont Company, I think it would be very helpful if we could make a setup showing exactly what we could do and what we could not do. It should be shown in sufficient detail so that it would be readily acceptable. As a matter of fact, the duPont organization, our friends, the Standard Oil Company, and General Motors Corporation are, in principle, partners in this enterprise. We have each got to do our part to the best of our ability. I am sure that the duPont Company appreciates this just as much as the rest of us do and I believe that a complete analysis of our limitations, starting with the maximum selling price that can be set up and dealing with our necessary expenses and all that sort of thing interpreted into what we can fairly pay for the cost of tetra-ethyl lead during the next year or so, will serve to greatly impress upon the duPont organization our position and will make

—2—

them feel that it is both necessary and desirable that they should work along with us, even at a smaller profit than they would like, while we are developing volume and getting ourselves on our feet.

I believe that Mr. Ireneé duPont is absent and will be for a week or so, altho I am not sure, which means that there will be plenty of time to develop a picture of this kind if you think it is worth while.

The above is merely offered as a suggestion for what you may consider it worth.

Very truly yours,

Alfred P. Sloan, Jr.
B.

APSJr./K
c/c Messrs. Donaldson Brown
Frank Howard

NOTE: At upper right is stamped "File . . . by" (rest of stamp obscure); check mark is by hand; at upper right of second page is written "D2"; italics indicate handwriting.

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Government's Exhibit No. 704

February 8, 1926.

Mr. Ireneé duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Ireneé:—

I have your very kind letter of February 5th dealing with certain phases of the Ethyl Gasoline situation.

I have felt for some time that you were, in a way, out of harmony with the way things were developing and I do not know as I blame you. There are many things which I am out of harmony with myself. Your letter gives me an opportunity to express my opinion confidentially on various things which I will do in a letter because it is so hard to get an opportunity to sit down and discuss them personally.

First. I am not now in harmony, and never have been, with the discussion with your company regarding the cost of tetra ethyl lead. So far as I am concerned, if you tell us what it should be I would be satisfied to accept it as being a proper and constructive price based upon a fair cost of manufacture with a reasonable allowance for all the hazards that we are going into and I am perfectly satisfied to base our commercial program on such price as you might name, knowing that it is to your interest as well as ours to get the price down as low as is consistent. On the other hand, you must recognize that I am essentially, or at least believe and hope I am, a member of the duPont family and having, rightly or wrongly, formed this association with our friends the Standard Oil Company of N.J. and they knowing my position, it places me in a very embarrassing situation and I have felt, therefore, that I could help more in an indirect way by keeping my mouth shut. I was never in favor of the Standard Oil Company of N.J. going into the manufacture of tetra ethyl lead, but I felt that they never would get it out of their CF system unless they did go into it and when they established their record I felt that they would look at itdifferently than they had before, but aparently they do not seem to yet entirely appreciate all the facts in the case. However, I am sure that this will work itself out altho it is a little disagreeable in the meantime.

Second. With all due respect to your judgment, I frankly and honestly do differ with you on the question of the hazard. I did feel and still feel that it was the right thing to withdraw from the market and I presume you still think that it was the wrong thing to do. If

—2—

our responsibility was to be limited to Ethyl Gasoline Corporation, it would be one thing, but in the case of General Motors we must maintain the good-will of the public for the sake of our car products and in view of the position we were placed in by attacks which we did not have the ammunition to meet, I felt that in deference to public opinion and to our own position, we should retire until we knew more conclusively where we were at. Now we come to the point where we can go ahead and the same consideration actuates me. I think that we should confine the handling of the concentrated material in as few places as possible. I do not think we should go so far as to confine it to the refineries. As a matter of fact, I know in a practical way we will not do that. I do think, however, that we should eliminate the small pumps at the service station and the larger pumps on the tank wagon and that if it is worth going into at all it is worth going into so that we eliminate those particular hazards at least and I am sure that all our customers will agree with us on this and that we can go ahead on that basis altho perhaps not quite so fast. I agree with you that with organization you can do anything, at the same time the expense and the practical workout must be considered and, frankly, I should hate very much, if we can work it out any other way, to go back to a tank wagon mixing proposition. If our customers will not do it any other way and it is either that or nothing, then let us consider the hazard of that and decide our situation, but in the meantime if we can go ahead in a better way even in the face of a little delay, isn't that the better procedure?

Third. Regarding price, I have been discussing this matter with the Standard Oil people and I think you are undoubtedly right. As a matter of fact, the price was set two or three years ago when we first started and has been carried at cost and nobody has raised the question. Now all these questions come up and I see no reason why we should specify the price and I think that that position will prevail.

Fourth. When it comes to standardization, we should consider that matter further and I am sure it will be considered. Recognizing that any use of tetra ethyl lead must mean that the gasoline is ethylized gasoline irrespective of amount, if we sell tetra ethyl lead without any standard it would seem to me that a user purchasing the material would get a varying degree of satisfaction from nothing up to very complete satisfaction, depending upon how much tetra ethyl lead was used and, therefore, the term ethylized gasoline would not mean very much and would sooner or later become discredited. It may be that that would not happen, but certainly if we have no prescribed standards in other things of manufacture it usually results in deterioration of the products. On this point it occurred to me that we might adopt a standard for anti-knock and maintain that standard and then we might sell tetra ethyl lead at a lower standard and not call it ethylized gasoline, but the weakness of this is that I imagine the position would be taken that the use of any amount of tetra ethyl lead would have to carry the precautions

incident to the full quantity, at least to a degree, and it would be hard to distinguish one from the other. Frankly, I do not exactly see how we can get anywhere unless we do adopt a standard, making that standard what commercially seems to be the best. However, that also will be considered more fully.

Fifth. I have had so much experience in the past few years in co-ordinating components which were more or less in conflict and which were rather indefinite at the best, that altho I felt rather discouraged at the end of our meeting the other day, nevertheless it was no different than a good many other meetings I have attended. I feel that there is a much better way to handle the property than the way it was handled the other day and I suggested to Mr. Webb that we ask the Standard Oil Company to appoint a man and that we will appoint a man to act as an Executive Committee and see if we can not formulate more thoroughly our programs so that those points that have to go to the Board can be taken up after the principles have been more carefully worked out and a consensus of opinion developed before the meeting, both for the sake of conserving time and getting a more definite result.

To sum up the situation, I should be very much disappointed if you decide to withdraw from the picture at this time. I think that by working together a little more closely we can iron out many of these difficulties. I do not think it is the desire of any party to the picture to be arbitrary or to want to go one way as against another. I feel that there is nothing that is desirable for Ethyl Gasoline Corporation but what can be adopted and I have always found, outside of the relations with you, which I frankly think have been somewhat unreasonably handled, the attitude of our friends the Standard Oil Company to be helpful and constructive and we have always been able to do what we wanted to do if we were sure enough of our position to take a strong position.

Very truly yours,

APSJr./K

NOTE: In right margin above text of letter appears a routing stamp containing initials "A. P. S.", "J. L. P.", "H. M. C.", "F. C. H.", "A. K. H.", "L. R. B.", "A. T. B.", "W. F. A."; check marks appear opposite the initials "A. P.S." and "A.T.B."; check mark and underlining are by hand; italics indicate handwriting.

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Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

February 10, 1926.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
224 West 57th Street,
New York City.

Dear Sir:

Thank you for your letter of the 8th.

Admittedly I was somewhat ruffled at the lack of progress of the Ethyl Gas Corporation; also at their attitude on duPont's proposition to make tetra-ethyl lead. We certainly have the hard end of the job, and questioning a few cents a pound, which means hundredths of a cent per gallon for our services, seems so very out of place compared with preemptory knocking off 50¢ or $1.00 a pound, equivalent to the price charged for Ethyl Gas.

Of course, the hazard is all a matter of judgment. Certainly the hazard in simply pouring a small amount of ethyl fluid into gasoline seems trifling to me in comparison with the hazard of its manufacture. It would also seem trifling compared with the danger of using high explosives, and those hazards are met in thousands places all over the country. Of course, the lead hazard is much more obscure and may be proportionately more dangerous thereby.

As regards standardization, perhaps there is a feasible way but it seems difficult to find, and practically we could

—2—

get the use of the fluid introduced very rapidly if we would make it easier for the consumer.

I will exercise patience and do my best to further the proposition in which ever way the majority desires it done.

Very truly yours,

Irénée du Pont.
Irénée duPont, President.

NOTE: Across the top is written "Ethyl Gas Org. Bd. of Directors—du Pont Irenee"; beneath letterhead and at upper right appear illegible initials; beneath date line appears routing stamp, initials of which are obscure, bearing check marks after first and seventh places (probably same as Government Exhibit 689); to right of address is stamped "Received Feb 11, 1925, A. P. Sloan, Jr."; check mark and underlining are by hand; italics indicate handwriting.

2.

Government's Exhibit No. 706

THIS AGREEMENT made this *31st.* day of ~~April~~ *March* 1926, between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation of the State of Delaware, hereinafter called the "Seller", and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter called the "Buyer",

WITNESSETH:

WHEREAS the Buyer desires to have the Tetraethyl Lead, which it is purchasing from the Seller under a concurrent agreement, mixed with other materials, viz Ethylene-di-bromide and Halowax Oil and/or other substances, to put the Tetraethyl Lead into the commercially marketable form known as Ethyl Fluid; and

WHEREAS the Seller is willing to undertake the carrying out of this operation, being particularly fitted to do it in view of the fact that the Surgeon General's recommendation is that this operation, known as blending, be conducted at a point adjacent to the point of manufacture of Tetraethyl Lead:

NOW, THEREFORE, in consideration of Ten Dollars ($10.00) in hand paid by the Buyer to the Seller, the receipt whereof is hereby acknowledged, and the mutual covenants of this agreement, the parties hereto have agreed and hereby do agree as follows:

1. The Seller agrees as soon as practicable after the execution of this agreement to install at a point adjacent to its Tetraethyl Lead plant the necessary equipment for carrying out this operation of blending, under conditions which are necessary for safe operation, which plant shall include a warehouse with tile walls, concrete floors, and a storage space sufficient to hold 500 drums of Ethyl Fluid stored one-tier high.

II. As soon as this installation has been completed the Seller agrees to manufacture Ethyl Fluid by blending the raw materials supplied by the Buyer in the proportions represented by a mixture known by the Buyer as J-3, consisting of three parts by volume of Tetraethyl Lead, about two parts by volume of Ethylene-di-bromide, and one-half part by volume of Halowax Oil, containing a certain amount of coloring material.

—2—

III. The capacity of the plant to be installed by the Seller shall be sufficient to take care of the preparation of six hundred thousand (600,000) pounds per month of Ethyl Fluid of the above composition, and, if the Buyer so desires and shall supply the materials therefor, this rate of operation shall be reached not later than July 1, 1926.

IV. The Seller agrees to blend all the materials supplied by the Buyer up to the capacity of the plant at a price of one and three-fourths cents (1¾¢) per pound for the first five million (5,000,000) pounds and one and one-fourth cents (1¼¢) per pound for the next six million five hundred thousand (6,500,000) pounds of finished Ethyl Fluid based upon the composition of mixture given above, or to prepare other mixtures if desired by the Buyer at prices which are commensurate with this figure. Payment shall be made on the tenth day of each month for all Ethyl Fluid delivered during the previous month.

V. The Buyer is to deliver to the blending plant all of the raw materials and packages required. The Seller, free of charge to the Buyer, is to do all necessary cleaning and painting of packages, fill them with Ethyl Fluid and deliver them to the warehouse which will be situated adjacent to the blending plant and under the control of the Buyer, and furnish the necessary labor to load all Ethyl Fluid delivered at the warehouse on board cars.

VI. The compensation quoted above is based upon the assumption that the operation of the blending plant will be continued until a total of twenty-seven million (27,000,000) pounds of Ethyl Fluid of the above composition, or any modified composition specified by the Buyer, have been delivered. If the Buyer shall elect to discontinue the taking of Ethyl Fluid at any time prior to the delivery of eleven million five hundred thousand (11,500,000) pounds, it may cancel this agreement upon taking over all of the Ethyl Fluid finished or in process at the time of cancellation. In the event of cancellation the Buyer shall pay to the Seller the unamortized portion of the cost of the blending plant which the Buyer and Seller hereby agree shall be determined by taking

one-third of a cent per pound for the quantity by which deliveries have fallen short of twenty-seven million (27,000,000) pounds quantity.

But if eleven million five hundred thousand (11,500,000) pounds of Ethyl Fluid have been delivered under this contract, and the Buyer and the Seller do not enter into a contract covering further blending of Ethyl Fluid, the Buyer shall pay to Seller the sum of Fifty-one Thousand Six Hundred Sixty-six Dollars and sixty-seven Cents ($51,666.67), which sum the Buyer and Seller agree would be the unamortized portion of the cost of said blending plant.

On the other hand, if the Buyer and Seller do enter into a contract covering further blending, the charge for such blending shall include the said unamortized cost of said blending plant on a pound basis equally distributed over the entire amount contracted for; on condition, however, that if the Buyer shall not take and pay for an amount of Ethyl Fluid which shall fully amortize the plant as aforesaid, the Buyer shall pay the Seller, in cash, on the termination of such agreement, any such unamortized portion of said blending plant cost.

Payment of the sums hereinabove provided for in paragraph VI shall be in full of all claims for damages by the Seller against the Buyer because of cancellation of this contract.

VII. The Seller will provide the necessary laboratory facilities to enable the inspector of the Buyer to take such samples and make such tests as may be required to permit him to determine the quality of the Fluid being delivered.

VIII. Neither the Buyer nor the Seller shall be liable to the other for any failure of performance caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto, but, the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to perform as to the quantities provided in this agreement, but shall merely postpone performance, with the understanding however that no blending is to be done or called for after the cessation of the supply of Tetraethyl Lead under the concurrent agreement.

IN WITNESS WHEREOF the parties hereto by their officers duly authorized have caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. du Pont de Nemours and Company

By *W. F. Harrington*

Attest: General Manager—Dyestuffs Dept.

M. D. Fisher

Asst. Secretary

Ethyl Gasoline Corporation

By *E. W. Webb*

Attest: President

A. E. Mittnacht

Secretary

In consideration of the execution of the foregoing contract by E. I. du Pont de Nemours and Company, the undersigned, being the owners of all of the capital stock of the Ethyl Gasoline Corporation, do hereby guarantee that the foregoing agreement shall be fully and faithfully performed by the Ethyl Gasoline Corporation, in accordance with the terms thereof.

Standard Oil Company (New Jersey)

X By *S. B. Hunt*

Attest: *Vice* President

WPJ *C. E. White*

Secretary

General Motors Corporation

By *Alfred P. Sloan Jr.*

President

Attest:

L. R. Beardslee

Asst. Secretary

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THIS AGREEMENT made this *31st* day of ~~April~~ *March*, *1926*, between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter called the "Seller", and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter called the "Buyer".

WITNESSETH:

WHEREAS the Seller has a plant for the manufacture of Tetraethyl Lead under process known as the "chloride process"; and the Buyer is desirous of purchasing from the Seller its entire requirements of Tetraethyl Lead:

NOW, THEREFORE, in consideration of the mutual covenants the parties hereto agree as follows:

I. The Seller agrees, as soon as may be after the signing of this agreement, to complete the changes in equipment at the said plant, which were interrupted by the discontinuance of operations in May, 1925.

II. Beginning as soon as these changes are completed the Seller agrees to commence and continue production at as rapid a rate as is consistent with safety.

III. The Seller agrees to sell and deliver and the Buyer agrees to purchase, receive and pay for the entire production of said plant during the period beginning with the signing of this agreement and ending February 29, 1928, provided, however, that the Buyer shall not be obligated to receive more than sixty thousand (60,000) pounds in June, 1926; one hundred and twenty thousand (120,000) pounds in July, 1926, one hundred and eighty thousand (180,000) pounds in August, 1926; two hundred and twenty-five thousand (225,000) pounds in any of the six months beginning September, 1926, and three hundred thousand (300,000) pounds in any of the twelve months beginning March, 1927; nor more than five million (5,000,000) pounds in all. It is understood, however, that the Seller is to produce and deliver (at not exceeding the price hereinafter mentioned) any requested amount in excess of the monthly quantities above mentioned, up to the capacity of its said plant, on receiving at least thirty (30) days written notice in advance of the calendar month affected that the Buyer desires such additional deliveries; and always conditioned on the ability of the Seller to do so consistently with safety.

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IV. The price shall be One Dollar ($1.00) per pound of one hundred percent. Tetraethyl Lead content, f. o. b. Seller's plant, Deepwater, New Jersey. If the operation of blending shall be conducted at the Seller's plant, delivery of Tetraethyl Lead to the storage tanks at the blending plant shall constitute a delivery, and invoices shall be rendered on that basis.

The Tetraethyl Lead delivered hereunder shall be of a quality and purity at least equal to that heretofore supplied by the Seller to the Buyer.

Payment shall be made against invoices on or before the tenth day of the month following the calendar month in which deliveries are made.

V. In case the Seller is prevented, by judicial, legislative or other governmental action, from making or delivering Tetraethyl Lead, this contract shall, at the option of the Seller, terminate. The Buyer shall have the option to terminate this contract at any time for any reason whatsoever upon giving written notice to the Seller of the Buyer's intention so to do, and thereupon the contract shall end. It is expressly agreed that in the event that this contract is terminated, either by Seller under the circumstances mentioned above, or by Buyer for any cause, as aforesaid, the Buyer shall pay to Seller, except as hereinafter mentioned, as reimbursement, an agreed compensation for making changes in said plant and equipment and for starting up and closing down said plant, and any and all damages of whatsoever nature sustained or claimed to be sustained by Seller by reason of such termination, the following amounts:

1. The Buyer shall accept delivery of all Tetraethyl Lead in process at the time of the termination, and shall reimburse the Seller for all loss and expense incurred in liquidating stocks of, and commitments for, raw materials purchased for use in fulfilling this contract. The Buyer may, at its option, conduct such liquidation or may have the Seller do so for the Buyer's account.

2. In case the Seller, at the date of termination, has delivered less than One million (1,000,000) pounds, the Buyer shall pay the Seller ten cents (10¢) per pound for the undelivered portion up to one million (1,000,000) pounds.

3. In addition to the amounts specified at 1 and 2, the Buyer shall pay the Seller four cents (4¢) per pound on all undelivered material in excess of deliveries made up to four million five hundred thousand (4,500,000) pounds, provided, however, that there shall be subtracted from the amount undelivered to which the four cents (4¢) per pound aforesaid is applicable the amount, if any, by which deliveries may have fallen short of the monthly amounts set

forth in the schedule in paragraph III hereof, and provided further that if the Seller is prevented by judicial, legislative or other governmental action from making or delivering Tetraethyl Lead on account of conditions within Seller's control, then the payment provided to be made by the Buyer to the Seller under this subdivision of paragraph 5 shall be reduced one-half.

VI. Neither the Buyer nor the Seller shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto, but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance, with the understanding, however, that the Seller shall not be obliged to make, nor the Buyer to accept, any deliveries after February, 1929.

VII. In view of the obligation of the Buyer to be responsible for the liquidation of stocks of, and commitments for, raw materials purchased for use in fulfilling this contract (as set forth in paragraph V) it is provided—because of the peculiar circumstances connected with Ethyl Chloride—that the Buyer shall have the right to disapprove any contract to be made by the Seller covering Ethyl Chloride, but on the understanding that if the Buyer shall fail to approve any such contract, and shall fail to provide Ethyl Chloride from some other source on terms equally satisfactory to the Seller as to quality, price and deliveries, then the Seller shall have the option to terminate this agreement with obligation on the Buyer to make reimbursement as in said paragraph V provided.

VIII. It is agreed that if during the term of this contract the Seller develops any other anti-knock material it will notify the Buyer of the fact, and the Buyer is hereby given an option to purchase and use said anti-knock material upon terms and price to be agreed upon by the parties.

In Witness Whereof the parties hereto by their officers duly authorized, have caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. Du Pont De Nemours & Company

By W. F. Harrington
General Manager—Dyestuffs Dept.

Attest:

M. D. Fisher
Assistant Secretary

Ethyl Gasoline Corporation,

By E. W. Webb

Attest:

A. E. Mittnacht,
Secretary

President.

In consideration of the execution of the foregoing contract by E. I. Du Pont De Nemours & Company, the undersigned being the owners of all of the capital stock of the Ethyl Gasoline Corporation, do hereby guarantee that the foregoing agreement shall be fully and faithfully

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performed by the ETHYL GASOLINE CORPORATION, in accordance with the terms thereof.

STANDARD OIL COMPANY (NEW JERSEY)

By *S. B. Hunt*

Vice President.

Attest:

T.W.P.,Jr. *C. E. White*
Secretary

GENERAL MOTORS CORPORATION

By *Alfred P. Sloan, Jr.*,

Attest

L. R. Beardslee
Asst. Secretary

THIS AGREEMENT, made this *31* day of *March,* 1926, between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, of the first part (herein referred to as "DuPont Company"), and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, of the second part (herein referred to as the "Ethyl Company").

WITNESSETH:

WHEREAS, DuPont Company has at Deepwater Point, Salem County, New Jersey, a plant which was especially constructed and equipped under a previous contract between the parties hereto for the production of tetra-ethyl lead by the Ethyl Cloride Process, with capacity production of not less than four million (4,000,000) pounds thereof per annum; and

WHEREAS, it was contemplated that DuPont Company would be enabled to recoup its costs and expenses incurred in the construction and equipment of said plant from proceeds derived from the sale of the product therefrom during the course of performance of said previous contract, but was prevented from so doing by cancellation of said contract by the Ethyl Company; and

WHEREAS, DuPont Company has been fully recompensed for all loss sustained by it resulting from the cancellation of the said previous contract, excepting its costs and expenses incurred in construction and equipment of said plant, claim in respect of which is now in controversey between the parties hereto; and

WHEREAS, the Ethyl Company is now undertaking to extend the use of said tetra-ethyl lead throughout the country as an ingredient for motor fuel and may ultimately be able to purchase the maximum output of said plant; and desires therefore to secure from DuPont Company the exclusive right to such maximum plant capacity throughout the five-year period next ensuing;

Now, THEREFORE, in consideration of the premises and of the mutual covenants and conditions hereinafter set forth, the parties hereto have agreed as follows:

1. DuPont Company hereby covenants and agrees with Ethyl Company that so long as the production of tetra-ethyl lead by DuPont Company at said plant and sale thereof to Ethyl Company shall be covered by a contract or contracts between the parties hereto, mutually satisfactory to them—limited, however, to the full period of five years from the date hereof—DuPont Company shall reserve the full capacity of said plant exclusively for such production for the Ethyl Company, whether or not such full capacity therefor shall be required for the fulfillment of any current contract requirements;

2. The consideration to be paid by the Ethyl Company to DuPont Company hereunder shall be at the rate of Two Hundred sixty-three Thousand, Seven Hundred Thirty-two Dollars ($263,732.00) per annum for the full period of five years from the date hereof, the consideration for the full period being payable and having been paid by the Ethyl Company to DuPont Company in advance, the receipt whereof is hereby acknowledged;

3. In the event said plant shall, at any time prior to the expiration of the five-year period aforesaid, cease to be used for the production of tetra-ethyl lead for the Ethyl Company, due to the fact that there is not in operation any mutually satisfactory written contract between the parties hereto for such production and sale, and such cessation of use shall continue for thirty consecutive days, it is understood and agreed between the parties hereto that DuPont Company shall have the right to terminate this agreement, and all obligations and liabilities hereunder, upon giving to the Ethyl Company written notice of such termination after the expiration of said thirty-day period;

provided, however, that the total payments made by the Ethyl Company, as provided in Paragraph 2 hereof, shall in that event be retained by DuPont Company, not only in consideration of its reservation of the maximum plant capacity for the benefit of Ethyl Company to the date of such termination, but also in full settlement for any and all claims of DuPont Company hereinabove mentioned for recompense for loss resulting from the cancellation of the previous contract between the parties hereto;

In event this agreement shall continue in force for the full five-year period aforesaid, all claims of DuPont Company hereinabove mentioned for recompense for loss resulting from the cancellation of the previous contract between the parties hereto shall be deemed to have been fully settled.

In witness whereof, the parties here to have cause these presents to be signed by their respective officers thereunto duly authorized, and their corporate seals to be affixed hereto, the day and year first hereinabove written.

E. I. Du Pont De Nemours & Company
By *W. F. Harrington*
~~Vice President.~~
Gen. Mgr. Dyestuffs Dept.

Attest: *M. D. Fisher*
Asst. Secretary.

Ethyl Gasoline Corporation
By *E. W. Webb*
President.

Attest: *A. E. Mittnacht*
Secretary.

Note: At lower right of first four pages is written "GMC-1003"; at lower right on fifth through eighth pages is written "GMC-1003a"; at lower right on the ninth to 11th pages is written "GMC-1003b"; italics indicate handwriting.

Government's Exhibit No. 708

December 3, 1924.

Mr. Alfred P. Sloan, Jr.
224 W. 57th Street,
New York City.

Dear Mr. Sloan:—

Replying to yours of the 1st, I think it is out of the question for you to consider purchasing tetraethyl lead from the British Dyes:—

1. They will have to duplicate the troubles we went through.
2. They have not got as large a research organization as we had.
3. They would have to make material for a small fraction of our cost before it would pay them for the reason that duty on organic chemical compounds coming into the U.S. is practically prohibitive.

The British Dyes is not a part of the Nobel organization. I believe Nobel did have a small stock interest in them and am not clear whether they have disposed of it or not.

I heard from Don of the Badische Company's substitute for tetraethyl lead. He indicated that it could be sold on a basis equivalent to 70¢ per lb. of ethyl lead. I think we should make very sure of just what the situation is before getting committed. One not familiar with organic chemical industry could get very badly fooled and tied up on a foreign importation. If it takes 2½ times as much of the proposed material as of tetraethyl lead this would make the material sell for some 28c per lb. Now unless the compound or its method of manufacture can be patented, and is patented by the Germans, and I doubt very much if such can be the case, it would mean that its import is absolutely prohibited into the United States under the present law; i.e. the tariff would be substantially as high as the selling price in this country.

The fact that Dr.Bosch has stumbled over a material which you can consider as a possible substitute for tetraethyl lead leads me to wonder how thorough the research on hunting for substitutes has really been? Have you ever seen a list of all the organic compounds actually tested as an anti-knock? If you have such a list I would like to see it for quite possibly the field has not been entirely covered.

Sincerely yours,

IRÉNÉE DU PONT, President

N.B.—Since dictating the above Harrington tells me
Mr.F.
that/Whetmore called on us here in Wilimntgon ten days ago and while here wanted to obtain the rights to make several dyes which we make under our know-how; also wish to obtain the know-how of making tetraethyl lead for sale in England. Of course we had no right to give him the latter and we simply referred him to the Ethyl Gasoline Corp. I doubt if he seriously contemplates selling in the U.S. even if we should give him the know-how and fail to see what interest ethyl gas could have in such a long chance of obtaining an independent supply.

NOTE: At lower right on both pages is written "GMC-589a"; at first page upper right is written "C-26-E"; diagonally across both pages is stamped "File copy".

2

Government's Exhibit No. 709

Letterhead of
GENERAL MOTORS CORPORATION
NEW YORK, N. Y.

December 4, 1924.

Mr. Ireneé duPont, President,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

My dear Ireneé:—

I have your letter of December 3rd and before I get into the merits of the case permit me to say that whatever suggestion is made I find it absolutely necessary, in my work, to exhaust it, therefore you may find that perhaps I write you about things which you might think were unnecessary. In many instances it seems unnecessary to me, but I have found so many times that the thing that at first seems of no particular benefit develops, on further investigation, into something that is worth while. I just mention this in passing although I do not know as it applies to this particular thing.

In going over your letter, I note that I have not put the matter to you properly. I had a lengthy letter from the Standard Oil people before me which dealt with the matter from the standpoint of manufacture of tetra ethyl lead for consumption in England and perhaps other Continental countries, exclusively. It had nothing to do with any possibility in the United States. Therefore, we will have to start all over again, so to speak. I rather imagine, however, that you will agree with me that nothing should be done, at least for the present. We have troubles here that must be ironed out and the competitive situation in the oil industry is quite a little different in England and Continental countries than it is here. Then again, in view of the fact that our partners, so to speak, the Standard Oil group, are very strongly entrenched abroad and have a large proportion of the business, I just question whether the ethylized gas should not be sent over there in bulk as ethylized gas rather than get into all the complications of the manufacture of tetra ethyl lead or the exportation of same from here and have to deal with a lot of bulking stations with its attendant difficulties. I think you will probably agree with me that this is by far the best procedure.

In any event, please understand that there was not any thought on the part of the Standard Oil Company of an independent source of supply in England ~~and, as a ma~~tter of fact,

—2—

I think they have changed their entire viewpoint about an independent source of supply anyway, for which I am very gratified. I think, however, irrespective of the very unfortunate Bayway circumstance that if we had not let them go ahead and try something and get their idea out of their system it would have always been a difficult thing to deal with. Now that they have tried it and are satisfied, we can go on with the next thing.

Very truly yours,
Alfred P. Sloan Jr.
B.

APSJr./K

NOTE: At lower right on both pages is written "GMC-589"; at first page upper right is written "C-26-E"; beneath letterhead is written "Hold for Irenee as per talk with Sloan"; above text of letter on first page is stamped "Received Dec. 8, 1924—Lammot du Pont"; above word "December" in first line of letter appears a question mark; italics indicate handwriting.

2

Government's Exhibit No. 710

December 12, 1924.

Mr. Irenee duPont, President,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

My dear Irenee:-

Some time ago I spoke to you regarding your coming on the Board of the Ethyl Gasoline Corporation and at that time you said you thought on account of the fact that you were contractors and all that sort of thing, it might not be just the right thing to do—a point which I did not exactly agree on at the time—but anyway I thought we would just as well defer it for the moment. Now that the thing has been definitely set for a long time to come, I can't help but believe that it is proper to raise the question again.

I was talking to some of the Standard Oil people today and they feel that it would be a very constructive thing if you would come in with us on this proposition. duPont will always be the manufacturing agent of Ethyl Gasoline Corporation whether we make tetra ethyl lead or whatever we make, now or in the future. I am sure of that. New antiknock compounds in the natural course of events are bound to come up from time to time. Your knowledge and experience in the manufacture of chemicals will be very, very helpful. The Standard Oil people know nothing about that and on our side, at least speaking for myself, I know less than the Standard Oil Company does. Your interest with us and your interest in duPont really, I believe, necessitates your making the sacrifice and giving us what time may be necessary which we try to minimize to the greatest possible degree.

A meeting of the Directors of the Ethyl Gasoline Corporation has been called for a week from Monday at two

thirty
o'clock in the afternoon. It will be held at 26 Broadway, the office of the Standard Oil Company. We hold our meetings there because they have a very nice place and it saves the Standard Oil crowd from going over to the Ethyl Gasoline offices and it is equally convenient for us.

—2—

At this meeting there will come up Mr. Kettering's report as to his trip abroad, he just having returned, and there will come up particularly an analysis of the Badische anti-knock proposition. You know them, you know the picture and all that sort of thing and I again go back to the thought that your viewpoint will be very helpful.

Will you please consider the matter and I hope, favorably. We all want you to come in with us and I really think your interests require you to do so, and particularly assuming that you are agreeable, I am going to ask you to put down the date of the next meeting— 24

Monday, December 22nd,
2:30 P.M.
Office of Standard Oil Company,
26 Broadway,
New York City.

With best regards,

Very truly yours,

APSJr./K
c/o Mr. P.S.duPont

NOTE: "AR" is written in upper right corner of each page. Italics indicate handwriting.

Government's Exhibit No. 711

Copy for Mr. Alfred P. Sloan, Jr.
" " Mr. W.F.Harrington

June 2, 1926.

Mr. E.W. Webb,
Ethyl Gasoline Corp.
25 Broadway,
New York City.

Dear Mr. Webb:—

Referring to Minutes of the Executive Committee, covering their meeting of May 27th, paragraph 3, copy of which Minutes were returned to you signed under separate cover:—

Notwithstanding that I am in an embarrassing position, by reason of the fact that the du Pont Co. supplies you with tetraethyl lead, I am obliged to go on record as disproving in principle of the placing of orders for that material with the American Research Labratories for the following reasons:—

1st—They avoid a pressure reaction by using ethyl bromide and to that extent are on the same ground as our old bromine method of manufacture, which condition we agreed was undesirable because of the shortage of bromine.

2nd—They evidently are not conversant with the true dangers from poisoning and are using make-shift apparatus where poisoning becomes not only likely but almost a certainty.

If another disaster happens in Colorado no amount of explaining will excuse our directors for having encouraged novices to undertake such a dangerous operation. This seems doubly undesirable in view of the fact that the substitution of lead sulphate for metallic lead cannot occasion any material saving in cost of manufacture and the substitution of magnesium for sodium would be expected to yield no

—2—

saving whatsoever; consequently the method they are using should not be inherently any better than the bromine method, which has been supplanted at Deepwater Point; and consequently there is no financial advantage for Ethyl Gas and the Research Corporation jointly over the alternate supply by du Pont and Ethyl Gas jointly. But even if there were, the risk of a serious catastrophe of poisoning is too grave to be considered.

I hope that you will understand that it is only my feelings of the seriousness of such a move that causes me to put myself in an embarrassing position of refusing to acquiesce in the Executive Committee's judgment.

Very truly yours,

IRÉNÉE DU PONT

NOTE: "V.C. 25" is written in upper right corner of first page. "FILE COPY" is printed across each page.

Government's Exhibit No. 712

Extract from Minutes of Meeting of the Executive Committee of General Motors Corporation duly held on the 30th day of December, 1924.

* * * * * * * * * * *

Present:

Mr. A. P. Sloan, Jr., in the Chair,
Mr. H. H. Bassett,
Mr. Donaldson Brown,
Mr. Charles T. Fisher,
Mr. Fred. J. Fisher,
Mr. Lawrence P. Fisher,
Mr. C. S. Mott,
Mr. J. T. Pratt,
Mr. J. J. Raskob.

* * * * * * * * * * *

ETHYLIZED GASOLINE

The President orally informed the Committee that Mr. Kettering, who has just returned from Europe, advises that the Badische Company (a German chemical concern) has developed an "anti-knock" compound which is non-poisonous. A larger quantity of this compound is required for each gallon of gasoline to produce a given result as compared with the quantity of tetraethyllead per gallon, but owing to its very low cost the Badische compound is relatively much cheaper than tetraethyllead. Mr. Sloan further stated that the matter has been discussed with the Standard Oil Company and duPont & Company and it has been agreed that duPont & Company shall negotiate with the Badische

Company for the rights to their "anti-knock" compound in the United States and Canada.

* * * * * * * * * * *

A true copy.

(Signed) *George A. Brooks*
Secretary

Italics indicate handwriting.

Government's Exhibit No. 713

Extract from Minutes of Meeting of the Executive Committee of General Motors Corporation duly held on the 5th day of January, 1925.

* * * * * * * * * * *

Present:

Mr. Alfred P. Sloan, Jr., in the Chair,
Mr. H. H. Bassett,
Mr. Donaldson Brown,
Mr. Charles T. Fisher,
Mr. Fred J. Fisher,
Mr. Lawrence P. Fisher,
Mr. J. L. Pratt,
Mr. J. J. Raskob.

* * * * * * * * * * *

ETHYLIZED GASOLINE

Referring to minute made at meeting December 30th in regard to the "anti-knock" compound developed by the Badische Company, the President advised that the duPont Company is sending a representative abroad to negotiate with the Badische Company for this compound.

* * * * * * * * * * *

A true copy.

(Signed) *George A. Brooks*
Secretary

Italics indicate handwriting.

Government's Exhibit No. 714

COPY FOR MR. H.G.HASKELL

CABLE FROM LONDON OFFICE, MARCH 22, 1926 JEC

Irenee duPont. Following Dr. Paul Muller Preparatory talk of March 12th I spend March 16th with Bosch with satisfactory results except that he is furious at General Motors application (for) iron carbonyl patent-s and other move-s of E. I. duPont de Nemours & Company against Badische Anilin & Sodafabrik interests. Stop. Yet he considers co-operation between us inevitable and I believe if misunderstanding can be cleared away co-operation between the two companies on a broad basis will now ensue. Stop. After several years research I. G. Farbenindustrie A.G. have developed new lacquers which they claim are superior to Duco and essentially new features protected (by) basic patents in (all) every country-s. Stop. I proposed joint company for central Europe on exactly same basis as Nobel Chemical Finishes with amount of E. I. duPont de Nemours & Company free shares (to) be decreased by agreement depending upon value of their improvement-s also E. I. duPont de Nemours & Company British and French subsidiary to have the right to acquire for their territory exclusive license to I. G. Farbenindustrie A. G. lacquers patents against royalty payment-s or other compensation. Stop. This plan was received sympathetically but Bosch refused (to) have any commitments even in principle and until contract has been signed (by) both parties will be free. Stop. First steps must be (to) determine merit-s of I. G. Farbenindustrie A.G. inventions and to solve this difficult question without subsequent embarrassment they will promptly send representative to Parlin to demonstrate and test their lacquers. Stop. There is nothing more to be dine until myarrival (at) Wilmington and thorough discussion about whole situation. Stop. In the meantime suggest that you review all phases of past relations with German group-s and arrange for sympathetic handling of any subjects now pending.

Note: At upper left is written "File I.G.—Lacquer"; at upper right is written "18".

Government's Exhibit No. 715

Copy for Mr. Jasper E. Crane,
Building.

June 8, 1926.

Mr. Alfred P. Sloan, Jr.
General Motors Corporation,
224 W. 57th Street,
New York City.

Dear Mr. Sloan:—

I want to lay before you, as a Director of Ethyl Gas, my point of view on the circumstances surrounding the patent interference on iron carbonyl anti-knock patents.

If the interference was with an unknown or unreliable party, there would be no question that the only thing to do would be to put it in the hands of a competent patent attorney and get the best out of the situation that we could. In the present instance, however, the case seems to be quite different. History of the iron carbonyl patent is that the Dayton Research Corp conceived the idea that it might be a good anti-knock and were the first to conceive that idea. They were unable to obtain any of the material so as to file their patent application. Later, Dr. Bosch having seen a sample of tetraethyl lead, thought that perhaps iron carbonyl would be an anti-knock also; having a supply of it he tried it and applied for a patent thereon. A year later and before disclosure by the Badische Co. to us, Kettering obtained a sample of iron carbonyl, found that it was an anti-knock and filed a patent application. In the Patent Office this constitutes an interference where Dayton Research had the original conception and Badische first reduced to practice and applied.

Now, as a matter of fact, the patent is of more or less doubtful value, owing to the difficulty of using in practice this material. Further, if it is used its best source of supply for some years at least, will probably be the Badische Co. who can make it almost as a by-product, beside which the Badische Co. believe that they are subject to your general anti-knock patent and therefore cannot sell it without your consent. It would seem, then, that Ethyl Gas and Badische are more or less in one boat anyhow and will have to come together in order to utilize the material effectively, assuming it ever will be utilized.

Apart from this it is very important that the relations between the Badische Co., the greatest chemical manufacturer of Europe and even the world, and the du Pont Company, one of the great chemical companies of the world, should be friendly, not only for du Pont's sake, but also for the sake of General Motors. For instance, Badische now claim to have a new synthetic solvent which can be used to advantage in Duco. Our negotiations with them are temporarily halted because of their belief that we are double crossing them on the iron carbonyl matter, for they do not differentiate between du Pont and Ethyl Gas. This means that improvement in the finish of motor cars may be interfered with to some extent by a needless quarrel on who is the owner of the iron carbonyl patent, a question of minor importance after all. Beside which, a frank disclosure between the principals of Ethyl Gas and the Badische Co. of all circumstances surrounding the invention of iron carbonyl as an anti-knock may be the best way of getting that question properly settled. It certainly would be less expensive than having a long drawn out patent litigation, control of which would be in the hands of lawyers who want to win regardless either of merits or other more important results.

I don't altogether blame Badische for feeling sore. They know that Kettering saw a sample of iron carbonyl though they didn't disclose what it was and that they told him that material was a very good anti-knock. He was keen enough to recognize what the material was, return home and file a patent application thereon. Without knowing the prior history that appears to them to be rather sharp practice, though it would have been avoided if the Badische Co. had been quite frank at the time and told Kettering that it was iron carbonyl, under pledge that he would not attempt to apply for patent on it. Also, from the Ethyl Gas side is it not wise to encourage improvement in anti knocks knowing that they have a basic patent and are in control of the situation and due to improvement can get in the saddle more easily.

Am writing you thus fully because I would like to have your aid should the matter come before the Board.

Mr. Jasper Crane, who is quite familiar with the situation from the du Pont point of view, has made an engagement to meet Mr. Morrison, Patent Attorney of the Dayton Research, Mr. Kettering and Mr. Webb on Monday next, and I hope that they can thrash it out to the satisfaction of all concerned.

Very truly yours,

IRÉNÉE DU PONT

NOTE: At upper right of first page is written "V.C-25"; diagonally across second and third pages is stamped "File copy".

Government's Exhibit No. 716

Form 11474* 50M 1-26

Date 6/25/26.

To: Mr. Irenee duPont.

From: J. E. Crane.

	Please discuss with
	For approval
	For attention
✓	For information
	Note and forward to file
	Note and return to sender.

REMARKS:

4543

(SUGGESTED FORM OF LETTER)

I.G.Farbenindustrie A.G.,
Ludwigshafen a/Rhein,
Germany.

Dear Sir:

Inasmuch as our patent application on iron carbonyl has been brought into interference in the United States Patent Office with your patent application, and as we have been informed that you have been offended by our making application for patent, we are writing in order to give you a full understanding of our position. We attach hereto the opinion of our patent attorney concerning our rights in this matter.

This speaks for itself and represents our position as it would be if we had no other relations whatever with your good company. However, should iron carbonyl prove useful, we have expected to look to you for supplies of the material. We still hope that the research work you are doing on iron carbonyl as an anti-knock may have a successful issue and that, if the manufacture of iron carbonyl in the United States becomes economically desirable, it may be taken up along the lines of the negotiations of December, 1924.

This being the situation, it seems to us inadvisable that we quarrel over the ownership of the patent on iron carbonyl. Therefore, but without prejudice to our legal position, we offer to withdraw our patent application on iron carbonyl, to recognize the validity of your patents, and to make no effort to produce or sell iron carbonyl for anti-knock purposes without your consent; in return for which you recognize the validity of our general patents on volatile metallic compounds for anti-knock purposes, and agree not to infringe these patents and not to manufacture nor sell iron carbonyl for anti-knock purposes except upon licenses under these patents on terms to be agreed upon. Specifically, in order to facilitate the development work which you are now carrying on, we would grant you a license under our German patent for the nominal consideration of One Dollar.

Here we wish to point out that it is of the utmost importance that the United States patent on iron carbonyl be as strong a patent as possible and fully complies with the requirements of American

—2—

patent law, so that no third party might later on challenge the validity of this patent by claiming that the applicant was not the true inventor or on any other grounds. If for such reasons it should now be agreed between us that our application would produce the stronger patent, we would then suggest that you abandon your application and that our application be assigned to your company.

Regarding your patent applications on metallic carbonyls as a class, we would be glad to discuss this matter with you to determine the best way to handle this particular issue, or if you prefer, we will leave this issue to be settled by the United States Patent Office.

We trust that the above suggestions may lead to a prompt solution of the difference between us and propose that you appoint a representative in this country to confer with us about drawing up a suitable contract. If, on the other hand, you would prefer us to appoint a foreign representative to confer with you in Ludwigshafen, we would be very willing to do this.

Yours very truly,

Ethyl Gasoline Corporation

Note: On first page a check mark is placed by hand in the space provided before the words "For information"; at upper right of second page is written "V. C. 22-B."

Government's Exhibit No. 717

Copy: Mr. Irenee du Pont, V.P.

July 24, 1926.

Mr. A. P. Sloan, Jr., President,
General Motors Corp.,
New York City, N. Y.

Dear Mr. Sloan:

I note copy of your letter of July 19th addressed Mr. Irenee du Pont, and regret that I shall not be able to attend the meeting next week. Irenee tells me that he has arranged a definite date with you and will attend himself, so that I am sure the matter will be well handled.

My personal feeling is that negotiations with Badische on iron carbonyl should be conducted by us, for the reason that not only will our relations with Badische be improved thereby, but I believe we will actually secure a better deal, due to the fact that du Pont Company has more lines of connection with Badische than either General Motors, Standard Oil or Ethyl Gasoline Corporation.

Yours very truly,

PRESIDENT.

LduP/MD

NOTE: At upper right is written "C-26", "C-26-E", and a check mark; along the left margin is written "C-26-E" and "C-26"; at lower right is written "GMC-596".

Government's Exhibit No. 718

Letter "A" File C-29-F

November 18, 1926.

Mr. Lammot du Pont:—

Here is a memorandum of the points mentioned in the general conversation between Dr. Bosch, Dr. Gauss and Mr. Pickhardt on the one hand and you, Fred Pickard and me on the other.

1. We will deposit our stock in the new consolidation with Mr. Bosch who will attend to cashing the coupons for dividends when and as paid.

2. They are interested in Duco and will send experts to Parlin to investigate it probably in January. These experts will bring samples of their latest lacquers for comparative purposes.

3. Iron carbonyl situation is no longer irritating to them and they will be glad to take the matter up with the Standard Oil of New Jersey, representing Ethyl Gas Corp., in due course. This, therefore, eliminates their former excuse for not dealing with us on other matters.

4. The consolidation expect to carry out the explosives agreement by which they are to offer us improvements and we are to offer them improvements. This will be handled by Dr. Mueller and perhaps will be extended to pyroxylin plastics.

5. Their interest in our improvement in the manufacture of methanol and our desire that they give us the "Know-How" to make hydrogen from carbon monoxide and steam are tied up with the general

high pressure synthesis work and they don't care to handle this question piece-meal.

I gathered from Dr. Bosch's attitude that, notwithstanding the lateness of their visit, they are not losing interest in making some arrangements with us; that the delay was probably purposely made in order to avoid having to take up questions prematurely for the Germans have been very busy getting their consolidation together and really hardly know "where they are at."

(s) Irenee du Pont

IRÉNÉE DU PONT, Vice Chairman

Copies for:—Mr.H.G.Haskell
Mr.F.W.Pickard

NOTE: At upper right of first page is written "11-18-26"; at upper right of second page is written "11-18-26a"; at upper right of both pages is written "Germany".

Government's Exhibit No. 720

January 11, 1927.

E. W. Webb.

Mr. Alfred P: Sloan, Jr.,
224 West 57th Street,
New York City.

Dear Mr. Sloan:

Enclosed is a copy of the Agreement just concluded with the Badische (I.G.) people regarding Iron Carbonyle and also a copy of a letter from their Dr. Abel to Mr. Howard and of the statement by them entitled "Experiences With Iron Carbonyle In Germany" which accompanied the Agreement; also copy of my letter to Mr. Howard.

Under the circumstances I think this a satisfactory adjustment of the matter. I take it, of course, that there is no need for the immediate determination of what would be a reasonable manufacturers' profit in the event we should purchase Iron Carbonyle later on from the I.G., but it is something that we will give consideration to here with the thought that in due course an effort will be made to come to a definite agreement with them on that phase of the contract.

Yours very truly,

E. W. Webb

ES

cc to Messrs. Brown
du Pont
Kettering
Smith.

NOTE: At upper right is stamped "Noted JEC"; at upper left are written, and subsequently deleted by hand, the names "Mr. Robinson" and "W. F. Harrington"; above the address is written "Buck, to note and return, I duP"; an arrow is drawn pointing to the name of "du Pont" at the bottom of the page and the notation "(Irenee)" is written thereafter; italics indicate handwriting.

Government's Exhibit No. 721

January 11, 1927.
E. W. Webb.

Mr. Frank A. Howard,
26 Broadway,
New York City.

Dear Mr. Howard:

I am handing you herewith completely executed duplicate original of the Agreement between I.G. Farbenindustrie Aktiengesellschaft and Ethyl Gasoline Corporation, General Motors Research Corporation and Thomas Midgley, Jr. and also consented and agreed to by General Motors Corporation. There is also enclosed the original letter to you from Dr. Abel dated the 22nd ult. together with the statement entitled "Experiences with Iron Carbonyle in Germany".

We have had copies made of these papers for our files and delivered a copy of the Agreement to Mr. Morrison to enable him to make the necessary arrangements to carry into effect that portion of the contract which bears upon the interference proceeding now pending. He promised to give this matter immediate attention.

We have cabled our Dr. Calingaert, who is now in Belgium, to visit the Deutsche Gasolin Aktiengesellschaft of Berlin for the purpose indicated in Dr. Abel's letter and such other investigation which he might think desirable under the circumstances.

Please convey to the I. G. people our keen appreciation of the harmonious and friendly adjustment of this matter which we have reason to believe will be to our mutual advantage in the event Iron Carbonyle should prove commercially satisfactory.

Yours very truly,

ES

Government's Exhibit No. 722

T.G. FARBENINDUSTRIE AKTIENGESELLSCHAFT

Frank A. Howard, Esq.
c/o Messrs. Standard Development Co.
Executive Offices,
26 Broadway, New York.

Ludwigshafen a/Rhein
den 22nd December 1926.

Reference — Dept. Oils.

Re: IRON CARBONYLE.

Dear Sir:

We beg to refer to our verbal discussions which took place some time ago, and have pleasure in informing you that we are prepared to accept the conditions as laid down in MEMORANDUM B, copy of which you posted to our Dr. von Knieriem on the 18th of last month.

Enclosed we beg to hand you two signed copies of this Agreement and would ask you to kindly return one copy to us duly signed by you.

During the conversations at the time it was proposed by our Dr. Gaus that an expert should be sent over here in order to visit the Deutsche Gasolin Aktiengesellschaft (German Gasoline Co.) of Berlin to gain first hand information about the results that were obtained by placing "Motalin"—a mixture of Gasoline and iron carbonyle—on the fuel market here.

We herewith beg to confirm this proposition and would ask you to kindly let us know, whom you intend to send over here and when we may expect this gentleman, so that we can make the necessary arrangements beforehand.

In order to enable you to form an opinion about the achievements of iron carbonyle for anti-knock purposes we also enclose herewith a short report about the position in general. As mentioned therein, we do not think that Germany is the best market for an anti-knock compound, as there are still large quantities of Benzole available, which when mixed with ordinary Benzine can be used as an anti-knock fuel. It is different however in countries like

Italy, Switzerland, Austria, Hungary, etc. where there is no (or practically no) Benzol available and where for that reason there is a keen and natural demand for an anti-knock compound. Although it is of very great interest to us to test the market in these countries we shall not take steps in that direction by submitting certain propositions to you until we have had an opportunity of reviewing this matter with you in general.

Awaiting the favor of an early reply
we remain, Dear Sir,

Yours faithfully

I.G. FARBENINDUSTRIA AKTIENGESELLSCHAFT
(sgd.) Dr. Abel

December 22, 1926.

EXPERIENCES WITH IRON CARBONYLE IN GERMANY

PRELIMINARY TRIALS.

When we started to place Iron Carbonyle on the market in Germany as an Anti-Knock Compound, we had at our disposal the results of exhaustive experiments, carried out in our works by a number of motorcar manufacturers and other interested parties. The results of these preliminary trials were on the whole favorable. We were able to gain a great deal of experience over a period of nearly 2 years with our own fleet of cars. The results, which were submitted to us from other sources referred to trials which were carried out only over a distance of several thousand miles. It was found to be necessary to clean the sparking plugs after fairly long distances had been covered. No other troubles occurred during these trials.

COMMERCIAL INTRODUCTION.

After Iron Carbonyle was placed on the market, complaints about other troubles were also made and it was found that users very often were under the impression that they were dealing with quite a new motor fuel. For instance it was mentioned that it was found harder to start the motor with Motalin than was previously the case with pure Gasoline. Furthermore, complaints were heard about the presence of water, mechanical impurities, the action of Iron Carbonyle upon copper through the formation of sulphite, and its bad odour. All these objections of course are—if at all justified—due to the quality of the Gasoline used for the production of "Motalin" and have nothing whatever to do with the addition of Iron Carbonyle.

It is well known that many motor fuels which are in use in Germany are the cause of pronounced deposits on the valve stems. Furthermore deposits from the combustion gases, due to oil carbon and soot, are found on

the exhaust valves which cause trouble through the sticking and the subsequent burning out of the valves. If the gasoline contains Iron Carbonyle, these deposits are of a reddish colour on account of peroxide of iron being formed during combustion and the driver attributes the above troubles, without further thought, to the peroxide of iron. It is a difficult problem to find out in this case whether the peroxide of iron contributed to this trouble. Amongst our own cars this trouble has not been experienced.

It has also been said that on account of the intermixing of the oil and peroxide of iron, trouble has been caused in the lubricating system of the motors. In these cases as well it could never be definitely ascertained whether the peroxide of iron actually had an influence in this direction, as these statements mostly came from people who were not sufficiently acquainted with the nature of "Motalin". During our own experiments and those made by motor car manufacturers or other reliable people, these troubles in the lubricating system have never—not even by way of intimation—been found. Generally speaking it could be ascertained that the prejudice against the use of Iron Carbonyle was caused through the—in itself—harmless red coating, which is found in the compression chamber. This red coating was often compared with emery, rust or suchlike. It has been proved by many experiments that a grinding action is not in evidence. Special investigations have shown that it is hardly possible to polish metal with peroxide of iron which has been made from Iron Carbonyle, leave alone to grind same.

One of our main tasks has been to enlighten the drivers about the harmlessness of the peroxide of iron in the motor.

A matter which generally has made the introduction into Germany of this product more difficult is the fact that this country can dispose of fairly large quantities of Benzole, which are almost sufficient to render the gasoline at hand fit to withstand a high compression. For that reason a strong counter agitation on behalf of the parties interested in Benzole was felt.

Much more favorable for the introduction of our product would be the position in countries such as Italy, Switzerland, Austria, Hungary, etc. where there is no—or practically no—Benzol available.

Note: At lower left on last page appears mirror image of stamp "Received Jan 19, 1926 Lazote, Inc.".

Government's Exhibit No. 723

4556

AGREEMENT

between

I.G.Farbenindustrie Aktiengesellschaft, Ludwigshafen o/Rhine, hereinafter called "I.G."

and

Ethyl Gasoline Corporation of New York, hereinafter called "ETHYL" covering also Mr. Midgley and General Motors Research Corporation,

WITNESSETH: In consideration of the mutual covenants and promises herein contained, it is agreed as follows:

I.

That I.G. recognize Ethyl's dominating position in the anti-knock field, and the validity of its patent and/or patents on volatile metallic compounds for anti-knock purposes in all countries, and agrees not to infringe any such patent and/or patents and specifically not to sell or license others to sell iron carbonyle for anti-knock purposes in any territory or country except upon or by reason of a license under Ethyl's patent and/or patents and on terms to be hereafter agreed upon, except in reference to Germany.

II.

Ethyl will in consideration of the foregoing, recognize the validity of I.G.'s patent on iron carbonyle and for which application is now pending in the United States Patent Office, subordinate, however, to Ethyl's broad patent and/or patents as aforesaid, and Ethyl will withdraw its patent application on iron carbonyle now pending in the United

States Patent Office, and agrees not to sell iron carbonyle for anti-knock purposes without I.G.'s consent, hereafter to be given, excepting in the United States of America and in the Dominion of Canada.

III.

Ethyl will license I.G. under the former's German patent to sell and license others to sell iron carbonyle for anti-knock purposes in Germany and not elsewhere during the life of said patent or any extension thereof, for the nominal consideration of one Dollar ($1).

IV.

I. G. will consent to Ethyl selling or licensing others to sell iron carbonyle for anti-knock purposes in the United States of America and Dominion of Canada and not elsewhere, during the life of I. G. 's present or future patents on iron carbonyle or any extension thereof, for the nominal consideration of one Dollar ($1.), (it being understood that such consent does not expressly or by implication prejudice any of Ethyl's rights under its broad patent and/or patents on volatile metallic compounds for anti-knock purposes, as aforesaid); provided however, that Ethyl and its licensees shall purchase from I. G. any and all of its or their requirements of iron carbonyle for sale in the United States of America and the Dominion of Canada, for anti-knock purposes, at a price which will meet competition and upon a reasonable manufacturers' profit basis (the exact terms of which will have to be satisfactorily set forth in an agreement to be formally prepared on the subject.)

Ludwigshafen o/Rhine, 22nd December 26

New York, January 10, 1927.

In witness hereof:

I. G. Farbenindustrie Aktiengesellschaft
(Sgd.) Gaus, Dr. Abel
General Motors Research Corporation
by James McEvoy, President,
Thomas Midgley, Jr.

Consented and agreed to by

General Motors Corporation
by John T. Smith, Vice-President.

New York,
January 10, 1927.

Note: At lower right of second page appears the mirror image of stamp "Received Jan 19, 1926 Lazote, Inc.".

Government's Exhibit No. 745.

THIS AGREEMENT made this 31st day of March, 1928, between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter called the "Seller", and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter called the "Buyer",

WITNESSETH:

WHEREAS in accordance with agreement dated the 31st day of March, 1926 Buyer is now purchasing from the Seller its entire requirements of Tetraethyl Lead, and

WHEREAS under that agreement there remains undelivered as of this date a quantity of 1,920,000 pounds, and

WHEREAS Buyer desires to make arrangements for purchasing its entire requirements of Tetraethyl Lead from the Seller for an additional period, and

WHEREAS Buyer desires to establish the conditions under which the Seller will agree to increase its producing capacity for Tetraethyl Lead from the present rated capacity of 300,000 pounds per month to a rated capacity of 600,000 pounds per month,

NOW, THEREFORE, in consideration of the mutual covenants and the payment of $1.00 by each of the parties to the other, receipt of which is hereby acknowledged, the parties hereto agree as follows:

I. The agreement between Buyer and Seller, dated March 31st, 1926, is mutually agreed to be cancelled without any obligation for the payment of damages by either party.

II. The Seller agrees to sell and deliver and the Buyer agrees to purchase, receive and pay for its entire requirements of Tetraethyl Lead up to and including December

31st, 1930 or until deliveries from the date of this contract have amounted to 11,920,000 pounds, if this quantity shall have been delivered prior to December 31st, 1930. There shall be no obligation on the part of the Seller to supply any quantity greater than 300,000 pounds per month unless and until the producing capacity of the Seller's plant shall have been increased as hereinafter provided.

—2—

III. The price shall be $1.00 per pound of 100% Tetraethyl Lead content f.o.b. Seller's plant, Deepwater, New Jersey, and shall be subject to reduction in accordance with the terms and conditions hereinafter described. Delivery of Tetraethyl Lead to the storage tanks at the Blending Plant located at Deepwater shall constitute delivery, and invoices shall be rendered on that bais.

The Tetraethyl Lead delivered hereunder shall have a content of 97% or more of pure Tetraethyl Lead.

Payment shall be made against invoices on or before the tenth day of the month following the calendar month in which deliveries are made.

IV. During the months of April and May 1928 the standard price of $1.00 shall apply. For these two months the Buyer's requirements are agreed to be 250,000 pounds per month. Effective June 1st, 1928 the price will be reduced to $.90 per pound provided the requirements of the Buyer become 300,000 pounds per month, and shall continue at $.90 per pound as long as the quantities taken by the Buyer amount to 300,000 pounds per month and until the quantity delivered under this agreement has reached 1,920,000 pounds. After this amount of 1,920,000 pounds shall have been delivered, the price will be reduced to $.85 per pound regardless of the amount which the Buyer shall require, limited only by the maximum of the rated capacity of the Seller's plant. Effective March 1st, 1929, of the quantity of 1,900,000 pounds shall have been delivered by that date, there shall be a further reduction in the price to $.80 per pound.

All of the above prices and quantities are to apply unless and until the Seller shall have increased its plant capacity at the request of the Buyer as hereinafter provided. If no such plant increase is made, the price shall remain at $.80 per pound until the expiration of this agreement.

V. In view of the fact that Buyer is the only customer for the production of Seller's Tetraethyl Lead plant, it is agreed that if in any calendar month Buyer's requirements shall fall below 150,000 pounds, Seller shall be at liberty to discontinue operations of its plant until such time as Buyer's requirements shall again increase to 150,000 pounds per month. Since such a complete

cessation of manufacturing operations will result in disbanding the operating crew of the plant, Seller shall be allowed after such discontinuance the time necessary in its opinion to build the rate of production up to the desired figure again without incurring undue risks through the use of an untrained crew.

VI. If the Buyer shall desire to secure quantities in excess of 300,000 pounds per month, he shall so notify the Seller in written, and the Seller agrees to provide additional manufacturing capacity up to a total rated capacity including the present plant of 600,000 pounds per month, the additional capacity to be ready to make deliveries within six months from the date of such written notice. This agreement to provide additional manufacturing capacity is to apply only if the Buyer shall give notice not later than

October 1st, 1929 for the construction of such additional capacity to be available not later than April 1st, 1930. If, however, the Buyer shall give notice subsequent to July 1st, 1929, and not later than October 1st, 1929, of his desire to have additional manufacturing capacity provided, then and in that event the date of termination of this agreement shall be postponed until deliveries under this agreement have amounted to 11,920,000 pounds, even though such date shall be subsequent to December 31st, 1930. Upon the completion of the new plant, the price at which Tetraethyl Lead shall be delivered shall be adjusted in accordance with the following schedule, which schedule of prices shall continue from that date until the expiration fo this agreement. There shall be no obligation on the part of the Seller to deliver any quantity in excess of 600,000 pounds in any one month.

Deliveries of Tetraethyl Lead in pounds per month	Price of Tetraethyl Lead in cents per pound
150,000	93¢
200,000	91¢
250,000	89¢
300,000	87¢
350,000	85¢
400,000	83¢
450,000	81¢
500,000	79¢
550,000	77¢
600,000	75¢

VII. In case the Seller is prevented by judicial, legislative or other Governmental action from making or delivering Tetraethyl Lead, this contract shall, at the option of the Seller, terminate. It is expressly agreed that in the event that this contract is terminated, before a quantity of

1,420,000 pounds has been delivered under this agreement, the Buyer shall pay to Seller as reimbursement for any and all damages of whatsoever nature sustained or claimed to be sustained by the Seller by reason of such termination the following amounts:

1. The Buyer shall accept delivery of all Tetraethyl Lead in process at the time of the termination, and shall reimburse the Seller for all loss and expense incurred in liquidating stocks of, and commitments for, raw materials purchased for use in producing the first 1,420,000 pounds to be delivered under this contract. The Buyer may, at its option, conduct such liquidation or may have the Seller do so for the Buyer's account.

2. In addition to reimbursing the Seller for expense in liquidating stocks of raw material referred to above, the Buyer shall pay the Seller 4¢ per pound for the quantity by which deliveries under this agreement have fallen short of a total of 1,420,000 pounds, and provided further that if the Seller is prevented by judicial, legislative or other governmental action from making or delivering tetraethyl lead on account of conditions within Seller's control, then the payment provided to be made by the Buyer to the Seller under this sub-division of Clause VII shall be reduced one-half.

VIII. Neither the Buyer nor the Seller shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto, but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance, with the understanding, however, that the Seller shall not be obliged to make, nor the Buyer to accept, any deliveries after December, 1930, except for the contingency referred to in the third sentence of Clause VI, above.

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In witness whereof the parties hereto by their officers duly authorized have caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. du Pont de Nemours and Company

By *W. F. Harrington*
General Manager
Dyestuffs Dept.

[corporate seal]

Attest:

C. Copeland
Sec'y

Ethyl Gasoline Corporation

By *E. W. Webb*
President

[corporate seal]

Attest:

J. Goux
Assistant Sec'y

Note: At lower right of all pages is written "GMC 1016"; at the bottom of page 4 the words "Except for the contingency referred to in the third sentence of Clause VI above," are written in type slightly different from the rest of the text. Italics indicate handwriting.

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Government's Exhibit No. 746

~~THIS AGREEMENT~~ made this 1st day of October, 1928, between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter called the Seller, and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter called the Buyer.

WITNESSETH:

WHEREAS the Buyer desires to have the Tetraethyl Lead that it is purchasing from the Seller, under ~~an agreement~~ dated March 31, 1928, mixed with other materials, viz. Ethylene-di-dromide and Halowax Oil and/or other substances, to put the Tetraethyl Lead into the commercially marketable form known as Ethyl Fuid; and

WHEREAS the Seller is willing to undertake the carrying out of this operation, being particularly fitted to do it in view of the fact that the Surgeon General's recommendation is that this operation, known as blending, be conducted at a point adjacent to the point of manufacture of Tetraethyl Lead.

THEREFORE, it has been agreed as follows:

1. The Seller agrees to blend into Ethyl Fluid, and the Buyer agrees to have the Seller so blend into Ethyl Fluid, all the Tetraethyl Lead to be sold by the Seller to the Buyer henceforth pursuant to said agreement dated March 31, 1928, the Buyer, at Buyer's cost, to furnish at said blending plant the raw materials requisite to blend said Tetraethyl Lead into a mixture (known by the Buyer as B-Mix) consisting of 54.54 parts by volume of Tetraethyl Lead,

about 27.53 parts by volume of Ethylene-di-bromide, about 8.21 parts by volume of Halowax Oil and about 9.72 parts by volume of Kerosene containing a certain amount of coloring material. The Seller, however, shall not be called on to blend in excess of the capacity of its present blending plant at Deepwater Point, New Jersey, which is approximately one million, two hundred thousand (1,200,000) pounds of Ethyl Fluid per month.

2. The Buyer agrees to pay to the Seller, for said blending, the sum of One Dollar and Seventy Three Cents ($1.73) per one hundred (100) pounds of Ethyl Fluid for the first fourteen million, one hundred and twenty thousand (14,120,000) pounds blended under this agreement, and ninety eight cents (98¢)

per one hundred (100) pounds for remaining quantities blended hereunder.

3. These prices are based on the composition of B-Mix above given, and the Seller agrees to blend the Tetraethyl Lead in other mixtures, if so desired by the Buyer, at prices that shall be commensurate with those above. All payments shall be due on the 10th day of each month for Ethyl Fluid delivered during the preceding calendar month.

4. The Buyer agrees to provide all raw materials and all containers for the Ethyl Fluid, and to cause them to be available as needed at the blending plant of the Seller. The Seller, however, is to do all routine cleaning and painting of the containers without charge to the Buyer; but if the containers require sand blasting, or the removal of unusual accumulations of sludges, the cost of additional work so

required is to be borne by the Buyer. The Seller is to fill the drums with Ethyl Fluid and to deliver them to the testing room (which is to be situated adjacent to the blending plant and be under the control of the Buyer) and is also to furnish the necessary labor to load the drums from the warehouse on board cars for shipment; and the Seller is also to provide the necessary laboratory facilities to enable the inspector of the Buyer to take such samples and make such tests as may be required to permit him to determine the quality of the Fluid being delivered, and also provide office space—all without charge to the Buyer.

5. The Seller does not guarantee the yield of Ethyl Fluid to be realized from the raw materials furnished; and, except for losses due to its negligence, shall not be responsible for losses of raw, or finished, materials in connection with the blending; but all such losses shall be borne by the Buyer.

6. It is a condition of the fixing of the price of One Dollar and Seventy Three Cents ($1.73) per hundred (100) pounds of Ethyl Fluid, that the Buyer shall cause the Seller to blend, at that price, not less than fourteen million, one hundred and twenty thousand (14,120,000) pounds; and the Buyer expressly agrees that if, whether by virtue of expiration of the above mentioned Tetraethyl Lead contract of March 31, 1928, or by exercise of the Buyer's option to terminate the present agreement, or by reason of any other contingency whatsoever, said minimum of fourteen million, one hundred and twenty thousand (14,120,000) pounds of Ethyl Fluid shall not have been blended and paid for at said rate of One Dollar

and Seventy Three Cents ($1.73) per one hundred (100) pounds, in such event the Buyer will pay to the Seller an additional amount computed at the rate of seventy five cents (75¢) for each one hundred (100) pounds by which the amount of Ethyl Fluid blended under this agreement shall have fallen short of said minimum—such payment representing the unamortized portion of the cost of the blending plant and warehouse.

7. This agreement shall run with, and expire simultaneously with, the agreement for the purchase and sale of Tetraethyl Lead dated March 31, 1928, (except that the Buyer shall have the option of terminating this agreement at an earlier date on payment of the unamortized portion of Seller's blending plant and warehouse computed in the manner above mentioned).

Neither the Buyer nor the Seller shall be liable to the other for any failure of performance caused by fires, strikes, hurricanes or by any cause beyond the control of either of the parties hereto, but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to perform as to the quantities provided in this agreement but shall merely postpone performance, with the understanding however that no blending is to be done or called for after the cessation of the supply of Tetraethyl Lead under the agreement of March 31, 1928.

In witness whereof the parties hereto by their officers duly authorized have caused this agreement to be executed

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and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. du Pont de Nemours & Company,

By *W. F. Harrington*
General Manager—Dyestuffs Dept.

Attest:

C. Copeland
Secretary

Ethyl Gasoline Corporation,

By *E. W. Webb*
President

Attest:

A. E. Mittnacht
Secretary

Note: At lower right on all three pages is written "GMC-1015"; in the left margin, opposite the signatures on page 3, is written "o.k." followed by an illegible signature. Italics indicate handwriting.

Government's Exhibit No. 747

ETHYL GASOLINE CORPORATION

with

E. I. DU PONT DE NEMOURS & COMPANY

Agreement for Tetraethyl Lead

Dated August 26, 1929.

MEMORANDUM OF AGREEMENT made this 26th day of August, 1929, by and between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter referred to as the Seller, and ETHYL GASOLINE CORPORATION, also a Delaware corporation, hereinafter referred to as the Buyer.

WITNESSETH:

WHEREAS the Buyer is now purchasing from the Seller its entire requirements of Tetraethyl Lead under an agreement dated the 31st day of March, 1928, and

WHEREAS at the date hereof 5,348,838 pounds of Tetraethyl Lead which the Buyer is bound to purchase (if required) under the terms of said agreement of March 31, 1928, has not been delivered to Buyer, and

WHEREAS it is the desire and intention of the parties hereto to terminate said agreement of March 31, 1928, and enter into a new contract for the purchase of said Tetraethyl Lead by the Buyer from the Seller for an additional period and to incorporate into said contract certain understandings, terms and conditions with reference to an increase in the capacity of the Tetraethyl Lead Plant of the Seller from the present rate of capacity of 800,000 pounds per month to a rate of capacity of 1,200,000 pounds per month, as hereinafter provided.

NOW, THEREFORE, in consideration of the premises and in consideration of the mutual covenants and agreements herein contained to be kept and performed by the parties hereto, they have agreed and by these presents do agree with each other as follows:

1. The agreement between the Buyer and the Seller dated March 31, 1928, shall be forthwith terminated and cancelled and each of the parties hereto does hereby release and discharge the other from any further performance thereunder, and from any and all claims based on or arising out of the same.

2. Seller agrees to sell and deliver to the Buyer, and the Buyer agrees to purchase, accept and receive from Seller, upon prices and conditions hereinafter referred to, all Tetraethyl Lead which the Buyer shall require during the period beginning on the date hereof and ending as hereinafter provided; it being understood and agreed that in no event shall the Seller be required to deliver, nor the Buyer required to take, during said period, a total quantity in excess of 19,348,838 pounds, nor shall the Seller be required to make deliveries to the Buyer in excess of 800,000 pounds during any one month until the capacity of Seller's plant shall be increased as hereinafter provided.

3. So long as the total quantity of Tetraethyl Lead delivered hereunder shall not exceed 5,348,838 pounds, the price to be paid by the Buyer to the Seller therefor shall be determined in accordance with the quantities purchased according to the following table of prices, which prices shall be F.O.B. the plant of the Seller at Deepwater Point, New Jersey:

Deliveries of Tetraethyl Lead in Pounds per Month	Price of Tetraethyl Lead in Cents per Pound of 100% Content
Not less than 300,000 lbs. or more than 350,000 "	87¢
Not less than 350,000 lbs. or more than 400,000 "	85¢
Not less than 400,000 lbs. or more than 450,000 "	83¢
Not less than 450,000 lbs. or more than 500,000 "	81¢
Not less than 500,000 lbs. or more than 550,000 "	79¢
Not less than 550,000 lbs. or more than 600,000 "	77¢
In excess of 600,000 lbs.	75¢

It being understood and agreed that as, if, and when the total quantity of 5,348,838 pounds of Tetraethyl Lead shall be purchased hereunder, pursuant to the prices above referred to, then the prices to be paid by the Buyer to the Seller thereafter shall be the following, until the Seller shall have increased its plant capacity as hereinafter provided:

Deliveries of Tetraethyl Lead in pounds per month	Price of Tetraethyl Lead In Cents per Pound of 100% content
Not less than 300,000 lbs. or more than 400,000 "	85¢
Not less than 400,000 lbs. or more than 500,000 "	80¢
Not less than 500,000 lbs. or more than 600,000 "	75¢
Not less than 600,000 lbs. or more than 700,000 "	71¢
Not less than 700,000 lbs. or more than 800,000 "	68¢
In excess of 800,000 lbs.	66¢

4. It is agreed that the Seller shall with reasonable promptness increase its manufacturing capacity to a total rated capacity of 1,200,000 pounds per month, and such additional capacity shall be available to the Buyer within eight months from the date hereof, and the obligations of Seller and Buyer in respect thereto shall be none other than as hereinafter specified.

5. (a) Buyer shall continue to purchase its entire requirements of Tetraethyl Lead from the Seller at the prices and upon the terms and conditions hereinafter referred to for the period ending July 1, 1931, or until 14,000,000 pounds of Tetraethyl Lead shall have been delivered by the Seller to the Buyer in addition to the 5,348,838 pounds referred to in Paragraph 3, above, whichever date shall be earlier reached, except as hereinafter mentioned.

(b) When the plant capacity of the Seller shall be increased to a total rated capacity of 1,200,000 pounds per month, as herein provided, and at least 5,348,838 pounds of Tetraethyl Lead shall have been delivered to Buyer hereunder, then the prices governing from said date throughout the life of this agreement shall be as hereafter set forth in this paragraph, it being understood that in no event shall the Seller be required to deliver to Buyer in excess of 1,200,000 pounds of Tetraethyl Lead in any one month.

Deliveries of Tetraethyl Lead in Pounds per Month	Price of Tetraethyl Lead in Cents per pound of 100% Content
Not less than 300,000 lbs. or more than 400,000 "	87½¢
Not less than 400,000 " or more than 500,000 "	82½¢
Not less than 500,000 " or more than 600,000 "	77½¢
Not less than 600,000 " or more than 700,000 "	73¢
Not less than 700,000 " or more than 800,000 "	69½¢
Not less than 800,000 " or more than 900,000 "	67¢
Not less than 900,000 " or more than 1,000,000 "	65¢
Not less than 1,000,000 " or more than 1,100,000 "	63¢
Not less than 1,100,000 " or more than 1,200,000 "	62¢
Not less than 1,200,000 " or more than 1,300,000 "	61¢
In excess of 1,300,000 lbs.	60¢

(c) The foregoing prices shall be F.O.B. the plant of the Seller at Deepwater Point, New Jersey.

6. All Tetraethyl Lead purchased by the Buyer from the Seller hereunder shall have a pure Tetraethyl Lead content of at least 97%, and payment therefor shall be made upon receipt of invoices not later than the 10th day of the month following the calendar month in which deliveries are made; it being understood that delivery within the meaning hereof shall be delivery to the storage tanks at the blending plant located at Deepwater Point, New Jersey, and invoices shall be rendered on the basis of such delivery.

7. On account of the fact that Seller's Tetraethyl Lead Plant is operated solely to provide the Buyer with its requirements, it is agreed that if during any calendar month such requirements shall be less than 300,000 pounds, then the Seller may at its option cease to operate such plant until such requirements shall be at least 300,000 pounds per month; it being understood in such event when the operation of such plant shall be resumed, the Seller will not be liable to the Buyer for any failure to make deliveries hereunder, where such failure shall arise by reason of the disbanding of the operating crew of said plant and the reasonable curtailment of production until a competent operating crew can be secured without undue risk; it being understood that the Seller's discretion in this regard shall be absolute and binding upon the Buyer.

8. Should the Seller be prevented from making or delivering Tetraethyl Lead hereunder on account of any judicial decision, order or decree, or on account of any law, ordinance, regulation or rule promulgated by any Governmental authority or agency thereof, the obligation to make deliveries on the part of the Seller shall be suspended during such period of prevention, and the Buyer shall have the right to accept the corresponding quantities at a later date, or to cancel them entirely.

9. Neither the Buyer nor the Seller shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto, but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance, with the understanding, however, that the Seller shall not be obliged to make, nor the Buyer to accept, any deliveries after July 1, 1931, unless the termination of the contract

shall have been postponed in accordance with Paragraphs 7, 8 and/or 9 hereof, but in any event this agreement shall not continue beyond December 31, 1931.

IN WITNESS WHEREOF the parties hereto by their officers duly authorized have caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. DU PONT DE NEMOURS & COMPANY,

ATTEST: *Charles Copeland*
Secretary

By ________ V.P.

General Manager - Dyestuffs Dept.

ETHYL GASOLINE CORPORATION

ATTEST:
Secretary

By *E W Webb*
President

2h

NOTE: At lower right on all pages is written "GMC-1019"; italics indicate handwriting.

Government's Exhibit No. 748

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

March 28, 1930.

Mr. Earle W. Webb, President,
Ethyl Gasoline Corporation,
25 Broadway,
New York, N. Y.

My dear Mr. Webb:—

On the train last night coming back from Detroit Mr. Lammot duPont was telling me that they were under negotiations with you in connection with the fourth tetra-ethyl lead plan. He outlined to me some of the points which were being talked about back and forth and out of it came a suggestion which I am sending you herewith which may or may not be of some value to you, but I am sending it to you for what it may be worth. It is this:—

Mr. duPont stated, and I do not know how much he is informed in this particular thing, that the methods which they had developed in the manufacture of tetra-ethyl lead and the patents that they had obtained as a result of same, would make it very difficult for anyone else to accomplish the same result. As I said before, how effective the patents are or how controlling they are, I know nothing and you must appreciate that it was a very offhand remark. Howevevr, it gave me the thought that it was a consideration worth while and should be recognized as such, if it is true, in having the affect of extending the patent monopoly of tetra-ethyl lead. In other words, if tetra-ethyl lead had other elements that would come within the manufacturing processes and if it could only be produced through these processes, you naturally would see the advantage it would have for us. Furthermore than that, it seems to me that we ought to look forward, and I have no doubt that you are but, of course, I do not know that, and try to make our contracts so that the supplier of lead, the duPont Company now but perhaps the duPont Company together with others later on, would at all times sell to us exclusively or, in other words, should tetra-ethyl lead be a factor in the fuel situation at the time the patent expires and should there be no restrictions on the manufacturers as to whom they would sell the material to, the field would naturally be open and there would be no place in the picture for the Ethyl Gasoline Corporation, and should the manufacturing processes be such as to make the manufacture of the material open to all, naturally the situation would be that much more unsatisfactory.

—2—

We might assume that by that time other things will come up but, naturally, as to this we do not know. As I said before, there may be nothing at all in these thoughts or way of thinking and even ifthere are you probably have already covered the same points as he—I can not say, not knowing—and I am simply sending them to you as no harm will be done in any event.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

Note: To right of address appears a stamp bearing the words "Read by" followed by the stamped initials "EWW", "AEM", "JCT", "EMW", "HWK" (there are no notations in the space provided opposite these stamped initials); italics indicate handwriting.

2

Government's Exhibit No. 749

ETHYL GASOLINE CORPORATION
25 BROADWAY

NEW YORK April 3, 1930.

IN REPLY PLEASE REFER TO

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
1775 Broadway,
New York, N. Y.

Dear Mr. Sloan:

About a month ago while carrying on negotiations with the duPont Company relative to a fourth lead plant, I told them I felt the time had arrived when we should be giving thought to conditions that might exist on the expiration of the Midgley patents—quite along the lines referred to in your letter of March 28th. The matter was referred to their attorneys and I took it up with your patent department. The opinion expressed was that an agreement—to accomplish the purpose we had in mind—would be looked upon with suspicion as an effort to perpetuate a patent monopoly beyond the life of the patent. There were so many conditions attached to the making of such a contract as to practically preclude it from present consideration, it seemed to me. Groping for something that would at least place us in a position to better meet competitive conditions that might confront us on the expiration of the patents, at a subsequent meeting with Mr. Robinson, General Manager of the Dyestuffs Department, and with whom I had been carrying on the negotiations, I made the following suggestion as the minimum we would expect—to be made a part of the contract relating to the fourth plant and as a consideration for our making it, viz: That inasmuch as the lead now being manufactured by duPont was and had been manufactured under a process, the patent for which is controlled by Standard Oil Company (and through same we have the exclusive right to license others), and duPont was the only concern—by reason of being our exclusive supplier—that had had the chance to make improvements or refinements in connection with the process, that if we have continued to purchase at least fifty per cent of our requirements of lead from them, for each year, up to January 1, 1938, then duPont is to disclose fully to us any improvements they may have made in the art of manufacture and also to license us to manufacture under any patents they may have obtained in relation to said improvements or refinitements; furthermore they shall each year thereafter disclose to us and license us so long as we purchase fifty percent of our requirements from them, but such obligation shall automatically terminate on failure to take that percentage in any year.

We have come to definite terms in all other respects so far as a fourth plant and our requirements to December 31, 1931, are concerned. The signing of the agreement is awaiting the inclusion of a clause to cover the suggestion above referred to, or something equally as favorable.

Certain objections have since been made by duPont Company to entering into such an arrangement, and I have told Mr. Robinson that unless we get some such provision I could not sign any agreement until the subject had been fully presented and passed upon by our Executive Committee. That it was something that had not been heretofore submitted to the Executive Committee but I felt confident the proposal was

—2—

so reasonable that if it was not accepted we would be strongly tempted to seek another supplier (for a substantial percentage of our requirements) right away, licensing such other supplier under the same patent with conditions perhaps more favorable as to future patent rights than we were presently requesting of duPont.

I have been advised today that some progress is being made by the duPonts in arriving at a conclusion in the matter that will probably not throw the subject into a controversy.

I think we are entitled to have such a provision in our contemplated contract for the fourth plant. The time is ripe; it contemplates a large quantity of lead required to December 31, 1931. Future developments and continuing business dealings with them may later result in more favorable terms being worked out. This I would expect, but for the present I believe we should be content with not less than that suggested.

At a meeting of our Executive Committee you and Mr. Howard authorized me to make the best contract I could with duPont for a fourth plant. This I have endeavored to do, and am acting under the assumption it will be acceptable to you for me to close same without further troubling you about it. However, I shall not do so without submitting the matter to you and Mr. Clark if duPont refuses to incorporate a provision substantially in line with the one above referred to.

Very truly yours,

E. W. Webb

A:H

NOTE: To right of address is stamped "Received Apr. 4, 1930—A. P. Sloan, Jr."; a check mark is placed by hand above the date "28th" in the fourth line; lines in left margin are by hand; an illegible pencilled mark appears at upper right on first page; italics indicate handwriting.

3

Government's Exhibit No. 750

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N.Y.

April 5, 1930.

Mr. Earle W. Webb, President,
Ethyl Gasoline Corporation,
25 Broadway,
New York, N.Y.

My dear Mr. Webb:—

I have your letter of April 3rd. In reply would state that I have not given the matter the very complete consideration and thought that of course you have, therefore, any expression of opinion that I might give would have to be considered more or less of a superficial character and is only submitted with that point of mind.

You say in your letter that a certain agreement might be looked upon with suspicion as an effort to perpetuate a patent monopoly beyond the life of the patent. Be that as it may or rather assuming that is true, I see no reason why we should not proceed in exactly that direction. In other words, as I take it, there is no reason whatsoever why it is not morally correct to keep patenting improvements as the art develops and in that way protect one's position as long as one can beyond the life of a patent which might have originally started the business. Furthermore than that, it seems to me right in line with this that in view of the fact that the patent under which duPont operates belongs to Ethyl Gasoline Corporation in principle and that they are the sole licensee, we should certainly expect them to turn back to us improvements which logically develop through the working of the patent. You of course know as well as I do that it is quite customary when people like ourselves, for instance, become a licensee to turn back, to support the patent position, improvements which develop through the working of the patent. Perhaps I do not get your idea fully but the point I want to make is—that I think it is perfectly all right to perpetuate the patent as long as we can;that it is not only morally right but that it is our duty to our interests to do that very thing. I might add further that I should feel quite strongly on this point in the absence of any argument that might modify my opinion of course but, naturally, in this particular case in view of the fact that we are dealing with the duPont Company, with whom we are associated, I recognize that irrespective of how the contract might be worded that their interests will surely be and must be to protect any position that seems equitable to us.

—2—

The second point is—that I have no objection to making a contract to purchase 50% of our requirements of lead from duPont indefinitely because I think they are entitled to that consideration and, frankly, I would rather see them get the business if they can as I believe they can and will make us a price as low as we can purchase for elsewhere.

In other words, all things considered, I feel that due to our association and everything else, that that is no more than equitable. After all it must be recognized that they have done an excellent job in handling this difficult problem. They have worked it out with the result that the cost of lead has been continually coming down. The health hazard certainly must have been covered and altho perhaps Mr. Howard does not agree with me or go as far as I will go, yet it must be recognized that if they had had the business in the beginning we would have really been better off today.

The only point I have to make on this 50% idea is—that I will go further and say that irrespective of any agreement

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to give them 50%, in which I am thoroughly in accord as I said before and repeat for emphasis, I feel strongly that we are entitled to the improvements without any agreement that developed as a result of the working of the patent. If they were clever enough to develop an entirely new process that was much more economical and therefore had to be used, that would be quite a different consideration, but even so I think we would be entitled to some consideration due to the fact that the development must have worked out indirectly through the application of the original patent but, naturally, there would be equities there which I do not think belong to them under the present circumstances.

Thanks for your letter.

Very truly yours,

Alfred P. Sloan Jr.

APSJr./K

NOTE: Beneath the date is the stamp bearing the words "Read by" followed by the stamped initials "E.W.W." "A.E.M.", "J.C.T.", "E.M.W.", and "H.W.K."; in the space provided opposite the initials "A.E.M." is written the initial "M"; slightly to the left of and below the letterhead appears a small pencilled bracket mark; italics indicate handwriting.

3

Government's Exhibit No. 751

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

April 18, 1930.

Mr. Lammot duPont,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:—

Mr. Webb came in to see me yesterday to discuss various matters regarding the operating problems facing Ethyl Gasoline Corporation and among other things we discussed the relations with the duPont Company. There is one phase of those relations that I simply want to mention to you so that you may have it in mind.

While the fundamental patent on which Ethyl Gasoline predicates its business has twelve years yet to run, and while
is
it is not at all unlikely and, in my personal opinion, probable that through research ways and means will be developed to control the anti-knock qualities of the fuel which will require a reappraisal of tetra-ethyl lead so far as its future contribution to the picture is concerned, nevertheless we should, of course, do everything that we can to so protect our position so that in the event that tetra-ethyl lead has a real place for an indefinite future, we should place ourselves in a position where we can carry on as near as possible to the way we are carrying on at present so far as an exclusive privilege is concerned.

Altho I am not specifically advised, I take it that through the experience that your organization has already had and will continue to have in the manufacture of tetra-ethyl lead itself that processes, perhaps patentable and perhaps otherwise, will be developed around which could be built a picture which would serve, in principle, to prolong the exclusive privilege that Ethyl Gasoline now has beyond the life of the fundamental patent.

I mentioned this to Mr. Webb and thought there would be no harm in mentioning it to you so that everything could be done to throw protection around such processes as you are developing. It also seems very essential that the manufacturer be confined to one source of supply. I am sure that the duPont Company and the Ethyl Gasoline Corporation can work together with such satisfaction and with such confidence in one another that no thought can be given to anything different than a single source of supply. If the present source of supply was not the duPont Company I should feel that our future, after the expiration of our patent, was rather hazardous because, naturally, Ethyl Gasoline Corporation per se can make no contribution to the picture beyond the establishment of the idea, which it has done I am sure you will agree with me very successfully unless it is protected by the exclusive use of tetra-ethyl lead as applied to anti-knock purposes.

Mr. Webb showed me a letter addressed to him* in which it has been agreed on the part of your organization, that you would work out with Mr. Webb a modification of a certain clause in the recently signed contract so that a better understanding could be reached between the two organizations on the above point. If you can do anything to facilitate this and broaden the base upon which it is developed, I am sure it will be helpful and may be of very important indirect benefit to the duPont organization on account of their indirect interest in the future profits of Ethyl Gasoline Corporation even irrespective of their own direct future profits in tetra-ethyl lead.

* *Evidently E.G.R.'s letter of 3/14/30, referring to contract finally worked out and signed in April as of 2/26/30.*

Very truly yours,

Alfred P. Sloan Jr.

APSJr./K

NOTE: At lower right on both pages is written "GMC-587"; at upper left is written "7. EGR Copy to Mr. E. G. Robinson" beneath all of which is drawn a line; at upper right is written "GM-9"; beneath the letterhead is stamped "Received Apr 10, 1930—Lammot du Pont"; marginal line and asterisks on second page are by hand; italics indicate handwriting.

Government's Exhibit No. 752

MEMORANDUM OF AGREEMENT made this 26th day of February, 1930, by and between E. I. duPONT de NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter referred to as "DuPont", and ETHYL GASOLINE CORPORATION, also a Delaware corporation, hereinafter referred to as "Ethyl".

W I T N E S S E T H :

WHEREAS, Ethyl is now purchasing from DuPont, under an agreement dated the 26th day of August, 1929, its entire requirements of Tetraethyl Lead, which product is manufactured under the process covered by the following United States Letters Patent owned by the Standard Development Company (now Standard Oil Development Company), and under which Letters Patent Ethyl has been granted an exclusive license with the right to license others:

U. S. Patent No. 1,612,131 - Kraus and Callis - "Making Metallo-Organic Compounds",

U. S. Patent No. 1,639,947 - Kraus and Callis - "Art of Making Metallo-Organic Compounds",

U. S. Patent No. 1,697,245 - Kraus and Callis - "Art of Preparing Metallo-Organic Compounds"; and

WHEREAS, Ethyl desires to grant to DuPont a non-exclusive license to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel (license to make, use and sell Tetraethyl Lead for all other purposes having been granted by Ethyl to DuPont under an agreement dated November 11, 1928); and

WHEREAS, at the date hereof 12,881,228 pounds of Tetraethyl Lead which Ethyl is bound to purchase (if required) under the terms of said agreement of August 26, 1929, has not been delivered to Ethyl, and

WHEREAS, it is the desire and intention of the parties hereto to terminate said agreement of August 26, 1929, and to enter into a new contract for the purchase of said Tetraethyl Lead by Ethyl from DuPont for an additional period and to incorporate into said contract certain understandings, terms and conditions with reference to an increase in the capacity of the Tetraethyl Lead Plant of DuPont from the present rate of capacity of 2,000,000 pounds per month to a rate of capacity of 2,750,000 pounds per month, as hereinafter provided.

NOW, THEREFORE, in consideration of the premises and in consideration of the mutual covenants and agreements herein contained to be kept and performed by the parties hereto, they have agreed and by these presents do agree with each other as follows:

1. The agreement between Ethyl and DuPont dated August 26, 1929, shall be forthwith terminated and cancelled and each of the parties does hereby release and discharge the other from any further performance thereunder, and from any and all claims based on or arising out of the same.

2. Ethyl hereby grants to DuPont a non-exclusive license to make and to sell only to Ethyl, during the period covered by this agreement, Tetraethyl Lead for use in connection with the manufacture and/or sale of motor fuel, under or by virtue of the processes and inventions defined in the Letters Patent hereinbefore listed.

3. DuPont agrees to sell and deliver to Ethyl, and Ethyl agrees to purchase, accept and receive from DuPont, upon prices and conditions hereinafter referred to, all Tetraethyl Lead which Ethyl shall require during the period beginning on the date hereof and ending as hereinafter provided; it being understood and agreed that in no event shall DuPont be required to deliver, nor Ethyl be required to take, during said period, a total quantity in excess of 51,000,000 pounds, nor shall DuPont be re-

quired to make deliveries to Ethyl in excess of 1,600,000 pounds during the month of March, 1930, or of 1,800,000 pounds during any one month thereafter until the capacity of DuPont's plant shall be increased as hereinafter provided.

4. So long as the total quantity of Tetraethyl Lead delivered hereunder shall not exceed 12,881,228 pounds, the price to be paid by Ethyl to DuPont therefor shall be determined in accordance with the quantities purchased according to the following table of prices, which prices shall be f.o.b. the plant of DuPont at Deepwater Point, New Jersey:

Deliveries by DuPont and/or orders for delivery by Ethyl of Tetraethyl Lead in Pounds per Month	Price of Tetraethyl Lead in Cents per pound of 100% Content
Less than 900,000 lbs.	67¢
Not less than 900,000 lbs. or more than 1,000,000 "	66¢
Not less than 1,000,000 lbs. or more than 1,100,000 "	65¢
Not less than 1,100,000 lbs. or more than 1,200,000 "	62¢
Not less than 1,200,000 lbs. or more than 1,300,000 "	61¢
Not less than 1,300,000 lbs. or more than 1,500,000 "	60¢
Not less than 1,500,000 lbs. or more than 1,750,000 "	59¢
Not less than 1,750,000 lbs. or more than 2,000,000 "	58¢

5. It is agreed that DuPont shall with reasonable promptness increase its manufacturing capacity to a total rated capacity of 2,750,000 pounds per month, and such additional capacity shall be available to Ethyl within eight months from the date hereof, and the obligations of DuPont and Ethyl in respect thereto shall be none other than as hereinafter specified.

6. (a) Ethyl shall continue to purchase its entire requirements of Tetraethyl Lead from DuPont at the prices and upon

the terms and conditions hereinafter referred to for the period ending December 31, 1931, or until 58,318,772 pounds of Tetraethyl Lead shall have been delivered by DuPont to Ethyl in addition to the 12,681,228 pounds referred to in Paragraph 4, above, whichever date shall be earlier reached, except as hereinafter mentioned.

(b) After the date when 12,681,228 pounds of Tetraethyl Lead shall have been delivered to Ethyl hereunder, then the prices governing from said date throughout the life of this agreement shall be as hereafter set forth in this paragraph, it being understood that in no event shall DuPont be required to deliver to Ethyl in excess of 2,475,000 pounds of Tetraethyl Lead in any one month.

Deliveries by DuPont and/or orders for delivery by Ethyl of Tetraethyl Lead in Pounds per Month	Price of Tetraethyl Lead in Cents per pound of 100% Content
Less than 1,500,000 lbs.	60¢
Not less than 1,500,000 lbs. or more than 2,000,000 "	57¢
In excess of 2,000,000 lbs.	55¢

(c) The foregoing prices shall be f.o.b. the plant of DuPont at Deepwater Point, New Jersey.

(d) Whereas, there is now a proposal before the United States Senate to increase the duty on Black Strap molasses to 8¢ per gallon, and whereas it requires 2.6 gallons of molasses to produce one gallon of alcohol, and whereas this amounts to 20.8¢ per gallon increase on alcohol or approximately 3¢ per pound of alcohol, and whereas it requires approximately one pound of alcohol to manufacture one pound of Tetraethyl Lead, therefore it is agreed that should this duty on Black Strap molasses be imposed or any other greater or less duty, then for each cent duty hereafter imposed on Black Strap molasses, the price of Tetraethyl Lead shall be increased 0.375¢ per pound, from the date that such duty becomes effective and until it shall be subsequently repealed or modified. This adjustment shall not apply to Tetraethyl Lead manufactured from molasses on which such duty has not been paid.

7. All Tetraethyl Lead purchased by Ethyl from DuPont hereunder shall have a pure Tetraethyl Lead content of at least 97%, and payment therefor shall be made upon receipt of invoices not later than the 10th day of the month following the calendar month in which deliveries are made; it being understood that delivery within the meaning hereof shall be delivery to the storage tanks at the blending plant located at Deepwater Point, New Jersey, and invoices shall be rendered on the basis of such delivery.

8. On account of the fact that DuPont's Tetraethyl Lead Plant is operated solely to provide Ethyl with its requirements, it is agreed that if during any calendar month such requirements shall be less than 800,000 pounds, then DuPont may at its option cease to operate such plant until such requirements shall be at least 800,000 pounds per month; it being understood in such event when the operation of such plant shall be resumed, DuPont will not be liable to Ethyl for any failure to make deliveries hereunder, where such failure shall arise by reason of the disbanding of the operating crew of said plant and the reasonable curtailment of production until a competent operating crew can be secured without undue risk; it being understood that DuPont's discretion in this regard shall be absolute and binding upon Ethyl.

9. Should DuPont be prevented from making or delivering Tetraethyl Lead hereunder on account of any judicial decision, order or decree, or on account of any law, ordinance, regulation or rule promulgated by any Governmental authority or agency thereof, the obligation to make deliveries on the part of DuPont shall be suspended during such period of prevention, and Ethyl shall have the right to accept the corresponding quantities at a later date, or to cancel them entirely.

10. Neither party shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is

caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto, but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance, with the understanding, however, that in the event of failure to perform by reason of a condition beyond either party's control above-mentioned, then DuPont shall not be obliged to make, nor Ethyl to accept, any deliveries after July 1, 1932, unless the termination of the contract shall have been postponed further in accordance with Paragraphs 8 and 9 hereof, but in any event this agreement shall not continue beyond December 31, 1932.

11. Each of the parties agrees that it shall disclose fully to the other, as of January 1, 1938, all technical information which it shall then possess, relating to the manufacture of Tetraethyl Lead (including the manufacture of Lead-sodium Alloy) under the processes covered by the patents hereinbefore listed, and under any patented or secret improvements or modifications thereof which may have been acquired, controlled or developed by such party prior to said date, and shall grant to the other non-exclusive and non-assignable license or licenses to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel under such basic or improvement patents or under any such secret improvements of the process covered thereby, for the respective terms of such patents or any extensions or renewals thereof, or so long as such improvement processes shall remain secret; provided, however, that should Ethyl fail to purchase from DuPont, upon terms mutually satisfactory to the parties, at least fifty per cent. of all Tetraethyl Lead, and/or product of a like or similar character, which it shall require in its business for any calendar year prior to January 1, 1931, the aforesaid obligation on the part of each of

the parties shall thereupon cease and determine; and provided further, that should Ethyl fail to purchase from DuPont at least fifty per cent. of all of said product or products which it shall require in its business for the calendar year commencing January 1, 19*38*, or any calendar year thereafter, any and all licenses which may then have been granted by ~~[illegible]~~ *either party to the other* pursuant to the terms of this agreement shall thereupon expire, cease and determine. The termination of this agreement as provided elsewhere herein shall not affect the undertakings set forth in this paragraph. *Such licenses shall be without royalty.*

EGR
EWW

EGR
EWW

EGR
EWW

IN WITNESS WHEREOF the parties hereto by their officers duly authorized have caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. duPONT de NEMOURS & COMPANY

ATTEST: *W D Fisher*
Asst Secretary

By *E G Robinson*
Genl Mgr Dyestuffs Dept

ETHYL GASOLINE CORPORATION

ATTEST:
Secretary

By *E W Webb President*

NOTE: At lower right of all pages is written "GMC-1023"; the deletion on the seventh page is by hand; italics indicate handwriting.

Government's Exhibit No. 753

Memorandum of Agreement made this 26th day of September, 1931, by and between E. I. du Pont de Nemours & Company, a corporation of the State of Delaware, hereinafter referred to as "DuPont", and Ethyl Gasoline Corporation, also a Delaware corporation, hereinafter referred to as "Ethyl".

WITNESSETH:

Whereas, Ethyl is now purchasing from DuPont, under an agreement dated the 26th day of February, 1930, its entire requirements of Tetraethyl Lead, which product is manufactured under the process covered by the following United States Letters Patent owned by the Standard Development Company and/or Standard Oil Development Company, and under which Letters Patent Ethyl has been granted an exclusive license with the right to license others:

U.S. Patent No. 1,612,131—Kraus and Callis—Making Metallo-Organic Compounds",

U.S. Patent No. 1,639,947—Kraus and Callis—"Art of Making Metallo-Organic Compounds",

U.S. Patent No. 1,697,245—Kraus and Callis—"Art of Preparing Metallo-Organic Compounds"; and

Whereas, Ethyl desires to grant to DuPont a non-exclusive license to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel; and

Whereas, at the date hereof 25,140,000 pounds of Tetraethyl Lead which Ethyl is bound to purchase (if required) under the terms of said agreement of February 26, 1930, has not been delivered to Ethyl, and

WHEREAS, it is the desire and intention of the parties hereto to complete delivery up to December 31, 1931, under the terms of said agreement of February 26, 1930, and to enter into a new

contract for the purchase of said Tetraethyl Lead by Ethyl from DuPont for an additional period and to incorporate into said contract certain understandings, terms and conditions with reference to prices and corresponding quantities of Tetraethyl Lead to be delivered during the period January 1st, 1932 to June 30, 1934 inclusive, and also maximum quantities to be delivered, with and without due notice;

NOW, THEREFORE, in consideration of the premises and in consideration of the mutual covenants and agreements herein contained to be kept and performed by the parties hereto, they have agreed and by these presents do agree with each other as follows:

1. Ethyl hereby grants to duPont a non-exclusive license to make and to sell only to Ethyl, during the period covered by this agreement, Tetraethyl Lead for use in connection with the manufacture and/or sale of motor fuel, under or by virtue of the processes and inventions defined in the Letters Patent herein before listed.

2. DuPont agrees to sell and deliver to Ethyl, and Ethyl agrees to purchase, accept and receive from duPont, upon prices and conditions hereinafter referred to, all Tetraethyl Lead which Ethyl shall require during the period beginning January 1st, 1932 and ending June 30th, 1934;

it being understood and agreed that in no event shall duPont be required to deliver, during said period, more than 4,000,000 pounds in any one month, subject to due notice, as follows: For quantities in excess of 2,000,000 pounds monthly, two months; in excess of 3,000,000 pounds monthly, three months.

3. For the period beginning January 1st, 1932 and ending December 31st, 1932, the price shall be 47 cents per pound, provided the monthly delivery by duPont to Ethyl is not less than 1,000,000 pounds; for monthly deliveries of less than 1,000,000 pounds, the price shall be 49 cents per pound; and provided also, that in case total deliveries exceed 20,000,000 pounds for the calender year, the

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price shall be adjusted to 46 cents per pound for deliveries in every fiscal month (26th to 25th inclusive) in which the quantity delivered has not been less than 1,000,000 pounds.

For the period beginning January 1st, 1933 and ending December 31st, 1933, the price shall be 45 cents per pound, provided the monthly delivery by duPont to Ethyl is not less than 1,000,000 pounds; for monthly deliveries of less than 1,000,000 pounds, the price shall be 46 cents per pound; and provided also, that in case total deliveries exceed 20,000,000 pounds for the calendar year, the price shall be adjusted to 44 cents per pound for deliveries in every fiscal month (26th to 25th inclusive) in which the quantity delivered has not been less than 1,000,000 pounds.

For the period beginning January 1st, 1934 and ending June 30, 1934, the prices and conditions shall be the same as for the calendar year 1933, with the following exceptions;

in case total sales by duPont to Ethyl exceed 9,000,000 pounds for the first 6 months of 1934, the price shall be adjusted to 43 cents per pound for deliveries in every fiscal month in which the quantity delivered has been not less than 1,000,000 pounds; in case total sales by duPont to Ethyl equal or exceed 12,000,000 pounds for the first 6 months of 1934 the price shall be adjusted to 42 cents per pound for deliveries in every fiscal month in which the quantity delivered has been not less than 1,000,000 pounds.

4. All Tetraethyl Lead purchased by Ethyl from duPont hereunder shall have a pure Tetraethyl Lead content of at least 97%, any payment therefor shall be made upon receipt of invoices not later than the 10th day of the month following the calendar month in which deliveries are made; it being understood that delivery within the meaning hereof shall be delivery to the storage tanks at the blending plant located at Deepwater Point, New Jersey, and invoices shall be rendered on the basis of such delivery.

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5. On account of the fact that duPont's Tetraethyl Lead Plant is operated solely to provide Ethyl with its requirements, it is agreed that if during any calendar month such requirements shall be less than 800,000 pounds, then duPont may at its option cease to operate such plant until such requirements shall be at least 800,000 pounds per month; it being understood in such event when the operation of such plant shall be resumed, duPont shall not be liable to Ethyl for any failure to make deliveries hereunder, where such failure shall arise by reason of the disbanding of the operating crew of said plant and the reasonable curtailment of production until a competent operating crew can be secured without undue risk; it being understood

that duPont's discretion in this regard shall be absolute and binding upon Ethyl. It is understood that if during any calendar month requirements shall be less than 800,000 lbs. the parties hereto may mutually agree upon a selling price for tetraethyl lead that will justify duPont's continuing to operate its plant at such smaller rate of production instead of exercising its option temporarily to discontinue manufacture.

6. Should duPont be prevented from making or delivering Tetraethyl Lead hereunder on account of any judicial decision, order or decree, or on account of any law, ordinance, regulation or rule promulgated by any Governmental authority or agency thereof, the obligation to make deliveries on the part of duPont shall be suspended during such period of prevention, and Ethyl shall have the right to accept the corresponding quantities at a later date, or to cancel them entirely.

7. Neither party shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto, (Including the causes set forth in Paragraph 7 hereof), but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance, provided, however, that such postponement shall in no event operate to extend this agreement beyond July 1, 1936.

8. Each of the parties agrees that it shall disclose fully to the other, as of January 1st, 1938, all technical information which it shall then possess, relating to the manufacture of Tetraethyl Lead (including the manufacture of Lead-Sodium Alloy) under the processes covered by the patents hereinbefore listed, and under any patented or secret improvements or modifications thereof which may have been acquired, controlled or developed by such party prior to said date, and shall grant to the other non-exclusive and non-assignable license or licenses to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel under such basic or improvement patents or under any such secret improvements of the process covered thereby, for the respective terms of such patents or any extensions or renewals therof, or so long as such improvment processes shall remain secret; provided, however, that should Ethyl fail to purchase from duPont, upon terms mutually satisfactory to the parties, at least fifty per cent of all Tetraethyl Lead, and/or product of a like or similar character, which it shall require in its business for any calendar year prior to January 1st, 1938, the aforesaid obligation on the part of each of the parties shall thereupon cease and determine; and provided further, that should Ethyl fail to purchase from duPont at least fifty per cent of all of said product or products which it shall require in its business for the calendar year commencing January 1st, 1938, or any calendar year thereafter, any and all licenses which may then have been granted by either party to the other pursuant to the terms of this agreement shall

thereupon expire, cease and determine. The termination of this agreement as provided elsewhere herein shall not affect the undertakings set forth in this paragraph. Such licenses shall be without royalty.

IN WITNESS WHEREOF, the parties hereto by their officers duly authorized have caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. DU PONT DE NEMOURS & COMPANY

By *E. G. Robinson*
General Manager, Dyestuffs Dept.

[CORPORATE SEAL]

ATTEST:

E. A. Howard
Assistant Secretary

ETHYL GASOLINE CORPORATION

By *E. W. Webb, President*
[CORPORATE SEAL]

ATTEST:

A. E. Mittnacht
Secretary

NOTE: At lower right on all pages is written "GMC-1004"; italics indicate handwriting.

Government's Exhibit No. 754

MEMORANDUM OF AGREEMENT made this *18th* day of *August,* 1933 by and between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter referred to as "DuPont", and ETHYL GASOLINE CORPORATION, also a Delaware Corporation, herinafter referred to as "Ethyl".

WITNESSETH:

WHEREAS, Ethyl is now purchasing from DuPont, under an agreement dated the 26th day of September, 1931, its entire requirements of Tetraethyl Lead, which product is manufactured under the process covered by the following United States Letters Patent owned by the Standard Development Company and/or Standard Oil Development Company, and under which Letters Patent Ethyl has been granted an exclusive license with the right to license others:

U. S. Patent No. 1,612,131—Kraus and Callis—
"Making Metallo-Organic Compounds",
U. S. Patent No. 1,639,947—Kraus and Callis—
"Art of Making Metallo-Organic Compounds",
U. S. Patent No. 1,697,245—Kraus and Callis—
"Art of Preparing Metallo-Organic Compounds"; and

WHEREAS, Ethyl desires to grant to DuPont a non-exclusive license to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel; and

WHEREAS, it is the desire and intention of the parties hereto to enter into a new contract for the purchase of said Tetrathyl Lead by Ethyl from DuPont and to incorporate into said contract certain understandings, terms and conditions with reference to prices and quantities of Tetraethyl Lead to be delivered by DuPont to Ethyl during the period from the effective date of this agreement to December 31, 1934.

Now, THEREFORE, in consideration of the premises and in consideration of the mutual covenants and agreements herein contained to be kept and performed by the parties hereto, they have agreed and by these presents do agree with each other as follows:

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1. Ethyl hereby grants to DuPont a non-exclusive license to make and to sell only to Ethyl, during the period covered by this agreement, Tetraethyl Lead for use in connection with the manufacture and/or sale of motor fuel, under or by virtue of the processes and inventions defined in the Letters Patent hereinbefore listed.

2. DuPont agrees to sell and deliver to Ethyl, and Ethyl agrees to purchase, accept and receive from DuPont, upon prices and conditions hereinafter referred to, all Tetraethyl Lead which Ethyl shall require during the period beginning on the effective date of this agreement and ending December 31, 1934.

3. For the period beginning upon the effective date of this agreement and ending December 31, 1933, the price shall be thirty-six cents (36¢) per pound. For the period beginning January 1, 1934 and ending December 31, 1934, the price shall be thirty-six cents (36¢) per pound, unless the total quantity taken during said period shall exceed 24,000,000 pounds, in which event the price for all Tetraethyl Lead purchased during the year 1934 shall be thirty-five cents (35¢) per pound. Provided, however, that if any

Tetraethyl Lead purchased by Ethyl hereunder shall be sold by it for use in premium gasoline to any class of customers (as for example, at present, its West Coast customers) at a price higher than its then prevailing level of prices to other customers for Tetraethyl Lead for use in premium gasoline, the price to be paid to DuPont hereunder for the quantity of Tetraethyl Lead so sold shall be forty two cents (42¢) per pound.

4. The term "premium" gasoline shall be any gasoline concerning which the trade-name "Ethyl" shall be used in any manner, as well as all grades of gasoline sold by any vendor, producer or refiner for which, on account of any special treatment, a higher efficiency is claimed, including so-called high test and anti-knock varieties of gasoline, such as Ethyl gasoline, Esso and like competitive grades for which a price is charged in excess of the price for regular standard gasoline manufactured or sold by any vendor, producer or refiner. The term "non-premium" gasoline shall include all gasolines, other than "premium" gasoline, as herein defined.

5. If, upon the effective date of this agreement, DuPont shall have on hand or shall have commitments for any Ethyl chloride purchased at the request or with the approval of Ethyl the cost of which has not been amortized in the manner referred to in DuPont's letter to Ethyl dated May 15, 1933, then Ethyl shall pay to DuPont in addition to all other charges hereunder four cents (4¢) for each pound of such Ethyl chloride.

6. All Tetraethyl Lead purchased by Ethyl from DuPont hereunder shall have a pure Tetraethyl Lead con-

tent of at least 97%, and payment therefor shall be made upon receipt of invoices not later than the 10th day of the month following the calendar month in which deliveries are made; it being understood that delivery to the storage tanks at the blending plant located at Deepwater Point, New Jersey shall constitute delivery and invoices shall be rendered on the basis of such delivery.

7. On account of the fact that DuPont's Tetraethyl Lead Plant is operated solely to provided Ethyl with its requirements, it is agreed that if during any calendar month such requirements shall be less than 800,000 pounds, then DuPont may at its option cease to operate such plant until such requirements shall be at least 800,000 pounds per month; it being understood in such event when the operation of such plant shall be resumed, DuPont shall not be liable to Ethyl for any failure to make deliveries hereunder, where such failure shall arise by reason of the disbanding of the operating crew of said plant and the reasonable curtailment of production until a competent operating crew can be secured without undue risk; it being understood that DuPont's discretion in this regard shall be absolute and binding upon Ethyl. It is understood that if during any calendar month requirements shall be less than 800,000 lbs. the parties hereto may mutually agree upon a selling price for Tetraethyl Lead that will justify DuPont's continuing to operate its plant at such small rate of production instead of exercising its option temporarily to discontinue manufacture.

8. The prices of Tetraethyl Lead hereinabove referred to shall be increased 8/10¢ per pound for each 1¢ by which the cost of pig lead delivered at DuPont's Plant and used

in the manufacture of Tetraethyl Lead for Ethyl shall exceed 5¢ per pound, and said prices shall likewise be increased .12¢ per pound for each cent by which the tank car market price, f.o.b. DuPont's Deepwater Plant, of alcohol, used in the manufacture of said Tetraethyl Lead by DuPont for Ethyl's account, plus any taxes, duties or other charges which may be levied on the importation, production and/or use thereof shall exceed thirty cents (30¢) per gallon; with proportionate increases for any fraction of 1¢ by which said cost of lead and alcohol shall be increased; and it is likewise understood and agreed that any increase in the cost to DuPont of Tetraethyl Lead sold hereunder on account of taxes, duties, excises or other charges imposed by any government upon the sale, production or delivery thereof or any materials used in the manufacture thereof and paid by DuPont or embodied in the cost to DuPont of said Tetraethyl Lead as well as any increased labor costs made compulsory on the part of DuPont by reason of any State or Federal legislation shall be added to the foregoing prices; it being understood that in no event shall the provision of this Paragraph 8 operate to increase the price of Tetraethyl Lead delivered hereunder by more than four cents (4¢) per pound.

9. It is further understood and agreed that DuPont's prices for Tetraethyl Lead sold to Ethyl hereunder are based upon Ethyl's present schedule of prices to its customers, namely, thirty five cents (35¢) per 100 cc for all purposes, plus an additional charge for Tetraethyl Lead sold for use in premium gasoline of twenty cents (20¢) per 100 gallons of gasoline for all except West Coast customers and forty two and one-half cents (42-1/2¢) per 100 gallons of gasoline for West Coast customers. If, and when, the above prices

to its customers are increased by Ethyl, it is agreed that DuPont's prices hereunder for Tetraethyl Lead shall be proportionately increased.

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10. Notwithstanding anything herein contained to the contrary, it is understood and agreed that in no event shall DuPont be required to deliver or Ethyl to take Tetraethyl Lead hereunder in excess of the capacity of DuPont's plant for the production of Tetraethyl Lead at Deepwater Point, New Jersey, as of the date of execution hereof, and should DuPont be prevented from making or delivering Tetraethyl Lead hereunder on account of any judicial decision, order or decree, or on account of any law, ordinance, regulation or rule promulgated by any Governmental authority or agency thereof, the obligation to make deliveries on the part of DuPont shall be suspended during such period of prevention, and Ethyl shall have the right to accept the corresponding quantities at a later date, or to cancel them entirely.

11. Neither party shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto, (including the causes set forth in Paragraph 10 hereof), but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance, provided, however, that such postponement shall in no event operate to extend this agreement beyond July 1, 1936.

12. Each of the parties agrees that it shall disclose fully to the other, as of January 1, 1938, all technical information which it shall then possess, relating to the manufacture of Tetraethyl Lead (including the manufacture of Lead-Sodium Alloy) under the processes covered by the patents hereinbefore listed, and under any patented or secret improvements or modifications thereof which may have been acquired, controlled or developed by such party prior to said date, and shall grant to the other non-exclusive and non-assignable license or licenses to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel under such basic or improvement patents or under

any such secret improvements of the process covered thereby, for the respective terms of such patents or any extensions or renewals thereof, or so long as such improvement processes shall remain secret; provided, however, that should Ethyl fail to purchase from DuPont, upon terms mutually satisfactory to the parties, at least fifty per cent of all Tetraethyl Lead, and/or product of a like or similar character, which it shall require in its business for any calendar year prior to January 1, 1938, the aforesaid obligation on the part of each of the parties shall thereupon cease and determine; and provided further, that should Ethyl fail to purchase from DuPont at least fifty per cent of all of said product or products which it shall require in its business for the calendar year commencing January 1, 1938, or any calendar year thereafter, any and all licenses which may then have been granted by either party to the other pursuant to the terms of this agreement shall thereupon expire, cease and determine. The termination of this agreement as provided elsewhere herein shall not affect the undertakings set forth in this paragraph. Such licenses shall be without royalty.

13. The effective date of this agreement shall be the *17th* day of *July*, 1933, and from and after such date the agreement of September 26, 1931, hereinabove referred to as well as all writings and agreements supplemental thereto, shall be canceled and terminated, except with respect to any right, duty or obligation arising prior to the date of cancellation.

In Witness Whereof, the parties hereto, by their officers, duly authorized, have caused this agreement to be executed and their respective corporate seals to be hereunto affixed the day and year first above written.

[CORPORATE SEAL]

E. I. Du Pont De Nemours & Company,
By *W. F. Harrington*
Vice President

Attest:
M. D. Fisher
Ass't Sec'y

E. G. R.

Ethyl Gasoline Corporation,
By *E. W. Webb President*

Attest: [CORPORATE SEAL]

A. E. Mittnacht

Note: At lower right of all pages is written "GMC-1005c"; underlining beneath date on page 3 is by hand; to the left of signatures on last page are written, in the margin, the initials "E.G.R."; at the bottom of the last page is an obscure stamp (apparently a mirror image of the date August 22, 1933 with two left handed check marks); italics indicate handwriting.

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Government's Exhibit No. 755

Supplemental Agreement made this 22nd day of December, 1933, between E. I. Du Pont De Nemours & Company, a corporation of the State of Delaware, hereinafter referred to as DuPont, and Ethyl Gasoline Corporation, a corporation of the State of Delaware, hereinafter referred to as Ethyl.

Witnesseth:

Whereas on the 29th day of May, 1930, the parties hereto entered into an agreement in writing providing for the blending of tetraethyl lead fluid upon terms and conditions which will more fully and at large appear by reference to said agreement of May 29, 1930, and

Whereas Paragraph Third of said agreement of May 29, 1930, provided for the payment of twenty two cents (22¢) per one hundred (100) pounds by Ethyl to DuPont for all tetraethyl lead fluid blended by DuPont pursuant to the terms and conditions thereof, as well as an additional charge of fifty cents (50¢) per drum for loading the same into drums, which prices have heretofore been reduced in accordance with DuPont's letter of July 28, 1932, and Ethyl's letter of August 3, 1932, and

Whereas Paragraph Fourth of said agreement provided for the payment of thirty cents (30¢) per one hundred (100) pounds of ethyl fluid blended under said agreement in addition to the charges enumerated in Paragraph Third, which charge of thirty cents (30¢) per one hundred (100) pounds was to continue until DuPont's entire investment for blending equipment had been fully amortized, and

WHEREAS said investment for blending equipment has been fully amortized and said thirty cents (30¢) charge under said Paragraph Fourth has been discontinued, and

WHEREAS it is the desire and intention of the parties hereto that DuPont shall continue the blending of tetraethyl lead purchased by Ethyl from DuPont.

NOW, THEREFORE, the parties have agreed and by these presents do agree with each other as follows:

1. DuPont and Ethyl agree that effective May 1, 1933, all tetraethyl lead purchased by Ethyl under its agreements of September 26, 1931, and/or August 18, 1933, shall be blended into ethyl fluid by DuPont upon the same general terms and conditions contained in said agreement of May 29, 1930, except as herein otherwise provided; in no event, however, shall DuPont be required to blend such tetraethyl lead in excess of the capacity of its plant at the time.

2. The price which Ethyl shall pay to DuPont for all tetraethyl lead blended by DuPont for Ethyl shall be nineteen cents (19¢) per one hundred (100) pounds of Ethyl Fluid blended and loaded into tank cars or tank motor trucks with an additional charge of fifty cents (50¢) per drum for all Ethyl Fluid loaded into drums.

3. In consideration of the fact that DuPont has been requested by Ethyl to install additional blending equipment, costing approximately Eighteen Thousand

Dollars ($18,000.00), which equipment is necessary for the production and storage of Ethyl Fluid, Ethyl agrees to pay DuPont, in addition to the charges referred to above, three cents (3¢) per one hundred (100) pounds for all Ethyl Fluid blended by DuPont, which charge shall be effective until DuPont's investment for said additional blending equipment shall be fully amortized. Should the amount of said investment exceed the sum of Eighteen Thousand Dollars ($18,000.00), or if said three cents (3¢) rate is insufficient, the foregoing rate of amortization will be adjusted in accordance with the agreement of the parties; it being the intention hereof that a schedule of payments will be arranged so that

the cost of such additional equipment shall be fully amortized on December 31, 1934, and if any part of said equipment shall be unamortized on said date, Ethyl shall pay to DuPont an amount equal to the deficiency.

4. Ethyl agrees to pay to DuPont, in addition to all other charges herein referred to, a further charge of one cent (1¢) per one hundred (100) pounds on all Ethyl Fluid blended by DuPont for the account of Ethyl on and after May 1, 1933, and in consideration of said payment, it is agreed that DuPont shall assume and bear fifty per cent (50%) of all losses of Ethyl Fluid by spilling or otherwise, which shall occur subsequent to May 1, 1933, in DuPont's blending plant and shall be of such a character that such losses might or could have been avoided by the exercise of ordinary care; it being understood and agreed, however, that DuPont shall in no event be liable during the period for which this Article is in effect for any amount in excess of twice the amount received by DuPont during such period

under the terms and conditions of this Paragraph. It is hereby expressly agreed that all losses occuring in excess of said amount are hereby assumed by Ethyl, regardless of the cause thereof; it being understood and agreed, however, that the provisions of this Article 4 shall not be effective or binding on either party subsequent to November 1, 1933.

5. Any increase in the cost to DuPont of the services contemplated by this agreement, caused by taxes, excises or other charges imposed by any government upon said services shall be added to the prices hereinbefore referred to.

6. Except as herein otherwise provided, said tetraethyl fluid shall be blended by DuPont and the rights of the parties hereto shall be governed generally under the terms and conditions set forth in the agreement of May 29, 1930, and particularly paragraphs 2, 5, 6, 7, 8 and 10 of said agreement shall remain in full force and effect, except as herein altered or modified, it being herein expressly agreed that DuPont's obligation under Paragraph 1 of said agreement has been fully completed and discharged and that tank motor trucks shall be treated to all intents and purposes, the same as tank cars within the meaning of the agreement of May 29, 1930.

7. Except as herein otherwise provided, the life of this agreement and said agreement of May 29, 1930, shall be co-extensive with the life of the license and sales agreement entered into between the parties hereto on August 18, 1933.

In Witness Whereof the parties hereto, by their officers, duly authorized, have caused this agreement to be executed and their respective corporate seals to be hereunto affixed the day and year first above written.

E. I. Du Pont De Nemours & Company,

By *W. F. Harrington*

Vice-President.

Attest:

M. D. Fisher

Asst Secretary.

Ethyl Gasoline Corporation,

By *A. E. Mittnacht*

Sect'y. & Treas.

Attest:

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Note: At lower right on all pages is written "GMC-1014"; in the margin to the left of the signatures on the last page are written three sets of initials of which two are illegible and the third is "E. G. R."; italics indicate handwriting.

Government's Exhibit No. 756

THIS AGREEMENT made this 29th day of May, 1930, between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter called the Seller, and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter called the Buyer.

WITNESSETH:

WHEREAS, the Buyer purchases its requirements of Tetraethyl Lead from the Seller, under an Agreement dated February 26, 1930, which Tetraethyl Lead is manufactured by the Seller in its plant at Deepwater Point, New Jersey; and

WHEREAS, under separate agreements entered into prior to the date hereof, the Seller has also blended the Tetraethyl Lead sold to the Buyer with other materials, viz; Ethylene-di-bromide and/or other substances to place such Tetraethyl Lead in commercially marketable form known as Ethyl Fluid, the Seller being particularly fitted to perform such services in consequence of the recommendation of the Surgeon General of the United States that said blending operation should be conducted at a point adjacent to the point of manufacture of said Tetraethyl Lead; and

WHEREAS, it is necessary and desirable that the present capacity of the Seller's blending plant at Deepwater Point, New Jersey, be increased so that said plant will have a total capacity of approximately five million (5,000,000) pounds of Ethyl Fluid per month;

NOW, THEREFORE, the Parties hereto have agreed and by these presents do agree with each other as follows:

FIRST: The Seller agrees that with reasonable despatch after the execution hereof, it will make all necessary installations in its said blending plant to increase the capacity of the same so that said plant will have a total capacity of five million

(5,000,000) pounds of Ethyl Fluid per month, and the Seller shall also install four (4) storage tanks at said plant with a total capacity of approximately five hundred and sixty thousand (560,000) gallons of Ethyl Fluid, together with sufficient and suitable facilities for the loading of the Buyer's tank cars.

SECOND: Seller and Buyer agree that all Tetraethyl Lead purchased by the Buyer under its Agreement with the Seller dated February 26, 1930, shall be blended into Ethyl Fluid by the ~~Buyer~~ Seller provided that in no event shall the Seller be required to blend such Tetraethyl Lead in excess of the capacity of its plant at the time.

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THIRD: The Buyer shall pay to the Seller for the services of the Seller herein referred to, the sum of twenty-two cents (22¢) per one hundred pounds for all Ethyl Fluid blended and loaded into tank cars pursuant to the terms and conditions of this agreement, and for all said Ethyl Fluid loaded into drums, the Buyer shall pay to the Seller an additional charge of fifty cents (50¢) per drum.

FOURTH: In addition to the foregoing charge, the Buyer shall pay to the Seller thirty cents (30¢) per one hundred pounds of Ethyl Fluid blended under this agreement until the entire cost of the installations for increased blending, storage and delivery facilities referred to herein shall be returned to the ~~Buyer~~ Seller it being understood and

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agreed that said costs of such installations are estimated to be approximately Two Hundred and Twenty-five Thousand Dollars ($225,000.00); and it is further understood that upon the expiration of this agreement or if the same shall be terminated for any cause, the amount of such installation cost remaining unpaid at the time shall become immediately due and payable.

FIFTH: The foregoing prices are based on the handling and blending of the materials to mixtures of Ethyl Fluid already experienced and Seller agrees to blend other mixtures at prices comparable with the work involved and agreed to by both parties. Should the Buyer request that Ethyl Fluid sold hereunder be packed and delivered in cans or drums containing not more than ten (10) gallons, then and in that event, the charge for blending and packing said Ethyl Fluid shall be sixty cents (60¢) per one hundred pounds, it being understood that all payments due to the Seller under this and preceding paragraphs shall be due on the tenth day of each month for Ethyl Fluid delivered during the preceding calendar month.

SIXTH: The Buyer agrees to provide all raw materials and all containers for the Ethyl Fluid, and to cause them to be available as needed at the blending plant of the Seller, the Buyer paying all transportation charges in and out of the plant. The Seller is to fill the drums with Ethyl Fluid and to deliver them to the testing room (which is to be situated adjacent to the blending plant and be under the control of the Buyer). The Seller is to handle the drums between the testing room and warehouse and is to load them onto cars as desired by Buyer, the labor necessary for this handling, bracing materials, etc., is to be supplied by the Seller if the Buyer so desires, but the whole cost is to be billed to the Buyer. The Seller is to deliver Ethyl Fluid to the storage tanks and fill tank cars. The Seller is to furnish all power required in the blending plant, Ethyl Fluid storage, drum cleaning station and warehouses, to include heating and lighting service. The Seller is to do all routine cleaning and painting of the containers, but if the containers require sand blasting, or the removal of unusual accumulations of sludges, the cost of additional work so required is to be borne by the Buyer. The Seller will at Buyer's request, inspect clean and repair the Buyer's tank cars at the Dye Works cost. The Seller is to continue to provide the laboratory facilities existing at the date of this agreement to enable the inspector of the Buyer to take such samples and make such tests as may be required to permit him to determine the quality of the Ethyl Fluid being delivered.

SEVENTH: The Buyer agrees also to pay monthly to the Seller the cost of ordinary and extraordinary repairs and replacements to buildings, equipment and any other facilities in the blending area which in the judgment of the Seller are required, except that no repair job costing more than Five Hundred Dollars ($500.00) shall be made without the approval of the Buyer.

EIGHTH: The Seller does not guarantee the yield of Ethyl Fluid to be realized from the raw materials furnished; and, except ~~for~~ losses due to its negligence, shall not be responsible for losses of raw, or finished, materials in connection with the blending and storage; but all such losses shall be borne by the Buyer.

Ninth: This agreement shall run with, and expire simultaneously with the agreement for the purchase and sale of Tetraethyl Lead dated February 26, 1930 between the two parties to this agreement.

Tenth: Neither the Buyer nor the Seller shall be liable to the other for any failure of performance caused by fires, strikes, hurricanes or by any cause beyond the control of either of the parties hereto, but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to perform as to the quantities provided in this agreement but shall merely postpone performance, with the understanding, however, that no blending is to be done or called for after the cessation of the supply of Tetraethyl Lead under the agreement of February 26, 1930.

In witness whereof the parties hereto by their officers duly authorized have caused this agreement to be executed and their

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respective corporate se ls to be hereunto affixed on the day and year first above written.

E. I. Du Pont De Nemours & Company

By *E. G. Robinson*
General Manager-Dyestuffs Department

[corporate seal]

Attest:

E. A. Howard
Ass't Secretary

5

ETHYL GASOLINE CORPORATION

By *E. W. Webb*

President

ATTEST: [CORPORATE SEAL]

A. E. Mittnacht

Secretary

NOTE: At lower right of all pages is written "GMC-1014a"; twice on second page the word "buyer" is deleted and the word "seller" inserted by typewriter; in the margin to the left of the signatures on the last page is written "Approved" followed by illegible initials; italics indicate handwriting.

Government's Exhibit No. 757

MEMORANDUM OF AGREEMENT made this 24th day of August 1934, by and between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter referred to as "DuPont", and ETHYL GASOLINE CORPORATION, also a Delaware corporation, hereinafter referred to as "Ethyl".

WITNESSETH:

WHEREAS Ethyl is now purchasing from DuPont, under an agreement dated the 18th day of August, 1933, as amended, its entire requirements of Tetraethyl Lead, which product is manufactured under the process covered by the following United States Letters Patent owned by the Standard Development Company and/or Standard Oil Development Company, and under which Letters Patent Ethyl has been granted an exclusive license with the right to license others:

U. S. Patent No. 1,612,131—Krause and Callis—"Making Metallo-Organic Compounds",

U. S. Patent No. 1,639,947—Kraus and Callis—"Art of Making Metallo-Organic Compounds",

U. S. Patent No. 1,697,245—Kraus and Callis—"Art of Preparing Metallo-Organic Compound"; and

WHEREAS Ethyl desires to grant to DuPont a non-exclusive license to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel; and

WHEREAS it is the desire and intention of the parties hereto to enter into a new contract for the purchase of said Tetraethyl Lead by Ethyl from DuPont and to incorporate into said contract certain understandings, terms and condi- 23 tions with reference to prices and quantities of Tetraethyl Lead to be delivered by DuPont to Ethyl during the period from the effective date of this agreement to December 31, 1935.

Now, Therefore, in consideration of the premises and in consideration of the mutual covenants and agreements herein contained to be kept and performed by the parties hereto, they have agreed and by these

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presents do agree with each other as follows:

1. Ethyl hereby grants to DuPont a non-exclusive license to make and to sell only to Ethyl, during the period covered by this agreement, Tetraethyl Lead for use in connection with the manufacture and/or sale of motor fuel, under or by virtue of the processes and inventions defined in the Letters Patent hereinbefore listed.

2. DuPont agrees to sell and deliver to Ethyl, and Ethyl agrees to purchase, accept and receive from DuPont, upon prices and conditions hereinafter referred to, all Tetraethyl Lead which Ethyl shall require during the period beginning on the effective date of this agreement and ending December 31, 1935.

3. The price of Tetraethyl Lead delivered by DuPont to Ethyl during the period from June 1, 1934 to December 31, 1934, shall be thirty four cents (34¢) per pound and during the period beginning January 1, 1935 and ending December 31, 1935, said price shall be thirty two cents (32¢) per pound, subject to the provisions hereinafter set forth; it being understood and agreed that said prices are based upon the understanding that Ethyl will not permit

its inventories to be depleted at the end of the first period above named in order to obtain the benefit of the reduced price which applies throughout the second period, and to this and Ethyl agrees that if its stock of Tetraethyl Lead in storage at Deepwater Point, New Jersey, as of December 31, 1934, shall be less than three million, three hundred and ten thousand (3,310,000) pounds, excepting any reduction in said stock on account of DuPont's inability or failure to supply the same, or on account of causes outside of Ethyl's control, the price of thirty four cents (34¢) per pound shall apply on deliveries during the succeeding period up to the amount of such deficiency, but if Ethyl has ordered from DuPont not less than three million, five hundred thousand (3,500,000) pounds of Tetraethyl Lead during each month from June to December, 1934, inclusive, then the thirty two cents (32¢) price, above referred to, shall EWW apply on all deliveries made on and susequent to January 1, 1935, regardless of any deficiency in such stock on December 31, 1934.

4. All Tetraethyl Lead purchased by Ethyl from DuPont hereunder shall have a pure Tetraethyl Lead content of at least 97%, and payment therefor shall be made upon receipt of invoices not later than the 10th day of the month following the calendar month in which deliveries are made; it being understand that delivery to the storage tanks at the blending plant located at Deepwater Point, New Jersey, shall constitute delivery and invoices shall be rendered on the basis of such delivery.

5. On account of the fact that DuPont's Tetraethyl Lead plant is operated solely to provide Ethyl with its

requirements, it is agreed that if during any calendar month such requirements shall be less than eight hundred thousand (800,000) pounds, then DuPont may, at its option, cease to operate such plant until such requirements shall be at least eight hundred thousand (800,000) pounds per month; it being understood in such event when the operation of such plant shall be resumed, DuPont shall not be liable to Ethyl for any failure to make deliveries hereunder, where such failure shall arise by reason of the disbanding of the operating crew of said plant and the reasonable curtailment of production until a competent operating crew can be secured without undue risk; it being understood that DuPont's discretion in this regard shall be absolute and binding upon Ethyl.

6. It is understood and agreed that any increase in the cost to DuPont of Tetraethyl Lead sold hereunder on account of taxes, duties, excises or other charges imposed by any Government upon the sale, production, delivery, processing, importation or use thereof or any materials used in the manufacture thereof and paid by DuPont or embodied in the cost of such Tetraethyl Lead to DuPont shall be added to the foregoing prices; it being understood that in no event shall the provisions of this Paragraph 6 operate to increase the price of Tetraethyl Lead delivered hereunder by more than two cents (2¢) per pound.

7. It is understood and agreed that DuPont's

prices for Tetraethyl Lead sold to Ethyl hereunder are based upon Ethyl's present schedule of prices to its customers, namely thirty three cents (33¢) per 100 cc for the remainder of 1934, and thirty cents (30¢) per 100 cc for the year 1935, and if and when the above prices to its customers are increased by Ethyl, it is agreed that DuPont's prices herein for Tetraethyl Lead shall be proportionately increased; it being understood that no such increase in DuPont's prices to Ethyl shall apply to deliveries during the year 1935, unless Ethyl's prices to its customers for deliveries during such year shall be greater than thirty one cents (31¢) per 100 cc, in which event DuPont's increase in price shall be calculated on the amount by which Ethyl's price shall exceed thirty cents (30¢) per 100 cc.

8. Notwithstanding anything herein contained to the contrary, it is understood and agreed that in no event shall DuPont be required to deliver or Ethyl to take Tetraethyl Lead hereunder in excess of the capacity of DuPont's plant for the production of Tetraethyl Lead at Deepwater Point, New Jersey, and should DuPont be prevented from making or delivering Tetraethyl Lead hereunder on account of any judicial decision, order or decree or on account of any law, ordinance, regulation or rule promulgated by any Governmental authority or agency thereof, the obligation to make deliveries on the part of DuPont shall be suspended during any such period of prevention and Ethyl shall have the right to accept the corresponding quantities at a later date or to cancel them entirely.

9. If at any time during the life of this agreement Ethyl shall submit to DuPont satisfactory evidence that the future Tetraethyl Lead requirements of Ethyl shall exceed the capacity of DuPont's existing plant and facilities, and in the sole opinion and judgment of DuPont such evidence shall be sufficient to justify the erection of additional facilities, DuPont shall, upon reasonable notice from Ethyl, increase its plant and facilities for the production of said Tetraethyl Lead in order to meet any such expected increase

in requirements and Tetraethyl Lead produced by DuPont with such additional facilities shall be sold to Ethyl in accordance with the terms of this agreement.

10. Neither party shall be liable to the other for

any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto (including the causes set forth in Paragraph 8 hereof), but the party affected shall use due dilligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance, provided, however, that such postponement shall in no event operate to extend this agreement beyond July 1, 1936.

11. Each of the parties agrees that it shall disclose fully to the other, as of January 1, 1938, all technical information which it shall then possess, relating to the manufacture of Tetraethyl Lead (including the manufacture of Lead-Sodium Alloy) under the processes covered by the patents hereinbefore listed, and under any patented or secret improvements or modifications thereof which may have been acquired, controlled or developed by such party prior to said date, and shall grant to the other non-exclusive and non-assignable license or licenses to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel under such basic or improvement patents or under any such secret improvements of the process covered thereby, for the respective terms of such patents or any extensions or renewals thereof, or so long as

such improvement processes shall remain secret; provided, however, that should Ethyl fail to purchase from DuPont, upon terms mutually satisfactory to the parties, at least 50% of all Tetraethyl Lead, and/or product of a like or similar character, which it shall require in its business for any calendar year prior to January 1, 1938, the aforesaid obligation on the part of each of the parties shall thereupon cease and determine; and provided further, that should Ethyl fail to purchase from DuPont at least 50% of all of said product or products which it shall require in its business for the calendar year commencing January 1, 1938, or any calendar year thereafter, any and all licenses which may then have been granted by either party to the other pursuant to the terms of this agreement shall thereupon expire, cease and determine.

—6—

The termination of this agreement, as provided elsewhere herein, shall not affect the undertakings set forth in this paragraph. Such licenses shall be without royalty.

12. The effective date of this agreement shall be the 1st day of June, 1934, and from and after such date the agreement of August 18, 1933, hereinabove referred to, as well as all writings and agreements supplemental thereto, and all prior agreements relating to the same subject matter, shall be cancelled and terminated, except with respect to any right, duty or obligation arising prior to the date of cancellation.

IN WITNESS WHEREOF the parties hereto, by their officers, duly authorized, have caused this agreement to be executed and their respective corporate seals to be hereunto affixed the day and year first above written.

E. I. Du Pont De Nemours & Company,
By *E. G. Robinson*
General Manager

[corporate seal]

Attest:

E. A. Howard
Assistant Secretary.

Ethyl Gasoline Corporation,
By *E. W. Webb*
President.

[corporate seal]

Attest:

A. E. Mittnacht

Note: At lower right of all pages is written "GMC-1006"; italics indicate handwriting.

Government's Exhibit No. 758

Memorandum of Agreement made this *20th* day of December, 1935, by and between **E. I. du Pont de Nemours & Company**, a corporation of the State of Delaware, hereinafter referred to as "du Pont", and **Ethyl Gasoline Corporation**, also a Delaware corporation, hereinafter referred to as "Ethyl",

WITNESSETH:

Whereas Ethyl is now purchasing from du Pont, under an agreement dated the 24th day of August, 1934, its entire requirements of Tetraethyl Lead, which product is manufactured under the process covered by the following United States Letters Patent owned by the Standard Development Company and/or Standard Oil Development Company, and under which Letters Patent Ethyl has been granted an exclusive license with the right to license others:

U.S. Patent No. 1,612,131—Krause and Callis—"Making Metallo-Organic Compounds",

U.S. Patent No. 1,639,947—Kraus and Callis—"Art of Making Metallo-Organic Compounds",

U.S. Pattent No. 1,697,245—Kraus and Callis—"Art of Preparing Metallo-Organic Compounds"; and

Whereas under said agreement Ethyl has granted to du Pont a non-exclusive license to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel; and

Whereas it is the desire and intention of the parties hereto to enter into a new contract for the purchase of said Tetraethyl Lead by Ethyl from du Pont during the calendar year 1936;

Now, THEREFORE, in consideration of the premises and in consideration of the mutual covenants and agreements herein contained to be kept and performed by the parties hereto, they have agreed and by these presents do agree with each other as follows:

1. Ethyl hereby grants to du Pont a non-exclusive license to make and to sell only to Ethyl, during the period covered by this agreement, Tetraethyl Lead for use in connection with the manufacture and/or sale of motor fuel, under or by virtue of the processes and inventions defined in the Letters Patent hereinbefore listed.

2. Du Pont agrees to sell and deliver to Ethyl, and Ethyl agrees to purchase, accept and receive from du Pont, upon prices and conditions hereinafter referred to, all Tetraethyl Lead which Ethyl shall require during the calendar year 1936.

3. The price of Tetraethyl Lead delivered by du Pont to Ethyl during the calendar year 1936 shall be twenty-eight cents (28¢) per pound.

4. All Tetraethyl Lead purchased by Ethyl from du Pont hereunder shall have a pure Tetraethyl Lead content of at least 97%, and payment therefor shall be made upon receipt of invoices not later than the 10th day of the month following the calendar month in which deliveries are made; it being understood that delivery to the storage tanks at the blending plant located at Deepwater Point, New Jersey, shall constitute delivery and invoices shall be rendered on the basis of such delivery.

5. On account of the fact that du Pont's Tetraethyl Lead plant is operated solely to provide Ethyl with its

requirements, it is agreed that if during any calendar month such requirements shall be less than eight hundred thousand (800,000) pounds, then du Pont may, at its option, cease to operate such plant until such requirements shall be at least eight hundred thousand (800,000) pounds per month; it being understood in such event when the operation of such plant shall be resumed,

—3—

du Pont shall not be liable to Ethyl for any failure to make deliveries hereunder, where such failure shall arise by reason of the disbanding of the operating crew of said plant and the reasonable curtailment of production until a competent operating crew can be secured without undue risk; it being understood that du Pont's discretion in this regard shall be absolute and binding upon Ethyl.

6. It is understood and agreed that any increase in the cost to du Pont of Tetraethyl Lead sold hereunder on account of taxes, duties, excises or other charges imposed by any Government upon the sale, production, delivery, processing, importation or use thereof or any materials used in the manufacture thereof and paid by du Pont or embodied in the cost of such Tetraethyl Lead to du Pont shall be added to the foregoing prices; it being understood that in no event shall the provisions of this paragraph 6 operate to increase the price of Tetraethyl Lead delivered hereunder by more than two cents (2¢) per pound.

7. It is understood and agreed that du Pont's price for Tetraethyl Lead sold to Ethyl hereunder is based upon

Ethyl's present price to its customers, namely *Twent Eight* cents (*28¢*) per 100 cc, and if and when the abo price to its customers is increased by Ethyl, it is agreed that du Pont's price herein for Tetraethyl Lead shall be proportionately increased; it being understood that no such increase in du Pont's price to Ethyl shall apply unless Ethyl's price to its customers shall be greater than *Twenty-Eight* cents (*28¢*) per 100 cc, in which event du Pont's increase in price shall be calculated on the amount by which Ethyl's price shall exceed *Twenty-Eight* cents (*28¢*) per 100 cc.

8. Notwithstanding anything herein contained to the contrary, it is understood and agreed that in no event shall du Pont be required to deliver or Ethyl to take Tetraethyl Lead hereunder in excess of the capacity of du Pont's plant for the production of Tetraethyl Lead at Deepwater Point, New Jersey, and should du Pont be prevented from making or delivering Tetraethyl Lead hereunder on account of any judicial decision, order or decree or on account of any law, ordinance, regulation or rule promulgated by any Governmental authority or agency thereof, the obligation to make deliveries on the part of du Pont shall be suspended during any such period of prevention and Ethyl shall have the right to accept the corresponding quantities at a later date or to cancel them entirely.

9. If at any time during the life of this agreement Ethyl shall submit to du Pont satisfactory evidence that the future Tetraethyl Lead requirements of Ethyl shall exceed the capacity of du Pont's existing plant and facilities, and in the sole opinion and judgment of du Pont such evidence shall be sufficient to justify the erection of additional facilities, du

Pont shall, upon reasonable notice from Ethyl, increase its plant and facilities for the production of said Tetraethyl Lead in order to meet any such expected increase in requirements and Tetraethyl Lead produced by du Pont with such additional facilities shall be sold to Ethyl in accordance with the terms of this agreement.

10. Neither party shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto (including the causes set forth in paragraph 8 hereof), but the party

affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance; provided, however, that such postponement shall in no event operate to extend this agreement beyond July 1, 1937.

11. Each of the parties agrees that it shall disclose fully to the other, as of January 1, 1938, all technical information which it shall then possess, relating to the manufacture of Tetraethyl Lead (including the manufacture of Lead-Sodium Alloy) under the processes covered by the patents hereinbefore listed, and under any patented or secret improvements or modifications thereof which may have been acquired, controlled or developed by such party prior to said date, and shall grant to the other non-exclusive and non-assignable license or licenses to manufacture Tetraethyl Lead for purposes in connection with the manufacture

and/or use of motor fuel under such basic or improvement patents or under any such secret improvements of the process covered thereby, for the respective terms of such patents or any extensions or renewals thereof, or so long as such improvement processes shall remain secret; provided, however, that should Ethyl fail to purchase from du Pont, upon terms mutually satisfactory to the parties, at least 50% of all Tetraethyl Lead, and/or product of a like or similar character, which it shall require in its business for any calendar year prior to January 1, 1938, the aforesaid obligation on the part of each of the parties shall thereupon cease and determine; and provided further, that should Ethyl fail to purchase from du Pont at least 50% of all of said product or products which it shall require in its business for the calendar year commencing January 1, 1938, or any calendar year thereafter, any and all licenses which may then have been granted by either party to the other pursuant to the terms of this agrement shall thereupon expire, cease and determine. The termination of this agreement, as provided elsewhere herein, shall not affect the undertakings set forth in this paragraph. Such licenses shall be without royalty.

12. The effective date of this agreement shall be the 1st day of January, 1936, and from and after such date the agreement of August 24, 1934, hereinabove referred to, shall be cancelled and terminated, except with respect to any right, duty or obligation arising prior to the date of cancellation.

In witness whereof the parties hereto, by their officers duly authorized, have caused this agreement to be executed and their respective corporate seals to be hereunto affixed the day and year first above written.

E. I. du Pont de Nemours & Company

By *Ely Robinson*
General Manager.

Attest:

M. D. Fisher
Ass't Secy

Ethyl Gasoline Corporation
By *E. W. Webb*
Pres.

Attest:

(illegible)
Asst Sec

Note: At lower right of all pages is written "GMC-1007"; italics indicate handwriting.

7

Government's Exhibit No. 759

MEMORANDUM OF AGREEMENT made as of this 1st day of July, A.D. 1936, by and betwen E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter referred to as "DuPont", and ETHYL GASOLINE CORPORATION, also a Delaware corporation, hereinafter referred to as "Ethyl".

WITNESSETH:

WHEREAS, Ethyl is now purchasing from DuPont, under an agreement dated the 20th day of December, 1935, its entire requirements of Tetraethyl Lead, which product is manufactured under the process covered by the following United States Letters Patent owned by the Standard Development Company and/or Standard Oil Development Company, and under which Letters Patent Ethyl has been granted an exclusive license with the right to license others:

U. S. Patent No. 1,612,131—Krause and Callis—"Making Metallo-Organic Compounds",

U. S. Patent No. 1,639,947—Krause and Callis—"Art of Making Metallo-Organic Compounds",

U. S. Patent No. 1,697,245—Krause and Callis—"Art of Preparing Metalo-Organic Compounds"; and

WHEREAS, under said agreement Ethyl has granted to DuPont a nonexclusive license to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel; and

WHEREAS, it is the desire and intention of the parties hereto to enter into a new contract for the purchase of said Tetraethyl Lead by Ethyl from DuPont during the period from July 1, 1936 to December 31, 1937;

Now, THEREFORE, in consideration of the premises and in consideration of the mutual covenants and agreements herein contained to be kept and performed by the parties hereto, they have agreed and by these presents

do agree with each other as follows:

1. Ethyl hereby grants to DuPont a non-exclusive license to make and to sell only to Ethyl, during the period covered by this agreement, Tetraethyl Lead for use in connection with the manufacture and/or sale of motor fuel, under or by virtue of the processes and inventions defined in the Letters Patent hereinbefore listed.

2. DuPont agrees to sell and deliver to Ethyl, and Ethyl agrees to purchase, accept and receive from DuPont, upon prices and conditions hereinafter referred to, all Tetraethyl Lead which Ethyl shall require during the period from July 1, 1936 to December 31, 1937.

3. The price of Tetraethyl Lead delivered by DuPont to Ethyl during the period above referred to, shall be twenty six cents (26¢) per pound; it being understood and agreed that said price has been fixed with reference to the present wage rate for first class operators in the manufacture of Tetraethyl Lead of seventy five cents (75¢) per hour, and it is further understood and agreed that if at any time during the life of this agreement said wage rate for first class operators shall exceed ninety cents (90¢) per hour, then so long as such increased wage rate shall continue, the price above referred to shall be increased one-quarter of one cent (¼ of 1¢) per pound for each three and three-quarters cents (3¾¢) by which said wage rate for first class operators shall exceed ninety cents (90¢) per hour.

4. All Tetraethyl Lead purchased by Ethyl from DuPont hereunder shall have a pure Tetraethyl Lead content of at least 97%, and payment therefor shall be made upon receipt of invoices not later than the 10th day of the month following the calendar month in which deliveries are made; it being understood that delivery to the storage tanks at the blending plant located at Deepwater Point, New Jersey, shall constitute delivery and invoices

shall be rendered on the basis of such delivery.

5. On account of the fact that DuPont's Tetraethyl Lead plant is operated solely to provide Ethyl with its requirements, it is agreed that if during any calendar month such requirements shall be less than eight hundred thousand (800,000) pounds, then DuPont may, at its option, cease to operate such plant until such requirements shall be at least eight hundred thousand (800,000) pounds per month; it being understood in such event, when the operation of such plant shall be resumed, DuPont shall not be liable to Ethyl for any failure to make deliveries hereunder, where such failure shall arise by reason of the disbanding of the operating crew of said plant and the reasonable curtailment of production until a competent operating crew can be secured without undue risk; it being understood that DuPont's discretion in this regard shall be absolute and binding upon Ethyl.

6. It is understood and agreed that any increase in the cost to DuPont of Tetraethyl Lead sold hereunder on account of taxes, duties, excises or other charges imposed by any Government upon the sale, production, delivery, processing, importation or use thereof or any materials

used in the manufacture thereof and paid by DuPont or embodied in the cost of such Tetraethyl Lead to DuPont shall be added to the foregoing prices; it being understood that in no event shall the provisions of this Paragraph 6 operate to increase the price of Tetraethyl Lead delivered hereunder by more than two cents (2¢) per pound.

7. It is understood and agreed that DuPont's price for Tetraethyl Lead sold to Ethyl hereunder is based upon Ethyl's present price to its customers, namely twenty six cents (26¢) per 100 cc, and if and when the above price to its customers is increased by Ethyl, it is agreed that DuPont's price herein for Tetraethyl Lead shall be proportionately increased; it being understood that no such increase in DuPont's price to Ethyl shall apply

—4—

unless Ethyl's price to its customers shall be greater than twenty six cents (26¢) per 100 cc, in which event DuPont's increase in price shall be calculated on the amount by which Ethyl's price shall exceed twenty six cents (26¢) per 100 cc, and it is further agreed that this Paragraph shall not apply to price increases made by Ethyl to off-set increases in DuPont's prices under Paragraph 3.

8. Notwithstanding anything herein contained to the contrary, it is understood and agreed that in no event shall DuPont be required to deliver, or Ethyl to take, tetraethyl Lead hereunder in excess of the capacity of DuPont's plant for the production of Tetraethyl Lead at Deepwater Point, New Jersey, and should DuPont be prevented from making or delivering Tetraethyl Lead hereunder on account of any judicial decision, order or decree or on account of any law, ordinance, regulation or rule promulgated by any Govern-

mental authority or agency thereof, the obligation to make deliveries on the part of DuPont shall be suspended during any such period of prevention and Ethyl shall have the right to accept the corresponding quantities at a later date or to cancel them entirely.

9. Neither party shall be liable to the other for any failure to deliver or accept Tetraethyl Lead where such failure is caused by fires, strikes, hurricanes, or by any cause beyond the control of either of the parties hereto (including the causes set forth in Paragraph 8 hereof), but the party affected shall use due diligence to remove the cause of failure and to resume performance. Such delays shall not affect the obligation of the parties to deliver or accept the quantities provided in this agreement, but shall merely postpone performance; provided, however, that such postponement shall in no event operate to extend this agreement beyond July 1, 1938.

10. Each of the parties agrees that it shall disclose fully to the other, as of January 1, 1938, all technical information which it shall then possess, relating to the manufacture of Tetraethyl Lead (including the manufacture of Lead-Sodium Alloy) under the processes covered by the

patents hereinbefore listed, and under any patented or secret improvements or modifications thereof which may have been acquired, controlled or developed by such party prior to said date, and shall grant to the other non-exclusive and non-assignable license or licenses to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel under such basic or improvement patents or under any such secret improvements of the process covered thereby, for the respective terms of such patents or any extensions or renewals thereof, or so long as such improvement processes shall remain secret; provided, however, that should Ethyl fail to purchase from DuPont, upon terms mutually satisfactory to the parties, at least fifty per cent (50%) of all Tetraethyl Lead, and/or product of a like or similar character, which it shall require in its business for any calendar year prior to January 1, 1938, the aforesaid obligation on the part of each of the parties shall thereupon cease and determine; and provided further that should Ethyl fail to purchase from DuPont at least fifty per cent (50%) of all of said product or products which it shall require in its business for the calendar year commencing January 1, 1938, or any calendar year thereafter, any and all licenses which may then have been granted by either party to the other pursuant to the terms of this agreement shall thereupon expire, cease and determine. The termination of this agreement, as provided elsewhere herein, shall not affect the undertakings set forth in this paragraph. Such licenses shall be without royalty.

11. The effective date of this agreement shall be the 1st day of July, 1936, and from and after such date the agreement of December 20, 1935, hereinabove referred to, shall be cancelled and terminated, except with respect to any right, duty or obligation arising prior to the date

of cancellation.

In Witness Whereof the parties hereto, by their officers duly authorized, have caused this agreement to be executed and their respective corporate seals to be hereunto affixed the day and year first above written.

E. I. Du Pont De Nemours & Company,

By *Cesare Protto*

Attest:

W. F. Raskob
~~Asst.~~ Secretary.

Ethyl Gasoline Corporation,

By *E. W. Webb*
President.

Attest:

(*illegible*)
Asst. Secretary.

Note: At lower right of all pages is written "GMC-1009"; at lower left on the last page is written "o.k C. M. Spargo" followed by illegible initials; deletion on last page is by hand; italics indicate handwriting.

Government's Exhibit No. 762

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

July 17, 1931

Mr. Lammot duPont,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:—

While it is not my duty specifically to deal with the question concerning which I am writing you, and I appreciate it is not your duty, for organization reasons, to deal with the same matter, yet I would like to get your cooperation in connection with the matter of tetra-ethyl lead. I will try to state the case.

As you know, there is considerable excess capacity for tetra-ethyl lead due to the progress that has been made in increasing the productivity of the plant. The question arises, therefore, how can we put this extra capacity into profitable employment? The matter comes up at this time because Mr. Webb tells me that he is about to begin negotiations with your organization with regard to renewal of the contract, which terminates at the end of this current year.

My thought is, that we ought to give consideration to the betterment of our overhead position, if it is a factor in a thing of this kind, by seeing just what we could make by your giving us a reduction on a reasonable assumption of increased business—we in turn passing that on to the trade with perhaps a certain contribution added to it on our own account. I mean on account of Ethyl Gasoline Corporation.

I believe that there are two things which Ethyl Gasoline Corporation should do, or must do eventually; viz., first, to improve its standards and the second is, to reduce its price—in that way strengthening its competitive position against new methods of cracking which have developed, whereby the anti-knock qualities of fuels are being improved and also to improve their competitive position with respect to fuels that are now being offered of high anti-knock quality through selective crudes.

Gas 3¢ prem.
Ethyl 1¢
Tel ¼¢

—2—

I have suggested to Mr. Webb that he urge upon the duPont organization this phase of the question and that they work with us in a cooperative way with a view to seeing what we could do in the way of strengthening our competitive position and thereby increase our volume and in that way better employ the capital that we already have invested in plant capacity and overhead incident to same.

Very truly yours,

Alfred P. Sloan Jr.

APSJr./K

NOTE: At lower right of both pages is written "GMC 938b"; to the right of the letterhead is stamped "Answered Jul 22, 1931—Lammot du Pont"; to the right of the address is stamped "Received Jul 18, 1931—Lammot du Pont"; underlining on first page is by hand; at first page upper left is written "Robinson"; italics indicate handwriting.

Government's Exhibit No. 763

July 22, 1931.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
New York City, New York.

Dear Alfred:

Yours of July 17th, in regard to Ethyl Gasoline Corporation and the price charged for tetra-ethyl lead, received. I am in accord with your general idea that careful consideration should be given to the matter of possibly increasing the demand for ethyl-gas through revising the premium charged therefore.

**Receives? Note "to" in 3rd line next ¶.*

I understand that, roughly, the premium on ethyl-gas is 3¢ per gallon, and that for the ethyl fluid contained in a gallon of gasoline the Ethyl Gasoline Corporation pays* one cent, and that for the tetra-ethyl lead (plus services) contained in a gallon of gasoline the duPont Company receives 1/4¢. These figures, of course, do not represent the profit to the respective interests, but rather the gross receipts, and, as stated before, the figures are only approximate.

Out of the 3-cent premium must come selling expense and general expenses of distribution. Out of the one-cent to the Ethyl Gasoline Corporation must come the price of the tetra-ethyl lead, advertising and expenses.

Out of the 1/4¢ received by du Pont, must come the cost of the raw materials, the cost of manufacture and du Pont's general expenses. If these figures are even half-way correct, it seems futile to look for a reduction in the 3-cent premium charged the public, through a cut down of the 1/4¢ paid to du Pont. A radical reduction in that 1/4-cent will barely scratch the 3¢.

I have reviewed the figures and cannot find that du Pont is making an unreasonable profit on tetra-ethyl lead, unless you call it unreasonable to earn any return on an investment which has already been amortized. Our policy should certainly be to co-operate with the Ethyl Gasoline Corporation, with General Motors, Standard Oil and the oil companies in general, in increasing the demand for ethyl-gas. My observation is that it would take a very considerable reduction in the premium for ethyl-gas, probably 1 1/2¢ out of the 3¢ to make any appreciable effect by way of increasing demand, but I would far rather leave this question with the Ethyl Gasoline Corporation and the oil companies to think about.

I understand Mr. Webb and our Mr. Robinson had a conference on this subject yesterday, and I talked with Mr. Robinson, explaining the above views, before they met.

I do not wish to be at all unreasonable in this matter, so if you see anything incorrect in my line of thought. I would appreciate your calling attention to it.

Yours very truly,

PRESIDENT.

LduP/MD

NOTE: At lower right on all pages is written "GMC-938a"; at upper right of first page appears "GM-9"; diagonally across all pages is stamped "File copy"; the asterisks and underlining on the first page are by hand; italics indicate handwriting.

Government's Exhibit No. 764

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N.Y.

July 28, 1931.

Mr. Lammot duPont,
E. I. duPont de Nemours & Company,
Wilmington, Delaware.

My dear Lammot:—

Thanks for yours of July 22nd dealing with mine of the 17th with respect to Ethyl Gasoline Corporation.

Perhaps I should not have "butted" into the matter, so to speak, without knowing more about the circumstances. My only thought was, however, that even if you could help only a little, it would help us that much more, so to speak. Not having the facts, as before stated, with respect to the figures, there is no use of discussing the distribution that you mention, altho I have no doubt that you are substantially correct.

All I was aiming at was to inject into the reasoning of those who had charge of the matter and would have to go through with it, the thought that if we all did our part to the extent that we economically could, that we might be able to better the situation in some form or another. I do not think it is so much a case of reducing the 3¢ premium per gallon, notwithstanding the fact that gasoline is selling at such low prices and that 3¢ is a much larger percentage than it used to be, as it is a case of maintaining the supremacy of our brand, which means improving our standard and also means more tetra-ethyl lead.

4648

I have no doubt that with what you have done Messrs. Webb and Robinson will work the propostion out and that a reasonable solution will be reached.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

NOTE: At upper right is written "GM-9"; across the date line is stamped "Received Jul 29, 1931, Lammot du Pont"; at lower right is written "GMC-938"; italics indicate handwriting.

Government's Exhibit No. 766

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N.Y.

Wilmington, Delaware,

February 25, 1932.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

You know I have always been somewhat concerned with respect to the price for tetra-ethyl-lead charged Ethyl Gasoline Corporation by du Pont.

At a recent meeting of the Operations Committee, I noticed that Ethyl Gasoline Corporation's earnings for account of General Motors, aside from royalties, during 1931 amounted to $3,812,000. This, I understand, was after Ethyl Gasoline Corporation's taxes and bonus.

I have just seen the du Pont figures on earnings from tetra-ethyl-lead which, after taxes and du Pont bonus, are fairly close to the same figure. This is for 1931. During that year the average price charged was 56 cents. The present price is 48 cents. If this reduction in price had been in effect in 1931, it would have made a difference of over one million dollars in du Pont earnings from tetra-ethyl lead, so that if business during

1932 should be the same as in 1931, and the present price remain in effect (which, under the contract, it will) and du Pont makes no improvement in costs, then in all probability du Pont earnings from tetra-ethyl-lead will be something like three-fourths as much as General Motors' earnings from Ethyl Gasoline Corporation, aside from royalties, and after taxes and bonus.

I have always felt that, because of the difficulty of comparing the earnings of General Motors and du Pont from this source, on the basis of "return on the investment," it is reasonably fair that du Pont earnings should be about one-half of Ethyl Gasoline Corporation's earnings; i.e., General Motors, Standard Oil and du Pont should participate equally; of course, General Motors getting their royalty first and in addition. It worked out about that way in 1931, but will not be so favorable for du Pont in 1932 unless economies in manufacture are effected, which, of course, may be the case. Taken all in all, I think the present contract is fair and reasonable, looked at from both sides.

Yours very truly,

L. du Pont

LduP/MD

Note: To right of address is stamped "Received Feb 26, 1932, A. P. Sloan, Jr."; at second page upper right is an illegible initial; deletion at second page bottom is by hand; italics indicate handwriting.

February 27, 1932.

Mr. Lammot duPont, President,
E. I. du Pont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:—

I have your letter of February 25th with reference to the tetra-ethyl lead situation. You say that you are somewhat concerned with respect to the price. I take it, from your letter, that what you mean is—that you are interested rather than that you have any misgivings. If I have misinterpreted the thought, let me know.

I give a certain amount of thought and time to Ethyl Gasoline problems. As a matter of fact, Mr. Clark, Vice President of Standard Oil Company; Mr. Webb and myself constitute the Executive Committee and really run the operation. I fully recognize the responsibility due to the important earnings that it contributes to your picture as well as to ours, to say nothing of those of the Standard Oil Company which means, of course, that we are all concerned with the problem. If you feel that you would like to have a closer contact with the situation, I should be glad to have you added to the Executive Committee or, if you wish, you could take the place of Irenee' on the Board for Irenee' hardly ever attends the meetings anyway. I think you will find, however, that careful consideration is given to all the problems and we all appreciate—at least I do—that we have got to be aggressive and progressive to keep the earnings where they are.

Now, I told you of an incident that recently developed, indicating that we had been somewhat apprehensive as to the big broad future of this Company on account of the increasing competition of anti-knock fuels developed through the various vapor phase cracking processes. Three or four days ago I sent to Mr. Harrington copy of some recent tests, which he has recently acknowledged, and requested that he forward same to your office on completion. After I asked him to do so I realized that the test was very voluminous and complicated—probably much more comprehensive in character than you want to study—but the facts are that we have recently began to appreciate, and have demonstrated, that anti-knock values obtained from vapor phase cracking processes are not equal in value to anti-knock values obtained through the tetra-ethyl lead route, which means that the economic strength of tetra-ethyl lead as an anti-knock agency is tremendously enhanced. While many of us disagree, technically, on certain points—they are details—we all agree on the statement that I have just made.

—2—

We are conducting some important experiments under the auspices of Ethyl Gasoline Technical Committee, supported by the Research Departments of General Motors, Ethyl Gasoline and Standard Oil of New Jersey, with a view to developing an objective that we should try to reach 'x' years hence with respect to the compression ratio of motor cars, I have had the oil executives together and am developing cooperation between them and ourselves and after our objective and program is developed, I will put up the matter to the automobile manufacturers. I have not done that before because I wanted to settle the difficulties with one technical staff; i.e., our own, rather than to deal with others because so many differences of opinion always arise.

So far as this year is concerned, I do not believe that we can expect to enjoy as big a business as in 1931. I hate to say this but it is a fact. Preliminary figures received from Mr. Clark, who keeps me advised of the trend in the oil industry, indicate an appreciable falling off in gasoline consumption for the first time in history, indicating that the economic situation has reached the point where people must use their cars less. This, of course, is very disconcerting but it is a natural result of what is happening. It is also reasonable to suppose that tetra-ethyl lead as a percentage of the gasoline used, will decline even greater than the latter will. The 3¢ premium naturally means more than it did two or three years ago and the improvement in other fuels makes it less necessary to use ethyl gasoline. The statistics of the American Petroleum Institute estimate that gallonage will be off at least 10%. If this is true I believe that Ethyl gasoline will be off more than that—perhaps 15% or even 20%. This will not mean anything with respect to the position of Ethyl gasoline. What I mean is, its economic position. It will simply mean that people will have to use a cheaper fuel because they have less money to spend outside of their natural desires. The time will be reached when, with a better synchronization of engine compression and anti-knock fuels, such a thing will be impossible. In other words, they will have to use Ethyl gasoline or a gasoline of known anti-knock rating for a certain engine.

I give you the above more or less brief picture of what is happening and what we may expect, with the further fact that 1931 would have shown a different trend than 1930 with respect to Ethyl gasoline had we not taken on additional customers. We now have practically everybody selling Ethyl gasoline or some gasoline using tetra-ethyl lead and we will now be limited by the general trend and will not be able to offset the general trend by an increase in contact points.

Very truly yours,

APSJr./K

Note: Written accross the top is "Ethyl-Products-Anti Knock—Maintaining Standards"; at first page upper right is written an "R"; a check mark is placed by hand above the figure "25th" in the first line; two check marks are placed by hand at first page lower right.

Government's Exhibit No. 768

CC—Mr. Irenée du Pont
Mr. Lammot du Pont✓
Mr. W. F. Harrington

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
ORGANIC CHEMICALS DEPARTMENT
WILMINGTON, DELAWARE

September 15, 1933.

Mr. A. E. Mittnacht, Secretary & Treasurer
Ethyl Gasoline Corporation,
Chrysler Building,
New York, N.Y.

Dear Mr. Mittnacht:

I have your letter of the 14th in which you say that you would like us to postpone starting work on the proposed "E" Plant until we have been able to reach a conclusion as to the matter discussed in your office the other day, concerning future supplies of Tetraethyl Lead.

Our suggestion that you modify the existing contract to make it apply to the capacity which would exist after this plant had been built was made solely because it was our understanding that you would need the output of this plant very soon and we thought that was the quickest way to get the plant actually under construction.

We have given a great deal of thought to the proposal which Mr. Clark and Mr. Howard presented in your office the other day. As regards the primary question, namely, the mutualization of that portion of the Ethyl Gasoline Corporation which concerns the rights to use lead in gasoline, we have, of course, nothing to say. That is purely a matter which comes in the domain of the Ethyl Gasoline Corporation.

2375-2

We can recognize, moreover, that it is going to be extremely difficult to convince the oil companies that they should enter into this plan and pay for their stock the large amount of money, which would be required to represent the capitalization of the present earning of the Ethyl Gasoline Corporation, unless the oil companies could see for themselves in the future important savings from such an investment. The only way that they could foresee such savings would, as you state, be through an agreement which would assure them large decreases in the price of lead to them in the future. Such assurance presumably would come only from a long term agreement to sell them lead at a price fixed in cents or from some formula which could operate automatically over such a term of years.

—2—

We have been unable to see how the interest controlling the manufacture could devise a basis for such an agreement which would be equitable to both parties and which would safeguard the manufacturer against contingencies like currency inflation and would at the same time be attractive to the oil companies. If such a plan could be devised it seems to us that it would be just as practicable to use the plan to have the duPont Company assure the Ethyl Gasoline Corporation of its supply of lead in satisfactory terms for an extended period as to use it in the manner which you suggested.

We recognize that it will be necessary in the future continually to keep the price of lead to the oil companies on a basis which will make its use economical in comparison with the building of cracking plants and that improvements in the technique of cracking may require decreases in your present price of 35¢ per 100 cc. or 98¢ per pound. The present price at which we sell lead to the Ethyl Gasoline Corporation will permit an enormous amount of progress in that direction, and it is quite possible that during the period in question, continued improvement in manufacturing procedure and expansion in the volume of the business will permit further reductions in our price to you. We know that you recognize that the economies in manufacture and the reductions in price, which hvae been made to you in the past, have resulted from the developments which the duPont Company has been able to make in the manufacturing operation and that these developments and these economies have resulted particularly from the fact that the lead manufacturing operation has been closely associated with the other operations and the service and research facilities which have existed at the Dye Works.

It may well be that we have failed to understand completely the plan which you are proposing and the advantages to all of the interests involved, which you expect to accrue therefrom. In view of this we would suggest that it might be advisable for you to put in writing your suggestions with regard to a change in the present relationships. Obviously we are interested, as you are, in the continuation of the interest in and the use of Tetraethyl Lead by the oil companies and we hope that some plan can be evolved which can be accepted as being mutually beneficial to all of us.

Very truly yours,

E. G. Robinson,
General Manager.

EGR:EM

NOTE: At lower right of both pages is written "GMC-585e"; a check mark is placed by hand after the name of Lammot du Pont at the top of the first page; at first page upper right is stamped "Received Sep 16, 1933, Lammot du Pont".

3

Government's Exhibit No. 769

September 20, 1933.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

I am enclosing herewith copy of a letter which our Mr. Robinson addressed Mr. Mittnacht on September 15th, and copy of Mr. Mittnacht's reply of September 19th, all in regard to the proposition of mutualizing the Ethyl Gasoline Corporation.

Mr. Mittnacht's statement, especially that with respect to the commitment to the Ethyl Gasoline Corporation customers, does not agree at all with my understanding of your statements and Mr. Brown's statement in our conversation with Irénée last Monday. I feel that we are in a somewhat difficult position, and would appreciate your advice as to how to proceed.

Yours very truly,

PRESIDENT.

LduP/MD

NOTE: At upper right is written "GM-9" followed by two pencilled check marks; at lower right is written "GMC-585c".

Government's Exhibit No. 770

COPY

ETHYL GASOLINE CORPORATION
New York

September 19, 1933.

Mr. E. G. Robinson, General Manager,
E. I. duPont de Nemours & Company,
Organic Chemicals Department,
Wilmington, Delaware.

Dear Mr. Robinson:

Your letter of September 15th shows that we failed to make clear to you the two vital points of our discussion, as follows:

1. We have promised our customers to present to them a plan for the mutualization of the Ethyl Gasoline Corporation. We do not feel that we can present any such plan until we have put our relations with your Company on a permanently sound basis. Under the present set-up, the Ethyl Corporation is not in control of its own business. The du Pont Company is the sole supplier and we estimate that physical limitations might prevent the development of any competitive source of supplies for at least two years. A two-year shut down of its business would be fatal to the Ethyl Corporation. In substance, therefore, the du Pont Company are co-directors of the policy of the Ethyl Corporation. The Ethyl Corporation, therefore, cannot sell to the oil industry control of its vital and necessary raw material, tetraethyl lead. It can only sell the right to sit down with your Company and work out from time to time arrangements for the supply of this vital material.

These are the plain facts of the situation. A relationship which grew up and existed only because of the feeling of mutual confidence between the parties has finally produced a situation which is an economic absurdity and appears plainly as such when it is viewed from the standpoint of selling the business to a complete stranger. It is unnecessary to pursue the outline of the mutualization plan any further; whether it is practical or not; how it can be worked out; whether and to what extent the present owners of the Ethyl Corporation would retain any interest in the manufacture or sale of tetraethyl lead if the mutualization plan were put through, are all secondary questions. The only primary point is that we have promised definitely to present a mutualization plan of some kind to our customers, and find ourselves wholly unable to do so until we have corrected this supply situation.

2. Our definite proposal for the solution of this difficulty did not attempt to bargain at the moment as between the du Pont Company and the Ethyl Corporation, but only to establish the principles on which a clean-up of an impossible

—2—

situation could be made. If these principles can be agreed upon we have no doubt that the exact dollars and cents relations of the parties can be worked out satisfactorily. The principles of solution suggested were as follows:

There would be organized an Ethyl-du Pont Company, the common stock of which would be owned by the Ethyl Corporation (or its stockholders) and du Pont. The Ethyl-du Pont Company would lease from the du Pont Company the Deepwater plant for the manufacture of lead. The lease would run for a long enough term to provide for complete amortization of the plant. The rental would be fixed to cover all fixed charges, taxes, depreciation and interest at ordinary rates on the capital invested. The Ethyl-du Pont Company would then contract with the du Pont Company to operate this plant at cost and according to the directions of the Ethyl-du Pont Company for the account and risk of that Company. The Ethyl-du Pont Company might, in the course of time and if it were economic to do so, build plants at sites other than at Deepwater and undertake the operation of them itself, or it might, in the alternative, have them built by the du Pont Company and operated under contract in the same manner.

The Ethyl Corporation would grant to the Ethyl-du Pont Company an exclusive license for the manufacture of tetraethyl lead, or it might in the alternative transfer the patents themselves controlling the manufacture (but not the use) to the Ethyl-du Pont Company. In return the Ethyl-du Pont Company would make an agreement to provide the lead requirements of the Ethyl Corporation on some satisfactory basis, the principle of which is that the manufacturing company is entitled to a fair return on its capital and compensation for the experience and skill of its management.

As we mentioned to you, the arrangement suggested is a solution in principle of the problem of the Ethyl Corporation as a similar problem was worked out and is in satisfactory operation in the case of the alcohol business of the Standard Oil Company (New Jersey), which was passed to the control of an alcohol company owned jointly by Jersey, Barnsdall and National Distillers. We have the assurance of this practical example that the minor difficulties which will arise in the working out of a scheme of this kind are all capable of satisfactory settlement if there is a will on both sides to work out the arrangement.

The above refers only to the domestic business and exports from the United States. It is well understood that if it becomes necessary to manufacture outside of the United States the Ethyl Export Corporation would have to take into account local national chemical interests.

Yours very truly,

(S) A. E. Mittnacht

Note: At lower right of both pages is written "GMC-585d".

4

Government's Exhibit No. 773

To: F. Sparre, Director SERIAL No. D-1013

From: N. P. Wescott JUNE 9, 1936

ORIGINS AND EARLY HISTORY OF THE TETRAETHYL LEAD BUSINESS

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VIEWPOINT AND SCOPE OF THE PRESENT STUDY

Evidences have for some time been apparent of a renewed desire on the part of the Standard Oil Company of New Jersey to go into the manufacture of tetraethyl lead. Since February 26, 1930, all basic contracts between the du Pont Company and the Ethyl Gasoline Corporation have contained a provision obligating each party, as of January 1, 1938, to disclose fully to the other all technical information which it shall then possess relating to such manufacture, and to license the other under its patents. In these circumstances, we have been directed to make a comprehensive review of the facts attending the origin and development of the present large business in the manufacture and marketing of tetraethyl lead, in order to determine, apart from the present contract position, what special grounds may exist on which the du Pont Company's desire to continue producing the entire tetraethyl lead requirements of the Ethyl Gasoline Corporation can be supported.*

In this undertaking, attention has been concentrated mainly on the early history of the enterprise; first because the reasons sought are more likely to exist in the formative period, and second because the events of later years are no doubt already generally in mind.

In this early period, it appears that issues were threshed out and decisions were made largely in personal discussions among certain of the principal officers of General Motors, Standard Oil and the du Pont Company. Moreover, especially in the very earliest stages, some matters which later became important to the joint development were handled without any du Pont participation. Consequently the written record, as it is available in the Company's files, is somewhat fragmentary; and for a complete reconstruction of this early picture, recourse would be necessary also to General Motors and Standard Oil sources. For the present purpose, however, that has not appeared desirable; and the following statement is therefore submitted as representing the essential facts so far as they are determinable from the du Pont Company's records. While some additions and amendments would no doubt result if General Motors and Standard Oil sources were similarly explored, we believe it unlikely that there would be any such amount of correction as would materially change the general purport of our story, from the present practical viewpoint.*

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*For convenient reference, a copy of the contract provision in question is attached as Exhibit "A".

The available records on this subject were found to have been distributed among a dozen or more different files. In order to bring into their proper relationship the facts extracted from these various sources, so that the main lines of action and results could be more clearly understood in relation to each other and to the general course of events over the years in question, it was found necessary to re-assemble all our separate findings of any apparent consequence into the time sequence in which the original events occurred. The resulting memorandum, in the thought that it may prove useful for reference as an adjunct of this report, is attached as Exhibit "B".

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*At the very end of this report, the desirability is pointed out of a critical review of our findings by the responsible individuals who were the Company's chief agents and spokesmen in the events we have sought to describe.

BASIC DISCOVERIES BY GENERAL MOTORS

At about the close of the War, General Motors was engaged, under the active direction of Mr. C. F. Kettering, in an intensive investigation of the nature and causes of the "knocking" by which a limit is set to increased compression in internal combustion engines. This was shortly proved to be due to detonation of the fuel, and a persistent search was carried out for the best practicable means by which to remove or set back this barrier to increased efficiency in motor design.

The necessary chemical research was in the hands of Mr. Thomas Midgley, Jr. Iodine, which was found to have anti-knock properties, was tried out; anilin was found to be effective but proved impracticable because of the quantities required; and the search was finally narrowed down to the use of alkyl metals and centered at last upon tetraethyl lead, which proved to be outstandingly the best material.*

Under date of March 24, 1922, a concise memorandum describing "Mr. Kettering's new doping compound" was sent from Detroit by Mr. P. S. du Pont, then President of the General Motors Corporation, to Mr. Irénée du Pont as President of the du Pont Company, with the comment that "The development looks very promising". It was there set forth, on Mr. Kettering's authority, that tetraethyl lead could be used effectively in the proportion of one part by volume to 1 000 or 1 500 parts of gasoline; that its use would permit a material increase in compression, with a saving of not less than one-quarter of the gasoline ordinarily consumed; and that "it would require about 4 500 000 gallons (about 58 500 000 pounds) per annum to dope the entire gasoline supply". The method of production was described as

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*Although never in commercial production, tetraethyl lead had been known for some seventy years as a laboratory product, of highly toxic nature The basic discovery of General Motors, therefore, consisted not in the original synthesis of the product but in the development of its technically striking and economically valuable use as a knock suppressor. It is also of interest to recall that an important special motive for this research was General Motors' desire to fortify itself against the exhaustion or prohibitive cost of the gasoline supply, which was then believed to be impending in about twenty-five years—the thought being that the high-compression motors which should by that time have been brought into general use if knocking could be overcome, could more advantageously be switched to alcohol.

leading through ethyl iodide, zinc ethyl and lead chloride. The highly dangerous character of the material as a contact poison was emphasized. The memorandum ended with the statement that Mr. Kettering "would like to take up the question of manufacture with the du Pont Company representatives at an early date".*

The prohibitive cost, on a commercial scale, of the production method outlined in this memorandum was shortly apparent. Inquiries made through the du Pont Company's European office indicated a probable cost for iodine, on a tonnage basis, of more than $2.00 a pound. In the research which was continuously in progress at Dayton, bromine was then turned to as an ethylating agent; and on July 10, 1922, Mr. Irénée du Pont wrote Mr. Kettering, referring to a visit the latter was shortly to make to Wilmington, that arrangements were being made for him to meet some of the men in the Chemical and Dyestuffs Departments and closing with the request, "When you come, will you bring your latest information on the production of 'dope' by the bromine method".

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*By reason of its exceptional interest among the early documents of the tetraethyl lead developments, a complete copy of this memorandum is attached as Exhibit "C".

In the subsequent development of the ethyl bromide process up to the stage of successful manufacture on a commercial scale, the full co-operation of the du Pont Company was invoked; and aid was rendered to this development by the Experimental Station as well as by the Dyestuffs Department. In its origin, however, the ethyl bromide process, which was the first practicable method for the commercial production of tetraethyl lead, belongs, along with the basic discovery of the use of tetraethyl lead in gasoline, among the important contributions which were made to this enterprise by the General Motors Corporation.

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EARLY DU PONT MANUFACTURE; BROMINE SUPPLY NECK OF BOTTLE

On October 6, 1922, the first in the long series of contracts for the manufacture of tetraethyl lead was entered into, with the General Motors Corporation and the du Pont Company as the contracting parties. Under this agreement, the du Pont Company obligated itself to build a plant to produce tetraethyl lead at the rate of at least 1 300 pounds a day, and undertook to begin deliveries within four months from receipt of notice. Manufacture was of course to be by the ethyl bromide process, which had been originated by General Motors, and which was at that time the only known method of reasonably assured practicability for quantity production. The price was set at $2.00 a pound (intended to include amortization of the plant) for the first year of 300 shipping days, subject to adjustment for further yearly periods. The intent was plainly stated to be that the contract should be "a continuing one", the du Pont Company undertaking to produce exclusively for General Motors, and General Motors agreeing to take its full requirements from the du Pont Company, except in the event of the latter's inability or unwillingness to produce the entire quantities required.

Under this initial contract, the required notice to go ahead with construction was received about the first of April, 1923; and plant-scale production of tetraethyl lead by the bromide process was begun early in September. The completion of the plant and starting of manufacture had been delayed about a month beyond schedule through efforts to overcome certain unexpectedly persistent process and poison difficulties which were encountered in the actual working out of this pioneer undertaking. In this plant unit, with subsequent enlargements, manufacture was continued without interruption until May 2, 1925, by which time the du Pont Company had produced a total of 2 137 000 pounds of tetraethyl lead by the bromide process.

—7—

In the meanwhile, however, the use of the product had promptly developed certain practical difficulties due to the deposition of metallic lead in the motor, especially the sticking of valve stems; and for these troubles, the most satisfactory preventive was found to be the use of ethylene dibromide in the fuel. There was thus a double requirement for bromine; and the bromine put into the "Ethyl fluid", unlike that used in the manufacture of tetraethyl lead, was of course consumed without any recovery. At the outset, the comparative shortage of the world's supply of bromine from commercially developed sources, in relation to this prospective dual demand, was seen to be a limiting factor for the whole tetraethyl lead development. The new "Ethyl gas", upon its introduction to the market, had met with a surprisingly favorable acceptance; and in order best to meet the rapidly growing demand it was shortly found necessary to apportion the available supplies of bromine between the demand for mixing with the fuel and the requirements for use in manufacture.

In the effort to develop adequate supplies of bromine, the resources of the du Pont Company were of course placed at the disposal of the joint enterprise; and in various directions, the search was actively prosecuted by both du Pont and General Motors, with the aid shortly also of Standard Oil, more or less continuously over a period of two full years beginning with June, 1923. Among the du Pont Company's efforts, the European commercial sources were canvassed; the extraction of bromine from sea water in the form of tribromanilin by a process which had been originated in the General Motors laboratory at Dayton was proved practicable by experimental demonstration with a floating plant; and the brines of various Southwestern lakes were investigated, while preliminary consideration was given to similar natural possibilities in foreign countries.*

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*In the present connection, the details of the above undertakings designed to open up new sources of bromine appear unimportant. With respect to the substantial cost, aggregating upwards of $400 000, of the rather ambitious experimental project with the Steamship Ethyl, however; it may be worth while to recall that there was undoubtedly a large measure of compensation in the effect of this well publicised experiment in the minds of the established domestic and foreign pro-

All these undertakings, however, while not devoid of ultimate advantage to the Ethyl gasoline business, were to be sharply held up by the setback which that business was to sustain through the disaster at Bayway in October, 1924 and the suspension of sales six months later, and to be rendered of less urgent importance by the subsequent successful development of the ethyl chloride process for producing tetraethyl lead.

But to return to the main current of our story, the first public filling station for Ethyl gas had been established at Dayton, Ohio on February 1, 1923; and in June of that year ten Ethyl gas stations were opened in Cincinnati, while a second one was operating at Dayton. The results of these preliminary soundings of the market, and of the early publicity, more than met expectations. The introduction of Ethyl gas by the Standard Oil Company of Indiana in the Middle West followed promptly, with highly gratifying results; and evidences were numerous of an active, widespread and growing interest on the part of both the oil industry and the general public.

In short, the test of actual use had fully confirmed the technical soundness of General Motors' basic discovery; and the stage appeared plainly set for a prompt commercial success of great magnitude. The crucial problem appeared to be that of expanding productive capacity to keep pace with the rapidly growing demand. In December, 1923, Mr. Irénée du Pont wrote to Mr. A. P. Sloan, Jr., the

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ducers of bromine, who set the prices which the new consuming industry was forced to pay. It may also be noted that all this work of investigation and experimentation was handled practically without compensation to the du Pont Company beyond the actual cost of carrying it on.

new President of General Motors, urging prompt provision for the coming summer's requirements; and on January 12, 1924 a supplementary agreement was entered into between the du Pont Company and General Motors, providing for a quick enlargement of the bromide process unit at Deepwater to a daily capacity of 6 800 pounds, or sixfold the original minimum. Two days later Mr. du Pont wrote Mr. W. F. Harrington as follows:

> "It is essential that we treat this undertaking like a war order so far as making speed and producing the output, not only in order to fulfill the terms of the contract as to time but because every day saved means one day advantage over possible competition and bringing one day nearer the huge production which I think will come about".

At Deepwater, construction and production proceeded under great pressure and with general success, though not without serious difficulties, as will be shown below. Throughout the spring, summer and early fall of 1924, the highly favorable market indications of the previous year continued and grew even stronger. In May, General Motors was reported to be looking forward to a fifty-fold expansion. In July, Standard Oil of Indiana (the outstandingly big customer of all the early years) was clamoring for an increased supply, and a great number of inquiries were coming in from unopened territories. Under this pressure of urgent demand, express shipments were being made from Deepwater, with notifications by wire; and the plant was stepping up its daily output to 5 200 pounds, then to 6 500 pounds, and hoping to achieve a daily flow of 9 100 pounds by the first of August.

Up to this point—that is, through the summer and up to the fall of 1924—it should be remembered, all commercial production was by the bromide process, originated by General Motors and brought into successful factory application by du Pont; and the actual carrying on of the joint enterprise was confined to these two companies, with the responsibility for the manufacture of tetraethyl lead resting exclusively with the du Pont Company.

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EARLY DEATHS FROM TETRAETHYL LEAD POISONING

In the early fall of 1924, one shadow lay athwart the brilliant prospect which has just been described for the new enterprise: the danger of serious difficulties from the highly toxic character of the material.

Against this risk, it appears that the precautions which normally prudent judgment would have been expected to dictate; were taken at Deepwater. The case was one of exploring and taking over hitherto unoccupied territory in the chemical industry; and the need for caution in the necessary process of feeling out the way was obviously under some pressure from the urge to get out production. The available records seem to show plainly enough, however, that there was no reckless rush to that end. In the course of the development, a long succession of special measures were recommended, approved, and carried out in the interest of protecting the working forces, at substantial cost in investment and—what then must frequently have seemed more important—in time. As difficulties developed, partial or complete shutdowns were freely adopted in order that the knowledge gained might be applied in strengthening and multiplying the safeguards. When the full measure of the peril was apparent, it seems not too much to say that protection against it was put ahead of every other consideration. In short, it appears from the record that the du Pont Company's regular policies of plant safety and accident prevention were normally applied in the development of tetraethyl lead manufacture at Deepwater.

Nevertheless, after a considerable number of men had been more or less seriously affected, the first known death from tetraethyl lead poisoning occurred on September 21, 1923. The victim was one of the operators in the ethyl bromide process plant at Deepwater.

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Seven months later, at about the end of April or the beginning of May, 1924, there were two deaths at Dayton, among the General Motors employees working on tetraethyl lead.

In June, 1924, Mr. Sloan, gravely concerned about the poison hazard, initiated a plan for a special medical committee, to be composed of one representative each of General Motors, the du Pont Company, and Standard Oil of N. J., to study and co-ordinate all the information obtainable and to formulate practical measures for the best possible utilization of the knowledge gained. In line with this aim, special research was instituted, with the financial support of the interested companies, at Columbia University and at the Bureau of Mines.*

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*In the long subsequent development of the medical phase of the new industry, the results of later years sufficiently attest the good work which has been done by the du Pont Company's own Medical Division. Among its collaborators, some special mention seems necessary of the persistent interest and practical contributions of

On July 30, 1924, a second man died from poisoning in the operating force at Deepwater, a laborer handling sludge. Two weeks later, on August 12th, a pipefitter in the Engineering Department force there died.

On October 20, 1924, a colored man employed as a laboratory helper died, the fourth and last fatality from tetraethyl lead poisoning connected with the bromide process plant at Deepwater.**

Without minimizing the deplorable character of these misfortunes, or disparaging the fate of the individuals concerned, it seems proper here to add certain general comments. In the first place, the deaths incurred in this early stage of the du Pont Company's development of tetraethyl lead manufacture, and in the somewhat later and concluding stage of the same development, represent no sudden holocaust due to the neglect of precautions that should clearly have been taken, but rather the slow and gradual toll which humanity has always paid, and perhaps must always pay, for the conquest of new and dangerous ground. Next, against the price which was paid, definite and permanent progress in bringing this humanly valuable new art to a basis of assured and permanent safety was accomplished. And finally, there was no public hysteria; and within the du Pont Company, there was no panic, and no despair of the final outcome. There was persistent, earnest study on the part

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Dr. Robert A. Kehoe, of the University of Cincinnati, who was brought in originally as the General Motors representative on this early medical committee.

**For convenient reference, a memorandum of the above and all subsequent fatalities from tetraethyl lead poisoning, in the order of their occurrence, is appended as Exhibit "D".

of the entire group of responsible individuals concerned, and insistent effort to seize upon every successive bit of additional knowledge and experience and to consolidate it into the gradually increasing basis for the future safe conduct of the operation.*

On August ~~20, 1924~~, the medical committee of the three companies appointed pursuant to Mr. Sloan's recommendation had submitted its preliminary report; and on August 29th, Mr. Irénée du Pont wrote to Mr. Sloan, in part as follows:

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> "I have read the Doctors' report on poisoning and am not disturbed by the severity of the findings. So far as manufacture is concerned, it is not as bad as nitroglycerin; so far as filling stations are concerned, I cannot believe it is as bad as dyna-

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*One episode related to the poison hazard in this early period which perhaps requires mention in any account of the development of the tetraethyl lead business but of which the details appear to have scant interest from the present viewpoint, is the iron carbonyl development of the German I.G. The Germans, whose interest had been attracted by the early success of tetraethyl lead, found anti-knock properties in iron carbonyl, filed broad patent applications conflicting with those of Mr. Midgley, undertook the commercial exploitation of their product in Europe and sought a working arrangement for the United States with the du Pont Company. Active consideration was given to the possibility of substituting this material for tetraethyl lead when it appeared that the poison hazard of tetraethyl lead might prove prohibitive. Experimental testing by Mr. Kettering with a Buick car in Europe, however, showed iron carbonyl to have apparently very serious drawbacks in fouling plugs and obstructing lubrication; and in August, 1925, a tentative agreement under which manufacture in the U.S. would have been conducted by a 65%-du Pont-owned subsidiary was called off by Badische. On Jan. 10, 1927, however, an agreement was signed between I.G. and Ethyl Gas. Corp. in which each recognized the other's patents and I.G. was given the right to manufacture iron carbonyl for any exploitation of that material by Ethyl Gas. Corp. in the U.S. market.

> mite; so far as injury to the public by loading the dust of the streets with lead is concerned, I do not believe it will be a fraction of the amount of lead which normally goes into the streets by the gradual erosion of white lead in the painting of the buildings".

G.M.-Standard Oil Alliance; Ethyl Gas. Corp. Formed

At the outset, realizing the need of co-operation from within the oil industry and desiring naturally to have the advantage of the high standing and superior marketing facilities in the East of the Standard Oil Company of New Jersey, General Motors had contracted with that company to become the exclusive distributor of tetraethyl lead in its territory for a term of eighteen months, following a certain preparatory period. Contrary, however, to the evident administrative intent, some of the Corporation's representatives had apparently gone far beyond that arrangement in encouraging technical endeavors on the part of Standard Oil, which led to hopes of a much broader participation in the development. The resulting situation was presented on January 28, 1924 in a letter by Mr. Sloan, to Mr. Irénée du Pont, reading in part as follows:

> "I have just had a talk with two or three of the high officials of the Standard Oil Company of New Jersey, covering our relations with them; i.e., their relations with the General Motors Chemical Company, with reference to this tetraethyl lead picture, dealing with distribution here and abroad and various other phases of the matter that they wanted to discuss. In connection with the situation I would

like to pass on to you the following in order that you might consider it and I might profit by your reaction.

There apparently has been more or less discussion between Mr. Kettering and these people in the past month regarding the manufacture of tetraethyl lead. They say—whether they are right or not I do not know—that six or seven months ago in discussing this particular point with Mr. Kettering and Mr. Midgley they were encouraged to see what they could do in developing a process for making tetraethyl lead, hoping thereby to discover something that would result in a much lower cost of production. They take the position now that they feel they have a method which is covered by patents which in effect will give, so far as their studies go, a lower cost of production but, naturally, that can only be demonstrated by an actual works development.

With the above atmosphere, which is given you in order to intelligently reach the point I want to make, the Standard Oil people are urging very strongly a deal whereby they want to capitalize the present exclusive contract by exercising the right they have to license competitors covering the use of tetraethyl lead, thereby getting a broader distribution which they claim will be to our interest and in return for that they want the right to manufacture

> for our account tetraethyl lead at a price competitive with the du Pont Company."*

To this proposal, Mr. Sloan expressed himself as radically opposed. At that time there had been only one death from poisoning, and apparently that hazard was not especially in mind. Mr. Sloan questioned the soundness, however, from General Motors' standpoint, of allowing Standard Oil to manufacture tetraethyl lead while having "such a large slice" of its distribution. He expressed confidence in the du Pont Company's ability to reach the lowest attainable cost of production. And he concluded:

> "If it develops that these people have a process which, due to the nature of same, it should be cheaper from the standpoint of manufacture, I personally would much rather obtain a license from them, pay for it and get the du Pont Company to use it in reducing the cost than I would to deal with the Standard Oil Company as a manufacturer."

Naturally, prompt concurrence in this view was expressed by the du Pont Company; and in a characteristically tactful letter to Mr. Joseph H. Senior, of the Standard Oil Company on February 4, 1924, Mr. Sloan made plain the unwillingness of General

Motors to have the distributing contract used for trading purposes with respect to production, or to enlist Standard

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*Six months before Mr. Sloan's letter, Mr. Kettering had written Mr. Irénée du Pont, on June 8, 1923, that Standard Oil had "perfected a process" for the production of tetraethyl lead; that they claimed a low cost; and that they wanted a year's contract for a small daily volume as a try-out on manufacture.

Oil as a manufacturer of tetraethyl lead. At the same time, he sought to hold open the door for utilizing the new process which Standard Oil was understood to have developed, under "some plan which will be constructive and preserve all the equities in the case."

Nevertheless, Standard Oil persisted in the desire to manufacture tetraethyl lead. And out of the situation just broadly described grew shortly the Ethyl Gasoline Corporation, chartered August 18, 1924, to be owned one-half each by General Motors and Standard Oil, and to take over in their entirety the physical assets and contract obligations of the General Motors Chemical Company and the marketing phase of the tetraethyl lead development. From the viewpoint of the Standard Oil Company, the case was thus stated in an article in the October, 1924 issue of its house organ, "The Lamp":

> "The General Motors Corporation is engaged in the manufacture and sale of automobiles and automotive equipment. The Standard Oil Company (N.J.) produces and sells all the products of petroleum. Neither company felt itself in a position to carry on as a side issue the manufacture and sale of a new product not directly connected either with the business of making cars or producing gasoline and lubricating oils. Yet the field for ethylized gasoline is so important, both to the motor companies and to the oil companies that it was felt that the resources of the leading concerns in each field should be put behind the production and distribution of Ethyl fluid."

ETHYL CHLORIDE PROCESS PROVIDED BY STANDARD OIL

Just how and when General Motors' basic discovery of the remarkable effect of tetraethyl lead as a knock suppressor came to the knowledge of Standard Oil of New Jersey, is not apparent from the files of the du Pont Company. It appears, however, that at least as far back as 1922 Standard Oil had this information, and was engaged in an independent research to develop a satisfactory method of producing tetraethyl lead, of which the great potential importance in its own field must have been strikingly apparent to that pioneer concern in the petroleum industry. The beginning of this developmental undertaking, it will be noted, must have preceded by a good many months the particular communications on the part of Messrs. Kettering and Midgley referred to by Mr. Sloan in his letter of January 28, 1924 from which we have quoted above. In the article in the October, 1924 issue of "The Lamp" also cited above, the matter was put as follows:

> "While the du Ponts and the General Motors Chemical Company were working along various lines to obtain an adequate supply of Ethyl, the Standard Oil laboratories, with the help of the foremost expert in the particular branch of chemistry to which this manufacturing process relates, were engaged for two years in perfecting a different and much simplified manufacturing process, which was finally worked out entirely successfully".

This "different and much simplified manufacturing process" (in the "perfecting" of which the degree of success here attributed to Standard Oil was tragically over-stated, as events were promptly to show) was of course the ethyl chloride process, through the use of which, as afterward successfully developed and applied by the du Pont Company, the great bulk of all tetraethyl lead production to date has been accomplished. In this research, the crucial work appears to have been done by Dr. C. A. Kraus, a chemist of national reputation in his special field, at that time a member of the faculty of Clark and now of Brown University, who had already done pioneer work on metallo-organic compounds, and whose special knowledge and active services, along with his existing patent rights, were promptly enlisted by Standard Oil.

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The immediate and compelling advantage of the ethyl chloride process was that it relieved the bromine stringency by releasing for mixture into Ethyl fluid the quantities of that material which would otherwise have been consumed in the manufacture of tetraethyl lead. There were also substantial savings in production costs and in investment. A still further highly important advantage, perhaps not fully appreciated at the outset, was the reduced poison risk, since the chloride process could be operated with far less handling of dangerous materials than the bromide process.*

In replying, on February 2, 1924, to the above-quoted letter of January 28th from Mr. Sloan, Mr. Irénée du Pont pointed out:

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*A partially offsetting disadvantage at the start was the greater difficulty of avoiding equipment leaks under the higher pressures used in the chloride process. Once this problem in design had been solved, however, there was a substantial permanent gain in safety for the chloride process.

> "You will recall that in the division of the work on tetra-ethyl-lead we had no part in investigating the chlorine method. Recently, however, we have carried on a few experiments in the laboratory as a matter of information and at no material cost. In the light of our experience with the Bromine method, we have found that very fair yields can be obtained using the same general precautions and it may well be that the straight chlorine method has not the difficulties which it was formerly supposed existed. Of course, anyone starting would naturally suppose the chlorine route was the simplest and cheapest".

While this goes to explain the apparent backwardness of the du Pont Company's developmental results, it of course does not detract from the value of the new method of production which was contributed by Standard Oil. To that company must be accorded the credit of having provided the finally successful process. Moreover, Standard Oil held the Kraus and Callis patent rights and was in a position, if that had been necessary, to enforce its proper claims.

DU PONT CO. DEVELOPS ETHYL CHLORIDE PROCESS MANUFACTURE

Measures were promptly taken looking to the utilization of the new Standard Oil process by the du Pont Company. In January, 1924, work on the ethyl chloride process was begun at the Jackson Laboratory. On June 3, 1924, the very first semi-works production by the chloride process at

Deepwater was accomplished; and on June 14th, Mr. Harrington wrote Mr. Midgley—

> "We have made an examination of the Standard Oil Company of New Jersey's process for the manufacture of Tetra Ethyl Lead by the Ethyl Chloride method, and have been able to duplicate their accomplishments. The process followed is essentially the same as their process".

Under date of October 10, 1924, the first contract of the du Pont Company with the new Ethyl Gasoline Corporation was entered into. In this contract, among other undertakings, the du Pont Company bound itself to build a new plant for manufacture by the ethyl chloride process at Deepwater, and to deliver from 4 000 000 to 5 000 000 pounds of tetraethyl lead, at a price of $1.17, in the year beginning April 15, 1925.

However, in order to relieve the bromine shortage, to take advantage of the lower cost, and to aid in meeting the insistent and rapidly expanding demand, an earlier start, against quantities booked in the contracts taken over by the Ethyl Gasoline Corporation from the General Motors Chemical Company, was found urgently desirable. Already, on September 4, 1924, pursuant to informal agreement, verbal authorization had been secured to begin construction, and three piles had been driven in a flying start the same day. On December 12th, after fourteen weeks' rush construction on a three-shift basis, with a peak force of 640 men, the new plant was accepted by the Dyestuffs Department from the Engineering Department as practically

complete. On December 12th, production was started; and on January 12, 1925, the first shipment of tetraethyl lead from the Deepwater ethyl chloride process plant was made.*

From that point, progress was by no means smooth nor uninterrupted. Within a few weeks, serious poisoning difficulties developed: and two men were lost in February and two more in March, 1925. Throughout the month of March, there was a complete shutdown for a radical re-vamping of the equipment, and this was followed by a period of retarded and partial operation in order more cautiously to feel out the way. The conditions at fault were successfully corrected, however; and when the order to suspend operations was issued by the Ethyl Gasoline Corporation on May 4, 1925, approximately 190 000 pounds of tetraethyl lead had been produced by the ethyl chloride process at Deepwater and the road ahead appeared clear of serious further obstacles to safe manufacture—an outlook which the subsequent experience would seem fully to have confirmed.**

ATTEMPTED MANUFACTURE BY STANDARD; DISASTER AT BAYWAY

In the meanwhile, the desire of General Motors' new partner to participate in the manufacture of the product had been insistently manifest. The Standard Oil representatives were critical of du Pont prices; they were, in general, ambitious to engage in

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*In the design of this new plant, radical changes were worked out and adopted from the equipment installed and recommended by Standard Oil, which upon inspection by the du Pont Company's technical representatives was concluded to be utterly unsafe, as will be related in the next following section.

**A complete memorandum of all deaths from tetraethyl lead poisoning is attached for reference as Exhibit "D".

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chemical manufacture; and they no doubt felt that their company's authorship of the successful process gave them a special right to share the expected profits of producing tetraethyl lead. From the General Motors viewpoint, the case was thus put in a letter from Mr. Sloan to Mr. Irènée du Pont on June 27, 1924:

> "As I told you over the telephone, I have given this thing a lot of thought and I would be most happy and entirely satisfied to leave the matter entirely in your hands and the only thought that I have given in any other direction is simply to give due consideration to the psychological side and the opinion of our partners, the Standard Oil Company of N. J. in the enterprise. Naturally, they have their viewpoint. They are contributing in a large way to the commercial side of the tetraethyl lead development and for that reason I am bound to listen to what they have to say.

> For psychological reasons we should permit the Standard Oil Company of N. J. to expend $35,000 or $40,000 of their own money to experiment with the 100 gallon a day outfit in one of their plants, I believe in Bayway, in a building which they could use temporarily for the purpose. This will serve to satisfy them from the psychological standpoint and it is certain that it will be impossible to operate such

an experimental plant successfully when the larger units are running, but it will give them a means to work out their viewpoint which certainly can do us no damage when we approach it from the bigger way.

Any further thought of developing any real production other than under the auspices of the du Pont Company will be deferred until some later time.

I really feel that the weight of the argument in favor of a geographical separation of units is absolutely essential because you must not fail to appreciate, assuming that no other antiknock material is developed in the meantime and that we have the field to ourselves that in the event of universal distribution which ought to come fairly promptly with the advent of the high compression engine, a contingency would arise whereby the whole automotive industry would be dependent upon tetra-ethyl lead, and irrespective of what any individual opinion might be as to the propriety of putting all our eggs in one basket, I feel sure that none of us would want to carry such a hazard because it is not inconceivable that a fire, a strike or some other catastrophe that could not

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be forecast might put the plant out of business for even a short time and if the supply at that time is not enough to carry over the interval, every motor car in the United States would be out of business. All this, of course, is full of assumptions, neverthe-

> less, if we are successful in what we are attempting to do it is a contingency that we must recognize".

In this view, the du Pont Company was of course forced to acquiesce. It was accordingly decided that Standard Oil would go ahead with the construction and operation at Bayway of a plant unit of about semi-works size, to produce 100 gallons, or 1 300 pounds, of tetraethyl lead daily. This was just one-tenth the size of the ethyl chloride process unit which the du Pont Company shortly afterward contracted to construct and operate at Deepwater. On September 15, 1924, the Bayway unit was reported as being in regular operation.

In the summer of 1924, it will be recalled, the extremely hazardous nature of tetraethyl lead was already known to General Motors, du Pont and Standard Oil; and the peril which this might involve for the commercial future of the joint enterprise was appreciated. Fatal results in a total of five cases had already attended the handling of the material at Deepwater and at Dayton. On June 28, 1924, Mr. Irénée du Pont, in writing to Mr. Sloan, had commented (underscores ours) as follows:

> "Of course this whole development depends on whether the demand for tetraethyl lead is going to stay. It may be killed by a better substitute or because of its poisonous character or because of its action on the engine".

Notwithstanding this foreknowledge of the peril, the precautions taken in the small manufacturing operation at Bayway were grossly inadequate. On September 3rd, a visit was made to the Standard Oil plant by a group of du Pont men conversant with this Company's own experience and methods, for the purpose of getting

all possible new light on the operation of the ethyl chloride process, which was shortly to be brought into use at Deepwater. The extreme danger of both the equipment and the methods observed was immediately apparent, and aroused sharp concern and prompt comment, on the spot. There was more or less constant exposure to fumes and opportunity for direct physical contact of the operatives with the material itself. The efforts of the du Pont representatives at friendly remonstrance and warning, however, appear to have been received with unconcern. At any rate, they were observed to make no apparent serious impression, and they proved entirely ineffective.*

Two months later, the storm broke. According to a concise account in the November 3, 1924 issue of "Chemical and Metallurgical Engineering", there were at the beginning of the last week in October forty-five employees engaged in the small operation at Bayway, and of these, thirty-five were affected with tetraethyl lead poisoning to an extent requiring medical attention. On Saturday, October 25th, five workmen who had been under treatment became seriously ill and were transferred to a hospital in New York City, along with three others seriously affected. Of these five men, the first died on Saturday; the second, on Monday, violently insane; the third, who had been taken to the hospital in a strait-jacket, died on Tuesday; the fourth, on Wednesday; and the fifth, on Thursday.

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*This du Pont delegation included Messrs. Harrington, Chambers, Bolton, Calcott and Flachslaender of the Dyestuffs Dept. and Messrs. Lawrence and Maguire of the Engineering Dept.

The violent and spectacular nature of this strange malady had at once attracted newspaper attention; and the dramatic sequence of deaths from the small Deepwater operation was naturally played up, with various lurid implications. "There was front line publicity in every paper in the country", according to a review of the occurrence in the 1924 annual report of the Ethyl Gasoline Corporation, "and mention was made of the accident abroad". A widespread state of panic and public hysteria followed. The U. S. Public Health Service, in response to a general demand, became active. Legal prohibition of the manufacture or sale of "loony gas" was widely proposed. Among other prompt official pronouncements, the New Jersey Board of Health requested the suspension of manufacture of tetraethyl lead in that state, and the temporary discontinuance of the sale of ethyl gasoline; the Philadelphia Health Board suspended distribution; and the New York City health authorities forbade all ethyl gas sales within their jurisdiction. A sensational "crusade" was carried on by the New York World. Labor organizations urged permanently prohibitive legislation. Among others of national prominence and presumably special qualifications to speak, Dr. Yandell Henderson, of Yale, was outspokenly and persistently denunciatory of the whole tetraethyl lead development. As a basis for criminal action by the State of New Jersey against the Standard Oil Company, a grand jury investigation was promptly instituted.*

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*It seems only fair to note at this proceeding a statement was presented by twenty-eight men formerly employed in the tetraethyl lead unit at the Bayway plant, warmly commending the treatment which had been accorded them by the Standard Oil Company and paying a strong personal tribute to J. R. Carringer, Superintendent.

Typifying the more extreme reaction among distributors, the Gulf Refining Company, in a quarter-page newspaper advertisement of November 1, 1924, announced its withdrawal of Ethyl gas from sale "until it can be demonstrated beyond question that it is not detrimental to the public health".

In short, the momentum of the whole tetraethyl lead development was sharply checked, its further progress blocked, and even its future existence rendered uncertain.

The Bayway operation was at once closed down and the plant was shortly dismantled. In the course of its brief career as a manufacturer, the Standard Oil Company had produced a total of 32 512 pounds of tetraethyl lead. In a letter of December 4, 1924 to Mr. Irénée du Pont, Mr. Sloan commented, with a touch of humor no doubt entirely unconscious in the tragic circumstances then surrounding the enterprise, that his Standard Oil associates had apparently "changed their entire viewpoint about an independent source of supply".*

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*Evidences are conclusive of a firm conviction on the part of Mr. Sloan at that time and later that the du Pont Company would continue permanently as the exclusive source of supply for tetraethyl lead. Thus, on 12/8/24 Mr. Sloan wrote, referring to the past issue of policy as between having du Pont as the sole manufacturer or acceding to Standard Oil's desire to participate: "Now they have gone into it and they will undoubtedly be satisfied for all time. I feel quite certain of that." — And on 12/12/24: "Du Pont will always be the manufacturing agent of Ethyl Gasoline Corporation whether we make tetra ethyl lead or whatever we make, now or in the future. I am sure of that." — And on 2/2/25: "- - the great value to Ethyl Gasoline Corp. of being able to capitalize the du Pont organization is greatly recognized now and is bound to be more so as time goes on".

In seeking to appraise the above-described negative contribution of the Standard Oil Company to the tetraethyl lead development, the fact must not be forgotten that repeated loss of life attended also the early work of both General Motors and the du Pont Company; in case of the latter, both before and after the Bayway disaster. As against the above five fatalities, plus one earlier death at Bayway probably due to tetraethyl lead, there had previously been two deaths definitely attributable to tetraethyl lead poisoning at Dayton, and there has been a total of eight at Deepwater, of which three had occurred before the fatalities at Bayway. Thus, only a third of the total toll of lives taken by this conquest of new and unknown territory in the chemical industry, was incidental to the activities of Standard Oil.*

On the other hand, the scale of the du Pont Company's manufacture, even at that early stage of the enterprise, was several times greater than that of Standard Oil, and the risk at Deepwater had been incurred over a much longer period; so that on the obviously reasonable basis of relating the loss of life to the respective totals of worker-hours' exposure, the actual rate of loss was incomparably more severe at Bayway. Moreover, there was never any such almost

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Five years later, in a letter of 4/18/30 to Mr. Lammot du Pont, commenting on the future outlook for Ethyl gas, and suggesting certain main lines of strategy, Mr. Sloan wrote, "It also seems very essential that the manufacturer be confined to one source of supply. I am sure that the du Pont Company and the Ethyl Gasoline Corporation can work together with such satisfaction and with such confidence in one another that no thought can be given to anything different than a single source of supply. If the present source of supply was not the du Pont Company I should feel that our future, after the expiration of our patent, was rather hazardous - - -."

*For the complete sequence of deaths from tetraethyl lead poisoning, see Exhibit "D".

universal incidence of poisoning at Deepwater as at Bayway; there was no sudden holocaust, no wild panic, and no terrified giving up of the case as hopeless on the part of the management.*

Everything considered, it seems safe to say that without the devastating catastrophe at Bayway, there would have been no sudden halt and long stoppage of the tetraethyl lead development, and that the paralysis which did befall this new industry was directly, and to all practical intent exclusively, a result of the disaster brought upon it by the utterly inadequate safety precautions attending the attempted manufacture by Standard Oil.

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BUSINESS SUSPENDED;
FUTURE IN DOUBT;
YEAR'S PROGRESS LOST

Up to the last week of October, 1924, the outlook for the new development continued bright and its future seemed increasingly assured. A special news letter issued by the Ethyl Gasoline Corporation on October 10, 1924 included the announcement that within the past year about 10 000 Ethyl gas stations had been opened; the October issue of "The Lamp" reported an astonishing market acceptance of tetraethyl lead, with the most optimistic estimates being exceeded 100% and the public demanding the new product in districts not yet opened; and for October, 1924 the recently established Ethyl Gasoline Corporation reported its first monthly profit.

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*To make this comparison complete, it seems necessary to add that there appears to have been a radical difference in the handling of publicity at the two locations—though perhaps the sudden and sweeping character of the calamity at Bayway made it inevitably a subject for excited newspaper comment. An outstandingly successful job appears to have been done by the Publicity Bureau of the du Pont Company, however, in restraining the tendency toward sensationalism and exaggeration in the press accounts of the poison cases at Deepwater, especially with respect to the two deaths in February and two in March, 1925, following shortly upon the heels of the great excitement attending the Standard Oil fatalities.

For a while after the catastrophe at Bayway, the business appears to have run along on momentum, and strong hopes were entertained of overcoming the setback it had encountered. For January, 1925, the Ethyl Gasoline Corporation reported a profit of over $34 000; and a tentative forecast included in its 1924 annual report indicated a possible profit for the year 1925 of $4 000 000.

However, the tide shortly turned. In general, where positive legal barriers were not maintained, sales resistance increased; and the formerly swelling flow of Ethyl gas into service stations and automobile tanks was increasingly checked, while a considerable counter-current of returns set in. For the last four months of 1924, the Ethyl Gasoline Corporation's sales had averaged about $500 000 monthly; for the first four months of 1925, the average monthly sales were only about $200 000. For February, March and April, losses were reported in increasing size, mounting to a current operating loss of some $61 000 in April. In the meanwhile, of course, the public agitation and the basic uncertainties of the situation continued.

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The decision to suspend operations appears to have been rather suddenly arrived at. On Friday, April 24, 1925, an active board meeting of the Ethyl Gasoline Corporation was held in New York, at which various forward-looking actions were taken and of which the minutes give no intimation of any thought of discontinuance. On Monday, April 27th, in response to a 'phone request from General Motors, the officers of the Ethyl Gasoline Corporation submitted estimates indicating probable total losses of well over $5 000 000 in the event of liquidation. On Monday, May 4, 1925, after a further meeting of its board, the Ethyl Gasoline Corporation notified all its commercial customers (excepting only the Government) that all sales would be suspended, pending a satisfactory determination as to the poison hazard, as of the following day. This action was vigorously opposed by Mr. Irénée du Pont, who appears to have stood alone.

To this decision to suspend operations, it appears likely that the four deaths at Deepwater in February and March, 1925, in some degree contributed. True, there was on that account no failure, or threatened failure, of the supply of tetraethyl lead; the bromide process was being operated successfully, at Deepwater, and there was no thought of any permanent abandonment of the chloride process operation there.* But with respect to the intangible elements of the situation, the case was different. The agitation let loose by the Bayway disaster was in full force; the widespread fears as to the safety of the new product had not been allayed by any long experience or any authoritative statement of expert opinion; and there was reason for grave apprehension as to the possible effect upon General Motors and Standard Oil of the public resentment which might result from further deaths attributable to tetraethyl lead. In these circumstances, it seems plain that the unexpected further fatalities at Deepwater must have had a considerable effect in influencing the minds of the General Motors and Standard Oil representatives on the Ethyl Gasoline Corporation's board toward the suspension of sales which was finally made effective on May 5, 1925. That effect, however, was at most only of secondary importance, in supplementing the consequences of the Bayway disaster, without which it appears quite safe to say that the decision to suspend sales would never have been taken.

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*On 4/9/25, Mr. Irénée du Pont wrote Mr. Midgley:

> "Harrington tells me that he does not expect to be able to run the Ethyl Chloride plant at its rated capacity at an early date. He is running one digestor and proposes to continue to do so for a number of days still before gradually increasing the operation; this because he is unwilling to jeopardize his men and the whole success of the undertaking by hurrying the manufacture, thereby increasing the hazard of a repetition of our previous trouble."

On 4/10/25, however, Mr. Midgley replied:

> "I note that Ethyl chloride plant is going to be short but do not see that under present conditions this is particularly hazardous because of the ample stock we have on hand at Dayton."

Upon the suspension of sales, the Ethyl Gasoline Corporation proposed that the unexecuted part of its contract with the du Pont Company be held in abeyance to await the final outcome. The du Pont Company pointed out that this would be impracticable. Prompt cancellation of the contract and liquidation of the losses thereby incurred was insisted upon; and on June 9, 1925, the Company presented its itemized bill for a total of $1 922 475.

Included in this total, among other items, was approximately $1 364 000 for the construction costs of the chloride process plant, $160 000 for research expenditures in developing the chloride process, and $52 000 for interest on the capital invested up to the expected settlement date of July 1, 1925. In brief, the principle of the proposed settlement was that the du Pont Company was entitled to be made whole on its costs and would forego any claim for prospective profits under the contract, apart from interest, on condition of prompt

settlement. On June 30, 1925, $1 500 000 was paid on account; and in April, 1926, after various minor adjustments, final settlement was accomplished at a total of roundly $1 821 000, slightly reduced by subsequent small credits for recovered materials.*

Payment of the Ethyl Gasoline Corporation's obligations was accomplished by borrowing from its two stockholders, General Motors and Standard Oil, which had been guarantors of its performance under its contract with the du Pont Company. At the end of 1925 these borrowings stood at a total of over $4 000 000.**

In the prevailing state of strong prejudice and excited fears, the new industry was fortunate in having the question of the health risk in the use of tetraethyl lead actively taken up, in response to what appears to have been a general demand, for dispassionate examination under the direction of the U. S. Public Health Service. On December 16, 1924, Mr. W. F. Harrington and Mr. Howard, of Standard Oil, went to Washington and canvassed the poison problem in a preliminary way with Surgeon General Cummings. At the very threshold of that problem, of course, stood the question of the possibility of safe manufacture. In the ensuing critical weeks of professional investigation and discussion, the du Pont Company's plant installation, methods, experience, and belief in the practicability of safe manufacture were thrown open to examination by the interested medical authorities. It is beyond question that the results were, on the whole, reassuring. And this preliminary reassurance would appear to have been of the utmost value in holding the way open for the recovery of the stricken industry.

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*In addition, the Ethyl Gasoline Corporation assumed the burden of certain raw materials contracts, and had of course important losses of its own, mainly in connection with bromine procurement.

**The out-of-pocket losses of the Ethyl Gas. Corp. (though not, of course, the losses of time and momentum and of potential profits) were substantially reduced through the subsequent resumption of its business. Thus, in a letter accompanying the invoice of June 9th, Mr. Irénée du Pont had said, referring to the possible future resumption and manufacture, "We can, however, agree that in making a price, should you desire it, we will not include in cost any item of amortization of the plant which has already been paid for"; and on February 2, 1926, the Ethyl Gas. Corp. board ordered "that the cost of construction of the du Pont chloride process tetra-ethyl lead plant, amounting to $1 364 219.88, be carried on the books as a contingent asset, to be written off over a period of 5 years".

On May 20, 1925, after awaiting results from the special research in progress at Columbia University and the Bureau of Mines, the Surgeon General held in Washington a conference of public health officers, medical authorities, union labor officials and others interested, including representatives of the commercial interests concerned. The technical utility and great economic value of tetraethyl lead were presented by Messrs. Kettering and Howard. As to the hazards in manufacture, Mr. Harrington reported reassuringly on the basis of the du Pont Company's experience, saying in conclusion:

> "We have no doubt at all from the manufacturing point of view but that tetraethyl lead in proper hands, in the proper plant designs, and under a proper discipline can be manufactured successfully".

After extended discussion from the wide variety of viewpoints represented, the Surgeon General was finally requested by this conference to appoint a committee of "seven recognized authorities in clinical medicine, physiology, and industrial hygiene" to investigate and report upon "the health hazard involved in the retail distribution and general use of tetraethyl lead gasoline motor fluid".*

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On June 8, 1924, the Surgeon General announced his appointments. An intensive investigation followed, and on January 17, 1926, the committee presented its report. The essential finding was that no sufficient grounds had been discovered for prohibiting the distribution and use of gasoline containing the standard proportion (1 : 1300 by volume) of tetraethyl lead. The formulation by the Surgeon General of suitable regulations to govern the manufacture, distribution and use of the product was recommended; and this proposal was duly acted upon and the resulting regulations have subsequently been observed.

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*The Bureau of Mines in its previous study had divided the general problem into the three questions of (1) the hazard in manufacturing and handling the concentrated tetraethyl lead; (2) the possible hazard in handling Ethyl gasoline; and (3) the possible hazard due to exhaust gases from automobiles using Ethyl gasoline. With respect to the first question, the apparently successful experience of the du Pont Company and the Ethyl Gasoline Corporation in overcoming the perils of manufacture and blending appears to have been accepted; though in October the Surgeon General's committee inspected the Deepwater plant and were apparently further reassured by their observation of the methods and precautions in effect there. On the second and third questions, the indications after some ten months of study by the Bureau of Mines and at Columbia had been strongly negative, but were not accepted as conclusive. The resolution of the conference also endorsed "as wise the decision of the Ethyl Gasoline Corporation to discontinue temporarily the sale of Ethyl gas".

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To make the necessary fresh start after the sudden stoppage and long inaction which had befallen the new industry, proved a matter of months. Under date of March 31, 1926, however, a new contract was entered into for the manufacture by the du Pont Company of the Ethyl Gasoline Corporation's entire requirements of tetraethyl lead. On May 1, 1926, the Ethyl Gasoline Corporation resumed commercial sales, after a stoppage of one year lacking four days. And on June 1, 1926, the manufacture of tetraethyl lead was again started at Deepwater, in the ethyl chloride process plant, after extensive reconditioning.

At this critical turning point in the history of the development, the following important changes from the previous practice were adopted, and have since been successfully adhered to, up to the present time:

1. The du Pont Company became the sole manufacturer of tetraethyl lead.
2. The du Pont Company also took over, under a separate contract, the somewhat perilous and closely related operation of blending the essential ingredients into Ethyl fluid.
3. The mixing of small quantities of Ethyl gas at retail distributing points was abandoned, and the necessary final mixing operation was concentrated at the re-

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fineries and large terminal depots of the Ethyl Gasoline Corporation's customers.

4. The business was made subject to a simple set of broad, practical regulations, recommended by the

> Surgeon General to govern the handling and distribution of the product, including the prescribed maximum limit of 1 part tetraethyl lead by volume to 1 300 parts gasoline.

Thus, at last, the tetraethyl lead development had come clear of the morass of poison troubles which had so nearly proved its permanent grave.

For the sake of its significance from the present viewpoint, it is here necessary to add an uncomfortable brief sequel. In May, 1926, Mr. E. E. Webb. President of the Ethyl Gasoline Corporation, tentatively signed in Denver, Colorado a ten-year contract with a local concern, American Research Laboratories, claiming a low-cost new process, to manufacture tetraethyl lead for his company. Just how this small Western enterprise was expected to escape the perils that had overwhelmed the Standard Oil Company's undertaking, is not entirely clear from the record, and cannot be learned from the outcome, because this fate-tempting venture was promptly abandoned on the emphatic protest of Mr. Irénée du Pont as a director of the Ethyl Gasoline Corporation.

Du Pont Refusal to Accept Defeat

No attempt to summarize the troubled early history of the tetraethyl lead business would be complete without mention of the contribution which was made to the enterprise at this critical stage through the refusal of the du Pont Company to adopt a defeatist policy, and especially through the persistent confidence and determination of Mr. Irénée du Pont, in his contacts with his General Motors and Standard Oil associates. In this regard, the written record is

unfortunately fragmentary, since the exchange of views in this period of stress was naturally carried on for the most part in personal discussions. Enough is apparent from the files, however, to make fairly clear the substance of what must have happened.

The administrative direction of the development throughout the formative period was in the hands of Mr. Sloan, Mr. Irénée du Pont, and one or two of the higher officials of the Standard Oil Company. At the initial board meeting on December 23, 1924, Mr. du Pont, by request of Mr. Sloan and his Standard Oil associates, became a director of the Ethyl Gasoline Corporation.

For a proper understanding of what subsequently occurred, it is necessary to bear in mind that both the General Motors Corporation and the Standard Oil Company were regularly engaged in the production and sale of consumer goods. For each of these two corporations, it was a matter of vital concern to maintain unimpaired the widespread popular goodwill which it had come to enjoy in the sale of its major products; and for each, the Ethyl gas devolopment, though regarded as having great possibilities, was after all an undertaking of minor importance. From the common viewpoint of both General Motors and Standard Oil, therefore, the claims of their already established lines to assured protection must have seemed a consideration of paramount importance. The experience with tetraethyl lead was currently disastrous, and the future prospect seriously threatening. There was no certaintly that the manufacture of the product could ever be brought to any basis of assured and permanent safety; and serious fears were current as to the possible health risk to the general public in its use. In these circumstances, the question must have been inescapably insistent to the minds of prudent management, of whether this new venture had not best be summarily abandoned for the protection of the more important interests for which the administrative officers of General Motors and Standard Oil were primarily responsible.

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In that predicament, Mr. du Pont appears to have taken the lead in constructive analysis of the problem and in persistent encouragement of his associates. The occasional written evidences make it plain that he never lost confidence in the essential soundness of the tetraethyl lead development, nor in the practical possibility of bringing it to eventual success. The suspension of manufacture and sales agreed upon at the Ethyl Gas board meeting of May 4, 1925 appears to have been against his unshaken though entirely single-handed opposition. And throughout the months of investigation by the Surgeon General's Committee, while the development lay dormant, and during the subsequent period in which the Ethyl Gasoline Corporation's business was being started all over again, the record shows that he was constantly pressing for speed and for decisive forward action.

In this persistent confidence in the ultimate practicability of safe manufacture, it appears also from the record that the President of the Company was unfalteringly supported by Mr. Harrington, who was more directly responsible for the success of the operation at Deepwater, and by the production organization behind him.

Safety Achieved; Long Record of Successful Production

In the ten years of continuous production and blending of tetraethyl lead, exclusively by the du Pont Company, which have followed the resumption of manufacture in 1926, there has been no repetition of the serious difficulties from poisoning which in the early stage of this development took so deplorable a toll of life and rendered the continuance of the industry uncertain. The records show only one death in any way connected with tetraethyl lead manufacture; and that case appears to have been one of ordinary inorganic lead poisoning, such as occasionally attends working with the metal in various long-established trades.* There has never been any general recurrence of poisoning, even in minor degree; and through a policy of careful exclusion of unsuitable men, constant watchfulness, and insistence upon the utmost precautions in the design, use and maintenance of equipment, the health of the workers in the tetraethyl lead area has been consistently maintained at an exceptionally high average level. In short, while the manufacture of this product must always be attended with the sort of inherent risk which is inseparable from any handling of poisonous or otherwise dangerous materials, it seems not too much to say, on the strength of the past ten years' experience, that

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*For the essential facts of this case, see the final supplementary note of Exhibit "D".

the goal of safety in manufacture, according to any reasonable interpretation of the terms, has in this case been attained. This, of course, is distinctly and exclusively an achievement of the du Pont Company; and it is perhaps the paramount contribution which this company has been able to make to the success of the industry.

Apart from this crucially important matter of safety, the record affords an outstanding example of the gradual reduction of costs and prices with expanding volume. The results in this regard have been comprehensively presented in a recent memorandum (bearing date 10/15/35) of the Treasurer's Department. For convenient reference, we attach as Exhibit "E" Mr. King's figures for the yearly quantities and average prices of the Company's output of tetraethyl lead, together with a simple graphic translation of those figures.

From the record, the present price of 28 cents a pound appears far to have excelled any early expectations or even hopes of what might be accomplished. In this price are reflected, of course, not only the great increase in volume but also the substantial savings in direct costs which the du Pont Company has been able to accomplish through a large number of specific improvements in manufacturing equipment and methods in its own long, intensive development of the ethyl chloride process of manufacture.

RADICAL POLICY DIFFERENCE: FREE VS. RESTRICTED SELLING

At this point, it is convenient to add a brief account of a radical difference of view as to policy between Mr. Irénée du Pont and his co-directors of the Ethyl Gasoline Corporation which, though not directly relevant to the present practical issue, has yet a certain bearing upon it, and which in any event could hardly be omitted from any recital of the early history of tetraethyl lead. This difference of opinion was sharply developed when business was resumed after a year's suspension, at the beginning of May, 1926.

From the start, Mr. du Pont stood out vigorously for a policy of free selling. He maintained that the best interests of the business lay in offering Ethyl fluid freely to all reputable refiners for use in their own private brands in any proportions they might desire within the limits prescribed by the Surgeon General, leaving the question of quality in non-premium fuels to be governed by the self-interest of the individual customer. He would have insisted only upon proper safety precautions on the part of all customers, and upon the maintenance of uniform quality standards in fuel sold under the "Ethyl Gas" brand. A representative statement of Mr. du Pont's views is attached as Exhibit "F".*

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*Against the credit which the Company can properly claim for Mr. du Pont's long, persistent and apparently for the most part single-handed advocacy of the marketing policy which has since been so strikingly vindicated by experience, some partial offset should perhaps be noted on account of a temporary change of position six months before that policy was finally adopted. In October, 1932, Mr. Webb reported that the customer opposition which a year earlier had blocked free selling was still practically universal, and that most customers attributed the sharp decline in Ethyl gas sales to the depression; and he suggested waiting until the following spring "to see what happens". Mr. du Pont concurred, saying (letter of 11/17/32), "By all means we should stand pat for a few months at least and not be driven to a radical change based on insufficient experience." On March 16, 1933, Mr. du Pont again wrote Mr. Webb, in part as follows: "I concur with you in your belief that we should open the way to a general sale of Ethyl fluid. I opposed this somewhat at the last meeting that I attended, not that I did not

The opposite view, firmly maintained over a long period by Messrs. Sloan, Donaldson Brown, Webb and others, held out for a continuance of rigid standardization, with the necessary corollary of restricted selling. Under this theory, reliance for expansion of sales was upon the gradual building up of consumer demand for "Ethyl Gas" through the strict maintenance of proper anti-knock standards, backed up with persistent national advertising. Of necessity, the nationally advertised product, standardized at a relatively high level, must sell at a premium. And under this policy, for the better protection of "Ethyl Gas", the use of tetraethyl lead was consistently refused to would-be customers for use in varying minor proportions in the great number of "regular", or non-premium, brands of gasoline.

The restricted selling policy prevailed at the outset, and was not finally abandoned until the adoption of the "Q" brand plan in April, 1933.*

A tremendous expansion of tetraethyl lead sales promptly followed. In this connection, the volume curve of Exhibit "E" will be found strongly impressive.

By that time, of course, some of the early objections which had been urged against the policy of free selling had been removed by the passage of time and the development of the business. The extraordinary expansion of sales

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believe in it, but because it seemed to me that we might well try to hold the value of the good name of Ethyl gas, which had been obtained at great expense, on the theory that the depression is likely to be soon over and we would get back our business. - - - but am willing to back your point of view because basicly it is sound."

*An earlier effort, in the fall of 1931, to throw open the use of tetraethyl lead to non-premium gasoline had been blocked by the strong, general opposition of established customers, many of whom had by that time made large investments in cracking equipment, through the use of which it had been found that the anti-knock rating of gasoline could be greatly improved.

following the adoption of the free selling policy, therefore, does not necessarily prove that that policy would have been, at the very start, the better course to follow. With respect to that question, there might conceivably still be some difference of opinion. Nevertheless, from the doubling and trebling of the sales volume of tetraethyl lead which promptly followed the adoption of free selling in 1933, it would seem difficult not to conclude at least that it would have been highly advantageous to adopt that policy at a much earlier stage of the development.

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SUMMARY OF ESSENTIAL CONTRIBUTIONS BY SOURCES

At this point, it has appeared desirable to endeavor to sum up the important contributions which have been made to the origination, support and gradual upbuilding of the tetraethyl lead business as it exists today by each of the four corporate authors of the joint development. The essential facts, already for the most part set forth more at length in the preceding sections, we believe may be fairly summarized as follows:

1. BY GENERAL MOTORS:

a. The Basic Discovery, fundamental to everything else, that a slight admixture of tetraethyl lead in gasoline will, within certain limits, prevent "knocking" and thus permit the use of higher compression ratios, with a consequent large increase in motor and fuel efficiency.

b. Perfection of Use. The development of suitable means (at present, essentially the use of ethylene dibromide) to overcome the practical difficulties in motor operation by which, at the outset, the successful use of tetraethyl lead was threatened.

c. Initial Development of Ethyl Bromide Process. General Motors did the initial pioneering in the production of tetraethyl lead by the ethyl bromide process, by which nine-tenths of the entire commercial supply up to the suspension of sales in 1924 was afterward produced.

d. Guidance and Sponsorship from within Automotive Industry. From the start, the commercial success of tetraethyl lead has depended, among other factors, upon its acceptance by the automotive industry and by the oil industry; and complete, up-to-date knowledge of the basic facts and current trends of motor design and of refinery and gasoline merchandising practice has therefore been constantly needful, as well as the active support of important producers in both these special fields. General Motors, of course, has been ideally in a position to supply the necessary information and special assistance from within the automotive industry, and its sponsorship has no doubt been helpful in somewhat more readily bringing about the acceptance and partial utilization of the tetraethyl lead development which has thus far taken place on the part of the motor manufacturers.*

e. Financial Risk Carried. In general, it appears that the major investment risks of the tetraethyl lead business, viewed as a whole, were carried initially by General Motors and, since about the middle of 1924, have been shared equally by General Motors and Standard Oil. In degree of risk, this burden was concentrated mainly in the early stages of the development, and became acutely serious with the 1925-26 suspension of sales. Before that crisis was past, the Ethyl Gasoline Corporation's balance sheet showed an admitted deficit of over $2 000 000; and (disregarding salvage, which would have been relatively small if the business had not been successfully re-established) General Motors and Standard Oil together stood to lose a total, in investment and loans, of more than $6 000 000.[*]

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*In this regard, the public announcement of the adoption of high compression in new models by Chrysler on July 3, 1927 would appear to have been an important turning point; while the frequent early opposition of Buick and other G.M. dealers to Ethyl gas must be charged up against the credit to which General Motors is entitled for its sponsorship of tetraethyl lead.

2. BY STANDARD OIL:

a. Providing Ethyl Chloride Process. To Standard Oil must be accorded the credit of having provided the ethyl chloride process, which is cheaper than any other known method of making tetraethyl lead, is believed to be inherently safer than the bromide process, and had the further merit, especially important in the critical early years of the development, of substantially reducing the new industry's requirements for bromine.[**]

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[*] The du Pont Company's contribution of financial risk assumed, seems to have been relatively negligible, because throughout this critical early period of uncertainty the practice was to provide in each contract for amortization of the necessary plant construction costs in the price of the tetraethyl lead to be manufactured, and because the early contracts were all either signed by General Motors or guaranteed by General Motors and Standard Oil.

[**] Just what part of the credit for scientific achievement in originating the ethyl chloride process belongs to Dr. Kraus individually and what part to the regular Standard Oil research organization, is not plain from the information to which we

b. Guidance and Sponsorship from within Oil Industry. From its vantage point as the historic leader of the American oil industry and the world's largest producer of petroleum products, the Standard Oil Company of New Jersey has of course been in an excellent position to contribute with respect to that industry, just as has General Motors among automotive producers, the necessary inside information, special assistance, and sponsorship for the tetraethyl lead development.***

c. Financial Risk Carried. One-half the major financial risks of the tetraethyl lead business, viewed as a whole, since about the middle of 1924, has been carried by Standard Oil, as set forth above in describing General Motors' contributions.

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have access. From the present viewpoint, however, that question appears unimportant. Standard Oil procured, if it did not entirely originate, the successful process, and made it available to the joint enterprise.

***On this point of special co-operation and sponsorship, in connection with the parallel comments in the above foot-note on the corresponding General Motors item, it is interesting to recall (1) the strong support which was at the outset given to the tetraethyl lead development by Standard Oil of Indiana and (2) the refusal of Standard Oil of New Jersey, beginning with 1926, to use the "Ethyl Gasoline" brand with its "Esso", in the face of the Ethyl Gas. Corp.'s then prevailing cardinal policy of standardization upon, and national advertising of, that brand. Moreover, against Standard Oil's credit under the above head, it would seem that a substantial offset might be proper on account of the long delayed adoption of the policy of selling tetraethyl lead for use in non-premium gasoline, on the theory that the compelling advantages of that policy ought to have been convincingly apparent at a much earlier date from the vantage point within the oil industry from which Standard Oil was supposed to be piloting the Ethyl Gasoline Corporation.

d. Severe Setback; Loss of Year. As a negative entry, operating to offset its credit for the above contributions, Standard Oil must be charged with the disastrous consequences of its manufacturing adventure at Bayway, by which the very existence of the tetraethyl lead development was seriously threatened at the outset and one whole year of progress and profits was lost to it.

3. By Ethyl Gas. Corp.:

a. Commercial Exploitation. A successful job of market development in merchandising the product to the oil industry and the motoring public, on a profitable and expanding scale, in a fairly continuous if not uninterrupted succession of volume advances over a total period to date of nearly twelve years.

4. By the du Pont Company:

a. Early Tonnage Production by Bromide Process. In its infancy, this business depended for its existence on the production of an adequate supply of tetraethyl lead by the ethyl bromide process. The du Pont Company took over that process at the early pioneering stage reached by General Motors, developed it in the face of great difficulties into a sound and assuredly practical operation, and produced by it a total of well over 2 000.000 pounds before the suspension of sales in May, 1925. Up to the end of 1924, apart from the slight initial output of the General Motors laboratory and the approximately 32 000 pounds which came in the fall of that year from the abortive undertaking at Bayway, this bromide process production by the du Pont Company was the sole manufacturing support of the business.

b. Important Moral Contributions. Most important of these was the persistent and finally triumphant refusal to accept defeat, effective mainly through the spirit maintained by Mr. Irénée du Pont in his relations with his General Motors and Standard Oil associates over the period when the outlook was darkest and when the thought was inescapable that the tetraethyl lead enterprise might perhaps best be jettisoned for the protection of the paramount general interests of those two corporations. Also to be included, we believe, was Mr. du Pont's vigorous, persistent and apparently single-handed advocacy, over a long period, of the policy of free selling, without restriction of use to premium gasoline, which finally found adoption in 1933.*

c. Convincing U.S. Public Health Service that Safe Manufacture was Practicable. By the close of 1924 and the early part of 1925, practically the power of life and death over the tetraethyl lead development had been placed by the course of events in the hands of the public health authorities of the country. There was no apparent assurance that the product could ever be manufactured safely, and current developments were strongly discouraging. At this critical stage, the du Pont Company's representatives, through personal interviews, demonstrations of the Deepwater facilities and methods, and analysis of the Company's experience, succeeded in convincing the interested medical authorities that safe manufacture was a practical possibility. Thus, the opportunity for further progress and final results was salvaged at a time when otherwise the door to the future would inevitably have been closed in the face of the new industry.

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*The temporary abandonment of this advocacy just prior to the final adoption of the policy in 1933 is noted in the preceding section.

d. Development of Manufacture by Chloride Process. The ethyl chloride process as contributed by Standard Oil was still practically in the laboratory stage; and that company's own effort to develop manufacture by it resulted in disaster and was precipitately abandoned. At that juncture, the whole future of the business depended on the successful development of safe, economical manufacture. The constructive, pioneer work in chemical engineering, industrial medicine and factory practice necessary to that end was successfully accomplished by the du Pont Company. By that success the business was saved; and that success was essential to its salvation.*

e. Specific Improvements in Chloride Process. A considerable number of important improvements in the basic manufacturing process, upon which the present economy of large scale production is largely dependent, including especially the use of a dispersing agent in the sludge, have been contributed by the du Pont Company.

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*To some extent—the final measure of which must perhaps remain a matter of opinion, or of feeling—the weight of this paramount claim of the du Pont Company may be reduced by the fact that in the settlement of the du Pont contract following the suspension of sales in 1925, the Ethyl Gas. Corp. paid not only for the plant but also for the invoiced cost of the entire du Pont research work on the chloride process up to that date. —At least it is easy to imagine the Ethyl Gas. Corp. or its stockholders contending that after they had bought and paid for all the early du Pont developmental work, the entire fruits of that work, however important they may later have become, should belong to them. In fact, just about that claim was registered at the time of the settlement, as will be made plain in the next following section. A large part of the total developmental work accomplished by the du Pont Company in bringing the ethyl chloride proces to its present stage of successful application, however, has of course een done since that time.

f. Unbroken Record of Successful Production. Finally, to the credit of the du Pont Company stand thirteen years of continuously successful production, in widely expanding volume and at constantly diminishing cost, with no interruption of the progress of the Ethyl Gasoline Corporation through any inadequacy or threatened inadequacy in the manufacture of its basic material, and with a gradually descending price scale to facilitate its progress in expanding its sales.

Genesis of Obligation to Give Information and Patent Rights

The developments which, in 1930, resulted in the adoption of the contract provision set forth in Exhibit "A", have already been described in a letter by Mr. E. G. Robinson to the President under date of August 12, 1935. Even at the cost of some repetition, however, it has seemed worth while to examine the entire series of manufacturing contracts for similar and possibly related provisions and to set down here the essential facts with respect to all contractual undertakings to impart information and rights on du Pont improvements in the manufacture of tetraethyl lead, from the beginning of the industry to the present time. This phase of the story, we find, divides itself sharply into three successive periods, as follows:

1. From Start to Suspension of Sales in 1925—Du Pont Co. Bound to Make Outright Assignment of All Patent Applications.

The very first contract was between the du Pont Company and the General Motors Corporation as parties. At that time, the basic discovery, belonging to General Motors, was no doubt paramount in everybody's mind, together with the fact that the intended use of the product would be controlled by the General Motors (Midgley) patents; and the du Pont Company, coming in simply as manufacturer for General Motors and with no important contribution to the enterprise at that time standing to its credit, was somewhat in the position of a man who hires himself out to work in another's field. In such case, it is a long established principle that hidden treasure discovered by the worker belongs to the owner of the field; and in the initial contract of October 6, 1922, the following provision was included:

> "Further, the Manufacturer agrees that if at any time during the term of this agreement it invents, originates or develops an anti knock compound or any apparatus, device or other matter or thing in anywise connected with or relating to the manufacture of an anti knock compound and which may be capable of being patented in the United States of America or elsewhere, that it will take all necessary steps so to do, and will promptly assign all applications for such patents to the Purchaser upon its request."

When, two years later, the first in the long series of contracts between the du Pont Company and the

Ethyl Gasoline Corporation came to be made, it not only remained true that the product was to be marketed under the General Motors

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(Midgley) patents, but it was also the fact that the intended manufacture was, for the most part, to be carried out under the Standard Oil (Kraus & Callis) patents. In this contract, then, the above provision was continued, with only minor changes, intended to strengthen it.

Apparently, there were no actual assignments of patent applications under this early provision because all progress was halted by the disaster at Bayway before matters had progressed that far. It is important to recall, however, that in the contract cancellation settlement following the suspension of sales in 1925, the Ethyl Gasoline Corporation paid the du Pont Company $160 000 in reimbursement of the entire cost of all the research work which it had theretofore done in its development of the ethyl chloride process. That research was of course fundamental to the long course of subsequent developmental work and manufacturing experience which began with the resumption of business a year later, and out of which the du Pont Company's present favorable position in the use of the ethyl chloride process has gradually been built up. On general principles, as suggested in a foot-note in the preceding section, it would appear difficult to deny the claim that this payment fairly entitles the Ethyl Gasoline Corporation to ownership of the fruits of the research for which it paid; although no clear principle is apparent to us upon which to determine the extent of those benefits in relation to the now existing total of du Pont "know how" and patent rights, and any approximate determination must no doubt be, as already suggested, a matter of individual judgment or feeling.

On the eve of the settlement, however, we find that the Ethyl Gasoline Corporation's claim to the ownership of the fruits of this early research was presented in principle in the second of the following two paragraphs, which we quote from a memorandum of June 29, 1925 from Mr. Howard to Mr. Webb, headed "Adjustment of du Pont Contract":

> "Pursuant to the arrangements made by you, Mr. Teagle and Mr. Sloan, Mr. Donaldson Brown and the writer discussed the adjustment of the du Pont contract today and arrived at the following unanimous conclusion as to a basis of settlement:
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> — — — — — — — — — — — — — — — — —
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> 1. Recognizing the fact that the ethyl chloride manufacturing contract carried with it the agreement on the part of the du Ponts to assign patent rights relating to improvements in the manufacture of antiknock to the Ethyl Corp., and in further consideration of the fact that the cost of all research work is included in the sum for which we reimburse the du Pont Co., the Ethyl Corp. is to have the full benefit of all this research work, so as to be able to employ the results thereof, either itself or through others, just as effectively as the du Pont Co. is able to employ it."

In response to this claim, in a letter by Mr. Irénée du Pont dated July, 1925 and bearing his notation "Read to Webb but not sent to him", we find the following paragraph:

> "Our contract speaks for itself as regards ceding to you any inventions on anti-knock compounds but we could not undertake to teach you, or your appointees, how to carry on that manufacture as well as we could do. We can tell you what we have learned but that does not of necessity mean that your appointee could do it himself without a good deal of coaching."

2. From Resumption of Business in 1926 to Feb. 26, 1930—Du Pont Co. Free of All Obligation as to Patent Rights or Information.

When a fresh start came to be made, in 1926, a new contract was necessary. Prior to its formulation, the view was convincingly urged by Mr. Irénée du Pont that the old requirement for the assignment of patent rights on du Pont improvements would inevitably tend to discourage developmental effort by taking away its natural reward, thus holding back progress and resulting in the long run to the detriment of both parties. This view was adopted, and the previous requirements for the assignment of patent rights was excluded entirely from the new contract of March 31, 1926.

This condition of entire freedom on the part of the du Pont Company from any obligation to assign patent rights or impart information upon its improvements, continued over a period of approximately four years.

During that period, two successive new contracts were entered into, on March 31, 1928 and on August 26, 1929, and both were entirely free of any requirement to give the "know how" or patent rights on du Pont developments.

3. From Feb. 26, 1930 to Present Time—Reciprocal Obligation to Furnish Information and Patent Rights.

By 1930, the management of the Ethyl Gasoline Corporation had come to feel anxious about what might happen to its business when the basic use patent expired. At that prospective turning point, with its former patent monopoly of the market ended and with all manufacturing knowledge and facilities concentrated in the hands of its former source of supply, it was obvious that the further success, or even existence, of the Ethyl Gasoline Corporation, in the absence of some special provision for its protection, would be more or less at the mercy of the du Pont Company. Mr. Webb therefore proposed that the contract about to be entered into should include an undertaking on the part of the du Pont Company to confine its sales of tetraethyl lead exclusively to the Ethyl Gasoline Corporation for a number of years after the expiration of the basic use patent equal to the previous period over which the du Pont Company had been the exclusive manufacturer by the chloride process. For reasons which now seem not entirely clear, however, this proposed expedient for meeting the acknowledged need of the situation was regarded as unsatisfactory to the du Pont Company; and instead of it, the provision set forth in Exhibit "A" was included in the new contract signed as of February 26, 1930.*

At the time of its adoption, this provision was regarded as not entirely satisfactory, and it was thought that it might be replaced in later contracts with some other provision, perhaps "on an entirely different basis", which would accomplish the desired purpose of protecting the Ethyl Gasoline Corporation's position when its patent protection expired. This thought was not realized, however; and the provision quoted in Exhibit "A" has been repeated without change in all subsequent contracts.

So much for the facts to date, in order as they have occurred. With respect to the now existing crucial contract provision quoted in Exhibit "A", it appears worth while to add some brief comment on four points of apparent present practical importance:

a. On the du Pont side in the 1930 negotiation, it was not at all expected that the Ethyl Gasoline Corporation would actually go into the manufacture of tetraethyl lead when the necessary manufacturing information and rights became available to it in 1938. The thought was that the new contract provision would serve simply as a sort of bond to insure the good behavior of the du Pont Company in not unfairly invading the proper province of the Ethyl Gasoline Corporation in the marketing end of the business. For this view there is strong support in the 1930 files of the du Pont Company. Apparently, however, Mr. Webb now takes the position that entry into manufacture was definitely contemplated when the provision in question was adopted. And entirely consonant with this view, of course, is the general past disposition of the Ethyl Gasoline Corporation's management to be dissatisfied with the policy of relying exclusively upon the du Pont Company to manufacture tetraethyl lead, and the occasional past efforts to set up some other source of supply.

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*In the opinion of the Legal Department, an arrangement of the sort originally proposed by Mr. Webb, under which the du Pont Company and the Ethyl Gasoline Corporation would agree to work exclusively together in the manufacture and marketing of tetraethyl lead for a term of years following the expiration of the basic patents, would not be illegal.

b. In the existing contract provision as quoted in Exhibit "A", it is expressly stated that the manufacturing rights to be granted shall be "non-assignable". This naturally suggests the question of whether, under that provision, the Ethyl Gasoline Corporation could contract with Standard Oil to manufacture for it, using the du Pont special knowledge and improvement patents. The Legal Department's answer to that question is, in brief, yes.

c. When the provision of Exhibit "A" was first adopted, in 1930, the effective patent monopoly was expected to terminate with the expiration on February 23, 1943 of the original Midgley patent, No. 1 573 846, covering the product made by combining tetraethyl lead with gasoline; and the date of January 1, 1938 was written into the contract to allow a period of approximately five years before that expected termination of the patent monopoly. In December, 1930, however, Midgley patent No. 1 787 419 was issued, covering the use as a motor fuel of tetraethyl lead in combination with gasoline. This patent had been divided off from the original application at the insistence of the Patent Office; and through its issuance, the effective period of patent protection is now believed to have been extended to December 30, 1947. Thus, the existing contract provision quoted in Exhibit "A" would result in equipping the Ethyl Gasoline Corporation with the du Pont Company's manufacturing information and patent rights ten years before the end of the period of effective patent protection, instead of five years as was originally intended.

d. Finally, taking in review the entire recital above, we think it worth while to point out that the right which the Ethyl Gasoline Corporation is now entitled to claim under the contract provision quoted in Exhibit "A" grew out of special circumstances which were first thought to demand attention in 1930, and does not trace back to the original contract undertaking of the du Pont Company to convey its patent applications, nor to the payment for du Pont research costs on the ethyl chloride process which was made by the Ethyl Gasoline Corporation in 1925. Between those early events and the first adoption of the contract provision of Exhibit "A", there was an unbroken period of four years, including a succession of three separate contracts, in which the du Pont Company was left entirely free of any contract obligation whatever to communicate manufacturing information or grant rights under its patents. Thus, while the equities originating in the first of the three stages described above may be supplemental to the right that can now be claimed under the contract provision of Exhibit "A", those earlier equities did not serve in any way as a foundation for that provision, and had, in fact, apparently been abandoned at the time of its adoption.

PATENTS—ESSENTIALS OF PRESENT POSITION

For convenient reference, it has been thought worth while to add at this point a brief statement of the essential facts with respect to such patents as are believed to be of substantial importance in the tetraethyl lead business as it is now constituted.*

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Most briefly, we are concerned with:

1. The Midgley patents, held by General Motors, controlling the use of tetraethyl lead in motor fuels, under which the Ethyl Gasoline Corporation operates by license on a royalty basis.

2. The Kraus and Callis patents, held by Standard Oil, controlling manufacture by the ethyl chloride process, under which the Ethyl Gasoline Corporation, holding an exclusive general license, sub-licenses the du Pont Company; and

3. Various patents held by the du Pont Company covering improvements in the operation of the ethyl chloride process. Comparable with, and complementary

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*The information here presented has been for the most part condensed from a preliminary report prepared by Mr. Grabill of the Patent Division for Mr. Robinson under date of Nov. 19, 1935 and from a memorandum prepared by Mr. Biesterfeld and Mr. Connolly for this Department under date of Jan. 6, 1936.

to, this third group is the considerable body of secret information and manufacturing "know how" built up by the Company over its twelve years of gradually improving operation of the ethyl chloride process.*

Since there would be no manufacture without the prospect of profitable use, and since the Midgley patents dominate the use of tetraethyl lead in its only known application of large commercial value, those patents are basic to all others in this industry, and of paramount importance. Since no other known method of producing tetraethyl lead can compete with the ethyl chloride process, the Kraus and Callis patents are of closely secondary importance. The du Pont Company's patents and secret information, while believed to have substantial value in connection with any large-scale production of tetraethyl lead, relate to details of the successful manufacturing process, which is already dominated as to its main essentials by the Kraus and Callis patents, and are therefore of subordinate character and of less than controlling importance.

More specifically, with respect to numbers, exact nature, and dates of expiration, the dominant patents of the first two groups above and the probably most important two patents of the third group, are as follows:

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*The du Pont patents were issued to, and assigned to the company by, Messrs. Amick, Calcott, Daudt, Dowing, Fielding, Monroe, Parmelee, Pedersen, Stecher, and perhaps others. There are approximately thirty of these patents, plus a third as many more pending applications.

	Essential Invention Covered	Will Expire
1. G. M. (Midgley)		
#1 573 846	Product: T.E.L. with gasoline	2/23/43
#1 787 419	Process: Using ditto as motor fuel	12/30/47
2. S.O. (K. & C.)		
#1 697 245	Ethyl chloride process of manufacture	1/1/46
3. Du Pont		
#1 645 375	Adding dispersion agent to reaction mass	10/11/44
#2 004 160	Adding wetting agent to lead sludge	6/11/52

In all apparent likelihood, the effective end of the Ethyl Gasoline Corporation's patent protection will be December 30, 1947, when the second of the above five patents expires. If, however, the courts should refuse to sustain the extension of a patent monopoly conferred by that use patent beyond the life of the basic product patent listed just before it above (which possible refusal is thought less likely because the separation was ordered by the Patent Office itself), then the end of the Ethyl Gasoline Corporation's effective patent protection should come with the expiration of the third patent above, covering the ethyl chloride process of manufacture, on January 1, 1946. It thus appears that, beginning with and including 1937, the Ethyl Gasoline Corporation can look forward to a further period of probably eleven years, or at the worst nine years, of further patent protection.

CONCLUDING SUGGESTIONS FROM VIEWPOINT OF PRESENT STUDY

The present study has been essentially fact-finding in character and aim; and the considerations which should govern strategy and tactics in further negotiations with the Ethyl Gasoline Corporation will no doubt be more fully apparent from the administrative viewpoint than from the briefer and more restricted view afforded us in this investigation. Consequently, the specific recommendations which regularly conclude reports of this Department seem hardly called for in this case, and our undertaking might perhaps be held completed with the preceding sections. Nevertheless, for the sake of whatever suggestive value they may be found to have, we venture to submit the following final comments from the particular viewpoint of this study:

1. As to Gratitude. It has been suggested, since the tetraethyl lead development was rescued by the du Pont Company from early destruction, and since the business today undoubtedly owes its existence to the du Pont Company's success in holding the door of opportunity open to it and in establishing the manufacture of the product upon a safe and economic basis, that proper gratitude on the part of the associated interests should result in the du Pont Company's being allowed to continue indefinitely as the exclusive source of tetraethyl lead supply for the Ethyl Gasoline Corporation. Our study has entirely confirmed our confidence in the premises just stated, but greatly weakened any hope in the conclusion.

Parenthetically, it may be remarked that the above "Summary of Essential Contributions by Sources" is entirely qualitative. We have not attempted definite evaluations. To cast up the balance on a quantitative basis would demand too much of arbitrary judgment to be conclusive. Broad comparisons can be made as to relative values, but considerable allowance must still be left for differences of opinion.

As between Standard Oil and the du Pont Company, there seems no doubt that the du Pont Company's contributions to the joint enterprise have greatly preponderated in value. When the business had been shipwrecked through Standard Oil's misadventure, and that company was forced to abandon manufacture, it was the du Pont Company that took the derelict over and brought it to a condition of complete seaworthiness. Without the du Pont Company's contributions, there would in all likelihood be no tetraethyl lead business today; the same can hardly be said with respect to Standard Oil's contributions.

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Nevertheless, we believe the obligation of gratitude can hardly be expected to prevail with the responsible officials of the Standard Oil Company against their own ideas of the comparative value of Standard Oil's contributions, the rewards which the du Pont Company has already enjoyed, and Standard Oil's 50% ownership of the subsidiary which consumes the product and controls the patents.

2. Poison Hazard. A few years ago, prudence would no doubt have been a stronger argument than gratitude, for continued exclusive manufacture by the du Pont Company. The recent preparations, with

active du Pont support, for setting up manufacture in Germany, Italy and elsewhere, however, would seem now to preclude this argument. The practicability of safe manufacture by others, now that the trail has been blazed by the du Pont Company, would appear to be established in the minds of all parties concerned.

3. Trial Period. Obviously, the above described unexpected extension of the Ethyl Gasoline Corporation's probable period of effective patent protection suggests a corresponding deferment of the contract date for conveying manufacturing rights. Since the original idea was to allow only a five-year period for bringing the communicated knowledge into successful application, and since five years would certainly be ample for that purpose, it would seem that any further contract in which the present Section 11 may have to be included, should set the date for conveying du Pont information and patent rights not at January 1, 1938 but at January 1, 1943, or five years in advance of the now-indicated end of the Ethyl Gasoline Corporation's period of basic patent protection instead of ten years.

4. Analysis by Motives. A helpful approach in working out the strategy for further negotiation, now or some years hence when the end of the period of basic patent protection approaches, would appear to consist in seeking to determine just what are the really effective motives behind the proposal to divide the manufacture of tetraethyl lead and in dealing with them separately. Conceivably, the main force may lie either in:

1. Standard Oil's ambition to share in the profits of manufacture; or

2. Ethyl Gasoline Corporation's prudent and natural desires for reasonable protection.

If all proper demands on the second score were first squarely met and satisfied, then any demands on the first score would stand alone, stripped of their past confusing indirect support, and would appear easier to deal with. The proper and reasonable demands of the Ethyl Gasoline Corporation for protection would appear to come under the two heads of:

a. The familiar principle of not having all the in one basket, as to possible interruption of the supply of tetraethyl lead by some "act of God or of the public enemy", severe labor disturbance, or like cause; and

b. The peril of being edged off the map by the du Pont Company after the basic patents expire.

As to the first hazard, it would seem that the proposal of a separate plant at St. Louis or some other suitable location would afford practically all the protection that could be had by dividing the manufacture of the product with Standard Oil. With respect to the second peril, as to which the Ethyl Gasoline Corporation's fair right to protection can hardly be denied, the way to a practically complete and satisfactory solution would appear plainly to lie in the direction of Mr. Webb's original proposal of 1930, for a mutually exclusive, long-term working arrangement between the du Pont Company and the Ethyl Gasoline Corporation for the manufacture and marketing of tetraethyl lead, to become effective upon the expiration of the basic patents.

One important special suggestion remains to be added. The present study has been based on, and mainly confined to, the files of the du Pont Company. A highly important further source of information, of course, exists in the recollections of the responsible representatives who acted for the Company in the matters now in question—including especially Messrs. Irénée du Pont and W. F. Harrington. As a suitable basis for requesting these gentlemen to examine our findings and to supplement and perhaps amend our interpretations, it has seemed desirable first to put the results of our study into the present form. We would recommend that this manifestly desirable final critical review of this report by those who were active in the events we have sought to describe, should now be requested.

APPROVED BY:	PREPARED BY:
W. J. Beadle	*N. P. Wescott*
W. J. Beadle	N. P. Wescott

NOTE: Line in margin on page 36 is by hand. "Noted F.S." is stamped at top of first page. "gmc-702" is written at the bottom of each page. Italics indicate handwriting.

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EXHIBIT "A"

CONTRACT PROVISION FOR EXCHANGE OF INFORMATION AND RIGHTS

As first set forth in the du Pont-Ethyl Gas. Corp. contract of Feb. 20, 1930, repeated in all subsequent contracts, and now embodied in the contract of December 20, 1935, covering tetraethyl lead requirements for the calendar year 1936.

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11. Each of the parties agrees that it shall disclose fully to the other, as of January 1, 1938, all technical information which it shall then possess, relating to the manufacture of Tetraethyl Lead (including the manufacture of Lead-Sodium Alloy) under the processes covered by the patents hereinbefore listed, and under any patented or secret improvements or modifications thereof which may have been acquired, controlled or developed by such party prior to said date, and shall grant to the other non-exclusive and non-assignable license or licenses to manufacture Tetraethyl Lead for purposes in connection with the manufacture and/or use of motor fuel under such basic or improvement patents or under any such secret improvements of the process covered thereby, for the respective terms of such patents or any extensions or renewals thereof, or so long as such improvement processes shall remain secret; provided, however, that should Ethyl fail to purchase from du Pont, upon terms mutually satisfactory to the parties, at least 50% of all Tetraethyl Lead, and/or product of a like or similar character, which it shall require in its business for any calendar year prior to January 1, 1938, the aforesaid obligation on the part of each of the parties shall thereupon cease and determine; and provided further, that should Ethyl fail to purchase from du Pont at least 50% of all of said product or products which it shall require in its busi-

ness for the calendar year commencing January 1, 1938, or any calendar year thereafter, any and all licenses which may then have been granted by either party to the other pursuant to the terms of this agreement shall thereupon expire, cease and determine. The termination of this agreement, as provided elsewhere herein, shall not affect the undertakings set forth in this paragraph. Such licenses shall be without royalty.

EXHIBIT "B"

Chronological Outline of Tetraethyl Lead Development

(Source: du Pont Co. files. Major emphasis on early history. Viewpoint: that of du Pont Co.)

1852

Tetraethyl lead discoved by Loewig.—Thereafter, long known as a laboratory curiosity; no use developed; no commercial production. Recognized as highly toxic.

1918-19

Late 1918 or early 1919, General Motors begins research on nature and causes of, and possible remedies for, "knocking", by which a limit is set to increased compression as a means of improving the efficiency of internal combustion engines.

1920

December—Du Pont Chemical Department working with G.M. Research Corp. on alkylated anilins for knock suppressors.

1922

March 24—Mr. P. S. du Pont sends from Detroit preliminary Memo. describing "Mr. Kettering's new doping compound" and stating Mr. Kettering's desire to "take up the question of manufacture" of tetraethyl lead with the du Pont Company. (See Exhibit "C", below).

July 20—Mr. Kettering at Wilmington: Agreed that du Pont Co. will develop manufacture, G.M. will work out use.—Intensive developmental study by Jackson Lab. follows, with semi-works manufacture using bromide process, originated by G.M.

Aug. 15—Jackson Lab. ships **G.M. Research first gallon** of tetraethyl lead.—Long succession of small express shipments from semi-works production follows, in close sequence.

Oct. 6—First contract for manufacture of tetraethyl lead: Du Pont and G.M. parties. Du Pont to construct plant for manufacture by G.M.'s bromide process. Production to begin 4 mos. after notice; minimum 1 300 pounds daily for one year; price $2.00. Du Pont required to assign all patent applications to G.M.

1923

Feb. 1—First Ethyl gas filling station established, at Dayton, Ohio. Mixing on spot, with "ethylator".

March 29—General Motors (Midgley) wires du Pont to go ahead with bromide process plant, per contract of 10/6/22.

June, early—Ten Ethyl gas filling stations opened in Cincinnati.

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1923—Continued

June 8—Mr. Kettering writes Mr. I. du Pont that Standard Oil (N.J.) have "perfected a process" for production of tetraethyl lead; that they claim low cost, want year's contract for 100 gallons (1 300 pounds) daily as try-out on manufacture. (See also Jan. 28, 1924 entry, below).

June 13—Mr. Harrington enlists Development Dept. in comprehensive search for adequate bromine supplies.

June 16—Conference at Longwood on "replanning the production and marketing of tetraethyl lead". Messrs. P.S., I. and L. du Pont, Pickard, Harrington, Sloan and Kettering.

September, early—Plant production (bromide process) begun at Deepwater. (Start delayed through special efforts to overcome unexpected process and poison difficulties).

Sept. 21—First death from tetraethyl lead poisoning—bromide process plant operator at Deepwater.

Dec. 28—Mr. I. du Pont writes Mr. Sloan cautioning about danger of inadequate supply "next summer", urging prompt forecast of requirements.

1924

January—Work begun at Jackson Lab. on development of chloride process, originated by Standard Oil.

Jan. 12—By G.M.-du Pont agreement (letter by Mr. Sloan) supplementing contract of 10/6/22, Deepwater plant (bromide process) to be expanded to 7 800 pounds daily capacity, to take care of sharply increasing requirements. President I. du Pont orders rush construction, "like a war order", foreseeing future "huge production".

Jan. 28—Mr. Sloan writes Mr. I. du Pont that Messrs. Kettering and Midgley have, six or seven months previously, encouraged Standard Oil (N.J.) to undertake development of low-cost process; that Standard Oil claim success, want to manufacture.

Apr. 28—Meeting at Jackson Lab. preliminary to designing autoclave for ethyl chloride process.

April, near end, or early May—Two deaths at Dayton (G.M. employees) from tetraethyl lead poisoning.

May—Public acceptance highly encouraging; future of tetraethyl lead "apparently assured"; G.M. looking forward to 50-fold expansion.

June 3—Very first semi-works production by chloride process at Deepwater (Jackson Lab. operation).

June 14—Mr. Harrington writes Mr. Midgley that we have essentially duplicated Standard Oil's chloride process; already agreed that further extension of bromide process will be precluded by shortage of bromine.

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1924—Continued

June 23—Mr. Sloan, gravely concerned about poison hazard, initiates plan for G.M.-S.O.-Du P. Medical Committee. — Shortly thereafter, committee formed (Drs. Robert A. Kehoe; W. Gilman Thompson, Chairman; A. K. Smith); special research instituted at Bureau of Mines and Columbia University.

June 25—Mr. I. du Pont interviews Mr. Howard, Dr. John and Dr. Peck, of Standard Oil; concludes chloride process decisively cheaper than bromide, and must prevail any way on account of bromine shortage. Believes concentration of manufacture at Deepwater best plan for quick progress, but is forced to accede, for reasons of policy and propriety, to Standard Oil's insistent desire to engage in manufacture.

June 28—Mr. Howard, of Standard Oil, 'phones Mr. I. du Pont "they will go ahead with their hundred-gallon chlorine method plant" (1 300 pounds capacity daily).

June 30—At mid-year point, Mr. Harrington outlines manufacturing progress (bromide process plant) to Mr. Sloan. Production under great pressure. Cumulative shortage of 96 000 pounds below contract minimum up to end of May reduced by June production 37 000 pounds in excess of that month's quota of 65 000 pounds.

July—Unexpectedly rapid expansion of demand for tetraethyl lead. Standard Oil of Indiana (outstandingly big customer throughout entire early period, both before and after year's suspension of sales) and others clamoring for more; numerous inquiries coming in from unopened territories. Express shipments from Deepwater; notifications by wire. Plant (bromide process) stepping up output to 5 200, then 6 500 pounds daily, hoping to reach 9 100 pounds daily from Aug. 1st on.

July 30—Second death from poisoning in bromide process plant at Deepwater.

Aug. 12—Third death from poisoning in bromide process plant at Deepwater.

Aug. 18—Ethyl Gas. Corp. incorporated, with 50-50 G.M. and Standard Oil (N.J.) ownership, to take over physical assets and contract obligations of G.M.Chem. Co. and to carry on commercial exploitation of tetraethyl lead under G.M. patent licenses. (The contracts taken over included long-term exclusive-territorial marketing arrangements with Standard Oil of Ind., and of N.J., and other customers, covering Kansas and all states north, east and south thereof except Nebraska and Oklahoma; and also the original manufacturing contract of 10/6/22 and the supplementary agreement of 1/12/24 with du Pont Co.)

Aug. 20—G.M.-S.O.-du P. Medical Committee submits preliminary report on poison hazard; and Mr. I. du Pont (letter 8/29/24) reassures Mr. Sloan: "I have read the Doctors' report on poisoning and am not disturbed by the severity of the findings". Points out: manufacture not bad as nitroglycerine; filling stations not bad as dynamite; dust risk to public only fraction of that from erosion of paint.

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1924—Continued

Sept. 2—Mr. Sloan advises Mr. I. du Pont Standard Oil partners disposed to feel du Pont price too high.

Sept. 3—Du Pont representatives visit Bayway; greatly shocked at manifest danger of equipment and methods, at inadequate safety precautions; their warnings waved aside. Delegation included Messrs. Harrington, Chambers, Bolton, Calcott and Flaechslaender, of Dyestuffs Dept., Lawrence and Maguire of Engineering Dept.

Sept. 4—New plant verbally authorized to make tetraethyl lead by chloride process at Deepwater; three piles driven in flying start same day.

Sept. 15—Standard Oil's Bayway plant (semi-works size) in regular operation.

October—Standard Oil "Lamp" reports astonishing public acceptance of tetraethyl lead; most optimistic estimates exceeded 100%; public demanding Ethyl gas in districts not yet opened.

Oct. 10—Special news letter of Ethyl Gas. Corp. announces establishment within past year of about 10 000 Ethyl gas stations.

Oct. 10—Initial du Pont-Ethyl Gas. Corp. contract entered into, guaranteed for Ethyl Gas. Corp. by G.M. and Standard Oil. Refers to two previous du Pont-G.M. agreements (formal contract of 10/6/22 and letter of 1/12/24) as having been taken over by Ethyl Gas. Corp., with balance of 753 000 pounds to be delivered. New undertaking: du Pont to build chloride process plant and deliver therefrom 4- to 5 000 000 pounds in year beginning 4/15/25. Provision included requiring assignment to Ethyl Gas. Corp. of patent applications on all du Pont improvements.

Oct. 20—Fourth (and last) death from poisoning in bromide process plant at Deepwater.

Oct. 24—Director Schmitz, of Badische Co., through Mr. F. W. Pickard, seeks to interest du Pont Company in Badische's "new anti-knock compound, practically non-poisonous and - - - much cheaper to manufacture" than tetraethyl lead. (During a trip abroad in November-December, 1924, Mr. Kettering visited the Badische plant; was shown the new anti-knock material; believed it to be iron carbonyl, which was later confirmed).

October, last week, beginning Saturday, the 25th—Disaster, sudden, swift and complete, at Bayway: Five deaths in quick succession, with practically entire working force poisoned. Sensational attacks by Dr. Yandell Henderson, of Yale, and others; "crusade" by N.Y. World; widespread alarm among newspapers, health authorities and public; excited demands against further manufacture or sale. Bayway tetraethyl lead plant promptly closed down; dismantled; manufacture at Bayway abandoned.

October—First monthly profit result reported by Ethyl Gas. Corp.—approximately $13 750.

Nov. 1—Gulf Refining Co. announces discontinuance of Ethyl gas sales "in deference to public opinion" until health risk question settled.

1924—Continued

November, early—Distribution with small ethylizers discontinued; shipments confined to drums, for bulk mixing.

Nov. 14—First semi-works production "in plant unit" by chloride process at Deepwater.

Dec. 4—Mr. Sloan writes Mr. I du Pont that "the unfortunate Bayway circumstance" appears to have gotten out of the Standard Oil people's minds their former insistent desire for an "independent source of supply".

Dec. 5—Deliveries (from enlarged Deepwater bromide process plant) completed under agreement of 1/12/24, total 1 100 000 pounds, 28 days behind schedule account poison troubles. Chloride plant construction practically completed, but leaks discovered under pressure being remedied.

Dec. 10—Messrs. Harrington and Howard canvass poison problem with U.S. Surgeon General Cummings. He will defer investigation to await results of research already in progress at Bureau of Mines and at Columbia University.

Dec. 12—New chloride process plant accepted as practically complete by Dyestuffs Dept. from Engineering Dept. after fourteen weeks' rush construction on three-shift basis, peak force 640 men, approximate cost $940 000.

Dec. 23—First meeting of Ethyl Gas. Corp. Board in New York; Mr. Irénée du Pont a director. Question of Ethyl Gas. Corp.'s liability for Bayway disaster losses brought up at Board meeting, and proposal made to disclaim responsibility; Mr. I. du Pont points out arrangement was purely an agency contract and Ethyl Gas. Corp. should therefore pay; this view adopted, and settlement later made accordingly.

December, late in month—By agreement between Messrs. I. du Pont and Midgley, du Pont Co. to develop at shore plant G.M. process for producing tribromanilin from sea water; to be reimbursed actual expenditures plus $20 000 (later increased to $40 000, when undertaking was broadened) for supervision and incidental research.

Dec. 26—Regular production of tetraethyl lead begins in new chloride process plant at Deepwater.

1925

Jan. 12—First shipment of tetraethyl lead made from chloride process plant at Deepwater.

Jan. 13—Decision reached to put experimental bromine extraction unit on ship, to avoid intake stoppage and freezing troubles encountered at Ocean City, Md. shore plant.

Feb. 2—Du Pont-Badische tentative agreement worked out at Ludwigshafen for manufacture of iron carbonyl in U.S. by 65%-du Pont-owned subsidiary. (But see below entries of 4/28/25, 8/10/25 and 1/10/27).

Feb. 10—Ethyl Gas. Corp. reports profit of over $34 000 earned in January.

1925—Continued

Feb. 13—First death from poisoning in chloride process plant at Deepwater. Prompt shut-down for radical revamping. (Followed by one further fatality in Feb. and two in March, 1925)

March 21—Ethyl Gas. Corp. (Midgley) reports extended tests on iron carbonyl started by G.M. Research Feb. 22 with three Buick cars indicate serious ignition and lubrication troubles, probably requiring spark plug and oil replacement every 1000 miles. This apparently confirmed quick tests previously made by Mr. Kettering in Europe).

March, near end of month—Mr. E. W. Webb, formerly head of G.M. Legal and Real Estate organization at Detroit, tentatively chosen (formal appointment followed shortly), upon initiative and nomination of Mr. Sloan, to head up Ethyl Gas. Corp., succeeding Mr. Midgley as chief business executive.

March 30—Ethyl Gas. Corp. reports $45,000 loss for February. Sharp curtailment of sales; substantial returns of Ethyl fluid in methyliters.

April 10—Ethyl Gas Corp. reports $56 000 loss for March.

April 27 to May 4—Experimental cruise of S.S. Ethyl. Results favorable; wireless reports indicate practicability of process is assured.

April 27—Sec.-Treasr. Mittnacht submits upon request of G.M. tentative estimate showing for Ethyl Gas. Corp. probable total losses "if legislated out of business" of $5 300 000, plus indeterminate liability under sales contracts. . .

April 28—Conference at Wilmington with Badische representatives on iron carbonyl development, attractive as offering possible escape from poison difficulties. Results inconclusive but essentially negative. (See below entries of 8/10/25 and 1/10/27)

May 2—Deepwater bromide process plant operation ended, by direction of Ethyl Gas. Corp., as previously agreed, with production in chloride process plant presumably to continue.. (Total production by bromide process was 2 137 071 pounds)

May 4—Ethyl Gas. Board in special meeting surveys poison situation, debates policy, decides to suspend sales. (Suspension vigorously opposed by Mr. I. du Pont)

May 5—All sales by Ethyl Gas. Corp. (except to Gov't) suspended, pending satisfactory determination on poison hazard.

May 5—Du Pont experimental work on bromine discontinued immediately upon Ethyl Gas. Corp.'s suspension of sales; S.S. Ethyl recalled.. (Total S.S. Ethyl costs above $400 000. Substantial incidental benefit believed accomplished for Ethyl Gas. Corp.'s bromine procurement through impression made in minds of world bromine producers)

May 5th-13th—Following suspension of sales, Ethyl Gas. Corp. wants unexecuted part of contract of 10/10/24 (chloride process plant) held in abeyance to await final outcome of suspension. Du Pont Co. pronounces this impracticable, insists on prompt cancellation of contract, liquidation of losses.

1925—Continued

May 15—Ethyl Gas. Corp. reports loss for April of $122 000, including operating loss of $61 000.

May 20—Surgeon General holds preliminary conference in Washington of health authorities and others interested; conference requests Surgeon General to appoint committee of seven recognized authorities in clinical medicine, physiology and industrial hygiene to investigate health hazard in distribution and use of Ethyl gas, to report if possible by Jan. 1, 1926.

June 8—Surgeon General announces appointment of committee of eminent medical and scientific authorities to pass on public health risk of Ethyl gas, per action of conference of May 20th.

June 9—Du Pont Co. presents Ethyl Gas. Corp. bill for $1 922 475 loss from cancellation of contract of 10/10/24, made necessary by suspension of sales. Principle: du Pont to be "made whole" on costs, to forego claim for prospective profits provided settlement made by July 1st (but invoice included $51 807 "interest on capital invested - - - to July 1, 1925"). Approximately $160 000 included for cost of research in developing chloride process. Roundly $1 364 220 included for cost of chloride process plant. (In addition to items billed by du Pont, Ethyl Gas. Corp. also took over burden of various important raw materials procurement contracts. For final adjustment of du Pont contract, see entry of April, 1926. For amortization of plant cost, see entry of 2/2/26.)

June 30—Ethyl Gas. Corp. pays du Pont Co. $1 500 000 on account of settlement of chloride process contract cancellation (borrowing the necessary funds from its guarantors, G.M. and Standard Oil), with final adjustment of balance to follow.

Aug. 10—Du Pont-Badische tentative agreement of 2/2/25 on iron carbonyl manufacture called off by Badische on indications that iron carbonyl will probably not replace tetraethyl lead for anti-knock use by reason of indicated injurious effects on ignition and lubrication. (But see below entry of 1/10/27)

October, about middle—Surgeon General's Committee inspects Deepwater tetraethyl lead plant. Impressions evidently favorable, and reassuring as to safety of manufacture.

Dec. 31—Ethyl Gas. Corp.'s accumulated deficit thus far taken up on books reported at $1 420 777; loans from G.M. and S.O. $4 012 054. (In 1926, deficit passed $2 000 000, loans $4 500 000)

1926

Jan. 17—Surgeon General's Committee presents report: No sufficient grounds discovered for prohibiting distribution and use of gasoline containing standard proportion (not over 1:1 300 by volume, or 3 cc per gal.) of tetraethyl lead. Recommends Surgeon General's Office formulate suitable regulations to govern manufacture, distribution and use. (Recommends also further study, as experience accumulates)

Feb. 2—Executive Committee appointed for Ethyl Gas. Corp., made up of Messrs. Sloan, Howard and Webb.

1926—Continued

Feb. 2—Ethyl Gas. Corp. Board orders "that the cost of construction of the du Pont chloride process tetraethyl lead plant, amounting to $1 364 219.83, be carried on the books as a contingent asset, to be written off over a period of 5 years". (In letter accompanying invoice of June 9, 1925, Mr. I. du Pont had said, referring to the possible future resumption of manufacture, "We can, however, agree that in making a price, should you desire it, we will not include in cost any item of amortization of the plant which has already been paid for").

March—Pending resumption of sales, a radical difference of view sharply developed as to the proper marketing strategy for Ethyl Gas. Corp. Mr. Irénée du Pont stood out vigorously for a free selling policy, with insistence only on proper safety precautions and on quality maintenance in fuel sold as "Ethyl gas"; insisted Ethyl fluid should be sold freely to all reputable would-be customers for use in their own private brands in any proportions within the limits prescribed by the Surgeon General, leaving their own self-interest to govern quality. The opposite view, firmly maintained by Messrs. Webb, Sloan and Donaldson Brown, held out for a continuance of rigid standardization, restricted selling, and development of consumer demand for "Ethyl gas" through national advertising and strict maintenance of uniform anti-knock standards. This restricted policy prevailed, and was continued generally until the adoption of the "Q" Brand plan in April, 1933. (See Exhibit "F" for a representative statement of Mr. du Pont's view. See volume curve of Exhibit "E" for apparent comparative results.)

March 31—New du Pont-Ethyl Gas. Corp. contract ✓ entered into for manufacture of tetraethyl lead; also first contract for blending. Previous provision requiring du Pont to assign all patent applications excluded, through convincing objection of Mr. I. du Pont that the inevitable result of thus withholding normal incentive would be to discourage progress, rob tetraethyl lead development of du Pont research potential.

April—Final adjustment made of du Pont claim for contract cancellation resulting from Ethyl Gas. Corp.'s suspension of sales, bringing total paid du Pont Co. to $1 821 033 (slightly reduced by subsequent small credits for recoveries of materials at Deepwater).

May 1—Selling resumed by Ethyl Gas. Corp., after one year's suspension lacking four days.

May, latter part—Mr. Webb, in Denver, makes tentative ten-year contract with small local concern (American Research Laboratories), claiming low-cost new process, to manufacture tetraethyl lead for Ethyl Gas. Corp. This fate-tempting venture promptly abandoned on emphatic protest of Mr. I. du Pont, as director of Ethyl Gas. Corp.

June 1—Manufacture of tetraethyl lead resumed at Deepwater, in chloride process plant, after extensive re-conditioning.

—B-9—

1927

Jan. 10—Contract made by G.M. and Ethyl Gas. Corp. with I.G. looking to joint world exploitation of iron carbonyl for anti-knock, with mutual recognition of patents and with right conferred upon I.G. to manufacture Ethyl Gas. Corp.'s requirements. (Apparently, this contract is still dormant).

June 20—Ethyl Gas. Corp. contracts with Anglo-American Oil Co. to mix and distribute "Ethyl petrol" in Great Britain. (See below entry of February, 1928)

July 3—Chrysler announces new high compression motor to take fullest advantage of modern anti-knock fuels.

Dec. 21—Death of Deepwater lead smelter worker, pronounced by Dr. J. P. Leake of U.S. Surgeon General's staff "presumably due to exposure not to tetraethyl lead, but to inorganic lead".

1928

Jan. 12-19—Broad exchange of views by correspondence between Messrs. Sloan and L. du Pont as to future volume and price outlook. Mr. du Pont suggests possibility of drastic price reduction with ten-fold volume increase; holds with Mr. I. du Pont that big expansion opportunity for tetraethyl lead has been foregone to protect oil interests. Mr. Sloan dissents, apparently identifies restricted selling of Ethyl fluid with policy of standardization; is concerned about threat to Ethyl Gas. Corp.'s business in improved cracking methods. (Five years later, with adoption of free selling policy in 1933, volume was increased at once to more than 7 times that of 1928, with 64% reduction in du Pont price to Ethyl Gas. Corp. since 1928. See Exhibit "E")

February—Agitation starts over introduction of "Ethyl petrol" in Great Britain. (Attacks by one or two men of prominence in scientific circles and sensational campaign of London Daily Mail followed, with final vindication by public health authorities as in U.S., but without any comparable commercial success to date).

June 26—New York City Health Board's prohibition on sale of Ethyl Gas, adopted 4/30/24, is rescinded.

Nov. 14—Du Pont Co.'s license to make tetraethyl lead by chloride process under Standard Oil's (Kraus & Callis) patents is extended by Ethyl Gas. Corp. to include uses other than motor fuel upon payment of 5% royalty.

1929

Apr. 1—Standard Oil Co. of Indiana contract expires, last exclusive arrangement; all U.S. territory thrown open for Ethyl gas sales. (This contract, with similar exclusive arrangements in favor of Standard of New Jersey and others, had been inherited by Ethyl Gas. Corp. from its predecessor, The G.M.Chemical Co.)

July 15—New tetraethyl lead plant at Deepwater starts operation, completed a month ahead of schedule, but with cost increased $75 000 by rush construction, resulting (in accord with the general previous experience) from lack of sufficient advance notice from Ethyl Gas. Corp.

1929—Continued

November—Ethyl Gas. Board adopts decision to license reputable refiners to use tetraethyl lead in private brands. (But only, it appears, in premium grade gasoline, standardized with "Ethyl gas" as to anti-knock rating, though not bearing the "Ethyl gas" name and trade mark design)

1930

Feb. 26—New du Pont-Ethyl Gas. Corp. contract. First inclusion of provision requiring exchange on Jan. 1, 1938 of all technical information and patent rights on tetraethyl lead manufacture. "Formulation of contract completed and document signed in April, but made as of 2/26/30)

May 28—Du Pont gives Ethyl Gas. Corp. two-cent concession under contract rates (making scale 58-53 cents), as aid in price reduction to meet competition of best unleaded gasolines.

Nov. 5—Surgeon General gives assent to selling tetraethyl lead for use in "regular gasoline" (the standard, non-premium brands), up to 1.5 cc per gal.

1931

Fall—Use of tetraethyl lead in non-premium gasoline inaugurated in Canada. (Big expansion of use follows)

Nov. 10—Plan for licensing use of tetraethyl lead in "regular gasoline" (the standard, non-premium brands) proposed by Ethyl Gas. Corp. at annual meeting of American Petroleum Institute in Chicago. Application of plan withheld upon immediate, vigorous, almost unanimous, objection of trade.

1932

February—Anti-knock quality resulting from tetraethyl lead believed demonstrated to be superior to that resulting from cracking. Mr. Sloan reports plan for long-term co-operation between automotive and oil industries to bring about better utilization of full potential of tetraethyl lead.

Dec. 30—Noteworthy, statesmanlike letter of exposition and friendly counsel from W. T. Holliday, President, Standard Oil of Ohio, to Ethyl Gas. Corp.: Urges that tetraethyl lead be released for use in standard grade, non-premium gasoline. Initial superiority of "Ethyl gas" overcome by improved cracking methods and high-test gas from California crudes; standard, non-premium brands now equal to original "Ethyl", bringing in cheap third grade, practically equal to gasoline in general use before Ethyl gas came in. Three-cent premium no longer justified by practical results with motors in general use; "Ethyl gas" now on patent medicine basis. Sun Oil people gloating that "the Ethyl picture is washed out", offering to bet there'll be no Ethyl in five years. Tetraethyl lead route to high anti-knock quality better and more economic than cracking, if arbitrary barrier to use removed.

—B-11—

1933

April 19—"Q" Brand plan finally put into effect, for use of tetraethyl lead in standard grade gasoline, non-premium brands, to be below Ethyl gas in octane rating (about 70 vs. 78) and price. (Tremendous expansion of volume follows. Du Pont 1933 sales of tetraethyl lead 2½ times 1932; 1934 sales near 50% over 1933; 1935 near 25% over 1934. See Exhibit "E".)

September—Ethyl Gas. Corp. officers bring forth abortive scheme to "mutualize" their company, incidentally taking over manufacture of tetraethyl lead. Sec.-Treasr. Mittnacht explains: Ethyl-du Pont relations not on "a permanently sound basis"; Ethyl Gas. Corp. "not in control of its own business"; "economic absurdity"; wants "clean-up of an impossible situation". (Scheme shortly dropped as utterly impracticable, after being questioned by Mr. L. du Pont. Initiative apparently had been with Mr. Howard, of Standard Oil.)

1934

Feb. 15—Mr. Webb writes Mr. I. du Pont that Ethyl-Dow Chem. Co. has been organized to establish sea water bromine extraction plant on North Carolina coast.

Dec. 15—Mr. I. du Pont cautions Ethyl Gas. Corp. against reported intent to set up I.G. in tetraethyl lead manufacture in Germany, thereby disclosing secret information of military importance.—But subsequently, U. S. Government assent was secured for the transmission of this information, and the du Pont Co. has actively co-operated in giving direct instruction and expert assistance to foreign producers.

1935

Feb. 8—Mr. Mittnacht gives highly favorable report of operations and profits of Ethyl-Dow Chem. Co.

April-May—Mr. Webb, in Europe, closes agreements with I. G. for manufacture of tetraethyl lead in Germany, and with Montecatini for manufacture in Italy. (Previously, "on-request" agreements had been made by Ethyl Gas. Corp. in 1928 with the British Air Ministry and in 1931 with the French Government)

Dec. 20—Present du Pont-Ethyl Gas. Corp. contract entered into, for year 1935. Price 28 cents. Provision continued for exchange of manufacturing information and rights on Jan. 1, 1938.

Dec. 30—Du Pont Co. acquires 50 shares of Ethyl Gas. Corp. stock by purchase from General Motors.

EXHIBIT "C"

INITIAL DESCRIPTION OF THE "NEW DOPING COMPOUND"

The memorandum below was transmitted by Mr. P. S. du Pont from Detroit to Mr. Irénée du Pont on March 24, 1922, as "a brief report on the gasoline 'dope' situation", with the comment that "The development looks very promising".

Memo Re: DOPING OF FUEL. Detroit, 3/24/22

Mr. Kettering stated that his new doping compound, Tetra-Lead-Ethyl, may be used effectively in the proportion of one gallon to 1,000 or 1,500 of gasoline. The use of this dope will result in a saving of at least one quarter of the gasoline ordinarily consumed in an engine, and will permit of increasing compression very materially. The cost of the compound, at the rate of 100 gallons per day, should be not more than \$5 or \$6 per gallon, and he believes the factory can be erected for \$50,000.

The compound is made by preparing ethyl iodide from alcohol and iodine, permitting this to be acted upon by zinc dust plated with copper, the plating being necessary to produce the reaction. Zinc-ethyl is formed and is distilled off. Zinc ethyl is highly inflammable when exposed to the air, but Kettering believes no more dangerous to work with than hot oils. Zinc Ethyl is brought into contact with dry lead chloride, which forms zinc chloride a compound $Pb_2(C2H5)_4$. This compound further breaks down into metallic lead and tetra lead ethyl $Pb(C2H5)_4$. Lead ethyl is a colorless liquid of sweetish odor, very poisonous if absorbed through the skin, resulting in lead poisoning almost immediately. In practice Kettering recommends that the material be made ill-smelling through the addition of some pungent material, in order to avoid danger of poison by inhaling the fumes.

In order to start the use of this material, Kettering proposes that Cadillac design a new cylinder head, increasing compression (this is now being done). Every Cadillac car equipped with this new head will be provided a gas tank containing in a separate compartment two metallic bottles, each containing a quart of lead ethyl. These bottles will be sealed with a metallic seal, which will be punctured automatically when the bottle is placed in position for use. A small hand pump will deliver a charge sufficient for five gallons of gasoline at one stroke, so that as the gasoline tank is filled, one stroke of the pump to each five gallons will supply the necessary dope. An over-supply does not result in any injury, and an under-supply would quickly be shown in the knocking of the engine, so that mistakes would not be serious. The two flasks would run a Cadillac car 7,500 miles, so that the recharging feature would not be serious.

Without dope the car would be operated successfully at half throttle, i.e. would not be useless. With the dope, the car would have an additional 25% horsepower, and gasoline consumption would be materially reduced.

In order to make this program effective, a plant of 100 gallons daily capacity should be erected. The next step in the program would be to try to introduce the dope as a commercial article supplied with the gasoline. It would require about 4,500,000 gallons per annum to dope the entire gasoline supply.

Kettering would like to take up the question of manufacture with ~~the~~ du Pont company representatives at an early date.

1/*

EXHIBIT "D"

DEATHS FROM T.E.L. POISONING—NUMBER, SEQUENCE, LOCATION

Sept. 21, 1923—Deepwater, Bromide Process Plant—Frank W. Durr, Operator.

April, 1924 (or early May)—Two deaths at Dayton, O.—General Motors Employees.

July 30, 1924—Deepwater, Bromide Process Plant—Guiseppe Cianci, Laborer (Sludge).

Aug. 12, 1924—Deepwater, Bromide Process Plant—Frank A. Hanley, Pipefitter, Engineering Dept.

Oct. 20, 1924—Deepwater, Bromide Process Plant—Sim Jones (Colored), Laboratory Helper.

Oct. 25, 27, 28, 29 & 30, 1924—Five deaths, one each day, in quick succession within one week, at Bayway, N.J.—Standard Oil of N. J. employees, in semi-works size operation.

Feb. 13, 1925—Deepwater, Chloride Process Plant—Fred W. DeFievre, Operating Helper.

Feb. 16, 1925—Deepwater, Chloride Process Plant—Robert Huntsinger, Operator.

March 10, 1925—Deepwater, Chloride Process Plant—Loring M. Boody, Millwright Helper, Engineering Dept.

March 28, 1925—Deepwater, Chloride Process Plant—James Connell, Millwright, Engineering Dept.

Recapitulation:

Du Pont—Bromide	Du Pont—Chloride	Total Du Pont	General Motors	Stand. Oil of N. J.	Grand Total
4	4	8	2	5	15

Supplementary Note—In connection with the above deaths definitely attributed to tetraethyl lead poisoning, the following three cases appear to require mention:

1. About Sept.26,1924, a young Irish chemist named Becker, after brief employment in the laboratory at Bayway, toward the end of which he was observed to be in a state of great nervous strain, committed suicide by jumping from a window of a New York hotel. Though not so interpreted at the time, the circumstances, in comparison with the subsequent experience in a number of cases, strongly suggest that the real cause of this death was tetraethyl lead poisoning.
2. Harry G. Baker, one of the workers affected in the early 1925 outbreak of poison troubles in the chloride process plant at Deepwater, was sent to the Salem Hospital; afterward was maintained by the company for some months under special treatment; and in November or December, 1925 was finally comitted to the New Jersey State Hospital for the Insane, at Trenton, where he is still confined.
3. Walter Carter (Colored), a worker in the lead smelter at Deepwater, died Dec. 21, 1927. Dr. J. P. Leake, of U.S. Surgeon General's staff, notes that this death was "presumably due to exposure not to tetraethyl lead but to inorganic lead".

EXHIBIT "E"

YEARLY SALES VOLUME AND PRICES OF TETRAETHYL LEAD

	Thousands of Pounds Sold	Avg. Price Received		Thousands of Pounds Sold	Avg. Price Received
1923	23	$1.997	1930	17 037	$.607
1924	1 257	1.955	1931	15 432	.559
1925	1 046	1.619	1932	9 935	.478
1926	657	1.433	1933	24 033	.370
1927	1 769	1.276	1934	35 665	.342
1928	3 400	1.030	1935	44 243	.314
1929	7 999	.830	1936		Not over .28

Note: From the Ethyl Gas. Corp.'s viewpoint, in accord with the 2/2/26 entry of Exhibit "A", it would seem that the above price figures for the period of approximately 1926 to 1930 inclusive should be increased to cover amortization of the plant construction cost which the Ethyl Gas. Corp. paid for in the contract settlement following the suspension of sales. The amount of this increase would be about $.044 per pound.

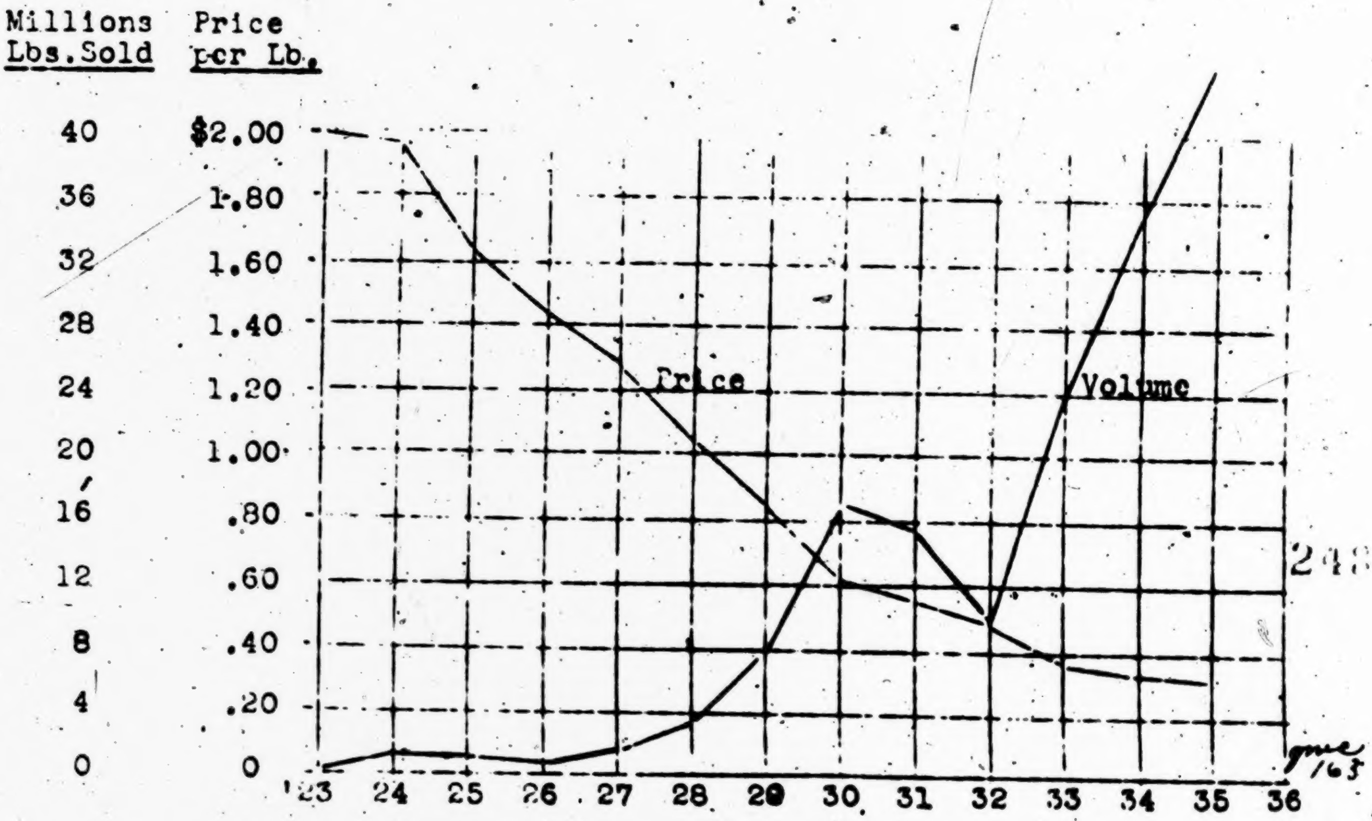

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EXHIBIT "F"

MR. IRÉNÉE DU PONT'S VIEWS ON CORRECT MARKETING POLICY

The following letter is typical of numerous indications in the files that the policy of free selling, which was finally made effective in April, 1933, with the highly successful results indicated in Exhibit "E", had from the beginning been vigorously and persistently urged by Mr. du Pont upon his associates.

June 22, 1927.

Mr. Alfred P. Sloan,
224 W. 57th Street,
New York City.

Dear Alfred:—

In case I didn't make myself clear to you in the Directors meeting of the Ethyl Gas Corporation, am writing you this in an endeavor to give you my line of reasoning:

The Ethyl Gas Corporation has at its sole disposal a material which can improve the anti-knock qualities of gasoline; it has no natural or artificial ability that large oil companies have not; which will enable it to standardize the quality of gasoline from a vaporization point of view. In our endeavors to maintain the quality of gasoline to make valuable the trade mark "Ethyl" we have undoubtedly succeeded in restricting the use of ethyl lead to a considerable extent. Surely our forecasts of a few years ago have not been met in volume of business. We must be restricting our customers for otherwise why would the Standard Oil of New Jersey refuse to adopt the trade mark "Ethyl" at all? In other words, if we have made it so onerous for gasoline companies to sell our product, and in addition have fixed it so that the man at the pump makes no additional profit by serving ethyl gas, then we have done everything we can to discourage the expansion of the use of ethyl gas.

I think it is time to "about face", insist to the Surgeon General that large and reputable gasoline companies are just as competent as we are to safe-guard the man that does the mixing, and they are just as responsible as we are for any criminal negligence. In view of the history in the past year it seems to me sure that the Surgeon General will agree with such a point of view. We should then sell Ethyl fluid to any large reputable seller of gasoline to be used as he sees fit. We could contract with him that he could not use the word "Ethyl" in connection with his trademark unless he puts sufficient of the Ethyl fluid in the gas so that the product would measure up in anti-knock qualities to our standard, whatever that may be. This should at once largely increase the sale of Ethyl fluid and enable the Ethyl Gas Corporation to begin making money in volume.

Very truly yours,

(Signed by
Mr. Irénée du Pont)

NOTE: At lower right of all pages is written "GMC 1638"; lines in left margin on fifth and eleventh pages and check mark on ninth page are by hand.

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Vol. VIII

TRANSCRIPT OF RECORD

(Pages 4762 to 5511)

(GOVERNMENTS EXHIBITS)

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

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Government Exhibits:

	Original	Print
No. 871—Letter dated March 24, 1948, from E. G. Biechler to E. G. Robinson (Kinetic Chemicals Inc.)	2760	5041
No. 872—Letter dated April 8, 1943, from E. G. Robinson (Kinetic Chemicals Inc.) to E. G. Biechler (GMC-Frigidaire)	2761	5042
No. 873—Letter dated February 21, 1944, from Divisional Comptroller, Frigidaire Division, to C. D. Porch (Kinetic Chemicals Inc.)	2762	5043
No. 874—Letter dated March 10, 1944, from C. D. Porch (Kinetic Chemicals Inc.) to E. F. Johnson (GMC)	2763	5044
No. 875—Letter dated February 24, 1924, from "Vice President" (GMC) to Kinetic Chemicals Inc.	2765	5046
No. 876—Leter dated March 4, 1944, from W. W. Rhodes (Kinetic Chemicals Inc.) to C. D. Porch (Kinetic Chemicals Inc.)	2767	5048
No. 878—Communication dated March 6, 1944, from C. D. Porch to E. G. Robinson transmitting "History of the Development and Exploitation of 'Freon-114'"	2768	5049
No. 879—Letter dated April 20, 1944, from J. Ralph Fehr (GMC-Frigidaire) to E. F. Johnson (GMC)	2776	5057
No. 880—Agreement dated May 18, 1944, between General Motors Corporation and Kinetic Chemicals Inc.	2777	5058
No. 881—Letter dated June 22, 1944, from W. F. Harrington (du Pont) to E. F. Johnson (GMC)	2779	5060
No. 882—Communication dated November 9, 1944, from Donaldson Brown to Policy Committee	2780	5061
No. 883—Report of Operations of Kinetic Chemicals Inc. from 1930 through 1943	2781	5062
No. 884—Letter dated April 23, 1945, from E. G. Robinson to E. K. Gladding	2809	5090
No. 885—Communication from M. D. Fisher (du Pont) to E. K. Gladding	2810	5091
No. 886—Communication dated April 28, 1945, from Development Department to Executive Committee re "Question of Purchasing General Motors Corporation's 49% Interest in Kinetic Chemicals, Inc."	2812	5093
No. 887—Kinetic Chemicals, Inc.—Sales and Profits—1930-1942	2828	5109
No. 888—Letter dated January 18, 1927, from L. du Pont to John J. Raskob	2829	5110
No. 889—Letter dated January 19, 1927, from John J. Raskob to Lammot du Pont	2831	5112
No. 890—Letter dated January 21, 1927, from Alfred P. Sloan, Jr. to Lammot du Pont	2832	5113
No. 891—Letter dated January 25, 1927, from L. du Pont to Alfred P. Sloan	2835	5116

Government Exhibits:

	Original	Print
No. 892—Letter dated February 3, 1927, initialled APSJr to Lammot du Pont	2837	5118
No. 893—Letter dated February 3, 1927, initialled APSJr to J. Brooks Jackson (GMC)	2839	5120
No. 894—Letted dated February 21, 1927, from Lammot du Pont to Alfred Sloan	2841	5122
No. 895—Memorandum dated July 13, 1931, Fin Sparre (Development Department du Pont) to Foreign Relations Committee	2842	5123
No. 896—Letter dated July 3, 1931, from J. L. Pratt (GMC) to David W. Jayne (du Pont)	2844	5125
No. 897—Memorandum dated July 15, 1931, from Foreign Relations Committee (du Pont) to Fin Sparre	2845	5126
No. 898—Letter dated July 16, 1931, from "Chairman of the Board" (du Pont) to John Pratt (GMC)	2846	5127
No. 899—Letter dated July 20, 1931, from J. L. Pratt (GMC) to Lammot du Pont (GMC)	2848	5129
No. 900—Letter dated July 21, 1931, from "President" to John L. Pratt (GMC)	2854	5135
No. 901—Memorandum dated July 21, 1931, from L. du Pont to E. G. Robinson	2855	5136
No. 902—Memorandum dated August 26, 1931, from D. W. Jayne to F. Sparre	2856	5137
No. 1050—Letter dated March 11, 1946, from "Mots Copeland" to Lammot du Pont	2864	5145
No. 1085—Letter dated January 31, 1930, initialed LduP to F. B. Davis (U. S. Rubber Co.)	2866	5147
No. 1204—"Relative Size of du Pont, General Motors, and U. S. Rubber in their Respective Fields"	2868	5149
No. 1205—"Relative Size of du Pont, General Motors and U. S. Rubber in their Respective Fields—Year 1950"	2869	5150
No. 1209—""Interrogatories Nos. 3 and 4 Propounded by Plaintiff to Pierre S. du Pont, Irenee du Pont, and Lammot du Pont	2870	5151
No. 1210—"Answer of Pierre S. du Pont to Plaintiff's Interrogatories Nos. 3 and 4"	2871	5152
No. 1210A—Answer of Pierre S. du Pont to Interrogatory No. 3	2872	5153
No. 1210A—Correction to foregoing answer.	2874	5155
No. 1211—"Answer of Lammot du Pont to Plaintiff's Interrogatories Nos. 3 and 4"	2875	5156
No. 1211A—"Answer of Lammot du Pont to Interrogatory No. 3"	2876	5157
No. 1212—"Answer of Defendant Irenee du Pont to Plaintiff's Interrogatories Nos. 3 and 4"	2882	5163
No. 1212A—"Answer of Irenee du Pont to Interrogatory No. 3"	2883	5164
No. 1213—"Answer of Pierre S. du Pont to Plaintiff's Interrogatory No. 4"	2892	5173

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	Original	Print
No. 1214—"Answer of Lammot du Pont to Plaintiff's Interrogatory No. 4"	2893	5174
No. 1214—Correction to foregoing answer	2894	5175
No. 1215—"Answer of Irenee du Pont to Plaintiff's Interrogatory No. 4"	2895	5176
No. 1217—"Answer of the Defendant Delaware to Plaintiff's Interrogatory No. 4"	2896	5177
No. 1217A—Excerpt from Answer of Defendant Delaware to Plaintiff's Interrogatory #4(a)	2897	5178
No. 1217A—Correction to foregoing answer	2898	5179
No. 1228—Letter dated February 22, 1923, from "Director of Research" (General Motors Research Corporation) to A.P. Sloan, Jr.	2899	5180
No. 1236—Letter dated December 18, 1944, from "Chairman of the Board" (du Pont) to Alfred P. Sloan, Jr.	2900	5181
No. 1237—Letter dated December 29, 1944, from Alfred P. Sloan, Jr. to Lammot du Pont	2902	5183
No. 1238—Letter dated January 7, 1941, from "President" (du Pont) to Donaldson Brown (GMC)	2904	5185
No. 1240—"Management Proxy Holders (Persons designated by the management of the respective companies to receive the proxies of stockholders and to vote the stock at stockholders' meetings)"	2909	5190
No. 1244—Progress Report dated March 31, 1917, from Development Department to Executive Committee	2911	5192
No. 1245—Memorandum dated February 10, 1925, from Development Department to Executive Committee re "Proposed Consolidation with the Viscoloid Company"	2919	5198
No. 1217—"Answer to Plaintiff's Interrogatory V of December 7, 1951"	2929	5208
No. 1277—"Stock held directly or beneficially by members of the du Pont family, including individual defendants and beneficiary defendants as defined in the complaint as amended, in Delaware, Christiana, U. S. Rubber, common, and Wilmington Trust Co., as of June 1949."	2930	5209
No. 1277—Correction to foregoing list	2937	5214
No. 1294—"The Three Brothers' Positions in Defendant Companies"	2938	5215
No. 1295—"1951 Sales of Ten Industrial Manufacturers"	2941	5218
No. 1301—Excerpt from grand jury *subpoena duces tecum*, dated August 20, 1948, and addressed to General Motors Corporation	2942	5219
No. 1302—Letter dated October 27, 1948, from General Motors Corporation to Ferris Hurd	2945	5222

Government Exhibits:

	Original	Print
No. 1303—Stock Holding Relationships among Members of the du Pont Family and Corporate Defendants as of June 1949	2946	5221
No. 1303—Correction of foregoing chart	2947	5224
No. 1304—Excerpt from 1920 Annual Report of E. I. du Pont de Nemours & Company, Inc., to Stockholders	2948	5225
No. 1305—Interrogatory No. 1 Propounded by Plaintiff General Motors Corporation on December 7, 1951	2951	5228
No. 1306—Excerpt from Answer of General Motors Corporation to Interrogatory No. 1 Propounded by Plaintiff on December 7, 1951	2952	5229
No. 1307—Du Pont Stock at General Motors Stockholders Meetings 1928-1949	2953	5230
No. 1308—Excerpt from Annual Report of du Pont Corporation to its Stockholders for the year 1938 (Page 22)	2954	5231
No. 1309—Summary of Directorshpis and Other Official Positions Held by Individual Defendants and Certain Other Individuals in Defendant Corporations	2955	5232
No. 1309—Corrections to foregoing summary	2963	5240
No. 1312—Agreement dated June 23, 1920, between J. P. Morgan & Co. and certain subscribers	2965	5242
No. 1313—Memorandum of Agreement dated April 30, 1926, between American Research Laboratories Inc. and Ethyl Gasoline Corporation	2973	5250
No. 1314—Answer of E. I. du Pont de Nemours and Company, filed March 7, 1952, to Interrogatory 7(a) and 7(b)	2983	5260
No. 1315—Fabrics Routine Trade Report (du Pont)	2990	5267
No. 1316—Excerpts from Monthly Report—June 1925—Paint, Lacquer and Chemicals Department	2991	5268
No. 1317—Excerpt from Report of Fabrikoid Division to Executive Committee, for January 1927, dated February 23, 1927	2992	5269
No. 1318—Excerpts from the Monthly Report of the Cellulose Products Department to the Executive Committee for May 1923, dated July 2, 1923	2993	5270
No. 1319—Excerpt from Industrial Sales Trade Report Report re Call on Packard Electric Co., dated 10/20/32	2994	5271
No. 1320—Report of salesman W. P. Fisher with Customer Packard Electric Corporation	2996	5273
No. 1321—Industrial Sales Trade Report (du Pont) April 24, 1935	2998	5275
No. 1322—Industrial Sales Trade Report (du Pont) June 17, 1936	3000	5277

Government Exhibits:

	Original	Print
No. 1323—Report No. 98 by E. J. Kadlac dated August 24, 1942	3002	5279
No. 1324—Letter dated June 28, 1949, from John M. Stutt to Henry E. Lackey	3004	5281
No. 1325—Salesman's report dated May 15, 1940~~, J.~~ H. Norton (du Pont)	3006	5283
No. 1326—Letter dated August 22, 1946, from J. V. Hendrick (Chrysler Corporation) to V. A. Cosler (du Pont)	3007	5284
No. 1328—Letter from E. I. du Pont de Nemours & Company to General Motors Corporation	3008	5285
No. 1329—"The Electroplating Situation" by F. F. Oplinger	3009	5286
No. 1331—Excerpts from Minutes of Meetings of Interdivisional Relations Committees, General Purchasing Committee, General Motors Corporation, February 6, 1925	3027	5306
No. 1335—Memorandum dated March 29, 1944, of Delaware Realty and Investment Company	3028	5307
No. 1343A—Chart showing General Motors Corporation purchases from competitors of E. I. du Pont de Nemours & Company	3037	5316
No. 1343B—Comptroller's Circular Letter (GMC) dated January 31, 1949	3047	5326
No. 1344—Du Pont Sales by Product to General Motors Corporation and 100% Owned Subsidiaries for the years 1938, 1939, 1940, 1941, 1946, and 1947	3061	5340
No. 1345—Memorandum dated August 19, 1921, from J. J. Raskob to Directors, E. I. du Pont de Nemours & Company	3068	5347
No. 1346—Memorandum dated September 24, 1936, from C. R. Mudge (du Pont) to W. S. Carpenter	3072	5351
No. 1348—Letter dated December 27, 1933, from Alfred P. Sloan, Jr. to Lammot du Pont	3074	5353
No. 1349-1351—Du Pont Fabrics Industrial Master Trade Reports in connection with sales to Fisher Body Division of General Motors	3075	5354
No. 1352-1354—Du Pont Fabrics Industrial Master Trade Reports in connection with sales to Chevrolet-Indianapolis Division (GMC)	3081	5360
No. 1355-1357—Du Pont Fabrics Industrial Master Trade Reports in connection with sales to GMC Truck & Coach Division	3093	5362
No. 1358—Du Pont "Fabrikoid" and Rubber Trade Report of sales to Chevrolet—Commercial Body Division (GMC)	3101	5380
No. 1361—Excerpts from Automotive Products Trade Reports (Fisher Body Corporation)	3103	5382

Government Exhibits:

	Original	Print
No. 1362—Excerpts from Plastics Department—Industrial Division Molding Powder Trade Report (Inland Manufacturing Co.)	3106	5385
No. 1363—Excerpts from Industrial Sales Trade Reports, Finishes Division (Packard Electric Co.)	3110	5389
No. 1364—Excerpts from Automotive Products Trade Reports, Flint Plant (Olds Motor Works)	3115	5394
No. 1365—Excerpts from Automotive Products Trade Reports, Flint Plant (Cadillac Motor Car Co.)	3116	5395
No. 1366—Excerpts from Salesman's Trade Report, Rubber Chemicals Division (Inland Manufacturing Division, GMC)	3118	5397
No. 1367—Excerpt from the Monthly Report of the Cellulose Products Department to the Executive Committee for April, 1922, dated May 15, 1922	3119	5398
No. 1368—Excerpts from the Paint, Lacquer and Chemicals Department Monthly Report to the Executive Committee for November, 1926, dated December 23, 1926	3120	5399
No. 1369—Excerpts from the Monthly Report of the Chemical Products Division to the Executive Committee for February, 1927, dated March 22, 1927	3121	5400
No. 1370—Excerpts from Monthly Report of the Automotive Finishes Division to William Richter for May, 1931, dated June 13, 1931	3122	5401
No. 1371—Excerpts from Monthly Report of the Finishes Division for December, 1932, undated	3123	5402
No. 1372—Excerpt from the Monthly Report of the Fabrics and Finishes Department to the Executive Committee for August, 1935, dated September 20, 1935	3124	5403
No. 1373—Excerpt from the Monthly Report of the Fabrics and Finishes Department to the Executive Committee for July, 1946, dated August 23, 1946	3125	5404
No. 1374—Excerpt from the Monthly Report of the Fabrics and Finishes Department to the Executive Committee for May, 1947, dated June 27, 1947	3126	5405
No. 1375—Excerpt from Annual Competitive Report (1935), dated March 5, 1936, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3127	5406

Government Exhibits:

	Original	Print
No. 1376—Excerpts from Annual Competitive Report (1936), dated March 24, 1937, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3128	5407
No. 1377—Excerpts from Annual Competitive Report (1937), dated March 23, 1938, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3129	5408
No. 1378—Excerpts from Annual Competitive Report (1938), dated March 9, 1939, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3130	5409
No. 1379—Excerpts from Annual Competitive Report (1939), dated March 12, 1940, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3132	5411
No. 1380—Excerpts from Annual Competitive Report (1940), dated March 4, 1941, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3134	5413
No. 1381—Excerpts from Annual Competitive Report (1941), dated March 12, 1942, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3135	5414
No. 1382—Excerpts from Annual Competitive Report (1946), dated March 17, 1947, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3137	5415
No. 1383—Excerpts from Annual Competitive Report (1947), dated March 11, 1948, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3139	5416
No. 1384—Excerpts from Annual Market Survey (1948), dated April 15, 1949, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3141	5418
No. 1385—Excerpt from Annual Market Survey (1949), dated April 14, 1950, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3142	5419
No. 1386—Excerpts from Annual Market Survey (1950), dated April 11, 1951, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours & Company	3143	5420
No. 1387—Du Pont Sales of Finishes (Products of Finishes Division) to the Automobile Industry	3145	5422
No. 1388—General Motors Purchases from du Pont and Competitors of du Pont (revised 6/23/53)	3146	5423

Government Exhibits:

	Original	Print
No. 1389—General Motors' Purchases of Antifreeze from du Pont and Other Suppliers Who Sold $500 or More to General Motors during 1946	3147	5424
No. 1390—General Motors' Purchases of Antifreeze from du Pont and Other Suppliers Who Sold $500 or More to General Motors during 1947	3148	5425
No. 1391—General Motors Corporation Per Cent and Dollar Volume of Purchases of Upholstery and Trim (1946)	3149	5426
No. 1392—General Motors Corporation Per Cent and Dollar Volume of Purchases of Upholstery and Trim (1947)	3150	5427
No. 1393—General Motors Corporation Per Cent and Dollar Volume of Purchases of Paints, Enamels, Primers, Lacquers, Thinners, and Pyroxylin from the Three Largest Suppliers for the Year 1946	3151	5428
No. 1394—General Motors Corporation Per Cent and Dollar Volume of Purchases of Paints, Enamels, Primers, Lacquers, Thinners, and Pyroxylin from the Three Largest Suppliers for the year 1947	3152	5429
No. 1395—Unsigned letter dated March 16, 1921, to Irenee du Pont	3153	5430
No. 1400—General Motors' Purchases of Paints, Enamels, Primers, Lacquers, Thinners and Pyroxylin for the Years 1946 and 1947	3154	5431
No. 1404—Letter dated September 27, 1930, from F. O. Clements (GMC) to E. K. Bolton (du Pont)	3155	5432
No. 1407—Unsigned letter dated November 8, 1948, to Melville C. Williams (Chicago Antitrust Division, Department of Justice)	3156	5433
No. 1408—Case Hardening Survey, Chicago Office Territory, dated September 16, 1937	3160	5437
No. 1409—Excerpt from printed page 2245 of Transcript (February 27, 1953) of 1917 Report of du Pont Company to stockholders	3234	5511

Government's Exhibit No. 775

4762

Copy to: Mr. Lammot du Pont
BUILDING

June 29, 1936

~~Mr. W. J. Beadle, Asst. Director~~
~~Development Department~~
~~BUILDING~~

Dear Mr. Beadle:

Referring to your letter of June 12th and the history of the tetraethyl lead business, I have few comments to make and such as they are, are attached hereto.

Personally, I feel that the Standard Oil Company is somewhat grasping and have not demonstrated that they are very good partners in this particular enterprise.

Yours very truly,

Irenee du Pont

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Exhibit B-5: The item under date of December 23rd does not square with my recollection, which is that I was surprised that the Standard Oil Co. could claim their contract was purely an agency one and that it was "small" of the Standard Oil not to pay for the losses which it had occasioned. However, the Ethyl Gas having admitted the agency, there was no other answer.

The item of January 13th; I think the decision to work out a plan of putting an anilin bromide plant aboard ship was arrived at on the 31st of December, 1924. The reason for it was to avoid the silt contained in littoral waters, tending to plug up and therefore make less efficient the filtration plant used in the process. I think it was also noted at that time that Gulf Stream water was some 10% higher in bromine than the littoral waters.

I think great stress could be laid on the fact that the Du Pont Company has always treated the Ethyl Gas project somewhat as a partnership undertaking. They have never jockeyed to obtain contractual advantage over their associates. I do not think this is true of the Standard Oil interests who have very definitely used Ethyl Gas to further the ends of their own company. The writer of the report could not discover that in the Ethyl Gas correspondence, there is evidence that the Standard Oil Co. of New Jersey habitually under-doped their Ethyl gas, in other words, put in less Ethyl fluid than was prescribed in the contract. This practice was stopped by bringing it to the attention of the Standard Oil officials while sitting in on an Ethyl Gas board meeting.

Referring to Page 17 of Wescott's report of June 9th, I am clear in my recollection that the quotation from my letter of February 2nd relative to the chloride route being the cheapest and simplest was

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not an after the fact point of view. Any chemist would have naturally chosen Ethyl chloride rather than Ethyl bromide as a re-agent, but at the time it was thought that the dangers of the pressure required were such as to make the Ethyl bromide the route to be desired.

I do not think it is stressed sufficiently that the so-called chlorine process, using Ethyl chloride instead of Ethyl bromide, is precisely what would come to the mind of any chemist. The use of the bromide was secondary in an endeavor to escape some of the hazards of manufacture. It is not conceivable that the Dayton Laboratories should not have carefully considered Ethyl chloride as the re-agent and it was simply lack of knowledge and prudence which led the Standard Oil to experiment with Ethyl chloride without duly appreciating its dangers. In due course, the more dangerous route could and was made reasonably safe, but it was an expensive "trip" to have tried it prematurely in the hands of more or less novices.

Tetraethyl lead is not a manufacture which we should engage in on a low return basis. There is always danger by reason of its poisonous properties. The cutting down of the margin of profit will inevitably lead to taking less expensive precautions. It has the commercial hazard of being a one-consumer industry so that it is imprudent to take any chances on increasing investment to obtain lower yields or greater output when we are in the hands of one consumer.

The broad gauge policy of the General Motors Corp., who looked to us as the sole manufacturer, was no inconsiderable contribution to the rather phenomenal success in the manufacture of tetrethyl lead.

If we closed the operation today and charged off the difference between our capital investment over its scrap value, adjusted past earnings, I think, would not average above that which is necessary to

obtain the volume and production costs and to recompense for the unknown risks taken.

It seems to me best for those negotiating, to take up with the General Motors directors, who are more nearly our partners, the report modified by omitting some of the knocks against the judgment of Sloan, Brown, etc. and also omitting some of the rather over-drawn claims for my discernment. (besides, I was acting then as a director of Ethyl Gas) this with a view of getting their support in making a fair contract looking to a continuation of the partnership idea.

NOTE: At lower right of first page is written "GMC-576"; at lower right on second, third and fourth pages is written "GMC-576a"; at upper left on first page is written "Filed with report" with an arrow pointing to the name of Mr. Lammot du Pont; at first page upper right is stamped "Received Jun 30, 1936, Lammot du Pont"; an irregular line is drawn through the address; italics indicate handwriting.

Government's Exhibit No. 779

ETHYL GASOLINE CORPORATION
CHRYSLER BUILDING
405 LEXINGTON AVENUE

NEW YORK December 19, 1935.

Mr. Lammot duPont, President,
E. I. duPont de Nemours & Company,
Wilmington, Delaware.

Dear Mr. duPont:

You have requested me to make a written reply to your proposal which was attached to your reply to our proposal in your letter of November 27th.

Inasmuch as we discussed your proposal at considerable length at our last meeting it seems to me that it is not necessary to review all of the objections which I stated at that time but rather to confine my reply to your basic idea, namely, that we should make an exclusive contract with your company until January 1, 1943, at a price of 28¢ per pound, with the understanding that periodical calculations of the net profits of duPont and Ethyl are to be made and that if the net profits of duPont are greater or less than one-half of the net profits of Ethyl then "an adjustment in the price of tetraethyl lead either up or down from the previous price of tetraethyl lead will be made in such manner as to bring the respective net profits" in a relation of two to one, conditioned, however, that in no event shall the net profits of duPont be less than 20% of its permanent investment in the manufacturing of tetraethyl lead.

1. Time is running against both our manufacturing and use patents. The former expire in 1943 and the latter in 1947. My feeling is that the present contract is preferable

to the long term contract which you have suggested, and that it would be entirely unacceptable to us.

2. As previously explained, it is our opinion that the proposal which we submitted to you is predicated upon a logical and fair basis; namely, that our business should be evaluated from two angles:

(a) That of a non-monopoly business for which those who had capital invested in it were entitled to get a certain yearly return—irrespective of the monopoly; and

(b) that of a monopolistic business founded upon the use patents owned by the present stockholders and for which they were entitled to a larger return than your company which does not have any interest in that monopoly.

Therefore your suggestion of having the duPont Company participate in the profits derived from the manufacture and sale of tetraethyl lead on the basis of one to two is altogether unacceptable to us, as is also your proposal that irrespective of the future of the general business your company should be guaranteed net profits of not less than 20% of your permanent investment in the business.

In view of your having declared that our proposal is entirely unacceptable to you and I have stated to you that your counter-proposal, above referred to, is altogether unacceptable to us, and we would seem to have fairly well exhausted the pros and cons of each proposal in our several interviews without having reached any definite point other than that of disagreement, I beg to submit herewith for your consideration a proposal which is a personal one of mine and which has not received the consideration of any member of our Board. It contains at least the outline of a plan which I personally believe would, if adopted, inure to the interest of both parties. You, of course, appreciate the fact that if you should regard this individual proposal of mine as containing principles which are acceptable to you, that I would have to take it up with our Board for its consideration since I have received no instructions whatsoever to carry on negotiations with you relative to the attached proposal. I am, however, proceeding with it with the feeling that it is the desire of our Board to effect an agreeable and harmonious arrangement with your company of a permanent character, and that the attached proposal embodies principles upon which we can and should reach an accord.

Very truly yours,

E. W. Webb

A:H

NOTE: At lower right of all three pages is written "GMC-574"; at first page upper right is stamped "Received Dec 19, 1935, Lammot du Pont"; italics indicate handwriting.

Government's Exhibit No. 780

ETHYL GASOLINE CORPORATION
CHRYSLER BUILDING
405 LEXINGTON AVENUE

NEW YORK February 27, 1936.

Mr. Lammot duPont, President,
E. I. duPont de Nemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

I had hoped that we would be able to arrive at a mutually satisfactory partnership arrangement with you for the manufacture of tetraethyl lead embodying the basic principles outlined in my last proposal, [illegible] feel confident this will not be accomplished in view of [illegible] statement that you will not subscribe to any arrange[illegible] this character that does not give your company the absolute control of the suggested subsidiary company.

I think that another lead plant should be completed within a year and probably at a somewhat earlier period and that to postpone the beginning of its construction much longer may place us in a position where we are unable to meet the requirements of our customers. Needless to say, such a situation would be very unfortunate. Also it would appear expedient to build the plant somewhere in the Middle- or perhaps South-West.

I feel that it would be unfair at this time to ask you to build this additional plant, not knowing what our Board will decide to do in reference to our building and operating or having built and operated for us a plant, having in mind that not many months will expire after the completion of such a plant before we will be entitled to the benefit of your "know-how" and to licenses under any or all of your improvement patents. This, as you know, takes place on January 1, 1938.

The situation would unquestionably be clarified if you would be good enough to advise whether you would be agreeable to advancing the date from January 1,

—2—

1938, to the present time, and if so, the royalty that we shall pay you for tetraethyl lead produced by us prior to January 1, 1938. The royalty, of course, to be based upon the "know-how" and improvements made by you which are not covered by any contract between us.

Very truly yours,

E. W. Webb

July 1, 1938

A:H

NOTE: At lower right of both pages is written "GMC-575"; to right of address is stamped "Received Feb 28, 1936, Lammot du Pont" and "Answered Mar 6, 1936, Lammot du Pont"; at first page upper left appear the initials "WFH" and "EGR", followed by the notation "copies 3/2"; underlining on first and second pages is by hand; italics indicate handwriting.

Government's Exhibit No. 781

Copy: Mr. A. P. Sloan
Mr. Donaldson Brown
Mr. W. C. Teagle

March 6, 1936.

Mr. E. W. Webb, President,
Ethyl Gasoline Corporation,
Chrystler Building,
New York City, N. Y.

Dear Mr. Webb:

Your letter of February 27th, asking us to advise you the royalty that we would expect you to pay for tetra ethyl lead produced in a plant, built and owned by you, was duly received and we have given the matter careful consideration.

First, let me point out an error in your letter: You ask that we quote a royalty for tetra ethyl lead produced by you prior to January 1, 1938. At another point in your letter you call attention to the fact that you are entitled to our "Know-How" and a license under our manufacturing patents on January 1, 1938. This is correct, but the agreement under which you are entitled to these things contemplated the beginning of construction of a plant on or after January 1, 1938. Obviously, if that date were now to be advanced to the present time, you should properly pay a royalty for tetra ethyl lead manufactured prior to January 1, 1938 and also subsequent to January 1, 1938, up until a date when a plant might be reasonably conceived as being completed. if it had been started on January 1, 1938. This

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date might be reasonably fixed at August 1, 1938; that is, seven months allowed for the completion of a plant at an entirely new site. Any quotation for royalty should be applied to the manufacture of tetra ethyl lead prior to August 1, 1938.

We have reviewed the situation very carefully and have come to the conclusion that the value of our manufacturing patents, expressed as savings in manufacturing costs, is in excess of the profit that we make on tetra ethyl lead when sold you at 28¢ per pound. The value of our Know-How is in addition to this and cannot well be expressed in "cents per pound." While our technical people appreciate the fact that a valuation of this kind is estimation, and are naturally inclined to be conservative, the matter has been explained to me personally, and it is my own considered, personal opinion that the value of these patents and Know-How, expressed in savings in manufacturing costs, is far in excess of our profits on tetra ethyl lead sold at 28¢ per pound.

In view of the above, we cannot consistently offer license, such as you request, and the rights to our Know-How at a royalty any less than our present profits per pound of tetra ethyl lead, and would have to require that this royalty be paid on tetra ethyl lead manufactured by you under our patents and rights up until August 1, 1938.

It must be obvious to you that if we charge a royalty as much as our present profits, that Ethyl Gasoline Corporation cannot possibly make a saving by going into the manufacture itself, except on the assumption that Ethyl Gasoline Corporation operating a comparatively small plant can make a lower cost than du Pont Company with its present plants. This assumption seems to me impossible.

You state that the situation would be clarified if we make the quotation requested. Not wishing to delay the construction of an additional plant, we feel obliged to comply with your request, even though it seems to us a quotation which you cannot accept. We therefore advise you that we would expect a royalty of 10¢ per pound of tetra ethyl lead manufactured by Ethyl Gasoline Corporation under patents, processes and manufacturing Know-How supplied by du Pont on all tetra ethyl lead manufactured prior to August 1, 1938.

I have told you on many occasions, have told Mr. Sloan and Mr. Brown on several occasions, and have told Mr. Teagle on at least one occasion, that it is my carefully considered opinion that Ethyl Gasoline Corporation would make a very grave error in undertaking the manufacture of tetra ethyl lead. I wish to repeat that statement now and to make it a matter of record; and I am therefore sending a copy of this letter to the three gentlemen above mentioned.

Yours very truly,
(stamped) LAMMOT DUPONT
President.

LduP/MD

Note: At lower right of all three pages is written "GMC-575a".

Government's Exhibit No. 782

ETHYL GASOLINE CORPORATION
CHRYSLER BUILDING
405 LEXINGTON AVENUE

NEW YORK March 18, 1936.

Mr. Donaldson Brown, Vice President,
General Motors Corporation,
1775 Broadway,
New York, N. Y.

Dear Mr. Brown:

✓ ✓ ✓

I enclose copy of a letter I have written today to Mr. duPont, in line with the suggestion contained in your letter of the 13th instant.

I think the logical and fair conclusion to draw from Mr. duPont's letter is that although they considered the value of their patents and "know-how" to be in excess of their profits on the manufacture of tetraethyl lead, nevertheless they would grant them to us on a basis which would be not less than their present profits on such manufacture.

I said in my letter of the 12th inst. addressed to you and certain other members of our Board that I was not surprised at the profit of 10¢. The reason I made that statement is because I have had estimates from several sources in our organization of the cost of manufacture, varying from 18¢ to 22¢ per pound on present volume of production. One of these estimates was made after very thorough investigation and arrived at a figure of 20¢ per pound, which included a 20% profit on permanent investment in the manufacture of raw materials as well as on the finished product.

Also on one occasion when I was discussing with Mr. duPont the formula which was provided for in my proposal for a joint company, Mr. duPont asked me what I thought should be the stated profit in cents per pound for the manufacture of tetraethyl lead (irrespective of profit on raw materials). I told him that not knowing the actual items of cost it was difficult for me to name a figure but that offhand I would say somewhere between 4¢ and 5¢; that such figures would net the joint company on present production between 15% and 20% return. He said he thought it should be in the neighborhood of 8¢ a pound. It was because of this statement of his plus the estimates that I received which prompted my statement that I was not surprised at the figure of 10¢ a pound profit.

Obviously it is difficult for us to accurately evaluate duPont's profit in view of several unknowns. We do not know at what price they charge the lead operation for sodium and ethyl chloride, which are sold in such large quantities by separate units of their organization to the tetraethyl lead unit, or their amortization and Wilmington overhead charges.

I think in connection with the value of duPont's improvements and "know-how" that it is of importance to bear in mind the fact that the basic patent is owned by us and during the eleven years in which they have been our sole source of supply their research expenses in this business have doubtless been included in the cost of manufacture of tetraethyl lead and paid for by us in the purchase of the product.

I am taking the liberty of sending a copy of your letter to me, a copy of mine to Mr. duPont, above referred to, and

of this letter, to the other members of our Board to whom
✓
I wrote on the 12th inst.

With kindest regards,

Yours sincerely,

E.W.Webb

A:H

Note: Across the top of the page is written "Ethyl: Org.-Reorg.-Mfg. Activities"; at upper right is an illegible initial; check marks and underlining are by hand; italics indicate handwriting.

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ETHYL GASOLINE CORPORATION
CHRYSLER BUILDING
405 LEXINGTON AVENUE

NEW YORK March 18, 1936.

Mr. Lammot duPont, President,
E. I. duPont de Nemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

Thank you for your letter of the 6th inst. in reference to royalty on your improvement patents, etc.

I think the fair interpretation of your letter is that you are making a profit of not less than 10¢ per pound of tetraethyl lead manufactured, and have so expressed myself to members of our Board, for the following reasons:

You say in your letter that after carefully reviewing the situation you have come to the conclusion that the value of your manufacturing patents "expressed as savings in manufacturing costs, is in excess of the profit that we make on tetra ethyl lead when sold you at 28¢ per pound. The value of our Know-How is in addition to this and cannot well be expressed in 'cents per pound". Then you say:

> "In view of the above, we cannot consistently offer a license, such as you request, and the rights to our Know-How at a royalty any less than our present profits per pound of tetra ethyl lead, and would have to require that this royalty be paid on tetra ethyl lead manufactured by you under our patents and rights up until August 1, 1938."

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and then follow with this statement:

> "We therefore advise you that we would expect a royalty of 10¢ per pound of tetra ethyl lead manufactured by Ethyl Gasoline Corporation under patents, processes and manufacturing Know-How supplied by duPont on all tetra ethyl lead manufactured prior to August 1, 1938."

One of our Directors has expressed the view that I should ascertain from you whether the interpretation I have placed on your foregoing quoted statements is correct.

It would be appreciated if you would advise me on this point.

Very truly yours,

EWWebb

A:H

NOTE: At lower right is written "GMC-575b"; above address is stamped "Answered Mar 19, 1936, Lammot du Pont"; to right of address is stamped "Received Mar 19, 1936, Lammot du Pont."

Government's Exhibit No. 783

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ETHYL GASOLINE CORPORATION
CHRYSLER BUILDING
405 LEXINGTON AVENUE

NEW YORK March 12, 1936

Messrs. Donaldson Brown
E. M. Clark
W. S. Farish
F. A. Howard
Alfred P. Sloan, Jr.
W. C. Teagle
New York City, N. Y.

Dear Sirs:

Prior to December 19th I had several extended interviews with Mr. duPont, Mr. Harrington and Mr. Robinson relative to our proposal for combining the interests of the three interested companies in the manufacture and sale of Ethyl and "Q" fluids. I think we explored all the avenues that any of us can think about which might lead to some common ground of understanding, but ended in total failure to do so.

Having reached this point I wrote Mr. duPont on December 19th attaching a proposal of mine which was predicated upon the duPont Company and the Ethyl Corporation forming a company solely for the manufacture of tetraethyl lead and upon the basis of fifty-fifty stock ownership. I handed a copy of the letter and proposal to each Mr. duPont, Mr. Harrington and Mr. Robinson at a meeting I held with them in Wilmington on that day. At the conclusion of that meeting Mr. duPont informed me that he was of the opinion that it contained underlying principles which he was willing to recommend for approval to his Executive Committee but suggested that inasmuch as I had not submitted it to our Board that I should do so before further discussing it with him. A day or so afterward in a telephone conversation with Mr. duPont he informed me that he had briefly discussed the subject with two members of his Executive Committee and they were in accord with him in regard to these basic principles.

On December 20th I wrote you in reference to this last mentioned Wilmington meeting and attached a copy of my proposal with notations covering comments by Mr. duPont in reference to certain provisions.

The proposal provided, insofar as the salient features were concerned, the following:

1. duPont and Ethyl to form a joint company each owning one-half of the stock.

2. Ethyl to make a contract to purchase its entire requirements of tetraethyl lead for use in North America from the joint company so long as Ethyl should be engaged in that business, and that neither duPont nor the joint company would sell this product to anybody else either in or outside of North America.

3. duPont and Ethyl to assign to the joint company all North American manufacturing patents or applications therefor relating to the manufacture of tetraethyl lead which may now or hereafter be owned or controlled by them, and make available to the joint company the "know-how" in the field of manufacturing tetraethyl lead, and the designing, constructing and maintaining of plants therefor.

4. duPont to lease its Deepwater plants to the joint company.

(a) duPont to operate the Deepwater plants for the account of the joint company on a fee basis and the product to be sold by the joint company to Ethyl under a definite formula.

5. Plants located other than at Deepwater to be operated by the joint company with the further proviso that: "If duPont and Ethyl representatives on the board of the joint company are unable to agree on management or personnel then the Ethyl representatives on the board shall have the deciding voice in respect thereto, it being understood, however, that those employed in the operation of said plants will be men who have had experience in the operation of the Deepwater plants provided such men are made available to it by duPont, until such time as men who have not had such experience may be trained in the operation of said plants:"

(a) The price to be paid by Ethyl to the joint company for tetraethyl lead manufactured other than at Deepwater also to be under a fixed formula.

6. Ethyl to have the right to decide the capacity for which additional plant or plants shall be designed and the location.

After getting your views I had a meeting with Mr. duPont and Mr. Harrington and told them that I felt sure my proposal contained the basis upon which we could satisfactorily reach an agreement with their company although, of course, there would be a great number of details to be worked out. Mr. duPont then stated that upon further consideration of the proposal he was unwilling to subscribe to the above quoted provision regarding the operation of plants other than at Deepwater; that their company would not go into a joint company with us where we would have the deciding voice regarding the management of such plants. I told him I thought our directors would not insist upon our having the deciding voice so long as we had an equal voice with duPont in the operation of plants other than at Deepwater; that I did not believe we would ever accomplish anything toward bringing about competitive manufacturing, to which I thought the Ethyl Corporation was entitled, if the joint company should be controlled solely by the duPont Company or any other one company. That if the plants away from Deepwater should be constructed with the benefit of the experience and "know-how" of the duPont Company and operated by trained personnel headed up by able and strong management, I could see no reason why such an operation shouldn't work out to the mutual advantage and satisfaction of duPont and Ethyl, as has taken place in respect to the operation of the Ethyl-Dow seawater plant.

After considerable discussion of this matter of control, which was the most important point treated at that meeting, Mr. duPont stated that his company would not go into such a joint enterprise without it being definitely understood that duPont would be in absolute control of the manufacturing operations. My recollection is that he also

stated that the manufacturing operations other than at Deepwater would have to be controlled substantially to the same extent as at Deepwater, except that he was willing to concur in the proposal that Ethyl should have the right to decide the capacity and location of such plants. At the conclusion of the meeting I told Mr. duPont I felt very confident that we would not be able to reach an agreement if he insisted upon this matter of absolute control by the duPont Company. He asked me to present the matter to Mr. Howard, who was then about to leave for Europe, and ascertain his views before he left as well as those of his associates on our Board.

Shortly thereafter I discussed the matter with Mr. Howard and subsequently he told me he had discussed it with his associates and that they could not meet Mr. duPont's wishes in this question of control. Inasmuch as Mr. duPont had expressed himself so unequivocably on this subject it seemed to me I could accomplish nothing further regarding negotiations at that time. This interview with Mr. Howard occurred quite some time ago and since then I have been obliged to be away from the office a good deal and when here, frankly, have not seemed to get time to give the matter the attention it doubtless deserved. However, after thinking it over as best I could it seemed to me that since we should be giving very serious thought to the building of a lead plant because of the very limited cushion we have today between the production facilities at Deepwater and our estimated requirements for this year, that I should write Mr. duPont as I did in my letter of February 27th, a copy of which I sent you last Monday.

I am not surprised that Mr. duPont in his reply letter of the 6th instant states that their profit is 10¢ a pound, but am surprised that the value of their manufacturing patents "expressed as savings in manufacturing costs, is in excess of the profit that we make on tetra ethyl lead when sold you at 28¢ per pound", and that he should fix the royalty at 10¢ a pound.

I got the distinct impression while these negotiations were going on that duPont's improvements were roughly figured by them to be worth between 15% and 20% on their permanent investment. Also when I wrote asking Mr. duPont if he would name a royalty I had before me the proposal which they made to us under date of November 20th which was a counter proposal to that which we originally submitted to them. It contains this statement:

> "7. (e) Although the 20% on its investment guaranteed to duPont may seem high in spite of the nature of the business and the circumstances, it is more than justified by the fact that duPont's patented inventions used in the process of manufacture of tetraethyl lead are of such importance that it is estimated that without the use of those inventions the increased cost would amount to more than 15% on duPont's investment under conditions existing today."

In the last discussion with Mr. duPont and Mr. Harrington above referred to, they informed me that their permanent investment in the lead business was a little under $8,500,000 as of November 30th last, and that their working capital including mostly inventory was in the neighborhood of $2,500,000. Last year we purchased 44,184,353 pounds of lead from them, which at 10¢ a pound profit, of course would be $4,418,435. This amounts to a return of 51.97% on permanent investment and 40% on total capital employed. 15% on the permanent investment would amount to 3½¢ per pound.

Figuring on the same basis for this year's expected purchase of 48,000,000 pounds the profit to duPont on their permanent investment will be about 56% and on their all capital employed about 43%, since it is doubtful that they will have any materially larger permanent investment than they had on November 30th last and probably not in excess of 10% in working capital—which percentage will about equal our estimated increase in purchases.

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I might add that the royalty asked of 10¢ a pound is for the manufacture of tetraethyl lead and does not include the "know-how" or licenses under their patents for sodium or ethyl chloride which other than pig lead are the two important products necessary for the manufacture of tetraethyl lead. If our above expectations for this year's sales are realized there will be used 19,200,000 pounds of sodium and about 50,000,000 pounds of ethyl chloride. Both of these commodities are manufactured by the duPont Company and sold to the lead operation. What their profits are on these two raw materials we do not know.

I think it is a fair assumption that the reason why we have been unable to make headway in our negotiations with the duPont Company is because of the very handsome profits that they have been and are making on the manufacture of tetraethyl lead. The question obviously presents itself, what can we do about it in view of the fact that they are our sole source of supply?

One thing it seems to me is evident, and that is the longer we postpone doing other than we have in the past the worse our position becomes so far as making any change in the future.

There is undoubtedly merit in the claim of Mr. duPont that the Ethyl Corporation, as such, can not be expected to do as good a job of manufacturing tetraethyl lead as the duPont Company, even with the "know-how", etc. of the latter. I have on several occasions told Mr. duPont and his associates that if we did engage in such business we would doubtless employ some reputable concern to do it for our account.

The force of circumstances abroad has placed us in a position where we are assuming, through foreign relationships, the responsibility for the manufacture of tetraethyl lead. The German plant will start operating this month. We have concluded a contract with Montecatini in Italy for the building and operation of a plant there—which is held up because a plant is already being operated in Italy under a very much more costly operation

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than the process here, but inasmuch as such plant is supplying the needs of the Italian government, we will probably not go ahead with ours during the pendency of the war. The British Air Ministry during the past few months have stated to us that they were on the verge of insisting on our building a plant in England, or furnish them plans so that they could build or have somebody build for them. Last week we concluded an agreement with Imperial Chemical Company to jointly engage in the manufacture of tetraethyl lead in England whenever the Ministry advised that it must be done. We are doing our utmost to persuade the Ministry not to insist until the domestic market would more warrant a small plant than today, but existing conditions may force them to do so. Attached is a copy of a letter we received last week from the office of the Minister of War of France. A representative of ours had an engagement with them yesterday.

I will repeat what I said to you in my letter of October 16, 1935: "I feel confident that, whether we will it or not, or participate in it, there will be a number of other tetraethyl lead plants in operation within the next five years, so that we have passed the point where we can expect to confine indefinitely its manufacture to a single point or to a single company."

I would like to see the duPont Company continue to participate in the manufacture of all our tetraethyl lead for North America, and have told them so repeatedly, and I still think it should be possible to work out a joint manufacturing company with them, and probably along lines submitted in my proposal, especially if there is a will to do so. It seems to me that where we were at one time so near an agreement with them—at least I thought so—except the question of control, above mentioned, that perhaps if one or more of you gentlemen would take it up with Mr. duPont that phase could be worked out satisfactorily. And, failing this, I think we should have a meeting and decide the next step, in the light of Mr. duPont's royalty offer on the "know-how", etc. to apply for the period prior to the time when under our existing contract we will be entitled the same without any royalty, so long as we continue to purchase 50% of our requirements from them.

I have been informed by Mr. Howard's office that he is expected back from Europe on the 25th and that Mr. Clark will not be back until about that time, so that we will doubtless defer a Board meeting until they are available.

Very truly yours,

A:C *E. W. Webb*

NOTE: In the upper right corner of the first, second, fourth, and sixth pages appears the initial "R"; check marks and underlining are by hand; italics indicate handwriting.

Government's Exhibit No. 785

MEMORANDUM OF AGREEMENT between Ethyl Gasoline Corporation (hereinafter called Ethyl), E. I. duPont de Nemours & Company (hereinafter called duPont) and Standard Oil Development Company (hereinafter called Standard), WITNESSETH THAT:

(1) A committee made up of representatives chosen by Ethyl, duPont and Standard will examine at once conditions at the refinery of the Standard Oil Company of Louisiana at Baton Rouge, La., and the Humble Oil & Refinery at Baytown, Texas, with a view to the establishment at one or the other location of a new tetraethyl lead and blending plant.

(2) Standard warrants and agrees that it will arrange with the interested company (Standard of Louisiana or Humble) for a ninety-nine year lease on the selected site running to Ethyl, subject to cancellation in the event that Ethyl or its nominee or sub-lessee should discontinue the use of the plant for anti-knock compound manufacture at any one time for a continuous period of two years. In the event said lease shall be surrendered for failure to use the plant for the purpose and within the time above mentioned, then lessor shall have the right, if it so elects, to pay Ethyl such sum of money as may be determined to be the fair and reasonable value of the plant either by mutual agreement between the parties or by arbitration; and lessor failing so to elect within ninety days time, Ethyl shall have the right to remove plant and improvements located on said land. The lease shall be granted for a rental consideration based on the book value and taxes as they may be fixed from time to time on the property.

(3) DuPont shall build on the above site one tetraethyl lead plant of the same size and capacity as its existing lead

units, together with a blending plant of such size as is fixed by agreement between duPont and Ethyl, duPont to assume full responsibility and authority for design and construction of said lead and blending plants, and to have the right to take a sublease from Ethyl, if in its opinion, such a sub-lease is necessary to safeguard its position and responsibility under these conditions.

(4) Before the completion of the plant constructed as above, the

parties shall endeavor to reach an agreement covering a permanent basis for the ownership and operation of all lead plants, or shall arrive at an agreement covering the permanent relationship between them as regards the operation of the plant in question and extensions thereof.

(5) In the event of failure to reach any agreement as contemplated in (4) above, then Ethyl shall take over the plant on January 1, 1938 provided for in this agreement at the cost thereof to duPont, including interest on the capital invested in the construction, and duPont agrees to assist and license Ethyl for the maufacture of tetraethyl lead therein, subject to the existing contract provisions between Ethyl and duPont, except only that the date of the license from duPont to Ethyl and the accompanying disclosure of "know-how" and technical assistance shall be moved forward as regards this plant or extensions thereof from January 1938,

as provided in the existing contract, to the actual completion date of the plant in question.

E. W. Webb
Pres.

W. F. Harrington
V.P.

Frank A. Howard
P.

Dated: *July 31, 1936*

Note: At lower right of both pages is written "GMC-1010"; in the right margin of the first page, opposite the beginning of the paragraph marked "(3)", appears a small design; italics indicate handwriting.

MEMORANDUM

Between the summer of last year and about three months ago I discussed on numerous occasions with Mr. Lammot duPont, Mr. Harrington and Mr. Robinson, of the duPont Company, the subject of consolidating the manufacturing and sales interests of our respective companies, but at no time were we able to arrive at a common understanding on any of the basic principles involved in the negotiations.

About three months ago Mr. Robinson and I decided that he and I would attempt to reach an agreement on the basic principles and submit same to our respective Boards for consideration. It was distinctly understood that any conclusions that he and I reached would represent our personal views and would in no manner be binding upon the duPont Company or the Ethyl Corporation.

Mr. Robinson and I have had a number of meetings since this latter idea was first suggested, and last Friday it was decided that rather than he and I trying to reach an agreement on principles we would carry on future negotiations through Mr. Robinson and such other person or persons that might be designated by the duPont Company, and Mr. Howard, and someone to be appointed by Mr. Sloan, and myself, with the understanding that any action the negotiators might agree upon would be subject to the approval of the duPont Board and our Board.

However, I desire to state that Mr. Robinson and I were of the opinion when this decision was reached that the only probable successful conclusion of the negotiations would be predicated upon the following general lines:

(1) duPont to purchase % interest represented by non-voting stock in the Ethyl Corporation, the purchase

price to be based upon the capital and surplus of Ethyl as of the date of purchase.

(2) Ethyl to make a long term lease of the duPont lead plants located at Deepwater, New Jersey.

(3) duPont to make an agreement with Ethyl for the operation of the plants at Deepwater for the account of Ethyl on some reasonable fee basis.

(4) The lease and operating agreement above mentioned to run contemporaneously.

(5) duPont and Ethyl to agree upon a basis upon which all costs—direct and indirect—shall be charged by duPont in respect to all items that are involved in the manufacture of tetraethyl lead, including, of course, ethyl chloride and sodium—in connection with the operation of the Deepwater plants.

(6) Ethyl to take over duPont's investment in the plant now in process of construction at Baton Rouge, Louisiana, at cost plus a fair interest charge, and duPont to enter into an agreement with Ethyl to operate the Baton Rouge plant or plants for the account of Ethyl on a reasonable fee basis for a relatively short term (with possible renewal provisions) and that duPont and Ethyl shall agree upon a basis upon which all costs—direct and indirect—shall be charged by duPont for all items that go into the manufacture of tetraethyl lead, including ethyl chloride and sodium; with the understanding that when Jersey or its subsidiary is in position to deliver either sodium or ethyl chloride to the Baton Rouge plant or plants, same will be supplied by Jersey

or its subsidiary to the Baton Rouge plant or plants provided satisfactory prices can be arranged for such purchases. Ethyl to determine what would be satisfactory prices for such raw materials.

(7) That Jersey and General Motors should, before negotiations have been concluded consolidating the interests of these three companies in this business—reach an understanding between themselves regarding the subject of royalty to be paid General Motors arising out of the combined interests, and that after such agreement has been reached the subject of royalty should be discussed with duPont.

(8) That duPont, General Motors and Jersey will assign to the Ethyl Corporation exclusive rights under any and all manufacturing and use patents which any of them own or control in connection with anti-knock agents and which have not already been assigned; and that duPont will fully disclose to Ethyl the know-how for the manufacture of tetraethyl lead; and that the three companies shall thereafter assign to Ethyl the exclusive rights to any and all patents or applications for patents relating to anti-knock agents, either for a long term period or perhaps so long as the Ethyl Corporation is engaged in the business of selling anti-knock agents.

(9) That after the combination is effective all stock that shall be sold by Ethyl Corporation will be to the three stockholders in proportion to the percentage of their respective holdings in the company.

At the last meeting Mr. Robinson said that in the event the combination should become effective he felt the duPont

Company should have two representatives on our Board. I told him that was a matter that I thought I should not discuss.

E. W. Webb

November 24, 1936.

Note: At upper right of first page is written "Ethyl-Org.-Reorg.-Mfg. Activities" beneath which is written "12/21/36"; at upper right of first page is stamped "Received Nov 24, 1936, A. P. Sloan, Jr."; at upper right of both pages is written a small "h"; at the bottom of first page is drawn a circular scrawl.

2515

Government's Exhibit No. 788

NOTES ON LETTER FROM MR. HOWARD, JAN. 13, 1937, AND THE ATTACHED MEMO.

Why only 10% on business in excess of 53,000,000 lbs.? We have just the same responsibility for operating and have also to contribute toward new capital.

Sharing of new capital.—Under arrangement proposed we would comtribute 33⅓% of capital for first plant at Baton Rouge, since it is being built in 1937 and under Paragraph VII the basis of distribution of profits for the preceding year 1936 would be used. On the other hand, we are supposed to get only 10% of the profits from that plant.

20% interest in new development.—this would not give us any incentive to carry on research work, but would even be a definite deterrent since we would not want to see ourselves reduced from 33⅓% to 20% through our own efforts. Surely we can be expected to have as good chance of submitting something new as can either of the other two if we eliminate this present new compound about which they have told us. We recognize the psychological disadvantage of providing that a royalty should be payable to any one of the three partners presenting a new compound since that works against full cooperation in research efforts.

> (In this connection, in discussing this particular provision with Mr. Howard on the telephone on Jan. 21st, he stated that we would get the 33⅓% share on a new compound as well as the old one (T.E.L.). This statement is quite inconsistent with the evident intent of the memo attached to his letter of Jan. 13th and I think the statement was made inadvertently. However, it might show something about the way he is really thinking.)

Not if we get ⅓ of profits of business

7% return on Sodium Investment.—This is probably a lower figure than we would be willing to accept. In the

1936 calculation even if a higher return were allowed the portion of the profits coming from Sodium would be sufficient to lead to a 33⅓% share. Since later it is proposed that we sell Sodium to both plants at a price to give us 7% return, the magnitude of the allowance is of direct importance.

Pooling of future patents.—Is there any question of the legality of this provision in view of the fact that General Motors and Standard Oil have apparently already agreed to such an obligation.

In connection with the building of new plants, we are to agree to put up some of the money and also to build new Sodium equipment to correspond. Who is to say when such new plants are needed and whether or not they are simply serving to decrease the amount of business to be handled at Deepwater.

We do not know what is meant by saying that duPont is to operate the plants "under the direction of Ethyl". Certainly they can direct the operation only in the most general terms as, for example, by saying how much *product* is to be made.

The provision in Paragraph VII dealing with contribution of new capital, which provides that General Motors shall furnish a larger proportion of new capital than does Standard Oil, if this new capital is not for manufacturing purposes it seems to us to be inconsistent with their present relations as we understand them. This is of course primarily a matter to concern General Motors. The same remarks apply to Paragraph 3-D on Page 5, but this is probably a provision which does not affect our own share at all.

It should be noted that the figure of $13,173,000 mentioned as the original cost of these plants really includes plants at cost, auxiliary and service facilities also at cost and working capital. Obviously, the service facilities cannot be sold to Ethyl and our endeavor must be to charge into cost the services actually performed at a rate which will include something for return on investment in service facilities. "Attached memo" from Howard begins here

—3—

1. du Pont shall receive as compensation in full for all profits which it might otherwise make out of the lead business including the manufacture of ethyl chloride and sodium used in the production of tetraethyl lead, the following:

A. On all tetraethyl lead manufactured and sold by the Ethyl Corporation up to an annual amount of 53,000,000 lbs. (which is the same as the production for 1936), the same percentage of the total profit from such manufacture and sale, which it actually made in 1936, (but not in excess of 1/3 of such total profits) as follows:

1936 profits of Ethyl Gas Corp.	$9,400,000.
1936 profits of du Pont including C_2H_5Cl	3,802,000.
1936 profits of du Pont from sodium (assumed) (Sodium profits figured after all costs and 7% per annum on the investment)	750,000.
Total profits	$13,952,000.

du Pont's percentage $\frac{4550}{13950} = 33\%$

B. On all tetraethyl lead manufactured and sold over the above said 53,000,000 lbs. per annum, 10% of the net profits of the Ethyl Corporation.

C. On all anti-knock compounds other than tetraethyl lead manufactured and sold by Ethyl, in any amount, 20% ✓ 20%

D. du Pont shall have no interest in any operating profits or any sums obtained by the sale or licensing of the business, good will, or patents of Ethyl outside of the U.S. Exports of goods from the U.S. however to be under A, B and C above, export price to be the same as U.S. prices until foreign supplies are available after which any exports shall be at a price competitive with such available foreign supplies.

—4—

2. To effect a settlement between the du Pont Company and Ethyl which will result in making their interests for the future absolutely common, and give to the du Pont Company the above percentage of the total profits, the following mechanism is proposed:

A. Ethyl Corporation to authorize an issue of 7% preferred stock (non-voting) or income notes if the latter have any tax advantage, sufficient to take over the du Pont investment in lead and ethyl chloride plants. Original cost of these plants was $13,173,000. Present book value necessarily less.

~~at book~~ ?

B. Ethyl Corporation to purchase from the du Pont Company at present book value, the tetraethyl lead and ethyl chloride manufacturing plant at Deepwater, paying therefor in its own 7% preferred stock or income notes as above.

C. Ethyl Corporation and du Pont will enter into a lease, license and operating agreement as follows:

Rate?

I. du Pont leases to Ethyl the land on which the lead and ethyl chloride operations at Deepwater are conducted, the lease to run so long as du Pont uses the plants (or any other plants on this site) for Ethyl's anti-knock business. When no longer so used the lease should terminate and the improvements be removed, or sold to du Pont at their then value if any for other manufacturing purposes. Lease will provide that taxes on land as well as *taxes on* improvements will continue to be paid by du Pont as heretofore.

—5—

? II. du Pont grants to Ethyl an exclusive license under the present and future world patent rights of du Pont in the anti-knock field, as the same is already defined between G.M. and S.O.

anti knock compounds

III. du Pont agrees to manufacture ^ in the plants at Deepwater and any other plants under the control of Ethyl within the U.S., under the directions of Ethyl so long as Ethyl shall be engaged in the anti-knock business.

As to vol. only

Present?

IV. du Pont agrees that when and if #6 lead plant shall

by Ethyl

be authorized for ^ B.R. it will build at B.R. a sodium manufacturing plant capable of supplying both B.R. plants and will increase such plant as necessary to meet the future requirements of the B.R. lead plant, with a view to building up and maintaining at B.R. sodium capacity entirely independent of Niagara Falls and adequate to the lead business conducted at B.R.

V. du Pont agrees to supply the sodium requirements of B.R. and Deepwater at cost (including a 7% return on the investment).

Return @ 7% on Sodium Invest?
~~*And under 2 C VII*~~ *?*

VI. As compensation in full to du Pont for the foregoing, du Pont shall be entitled to receive from Ethyl each year an amount which added to the dividends on the preferred stock taken by du Pont under 2-B, shall give the total percentage to which du Pont is entitled under 1. This result may be obtained by adjusting the sale price of lead from du Pont to Ethyl.

—6—

2-C- VII. All future requirements of capital for the Ethyl Company for improvements or extensions at Deepwater, B.R. or elsewhere shall be supplied by the parties in the proportion of their interests in the earnings as of the last preceding year, and without issuance of any securities which change the present distribution of voting control. *but with issue of 7% Pfd stk* Since G.M.'s royalty is not payable on profits from manufacture the royalty shall not be considered in figuring G.M.'s participation in earnings for the purpose of supplying new capital required for manufacturing purposes but shall be so considered as regards any new capital required for other purposes.

20%

Issue of Pfd?

*du Pont research will practically stop as to **Anti** knocks*

VIII. Ethyl and du Pont shall freely exchange all information in the field of anti-knock compounds. du Pont shall not give to any one else anywhere in the world any of its technical knowledge or experience in the manufacture of anti-knock compounds. Ethyl shall not give same to any one other than du Pont in the U.S.

3. MISCELLANEOUS MATTERS.

A. The B.R. lead plant shall be taken over as to the investment and title by Ethyl, du Pont continuing to have full responsibility for construction and operation. Capital required for this plant shall be supplied under 2-VII.

B. S.O. shall be obligated to take and shall have the right to take the entire chlorine production of the B.R. sodium plants at the lowest price or cost at which it could secure chlorine by any other method, and in figuring such cost or price a return of 7% per annum on the required investment

shall be used. S.O. shall offer to supply Ethyl with ethyl chloride at B.R. on a competitive price basis as soon as the chlorine above referred to is available.

C. Since no ethyl chloride can be made available at B.R. in time for starting of the #5 lead plant, the necessary additions should be made by du Pont at Deepwater for du Pont's own account and risk, and du Pont shall supply ethyl chloride for B.R. from these additions on a contract basis, term and price being adequate to compensate du Pont for this investment, having due regard to the possibility that du Pont will be able to use these facilities for other purposes within a reasonable time. In the event no agreement can be reached as to price and terms, S.O. shall guarantee the du Pont investment at Deepwater, du Pont shall operate the same at cost for the account and risk of S.O., and S.O. shall contract with Ethyl for the supply for B.R., reserving right to supply either from Deepwater or from its own new plant at B.R. Price shall be the competitive price at B.R. and the contract shall be of reasonably long term, envisaging supplies for the greater portion of its life from new plants at B.R., the Deepwater plant being regarded as a temporary supply source only.

D. For the purpose of calculation of the G.M. royalty, there shall be allocated as earnings due to manufacture of anti-knock compound the same percentage on all business which du Pont gets on the first 53,000,000 pounds of tetraethyl lead. That is the difference between this percentage

and the percentage paid to du Pont on the additional quantities of tetraethyl lead and on other anti-knock compounds shall be assumed to be earnings of the Ethyl Co. itself derived from the manufacture but not the sale of anti-knock compounds.

E. The preferred stock paid to du Pont for its plant under 2-C-VI shall contain a provision permitting Ethyl to withhold earnings sufficient to compensate its common stockholders at the same rate as the preferred stock dividend for their actual investment in Ethyl, so that if total earnings are less than adequate to pay interest at this rate on all capital in the business, such earnings as are available shall be divided ratably between common and preferred dividends in proportion to the book value of invested capital each represents. Also the preferred stock should not have any preference in distribution of assets in case of liquidation, except ratably with the common in proportion to the investment each represents as above. Provision has already been made for sharing the burden of the new capital requirements between the three parties, and it is understood that such new capital should be served before the old capital of any of the parties, represented by the Ethyl common stock and the preferred issued under 2-C-VI.

FAH/CFG
1/13/37

NOTE: At lower right of first and second pages is written "GMC-577"; at upper left of first page is written "Mr L. du Pont"; at upper right of first page is stamped "Received Jan 27, 1937. Lammot du Pont"; on the third page a circle is drawn around the figure "10%" (in paragraph 1 B) and a line drawn to the figure "20%" in the right margin; in the lower right hand corner of the third and succeeding pages is written "GMC-577a"; the figure "7%" (in paragraph V of the fifth page) is underlined by hand and a line is drawn to the notation in the left margin beginning "Return @ 7%"; underlining and marginal lines are by hand; italics indicate handwriting.

Government's Exhibit No. 790

THIS AGREEMENT, made as of the 2nd day of March, 1937, by and between ETHYL GASOLINE CORPORATION, a corporation organized and existing under and by virtue of the laws of the State of Delaware (hereinafter called "Ethyl"), and E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Delaware (hereinafter called "du Pont").

WITNESSETH THAT

WHEREAS, the above-mentioned parties and Standard Oil Development Company, a corporation of Delaware, have entered into a certain Memorandum of Agreement dated July 31, 1936, which agreement, among other things, provides for the construction by du Pont of a tetraethyl lead plant or unit together with a blending unit, on certain property situate in the Parish of East Baton Rouge, State of Louisiana; and

WHEREAS, the parties hereto are desirous of entering into a further agreement in connection with additional construction and industrial activities, which is to be construed as being supplementary to the above said Memorandum of Agreement dated July 31, 1936.

NOW, THEREFORE, for and in consideration of the mutual covenants, conditions, terms and promises herein contained to be faithfully performed by the respective parties hereto, it is agreed between the said parties hereto as follows:

(1) Du Pont shall construct a manufacturing unit for the production of tetraethyl lead of approximately the same size and capacity as the present tetraethyl lead unit now undergoing construction by du Pont on certain land owned

by Ethyl in the Parish of East Baton Rouge, Louisiana, said unit to be constructed on the same land as the present unit is being constructed by du Pont. The aforesaid construction site is the same premises described in a certain Indenture dated September 4, 1936, executed by King Harding Knox to Ethyl Gasoline Corporation, and registered in the Conveyance Records of East Baton Rouge Parish, Louisiana. In addition thereto du Pont shall further construct a blending unit for the manufacture or production of compounds containing tetraethyl lead and other ingredients on the aforesaid land of approximately the same size and capacity as the blending unit which is now under construction by du Pont on said land. It is the intent and purpose hereof that du Pont shall double the production capacity of the present tetraethyl lead unit and blending unit, which at the time of the execution of this agreement, are under construction by du Pont by virtue of that certain Memorandum of Agreement dated July 31, 1936, referred to above.

(2) Du Pont shall have the complete and absolute discretionary right to use such construction materials and to adopt and use such engineering, mechanical or architectural designs or plans as it may deem advisable to accomplish the construction of the tetraethyl lead unit and blending unit described in Article 1 hereof. Further du Pont shall carry on the above said construction work in such a manner as to coordinate and combine, wherever in its judgment it deems

advisable and practical, structural and mechanical features, servicing facilities, fixtures, pipe lines, tracks, other improvements, etc., of the aforesaid tetraethyl lead unit and blending unit, described in Article 1 hereof, with the present tetraethyl lead unit and blending unit under construction at this time by du Pont. It being the general purpose hereof that when all construction work has been completed by du Pont in fulfillment of this supplementary agreement and the aforesaid Memorandum of Agreement of July 31, 1936, the said two tetraethyl lead units with their blending units will represent a coordinated entity.

(3) The entire cost of the construction of the tetraethyl lead unit and blending unit described herein shall be loaned by Ethyl to du Pont without interest. Such loan or loans shall be paid promptly to du Pont by Ethyl in accordance with monthly requests in advance made by du Pont to Ethyl, and such requests shall be based on du Pont's estimates of the costs which will probably be incurred by it during the ensuing calendar month. Du Pont shall execute proper evidences of this indebtedness in the form of non-negotiable notes at the time the loans are made as provided herein, which notes shall fall due and be payable without interest on January 1, 1938, provided, however, that du Pont shall have the right of an extension of said date of repayment in the event the construction work herein described has not been finally completed, until such time as said construction has been finally completed.

(4) Legal title to the tetraethyl lead unit and blending unit described herein shall remain vested in du Pont until January 1, 1938, or until such time as the construction work thereon shall have been finally completed, at either of which last said dates or prior thereto, the parties hereto shall endeavor to reach an agreement with respect to the legal ownership and operation thereof as provided for in Paragraph 4 of the aforesaid Memorandum of Agreement dated July 31, 1936. In the event of failure to reach any agree-

ment as set forth in Paragraph 4 of the above said Memorandum of Agreement of July 31, 1936, then legal ownership of said tetraethyl lead unit and blending unit shall be transferred in accordance with Paragraph 5 of the said Memorandum of Agreement of July 31, 1936. And further the other provisions of the aforesaid Paragraph 5 shall be binding upon du Pont.

(5) In the event legal title to the tetraethyl lead units and blending units, which are being constructed by du Pont under this agreement and under the prior Memorandum of Agreement of July 31, 1936, shall be transferred by du Pont to Ethyl, then Ethyl shall accept assignment of and assume all obligations and liability thereunder of any and all contracts, right-of-way agreements, leases, easements and licenses whatsoever, then unexpired and in force and effect, which du Pont may have entered into relating to the construction or future operation or the furnishing of supplies and power facilities, including steam, gas, electricity and waste disposal, for the said tetraethyl lead units and blending units.

(6) Du Pont shall keep accurate records at all times of all amounts expended by it in the aforesaid construction work and Ethyl shall have the right to inspect same

at reasonable intervals; and further Ethyl shall be entitled to a full and complete statement of all such expenditures at the end of three-month periods beginning March 15, 1937 and ending at the final completion of said construction work.

(7) This agreement shall not be assigned by either party hereto without first having obtained the written consent of the other.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their proper officers, duly authorized thereunto, as of the day and year first above written.

ETHYL GASOLINE CORPORATION
By *E. W. Webb*
President

[CORPORATE SEAL]
Attest:

(illegible)
Ass't. Secretary

E. I. DU PONT DE NEMOURS AND COMPANY
By *W. F. Harrington*
Vice-President

[CORPORATE SEAL]
Attest:

E. A. Howard,
Ass't Secretary

ACCEPTED BY :

STANDARD OIL DEVELOPMENT COMPANY
By *Robert P. Russell*
Vice-President

[CORPORATE SEAL]
Attest:

W. F. Quick
Ass't. Secretary

NOTE: At lower right of all pages appears "GMC-1010a"; at lower left of all pages appears the mirror image of a stamp all of which is obscure except the date "Jun 2, 1937"; in left margin of last page opposite signatures of representatives of du Pont Company is stamped "Form approved Legal Department . . . Asst. Director"; the name "H. C. Haskell" is written in the space provided in this stamp; beneath this stamp are written "E G R" and illegible initials; in the right margin of the last page opposite the words "Standard Oil Development Company" appear illegible initials; italics indicate handwriting.

Government's Exhibit No. 794

July 30, 1937.

Messrs. Lammot du Pont
W. S. Carpenter, Jr.
J. Thompson Brown
Jasper E. Crane
A. B. Echols
T. B. Grasselli
→ W. F. Harrington
C. M. A. Stine
E. G. Robinson

TETRA ETHYL LEAD:

The du Pont Company now has a contract with the Ethyl Gasoline Corporation in which, under Paragraph 11, it is provided that in 1938 du Pont will put the Ethyl Gasoline Corporation in position to manufacture TEL by building for them a plant, providing the "know-how" for operation, and giving them the right to operate any patents that du Pont now has pertaining to the TEL operation. The situation has developed so far to a point where one plant is almost completed for account of Ethyl and another plant authorized and work started.

Paragraph 11 further provides that in the event Ethyl use the du Pont patents they will purchase from du Pont 50% of their requirements at a price to be agreed upon for a period covering the life of the patent, which expires early in 1944. There is no provision in Paragraph 11 requiring du Pont to disclose to Ethyl any information with respect to sodium manufacture. Operating under this paragraph it is possible for Ethyl to increase their capacity up to 50% of their requirements as quickly as plants can be built; and in the event they can operate without using du Pont patents they could eliminate the necessity of purchasing any material from du Pont, depending on how

fast they could install their own manufacturing facilities. It is conceded that they could manufacture TEL, without using du Pont patents, at an increase in cost of not over 5 – 6¢, which would give them a total cost (provided they could get a fair price on sodium) not greater than the price they are now paying du Pont for TEL.

Obviously, this is a most unsatisfactory position from du Pont's standpoint and an effort has been made to come to a new agreement which provides for the leasing of the present Deepwater plants to Ethyl for a period of seven years, du Pont to receive compensation based on the profit made by Ethyl during this period amounting to approximately one-third of the profits, which should give du Pont a satisfactory return in that it very closely approximates the remuneration it is now receiving. However, there are two very weak points in this arrangement from du Pont's standpoint:

1. Du Pont has no control over the amount of profit to be made by Ethyl, in that du Pont has no voice in the fixing of prices;

2. This agreement terminates in 1945, or at the expiration of the first use patent and three years prior to the expiration of Ethyl's second use patent.

This arrangement obviously protects Ethyl in that they have three years to build additional capacity, during which time they will have an opportunity of strengthening their position in the market. In the meantime, du Pont plants might be closed down as fast as Ethyl's new capacity could be brought in; du Pont's personnel dispersed, and the operation partially dismantled through the removal of any equipment that has been put in during the 7-year period.

—3—

Du Pont's only alternative would be to replace the equipment; continue operations, and attempt to protect its position in the market by violating the second use patent and taking its chances on such litigation as may develop. It seems to me that any agreement providing for such an eventuality has no mutuality. It is economically unsound and leaves out of consideration any intention of cooperation.

I fully recognize that the 7-year agreement as now drawn up, with the exception of a few minor changes which can undoubtedly be taken care of, is an improvement from du Pont's standpoint over Paragraph 11 of this present agreement, and I would prefer in the event of no other alternative to operate under the provisions of the new agreement, taking my chances on the situation as it may exist at the end of the 7-year period. However, it seems worth while to advise Ethyl of the unsatisfactory phases of this new agreement from du Pont's standpoint in an attempt to secure from them recognition of the unsound position in which du Pont is placed. If it is Ethyl's and du Pont's desire to cooperate, the 3-year period should be cured and the contract made for ten years, or the life of the second use patent. It may be said that du Pont has nothing to offer as an inducement to Ethyl to cure this 3-year period, but it does seem that du Pont is in its strongest position today when it has the manufacture of sodium as a trading point in securing this concession. I do not agree that under the terms of the new agreement with respect to sodium du Pont is adequately

compensated. The proposed agreement with respect to sodium should be satisfactory to du Pont provided Ethyl is willing to recognize that du Pont has a position in this industry and is willing to cure the 3-year period. Certainly, du Pont would not be expected to sit idly by with an investment in four up-to-date TEL plants, ready to operate, without making an attempt to utilize those plants and get some return on its investment.

If the Ethyl Gasoline Corporation persist in their refusal to cure the 3-year period on the basis of terms of compensation in the proposed agreement or to provide for purchase during the 3-year period of 50% of their requirements up to the capacity of these four plants at a figure which might be represented by cost plus 10% or better, the indications would seem to be pretty clear that it was their intention to terminate the contract at the end of seven years and close these plants down as soon as they could provide their own facilities. The approach would at least be improved if they would agree at the end of the seven years to purchase 50% of their requirements up to the capacity of these four plants on a cost plus 10% + basis, the contract to renew itself annually unless cancelled by either party on 12 months' notice and for good and sufficient reasons. At least we could feel it was their intention to continue to purchase the output of these plants and on a basis which could be defined as mutually satisfactory to the two parties entering the agreement.

J. W. MC COY.

NOTE: At lower right of all pages is written "GMC-580"; a pencilled arrow points to the name of W. F. Harrington on the first page.

Government's Exhibit No. 795

IRÉNÉE DU PONT
WILMINGTON
DELAWARE

December 20, 1937

Mr. Alfred P. Sloan, Jr.
General Motors Corp.
57th & Broadway
New York City

Dear Alfred:

I am attaching hereto my formal resignation as a member of the Board of Directors of the Ethyl Gasoline Corp., and a short letter to Mr. Webb explaining it. I think that Don can tell you the feeling of the Finance Committee of the Du Pont Company better than I can write it.

I am transmitting them through you, to be used when you deem it advisable, but I presume before the meeting of January 3rd, next, when the contract in question will be considered by the Ethyl Gasoline Board.

Yours sincerely,

Irénée du Pont

m

Note: At upper right is stamped "Received Dec 21, 1937, A. P. Sloan, Jr."; to right of address is written an illegible initial; marginal line is by hand; italics indicate handwriting.

Government's Exhibit No. 796

Directors ~~6.~~

COPY

Irenee du Pont
Wilmington
Delaware

December 20, 1937

Mr. E. W. Webb, President
Ethyl Gasoline Corp.
135 E. 42nd Street
New York City

Dear Mr. Webb:

I am attaching my formal resignation as a Director of the Ethyl Gasoline Corporation. This is tendered because it is the feeling of our Finance Committee that it might be better that the Du Pont Company should not have even such a representative as myself on the Board at a time when this Company is negotiating with the Ethyl Gasoline Corporation on a very important and far-reaching contract.

I want to say that I have enjoyed the association with the Ethyl Gasoline Corporation ever since its conception and though, of course, I have sometimes disagreed with the majority on matters of policy, yet at the same time, I have always felt that all of you were using the utmost of intelligence and that perhaps I was on such occasions the one "unruly juror".

Yours sincerely,

Signed - Irenee duPont

Note: In upper right is written "A-6".

Government's Exhibit No. 797

To: Policy Committee,

FROM: Chairman.

SUBJECT: AGREEMENT BETWEEN ETHYL GASOLINE CORP. AND E.I. DU PONT DE NEMOURS & CO. COVERING MANUFACTURE OF TETRAETHYL LEAD.

December 31, 1937.

Since 1924, E. I. du Pont de Nemours & Company has supplied the Ethyl Gasoline Corporation with its tetraethyl lead requirements, carrying on manufacture at the du Pont Company plants located at Deepwater Point, New Jersey. Tetraethyl lead has been supplied under annual contracts which have specified a fixed price per pound for the lead for the ensuing year. The basic patents covering tetraethyl lead which expire at the end of 1947, are held by the Ethyl Company under an exclusive license agreement with General Motors; but the du Pont Company, has of course, developed manufacturing processes and acquired an operating technique over this period which it would be difficult to duplicate. As a result of this operating arrangement, the Ethyl Company has been principally a selling activity, with relatively low capital requirements, and has not been obliged to undertake any of the construction expenditures in connection with manufacture.

During this 13-year period, as set forth in Schedule I, the tetraethyl lead volume has grown from a nominal volume in the early years to one of 50,600,000 pounds a year in 1936 and an estimated volume of 65,000,000 pounds in 1937. This volume is beyond the amount that can be handled by the Deepwater plant facilities, and some time ago it was considered advisable to proceed with the construction of additional plant facilities in Baton Rouge, La., where it was estimated that the manufacture of the additional lead requirements could be carried on favorably from a cost standpoint. This immediate plant expansion will involve construction expenditures to the end of 1938 estimated at between $9,500,000 and $11,500,000, and will provide for a total volume of 75,000,000 to 88,000,000 pounds of tetraethyl lead annually. Working capital requirements will amount to about $4,000,000 more, bringing the additional manufacturing capital for this volume to between $13,500,000 and $15,500,000. On or before the end of 1937, the Ethyl Company will be required to reimburse the du Pont Company in the amount of approximately $3,600,000 for construction expenditures at Baton Rouge which have been made for the account of the Ethyl Company.

At the same time, the Ethyl Company management has considered the advisability of arranging an operating agreement with the du Pont Company covering the manufacture of tetraethyl lead over a longer term of years than the year to year arrangement now in effect. In the preliminary negotiation, the du Pont Company stated that its billing prices, from year to year, have been predicated on the basis of the du Pont Company enjoying a manufacturing profit approximately one-half the total profits being enjoyed currently by the Ethyl Company. In other words, the du Pont Company has assumed that the manufacturing profit should approximate one-third of the total profits resulting from the manufacture and sale of tetraethyl lead. As the Ethyl Company has reduced its selling price to its customers and increased its volume, the billing price by the du Pont Company has shown somewhat similar reductions. The profit history of the Ethyl Company is set forth in Schedule I, and the General Motors participation in such profits, including its royalty on the sale of tetraethyl lead, is shown in Schedule II. The stock of the Ethyl Company is now held 50% by Standard Oil Company of New Jersey, 49.7% by General Motors and 0.3% by the du Pont Company (who acquired 50 shares of the Ethyl Company stock from General Motors in December 1935).

In line with the desire to effect a longer term operating agreement with the du Pont Company, and with the understanding that the Ethyl Company would take over the responsibility of furnishing the capital required for additional plant capacity, agreements have been worked out between the du Pont Company and the Ethyl Company. These agreements are summarized in Exhibit A, and the several agreements are set forth in complete detail in Exhibit B. Since this arrangement will necessitate the stockholders

of the Ethyl Company investing a considerable amount of new capital over the next few years in order to build the additional plant facilities required, the proposal is at this time being submitted to your Committee for consideration.

General Terms of the Proposal

The proposal contemplates that the Ethyl Company will engage in both the manufacture and sale of tetraethyl lead. The actual manufacturing operations, however, will be carried on by the du Pont Company for the account and risk of the Ethyl Company. The present Deepwater plants (representing a net capital investment of around $6,500,000) will be leased to the Ethyl Company at a nominal rental. In addition, the service facilities (electricity, water, steam, etc.) which would be required by the leased plants, amounting to an investment of $2,000,000, would be available to the Ethyl Company on a 7% return basis.

The additional plant investment required includes lead, ethyl chloride and sodium plants at Baton Rouge which are either now under construction or are to be started shortly. The capital required for the construction of these new plants, as well as the working capital required in the operation of both the Deepwater and Baton Rouge manufacturing activities, will be furnished by the Ethyl Company. Such additional capital requirements will be secured through the issuance of seven year, seven per cent bonds, callable on on any interest date at par, which are to be taken up by Standard Oil, General Motors and the du Pont Company in the same proportions as are provided for the distribution of profits (as outlined later), except for bonds issued for Lead Plant No. 5 at Baton Rouge for which the du Pont Company will take up an agreed amount of $500,000.

The proposed contract between the Ethyl Company and the du Pont Company sets forth the terms under which the du Pont Company will construct the lead and sodium plants for the Ethyl Company at Baton Rouge, La. The contract also covers the terms under which the du Pont Company will operate, for a period of seven years, both the existing facilities at Deepwarter as well as the facilities now under construction at Baton Rouge. The operations at Deepwater and Baton Rouge are treated separately in the proposal, with the

Ethyl Company having the right to cancel the operating agreement as to the Baton Rouge sodium and lead plants on one year's notice. The Ethyl Company will keep on deposit, without interest, with the du Pont Company during the operation of the said plants, sufficient funds to cover the du Pont Company's working capital requirements, including current purchases and work in process.

As mentioned above, the manufacturing service agreement between the Ethyl Company and the du Pont Company will cover a period of seven years, 1938-1944. During this seven year period, the du Pont Company will operate both the Deepwater and Baton Rouge plants (other than the ethyl chloride plant to be erected at Baton Rouge early in 1938) and in this connection will grant to the Ethyl Company licenses for the use of all the du Pont Company's patents relating to the manufacture of sodium and tetraethyl lead used in anti-knock compounds. These licenses, with respect to the manufacture of tetraethyl lead, will be granted royalty free, but those granted in connection with the manufacture of sodium at Baton Rouge (which covers a period of ten years) will be subject to a royalty of 2¢ per pound produced for the first 100,000,000 pounds; 1¢ per pound for the next 100,000,000 pounds; and ½¢ per pound for the balance. The present estimated sodium requirements are 10,000,000 pounds a year. Provision is made for the remission of part or all of this sodium royalty to the extent that the actual sodium cost proves to be greater than that provided under the formula set out on page 15 of the manufacturing service agreement. Based on this formula, the Ethyl Company is, in effect, guaranteed, on an over-all basis, against any wastage in materials or labor, but is not guaranteed against increases in material or labor prices.

Under the terms of the manufacturing service agreement, the Ethyl Company agrees to reimburse the du Pont Company monthly for the full cost (including the cost of materials supplied as well as other expenses incurred) to the du Pont Company of operating the plants at Deepwater and Baton Rouge for the Ethyl Company. Except for certain costs (including material costs) which are described in detail in the agreement, all items included in the costs for which the du Pont Company will be reimbursed will be determined in accordance with the du Pont Company's methods of accounting existing at the present time, with such modifications to reflect changed conditions as may be fixed by mutual agreement. The du Pont Company agrees, however, to keep complete accounting records showing the cost of each item and to give the Ethyl Company unconditional access thereto.

A summary of other cost items (including materials) which are important in the operation of the Deepwater and Baton Rouge plants are described in detail beginning on page 2 of the manufacturing service agreement. These include the entire ethyl alcohol, sulphuric acid, and caustic soda requirements which are to be supplied the Deepwater plant at the current market prices. Sodium requirements of the Deepwater plant are to be supplied at the du Pont Company's cost plus 7% return on the du Pont Company's investment. Any ethyl chloride required in addition to that which is produced at the Deepwater chloride plant will be supplied by the du Pont Company at a price not to exceed the cost of the ethyl chloride produced in the leased plant. In the case of the Baton Rouge plant, the proposal provides that the du Pont Company will supply the entire requirements of ethyl chloride for the 21 month period, January 1, 1938 through September 30, 1939, and the sodium requirements until such time as the Baton Rouge plant is placed in operation.

The manufacturing service agreement also treats with such indirect costs as depreciation, service facilities, "idle" and "stand-by" expenses, research expenses, insurance reserves and general overhead; and further provides that the du Pont Company's costs will include a fair proportion of the du Pont Company's overhead at the Wilmington office, as well as any other indirect expense applicable.

During the period that the du Pont Company operates these plants, the du Pont Company will communicate to the Ethyl Company the scientific, technical, engineering and other information which the du Pont Company has developed in connection with the manufacture of the various products. The licensing agreement provides that the parties will endeavor to negotiate an extension subsequent to the seven year period ending December 31, 1944 on terms that will permit each to continue in the anti-knock/business with substantially the same financial return as may exist as of the time of termination. If they do not reach such an agreement, the Ethyl Company must offer to purchase at least one-half of its anti-knock compound requirements from the du Pont Company if the Ethyl Company desires to continue manufacturing such products using the du Pont Company's licenses. The du Pont Company may accept part of the Ethyl Company's total offer, but in no event less than its plant capacity. The purchase price to the Ethyl Company for such anti-knock compound shall be such as to yield a net profit to the du Pont Company, before income and profit taxes, as follows:

(1) For the three years, 1945-1947, the du Pont Company shall be paid 50% of the net profits of the Ethyl Company resulting from the manufacture, purchase and sale of the first 53,000,000 pounds of tetraethyl lead; and 11⅑% of the balance of the profits on manufacture, purchase and sale of tetraethyl lead over 53,000,000 pounds. We interpret

this to mean that the du Pont Company will receive 50 cents of profit from every $1 that the Ethyl Company receives, which is the same basis as under the previous agreement.

(2) For the year 1948, the du Pont Company shall be paid a price per pound of tetraethyl lead sufficient to yield the du Pont Company a net profit per pound before taxes equal to the average during the preceding three years.

(3) For the year 1949 and subsequent years, the price per pound is to be settled by arbitration.

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Basis For Payment to the du Pont Company

The proposed agreement provides that the compensation to the du Pont Company for its services in connection with the carrying on of the manufacturing operations for the Ethyl Company will be based upon the manufacturing profits. Manufacturing profits, for this purpose, are defined as one-third of the total profits to be derived from the manufacture, purchase and sale of tetraethyl lead and any other anti-knock compounds and the manufacture of materials composing the same. The balance, or two-thirds of the total manufacturing and selling profits, will be considered applicable to selling operations. This distribution of total profits reflects the basis upon which the du Pont Company has based its billing prices in the past (i.e., to secure one-third the aggregate profits from the manufacture and sale of tetraethyl lead). The compensation to the du Pont Company under the agreement will be as follows:

(a) 100% of gross manufacturing profits of the Ethyl Company from the manufacture, purchase, and sale of tetraethyl lead and/or mixtures thereof with other substances up to an aggregate amount of 53,000,000 pounds of total tetraethyl lead content; and

(b) 30% of gross manufacturing profits of the Ethyl Company from the manufacture, purchase, and sale of tetraethyl lead and/or mixtures thereof with other substances over and above this minimum volume; and

(c) 60% of gross manufacturing profits of the Ethyl Company from the manufacture, purchase, and sale of anti-knock compounds other than tetraethyl lead and/or mixtures thereof with other substances; and

(d) A portion of the Ethyl-Dow Company dividends not to exceed in any year a maximum of 16⅔% of the total dividends received by the Ethyl Company from the Ethyl-Dow Company.

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There follows an example of the calculation of the du Pont Company's compensation, assuming 1938 earnings show no increase over 1937, as shown in Schedule III. At present, the Ethyl Company has no sales of anti-knock compounds other than tetraethyl lead and lead mixtures so that the du Pont Company would receive no compensation under the provision contained in item (c) above.

Sales of Tetraethyl Lead—In Pounds	**72,000,000**
Total Gross Profits (after Interest on Funded Debt)	**$22,899,000**
Less Ethyl-Dow Dividends (After Taxes)	**985,000**
Gross Operating Profits Before Deducting Royalty Payable to General Motors	**$21,914,000**

Royalty Payable to General Motors		2,708,000
Gross Operating Profits		$19,206,000
Gross Manufacturing Profits (⅓ of Gross Operating Profits of $19,206,000)		$ 6,402,000
Compensation to the du Pont Company:		
Based on Manufacturing Profits:		
(a) 100% of $\frac{53,000,000}{72,000,000} \times 6,402,000$	$4,713,000	
(b) 30% of $\frac{19,000,000}{72,000,000} \times 6,402,000$	507,000	
Total Compensation Based on Manufacturing Profits		$ 5,220,000
Based on Ethyl-Dow Dividends:		
(d) $\frac{5,220,000}{2 \times 19,206,000} \times 985,000$		134,000
Total Compensation to the du Pont Company		$ 5,354,000

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If, in any two successive years, the compensation under this agreement proves to be less than 7% on the gross capital invested by the du Pont Company in the Deepwater plants leased to the Ethyl Company (representing an annual payment of approximately $450,000), the Ethyl Company will be obliged to bring up the compensation to this minimum level, or the agreement and lease will be subject to termination. In addition, as stated previously, the Ethyl Company is required to pay the du Pont Company in each year a 7% return on the Deepwater service facilities investment of $2,000,000 (representing an annual payment of approximately $140,000).

The allocation of profits on the basis of this agreement, under various assumptions, is set forth in Schedule III. These data have been developed on the basis of a volume increase of 10% annually over the 1937 volume with (1) no increase in profits over 1937 and (2) a decrease in profits [illegible] 5% annually from 1937 and (3) an increase in profits of 5% annually over 1937.

Royalty Payments to General Motors Corporation

Under the royalty agreement between General Motors Corporation and Ethyl Gasoline Corporation, which runs with the patents that expire in 1947, there is payable, as royalty, 25% of the net selling profits on the sale of anti-knock compounds covered by the patents, less 22½% on capital employed in the selling operations. The proposed arrangement with the du Pont Company, by fixing manufacturing profits at one-third of the total profits, thereby determines the selling profits upon which the royalty will be based. Eliminating the effect of non-royalty income (such as dividends from the Ethyl-Dow Company stock) which is not subject to royalty, the following example has been prepared assuming 1938 earnings show no increase over 1937, as set forth in Schedule III:

Total Gross Profits (After Interest on Funded Debt)	$22,899,000
Less Ethyl-Dow Dividends (Net)	985,000
Gross Operating Profits Before Deducting Royalty Payable to General Motors	**$21,914,000**
Royalty Payable to General Motors	**2,708,000**
Gross Operating Profits	**$19,206,000**
Less Gross Manufacturing Profits (⅓ of Gross Operating Profits)	**6,402,000**
Gross Selling Profits (⅔ of Gross Operating Profits)	$12,804,000
Less Bonuses to Employes	**600,000**
Net Selling Profits Before Taxes	**$12,204,000**
Less Federal Income Taxes (15%)	**1,830,000**
Net Selling Profits After Taxes	**$10,374,000**

Proof of Royalty:

Net Selling Profits After Taxes	$10,374,000
Add Royalty Payable to General Motors	2,708,000
Total	$13,082,000
Less Capital Exemption (22 ½% of $10,000,000)	2,250,000
Total Earnings Subject to Royalty	$10,832,000
Royalty Payable (25% of Earnings Subject to Royalty)	$ 2,708,000

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Since the pro-ration of profits is based upon total net profits after all charges, there is involved no problem of pro-rating expenses and the accounting on this basis can be relatively simple. This seems a reasonable approach, as there would be no competitive basis for billing product from the manufacturing to the selling department, which is the method of allocation provided in the royalty agreement. Assuming that the du Pont Company's return under the old arrangement approximated the present proposed manufacturing profits, General Motors position with respect to the royalty is basically unaffected. So far as additional volume over 53,000,000 pounds a year is concerned, the du Pont Company is to receive 30% of the manufacturing profits. The elimination of the balance of the manufacturing profits on this excess volume from the royalty reduces the General Motors combined return from earnings and royalty by only $27,500 per $1,000,000 of total manufacturing and selling profits ascribable to such additional volume. In other words, even though manufacturing profits were limited to the payments made to the du Pont Company on volume in excess of 53,000,000 pounds a year, the royalty would be increased only $27,500 for each $1,000,000 of profits on such excess volume. Throughout the negotiations, it has been assumed that the manufacturing profits were one-third the total profits, whatever the level of volume.

Indicated Capital Expenditure

It is anticipated that the immediate capital outlay required to take over the manufacturing activities at Baton Rouge, representing plant facilities to be completed within the next twelve months, will be as follows:

	Estimated Capital Required	
	Total	Du Pont Capital Investment
Plant Expenditures at Baton Rouge		
Lead plant #5 and associated buildings completed in September 1937.	$ 3,550,000	$ 500,000
Lead plant #6, in process of construction and estimated to be completed not later than March 1, 1938.	1,850,000	185,000
Ethyl chloride plant. Plans and specifications have been prepared and construction has begun. It is expected same will be completed sometime in April, 1938.	1,750,000	175,000
Sodium plant. If orders were given immediately to build this plant, it is estimated that it could be completed by December, 1938.	2,350,000	235,000
Total	$ 9,500,000	$1,095,000
Working Capital Requirements		
Deepwater Operations	$ 2,750,000	$ 916,000
Baton Rouge Operations	1,250,000	125,000
Total	$ 4,000,000	$1,041,000
Total Additional Capital Required	$13,500,000	$2,136,000

This total of #13,500,000 will be financed, as stated previously, through the issuance of 7% bonds, to be subscribed as follows:

Subscriber	Subscriptions to Bonds Amount	% of Total
General Motors*	$ 5,682,000	42.1%
Standard Oil	5,682,000	42.1
Du Pont	**2,136,000**	15.8
Total	$13,500,000	100.0%

* General Motors—Assumes contribution required by 50% stock interest in the Ethyl Company.

Of the $5,682,000 advances required by General Motors, a total of $700,000 has already been advanced, approximately $3,400,000 will have to be paid on or before January 1, 1938, and about one-half of the balance in the first quarter of 1938.

This capital outlay will provide for an aggregate annual capacity of 75,000,000 pounds. It is probable that an additional lead plant will be built at Baton Rouge before the end of 1938 to provide an additional 12,000,000 pounds productive capacity, at an additional cost of $1,750,000. Further plant outlay (not including capital expenditures to cover the manufacture of new anti-knock compounds which cannot be forecast at this time) is estimated at around $400,000 per million pounds of output added. Assuming an annual increase of as much as 15% in volume (which does not appear to be too unreasonable), there would be a possible capital outlay of from $3,200,000 to $5,200,000 a year after 1938, or say $20,000,000 for the five year period through 1943. Under the agreement, this would be financed as follows:

	Funds Required	
	Amount	% of Total
General Motors*	$ 9,000,000	45%
Standard Oil	**9,000,000**	**45%**
Du Pont	**2,000,000**	**10%**
Total	**$20,000,000**	**100%**

* **General Motors—Assumes contribution required** by 50% stock interest in the Ethyl Company.

These estimates are, of course, exclusive of any additional capital required for the selling end of the business. With the possibility of an increase in volume over the next few years, it may be necessary to double the present selling capital of $ 5,000,000. This additional investment of $5,000,000 will have to be advanced by the present stockholders. Assuming that the 1937 profit level of $22,000,000 gross earnings a year (including manufacturing profits but before deduction of royalties, bonus and taxes) can be maintained, and if the tetraethyl lead sales were increased by 10%, General Motors proportion of annual net earnings in 1938 would be $6,100,000, and royalty $2,700,000, or a total of $8,800,000, with a total maximum investment required of $9,000,000.

Recommendation

It is requested that the Policy Committee approve, in principle, the proposed operating arrangement which the Ethyl Company contemplates making with the du Pont Company, with particular reference to the allocation of profits to manufacturing activities proposed therein and the amount of capital outlay which the Ethyl Company may have to undertake thereby, and which must, in part, be underwritten by General Motors Corporation. It is further requested that the Policy Committee authorize the proper financial officers of General Motors Corporation to make the necessary subscriptions to the bonds and capital stock of the Ethyl Company in order to put this program into effect.

Respectfully submitted,

Alfred P. Sloan, Jr.,
Chairman.

LEASE

Agreement of Lease, made as of the 1st day of January, 1938, between E. I. Du Pont De Nemours & Company, a corporation of the State of Delaware, party of the first part (hereinafter referred to as Lessor), and Ethyl Gasoline Corporation, a corporation of the State of Delaware, party of the second part (hereinafter referred to as Lessee).

Witnesseth:

I. Lessor does hereby let and rent to Lessee and Lessee hereby hires from Lessor for the period of seven (7) years commencing on the 1st day of January 1938 and ending on the 31st day of December 1944, which term of lease, however, shall not in any event extend beyond the period of the Manufacturing Service Agreement dated as of January 1, 1938 between the parties and shall be subject to the provisions and conditions thereof, at a rental of $100 per annum, all those buildings and improvements, including machinery and equipment of every kind and description therein, now known as the Tetraethyl Lead, Blending and Ethyl-Chloride Plant, said plants being hereinafter collectively referred to as the "Deepwater Plants" situated at Deepwater Point, Salem County, New Jersey, as shown on the shaded portions of the Map annexed hereto and made a part hereof, marked Exhibit "A", together with the use, in common with Lessor, of adjoining lands and service facilities, all to the extent necessary for the purposes of the said Manufacturing Service Agreement.

The parties hereto for themselves, their successors and assigns, hereby covenant and agree as follows:

II. LESSEE agrees to pay the rental annually in advance on the 1st day of January during the term of this Lease.

III. LESSEE agrees. to use and occupy the demised premises for the object and purpose only set forth in said Manufacturing Service Agreement, and subject always to the rules and regulations applicable to said demised premises as etsablished by LESSOR from time to time for LESSOR's chemical plants located at Deepwater Point, New Jersey.

IV. A. In the event any part of said "Deepwater Plants", including machinery and equipment, becomes obsolete, LESSOR may, with the approval of LESSEE, remove same from the demised premises, and make such replacements as may be necessary, at the expense of LESSEE.

The expense involved in such replacements shall be determined in accordance with LESSOR's methods of accounting with respect thereto existing at the date of this agreement with such additions and modifications thereof to meet changes in conditions as may, from time to time, be fixed by mutual agreement. Any part of said "Deepwater Plants", including machinery and equipment, shall be deemed obsolete if said part is replaced because of changes in economic conditions, design or process, or because of other progress in the art. Replacements made in said "Deepwater Plants" at expense of LESSEE under the conditions aforesaid, shall not be included in the gross book value of said "Deepwater Plants" as carried on the books of LESSOR, or included in the cost of operating or maintaining the "Deepwater Plants" under the provisions of Articles II and III of said Manufacturing Service Agreement. All other replacements, (except replacements made under the provisions or Paragraph VI hereof) whether occasioned by wear and tear or not, shall be made at the expense of LESSOR and shall be charged to cost of operating and maintaining said "Deepwater Plants", in accordance with said Manufacturing Service Agreement. No changes shall be made in said "Deepwater Plants" without the approval of LESSOR.

B. LESSEE hereby grants to LESSOR the right and option, upon termination of this Lease for any reason whatsoever, to purchase at

the cost thereof to LESSEE (less depreciation at three per cent (3%) per annum on buildings and then ten per cent (10%) per annum on machinery, equipment and other facilities) all or any part of the structures, machinery, enlargements, alterations, improvements, betterments and replacements not charged to cost of operation and maintenance of said "Deepwater Plants" and installed at the expense of LESSEE, and if LESSOR shall not purchase the same upon written notice within six (6) months after the termination of this Lease, then, in such event, LESSEE shall have the right, within six (6) months thereafter, to remove all such items as LESSOR shall not have purchased. Said six (6) months period shall be extended for any cause beyond the control of LESSEE which shall prevent or delay the removal of such items. It is understood and agreed by the parties hereto that the aggregate deduction for depreciation on all items purchased by LESSOR hereunder shall not exceed fifty per cent (50%) of the aggregate cost to LESSEE of all such items. All items installed at said "Deepwater Plants" which LESSEE shall have the right to remove shall become the property of LESSOR if not removed by LESSEE within the period specified in this paragraph. All changes in said "Deepwater Plants", including machinery and equipment, charged to cost of operating and maintaining said "Deepwater Plants" shall be deemed property of LESSOR.

V. During the term of this Lease, LESSOR agrees to keep said "Deepwater Plants" insured for the full insurable value thereof against loss or damage by fire and/or explosion, and/or other insurable risks. Such policies of insurance shall be taken out in companies satisfactory to both parties, and shall insure LESSOR and LESSEE as their respective interests may appear, provided, however, LESSOR shall have the right, at its option, to carry all or any part of such insurance in its own Insurance Reserve. All premiums on the policies so taken out shall be paid by LESSEE to LESSOR as they become due. In determining the amount to be set aside in LESSOR's

own Insurance Reserve, LESSOR will follow the principles heretofore used by it and the charge to LESSEE for any insurance carried by LESSOR in its insurance reserve shall not exceed premiums which would be payable on comparable policies with an insurance company.

VI. In the event of the destruction of any building, structure, equipment or machinery hereby leased, by fire or other insured cause, or in the event any of such property is damaged by any such reason, the LESSOR shall, at its own expense, repair or replace any of such property owned by LESSOR as speedily as practicable, and shall repair or replace at expense of LESSEE any of such property owned by LESSEE. Said "expense of LESSEE" shall be determined in accordance with the methods of accounting referred to in Paragraph IV A hereof.

VII. Lessee agrees to reimburse Lessor for all taxes of whatever kind or nature (excepting income taxes) charged against or in connection with said "Deepwater Plants" and contents thereof (including machinery and equipment) and the operation of said plants.

VIII. If default shall be made by Lessee in any of the provisions in this lease contained or in any provision pertaining to said "Deepwater Plants" of said Manufacturing Service Agreement, then upon the happening of such event and after thirty (30) days' notice given by Lessor to Lessee, specifying such default, and if such default has not been made good at the expiration of said thirty (30) days, then at the election of Lessor given by notice in writing to Lessee, this Lease shall terminate and it shall be lawful for Lessor to re-enter said "Deepwater Plants" and repossess the same by summary proceedings or otherwise; provided that should such default be of a provision herein other than one requiring the payment of money by Lessee, the Lessee may relieve itself of the effect of such notice of default by promptly on receipt thereof

proceeding actually and in good faith with the performance of the requirement then in default under this Lease, and completing the same with all reasonable speed.

IX. Except as herein provided, Lessee agrees to surrender and deliver to the Lessor at the end of the term hereof, said "Deepwater Plants" in good condition and repair, ordinary wear and tear excepted.

X: All notices required or permitted to be given under the provisions of this Lease shall be in writing and may be delivered by either party to the other, and will be deemed to have been sufficiently given if sent by registered mail directed to the Corporation to receive the same at its principle office, and such notice shall be deemed served on the date of such delivery in person or of such mailing.

XI. Lessee, upon due performance of the covenants and agreements contained herein and in said Manufacturing Service Agreement in so far as they may be applicable to said "Deepwater Plants", shall and may at all times during the term hereby granted, peaceably and quietly have, hold and enjoy said "Deepwater Plants" without any manner of let, suit, trouble or hindrance of and from the Lessor or any person or persons whomsoever.

XII. It is understood and agreed that in the event said "Deepwater Plants" are not operated for the manufacture of anti-knock compounds during any two successive years of the term of this Lease, then Lessor may terminate this Lease on not less than thirty (30) days' written notice given to the other party.

In Witness Whereof, the parties hereto have caused these presents to be signed, and their respective seals to be hereto affixed, in duplicate, by their officers or representatives thereunto duly authorized, this *sixth* day of January, 1938.

(SEAL)

E. I. DU PONT DE NEMOURS & COMPANY
By *E. G. Robinson.*
General Manager

ATTEST:
W. F. Raskob
Secretary

(SEAL)

ETHYL GASOLINE CORPORATION
By *E. W. Webb*
President

ATTEST:
J. C. Gonzalez
Secretary

NOTE: At lower right of all pages is written "GMC-847a"; at the bottom of first page is written "Lease"; across the top of the first page is written "Four agreements in this binder as follows:—Lease, Manufacturing Service, XX Financing, License"; at the right of this notation an asterisk is placed by hand; at lower right of last page is written "Exhibit A, part I"; in left margin of sixth page is stamped "Form approved, Legal Department . . . Ass't. Director"; in the space provided in this stamp is written the name of H. C. Haskell; beneath this stamp are written two sets of illegible initials; italics indicate handwriting.

4837

SKETCH NO. D W S 2061

E. I. duPONT DE NEMOURS & CO., INC.

DYE WORKS

ENGINEERING DEPT.

DATE [illegible] 19 · 1937

DRAWN BY W. H. SCHAAL

CHECKED BY

REFER TO DWG. NO. MAP 2454 N° 12

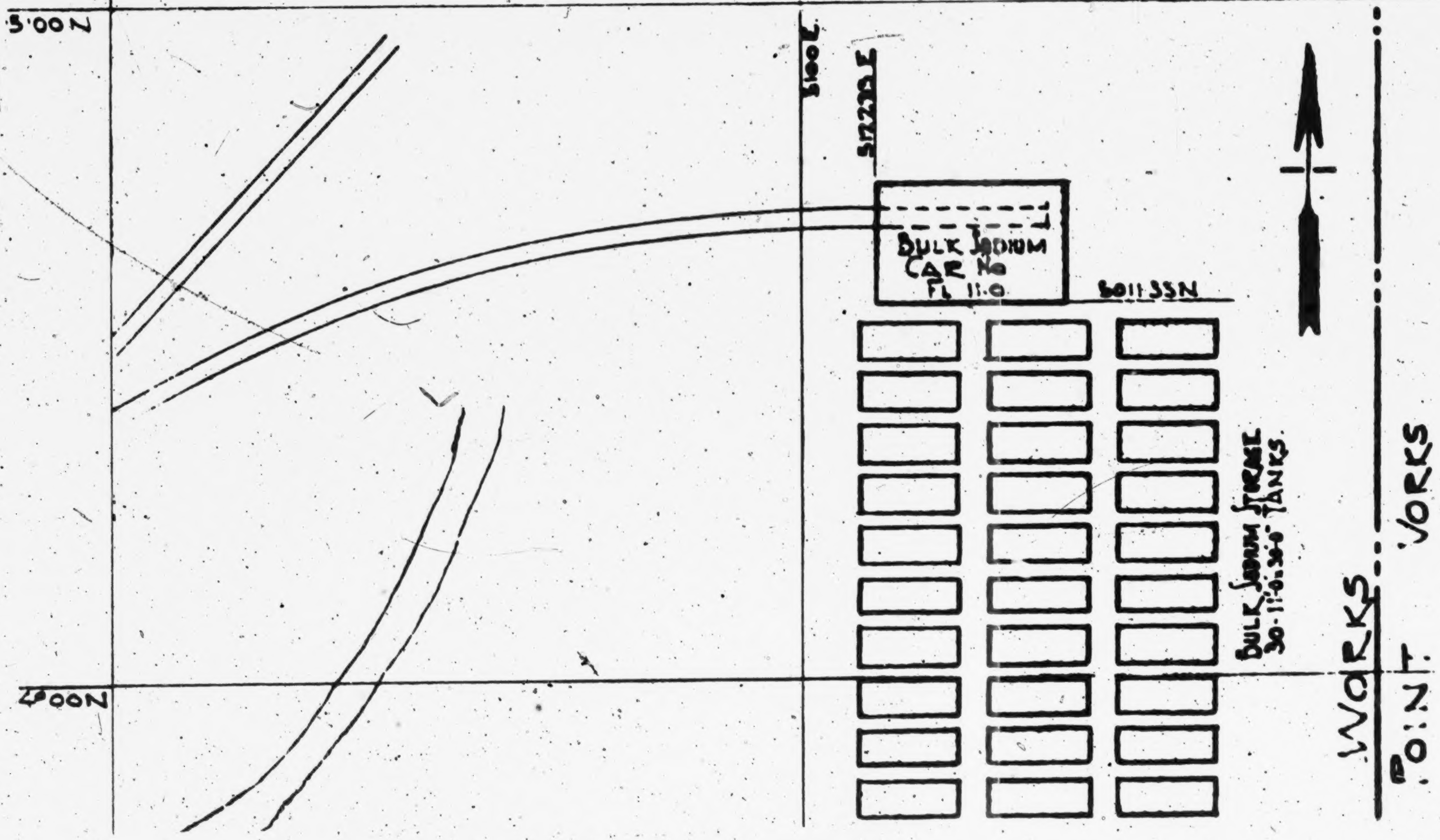
FOR JOB NO.

REVISIONS

SODIUM STORAGE TANKS N° 784

MAP

Scale 1"=30



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Manufacturing Service Agreement, made as of the 1st day of January, 1938, between Ethyl Gasoline Corporation, a corporation of the State of Delaware, hereinafter called Ethyl Company, and E. I. Du Pont De Nemours & Company, a corporation of the State of Delaware, hereinafter called Du Pont Company,

Witnesseth That

Whereas, Du Pont Company has been engaged for many years in the manufacture of sodium, lead-sodium alloy, ethyl chloride and tetraethyl lead and the blending of the latter with other ingredients to form anti-knock compounds; and

Whereas, Ethyl Company desires to avail itself of the experience, knowledge and ability of Du Pont Company in the operation of plants for the manufacture of sodium, lead-sodium alloy, ethyl chloride and tetraethyl lead and the blending of said anti-knock compounds.

Now, Therefore, in consideration of the premises and the mutual covenants and agreements herein expressed, it is agreed as follows:

ARTICLE I

EMPLOYMENT OF DU PONT COMPANY

Subject to the terms and conditions in this agreement stated, Ethyl Company hereby employs Du Pont Company to operate the lead-sodium alloy, ethyl chloride, tetraethyl lead and blending plants for the production only of anti-knock compounds, said plants hereinafter collectively called "Deepwater Plants", which Ethyl Company has leased at Deepwater Point, Salem County, New Jersey, and Du Pont

COMPANY hereby accepts such employment for and during the period set forth in lease of said plants executed by the parties hereto dated January 1, 1938.

Wherever the term "anti-knock compounds" is used in this agreement, it shall have the meaning as defined in the License Agreement executed by the parties hereto dated January 1, 1938.

ARTICLE II

COST OF ETHYL CHLORIDE AND TETRAETHYL LEAD AND BLENDING OF LATTER WITH OTHER INGREDIENTS: OTHER ANTI-KNOCK COMPOUNDS

Subject to the provisions of the said lease, ETHYL COMPANY agrees to pay to DU PONT COMPANY the full cost to DU PONT COMPANY of operating and maintaining said "Deepwater Plants" and storing and handling of any products therein, in accordance with Articles I and X hereof, said cost to include all items chargeable thereto as determined in accordance with DU PONT COMPANY'S methods of accounting with respect thereto existing at the date of this agreement with such additions and modifications thereof as may be fixed by mutual agreement to provide for changes in conditions, all, however, subject to the following provisions of Article III hereof.

ARTICLE III

METHOD OF DETERMINING CERTAIN ITEMS OF COST SET FORTH IN ARTICLE II HEREOF

Without limiting the generality of Article II hereof, in operating said "Deepwater Plants" and determining the costs referred to in said Article II, the following items shall be treated in the manner set forth in this Article III.

A. Ethyl Alcohol: Du Pont Company agrees to supply to Ethyl Company and Ethyl Company agrees to purchase from Du Pont Company, during the term of this agreement, all ethyl alcohol required for use

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in said "Deepwater Plants" at the current market price for ethyl alcohol of substantially similar quality and quantity under approximately similar conditions of sale.

B. Sulphuric Acid and Caustic Soda: Du Pont Company agrees to supply to Ethyl Company and Ethyl Company agrees to purchase from Du Pont Company, during the term of this agreement, all sulphuric acid and caustic soda required for use in said "Deepwater Plants" at the current market price for such materials of substantially similar quality and quantity under approximately similar conditions of sale.

C. Sodium: Du Pont Company agrees to supply from its Niagara Falls, New York plant, to Ethyl Company, and Ethyl Company agrees to purchase from Du Pont Company, during the term of this agreement, all sodium required for use in said "Deepwater Plants". The price per pound of such sodium, f.o.b. Du Pont Company's sodium factory, Niagara Falls, New York, shall be Du Pont Company's cost per pound of sodium as determined by the methods of accounting specified in Article II aforesaid, including a credit of one-half (½) cent per pound of chlorine produced in connection with the manufacture of such sodium, plus a return of seven per cent (7%) per year on that part of Du Pont Company's investment in sodium manufacture represented by such sodium. Said cost per pound shall be determined for Du Pont Company's sodium production at Niagara Falls, New York, as a whole, and said investment in sodium manufacture shall include the buildings and equipment directly employed by Du Pont Company in the manufacture of sodium, a pro rata share of the investment in any facilities or auxiliary operations required as an adjunct to the manufacture of sodium, and a pro rata share of working capital required for the manufacture of sodium. The value of buildings and equipment for purposes of computing said investment shall be deemed

to be the same per unit of sodium production capacity as that of the sodium plant specified in Article VI, adjusted for any reduction in investment resulting from increasing capacity to capacity of Du Pont Company's sodium factory at Niagara Falls, New York, provided that until such plant shall be erected, investment shall be the replacement value as of the date of this agreement, adjusted in accordance with actual capitalization for items subsequently installed.

D. Ethyl Chloride: It is understood and agreed that the entire requirements of ethyl chloride for said "Deepwater Plants" will be produced at the said leased ethyl chloride plant up to the capacity thereof, and in the event the production of ethyl chloride in the said leased ethyl chloride plant shall be insufficient for the production of antiknock compounds at said "Deepwater Plants" of Ethyl Company, then Du Pont Company agrees to supply to Ethyl Company and Ethyl Company agrees to purchase from Du Pont Company, during the term of this agreement, such excess requirements of Ethyl Company, but not more than two million (2,000,000) pounds per month, for use only in making anti-knock compounds in said "Deepwater Plants" at a delivered price which shall not exceed the cost to ETHYL COMPANY of ethyl chloride from its said leased Deepwater ethyl chloride plant.

E. Depreciation: The said costs shall include depreciation on the buildings, machinery and facilities constituting the plants leased by ETHYL COMPANY from DU PONT COMPANY at Deepwater Point, New Jersey, as above referred to, at the rates per annum of three per cent (3%) on buildings, and ten per cent (10%) on machinery and equipment and other facilities, on the basis of the gross value thereof as carried on the books of DU PONT COMPANY before deducting depreciation. No depreciation, however, shall be charged on facilities for blending and storage of "Ethyl" and "Q" fluids.

F. Research Expenses: The cost of such research, development and investigation as DU PONT COMPANY may do at the request of and for the account of ETHYL COMPANY shall be charged at the cost thereof, plus twenty per cent (20%). Nothing in this agreement shall obligate DU PONT COMPANY to carry on any such work for ETHYL COMPANY'S account, but it shall be considered that all inventions or discoveries of DU PONT COMPANY made during the term of this agreement and relating to lead alkyls in the field of this agreement have been made for the account of ETHYL COMPANY but unless such work was requested by ETHYL COMPANY, ETHYL COMPANY shall be liable only for the direct cost of such portion of such work as shall have resulted in the invention or discovery. The results of any such work insofar as they are within the field of this agreement shall be the property of ETHYL COMPANY, and any resulting patent rights shall be assigned to ETHYL COMPANY. All other inventions and discoveries of DU PONT COMPANY in the field of this agreement shall belong to DU PONT COMPANY.

G. Insurance Reserves: In case any of the hazards pertaining to the plants leased to ETHYL COMPANY, as aforesaid, at Deepwater Point or the operation or maintenance thereof are insured at the option of DU PONT COMPANY, in its own insurance reserves, the expense of such insurance shall be included in the said cost at the full amount set aside by DU PONT COMPANY in its reserves for such purposes. In determining the amount to be set aside for such purposes, DU PONT COMPANY will follow the principles heretofore used by it, but the charge to ETHYL COMPANY for any insurance carried by DU PONT COMPANY in its insurance reserves shall not exceed premiums which would be payable on comparable policies with an insurance company.

H. Overhead: The said cost shall include such charges for Wilmington and works overhead and other indirect expense of DU PONT COMPANY wherever incurred, as shall be applicable to the said plants of ETHYL COMPANY or the operation or maintenance thereof, including the storing and handling of any products therein.

I. Service Facilities: DU PONT COMPANY agrees to supply the use and output of its service facilities at its chemical plants at Deepwater Point, New Jersey, to the extent required for the operation and maintenance of the said adjacent plants of ETHYL COMPANY, and ETHYL COMPANY agrees to employ such facilities and purchase such output thereof, to the extent necessary, including electricity, water, steam and all other facilities at the said adjacent Deepwater plants of Du Pont Company. The cost of each item of service and product to be so furnished by Du Pont Company under this Paragraph I, shall include, in addition to all other items chargeable thereto in accordance with the methods of accounting specified in Article II aforesaid, interest at the rate of seven per cent (7%) per annum on the proportion of the investment of Du Pont Company in the facilities serving Ethyl Company on the basis of the gross value thereof as carried on the books of Du Pont Company before deducting depreciation. The calculation of the proportion of investment and fixed expense in facilities and organization for serving, operating and maintaining Ethyl Company's said plants shall be based upon the assumption **of approximately normal rate of operation of Du Pont Company's adjacent chemical plants at Deepwater Point, New Jersey.**

J. "Idle" and "Stand-by" Expense: In operating and maintaining Ethyl Company's said "Deepwater Plants", as aforesaid, Du Pont Company may maintain an organization and facilities not only in connection with the said plants of Ethyl Company but also in connection with the adjacent chemical plants of Du Pont Company for the purpose of operating and maintaining the said plants of Ethyl Company in accordance with this agreement, and, in case the operation of the said plants of Ethyl Company in any accounting month falls below four million four hundred thousand (4,400,000) pounds of tetraethyl lead or other anti-knock compounds, there shall be charged to Ethyl Company, in addition to all charges aforesaid a "Stand-by" or "Idle" expense charge sufficient to reimburse Du Pont Company for that part of the cost of providing the said facilities and organization for serving or maintaining Ethyl Company's said plants, which part is not otherwise charged to Ethyl Company.

K. In the event Ethyl Company notifies Du Pont Company in writing that Ethyl Company has no further need for any such use and output of the service facilities of Du Pont Company as specified in Paragraphs I and J aforesaid, then Du Pont Company will exercise its best efforts to utilize such facilities in its manufacturing operations at Deepwater Point, New Jersey. Any portion of such facilities utilized by Du Pont Company will not be charged to Ethyl Company.

L. Payment of Maintenance and Operating Cost: Du Pont Company agrees to prepare and submit to Ethyl Company, on or before the 15th day of each month during the term of this agreement, an itemized statement showing the amount to be paid by Ethyl Company to Du Pont Company in accordance with Articles II and III of this agreement for the preceding calendar month, specifying the items included therein. Within ten (10) days after receipt of such statement, Ethyl Company agrees to pay to Du Pont Company the amount shown thereby as being due. Du Pont Company agrees to keep complete and accurate books and records showing the cost of each such item and to give unconditional access thereto to Ethyl Company's authorized representatives during business hours.

M. Working Capital: Ethyl Company agrees to keep on deposit, without interest, with Du Pont Company, during the period of operation of said plants of Ethyl

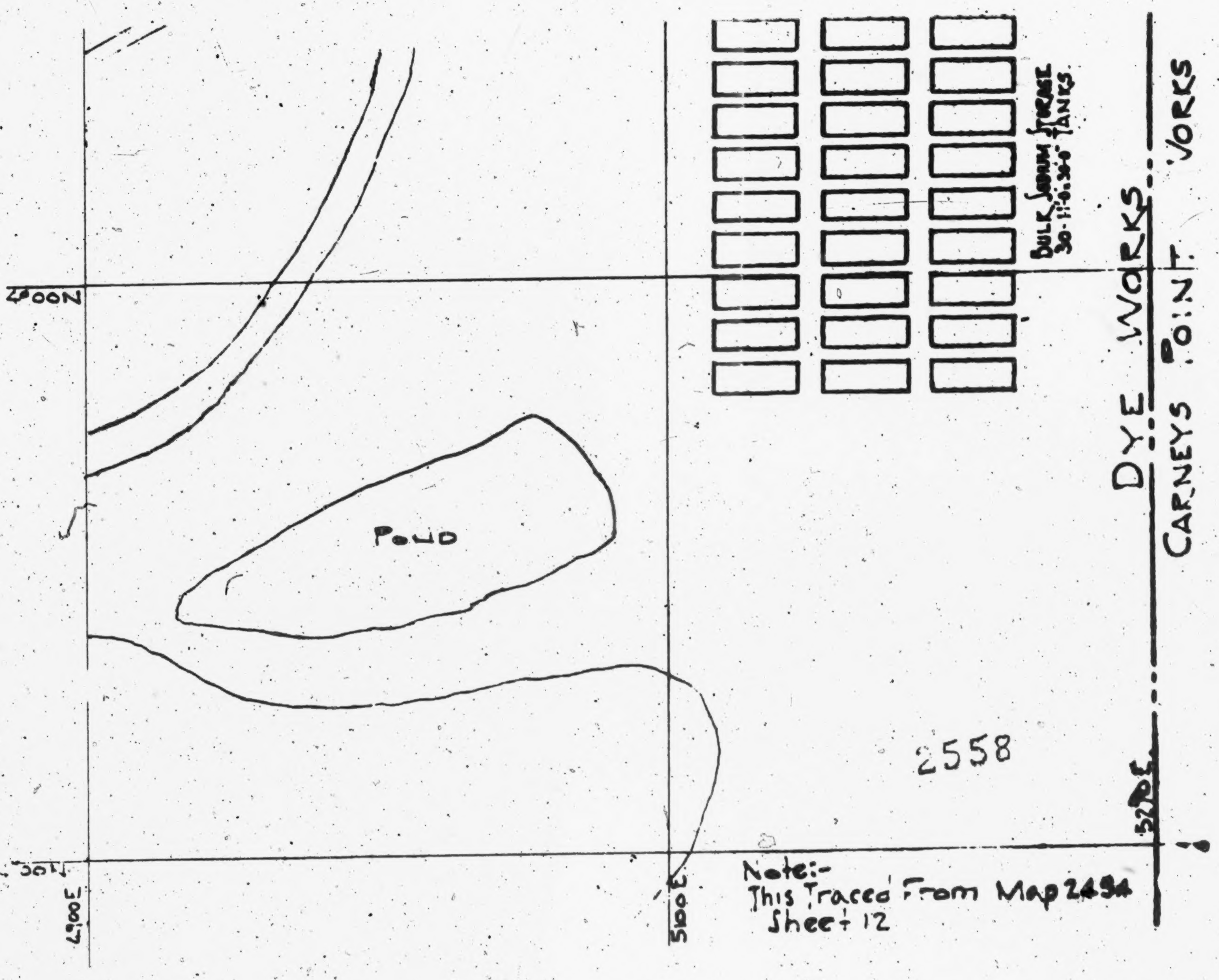
COMPANY, sufficient sums of money to cover DU PONT COMPANY's working capital, including current purchases and work in progress. DU PONT COMPANY agrees, upon the termination of this agreement, to account for and to repay to ETHYL COMPANY any balance of such sums advanced by ETHYL COMPANY.

ETHYL COMPANY further agrees to purchase at DU PONT COMPANY's book value, from DU PONT COMPANY, all materials, supplies and products held by DU PONT COMPANY at Deepwater Point, at the date of this agreement, in connection with the manufacture of lead sodium alloy, ethyl chloride and anti-knock compounds for ETHYL COMPANY. ETHYL COMPANY also agrees to assume all contract commitments of DU PONT COMPANY as of the date of this agreement pertaining to materials and supplies for the operation or maintenance of said "Deepwater Plants".

ARTICLE IV

MISCELLANEOUS RAW MATERIALS AND SUPPLIES

ETHYL COMPANY agrees to deliver to DU PONT COMPANY, free of charge, at said "Deepwater Plants" raw materials which are required in their operations and which are not specified in Article III aforesaid. DU PONT COMPANY agrees to deliver to ETHYL COMPANY on or before the first day of January, April, July and October of each year, during the term of this agreement, an estimate of the kinds and quantity of raw materials and supplies, except repair parts and storeroom supplies, required in the operation of said "Deepwater Plants" during the next suc-


BULK SODIUM STORAGE
30-11'-0"-30'-0" TANKS
DYE WORKS
CARNEYS POINT WORKS
POND
4900N
4900E
5100E
5300E

2558

Note:-
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Sheet 12

ceeding quarterly period. Du Pont Company further agrees to purchase, at the request of Ethyl Company, available raw materials and supplies, or any of them, for the account of Ethyl Company. Du Pont Company's expense in connection with the purchase, storing, and handling of such materials and supplies shall be charged to Ethyl Company as part of the costs specified in Articles II and III hereof.

ARTICLE V

Baton Rouge Lead Plants

A. Du Pont Company hereby agrees to sell and Ethyl Company hereby agrees to purchase, free and clear of all liens and encumbrances arising out of construction of said plant, all Du Pont Company's right, title and interest in and to the "No. 5" lead plant, blending plant, and all accessory buildings constructed or now in process of construction at Baton Rouge, Louisiana, (hereinafter collectively referred to as "No. 5 Lead Plant"), upon the date of completion thereof or the date of this agreement, whichever is later.

The purchase price of No. 5 Lead Plant shall be the cost incurred by Du Pont Company in connection with the construction thereof, plus interest at two and one-quarter per cent (2¼%) per annum on Du Pont Company's investment in constructing said plant. Du Pont Company agrees to submit promptly to Ethyl Company an itemized statement showing all costs incurred by Du Pont Company in the construction of said No. 5 Lead Plant. Within thirty (30) days after the receipt of such statement, Ethyl Company agrees to pay said purchase price in full to Du Pont Company. Du Pont Company agrees to complete No. 5 Lead Plant as soon as practicable.

B. Du Pont Company agrees to continue the construction of the second tetraethyl lead plant, referred to in the certain agreement between the parties dated March 2, 1937 (hereinafter called No. 6 Lead Plant), at Baton Rouge, Louisiana. Upon completion, Du Pont Company agrees to sell and Ethyl Company agrees to purchase, free and clear of all liens and encumbrances arising out of construction of said plant, all Du Pont Company's right, title and interest in and to the said No. 6 Lead Plant, and all facilities accessory thereto.

The purchase price of No. 6 Lead Plant shall be the cost incurred by Du Pont Company in connection with the construction thereof. Du Pont Company agrees to submit promptly to Ethyl Company an itemized statement showing all costs incurred by Du Pont Company in the construction of said No. 6 Lead Plant. Except as hereinafter provided, Ethyl Company agrees to pay said purchase price in full to Du Pont Company within thirty (30) days after receipt of such statement. Du Pont Company agrees to complete No. 6 Lead Plant as soon as practicable.

The entire cost to Du Pont Company of the construction of said No. 6 Lead Plant shall be advanced by Ethyl Company to Du Pont Company in the form of loan or loans in accordance with the monthly request made in advance by Du Pont Company. Such requests, shall be

based on Du Pont Company's estimate of the expenses which will probably be incurred by it during the ensuing calendar month. Upon receipt of such advance, Du Pont Company shall execute the proper evidence of its indebtedness to Ethyl Company in the form of non-negotiable notes which shall fall due and shall be payable, without interest, on date of completion agreed upon by ETHYL COMPANY and DU PONT COMPANY; provided, however, DU PONT COMPANY shall have the right to an extension of said date of payment in the event the construction work shall not have been finally completed on said specified date of completion. In the computation of the amount of purchase money which ETHYL COMPANY shall pay to DU PONT COMPANY for said No. 6 Lead Plant, all advances of money made thereon by ETHYL COMPANY hereunder or under said agreement of March 2, 1937, shall operate as a credit in favor of ETHYL COMPANY against the total cost of said No. 6 Lead Plant. Upon completion of such construction work, ETHYL COMPANY agrees to mark all said non-negotiable notes, executed by DU PONT COMPANY to evidence such loans, as being fully paid and satisfied, and to return said notes so marked to DU PONT COMPANY, and ETHYL COMPANY further agrees to give such proper instruments of release as may be required by DU PONT COMPANY. In the event the said advances shall exceed the said purchase price of such plant, DU PONT COMPANY shall promptly repay such excess to ETHYL COMPANY.

C. Upon written request made by DU PONT COMPANY, ETHYL COMPANY hereby agrees and consents to accept full assignment and conveyance of and to assume all obligations and liability under any and all contracts, agreements, deeds, leases, easements, licenses and obligatory writings of every kind or nature whatsoever then unexpired and in force and effect, which DU PONT COMPANY may have entered into in connection with the construction, maintenance and/or operation of the said No. 5 and No. 6 Lead Plants.

D. DU PONT COMPANY further agrees to operate and maintain No. 5 Lead Plant and No. 6 Lead Plant (hereinafter called said Lead Plants), for the production only of anti-knock compounds for the account and risk of Ethyl Company, during the period in which Du Pont Company shall operate said "Deepwater Plants" for the account of Ethyl Company, with the understanding that Ethyl Company may discontinue the services of Du Pont Company under this paragraph at any time upon not less than one year's written notice given to Du Pont Company, or upon not less than six (6) months' written notice in the event Ethyl Company desires said Lead Plants to be operated for the production of an anti-knock compound or compounds other than tetraethyl lead, using processes or equipment unacceptable to Du Pont Company.

Ethyl Company agrees to pay for such operation and maintenance all expenses and costs (including a fair proportion of Wilmington Office expense and other indirect expense of Du Pont Company) incurred by Du Pont Company applicable to or in connection with the operation and maintenance of said Lead Plants. Du Pont Company agrees to prepare and submit to Ethyl Company on or before the fifteenth day of each month for the period Du Pont Company operates said Lead Plants, an itemized statement showing all charges incurred by Du Pont Company during the next preceding calendar month applicable to or in connection with the operation and maintenance of said Lead Plants. Within ten (10) days after the receipt of such statement, Ethyl Company agrees to pay the same in full to Du Pont Company. Ethyl Company agrees to keep on deposit, without interest, with Du Pont Company, during the period of Du Pont Company's operation and maintenance of said Lead Plants, sufficient sums of money to cover Du Pont Company's working capital.

including current purchases and work in progress in connection therewith. Du Pont Company agrees to account for and to repay to Ethyl Company any balance of such sums so advanced by Ethyl Company upon termination of this agreement or upon the discontinuance of the services of Du Pont Company under this Paragraph D, whichever is earlier.

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Ethyl Company further agrees to purchase at Du Pont Company's book value, from Du Pont Company, all materials, supplies and products held by Du Pont Company, at the date of this agreement, in connection with the manufacture of ethyl chloride, lead sodium alloy and antiknock compounds for Ethyl Company at said Lead Plants. Ethyl Company also agrees to assume all contract commitments of Du Pont Company, as of the time of purchase of said Lead Plants, pertaining to materials and supplies for the operation and maintenance of said Lead Plants.

E. Du Pont Company agrees to supply to Ethyl Company and Ethyl Company agrees to purchase from Du Pont Company all ethyl chloride required for use in the operation of No. 5 Lead Plant at Baton Rouge, Louisiana, for the period beginning January 1, 1938, and ending September 30, 1939. The purchase price thereof shall be seven and one-half (7½) cents per pound, f.o.b. Deepwater Point, New Jersey, and shall be paid by Ethyl Company by the 25th of the month following shipment of said ethyl chloride. Said ethyl chloride may be furnished by Du Pont Company from either Deepwater Point, New Jersey, or Niagara Falls, New York, but if furnished from

Niagara Falls, New York, Du Pont Company shall pay to Ethyl Company the difference between freight charges on said ethyl chloride from Niagara Falls, New York, to Baton Rouge, Louisiana, and freight charges on said ethyl chloride from Deepwater Point, New Jersey to Baton Rouge, Louisiana.

F. Until such time as Ethyl Company shall have erected the sodium plant specified in Article VI hereof, Du Pont Company agrees to supply to Ethyl Company and Ethyl Company agrees to purchase from Du Pont Company all sodium required for use in said Lead Plants at Baton Rouge, Louisiana, provided that Du Pont Company shall be able to supply said sodium from its available unused production capacity. The purchase price of said sodium shall be the same as that provided for in Paragraph C of Article III aforesaid, and shall be paid by Ethyl Company by the 25th of the month following shipments of the sodium. In case Du Pont Company is unable to supply said sodium for

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lack of available capacity, then Du Pont Company at the written request of Ethyl Company and upon reasonable notice, but not subsequent to December 31, 1939, will increase its sodium manufacturing capacity in order to supply to Ethyl Company sodium for use in said Lead Plants, provided that Ethyl Company will guarantee a return on the required additional capital investment of twenty per cent (20%) per year over a period of six (6) years.

ARTICLE VI

Baton Rouge Sodium Plant

A. At the written request of Ethyl Company, Du Pont Company agrees at any time within the period in which Du Pont Company shall operate said "Deepwater Plants" for Ethyl Company, to prepare, at the expense of Ethyl Company, designs, plans and specifications for the construction of a sodium plant (hereinafter called "said sodium plant") at Baton Rouge, Louisiana, which will have a peak production capacity at a rate equivalent to twelve million five hundred thousand (12,500,000) pounds of sodium per year, and will operate regularly and satisfactorily under competent supervision, and will have a normal capacity to produce up to ten million (10,000,000) pounds of sodium per year. The quality of such sodium shall be equal to that now delivered by The R. & H. Chemicals Department of Du Pont Company to the tetraethyl lead plants at Deepwater Point, New Jersey. Upon the completion by Du Pont Comfany of said designs, plans and specifications, Du Pont Comany shall advise Ethyl Company of the estimated cost of construction of said sodium plant which estimate shall not be binding upon Du Pont Company. In the event Ethyl Company shall advise Du Pont Company that it elects to have Du Pont Company construct said sodium plant according to Section B of this Article VI, Du Pont Company shall deliver to Ethyl Company the said designs, plans and specifications for said sodium plant upon the written request of the President of Ethyl Company.

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B. At the written request of Ethyl Company, Du Pont Company agrees, for the account and risk of Ethyl Company, to erect as soon as practicable and operate said sodium plant, during the period of said lease for the "Deepwater Plants", and Du Pont Company agrees to take such steps as it may deem practicable to insure the most economical operation thereof.

Ethyl Company shall advance to Du Pont Company, from time to time, necessary funds without interest for the construction of said sodium plant and shall reimburse Du Pont Company for its costs incurred in connection with the said construction, within thirty (30) days after receipt from Du Pont Company of a statement thereof. Upon written request made by Du Pont Company, Ethyl Company hereby agrees and consents to accept full assignment and conveyance of and to assume all obligations and liability under any and all contracts, agreements, deeds, leases, easements, licenses and obligatory writings of every kind or nature whatsoever, then unexpired and in force and effect, which Du Pont Company may have entered into in connection with the construction, maintenance, and/or operation of said sodium plant.

Ethyl Company further agrees to pay Du Pont Company for the operation and maintenance of said sodium plant all expenses and costs (including a fair proportion of Wilmington Office expense and other indirect expense of Du Pont Company) incurred by Du Pont Company applicable to or in connection with such operation and maintenance. Du Pont Company agrees to prepare and submit to Ethyl Company on or before the 15th day of each month during the period Du Pont Company operates said sodium plant an itemized statement showing all expenses and costs incurred by Du Pont Company during the next preceding calendar month applicable to or in connection with the operation and maintenance of said sodium plant. Within ten (10) days after the receipt of said statement, Ethyl Company agrees to pay the same in full to Du Pont Company. Ethyl Company further agrees to keep on deposit, without interest, with Du Pont Company during the period of

Du Pont Company's operation and maintenance of said sodium plant sufficient sums of money to cover Du Pont

COMPANY's working capital, including current purchases and work in progress in connection therewith. DU PONT COMPANY agrees to account for and repay ETHYL COMPANY any balance of sums so advanced by ETHYL COMPANY for working capital upon termination of this agreement or upon the discontinuance of the services of DU PONT COMPANY under this Paragraph B, whichever is earlier.

C. DU PONT COMPANY hereby guarantees that during the period of operation of said sodium plant by DU PONT COMPANY from and after three (3) months from the date of commencement of operations in said sodium plant, it will manufacture sodium of the quality aforesaid at an average factory cost, exclusive of royalty, which, upon the bases of cost hereinafter specified, shall bear the following relationship to the volume of annual productions:

Annual Production		Maximum Manufacturing Cost per Pound of Sodium
10,000,000 pounds or more	—	6.5¢
9,500,000 — 10,000,000 pounds	—	6.65¢
9,000,000 — 9,500,000 "	—	6.85¢
8,500,000 — 9,000,000 "	—	7.05¢
8,000,000 — 8,500,000 "	—	7.25¢

The aforesaid guaranteed costs shall be computed upon the following bases:

Crude Salt (solid or in solution)	— $3.15 per ton delivered
Power	— $.0035 per KWH A.C. delivered
Labor.	— $.80 per man hour average
Overhead	— 70% of wages
Depreciation on fixtures & Equipment	— 7% per year
Depreciation on buildings	— 3% per year
Chlorine credit	— $.005 per pound of chlorine produced
Other cost elements	— $.013 per pound of sodium

An example of the computation of said guaranteed costs is attached hereto as Exhibit B. In the event that during any year of operation of the said sodium plant by Du Pont Company the production is at least eight million (8,000,000) pounds of sodium and the adjusted average cost calculated as above described is in excess of the guaranteed cost,

Du Pont Company will reimburse Ethyl Company not later than the 25th day following the expiration of the first calendar quarter of the next succeeding year for the excess up to but not exceeding the amount of royalty paid to Du Pont Company by Ethyl Company upon such sodium for such year of operation and the liability of Du Pont Company under this guarantee is expressly limited to such reimbursement.

D. In the event the said sodium plant is erected by Du Pont Company for Ethyl Company as above provided, then, upon written request of the President of Ethyl Company, Ethyl Company's authorized representatives shall have free access to said plant and Du Pont Company will disclose fully to Ethyl Company its process for the manufacture of sodium as now employed at Niagara Falls, New York, (hereinafter called "said sodium process") with such improvements thereon as may have been effected by Du Pont Company prior to such disclosure, and each party will then make available to duly authorized representatives of the other party all scientific, technical, engineering and other information with respect to said sodium process which it has attained or may attain during the next succeeding ten (10) years from date of commencement of operations in said sodium plant. Du Pont Company upon written request of the President of Ethyl Company will grant to Ethyl Company irrevocable, non-exclusive licenses for the United States, without right to sub-license, and for use by Ethyl Company only in plants erected under the terms of this agreement and only in connection with the manufacture of anti-knock compounds, under inventions controlled by Du Pont Company during the period of ten (10) years from the date of commencement of operations in said sodium plant relating to and employed in the manufacture of sodium by said sodium process. Upon the request of Du Pont Company, Ethyl Company will grant to Du Pont Company irrevocable licenses for the United States and foreign countries under any inventions controlled by Ethyl Company within ten (10) years from date of commencement of operations in said sodium plant, relating to said sodium process, and developed or acquired by Ethyl Company either (1) in connection with the operation of said sodium process, or (2) after Ethyl Company shall have received any information or license hereunder with respect to sodium or shall have received access hereunder to any sodium plant erected under Article VI or IX hereof, and such licenses shall be exclusive (with full right to sublicense) for use in the manufacture of alkali metals to be supplied to Ethyl Company and for use in the manufacture of alkali metals for use in fields outside the manufacture of anti-knock compounds, provided that Ethyl Company shall retain the right to use such inventions in connection with the manufacture of alkali metals for anti-knock compounds and all rights to such inventions for use in fields other than the manufacture of alkali metals. Each party agrees not to use secret information received from the other party hereunder, except to the extent that each respectively is to be licensed as provided above. Nothing in this paragraph contained shall obligate either party to grant licenses to the other party with respect to any inventions acquired subsequent to the date of this agreement, except under the terms and conditions imposed on the party granting such license in acquiring said inventions or rights with respect thereto. Subject to the conditions herein provided ETHYL COMPANY agrees to pay DU PONT COMPANY on all sodium manufactured by said sodium process in all plants erected under the terms of Articles VI and IX hereof, whether operated by DU PONT COMPANY hereunder or by ETHYL COMPANY or otherwise a royalty at the following rates:

2¢ per pound on first 100,000,000 pounds
1¢ " " " succeeding 100,000,000 pounds
½¢ per pound on all sodium in excess of
200,000,000 pounds.

The said royalty shall be payable by ETHYL COMPANY to DU PONT COMPANY not later than the 15th day following the expiration of each calendar quarter of the year.

E. ETHYL COMPANY may terminate the services of DU PONT COMPANY under Section B of this Article VI at any time upon one (1) years'

notice to DU PONT COMPANY sent by registered mail. Upon termination of DU PONT COMPANY's services in operating said plant for any reason, the guarantee of DU PONT COMPANY aforesaid with respect to the cost of sodium manufactured thereafter shall be cancelled and rescinded, and ETHYL COMPANY shall continue to pay royalties at the rate provided for in this agreement.

ARTICLE VII

COMPENSATION TO DU PONT COMPANY

ETHYL COMPANY agrees to pay DU PONT COMPANY in addition to any other sums due DU PONT COMPANY hereunder, in consideration of the execution and fulfillment of this agreement by DU PONT COMPANY, a sum based upon the gross profits of ETHYL COMPANY during each calendar year of this agreement equal to the following:

1. 100% of gross maufacturing profits of ETHYL COMPANY from manufacture, purchase, and sale of tetraethyl lead and/or mixtures thereof with other substances up to an aggregate amount of 53,000,000 pounds of total tetraethyl lead content in the subject calendar year; and
2. 30% of gross manufacturing profits of ETHYL COMPANY from manufacture, purchase, and sale of tetraethyl lead and/or mixtures thereof with other substances over and above 53,000,000 pounds of total tetraethyl lead content in the subject calendar year; and
3. 60% of gross manufacturing profits of ETHYL COMPANY from maufacture, purchase, and sale of anti-knock compounds other than tetraethyl lead and/or mixtures thereof with other substances; and
4. An amount whose ratio to the amount received by ETHYL COMPANY as dividends on the common stock of the Ethyl Dow Corporation is the same as the ratio of the aggregate payments to DU PONT COMPANY under sub-paragraphs 1, 2 and 3 aforesaid to twice the gross operating profits of ETHYL COMPANY as hereinafter defined.

It is understood and agreed that for the purpose of this Article, the term "gross manufacturing profits" shall be deemed to mean thirty-three and one-third per cent (33⅓%) of gross operating profits of Ethyl Company and the term "gross selling profits" shall be deemed to mean the balance of said gross operating profits. The term "gross operating profits" shall be deemed to mean total profits and other income (except dividends from Ethyl Dow Corporation), during subject calendar year, directly and indirectly resulting from manufacture, purchase, and sale of tetraethyl lead and other anti-knock compounds and materials used in the manufacture thereof in the United States of America and from importing said products into and exporting said products from the United States of America, without deduction for taxes based on income or profits or for bonuses paid to employees of Ethyl Company, but minus:

1. Interest during subject calendar year on the secured funded debt of Ethyl Company incurred in connection with the manufacture, purchase, and sale of tetraethyl lead and other anti-knock compounds and ingredients therefor in the United States.
2. Royalties paid General Motors Corporation for subject calendar year under the terms of a certain agreement dated August 28, 1924, between Ethyl Company, General Motors Corporation and General Motors Research Corporation.

Ethyl Company hereby represents and warrants that for any calendar year during the term of this agreement the royalties paid to General Motors Corporation under the terms of said agreement dated August 28, 1924, shall not be greater than twenty five per cent (25%) of a sum equal to said total profits and other income from manufacture, purchase, and sales of tetraethyl lead and/or other anti-knock compounds (coming within the terms of said agreement dated August 28, 1924) in the United States of America or from importing said products into and exporting said products from United States of America, but after deducting from said total profits, however, the following:

1. Interest during subject calendar year on the secured funded debt of Ethyl Company; and
2. A sum equal to twenty-two and one-half per cent (22½%) of the average amount of capital and surplus (mathematical mean of the amount employed at the beginning and the end of the accounting period) employed by Ethyl Company during the subject calendar year in its business of selling and distributing (but not manufacturing) tetraethyl lead or other anti-knock compounds; and

3. Bonuses during the subject calendar year to employees of Ethyl Company applicable to gross selling profits; and
4. Income or profits taxes applicable to the subject calendar year on gross selling profits; and
5. A sum equal to the gross manufacturing profits of Ethyl Company during subject calendar year.

The interest, royalties, bonuses, taxes and sums next above specified may be based, if necessary, upon estimates arrived at from the figures of the preceding year and upon the current business and shall be computed in the manner set forth in Exhibit A, annexed hereto and made a part hereof. The payments to Du Pont Company under the provisions of this Article shall be made within thirty (30) days after the end of each calendar month and may be based, if necessary, upon estimates arrived at from figures of the preceding year and upon current business and shall be subject to adjustment at the end of each calendar year during the term of this agreement. It is understood and agreed that the payments made to Du Pont Company shall be deemed fixed charges or deductions in determining net earnings of Ethyl Company but such payments shall not be deducted in determining gross operating profits of Ethyl Company as herein defined. In the event this agreement is terminated prior to the end of any calendar year, the compensation due Du Pont Company hereunder for the subject period shall be determined on the basis of the portion of such year this agreement was in effect.

ARTICLE VIII

ACCOUNTING

Ethyl Company agrees to keep true and accurate books of account showing said gross operating profits and gross manufacturing profits as defined in Article VII hereof, and to give unconditional access thereto, during business hours, to Du Pont Company and further agrees to render at the time compensation to Du Pont Company is paid, a true and accurate statement in writing showing the profits as aforesaid, and the details of the computation thereof. The yearly

statement thereof shall be certified by Price, Waterhouse & Company, Public Accountants, or by a substitute firm to be selected by said parties in case of the inability of said accounting firm to act.

ARTICLE IX

New Tetraethyl Lead Or Sodium Plants

A. Du Pont Company agrees to erect at the cost and for the account and risk of Ethyl Company such new plants for tetraethyl lead and/or blending and other anti-knock compounds, of the type and under conditions determined by mutual agreement of the parties, in the United States of America, as Ethyl Company may from time to time during the term of this agreement request in writing. Ethyl Company shall advance to Du Pont Company from time to time necessary funds, without interest, for the construction of any such plants and shall promptly reimburse Du Pont Company for its costs so incurred. At the written request of Ethyl Company, Du Pont Company will operate any or all of such new plants upon the same terms and conditions as herein stated for No. 5 and No. 6 Lead Plants at Baton Rouge, Louisiana, excepting the obligation to furnish ethyl chloride for any such new plant, and without the payment by Ethyl Company to Du Pont Company of any additional compensation except as provided in this agreement.

B. Du Pont Company agrees to erect, at the cost and for the account and risk of Ethyl Company, such new plants in the United States of America, for the production of sodium as Ethyl Company may, from time to time during the term of this agreement, request in writing. Said plant or plants will be constructed to employ the process now used by Du Pont Company at Niagara Falls, New York, with such improvements thereon as the parties hereto may have theretofore effected. Ethyl Company shall advance to Du Pont Company, from time to time, the necessary funds, without interest, for the construction of any such plants and shall promptly reimburse Du Pont Company for its cost: At the written request of Ethyl Company, Du Pont Company will operate any or all of such new sodium plants, subject to the terms and conditions specified in this agreement for the operation of said Baton Rouge sodium plant, excepting, however, that in respect to any such plants no guarantee of maximum cost of production shall apply. For services rendered in connection with the operation of any such new sodium plants, Du Pont Company shall receive no additional compensation except as provided in this agreement.

C. Nothing in this Article contained shall obligate Du Pont Company to construct any such plant or plants (tetraethyl lead, other anti-knock compound or sodium), the completion of which by Du Pont Company with reasonable diligence, would be subsequent to the period of operation of said "Deepwater Plants" by Du Pont Company for Ethyl Company. If Ethyl Company shall request Du Pont Company in writing, to build any such new plant, Du Pont Company shall advise Ethyl Company, in writing, within sixty (60) days thereafter whether such plant can or cannot be completed prior to the termination of this agreement. If Du Pont Company advises that such plant cannot be so completed then Ethyl Company shall have the right to construct any such new plant for its own account, provided construction is begun not later than one (1) year prior to the expiration of this agreement, and provided, further, that such new plant is fully completed not later than six (6) months after the expiration of this agreement.

D. Nothing in this agreement contained shall be construed to grant to either party any right, license or privilege to use in any lead-sodium alloy, ethyl chloride or tetraethyl lead or in other anti-knock plant or in any sodium plant any invention, process or design of the other party excepting (1) with respect to lead-sodium alloy, ethyl chloride and anti-knock compounds, under and subject to the terms of the License Agreement between the parties hereto dated January 1, 1938, and (2) with respect to sodium, under and subject to the provisions of this Article IX and Article VI hereof.

E. Du Pont Company agrees to keep complete and accurate books and records showing costs of construction, operation and maintenance of any plant constructed, operated or maintained by Du Pont Company for Ethyl Company hereunder and to give unconditional access thereto to Ethyl Company's authorized representatives during business hours.

ARTICLE X

Quality and Quantity

A. The quantity (not in excess of capacity of plants as determined by Du Pont Company) and quality of the products manufactured by Du Pont Company in any plant operated for the account of Ethyl Company hereunder shall be determined by Ethyl Company and the processes and equipment used shall be determined by mutual agreement, the parties recognizing that new processes or equipment relating to the manufacture of lead-sodium alloy, ethyl chloride and anti-knock compounds may be developed or invented during the term of this agreement. If Du Pont Company shall agree to manufacture lead-sodium alloy, ethyl chloride and anti-knock compounds with such new processes or equipment, the same terms and conditions as in this agreement stated shall apply.

The physical operation of any plant hereunder by Du Pont Company for Ethyl Company shall be under the sole control of Du Pont Company and no changes shall be made by Ethyl Company in equipment or processes in any such plant without the approval of Du Pont Company.

B. It is understood and agreed by the parties hereto that Du Pont Company does not warrant or guarantee the quantity or quality of any product manufactured by Du Pont Company in any plant operated for the account of Ethyl Company under this agreement but Du Pont Company does agree to use its best efforts to produce products of the quantity and quality specified by Ethyl Company. Nothing contained in this paragraph B shall affect the provisions of paragraph A of Article VI hereof.

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ARTICLE XI

Purchase of Sodium

Ethyl Company agrees that if, during the period of this agreement, it receives from reliable and financially responsible concerns bona fide offers to supply to it twenty five per cent (25%) or more of its total requirements of sodium for the remainder of the term of this agreement, at a price less than Du Pont Company's price as set forth in Paragraph C of Article III aforesaid, then Ethyl Company will promptly forward a copy of such offer or offers to Du Pont Company. Within thirty (30) days after the receipt by Du Pont Company of any such offer or offers Du Pont Company will either (1) supply such percentage of Ethyl Company's total requirements of sodium at the price stated in said offer or offers for the remainder of the term of this agreement, or (2) permit ETHYL COMPANY to purchase pursuant to the terms of said offer or offers, such percentage of its sodium requirements. DU PONT COMPANY shall be released throughout the remaining period of this agreement from its obligation to sell and deliver such percentage of ETHYL COMPANY'S sodium requirements as ETHYL COMPANY shall so elect to purchase elsewhere.

ARTICLE XII

SALE OF TETRAETHYL LEAD FOR OTHER THAN ANTI-KNOCK PURPOSES

In addition to all other obligations of ETHYL COMPANY under the provisions of this agreement, ETHYL COMPANY agrees to sell to DU PONT COMPANY and DU PONT COMPANY agrees to purchase from ETHYL COMPANY, DU PONT COMPANY'S entire requirements of tetraethyl lead, up to five hundred thousand (500,000) pounds per year, for use for other than for anti-knock purposes during the term of this agreement, at cost plus fifteen per cent (15%). Such quantity of tetraethyl lead shall not be included in computing compensation to DU PONT COMPANY under Article VII hereof.

ARTICLE XIII

CONSTRUCTION COSTS

It shall be the general rule applicable to all accountings, computations or estimates of all items comprising the cost to DU PONT COMPANY of the construction of the tetraethyl lead, other anti-knock compound and sodium plants provided for in this agreement, that Du Pont Company shall be fully reimbursed for all expenditures or losses of every kind and nature whatsoever incurred by it in carrying on the said construction. Without limiting the foregoing, the following shall be included in computing costs to Du Pont Company.

(1) Salaries and expenses of all engineers, technical specialists, administrative staff and supervisory management of labor—

To include direct salaries to such persons actively at work on the construction site as well as a fair proportional amount of Du Pont Company's overhead, salaries and expenses wherever incurred.

(2) Fair proportional amount of salaries and expenses of supervisory, ordering and estimating forces of Du Pont Company.

(3) Fair proportional amount of expenses and salaries of Du Pont Company's Service Departments.

(4) Expenses of field supervision—to include salaries of all engineers, clerical help, instrument men, rodmen, etc., traveling and living expenses of field supervision forces, and fair proportional amount of Du Pont Company's overhead, salaries and expense.

(5) Field expenses—to include all expenses in connection with the actual maintenance and operation of the construction activities, such as protection, sanitation, safety, personal injuries, medical expenses, hospital expenses, ambulance services, workmen's compensation, property damage, public liability, etc. In the

event DU PONT COMPANY is reimbursed for any losses or liability described herein from outside insurance or self-insurance reserve funds, then such losses or liability shall not be a proper charge herein against ETHYL COMPANY.

(6) Employment of labor—to include all expenses in connection with the actual employment of labor, such as the expenses of bringing in labor, traveling expenses, labor scouts, transportation and meals of labor enroute, employment office, etc.

(7) Traveling expenses of all persons.

(8) Office expenses—to include field telephones, telegrams, stationery, office supplies, postage, typewriters, etc., cost of blue prints, both field and elsewhere.

(9) Surveying supplies.

(10) Light, heat, power and water—to include such expenses actually incurred therefor in the construction work.

✓ (11) Permit fees—cost of all permits secured in connection with buildings, water lines, roadways, etc.

(12) Cost of insurance for property damage and personal injury—to include all premiums paid on all insurance covering fire, wind, water, explosion, flood, lightning, workmen's compensation, personal injury, public liability, etc. Further, in the event DU PONT COMPANY shall follow a program of self-insurance, thereby setting up a reserve fund for the purpose of such self-insurance on any liability or hazard connected with said construction activities, the amount

set aside in the self-insurance reserve shall be charged to ETHYL COMPANY as a legitimate item of cost. In determining the amount to be set aside for such purpose, DU PONT COMPANY will follow the principles heretofore used by it, but the charge to ETHYL COMPANY for any insurance carried by DU PONT COMPANY in its insurance reserves shall not exceed premiums which would be payable on comparable policies with an insurance company.

(13) Cost of transportation for field force—to include actual transportation in activities pertaining to the construction work, automobiles, etc.

(14) Progress photographs, to include cost of films, developing, etc.

(15) Miscellaneous supplies:

  (a) Labor of unloading materials

  (b) Freight and express

(16) Construction materials:

  (a) Labor of unloading materials

  (b) Freight, express and other costs of transportation.

(17) Labor—to include wages paid to all labor engaged directly or indirectly in construction activities and in the cleaning up, alterations, development, etc., after preliminary stage of completion has been reached.

(18) Apparatus, machinery, fixtures, tools and other materials and supplies.

(19) Installation of servicing facilities—to include pipe lines, power lines, conveyance lines, tracks, electric

lines, waste disposal systems, storage spaces, offices, laboratories, servicing buildings, tanks, water supply, telephone lines, tools, and other equipment.

(20) Legal fees incurred by Du Pont Company in carrying on of construction activities and final conveyance of title to plants, and to include fair proportional amount of Du Pont Company's Legal Department overhead.

(21) Taxes and rentals.

(22) All expenditures for labor, supervision, supplies and materials involved in experimentation and development of plant system during and after construction in preparation for future operation.

(23) Cost of tools and machinery used in the construction of plant.

(24) Cost of all construction materials and supplies on hand at date of completion of plant.

(25) Cost of labor, supervision, supplies and materials and other expenses in connection with alteration, modification, repair and testing of plant and plant system.

(26) Laboratory expenses including expert technicians' fees and expenses incurred in testing equipment, materials and processes of operation.

(27) Cost of design and plans.

(28) Taxes and incidental expenses incurred in the construction or transfer of the plant.

ARTICLE XIV

FORCE MAJEURE

Neither party shall be responsible to the other for failure to perform any of the obligations imposed by this agreement provided such failure shall be occasioned by fire, flood, explosion, lightning, windstorm, earthquake, subsidence of soil, failure of machinery or equipment or supply of materials, discontinuity in the supply of power, governmental interference, civil commotion, riot, war, strikes, labor disturbance, transportation difficulties, labor shortage or by any cause of like or unlike nature beyond the reasonable control of such party.

ARTICLE XV

INDEMNITY

ETHYL COMPANY agrees to save and hold DU PONT COMPANY harmless from any and all liability including legal expenses incidental thereto, arising out of DU PONT COMPANY's operation, maintenance or construction of any plant hereunder for ETHYL COMPANY. DU PONT COMPANY shall promptly notify ETHYL COMPANY of any claim made or suit filed against DU PONT COMPANY in connection with any such liability, and ETHYL COMPANY shall have the right, at its option but entirely at its own expense, to take over the settlement or defense of any such claim or suit.

ARTICLE XVI

ADDRESSES

The addresses of the parties are as follows:

E. I. DU PONT DE NEMOURS & COMPANY,
WILMINGTON, DELAWARE

ETHYL GASOLINE CORPORATION,
405 LEXINGTON AVENUE,
NEW YORK CITY

ARTICLE XVII

TERM OF AGREEMENT

This agreement shall be effective as of the date hereof and shall continue in force for seven (7) years; it being understood, however, that in the event ETHYL COMPANY does not manufacture in the United States of America anti-knock compounds for any two successive years of the term of this agreement, then either party may terminate this agreement on not less than thirty (30) days' written notice given to the other party.

If, during any two successive years of the term of this agreement, payment of compensation to DU PONT COMPANY under Article VII of this agreement shall be less than seven per cent (7%) of the gross book value of said "Deepwater Plants" as carried on the books of DU PONT COMPANY as of the date of this agreement, before deduction for depreciation, then ETHYL COMPANY, at the written request of DU PONT COMPANY, shall either (a) surrender said agreement of lease and cancel this agreement, or (b) definitely obligate itself to pay to DU PONT COMPANY annually during the balance of the term of said agreement of lease, as compensation under Article VII of this agreement a minimum amount equal to seven per cent (7%) of the gross book value of said "Deepwater Plants" as carried on the books of DU PONT COMPANY as of the date of this agreement before deduction for depreciation. Upon ETHYL COMPANY assuming said definite minimum obligation it is understood that the provisions of Article VII hereof shall continue to apply, but if in any year thereafter the compensation to DU PONT COMPANY computed in the manner therein set forth shall be less than said minimum amount, then ETHYL COMPANY shall promptly pay the difference to DU PONT COMPANY.

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The termination or cancellation of this agreement for any reason shall not affect the provisions with respect to sodium licenses or the royalties payable therefor.

ARTICLE XVIII

ARBITRATION

In the event the parties hereto are unable to agree as to the construction or application of any of the accounting provisions of this agreement, the License Agreement or the Lease Agreement, of even date, either party may have such dispute determined by Price. Waterhouse & Co., whose decision thereon shall be final and binding on the parties. The cost of such services shall be borne by the party requesting such determination.

ARTICLE XIX

MISCELLANEOUS

This agreement shall supersede any prior agreement between the parties relating to anti-knock compounds or the construction of plants at Baton Rouge, Louisiana. This agreement shall be assignable by either of the parties to the successor of its entire business relating to anti-knock compounds but this agreement shall not be otherwise assignable.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed and their respective seals to be hereto affixed, in duplicate, by their officers or representatives thereunto duly authorized, this *sixth* day of January, 1938.

ETHYL GASOLINE CORPORATION

By *E. W. Webb*
President

(SEAL)

ATTEST
J. C. Gonzalez
Secretary

E. I. DU PONT DE NEMOURS & COMPANY

By *E. G. Robinson*
General Manager

(SEAL)

ATTEST
W. F. Raskob
Secretary

EXHIBIT A

ROYALTIES DUE GENERAL MOTORS CORPORATION

The royalties due General Motors Corporation are calculated by a method which involves (1) gross manufacturing profits and (2) gross selling profits. Both (1) and (2) are fractions of gross operating profits, the determination of which is dependent upon said royalties. The payments to DU PONT COMPANY also involve said royalties. Said royalties and hence payment to DU PONT COMPANY, can therefore be computed by algebraic means.

Let:

A = Total profits of ETHYL COMPANY from manufacture, purchase, and sales of anti-knock compounds.

B = Interest on secured funded debt of ETHYL COMPANY.

C = Average amount of capital employed by the ETHYL COMPANY in selling and distributing anti-knock compounds.

D = Bonuses to employes of ETHYL COMPANY applicable to gross selling profits.

n = Effective net income tax rate.

X = Royalties due General Motors Corporation.

Then:

Gross operating profits $= A — B — X$

Gross manufacturing profits $= 0.333\ldots(A\text{-}B\text{-}X)$

Gross selling profits $= 0.666\ldots(A\text{-}B\text{-}X)$

Income taxes on gross selling profits $= n \cdot [0.666\ldots(A\text{-}B\text{-}X)\text{-}D]$

$$X = 0.25 \left\{ A — B — 0.225\,C — D — n\,[0.666\ldots(A\text{-}B\text{-}X)\ \text{-}D] — 0.333\ldots(A\text{-}B\text{-}X) \right\}$$

The following example is illustrative.

Total profits from operations (A) = $2,000,000.

Interest on secured funded debt of ETHYL COMPANY (B) = $ 140,000.

Amount employed by ETHYL COMPANY in selling, etc. (C) = $ 500,000.

Bonuses applicable to profits from sales (D) = $ 50,000.

Effective net income tax rate = 15%

Then:

$$X = 0.25 \Big(2{,}000{,}000 - 140{,}000 - 0.225\ (500{,}000) - 50{,}000 - 0.15\ [0.666\ldots(1{,}860{,}000 - X) - 50{,}000] - 0.333\ldots(1{,}860{,}000 - X) \Big)$$

$X = 252{,}000$

Total profits from operations (A) = 2,000,000

Interest on secured funded debt (B) = 140,000

Royalty (X) = 252,000

Gross operating profits = 1,608,000

Gross Manufacturing profits = 536,000

Gross selling profits = 1,072,000

For the purpose of this example no calculations are carried beyond the nearest $1000.

EXHIBIT B

In the following example, the assumed actual results are entirely arbitrary, and while the data are set up to simulate what might be experienced, none of the assumed actual results are represented to be based upon either experience or expectations.

Item	Assumed Actual Results			Adjusted Average Cost per 100# Na	Notes
	Quantity used per 100# Na	Unit Price	Cost per 100# Na		
Crude salt	270#	$3.50/T.	$ .472	$ .425	(1)
Power	560 KWH	$ .004	2.240	1.960	(2)
Labor	2.0 man-hrs.	$ .75	1.500	1.600	(3)
Salaries	—	—	.200	0	(4)
Overhead	—	—	1.000	1.120	(5)
Depreciation: equipment	—	5%/yr.	.750	1.050	(6)
" : buildings	—	5%/yr.	.200	.120	(7)
Other cost elements	—	—	.800	1.300	(8)
Gross cost, before chlorine credit			$7.162	$ 7.575	
Chlorine credit	(150#)	$ .005	(.750)	(.750)	(9)
Net factory cost			$6.412	$ 6.825	

Comment:

If the results indicated by the foregoing prevailed for a production of less than 9,500,000 pounds per year, the guaranteed cost would be met and no reduction in royalty could be claimed. However, if the production had been from 9,500,000 to 10,000,000 pounds for the year, the royalty would be reduced by .175¢ per pound, and if the production had been 10,000,000 pounds or more, the royalty would be reduced by .325¢ per pound.

Notes:

1. Crude salt: The adjusted cost is arrived at by multiplying the quantity actually used by a unit price of $3.15 per ton.

2. Power: The adjusted cost is arrived at by multiplying the quantity actually used by a unit price of $.0035 per KWH.

3. Labor: The adjusted cost is obtained by multiplying the number of man-hours actually employed by a unit price of 80¢ per man-hour.

4. Salaries: In the adjusted cost the salaries item is included in "other cost elements".

5. Overhead: The adjusted overhead cost is 70% of the adjusted labor cost, or 56¢ per man-hour of labor.

6. Depreciation on equipment: The adjusted cost bears the same ratio to the actual cost as 7% bears to the actual depreciation rate.

7. Depreciation on buildings: The adjusted cost bears the same ratio to the actual cost as 3% bears to the actual depreciation rate.

8. Other cost elements: By agreement, the adjusted cost includes 1.3¢ per pound as allowance for other cost elements.

9. Chlorine credit: In the adjusted cost the chlorine recovered from the process is credited at $.005 per pound of chlorine regardless of whatever value may otherwise be assigned.

NOTE: At lower right of all pages is written "GMC-847c"; in left margin of page 29 is stamped "Form approved, Legal Department . . . Asst. Director"; in the space provided in this stamp is written the name of H. C. Haskell; beneath this stamp are written three illegible sets of initials; italics indicate handwriting.

Government's Exhibit No. 800

LICENSE AGREEMENT

THIS AGREEMENT made as of the 1st day of January, 1938, between E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, hereinafter called DU PONT COMPANY, and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter called ETHYL COMPANY,

WITNESSETH THAT

WHEREAS, DU PONT COMPANY for many years has manufactured anti-knock compounds containing tetraethyl lead under ETHYL COMPANY'S United States Patents Nos. 1,612,131, 1,639,947 and 1,697,245 and sold said anti-knock compounds to ETHYL COMPANY;

WHEREAS, the parties desire to adjust their relations to one another with respect to certain phases of the anti-knock compound business;

NOW, THEREFORE, in consideration of One Dollar ($1.00), each party to the other paid, and of other good and valuable considerations, receipt whereof is hereby respectively acknowledged, the parties agree as follows:

ARTICLE I

In the construction and interpretation of this agreement:

(a) The term "anti-knock compounds" shall be deemed to mean tetraethyl lead, and/or any compound or mixture which, added to motor fuel in the proportion of not more than one per cent (1%) by volume, or added to the explosive charge of an internal combustion engine in the proportion equivalent to not more than one per cent (1%) by volume of the liquid fuel, shall have an effect in inhibiting detonation which is equivalent to that produced by one (1) cubic centimeter of tetraethyl lead per United States gallon of average commercial gasoline as currently marketed.

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(b) The term "subsidiaries" shall be deemed to mean all corporations in which the parent company owns or controls directly or indirectly, more than fifty per cent (50%) of the stock having the right to vote for directors. For the purpose of this definition, the stock owned or controlled by the parent company shall be deemed to include all stock having the right to vote for directors and owned or controlled directly or indirectly by any of its subsidiaries as defined in the preceding sentence.

(c) The term "lead sodium alloy" shall be deemed to mean an alloy of lead and sodium made by bringing together lead and sodium which have been previously manufactured as separate products, capable of commercial sale as such.

(d) The term "the field of this agreement" shall be deemed to mean the manufacture of anti-knock compounds, lead sodium alloy, and ethyl chloride, but not the manufacture of commercially available materials used in the manufacture thereof.

Wherever the parties are referred to in this agreement, it is understood that the subsidiaries of each party are included with the party itself except as stated in Article III hereof.

ARTICLE II

A. Each of the parties agrees that it will disclose fully and promptly to the other, during the term ~~of~~ that certain agreement of even date herewith between the parties, identified as Manufacturing Service Agreement, any information which it possesses relating to the field of this agreement. Each of the parties agrees that while, during the term of said Manufacturing Service Agreement it operates or has operated for it any plant in the United States for the manufacture of lead sodium alloy, ethyl chloride, or anti-knock compounds, or for blending of ingredients to form anti-knock compounds, it will permit duly authorized representatives of the other party free access to said plant and/or plants to familiarize themselves with operations of said plant and/or plants to the end that any such representative or representatives of the other party shall have the opportunity to become familiar with the knowledge and experience of the party that is operating said plant and/or plants. All secret information relating to a secret process, compound or equipment owned and revealed by one party to the other shall be kept secret and confidential by the party receiving it and shall be disclosed by it only as necessary to permit its use in the enjoyment of the licenses herein granted and all sublicenses shall be subject to this condition. The party so acquiring such secret information shall be entitled to use it only in accordance with the licenses herein granted.

B. Du Pont Company grants to Ethyl Company a royalty-free license to manufacture, use and sell anti-knock compounds and to employ therefor any patented, patentable or secret compounds, processes or designs of Du Pont Company within the field of this agreement which

Du Pont Company now owns or controls or may own or control prior to the termination of said Manufacturing Service Agreement but subject, however, to the following conditions:

(1) No license is granted directly or by implication under any claim of any patent (or for the use of any secret) which claim (or secret) covers (or relates to) a composition or a compound which as of the date of this agreement is not known to Du Pont Company to be an anti-knock compound, and which claim (or secret) is based upon an invention (or discovery) made prior to the date of this agreement and owned or controlled by Du Pont Company prior to such date.

(2) Subject to Paragraph D of this Article II, the license runs for all countries of the world and for the full life of the patents licensed, respectively, and any extensions or renewals thereof, and in the case of any secret compound, process or design for so long as the same remains secret except that no license is granted for ethyl chloride outside of the United States.

(3) The license is non-exclusive for the United States and for anti-knock compounds other than lead alkyls outside of the United States; it is exclusive for lead alkyls including lead sodium alloy therefor outside of the United States.

(4) The license is limited to the use of the licensed processes for the manufacture of products sold for anti-knock purposes except that ethyl chloride manufactured under the license may be sold or used for any purpose.

(5) The license is non-transferable, but sub-licenses may be granted under this license by ETHYL COMPANY only for operations conducted outside the United States and there only to sub-licensees in which ETHYL COMPANY has a financial interest. The license rights under foreign patents (i.e. patents other than U. S. patents) are not subject to cancellation as hereinafter provided.

C. ETHYL COMPANY grants to DU PONT COMPANY a non-exclusive, royalty-free license to manufacture, use and sell anti-knock compounds and to employ therefor any patented, patentable or secret compounds, processes or designs of ETHYL COMPANY within the field of this agreement which ETHYL COMPANY now owns or controls or may own or control prior to the termination of said Manufacturing Service Agreement but subject, however, to the following conditions;

(1) No license is granted directly or by implication under any claim of any patent (or for the use of any secret) which claim covers (or secret constitutes) an anti-knock compound per se or a motor fuel containing the same, or the use of such compound for anti-knock purposes, which patent (or secret) is based upon an invention (or discovery) made prior to the date of this agreement and owned or controlled by ETHYL COMPANY prior to such date.

(2) Subject to paragraph D of this Article II, the license begins as of the termination of said Manufacturing Service Agreement (except that the

license for ethyl chloride begins as of the date of this agreement) and continues for the full life of the patents licensed respectively, and any extensions or renewals thereof, and in the case of any secret compound, process or design, for so long as the same remains secret.

(3) The license is limited to the use of the licensed processes for the manufacture of products sold for anti-knock purposes except that ethyl chloride manufactured under the license may be sold or used for any purpose.

(4) The license is non-transferable, and no sub-license may be granted thereunder and it shall be limited to operations in the United States.

D. In the event that ETHYL COMPANY does not offer in writing to purchase from DU PONT COMPANY during each twelve (12) months' period after the termination of said Manufacturing Service Agreement, at least one-half of ETHYL COMPANY's requirements (for sale within and export from the United States) of tetraethyl lead at the purchase price set forth in Paragraph E (1), of this Article II, and of other anti-knock compounds protected by United States patent rights of one of the parties, at the purchase price set forth in Paragraph E (2), of this Article II, then all licenses (except license rights under foreign patents) which have been granted by either party to the other, under this agreement, or under said Manufacturing Service Agreement, shall thereupon expire, cease and determine. In the event said licenses shall cease and determine for the reasons next above specified, ETHYL COMPANY shall grant to

Du Pont Company non-exclusive licenses under any patent or patents or rights to obtain patents (and the right to employ any secret process or design) owned or controlled by Ethyl Company, during the term of said Manufacturing Service Agreement and based upon any invention (or discovery) made during the term of said Manufacturing Service Agreement and relating to the manufacture of lead alkyls. Said non-exclusive licenses are non-transferable, and no sub-licenses may be granted thereunder. They shall be limited to operations in the United States and shall run for the full life of the patents licensed respectively and any extensions or renewals thereof, and in the case of any secret compound, process or design for so long as the same remains secret. If Ethyl Company does offer in writing to purchase from Du Pont Company one-half of its requirements as aforesaid, then the non-exclusive licenses granted hereunder to Du Pont Company under inventions made during the term of said Manufacturing Service Agreement insofar as said inventions relate to lead alkyls shall be limited (except for the manufacture of anti-knock compounds for sale to the Ethyl Company) to the use of the licensed processes for the manufacture of an anti-knock compound, the use of which as an anti-knock compound is not covered by an unexpired United States patent owned or controlled by one of the parties.

Each of said offers of Ethyl Company (except the first said Manufacturing Service Agreement is terminated prior to December, 31, 1944) to purchase one-half of its requirements as provided for in this Paragraph D shall, if made, be made to Du Pont Company nine months in advance of the beginning of the subject twelve months' period and Du Pont Company shall accept or refuse in writing such offer within ninety (90) days thereafter.

Du Pont Company may accept part of the total offered but in no event less than its plant capacity.

E. (1) The price to be paid by Ethyl Company for tetraethyl lead purchased under the provisions of Paragraph D of this Article II, during any year after the termination of said Manufacturing Service Agreement and prior to January 1, 1948, shall be such as to yield a net profit to Du Pont Company, before income and profit taxes, equal to:

(a) 50% of the net profit and income of Ethyl Company (before income and profit taxes and excluding dividends from Ethyl Dow Corporation) directly or indirectly resulting from the manufacture, purchase and sale of tetraethyl lead and/or mixtures thereof with other substances up to an aggregate amount of 53,000,000 pounds of tetraethyl lead content in such year, and

(b) 11-1/9% of the net profit and income of Ethyl Company (before income and profit taxes and excluding dividends from Ethyl Dow Corporation) during such year, directly or indirectly resulting from the manufacture, purchase and sale of tetraethyl lead and/or mixtures thereof with other substances in excess of 53,000,000 pounds of tetraethyl lead content.

For the year 1948 the price for tetraethyl lead to be paid by Ethyl Company to Du Pont Company shall be such as to yield a net profit per pound to the Du Pont Company, before income and profit taxes, equal to the yearly average profit per pound made by Du Pont Company during the three preceding years.

In no case shall the price for tetraethyl lead give Du Pont Company less than a net return of 7% per year on the investment employed by it in the manufacture of such tetraethyl lead for Ethyl Company.

For each year beginning 1949, the price per pound for tetraethyl lead to be paid by Ethyl Company to Du Pont Company shall, if necessary, be settled by arbitration, not later than nine months prior to the beginning of any calendar year, in the City of New York under the law of the State of New York. It is agreed that Ethyl Company shall appoint one arbitrator, and Du Pont Company shall appoint another, and the two so appointed shall appoint a third, and the decision of the arbitrators or a majority thereof shall be final and binding on the parties. Should Ethyl Company refuse or neglect to appoint, or should Du Pont Company refuse or neglect to appoint an arbitrator within fifteen (15) days after being requested in writing so to do, the arbitrator appointed by the other party may decide the question involved, and his decision shall be final and binding on the parties. Should both parties appoint arbitrators and the two so appointed be unable or unwilling to agree upon a third within ten (10) days, the third arbitrator shall be appointed at the request of either party in writing by the Senior Judge of the Federal District Court of the Southern District of New York, or should he refuse or neglect

to appoint said third arbitrator within a period of ten (10) days after being requested so to do, by the Chairman or Acting Chairman of the Arbitration Committee of the Chamber of Commerce of the City of New York. The arbitrators may assess the cost of the arbitration including their own charges.

E. (2) In the case of any anti-knock compound, other than tetraethyl lead, the price to be paid by Ethyl Company to Du Pont Company for any year shall be such as to yield a net profit to Du Pont Company, before income and profit taxes, equal to 25% of the net profit and income of Ethyl Company during such year (before income and profit taxes, and excluding dividends from Ethyl Dow Corporation) directly or indirectly resulting from the manufacture, purchase and sale of such anti-knock compound, but in no event shall such price give Du Pont Company less than a net return of seven percent (7%) per year on the investment employed by it in the manufacture of said anti-knock compound. If new investment is required to be made by Du Pont Company for the manufacture of any such anti-knock compound, the price to be paid by Ethyl Company shall include provision for the amortization of such investment over a period of not exceeding five years, provided Du Pont Company shall agree to supply said anti-knock compound on the aforesaid price basis until such amortization has been effected, and thereafter for five years at the same price basis less the amortization allowance and without charge for depreciation on the investment amortized as above. Ethyl Company shall have the right to discontinue the purchase of any such anti-knock compounds upon payment to Du Pont Company of a sum equal to the unamortized investment.

For the purpose of this paragraph, fractional parts of any year shall be treated on the basis of its proportion to a whole year.

It is the intention that anti-knock compounds delivered by Du Pont Company to Ethyl Company, pursuant to

Paragraph D of this Article II, will be billed monthly on the basis of the estimated

price, and an adjustment shall be made at the end of each year on the basis of the final accounting for such year.

F. Nothing in this agreement contained shall obligate either party to grant licenses to the other party with respect to any inventions or discoveries acquired subsequent to the date of this agreement, except upon the same terms and conditions imposed on the party granting such licenses in acquiring any of said inventions or discoveries or rights with respect thereto.

ARTICLE III

If any subsidiary of Du Pont Company shall fail to comply with the terms of this agreement said non-complying subsidiary shall be deemed to have renounced the benefits hereof, and Du Pont Company agrees to hold Ethyl Company harmless from any loss or damage incurred by reason of such non-compliance by any non-complying subsidiary; provided, however, that the liability of Du Pont Company under this Article is expressly limited to the aggregate amount of profits directly or indirectly received by Du Pont Company from any non-complying subsidiary by reason of and/or resulting from such non-compliance.

ARTICLE IV

Ethyl Company represents and warrants that it has entered into license agreements with respect to anti-knock compounds dated August 28, 1924 with Standard Oil Company (a corporation of New Jersey) and Standard Development Company (a corporation of Delaware), and with General Motors Corporation (a corporation of Delaware) and General Motors Research Corporation (a corporation of Delaware), which agreements were amended on January 1, 1938, and a license agreement with respect to ethyl chloride dated January 1, 1938 with Standard Oil Development Company, a corporation of Delaware, and that Ethyl Company will at no time consent to any restriction, modification or cancellation of said agreements which would affect any interest or rights of the Du Pont Company under this agreement or under said Manufacturing Service Agreement.

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Nothing in this agreement contained shall apply to the manufacture of sodium or any rights or licenses granted or to be granted by either party to the other with respect to the manufacture of sodium.

ARTICLE V

Du Pont Company represents that it has no commitments with other parties embracing anti-knock compounds as such but it is understood and agreed by the parties hereto that the rights herein granted by Du Pont Company to Ethyl Company in the field of this agreement are subject to any prior commitments of Du Pont Company with respect to any composition or compound which, as of the date of this agreement, is not known to the Du Pont Company to be an anti-knock compound.

In Witness Whereof, the parties hereto have caused these presents to be signed and their respective seals to be hereto affixed, in duplicate, by their officers or representatives thereunto duly authorized, this *sixth* day of January, 1938.

E. I. Du Pont De Nemours & Company

By *E. G. Robinson*
General Manager

(Seal)

Attest

W. F. Raskob
Secretary

Ethyl Gasoline Corporation

By *E. W. Webb*
President

(Seal)

Attest

J. C. Gonzalez
Secretary

Note: At lower right of all pages is written "GMC-847b"; in left margin of page 10 is stamped "Form approved, Legal Department . . . Asst. Director"; in the space provided in this stamp is written the name of H. C. Haskell; above this stamp are written two illegible sets of initials; at bottom of first page is written the word "license"; italics indicate handwriting.

Government's Exhibit No. 801

1893

LICENSE AGREEMENT

The parties to this agreement, made as of the 1st day of January, 1938, are STANDARD OIL DEVELOPMENT COMPANY, a corporation of the State of Delaware, hereinafter referred to as DEVELOPMENT, and ETHYL GASOLINE CORPORATION, a corporation of the State of Delaware, hereinafter referred to as ETHYL.

In consideration of the premises and the mutual covenants and agreements herein expressed it is agreed as follows:

ARTICLE I

A. DEVELOPMENT hereby grants and agrees to grant to ETHYL (with full power to sub-license others without accounting to DEVELOPMENT) a non-exclusive, royalty-free license to manufacture, use and sell Ethyl Chloride, under any patented, patentable or secret compounds, processes or designs of DEVELOPMENT, which may be employed prior to December 31, 1944, in operating the Ethyl Chloride Plant now being built by DEVELOPMENT for ETHYL at Baton Rouge, Louisiana, according to the process for which said Plant has been designed.

B. ETHYL hereby grants and agrees to grant to DEVELOPMENT (with full power to sub-license others without accounting to ETHYL) a non-exclusive, royalty-free license to manufacture, use and sell Ethyl Chloride under any patented, patentable or secret compounds, processes or designs of Ethyl, which may be employed prior to December 31, 1944 in operating said Ethyl Chloride Plant according to the process for which said Plant has been designed.

ARTICLE II

Each of the parties agrees that it will disclose fully and promptly to the other, during the term of this agreement, any information which it possesses relating to the patented, patentable or secret compounds, processes or designs described in Article I aforesaid. Each of the parties agrees that while, during the term of this Agreement it operates or has operated for its account said Ethyl Chloride Plant, it will permit duly authorized representatives of the other party and its sub-licensees free access to said Plant to familiarize themselves with operations therein to the end that any such representative or representatives of the other party shall have the opportunity to become familiar with the knowledge and experience of the party that is operating said Plant. All secret information relating to a secret process, compound or equipment owned and revealed by one party to the other shall be kept secret and confidential by the party receiving it and shall be disclosed by it only as necessary to permit its use in the enjoyment of the licenses herein granted, and all sub-licenses shall be subject to this condition.

ARTICLE III

This agreement shall be effective as of the date hereof and shall continue in force for seven (7) years. The licenses herein contained run for the full life of the patents licensed, respectively, and any extensions or renewals thereof, and in the case of any secret compounds, processes or designs, for so long as the same remains secret.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed and their respective seals to be hereto affixed, in duplicate, by their officers thereunto duly authorized, as of the day and year first above written.

STANDARD OIL DEVELOPMENT COMPANY

By Frank A. Howard (signed)
President

(SEAL)

ATTEST

Ross H. Dickson (signed)
Ass't. Secretary

ETHYL GASOLINE CORPORATION

By E. W. Webb (signed)
President

(SEAL)

ATTEST

J. C. Gonzalez (signed)
Secretary

NOTE: At lower right of both pages is written "GMC-847nn".

Government's Exhibit No. 803

AMENDMENT TO LICENSE GRANT

For and in consideration of the payment of One Dollar ($1.00) by each of the parties hereto to the other, and of other good and valuable considerations, the receipt and sufficiency of which is hereby acknowledged, STANDARD OIL COMPANY, a corporation of New Jersey, hereinafter referred to as "STANDARD", STANDARD OIL DEVELOPMENT COMPANY, (formerly Standard Development Company), a corporation of Delaware, hereinafter referred to as "DEVELOPMENT", and the ETHYL GASOLINE CORPORATION, a corporation of Delaware, hereinafter referred to as "ETHYL COMPANY", agree as follows:

ARTICLE I

Paragraph 2 of that certain license grant from STANDARD and DEVELOPMENT to ETHYL COMPANY, dated August 28, 1924, (copy of which is annexed hereto as Exhibit A) is hereby cancelled and the following substituted therefor.

2. Any Letters Patent of the United States or of any foreign country which may in the future issue to or be acquired by STANDARD or DEVELOPMENT, or any corporation owned by STANDARD and based upon any invention made prior to January 1, 1948, and which invention relates to or consists in or comprises:

(a) Tetraethyl lead, and/or any compound or mixture which, added to motor fuel in the proportion of not more than one per cent (1%) by volume, or added to the explosive charge of an internal combustion engine in the proportion equivalent to not more than one per cent (1%) by volume of the liquid fuel, shall have an effect in inhibiting detonation which is equivalent to that produced by one (1) cubic centimeter of tetraethyl lead per United States gallon of average commercial gasoline as currently marketed.

—2—

(b) Any composition or anti-knock compound or mixture, including the substance defined in Sub-Paragraph (a) aforesaid as its effective detonation suppressing agent and one or more other constituents having auxiliary utility.

(c) Any method or process for manufacturing or using the substance and/or mixture defined in Sub-Paragraphs (a) and (b) aforesaid (not including, however, processes for the manufacture or refining of petroleum oil or of secondary alcohols from the unsaturated hydrocarbons of petroleum oil or products of refining the same).

(d) Any equipment or apparatus for use in manufacturing, mixing or dispensing the substance and/or mixture defined in Sub-Paragraphs (a) and (b) aforesaid.

STANDARD and DEVELOPMENT agree that they will perform all acts and execute all instruments required, under the laws of any country, to vest in the ETHYL COMPANY, the exclusive right and license granted in said agreement dated August 28, 1924 as hereby amended.

ARTICLE II

A. Standard and Development do hereby grant and agree to grant unto the Ethyl Company the right and license, including the right to sub-license others, to use any secret process or design which Standard or Development now or hereafter owns or controls and which is based upon a discovery made prior to January 1, 1948, and which discovery relates to the substance and/or mixture defined in Sub-Paragraphs (a) and (b) aforesaid, or to the method or process or the equipment or apparatus defined in Sub-Paragraphs (c) and (d) aforesaid.

B. Standard and Development do hereby agree to disclose fully and promptly to Ethyl Company any information which they may possess relating to the secret processes or designs described in Sub-Paragraph A of this Article II. All such information shall be kept secret and confidential by Ethyl Company and its licensees, and shall be disclosed by it or them only as necessary to permit its use in the enjoyment of the license herein granted.

This Article II shall be effective as of January 1, 1938.

In Witness Whereof, the parties hereto have caused these presents to be signed and their respective seals to be hereto affixed, in duplicate, by their officers thereunto duly authorized, as of January 1, 1938.

STANDARD OIL COMPANY (NEW JERSEY)
By (SGD) ORVILLE HARDEN
Vice-President

(SEAL)

ATTEST

M. H. EAMES
Ass't. Secretary

STANDARD OIL DEVELOPMENT COMPANY
By (SGD) FRANK A. HOWARD
President

(SEAL)

ATTEST

ROSS H. DICKSON
Ass't. Secretary

ETHYL GASOLINE CORPORATION
By (SGD) E. W. WEBB
~~Vice~~-President

(SEAL)

ATTEST

J. C. GONZALEZ
Secretary

NOTE: At lower right of all three pages is written "GMC-84711"; deletion on third page is by hand.

Government's Exhibit No. 804

January *Sixth,* 1938

Ethyl Gasoline Corporation,
405 Lexington Avenue,
New York City.

Gentlemen:

Financing Agreement

In connection with the execution of the Manufacturing Service, Lease and License Agreements dated as of January 1, 1938, this Company agrees to purchase at par, First Lien Bonds of Ethyl Gasoline Corporation in an amount equal to—

(a) One-third of the working capital required by Ethyl Gasoline Corporation for the Deepwater operations as set forth in said agreements dated January 1, 1938; provided, General Motors Corporation and Standard Oil Company (New Jersey) shall each purchase said bonds in an amount equal to one-third of the said working capital.

(b) $500,000; provided General Motors Corporation and Standard Oil Company (New Jersey) shall each purchase said bonds in an amount equal to one-half of the balance of cost of construction of the No. 5 Lead Plant at Baton Rouge, Louisiana, referred to in said Manufacturing Service Agreement.

(c) Ten per cent (10%) of any additional capital required by Ethyl Gasoline Corporation during the period of said Lease dated January 1, 1938, for the manufacture of tetraethyl lead; provided, General

Motors Corporation and Standard Oil Company (New Jersey) shall each purchase said bonds in an amount equal to forty-five per cent (45%) of said additional capital.

(d) Twenty per cent (20%) of any additional capital required by Ethyl Gasoline Corporation during the period of said Lease dated January 1, 1938 for the manufacture of anti-knock compounds (as defined in said License Agreement dated January 1, 1938) other than tetraethyl lead; provided, General Motors Corporation and Standard Oil Company (New Jersey) shall each purchase said bonds in an amount equal to forty per cent (40%) of said additional capital.

The purchase of said bonds by this Company shall be subject to the following terms and conditions:

1. Said bonds shall be a first lien on all fixed assets of Ethyl Gasoline Corporation.
2. Said bonds shall bear interest at the rate of seven per cent (7%) per annum, payable semi-annually and may be redeemed by Ethyl Gasoline Corporation pro rata on any interest date at par plus accrued interest.
3. Ethyl Gasoline Corporation shall agree to purchase said bonds from this Company at par plus accrued interest upon the termination of the said Lease of January 1, 1938.
4. The total amount of bonds purchased hereunder by this Company shall not exceed the sum of Six Million Dollars ($6,000,000).

Acceptance of the terms and conditions of this letter may be indicated by execution of the attached copy.

Very truly yours,

E. I. DU PONT DE NEMOURS & COMPANY

By *E. G. Robinson*
General Manager

Accepted:

ETHYL GASOLINE CORPORATION
BY *E. W. Webb*
President

NOTE: At lower right is written "GMC-847d" followed by a stamp "Form approved, Legal Department . . . Asst. Director"; in the space provided in this stamp is written the name of H. C. Haskell; above this stamp are written the initials "E.A.R."; beneath are written two illegible sets of initials; at bottom of page is written "Finance"; italics indicate handwriting.

Government's Exhibit No. 806

GENERAL MOTORS CORPORATION.

INTER-ORGANIZATION LETTERS ONLY

TO Mr. Donaldson Brown, Vice-Chairman. ADDRESS

FROM George Russell. ADDRESS

DATE January 12, 1938.

SUBJECT REQUEST FOR ADDITIONAL INVESTMENT IN ETHYL GASOLINE CORPORATION

The following summarizes the discussions which took place in Mr. Webb's office on January 11, 1938. This meeting included Messrs. Howard, Russell, and Fisher of the Standard Oil Company (New Jersey), Messrs. Robinson and Stecher of E. I. du Pont de Nemours & Company, Inc., and the undersigned. Mr. Webb called the meeting in order to discuss a new development in the gasoline business on which information had just become available. The group was informed that the Standard Oil Company (New Jersey) has knowledge of the fact that one of its leading competitors in the gasoline field, "the Sun Oil Company, owns a one-third interest in the Houdry cracking process, and together with Socony-Vacuum Company, which also owns a one-third interest, has developed this process to a point where it is commercially practicable. The remaining one-third interest in the process is held by Mr. Houdry and associates in France."

"Briefly, the Houdry cracking process will produce a gasoline with an octane count of 76 to 78, approximately the same test as the present "Ethyl" which sells at a premium of 2¢ per gallon. However, this new gasoline is to be A.

competitive with the present "regular" gasoline which contains a smaller amount of lead than premium gasoline and has an octane count of only 71 to 73. The Houdry process also results in a higher yield of gasoline and a lower yield of heavy oils, an advantage which will interest the oil companies since the supply of heavy oils has been excessive for many years.

The actual cost of cracking under this new process will be approximately the same as the old Standard Oil Company cracking process. However, the high initial cost of installation may retard or prevent its immediate adoption by the oil companies. It was also significant that it would require a period of years before the total industry could make a complete change over. It is estimated that in order to change over the Sun Oil Company's plants a total expenditure of approximately $20,000,000 will be required. "The Sun Oil Company has already undertaken this expenditure and its plants will be completely changed over by the end of 1938, so that it will be able to introduce a gasoline with an increase of four to five octane numbers by the beginning of 1939. Socony-Vacuum Company has already started a $35,000,000 Houdry process program which will change over only about one-quarter of its facilities. This will only permit Socony-Vacuum Company to increase its octane count about two numbers. It is further estimated that Socony-Vacuum will be required to spend approximately $130,000,000 to completely change over its plans. Standard Oil (New Jersey) people estimated that it would cost them approximately $100,000,000 to install the new Houdry process.

B.

In order to meet the forthcoming Sun Oil and the Socony competition resulting from the introduction of the new higher octane count gasoline, the oil companies will either be required to make the necessary capital expenditures for the installation of the Houdry process, or obtain the same result by increasing the lead content of their gasoline. To bring "regular" gasoline up to a 76 to 78 octane test, approximately double the present lead content would be required. If the latter plan were followed, a considerable increase in the Ethyl Gasoline plant capacity would be required since it appears that the present construction program will only take care of the current increasing demand." In 1937, Ethyl Gasoline's volume was 66,000,000 pounds of tetraethyl lead, an increase of about 30% over 1936. It is estimated that the normal output for 1938 (operating five lead plants twelve months and one new plant for nine months) is not in excess of 78,000,000 pounds and that the maximum volume (operating the plants seven days a week) is about 85,000,000 pounds. If a 30% increase in volume were obtained in 1938, total sales would approximate 85,000,000 pounds, so that the present plant facilities would only produce the 1938 requirements. B

Since the Standard Oil Company (New Jersey) serves the same territory as the Sun Oil Company and also competes with Socony-Vacuum Company, it will be threatened with a loss of competitive position when the new higher test gasoline is introduced. Consequently, Standard Oil Company (New Jersey) is strongly of the opinion that additional lead facilities should be built at Baton Rouge immediately. It was brought out that if Standard Oil (New Jersey) were to raise its octane count to the level of the new Sun Oil gasoline, it would increase its present takings from Ethyl by 130%, which is equivalent to the output of one new lead plant. The suggested immediate expansion program would require the expenditure by Ethyl of not in excess of $12,500,000, and would bring the maximum lead capacity up to about 120,000,000 pounds annually. The immediate capital outlay for plant facilities to be completed around November or December, 1938, will be as follows:

Expenditures at Baton Rouge	Estimated Capital Required
Two Lead Plants	$ 4,000,000
Two Sodium Units	4,000,000
Two Ethyl Chloride Plants (du Pont Process)	1,500,000
Power Facilities*	1,500,000
Additional Working Capital	1,000,000
Total	$12,000,000
Expenditures at Kure Beach, North Carolina	
Expansion of Ethyl-Dow Dibromide Facilities (Ethyl's Proportion)	500,000
Total Estimated Capital Required	$12,500,000

*On a loan basis to local power company.

—3—

It is possible that the above estimates may be reduced by about $1,000,000, so that the total expenditure will be reduced to $11,500,000. The expenditures will be financed through the issuance of 7% bonds to be subscribed as follows:

Subscriber	Subscriptions to Bonds	
	Amount	% of Total
General Motors Corporation	$5,650,000	45.2%
Standard Oil Company (New Jersey)	5,650,000	45.2
E. I. du Pont de Nemours & Company, Inc.	1,200,000	9.6
Total	$12,500,000	100.0%

The above figures do not include any participation by the du Pont Company in the cost of the expansion of the Ethyl-Dow Company dibromide facilities at Kure Beach, North

Carolina (in which Ethyl Gasoline has a 50% interest). Mr. Howard of Standard Oil Company (New Jersey) suggested that since the du Pont Company shares in the Ethyl-Dow profits, we might consider asking them to contribute towards the cost of the added Ethyl-Dow facilities. It will be recalled that no provision was made in the agreement between Ethyl Gasoline Corporation and E. I. du Pont de Nemours & Company, Inc. for such participation.

In addition to the above immediate expenditures, additional facilities may be required at an early date. However, it was felt that after the proposed projects have been started, a review should be made to determine when such facilities will be necessary. It was the feeling of the Standard Oil Company representatives that it would be better to overbuild than to underbuild and that because of the uncertainties surrounding the new venture, a higher rate of depreciation should be used than is currently applied.

Total General Motors Investment In Ethyl Gasoline Corporation

If General Motors Corporation subscribes $5,650,000 to the proposed expansion program, its investment in Ethyl Gasoline Corporation would be increased to $13,800,000 by the end of 1938, made up as follows:

General Motors Investment in Ethyl Gasoline Corporation

General Motors original investment in capital stock, plus equity in undivided profits from inception through December 31, 1938		$3,459,000
Advances required in connection with Ethyl Gasoline taking over manufacturing facilities and necessary expansion:		
Advanced through January 3, 1938	$4,066,000	
Estimated advances during 1938 for which General Motors is committed	625,000	4,691,000
General Motors Investment before Proposed Expansion		$8,150,000
Proposed Expansion (described herein)		5,650,000
Total General Motors Investment Including Proposed Expansion		**$13,800,000**

Future Pricing Policy of Ethyl Gasoline Corporation

The undersigned raised the question as to whether Ethyl Gasoline Corporation, as a matter of policy, would reduce the price of tetraethyl lead in the event that the oil companies increase their purchases. It was the feeling of Mr. Webb and Mr. Howard that no reduction should be made in the price of lead during the year 1938. For a number of years it has been the policy of Ethyl Gasoline Corporation to decrease the price at the beginning of each year.

There is attached a copy of a memorandum prepared by Mr. Webb which also summarizes the discussion.

George Russell
George Russell,
Treasurer's Office.

GR:LFD
Att.

Note: Across top of first page is written "Ethyl-Org.-Operating Policy-Future Prog."; at upper right of second and fourth pages is written the initial "H"; above word "Memorandum" in last sentence is drawn a check mark; quotation marks and marginal line on first page are by hand; italics indicate handwriting.

6

Government's Exhibit No. 807

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

January 18, 1938.

Mr. Earle W. Webb, President,
Ethyl Gasoline Corporation,
405 Lexington Ave.,
New York, N.Y.

RE: PROGRAM INVOLVING EXPANSION OF PRODUCTION

My dear Mr. Webb:—

Mr. Brown has handed me copy of a memorandum addressed to him by Mr. Russell of Mr. Bradley's staff, the subject of which is a request for additional investment in Ethyl Gasoline Corporation.

The question of investment, it seems to me, is secondary to the development of an adjusted economic picture of the position of the business in view of this new competitive influence. This I believe Mr. Brown has already indicated to you as his thinking. It certainly is mine. What I am driving at is, that we now are told that a process is available—no more costly than the present process—that will move the octane rating up to 76 to 78, as compared with the present standard of 71 to 73, and at the same time will increase the yield of gasoline as compared with heavy oil.

All that being the case, what is the comparison between a reasonable return on the capital necessary to install the new apparatus with the essential depreciation incident to same and the amount that might be absorbed in cost of sales through the use of additional lead. And assuming that one must necessarily balance the other, or that the cost of tetraethyl lead route should not be any greater, then on that basis what would be the economic picture of Ethyl Gasoline Corporation with the selling price of lead adjusted accordingly? I take it, in view of the fact that the question arises, that the answer must be that it is cheaper to go the lead route or that we have the power to make such a price, and at the same time make a reasonable return on the capital employed. Is that so?

It seems to me also the question arises as to whether we should reduce the price of tetra-ethyl lead to the new competitive base. My reaction is, that we should, but perhaps there are reasons why we should not. I note that this question arose in the discussion, and the opinion at the moment seems to be, that we should not. I would like to hear a discussion of that point.

—2—

It seems to me that we ought to do everything we can to discourage the investment of these large amounts of money, and that it will be best to take a position right now, which would indicate that that was our policy. Certainly with the fact known that a better fuel is in the offing at a standard price, competitors of the Sun Oil Company and Socony Vacuum Company are necessarily forced to take a position immediately. Perhaps the plan is to advise them in advance what we propose to do, or what is possible for us to do even if we do not do it immediately. As to that point, I am not informed.

All I am trying to say in this letter to you is, that I would like to have a complete analysis of how we stand today, looking forward, as compared with yesterday. I realize, of course, that irrespective of what the standard may be through the use of lead, we can always establish a higher standard even at a reduced rate of gain, and on that point I would like to point out, that I personally, as you know, have urged a more aggressive policy in moving up the octane rating because it has been perfectly evident for a long time past, that this is the right way to go, from every standpoint.

Also, on this general point it would seem to me the question arises as to whether it would be possible to raise gasoline as produced from the already existing cracking process; move it up to the point now possible through the use of the new process, and have a sufficient leeway in the amount of tetra-ethyl lead that we are using per gallon to make possible a premium fuel, or a fuel applicable to the more refined uses, such as airplane practice, at the same time keep within 3 ccc, the present limit. The question that comes into my mind is, in view of the economic justification of higher octane ratings and the limitation in the dosage of lead, is it reasonable to suppose that all Companies will be forced into the new process, sooner or later, in order to get a higher base point on which lead is to be superimposed.

I should be very glad to hear from you on the above as to what I might refer to as the operating influences of the new development, as distinguished from the purely financial phase.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K
c/c Messrs. Lammot du Pont
Donaldson Brown

NOTE: At lower right of both pages is written "GMC-579a"; beneath date line is stamped "Received Jan 10, 1938, Lammot du Pont"; marginal lines are by hand; diagonally across both pages is stamped "Copy"; letterhead on second page is upside down and at bottom; the name of Lammot du Pont at bottom of second page is checked by hand; italics indicate handwriting.

3

Government's Exhibit No. 808

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
ORGANIC CHEMICALS DEPARTMENT

January 31, 1938.

MR. LAMMOT du PONT, PRESIDENT

I am returning herewith the letter from Mr. Sloan to Mr. Webb of January 18th with regard to the expansion of Lead facilities at Baton Rouge.

In answer to your question, I do not know how long this new process has been known to the Ethyl Gasoline Corporation or to its stockholders. However, in the conversation that we had with Mr. Howard and Mr. Webb a few days ago in which they painted the picture as to the need for this increased capacity, Mr. Howard implied that they had had this prospective increased demand for some time and had been unwilling to say anything about it until they had concluded their agreement with us. Specifically he said that we would have to accept the great rush that we were now in to get the capacity done in time as doing penance for our delaying in getting our agreement completed. Just what this remark meant or what impression he was trying to convey it was a little hard for me to understand.

There is one point in Mr. Sloan's letter, however, on which it seems to me he is not quite clear. The fact that Sun and Socony have made plans to install certain equipment to produce gasoline by the new process does not necessarily mean, as I see it, that we have to reduce the price of Lead to prevent other people from taking a similar step. This is particularly true as regards Sun, who have always opposed Lead and have never used it. Although I do not have any detailed figures it might well be that the other concerns could afford and would prefer to use increased quantities of Lead if the standard quality of gasoline is forced upward rather than invest the large amounts of money required to make fundamental changes in their cracking process.

E. G. Robinson

E. G. ROBINSON,
GENERAL MANAGER.

EGR:EM

NOTE: Across top of page is written "GM-Ethyl Gasoline Corp."; to right of date line is stamped "Received Feb 2, 1938, Lammot du Pont"; from line in left margin a line is drawn upward to handwritten initials "A.P.S."; underlining and marginal line are by hand; italics indicate handwriting.

Government's Exhibit No. 810

To: Policy Committee

From: Donaldson Brown

Subject: INVESTMENT IN ETHYL GASOLINE CORPORATION

July 12, 1939.

Since the end of 1937, Ethyl Gasoline Corporation (owned 50% by General Motors Corporation and 50% by Standard Oil Co. of N.J.) has taken two steps which have materially affected its operations and also the capital requirements of the business. These are:

(1) The negotiation of a seven year contract with E. I. du Pont de Nemours & Co. which provided that, effective January 1, 1938, the Ethyl Company would engage in the manufacture as well as the sale of tetraethyl lead, instead of buying its tetraethyl lead requirements from the du Pont Company under an annual contract. Since the manufacturing operations of the business required the major capital investment, this has increased considerably the company's capital requirements. Under the agreement, the actual manufacturing operations are carried on by the du Pont Company for the account and risk of the Ethyl Company. This contract was discussed by your Committee at its January 3, 1938 meeting when the contract was being made; and

(2) The sale of the Ethyl Company's export business to a new company, in which General Motors and Standard Oil (N.J.) have approximately a 50%

interest, the balance being held by other oil marketers operating in the export field.

In view of the very considerable increase in the investment required by General Motors in the Ethyl Company and the change in the position of the Ethyl Company with respect to foreign business, this report is being submitted to your Committee as a matter of information.

Investment Required to Engage in and Expand Manufacturing Activities

From the inception of Ethyl Gasoline Corp., in 1924, through 1937, the du Pont Company supplied the Ethyl Company with its tetraethyl lead requirements, carrying on such manufacture at its plants located at Deepwater Point, New Jersey. Tetraethyl lead was supplied under annual contracts which specified a fixed price per pound for the lead for the ensuing year. The basic patents covering tetraethyl lead, which expire at the end of 1947, are held by the Ethyl Company under an exclusive license agreement with General Motors; but the du Pont Company developed manufacturing processes and acquired an operating technique over this period which it would be difficult to duplicate.

Tetraethyl lead volume increased from a nominal volume in the early years to a volume of 66,000,000 pounds in 1937. (In 1938, the volume was 71,000,000 pounds.) This was in excess of the volume (53,000,000 pounds) that could be safely handled at the Deepwater plants, and it was considered advisable to construct additional plant facilities in Baton Rouge, La., where it was estimated that the manufacture of the additional lead requirements could be carried on favorably from a cost standpoint.

The management of the Ethyl Company also considered it advisable to arrange an operating agreement with the du Pont Company covering the manufacture of tetraethyl lead over a longer period than the year to year arrangement then in effect. Consequently, an agreement was worked out between the two companies whereby the Ethyl Company would take over the responsibility of furnishing the capital required for additional plant capacity and the du Pont Company, for a period of seven years beginning January 1, 1938, would carry on the actual manufacturing operations for the account and risk of the Ethyl Company.

During the negotiation of the agreement, the du Pont Company stated that its billing prices for tetraethyl lead, from year to year, had been predicated on the basis of the du Pont Company enjoying a manufacturing profit approximately equal to one-half the total profits of the Ethyl Company operating as a selling company. In other words, the du Pont Company assumed that the manufacturing profit should approximate one-third of the total combined profits resulting from the manufacture and sale of tetraethyl lead. It was therefore agreed that the compensation to the du Pont Company should be based upon the manufacturing profits, which, for this purpose, were defined as one-third of the total profits to be derived from the manufacture, purchase and sale of tetraethyl lead and any other anti-knock compounds and the manufacture of materials composing the same. The balance, or two-thirds of the total manufacturing and selling profits, is considered applicable to selling operations.

Since the du Pont Company was turning over its Deepwater plants on a nominal rental basis, it was agreed that the entire manufacturing profits on such volume should accrue to the du Pont Company. Manufacturing profits on volume provided by additional capacities in the Baton Rouge plants were to be split between the Ethyl Company and the du Pont Company in line with the capital investment provided by each company. Under the agreement the compensation to the du Pont Company is equivalent to the entire amount of the gross manufacturing profits of the Ethyl Company derived from the manufacture, purchase and sale of tetraethyl lead and/or mixtures thereof with other substances up to an aggregate amount of 53,000,000 pounds of total tetraethyl lead content, representing the basic capacity of the Deepwater plants, plus 30% of gross manufacturing profits from any additional volume. This means that with a volume of 66,000,000 pounds (actual 1937 rate) the du Pont Company would receive 86% of total manufacturing profits. On the 1938 volume of 71,000,000 pounds, 82% of the total manufacturing profits would be paid to the du Pont Company. If the Baton Rouge and Deepwater plants were all running at capacity of about 120,000,000 pounds, the du Pont Company would receive 61% of total manufacturing profits. In addition, the du Pont Company receives a portion of the dividends received by the Ethyl Company on the common stock of the Ethyl-Dow Company, which portion may not exceed a maximum of 16⅔% in any year.

—3—

If, in any two successive years, the compensation under this agreement proved to be less than 7% on the gross capital invested by the du Pont Company in its Deepwater plants, the Ethyl Company would be obliged to guarantee such return for the balance of the contract period, or the agreement and lease would be subject to termination. In addition, the Ethyl Company is required to pay the du Pont Company in each year a 7% return on the Deepwater service facilities investment.

The royalty agreement between General Motors Corporation and the Ethyl Company was not affected by the manufacturing agreement. Under this agreement, which runs with the patents that expire in 1947, there is payable to General Motors, as royalty, 25% of the net selling profits on the sale of anti-knock compounds covered by the patents, less 22½% on capital employed in the selling operations. The arrangement with the du Pont Company, by fixing manufacturing profits at one-third of the total profits, thereby determines the selling profits upon which the royalty is based.

In order to provide for the cost of the new Baton Rouge plants together with the working capital for all of the plants, the Ethyl Company has secured additional capital totalling $20,400,000 (including $300,000 for which a call has not yet been made) from its stockholders and the du Pont Company. With reference to the new plants at Baton Rouge, it was necessary for the management of the Ethyl Company to take into account two factors: (1) the normal increase based upon the trend of consumption of tetraethyl lead during recent years; and (2) the effect of the development of the Houdry cracking process. The Houdry cracking process, which has been developed commercially by Sun Oil Co. and Socony-Vacuum Oil Co., will permit these two companies to produce a gasoline which will have as high an octane count as the premium Ethyl gasoline but which will be competitive in price with the present "regular" gasoline. In order for other oil companies to meet the competition of this high test gasoline resulting from the use of the Houdry process, they will be required to raise the octane count of their "regular" gasoline either by approximately doubling the present lead content or by the installation of the Houdry process in their own plants. In view of the sizable capital expenditures and the length of time required to install the Houdry process, the Ethyl Company, in its expansion program, made allowance for the possible increased demand for tetraethyl lead if the oil companies other than Sun and Socony-Vacuum find it necessary to increase the lead content of their "regular" gasoline.

There follows a tabulation showing the amounts supplied by General Motors, Standard Oil (N.J.) and the du Pont Company. In general, the amount of capital furnished by the du Pont Company reflects the proportion of profit which they will derive from the additional facilities.

	Funds Provided By:			
Purpose of Funds	**General Motors**	**Standard Oil (N.J.)**	**du Pont Company**	**Total**
Working Capital	$1,550,000	$1,550,000	$1,102,000	$ 4,202,000
New Construction	7,206,000	7,206,000	1,786,000	16,198,000
Total	$8,756,000	$8,756,000	$2,880,000	$20,400,000*

* Includes $300,000 for which a call has not yet been made.

—4—

Under the financing agreement, it was provided that the above capital requirements should be obtained by the issuance of first mortgage, seven year, 7% bonds, callable on any interest date at par. To date, however, the stockholders and the du Pont Company have accepted 7% promissory notes with the understanding that these notes are to be converted into 7% bonds described above when requested.

Including the above amounts, General Motors and Standard Oil each had an investment in the Ethyl Company amounting to $13,534,000 (including capital stock and earnings reinvested) as of June 30, 1939. The du Pont Company investment is represented solely by the $2,888,000 of interest obligations.

Formation of New Overseas Company

As of May 1, 1939, a new overseas company, Associated Ethyl Co. Ltd. (a British company) was organized by the Ethyl Company in order to extend the manufacture and sale of tetraethyl fluid in the principal markets of the world outside of the United States. General Motors and Standard Oil (N.J.) together hold an interest of approximately 50% in Associated Ethyl, with the remaining 50% being held by certain large oil producers whose good will and distribution facilities should materially increase the sale of ethyl fluid in overseas markets, although not in the proportions enjoyed in this country. To a large extent, the ethyl fluid demand abroad is today centered in the military demands of England, France, Germany and Italy. The oil producers who are partners with General Motors and Standard Oil (N.J.) in the overseas business are: Socony-Vacuum, Texas Corp., Standard Oil (Calif.), Anglo-Saxon (Shell) and Anglo-Iranian.

Prior to May 1, 1939, the Ethyl Export Company (a wholly owned subsidiary of the Ethyl Company) marketed ethyl fluid in the overseas markets. The principal foreign market was the British Isles, which was handled through a subsidiary, British Ethyl company. In addition, Ethyl Export Company hold a 50% interest in a German Ethyl company, the other 50% being held by I.G. Farben. Negotiations were also in process for the establishment of French operations. All of the overseas business has been sold to Associated Ethyl (a British company) for approximately $1,200,000, which is $1,090,000 in excess of the net worth of the assets turned over to the new company. The proceeds of this sale accrued to the stockholders of the Ethyl Gasoline Corporation.

Associated Ethyl was formed to manufacture and sell ethyl fluid in all markets except North America and those in which local companies affiliated with Associated Ethyl will operate. Under the terms of the agreement, the interests of the stockholders in the equity securities of Associated Ethyl were allocated in proportion to their gasoline business in the export area during the year 1937, with General Motors getting the same interest as Standard Oil (N.J.). The interest of the stockholders in the equity securities of Associated Ethyl is as follows:

Associated Ethyl Equity Securities

Company	% of Total.	Class A	Class B	Total Sterling	 Equivalent Dollars
	%	£	£	£	$
General Motors	24.36	4,871	609	5,480	25,653
Standard Oil (N.J.)	24.36	4,871	609	5,480	25,653
Socony-Vacuum	6.77	1,353	169	1,522	7,125
Texas Corp.	4.99	998	125	1,123	5,257
Standard Oil (Calif.)	1.89	379	47	426	1,994
Total above	62.37	12,472	1,559	14,031	65,682
Anglo-Saxon (Shell)	25.30	5,061	633	5,694	26,655
Anglo-Iranian	12.33	2,467	308	2,775	12,991
Total	100.00	20,000	2,500	22,500	105,328

Associated Ethyl also has issued a Class C stock to stockholders other than Standard Oil (N.J.) and General Motors, in the amount of the selling price of the Ethyl Export Company, approximately $1,200,000. After a 6% cumulative dividend has been paid on the Class A stock, a portion of the annual profits will be used to redeem the Class C stock until the total amount has been retired. The balance of the earnings, prior to 1943, will accrue to the

Class A stockholders. Beginning in 1943, the profits of the company will accrue largely to the Class B stockholders, to be distributed to the oil companies in proportion to their purchases of tetraethyl lead for the export market. Provision is made, however, for General Motors' participation to remain fixed at its Class A position, at present 24.36%, so that General Motors' interest in both A and B stocks will remain fixed at this percentage and the fluctuation in the ownership of Class B stock by the oil companies will therefore not affect the General Motors' interest in profits. In order to maintain this 24.36% interest, however, General Motors will be required to subscribe to its pro rata share of any additional stock offerings required on account of new manufacturing plants abroad (such plants are now provided for in England, Germany, France and Italy). In the agreement, provision was also made for the protection of General Motors in the event of any price cutting by Associated Ethyl.

Prior to the sale of the overseas business, General Motors participated in 50% of the net profits of the foreign and domestic Ethyl business. The new plan has not altered General Motors' domestic position but has reduced its foreign participation to approximately one quarter of the foreign net profits. General Motors has therefore given up one-half of its interest in foreign operations for a one-half interest in the $1,200,000 selling price of the Ethyl Export Co. which corresponds with the change in the position of the Standard Oil Co. (N.J.).

—6—

General Motors' interests, as well as the interests of the American oil companies, in the overseas ethyl business are held through ownership of stock of the Forak Company, an American holding company. This holding company was formed in order that the foreign tax credit on dividends which it receives from foreign investments might be secured.

In connection with the formation of Associated Ethyl, General Motors subscribed for its proportion, 24.36% of the Class A and Class B stock through the Forak Co. This required an investment of £5,480, or $26,000. In addition, General Motors was required to subscribe through Forak Company for its pro rata share of stock of three French companies, which required an investment of $73,000.

At the present time, Associated Ethyl proposes the formation of an Italian Ethyl company with a capital of 15,000,000 lire. The capital of this new company will be provided 50% through local subscription and 50% by Associated Ethyl. To secure the required capital for this new venture, Associated Ethyl will issue £81,000 of Class A stock to its stockholders. General Motors' proportion will amount to £20,000, or approximately $95,000 (being the equivalent of 1,827,000 lire). After the above investment has been made, General Motors will have a total of $194,000 invested in overseas ethyl business.

Summary

On the basis of present commitments, General Motors Corporation will have invested a total of $13,728,000 in the Ethyl Company and foreign ethyl interests. Of this amount, $13,534,000 represents investment in domestic business through the Ethyl Company (of which $8,756,000 is at present secured by 7% notes and the balance of $4,778,000 by capital stock and reinvested earnings) and the balance of $194,000 is invested in the foreign ethyl business.

Respectfully submitted,

Donaldson Brown,
Vice-Chairman.

Government's Exhibit No. 811

GENERAL MOTORS CORPORATION
INTER-ORGANIZATION LETTERS ONLY

To Mr. Albert Bradley, Vice-President.
ADDRESS

From F. G. Donner.
ADDRESS.

Subject ETHYL-DU PONT PROFIT SHARING ARRANGEMENT

DATE July 31, 1939.

Verbal

In accordance with your request, we have summarized briefly the basis of the contractual arrangement between Ethyl Gasoline Corporation and E. I. du Pont de Nemours & Co., under which the du Pont Company receives compensation on a profit sharing basis for carrying on the manufacturing activities for the Ethyl Company.

You will recall that the manufacturing service agreement was arranged between the Ethyl Company and the du Pont Company to provide for a longer term agreement between the two companies under which additional manufacturing facilities at Baton Rouge would be constructed and operated. The agreement as finally adopted provided that du Pont would lease its existing lead plants at Deepwater Point, N. J. to Ethyl at a nominal rental and would operate these plants and the new plants at Baton Rouge for the account and risk of Ethyl.

In the preliminary negotiations, the du Pont Company stated that its billing prices, from year to year, had been predicated on the basis of du Pont enjoying a manufacturing profit equal to approximately one-half the total profits being enjoyed by the Ethyl Company (operating as a selling company). In other words, the du Pont Company had assumed that the manufacturing profit should approximate one-third of the total profits resulting from the manufacture and sale of tethaethyl lead.

In the negotiation of the agreement between Ethyl and du Pont, it was taken as a basic assumption that du Pont should receive the same proportion of the total profits arising from the operation of the Deepwater Point plants as they received in the past, (that is, one-third the total profits) and, in addition, a smaller portion of the profits accruing from the additional volume made possible by the new plants constructed at Baton Rouge.

To effect the foregoing, it was provided in the contract that manufacturing profits were to be calculated as one-third of the total profits to be derived from the manufacture, purchase and sale of tetraethyl lead and other anti-knock compounds and the manufacture of materials composing the same. The balance, or two-thirds of the total profits, were to be considered as applicable to the selling operations (this is important in calculating our royalties, which are based on selling profits).

Since the du Pont Company was turning over its Deepwater plants on a nominal rental basis, it was agreed that the entire manufacturing profits applicable to tetraethyl lead or mixtures thereof produced at the Deepwater plants (fixed in the agreement as being equivalent to 53,000,000 pounds of tetraethyl lead) should accrue to the du Pont Company. The manufacturing profits applicable to the tetraethyl lead

volume provided by additional capacities in the Baton Rouge plants were to be split with 30% of the total being paid to the du Pont Company and the balance, or 70% of the manufacturing profits on this volume, accruing to Ethyl Company. Du Pont was also to receive 60% of the manufacturing profits on other anti-knock compounds other than tetraethyl lead or mixtures thereof. In addition to its portion of the manufacturing profit, it was agreed that the du Pont Company would receive a portion of the dividends received by the Ethyl Company on the Common stock of Ethyl-Dow Company, which portion may not exceed a maximum of 16⅔% in any year.

The total profits are distributed between the Deepwater Point and Baton Rouge plants on the basis of volume. Thus, at the 1938 total volume of approximately 71,000,000 pounds of tetraethyl lead, 53/71 of the total profits would be considered applicable to the Deepwater plants and the balance, 18/71 of the total profit, would be applicable to the Baton Rouge plants. As a result, for 1938 du Pont received approximately 82% of the total manufacturing profits, as shown in the following calculation. Since final figures for 1938 are not available, the total manufacturing profits and compensation payable to du Pont shown are approximate and are used for illustrative purposes only.

	Deepwater Plants	Baton Rouge Plants	Total
Volume of Tetraethyl Lead			
Amount	53,000,000	18,000,000	71,000,000
As % of Total (1)	74.6%	25.4%	100.0%
du Pont Proportion of Total Manufacturing Profits Received as Compensation			
Per Contract (2)	100%	30%	82.2%
Weighted by Volume (3) = (1) x (2)	74.6%	7.6%	82.2%
Total Manufacturing Profits (4)			$6,600,000
du Pont Compensation (5)—(3)x(4)			$4,425,000*

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* In addition to compensation based on manufacturing profits, du Pont received approximately $128,000 as its portion of the dividends of $935,000 received from Ethyl-Dow.

The royalty agreement between General Motors Corporation and the Ethyl Company was not affected by the manufacturing agreement. Under this agreement, which runs with the patents that expire in 1947, there is payable to General Motors, as royalty, 25% of the net selling profits on the sale of anti-knock compounds covered by the patents, less 22½% on capital employed in the selling operations.

The arrangement with the du Pont Company, by fixing manufacturing profits at one-third of the total profits, thereby determines the selling profits upon which the royalty is based.

F G Donner

F. G. Donner
General Asst. Treasurer.

FGD:LFD

Note: Across top of first page is written "Ethyl-Org.-Reorg.-Mfg. Activities—Mfg. Service Agreement" (words "Org." and "Reorg." are deleted by hand); at first page upper right the initial "R" is written; above letterhead are written illegible initials; to right of address is stamped "Received Aug. 1, 1939, Albert Bradley"; underlining in first line is by hand; italics indicate handwriting.

4

Government's Exhibit No. 821

THIS AGREEMENT made as of the 1st day of January, 1945, between ETHYL CORPORATION, a corporation of the State of Delaware, hereinafter called ETHYL, and E. I. DU PONT DE NEMOURS AND COMPANY, a corporation of the State of Delaware, hereinafter called DU PONT.

WITNESSETH:

WHEREAS, as of the 1st of January, 1938, the parties hereto entered into certain agreements, known to each other as "Agreement of Lease", "License Agreement", and "Manufacturing Service Agreement", respectively; and

WHEREAS, said agreements have been modified and supplemented from time to time; and

WHEREAS, under date of April 1, 1941, the parties hereto entered into a certain agreement with respect to financing additional capital of ETHYL, which agreement is hereby designated "Financing Agreement"; and

WHEREAS, the said parties hereto desire to supplement further and to extend all of said agreements upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the premises, said parties have agreed as follows:

1. Article 1 of said Agreement of Lease is hereby amended by deleting the following language:

> "Lessor does hereby let and rent to Lessee and Lessee hereby hires from Lessor for the period of seven (7) years commencing on the 1st day of January 1938 and ending on the 31st day of December 1944, which term of lease, however, shall not in any event extend beyond the period of the Manufacturing Service Agreement dated as of January 1, 1938",

and substituting in lieu thereof the following language:

> "Lessor does hereby let and rent to Lessee and Lessee hereby hires from Lessor for the period of ten (10) years commencing on the 1st day of January 1938 and ending on the 31st day of December 1947, which term of lease, however, shall not in any event extend beyond the period of the Manufacturing Service Agreement dated as of January 1, 1938, as amended",

2. Article II-D of said License Agreement is hereby amended by inserting the words "(except those in reference to sodium)" after the words "Manufacturing Service Agreement" on line twelve of said article.

3. Article II-D of said License Agreement is hereby further amended by deleting the date "December 31, 1944" in the last paragraph of said article, and inserting in lieu thereof the date "December 31, 1947".

4. Article II-E(1) of said License Agreement is hereby amended by deleting the date "January 1, 1948", and inserting in lieu thereof the date "January 1, 1949".

5. Article II-E(1) of said License Agreement is hereby further amended by deleting from said article the following paragraph:

> "For the year 1948, the price for tetraethyl lead to be paid by ETHYL COMPANY to DU PONT COMPANY shall be such as to yield a net profit per pound to the DU PONT COMPANY, before income and profit taxes, equal to the yearly average profit per pound made by DU PONT COMPANY during the three preceding years."

6. Article XVII of said Manufacturing Service Agreement is hereby amended by deleting "seven (7) years", and substituting in lieu thereof "ten (10) years".

7. It is understood and agreed by the parties hereto that said Financing Agreement of April 1, 1941, shall cease and terminate with said Manufacturing Service Agreement and said Agreement of Lease, as herein amended.

8. It is understood that except as herein expressly amended and extended all the provisions of said Agreement of Lease, said License Agreement, said Manufacturing Service Agreement and said Financing Agreement, as amended, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed and their respective seals to be hereunto affixed in duplicate by the officers or representatives thereunto duly authorized this *16th* day of *November*, 1943.

ETHYL CORPORATION
By *E. W. Webb, President*

ATTEST:
J. C. Gonzalez

E. I. DU PONT DE NEMOURS AND COMPANY
By *E. G. Robinson*
General Manager
Organic Chemicals Department

ATTEST:
W. F. Raskob
Secretary

NOTE: At lower right of all three pages is written "GMC-847"; in left margin of last page opposite signatures is stamped "Form approved, Legal Department . . . Director"; in space provided in this stamp is written the name of H. C. Haskell; above this stamp are written three sets of illegible initials; italics indicate handwriting.

4

Government's Exhibit No. 826

1.

To: Board of Directors

FROM: Special Committee—Ethyl Study

SUBJECT: LEGAL ASPECTS OF GENERAL MOTORS CORPORATION INVESTMENT IN ETHYL CORPORATION

May 28, 1947.

Your Board at its meeting on May 5, 1947 authorized, by resolution, the Chairman to appoint a Special Committee to study certain phases of the General Motors Corporation-Ethyl Corporation relationship. The resolution follows:

> "RESOLVED that a Committee be, and the same hereby is, established consisting of four members of the Board of Directors to be appointed by the Chairman to study and report as promptly as possible to this Board on what, if any, legal problems affecting the Corporation, because of its investment in Ethyl Corporation, may arise out of the entry of E. I. du Pont de Nemours & Company into the manufacture and distribution of tetraethyl lead after December 1947, the date at which patent coverage in the manufacture by Ethyl Corporation of tetraethyl lead will expire."

Pursuant to this resolution, the Chairman appointed a Committee of four members consisting of Messrs. Albert Bradley, Chairman, F. G. Donner, E. F. Johnson and C. F. Kettering. The work of your Committee was expedited because of the fact that Ferris Hurd, Esq., of the law firm of Pope & Ballard, Esqs., of Chicago, Illinois had already been retained to study from the legal standpoint the relationship as it would exist after December 31, 1947. Pope & Ballard, Esqs., represented General Motors Acceptance Corporation in the anti-trust criminal proceedings at South Bend, Indiana and at present represent General Motors Corporation in several pending anti-trust suits.

ANALYSIS OF PROBLEM

The members of this Committee met with Messrs. John Thomas Smith, General Counsel, Henry M. Hogan, Assistant General Counsel, and Ferris Hurd, of Special Counsel in Detroit on May 21, 1947. Each member of the Committee as well as Counsel had been furnished with a narrative outline (copy of which is attached) of the story of Ethyl Corporation and its relationships with General Motors Corporation, Standard Oil Company (New Jersey) and E. I. du Pont de Nemours & Company over the years, and posing certain questions. A preliminary memorandum dealing with some of the possible legal problems was also furnished the Committee and Counsel.

Mr. Hurd reviewed with the Committee the legal situation that will be created by the entry after December 31, 1947 of E. I. du Pont de Nemours & Company into the manufacture and distribution of tetraethyl lead. At the conclusion of his review, he was requested to submit a written opinion. It is hoped that this opinion will be received in time for submission to the Board of Directors at its meeting on June 2, 1947.

In summary, Mr. Hurd presented the problem in two broad categories:

(1) COMPLIANCE WITH CLAYTON ACT

The presence of Mr. Sloan after December 31, 1947 on the Board of Directors both of General Motors Corporation, E. I. du Pont de Nemours & Company and of Ethyl Corporation would be a violation of Section 8 of the Clayton Act.

This section of the Clayton Act, in summary, forbids interlocking directorates of competing companies having a certain capital structure. It would therefore be incumbent upon Mr. Sloan to resign from either the Board of Directors of E. I. du Pont de Nemours & Company or Ethyl Corporation, effective prior to January 1, 1948.

(2) SHERMAN ANTI TRUST ACT

The Sherman Act, Section 1, constituted the most serious potential legal problem.

This section, in summary, forbids any contract, conspiracy or combinations in restraint of interstate commerce.

Mr. Hurd considered that in the years 1948 or 1949 no serious legal problem would likely arise or exist because of the existence of aggressive competition between E. I. du Pont de Nemours & Company and Ethyl Corporation for the business presently enjoyed by Ethyl Corporation. He felt that it is against the background of the situation as it may exist in 1950 or 1951 or later that the legal problems of the Corporation growing out of its investment in Ethyl Corporation are to be evaluated.

Mr. Hurd considered that in that latter period and assuming that the present stock and director (other than that of Mr. Sloan) relationships of General Motors Corporation, E. I. du Pont de Nemours & Company and Ethyl Corporation continue to exist, the Government might feel justified in bringing a case under the Sherman Act

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if it desired to prosecute such a case. The elements of this case would include the following:

(1) An identity of price, since it is assumed that the E. I. du Pont de Nemours & Company and the Ethyl Corporation price for tetraethyl lead will normally tend to be identical in view of the commodity-like nature of the product and the lack of distinguishing characteristics that might make non-identical prices economically justifiable.

(2) A stable customer relationship, since the customers of both E. I. du Pont de Nemours & Company and Ethyl Corporation after the initial years would tend to maintain their relationships with one or the other company, rather than to change from year to year these relationships or to vary the percentage of their requirements bought from each. As a result, there might be the appearance of an allocation of the market in tetraethyl lead.

(3) Degree of stock ownership of Ethyl Corporation by General Motors Corporation some of whose stock in turn is owned by E. I. du Pont de Nemours & Company and on whose Board of Directors are directors of E. I. du Pont de Nemours & Company.

(4) Responsibility within General Motors Corporation for Ethyl Corporation as an associate company is under the jurisdiction of the Financial Policy Committee, which consists of nine members of whom three are also directors of E. I. du Pont de Nemours & Company.

In considering the above factors, Mr. Hurd indicated that in his judgment, no one of them was of itself conclusive. He did believe, however, that the stock ownership factor (item (3) above) was perhaps the most significant individual element in the situation. If General Motors Corporation (under the present stock ownership relationship when there is only one other stockholder) were today to own something less than 50% of the stock of Ethyl Corporation or, if under changed stock ownership relations, the total stockholdings of General Motors Corporation in Ethyl Corporation were less than those of the next higher stockholder, then the Government would probably find greater difficulty in making out a prima facie case.

—4—

These conclusions assume, of course, the absence of any agreement between the related parties to fix prices or to do any other act forbidden by the Sherman Act. Mr. Hurd also emphasized that, while the absence of any such illegal agreement would, of course, prevent the defendants from being in fact guilty of any violation of the Sherman Act, it was one thing to be in fact not guilty and another thing to convince a court and a jury that one was not guilty.

To rebut any possible prima facie case and to forearm ourselves against it, Mr. Hurd made certain recommendations or suggestions. These recommendations are as follows:

(1) Retention of all evidence of aggressive competition and active solicitation by Ethyl Corporation for the business in tetraethyl lead.

(2) A clear record by Ethyl Corporation of the method and manner of its price determination of tetraethyl lead showing, of course, that its determination is the result of a business judgment rather than as a result of any agreement with a competing company.

Your Committee concurs in the recommendations of Mr Hurd with respect to items 1 and 2.

(3) Consideration of revamping the jurisdictional setup of Ethyl Corporation in the General Motors Corporation organizational setup.

As this report points out, at the present time Ethyl Corporation comes under the jurisdiction of the Financial Policy Committee. If responsibility for the Ethyl Corporation investment continues under the jurisdiction of the Financial Policy Committee as at present, it would be desirable for the E. I. du Pont de Nemours & Company directors not to participate in any discussions of Ethyl Corporation problems and to withdraw from the meetings of the Committee when there are such discussions. The minutes, of course, of the Financial Policy Committee would record the withdrawal of the E. I. du Pont de Nemours & Company directors.

Another method of treatment might be to transfer Ethyl Corporation to the jurisdiction of the Operations Policy Committee (assumed to contain no du Pont directors) except where any problems of additional investment in Ethyl Corporation may be involved. In the latter event, decision by the Financial Policy Committee would again contemplate non-participation and withdrawal by the directors of E. I. du Pont de Nemours & Company. This method of treatment has the disadvantage of requiring joint or double

action of these Committees on the very problems (such as new plant investments involved on account of existing products or new products and dividend policies) that will probably most generally require discussion.

Mr. Hurd considered that this Committee factor was more in the nature of a negative protective factor than a positive one and hence of minor importance. In other words, there would be less opportunity for innuendo if Ethyl Corporation did not come under the jurisdiction of a committee which is made up in part of directors of E. I. du Pont de Nemours & Company. Mr. Hurd felt, however, that one of the two foregoing recommendations ought to be followed:

(4) The substitution of employes of General Motors Corporation for directors of General Motors Corporation on the Board of Directors of Ethyl Corporation.

Mr. Hurd indicated that this suggestion was of minor importance and would make little difference one way or another.

It is felt that the investigation of the legal problems outlined has progressed to the point that your Board is in a position to act on the points discussed by Mr. Hurd. It is therefore recommended that action be taken to designate the committee to be responsible for the Ethyl investment and to determine the director representation on the Ethyl Board. Mr. Hurd concurs in this position.

While this report covers the problem specifically assigned to this Committee by your Board, it is evident that the broader question of whether or not General Motors Corporation should retain, in whole or in part, its investment in Ethyl Corporation still remains. This question in turn is dependent for its solution upon the answer to the question of whether or not Ethyl Corporation investment should be retained in whole or in part, taking into account its business and profit prospects; and of how disposal of the investment in Ethyl Corporation might best be effected, if disposal of the investment is to be considered. These problems should be considered and dealt with by the committee which has the responsibility in General Motors Corporation for the investment in Ethyl Corporation.

Respectfully submitted,

Albert Bradley, Chairman
F. G. Donner
E. F. Johnson
C. F. Kettering

ETHYL CORPORATION

STATEMENT OF FACTS

Preliminary

The story of Ethyl Corporation and its development throughout the years commencing with Mr. Kettering's original interest in the problem in 1918 involves a great wealth of material and many documents. The narrative outline that follows, however, gives the essentials of the story.

(1) CORPORATE HISTORY

Ethyl Corporation was incorporated as Ethyl Gasoline Corporation under the laws of the State of Delaware under date of August 19, 1924, subsequently, on April 8, 1942, changing its name to Ethyl Corporation.

(2) CORPORATE ACTIVITIES

A. Historical—Discovery of Use of TEL

In 1922, Thomas Midgley, Jr., principal assistant to Mr. Kettering discovered the use of tetraethyl lead as an anti-knock medium. Mr. Kettering had been interested in this problem since 1918 when he first studied this "knocking" phenomenon in connection with his research in the field of automobile engine compression. This discovery of Midgley was apparently the first time that a commercial use had been found for TEL although the compound itself had been previously known to chemistry. On April 15, 1922, Midgley filed an application for a U.S. Patent covering a fuel for internal combustion engines containing TEL and other metallic compounds to increase critical compression.

B. Developmental Background of TEL

TEL at this time was made with bromine. The process was commercially unsatisfactory because of the high cost of production.

Standard Oil Company of New Jersey was also studying the anti-knock problem at the same time. There was an exchange between General Motors Corporation and Standard of information on research experience and progress. Upon Midgley's discovery in 1922, Standard concentrated its activities on the problem of production of TEL at a lower cost. In 1923, Dr. C. A. Kraus, retained by Standard to devise a new process of manufacturing, hit upon the production of TEL with chlorine, an inexpensive process and commercially satisfactory. In 1923, Kraus applied for three U.S. patents on variations of this invention.

C. Early Commercialization

On October 6, 1922, E. I. du Pont de Nemours & Company and General Motors Corporation entered into an agreement under which du Pont agreed to supply General Motors with specified quantities of an anti-knock compound to be manufactured pursuant to a formula supplied by General Motors. General Motors Corporation through a subsidiary, General Motors Chemical Company, commercialized this anti-knock compound through license agreements with several gasoline distributors.

D. Formation of Ethyl Corporation

Ethyl Corporation was caused to be formed in 1924 by General Motors Corporation and Standard Oil Company of New Jersey, each making certain contributions.

(1) Contribution of General Motors

General Motors Research Corporation was the owner of the basic Midgley invention for combining TEL with fuel as well as two other Midgley inventions—improvement inventions on the basic patent. These improvement inventions had been developed to combat the lead oxide attack on engine parts. One improvement covered a chloride as an antifluxing agent and the other a volatile bromide. Four critical patents seem to be involved and will be enumerated hereafter. However, for the purposes of this memorandum, it is assumed that on December 31, 1947 patent protection on the manufacture of TEL by Ethyl Corporation will expire.

(2) Contribution of Standard

Standard Development Company, a subsidiary of Standard Oil Company of New Jersey, owned itself or held in trust a number of inventions relating to the production of TEL including the three processes of Kraus.

(3) Incorporation of Ethyl Corporation

On August 1, 1924, General Motors Corporation and Standard Oil Company entered into an agreement providing for the formation of a Delaware Corporation to be called Ethyl Gasoline Corporation, the stock of which was to be owned in equal shares by General Motors Corporation and Standard Oil. Provision was made in this agreement for the transfer to the new corporation of certain properties and the granting to the new corporation by General Motors and Standard Oil of an exclusive license in the United States and abroad under the relevant inventions. Pursuant to this basic agreement, Ethyl Gasoline Corporation was incorporated and its stock as issued was issued to General Motors Corporation and Standard Oil in equal shares. In addition, under date of August 28, 1924, the various implementing licensing agreements were executed. These enumerate a great number of patents although, as I have indicated, it seems to me that the four patents enumerated below on the part of General Motors Corporation and the Kraus processes on the part of Standard Oil were the most significant. These agreements have been modified from time to time.

(4) Operation of Ethyl

Until the end of 1937, Ethyl did not itself manufacture TEL but purchased the compound from licensed suppliers and in turn licensed fuel distributors to make the patented mixture. Du Pont was one of the foremost of these suppliers of Ethyl, manufacturing the compound under the Kraus process. Ethyl's technological activity in relation to TEL manufacture was limited to laboratory research.

Commencing with January 1, 1938, Ethyl entered the field of TEL production. On this date, it entered into four agreements with E. I. du Pont de Nemours & Company—a lease agreement whereby it leased from du Pont certain properties at Deepwater, New Jersey, a manufacturing service agreement whereby it employed du Pont to operate the Deepwater plants in the manufacture of TEL, a license agreement running concurrently with the other two agreements under which the parties granted licenses and provided for a mutual disclosure of technological information and processes with respect to the manufacture of antiknock compounds. A fourth agreement, a financing agreement, provided for the advance of funds (originally through notes and later through preferred stock) to Ethyl Corporation for its working capital needs at

Deepwater, New Jersey, in predetermined amounts by du Pont, General Motors and Standard. These four agreements which originally expired in 1945 have been extended to December 31, 1947.

At the present time, the Deepwater, New Jersey plant is in operation for Ethyl by du Pont under the foregoing four agreements. Ethyl Corporation has put in considerable improvements in that plant. Ethyl is itself operating a plant at Baton Rouge, Louisiana, manufacturing TEL. This plant was formerly operated for Ethyl by du Pont.

In addition, Ethyl owns 50% of the common stock of Ethyl Dow Corporation, which manufactures ethylene di-bromide which enters, in turn, into the manufacture of TEL as the bromide fluxing agent. Ethyl has a facilities contract with Ethyl Dow for the furnishing of facilities.

Originally, Ethyl Export Corporation handled the overseas business of Ethyl. In 1939 a new company known as Associated Ethyl Company Limited was formed to replace Ethyl Export Corporation in the foreign field. At one time, General Motors Corporation had a stock interest in Associated Ethyl and certain foreign affiliates of Associated Ethyl. At the present time, General Motors Corporation no longer has any interest in Associated Ethyl Company Limited or any of its affiliates. Ethyl Corporation owns no stock in Associated Ethyl or any of its affiliates. It has, however, certain supply contracts for the sale to Associated Ethyl of materials.

(3) PATENTS

The four critical patents owned by General Motors Corporation are as follows:

(a) U.S. Patent No. 1,573,846 issued February 23, 1926, and expiring February 23, 1943—the "product" patent:

> Covering the addition of metallic compounds to internal combustion engine fuels. In the most specific claim the compound is identified as TEL.

(b) U.S. Patent No. 1,592,954 issued June 20, 1926, and expiring June 20, 1943:

> Covering the addition to the TEL fuel mixture of a halide (specifically claiming a chloride) to prevent fluxing.

(c) U.S. Patent No. 1,668,022 issued May 1, 1928 and expiring May 1, 1945:

> A "continuation in part" of (b) above, covering the addition to the TEL of a "volatile bromide" to prevent fluxing.

(d) U.S. Patent No. 1,787,419 issued December 30, 1930, expiring December 30, 1947—the "method" patent:

> Covering the method of utilizing a low compression motor fuel by forming a combustible mixture of the fuel and air and burning the mixture under a relatively high compression in the presence of a vaporized compounded element.

As the foregoing data shows, the last of the four critical patents owned by General Motors Corporation will expire on December 30, 1947.

(4) ENTRY OF DU PONT INTO THE TEL FIELD

The du Pont Company publicly announced in September 1946 that it is proposed in the year 1948 to enter into the manufacture and distribution of antiknock mixtures containing tetraethyl lead for addition to gasoline. Ethyl will also continue to manufacture and distribute TEL. Because of the relationship of General Motors Corporation, Ethyl Corporation and E. I. du Pont de Nemours & Company, this activity on the part of du Pont suggests certain problems under the Clayton Act and the Sherman Anti-Trust Act.

(5) RELATIONSHIP OF PARTIES

A. Stock

(1) Ethyl Corporation

The present authorized capital stock of Ethyl Corporation is divided into fifty million dollars of preferred stock and five million dollars of common stock. The common stock is owned 50% by General Motors Corporation and 50% by Standard Oil Company of New Jersey. The preferred stock is owned approximately ⅛ by E. I. du Pont de Nemours & Company and the balance equally between General Motors Corporation and Standard Oil Company. It is to be assumed that the du Pont Company will dispose of its preferred stock prior to January 1, 1948.

(2) General Motors Corporation

Du Pont Company owns ten million shares of common stock of General Motors Corporation or approximately 22% of the outstanding stock.

B. Directors

There are 14 members of the Board of Directors of Ethyl Corporation, 4 of whom are members of the Board of Directors of General Motors Corporation, 5 of whom are either members of the Board of Directors of Standard Oil Company or represent that company and the remaining 5 directors are officers or employes of Ethyl Corporation.

Mr. Sloan who is Chairman of the Board of Directors, a member of its Financial Policy Committee and Chairman of the Bonus and Salary Committee of General Motors Corporation is also a director of Ethyl Corporation and E. I. du Pont de Nemours & Company.

Apart from Mr. Sloan, no other director of General Motors Corporation is also a director of E. I. du Pont de Nemours & Company and Ethyl Corporation. However, the following directors of General Motors Corporation are also directors of E. I. du Pont de Nemours & Company:

> Donaldson Brown, who is also a member of the Financial Policy Committee of General Motors Corporation and of the Finance Committee and of the Bonus and Salary Committee of E. I. du Pont de Nemours & Company.
>
> Walter S. Carpenter, Jr., who is also a member of the Financial Policy Committee of General Motors Corporation, President of E. I. du Pont de Ne-

mours & Company, Chairman of its Executive Committee and a member of its Finance Committee.

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Lammot du Pont Copeland, who is also a member of the Audit Committee of General Motors Corporation and Secretary of E. I. du Pont de Nemours & Company and a member of its Finance Committee.

Henry B. du Pont, who is also a member of the Bonus and Salary Committee of General Motors Corporation and a Vice President of E. I. du Pont de Nemours & Company and a member of its Executive Committee.

Angus B. Echols, who is also a member of the Bonus and Salary Committee of General Motors Corporation, a Vice President of E. I. du Pont de Nemours & Company, Chairman of its Finance Committee and a member of its Executive Committee.

It is possible that at various times some of these persons or others may have been on non-standing committees. Thus recently, for example, Messrs. Sloan, Donaldson Brown and Angus B. Echols have been on a Committee for Study of Incentive Plans.

The Board of Directors of E. I. du Pont de Nemours & Company consists of 37 directors and the Board of Directors of General Motors Corporation consists of 28 directors.

C. General Motors Organizational Setup

In the General Motors Corporation organizational setup, Ethyl Corporation is known as an associated company. This company is under the jurisdiction of

Mr. Sloan who in turn reports to Mr. Bradley on this matter. Mr. Bradley in turn reports to the Financial Policy Committee. On the Financial Policy Committee are Messrs. Donaldson Brown, Walter S. Carpenter and Alfred P. Sloan, Jr., all of whom, as previously noted, are members of the Board of Directors, of E. I. du Pont de Nemours & Company and one of whom is in addition a member of the Board of Directors of Ethyl Corporation.

D. Previous Anti-Trust History

Ethyl Gasoline Corporation was the subject of a civil anti-trust proceeding in which its licensing arrangements were held to be violative of the Sherman Anti-Trust Act. 309 U.S. 436. Some further civil suits followed.

Questions Presented

The entry of du Pont into the manufacture and sale of TEL in competition with Ethyl Corporation, presents certain problems under the Anti-Trust Laws of the United States. In question form they may be presented as follows:

(1) What violation, if any, will exist either of the Sherman Anti-Trust Law or of the Clayton Act by virtue of the fact that there are common directors on the boards of directors of General Motors Corporation, E. I. du Pont de Nemours and Ethyl Corporation?

(2) Assuming that a violation of the anti-trust laws will exist under (1) what action if any should be taken

through the resignation or resignations of directors to remove such violation?

(3) Is the resignation of Mr. Sloan from the board of directors of Ethyl Corporation or du Pont Company necessary and if so, will his resignation remove any violation of the anti-trust laws so far as common directors are concerned?

(4) Assuming that there is no violation of the anti-trust laws growing out of common directors or that any such violation has been cured, is there anything else in the relationship of the three corporations that per se, apart from any other act or acts would constitute a violation on the part of General Motors Corporation of the anti-trust laws so far as the Ethyl situation is concerned?

It is to be assumed in this question that Ethyl and du Pont do not by agreement, or in concert with General Motors Corporation, fix prices or perform any other act that is forbidden by the anti-trust laws.

(5) Putting the preceding question slightly differently, does the ownership by du Pont of stock in General Motors Corporation in the foregoing percentage and the ownership by General Motors Corporation of the stock in Ethyl Corporation in the foregoing percentage, per se, and apart from any other factor, constitute a violation of the anti-trust laws of the United States?

In connection with this and assuming that the 50% ownership by General Motors Corporation of the common stock of Ethyl is a factor creating a statutory violation, would a reduction of this percentage eliminate any such violation and if so, to what extent should the stock holdings be reduced?

—13—

(6) Assuming that the price charged by du Pont for TEL is the same as the price charged by Ethyl for TEL and assuming further that that identity of price is the result solely of competitive economic forces, what can be done by way of documentation or otherwise so that General Motors Corporation may protect itself against a successful charge of violating the anti-trust laws, based on alleged price fixing or any other element.

In dealing with this question, it should be emphasized that it is the opinion of businessmen that du Pont's price for TEL must equal that of Ethyl, since buyers will not pay more to du Pont for TEL than they would pay to Ethyl, assuming an identity of product in quality. Following through this assumption, such a result would follow, even if Ethyl were to reduce its price because du Pont would immediately do the same thing. Again, in considering this problem, it should be emphasized that Ethyl as the historical narrative above indicates, is something developed and flowing out of activities on the part of General Motors and Standard Oil. There seems no sound legal reason, therefore, why the entry of du Pont into the field as a late patent-free competitor of Ethyl, should require General Motors Corporation to divest itself of its interest in Ethyl as the only irrefutable evidence that there have not, in connection with Ethyl, been violations of the anti-trust laws of the U.S.

(7) In connection with the preceding question, is there any advantage in changing the General Motors

Corporation organizational setup so that Ethyl would fall under the jurisdiction of the Operations Policy Committee and members thereof rather than the Financial Policy Committee and members thereof? Would it also be advisable to have General Motors Corporation directors of Ethyl who are also members of the Financial Policy Committee of General Motors Corporation resign and have appointed in their places General Motors Corporation directors who are members of the Operations Policy Committee. This thought suggests itself because the Financial Policy Committee contains three members who are also members of the Board of Directors of E. I. du Pont de Nemours. This situation does not prevail in the Operations Policy Committee. The logic in this is that as a matter of organizational setup, there is a withdrawal from any contact with the du Ponts of the reported activities of Ethyl Corporation to General Motors Corporation, short of the board of directors of General Motors Corporation level. On the other hand, so far as this suggested change in the organizational setup is concerned, there is still the question of the common directors of General Motors Corporation and E. I. du Pont de Nemours.

George A. Brooks

Government's Exhibit No. 830

GENERAL MOTORS CORPORATION
Broadway at 57th Street
New York 19, N. Y.

December
5th
1947

E. I. du Pont de Nemours & Company,
Wilmington, Delaware.

Sirs:

The Lease Agreement between Ethyl Corporation and E. I. du Pont de Nemours Company, covering certain property at Deepwater, N.J., entered into on or about January 1, 1938, and thereafter extended, will, as extended, expire on December 31, 1947. You are presently the owner of 36,497✓shares of 7% Preferred Stock of Ethyl Corporation of the aggregate par value of $3,649,700. The agreement made between yourself, Standard Oil Company and the undersigned dated April 9, 1941 provides that if, at the time of expiration of the foregoing extended Lease Agreement, Ethyl Corporation should not have redeemed the 7% Preferred Stock then owned by you, Standard Oil Company and the undersigned would purchase from you in equal amounts and you would sell to them such 7% Preferred Stock at par and accrued dividends.

*298,699 sh
pfd outstanding
9-30-47*

We are informed that Ethyl Corporation will not redeem its 7% Preferred Stock prior to December 31, 1947. We, therefore, notify you that, in the exercise of our rights under the aforesaid agreement dated April 9, 1941, we will purchase from you one-half of the 7% Preferred Stock of Ethyl Corporation owned by you at par and accrued dividends, if any. Standard Oil Company, we are informed, is also notifying you at or about this date of its like intention to exercise its like purchase rights under the aforesaid agreement dated April 9, 1941.

Chrysler Bldg.

It is suggested that the purchase and sale take place at 11:30 A.M. December 31, 1947, at the office of Ethyl Corporation, 405 Lexington Avenue, New York, N.Y. We will deliver to you at that time and place our check in the principal sum of $1,824,850,✓the par value of one-half the shares of 7% Preferred Stock of Ethyl Corporation

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owned by you, and Standard Oil Company, we understand, will likewise deliver to you its check in the like principal sum of $1,824,850 against delivery of the certificates of stock for said 36,497 shares of 7% Preferred Stock of Ethyl Corporation properly endorsed with the necessary federal and state transfer stamps properly affixed and with any supporting documents necessary to effect the transfer to Standard Oil Company and the undersigned of said shares in equal amounts. A quarterly dividend of $1.76 per share, payable December 31, 1947, was declared by the Board of Directors of Ethyl Corporation on December 2, 1947, payable to holders of record December 15, 1947. Since this dividend will be received by you on these 36,497 shares, there will be no adjustment required for accrued dividends at December 31, 1947.

½ ?

✓

2

Will you please advise if this is agreeable to you at your earliest convenience.

Yours very truly,

GENERAL MOTORS CORPORATION

By: *F. G. Donner*
F. G. Donner
Vice President

Fowler ——→ *R. H. Cowlishaw*
Asst. Treas.
Ethyl
cannot issue ½ share

NOTE: At upper right of first page is stamped "Noted W.J.B."; after the figure "36,497" in the fifth line is drawn a small check mark; at lower right of both pages is written "GM-1343"; line in margin on second page is by hand; italics indicate handwriting; underlining first page is by hand.

Government's Exhibit No. 831

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK 19, N. Y.

February 25, 1948.

TO: Board of Directors

FROM: Special Committee—Ethyl Corporation

SUBJECT: PURCHASE OF DU PONT HOLDINGS OF PREFERRED STOCK OF ETHYL CORPORATION BY GENERAL MOTORS CORPORATION AND STANDARD OIL COMPANY (N.J.)

On July 7, 1947 your Board created a special committee to have charge of the investment of General Motors in Ethyl Corporation and of all matters connected therewith with authority to take such action in regard thereto, as in its discretion it shall deem appropriate. This Special Committee is reporting the acquisition by General Motors Corporation of Ethyl Corporation preferred stock held by E. I. du Pont de Nemours & Company as a result of action taken at a meeting held November 3, 1947, the transaction being consummated on February 9, 1948.

Effective January 1, 1938, Ethyl Corporation and E. I. du Pont de Nemours & Company entered into a lease agreement covering certain properties at Deepwater, New Jersey. On April 9, 1941, Standard Oil Company (N.J.), General Motors Corporation and du Pont entered into an agreement which provided, in substance, that at the expiration of the lease agreement Standard Oil and General Motors would purchase from du Pont, in equal amounts, any 7% preferred stock of Ethyl then owned by du Pont.

The lease agreement between du Pont and Ethyl expired December 31, 1947, at which time du Pont owned 12.2% of the outstanding 7% preferred stock of Ethyl, representing 36,497 shares with a total par value of $3,649,700. Of the balance of the preferred stock outstanding, 131,076 shares at a par value of $13,107,600 were held by General Motors Corporation and an equal amount by Standard Oil Company (N.J.). In view of the expiration of the agreement which required that Standard Oil and General Motors purchase from du Pont any 7% preferred stock of Ethyl held by du Pont, Standard Oil and General Motors each purchased, at the par value of $1,824,850, one-half of the Ethyl preferred stock held by du Pont. Since one-half of the number of shares of preferred stock held by du Pont resulted in a fractional share, Standard Oil and General Motors each transferred one-half of a share to Ethyl upon payment by Ethyl of $50.38, which amount represented the par value and accrued dividends applicable to the one-half share. In final result, therefore, Standard Oil and General Motors each acquired 18,248 shares of the Ethyl Corporation 7% preferred stock previously held by du Pont.

Respectfully submitted,

Special Committee—Ethyl Corporation
Albert, Bradley, Chairman
F. G. Donner
Earle F. Johnson
Charles F. Kettering

Note: At upper left is written "Mr. G. N. Brooks"; at upper right is stamped "Received Feb 26, 1948, Office of Secretary".

Government's Exhibit No. 832

BILL OF SALE

ETHYL CORPORATION

to

E. I. DU PONT DE NEMOURS AND COMPANY

KNOW ALL MEN BY THESE PRESENTS: that ETHYL CORPORATION, a Corporation of the State of Delaware (hereinafter referred to as "ETHYL") pursuant to Paragraph 3 of an agreement (designated as "Operating Interim Agreement") entered into as of June 10, 1947 with E. I. DU PONT DE NEMOURS AND COMPANY, a Corporation of the State of Delaware (hereinafter referred to as "DU PONT") and in consideration of the payment to ETHYL by DU PONT of the sum of Two Million Nine Hundred and Seventeen Thousand Dollars ($2,917,000) receipt whereof is hereby acknowledged, does hereby grant, convey, bargain, sell, assign, transfer, set over, confirm and deliver to DU PONT, its successors and assigns, all right, title and interest of ETHYL in and to all of ETHYL's tangible property (including furniture and extra machinery) at DU PONT's Chambers Works, Deepwater Point, New Jersey, excepting, however (a) Tank cars, tank trucks and drums (b) Project C-1286 covering facilities for scrapping drums and (c) Any and all items of operating inventory and capital plant projects which have been authorized by ETHYL after June 10, 1947 and prior to December 31, 1947.

TO HAVE AND TO HOLD all the property hereby sold, conveyed, assigned and transferred to DU PONT, its successors and assigns, to its and their own use and benefit forever.

IN WITNESS WHEREOF, ETHYL has caused these presents to be executed by its proper officers thereunto duly author ized and its corporate seal to be affixed hereto this 31st day of December, 1947.

ETHYL CORPORATION

By *L. L. Shea*

Attest:
J. C. Gonzalez
Secretary

NOTE: At lower right is written "GMC-1001"; italics indicate handwriting.

Government's Exhibit No. 833

"IMMUNITY AND CANCELLATION AGREEMENT"

THIS AGREEMENT made as of the first day of January, 1948, by and between

ETHYL CORPORATION, a corporation of the State of Delaware (hereinafter referred to as ETHYL)

and

E. I. DU PONT DE NEMOURS AND COMPANY, a corporation of the State of Delaware (hereinafter referred to as DU PONT),

WITNESSETH:

WHEREAS, since the organization of ETHYL in 1924, the parties hereto have been cooperatively engaged in the manufacturing, compounding and shipping of anti-knock compounds containing lead alkyls as the anti-knock agent, including research work with respect thereto and the production of intermediate materials for such manufacturing and compounding, and in connection therewith have cooperated in the building, equipping and operating of manufacturing plants for the production of said anti-knock compounds and materials; and

WHEREAS the said parties desire to be free to engage separately and independently of each other in the manufacturing, compounding, shipping and selling of said products;

NOW, THEREFORE, in consideration of the premises and the covenants and agreements hereinafter set forth, it is mutually agreed as follows:

1. Each of the parties hereto covenants and agrees, now and forever, that it will not sue the other party in any

country of the world on account of the use or alleged infringement of any United States or foreign patent, the invention of which was used in a commercial operation by either of the parties hereto prior to the date hereof, where the act complained of consists in:

(a) the manufacture, use or sale of one or more lead alkyls for any purpose or the manufacture, use or sale of any anti-knock compounds, the effective anti-knock agent of which is made up wholly or one or more lead alkyls; or

(b) the manufacture, use or sale of any of the following materials, viz., Methyl Chloride, Ethyl Chloride, Ethylene Dichloride, Hydrochloric Acid, Sodium, Chlorine, Alloys composed principally of Lead and Sodium, and by-products obtained in the manufacture of the above materials, including, but without limitation thereto, Salt Cake, Aromatic Distillate and Tar; or

(c) the construction or operation of any building, machinery, equipment, or installation, used for or in connection with the manufacture, use or sale of any compounds or materials covered in sections (a) or (b) of this paragraph.

2. Each of the parties hereto covenants and agrees, now and forever, that it will not sue the other party where the act complained of consists in the use, in any country and in any way or for any purpose, of any unpatented information or "know-how", relating to any process, equipment, compound, material, mixture or design heretofore received or acquired from the other party relating to the foregoing compounds and materials or to the construction

or operation of any building, equipment or installation therefor (except that Ethyl agrees it will not disclose to others any confidential technical knowledge or information, obtained from du Pont and relating to the manufacture of sodium, for a period of ten years from the date hereof except as may be necessary for Ethyl's use and enjoyment thereof).

3. Each of the parties hereto further covenants and agrees, now and forever, that it will not sue any person in any country of the world for the use or alleged infringement of any United States or foreign patent the invention of which was owned or controlled by either party hereto and was used in a commercial operation prior to the date hereof, on account of the use or sale of compounds or materials manufactured or sold by the other party and covered in section (a) of Paragraph 1 above; or on account of the manufacture, use or sale of products containing any such compounds or materials manufactured or sold by either party hereto.

4. With respect to transferrable patent rights and information owned or controlled by either party and licensed to or from third persons, the immunities granted herein by either party shall apply only in so far as and to the extent that said party hereto has the right to grant such immunities; but to that extent each party undertakes that the obligation of immunity shall be accepted by such third persons. Without limiting the generality of the foregoing, it is understood that the immunities above referred to shall extend to the patents and information of third persons which Ethyl is authorized now to use and now is using commercially in the manufacture of ethyl chloride from

ethylene; and in consideration thereof du Pont covenants and agrees that Ethyl may extend to such third persons the immunities granted above to Ethyl in so far as they relate to the manufacture of hydrochloric acid by the "Mannheim" process and the by-products produced by such process or to the use or sale of such hydrochloric acid or by-products so manufactured.

5. It is expressly understood that the immunities from suit granted in Paragraphs 1, 2, 3 and 4 above shall not extend to any patent other than a patent (1) covering as such a compound or material designated in one of sections (a) or (b) of Paragraph 1; (2) covering a process for the manufacture of such compound or material; (3) covering any buildings, machinery, equipment or installation heretofore used in the manufacture, handling, storage or transportation of any compound or material designated in sections (a) or (b) of Paragraph 1 or of any motor fuel containing any compound or material designated in section (a) of Paragraph 1; or (4) covering the use in motor fuel of a compound or material designated in section (a) of Paragraph 1.

6. Du Pont covenants and agrees to assign to Ethyl an undivided one-half interest in all patents heretofore or hereafter issued or assigned to du Pont on applications filed prior to the date of this agreement based on inventions relating to the manufacture of lead alkyls resulting from research work done by du Pont for the account of Ethyl, pursuant to Article III-F of the certain agreement between the parties hereto dated January 1, 1938 and known as the "Manufacturing Service Agreement". Such assignment

shall be effected promptly upon the issuance of each such patent. The phrase "applications filed prior to the date of this agreement" is understood to include divisions, continuations, renewals, reissue applications and corresponding applications for foreign patents, regardless of date of filing, where the same are based upon an application filed prior to the date of this Agreement.

7. Neither party shall be deemed because of this Agreement to admit the validity of any patent referred to herein, and each party shall be free to deny the validity of any such patent.

8. Nothing herein contained shall be deemed to authorize either party or any other person to use any of the trademarks, trade names, trade-mark designs, symbols, or insignia of the other party, or any simulation thereof, and no immunity from liability for such use is hereby granted.

9. Except as herein provided, each and every previous agreement between the parties, together with every patent right granted pursuant thereto relating to the aforesaid subject-matters, of every kind and description, whether written or oral, express or implied, is hereby terminated and cancelled as of December 31, 1947; and all of the provisions thereof which would otherwise survive termination are hereby terminated excepting and reserving, however, (a) the right to continue the non-exclusive foreign licenses under du Pont patents granted by Ethyl to Associated Ethyl Company Limited of London; (b) those provisions which obligate Ethyl to pay du Pont compensation or sodium royalty earned or accrued prior to January 1, 1948; (c) those provisions which obligate Ethyl to indemnify

or reimburse du Pont on account of liabilities and costs, including legal expenses and depreciation, arising out of du Pont's operation, maintenance and construction of any plant for Ethyl's account prior to January 1, 1948; (d) those provisions under the agreement of lease which obligate Ethyl to indemnify or reimburse du Pont for any property destroyed or damaged between June 10, 1947, and January 1, 1948; and (e) the provisions of the so-called "operating interim agreement" entered into by the parties hereto as of the tenth day of June, 1947, a copy whereof is **annexed hereto marked Exhibit A and made a part hereof.**

10. Each of the parties does hereby remise, release and forever discharge the other of and from all manner of actions or causes of action, claims and demands which against the other party it ever had, now has or which it or its successors hereafter can, shall or may have, from the beginning of the world to January 1, 1948, upon or by reason of any matter, cause or thing whatsoever relating to the aforesaid subject-matter, save and except those provisions of the previous agreements between the parties which are expressly excepted and reserved in and by Paragraph 9 of this Agreement.

11. Except as herein expressly otherwise provided this Agreement is personal and non-assignable and the benefits thereof shall inure exclusively to the parties hereto or to their successors, or to a subsidiary corporation a majority of the voting stock of which is owned or controlled by either party.

IN WITNESS WHEREOF the parties hereto have caused these presents to be signed and their seals attached hereto this *19th* day of August, 1947.

ETHYL CORPORATION

By *H. W. Kaley*
Vice President

ATTEST:
J. C. Gonzalez
Secretary

(SEAL)

E. I. DU PONT DE NEMOURS & COMPANY

By *E. G. Robinson*
E. G. Robinson, General Manager
Organic Chemicals Department

ATTEST:
L. duP. Copeland
Secretary
L. duP Copeland
Attorney E. C. Woodhouse
Approved By S. L. Abrams

(SEAL)

JEK

EXHIBIT A

"OPERATING INTERIM AGREEMENT"

AGREEMENT made as of the tenth day of June, 1947, between ETHYL CORPORATION, a Delaware corporation (referred to herein as "ETHYL") and E. I. DU PONT DE NEMOURS & COMPANY, also a Delaware corporation (referred to herein as "DU PONT"),

WITNESSETH:

WHEREAS ETHYL and DU PONT have been operating under the terms of a Manufacturing Service Agreement and Lease Agreement dated January 1, 1938, as amended, which expire on December 31, 1947; and

WHEREAS of the four manufacturing units at the Chambers Works referred to in said agreements as the Deepwater Plants, "D" and "E" are presently in operation and "B" and "C" are idle and in connection with said operations there were formerly used certain plants for the manufacture of ethyl chloride known as No. 1, No. 2-A and No. 2-B; and

WHEREAS it is desired to modify said agreements as hereinafter provided,

NOW, THEREFORE, in consideration of the premises and the covenants and agreements herein contained, it is hereby agreed as follows:

1. DU PONT shall continue to produce until December 21, 1947, TEL for the account of ETHYL in said units "D" and "E" as heretofore, except that it may produce and blend

for its own account up to 6,000,000 pounds of TEL at a rate not exceeding 1,500,000 pounds in any month. All materials required for TEL produced for the account of du Pont shall be supplied by it at its own expense. All other costs shall be borne ratably by du Pont and Ethyl in proportion to the amounts of products manufactured for their respective accounts.

2. Du Pont at its option may recondition and operate for its own account and at its own expense any one or more of the said ethyl chloride units without liability to Ethyl therefor. Ethyl shall have the option to buy and du Pont agrees to sell, at Cost Sheet Cost plus ten per cent. (10%), all ethyl chloride so produced, in excess of 1,000,000 pounds and such amounts as may be required and used by du Pont in its Chambers Works operations; provided, however, Ethyl shall have the right at its option to purchase and du Pont agrees to sell at a price of Cost Sheet Cost plus ten per cent. (10%) any amount so produced in excess of 8,000,000 pounds of ethyl chloride, in case of an unusual interference with Ethyl's production as in Paragraph 9 provided.

3. Ethyl will sell to du Pont and du Pont will purchase from Ethyl as of December 31, 1947, for the sum of $2,917,000, all of Ethyl's tangible property at said Chambers Works (including furniture and extra machinery) whether or not such property is listed in du Pont's records, excepting, however, (a) Tank cars, tank trucks and drums, (b) Project C-1286 covering facilities for scrapping drums, (c) Any and all items of operating inventory and capital plant projects which may be authorized by Ethyl after the effective date hereof, and (d) Such file cabinets as Ethyl may select and remove from its offices

at Chambers Works prior to December 31, 1947. Ethyl will pay du Pont for du Pont's own use the sum of $1,132,000 in full payment and satisfaction for deferred repairs to those facilities which were not maintained in good operating condition because of low production rates. To effect these payments, the difference between said two sums, namely $1,785,000 will be paid by du Pont to Ethyl on December 31, 1947.

4. Ethyl will also pay to du Pont the cost, estimated at $154,000, of completing all construction projects of a capital nature owned by Ethyl at the said Chambers Works authorized by Ethyl prior to the date hereof and included as though completed in the above purchase and sales price of $2,917,000, including any sums of money necessary for such completion expended subsequent to December 31, 1947

5. Ethyl will authorize the necessary repair projects at said Chambers Works required for the operations covered hereunder and will pay the cost thereof to du Pont including any sums of money necessary for the completion of such authorized repair projects expended subsequent to December 31, 1947, except that du Pont shall pay and bear all repair costs pertaining to ethyl chloride plants operated by it for its own account unless otherwise provided in Paragraph 9, or pertaining to the reconditioning of "B" and "C" Manufacturing Units as provided for in Paragraph 8 or 9 on a normal repair schedule. Authorized Projects C-1256, 1257, 1264, 1265, 1269, 1271, 1275 and MC-85 to extent uncompleted are hereby cancelled as of the effective date hereof and all appropriations of money authorized therefor but unspent, in the approximate sum of $80,000, are also cancelled.

6. No compensation shall be paid to du Pont by Ethyl under Article VII of said Manufacturing Service Agreement on the purchase and sales price of $2,917,000 herein provided for. For purposes of calculating du Pont's compensation Ethyl shall charge to its cost of sales,—

(a) depreciation at the normal rates of 3% and 10% per year until December 31, 1947, on Ethyl's property as provided for by Article III (e) of said Manufacturing Service Agreement, and

(b) deferred repairs in the amount of $1,132,000 as specified in Paragraph 3 hereof.

If Ethyl should sustain a loss on the property sold to du Pont as herein provided, no part of such loss shall be charged against du Pont's compensation, but should such property loss be charged against the royalty that Ethyl is obligated to pay third parties in respect of operations during 1947, du Pont's compensation shall not be increased by such reduction in royalty.

7. In respect to the operation of any ethyl chloride plant by du Pont and its manufacture of TEL for its own account from the date of the commencement of both said operations and continuing until

December 31, 1947, the plant overhead to be paid by Ethyl shall be at the rate of 75¢ per each dollar of labor present in the monthly Cost Sheets in addition to the applicable cost shown on the Idle Cost Sheets of the "B" and "C" Manufacturing Units at said Chambers Works and all other incidental idle costs of the TEL Area, provided, however, that the penalty overhead charge shall be $25,000 per month and the penalty power charge shall be $7,000 per month. Effective on and after said date and except as otherwise provided herein, Ethyl shall be relieved of all liability for charges incurred by du Pont applicable to the ethyl chloride units at said Chambers Works, and likewise du Pont shall be relieved of all liability for such charges incurred by Ethyl.

8. du Pont will recondition and operate said "C" Manufacturing Unit as expeditiously as possible consistent with good operating practice and to the extent it deems advisable or necessary in order to produce the maximum reasonably possible quantity of TEL during the remainder of 1947, which quantity Ethyl agrees to take and pay for under the terms of the Manufacturing Service Agreement. Except as otherwise provided herein, Ethyl will supply, from plants other than the Chambers Works, all of the ethyl chloride required for all its Chambers Works TEL production. During any period of operation of "C", "D" and "E" Manufacturing Units the ratable cost of production specified in Paragraph 1 hereof shall be the ratable part of the total cost for the three units, including the shutdown expense applicable to the "C" unit provided that this unit is shut down by du Pont immediately following December 31, 1947. With "C", "D" and "E" Units in simultaneous operation at approximately full capacity, the penalty charges of $25,000 and $7,000 specified in Pargaraph 7 above shall be revised to $12,000 and $3,000 respectively.

9. In case of a substantial interference with Ethyl's normal production elsewhere, du Pont at the request of Ethyl will operate, to the extent reasonably possible consistent with good operating practice, said "B" Manufacturing Unit for Ethyl's account until December 31, 1947, and will provide ethyl chloride for Ethyl from the available ethyl chloride plants at said Chambers Works, subject to Paragraph 2 hereof. With the

"B" Manufacturing Unit in operation the charges specified in Paragraph 7 will be revised to take into account operation of the formerly idle "B" Unit. Any ethyl chloride produced by DU PONT for ETHYL under this paragraph shall be sold to ETHYL at DU PONT's Cost Sheet Cost therefor plus ten per cent, (10%).

If the cost of reconditioning to start operations as provided in this paragraph or Paragraph 8 shall exceed the amounts allowed for such work in computing the sum of $1,132,000, ETHYL will pay such excess cost. Further, ETHYL agrees to pay the shutdown expenses incurred by DU PONT in closing down such facilities if no longer used or required by DU PONT on December 31, 1947. Prior to starting reconditioning as provided for in this paragraph, the parties hereto will determine the practicability of placing said facilities in quick operation, estimate the cost of possible later date reconditioning and endeavor to conclude a plan of operation to cover such emergency conditions. The estimate of cost for such expense will be paid by ETHYL prior to such reconditioning based upon the agreed upon estimate.

10. The purchase and sales price of ETHYL's property above provided for in Paragraph 3 in the sum of $2,917,000 is predicated upon the assumption that all such property in existence on the effective date hereof shall be in existence and transferred to DU PONT on December 31, 1947. In the event that any such property shall not be in existence on December 31, 1947, proper allowance will be made to DU PONT therefor. All property insurance coverage now in force on such property, shall be continued through 1947 and the present insurance practice shall remain unchanged.

11. Except as herein modified, the said Manufacturing

Service Agreement and Lease Agreement shall remain in full force and effect until December 31, 1947.

12. It is understood and agreed that this agreement shall be annexed to, marked Exhibit A, and made a part of an agreement entered into between the parties as of January 1, 1948.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed and their seals attached hereto this *19th* day of August, 1947.

ETHYL CORPORATION

By

H. W. Kaley

Vice President

ATTEST:

J. C. Gonzalez

Secretary

E. I. DU PONT DE NEMOURS & COMPANY

By

E. G. Robinson

E. G. Robinson, General Manager

Organic Chemicals Department

ATTEST:

L. duP. Copeland

Secretary

L. duP Copeland

Attorney T. R. Hanley

Approved By S. L. Abrams

JEK

NOTE: At lower right of first six pages is written "GMC-1001a"; at lower right of last six pages is written "GMC-1001b"; in left margin of page 6 are written three sets of illegible initials; in left margin of 12th page are written three sets of illegible initials; italics indicate handwriting.

(2693)

Government's Exhibit No. 834

TETRAETHYL LEAD

THE DISTRIBUTION OF PROFITS

(In thousands of dollars)

Year	Ethyl Net Sales	Ethyl Net Income	Royalties Paid to General Motors	Ethyl Dividends Paid to General Motors	Ethyl Dividends Paid to Standard Oil	Du Pont Tetraethyl Profits[1]
1924	$ 2,036	$ (64)	$	$	$	$ (289)
1925	849	(1,357)				357
1926	2,920	(1,212)				(14)
1927	5,495	(99)				771
1928	8,223	1,587				1,385
1929	19,276	5,263	1,000	1,000	1,000	3,654
1930	24,931	6,863	2,170	2,700	2,700	4,613
1931	26,867	7,555	2,206	4,331	4,331	4,695
1932	16,038	3,708	1,144	2,700	2,700	1,784
1933	22,767	5,793	1,628	2,350	2,350	3,472
1934	33,177	8,538	2,647	3,950	3,950	4,628
1935	34,476	8,566	2,495	4,250	4,250	5,519
1936	37,348	9,185	2,737	4,400[2]	4,400	4,882
1937	45,498	10,964	3,104	4,750[3]	4,750	5,262
1938	49,805	11,746	2,845	5,000	5,000	4,783
1939	64,363	18,483	4,412	8,500	8,500	5,534
1940	81,674	20,508	4,335	8,750	8,750	6,902
1941	88,356	19,181	3,408	8,500	8,500	6,509
1942	61,972	9,118	1,446	2,513	2,513	3,942
1943	81,943	11,765	2,151	4,688	4,688	3,918
1944	97,928	12,854	2,182	4,875	4,875	3,853
1945	105,464	15,366	1,775	4,125	4,125	3,800
1946	76,132	13,285	1,606	3,300	3,300	3,948
1947	91,481	10,059	78	1,950	1,950	2,784
Total	$1,079,019	$207,655	$43,369	$82,632	$82,632	$86,692

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[1] Does not include profits derived from supply of materials used in production of tetraethyl lead and ethyl fluid.

[2] Includes $29,333 dividends paid to du Pont.

[3] Includes $31,667 dividends paid to du Pont.

Note: Figures in parentheses indicate loss.

Government's Exhibit No. 838

COPY

(Excerpt of letter to J. L. Pratt from E.G. Biechler 3/11/30)

There is one specific thing, though, we would appreciate your giving a lot of thought, because we need a decision fairly soon, and that is, the manufacture of our new refrigerant. We want to get into that as quickly as possible, and from our standpoint might say we feel that we would like to see it done by us, meaning either the Frigidaire Corporation or General Motors, or some Division you might want to set up; in other words, we feel a great deal would be gained if we would control this rather than let some chemical company do it.

I do not know whether you have heard it or not, but we have direct information from the duPont Company that they are launching a plan to investigate new refrigerants themselves, and we understand they are working somewhat with the same chemicals from which we have developed our new refrigerant. Because of our seeking a detector for this new refrigerant, the duPont Company have learned somewhat of the chemicals we ourselves are using.

Yours very truly,

(signed E. G. Biechler
General Manager.

Government's Exhibit No. 839

COPY

(Excerpt of letter to E. G. Biechler from J.L. Pratt 3/15/30)

In regard to the manufacture of the new refrigerant, I am of the opinion that this should be made at Dayton in the plant adjacent to the Frigidaire plant. Whether or not it should be made by one of General Motors subsidiaries or divisions I have not just been able to determine in my own mind, and shall discuss same with Mr. Sloan, who will return in a few days.

It is quite a fundamental step for us to start General Motors in chemical manufacture. Up to this time we have more or less elected to confine ourselves to the mechanical side of manufacture and I do not want to depart from this until very thorough consideration has been given to all of the factors involved. I do not believe we should start in manufacturing until we have the problems of manufacture a little more definitely solved than they were when I was last in Dayton. At that time Mr. Midgley had about satisfied himself that the "wet" process of using hydrochloric acid would be too expensive and was just starting to arrange his apparatus to try out a "dry" process. It was not quite clear to me how he expected to get the "dry" hydrochloric acid without going through the "wet" process. This, however is a problem I don't suppose I should worry about but let Mr. Midgley and the other chemists solve, but I do believe that we should know we have a workable process not only from the standpoint of chemical reaction but from the standpoint of plant maintenance and cost, before we embark on much of a program to use this material.

Government's Exhibit No. 840

4977

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
DYESTUFFS DEPARTMENT
WILMINGTON, DELAWARE

March 28, 1930

Mr. John L. Pratt, Vice-President,
General Motors Corporation,
224 West 57th Street,
New York City, N. Y.

Dear John:

We are attaching hereto copies of our wires of today to you and Mr. Williams, with regard to the visit of representatives to Dayton to discuss with the Frigidaire people there, the question of the manufacture of F-12. I presume you will already have advised Mr. Williams, in Mr. Biechler's absence, that these men are coming and that it is intended they shall discuss fully the question of methods of manufacture of this product. We are arranging to have these men there at the earliest possible moment, since we understand this is your desire and we entirely agree with you that the possibilities of this proposition are such that we should proceed to cooperate with the least possible delay.

I will be very glad to discuss further with you, either here or in New York, whichever you see fit, the methods to be followed in trying to exploit this material with the greatest possible speed and benefit.

Very truly yours,

E G Robinson

E. G. ROBINSON,
GENERAL MANAGER

(2697)

EGR/IPL

Government's Exhibit No. 841 4978

March 29, 1930

Mr. E. G. Robinson, General Mgr.,
Dyestuffs Department,
E.I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Robbie:

I have your letter of March 28th, and am very glad to know that you are getting such prompt action, on the part of your organization, in regard to the investigation of the new gas.

As soon as Messrs. Calcott and Kinsman return and report to you I will be glad to have an opportunity to sit down with you and see along what lines we can best work out satisfactory operations.

With kind regards,

Very truly yours,

Vice President

JLP:V

copy to Mr. Biechler

(2698)

Government's Exhibit No. 842

June 12, 1930

Mr. E. G. Robinson, General Mgr.,
Dyestuffs Department,
E.I. duPont deNemours & Company,
Wilmington, Delaware.

Dear Robbie:

Referring to the proposed organization of the company to be owned by the DuPont Company and General Motors, for the manufacture of certain chemicals to be used as refrigerants, and possibly other chemicals that may be developed in General Motors laboratories. Taking the proposed outline of organization you submitted when I was recently in Wilmington, I will review same in order of the subcaptions:

NAME OF COMPANY: We do not think the name of the company should be tied up solely with fluorine. We take this position because of the possibilities of other chemicals being developed in General Motors laboratories which we might desire to manufacture in this proposed company and which might have no relation whatever to fluorine.

PURPOSE: We recognize from the DuPont standpoint the necessity for limiting the kinds of chemicals manufactured in which the new company should embark. From General Motors' standpoint I think it would be satisfactory to have the purpose of the new company to manufacture fluorine with a fluorine atom substituted for at least one hydrogen atom of halogenated methane or ethane. In addition I would like to see the charter provide that the company could manufacture any chemicals that might originate in the laboratories of General Motors Corporation, and exclude any chemicals that originated in the DuPont developments except DuPont developments that flowed out of General Motors developments.

CAPITAL STRUCTURE: It will be satisfactory for the company to be set up on the basis of DuPont owning 51% of the stock of the company and General Motors Corporation owning 49%. You should be in better position to say how much capital will be required to properly finance the company.

OFFICERS: We will be glad to have the DuPont Company designate from its employes the officers of the new company. However, we would like to see eventually the man who is actually responsible for the operation of the company be its President and General Manager, and that he be a full time employe of the new company. In regard to the Directors, it is satisfactory to us to have five or seven directors, the majority of whom will be of duPont designation.

SEMI-COMMERCIAL PLANT: It is our understanding that the company for the time being will operate the semi-commercial plant at Moraine, Ohio. When other processes than the Midgley process have advanced in the laboratory to the point where it is desirable to build another semi-works plant to try out a new process, it will be satisfactory that this semi-works plant be located at Deepwater Point, New Jersey.

PERMANENT PLANT LOCATION: We feel that the permanent plant should be located primarily from the standpoint where the economics of assembly of raw materials and delivery of finished product will fix the location. It is our feeling that the plant should be located from the standpoint of being made an entirely separate entity from any other operating unit of the DuPont Company. Our idea being that if it is made a department of some other DuPont plant there will always be room for argument on proper distribution/ of, overhead, etc. We have no objection if the economic location of the permanent plant is at a point where the DuPont Company or one of its subsidiaries already have an existing plant, where part of the property could be sold or transferred to the new chemical company.

PLANT MANAGEMENT: It will be the province of the DuPont Company to provide the proper managerial staff of the plant, and those employes of the DuPont Company who are giving all of their time to the new company will be transferred to the payroll of the new company; and for general supervision of the operations by the DuPont staff and for reimbursement to some extent to the DuPont Company for drawing from its own proven personnel and transferring same to the new company, it is agreeable that the new company pay the DuPont Company a managerial fee of $50,000 a year for a period of five years. It is assumed that after a period of five years the new company will be sufficiently organized so that it can operate without drawing on the managerial experience of the DuPont Company other than what the DuPont Company as well as General Motors Corporation will be willing to give from the standpoint of stockholders of the company.

FRIGIDAIRE PATENTS: Frigidaire will grant a license to the new company the right to manufacture under processes developed, and for the purpose of sale for uses on which

Frigidaire has made applications for patents. From General Motors standpoint ~~we~~ would prefer that Frigidaire be reimbursed by a royalty based on so much per pound or a percentage of the selling price, rather than the proposed royalty on profits.

DuPont Patents: We would like to approach this problem from the standpoint that the new company will pay the DuPont Company out-of-pocket expense made up to the date of the forming of the new company, for work done on the products that will be manufactured by the new company, rather than undertake to pay royalties on processes that may be developed by the DuPont Company on ideas which originated with the Frigidaire Corporation.

Midgley Patents: All applications for patents which Midgley has will be transferred to the Frigidaire Corporation with the possible exception of recognition of the rights that the Ethyl Gasoline Corporation may have for use of the materials in doping motor fuels. This point will have to be cleared up more definitely.

Research: The new company to pay DuPont and General Motors for any fundamental and applied research that the new company may request either of these organizations to do.

Sales: It is agreeable to us that the new company be set up on the basis that sales of its product will be handled through the DuPont sales organization. However, it should be understood that there will be no charge by the DuPont sales organization for sales made to the Frigidaire Corporation, as there will be no sales effort involved in this transaction.

Selling Prices: We think selling prices will have to be governed somewhat by price of other competitive refrigerating gases. However, we would be satisfied that price be set on the basis of the yield say not in excess of 30% of the capital employed in the new company. This yield might be increased if a low enough cost can be developed so that the competitive price situation is favorable.

After you have had an opportunity to go over these proposed suggestions, and if they are in line with what the DuPont Company is agreeable to, we will be glad if you will try to work out a somewhat more definite agreement than the one on which this outline is based.

Very truly yours,

J. L. Pratt
Vice President

JLP:V
copy to Mr. Donaldson Brown: ✓

Note: Illegible handwriting with a line through it appears in uppermost part. Lines appear in the left hand corner immediately in front of the second and third paragraphs.

On the last page handwritten checks are underneath the signature of the Vice President and following the printed words "copy to Donaldson Brown." Italics indicate handwriting.

Government's Exhibit No. 843

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
DYESTUFFS DEPARTMENT
WILMINGTON, DELAWARE

1981

June 24, 1930

Mr. John L. Pratt,
General Motors Corporation,
224 W. 57th Street,
New York City, N. Y.

Dear John:

REFRIGERANTS

I received your letter of June 12th with regard to the formation of the proposed subsidiary to handle the manufacture of refrigerants and possibly other chemicals which may be developed by General Motors. We are drawing up an agreement to incorporate the terms for the formation of this new company and expect to be able to submit you something for consideration at an early date.

In accordance with our telephone conversation this morning, Mr. Williams suggested that Mr. Calcott come to Dayton to discuss research work in connection with the refrigerants and both Mr. Calcott and Dr. Elley are leaving for Dayton tonight to be there tomorrow. It is my understanding that you agree that as far as research work on the manufacture is concerned, this should be done in one place, namely, at the Jackson Laboratory, and that you believe the Frigidaire people have arranged for this meeting in order to transfer such research work to us and to discuss the present status with that idea in mind.

We have been investigating three different processes of manufacture which may be described briefly as, first - the reaction between fluorspar and carbon tetra-chloride directly; second - the reaction between phosgene and silicon tetra-fluoride and third - the simultaneous addition of hydrofluoric acid and carbon tetra-chloride to antimony pentachloride as a catalyst.

Of these three, the latter which most resembles the process which has been used at Dayton and which is still substantially different from that process, seems now to be much the most promising. We believe it is developed to a point where we should commence to construct a semi-works plant at the Dye Works, using this process. I understand that you thought you wanted about 600 pounds per day for your development work and believe that this semi-works plant should have such a capacity. Of course, it might be possible to build the semi-works plant a little smaller and continue simultaneous manufacture at Dayton to produce 600 pounds from both plants but it seems to me that this would be uneconomical.

A plant which could produce 600 pounds per day, running three shifts, would probably cost about $40,000, including a building. We have a building in which we might install the equipment in our semi-works area but this building is an old frame one which is not very suitable and since, presumably, experimental work on the manufacture of F-12 and allied products is going to continue for a long time, I feel it would be advisable to erect a new, substantial building for this purpose.

We got the impression that Frigidaire did not expect to adopt F-12 for their refrigerators on any commercial scale until they were prepared to use F-12 exclusively for their entire production. I think it was Mr. Williams who made this

4985

statement. Of course, I am not referring to the production of a relatively small number of machines for development purposes only. If this program is correct, it seems to me that the sooner we get started with this semi-works plant, the sooner we will be able to exploit the proposition on a commercial scale. We might by further delay, of course, learn more about the best method of manufacture but I do not believe that such further delay is advisable.

With regard to F-21 on which the Dayton Plant has been working ever since our Mr. Laird went out there, I do not know anything officially about the plans. Apparently the manufacture of this compound requires considerable study, which we are working on at the Jackson Laboratory. I believe that if we can work out the manufacture of F-21 from the by-product F-11 obtained in the manufacture of F-12, we should include in our semi-works plant also the equipment for this step.

One reason for proposing that the plant at semi-works be large enough to produce 600 pounds of F-12 and the F-21 you will need is so that we can bring Mr. Laird back to run that plant when it is completed.

I would be glad to have your comments on this program and particularly advice as to what quantities of F-21 you expect to require.

I am sending you two copies of this letter, since I thought you might possibly want to send one to Mr. Biechler.

Very truly yours,

E. G. Robinson

E. G. ROBINSON,
GENERAL MANAGER

EGR/LPL

Government's Exhibit No. 844

June 24, 1930

Mr. E. G. Biechler, General Mgr.,
Frigidaire Corporation,
Dayton, Ohio.

Dear Mr. Biechler:

I was talking with Mr. Robinson, of the DuPont Company, over the phone this morning, about our new refrigerating gas company, regarding which I have had some correspondence with him relative to working out a final agreement for the organization of this company. He told me that good progress is being made along this line.

He mentioned to me that Mr. Williams had asked some of the DuPont men to come out to Dayton to discuss research work. I do not know what phase of the research work Mr. Williams wishes to take up, but my own reaction is that we should load on to the DuPont Company as soon as possible all research work in regard to processes of manufacture. Any work on research that Frigidaire or General Motors may do should apply to research for purposes of development of additional uses of the gas than refrigeration.

If you agree with me on this I would suggest that you see that Mr. Williams is in harmony with our viewpoint.

Very truly yours,

Vice President

JLP:V

Government's Exhibit No. 845

June 2[illegible], 1930

Re: Progress Report on Fluorides.

June 25, 1930, there was a meeting in Dayton, Ohio, at the general offices of the Frigidaire Corporation of the following men:

From duPont, Wilmington, Dela.
Dr. Elley, Mr. Calcott.

From General Motors Research, Detroit, Mich.
Mr. Lovell, Mr. Kramer.

From Frigidaire, and those directly connected with Frigidaire.
Messrs. Midgley, Henne, Williams, Warring, Laird, Buffington, Gibson, and Morrison; in the afternoon, Mr. Candor.

The purpose of the meeting was educational for all parties working on the fluorine compound, to summarize the work done in the different organizations, and plan for the future.

The different organizations gave the methods of preparation of fluorine compound which they had tried and which they had put down on paper without making trials, and their experience in handling the chemicals, and Dr. Elley summarized these and his original notes, signed by Dr. Elley and Mr. Midgley, are in the Frigidaire files attached to a memorandum which Mr. Candor wrote. Dr. Elley took with him two (2) photostats of these notes.

At a meeting to be held later in Wilmington, at the call of duPont men, Mr. Henne, Mr. Candor, Mr. Morrison, and anyone else Mr. Fehr thinks should be present will meet with the Wilmington people to sort out the inventions and decide what applications now on file by Frigidaire.

A list of possible uses under broad headings was made and this list is also attached to Mr. Candor's memorandum. Each group represented at the meeting took a copy of the list for further study.

General Motors Research will stop active work on production methods and devote their time to finding more gas detectors for leaks.

The new company is to be formed within about two weeks and at that time a more definite program can be set up as to work to be done and by whom. In the meantime, all process operations are to be centralized at duPont and they are to put as many men on this work as seems necessary in view of the program. All suggestions which come to any of the parties as to new processes or variations of processes will be sent to Dr. Elley. The party making the suggestion is free to work on the process if he so desires, but this is not obligatory.

All suggestions for new uses are centered in Dr. Henne for the time being and also all requests for samples of material will be sent to Al Henne and the latter will be handled in conjunction with the Frigidaire Patent Department.

Dr. Buffington will continue his work on determining the constants of the various chemicals, such as the boiling point and vapor pressure curves, and will pursue these to conclusion. However, for the benefit of the various parties working on these chemicals he will make a preliminary report so as to give them the advantage of his work to date.

duPont are to carry on an analytical study of processes and Dr. Laird will continue his study of control work on the processes because he now has a plant in operation where he can make a control study.

A more definite program will be expected when the new company is formed, but it is expected that duPont people will have the advantage of the advice of Al Henne and Mr. Midgley on any point on which they want to consult them so as not to lose advantage of their experience.

The summaries of processes and uses is made for the guidance of all parties and is not intended as merely a statement of inventions made at the meeting.

Copies of all Frigidaire applications were brought into the meeting and a general statement given to Dr. Elley of what each covered but time was not taken then to read them over in detail.

J. [illegible]. Morrison
Patent Section
General Technical Committee

1959

Government's Exhibit No. 846

June 28, 1930

MEMORANDUM

A meeting was held on Wednesday, June 25, at the Frigidaire Corporation, to discuss matters pertaining to organic fluorides. The following people were present at this meeting: Messrs. Midgley and Henne (Frigidaire Corporation), Elley and Calcott, (E.I. duPont deNemours & Co.), Lovell and Cramer (General Motors Research Laboratories), Morrison (General Motors Legal Department), Candor, (Frigidaire Patent Department), Buffington, Waring, Gibson, Laird, and Williams, (Frigidaire Corporation).

The object of this meeting was to discuss methods of manufacture, particularly of F-12, to eliminate possible duplication of effort in the study and development of methods, and to plan a clearing house of information on methods, applications, and properties.

> It was decided that all methods would be cleared through Dr. H. W. Elley, of the E. I. duPont deNemours & Company, Wilmington, Delaware.
>
> Applications will be cleared through Dr. A. L. Henne, of the Frigidaire Corporation, Dayton, Ohio.
>
> The physical properties will be cleared through Dr. R. M. Buffington, Frigidaire Corporation, Dayton, Ohio.
>
> The toxic properties will be cleared through Dr. R. A. Kehoe of the University of Cincinnati, Cincinnati, Ohio.

During the latter part of the meeting a detailed discussion took place of the reactions entering into the manufacture of organic fluorides This discussion involved not only the chemistry, but the patent applications as well. A list of possible applications was also prepared and turned over to Dr. Henne. It was decided that the work on analytical control methods would be worked out by the Jackson Laboratory of the duPont Company.

Dectectors were discussed and it was decided to do further work on them.

H. M. Williams
Manager - Research and
Future Demands Division.

2709

Government's Exhibit No. 847

1900

FRIGIDAIRE CORPORATION

SUBSIDIARY OF GENERAL MOTORS CORPORATION

DAYTON, OHIO., U.S.A.

OFFICE OF
PRESIDENT AND GENERAL MANAGER

July 25, 1930

Mr. J. L. Pratt, Vice President,
General Motors Corporation,
New York City.

Dear Mr. Pratt;-

We were very glad, as I indicated to you in my letter of July 23, for the opportunity of reviewing the proposed agreement between General Motors Corporation and the duPont Company, and we have given it considerable attention. We have had a meeting with Mr. Morrison, Mr. Midgley, Mr. Williams and Mr. Fehr, and as I stated to you over the telephone this morning, we have rewritten the agreement to conform with the ideas of the group mentioned above. In doing this, we realize that you have certain reasons why you may want the original agreement to stand, but we, nevertheless, took full advantage of your suggestion, and therefore, did not hesitate to make the changes enumerated in the revised agreement.

Dealing specifically with the questions asked in your letter, would say that under the definition "said products", we have reworded this to conform with what we believe is a better description.

Relative to the original Clause #10, which is Clause #10 in the revised agreement, we are in position to do what this paragraph outlines.

Relative to Clause #12, if enough money was not earned to pay the duPont fee, our royalty could be modified as suggested, although we cover this in somewhat different fashion in the revision of Clause #12.

In connection with Clause #13, which is also included in the revised #12, we suggested that the royalties be paid until the end of the life of any patent dominating a product.

I understand your reasons why you feel duPont should have 51% of the stock, and also why you feel the royalty should be held down to a minimum. We are wholeheartedly in accord with keeping the agreement in accordance with the original, that is on a 51-49 basis, but we do feel since Frigidaire is such an important factor in this whole refrigerant subject, and since we feel it is very fundamental, new and beneficial refrigerant, that we are entitled to as much royalty as possible. I realize, however, that whatever profits are made will redound to the credit of General Motors, so we would not hold out unduly on this subject.

I am sure you understand the spirit in which we send in our revised copy of the agreement.

Yours very truly,
General Manager

EGB/CL

C

2710

Government's Exhibit No. 849

CORRECTED COPY

1001

GENERAL MOTORS CORPORATION

ADVICE OF ACTION

To: Mr. J. L. Pratt **Date** August 12,1930~~192~~

Subject: Manufacture of Fluorine Gas

You are hereby notified of action taken as follows:

By (Committee or Body) Executive Committee

Place of Meeting New York

Date of Meeting August 8, 1930 ~~192~~

Mr. Pratt brought up the question of making a contract with the DuPont Company whereby we become joint owners with them of a company to be organized for the manufacture of certain compounds of fluorine which have been developed by our Research Laboratories. These compounds are particularly desirable for use in electric refrigeration.

On motion the Committee unanimously authorized Mr. Pratt to make the proposed contract with the DuPont Company.

Signed

Secretary

NOTE: An illegible hand written signature appears in the lower right hand corner.

Government's Exhibit No. 850

AGREEMENT entered into on the *27th* day of *August* 1930, between GENERAL MOTORS CORPORATION, a corporation of the State of Delaware, hereinafter referred to as General, and E. I. DU PONT DE NEMOURS & COMPANY, also a Delaware corporation, hereinafter referred to as DuPont.

WITNESSETH:

WHEREAS DuPont is extensively engaged in the business of manufacturing various chemicals, and among others, certain chemicals used in mechanical refrigeration, and

WHEREAS General, and its subsidiary, The Frigidaire Corporation, have developed certain chemicals containing Fluorine which the parties hereto believe will be useful as refrigerants, and

WHEREAS DuPont at the request of General has, prior to the date hereof, conducted various researches and experiments pertaining to the manufacture of such Fluorine compounds, and

WHEREAS the parties hereto desire to cooperate in the development of the business of manufacturing and selling such Fluorine compounds and other chemicals in the manner and upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants herein, they have agreed and by these presents do agree with each other as follows:

FIRST: The term "said products" as hereinafter referred to, to be manufactured and/or sold by the New Company, as herein provided, shall be deemed and considered to mean:

(a) Halogenated Hydrocarbons containing at least one Fluorine atom.

NOTE: Italics indicate handwriting.

(b) Fluorine compounds used or intended to be used in motor fuels.

Second: Promptly upon the execution hereof a corporation shall be formed under the laws of the State of Delaware, which corporation shall be named Kinetic Chemicals, Inc., and shall have a total authorized capital stock consisting of twenty thousand (20,000) shares, with a par value of One Hundred Dollars ($100.00) per share, such corporation being hereafter referred to as the New Company.

Third: Upon the organization of the New Company, DuPont shall subscribe for fifty one percent (51%) of said total authorized capital stock and General shall subscribe for forty nine percent (49%) thereof, which subscriptions shall be payable at par in cash to the New Company from time to time at such times and in such amounts as the Board of Directors of the New Company shall determine.

Fourth: The New Company shall have such powers as shall be necessary and/or adequate to enable it to engage in the manufacture and sale of the "said products," and to carry out the purposes and intention of this agreement.

Fifth: The officers of the New Company shall be a President, one or more Vice-Presidents, Treasurer and Secretary, with such Assistants as the Board of Directors of the New Company may determine to be necessary or requisite.

Sixth: The Board of Directors of the New Company shall be composed of five (5) members to be elected by cumulative voting under a charter provision providing for the same.

SEVENTH: As soon as the New Company has been organized and the first calls on the subscriptions of the parties hereto to its capital stock have been paid, the New Company shall engage in the manufacture and sale of the "said products," it being understood and agreed that for the time being said New Company shall operate the semi-commercial plant owned by The Frigidaire Corporation at Morain City, Ohio, which operation shall be carried on at the cost and expense of the New Company, and shall be continued for such time as the Board of Directors of the New Company shall determine; it being further agreed

that future chemical developments, (other than those relating to "said products") originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, then General shall be free to dispose of the same elsewhere.

EIGHTH: DuPont agrees with respect only to the production of "said products" specified in Paragraph FIRST, that it will be responsible for the management of the New Company and will make available to it the benefit of DuPont's experience in and knowledge of the manufacture and sale of chemicals, for which the New Company will pay DuPont a fee of Fifty Thousand Dollars ($50,000) a year for a period of five years beginning January 1, 1931; it being understood and agreed however, that if in any of these years, other than the year 1931, the net profits of the

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NOTE. Pencilled note "6-26-45 Cancelled per attached JCD" is appended at mark before "it being further agreed" in middle of Paragraph SEVENTH with closing mark at end of paragraph.

New Company are insufficient to pay in full this fee and the royalty to Frigidaire as specified in Paragraph TWELFTH, then the fee payable for that year shall be determined as prescribed in Paragraph FOURTEENTH. The fee for any year shall be due and payable on January 25th of the year following, or as soon thereafter as the accounting for the year's operations is completed and the amount of fee has been definitely determined.

NINTH: The fee specified shall be full compensation to DuPont for making available to the New Company DuPont's experience in and knowledge of the manufacture and sale of chemicals, all as specified in Paragraph EIGHTH, except that the New Company will reimburse DuPont for travelling and living expenses of DuPont employees while away from home and engaged in the service of the New Company. In addition, the New Company shall pay the salaries of DuPont employees directly assigned to and/or temporarily engaged in service, other than that referred to in Paragraph EIGHTH and shall pay the travelling and living expenses of such employees should their duties require them to be away from home in the service of the New Company, and the New Company shall pay to DuPont its distributable cost for such services as the New Company may request of DuPont's auxiliary service departments, such as Purchasing and Traffic, Engineering, Service, Legal, Development, Chemical, Accounting, etc.

TENTH: General shall cause its subsidiary, The Frigidaire Corporation, promptly upon the execution of this agreement to grant to the New Company an exclusive license (subject to a right to be retained by Frigidaire for the use only of Frigidaire or of any other wholly owned subsidiary of General Motors in refrigeration) to manufacture, use and sell "said products" under all patents or applications for Letters Patent, whether issued or applied for, in the United States and/or foreign countries at the date hereof, or which may hereafter be issued or applied for in said United States and/or foreign countries by General or by the said The Frigidaire Corporation, as well as under all inventions and/or processes on which no applications have been filed; it being understood that the obligation of said The Frigidaire Corporation under this Paragraph shall extend to and include all inventions, processes, patents and applications pertaining to the "said products", in so far as said The Frigidaire Corporation shall have a right to dispose of the same, subject, however, to any rights heretofore granted to the Ethyl Gasoline Corporation under that certain agreement with General dated August 28th, 1924, and particularly to Paragraph 10 thereof attached hereto and marked Exhibit "A"; it being understood that the provisions of Paragraph 10 are interpreted to include compounds for the removal of carbon from engine cylinders and apparatus for applying such compounds; it being further understood and agreed that said license shall be substantially in the form attached hereto, made a part hereof and marked Exhibit "B".

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ELEVENTH: DuPont shall transfer and assign to the New Company all patents and/or processes arising out of research and development work pertaining to the "said products" carried on at the request of the New Company, General or The Frigidaire Corporation, and the expense of such development or research work shall be borne entirely by the New Company, and if DuPont shall now or at any time hereafter own or control any process or patent other than aforesaid, pertaining to the manufacture and use of any of "said products", then DuPont shall without cost or expense to the New Company grant to the New Company an exclusive license to manufacture, use and sell "said products" under any such patent or process for use in mechanical operations where volatility is a factor, or for use as solvents, but nothing contained herein shall require DuPont to grant to the New Company a free license under said new processes or patents for any other uses, provided, however, that if DuPont shall at its own expense develop any such processes for uses other than those aforesaid and the New Company shall then or thereafter desire to use any such patent or process in the manufacture of "said products", then and in that event a license shall be granted with respect to the same which shall be upon a reasonable basis of compensation.

TWELFTH: It is agreed that the license to the New Company under the inventions, processes, patents and patent rights of the General Motors Corporation, and/or The Frigidaire Corporation, hereinabove referred to, shall be upon the condition and understanding that the New Company shall pay to The Frigidaire Corporation a royalty equal to five percent (5%) of the selling price of all "said products" manufactured and sold by the New Company under said patents beginning with January first 1931, except on sales to the Ethyl Gasoline Corporation, which royalties shall be determined after freight and cash discounts have been deducted, it being understood that if, in any one of the calendar years 1932 to 1935 inclusive, the net profits of the New Company are insufficient to pay in full this royalty and the fee to DuPont as specified in Paragraph EIGHTH, then the royalty payable for that year shall be determined as prescribed in Paragraph FOURTEENTH.

The royalty for any year shall be due and payable on January 25th of the year following, or as soon thereafter as the accounting for the year's operations is completed and the amount of royalty has been definitely determined; it being understood and agreed always that nothing contained in this Paragraph shall adversely affect the rights of the Ethyl Gasoline Corporation under General Motors Fuel Patents, under which rights the said Ethyl Gasoline Corporation is released from the payment of royalties to Frigidaire or to the New Company with respect to any products to be used as ingredients of motor fuels.

THIRTEENTH: The New Company shall charge all users of the "said products", other than Frigidaire, a license fee for each machine in which the same shall be used as refrigerants.

FOURTEENTH: It is the intent of Paragraph EIGHTH that DuPont shall be paid the fee of Fifty Thousand Dollars ($50,000) in full for the year 1931, and it is the intent of Paragraph TWELFTH that Frigidaire shall be paid the royalty calculated with respect to the year 1931. For the years 1932 to 1935 inclusive, in the event that the net profits of the New Company determined before fee and royalty, but after deduction for taxes calculated after giving effect to fee and royalty which may be payable, are insufficient to meet the royalty and fee in full, then such net earnings as are available shall be paid to Frigidaire and DuPont respectively as royalty and fee in the proportion that the royalties earned as calculated in accordance with Paragraph TWELFTH, and the fee of Fifty Thousand Dollars ($50,000.) in accordance with Paragraph EIGHTH, bear to the sum of these two figures.

FIFTEENTH: The royalty of five percent (5%) payable to The Frigidaire Corporation, and referred to in Paragraph TWELFTH, shall be payable for a period of seventeen years beginning January 1, 1931, provided however that if at the end of five years from the date hereof, a patent or patents have not been issued which give the New Company practically a commercial monopoly in the production or use of "said products" or if any of said patents when granted shall be declared invalid to such an extent

—6—

that the New Company does not have practically a commercial monopoly in the production or use of "said products", then such royalty shall cease and terminate; to be revived (for the remainder of said seventeen years period), when such patent or patents shall have been granted, or the validity of the same shall be later and finally established.

SIXTEENTH: It is agreed that DuPont shall be reimbursed by the New Company for the cost of any and all research or experimental work carried on by DuPont with reference to "said products" prior to the time that the New Company shall commence to function as a going concern, and thereafter both DuPont and General shall be reimbursed for any and all research or experimental work conducted at the request of the New Company.

SEVENTEENTH: If throughout the calendar year of 1936, or throughout any calendar year thereafter, General and/or its wholly owned subsidiaries shall be the sole purchaser or purchasers from the New Company of the "said products" for refrigerating purposes, then the New Company will, at the request of General, grant to General a non-exclusive assignable license under all patents or inventions under which rights have theretofore been granted by General or The Frigidaire Corporation to the New Company to the end that General or any of its wholly owned subsidiaries may purchase the "said products" for refrigerating purposes from sources other than the New Company; the provisions of this paragraph however shall not be operative unless during the period above referred to the New Company shall have had sufficient capacity over and above purchases of The Frigidaire Corporation to supply other customers.

Eighteenth: Neither DuPont nor General will sell, pledge or otherwise dispose of any of their stock in the New Company without first offering such stock to the other and giving to the other fifteen days to purchase the same at a price and upon terms at least as favorable as the price and terms at which it is intended to dispose of such stock, and if a disposition to a third party is not effected at such price and terms within

forty-five days after the expiration of such fifteen days, then the stock may not be disposed of without again offering the same as hereinabove provided.

Nineteenth: In the event of any dispute under this agreement arising between the parties, which the parties are unable to adjust between themselves, it shall be settled by arbitration pursuant to the Arbitration Law of the State of New York in the following manner: Either party to such dispute shall make a demand for arbitration by notice in writing served upon the other party to the dispute, stating the substance of the dispute and the contentions of the party making the demand. Within thirty days after such service of demand for arbitration, the parties to such dispute shall agree upon an arbitrator. In the event of the failure of the parties to agree upon an arbitrator as above provided, either of the parties may make application to the Chamber of Commerce of the State of New York to designate and appoint an arbitrator as provided by said Arbitration Law. The dispute shall be submitted to the arbitrator in such manner as he shall direct, and his decision rendered in writing shall be final and conclusive and binding upon both parties to such dispute. Each party shall pay its own expenses in connection with the arbitration, but the compensation and expenses of the arbitrator shall be borne in such manner as may be specified in his decision in writing

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed by their officers, duly authorized, and their respective corporate seals to be hereunto affixed on the day and year above written.

GENERAL MOTORS CORPORATION,
By *J. L. Pratt*
V. P.

ATTEST:
(Signature Illegible)
Ass't Secretary

Approved
as to form
C. M. Spargo
WMJ.

E. I. DU PONT DE NEMOURS & COMPANY,
By *W. F. Harrington*
V. P.

ATTEST:
M. D. Fisher
Ass't Secretary

—8—

NOTE: Italics indicate handwriting.

PARAGRAPH 10 FROM GENERAL MOTORS CORPORATION AND ETHYL GASOLINE CORPORATION AGREEMENT, DATED AUGUST 28, 1924

10. The license herein granted shall also extend to any Letters Patent of the United States or of any foreign country, which may in the future issue to or be acquired by GENERAL MOTORS and/or the RESEARCH COMPANY and/or any corporation owned by GENERAL MOTORS, for an invention which is made before August 1, 1940, and which invention relates to or consists in or comprises:

(a) Any substance which, added to the explosive charge of an internal combustion engine in minute proportions as compared with the fuel, has an effect in preventing detonation which is equivalent to the effect produced by the addition of lead tetraethyl to present navy specification gasoline from Pennsylvania crude oil in the proportion of three cubic centimeters per gallon of gasoline;

(b) Any composition or anti-knock mixture including the substance defined in Paragraph (a) as its effective detonation-suppressing agent and one or more other constituents having auxiliary utility;

(c) Any method or process for manufacturing or using the substance defined in Paragraph (a) or the mixture defined in Paragraph (b),—(not including however processes for the manufacture or refining of petroleum oil or of secondary alcohols from the unsaturated hydrocarbons of petroleum oil or products of refining of the same);

(d) Any equipment or apparatus for use in manufacturing, mixing or dispensing the substance defined in Paragraph (a) or the mixture defined in Paragraph (b).

It is expressly agreed that the ETHYL COMPANY shall not be obligated to pay any royalties for or on account of the license granted in this Paragraph, payment of royalties being limited to the license granted in Paragraph "2" hereof.

EXHIBIT A

EXHIBIT "B"

AGREEMENT entered into on the day of 1930, by and between The Frigidaire Corporation, a corporation of the State of Delaware, hereinafter referred to as the Licensor, and Kinetic Chemicals, Inc., a corporation of the State of Delaware, hereinafter referred to as the Licensee.

Whereas the Licensor is the owner of inventions forming the subject matter of applications for Letters Patent listed below, together with corresponding applications for foreign patents also listed below and other inventions, upon which applications have not yet been filed, all of which relate to

(a) Halogenated hydrocarbons containing at least one Fluorine atom.

(b) Fluorine compounds used or intended to be used in motor fuel.

which are termed herein "said products"

Applications

COUNTRY	TITLE	SERIAL NO.	FILING DATE

Now, therefore, pursuant to an agreement made between General Motors Corporation and E. I. duPont de

Nemours & Company on the day of August, 1930, and for other considerations, the receipt and sufficiency of which are hereby acknowledged by the Licensor, the parties hereto have agreed and do agree with each other as follows:

FIRST: The Licensor does hereby give and grant to the Licensee a license to make, use and sell the "said products" under all of the foregoing patents and applications for patents, which license shall be exclusive with the exception that the Licensor
hereby expres[illegible] reserves for itself and General Motors Corporation the right to use any and all of the "said products" as refrigerants in their own business, but not otherwise.

SECOND: The Licensee agrees to pay to the Licensor in consideration of the foregoing license a royalty which shall equal five percent (5%) of the selling price of all of "said products" manufactured and sold by the Licensee, which royalties shall be determined after freight and cash discounts have been deducted; it being understood and agreed that if, in any one of the calendar years 1932 to 1935 inclusive, the net profits of the Licensee shall be insufficient to pay said royalties in full, together with payments due to E. I. duPont de Nemours & Company in accordance with the agreement between E. I. duPont de Nemours & Company and General Motors Corporation dated the day of August, 1930, then said royalties shall be fixed and determined in accordance with said agreement.

THIRD: Nothing contained in this license shall permit the Licensee to charge a royalty on any of "said products" sold by the Licensee to the Ethyl Gasoline Corporation for use in motor fuels, or shall obligate the Licensee to pay the Licensor a royalty on such sales.

FOURTH: The royalties hereinabove provided shall be payable by the Licensee to the Licensor for a period of seventeen (17) years, beginning January 1, 1931, provided, however, that if at the end of five (5) years from the date hereof a patent or patents have not been issued which give the New Company practically a commercial monopoly in the production or use of the products intended to be covered thereby, then such royalty shall cease and terminate, to be revived, for the balance of said seventeen (17) year period when such patent or patents shall have been granted; provided further if the patents dominating the use and/or the process of manufacturing "said products" shall be declared invalid by a Lower Court from which no appeal is taken,

—2—

or by a Court of Last Resort so that the Licensee is without sufficient Patent protection to give it the practically commercial monopoly referred to above in any country the royalties shall cease and determine for such country until such time as the Licensor shall reestablish dominating patent rights by further litigation or other appropriate means, in which event all back royalties shall at once become due and royalties shall be payable on future sales as herein provided.

FIFTH: The royalties payable hereunder for any year shall be due and payable on January 25th of the year following, or as soon thereafter as the accounting for the year's operations is completed and the amount of royalty has been definitely determined.

(2726)

SIXTH: The Licensor agrees that it will be diligent in the prosecution of infringers under the patents herein referred to, and that it will bear all of the cost and expense arising out of any litigations, suits or actions based on or arising out of the prosecution or defense of the rights of either of the parties hereto under any or all of the foregoing patents; in which event all moneys recovered by the Licensor in any such litigation shall be its sole and exclusive property.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed by their officers, duly authorized, and their respective corporate seals to be hereunto affixed, on the day and year first above written.

THE FRIGIDAIRE CORPORATION,

ATTEST: By ....

....

KINETIC CHEMICALS, INC.,

ATTEST: By ....

....

(2727)

Government's Exhibit No. 851

GENERAL MOTORS CORPORATION
Broadway at 57th Street
New York, N. Y.

February 9, 1932.

E. I. duPont de Nemours & Company
Wilmington, Delaware.

Dear Sirs:

With reference to the agreement entered into on August 27th, 1930, between this corporation and you, relating to the development of the business of manufacturing and selling fluorine compounds and other chemicals, you are advised that it seems desirable that Article THIRTEENTH which reads,

> "The new company shall charge all users of the 'said products', other than Frigidaire, a license fee for each machine in which the same shall be used as refrigerants,"

be amended, effective today, to read,

> "The new company may charge users of the 'said products', other than Frigidaire, a license fee for each machine in which the same shall be used as refrigerants,"

This corporation is desirous of so amending Article THIRTEENTH, and if such amendment is agreeable to you, will you kindly note your acceptance on the bottom of this letter.

Very truly yours,

(Signed) JOHN T. SMITH

Vice President.

HMH/AMH

ACCEPTED this 9th day of February, 1932.

E. I. duPont de Nemours & Company

By (Signed) W. F. HARRINGTON
Vice President.

O.K.
W.J. Gregg
Leg. Dept.
R.G.R.

(2728)

Government's Exhibit No. 852

October 10, 1931

Mr. W. F. Harrington, Vice President,
E.I. duPont deNemours & Company,
Wilmington, Delaware.

Dear Buck:

I wish to thank you for your note of October 6th, in regard to Lithium Chloride.

In order that you may have a little atmosphere on this subject, I would like to tell you confidentially that we are working on an air conditioning system which involves the use of Lithium Chloride. If this system is acceptable it will require about 600 pounds of Lithium for the average home. If we are able to sell 1,000 of these systems a year it will mean 600,000 pounds of Lithium, 5,000 systems will mean 3,000,000 pounds.

According to the best information we have, the total Lithium production is now in the hands of the Maywood Chemical Company, who are able to produce about 1,200,000 pounds per year. Our people some time ago attempted to get some Lithium compound from your R. & H. Company. R. & H. Company I believe acts somewhat as a selling agent for Maywood, and of course if we were going to have to deal solely with Maywood there would be nothing gained by going through one of your subsidiaries to purchase the material. Our people have a direct contact with Maywood.

The thing we do not like to do is develop an industry which may take several times the amount of a given material that is now being produced and have only one source for that material. In approaching you we are hoping to be able to develop a second source for the material. Some of our people feel that we ourselves should go ahead and develop this source. Personally, I would rather depend upon the duPont Company for our chemical developments than for us to start an independent development of our own. It was my idea that in organizing Kinetic Chemicals we could put all of our developments in that company, but it does not strike me that we ought to complicate the Kinetic picture by asking them to develop Lithium Chloride.

(2729)

5010

Mr. W.F.Harrington - 2.

We will probably have to know within the next four or five months just what we are going to do on the subject, and in the meantime I would appreciate if you would have your people in Grasselli make aninvestigation and see whether the production of Lithium Chloride is an industry in which you would be interested.

With kind personal regards,

Very truly yours,

Vice President

JLP:V

(2736)

Government's Exhibit No. 853

KENETIC CHEMICALS, INC.
DU PONT BUILDING
WILMINGTON, DELAWARE

September 8, 1938

MR. E. G. ROBINSON, PRESIDENT
BUILDING

SUBJECT: "FREON-114" SITUATION

It has recently been forcibly brought to our attention that there is a market for between 800,000 and 1,000,000 pounds per year of "Freon-114" which can be captured in its entirety during or before the year 1940.

The Sunbeam Manufacturing Company of Evansville, Indiana, who manufacture the units for Sears & Roebuck, are determined that they shall have "Freon-114" for use in these units. They state that they will consume from 500,000 to 750,000 pounds of "Freon-114" per year, but I am estimating their requirements at the lower figure.

A check-up throughout the United States which has recently been made confirms the statement which General Wood made to our Mr. W. F. Harrington, i.e. that Sears & Roebuck sell more electrical refrigerators than any other concern with the exception of Frigidaire. At the time this statement was made I took exception to it, but we now have every reason to believe that it is true.

The second customer who will use "Freon-114" immediately when it is released is the Norge Corporation, a division of the Borg-Warner Company. They should consume 250,000 pounds of "Freon-114" per year as their refrigerator is very popular with the public.

The third concern is Landers, Frary, & Clark of Bridgeport, Connecticut, whose minimum consumption should run around 50,000 pounds per year.

All of these companies are now making the rotary type of compressor in which "Freon-12" is unsuccessful. "Freon-11" would cause them to increase the size of their compressor and the cost of the machine would be excessive. "Freon-21" can be used, but in our opinion, is a poor refrigerant, a costly one to manufacture, and we have no plant for making it.

Frigidaire will not permit "Freon-114" to be sold to independent service people and, as a result, these people are seeking for some substitute. Mr. Harry Edwards telephoned our Mr. Zeisberg and says there is a demand being made upon them to sell Isobutanol for use instead of "Freon-114" in these machines. "Freon-114" boils at 38.4° Fahrenheit and commercial Isobutanol between 38 and 40°.

We have a plant capable of making all the "Freon-114" which is needed by these people and also caring for the needs of the Frigidaire Corporation. This plant is idle and the business showing small return on the investment compared with the "Freon-12" business. The figures which we have show that there should be an increase of 5¢ per pound in "Freon-114" price to the Frigidaire Corporation in order to show a satisfactory return on the investment.

The greatest argument for the release of "Freon-114" for general sale at this time is the question of monopoly. The monopoly enjoyed by Frigidaire is seriously damaging the business of these other parties. By our advertising and through the general acceptance of the "Freon" refrigerants, there is now an active demand for electric refrigerators filled with them. This being the case, Sunbeam, Norge, and Landers, Frary, & Clark feel themselves at a disadvantage in offering sulphur dioxide refrigerators.

The Du Pont Company, I know, is very sensitive to the monopoly feature and something ought to be done to correct this situation for the good of Kinetic's business and the betterment of the whole situation. Frigidaire has had this monopoly for several years and has secured all the credit that will come to anyone for the introduction of "Freon-114". They should be willing now to let others follow in their footsteps.

If we could sell "Freon-114" generally and the above-mentioned concerns took it on, it would force the General Electric Company to put "Freon-12" into their units and this would mean another million pounds of "Freon-12" business per year.

There is a great deal of profit at stake here beside a very important point of policy and I feel sure that if Mr. Alfred Sloan were to know of the situation that exists today, he would not longer desire us to reserve "Freon-114" for the General Motors Corporation alone.

I did not take up the price of "Freon-114" with Mr. Biechler on the last visit as the time was not opportune. I hope you will do something today in conjunction with this other question, and I am sincerely hoping that for the healthy growth of our business, Mr. Biechler will be satisfied to give up the slight advantage that he now has in monopolizing the "Freon-114" output.

W. W. Rhodes
SALES DIRECTOR

WWR:AS

Government's Exhibit No. 854

OR [illegible]

KINETIC CHEMICALS, INC.
DU PONT BUILDING
WILMINGTON, DELAWARE

September 12, 1938

MR. E. G. ROBINSON, PRESIDENT
KINETIC CHEMICALS, INC.
BUILDING

SUBJECT: CONFERENCE WITH DR. A. J. SNOW OF SEARS-ROEBUCK ON SEPTEMBER 9, 1938, AT DUPONT OFFICES IN EMPIRE STATE BUILDING, NEW YORK CITY

Dr. Snow's Position with Sears-Roebuck

Dr. Snow informed us that he is a special advisor to the Merchandising Managers of Sears-Roebuck, Inc. He acts in this capacity for all Merchandising Managers. It would seem to me from his description of his activities that his position corresponds to the Director of our Development Department. Dr. Snow's degree is in psychology.

Snow's Contacts with DuPont Company

Dr. Snow cooperated with our Mr. Streeter during the development of Dulux for electric refrigerators. He is a great friend of Mr. Streeter and lives but a short distance from him in Chicago. Sometime ago Dr. Snow spent an entire week in Wilmington meeting different members of the DuPont organization. He was introduced to Mr. Lammot DuPont, Dr. Stine, Mr. W.A. Hart, and others. Mr. William Richter saw that he was taken about and shown everything.

Monopoly

During this visit of Dr. Snow's to Wilmington, he requested the DuPont Company to manufacture the grade of Dulux which they were using exclusively for Sears-Roebuck, but was informed by Dr. Stine that it is against the policy of the DuPont Company to grant such monopolies to any party. This policy was also enunciated by Mr. Streeter. Consequently when he found that Sears-Roebuck could not obtain "Freon-114" from us, he was very much surprised and could not credit the information.

Formation of Sunbeam Electric Company

When Sears-Roebuck decided to go into the business of selling electric refrigerators, they approached the Frigidaire Corporation and asked them to manufacture these refrigerators for them, but Frigidaire did not think that it was advisable for Sears-Roebuck to enter this field and eventually refused to accede to their request. Dr. Snow then approached the General Electric Company, Westinghouse, and Kelvinator and the decision was the same in every case. An inventor came to Sears-Roebuck with a unit which was probably not of the best design but satisfactory, and they decided to take over this unit and manufacture it.

They found a plant at Evansville, Indiana which was making headlights for locomotives. The plant had been shut up for some years because there were no orders for locomotive headlights. It, however, afforded them the floor space they needed and they made a proposal to the owner by which he received about 20% of the stock of the Sunbeam Electric Company. The inventor and others received stock equivalent to 50% of the entire issue. Sears-Roebuck retained for themselves 30% of the issue. A few months after the organisation of this company the stock could have been bought in Evansville for $.50 a share. In the year 1937 dividends amounting to $300.00 a share were paid on the stock.

Growth of the Business

The first year that Sears-Roebuck sold the Coldspot electric refrigerator (year undisclosed) they sold only 19,000 units. In the year 1937 they merchandised 329,000 units. Their business during 1938 is only 15% below 1937 figures, and given a normal year, they are sure that their business will again increase. Dr. Snow claims that they are second only to Frigidaire in the numbers of domestic units which are being sold. Some months ago when our Mr. Harrington told us how large Sunbeam had grown, I could not credit the fact that their business was of this magnitude. Subsequently a check-up in every direction shows that they are as large as they claim to be.

Estimate of Consumption of "Freon-114"

My estimate of 500,000 pounds yearly as the estimate of the consumption of Sunbeam hit the nail right on the head. Dr. Snow says they are using approximately 500,000 pounds of refrigerant yearly.

Need for "Freon-114"

The engineers of the Sunbeam Electric Company tell Dr. Snow that they must have "Freon-114" as this refrigerant is exactly what they require for their machines. They feel that the compressor will be more efficient if "Freon-114" is used in it and they will not consider the use of either "Freon-11" or "Freon-21". Dr. Snow points out that the Merchandising Manager of Electric Refrigeration, a Mr. Price, is greatly concerned over the almost universal acceptance of the "Freon" refrigerants and feels that Sears-Roebuck cannot go ahead successfully with their program unless the refrigerant is included in their machines. I suggested that they change their design to the Scotch Yoke type of compressor similar to Westinghouse, Kelvinator, and Crosley, but they feel that they have advertised the rotary type compressor and cannot change from this principle at the present time.

Type of Contract they would be willing to sign

Dr. Snow informed me that if they could secure "Freon-114" that they would be willing to sign a contract for a ten-year period guaranteeing that they would use the chemical of our manufacture during that period. He suggests that if we should desire to charge them two or three cents a pound more than charged Frigidaire in order to compensate us for past development work, that they would not be unwilling to meet our ideas in this direction.

Other Refrigerants

I asked him if he would be willing to pay $1.25 per pound for a refrigerant having similar qualities as "Freon-114" and he thought that this price was entirely out of line and that they could not afford it.

The Future

It is his opinion that electric refrigerators must sell for less money than they have in the past in order to reach that segment of the population which cannot afford refrigerators at present prices and he thinks there will be a rapid disappearance from the manufacturing field of those who cannot manufacture cheaply and merchandise successfully. He intimates that in the end there may be only two concerns manufacturing and selling refrigerators, namely Frigidaire and Sears-Roebuck. There is, in my opinion, a great deal in what he says and I look for the retirement from the field of the weaker sisters in the business who must have present-day prices in order to exist.

Sears-Roebuck Policy

According to Dr. Snow, Sears-Roebuck offers a manufacturer the opportunity but once to do business with them. As a concrete example of this, he says that he called in our window shade people some years ago and asked them to manufacture a better shade than Sears-Roebuck were then merchandising. We wanted to sell the Tontine Shade but the price was so far out of line that Sears-Roebuck figured that they could not merchandise a shade for that price. An independent concern made them the shade and later DuPont sought the business for the same quality of shade, but it was then too late. They were tied up with the independent concern and were loyal to them. There have been several instances of this kind in which we lost out because of our policy or lack of enterprise.

Summary

Dr. Snow says that Sears-Roebuck want to do business with us for "Freon-114" and no other refrigerant for household refrigerators. He cannot understand any policy of ours which grants monopoly of this refrigerant to Frigidaire. It goes without saying, of course, that I told him that the refrigerant was not available to any other manufacturer but Frigidaire. He knew this before he came to the meeting. His last words to us as he left us in the McAlpine Hotel were: "We want to do business with you. Don't force us to go elsewhere".

My Opinion

It is my opinion that if we do not sell "Freon-114" to Sears-Roebuck that they are the kind of an organization which will let nothing deter them in their program. They will doubtlessly take it up with another chemical manufacturer and have the product produced for them, taking whatever consequences may arise from patent suits. It is certainly logical at this time to put us in a position to sell to Sears-Roebuck, Norge, and Landers, Frary and Clark. If we are permitted to sell to these parties we can assure you of a volume of 800,000 pounds per year in any year which is reasonably normal for the next five years. No one can say how many refrigerators will be sold after another five-year period as the market is becoming rapidly saturated.

Respectfully submitted,

W. W. Rhodes

WWR:L

Government's Exhibit No. 855

Sept. 21, 1938

Mr. E. G. Robinson, President
Kinetic Chemicals, Inc.,
Wilmington, Del.

Dear Mr. Robinson:

I wish to thank you kindly for sending me a copy of the letter of Sept. 13th from Mr. R. E. Wood, President of Sears-Roebuck.

Following our telephone conversation I talked on the telephone with Mr. Biechler. It is my understanding that he reviewed this matter with Mr. John Thomas Smith and that Mr. Smith feels that there is no cause for alarm over this letter.

It is my further understanding that steps will be taken to clear up this matter once and for all thru making some change in the present agreement between Kinetic Chemicals and Frigidaire.

My understanding of the facts are that F-114 was developed by Frigidaire and turned over to Kinetic for manufacture with the understanding that this was to be exclusively for the use of Frigidaire. Had Frigidaire known of the subsequent developments, I am sure they would have limited its use to themselves.

Accordingly, I feel that they are perfectly within their rights to ask for a new agreement protecting them in this respect.

I understand that your attorney will consult with Mr. John Thomas Smith and Mr. Fehr with a view to making such arrangement. I shall be most happy to attend a Directors Meeting if you feel it is necessary to discuss this matter further.

COPY

Very truly yours,

E. R. Breech

ERB
[illegible]
CC- Mr. E. G. Biechler.

(7137)

Government's Exhibit No. 856

September 15, 1938

Mr. E. G. Biechler, Pres. and Gen. Mgr.
Frigidaire Corporation
Argonaut Building
57th & Broadway
New York City, N. Y.

Dear Mr. Biechler:

The attached is in accordance with our telephone conversation.

Very truly yours,

E. G. ROBINSON, PRESIDENT
KINETIC CHEMICALS, INC.

COPY 2

SEARS, ROEBUCK AND CO.
360 West 31st Street
New York

5019

September 13, 1938.

PERSONAL

Mr. W. F. Harrington,
Vice President,
E. I. Du Pont de Nemours, Inc.,
Wilmington, Del.

My dear Harrington:

You may possibly know that Sears is very heavily interested in the manufacture of electric refrigeraters. We distribute over 200,000 a year of the refrigerator manufactured by the Sunbeam Company of Evansville, Ind.

We wish to use the Freon #114 gas which is today manufactured by the Kinetic Chemicals Inc., a subsidiary of the DuPont Company.

Very much to our surprise, we find that the Frigidaire Company has an exclusive arrangement for the use of this gas from the Kinetic Chemicals, Inc. We know this has always been contrary to the policy of the DuPont Company - as a matter of fact, it is contrary to governmental policy. I am appealing to you to see whether the Sunbeam Company, which is really controlled by Sears, Roebuck and Co., cannot purchase this gas on any fair terms that you may determine to designate. Sears, directly, and indirectly through its subsidiaries, has been a very large customer of the DuPont Company for many years and has maintained the most friendly relations with the DuPont Company.

As you know, personally I have a great admiration for the Company and a real friendship with its officers, because I always remember the first job I took outside of government service waswith the DuPont Company and I can never forget the kind and considerate treatment I received. We certainly do not want to spoil these friendly relations by an appeal to the Federal Trade Commission, so I am writing this personal note to you in the hopes that you can use your influence to effect some fair arrangement.

Very truly yours,
SEARS, ROEBUCK AND CO.

/s/ R. E. Wood
President.

P.S. I am just in New York for today and am writing from our New York Office. Please address your reply to our Chicago Office.

KINETIC CHEMICALS, INC.

CC - Mr. W. F. Harrington
Mr. H. C. Haskell

September [illegible]

Mr. E. R. Breech,
General Motors Corporation,
Detroit, Michigan.

Dear Mr. Breech:

I just received this morning your letter of September 21st with regard to "F-114". Apparently this letter was delayed a day or two in reaching me.

I think I should point out that the statement you make in the fourth paragraph of your letter does not exactly represent the facts in the matter. You say that "F-114" was turned over to Kinetic with the understanding that it was to be exclusively for the use of Frigidaire. As a matter of fact our fundamental agreement, which set up Kinetic, provided that both companies would turn over their developments in this particular field to Kinetic to exploit freely and without limitation as to customers to whom the product was to be sold. This policy was set up by Mr. Pratt at the time of the formation of Kinetic and was instituted, as I recall it, both because that was in accordance with the general policy of General Motors in connection with the sale of automobile accessories and also because we all believed at that time that it would be unsound to discriminate between competitors and in this way handicap the acceptance of the refrigerant.

We have from time to time agreed in our Board meetings that we would restrict the sale of "F-114" to Frigidaire but this was also agreed upon as a temporary expedient with the reservation that it would be discussed again at a later date. This was also based upon Frigidaire's representation, which we at the time accepted, that the financial interests of both stockholders would be better served by such restriction in that du Pont, as well as General Motors, would make more money through their share in Frigidaire's increased profits than they would make through their share in the profits Kinetic would obtain from a broader sale of the refrigerant.

Of course, it would be possible by mutual agreement to revise the obligations which are provided for under our present agreement, but as far as I know there has been no understanding that this would be an advisable thing to do.

Very truly yours,

E. G. ROBINSON, PRESIDENT
KINETIC CHEMICALS, INC.

EGR:EM

Government's Exhibit No. 858

Mr. A. J. Snow,
Sears, Roebuck & Company,
General Merchandise Office,
Chicago, Illinois

Dear Mr. Snow:

After telegraphing you today that I had not heard as yet the decision of our Management respecting the sale of "Freon-114" to the Sunbeam Electric Company, the decision was communicated to me.

"Freon-114" was developed in the laboratory of the Frigidaire Corporation and, unfortunately, we are not in a position to offer it for general sale at this time.

We shall, of course, be delighted to sell you "Freon-11", "Freon-12", "Freon-21", or any other refrigerants that we may manufacture in the future. There are several refrigerants being developed at the present time which may be fully as good as "Freon-114", but as yet we have not devised a process or processes which will allow us to produce these refrigerants at an economical figure. While at present it seems to your engineers that "Freon-114" is the only one of our products which is of interest to you, nevertheless it may be that in their research on machine design, they will find that "Freon-12" is an efficient gas.

As I pointed out to you in New York, there is no longer a tendency to build the rotary type compressors. The later design is of the scotch yoke type, and I feel sure that such a design is economical in the cost of production. I know that it is very efficient. It is the vogue today in the Industry. The last company to manufacture a scotch yoke type of compressor is Stewart-Warner. Westinghouse, Kelvinator and Leonard have been employing this design for at least two years.

It must be remembered that Kelvinator had given very active consideration to the rotary type design but gave up the idea in favor of the scotch yoke type.

I hope to have the pleasure of seeing you in the near future and will accept your kind invitation to drop in to see you the next time I am in Chicago.

Yours very truly,

KINETIC CHEMICALS, INC.

(274)

W. W. Rhodes
Sales Director

Government's Exhibit No. 859

5022

DU PONT
E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

October 10, 1938.

Mr. Alfred P. Sloan, Chairman,
General Motors Corporation,
New York City, New York.

Dear Alfred:

This is just a note to remind you of the Kinetic Chemicals matter, of which I spoke to you on the 'phone last Thursday. Messrs. Biechler, Pratt and J. T. Smith are, I think, fully informed on the matter, and I would appreciate it very much if you would inform yourself and advise me your views.

Yours sincerely,

L du Pont
PRESIDENT.

LduP/MD

Government's Exhibit No. 860

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N.Y.

October 14, 1938.

Mr Lammot duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

RE: KINETIC CHEMICALS COMPANY -
GENERAL POLICY WITH REGARD TO F-114

My dear Lammot:-

Referring to your inquiry over the telephone, supplemented by your letter of October 10th, and in turn confirming my telephone message of even date, would state that I am quite convinced that, from the standpoints of equity, law or legal limitations or sound business policy, we are not justified in selling F-114 to Sears-Roebuck. It is distinctly a type of thing that we should reserve for our own exclusive use.

I hope that the directors of Kinetic Chemicals Company will take action, accordingly.

Very truly yours,

APSJr./K

Government's Exhibit No. 861

FRIGIDAIRE DIVISION

GENERAL MOTORS CORPORATION

CABLE ADDRESS
"FRIGIDAIRE"
ALL CODES USED

DAYTON. OHIO. U.S.A.

October 17, 1938

Mr. Alfred P. Sloan, Jr., Chairman of the Board,
General Motors Corporation,
1775 Broadway,
New York, N. Y.

My dear Mr. Sloan:

I appreciate very much your letter of October 14th, and the copy of your letter of the same date written to Mr. Lamont duPont concerning refrigerant F 114 which has been manufactured by Kinetic Chemicals for us.

Certainly, the exclusive use of this refrigerant, which we developed in connection with our rotary compressor, is of major importance to us, and it is very gratifying that you have drawn the conclusions which you stated in your letter to Mr. duPont.

We thank you for your interest in this matter.

Yours very truly,

EGBiechler

General Manager

Government's Exhibit No. 862

FORM ON 50 B

KINETIC

KINETIC CHEMICALS, INC

WILMINGTON DELAWARE

October 19, 1938

Mr. E. R. Breech,
General Motors Corporation,
Detroit, Michigan.

Mr. E. G. Biechler,
Frigidaire Division,
General Motors Corporation,
Dayton, Ohio.

Gentlemen:

For your information, we are attaching hereto copy of letter of October 18th written by Mr. W. F. Harrington to General Wood and copy of letter of October 14th from Mr. W. W. Rhodes, Sales Director, to Dr. A. J. Snow, of Sears, Roebuck and Company, in reference to the sale of "Freon-114" to the Sunbeam Electric Company.

Very truly yours,

E. G. ROBINSON, PRESIDENT
KINETIC CHEMICALS, INC.

5027

(COPY)

October 17, 1938.

General R. E. Wood, President
Sears, Roebuck and Company
Chicago, Illinois

My dear General Wood:-

I told you in my letter of September 15th that the subject of the sale of "F-114" to Sunbeam would be investigated and an answer made to you as soon as possible. I am informed that Kinetic Chemicals, Inc., on October 15th wrote a letter to Dr. Snow explaining the situation.

As you probably know, the Du Pont Company is not the sole owner of Kinetic Chemicals; General Motors is also a stockholder. "F-114" was developed in the laboratories of the Frigidaire Corporation and, unfortunately, Kinetic Chemicals is not in a position at this time to sell "F-114" outside of Frigidaire's requirements. I regret this situation and hope that either the Du Pont Company or Kinetic Chemicals may be able to find among their products a chemical suited to your purposes or, failing that, that we may be able to develop one that will meet your requirements.

Yours very truly,

W. F. Harrington,
Vice President.

WFH:LS.

Government's Exhibit No. 863

Mr. Ernest R. Breech,
Vice President.

Detroit, Michigan.

John Thomas Smith,
General Counsel.

New York, N. Y.

Re: Frigidaire's use
of F-114.

May 8, 1939.

Referring to the question as to the best way to protect Frigidaire in its exclusive use of F-114, I make no doubt that the surest procedure would be that suggested by you. If Kinetic Chemical Company were to sub-license Frigidaire exclusively, that would be an end of the matter. The decision as to its future use, viz., whether to give it to its competitor, and if so, upon what terms, would rest solely with Frigidaire. This sort of protection would not be accorded by any resolution that the Board of Directors of the Kinetic Company might adopt. Such a resolution is an expression of present policy, and of course is subject to future change. It would, for instance, be quite possible for the Kinetic Board (upon a proper showing satisfactory to it) to reverse at any time its present policy of allowing only Frigidaire to use F-114.

It is of course, quite possible to foresee a situation where a competitor of Frigidaire might endeavor to bring extra legal pressure upon the Kinetic Company. The resolution would afford no great comfort against this approach. On the other hand, Frigidaire, if the exclusive licensee, might much more effectively justify its continuance as such, against any possible argument. It would simply be preserving its own development; and this is usual practice that requires no justification.

NOTE: The handwritten words, "Kinetic Chem Co" appear in the upper right hand corner.

Therefore, it seems to me that if Kinetic is willing to let Frigidaire be the exclusive user, it would really lose nothing, and gain much in relief against possible future pressure if it granted to Frigidaire an exclusive license converting a moral commitment into a legal relation.

I am returning the correspondence.

General Counsel.

JTS:Hr
Enc.

Government's Exhibit No. 864

Letterhead of
KINETIC CHEMICALS, INC.
WILMINGTON, DELAWARE

June 13, 1939

Mr. E. R. Breech, Vice President
General Motors Corporation,
Detroit, Michigan.

Dear Mr. Breech:

Following your letter of May 11th, we have been giving consideration to the plan which you proposed for licensing Frigidaire to use "F-114".

We have decided that it would be advisable to convey to Frigidaire an exclusive license for this use and are preparing a form of license agreement to make this effective. If this form proves to be satisfactory to you we can then bring it up for action at the next meeting of the Board of Directors.

We have, of course, an investment in a plant to make "F-114" and for the present at least can presumably expect to keep it reasonably occupied with Frigidaire's requirements of this product. However, I presume that we would anticipate that the time might come prior to the expiration of the patent when Frigidaire might abandon, or partially abandon the use of the refrigerant and under those circumstances we would, of course, like to be able to employ our plant in manufacturing the product for other possible customers. I presume that you would have no objection if the license agreement should provide that under such conditions the license should again become non-exclusive.

Very truly yours,

E. G. Robinson, President
Kinetic Chemicals, Inc.

EGR:EM

CC—Mr. E. G. Biechler
Mr. W. F. Harrington

Note: Handwritten DD 709 is in the upper right hand corner. A Capitalized B, underlined, is in the center. A handwritten check appears in the lower left hand corner with the handwritten word "Noted" and initials.

Government's Exhibit No. 865

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

June 19th, 1939

Mr. E. G. Robinson
Kinetic Chemicals Inc.,
Wilmington, Del.

Dear Mr. Robinson:

I wish to thank you very kindly for your letter of June 19th and I was particularly interested to learn that you have decided it is advisable to convey to Frigidaire an exclusive license for "F-114".

With respect to including in the license agreement to the effect that, if Frigidaire abandon the use of "F-114" the license should again become non-exclusive, you most certainly raise an equitable point. On the other hand, considering the mutuality of ownership of Kinetic Chemicals, Inc., it might be just as well to prepare the exclusive license agreement without any such qualification, with the understanding that when and if such condition does arise, it will be to our mutual interests to modify the agreement.

On the other hand, if you feel that this provision should be in the license agreement, may I suggest that you forward to Mr. Biechler and the writer copies of the proposed agreement at which time we can go into the matter further.

Yours very truly,

E. R. Breech,
Vice President.

ERB
MMJ

Government's Exhibit No. 866

(Letterhead of)
KINETIC CHEMICALS, INC.
Wilmington, Delaware

CC — Mr. E. G. Biechler

June 29, 1939

Mr. E. R. Breech, Vice President,
General Motors Corporation,
Detroit, Michigan.

Dear Mr. Breech:

Replying to yours of June 19th, I am sending you herewith a form of agreement which we would suggest for approval by Kinetic Chemicals, Inc., to accomplish the purpose of transferring to General Motors an exclusive license to use "F-114" under the conditions set forth in the draft.

This form of agreement is in accordance with our letter of June 13th and covers the provision which we suggested for the protection of Kinetic's investment by providing that if Frigidaire made any major change in their present policy of using "F-114" exclusively, or almost exclusively, in their household refrigerator line, then Kinetic would be free to sell "F-114" to other prospective customers. We have suggested the figure of 50% of the number of household refrigerator units as a dividing line with the thought that if and when such a large percentage of units should be charged with some other refrigerant, it would represent a substantial decrease in Frigidaire's interest in "F-114" and also a substantial decrease in Kinetic's outlet for this product.

I will be glad to receive your comments on this draft which, it seems to me, substantially covers the arrangements which we have discussed previously.

Very truly yours,

E. G. Robinson, President
Kinetic Chemicals, Inc.

EGR:M

Note: Stamped in upper right-hand corner "Executive Office July 1 1939" and "Received ? ? 1939 Patent Dept. Frigidaire Div."

Government's Exhibit No. 867

GENERAL MOTORS CORPORA

INTER-ORGANIZATION LETTERS ONLY

5085

DATE September 21, 1939

SUBJECT

TO Mr. John Thomas Smith
General Motors Corporation

ADDRESS New York, New York

I know that you will be interested in learning that a new agreement has recently been executed with Kinetic Chemicals, Inc., whereby "Kinetic hereby grants to General Motors the sole and exclusive right and license, under said Henne Patent 2,007,198 and under any other patent licensed to Kinetic by virtue of said agreement of May 1, 1932, and covering tetra-fluoro-dichloro-ethane or its use as a refrigerant, to use said product in, and to sell said product in or for use in, refrigerating apparatus or equipment, it being expressly understood and agreed, however, that no right or license is granted to General Motors by this agreement, or reserved by General Motors by said agreement of May 1, 1932 to make tetra-fluoro-dichloro-ethane."

I am certain that this will be a much more satisfactory agreement than previously existed.

I am indebted to you for your assistance in the matter.

E R Breech

E. R. Breech,
Vice President

Government's Exhibit No. 868

FORM 00-5010

KINETIC CHEMICALS, INC.
WILMINGTON, DELAWARE

CABLE ADDRESS KINETICHEM

April 3, 1942

Mr. E. G. Biechler
President and General Manager
Frigidaire Division
General Motors Corporation
Dayton, Ohio

Dear Mr. Biechler:

I have your letter of March 30th, respecting the letter you received from Mr. F. E. Anderson, of the F. E. Anderson Oil Company, and would advise that Mr. Anderson did not obtain from us any information whatsoever respecting the patent relationship existing between us in connection with "Freon-114". He has evidently obtained this information from someone else and attributes it to us.

I tell you this because there might exist a feeling on your part that in all such cases we were passing the buck to Frigidaire in connection with the situation. This is not true, as we do our best to shield Frigidaire from just such inquiries, and only when there is no escape do we candidly tell the party that we have no rights under the "Freon-114" patent except the rights of manufacture.

In this particular case we did not know the F. E. Anderson Oil Company nor for what purpose they required the sample of "Freon-114". A good many people are taking advantage of the war to secure materials which they properly have no interest in. You will, therefore, note that the letter of March 11th was answered by our stereotyped method in my letter of March 16th. On receipt of Mr. Anderson's letter of March 17th, I asked him for the information which he has disclosed to you in his letter of March 28th. I am attaching copy of a letter that I have written to him today. We will keep you informed of the developments.

Yours very truly,

KINETIC CHEMICALS, INC.

W. W. T

Sales Director

WWR:DR

Government's Exhibit No. 869

Letterhead of
KINETIC CHEMICALS, INC.
WILMINGTON, DELAWARE

March 8, 1943

Mr. E. F. Johnson, Vice President
General Motors Corporation,
Detroit, Michigan
Mr. E. G. Biechler, General Manager
Frigidaire Division
General Motors Corporation,
Dayton, Ohio

Gentlemen:

"F-114" FOR LARGE SCALE REFRIGERATION

We have just received a letter from the Worthington Pump and Machinery Corporation, in which they raise a question as to the possibility of their obtaining "F-114" to use as a refrigerant in large scale Centrifugal Compressors. They point out that in their plans for post-war they anticipate the possibility of manufacturing and selling machines of this type and are wondering whether it will be feasible for them to proceed with plans along this line which are dependent upon the expectation that the necessary refrigerant would be available.

In their plans they are considering this refrigerant for use only in machines of 50 or more tons capacity of the centrifugal type which is, we believe, entirely outside of the field in which General Motors is interested and it seems to us that the importance of this prospect from Kinetic's standpoint justifies our inquiring of you what is your attitude today in this connection.

You will recall that we have in the past given both Worthington and Carrier on several specific occasions permission to use "F-114" in machines of this type for particular installations. For a certain range of temperatures this refrigerant is particularly suitable for use in centrifugal machines.

It seems to us, therefore, that from the standpoint of both Kinetic and the industry it would be desirable to make "F-114" available for the particular type of work described above, namely, for use in centrifugal type compressors of 50 or more tons capacity. If you agree, we would like to make this offer to Worthington and also to the Carrier Corporation and others who are interested in this type of business. Obviously it is only under such conditions that they can design and offer such machines.

Very truly yours,

E. G. Robinson

E. G. ROBINSON,
PRESIDENT

EGR:EM

NOTE: Italics indicate handwriting.

Government's Exhibit No. 870

FRIGIDAIRE
DAYTON OHIO

Mr. R. G. Robinson, President,
Kinetic Chemicals Inc.
Wilmington, Delaware.

Dear Mr. Robinson:

We have your letter of March 8th regarding selling Worthington Pump and Machinery Corporation and Carrier Corporation F-114 for use in large compressors. I have discussed this with Mr. Johnson as well as our own people here, and we can see no objection to this plan. In fact, you may think we are getting very magnanimous when I say that we believe we would be willing to open up F-114 to be sold to anyone, regardless of size of compressor or company. At the present time, naturally, we would like to see you sell as much F-114 as possible because it benefits the whole situation, and if you can get business for large compressors it would be very helpful.

No one knows, of course, when the war will end, but when it does, we are of the opinion that sooner or later we could switch from F-114 for our household compressors to F-12 and since post war no doubt will find business extremely competitive, this would help Frigidaire in its costs, since F-12 is cheaper.

Our viewpoint, discussed above, is confidential, as you well know, and we would not want our competitors to know exactly what we are about. I feel that Mr. Rhodes and your organization can handle it in a satisfactory way as the time approaches when you would be trying to make sales of this product by simply not explaining anything regarding the situation. You could simply say that as far as Kinetic was concerned, F-114 was in the same category as F-12.

We would be pleased to know your attitude with respect to the whole F-114 situation but in the meantime, it is entirely agreeable from a General Motors standpoint to sell F-114 to Carrier and Worthington for the purpose mentioned in your letter of March 8th.

Very truly yours,

E. G. Biechler

EGB:RD

Government's Exhibit No. 871

March 24, 1943.

Mr. E. G. Robinson, President,
Kinetic Chemicals Inc.,
Wilmington, Delaware.

Dear Mr. Robinson:

In reply to your letter of March 8th suggesting the selling of F-114 to Carrier Corporation and the Worthington Pump and Machinery Company, I have discussed this with Mr. E. F. Johnson and we both agree that your idea of supplying them with F-114 is quite in order.

From a General Motors and Frigidaire standpoint, you can consider this letter as our approval for you to proceed to sell F-114 to these two companies, as you have indicated in your letter.

Hoping this is satisfactory, I am

Very truly yours,

EGB:ED

E. G. Biechler
General Manager

I think Kinetic will probably ask for (or prepare and send to us) a formal amendment of the license agreement between Kinetic & GM which grants GM the an exclusive license under F-114.

Government's Exhibit No. 872

CC- Mr. E. F. Johnson, Vice President
General Motors Corporation
Detroit, Michigan.

KINETIC CHEMICALS, INC.
WILMINGTON, DELAWARE

April 8, 1943

RECEIVED
APR 10 1943
EXECUTIVE OFFICE

Mr. E. G. Biechler, General Manager
Frigidaire Division,
General Motors Corporation,
Dayton, Ohio.

Dear Mr. Biechler:

I received your letter of March 24th and am very glad to note that General Motors and Frigidaire approve our selling "F-114" to Carrier and Worthington for use in large scale centrifugal type compressors. I think this is a wise decision.

Of course, as I said to you in our letter of March 8th, these are not the only two companies interested in this type of business. York Ice Machinery Company and also the Trane Company make this type of machinery and York have already talked to us about the use of "F-114" for such purposes. I presume that your attitude with regard to any responsible company would be the same as that you have already expressed in connection with Carrier and Worthington.

Very truly yours,

E G Robinson

E. G. ROBINSON
PRESIDENT

EGR:EM

Government's Exhibit No. 873

FRIGIDAIRE
DAYTON OHIO

February 21, 1944

Mr. C. D. Pursh, President
Kinetic Chemicals, Inc.
Wilmington, Delaware

Dear Mr. Pursh:

In accordance with Article 2 of the Second Ammendment dated September 18, 1939, to License Agreement between General Motors Corporation and Kinetic Chemicals, Inc., we certify that during the calendar year 1943, our sale of Household Refrigerators, bearing Frigidaire nameplate, and not containing "Freon-114", amounted to .54% of the total refrigerators sold.

Very truly yours,

FRIGIDAIRE DIVISION

D. H. Barker

Divisional Comptroller

DHB:N

CC: Messrs. Godfrey ✓
Fehr
Puls

%

Sale of Ref. with F-114 - 85697 - 99.46
468 - .54
F-12 - 86165 - 100%

NOTE: Printed in the right hand corner appears the date received. A handwritten check follows a name in the lower left hand corner. In the center appears two columns of addition of handwritten numbers with handwritten explanations preceding the numbers.

Government's Exhibit No. 874

(Letterhead of)
KINETIC CHEMICALS, INC.
Wilmington, Delaware

CC: Mr. E. R. Godfrey

March 10, 1944

Mr. E. F. Johnson
Vice-President
General Motors Corporation
Detroit, Michigan

Dear Mr. Johnson:

We have your letter of February 24th, in which you propose an arrangement for licensing us to sell "Freon-114" for use in household refrigerators upon the payment by Kinetic to the Frigidaire Division of a royalty of 5¢ per pound, in addition to the 5% royalty which is already paid in accordance with the terms of the agreement of May 1, 1932.

Our interest in securing the right to sell "Freon-114" for use in household refrigerators is in order to satisfy the importunities of our customers, many of whom are already customers for "Freon-12", who wish to investigate the desirability of developing a machine using "Freon-114" for their postwar business. We have never expected that this would lead to any important sales of this particular refrigerant. It was rather our belief that the ability to accede to these requests was important to Kinetic from the standpoint of retaining the goodwill of our "Freon-12" customers, which has been built up laboriously over a period of years.

The suggestion that we should charge a royalty which would amount to about 15% on this refrigerant, whereas we collect only 5% on the other products in our line, would, it seems to us, be inimical to the main purpose outlined above. This is entirely aside from the fact that the Robinson-Patman law prevents us from charging a different price to these customers than we charge to Frigidaire, or that price ceiling considerations effectively prevent us from increasing the price already established for "Freon-114".

—2—

Under these circumstances it seems to us that the only sound policy for Kinetic would be to relinquish the idea of selling this refrigerant for household refrigerator purposes and to advise our customers to this effect, since we believe that offering it under the conditions you suggest would completely fail to accomplish our purpose.

Yours very truly,

C. D. Porch
C. D. Porch
President

NOTE: In upper right-hand corner of first page of letter is stamp "Received Mar 13 1944" over which are written some illegible initials. Italics indicate handwriting.

Government's Exhibit No. 875

February 24, 1944

Kinetic Chemicals, Inc.
Wilmington, Delaware

Gentlemen:

Referring to our agreement with you of September 18, 1939, under which you granted to us an exclusive license to use Freon-114 in, and to sell Freon-114 in, refrigerating apparatus, would advise that we are agreeable that you supply this refrigerant to others for use in refrigerating apparatus under our license provided that you collect from such customers and pay over to Frigidaire Division a fee of five cents per pound of Freon-114, purchased by such customers, as partial compensation for their engineering costs in the determination of the physical, chemical and thermodynamic properties of Freon-114, and the lubricating, electrical, metallic, processing and other requirements for the commercial utilization of Freon-114 in refrigerating apparatus. With the sale of Freon-114 to others, we would, of course, want to have Article II of the agreement of September 18, 1939, cancelled, since it would, no longer be necessary.

It is understood that this arrangement is not to modify in any manner the terms of the agreement of May 1, 1932, between Frigidaire Corporation and your company.

If the above offer is acceptable to you, kindly sign this letter in the space provided below and return one copy to us, retaining the original for your files.

Very truly yours,

General Motors Corporation

By (Signature Illegible)
Vice President

Accepted:

Kinetic Chemicals, Inc.

By ....
President

Note: COPY is printed across the page. An illegible handwritten signature appears in the right hand corner above the printed words "Vice President".

Government's Exhibit No. 876

KINETIC CHEMICALS

WILMINGTON, DELAWARE

March 4, 1944

MR. C. D. PORCH, PRESIDENT
KINETIC CHEMICALS, INC.
8430 NEMOURS BUILDING

SUBJECT: RIGHT TO SELL "FREON-114"

I recommend that some arrangement be made with the Frigidaire Corporation so that we may be permitted to sell "Freon-114" without any restrictions even though it means a monetary sacrifice to the company.

My reasons for this recommendations are as follows:

1. It will remove all restrictions from the sale of any of our refrigerants and no longer could anyone allege that we had a favored customer. We are playing such an important part in the world of refrigeration today that this allegation, which has been made openly by General Wood of Sears, Roebuck and in many other quarters in the industry, could no longer be supported by the facts.
2. It enables us to offer a complete line of refrigerants for every purpose and this is of enormous advantage to the industry, as there is no good refrigerant in our line for rotary machines of small size.
3. With the complete line of refrigerants it is a deterrent to others from entering into the field of manufacturing and selling fluorinated hydrocarbons.
4. Last, but not least, it enormously adds to our prestige as a fair, honest, and honorable company.

There has been, as a result of the shortage of "Freon-12", a realization on the part of manufacturers of refrigerating machinery that we are able to dictate terms to them and their destiny is in our hands. This attention having been sharply focused in the past six months, it is necessary for us more so than ever to have the reputation of Caesar's wife.

/s/ W. W. Rhodes
SALES DIRECTOR

WWR:VBW

Government's Exhibit No. 878

To Mr. E. G. Robinson **Date** March 6, 1944

From C. D. Porch

The attached "History of the Development and Exploitation of 'Freon-114'" is a rough draft which I am submitting for your criticism and suggestions.

It is necessary for me to attend a conference in Washington tomorrow, but I would like to discuss the attached paper with you at your convenience on Wednesday.

THE HISTORY OF THE DEVELOPMENT AND EXPLOITATION OF "FREON-114"

In order to fulfill certain conditions established under the terms of the du Pont-General Motors Agreement, dated August 27, 1930, Frigidaire Corporation, a corporation of the State of Delaware, granted to Kinetic Chemicals by an agreement dated May 1, 1932, an exclusive license under its patent applications and patents to make, use, and sell certain products (including "Freon-114"), said grant being subject to the right reserved by the Frigidaire Corporation for itself and General Motors to use such products as refrigerants in their own business. This agreement included rights to Patent Application 512,472, which subsequently issued as United States Patent 2,007,198, upon which the following discussion is based.

One of the terms of the Kinetic-Frigidaire Agreement was to the effect that Kinetic should pay to Frigidaire a royalty of 5% of the selling price of all "said products" manufactured and sold by Kinetic under the licensed patents and applications.

Kinetic began the production of "Freon-12" January 1, 1931. At the fourth meeting of its Board, held November 13, 1931, the Kinetic management was advised of Frigidaire's possible interest in "Freon-114". An appropriation for the construction of a plant for the manufacture of "Freon-114" was approved at a special meeting of the Board, held on September 29, 1932. It was at this meeting that the sales policy governing the future distribution of this new refrigerant was first discussed. This discussion resulted in the passage of the following resolution:

> "RESOLVED, that it is the sense of this Board that any commercial distribution or any effort toward commercial distribution of "Freon-114" should be confined to the Frigidaire Corporation for the time being."

About this time Kinetic Chemicals entered into an agreement with the Frigidaire Corporation to supply 300,000 pounds of "Freon-114" during the two-year period January 1, 1933 to December 31, 1934.

Kinetic experienced certain difficulties in getting its plant into production in the spring of 1933, so Frigidaire found it necessary to construct and operate a temporary plant during this period. Kinetic reimbursed Frigidaire to the extent of $37,024 for the extra expense it incurred as a result of Kinetic's failure to meet the terms of its sales contract. This settlement eliminated all questions between Kinetic and Frigidaire regarding the original sales agreement and no question of this nature has arisen since.

Shortly after "Freon-114" was made available to Frigidaire several of Kinetic's customers who were purchasers of the refrigerants "Freon-11" and "Freon-12" requested samples of "Freon-114" for test purposes. In view of the action taken by the Kinetic Board, these customers were advised that Kinetic's production capacity was limited to its ability to supply Frigidaire's requirements, so none was available for general distribution.

This question of releasing "Freon-114" was reviewed by the Board from time to time at its subsequent meetings from November, 1932, to November, 1937. At a meeting held on April 27, 1936, it was informally agreed to permit Kinetic to offer "Freon-114" for use in large commercial and air conditioning refrigeration machines.

After a careful consideration of the effect of releasing "Freon-114" under such restrictions, the conclusions was reached that such a policy would result in an increase in the pressure from the household refrigeration machinery manufacturers for this product, so no releases were made.

Subsequent to this meeting Mr. E. R. Breech, recently elected to the Kinetic Board to replace Mr. J. L. Pratt, advised Mr. Alfred P. Sloan, Jr. of Kinetic's interest in obtaining the release of "Freon-114" for unrestricted sales and of the possible damaging effect such action might have upon Frigidaire's position.

This conference between Mr. Breech and Mr. Sloan, held on September 22, 1936, resulted in a strong letter of protest from Mr. Sloan to Mr. Lammot du Pont, under the same date, to which Mr. du Pont replied under date of September 30th.

In the meantime, the Kinetic Board met on September 24th, at which meeting the following minute was recorded in reference to the sale of "Freon-114" to the general trade:

"This subject was brought before the Board for review, and after discussion it was agreed that the matter should be left in status quo, with the understanding that it will be given further consideration about one year hence."

The informal release of "Freon-114" for commercial use was rescinded by further action of the Board taken at its nineteenth meeting, held November 19, 1937, which is covered by the following minute:

"After full discussion of this matter it was moved and unanimously carried that the management be advised it is the sense of the Board that no action should be taken at this time with reference to the sale of "Freon-114" for use in household machines or for use in large machines."

Throughout the following year there were many indications of increasing dissatisfaction with Kinetic's policy covering the sale of "Freon-114" among its customers, which culminated in a definite attempt on the part of Sears Roebuck and Company to force a release of "Freon-114" to the Sunbeam Electric Company.

A conference between Dr. A. J. Snow, Special Advisor to the Merchandising Managers of Sears Roebuck and Company, with Kinetic's Sales Manager, W. W. Rhodes, held on September 9, 1938, was followed by a belligerent letter of protest from General R. E. Wood, President of Sears Roebuck and Company, to Mr. W. F. Harrington.

As a result of this contact the Kinetic management recommended that the Board again review the "Freon-114" sales policy, which was done at the meeting of the Board held in the General Motors Building, New York City, October 3, 1938.

In reviewing the conditions which had dictated the establishment of the "Freon-114" sales policy, Mr. E. G. Robinson pointed out that this policy had been discussed from time to time and that the Board had agreed to restrict the sale of "Freon-114" to Frigidaire as a temporary expedient, always with the reservation that this question would be discussed again at a later date. The policy was based upon Frigidaire's representation, which was accepted by the members of the Board, that the financial interests of both stockholders would be better served by such a restriction, in that du Pont, as well as General Motors, would make more money through their share in Frigidaire's increased profits resulting from its preferred position than they would make through their share in the profits accruing to Kinetic through a broader sale of the refrigerant in question.

The following minute, recorded at the meeting of October 3, 1938, indicates the decision reached on this subject at that time:

"Sale of 'Freon-114' to the General Trade:

"The above subject was discussed at length with

Mr. Charles E. Wilson, Vice-President
Mr. John Thomas Smith, V.P. & General Counsel
Mr. John L. Pratt, Vice-President
Mr. Newell and Mr. Fehr
all of General Motors Corporation.

"As a result of this discussion, it was agreed that the sale of 'Freon-114' should continue to be limited to the Frigidaire Corporation."

This action of the Board offered Kinetic no relief from the ever increasing demands from the trade for "Freon-114" which had now reached the point where Kinetic's friendly business relations with some of its customers were seriously threatened.

In order to relieve this situation, General Motors representatives on the Kinetic Board suggested that Kinetic grant to General Motors an exclusive license covering the use and sale of "Freon-114" for refrigerating purposes, contending that with such an arrangement in effect Kinetic could no longer be charged by its other customers with the practice of arbitrary discrimination.

This suggestion was adopted by the Board and an exclusive license was subsequently granted to General Motors by an agreement executed September 18, 1939.

With the advent of the war and the demand by the Government for many large refrigerating units for its chemical plant expansions, the manufacturers of large size centrifugal refrigerating machines for chemical processing and air conditioning requirements represented that they could supply such equipment at a considerable reduction in cost if they were permitted to design these machines for the use of "Freon-114" as the refrigerant.

As a result of this situation Frigidaire agreed to release the required amount of "Freon-114" for such jobs, provided Kinetic would file with Frigidaire a specific request for each job, stating the name of the manufacturer of the refrigeration equipment, the approximate size of the proposed installation, and the use for which it was required. During the period of this arrangement, which became effective with the sale of "Freon-114" to du Pont for its Louisville Neoprene Plant, each such release, with one exception, has been covered by a separate agreement executed by General Motors and Kinetic. The exception was covered by an action of the Board taken at its meeting held June 4, 1943.

Equipment charged with "Freon-114" has been installed under this arrangement by the York Corporation and the Carrier Corporation. The amount of "Freon-114" released for use in equipment manufactured by these customers was 38,600 pounds in 1942 and 13,400 pounds in 1943. Several additional large installations are now in process of construction.

Since these and other companies had now accumulated design experience covering "Freon-114" in large size centrifugal machines and had demonstrated its value as a refrigerant in such equipment, they requested Kinetic in the early part of 1943 to make "Freon-114" available for their postwar equipment of 50 or more ~~horse power~~.

This privilege, covering release of "Freon-114" to the Carrier Corporation and the Worthington Pump and Machinery Corporation, was granted in a letter from Mr. E. G. Biechler to Mr. E. G. Robinson, under date of March 24, 1943, and the privilege was further extended to the York Corporation and the Trane Company by action of the Kinetic Board taken at its meeting held June 4, 1943, as shown in the following minute:

> "Release of 'Freon-114' for Use in Refrigeration Machines of 50 or More Tons Capacity of the Centrifugal Type:

"Vice-President E. G. Robinson orally advised the Board of requests received from –

" 1) The York Ice Machinery Company and the Trane Company for permission to offer refrigerating machines of 50 or more tons capacity of the centrifugal type, charged with 'Freon-114', to the post-war trade.

" 2) The Carrier Corporation for permission to convert one of its centrifugal refrigerating machines, now installed at the plant of the Studebaker Corporation, Aviation Engine Division, South Bend, Indiana, from 'Freon-11' to 'Freon-114'.

"Upon oral recommendation of Mr. Robinson, and after discussion, it was moved and unanimously carried that the management be authorized to release 'Freon-114' to the foregoing companies for the purposes mentioned above, and further, that the management be authorized to convert the Carrier centrifugal refrigerating machine at Deepwater from 'Freon-11' to 'Freon-114', thereby increasing the capacity of this machine from 120 tons to approximately 180 tons per day."

At the meeting of June 4, 1943, the old question of the release of "Freon-114" for all purposes was again brought up for further consideration due to the fact that manufacturers of household equipment were becoming interested in this refrigerant for postwar use. The General Motors representatives on the Kinetic Board agreed to give this matter further consideration from the Frigidaire standpoint and would report at the next regular meeting. This report was finally submitted on February 24, 1944, in the form of a suggested amendment to the General Motors-Kinetic Agreement of September 18, 1939, the original of which is attached.

Under the terms of the proposed amended agreement Kinetic would be obliged to pay to the Frigidaire Division of the General Motors Corporation an additional royalty of five cents per pound for each pound of "Freon-114" sold for use as a refrigerant, the implication being that this additional royalty would be collected by Kinetic from its customers through a corresponding increase in the selling price.

The proposed amended agreement is not acceptable to Kinetic Chemicals in its present form for the following reason: The terms used in the amendment are so general in character that they could not be clearly interpreted and administered; they, therefore, require further clarification.

The following points must be considered.

Kinetic has already been granted the authority to offer "Freon-114" to certain of its customers for postwar use in centrifuga' type machines of 50 ~~horse power~~ or more. At the time this authority was granted there was no obligation set up requiring the payment of five cents per pound royalty upon such sales, so it appears that the five cent royalty imposed by the amendment under consideration must be restricted to sales made for use in household refrigerating machines only.

The ceiling price has been established on the sale of "Freon-114". As long as the O.P.A. is in control of price regulations it will be impossible to increase the price of any commodity beyond the established ceiling price unless it can be clearly demonstrated that the established ceiling does not provide an approved return. Under present conditions it does not appear possible to obtain an increase in the present ceiling price of "Freon-114" from O.P.A.

The proposed amendment would indicate the necessity of Kinetic selling "Freon-114" for refrigeration purposes at the price of five cents in excess of that charged for the refrigerant sold to Frigidaire. Under the Robinson-Patman Act this could not be done. Therefore, the proposed five cent royalty would become a charge against Kinetic's profits, adversely affecting the returns of both du Pont and General Motors through reduced dividends.

We are strongly of the opinion, based on past experience, that an attempt on the part of Kinetic to collect this royalty, as such, from customers who are interested in using "Freon-114" in household equipment would develop a sales resistance which would have a very serious effect on sales of other refrigerants, which, in turn, might well result in a loss to profits far in excess of any gain accruing from increased sales of "Freon-114".

It seems to me that a logical solution of this problem would be to have General Motors grant licenses direct to refrigeration machinery manufacturers of household equipment upon a royalty basis. Such an arrangement would permit Kinetic to sell "Freon-114" to such licensees, restricting sales to these licensees only.

I strongly recommend that this proposal be given careful consideration. The importance to Kinetic for a prompt solution of this problem is well expressed in the attached letter from W. W. Rhodes.

I am giving below a brief summary, showing returns realized by Kinetic from the "Freon-114" operation and returns realized by Frigidaire, General Motors, and du Pont, accruing from royalties, management fees, and dividends resulting from their investment in Kinetic. These figures indicate the value of the Kinetic investment and the importance of a prompt solution of the "Freon-114" problem in such a manner that it will no longer jeopardize the satisfactory position which Kinetic Chemicals now occupies in the refrigeration industry.

Kinetic Chemicals began active operation on January 1, 1931.

Thirteen-year period - January 1, 1931 to December 31, 1943

"Freon-114" sold		5,332,000#
Average selling price $0.789 (1934) to $0.527 (1941)		
Gross receipts		$3,011,000
Total cost, including mill cost, selling expense, and administration		2,357,000
Net profits before taxes		$ 654,000
Royalty returned to Frigidaire		$ 147,194
Total royalty paid to Frigidaire		$1,503,481
Total Management Fee paid to du Pont		510,000
Total dividends paid		$6,369,000
Du Pont share 51%		3,248,200
General Motors share		3,120,800
Average investment - 13 years, December 31, 1943		$ 530,000
Maximum paid in capital and surplus to December 31, 1943		
Paid in capital	$2,000,000	
Paid in surplus	1,300,000	$3,300,000

Government's Exhibit No. 879

For Inter-Organization Letters of
FRIGIDAIRE DIVISION
GENERAL MOTORS CORPORATION

5057

April 20, 1944

Mr. E. F. Johnson, Vice-President
General Motors Corporation
Detroit 2, Michigan

Dear Mr. Johnson:

Confirming our phone conversation this afternoon, it seems to me that the simplest and most direct way of releasing Kinetic Chemicals from the effect of the License Agreement of September 18, 1939, granting General Motors the exclusive right to use Freon-114, is to cancel that License Agreement in its entirety. The effect of the 1939 Agreement is merely to grant the rights stated to General Motors. Consequently, the cancellation of that Agreement will restore the parties to the positions they held prior thereto; and prior to the 1939 Agreement, Kinetic had the power to sell Freon-114 to anyone.

Accordingly, I have drafted a form of agreement, the effect of which is to cancel and terminate the 1939 Agreement and to mutually release the parties from any obligations under the 1939 Agreement. Such draft is enclosed in triplicate.

A copy of this letter, together with a draft of the cancellation agreement is being sent to Mr. Godfrey, and also to Mr. Spencer, with whom I understand you intend to discuss this matter this afternoon.

Yours truly,

J. Ralph Fehr

J. Ralph Fehr
Patent Department
Frigidaire Division

JRF:MM
Encls. (3)
Agreement in trip.

cc: Mr. E. R. Godfrey (Dayton)
(with encl.)
Mr. L. M. Spencer (Detroit)
(with encl.)

1/2 440420(A)

May,
THIS AGREEMENT made this 18th day of ~~April~~, 1944, by and between

GENERAL MOTORS CORPORATION, a corporation of the State of Delaware (hereinafter referred to as GENERAL MOTORS);

and

KINETIC CHEMICALS, INC., a corporation of the State of Delaware (hereinafter referred to as KINETIC)

WITNESSETH, that:

WHEREAS, by an Agreement dated September 18, 1939, KINETIC granted to GENERAL MOTORS, subject to certain limitations and conditions set forth in said Agreement, the sole and exclusive right and license, under the Henne U. S. Patent No. 2,007,198, issued July 9, 1935, covering tetra-fluoro-dichloro-ethane or its use as a refrigerant, to use said product in, and to sell said product in or for use in, refrigerating apparatus or equipment; and

WHEREAS, it is the desire of the parties hereto to cancel and terminate said Agreement of September 18, 1939:

NOW, THEREFORE, in consideration of the payment by KINETIC to GENERAL MOTORS of One Dollar ($1.00), receipt of which is hereby acknowledged, it is mutually agreed as follows:

1. GENERAL MOTORS and KINETIC do hereby mutually cancel and terminate, effective immediately, said Agreement of September 18, 1939.

2. GENERAL MOTORS and KINETIC do hereby each release and discharge the other from all the agreements and obligations

contained in said Agreement of September 18, 1939, and each acknowledges the performance by the other of all agreements and obligations contained in said Agreement of September 18, 1939, and on the part of the other party to be performed.

Effective as of this date, the contract dated May 1, 1932 between KINETIC and FRIGIDAIRE CORPORATION (to the rights and obligations of which GENERAL MOTORS CORPORATION has succeeded) is hereby confirmed and reinstated as fully as if said Agreement of September, 1939 had not been entered into.

IN WITNESS WHEREOF the parties hereto have caused this instrument to be executed in duplicate by their representatives, duly authorized, and their respective seals to be hereunto affixed as of the day and year first above written.

GENERAL MOTORS CORPORATION
By (Signature Illegible)
Vice-President

ATTEST:
J. C. Davidson
Ass't Secretary

KINETIC CHEMICALS, INC.
By *C. D. Porch*
President

ATTEST:
M. D. Fisher
~~Ass't~~ Secretary

Execution Recommended
C. M. Spencer

NOTE: Italics indicate handwriting.

Government's Exhibit No. 881

DU PONT
ESTABLISHED 1802
E I DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

VICE PRESIDENT'S OFFICE

June 22, 1944.

Mr. E. F. Johnson,
General Motors Bldg.
Detroit, Michigan.

Dear E. F. -

Dusty Rhodes tells me that he has notified all large manufacturers that F 114 in the future will be available to them. They have all expressed great appreciation in having the product for test. I gather that one outfit, Sunbeam, while appreciative of the opportunity to use F 114, is inclined to stick to their design which would use F 12. I am told by Dusty that this is a sort of life-saver for Norge-Borg Warner, another manufacturer. There has been no effort at the present time to notify the trade in general. It has been deemed advisable only to let the large manufacturers have the information for the time being, chiefly because the plant in which F 114 has been made has recently been used to make another product.

We have adequare supplies for General Motors' requirements for F 114, but any rush of other demands at the present is not contemplated until such time as F 114 equipment is released from its special use.

I am told, however, that the trade was very appreciative of the action which made it possible for them to get F 114.

Yours very truly,

To: Policy Committee

FROM: Donaldson Brown

SUBJECT: KINETIC CHEMICALS, INC.
OPERATIONS REPORT

November 9, 1944

I am enclosing for your information report prepared by Messrs. E. F. Johnson and E. R. Godfrey, covering operations of Kinetic Chemicals, Inc. from 1930 through 1943.

Respectfully submitted,

Donaldson Brown
Vice Chairman

NOTE: Handwritten initials E. L. B. appear in top left corner of page, handwritten words "Ordered filed 11/21/44," and stamp appear on top right corner of page.

Government's Exhibit No. 883

REPORT
on
OPERATIONS OF
KINETIC CHEMICALS, INC.
from 1930 through 1943

Including
HISTORY OF DEVELOPMENT
of
FLUORINE CHEMICALS
from 1928 through 1930

For Presentation To
THE GENERAL MOTORS POLICY COMMITTEE
by
Donaldson Brown

Prepared by
E. F. Johnson
and
E. R. Godfrey

October, 1944

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INTRODUCTION

Kinetic Chemicals, Inc., owes its existance to a research program on refrigerating agents which was begun in the Spring of 1928 for General Motors Corporation, and specifically for Frigidaire Corporation.

In view of this fact, a report on Kinetic Chemicals would not be complete without a brief review of the development by General Motors of the refrigerating agents which eventually became the foundation of the business of Kinetic Chemicals. It is thought also, that such report might well be followed by a brief consideration of the future prospects of the business of Kinetic Chemicals.

Accordingly, the material of this report is presented under three main headings or parts, as follows:

PART I - DEVELOPMENT OF FLUORINE CHEMICALS.

Under this heading will be presented briefly the need for a new refrigerant; the story of the development of fluorine (Freon) chemicals; General Motors policy regarding chemical manufacture; the organization of Kinetic Chemicals, Inc. and the licensing of that company under Frigidaire patents to manufacture and sell the fluorine compounds; and the Frigidaire patent situation generally, including the granting of foreign sub-licenses.

PART II - KINETIC CHEMICALS, INC. - ITS OPERATION.

Under this heading, we will treat the production and exploitation of the Freon compounds as refrigerants; the code difficulties incident to the introduction of these refrigerants; the expansion of the line of refrigerants; the further expansion of the business to include other fluorine compounds and by-products; corporation statistics concerning volume of production and sales, cost reduction, capital investment, profits, dividends, royalties, management fees, facilities, and number of employees; the role of fluorine compounds in the war effort; and information of interest concerning improvement patents acquired by Kinetic; and the licensing of DuPont thereunder.

PART III - THE FUTURE OF KINETIC CHEMICALS.

Under this heading, we will consider the outlook for the business of Kinetic Chemicals, and briefly touch on some of the needs of Kinetic Chemicals for the future development and security of its business.

PART I - DEVELOPMENT OF FLUORINE CHEMICALS

In 1928, when the research on the new refrigerating agents was begun, Frigidaire was using sulphur dioxide (SO_2) as the refrigerating agent in all of its refrigerating systems. This refrigerant had been used by Frigidaire since the beginning of the Frigidaire business ten years earlier. It was also used by Frigidaire's leading competitors. Other refrigerants also in common use were methyl chloride (CH_3Cl), ammonia (NH_3), butane (C_4H_{10}) and others.

Need for New Refrigerant

For some years the Frigidaire management had been dissatisfied with sulphur dioxide due to the fact that, like the other known refrigerants, it was hazardous from a health standpoint, even in small concentrations. The introduction of such hazards into millions of homes was undesirable. Sulphur dioxide was probably the least hazardous of the refrigerants from a practical standpoint owing to its extremely irritating sulphur odor which acted as a warning agent to persons who might be exposed to it. Methyl chloride, one of the other refrigerants in common use, being toxic and having no pronounced odor had been the cause of a number of deaths. Some refrigerants were also inflammable and their use introduced fire hazards into the home. Because of the few serious accidents resulting from escaped refrigerants, particularly methyl chloride, the industry was entering upon an era of damage suits because of ills attributable to exposure or imagined exposure to escaped refrigerants. A new and safer refrigerant was definitely needed.

Search for New Refrigerant Begun

It was under these circumstances and to meet the needs of Frigidaire that Mr. C. F. Kettering, in the Spring of 1928, commissioned Mr. Thomas Midgley, Jr., on behalf of Frigidaire, to undertake a research project for the purpose of finding a new refrigerating agent particularly suitable for domestic refrigeration.

After conferring with Frigidaire representatives, Mr. Midgley set down the following specification of requirements for the new refrigerant:

Requirements of primary importance.

(1) To have a suitable boiling point.
(2) To be non-poisonous (non-toxic).
(3) To be non-inflammable.
(4) To have a distinct but not unpleasant odor.

Requirements of secondary importance, if compatible with the primary requirements.

(5) To be immiscible with lubricating oils.
(6) To be as inexpensive as possible.

Following an extensive study of the literature of the chemical elements, their compounds, and their properties where known, (as well as their probable properties, where unknown) Mr. Midgley and his associates, Dr. A. L. Henne and Mr. R. R. McNary, working in a private laboratory in Dayton, Ohio, came to the conclusion that the chloro-fluoro derivatives of methane (CH_4) might have interesting possibilities.

Certain of the chloro-fluoro derivatives of methane were synthesized. After further work it was discovered that by varying the chlorine, fluorine and hydrogen content in such derivatives of methane, the toxicity, inflammability, and the boiling point of the resulting compound could be varied almost at will. These discoveries eventually led to an intensive study of the halo-fluoro derivatives of ethane (C_2H_6), propane (C_3H_8) and butane (C_4H_{10}).

Freon 12
(Dichloro-difluoro-methane)

One of the first refrigerants produced, the one now known as Freon 12 (dichloro-difluoro-methane, or CCl_2F_2), has proved to be the one best suited for general use in the domestic refrigeration field and in other fields not requiring the production of extremely low temperatures. Upon the discovery of Freon 12 and the preliminary determination of its properties, it appeared to be "the" refrigerant that we had been looking for. It met all the primary requirements for the new refrigerant. It had a suitable boiling point, it was non-inflammable, it had a distinct but not unpleasant odor, and a preliminary investigation by Dr. Robert A. Kehoe at the University of Cincinnati Medical College with live rabbits showed the refrigerant to be remarkably non-toxic. However, it is to be noted that it met neither of the secondary requirements for the new refrigerant, because it was relatively expensive, and it was miscible with lubricating oils in all proportions, a property which was later turned to advantage in the use of the refrigerant and the design of refrigerating apparatus. The above work, which might be termed the first phase of the development, was carried out in 1928.

Second Phase of Development - Semi-Commercial Production.

During the second phase of the development, running through 1929 and into the early part of 1930, Mr. Midgley and his associates continued their work with Freon 12 to develop suitable manufacturing processes. They also continued their investigation of the other derivatives of methane, and of the derivatives of ethane, propane and butane.

While this was going on, a group of physical chemists working in the Frigidaire laboratories were making a complete and detailed determination of the physical properties of Freon 12 such as the exact boiling point, freezing point, densities of liquid and of vapor, vapor pressure, specific heats of the liquid and of the vapor, the thermodynamic properties for refrigeration use, and so on. They supplied stability data at different temperatures. They also determined corrosion characteristics of Freon 12 with various metals found in refrigerating systems, such as high and low carbon steels, aluminum, copper, monel metal, tin, zinc, tin-lead solders, various bronzes, brasses and magnesium alloys, both when the Freon 12 was pure and when contaminated as with water. Since damage caused to flowers, foods and furs by escaped refrigerants had been the cause of many damage claims, the chemists determined the effects of the new refrigerant on these and many other articles.

By the fall of 1929, small production of Freon 12 had been carried out—enough to meet the requirements for laboratory tests, to charge a refrigerating machine, and to supply the U. S. Bureau of Mines with their requirements for more complete and more detailed tests on toxicity than had theretofore been made.

Plans were made for a semi-commercial plant to cost up to $25,000 with a capacity of 4,000 pounds of Freon 12 per month, and such a plant was put into operation by Frigidaire at Dayton, Ohio, during the fall and winter of 1929-1930.

Announcement of Freon 12 to the Public

Freon 12, or dichloro-difluoro-methane, was first announced to the public as one of a new class of refrigerating agents, through a paper entitled "Organic Fluorides as Refrigerants" by Thomas Midgley, Jr., and Albert L. Henne, which was presented by Mr. Midgley on April 8, 1930 at the annual meeting of the American Chemical Society, at Atlanta, Georgia. At that meeting, Mr. Midgley demonstrated the non-inflammability of Freon 12, and also its non-toxicity by breathing it.

The paper and the demonstration were received with applause by the chemists, and with much public comment in the press reports of the presentation.

Here was a remarkable group of safe refrigerants founded (to the astonishment of the chemical world) upon fluorine, an element which had heretofore been regarded as one of the most dangerous and destructive elements in existence.

A reprint of the above paper is attached as Exhibit A in the appendix, Part IV of this report.

Third Phase of Development - Full Scale Production.

By the spring of 1930, the work had progressed sufficiently to justify the Frigidaire Management in proceeding with its plans for the use of the new refrigerant in the production of Frigidaire refrigerating systems. By this time, too, it was becoming clear that because of the revolutionary character of the new refrigerant and its great benefit to humanity in eliminating a hazard to health and fire in the home, it would be necessary, as a matter of public policy, to make the refrigerant available to the entire refrigeration industry.

The Corporation was at once faced with the question as to whether the new plant which was needed for the full scale production of Freon 12 should be built and operated by Frigidaire at Dayton, Ohio, or whether the entire manufacturing process should be turned over to a chemical manufacturer upon a royalty basis.

G.M. Policy on Chemical Manufacture

On this question of manufacturing Freon 12, Mr. John L. Pratt, then Vice-President of General Motors, stated that up to that time General Motors had more or less elected to confine its operations to the mechanical side of manufacture, and that it would be quite a fundamental step to start chemical manufacture. Mr. Pratt proposed to discuss the matter with Mr. Sloan, and evidently the decision was against General Motors undertaking chemical manufacture. A plan was soon evolved by which General Motors and the DuPont Company would join in the exploitation of Freon 12, thus combining the patent position of General Motors with the chemical "know how" of DuPont.

Organization and Licensing of Kinetic Chemicals, Inc.

On August 27, 1930, a formal Agreement was entered into between General Motors Corporation and E. I. DuPont de Nemours & Company providing for the formation of

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a jointly owned new company (Kinetic Chemicals, Inc.) to carry on the business of manufacturing and selling fluorine compounds, and for the granting by Frigidaire Corporation of an exclusive license under Frigidaire's patents and inventions relating to fluorine chemicals. The principal features of the Agreement were the following:

State of Incorporation: Under Laws of Delaware.

Powers of Corporation: Manufacture and sale of "said products", being -

(a) Halogenated Hydrocarbons containing at least one Fluorine atom.

(b) Fluorine compounds used or intended to be used in motor fuels.

Board of Directors: Three from DuPont and two from General Motors. Total of five.

Authorized Capitalization: 20,000 shares common stock of $100.00 par value.

Ownership of Stock: DuPont 51%, and GM 49%, payable at par in cash at time and in amounts called for by Board of Directors of Kinetic.

Management and Fee: DuPont responsible for production. To receive management fee of $50,000 per year for five years beginning January 1, 1931 as full compensation for "know how."
Note. By action of the Board of Directors of Kinetic, the management fee has been continued from time to time and is now on the basis of $40,000 per year on gross sales of $2,500,000 or less, plus 4/10 of 1% on sales in excess of $2,500,000.

Plant Facilities: Kinetic to operate semi-commercial plant owned by Frigidaire at Dayton, Ohio.
Note. Kinetic took over Sept. 1, 1930.

Patents Rights:

Frigidaire - GM to have Frigidaire Corporation grant exclusive license to Kinetic under Frigidaire inventions pertaining to "said products", and to receive royalty for 17 years only, beginning January 1, 1931, of 5% of selling price of all "said products" except on sales to Ethyl Gasoline Corporation.

DuPont - Provision made for grant by DuPont of certain rights to inventions developed by DuPont pertaining to "said products".

General Motors. - General Motors' future chemical developments (other than "said products") to be offered to Kinetic.
Note. Opinion of May 29, 1944, by John Thomas Smith is to effect that this provision of the Main Agreement is not enforceable. He has recommended to Mr. Sloan the elimination of this provision.

Pursuant to the General Motors - DuPont Agreement of August 27, 1930, Frigidaire Corporation granted to Kinetic, on May 1, 1932, an exclusive license under thirty-one United States patent applications and any foreign patents corresponding thereto. The list of Frigidaire patents comprehended within the Kinetic license as of October 1, 1944 comprises:

24 United States patents
of which the main patent expires November 24, 1948, and the others expire at varying dates to January 16, 1955.

71 Foreign patents
distributed in thirty-seven different foreign countries.

Amendments to Main GM-DuPont Agreement of August 27, 1930

Amendment of September 6, 1938. By this amendment, General Motors extended the Main Agreement of August 27, 1930, by empowering Kinetic to grant to I. G. Farbenindustrie Aktiengesellschaft, of Germany, an exclusive license under German and Austrian patents to make, use and sell refrigerant chemicals only for refrigeration purposes in Germany and Austria. License subject to certain exceptions and reservations to permit importation of refrigeration equipment into Germany and Austria, and to otherwise protect Frigidaire business. Royalty 5¢ per pound.

Amendment of September 18, 1939. This amendment formalized a business arrangement, in effect since 1932, by which Frigidaire purchased Kinetic's entire output of

Freon 114 (tetrafluoro-dichloro-ethane), and granted GM the exclusive use of Freon 114 for refrigeration purposes. The exclusive license to GM was in recognition of the great expense incurred by Frigidaire, after the grant of the main license, in synthesizing Freon 114, developing manufacturing processes, and in determining its thermodynamic, physical, and engineering properties. This agreement was terminated May 18, 1944.

Amendments of November 16, 1942, April 10, 1943, June 26, 1944 and September 15, 1944. By these amendments, GM authorized Kinetic to grant limited licenses to Westinghouse Electric and Mfg. Co., and four other companies to manufacture insecticide dispensers, using Freon 12 (on which Kinetic pays GM the regular royalty), for sale only to the U. S. Government for the duration of the war and six months thereafter. Further information concerning insecticide dispensers is contained in Part II of this report.

Royalty Income to General Motors.

The royalty income received by General Motors under its license to Kinetic Chemicals based on sales for the years 1931 to 1943 inclusive has totaled $1,503,019, as shown in detail by years in Table No. 6 in Part IV of this report.

PART II - KINETIC CHEMICALS, INC. - ITS OPERATION

This part of the report covers the period following the Agreement of August 27, 1930, between General Motors and DuPont, providing for the organisation of Kinetic Chemicals, Inc., and the licensing of the new company under Frigidaire patents.

The material presented in this part of the report is gathered primarily from the financial reports of Kinetic Chemicals for the years 1931 to 1943, inclusive, supplemented by annual reports for the years 1932, 1933 and 1934.

September 1, 1930, Kinetic Takes Over Frigidaire Semi-Commercial Plant

On September 1, 1930, Kinetic Chemicals took over the operation of the Frigidaire semi-commercial plant at Dayton, Ohio, for the manufacture of Freon chemicals. It continued the operation of this plant until February 11, 1932, on which date the building and contents were destroyed by fire, after which the manufacturing operations were transferred to a plant near Wilmington, Delaware.

Refrigerants Manufacture

Kinetic continued and expanded the manufacture of Freon 12 refrigerant at the Dayton plant primarily to meet the requirements of Frigidaire, which had begun using this refrigerant in its refrigerators, and in 1931 Frigidaire purchased from Kinetic 1,173,000 lbs. of refrigerant, which represented 99.3% of Kinetic's total business in that year.

Safety Code Difficulties

By 1932, Kinetic had signed contracts with seven refrigerator manufacturers besides Frigidaire for the use of its products. Notwithstanding this, the business of Kinetic suffered a severe contraction in 1932 as will be seen from Table 1. In that year, the business was only about 35% of 1931 and Frigidaire's purchases dropped to

347,000 lbs. for the year.

The decrease in business in 1932 was due to several causes. First, organized opposition to sales of refrigerating equipment charged with Freon, culminating in the successful blocking of the adoption of satisfactory code regulations, particularly by the American Standards Association and the New York City Fire Department. Second, excessive service costs experienced by Frigidaire due to difficulties in holding the refrigerant charge in its machines, which were then of the non-hermetically sealed type.

In regard to the organized opposition, certain competitors were believed to be at the bottom of this. Opposition was based upon the fact that when Freon is exposed to an open flame, as in a fire, there is some disassociation resulting in the liberation of free fluorine. This was asserted to be a health hazard, but in due course in tests made by Kinetic and by the National Board of Fire Underwriters, this hazard was demonstrated to be negligible for practical purposes. By the end of 1933, the organized opposition had disappeared, satisfactory codes had been adopted or were in process of adoption by the various large cities, and many of those who had previously fought the recognition and acceptance of Freon as a refrigerant had contracted with Kinetic for substantial quantities.

Other Refrigerants Introduced

Various other fluorine refrigerants were manufactured by Kinetic from time to time to meet the requirements of the refrigeration industry. Table 1 shows the introduction of Freon 11 (CCl_3F) in 1932. This is a low-pressure refrigerant particularly suitable for centrifugal type compressors.

In 1933, Kinetic began the manufacture of Freon 114 ($C_2Cl_2F_4$) for Frigidaire. This refrigerant was synthesized and developed by Frigidaire for its own use. It is probably the only completely "tailored" refrigerant ever produced to meet certain specified conditions. Frigidaire purchased Kinetic's entire output of this refrigerant and, as explained in Part I, this informal arrangement was formalized by granting Frigidaire an exclusive license for the use of this refrigerant, which license continued until May 18, 1944.

Other refrigerants were introduced and sold at various times, including Freon 22, Freon 21, Freon 31, Freon 113 and Freon 142.

On Table I, it will be seen that the total volume of refrigerants manufactured by Kinetic increased from 1,181,822 lbs. in 1931 to 18,693,390 lbs. in 1943, and aggregated 94,379,070 lbs. for the 13 years.

Freon 12. New Use in Aerosol Insecticide

Attention should be called to the notable expansion which occurred in the sale of Freon 12 after 1941, and at a time when the use of Freon refrigerants, as refrigerants, was being restricted by Government regulation due to the war. The extent of this restriction may best be seen in Table 1 by noting the sales of Freon 114 after 1941, this refrigerant being used (by Frigidaire) only in domestic refrigerating equipment. The contrary trend in the sale of Freon 12 may be noted in the same table.

The increased sales of Freon 12 are due to the fact that a new use was found for this chemical in Aerosol insecticide, which is used in large quantities by the U.S. Government to protect the health of American troops in the tropics. Further details regarding Aerosol are given in the Section entitled Fluorine Compounds in the War.

By-Products Introduced

In the course of the manufacture of refrigerants, certain by-products were developed and sold from time to time. The principal of these by-products consisted of hydrofluoric acid, such acid falling into the three classifications of strong, weak, and special distilled. There was also fluorosilicic acid. Another classification of by-products was produced, known as fluorides. These were zinc silico fluoride, and magnesium silico fluoride.

Table I has been extended to include eight months of 1944. Of the total business done by Kinetic, including the eight months of 1944, it is to be noted that the business is distributed as follows:

Refrigerants	117,822,748 lbs.	86.56%
Acids	15,091,651 lbs.	11.09%
Fluorides	3,203,177 lbs.	2.35%
Total	136,117,576 lbs.	100.00%

Program in Cost Reduction

With the expansion in volume, the cost of refrigerant production has been greatly reduced. In 1931, the average sales price of Freon 12 was $.6112 per lb., as compared with a price of $.05 per lb. for sulphur dioxide, the refrigerant then in most common use. The reduction in sales price of Freon 12 proceeded at a rapid rate until 1938 after which it stabilized in the $.25 to $.27 area. For the year 1943 the average price was $.2610 per lb. The sales price of Freon 114 was similarly decreased. In 1933 Freon 114 sold at $.7784 per lb. and in 1943 it had been reduced to $.5338 per lb. The detail for these two refrigerants is shown in Table 2 of the Appendix.

Dollar Volume of Sales by Kinetic

The dollar volume of sales by Kinetic from 1931 through eight months of 1944 is shown in Table 3 of the Appendix. Sales increased from $726,147 in 1931 to $6,499,581 in 1943, aggregating for the thirteen years $34,511,485. Table 3, like

Table 1, has been extended to include eight months of 1944. The sales for thirteen years and eight months, by classes of products and services, and the percentage of each class as a whole are as follows:

Refrigerants	$34,719,864	82.28%
Acids	2,717,845	6.44%
Fluorides	322,591	.77%
Small Cylinder Service	2,918,936	6.92%
Warehousing Service F-12	1,502,501	3.56%
Fluorspar	13,596	.03%
Total Net Sales	$42,195,333	100.00%

Statement of Assets

Reference is made to Table 4 in the Appendix which shows the gradual and continuous expansion of total assets from $457,974 at the end of 1931, to a total of $12,036,438 on August 31, 1944. The assets of Kinetic according to classification of accounts stood as follows on August 31, 1944:

Plant and Equipment	$6,436,656
Working Capital	5,513,263
Other	86,519
Total Assets	$12,036,438

Profit and Loss Position

The profit and loss position of Kinetic for the years 1931 through 1943, and for the first eight months of 1944 is shown in Table 5 of the Appendix. There was a net profit in each year except during 1932 and 1933, which was the period of difficulties with the code and learning how to prevent the loss of Freon refrigerants from the so-called open type of refrigerating machines. The net profit was $235,453 for 1931, the first year of operation, and expanded to a high of $980,798 in the year 1940. Due to high taxes, it fell to $480,294 in 1943, or 7.44 percent of sales as compared with a 13-year average of 20.01 percent. The aggregate net profit for the thirteen years and eight months may be summarized as follows:

Net Sales	$42,195,333.00
Net Profit on Sales	12,868,007.00
Other Income	87,101.00
Operating Profit	12,955,108.00
Taxes, Etc.	5,651,839.00
Net Profit	7,303,269.00
% of Sales	17.31

Royalties, Management Fees, Dividends

The royalties, management fees and dividends paid out by Kinetic are shown in Table 6 of the Appendix.

The patent royalties received by Frigidaire based upon 5% of the net sales by Kinetic have increased with the business and total $1,503,019 for years 1931 through 1943.

The DuPont management fee was originally set, in the G.M.-DuPont Agreement of August 27, 1930, at $50,000 per year for five years, subject to reduction and proportional payment along with royalties if the income should prove to be insufficient to pay both in full. In accordance with the above, no royalty and no management fee were paid in 1932 and 1933. By action by the Board of Directors of Kinetic the DuPont management fee was twice extended at the rates indicated for the years 1936 through 1943. By recent action of the Kinetic Board of Directors, the management fee was established on a sliding scale, and is now $40,000 per year on gross sales of $2,500,000 or less, plus 4/10 of 1% on sales in excess of $2,500,000.

The total expenses of Kinetic on account of royalties and management fees for thirteen years, 1931 through 1943, including amounts accrued for eight months of 1944, may be summarized as follows:

Frigidaire Royalty	$1,845,460
DuPont Management Fee	560,735
Total	$2,406,195

Table 6 shows the dividends declared by Kinetic through 1943 and the proportions

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paid to General Motors and DuPont. The dividends reflect the large increase in taxes in 1942 and 1943. The totals declared for thirteen years may be summarised as follows:

Paid to DuPont	(51%)	$3,248,190
Paid to General Motors	(49%)	3,120,810
Total		$6,369,000

Return on Invested Capital

Table 7 of the Appendix shows the capital invested by General Motors in Kinetic, dividends received, and return on invested capital for each of the thirteen years 1931 through 1943.

Ratio of Frigidaire Purchases

The position of Frigidaire as a customer of Kinetic Chemicals is believed to be of interest to General Motors. This is shown in Table 8 of the Appendix which indicates for each year the total sales of refrigerants by Kinetic, the total purchases by Frigidaire, and the percentage relationship of Frigidaire purchases to total Kinetic sales.

It is to be noted that Frigidaire was practically the only customer for Freon refrigerants during 1931 with purchases of 99.26% of the total. With expansion of sales to other refrigerator manufacturers, the Frigidaire percentage dropped year by year and stood at 18.35% in 1941, the last year of full refrigerator production prior to the war.

From the above it appears that Frigidaire was largely responsible for sustaining Kinetic Chemicals during the first four years of its existence.

Expansion of Facilities

As already stated Kinetic Chemical's manufacturing facilities in the beginning of its operations consisted of the small semi-commercial plant at Dayton, Ohio which it took over from Frigidaire on September 1, 1930 and operated until it was destroyed by fire on February 12, 1932.

After February 1932, Kinetic's main plant was established at Deepwater, near Wilmington, Delaware. Shortly thereafter, a hydrofluoric acid plant was added. In 1933, a plant was built for the manufacture of Freon 114. This was followed by a plant for charging small cylinders.

To insure an adequate source of raw materials, Kinetic early purchased a mine in Arizona containing large deposits of fluorspar.

There were no further large plant additions until 1944 when the increased demand for Freon 12 for use in Aerosol necessitated a large increase for facilities. To meet this demand, a second Freon 12 plant was opened at Deepwater in early 1944. This doubled the capacity. In August, 1944, a third plant was brought into operation at East Chicago, Illinois, and with this plant the Freon 12 capacity was tripled. However, there was no corresponding hydrofluoric acid plant capacity to meet the requirements at East Chicago, the Government having awarded the hydrofluoric acid plant to another company which has failed to meet requirements, and as a result the output of the East Chicago plant is far below capacity.

Employees

The number of persons in the direct employ of Kinetic stood at five hundred and ninety eight on August 31, 1944.

Fluorine Compounds in the War

Fluorine compounds are finding important new uses in the war effort. The two principal such uses will now be described.

Aerosol insecticide with Freon 12. Attention has already been called to the large expansion of Freon 12 sales since 1942 and at a time when the sales of other refrigerants was being restricted. This expansion is due to the use of Freon 12 not as a refrigerant but as a dispersing agent in what is known as "Aerosol" insecticide. It is understood that Aerosol insecticide was developed by an agency of the United States government for the purpose of protecting American troops from malaria and other tropical diseases transmitted by the bite of insects. Aerosol consists essentially of a mixture of liquid Freon 12 and the chemical known as pyrethrum contained in a small one-pound sealed container. Aerosol is used by permitting the mixture to escape into the atmosphere through a small orifice. In this operation, the Freon 12 acts as a propellant for ejecting the liquid mixture, and on its escape it vaporizes and spreads rapidly by diffusion. The effect is to also diffuse the pyrethrum, which latter chemical kills the insects. The diffused Aerosol vapor blankets the area where it is used and thus protects the troops by not only killing insects in the area but also by preventing other insects from entering the area. It is understood that a three-second release will destroy all insects inside an army tent.

It is in the use of Aerosol that Freon 12 attains perhaps its greatest value to humanity. The research begun in 1928 merely for the discovery of a refrigerant of low toxicity brought forth Freon 12, and its remarkable property of being from 300 to 500 times less toxic than the known refrigerants then in common use has now made it most valuable as a harmless atmosphere for the protection of the health of American troops.

By amendment to the original General Motors-DuPont Agreement of August 27, 1928, Kinetic has been licensed under Frigidaire patents to grant sublicenses for the duration to Westinghouse Electric and Mfg. Co. and four other companies to manufacture insecticide dispensers using Freon 12, for sale only to the U. S. government.

We have no record of the exact usage of Freon 12 for this purpose, but such use may be estimated from the following tabulation of royalties received by General Motors on Government business, which royalties, except for a small undetermined part, are attributable to the sale of Freon 12 in Aerosol:

Year of Sales	Total Royalty for Year	Portion on Government Business
1942	$201,185.00	$ 67,968.00
1943	272,529.00	192,023.00

The usage of Freon 12 in Aerosol has steadily increased during the current year.

Hydrofluoric Acid. A process has been developed for the use of concentrated or special distilled hydrofluoric acid as a catalyst in the production of high-octane gasoline for airplane engines. This process came into production in 1943 and has made such large demands on Kinetic's output of hydrofluoric acid as to restrict the output of Freon 12.

Kinetic
Improvement Patents

The patent position of Kinetic Chemicals has been strengthened since the organization of the business by the acquisition of improvement patents. Consonant with the spirit of the main GM-DuPont Agreement of August 27, 1930, DuPont has carried on such research and development work for Kinetic as it has been requested to do. Such work has been at the expense of Kinetic, and any inventions and patents resulting therefrom have accrued to Kinetic.

In addition, the Main Agreement of 1930 provides that DuPont shall without cost grant to Kinetic an exclusive license under any patent it may own or control to manufacture, use and sell "said products" under such patent for use in (1) mechanical operations where volatility is a factor, or (2) for use as solvents.

Many foreign patents have been taken out corresponding to the United States patents.

The patent position of Kinetic may be summarised briefly as follows:

	U. S. Patents	Foreign Patents
Licensed by Frigidaire	24	71
Owned by Kinetic	28	37
Licensed by DuPont	2	6

Kinetic Licenses DuPont Polymer Patent (Plastics)

Out of the Kinetic research work recently has come a patent (Plunkett 2,230,654) for polymerized tetrafluoroethylene, the polymers of which (except one) are classified as plastics. One of the polymers is a plastic having extraordinary properties of resistance to acid and heat.

At the request of DuPont, Kinetic, on January 19, 1943, granted an exclusive license to DuPont under this patent at a royalty of 3-1/2% of the selling price of polymerized tetrafluoroethylene sold under the license.

PART III - THE FUTURE OF KINETIC CHEMICALS

The outlook for Kinetic Chemicals appears to be promising not only in the line of its regular refrigerant business but also in the prospects for developing new fields of use for its fluorine chemicals.

Refrigerants

The peacetime business has consisted mainly in the sale of refrigerants which, together with the incidental cylinder and warehousing services, has accounted for over 90 percent of its dollar sales volume. While the manufacture and sale of refrigerating equipment is now greatly curtailed as the result of government war restrictions, the refrigeration industry is anticipating a substantially increased market for its products after the war, not only in the increased sales of existing lines and types of refrigerating equipment, but also through the extension of refrigeration.

The sale of Freon refrigerants may be expected to expand in proportion with the increased use of refrigerating equipment.

New Market

In addition to the sale of refrigerants, it is to be expected that more and more uses will be found for these remarkable fluorine compounds. The fluorine compounds are so new and so unfamiliar to chemists generally that their possible applications to various processes and uses are not yet fully appreciated. Such new applications result from experimentation, and as new applications are discovered these suggest still further experiments and applications to others. As examples of new applications, reference might be made to the use of Freon 12 as a component of the Aerosol insecticide mixture, and the more recent use of concentrated hydrofluoric acid as a catalyst in the manufacture of high-octane gasoline, as reported on pages 19 to 21 of this report. The recent discovery of a fluorine polymer having extraordinary properties as a plastic suggests that new fields will be open in this direction also for fluorine compounds.

The field of use of fluorine compounds has apparently just been scratched. Its possibilities are unknown, but conceivably general fields of use for fluorine compounds might place the sale of fluorine refrigerants in a secondary position.

Research Program

A phase of the Kinetic business which deserves increased consideration is the policy concerning research and engineering development. In the past, the research work of Kinetic Chemicals has been carried out in the laboratories of the DuPont organization under a provision of the General Motors—DuPont Agreement of August 27, 1930, which provides for such work at the request and at the expense of Kinetic, all patents resulting from such work to belong to Kinetic.

While satisfactory progress has been made under this arrangement, the amount of research and development work carried out under this arrangement has been too limited. It has been inadequate in the development of the "sales service" or engineering type of information needed by Kinetic's customers in the development and improvement of refrigerating apparatus. These problems revolve around the available Freon refrigerants and the conditions or limitations of their use. Examples of such problems in urgent need of solution are: the prevention of corrosion in systems using Freon, involving the determination of the presence of acids in the systems, their source, and elimination or neutralization; determination of the stability (or disassociation) of refrigerants under the high temperatures found in the compressors of sealed systems; source and elimination of non-condensable gases in system; the discovery or development of lubricants which will not break down under the heat developed in larger air-cooled refrigeration systems; determination of the water tolerance of refrigerants and the development of inhibitors to prevent freezing of water that cannot be excluded from system, or the development of more water-tolerant refrigerants; development of dryers, absorbers and adsorbers to protect against corrosion and decomposition in Freon systems; finding or developing higher-heat-resisting wire insulations, impregnants, binders and slot protectors for motors of sealed systems; development of refrigerants better adapted for secondary systems; development of refrigerants which will not break down in heat-operated absorption systems, or of stable heat transfer protective fluid for such systems.

The examples above given are representative of the wide variety of the engineering problems which present themselves in connection with the refrigerant business. The answers to problems such as these are urgently needed if the refrigeration industry, on which Kinetic now depends so heavily, is to enjoy the large expansion and the extension which seems possible within the next ten years. In addition there are the continuing researches relating to operating plant processes, the development of new refrigerants, and the development of new or improved processes of manufacture. This work indicates the need for a comprehensive long term research and development program, not only to provide needed technical aid and service to customers but to strengthen the position of Kinetic in its field through the acquisition of improvement patents that will doubtless result from this work. To neglect this work and the reinforcement of the patent position is to invite the competition from more progressive competitors after the expiration of the main Frigidaire patent in 1948.

The best method of advancing a development and research program is, of course, through the establishment of a laboratory completely under the control of and devoted entirely to the work of Kinetic, and staffed with certain personnel or groups whose duty it would be to keep in the closest possible touch with the needs of the industries they serve. The lack of adequate contact with the problems and advance thinking of the refrigeration industry is probably the main reason for the absence of a better balanced research and engineering program in the past.

The requirements for a more complete engineering program, as outlined above, were presented by Messrs. E. F. Johnson and E. R. Godfrey, as directors of Kinetic, to the directors and officers of Kinetic and to several representatives of DuPont at a meeting in September of this year, and certain of the problems are already under consideration as projects by DuPont. It remains to be seen whether the plan now in use of farming out projects to the chemical DuPont laboratories will prove to be adequate for the broadened chemical and engineering program of Kinetic, and whether this plan will insure the maintenance of a constantly revised forward looking program for the security of the Kinetic business.

April 23, 1945

MR. E. K. GLADDING, DIRECTOR
DEVELOPMENT DEPARTMENT

KINETIC CHEMICALS, INC.
REPORT D-1193, FEBRUARY 20, 1945

It seems to me that the conclusion which you reach in this report; namely, that it would be advisable to take up with the Executive Committee the desirability of attempting to purchase General Motors' interest in Kinetic is sound and I would suggest accordingly that you take the step, presumably by sending to the Committee a copy of the report in question.

Certainly if a figure satisfactory to both parties can be arrived at in negotiation with General Motors it would be desirable to take this step in order to avoid the possibility there would be serious overlapping by the Kinetic fields and duPont interests in the fluorine chemicals in the future.

Probably in your letter transmitting the report to the Committee you will wish to give them an approximate idea as to a figure which ought to be acceptable to the duPont Company as a purchase price for General Motors' 49% interest.

E. G. ROBINSON
GENERAL MANAGER

EGR:IM

Government's Exhibit No. 885

Letterhead of

E. I. du Pont de Nemours & Company
INCORPORATED

ADVICE OF ACTION

Mr. E. K. Gladding, Director
Development Department

Copies to Mr. W. S. Carpenter, Jr.
Mr. J. B. Eliason
Mr. H. C. Haskell
Mr. C. D. Porch
Mr. E. G. Robinson

SUBJECT

Question of acquiring General Motors Corporation's 49% Interest in Kinetic Chemicals, Inc.

ACTION TAKEN BY Executive Committee

AT MEETING HELD May 2, 1945

REMARKS

Referring to your report of April 28th, on the above subject:

After full discussion, it was moved and unanimously carried that the report be ordered filed; and that the following resolution be adopted:—

> Resolved, that W. S. Carpenter, Jr., President, be authorized to advise General Motors Corporation that the du Pont Company is prepared to discuss with them the question of the elimination of Paragraph 7 from the

agreement between du Pont and General Motors, dated August 27, 1930, relating to the development of the business of manufacturing and selling fluorine compounds and other chemicals, and that if it should be the expressed feeling of General Motors Corporation that they desire to dissolve the partnership by the sale of their interest in Kinetic Chemicals, Inc. to the du Pont Company, du Pont will also be prepared to discuss that situation with them.

M D Fisher
Sec'y Executive Committee

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NOTE: The date of receipt is in the upper center. Two handwritten signatures are crossed out in the upper right hand corner. A handwritten check appears before the name "Mr. C. D. Porch". A handwritten signature appears in the lower right hand corner. Italics indicate handwriting.

Copies to:
Mr. J. B. Eliason   ~~Mr. C. D. Porch~~ ✓
Mr. H. C. Haskell   Mr. E. G. Robinson

TO: EXECUTIVE COMMITTEE   SERIAL NO. S-2714

FROM: DEVELOPMENT DEPARTMENT   APRIL 28, 1945

QUESTION OF PURCHASING GENERAL MOTORS CORPORATION'S 49% INTEREST IN KINETIC CHEMICALS, INC.

Since August 27, 1930, General Motors Corporation and du Pont have owned (G.M. - 49% and du Pont - 51%) and have jointly contributed to the successful operation of Kinetic Chemicals, Inc. By the agreement of that date, the management of the company was given to du Pont and in the intervening fifteen years no insoluble problems in policy have arisen.

Because du Pont interest in organic fluorine compounds had not developed in 1930, the definition of the field for Kinetic Chemicals, Inc., namely,

(a) Halogenated hydrocarbons containing at least one Fluorine atom

(b) Fluorine compounds used or intended to be used in motor fuels

seemed to be adequate and did not appear to restrict any du Pont activity. Now, however, du Pont is extremely interested in developments involving fluorine compounds and is making large research expenditures which may result in a practical collision of interests between General Motors and du Pont.

The same reasoning which prompted the purchase of minority equities in other partially-owned subsidiaries such as Eastern Alcohol, du Pont Pathe Film, and Bayer Semesan Company, suggests that it is prudent to consider the acquisition of the General Motors' interest in Kinetic to the end that du Pont may develop without restriction in this chemical field.

In the attached Development Department Report D-1193, dated February 20, 1945, are reviewed the articles from the 1930 agreement which might lead to conflict in interpretation. A revision of the agreement with the object of tailoring it to 1945 conditions is less desirable than an outright purchase of the minor shareholdings.

Although the net worth of Kinetic is shown to be approximately $5,000,000 on December 31, 1944, no final conclusion regarding the value of the General Motors' interest is presented in view of the uncertainties of future taxes and post-war business. It is believed that du Pont as purchaser would be in a better bargaining position at the moment and before any modification of the excess profits tax.

RECOMMENDATION

It is the recommendation of this Department, seconded by the Organic Chemicals Department, that your Committee authorize the Development Department to undertake negotiations with General Motors Corporation for the purpose of acquiring it's 49% interest in Kinetic Chemicals, Inc.

APPROVED BY: PREPARED BY:

E. K. Gladding Homer H. Ewing

5095

TO: E. K. GLADDING, DIRECTOR | SERIAL NO. D-1193
FROM: DAVID W. JAYNE | FEBRUARY 20, 1945

KINETIC CHEMICALS, INC.

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KINETIC CHEMICALS, INC.

INTRODUCTION

This report was prepared at the request of Mr. E. G. Robinson, General Manager of the Organic Chemicals Department. Its objective is to determine whether or not there is justification for recommending negotiating with General Motors for the purchase by du Pont Company of the 49% interest in Kinetic held by General Motors. For this purpose it is not necessary to review in detail all the history and past activities of Kinetic which have been reviewed in other reports, and which are known to the management of the Organic Chemicals Department.

The features of the 1930 agreement with General Motors by which Kinetic was established, which are pertinent to this objective, are reviewed, as well as the current problems arising from cross-currents of interest of du Pont and Kinetic in the field of fluorine chemicals. No attempt has been made to reach a conclusion as to the price which the du Pont Company may be justified in paying for General Motors' interest as it is believed this feature can be more adequately reviewed if negotiations are authorized and General Motors' ideas are first obtained.

PERTINENT ARTICLES OF THE AGREEMENT

The articles of the agreement of August 27, 1930 which are pertinent to this study are the First, Seventh, Tenth and Eleventh. These articles are quoted in full in Exhibit A.

Article Seven does not relate to fluorine compounds and will be discussed later (p. 10).

The First Article defines the products (called "said products") to be manufactured and sold by Kinetic as:

(a) Halogenated hydrocarbons containing at least one Fluorine atom.

(b) Fluorine compounds used or intended to be used in motor fuels.

Article Ten provides that Kinetic should receive an exclusive license under Frigidaire patents relating to the products under (a) and (b), and including processes not covered by patents.

Article Eleven defines du Pont Company's obligations to Kinetic in the field of "said products".

The Legal Department considers that the application of the First and Eleventh Articles to future situations cannot be predicted with certainty and that these provisions are a potential source of dispute. The following analysis of Article Eleven is an attempt to put a reasonable construction on its language, which admittedly might not be concurred in by General Motors:

1. If development work pertaining to "said products" is done by du Pont at the request and expense of Kinetic, General Motors, or Frigidaire, the results shall be transferred and assigned to Kinetic.
2. If du Pont at any time owns other inventions pertaining to "said products" or their use, du Pont shall grant a royalty-free exclusive license to Kinetic but only in so far as is necessary to permit the latter to manufacture and sell said products, for use in mechanical operations where volatility is a factor, or for use as solvents.
3. Du Pont is under no obligation to grant a free license under its patents for any other uses of "said products" than aforesaid; but if du Pont develops other inventions pertaining to "said products" or their use at its own expense, it is obligated for a reasonable consideration to license Kinetic, at the latter's request, to use such inventions for the manufacture of "said products".

DU PONT INTEREST IN FLUORINE CHEMICALS

At the time Kinetic was formed du Pont Company had not done any work on organic fluorine compounds. In order to carry out the plans for Kinetic a research group was established at Jackson Laboratory to carry on research work for the benefit of Kinetic, and as time passed the du Pont Company became more and more interested in organic fluorine research and work has been done both by the Organic Chemicals and the Chemical Departments in that field on the du Pont Company's own initiative. None of the Chemical Department's work has been charged to Kinetic, and so far the results of its work have not appeared to be of direct interest to Kinetic. However, it is quite possible that some development of processes or products may sooner or later be found to be useful to Kinetic, involving mechanical operations where volatility is a factor, in which case the du Pont Company is obligated to give exclusive, royalty-free rights to Kinetic for these uses.

The situation at Jackson Laboratory, however, has raised some difficulties in apportioning the work as between du Pont and Kinetic, the latter's portion being charged to Kinetic and all patents and information resulting belonging to it. One situation has already arisen in which the rights of Kinetic vs. du Pont were in doubt. This question, which related to tetrafluorethylene (TFE), was considered in Development Department Report D-1127 of April 14, 1942, and recommendation was made that some division of the respective fields of Kinetic and du Pont should be established in order to clear up this case and be a guide for the future.

As of January 1, 1943 a plan was adopted of determining in advance which research projects would be charged to Kinetic and which to du Pont. This appears to be working satisfactorily but is open to two objections. The first is the possibility that work done at du Pont's expense, may, in whole or in part, give results which relate to Kinetic's field, to which Kinetic would be entitled without payment. The second is that the President of Kinetic, who is a du Pont employee, and part of whose pay is charged to Kinetic, passes on this allocation of work and the charges therefor.

At the present time the work on fluorine chemistry done at Jackson Laboratory is divided about 60% du Pont, 40% Kinetic.

While the work done at Jackson Laboratory on du Pont initiative, as well as that of the Chemical Department, has so far not required the granting of unremunerated rights to Kinetic, there are imminent possibilities of such cases (e.g. - primary heat transfer material).

The position of the President of Kinetic as the judge of the allocation of charges for research work is possibly open to criticism by the minority interest, although no indication of such criticism has been noted.

The situation in respect to future developments, and their commercial use, points to increasing difficulties as between du Pont and Kinetic. For example, in the manufacture of a halogenated hydrocarbon containing fluorine, certain by-products may be formed which should be isolated, identified, and evaluated.

Such a case (referred to above) arose in connection with tetrafluorethylene and the by-products obtained in its production under the Kinetic patent licensed to du Pont (Plunkett). In granting du Pont an exclusive right to operate under its Plunkett patent, Kinetic included rights to use all by-products formed, one of which, identified after the fact, may prove to be of use in Kinetic's field.

In attempting to correct this situation by modifying the original license agreement, which du Pont is willing to do, General Motors appears to be reluctant to accept any modification for fear that it will not be all-inclusive and cover any possible future developments under the Plunkett patent.

It should also be noted that the definition of Kinetic's rights to the results of du Pont research which appeared adequate to the initial situation in 1930, is not adequate at the present time; and an adequate definition of the field based on developments which are foreseen or expected would be difficult even in the light of present day experience.

DIVERSIFICATION OF KINETIC

The activities of Kinetic Chemicals have been in refrigeration uses of fluorine compounds, until the advent of the Aerosol method for distributing insecticides from a pressure vessel containing "Freon". No use of fluorine compounds has been made in motor fuel as General Motors thought possible when the Kinetic contract was drawn. Other uses are possible, for example as a substitute for water in boilers.

Sales of "Freon-12' accounted for approximately 81% of Kinetic's total 1944 sales of over $12,000,000, and sales of "Freon" for Aerosol accounted for approximately 37% or $4,500,000. At present over half of "Freon-12" sales (by weight) are for Aerosol.

PRESENT PRODUCTION CAPACITY

The present production capacity for "Freon-12" (the major product) at Deepwater is now 3,500,000 lbs. per month. In addition the East Chicago plant has a "Freon-12" capacity for 2,000,000 lbs. per month. The investment at Deepwater was all made by Kinetic, but Kinetic does not own the movable equipment at East Chicago, which was financed by the Defense Plant Corporation, as there was some doubt that a total capacity of 66,000,000 lbs. per year would be utilized after the war. The Defense Plant Corporation has invested about $1,800,000 in this equipment.

At Deepwater the other "Freons" for more specialized refrigeration uses are manufactured, such as "Freon-22" and "Freon-113".

The hydrofluoric acid for East Chicago is furnished by other manufacturers.

FUTURE OF THE BUSINESS

Kinetic management anticipates a postwar demand for "Freons" considerably above the prewar use. Immediately following the war it is anticipated that there will be a demand for new household refrigeration units, small air-conditioning units, frozen food units, and the reconversion to "Freon" of those plants which have had to seek other refrigerants during the war. How large this demand may become, and how fast it will grow is problematical; but it appears that 30,000,000 pounds annually of "Freon-12" is a fair assumption.

Use of the other "Freons" for specialized refrigeration problems, such as low temperature cooling, is also expected to become more and more important.

The major doubt about the postwar demand for "Freon-12" is its use in the Aerosol devices. Consumers other than the armed forces have had no experience with this method of controlling insects, and it can only be assumed that its apparent merit will lead the concerns now making Aerosol equipment for the armed forces, and possibly other concerns, to take advantage of what appears to be a large consumer market. If we allow 10,000,000 pounds for that purpose, the total "Freon-12" demand should be of the order of 40,000,000 pounds per year, plus the use of the other specialized "Freons". This indicates a possibility of acquiring the equipment at East Chicago, which plant together with the newest unit at Deepwater could be devoted to "Freon-12", and other facilities at Deepwater at least partly converted to the manufacture of the other "Freons".

These assumptions depend on the continuation of "Freon" as the preferred refrigerant and the preferred medium for use in Aerosol equipment. It is possible some development, either inside or outside of the du Pont Company might seriously affect "Freon's" position; but as far as can now be seen from the years of work in the refrigeration

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field by du Pont and Kinetic, the "Freons" are outstanding in all the necessary characteristics for refrigeration purposes.

Another factor which has promise of future importance to Kinetic is the use of "Freon-22" as the starting material for tetrafluorethylene (TFE), the polymer and copolymers of which are of unusual interest to the Plastics Department.

Kinetic may, therefore, be looked upon as a business with excellent possibilities of further expansion, although the present high level of production due to the war should be discounted for a period of at least 5 years after the war.

A factor relating to maintaining a volume of business of the order of 40,000,000 or more pounds per year, is that of the fluorspar supply. This subject, which has been reviewed and on which investigation is still active, cannot be omitted from consideration of Kinetic's future until a conclusion is reached. Supplies of suitable fluorspar may be a limiting factor both in expansion of Kinetic's volume, and in the period over which it can maintain its present volume.

FINANCIAL REVIEW

A brief statement of the financial history of Kinetic follows. Sales, beginning in 1931 of $726,000, declined in 1932 and 1933, but thereafter maintained a substantial increase up to 1941, when sales were $5,221,000. 1942 was slightly less due to curtailment of operations by war restrictions. The 1943 sales reflect the increased capacity at Deepwater effective beginning in August; while the 1944 sales reflect the very substantial increases in capacity provided at both Deepwater and East Chicago and were $12,194,216. The total capacities of both plants did not become available until January, 1945.

The earnings available for dividends since 1930 have amounted to nearly seven and a half million dollars, and dividends to $6,729,000 (sales, earnings, and dividends by years are shown in Exhibit B).

Net worth of Kinetic is nearly $5,000,000 (balance sheet of Dec. 31, 1944 shown in Exhibit C). The du Pont Company investment has been $1,020,000 for 51% of the stock, and $1,173,000 to Paid-In Surplus, a total of $2,193,000.

General Motors has invested a total of $2,107,000.

Kinetic is on an average earning basis for excess profits tax. At present, earnings up to about $1,155,000 are subject to the 40% tax, and above that figure are subject to the excess profits tax.

BASIS FOR PURCHASE

The minimum value of General Motors' interest in Kinetic is 49% of the net worth, or about $2,430,000.

On a basis of earnings, if we assume a volume of 40 million pounds of "Freon-12" we may use as an indication the month of November 1944, which together with the other "Freons", hydrofluoric acid, and miscellaneous sales of that month, yielded earnings before Federal Taxes of $200,000. Conditions may change the earnings in the postwar period, for example, reduction in depreciation charges (some of which are on a 3 to 5-year basis), expiration of royalty, reduction in price, increase in volume of "Freon-114" and "Freon-22", as forecast by Kinetic (see Exhibit D), and this figure is used merely as an illustration. Annual earnings before taxes would then be $2,400,000. If we assume elimination of the excess profits tax and retention of a 40% income tax, the net earnings would be $1,400,000.

General Motors would have an equity of 49% in such earnings or about $700,000 in round figures.

These figures for illustration purposes may be capitalized at

6 times = $4,200,000

8 times = $5,600,000

Under present laws General Motors would probably have to pay a 25% tax on the difference between $2,107,000 and the amount received from sale of its 49% interest, unless it has offsetting Capital Losses.

As long as the Excess Profits tax is in effect, General Motors' equity in earnings would be much less, which should be a factor in any negotiations for the purchase of its interest.

In the above illustrative basis of value, it is assumed that ownership of all the stock would not lead to any substantial difference in operative or administrative expense. Whether Kinetic should be maintained as a separate corporation or not, and for how long, could be determined later based on tax, managerial, or other considerations. Should it be deemed advisable to purchase the equipment at East Chicago after the war, this would be an additional investment for du Pont, but can be omitted from consideration here, as conditions at that time must justify such action.

ARTICLE SEVEN OF THE CONTRACT

In Article Seven of the contract General Motors agreed to offer to Kinetic any future chemical developments originating in the laboratories of it or its subsidiaries, on terms to be mutually agreed upon.

This provision was considered of importance at the time it was included in the contract, but at present the Legal Departments of both parties feel very definitely that it is unenforcible, and therefore of no value. Furthermore, General Motors' activities are so much more mechanical than chemical (except possibly relating to fuels) that the probability of such a provision becoming important is lessened.

Should du Pont Company acquire General Motors' interest in Kinetic the agreement of 1930 should then be cancelled, as Kinetic, or du Pont in the event of the elimination of Kinetic as an operating company, would then operate under the licenses already granted to Kinetic by General Motors and its subsidiaries.

ROYALTIES AND MISCELLANEOUS

Kinetic now pays for the Frigidaire licenses a royalty of 5% of the selling price for its exclusive licenses received under the agreement. This is to continue for a period of 17 years from January 1, 1931, and therefore this obligation still has three years of effective life. Royalties due General Motors for 1944 are $544,997.11.

Kinetic management is of the opinion that complete ownership of Kinetic would not affect the sales position of the products either adversely or favorably.

Kinetic now pays du Pont an annual management fee based on gross sales. The base fee is $40,000 for sales of $2,500,000 or less, increased by .4 of 1% of gross sales over $2,500,000. For 1944 this amounted to $78,768.87.

Orchem Department estimates this basis covers du Pont Company expenses and overhead attributable to Kinetic operations.

SUMMARY AND CONCLUSIONS

Kinetic has been a successful venture and has considerable future promise for expansion and earnings.

So far the joint ownership has brought about no dissatisfaction of du Pont's management by the representatives of General Motors, nor has the du Pont Company as yet found itself unduly limited in the development of fluorine compounds which have been assumed to be outside of Kinetic's field of activity.

However, it is possible that a difference of opinion regarding du Pont vs. Kinetic rights in developments by du Pont may arise, especially as the volume of du Pont work and the extent of du Pont interest in fluorine compounds now involves major expenditures. A change in the personnel either of General Motors representatives, or of du Pont employees now directing the affairs of Kinetic, might well lead to serious disagreements. Furthermore, du Pont has endeavored to be over meticulous in the administration of Kinetic affairs, with respect to the not too clearly defined interests of Kinetic in fluorine derivatives for use in fields other than refrigerants. In fact du Pont Company is obligated to favor Kinetic by virtue of its position, not only as the majority stockholder, but also as manager of Kinetic.

The same desire of du Pont to have unrestricted direction of developments in important fields which has led to acquiring minority interests in other jointly owned activities, is just as pertinent in this case.

This report has not attempted to set a figure of the worth to du Pont of the 49% holdings of General Motors in Kinetic, but it is apparent that collateral considerations should be taken into account besides the prospective earnings of Kinetic, and these collateral advantages indicate that a fairly liberal basis would be justified in negotiating for the purchase of General Motors' interest.

Amendments to clarify the du Pont-General Motors agreement might be attempted, but such amendment would not be nearly so satisfactory as 100% ownership of Kinetic by du Pont, so that it appears desirable to secure the Executive Committee's approval to approach General Motors to explore the possibility of acquiring the minority interest.

APPROVED BY: PREPARED BY:

Henry E. Ford David W. Jayne

EXHIBIT A

ARTICLES FROM AGREEMENT BETWEEN DU PONT AND GENERAL MOTORS OF AUGUST 27, 1930

FIRST: The term "said products" as hereinafter referred to, to be manufactured and/or sold by the New Company, as herein provided, shall be deemed and considered to mean:

(a) Halogenated Hydrocarbons containing at least one Fluorine atom.

(b) Fluorine compounds used or intended to be used in motor fuels.

SEVENTH: As soon as the New Company has been organized and the first calls on the subscriptions of the parties hereto to its capital stock have been paid, the New Company shall engage in the manufacture and sale of the "said products," it being understood and agreed that for the time being said New Company shall operate the semi-commercial plant owned by The Frigidaire Corporation at Morain City, Ohio, which operation shall be carried on at the cost and expense of the New Company, and shall be continued for such time as the Board of Directors of the New Company shall determine; it being further agreed that future chemical developments, (other than those relating to "said products") originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, then General shall be free to dispose of the same elsewhere..

TENTH: General shall cause its subsidiary, The Frigidaire Corporation, promptly upon the execution of this agreement to grant to the New Company an exclusive license (subject to a right to be retained by Frigidaire for the use only of Frigidaire or of any other wholly owned subsidiary of General Motors in refrigeration) to manufacture, use and sell "said products" under all patents or applications for Letters Patent, whether issued or applied for, in the United States and/or foreign countries at the date hereof, or which may hereafter be issued or applied for in said United States and/or foreign countries by General or by the said The Frigidaire Corporation, as well as under all inventions and/or processes on which no applications have been filed; it being understood that the obligation of said The Frigidaire Corporation under this Paragraph shall extend to and include all inventions, processes, patents and applications pertaining to the "said products", in so far as said The Frigidaire Corporation shall have a right to dispose of the same, subject, however, to any rights heretofore granted to the Ethyl Gasoline Corporation under that certain agreement with General dated August 28th, 1924, and particularly to Paragraph 10 thereof attached hereto and marked Exhibit "A"; it being understood that the provisions of Paragraph 10 were interpreted to include compounds for the removal of carbon from engine cylinders and apparatus for applying such compounds; it being further understood and agreed that said license shall be substantially in the form attached hereto, made a part hereof and marked Exhibit "E".

ELEVENTH: Du Pont shall transfer and assign to the New Company all patents and/or processes arising out of research and development work pertaining to the "said products" carried on at the request of the New Company, General or The Frigidaire Corporation, and the expenses of such development or research work shall be borne entirely by the New Company, and if DuPont shall now or at any time hereafter own or control any process or patent other than aforesaid, pertaining to the manufacture and use of any of "said products", then DuPont shall without cost or expense to the New Company grant to the New Company an exclusive license to manufacture, use and sell "said products" under any such patent or process for use in mechanical operations where volatility is a factor, or for use as solvents, but nothing contained herein shall require DuPont to grant to the New Company a free license under said new processes or patents for any other uses, provided, however, that if DuPont shall at its own expense develop any such processes for uses other than those aforesaid and the New Company shall then or thereafter desire to use any such patent or process in the manufacture of "said products", then and in that event a license shall be granted with respect to the same which shall be upon a reasonable basis of compensation.

Government's Exhibit No. 887

KINETIC CHEMICALS, INC.

SALES AND PROFITS

1930 - 1942

	Product Sales	Profit Before Taxes	Profit After Taxes
Four Months ended Dec. 31, 1930	-	38,684.80*	38,684.80*
Year ended Dec. 31, 1931	714,119.25	262,284.48	235,452.52
Year ended Dec. 31 1932	208,260.86	7,075.77*	7,942.29*
Year ended Dec. 31 1933	402,416.16	32,729.70*	32,729.70*
Year ended Dec. 31 1934	868,827.58	299,601.34	262,015.01
Year ended Dec. 31 1935	1,226,153.68	439,407.74	377,762.47
Year ended Dec. 31 1936	1,828,516.63	837,056.80	696,048.62
Year ended Dec. 31 1937	2,683,362.02	1,028,013.51	856,411.67
Year ended Dec. 31, 1938	2,131,795.70	644,577.15	534,333.95
Year ended Dec. 31, 1939	2,951,780.58	1,167,820.10	966,313.29
Year ended Dec. 31, 1940	3,459,030.41	1,505,211.84	980,798.34
Year ended Dec. 31, 1941	4,543,264.93	1,891,205.21	921,843.61
Year ended Dec. 31, 1942	4,007,120.02	1,303,967.81	636,471.91

* Figures are in red on original copy.

Government's Exhibit No. 888

E. I. du Pont de Nemours & Company
INCORPORATED
Wilmington, Delaware

EXECUTIVE OFFICES

January 18, 1927.

Mr. John J. Raskob, V. P.,
General Motors Corporation,
224 West 57th Street,
New York City, N. Y.

Dear John:

At the Finance Committee meeting yesterday you mentioned the fact that General Motors Corporation laboratories were working on the synthetic rubber problem. On inquiry I find that our Dye Department, who have been working on this same subject, were aware that General Motors were working on it also, but have not attempted any co-operation in their work.

Our Dye Department are working on a single line, based on an idea which came to one of our chemists as to a possible synthesis. We are not making any general investigation of the subject nor trying any steps in any synthetic process; except this one as already mentioned. We understand that the General Motors laboratory is covering the field more generally.

On thinking the matter over, I wonder whether it is a wise expenditure of money on the part of General Motors to go into a synthetic rubber investigation. A great deal of work has been done on this subject by very competent people and well organized research groups. I understand that the General Motors Chemical Department is neither well organized for this purpose nor is the personnel such as would likely prove successful. The same line of thought has so far kept the du Pont Company from a general investigation of the subject, yet we think the du Pont Company is better equipped for this purpose than General Motors.

Should General Motors be successful in developing a process, it would probably not be desirable for it to go into the manufacture; whereas if du Pont were successful, it is just the kind of manufacturing operation which the Company should be qualified to enter. This is an additional reason why du Pont should work on the problem rather than General Motors.

In view of the above, it seems to me that either General Motors must be making a mistake in working on this problem,or du Pont is making a mistake in not working on it in a broader way. Won't you refer this letter to the party responsible for General Motors having embarked on this investigation, and ask him to let me know the reason which has guided his decision to undertake the work.

Yours very truly,

LduPont

PRESIDENT.

LduP/MD

NOTE: "Answered Jan 19 1927 J.J. Raskob" is stamped at top of first page. The name and address of the addressee are crossed out by hand and "Mr. Sloan" is written in the left margin. Italics indicate handwriting.

Government's Exhibit No. 889

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK

January 19, 1927.

Lammot duPont, President,
E.I. duPont de Nemours & Company,
Wilmington, Delaware.

Dear Lammot:

I am referring your letter of the eighteenth to Mr. Sloan for reply.

The rubber situation is one that is very close to the General Motors Corporation and it is tremendously important that the Corporation interest itself in every possible phase of it. I have been in quite close touch with it, representing the motor industry and working with the rubber companies with a view to doing everything we can to protect the American situation and position. Secretary Hoover is coming to New York to have lunch with me at my apartment on Saturday to talk this situation over as I have some very strong convictions as to what should be done, apart from ~~my~~ prosecution of the study of the possibilities of producing rubber synthetically.

I am quite sure that our laboratories feel that they are equipped to do the work they are doing in this connection and the General Motors interest in it is one of understanding the situation with a view to making better moves for protection; whereas the duPont interest ought to be from the point of view of developing a product which it is doubtless admirably fitted to produce once we learn how.

As above stated, Mr. Sloan will write you at length about this matter.

Sincerely yours,

Chairman.

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET

Mr. Lammot duPont, President
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:-

John has referred to me your letter of the 18th dealing with the matter of General Motors activities in the synthetic rubber problem, and in view of the fact that I am really responsible for this activity, I will write you regarding the matter, telling you how it came about and all that sort of thing.

Now, you say in your letter that you understand that General Motors Chemical Department is neither well organized nor is its personnal such as would likely prove successful. This statement may be right or it may be wrong. Frankly, I do not know which it is, but I think if I had told you six or seven years ago that General Motors Research was working on some chemical scheme whereby we could inject some quantities of some unknown material into gasoline to enable us to increase the compression and produce a fuel of anti-knock qualities, you would have probably said exactly the same thing and would have thought, as I did as a matter of fact a good many times while we were spending the money, that we were very foolish in mixing up with something that was purely of a chemical or fuel character and had nothing to do with the primary manufacture of motor cars. Then after we had discovered the material and found it of the character it was, you would very likely have questioned the ability of our Research reports to develop methods of making the material itself in a practical way, yet that was accomplished also.

However that may be, we landed with something quite successful which I think in the course of events will result in our making considerable money, but aside from all this, irrespective of what measure anyone may place on the development of tetraethyl lead, this fact is indisputable - that the work that General Motors Research did in connection with fuel, has changed the whole fuel picture to a very material degree, and even if through subsequent research work - and that is not at all unlikely - tetraethyl lead is superseded by something else, a great advance in our knowledge of the relationship between fuel and the explosive engine, will have been accomplished.

Both Mr. Teagle, President of Standard Oil Company of New Jersey and Colonel Stewart, Chairman of Standard Oil Company of Indiana, have told me that the work that General Motors Research did in connection with the development of anti-knock materials, is the first real constructive work that has ever been done by the industry to adopt the fuel to the engine. Mr. Teagle told me that about all they did up to that time was to dig a hole in the ground and pump outwhat was below.

Now, I do not say that this same thing will happen in our rubber development, but I mention all this because my experience - perhaps yours is different - indicates that it does not always follow that discoveries along any of these lines come from those sources where they would be most expected.

To get back to the rubber situation, Mr. Midgley, who was responsible fo. the tetraethyl lead development, with Mr. Kettering, asked me if there would be any objection to the Corporation spending $40,000 a year in what might be the forlorn hope of solving this very important problem. It seemed to me a very long shot just as tetraethyl lead seemed to me. Many times I was almost on the point of saving the money and not continuing it. In this particular case, Mr. Midgley was so enthusiastic and so was Mr. Kettering, and they both felt that they had some very well defined ideas, that it seemed to me it would be well worth while spending this comparatively small sum of money and seeing what the boys, so to speak, could accomplish.

In a big organisation I believe it is a good thing to do this thing provided the cost is not great and I do not think anybody could accuse General Motors of being reckless in the expenditure of money along these lines. We are doing a business approaching $5,000,000,000 and our research work does not cost us, fairly considered, over $375,000 and a good deal of this is really not research work - it is practical engineering that is properly a part of the cost of sales.

The boys have been working on this for a year and I reviewed the thing recently with Mr. Midgley and Mr. Kettering, having in mind the desirability of including the same amount in our 1927 budget. Frankly, I know very little about chemistry and have very little appreciation of what they are trying to do or what progress they may have made. I must, therefore, rely upon Mr. Midgley and Mr. Kettering. They felt that sufficient progress had been made to justify continuing for another year. Now, if we continue for another year, we will have spent perhaps $80,000. I recognise that it is a long chance and perhaps we are foolish in doing it, but as John has written you, it is a problem very close to us in very many ways and in view of your letter and recommendation, when the budget comes before the Executive Committee I will bring this matter specifically to their attention and if they feel that we ought to cut it out, it is perfectly satisfactory to me. I really do not care much one way or the other. I simply have gone on with it on speculation, feeling that, as I said before, sometimes we get something like this when we least expect it.

The only point I really do want to make is - that I do not think it is exactly fair to say that we are doing this with a personnel that in itself would lead to the belief that nothing could be accomplished.

There is another point I see you bring up and that is - if we are successful, there certainly would be plenty of time to consider what we should or should not do with the result. In the development of tetraethyl lead we did not go into the manufacture of it - the duPont Company did it. If we should be so fortunate as to make some contribution in the development of synthetic rubber, we would have made an important contribution to industry in general; to the automotive end of it in particular, and in view of our large proportion of the automotive industry, to ourselves directly and indirectly.

Very truly yours,

Alfred P. Sloan Jr

APSJr./K

Note: A short, vertical hand-drawn line appears to the left of each of: the third line in the second paragraph of page one, the third line in the second paragraph of page three, and the eighth line in the third paragraph of page three.

Government's Exhibit No. 891

Letterhead of
E. I. du Pont de Nemours & Company
INCORPORATED
Wilmington, Delaware

EXECUTIVE OFFICES

January 25, 1927

Mr. Alfred P. Sloan, President,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

I certainly appreciate your letter of January 21st and the trouble you have taken to give me a clear understanding of the situation and the details which have led to the decision for General Motors laboratory to look into synthetic rubber.

I did not intend to reflect in any way upon the General Motors Chemical Department. I have never looked into that Department myself, and my opinion of its character and ability has been obtained entirely from General Motors men; such as yourself and John. I had always understood that it was not the Company's intention to maintain a complete Chemical Department, especially in the organic chemical branch, to which synthetic rubber seems to belong. The information I get on the subject of synthetic rubber convinces me that the working out of this problem is one to tax the facilities of the most complete laboratory.

It is true that discoveries do not always come from the sources to be expected, but again, judging from what I have heard of synthetic rubber and the work that has been done, its development is not going to be a discovery, but more likely a painstaking search for the right method (probably already known) for doing each of several steps required.

I am not belittling at all the work of General Motors employes on Anti-Knock Compound, but was not this study essentially a study of what takes place in a gasoline engine; and an automobile laboratory would be the natural place to depend on for results.

True, synthetic rubber is of great importance to General Motors, but so is steel, copper and many other raw materials, but on this ground I would not advocate General Motors laboratory delving into all the ramifications of such production.

Do not let me trouble you any further on this point. I am not trying to force upon you my views or opinions. If I have put into your mind the thought that possibly synthetic rubber is not a suitable subject of investigation by the General Motors Chemical Department, then I am perfectly willing to accept your decision.

Yours very truly,

L du Pont
PRESIDENT.

LduP/MD

NOTE: A check mark appears above "21st" in the second line of the body of the letter. Italics indicate handwriting. Illegible pencil mark is written in the upper right corner.

Government's Exhibit No. 892

February 3, 1927.

Mr. Lammot duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:-

In going over your letter of January 25th I fear greatly you got the impression from my letter of January 21st that I was answering a suggestion in the way of an argument, which I did not intend to do. As a matter of fact, I dictated my letter immediately on receipt of the memorandum I received from John and in the meantime I went to Detroit and the letter was sent out in my absence. In going over it I noticed one mistake which may or may not have been corrected on the original. I stated we were doing a business approaching $5,000,000,000. Manifestly, that is wrong. It should be $1,000,000,000. It was simply a typographical error.

I think you are right. There is a difference perhaps between a fuel development and a rubber development - the latter not being as closely associated with that part of the product with which we are directly concerned. As a matter of fact, however, the single item by all odds that we purchase from outside sources and the one that has been most unsatisfactory from the standpoint of erratic costs out of line with the real economics of the case, is the rubber tire and that perhaps in itself might justify us giving the general subject some thought.

There is another point that I did not mention and which has some bearing on the case and that is this:- I have found when any of our people are desirous of tackling an unusual job, that provided the expense is not great, we usually learn something of value either on the subject or in some other way and it is good in many ways, from a psychological standpoint. I know of many instances where certain of our people become greatly interested in a certain idea, the value of which perhaps they over-estimate, if they are prevented from developing those ideas, in a way, it has a reactionary influence. On the contrary, if they are encouraged, even if it results in some cost to the Corporation, it has a beneficial influence on the entire picture.

Mr. Midgley worked many years, under most adverse circumstances and in the most enthusiastic way, in the development of tetra ethyl lead. I felt, in view of his contribution to the Corporation's development, that it was no more than fair, when he

5113

Page #2,
Mr. Lammot duPont,
February 3, 1927.

became tremendously interested in the problem under discussion, to at least spend a little money to see what he could make out of it - not with the hopes that anything really could be accomplished, but because in a way, dealing with big things, he was entitled on account of his previous record, to a reasonable amount of consideration. Do you not think there is something to this side of it?

As I said before, if nothing tangible develops during the current year, I shall feel fully warranted in feeling that he has been given his chance and that, considering we are not directly concerned even if we are greatly indirectly concerned, we might better transfer his efforts to some other direction.

Very truly yours,

APSJr./K

NOTE: Stamp in right margin of first page contains the initials, "A.P.S.", "J.L.P", "H.M.C.", "F.C.H.", "A.K.H.", "L.R.B.", "A.T.B." and "W.F.A.", to the right of each of "A.P.S." and "A.T.B." is a check mark.

Government's Exhibit No. 893

February 3, 1927.

Mr. J. Brooks Jackson,
General Motors Corporation,
Detroit, Michigan.

My dear Brooks:-

Dealing with your letter of January 31st, would state that I can't help but agree with you, and have felt right along - in fact, did when this project was started - that there was little likelihood of it getting us anywhere in a practical way, but of course I appreciate that that is only an impression and there are no facts upon which to base such a viewpoint.

Mr. Lammot duPont has recently been corresponding with me and he feels it is absolutely wrong for us to attempt a thing of this kind. I have written him that I think he is probably right, but have urged upon him the thought that six or nine years ago if we had told him that we had certain ideas on 'dope' so to speak, for fuels, he probably would have said exactly the same thing and questioned the ability of our organisation to work it out because, naturally, we are not in the chemical business. What I mean by this is - that it frequently happens that wonderful things come from unexpected sources and develop out of the most discouraging and almost hopeless activities.

Aside from the merits of the case, I have felt about it something like this:- Messrs. Kettering and Midgley did a wonderful piece of work in the development of fuels - the first real work that has ever been done, so I have been told by disinterested oil people of importance. It was certainly a great achievement and irrespective of the commercial success that follows the tetra ethyl lead discovery, a great contribution will have been made toward better coordination between the engine and the fuel. We can afford to do these things because we are such an important part of the picture.

That being as it is, I felt, in view of Midgley's contribution, supported by Mr. Kettering, that he was entitled to a reasonable amount of consideration and accordingly authorised the expenditure of a relatively small sum of money on what seemed to me, from my more practical viewpoint, a hopeless job. I am also satisfied, irrespective of the technical merits of the case, concerning which I know nothing, to go ahead through 1928, at the end

Page #2,
Mr. J. Brooks Jackson,
February 3, 1927.

which time we will have perhaps made a total expenditure of something like $80,000. If at that time there are no very definite developments which indicate a more hopeful outcome, I shall certainly feel that Midgley has had his chance, and irrespective of the argument that will, of course, be advanced at that time, that further work will bring the result, in view of our more or less secondary interest in the proposition, I will be inclined to recommend that we discontinue.

Very truly yours,

APSJr./K

NOTE: Two check marks to the right of the third paragraph on the first page appear in a routing stamp containing almost completely obliterated initials.

Government's Exhibit No. 894

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE
EXECUTIVE OFFICES

February 21, 1927.

Mr. Alfred Sloan, President,
General Motors Corporation,
224 West 57th Street,
New York City, N. Y.

Dear Alfred:

Thanks for yours of February 3d in regard to General Motors experimental work, especially in connection with synthetic rubber, which letter I found waiting for me on my return from Palm Beach. I understand we passed you going down, as we came up on Sunday, the 13th.

Hope you enjoy yourself as much as we did.

I appreciate fully what you say as to the desirability of allowing good minds, who are extremely interested in important investigations, have a little more than the normal amount of rope. We do it also and I believe it tends to keep up the enthusiasm and interest of all concerned.

Yours sincerely,

L du Pont
PRESIDENT

LduP/MD

NOTE: Stamp at upper right reads: "RECEIVED FEB 23 1927 A.P. SLOAN, JR.". Stamp at lower right contains initials, "A.P.S.", "J.L.P.", "H.M.C.", "F.C.H.", "A.K.H.", "L.R.B.", "A.T.B." and "W.F.A.", with a check mark to right of each of "A.P.S." and "A.T.B.".

E

Government's Exhibit No. 895

E. I. DU PONT de NEMOURS & COMPANY
(INCORPORATED)
DEVELOPMENT DEPARTMENT

July 13, 1931

Copy to Mr. Lammot du Pont, President
Mr. W. S. Carpenter, Jr. V.P.

FOREIGN RELATIONS COMMITTEE (3)
BUILDING

ACCELERATORS FOR DIESEL MOTOR FUEL

Through this Department's monthly reports to the Executive Committee you are familiar with the suggestion made by I.C.I. that we should take an interest in the manufacture of accelerators such as ethyl nitrate for Diesel motor fuel. While we have not as yet obtained any proposition from I.C I., and only meagre information, we have been giving quite some attention to the subject and have also been in communication with the General Motors Corporation who have tested some samples for us. The Explosives Department has also taking an interest in the matter and are working on several chemicals which might be used instead of ethyl nitrate.

Inasmuch as we are not equipped to test Diesel motor fuel and felt that our work should be entirely with the General Motors Corporation, we have endeavored to cooperate with that company through Mr. J. L. Pratt. In the course of exchange of letters, we have received a letter of July 3rd from Mr. Pratt which it is felt should be brought to your Committee's attention inasmuch as it has a bearing on the du Pont - I.C.I. relationship.

It is requested that your Committee advise us in regard to the proper attitude to take with respect to both I.C.I. and General Motors Corporation.

Fin Sparre (Stamp)
Director

Note. At top left is written note "Ex Com Advise Pratt no oblig to I.C.I. or IG". Also "Pratt 7/16" in writing and stamp "Received Jul 14 1931 Lammot du Pont." In lower right corner appears gmc-551 in writing.

Government's Exhibit No. 896

COPY

GENERAL MOTORS CORPORATION
Broadway at 57th St.
New York

July 3, 1931

Mr. David W. Jayne
Development Department
E. I. du Pont de Nemours & Co.
Wilmington, Del.

Dear Mr. Jayne:

I have your letter of July 1st in reference to cooperative arrangement between duPont and General Motors, in working out the possibilities of Diesel motor fuel accelerators.

With the present contractual arrangements that I understand in a general way the du Pont Company has with English and German chemical manufacturers, to the effect that the German and English have certain rights in any chemical developments made by thedu Pont Company, make itimpracticable in my judgment to work out a cooperative arrangement such as you have in mind, as such an arrangement would probably require you to give any developments to your English and German associates, in which case it would be difficult to recognize any rights of General Motors Corporation.

While we are very glad to test any specific chemical that the du Pont Company may have reason to think will improve Diesel fuel oil, we do not think from General Motors' standpoint we could put all of the background of General Motors fuel research into a cooperative arrangement with the du Pont Company for the chemical knowledge that the du P ont organization might bring to such a cooperation. Our experience in development of ethyl gasoline and Kientic chemicals indicated that we have some chemical knowledge and experience in our organization that enables us to arrive at a fairly satisfactory chemical solution of our problems when once the fundamentals are understood.

Therefore, I do not believe we could agree to work with the du Pont Company in a cooperative way on this problem, except on specific chemicals you might submit to us.

Very truly yours,

(S) J. L. PRATT
Vice-President

Government's Exhibit No. 897

E. I. du Pont de Nemours & Company
(INCORPORATED)
WILMINGTON, DELAWARE
FOREIGN RELATIONS DEPARTMENT

5126

July 15, 1931.

FROM: FOREIGN RELATIONS COMMITTEE

With reference to your letter of July 13th, addressed to the Foreign Relations Committee on Accelerators for Diesel motor fuel, the Foreign Relations Committee discussed this subject Tuesday morning. The Committee came to the conclusion that the stand taken by Mr. Pratt in his letter of July 3rd, to Mr. Jayne, is perfectly justified and that, therefore, our cooperation with General Motors should be confined to the testing of such specific chemicals as we may submit to them. We would request that in writing Mr. Pratt that you point out that contrary to his understanding we have no contractual obligations with any German Companies which might interfere with a joint research program.

Incidentally, Mr. Lammot duPont has requested that no reply be made to Mr. Pratt until he has discussed the matter with the Executive Committee.

J. K. JENNEY, SECRETARY.

jkj/ems.

Government's Exhibit No. 898

Wilmington, Delaware, July 16, 1931.

Mr. John Pratt, Vice-President,
General Motors Corporation,
Broadway at 57th Street,
New York City, New York.

Dear John:

I have seen your letter of July 3rd to Mr. Jayne of our Development Department, in which you give reasons why General Motors should not join du Pont in the working out of possibilities of Diesel Motor fuel accelerators.

I am writing you this letter unofficially, because there is considerable difference of opinion among the members of our Executive Committee as to exactly what the situation is, but want to point out to you immediately some errors you have fallen into, and to point out that your conclusion is wrong, because the premises are either incorrect or at some future time will be made incorrect.

First, let me say, that we have no connections with the German chemical manufacturers similar to those with I.C.I. You probably have in mind the explosives patent and process agreement with the Germans which is no longer in existence.

Second. If our obligations to I.C.I. are such that joining forces with General Motors places upon Geenral Motors some obligation without their consent, results flowing from the du Pont - I.C.I. agreement will, in this respect, be intolerable, and that agreement will have to be changed.

Third. I have the highest regard for the work which the General Motors Chemical Department has done in various fields, but wish to point out that General Motors has had no experience in the development of chemical manufacturing processes and the operation of plants to carry out such processes, and, as far as I know, there is no reason to believe that any such latent ability exists within the General Motors Corporation organization; therefore, General Motors would be very foolish to refuse an association with an experienced chemical manufacturer because of the success they have had in the development of Ethyl Gasoline and Kinetic Chemicals.

As one interested in the welfare of both du Pont and General Motors, and having some knowledge of the policies and aspirations of both, it would seem to me a calamity if, in any case, either company failed to make an effort to use and gain the advantage of the experience of the other in their particular fields. It seems to me certain that this sort of co-operation will result in a gain to both corporations, and, of course, must be so conducted as to result in a loss to neither to the others advantage.

Yours very truly,

LduP/MD CHAIRMAN OF THE BOARD

NOTE. "File Copy" is stamped across face each page of document.

Government's Exhibit No. 899

GENERAL MOTORS CORPORATION
Broadway at 57th Street
New York, N. Y.

July 20, 1931

Mr. Lammot duPont,
Chairman of the Board,
General Motors Corporation,
Wilmington, Delaware.

Dear Mr. duPont:

Please accept my thanks for your letter of July 16th, in regard to correspondence I have had with Mr. Jayne, of your Development Department, relative to cooperation between the duPont Company and General Motors in the development of fuel accelerators.

I am very glad to be set straight on the relationship of the duPont Company with the German chemical manufacturers. Also, I am glad to know that whenever your obligations to the I.C.I. conflict with you joining forces with General Motors, on chemical developments, the agreement will have to be changed.

I agree fully with practically all you have said in the third paragraph of your letter, in regard to lack of experience of General Motors in the development of chemical manufacturing processes and the operation of plant to carry out same. This was fully recognized when we entered into the

(DP)
GMC-548 a
(DP)
(Kinetic)

agreement, under date of August 27th, 1930, with the du Pont Company for the formation of Kinetic Chemicals, Incorporated. Clause 7 of that agreement reads as follows:

> "* * * * it being further agreed that future chemical developments (other than those relating to 'said products') originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments then General shall be free to dispose of the same elsewhere."

This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity, and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing processes. Therefore, it was not the manufacturing ability of the duPont Company that I failed to recognize in my letter of July 3rd to Mr. Jayne, in declining to enter into a broader cooperation between the two companies on the motor fuel development, but a desire on my part to avoid complicating, possibly to the disadvantage of General Motors, a development which we have been carrying on for a great many years very intensively in our own laboratories, and a situation which has already been complicated by our agreement with the Ethyl Gasoline Corporation, involving as it does the Standard Oil Company. Under our agreement with Ethyl Gasoline Corporation we have to give Ethyl Gasoline Corporation a license under any developments on fuels that involve anti-knock compounds. While the proposed Diesel fuel accelerator would be the opposite from anti-knock compounds, the whole fuel problem is tied up so intimately in our laboratories that it would be difficult to say just what rights would be duPont's and what rights would be General Motors' if in this stage of the development we should undertake a cooperative development with the duPont Company, because it is very possible that in our experiments on Diesel fuel accelerators we may find something that should go in the anti-knock group that we are under contract to turn over to Ethyl Gasoline Corporation, while on the other hand in our anti-knock experiments, which are still being carried on, we may find something that is of value to the Diesel fuel accelerator group.

I do not know whether you realize that we have a background on fuel research that goes back to about 1913. Soon after Mr. Kettering brought out the battery ignition the motor car companies began to blame all of their ignition troubles on battery ignition. This research was started to analyze the problem and determine what factors could properly be blamed on ignition and what on fuel and carburetion. Out of this development came Ethyl gasoline, from the fuel standpoint, and a very promising development on carburetion, which we call our Gem-Cold - a new system of carburetion that we have been working on very intensively for ten years, and which will materially improve the efficiency of an engine if we can ever get it entirely practical. At this late date for General Motors to enter into a partnership with the idea that through such a partnership we would have talent for development of manufacturing processes (which we already think we have through our Kinetic Chemicals agreement) in my judgment would be a mistake and would always open up for argument the determination of the relative amount that the two organizations had contributed to the new development. In [illegible] position we are leaving the door wide open for the duPont organization to suggest any chemicals they think will help solve any of these fuel problems, and I am sure our organization will be very glad to cooperate by making any tests that the duPont organization might desire, but to take your organization into our confidence on everything that we are doing alone the lines of fuel research (which I think would be necessary if cooperation with you along the lines suggested were to be effective) would be requiring us to place into the hands of your organization knowledge which we do not believe at this stage of our development we would be justified in doing, from a General Motors Corporation standpoint.

The fact that our developments of Ethyl gasoline and Kinetic chemicals have been made principally by mechanical engineers rather than chemists might be an additional argument why in the early stages of our development it may be best not to have too much chemical experience, as quite often one does not discover a thing or new methods because they know where others have attempted and failed and therefore do not try at least once more - the time which may be the successful attempt.

To summarize, as far as I am concerned I hope to see General Motors Corporation utilize o the fullest extent the chemical experience of the duPont Company in manufacturing any chemical compounds that General Motors laboratories may discover, where there is a possibility of commercialization. On the other hand, I do not think it is wise for our research laboratories to join in a development with the duPont Company in the early stages of the development before the problem is well defined and it is known just what part each company can contribute. This is especially true in the General Motors fuel research problem. What I am anxious not to do is - to create a situation that will involve General Motors and the duPont Company in misunderstandings. As I may be entirely wrong in this position I would be very glad to discuss this matter with you any time at your convenience.

Sometime when you are in Detroit it might be desirable for you to spend a little time in our research laboratories and get the picture of just what we are doing along this problem of fuel research.

Please pardon the length of this letter.

Very truly yours,

/S/ J. L. Pratt

JLP:V

copy to Messrs. Sloan
Kettering

Note. At top of page 1 of this letter appear 2 Lammot du Pont "Received" stamps, 1 dated Jul 21 1931 the other Jul 24 1931. gmc - 548a appears in lower right corner.

Government's Exhibit No. 900

515

Copy: Mr. E. G. Robinson.

July 21, 1931.

Mr. John L. Pratt, V. P.,
General Motors Corporation,
New York City, N. Y.

Dear John:

I have your very interesting letter of July 20th and thank you for writing so fully. It seems we see this matter in about the same light, which, to me, is very gratifying.

The only additional thought I would like to express is the hope that we all do not get so impressed with our responsibilities under co-operative agreements that we get nothing done or nothing developed. I would rather experience a terrific battle over the rights to a good idea than have nothing developed with perfect peace.

FILE COPY

PRESIDENT.

LduP/MD

Government's Exhibit No. 901

MEMORANDUM

To Mr. E. G. Robinson

From L. du Pont, President.

Remarks:

Please note the attached for your information. John Pratt's letter is in reply to my letter criticising his stand in not wishing to join forces with du Pont in the development of Diesel motor fuel accelerators.

Please return letter.

July 21, 1931.

Note. In lower right corner appears gmc - 548 in writing.

Government's Exhibit No. 902

Copy to -

Mr. C. A. Woodbury
Dr. C. L. Burdick
Dr. W. E. Lawson.

August 26, 1931.

TO: F. SPARRE, DIRECTOR
FROM: D. W. JAYNE,

DIESEL FUEL ACCELERATORS

I had a conference on this subject in Mr. Boyd's office in General Motors Research Building, Detroit, at which were present Messrs. O. E. Hunt, V. P.; C. F. Kettering, V. P., Mr. Boyd of the Fuel Section and his assistant (Mr. Lowell?). Mr. J. L. Pratt, V. P. from New York joined us later.

We first discussed our relation with I. C. I. and what it involved, following which Mr. Hunt stated that General Motors also had a similar obligation to the Ethyl Gasoline Corporation. While their obligation does not relate to Diesel fuel yet the evidence so far indicates that the work on anti knock gasoline is related to the Diesel fuel problem and has shown that the exact opposite rating should be given to fuels for these two purposes - that is, a badly knocking fuel in the auto engine is a good fuel in Diesels and vice versa. Therefore such evidence as might be secured in examining Diesel fuels would be pertinent information for Ethyl Gasoline Corporation.

This situation merely emphasized the necessity, at least for the present, of independent work as we had already concluded was necessary. It also disposed of the idea Mr. Pratt had, that the field could be divided between us to prevent duplication. However, I am satisfied that any real examination of Diesel fuels by General Motors is as yet in the future. This was made evident by their next statement that they are not in fact able at present to make engine tests for us on fuel treated with various accelerators because the experimental unit which they have set up in their laboratories is now being equipped to experiment on design which means the fuel must be one of the unvaried factors. The tests they have already made for us appear to be the only fuel tests they have made and immediately afterward they removed the instrumentation used and are now attaching other types of instruments to enable a study of design improvement. (Boyd later showed me the engine on which work was then being done).

General Motors' apparent secondary interest in the matter of Diesel fuel accelerators was then frankly explained by Mr. Pratt who stated he judged we were being misled into thinking the improvement in Diesel engine design and the fuel had any prospect of supplanting the gasoline engine for use in trucks, busses or airplanes. The proposed use in trucks and busses had been assumed to be possible because of the cheapening of the cost of fuel. On that point they all agreed that the cost of gasoline was not more than 1/2¢ higher than Diesel oil and had no prospect of having a greater differential in favor of Diesel oil; that in fact Diesel oil except for very large slow speed units was a distillate oil and that the relative yield from crude oil is-

Gasoline 47%
Fuel Oil 8%

Furthermore any large increase in demand for fuel ~~oil for~~ Diesel engines or by the further use in oil burners for heating purposes, would be likely to place it at a higher price than gasoline. They further stated that they are convinced that the weight of even a prospective improved Diesel engine will be so much greater than the gasoline engine that the greater efficiency per gallon of fuel is entirely offset by transporting the greater weight. Mr. Kettering further stated that they now knew what they had previously believed, that the carburetion of volatile fuel could be and would be very much improved in the near future permitting gasoline engines to continue to lead Diesels on every count except the one point of fire risk.

They then stated that in two uses the fire risk is a major factor - airplanes and boats. For airplanes they expressed a firm belief that Diesels would never succeed, that except the planes built for demonstration purposes, no Diesels were used and the Packard Company had made its Diesel airplane engine publicity for stock market purposes only. Mr. Kettering was now convinced that the solution of the airplane problem was an entirely different or "substitute" fuel for gasoline and intimated they now had such a fuel. He did not seem inclined to tell me about this new airplane fuel and I did not attempt to press him for any definite information. From their point of view, however, they have eliminated Diesels as an airplane possibility.

This left as the only outlets for the future development of Diesel engines, boats and power plant installations. With respect to boats they were convinced that the Diesel was the only solution and believed it had great possibilities. It is true that the large ocean going Diesel engine ships have slow speed engines and use crude oil - selling for 2¢ against 6¢ for distillate fuel oil. The same is also true of larger stationary power plant units. They had some question whether an accelerator would show worth while advantages in such engines especially as the cost of the "doped" fuel would necessarily mean a small amount of a relatively cheap accelerator chemical.

It is a fact that General Motors because of its ownership of Winton Eng. Co. have a belief in the future of Diesels burning fuel oil and of relatively high speed for all except the larger ships, and this confidence is evidenced in the present research program on the development of such engines.

Following the expression of all the above opinions, I took the extreme view that it seems unprofitable for the du Pont Co. to spend any money on the problem of accelerators for Diesel fuel. This brought some reactions and I am inclined to think that they may not be so sure of their conclusions as they first indicated. In the first place they believe the potentialities for boat use are relatively large, and should it be found possible to noticeably improve crude oil by an accelerator at a low cost per gallon of fuel used it might extend to all classes of boats and to stationary power plants, and I sensed that after all they would be somewhat disappointed if we did not go on with our work, but their presentation of the possibilities would indicate careful consideration on our part before extending our present initial program and expending any material sums of money on the project.

The conversation referred to above also gave a very clear idea of the fact that General Motors has really done nothing on the subject of these accelerators beyond the tests they made for us and some general consideration they have given the subject. Furthermore, they have no immediate intention of working on that problem as they stated there is no provision for such work in this year's research budget.

Mr. Hunt then stated what had by then seemed evident, that they had no engine on which to make tests for us. He assured me that this subject would be studied by them sooner or later, and at that time they would undoubtedly set up another test engine. He offered in the meantime to furnish us such an engine with the instruments necessary and teach us the technique of the tests. He thought this might cost $20,000. We agreed, however, that to follow out that suggestion seemed a useless duplication of expenditure as they were so sure that "later on" they would provide themselves with such a unit of their own. It was left that Mr. Hunt would give the subject further consideration and write us an optional offer, covering;

First - A charge to be made us for these tests, provided we could wait till they installed their test engine, with some idea when that might be, and

Second - A charge to be made us in the event we authorized them to set up their test engine within the next two months.

He was quite indefinite as to the difference there might be in these two offers, except that it meant anticipating expenditures on next year's budget, the interest on which could not be important, and the possible necessity of training two more men to handle Diesel engine tests. In any event he assured me it was their desire to do anything possible to coöperate with us and admitted that the information they secured in those tests would probably be of direct value to them later.

I suggested that in view of their not being in position to make these tests now, we might go to other Diesel engine builders to have these tests made. They flatly stated that no one else had the experience in testing engine fuels in the way that was necessary and no one else had the design of the instruments necessary to record the necessary results especially for a quantitative answer. Whether this is true or not, I feel that it indicated a desire to have us work with them and not to let the other people follow any developments we may make.

I told them of our intention to make preliminary tests on possible accelerators to judge of the qualitative comparison of such various chemicals and to eliminate from the necessity of making engine tests those which were not promising. I asked them what standard we should set on the fuel oil we would use in order to avoid a variable. Mr. Boyd stated that two oils might exactly meet any usual oil specification and yet be quite unalike in their burning properties at a given pressure and temperature. That any oil might even change its character in this respect by standing and if we bought five barrels in order to have a uniform supply, by the time we came to use the last barrel it might be quite different from its original condition. He also pointed out that it would be desirable to work with the worst possible oil insofar as its action in Diesel engines is concerned, but he knew of no way to specify such an oil and go about securing it as the oil companies know nothing of this subject. He stated that he had considered using xylene when they came to work on this problem. This suggestion is based on the fact that it is one of the best anti-knock hydrocarbons and therefore should be one of the worst for Diesels, that it is relatively cheap, can be secured very uniform and in quantity. At least he recommended that we try it out in our test device as it should give comparative values in the same apparatus.

CONCLUSION

In view of the opinion of General Motors as today disclosed, we should schedule for laboratory manufacture and preliminary test, a relatively few compounds, representing primarily types of various possible compounds rather than different products in the same class. This work will in any event not be started before Sept. 1st and by then we should hear from Mr. Hunt and know what expenditure may be necessary to have engine tests made. Immediately after receiving General Motor's offer, the scope of the work planned should be surveyed so that our expenditures may be kept within the appropriation and so that we may not anticipate by too long an interval, the time when products passed by our preliminary tests can be tested on an engine.

D. W. JAYNE (stamp)

DWJ M DEVELOPMENT DEPARTMENT

NOTE. "F. Sparre & D. W. Jayne" at top of page 1 are crossed out in pencil and there is a pencil check-mark before Dr. C. L. Burdick at top of page 1.

Government's Exhibit No. 1050

E. I. du Pont de Nemours & Company
Incorporated
Wilmington, Delaware

Development Department

March 11, 1946

Mr. Lammot du Pont
Room 9046
du Pont Building

Dear Uncle Mots:

Just before you left you spoke to me about the possibility of public repercussions to my dual position on the boards of General Motors and U. S. Rubber. As you suggested, I discussed the matter with Mr. McCoy and he can see absolutely no objection. He felt that any public reaction that might be was not of the type that need or should be taken seriously. In fact, he felt that my position as an employe of the du Pont Company serving on the board of its customer, despite the fact of du Pont's stock interest in General Motors, was much more questionable from the ethical angle than my serving on U. S. Rubber, which is not a customer of importance to du Pont. So summing it all up, he could see no need for me to change my present status.

In order to get the opinion of another, I wrote Mr. John W. Davis who, as a fellow director on the U. S. Rubber board and Chief Counsel of the company, was the proper person for me to consult and, who at the same time having been politically active, has a pretty good sense of public opinion and reactions. Mr. Davis concurs with Mr. McCoy —that he sees no reason why I should not serve on both boards and points out cases where quite a number of U. S.

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Rubber directors, including himself, sit on the boards of banks with which U. S. Rubber actively deals. He cannot see the difference between that customer relationship and the General Motors situation.

In the face of the above, I think I will ride along a bit further although I think your suggestion of Colgate is very good and should be studies further. When Uncle Bus gets back in April would you like to talk to him about it?

Sincerely,

Mots Copeland

LduPC:K

NOTE: "U.S. Rubber" is written in upper right corner; "RECEIVED MAR 12 1946 LAMMOT DU PONT" is stamped at top of page. Italics indicate handwriting.

January 31, 1930.

Mr. F. B. Davis, President,
United States Rubber Co.,
New York City, N. Y.

Dear Dave:

I saw Mr. A. B. Purvis, President of Canadian Industries, Ltd., yesterday. He showed me correspondence with Mr. R. S. McLaughlin in regard to General Motors of Canada purchases of automobile tires.

It appears that General Motors of Canada tire business is done largely with Goodyear, but that recently a portion of their business has gone to Dunlop of Canada, which I understand is controlled by Dunlop of England, but in which Canadian Industries, Ltd. has a considerable stockholding. It is alleged that the Dominion Rubber Company, a subsidiary of United States Rubber Company has been after some of the General Motors of Canada tire business, using the argument that the du Pont Company, who are heavily interested in General Motors, are also heavily interested in United States Rubber Company. Mr. McLaughlin has been set straight in this matter, being advised that the du Pont Company has no interest whatever in U. S. Rubber, but that certain individuals connected with the du Pont Company have personal interests, which, however, are far less in extent than Mr. McLaughlin had supposed.

Now, it is, of course, all right for United States Rubber Company to "go after" the General Motors of

Canada business through the Dominion Rubber Company, but I do not believe it is either fair or proper, under the circumstances, to use as an argument the interests of the U. S. Rubber stockholders or their connection with General Motors. Could you not get the business on the basis of quality, services and price?

I have told Mr. Purvis that as far as I am personally concerned, and I think I represent the feelings of the other individuals here, that I cannot subscribe to the idea of using our interests in both General Motors and United States Rubber as a means of getting business. If you go into this matter at any time, I am sure you are perfectly warranted in talking frankly and freely with either Mr. Purvis or Mr. McLaughlin. They both understand the situation thoroughly and I am sure look upon things in the same way that I do.

Yours sincerely,

LduP/MD

NOTE: "105" is written in upper right corner of first page.

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Government's Exhibit No. 1204

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RELATIVE SIZE OF DU PONT, GENERAL MOTORS, AND U. S. RUBBER IN THEIR RESPECTIVE FIELDS

Year 1950

DU PONT IN CHEMICAL FIELD

Company	Net Sales (Round Numbers)
Du Pont	$1,297,000,000
Union Carbide & Carbon	758,000,000
Allied	408,000,000
Amer. Cyanamid	322,000,000

Source: Annual Reports to Stockholders

GENERAL MOTORS IN AUTOMOTIVE FIELD

Company	Total Units Produced in U. S.* (Round Numbers)
General Motors	3,656,000
Ford	1,902,000
Chrysler	1,328,000
All Others	1,133,000

*Passenger Cars and Trucks
Source: Wards *Automotive Yearbook*

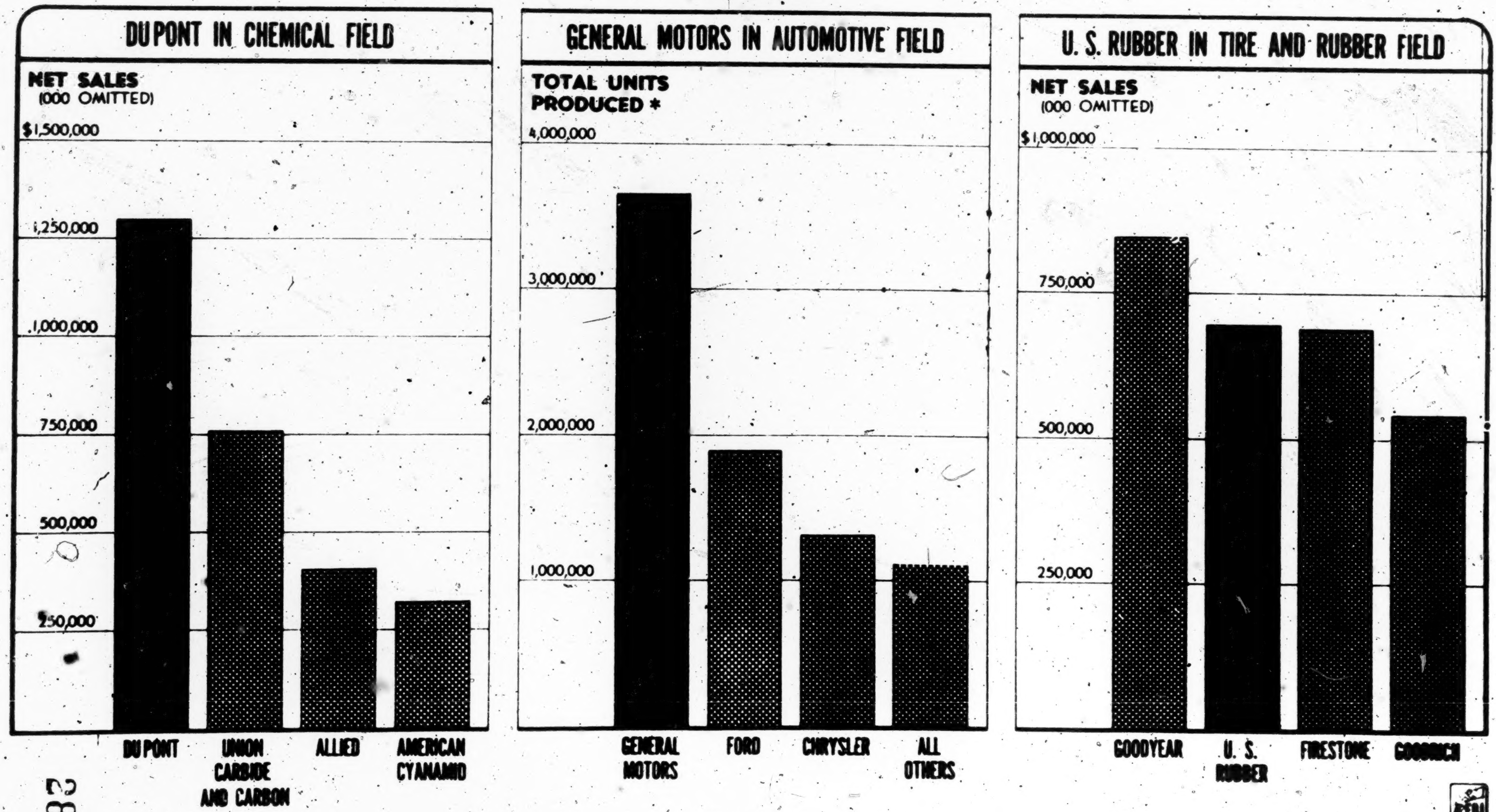
U. S. RUBBER IN TIRE & RUBBER FIELD

Company	Net Sales (Round Numbers)
Goodyear	$845,000,000
U. S. Rubber	696,000,000
Firestone	691,000,000
Goodrich	543,000,000

Source: Annual Reports to Stockholders

RELATIVE SIZE OF DUPONT, GENERAL MOTORS AND U. S. RUBBER IN THEIR RESPECTIVE FIELDS

Year 1950



* Passenger Cars and Trucks
Produced in U.S.

Government's Exhibit No. 1205

EXHIBIT C

Date of Convey-ance	No. of Shares	Person for whose benefit convey-ance was made	Last known address	Family Relation-ship	Nature of Conveyance	Considera-tion, if any	Person or agency, if any, thru whom con-veyance was made
DELAWARE REALTY & INVESTMENT CORP.							
12/ 4/26	125	Natalie W. du Pont	Wilmington, Del.	Daughter	Trust (A)	—	Wilmington Trust Co., Trustee
"	125	Mary B. du Pont	255 Goddard Ave., Brookline, Mass.	"	" (A)	—	
"	125	Esther D. du Pont	Wilmington, Del.	"	" (A)	—	"
"	125	Lammot du Pont, Jr.	Barley Mill Road, Greenville, Del.	Son	" (A)	—	"
"	125	Pierre S. du Pont III	Rockland, Del.	"	" (A)	—	"
"	125	Edith du Pont	Montchanin, Del.	Daughter	" (A)	—	"
"	125	Alexandrine de M. du Pont	3213 Swarthmore Road, Westmoreland, Wilmington, Del.	"	" (A)	—	"
"	125	Reynolds du Pont	Greenville, Del.	Son	" (A)	—	"
CHRISTIANA SECURITIES CO. COMMON STOCK							
3/24/15	(B)	Key employees					
3/24/15	417	*A. Felix du Pont	Deceased	Cousin	Gift	—	—
1/ 5/26	100	J. Simpson Dean	Montchanin, Del.	Nephew-in-law	Sale	$30,000	—
12/24/34	600	Reynolds du Pont	"Randalea," Greenville, Del.	Son	Trust	—	Wilmington Trust Co., Trustee
"	600	David F. du Pont	3001 Penna. Ave., Wilmington, Del.	"	"	—	"
"	600	Edith du P. Riegel	Montchanin, Del.	Daughter	"	—	"
"	600	Esther du P. Weir	Wilmington, Del.	"	"	—	"
"	600	Lammot du Pont, Jr.	Barley Mill Road, Greenville, Del.	Son	"	—	"
"	600	Mary du P. Faulkner	255 Goddard Ave., Brookline, Mass.	Daughter	"	—	

Exhibit C, p. 1

* Not a member of the Du Pont Family as described in paragraph 7 of the Amended Complaint.

Government's Exhibit No. 1211-A

Government's Exhibit No. 1211

ANSWER OF LAMMOT DU PONT TO
PLAINTIFF'S INTERROGATORIES NOS. 3 AND 4

Interrogatory No. 3

Subparagraphs (a), (b), (c), (d). The data called for by these subparagraphs is set forth in Exhibit C, annexed hereto and made a part hereof.

Interrogatory No. 4

Subparagraphs (a), (b). The data called for by these subparagraphs is set forth in Exhibit D, annexed hereto and made a part hereof.

Government's Exhibit No. 1210-A

CORRECTION

On page 2, Item (C) should be revised as follows: "5,300 shares of Christiana Securities Company common stock," should read, "5,300 shares of Christiana Securities Company preferred stock," Govt. Trial Ex. No. 1210-A

(A) In March of 1915 six stockholders of du Pont Securities Co. contributed a total of 11,750 shares of its stock to a pool from which grants of the stock were made to key employees of the du Pont Company. Pierre S. du Pont contributed 5,875 shares of stock to the pool and received no shares upon the distribution. R. R. M. Carpenter contributed 705 shares and received 1,250 shares.

(B) In December, 1919, Pierre S. du Pont sold to each of the members of the Executive Committee of E. I. du Pont de Nemours (which included Lammot du Pont, A. Felix du Pont, and F. D. Brown) 1,000 shares of the company's common stock at a price based on the asset value of the stock. Each purchase was financed by a loan from the du Pont Company to the purchaser. The object of the transaction was to reward the good work done for the du Pont Company by the members of the Executive Committee, to encourage their further efforts for the company, and to encourage them to remain permanently with the company. By April, 1921, the market price of the stock had fallen below the price at which Mr. du Pont had sold the shares in question. On April 8, 1921, Mr. du Pont turned over to each of the purchasers 400 shares of Christiana Securities Company common stock, which were estimated to have a value equal to the difference between the sale price and the then market price of each 1000-share lot.

(C) On December 28, 1922, Mr. du Pont transferred to Mrs. du Pont 1000 shares of General Motors Corporation debenture and 5,300 shares of Christiana Securities Company ~~common~~ preferred stock, together with 2,757 shares of du Pont Company debenture; and Mrs. du Pont transferred to him 8,050 shares of U. S. Steel Corporation common stock.

(D) On April 30, 1924, Pierre S. du Pont conveyed 12,000 shares of General Motors Corporation common stock in trust, the income from the shares to be payable to H. R. Sharp during his life and, upon his death, the principal to revert to Mr. du Pont. On August 9, 1928, Mr. du Pont modified the terms of the trust to remove all reversionary interest in himself and to give Mr. Sharp power to dispose of the stock upon his death.

Government's Exhibit No. 1210-A

EXHIBIT C

Date of Convey-ance	No. of Shares	Person for whose benefit convey-ance was made	Last known address	Family Relation-ship	Nature of Conveyance	Considera-tion, if any	Person or agency, if any, through whom con-veyance was made
CHRISTIANA SECURITIES CO. (COMMON)							
3/ /15	(A)						
5/ 8/15	500	H. R. Sharp	Wilmington, Delaware	Brother-in-law	Exchange	222.75 Shrs. E. I. du Pont Powder Co.	
5/ 8/15	500	Chas. Copeland	"	" " "	"	222.75 " "	
5/ 8/15	500	W. W. Laird	"	" " "	"	222.75 " "	
5/ 8/15	500	*Eugene E. du Pont	"	Cousin	"	222.75 " "	
5/ 8/15	500	*Henry F. du Pont	"	"	"	222.75 " "	
4/ 8/21	400	Lammot du Pont	"	Brother	(B)		
4/ 8/21	400	*A. Felix du Pont	"	Cousin	(B)		
4/ 8/21	400	*F. D. Brown	"	3d Cousin, once removed, by marriage	(B)		
CHRISTIANA SECURITIES CO. (PREFERRED)							
12/19/22	5,300(C)	Mrs. Alice B. du Pont (deceased)	Wilmington, Delaware	Wife	Exchange	(C)	—
9/ 1/28	10	*Ethel Hunt	Red Bank, N. J.	3d Cousin	Gift		—
U. S. RUBBER CO. (COMMON)							
10/27/20	2,293	Mrs. Alice B. du Pont (deceased)	Wilmington, Delaware	Wife	Gift		—
GENERAL MOTORS CORP. (COMMON)							
10/30/19	27	W. W. Laird	Wilmington, Delaware	Brother-in-law	Gift		—
4/30/24	12,000	H. R. Sharp	"	" " "	Trust(D)		H. R. Sharp, Trustee
GENERAL MOTORS CORP. (DEBENTURE)							
12/28/22	1,000(C)	Mrs. Alice B. du Pont (deceased)	Wilmington, Delaware	Wife	Exchange	(C)	
3/31/20	500	" "	"	"	Gift		
3/16/28	64	*Joanna du P. Bush	Newburgh, N. Y.	2d Cousin	Exchange	64 Shrs. Yellow Truck & Coach Pfd.	

* Not a member of the Du Pont Family as described in paragraph 7 of the Amended Complaint.

Government's Exhibit No. 1210

ANSWER OF PIERRE S. DU PONT TO PLAINTIFF'S INTERROGATORIES
NOS. 3 and 4

Interrogatory No. 3

Subparagraphs (a), (b), (c), (d). The data called for by these subparagraphs is set forth in Exhibit C, annexed hereto and made a part hereof.

Interrogatory No. 4

Subparagraphs (a), (b). The data called for by these subparagraphs is set forth in Exhibit D, annexed hereto and made a part hereof.

Government's Exhibit No. 1209

INTERROGATORIES NOS. 3 and 4 PROPOUNDED BY PLAINTIFF TO PIERRE S. DU PONT, IRENEE DU PONT, AND LAMMOT DU PONT

3. State, with reference to the capital stock of Christiana Securities Company, Delaware Realty & Investment Corporation, United States Rubber Company, and General Motors Corporation, which, during any of the period from 1914 to October 15, 1951, you held or in which you had a beneficial interest through trust agreements, personal holding companies, or otherwise:

(a) Each conveyance you made, either directly or indirectly, of any of such stock to a member of the du Pont family (as defined by paragraph 7 of the complaint in this cause of action), whether such conveyance was made by transfer or assignment on consideration, as a gift, through the establishment of a trust, or otherwise;

(b) The name and last known address and family relationship to you of each such person to whom you have made each such conveyance, and if you made the conveyance indirectly to such person (as to a trustee or holding company, or otherwise), state the name of each person or agency through whom the conveyance was thus made for the benefit of the member of the du Pont family;

(c) The nature of each such conveyance (whether by transfer or assignment on consideration, by gift, by the establishment of a trust, by creation of a holding company to which the stock was conveyed with the intention that the beneficial interest thereof be in one other than yourself, or otherwise), stating the consideration involved if the conveyance was one involving consideration;

(d) Which companies' shares were involved in each such conveyance, whether the shares were of common or of preferred stock; and the number of such shares of each company which were involved in the conveyance.

4. State the following with reference to your stockholdings, direct and indirect, on January 1, 1949 and October 1, 1951, in each of the following companies: Delaware Realty & Investment Corporation, Christiana Securities Company, United States Rubber Company, General Motors Corporation, and E. I. du Pont de Nemours and Company, stating separately the holdings of common and preferred stock:

(a) The number of shares you held in your own name on each of such dates;

(b) The number of shares which were held for you on each of such dates in the name of another (whether natural person, holding company, trustee or otherwise), stating the name and address of each such holder of such stock and the length of time such holder has held such stock for you.

Date of Convey-ance	No. of Shares	Person for whose benefit convey-ance was made	Last known address	Family Relation-ship	Nature of Conveyance	Considera-tion, if any	Person or agency, if any, thru whom con-veyance was made
CHRISTIANA SECURITIES CO. COMMON STOCK (Cont'd)							
12/24/34	600	Natalie du P. Edmonds	Wilmington, Del.	Daughter	Trust	—	Wilmington Trust Co. Trustee
"	600	Pierre S. du Pont, 3d	Rockland, Del.	Son	"	—	"
"	600	Alexandrine du P. Perkins	3213 Swarthmore Road, Westmoreland, Wilmington, Del.	Daughter	"	—	"
"	1,600	David F. du Pont	Wilmington, Del.	Son	"	—	"
"	1,600	Willis H. du Pont	Wilmington, Del.	"	"	—	"
9/25/37	100	Alexandrine du P. Perkins	3213 Swarthmore Road, Westmoreland, Wilmington, Del.	Daughter	Gift	—	—
"	100	* Howard A. Perkins	Deceased	Son-in-law	"	—	—
10/10/42	100	Katharine L. du Pont	Greenville, Del.	Daughter-in-law	"	—	—
"	100	Reynolds du Pont	Greenville, Del.	Son	"	—	—
12/15/44	1	Geo. P. Edmonds, Jr.	Du Pont Road, Westover Hills, Wil., Del.	Grandson	"	—	—
"	1	Andrew W. Edmonds	Du Pont Road, Westover Hills, Wil., Del.	"	"	—	—
"	1	Herbert K. Faulkner, II	255 Goddard Ave., Brookline, Mass.	"	"	—	—
"	1	Elise Faulkner	255 Goddard Ave., Brookline, Mass.	Granddaughter	"	—	—
"	1	Emily M. Faulkner	255 Goddard Ave., Brookline, Mass.	"	"	—	—
"	1	Charles Faulkner	255 Goddard Ave., Brookline, Mass.	Grandson	"	—	—
"	1	Rosemary Faulkner	255 Goddard Ave., Brookline, Mass.	Granddaughter	"	—	—
"	1	Henry B. Faulkner	255 Goddard Ave., Brookline, Mass.	Grandson	"	—	—

Exhibit C, p. 2

* Not a member of the Du Pont Family as described in paragraph 7 of the Amended Complaint.

Date of Convey-ance	No. of Shares	Person for whose benefit convey-ance was made	Last known address	Family Relation-ship	Nature of Conveyance	Considera-tion, if any	Person or agency, if any, thru whom con-veyance was made
CHRISTIANA SECURITIES CO. COMMON STOCK (Cont'd)							
12/15/44	1	Andrew G. Faulkner	255 Goddard Ave., Brookline, Mass.	Grandson	Gift	—	—
"	1	Lammot du Pont 3d	Barley Mill Road, Greenville, Del.	"	"	—	—
"	1	William F. du Pont	Barley Mill Road, Greenville, Del.	"	"	—	—
"	1	Pierre S. du Pont IV	Rockland, Del.	"	"	—	—
"	1	Jane de D. du Pont	Rockland, Del.	Granddaughter	"	—	—
"	1	Michele W. du Pont	Rockland, Del.	"	"	—	—
"	1	Edith du P. Riegel	Montchanin, Del.	"	"	—	—
"	1	Richard E. Riegel, Jr.	Montchanin, Del.	Grandson	"	—	—
"	1	John E. Riegel	Montchanin, Del.	"	"	—	—
"	1	Natalie M. Riegel	Montchanin, Del.	Granddaughter	"	—	—
"	1	Katharine L. du Pont	Greenville, Del.	"	"	—	—
12/10/45	19	(Same as 19 Grand-children listed 12/15/44 of 1 share each)					
12/12/46	20	Ditto—with addition of: Reynolds du Pont, Jr.	Greenville, Del.	Grandson	"	—	—
12/ 1/47	20	Ditto — 12/12/46					
12/15/48	21	Ditto — 12/12/46 with addition of: Thomas L. du Pont	Greenville, Del.	Grandson	"	—	—
CHRISTIANA SECURITIES CO. PREFERRED STOCK							
12/ 5/33	3,000	Margaret F. du Pont	Wilmington, Del.	Wife	"	—	—
UNITED STATES RUBBER CO. COMMO							
12/22/38	100	Geo. P. Edmonds, Jr.	Wilmington, Del.	Grandson	"	—	—
"	100	Andrew W. Edmonds	Wilmington, Del.	"	"	—	—
"	100	Herbert K. Faulkner, II	255 Goddard Ave., Brookline, Mass.	"	"	—	—

Exhibit C, p. 3

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
UNITED STATES RUBBER CO. COMMON (Cont'd)							
12/22/38	100	Elise Faulkner	255 Goddard Ave., Brookline, Mass.	Granddaughter	Gift	—	—
"	100	Emily M. Faulkner	255 Goddard Ave., Brookline, Mass.	"	"	—	—
"	100	Charles Faulkner	255 Goddard Ave., Brookline, Mass.	Grandson	"	—	—
"	100	Rosemary Faulkner	255 Goddard Ave., Brookline, Mass.	Granddaughter	"	—	—
"	100	Lammot du Pont III	Barley Mill Road, Greenville, Del.	Grandson	"	—	—
"	100	Pierre S. du Pont, IV	Rockland, Del.	"	"	—	—
"	100	Edith du P. Riegel	Montchanin, Del.	Granddaughter	"	—	—
"	100	Richard E. Riegel, Jr.	Montchanin, Del.	Grandson	"	—	—
"	100	John E. Riegel	Montchanin, Del.	"	"	—	—
12/15/39	1,200	(Same as 12 Grandchildren listed 12/22/38, with addition of:					
"	100	Wm. F. du Pont	Barley Mill Road, Greenville, Del.	"	"	—	—
"	100	Jane de D. du Pont	Rockland, Del.	Granddaughter	"	—	—
7/18/41	8,000	Natalie du Pont Edmonds	Du Pont Road, Westover Hills, Wil., Del.	Daughter	Trust	—	Wilmington Trust Co. Trustee
"	8,000	Mary du P. Faulkner	255 Goddard Ave., Brookline, Mass.	"	"	—	"
"	8,000	Pierre S. du Pont, III	Rockland, Del.	Son	"	—	"
"	8,000	Lammot du Pont, Jr.	Barley Mill Road, Greenville, Del.	"	"	—	"
"	8,000	Edith du Pont Riegel	Montchanin, Del.	Daughter	"	—	"
"	8,000	Alexandrine du P. Perkins	3213 Swarthmore Road Westmoreland, Wilmington, Del.	"	"	—	"

UNITED STATES RUBBER CO. COMMON (Cont'd)

Date of Convey-ance	No. of Shares	Person for whose benefit convey-ance was made	Last known address	Family Relation-ship	Nature of Conveyance	Considera-tion, if any	Person or agency, if any, thru whom con-veyance was made
7/18/41	8,000	Esther du Pont Weir	Wilmington, Del.	Daughter	Trust	—	Wilmington Trust Co., Trustee
"	8,000	Reynolds du Pont	Greenville, Del.	Son	"	—	"
"	8,000	David F. du Pont	Wilmington, Del.	"	"	—	"
"	8,000	Willis H. du Pont	Wilmington, Del.	"	"	—	"

UNITED STATES RUBBER CO. PREFERRED

Date of Convey-ance	No. of Shares	Person for whose benefit convey-ance was made	Last known address	Family Relation-ship	Nature of Conveyance	Considera-tion, if any	Person or agency, if any, thru whom con-veyance was made
12/31/32	3,000	Irenee du Pont	Granogue	Brother	Sale	$24,375	—
12/15/37	100	Geo. P. Edmonds, Jr.	Du Pont Road, Westover Hills, Wil., Del.	Grandson	Gift	—	—
"	100	Andrew W. Edmonds	Du Pont Road, Westover Hills, Wil., Del.	"	"	—	—
"	100	Herbert K. Faulkner, II	255 Goddard Ave., Brookline, Mass.	"	"	—	—
"	100	Elise Faulkner	255 Goddard Ave., Brookline, Mass.	Granddaughter	"	—	—
"	100	Emily M. Faulkner	255 Goddard Ave., Brookline, Mass.	"	"	—	—
"	100	Charles Faulkner	255 Goddard Ave., Brookline, Mass.	Grandson	"	—	—
"	100	Lammot du Pont, III	Barley Mill Road, Greenville, Del.	"	"	—	—
"	100	Pierre S. du Pont, IV	Rockland, Del.				
"	100	Edith du P. Riegel	Montchanin, Del.	Granddaughter	"	—	—
"	100	Richard E. Riegel, Jr.	Montchanin, Del.	Grandson	"	—	—
7/18/41	1,000	Natalie du Pont Edmonds	Du Pont Road, Westover Hills, Wil., Del.	Daughter	Trust	—	Wilmington Trust Co., Trustee
"	1,000	Mary du P. Faulkner	255 Goddard Ave., Brookline, Mass.	"	"	—	"
"	1,000	Lammot du Pont, Jr.	Barley Mill Road, Greenville, Del.	Son	"	—	"
"	1,000	Pierre S. du Pont, III	Rockland, Del.	"	"	—	"
"	1,000	Edith du Pont Riegel	Montchanin, Del.	Daughter	"	—	"

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
UNITED STATES RUBBER CO. PREFERRED (Cont'd)							
7/18/41	1,000	Alexandrine du P. Perkins	3213 Swarthmore Road, Westmoreland, Wil., Del.	Daughter	Trust	—	Wilmington Trust Co., Trustee
"	1,000	Esther du Pont Weir	Wilmington, Del.	"	"	—	"
"	1,000	Reynolds du Pont	Greenville, Del.	Son	"	—	"
"	1,000	David F. du Pont	Wilmington, Del.	"	"	—	"
"	1,000	Willis H. du Pont	Wilmington, Del.	"	"	—	"
GENERAL MOTORS CORP. COMMON STOCK							
9/15/30	2,000	* Carolene Hynson du Pont Miller	"Hinchingham", Chestertown, Md.	Former Wife	Gift	—	—
GENERAL MOTORS CORP. PREFERRED STOCK							
		None ever held					
GENERAL MOTORS CORP. DEBENTURE STOCK							
		No conveyance applies					

NOTES: (A) In accordance with the terms of the trust instrument, the trust expired on March 25, 1943 and the beneficiary became full owner of the stock.

(B) In March of 1915 six stockholders of du Pont Securities Co. contributed a total of 11,750 shares of its stock to a pool from which grants of the stock were made to key employees of the du Pont Company. On March 24, 1915, as part of the transaction, Lammot du Pont contributed 1,880 shares of the stock and received 1,250 shares. R. R. M. Carpenter contributed 705 shares and received 1,250 shares.

Exhibit C, p. 6

E

* Not a member of the Du Pont Family as described in paragraph 7 of the Amended Complaint.

Government's Exhibit No. 1212

5163

ANSWER OF DEFENDANT IRENEE DU PONT TO PLAINTIFF'S INTERROGATORIES NOS. 3 AND 4

Interrogatory No. 3

Subparagraphs (a), (b), (c), (d). The data called for by these subparagraphs is set forth in Exhibit C, annexed hereto and made a part hereof.

Interrogatory No. 4

Subparagraphs (a), (b). The data called for by these subparagraphs is set forth in Exhibit D, annexed hereto and made a part hereof.

Government's Exhibit No. 1212-A

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
DELAWARE REALTY & INVESTMENT CO.							
6/ 4/24	100	I. Sophie du Pont May	Granogue, Del.	Daughter	In Trust (*)		Irenee du Pont, Trustee
"	100	Margaretta L. Greenewalt	Greenville, Del.	"	" (*)		"
"	100	Constance S. du Pont Darden	Charlottesville, Va.	"	" (*)		"
"	100	Eleanor F. du Pont Rust	R. F. D. No. 5	"	" (*)		"
			Thomasville, Ga.	"	" (*)		"
"	100	Doris E. du Pont	Deceased	"	" (*)		"
"	100	Mariana du Pont Silliman	Montchanin, Del.	"	" (*)		"
"	100	Octavia M. du Pont Bredin	Greenville, Del.	"	" (*)		"
"	100	Lucille E. du Pont Flint	" "	"	" (*)		"
"	200	Irenee du Pont, Jr.	3500 Linden Ave., Parkersburg, W. Va.	Son	" (*)		"
CHRISTIANA SECURITIES CO. COMMON							
3/ 2/15	(A)						
3/19/15	417	* A. Felix du Pont, Sr.	Deceased	Cousin	Gift		
12/16/24	250	* Emile du Pont	2203 Grant Ave., Wilmington, Del.	Nephew	"		
2/14/25	1000	Ernest N. May	Granogue, Del.	Son-in-law	"		
1/ 4/26	100	J. Simpson Dean	Montchanin, Del.	Husband of niece	Sale	$30,000.00	
1/15/26	10	R. R. M. Carpenter, Sr.	Deceased	Brother-in-law	"	5,560.00	
6/30/26	1000	Crawford H. Greenewalt	Greenville, Del.	Son-in-law	Gift		
12/31/26	1000	Constance S. du Pont Darden	Charlottesville, Va.	Daughter	In Trust (B)		Lammot du Pont, Sr., Trustee
"	1000	Eleanor F. du Pont Rust	R. F. D. No. 5, Thomasville, Ga.	"	" (B)		"

Exhibit C, p. 1

* Not a member of the DuPont Family as described in paragraph 7 of the Amended Complaint.

Date of Convey-ance	No. of Shares	Person for whose benefit convey-ance was made	Last known address	Family Relation-ship	Nature of Conveyance	Considera-tion, if any	Person or agency, if any, thru whom con-veyance was made
CHRISTIANA SECURITIES CO. COMMON (Cont'd)							
12/31/26	1000	Doris E. du Pont	Deceased	~~Daughter~~	In Trust (B)		Lammot du Pont, Sr., Trustee
"	1000	Mariana du Pont Silliman	Montchanin, Del.	"	" (B)		"
"	1000	Octavia M. du Pont Bredin	Greenville, Del.	"	" (B)		"
"	1000	Lucille E. du Pont Flint	" "	"	" (B)		"
"	1000	Irenee du Pont, Jr.	3500 Linden Ave., Parkersburg, W. Va.	Son	" (B)		"
7/5/33	100	*E. Paul du Pont, Jr.	1021 Kent Rd., Wilmington, Del.	Nephew	Gift		
"	100	*Alexis Irenee du Pont	Montchanin, Del.	"	In Trust (C)		E. Paul du Pont, Sr., Trustee
"	100	*Jacques Turgot du Pont	"	"	" (C)		"
"	100	*Stephen du Pont	R.F.D. No. 4, Westport, Conn.	"	" (C)		"
"	100	*Benjamin Bonneau du Pont	141 Somerset Ave., Fairfield, Conn.	"	" (C)		"
"	100	*Francis George du Pont	831 Hillside Rd. Fairfield, Conn.	"	" (C)		"
12/16/40	50	Mrs. Irenee du Pont	Granogue, Del.	Wife	Sale (D)	$130,000	"
"	50	Constance S. du Pont Darden	Charlottesville, Va.	Daughter	" (D)	"	
"	50	Eleanor F. du Pont Rust	R.F.D. No. 5, Thomasville, Ga.	"	" (D)	"	
"	50	Margaretta L. Greenewalt	Greenville, Del.	"	" (D)	"	
"	50	I. Sophie du Pont May	Granogue, Del.	"	" (D)	"	
"	50	Lucille E. du Pont Flint	Greenville, Del.	"	" (D)	"	
"	50	Mariana du Pont Silliman	Montchannin, Del.	"	" (D)	"	
"	50	Octavia M. du Pont Bredin	Greenville, Del.	"	" (D)	"	
"	50	Irenee du Pont, Jr.	3500 Linden Ave., Parkersburg, W. Va.	Son	" (D)	"	

Exhibit C. p. 2

* Not a member of the Du Pont Family as described in paragraph 7 of the Amended Complaint.

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
CHRISTIANA SECURITIES CO. PREFERRED							
10/16/23	312½	I. Sophie du Pont May	Granogue, Del.	Daughter	Sale	$25,579.69	Fidelity Phila. Trust Co. (Wilmington Trust Co. Successor Trustee)
"	312½	Margaretta L. Greenewalt	Greenville, Del.	"	"	25,579.69	"
"	312½	Constance S. du Pont Darden	Charlottesville, Va.	"	"	25,579.69	"
"	312½	Eleanor F. du Pont Rust	R.F.D. No. 5, Thomasville, Ga.	"	"	25,579.69	"
"	312½	Doris E. du Pont	Deceased	"	"	25,579.69	"
"	312½	Mariana du Pont Silliman	Montchanin, Del.	"	"	25,579.69	"
"	312½	Octavia ~~M. du~~ Pont Bredin	Greenville, Del.	"	"	25,579.68	"
"	312½	Lucille E. du Pont Flint	" "	"	"	25,579.68	"
2/14/25	1000	I. Sophie du Pont May	Granogue, Del.	"	Gift		
5/13/25	200	*Alice du Pont Buck	"Buena Vista", Wilmington, Del.	Cousin	Sale	18,000.00	
5/13/25	150	*Katherine Clark du Pont(*)	South Londonderry, Vt.	Wife of cousin	"	13,500.00	
"	50	*Frank V. du Pont	2400 W. 11th St., Wilmington, Del.	Cousin	"	4,500.00	
2/17/26	1000	Margaretta L. Greenewalt	Greenville, Del.	Daughter	Gift		
12/31/26	295¾	I. Sophie du Pont May	Granogue, Del.	"	In Trust		Fidelity Phila. Trust Co. (Wilmington Trust Co. Successor Trustee)
"	295¾	Margaretta L. Greenewalt	Greenville, Del.	"	"		
"	295¾	Constance S. du Pont Darden	Charlottesville, Va.	"	"		
"	295¾	Eleanor F. du Pont Rust	R.F.D. No. 5, Thomasville, Ga.	"	"		
"	295¾	Doris E. du Pont	Deceased	"	"		"

(*) Present name — Katherine Clark Ketcham.

* Not a member of the Du Pont Family as described in paragraph 7 of the Amended Complaint.

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
CHRISTIANA SECURITIES CO. PREFERRED (Cont'd)							
12/31/26	295¼	Mariana du Pont Silliman	Montchanin, Del.	Daughter	In Trust		Fidelity Phila. Trust Co. (Wilmington Trust Co. Succeeding Trustee)
"	295¼	Octavia M. du Pont Bredin	Greenville, Del.	"	"		
"	295¼	Lucille E. du Pont Flint	" "	"	"		
12/31/26	1000	Constance S. du Pont Darden	Charlottesville, Va.	"	"	(E)	Lammot du Pont, Sr., Trustee
12/31/26	1000	Eleanor F. du Pont Rust	R.F.D. No. 5, Thomasville, Ga.	"	"	(E)	"
"	1000	Doris E. du Pont	Deceased	"	"	(E)	"
"	1000	Mariana du Pont Silliman	Montchanin, Del.	"	"	(E)	"
"	1000	Octavia M. du Pont Bredin	Greenville, Del.	"	"	(E)	"
"	1000	Lucille E. du Pont Flint	" "	"	"	(E)	"
"	1000	Irenee du Pont, Jr.	3500 Linden Ave., Parkersburg, Va.	Son	"	(E)	"
6/26/50	100	* Alexis Felix du Pont IV	1021 Kent Rd., Wilmington, Del.	Great nephew	"		E. Paul du Pont, Jr., Trustee
"	100	* E. Paul du Pont III	"	" "	"		"
UNITED STATES RUBBER CO. COMMON							
10/29/31	8250.48(F)	Mrs. Irenee du Pont	Granogue, Del.	Wife	Sale	$72,832.87	
12/30/32	5905.86(G)	I. Sophie du Pont May	" "	Daughter	(G)		Wilmington Trust Co., Trustee
"	5905.86(G)	Margaretta L. Greenewalt	Greenville, Del.	"	(G)		"
"	5905.86(G)	Constance du Pont Darden	Charlottesville, Va.	"	(G)		"
"	5905.86(G)	Eleanor du Pont Rust	R.F.D. 5, Thomasville, Ga.	"	(G)		"
"	5905.86(G)	Mariana du Pont Silliman	Montchanin, Del.	"	(G)		"
"	5905.86(G)	Octavia du Pont Bredin	Greenville, Del.	"	(G)		"
"	5905.86(G)	Lucille du Pont Flint	" "	"	(G)		"
"	5905.86(G)	Irenee du Pont, Jr.	3500 Linden Ave., Parkersburg, W. Va.	Son	(G)		"
12/31/32	4594.76(H)	Lammot du Pont	Wilmington, Del.	Brother	Sale	$24,373.18	

* Not a member of the Du Pont Family as described in paragraph 7 of the Amended Complaint.

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
UNITED STATES RUBBER CO. PREFERRED							
1/11/29	800	Mariana du Pont Silliman	Montchanin, Del.	Daughter	Sale	$57,000.00	Wilmington Trust Co., Trustee
"	800	Lucille du Pont Flint	Greenville, Del.	"	"	57,000.00	"
"	800	Octavia M. du Pont Bredin	" "	"	"	57,000.00	"
"	800	Doris E. du Pont	Deceased	"	"	57,000.00	"
"	800	Irenee du Pont, Jr.	3500 Linden Ave., Parkersburg, W. Va.	Son	"	57,000.00	"
12/31/32	673.11(K)	Lammot du Pont	Wilmington, Del.	Brother	—	—	
10/29/31	1208.65(I)	Mrs. Irenee du Pont	Granogue, Del.	Wife	Sale	72,832.87	
12/31/31	5441	Mrs. Irenee du Pont	" "	"	"	41,487.00	
12/24/34	100	Irenee du Pont May	" "	Grandson	Gift	—	
"	100	Ernest N. May, Jr.	" "	"	"	—	
"	100	Thomas Henry May	" "	"	"	—	
"	100	David Greenewalt	Greenville, Del.	"	"	—	
"	100	Nancy Greenewalt Frederick	"	Grandaughter	"	—	
"	100	Henry H. Silliman, Jr.	Montchanin, Del.	Grandson	"	—	
"	100	Colgate W. Darden, III	Charlottesville, Va.	"	"	—	
"	100	Pierre du Pont Darden	" "	"	"	—	
"	100	Philip G. Rust, Jr.	R. F. D. No. 5, Thomasville, Ga.	"	"	—	
"	100	F. G. du Pont Rust	" "	"	"	—	
12/ 9/37	52	Mrs. Irenee du Pont	Granogue, Del.	Wife	—	—	
12/27/37	100	Henry H. Silliman	Montchanin, Del.	Son-in-law	Gift	—	
"	100	Philip G. Rust	R. F. D. No. 5, Thomasville, Ga.	"	"	—	
"	100	Colgate W. Darden, Jr.	Charlottesville, Va.	"	"	—	
"	100	Crawford H. Greenewalt	Greenville, Del.	"	"	—	
"	100	Ernest N. May	Granogue, Del.	"	"	—	
12/30/32	865.14(J)	I. Sophie du Pont May	" "	Daughter	In Trust		
12/30/32	865.14(J)	Margaretta L. Greenewalt	Greenville, Del.	"	"		
"	865.14(J)	Constance S. du Pont Darden	Charlottesville, Va.	"	"		
"	865.14(J)	Eleanor F. du Pont Rust	R. F. D. No. 5, Thomasville, Ga.	"	"		
"	865.14(J)	Mariana du Pont Silliman	Montchanin, Del.	"	"		
"	865.14(J)	Octavia M. du Pont Bredin	Greenville, Del.	"	"		
"	865.16(J)	Lucille E. du Pont Flint	" "	"	"		
"	865 (J)	Irenee du Pont, Jr.	3500 Linden Ave., Parkersburg, W. Va.	Son	"		

Exhibit C, p. 5

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
UNITED STATES RUBBER CO. PREFERRED (cont'd)							
12/15/38	50	Doris du Pont Silliman	Montchanin, Del.	Granddaughter	Gift	None	
"	50	Henry Rust	R. F. D. No. 5, Thomasville, Ga.	Grandson	"	"	
"	50	Irene Sophie Darden	Charlottesville, Va.	Granddaughter	"	"	
"	50	Crawford H. Greenewalt, Jr.	Greenville, Del.	Grandson	"	"	
1/ 5/39	50	" "	" "	"	"	"	
"	50	Doris du Pont Silliman	Montchanin, Del.	Granddaughter	"	"	
"	50	Irene Sophie Darden	Charlottesville, Va.	"	"	"	
"	50	Henry Rust	R. F. D. No. 5, Thomasville, Ga.	Grandson	"	"	
5/27/40	50	Irene Sophie Darden	Charlottesville, Va.	Granddaughter	"		
"	50	Henry Rust	R. F. D. No. 5, Thomasville, Ga.	Grandson	"		
"	50	Crawford H. Greenewalt, Jr.	Greenville, Del.	"	"		
"	50	Doris du Pont Silliman	Montchanin, Del.	Granddaughter	"		
"	100	John Eric May	Granogue, Del.	Grandson	"		
10/ 5/40	50	Robert B. Flint, Jr.	Greenville, Del.	"	"		
"	50	Richard C. Rust	R. F. D. No. 5, Thomasville, Ga.	"	"		
5/15/41	100	Robert B. Flint, Jr.	Greenville, Del.	"	"		
"	100	Richard C. Rust	R. F. D. No. 5, Thomasville, Ga.	"	"		
"	200	Eleanor H. Silliman	Montchanin, Del.	Granddaughter	"		
12/29/42	100	Mariana Silliman	" "		"		
"	100	Peter Flint	Greenville, Del.	Grandson	"		
9/22/43	100	Peter Flint	" "	"	"		
"	100	Mariana Silliman	Montchanin, Del.	Granddaughter	"		
5/10/46	300	Alice Lucille Flint	Greenville, Del.	"	"		
"	300	Irene du Pont	3500 Linden Ave., Parkersburg, W. Va.	"	"		
11/28/47	100	Stephanie Bredin	Greenville, Del.	"	"		
"	100	Henry Alexis Flint	" "	Grandson	"		

Exhibit C, p. 6

Date of Conveyance	No. of Shares	Person for whose benefit conveyance was made	Last known address	Family Relationship	Nature of Conveyance	Consideration, if any	Person or agency, if any, thru whom conveyance was made
UNITED STATES RUBBER CO. PREFERRED (cont'd)							
11/28/47	100	Robert Morris Silliman	Montchanin, Del.	Grandson	Gift		
5/10/48	200	Stephanie Bredin	Greenville, Del.	Granddaughter	“		
“	200	Henry Alexis Flint	“ “	Grandson	“		
“	200	Robert Morris Silliman	Montchanin, Del.	“	“		
8/20/48	300	Margaretta S. Bredin	Greenville, Del.	Granddaughter	“		
“	300	Irenee du Pont, 3rd	3500 Linden Ave., Parkersburg, W. Va.	Grandson	“		
10/ 4/49	300	Constance E. Flint	Greenville, Del.	Granddaughter	“		
12/ 1/49	200	Jonathan B. Bredin	“ “	Grandson	“		
1/ 5/50	100	Jonathan B. Bredin	“ “	“ “	“		
6/21/51	300	Cynthia du Pont	3500 Linden Ave., Parkersburg, W. Va.	Granddaughter	“		
GENERAL MOTORS CORP. COMMON							
2/ 3/36	18/55ths	Mrs. Irenee du Pont	Granogue, Del.	Wife	“		
GENERAL MOTORS CORP. 7% DEBENTURE							
4/ 9/20	550	I. Sophie du Pont May	Granogue, Del.	Daughter	In Trust		Fidelity Phila. Trust Co. (Wilmington Trust Co. Successor Trustee)
“	550	Margaretta L. Greenewalt	Greenville, Del.	“	“		
“	550	Constance S. du Pont Darden	Charlottesville, Va.	“	“		
“	550	Eleanor F. du Pont Rust	R.F.D. No. 5, Thomasville, Ga.	“	“		“
“	550	Doris E. du Pont	Deceased	“	“		“
“	550	Mariana du Pont Silliman	Montchanin, Del.	“	“		“
“	550	Octavia M. du Pont Bredin	Greenville, Del.	“	“		“
“	550	Lucille E. du Pont Flint	“ “	“	“		“
6/20/28	100	Mariana du Pont Silliman	Montchanin, Del.	“	Gift		
7/ 5/29	100	Octavia M. du Pont Bredin	Greenville, Del.	“	“		

(A) In March of 1915 six stockholders of du Pont Securities Co. contributed a total of 11,750 shares of its stock to a pool from which grants of stock were made to key employees of the du Pont Company. On March 2, 1915, Irenee du Pont contributed 1,880 shares of stock and received 1,250 shares. Mr. R. R. M. Carpenter contributed 705 shares and received 1,250 shares.

(B) In accordance with the terms of the trust instrument, the trust expired on January 1, 1950, and the beneficiary became full owner of the stock.

(C) In accordance with the terms of the trust instrument, the trust expired when the beneficiary became 22 years of age and the beneficiary became full owner of the stock.

Alexis Irenee du Pont became 22 on 7-18-50
Jacques Turgot du Pont " " " 4-8-45
Stephen du Pont " " " 7-19-37
Benjamin B. du Pont " " " 5-25-41
Francis G. du Pont " " " 4-1-35

(D) At some time prior to August 12, 1930, Irenee du Pont gave to each of his eight daughters (Doris du Pont, Constance du Pont (Darden), Eleanor du Pont (Rust), Margaretta du Pont (Greenewalt), I. Sophie du Pont (May), Lucille du Pont (Flint), Mariana du Pont (Silliman), and Octavia du Pont (Bredin)) and to Irenee du Pont, Jr., a note of Penas de Hicacos, S. A. (a corporation of which Mr. du Pont was sole stockholder) in the face amount of $200,000. Following the death of Doris du Pont in 1930, the note which had been given to her was transferred to Mrs. Irenee du Pont. In 1935, Penas de Hicacos, S. A. paid $60,000 on each note. On December 16, 1940, Irenee du Pont transferred to each note-holder 50 shares of Christiana Securities Co. common stock (then having a market value of $130,000) and $10,000 in cash, and received in exchange the note owned by each note-holder.

(E) In accordance with the terms of the trust instrument, the trust terminated on January 1, 1950 and the beneficiary became full owner of the stock.

(F) On October 29, 1931, Irenee du Pont sold to Mrs. Irenee du Pont 2,794 shares of Rubber Securities Co. common stock. Rubber Securities Co., which had 106,335 shares of common stock outstanding at the time, owned 314,000 shares of United States Rubber Co. common stock and 46,000 shares of United States Rubber Co. preferred stock.

(G) On December 30, 1932, Irenee du Pont sold 16,000 shares of Rubber Securities Co. common stock to Laird & Co. for $234,360 and on the same day Laird & Co. sold 14,000 shares of the stock to Wilmington Trust Co., as trustee under a trust for Mr. du Pont's seven daughters, and also sold 2,000 shares of the stock to Wilmington Trust Co., as trustee under a trust for Irenee du Pont, Jr. On December 29, 1932, Mr. du Pont had paid $240,000 to Wilmington Trust Co. and had approved

Exhibit C, p. 8.

Wilmington Trust Company's purchase of the Rubber Securities Co. stock in question.

(H) On December 31, 1932, Irenee du Pont sold to Lammot du Pont 1,556 shares of Rubber Securities Co. common stock. Rubber Securities Co. then had 106,335 shares of common stock outstanding and owned 314,000 shares of United States Rubber Co. common stock and 46,000 shares of United States Rubber Co. preferred stock.

(I) See Note (F), above.

(J) See Note (G), above.

(K) See Note (H), above.

(*) This trust expired when the beneficiary became 31 years of age.

Government's Exhibit No. 1213

ANSWER OF PIERRE S. DU PONT TO PLAINTIFF'S INTERROGATORY NO. 4

EXHIBIT D

	Shares held in own name		
	On 1/1/49	On 10/1/51	
Delaware Realty & Investment Co.	0	0	
Christiana Securities Co. Common	4,792	4,792	
Christiana Securities Co. Preferred	954	204	
U. S. Rubber Co. Common	45,104	45,104	
U. S. Rubber Co. 8% Preferred	5,799	5,800	
General Motors Corp. Common	88,785	177,570	(2 for 1 split 9/28/50)
General Motors Corp. 5% Preferred	285	285	
E. I. du Pont de Nemours & Co. Common	8,224	33,225	(4 for 1 split 6/15/49)
E. I. du Pont de Nemours & Co. Preferred	0	0	

Government's Exhibit No. 1214

ANSWER OF LAMMOT DU PONT TO PLAINTIFF'S INTERROGATORY NO. 4

EXHIBIT D

	Shares held in own name		
	On 4/1/49	On 10/1/51	
Delaware Realty & Investment Corp.	None	None	
Christiana Securities Co. Common	11,870	11,870	
Christiana Securities Co. Preferred	None	None	
United States Rubber Co. Common	3,712	3,712	
United States Rubber Co. Preferred	None	None	
General Motors Corp. Common	24,824	44,068	—Stock split 2 for 1 9/28/50
General Motors Corp. Preferred	None	None	
E. I. du Pont de Nemours & Co. Common	15,959 [illegible]	57,636	—Stock split 4 for 1 6/15/49
E. I. du Pont de Nemours & Co. Preferred	None	None	

E

Government's Exhibit No. 1214

8th listing - E. I. du Pont de Nemours & Co. Common - first column should be 15,959 instead of 15,989.

Government's Exhibit No. 1215

Govt. Trial Ex. No. 1215

ANSWER OF IRENEE DU PONT TO PLAINTIFF'S INTERROGATORY NO. 4

EXHIBIT D

	Shares held in own name		
	On 1/1/49	On 10/1/51	
Delaware Realty & Investment Co.	0	0	
Christiana Securities Co. Common	7,301	7,301	
Christiana Securities Co. Preferred	6,709	2,009	
United States Rubber Co. Common	21,200	20,000	
United States Rubber Co. Preferred	2,800	1,900	
General Motors Corp. Common	16,000	32,000	9/28/50 — Split 2 for 1
General Motors Corp. Preferred	0	0	
E. I. du Pont de Nemours & Co. Common	3,000	12,000	6/15/49 — Split 4 for 1
E. I. du Pont de Nemours & Co. Preferred	0	0	

Government's Exhibit No. 1217

The Plaintiff's Interrogatory No. 4:

State for each of the years from 1915 for Christiana and from 1924 for Delaware, to June 30, 1949, inclusive, except where otherwise noted:

(a) The name of each company whose capital stock you held, and the number of shares of its common and of its preferred stock (separately) you held;

(b) The income you derived from each of such blocks of stocks in 1929 and 1948 only;

(c) Your gross income, taxes, net income after taxes, dividend payments, and interest payments.

Answer of the Defendant Delaware to Plaintiff's Interrogatory No. 4:

See attached Exhibits C and D from Answer of Delaware.

Government's Exhibit No. 1217-A

Excerpt from Answer of Defendant Delaware to Plaintiff's Interrogatory #4(a)

DELAWARE REALTY & INVESTMENT CORPORATION

Holdings of Christiana Securities Company, Common Stock, and E. I. du Pont de Nemours & Company, Common Stock, from 1924 to June 30, 1949

Christiana

		No. of Shares
5/31/24	Purchased	49,000
6/30/49	Balance	49,000

E. I. du Pont de Nemours

5/30/24	Acquired	30,847
8/10/25	Received as 40% stock dividend	12,338.80
9/19/25	Purchased	.20
		43,186.00
3/12/26	Purchased	14
		43,200
10/28/26	Received in 2 for 1 split	43,200
		86,400
1/21/29	Received in 3½ for 1 split	216,000
		302,400
7/15/30	Acquired via exercise of rights to purchase at $80 a share, 1 additional for each 30 shares owned 6/5/30	10,080
		xxxxxx 312,480
12/12/33	Sold	4,000
		308,480
1/11/35	Distributed as dividend to stockholders of Delaware Realty and Investment Corporation	4,000
		304,480
6/15/49	Received in 4 for 1 split	913,440
6/15/49	Balance unchanged to 6/30/49	1,217,920

Government's Exhibit No. 1217-A

CORRECTION

In the last column, the total following the 7th listing under E. I. du Pont de Nemours should be 312,480 instead of 312,580.

Government's Exhibit No. 1228

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

February 22, 1923

Mr. A. P. Sloan, Jr., Vice-President,
General Motors Corporation,
224 West 57th St.,
New York, N. Y.

Dear Mr. Sloan:

Please note the attached report which is somewhat in the nature of a descriptive specification covering the methods of finishing automobiles with the 'Duco' enamels made by the duPont Company.

We now have new materials in blue, green and black, with the toughness very markedly improved and the covering qualities quite satisfactory. These various colors have been applied to panels subjected to our acceleration tests under the ultra-violet light and show up better from the standpoint of durability than anything submitted heretofore. It is very desirable that any of our plants, having any of the older materials on hand, dispense with the same and order the new product.

We are anxious now to make all the speed that is possible so that an early decision may be reached. We owe this to the duPont Company who are besieged with requests for this material from various motor-car companies.

We have also given in the report tentative methods of finishing that seem necessary to secure proper adhesion. The laboratory viewpoint may differ from that of some of our committee members, appointed to study the question of finishes for bodies. However, we have tried to present our facts in an argumentative way, showing the reasons for each step.

Very truly yours,

F. O. Clements

Director of Research

CC: Rice, Widman, Bassett, Weckler, Hannum, Rogers, Knudsen, MacQuaid,
Mott, Kavanaugh, Bergland, Hardy, Scott, Barton, Beardslee and Sloan.
FOC-G

NOTE: "RECEIVED FEB 26 1923 A.P. SLOAN, JR." is stamped at top. Routing stamp, bearing initials A.P.S., J.L.P., [], [], [], W.J., A.T.[], and W.P.A., with check marks inserted by hand after "A.P.S." and "A.T.[]", appears in lower right corner.

Government's Exhibit No. 1236

December 18, 1944.

Mr. Alfred P. Sloan, Jr., Chairman,
General Motors Corporation,
New York City, N. Y.

Dear Alfred:

I must apologize to you for having "run out" on you with respect to luncheon today. I had a tentative appointment with Eugene du Pont to discuss a matter which seemed of considerable importance, and expected to see him this afternoon, but just after speaking to you, after the meeting, Gene informed me that he was about to leave for Florida for a protracted stay, so that if I was to see him at all it had to be immediately. I am sorry that our luncheon was broken up.

While it was not the subject I was discussing with Gene, he mentioned to me the position held by his nephew, Bernard Peyton. Bernard is the son of Eugene's sister, who married William C. Peyton and, being the only son, has, I believe inherited the fortunes of his father and mother. Bernard is a Director, Vice-President and Treasurer of the New York Air Brake Company. I understand his managerial activities are in the manufacturing or operating side. His previous experience was as the active head of a comparatively small company, manufacturing locomotive stokers.

As the New York Air Brake Company seems to be a company of some $20,000,000 assets and doing an annual

business of about the same amount, his business experience seems to have been in activities of substantial importance.

Without having looked the matter up, I would think his ownership in the du Pont Company would amount to something of the order of 60,000 shares of common stock, which is more than enough to give him a predominating interest in the affairs of that company; and indirectly in General Motors.

Bernard is now about 45 years of age, I think, but appears to be considerably older than that. I wonder if this would be a suggestion for consideration from the stand point of Directorship in General Motors.

I do not know the nature of the New York Air Brake Company's business, but hardly think it would conflict or compete with any G. M. activities.

Yours sincerely,

CHAIRMAN OF THE BOARD.

LduP/MD

NOTE. "File Copy" stamped across each page of letter.

Government's Exhibit No. 1237

(DP)
GMC-542

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, 19, N. Y.

December 29, 1944

Mr. Lammot duPont
Chairman of the Board
E. I. duPont deNemours & Company
Wilmington, Delaware

RE: GENERAL MOTORS ORGANIZATION—BOARD OF DIRECTORS' MEMBERSHIP

My dear Lammot:

Thanks for your letter of December 18th. The matter of the luncheon the other day was not important. I always look forward with pleasure to having lunch with Walter and you, and whoever may be available, because the association means a great deal to me. I realize that it takes time and, as a matter of fact, I could well use the extra hour that was available to me by returning on an earlier train.

Now, regarding the matter of Bernard Peyton, of course, I do not know him personally. Thinking perhaps I could get some reaction from Don, I asked him what he thought, but he does not know him personally. The chances are that none of the rest of us do. Certainly if he is the owner of such a large block of your common stock, involving indirectly a large ownership in General Motors stock, he would be qualified from that point of view. Just how he is personally, of course, again I don't know because I do not

(DP)
GMC-542

know him. I would think that as Vice President and Treasurer of the New York Air Brake Company he would have a background of business experience that would be helpful. I would be entirely favorable to him if you feel he is qualified in the more general and personal respects. Personally, I would assume that he well might be. This is particularly true if, as Vice President, he deals with the manufacturing and operating side. As you say, that is what would help us the most.

How would you suggest I proceed? If you wish me to I will be glad to make some inquiries and see if I can get any further information, but in view of the fact that you know him, what more is needed? If you take that position and will let me know, we could have his name go before the Board at the January or, perhaps better, the February meeting, whichever appeals to you as desirable.

Very truly yours,

/s/ Alfred P. Sloan, Jr.
Chairman

APSJr./K

Note. "A. P. S.—also C. of C. 1/25" written at top of letter. "Received Jan. 2-1945 Lammot duPont" stamped at top.

Government's Exhibit No. 1238

Copy to: Mr. L. du Pont
Building

PERSONAL & CONFIDENTIAL

January 7, 1941.

Mr. Donaldson Brown
General Motors Corporation
1775 Broadway
New York, N. Y.

Dear Don:

You will recall that I did not get out to the special meeting of the Policy Committee in Detroit a week or two ago. It happened to be the day of our Finance Committee and Board meetings here. For this reason I was not acquainted with the proposed changes in the organization of General Motors until I learned of them in the Policy Committee meeting yesterday. It may be due to my unfamiliarity with all of the background leading up to these changes that I am more impressed than I should be with what appeared to me to be certain shortcomings.

I think we will all agree that the financial side of General Motors has always been an extremely important function in the General Motors management. In fact, there are times when the financial aspects were of such importance as to control the affairs of the Corporation. This has been due I think not only because of the caliber of men which have headed up the financial affairs of the Corporation, but because financial questions were of themselves so important.

I have always been of the hope that we might bring men along in the financial or even in other departments of the Company in a manner that we would never lack for a strong man to head up the financial affairs.

I was comfortable in the feeling that in Albert Bradley we had such a man, and I hoped he would bring along behind him other men of equal caliber. When I learned yesterday that Albert was to be taken out of the financial department, and not only had no provision been made to fill his place immediately but that there seemed to be considerable doubt as to whether such a man was available, I was naturally quite shocked.

The financial position of General Motors today is so strong that I think it is very easy for us to feel that the

importance of the financial aspect may not be as critical as heretofore. On the other hand, it seems to me that never was there a time in the life of the great corporations of this country when this question was more important. The rapidly changing financial and economic aspects of business life in this country, the enormous demands from the National Defense Program involving the tax question in such an important way and the critical moves which are being made in all countries involving the very fundamentals of our economic and financial life seems to me to make it more important than ever that we should have men of ability, background and experience in this work.

Alfred Sloan reached his position in General Motors under quite different conditions than men rise in large organizations today. He came up through the small corporation, and was, therefore, always impressed with all aspects of business management, particularly the financial aspects. I have always felt that he had a remarkable appreciation of the financial side of business for one who was so active and able in the executive and technical aspects. During his regime I think that we had from the operating side always a sympathetic appreciation of the financial aspects of business. I am not meaning to detract in the slightest from the remarkable abilities of Mr. Wilson when I say that he did not have that training, for which reason it is not surprising to find that he has not the same experience or capacity or appreciation of that side which Alfred had. This makes it more important than ever that the financial side of the business should be organized in strong hands, in hands which can make the financial aspects of the business felt and appreciated throughout the organization.

The move of Bradley to the operating end has been made. I presume it would be awkward to reverse that at this time. However, I feel that if I had been in on the discussions at an earlier date I would have endeavored to urge that Bradley be retained in the financial department until his successor could be found. It would have seemed to me very much easier to find a man to fill the position now to be taken by him than to spare him as Head of the financial department if there is no one to take his place. I even think that the return of Bradley to the financial department might be reconsidered.

However, on the assumption that such a move is out of the question, I do feel that we should move up quickly on the filling of that vacancy. It would, of course, be preferable to make such a selection from the General Motors organization. On the other hand, if it is the conclusion of you, Alfred and Albert that we lack, in the General Motors organization, a man to fill that position I think we should undertake to secure the services of the best man we can find in the United States for that purpose.

I have seen something of Donner over the past years, but I do not feel that I know him well. From the standpoint of his general capacities I can only say that in every matter in which I have had the opportunity of passing upon his work I have felt he did it with great ability. I know nothing, for instance, of his capacity to handle an organization and to develop men under him. That is important.

The suggestion was made at the meeting that we might defer the selection for two or three months inasmuch as there was a feeling that Donner was not yet quite ready. Donner has been in the organization for many years. He is, I understand, thirty-eight years old, which is plenty old enough if he has the capacity. Certainly a month or two or three more will not materially change Donner's capacities.

I do not feel that ~~I~~ know John Schumann very well, though he seems to have very ably managed the work under his charge. He is an older man and perhaps for that reason may have more prestige in the organization even though he may not have the technical capacity which Donner has. At least he should know sound finances and has had a good deal of experience and association with the corporation for many years.

~~I do~~ not make this as a suggestion, but merely as indicating the type of move that perhaps might be worth considering. Would it be well to put John Schumann in as the Head of General Motors finances with Donner as his first assistant?

They should both be made Vice Presidents and perhaps John Schumann a member of the Policy Committee with Donner a member of the Administration Committee in order to carry into the operating side of the business the financial viewpoint. It will be said of course that Bradley takes that with him into that new work. On the other hand as Bradley becomes more and more involved in operating problems and therefore of necessity further removed from the financial aspects of the Corporation as a whole, the need for carrying the financial viewpoint into that work will be ever-increasing.

You mentioned yesterday that you would like to discuss this sometime. I would of course be very glad to do so, but I thought that time might be somewhat delayed and that maybe this letter might serve some purpose in the meanwhile. I assure you that it is not dictated in the slightest way in criticism of what has been done or what is being done, but is merely a somewhat disconnected effort to carry to you my viewpoint of the tremendous importance of doing something promptly to fortify the financial function in General Motors.

Sincerely yours,

PRESIDENT.

WSC:R

NOTE. "File Copy" is stamped across each page of document.

Government's Exhibit No. 1240

MANAGEMENT PROXY HOLDERS

(Persons designated by the management of the respective companies to receive the proxies of stockholders and to vote the stock at stockholders' meetings.)

Year	Christiana	Du Pont	General Motors
1919	Pierre S. du Pont	Pierre S. du Pont Alexis I. du Pont John J. Raskob	No record
1920	Pierre S. du Pont	Irenee du Pont John J. Raskob Alexis I. du Pont	Pierre S. du Pont W. C. Durant J. J. Raskob J. A. Haskell T. S. Merrill
1921	Pierre S. du Pont	Pierre S. du Pont H. G. Haskell Alexis I. du Pont	Pierre S. du Pont J. J. Raskob J. A. Haskell T. S. Merrill
1925	Pierre S. du Pont Irenee du Pont Lammot du Pont J. J. Raskob	Pierre S. du Pont H. G. Haskell Charles Copeland	Pierre S. du Pont A. P. Sloan, Jr. J. J. Raskob T. S. Merrill
1930	Pierre S. du Pont Irenee du Pont Lammot du Pont	Pierre S. du Pont Lammot du Pont Charles Copeland	Lammot du Pont A. P. Sloan, Jr. D. Brown J. T. Smith
1935	Pierre S. du Pont Irenee du Pont Lammot du Pont A. Felix du Pont	Pierre S. du Pont Lammot du Pont W. S. Carpenter, Jr.	Lammot du Pont A. P. Sloan, Jr. D. Brown J. T. Smith
1940	E. H. Tinney Pierre S. du Pont Lammot du Pont H. Fletcher Brown R. R. M. Carpenter	Lammot du Pont W. S. Carpenter, Jr. A. B. Echols	A. P. Sloan, Jr. D. Brown W. J. Knudsen J. T. Smith
1945	None	Lammot du Pont W. S. Carpenter, Jr. A. B. Echols	A. P. Sloan, Jr. D. Brown C. E. Wilson J. T. Smith

Year	Christiana	Du Pont	General Motors
1947	None	Lammot du Pont W. S. Carpenter, Jr. A. B. Echols	A. P. Sloan, Jr. C. E. Wilson A. Bradley J. T. Smith D. Brown
1949	None	Lammot du Pont W. S. Carpenter, Jr. C. H. Greenewalt Lammot du P. Copeland	A. P. Sloan, Jr. C. E. Wilson A. Bradley H. M. Hogan

Government's Exhibit No. 1244

TO EXECUTIVE COMMITTEE SERIAL No. C-119

FROM DEVELOPMENT DEPARTMENT ... March 31st 1917.

PROGRESS REPORT.

The last progress report on plans for excess plant utilization was for the month of December 1916, so that the present report has been prepared to cover the first quarter of 1917.

GENERAL PLANS:

During January reports were submitted on the general plans and forecasts for new industries and the Executive Committee's action of February 5th approved these plans. Development work has subsequently been carried out accordingly.

VEGETABLE OILS:

With respect to linseed oil, (for paint, varnish, oil cloth and linoleum) and castor oil (for fabrikoid and turkey red oil) we received a few days ago the special report and plans from the expert engaged, Mr. Glenn H. Pickard. No report or proposition will be submitted now as we shall probably prefer to discuss the entire subject of vegetable oils in one report. This is because the manufacture of these two oils is hardly very profitable except on a very large scale unless suitably connected with other industries.

Our study of the other vegetable oils (especially coconut oil from copra, palm oil, soya bean oil, Chinese wood oil, etc.) has not progressed sufficiently as yet to warrant a discussion, but is now receiving active consideration.

FOOD PRODUCTS:

Arrangement has been made to visit unofficially in the

near future the plant of the "American Butterine Company", a small concern in Jersey City. We have also had some interesting conversations with Mr. Tamboer, the Vice President of this concern, indicating the probable value and possible development of the industry. This matter will be followed up.

SOAP, GLYCERIN AND FATTY ACIDS:

Considerable time has been devotedto the study of the value to the du Pont Co. of the Fels Soap Company. The last official action was as of February 5th to the effect that no further offer be made to Fels & Co. at this time and due to Mr. Samuel Fels being unwilling to meet us on a price and form of payment acceptable to our Company. While we have undertaken no further negotiations with Mr. Fels the subject has continued to receive our attention inasmuch as changes in business conditions might bring about another and more favorable opportunity for negotiations.

More recently, anticipating the difficulties or even improbability of negotiating a deal with Fels & Co. we have undertaken a study of other soap companies and at present have especially in mind Eavenson in Camden and Kendall in Providence. These two concerns are both relatively small and have no great value from a good will standpoint, but either might serve as a starting point.

We have recently discussed the Reuter process (for glycerin and fatty acids) more definitely with Mr. Poucher, who controls the rights, and expect to bring this matter to a conclusion within a short time.

PAINT, PIGMENTS & VARNISH:

Since the last progress report the negotiations for acquisition of Harrison Bros. & Company have been completed, the purchase consummated and the du Pont Co. took possession of the business and properties about March 20th under the name of Harrisons, Inc. Through this purchase the du Pont Co. is definitely established in the paint, pigment and varnish business. However, Harrisons, Inc. are

not as strong as desirable with respect to colors and varnish. It is therefore the intention to give attention to these two branches and it seems clear that the former would be admirably solved by acquisition of Cawley, Clark & Co. of Newark, foremost color makers in this country and joint owners of Beckton Chemical Co. with Harrisons, Inc. The manufacture of colors is a profitable industry and not only of assistance to the paint industry, but relatively of even more value for the consumption of dyestuffs and also the use of heavy chemicals, especially sulphuric acid.

Relative to varnish it will be necessary for Harrisons, Inc. to engage the services of a varnish expert with ability to develop such industry. Anticipating the possible advisability of acquiring a going varnish company consideration will be given to such companies and especially those in the printers ink manufacture as well, inasmuch as such concerns are large consumers of both varnish and colors. Several firms have already been selected for study.

KUMARON:

This subject will now be taken up for commercial development by Harrisons, Inc. with respect to paints and varnish. At the same time the Chemical Department has been requested to experiment on the use of this resin for use in linoleum cement as a substitute for linseed oil and gums. This work is progressing with encouraging results.

ARTIFICIAL SILK:

This subject has been studied actively during the past three months and during March two lengthy special reports have been submitted giving a complete discussion of the available information.

Relative to the Viscose Company the negotiations brought out clearly that an outright purchase would not be attractive to our Company, because of the excessive investment relative to plant utilization and an extraordinary price

asked for the good will and business opportunity. However a plan of deferred payments on a profit sharing basis has been prepared and if accepted by the Executive Committee negotiations will be undertaken accordingly. We are reluctant to give up the possible purchase, because we firmly believe in the great future possibilities.

There is no change in the situation relative to the copper-ammonia process because negotiations cannot be conducted with the German concern. We have recommended a plan which would keep the subject open for us. In the meantime we have been advised by cable from London that the expert, whose services we engaged, Mr. Clayton

Beadle, has submitted his report to our London Office and should be in our hands within a week or ten days.

Preliminary negotiations have been satisfactorily concluded with the Tubize Co. for the nitrocellulose silk process. The plan is entirely on a profit sharing basis to be controlled and owned by the du Pont Co., with no cash payment, no royalty and with a guarantee to the du Pont Co. relative to returns on the investment. Since our special report was submitted additional information has been obtained in favor of this process.

The London office has spent some time negotiating with Count Chardonnet in England relative to his new developments in this industry, but it appears doubtful whether any arrangement can be made and it would be unecessary if an agreement is reached with Tubize Company.

The next step on all of these artificial silk subjects will depend on the actions to be taken by the Executive Committee on the recommendations submitted.

Water Soluble Chemicals:

Inorganic.

To some extent this subject is covered by the acquisition of Harrisons, Inc. With respect to other chemicals we intend to give attention only to a few.

Phosphoric Acid.

A new process is under development jointly by chemists of the U. S. Government and a New Jersey baking powder company for the production of pure phosphoric acid. We are keeping in touch with this because if successful it would be of considerable interest for Hopewell.

Hydrosulphites.

These are important as an adjunct to a dyestuff business and the manufacture would probably be particularly suitable for Hopewell. The Chemical Department has been requested to study the process of manufacture and this work is well under way with promising results.

Ferrocyanides.

These are chemicals used largely in color making. Our interest at this particular time is due to an offer from the principal American producers, Henry Bower Mfg. Company of Philadelphia, to sell their business to our Company. This will be investigated. If this study leads to no purchase, we shall probably do nothing further/now relative to this chemical.

Organic.

Since the last report arrangements have been made for the manufacture of tartar chemicals at Hopewell. The Pan Chemical Company, a small concern manufacturing cream of tartar has been acquired and the apparatus is being removed to Hopewell. Information has also been received relative to the production of tartaric acid the plans are being made for the production of some on a moderate scale. It is intended to operate this tartar industry on a moderate scale at Hopewell until the extraordinary business at the plant declines and in the meantime prepare for expansion.

Other chemicals receiving attention are oxalic and formic acids. At our request the Chemical Department is conducting experimental work on the processes of production and good progress is being made. We are giving attention to a new process for citric acid.

ORGANIC CHEMICALS:

The plans for the dyestuff industry for Deep Water Point are proceeding as arranged in the hands of the Operating Department and this Department, represented by Dr. Chambers.

A great deal of attention has been given to organic

chemicals other than dyes. Of concerns in the business the Schaefer Alkaloid Works appeared to be the only one worthy of study, having the best reputation and the greatest variety of suitable products. This subject has been covered by several special reports. We are exceedingly anxious to acquire this concern, but negotiations have brought out that the owners demand a price at least for the present, considerably above (say 20%) what we would consider proper to offer.

In the meantime at our request the Chemical Department is experimenting on the processes of manufacture of several chemicals, which we consider desirable of production and the manufacture of which can probably be developed through our Company's own talent. These chemicals are especially methylsalicylate, benzylalcohol, benzyl acetate, benzyl, benzoate and a few similar chemicals intended for production at Parlin.

Through the purchase of the Delaware Acid Works it has been made possible to undertake large scale experimental work on salicylic acid. The Chemical Department has been requested to study the manufacture of benzoic acid and it is hoped large scale experimental work can be undertaken as soon as the new chlorine plant has been erected at Deep Water Point. Due to the close connection with dyestuffs these two organic acids may be considered part of that industry, though they are equally important for organic chemicals in general.

COTTON PULP (FOR PAPER) AND THE PAPER INDUSTRY:

At our request the Chemical and Engineering Departments have continued experimental work on the proper purification of short fibres for paper stock, but due to market conditions practically no attention has been given to the commercial development. We believe the time has come when this subject can be reopened profitably and intend to proceed with the study at an early date.

Relative to a paper industry we have been skeptical and still are—with respect to the profits in the manufacture of paper. However, we have been told from competent quarters that the manufacture of paper stock and chemical wood pulp is a very remunerative business. It is intended to give renewed attention to this subject, because of the possibility of material utilization of Hopewell plants.

APPROVED BY: PREPARED BY:

R. R. M. CARPENTER (Stamp) FIN. SPARRE (Stamp)

NOTE. In upper right hand corner of first page appears: "Noted, W. S. C. Jr." in pencil.

To: EXECUTIVE COMMITTEE
From: DEVELOPMENT DEPARTMENT

SERIAL No. S-2040
February 10, 1925

PROPOSED CONSOLIDATION WITH THE VISCOLOID COMPANY

One of the leading manufacturers of pyroxylin plastics is the Viscoloid Company, Inc. with office and factories at Leominster, Massachusetts. It is rated as the fourth largest manufacturer, du Pont, the Celluloid Company and the Fiberloid Company being larger. It manufactures a line of pyroxylin sheeting, as well as a line of moderate priced articles and novelties.

In the course of business contact, Mr. F. B. Davis, jr., General Manager of our Pyralin Department, has become well acquainted with Mr. Barnard W. Doyle, the President and Treasurer of the Viscoloid Company, and owner of three-quarters of the company. Recently Mr. Doyle brought up the question to Mr. Davis regarding a possible merger of our paralin business with his company, and the matter was discussed in a very preliminary way. Mr. Doyle desires an official expression of the attitude of the duPont Company towards such a possibility before completely opening up the necessary books and information that we would require. We have gone over the matter with Mr. Davis who has presented the preliminary information which Mr. Doyle has given.

As this proposition is not a question of the purchase of the Viscoloid Company, as Mr. Doyle states that he does not desire to offer the company for sale, but is in the nature of a merger, it will be necessary for a new company to be formed which would absorb the Pyralin Department of the duPont Company and absorb the Viscoloid Company. The approximate basis on which such a merger would take place would be the asset value, cash and liabilities being eliminated on both sides. As a basis of comparison the 1923 appraisal of the Viscoloid Company shows a plant value of $4,125,000 and against this our Pyralin Department plant values stand at $5,751,000. These are presumably on equal depreciation basis but should be examined further. The Viscoloid Company's accounts receivable are $600,000 and the Pyralin Department's $1,800,000; and respective inventories are $1,750,000 and $3,850,000. The average annual sales for the years 1917 to 1924 inclusive, are $4,800,000 for Viscoloid and $9,100,000 for the Pyralin Department. The reason that the Pyralin Department's accounts receivables are three times that of Viscoloid with slightly less than twice the volume of sales, is due to the marketing arrangement of Viscoloid, i. e. that they sell all their articles through the Pacific Novelty Company which is a separate corporation and not owned by Viscoloid. The sales of the two companies for 1923 and 1924 are as follows:

	Viscoloid	duPont
1923	$5,600,000	$9,900,000
1924	5,100,000	7,600,000

The average annual earnings for the years 1917 to 1924 for Viscoloid were $800,000 and for du Pont $125,000. For the years 1923 and 1924 the average annual earnings for Viscoloid were $1,000,000 and for du Pont $800,000.

The actual average earnings as shown by the books of the Viscoloid Company for these two years is $1,200,000 but $200,000 has been deducted in this discussion as a rough estimate of the profit due to the use of scrap material in 1923 and 1924 which was written down in 1921.

The principal reason given by Mr. Doyle for suggesting this merger is his desire to place his organization on a more stable footing as it is now essentially a one-man organization, in order that his estate may enjoy a more certain income. He also feels that he has too much of his assets in a single enterprise and desires in this arrangement to liquidate part of his holdings. We feel that another reason which influences him is the headway that the Pyralin Department is now making in the business.

There are a number of reasons that make this merger look attractive. The business of the Viscoloid Company in articles is more supplementary than competitive with our present pyralin business, as Viscoloid is the largest manufacturer of a moderate to low priced line, and they market no high grade line of articles, such as the first grade articles put out by the Pyralin Department. There is a considerable opportunity for savings in both selling expense and cost as indicated by the letter of Mr. F. B. Davis in the attached exhibit. Without any cash outlay other than our subscription in the new company in proportion to our stock ownership for some operating cash, we are able to consolidate a competitive line of sheeting and acquire a very profitable and supplementary line of articles. The Viscoloid Company sell approximately half of their sheeting as articles, whereas du Pont Company sells approximately one-third.

Inasmuch as the earnings of the past years offer no basis on which any terms could be arranged, the asset basis has been considered only, and in so doing, we would propose to consider duPont Company's asset basis on plant value $6,000,000.00 and the Viscoloid plant value as $4,000,000. The accounts receivable and inventory for duPont Company would be considered at $5,600,000 and the same items for Viscoloid at $2,400,000. This would make a total contribution for duPont of $11,600,000 and for Viscoloid $6,400,000, making the proposed new company have assets of $19,000,000. It would be necessary to subscribe an additional $1,000,000 for working cash. On the basis of estimated earnings for 1925, 1926 and 1927, Mr. Doyle estimates for the Viscoloid Company $500,000 to $700,000, and Mr. Davis estimates for duPont $800,000 to $1,100,000, making the combined estimated earnings for a new company

18,000 000

of $1,300,000 to $1,800,000. These figures do not take into account any of the savings in sales expense, costs and other items which will ensue from the consolidation. It is suggested that the stock of the new company be divided into two classes, preferred and common, the preferred for example, being divided on the basis of contribution of assets, and the common on somewhere between 60 and 70 percent for duPont and 40 and 30 for Viscoloid. This proportion is quite approximate as Mr. Doyle wishes to liquidate approximately $2,000,000 of his share in the preferred issue, either by sale to us in exchange for duPont Debenture, for example, or otherwise, or a sale to outsiders who will purchase it from an investment viewpoint.

The information given in this report has been obtained by Mr. Davis from Mr. Doyle, and while it will require considerable checking up and elaboration before any final decision can be made as to terms and structure of the merger, we believe that this is sufficiently correct to enable the Executive Committee to pass upon the recommendation herein offered.

As to any disadvantages from such a merger, we do not see any at this writing, as there is no trade-mark used by Viscoloid, so that the Pyralin trade-mark could be expanded immediately to this line, if it were considered good policy, and as stated by Mr. Davis, there will be no conflict of organization. From a manufacturing standpoint, Mr. Davis advises us that valuable information on manufacturing would not be contributed entirely by the duPont Company.

RECOMMENDATION:

We recommend that the Development Department be authorized to advise Mr. Doyle that the duPont Company is interested in the merger of our Pyralin business with the Viscoloid Company along the general line of the formation of a new company to take over both businesses, provided further study of the proposition convinces us of its desirability, and provided that a satisfactory basis of values can be agreed upon.

PREPARED BY:	APPROVED BY:
F. S. MACGREGOR.	FIN SPARRE
(stamp)	(stamp)

Note. "Received Feb 10 1925 Lammot du Pont", Executive Committee Sec'y No. 1676", "Return to Executive Committee Room 9069", and "Return to Room 9059" stamped on page 1. In the upper left hand corned of that page is the written initial "R" above a question mark, below which appears the handwritten notation "Laffey doubtful. HO 1 wk. for Laffey opinion". In the upper right hand corner of page 1 is the following handwritten table:

years (?) 1922
1923

		S	S	A	A
du P.	35	34	35	22	28
Cel.	25	24	23	15	13
Fib.	25	24	23	11	7
Visc.	15	9	11	7	10
Dix (?)	100	6	6	0	0
Misc.		3	2	45	42
du P. & Visc.		43	46	29	38

—5—

(2925)

(5204)

	Capacity Pounds	39 4 %	1924 Total Sales Pounds	15 3 %	1924 Sales as Sheets Pounds	10 2 %	1924 Sales as Articles Pounds	19 1 %
DuPont Company	10,000,000	26.3	4,850,000	27.0	3,625,000	27.9	1,225,000	8.1
Celluloid Company	9,000,000	23.7	3,500,000	19.4	2,750,000	21.2	750,000	5.0
Fiberloid Corporation	8,000,000	21.0	3,500,000	19.4	3,000,000	23.1	500,000	3.3
Viscoloid Company	5,000,000	13.1	3,300,000	18.3	1,600,000	12.3	1.700,000	11.3
Nixon Nitration Works	3,000,000	7.9	1,250,000	6.9	1,250,000	9.6	-	-
Eastman Company	1,000,000	2.6	300,000	1.7	300,000	2.3	-	-
Landers, Frary & Clark	500,000	1.3	300,000	1.7	200,000	1.5	100,000	.6
Standard Pyroxyloid Prod. Co.	500,000	1.3	400,000	2.2	100,000	.8	300,000	2.0
Auburn Button Works	500,000	1.3	300,000	1.7	50,000	.4	250,000	1.6
Rubber & Celluloid Products Co.	250,000	.7	200,000	1.1	-	-	200,000	1.3
Meyers Brothers	100,000	.3	50,000	0.2	40,000	0.3	10,000	.1
Switzer	100,000	.3	50,000	0.2	50,000	.4	-	-
Nicholson and other Misc.	100,000	.2	50,000	0.2	25,000	.2	25,000	.2
Misc. Fabricators	-	-	-	-	-	-	10,000,000	66.5
TOTAL	38,050,000	100.0	18,050,000	100.0	12,990,000	100.0	15,060,000	100.0

Cmm

EXHIBIT "A"

February 9, 1925.

To: Development Dept.—F. S. MacGregor.

From: Pyralin Department.

Proposed Consolidation with the Viscoloid Company

A consolidation with the Viscoloid Company presents advantages that appear of sufficient importance for the DuPont Company to give them careful consideration, and I have endeavored to give you a brief outline of the more important ones:

1. Broadening the field of distribution for sheeting through the medium of cheap Articles not now manufactured by the DuPont Company. The Viscoloid Company makes and sells a line of Articles that are distributed mainly by 5¢, 10¢ and 25¢ stores, such as Woolworth, Kresge, etc. These Articles are toys, rattles, cheap combs, and similar merchandize. The volume which they sell to this trade amounts to between $2,000,000 and $3,000,000 annually, and although the margin of profit on the Articles may be narrow nevertheless it is an excellent outlet for between $1,500,000 and $2,000,000 worth of sheeting on which they realize full market value.

2. The Viscoloid Company through years of experience has become expert in making into cheap Articles sheeting (originally manufactured for outside trade) that was not up to standard and thereby getting much higher values

for it than is possible if sold as second grade stock. This would be of considerable assistance to the DuPont Company in utilizing the seconds and material of faulty manufacture made at Arlington which has always been quite a problem for the Pyralin Department.

3. The following are important savings that should be effected by such a consolidation:—

Reduction in selling expense by eliminating duplication.

Saving in freight on stock shipped by the Viscoloid Company into the New York district, and on DuPont stock shipped into the New England district.

Lowering of costs through the simplification of sheeting lines manufactured at each plant and by interchanging operating data and competition between costs at the two plants.

Reduction in the cost of paper by using more of the Norwich plant's capacity.

Some gain to the DuPont Company by the Viscoloid Company purchasing its acid requirements from Repauno.

Reduction in stocks of raw materials and finished product, and even make available for sale or other use some part of the permanent investment at Arlington.

—2—

It is conservatively estimated that the saving in manufacturing and selling would be between $300,000 and $600,000 per year.

It is estimated that the reduction in stocks should amount to $1,000,000.

(2927)

4. The Viscoloid Company has been a one man organization and faces the necessity of increasing its executive and development personnel in order to put their organization on a sound basis, should anything happen to their President, Mr. B. W. Doyle. The Pyralin Department probably has in its organization men who could be used to round out the Viscoloid Company's organization, giving it the necessary strength with little extra expense, and also providing broader opportunities for the Pyralin Department's men.

The Viscoloid plant is fortunate in that the Leominister district provides an adequate supply of labor eminently suited to this industry. The layout and construction of the buildings is excellent and generally far superior to the equipment of the other manufacturers of pyroxylin plastics in this country. The company has been unusually successful since its formation, even through periods of depression, and is the outstanding one among our competitors with whom we would consider consolidating.

The figures which Mr. Doyle has furnished me are of a very general nature and form the basis of the Development Department's report, indicating that an alliance could be made with the Viscoloid Company on a favorable basis. I think that such a step would be of advantage to the DuPont Company and would be glad to have an opportunity of appearing before the Committee at the time this matter comes up for discussion.

F. B. Davis, Jr. (Stamp)
General Manager

FBD:R

Government's Exhibit No. 1271

Answer to Plaintiff's Interrogatory V of December 7, 1951

Certain Chairmen and Members of the Purchasing Committee of General Motors Corporation, 1928-1931, incl.

Chairmen

1928	J. L. Pratt, Vice-President in Charge of Accessory Div.
1929-31	C. E. Wilson, Vice-President

Members

1928-29	C. G. Allen, Purchasing Agent of Buick
1928-29	W. F. Armstrong, Production Mgr., Oldsmobile
1928-31	A. J. Campau, Head of Salvage Dept., Central Office
1930-31	C. A. Crusoe, Purchasing Agent, Fisher Body
1928-31	D. F. Hulgrave, Manager of Purchases - Cadillac
1931	J. B. Jackson, Executive Secretary
1930-31	R. L. Kurtz, Purchasing Agent, Buick
1928-30	Jas. Lynah, Executive Secretary, General Purchasing Committee
1928-31	C. C. Miller, Purchasing Agent, Oakland
1928	C. S. Mott, Vice President, Detroit
1928-31	D. P. O'Keefe, Purchasing Agent, Chevrolet
1929-31	J. L. Pratt, Vice-President, Accessory Div.
1928	A. P. Sloan, Jr., President
1930-31	Lew Stewart, Production Manager, Oldsmobile
1928	J. T. Stratman, Director of Purchases, Fisher

Government's Exhibit No. 1277

5209

Stock held directly or beneficially by members of the Du Pont family, including individual defendants and beneficiary defendants as defined in the complaint as amended, in Delaware, Christiana, U. S. Rubber, common, and Wilmington Trust Co., as of June 1949.

		Delaware	Christiana	U.S.Rubber	Wilm. Tr. Co.
I.	PIERRE S. DU PONT		4,792	45,104	1,832
II.	THE FAMILY OF IRENEE DU PONT				
	IRENEE DU PONT		7,301	21,200	240
	Irene du Pont (spouse)		55	13,406	
	IRENE SOPHIE DU PONT MAY	4,738	175	5,888 6/7	
	Ernest Nugent May (spouse)		880		
	Ernest Nugent May, Jr.	1,628	30[1]	525	
	Irenee du Pont May	1,628	30[1]	525	
	Thomas Henry May, minor	1,628	30[1]	525	
	John Eric May, minor	1,628	30[1]	225	
	MARGARETTA DU PONT GREENEWALT	5,751	175	5,888 6/7	
	Crawford Hallock Greenewalt (spouse)		724		
	Nancy Greenewalt Frederick	1,833	78 2/3		
	David Greenewalt	1,833	78 2/3		
	Crawford Hallock Greenewalt, Jr., minor	1,833	78 2/3		

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[1] Includes remainder in corpus of trust (life income to another).

(5210)

II. THE FAMILY OF IRENEE DU PONT (Cont'd.)

	Delaware	Christiana	U.S.Rubber	Wilm. Trust Co.
CONSTANCE DU PONT DARDEN	6,750	1,175	7,088 6/7	
Colgate Whitehead Darden, Jr. (spouse)			3,750	
Colgate Whitehead Darden III	1,500		325	
Pierre Samuel du Pont Darden, minor	1,500		325	
Irene Sophie du Pont Darden, minor	1,500		325	
ELEANOR DU PONT RUST	5,250	1,165	6,213 6/7	
Philip Goodenow Rust, Jr. minor	1,500			
Francis Gurney du Pont Rust, minor	1,500			
Henry Rust, Minor	1,500			
Richard Cutts Rust, minor	1,500			
MARIANA DU PONT SILLIMAN	7,960	1,125	6,688 6/7	100
Henry H. Silliman (spouse)	67			
Henry H. Silliman, Jr., minor	612	14	60	
Doris du Pont Silliman, "	612	12	160	
Eleanor Howland Silliman, "	612	15	85	
Mariana du Pont Silliman, "	612		85	
Robert Morris Silliman, "	775		60	
OCTAVIA MARY DU PONT BREDIN	9,094	1,175	6,888 6/7	
John Bruce Bredin (spouse)	27	6	500	50
Stephanie Sophie du Pont Bredin, Minor	1,072			
Margaretta Starrett Bredin, minor	1,057			
LUCILE DU PONT FLINT	8,363	1,125	7,538 6/7	100
Robert Barnett Flint (spouse)	2,572	50	100	
Robert Barnett Flint, Jr. minor	72			40
Peter Hubbard Flint, minor	72			
Alice Lucile Flint, minor	72			
Henry Alexis Flint, "	42			
Constance Evelina Flint, minor	57			
IRENEE DU PONT, JR.	21,250	1,225	12,600	400

III. THE FAMILY OF LAMMOT DU PONT

	Delaware	Christiana	U.S.Rubber	Wilm. Tr. Co.
LAMMOT DU PONT		11,870	3,712	2,698
NATALIE DU PONT EDMONDS	11,700	609 3/8	8,000	390
George Phippen Edmonds (Spouse)		9 3/8	100	678
George Phippen Edmonds, Jr., minor	400	5	750	
Andrew Wilson Edmonds, minor	400	5	750	
MARY DU PONT FAULKNER	12,500	618 3/4	9,000	70
Herbert Kimball Faulkner		5	665	
Elise du Pont Faulkner, minor		5	665	
Emily Morison Faulkner minor		5	665	
Charles Stearns Faulkner, minor		5	665	
Rosemary Faulkner, minor		5	300	
Henry Belin Faulkner, minor		5		
Andrew Gray Faulkner, minor		5	25	
ESTHER DU PONT WEIR	12,500	600	9,707	470
LAMMOT DU PONT, JR.	12,500	618 3/4	8,000	2,103
Lammot du Pont III, minor		5	300	58
William Foster du Pont, minor		5	200	58
PIERRE SAMUEL DU PONT, III	12,500	618 3/4	10,925	870
Pierre Samuel du Pont, IV, minor		10	500	70
Jane de Doliete du Pont, minor		8	400	50
Michele [redacted] du Pont, minor		7	200	50
EDITH DU PONT RIEGEL	12,500	600	11,000	900
Edith du Pont Riegel (Jr.), minor		5	710	200
Richard Eveland Riegel, Jr. minor		5	710	200
John Ely Riegel, minor		5	400	200
Natalie Margaret Riegel, minor		5		200

III. THE FAMILY OF LAMMOT DU PONT (Cont'd.)

	Delaware	Christiana	U.S.Rubber	Wilm. Tr. Co.
ALEXANDRINE DU PONT PERKINS COLLIER	12,500	739	13,550	2,482
REYNOLDS DU PONT	12,500	708	22,713	2,360
Katharine Levars du Pont (spouse)		132		400
Katharine du Pont, minor		5		
Reynolds du Pont, Jr., minor		3		
Thomas Levars du Pont, "		1		
DAVID FLETT DU PONT, minor		2,251	24,375	1,721
WILLIS HARRINGTON DU PONT, minor		1,612	18,675	1,354

IV. THE FAMILY OF WILLIAM K. DU PONT (Deceased)

	Delaware	Christiana	U.S.Rubber	Wilm. Tr. Co.
S. HALLOCK DU PONT	26,770		583 1/3[2]	
Virginia Simmons du Pont (spouse)	2,415			
Eve du Pont Remer		9		
S. Hallock du Pont, Jr., minor	1,700			
William Kemble du Pont "	1,360			
Richard Simmons du Pont, "	1,155			
PAULINA DU PONT DEAN	33,300[3]	300[3]	183 1/3[2]	
Junius Simpson Dean				100
WILHELMINA DU PONT ROSS	33,300[4]		183 1/3[2]	1,002[4]
Donald Peabody Ross				90

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[2] Remainder in corpus of trust (life income to others).

[3] Held by Nemours Corp., Dean family holding company.

[4] Held by Renappi Corp., Ross family holding company.

	Delaware	Christiana	U.S.Rubber	Wilm. Tr. Co.
V. **THE FAMILY OF HENRY B. DU PONT (Deceased)**				
HENRY BELIN DU PONT	82,500[5]		7,363	1,200
Margaret du Pont Smith	5,833 1/3[5]		1,500	150
Henry Belin du Pont III, minor	5,833 1/3[5]		1,500	150
Edward Bradford du Pont, "	5,833 1/3[5]		1,400	150
VI. **THE FAMILY OF MARGARETTA DU PONT CARPENTER**				
MARGARETTA DU PONT CARPENTER	80,000	4,000		
LOUISA CARPENTER JENNEY	5,000	393		
IRENE CARPENTER KITCHELL MORGAN	5,000	556		
Renee Kitchell Lickle		17		
Margaretta Lammot Kitchell, minor		16		
Nancy Gardiner Kitchell, minor		18		
Carol Victoria Kitchell, minor		10		
Leslie Halsey Kitchell, minor		10		
ROBERT RULIPH MORGAN CARPENTER, JR.	5,000	447		
Robert Ruliph Morgan Carpenter, III, minor		10		
Mary Kaye Carpenter, minor		10		
Kemble du Pont Carpenter, minor		50		
WILLIAM KEMBLE CARPENTER	5,000	341		
Belle Morgan Carpenter, minor		10		

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[5] Includes remainder in corpus of trust (life income to others).

	Delaware	Christiana	U.S. Rubber	Wilm. Tr. Co.
VII. THE FAMILY OF LOUISA DU PONT COPELAND (Deceased)				
LAMMOT DU PONT COPELAND	76,244[6]	96	11,809	550
Pamela Cunningham Copeland (spouse)	4,000	500	300	124
Lammot du Pont Copeland, Jr. minor	6,268 1/3[7]	166 2/3[7]		
Louisa d'Andelot du Pont Copeland, minor	6,242 1/3[7]	166 2/3[7]		
Gerret Van Sweringen Copeland, minor	6,245 1/3[7]	166 2/3[7]		
VIII. THE FAMILY OF MARY DU PONT LAIRD (Deceased)				
MARY BELIN LAIRD DOWNS	20,000	200	1,300[8]	1,570[8]
WILLIAM WINDER LAIRD, JR.	20,000	200	600[8]	1,450[8]
ALEET[illegible]A LAIRD DOWNS	20,000	200	1,200[8]	1,570[8]
WILHELMINA LAIRD CRAVEN	20,000	200	1,200[8]	1,570[8]
ROSA LAIRD HAYWARD	20,000	200	1,300[8]	1,570[8]
IX. THE FAMILY OF ISABELLA DU PONT SHARP (Deceased)				
HUGH RODNEY SHARP (spouse)		185		
HUGH RODNEY SHARP, JR.	50,000		200	
BAYARD SHARP	50,000	100	150	

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[6] On 12-24-48 Lammot du Pont Copeland donated 1,000 shares of Delaware to Longwood Foundation, Inc., a du Pont family non-profit corporation.

[7] Includes remainder in corpus of trust (life income to others).

[8] Includes stock held by Glenden Land Co., a Laird family holding company.

TOTAL STOCKHOLDINGS

	Delaware	Christiana	U.S.Rubber	Wilm. Trust Co.
I. PIERRE S. DU PONT		4,792	45,104	1,832
II. FAMILY OF IRENEE DU PONT	100,000	16,753	100,978	930
III. FAMILY OF LAMMOT DU PONT	100,000	21,096	147,662	17,582
IV. FAMILY OF WILLIAM K. DU PONT (deceased)	100,000	309	950	1,192
V. FAMILY OF HENRY B. DU PONT (Deceased)	100,000	--	11,763	1,650
VI. FAMILY OF MARGARETTA DU PONT CARPENTER	100,000	5,888	--	--
VII. FAMILY OF LOUISA DU PONT COPELAND (deceased)	99,000	1,096	12,109	674
VIII. FAMILY OF MARY DU PONT LAIRD (deceased)	100,000	1,000	5,600	7,730
IX. FAMILY OF ISABELLA DU PONT SHARP (deceased)	100,000	285	350	--
TOTAL	799,000	51,219	324,516	31,590

Source: Information supplied in response to Order on Plaintiff's Motion for Discovery and Production of Documents, dated 9/19/52; Answer of Pierre, Irénée, and Lammot du Pont to Interrogatories, dated 10/16/51; Answer of Wilmington Trust Co. to Plaintiff's Interrogatories, dated 9/15/52.

(2936 7E)

Government's Exhibit No. 1277

CORRECTION

At the end of the third line of the heading, the comma and the word "and" following U. S. Rubber should be stricken, and the words "common, and" should be inserted. The third and fourth lines will then read: "the complaint as amended, in Delaware, Christiana, U. S. Rubber common, and Wilmington Trust Co., as of June 1949."

Government's Exhibit No. 1294

THE THREE BROTHERS' POSITIONS IN DEFENDANT COMPANIES

Pierre S. du Pont	Date	Source
DU PONT CO.		
President	9-8-15 to 5-1-19	Gov't. Ex. 176
Chairman of Board	4-18-19 to 5-20-40	" 176
Director	9-8-15 to date (6-30-49)	Gov't Ex. 176 and Holding Co., Family Answer
Mem., Fin. Comm.	9-8-15 to date (6-30-49)	Gov't. Ex. 176 and Holding Co., Family Answer
GENERAL MOTORS		
President	11-30-20 to 5-10-23	Gov't. Ex. 177
Chairman of Board	1915 to 2-7-29	Gov't. Ex. 177 and Holding Co., Family Answer
Director	1915 to 8-7-44	Gov't. Ex. 177 and Holding Co., Family Answer
Mem., Fin. Comm.	1915 to 5-3-37	Gov't. Ex. 177 and Holding Co., Family Answer
Chr. Ex. Comm.	(1-13-21 to 5-10-23	Gov't. Ex. 177
Mem. "	(1-13-21 to 2-7-29	Gov't. Ex. 177
CHRISTIANA		
President	3-1-15 to date (6-30-49)	Gov't. Ex. 1223
Director	3-1-15 to date (6-30-49)	" 1223

(2938)

9

5216

Irenee du Pont	Date	Source
DU PONT CO.		
Vice President	9-8-15 to 5-1-19	Gov't. Ex. 176
President	5-1-19 to 3-15-26	" " 176
Vice-Chm. of Bd.	3-15-26 to 5-20-40	" " 176
Director	9-8-15 to date (6-30-49)	" " 176 and Holding Co., Family Answer
Mem., Fin. Comm.	9-18-15 to 12-31-46	Gov't. Ex. 174
Mem., Ex. Comm.	(9-8-15 to 5-1-19 (9-26-21 to 3-15-26	Gov't. Ex. 175 " 175
GENERAL MOTORS		
Director	2-21-18 to 9-6-38	Gov't. Ex. 177
Mem., Fin. Comm.	2-21-18 to 5-3-37	" " 177
CHRISTIANA		
Treasurer	5-19-30 to date (6-30-49)	Gov't. Ex. 1223
Vice President	3-1-15 to 4-3-41	" 1223
Director	3-1-15 to date (6-30-49)	" " 1223
*DELAMARE		
Treasurer	1-21-30 to 12-24-37	Gov't. Ex. 100
Vice President	1-1-27 to 12-24-37	" " 100
Director	1-1-27 to 12-24-37	" " 100

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* Record only goes back to 1-1-27.

(2 2931)

Lammot du Pont	Date	Source
DU PONT CO.		
Vice President	5-23-16 to 3-15-26	Gov't. Ex. 176
President	3-15-26 to 5-20-40	" " 176
Chairman of Board	5-20-40 to 1-19-48	" " 176
Director	9-8-15 to date (6-30-49)	Gov't. Ex. 176 and Holding Co., Family Answer
Mem., Fin. Comm.	10-30-18 to 11-19-45	Gov't. Ex. 174
Mem., Ex. Comm.	9-8-15 to 5-20-40	" " 175
GENERAL MOTORS		
Chairman of Bd.	2-7-29 to 5-3-37	Gov't. Ex. 177
Director	11-7-18 to 6-3-46	" " 177
Mem., Fin. Comm.	11-7-18 to 5-3-37	" " 177
Mem., Ex. Comm.	2-6-30 to 2-5-34	" " 177
Mem., Policy Comm.	5-3-37 to 6-3-46	" " 177
CHRISTIANA		
Vice President	3-5-23 to date (6-30-49)	Gov't. Ex. 1223
Director	3-1-15 to date (6-30-49)	" " 1223
*DELAWARE		
Vice President	1-1-27 to 12-24-37	Gov't. Ex. 100
President	12-24-37 to 2-15-43	" " 100
Director	1-1-27 to 2-15-43	" " 100

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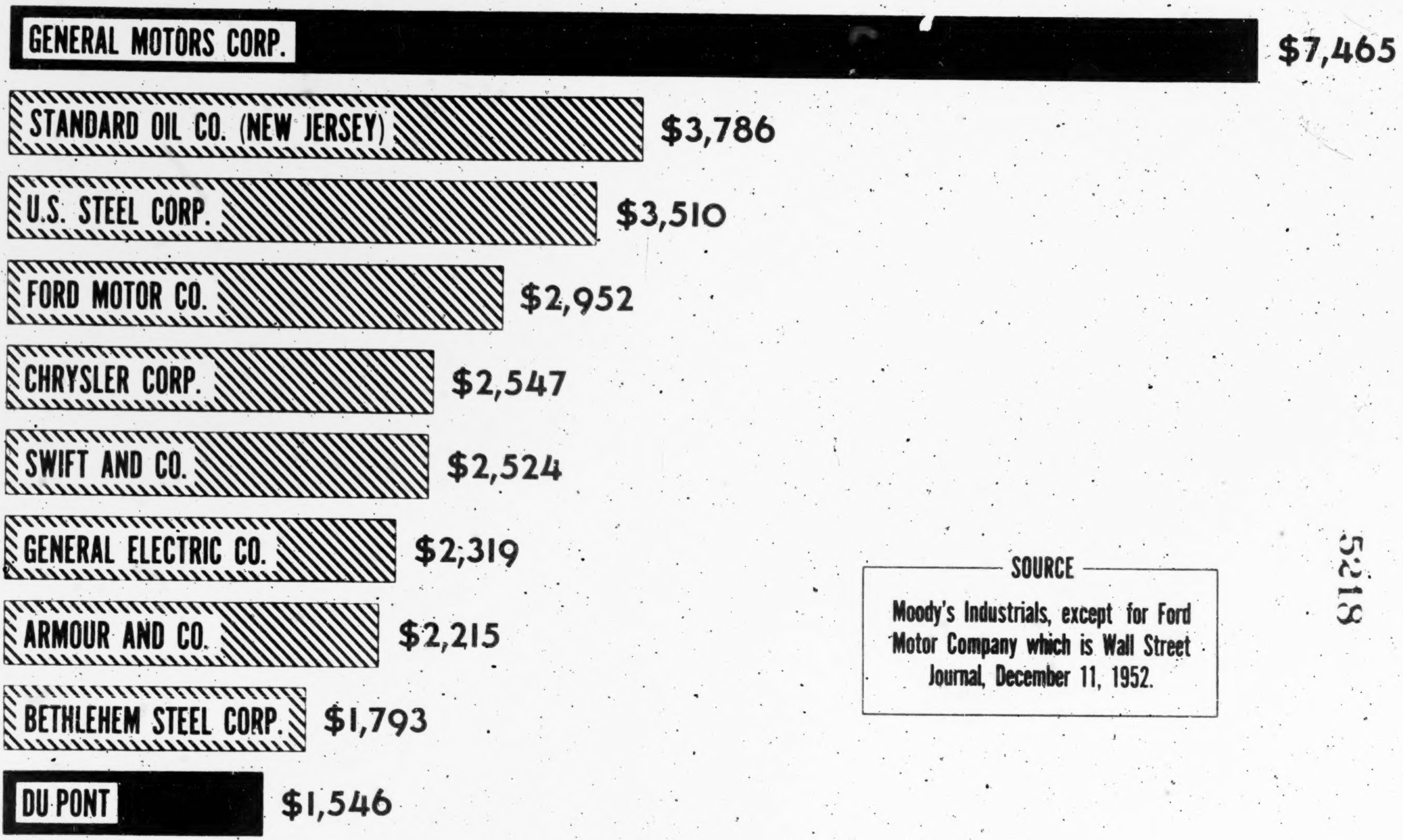
* Record only goes back to 1-1-27.

Government's Exhibit No. 1295

1951 SALES OF TEN INDUSTRIAL MANUFACTURERS

MILLIONS OF DOLLARS



SOURCE

Moody's Industrials, except for Ford Motor Company which is Wall Street Journal, December 11, 1952.

Government's Exhibit No. 1301

Excerpt from grand jury subpoena duces tecum, dated August 20, 1948, and addressed to General Motors Corporation

* * *

YOU ARE HEREBY COMMANDED that laying aside all and singular your business and excuses you be and appear before the Grand Jury of the DISTRICT COURT OF THE UNITED STATES for the Northern District of Illinois, in Room 450, United States Courthouse, in the City of Chicago, in said District, on the 30th day of September, A. D. 1948, at 10:30 o'clock a.m. of said day, and also that you bring with you and produce at the time and place aforesaid --------------------------------------

* * *

3. All statistical tables, charts, graphs, tabulations, and summaries, together with books, reports, records, and other documents which show the following information for each year as to the following companies (the responding company to furnish the data for the period starting with January 1 of the year indicated below after such company's name, and to the date of the service of this subpoena):

E. I. duPont de Nemours & Company (1915)
General Motors Corporation (1915)
Bendix Aviation Corporation (1928)
North American Aviation, Inc. (1928)
Ethyl Corporation (1930)
Kinetic Chemicals, Inc. (1930)
U. S. Rubber Company (1927)
Remington Arms Co., Inc. (1931)

(including all the divisions or departments and subsidiaries of each such company):

(a) The total annual sales (in dollars) made by your Company and its subsidiaries to each of the above listed companies (other than yours);

(b) The total annual sales (in dollars) of each of the products sold by your Company and its subsidiaries to each of the above listed companies (other than yours);

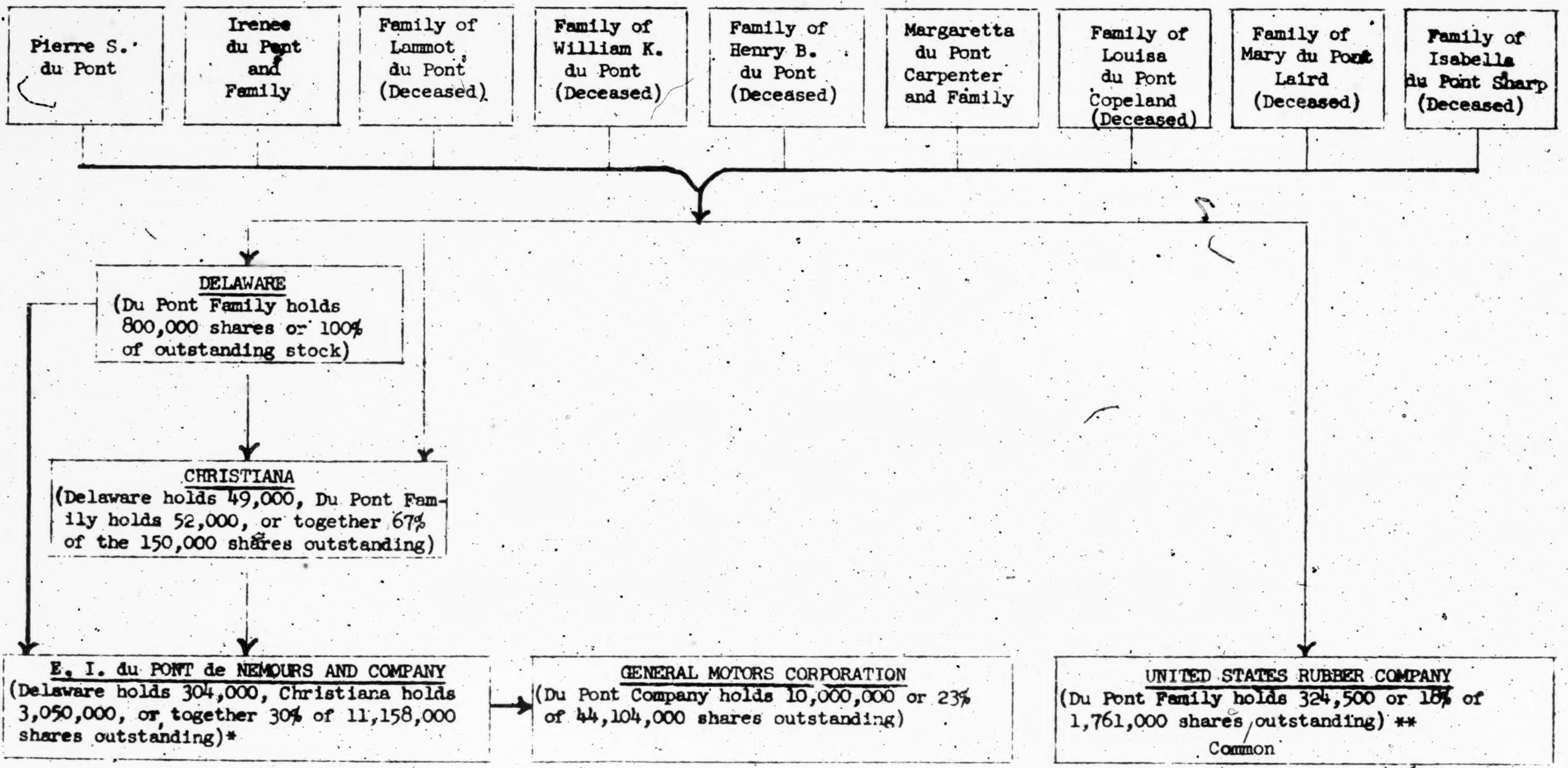
(c) The total annual purchases (in dollars) made by your Company and its subsidiaries from each of the above listed companies (other than yours);

(d) The total annual purchases (in dollars) of each of the products purchased by your Company and its subsidiaries from each of the above listed companies (other than yours);

(e) The total annual purchases (in dollars) of each of the products involved in (d) above, purchased by your Company and its subsidiaries from companies other than those listed above and other than your Company.

Government's Exhibit No. 1303

STOCK HOLDING RELATIONSHIPS AMONG MEMBERS OF THE DU PONT FAMILY AND CORPORATE DEFENDANTS AS OF JUNE 1949
(Figures in round numbers)



Pierre S. du Pont
Irenee du Pont and Family
Family of Lammot du Pont (Deceased)
Family of William K. du Pont (Deceased)
Family of Henry B. du Pont (Deceased)
Margaretta du Pont Carpenter and Family
Family of Louisa du Pont Copeland (Deceased)
Family of Mary du Pont Laird (Deceased)
Family of Isabella du Pont Sharp (Deceased)

DELAWARE
(Du Pont Family holds 800,000 shares or 100% of outstanding stock)

CHRISTIANA
(Delaware holds 49,000, Du Pont Family holds 52,000, or together 67% of the 150,000 shares outstanding)

E. I. du PONT de NEMOURS AND COMPANY
(Delaware holds 304,000, Christiana holds 3,050,000, or together 30% of 11,158,000 shares outstanding)*

GENERAL MOTORS CORPORATION
(Du Pont Company holds 10,000,000 or 23% of 44,104,000 shares outstanding)

UNITED STATES RUBBER COMPANY
(Du Pont Family holds 324,500 or 18% of 1,761,000 shares outstanding) **
Common

* Before 4 to 1 stock split of 6-15-49

** Du Pont family also holds 74,630 shares of preferred stock out of 651,000 shares outstanding.

Government's Exhibit No. 1302

GENERAL MOTORS CORPORATION
DETROIT 2, MICHIGAN

October 27, 1948

Ferris Hurd, Esq.
Pope & Ballard
120 South LaSalle St.
Chicago 3, Illinois

Re: Grand Jury Subpoena No. 9072

Dear Mr. Hurd:

In your letter of September 17, 1948 to Mr. Williams, which established the basis for partial compliance with the subject subpoena on September 30, 1948, it was provided that no return would be made on that date with respect to paragraph 3 of the subpoena "except with respect to existing compilations and summaries." As a result of your previous discussions with Mr. Hotchkiss and Mr. Williams on September 2, 1948, we believed that it was understood that General Motors had no existing compilations and summaries of the type contemplated by paragraph 3 of the subject subpoena.

As you know, it was the absence of any such compilations which led General Motors to have a spot survey or sampling for one month made by sixteen of its operating divisions. Originally we contemplated taking the month of July, 1948, as the last full month prior to the service of the subpoena. Upon investigation, we found that our car divisions were down a week in July because of the shortage of

COPY

steel. In the limited time available, we could not determine the effect of this shutdown upon the flow of materials into our plants or the effect upon the receipt and payment of invoices. We therefore decided to use the month of June, 1948.

At the time of this sampling, inquiry was made as to the existence of any compilations or statistical data which might be of assistance in connection with the proposed sampling or which might be submitted in compliance with the subpoena. We were assured that none were in existence.

As is the case with many other large corporations having many diversified business activities, General Motors has had no need for any statistical department as the term is commonly used or any other department which would develop the type of data or statistics contemplated by paragraph 3 of the subject subpoena. In view of this, we were satisfied on the basis of our original inquiry that no such compilations or summaries were in existence.

However, in view of Mr. Williams' letter of October 13, 1948, and your discussions with him, we have made further inquiry among those people in the corporation who would know of the existence of any such statistical data. On the basis of these inquiries and our general understanding of the corporation's organization and administration, we can say that to the best of our knowledge and belief General Motors Corporation (including all the divisions or departments and subsidiaries of General Motors Corporation) has no statistical tables, charts, graphs, tabulations and summaries which show the information described in paragraph 3 of the subject subpoena.

Very truly yours,

General Counsel

Government's Exhibit No. 1303

CORRECTION

In United States Rubber Company box in lower right-hand corner, the word "common" should be inserted between the figure and the word "shares" reading: 1,761,000 common shares outstanding.

In United States Rubber Company box in lower right-hand corner, parenthetical explanation - (Du Pont Family holds 324,500 or 18% of 1,761,000 common shares outstanding) - should be followed by two asterisks with the following footnote -

**Du Pont Family also holds 74,630 shares of preferred stock out of 651,000 shares outstanding.

Government's Exhibit No. 1304

EXCERPT FROM 1920 ANNUAL REPORT OF E. I. DU PONT DE NEMOURS & COMPANY, INC., TO STOCKHOLDERS

IV. INVESTMENT SECURITIES

By conversion of General Motors Corporation common stock for Chevrolet Motor Company stock this company has now acquired about two-thirds ownership in the Chevrolet Motor Company, whose assets consist essentially of General Motors Corporation common stock. This conversion resulted in substantially no change in our equities in the General Motors Corporation.

During the latter part of November last, Mr. W. C. Durant, then President of the General Motors Corporation, requested that we take over the management and control of that corporation, advising that he desired to resign and sell his interest in the corporation in order to liquidate his personal indebtedness, which was very large and pressing.

The conditions presented made immediate action imperative and at a time when the financial situation both here and abroad was very acute. Negotiations were conducted by us through the Du Pont American Industries, Inc., which is owned entirely by your company and the Chevrolet Motor Company, in which it owns a controlling interest.

These negotiations resulted as follows:

First - We incorporated the Du Pont Securities Company under the laws of Delaware with a capital consisting of $7,000,000 8% cumulative voting preferred stock.

100,000 shares no par value non-voting common stock.

Second - The Du Pont Securities Company sold its securities as follows:

$4,200,000 preferred stock and 36,000 shares common stock to Du Pont American Industries, Inc., for which it paid $4,200,000.00 in cash and loaned to Du Pont Securities Company 824,179 shares General Motors Corporation common stock.

$2,800,000 preferred stock and 24,000 shares common stock to Chevrolet Motor Company, for which it paid $2,800,000 in cash and loaned to Du Pont Securities Company 549,453 shares General Motors Corporation common stock.

The above supplied $7,000,000 in cash to Du Pont Securities Company and 1,373,632 shares of General Motors Corporation common stock on loan.

Third - The Du Pont Securities Company then sold at par $20,000,000 one-year 8% collateral trust bonds through Messrs. J.P. Morgan & Company. These bonds are secured by 4,000,000 shares General Motors Corporation common stock which the company acquired as follows:

2,504,273	shares purchased from Mr. W. C. Durant as hereinafter recited.
122,095	shares purchased from Syndicate as hereinafter recited.
824,179	shares loaned by Du Pont American Industries, Inc.
549,453	shares loaned by Chevrolet Motor Company.
4,000,000	shares--Total

Out of a total of 60,000 shares of no par value common stock of the Du Pont Securities Company which the Du Pont and Chevrolet Companies received as above stated, 20,000 shares were paid as a commission to the purchasers of this bond issue which covered the complete cost of financing.

Fourth - The Du Pont Securities Company purchased 2,504,273 shares of General Motors Corporation common stock from Mr. Durant, paying therefor $23,790,600.40 in cash and 40,000 shares of Du Pont Securities Company common stock of no par value. It also purchased 122,095 shares of General Motors Corporation common stock from a syndicate in which the Du Pont and Chevrolet Companies and Mr. W. C. Durant were interested, paying therefor $2,163,557.40 in cash, all of which latter stock has since been sold.

Fifth - A few weeks ago the Du Pont American Industries, Inc., purchased from Mr. W. C. Durant his 40,000 shares of common stock of the Du Pont Securities Company, paying him therefor 230,000 shares of General Motors Corporation common stock.

Summarizing the above, the Du Pont Securities Company owns outright upwards of 2,500,000 shares and has borrowed 1,373,632 shares of General Motors Corporation common stock from the Du Pont and Chevrolet Companies. It has outstanding $20,000,000 of 8% collateral trust bonds due November 22, 1921; $7,000,000 of 8% cumulative voting preferred stock ($4,200,000 of which is owned by Du Pont American Industries, Inc., and $2,800,000 by the Chevrolet Motor Company) and

100,000 shares no par value non-voting common stock of which 64,000 shares are owned by Du Pont American Industries, Inc., and 16,000 shares by the Chevrolet Motor Company, the remaining 20,000 shares being owned by the underwriters of the bond issue.

* * *

Government's Exhibit No. 1305

Interrogatory No. 1 Propounded by Plaintiff to General Motors Corporation on December 7, 1951

1. State for each of the years 1920 to June 30, 1949, inclusive:

   (a) The total number of shares of voting stock of your company which were then outstanding;

   (b) The total number of such shares which were voted at each meeting of your stockholders, stating separately also, if the figures are available, the number of such shares which were voted in person and the number of the shares which were voted by proxy;

   (c) The names of the persons, if any, designated by the management of your company to receive the proxies and vote the stock of your stockholders.

Government's Exhibit No. 1306

Excerpt from Answer of General Motors Corporation to Interrogatory No. 1 Propounded by Plaintiff on December 7, 1951

YEAR	SHARES OF COMMON STOCK ENTITLED TO VOTE	SHARES OF COMMON STOCK REPRESENTED AT MEETING BY PROXY	IN PERSON	TOTAL
		* * *		
1928	17,203,237	11,465,007	4,937	11,469,944
1928	17,166,437	10,859,972	4,917	10,864,889
1929	43,054,263	27,231,068	12,597	27,243,665
1930	42,489,061	26,898,990	5,449	26,904,439
1930	42,632,234	24,143,793	11,865	24,155,658
1930	42,651,041	24,882,821	9,173	24,891,994
1931	43,464,504	26,817,731	11,415	26,829,146
1932	43,257,181	26,337,036	11,104	26,348,140
1933	43,083,180	25,259,317	8,385	25,267,702
1934	42,952,870	23,908,465	9,186	23,917,651
1934	42,957,167	29,950,830	8,877	29,959,707
1935	42,890,470	24,229,009	8,334	24,237,343
1936	42,913,685	NOT AVAILABLE		23,310,647
1937	42,622,921	25,595,496	904	25,596,400
1938	42,744,191	25,216,027	2,499	25,218,526
1939	43,125,896	25,990,085	3,273	25,993,358
1940	42,931,118	27,285,184	2,119	27,287,303
1941	43,149,682	28,314,194	6,316	28,320,510
1942	43,254,016	27,771,618	15,655	27,787,273
1943	43,336,029	26,225,695	15,524	26,241,219
1944	44,001,134	29,635,264	15,878	29,651,142
1945	43,999,126	29,184,207	16,674	29,200,881
1946	44,021,769	30,250,016	18,503	30,268,519
1947	44,075,690	31,565,576	331	31,565,907
1948	44,012,652	32,246,574	484	32,247,058
1949	43,988,717	33,370,950	1,024	33,371,974

Government's Exhibit No. 1307

DU PONT STOCK AT GENERAL MOTORS STOCKHOLDERS MEETINGS

Dec. 31	No. of Shares of General Motors Common Stock Entitled to be Voted by Du Pont Corp.[1]	Shares of Common Stock of General Motors Entitled to Vote at Stockholders Meetings[2]	Total Shares of Common Stock Represented by Person or Proxy at General Motors Stockholders Meetings[2]	% of Du Pont-Voted Shares of GM Common to Total Shares of GM Common Represented at GM Stockholders Meetings
1928	5,679,988	17,166,437	10,864,889	52.3
1929	14,199,970	43,054,263	27,243,665	52.1
1930	13,766,151	42,489,061	26,904,439	51.1
1931	13,743,020	43,464,504	26,829,146	51.2
1932	13,473,768	43,257,181	26,348,140	51.1
1933	12,558,371	43,083,180	25,267,702	49.7
1934	12,284,302	42,957,167	29,959,707	41.0
1935	12,036,779	42,890,470	24,237,343	49.6
1936	11,967,241	42,913,685	23,310,647	51.3
1937	11,910,837	42,622,921	25,596,400	46.5
1938	10,000,000	42,744,191	25,218,526	39.6
1939	10,000,000	43,125,896	25,993,358	38.4
1940 1940	10,000,000	42,931,118	27,287,303	36.6
1941 1941	10,000,000	43,149,682	28,320,510	35.3
1942	10,000,000	43,254,016	27,787,273	35.9
1943	10,000,000	43,336,029	26,241,219	38.1
1944	10,000,000	44,001,134	29,651,142	33.7
1945	10,000,000	43,099,126	29,200,881	34.2
1946	10,000,000	44,021,769	30,268,519	33.0
1947	10,000,000	44,075,690	31,565,907	31.6
1948	10,000,000	44,012,652	32,247,058	31.0
1949	10,000,000	43,988,717	33,371,974	29.9

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[1] Source: Annual Reports of Du Pont Corporation to its stockholders. This figure includes General Motors common stock held directly by Du Pont Corporation and by General Motors Securities Corporation, the stock of which was initially owned 70% by Du Pont Corporation and later the common stock of which was owned 100% by Du Pont Corporation.

[2] Source: Answers dated February 1, 1952 of General Motors Corporation to plaintiff's interrogatories.

NOTE: This table does not purport to consider the holdings of Pierre S. du Pont, I mot du Pont, Irenee du Pont, and Christiana Securities Company in common stock t General Motors.

Government's Exhibit No. 1308

Excerpt from Annual Report of Du Pont Corporation to its Stockholders for the Year 1938 (Page 22)

GENERAL MOTORS INVESTMENT

Your company's investment in common stock of General Motors Corporation totals 10,000,000 shares. Prior to December 29, 1938, 156,250 of these shares were owned directly, and 9,843,750 shares were owned indirectly through General Motors Securities Company. On that date your company surrendered to General Motors Securities Company its entire holdings of General Motors Securities Company common stock, receiving in exchange the 9,843,750 shares of General Motors Corporation common stock (plus a small amount of cash), with the result that the 10,000,000 shares are now directly held by your company. These shares constitute 22.99 per cent of the issued common stock of General Motors Corporation and are equivalent to approximately 9/10ths of a share for each share of the common stock of your company outstanding at the end of the year.

The change from indirect to direct ownership of the bulk of your company's investment in General Motors Corporation common stock will result in saving the Federal income tax on dividends from General Motors Corporation common stock which General Motors Securities Company heretofore was obliged to pay. The change also terminates your company's voting power with respect to about 1,800,000 shares of General Motors Corporation common stock owned by General Motors Securities Company but applicable to the Class "A" stock of that company, none of which was owned by your company.

Government's Exhibit No. 1309

SUMMARY OF DIRECTORSHIPS AND OTHER OFFICIAL POSITIONS HELD BY INDIVIDUAL DEFENDANTS AND CERTAIN OTHER INDIVIDUALS IN DEFENDANT CORPORATIONS

ALLEN, WILLIAM P. (Deceased)

Du Pont - Director, 1927-1941
Vice-President, 1928-1931
Executive Committee, 1928-1929
U. S. Rubber - Director, ~~1937-1939~~ 1936-1940

BARKSDALE, H. M. (Deceased)

Du Pont - Director, 1916-1918
Finance Committee, 1916-1918
Vice-President, 1915-1918
General Motors - Director, June to November 1918
Finance Committee, June to November 1918
Wilmington - Director, 1912-1919

BROWN, DONALDSON

Du Pont - Director, 1918 to date
Finance Committee, 1920 to date
Executive Committee, 1918-1921
General Motors - Director, 1920-1946
Vice-Chairman, 1937-1946
Vice-President, 1920-1942
Financial Policy Committee, 1946 to date
Administration Committee, 1942-1945
Policy Committee, 1937-1946
Executive Committee, 1924-1937
Finance Committee, 1921-1937 (Chairman, 1929-1937)
Wilmington - Director, 1918-1921

BROWN, H. FLETCHER

Christiana - Director, ~~1935~~ 1934-1944
Vice-President, 1935-1944
Du Pont - Director, 1915-1944
Finance Committee, 1919-1921
Executive Committee, 1915-1919 and 1921-1930

CARPENTER, R. R. M. (Deceased)

Member of the Du Pont Family
Christiana - Director, 1915-1949
Delaware - Director, 1927 to Aug. 1943 and June 1944 to 1945
President, 1943
Du Pont - Director, 1915 to date
Finance Committee, 1919-1921
Executive Committee, 1915-1919 and 1925-1931

CARPENTER, W. S., Jr.

Christiana - Director, 1948 to date
Du Pont - Director, 1919 to date
Chairman, January 1948 to date
President, 1940 to January 1948
Finance Committee, 1921 to date
Executive Committee, 1919 to January 1948
General Motors - Director, 1927 to date
Financial Policy Committee, 1946 to date
Policy Committee, 1937-1946
Finance Committee, 1927-1937
Wilmington - Director, 1921 to date

COPELAND, CHARLES

Member of the Du Pont Family
Delaware - Director, 1927-1937
President, 1927-1937
Du Pont - Director, 1921-1942
U. S. Rubber Syndicate Member
Wilmington - Director, 1926-1934

COPELAND, LAMMOT DU PONT

Member of the Du Pont Family
Christiana - Director, 1940 to date
Vice-President, 1944 to date
Delaware - Director, 1937 to date
Du Pont - Director, 1942 to date
Finance Committee, 1943 to date
General Motors - Director, 1944 to date
U. S. Rubber Syndicate Member
U. S. Rubber - Director, ~~1941-1945~~ 1940-1946
Wilmington - Director, 1943 to date

DU PONT, PIERRE S.

Christiana - Director, 1915 to date
President, 1915 to date
Du Pont - Director, 1915 to date
Chairman, 1919-1940
President, 1915-1919
Finance Committee, 1915 to date
General Motors - Director, 1917-1944
Chairman, 1917-1929
Executive Committee, 1921-~~1923~~ 1929
Finance Committee, 1917-1937
U. S. Rubber Syndicate Member
Wilmington - Director, 1903-1920 and 1924 to date
Vice-President, 1903-1935
Honorary Chairman, 1935 to date

DU PONT, IRENEE

Christiana - Vice-President, 1915-1941
Director, 1915 to date.
Delaware - Director, 1927-1937
Du Pont - Director 1915 to date
President, 1919-1926
Finance Committee, 1915-1946
Executive Committee, 1915-1919 and 1921-1926
General Motors - Director, 1918-1938
Finance Committee, 1918-1937
U. S. Rubber Syndicate Member
Wilmington - Director, 1919-1932

DU PONT, LAMMOT (Deceased)

Christiana - Vice-President, 1923 to date
Director, 1915 to date
Delaware - Director, 1927-1943
President, 1937-1943
Du Pont - Director, 1915 to date
Chairman, 1940 to January 1948
President, 1926-1940
Finance Committee, 1918-1945
Executive Committee, 1915-1940
General Motors - Director, 1918-1946
Chairman, 1929-1937
Policy Committee, 1937-1946
Executive Committee, 1930-1934
Finance Committee, 1918-1937
U. S. Rubber Syndicate Member
Wilmington - Director, 1917 to date

DU PONT, H. F.

Du Pont - Director, 1915 to date
Finance Committee, 1916-1943
General Motors - Director, 1918-1944
Finance Committee, 1918-1937
U. S. Rubber Syndicate Member
Wilmington - 1919 to date

DU PONT, HENRY BELIN

Member of the Du Pont Family
Christiana - Director, 1928-1934; 1940 to date
Secretary, 1929-1934
Vice-President, 1944 to date
Delaware - President, 1943 to date
Director, 1927-1934 and 1939 to date
Du Pont - Director, 1934 to date
General Motors - Director, 1938-date
U. S. Rubber Syndicate Member
Wilmington - Director, 1927-1934 and 1937 to date

DU PONT, LAMMOT, Jr.

Member of the Du Pont Family
Wilmington - Assistant Secretary, 1937-1942 and 1946 to Jan. 1947
Assistant Treasurer, January 1947 to date

DU PONT, PIERRE S., III

Member of the Du Pont Family
Delaware - Director, 1943 to date

DU PONT, S. HALLOCK

Member of the Du Pont Family
Delaware - 1927 to date, Director

DARDEN, COLGATE, Jr.

Member of the Du Pont Family
U. S. Rubber - Director, 1947-1948

DAVIS, F. B., Jr.

Du Pont - Director, 1927-1942
U. S. Rubber - Director, 1929-1948
Chairman, 1929-1948
President, 1929-1942

DAVIS, HENRY

Personal Secretary to Irenee du Pont
Christiana - Assistant Secretary, 1938 to date
Assistant Treasurer, ~~1938 to date~~ 1937 to date
Vice-President, 1920-1921
U. S. Rubber Syndicate Member
U. S. Rubber - Director, 1928-1948

DEAN, J. SIMPSON

Member of the Du Pont Family
Wilmington - Director, 1931-1943 and 1946 to date

ECHOLS, ANGUS B.

Du Pont - Director, 1927 to date
Finance Committee, 1929 to date
General Motors - Director, 1944 to date
Financial Policy Committee, 1947 to date
Wilmington - Director, 1926-1934

EDMONDS, GEORGE P.

Member of the Du Pont Family
U. S. Rubber - Director, 1944-~~1947~~ 1948
Wilmington - Director, 1943 to date
President, 1948 to the present time

GREENEWALT, CRAWFORD H.

Member of the Du Pont Family
Christiana - Director, 1944 to date
Du Pont - Director, 1942 to date
President, January 1948 to the present time
Finance Committee, January 1948 to date

HUMPHREYS, H. E., Jr.

Christiana - Secretary, 1934-1938
Assistant Secretary, 1930-1935
Delaware - Secretary, 1934-1938
U. S. Rubber - Director, 1938-1948
Vice-President, 1938-1948
President at the present time

HARRINGTON, W. F.

Du Pont - Director, 1927 to date
Wilmington - Director, 1931-1934 and 1939 to date

HASKELL, J. A. (Deceased)

Du Pont - Director, 1915 to 1923
Vice-President, 1915-1923
General Motors - Director, 1917-1923
Vice-President, 1918-1923
Executive Committee, 1918-1923
Finance Committee, 1918-1923

LAIRD, W. W., Sr. (Deceased)

Member of the Du Pont Family
Delaware - Director, 1927
U. S. Rubber Syndicate Member
Wilmington - Director, 1910-1927

LAIRD, W. W., Jr.

Member of the Du Pont Family
Delaware - Director, 1934 to date

MAY, ERNEST N.

Member of the Du Pont Family
Delaware - Director, 1937 to date

PRATT, JOHN L.

General Motors - Director, 1923 to date
Vice-President, 1922-1937
Financial Policy Committee, 1946 to date
Executive Committee, 1924-1937
U. S. Rubber - Director, 1937-~~[illegible]~~ 1942

RASKOB, J. J. (Deceased)

Christiana - Director, 1915 to date
Du Pont - Director, 1915-1946
Finance Committee, 1915-1944
Executive Committee, 1915-1918
General Motors - Director, 1917-1946
Vice-President, 1918-1929
Executive Committee, 1921-1928
Finance Committee, 1917 to August 1928 and May 1929 to 1937
Wilmington - Director, 1909-1918

SHARP, H. R.

Member of the Du Pont Family
Christiana - ~~1915-19~~16 Vice-President, 1915-1916
Delaware - 1927 to February 1942 and November 1942 to 1946, Director

SHARP, H. R., Jr.

Member of the Du Pont Family
Delaware - Director, February 1942 to November 1942 and 1946 to date

SLOAN, ALFRED P., Jr.

Du Pont - Director, 1923 to date
General Motors - Director, 1918 to date
Chairman, 1937 to date
President, 1923-1937
Financial Policy Committee, 1946 to date
Administration Committee, 1937 to 1945
Policy Committee, 1937-1946
Executive Committee, 1918 to 1937
Finance Committee, 1922-1937

TALLMAN, FRANK G. (Deceased)

Du Pont - Director, 1916-1938
Wilmington - Director, 1929-1934 and 1936-1938

Note: Tenure in offices indicated above, unless otherwise noted, begin and end during the years set out without reference to the month of the year in which they began or ended. Where the month of the year during which tenure begins or ends is indicated, it has been supplied because of a break in continuity of the tenure. Where the tenure is indicated as beginning in a specified year and running to date, the to date shall mean in the case of:

Christiana - June 30, 1949
Delaware - April 25, 1949
Du Pont: Directors - August 23, 1948
Members of Committees - November 16, 1948
Officers - August 23, 1948
General Motors - December 6, 1948
U. S. Rubber - August 20, 1948
Wilmington - June 1949

Sources: Government Trial Exhibits Nos. 100, 174, 175, 176, 177, 919, 999, 1000, 1223, and 1276
Moody's Manual of Investments 1952

Government's Exhibit No. 1309

CORRECTIONS

Page 1, William P. Allen, dates as Director of U. S. Rubber should be 1936-1940 instead of 1937-1939.

Page 2, H. Fletcher Brown, date as Director of Christiana should be 1934-1944 instead of 1935-1944.

Page 3, Lammot du Pont Copeland, date as Director of U. S. Rubber should be 1940-1946 instead of 1941-1946.

Page 3, Pierre S. du Pont, date as member of Executive Committee of General Motors should be 1921-1929 instead of 1921-1923.

Page 4, Henry Belin du Pont, as Director of Christiana, 1940 to date should be shown in addition to 1928-1934.

Page 5, Colgate Darden, Jr., date as Director of U. S. Rubber should be 1946-1948 instead of 1947-1948.

Page 5, Henry Davis, date as Assistant Treasurer of Christiana should be 1937 to date instead of 1938 to date.

Page 6, George P. Edmonds, date as Director of U. S. Rubber should be 1944-1948 instead of 1944-1947.

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GOVT. TRIAL EX. NO. 1309

CORRECTIONS

Page 7, John L. Pratt, date as Director of U. S. Rubber should be 1937-1942 instead of 1937-1941.

Page 7, H. R. Sharp, the date 1915-1916 opposite Christiana should be preceded by the words "Vice-President,"

Govt. Trial Ex. No. 1312

AN AGREEMENT, dated the 23rd day of June, 1920, by and between

J. P. MORGAN & CO. (hereinafter called the "Managers") parties of the first part; and

THE SUBSCRIBERS HERETO (hereinafter called, severally, the "Participants" and collectively the "Syndicate"), severally, parties of the second part.

WHEREAS, The said J. P. Morgan & Co. have underwritten the subscription for 1,419,856 shares of the stock of General Motors Corporation offered to the common stockholders of said Corporation as set forth in the circular letter of its Secretary dated June 2, 1920, and have organized a Group to provide any and all sums required to enable them to perform their said underwriting obligation; and

WHEREAS, Certain of the stockholders of the said General Motors Corporation desire to form a Syndicate upon the terms of this agreement in which Syndicate the said J. P. Morgan & Co., in behalf of the said Group are to be included, to buy and sell common stock of the General Motors Corporation, including the stock outstanding and the stock issuable pursuant to the said subscription offer to its stockholders, and also to buy and sell the subscription warrants issued to the stockholders pursuant to such offer and the receipts issued for partial payments on account of any such subscriptions; and

WHEREAS, Heretofore and on and after May 29, 1920, the said J. P. Morgan & Co. have made purchases and sales of such stock and of such stockholders' subscription rights and warrants, and in consideration for the agreements of the Participants hereunder,

(2965)

and for the purpose of availing of the advantages thereof for the benefit of the said Group, are to vest in the Syndicate under this agreement the said transactions heretofore conducted by them and the proceeds thereof; and

WHEREAS, The said J. P. Morgan & Co. are to act as Managers of the Syndicate under this agreement without compensation for their services as such:

NOW THEREFORE, in consideration of the premises and of the mutual promises herein contained, the parties hereto mutually have agreed and hereby do agree as follows:

FIRST. On subscribing this agreement, each Participant shall indicate opposite his name the amount for which such Participant is or shall be bound as his participation in the Syndicate. For and on account of such amount so indicated as his several participation, each Participant agrees to make payment to the Managers, from time to time, or at any time on or after this date when and as called for by the Managers, by payment in cash or by delivery of shares of common stock of the General Motors Corporation at the rate of $20 per share. The term "common stock of the General Motors Corporation" refers to any of such stock now or hereafter outstanding.

SECOND. The several Participants shall be called upon to make such payments in respect to their several participations only ratably according to the several amounts thereof; but to the full extent of his several undertaking, each Participant shall be so responsible, regardless of performance or nonperformance by any other

Participant.

In the same proportion, each Participant shall share in the benefits and shall bear any loss resulting to the Syndicate under this agreement; but nothing herein contained shall constitute the parties hereto partners, or shall render any one of the Participants liable to contribute more than the amount of his several participation.

THIRD. The parties hereto of the first part, as Managers of the Group aforesaid and otherwise, hereby assign and transfer to the Syndicate, and the Syndicate hereby assumes, the said dealings conducted since May 29, 1920 by the parties of the first part in common stock of the General Motors Corporation and in stockholders' subscription rights and warrants in respect of such stock; such dealings being set forth on the books of the parties of the first part and the results of such dealings having been communicated to the Participants.

FOURTH. The objects of the Syndicate are to buy, sell, deal in and deal with common stock of the General Motors Corporation now or hereafter issued, and subscription warrants and subscription receipts for such common stock, and to protect the value of such stock, warrants and receipts for the benefit and in the interests of the Participants respectively, including the Group hereinabove referred to. The Managers are to have entire charge and sole direction of all transactions of the Syndicate under this agreement, and full and unrestricted power and authority with respect thereto. Without limitation of such general powers, the Managers, for and on account of the Syndicate, may buy, sell, deal in and deal with any common stock of the General Motors Corporation, and any subscription rights or warrants (including subscription receipts) in respect of such stock, in the open market or otherwise, in such amounts and at such prices and at such time or times as the Managers may deem advisable, whether before or after the issue of any of such stock or receipts, including sales to employees of the said Corporation at prices less than the market prices but not less than cost, if deemed in the interest of the Syndicate; may complete, for account of the Syndicate, any such transactions heretofore negotiated or arranged for; may exercise subscription rights and may make payment of amounts due on subscription warrants and receipts, when acquired; may borrow money and as security therefor pledge any and all such stock or warrants or receipts acquired or held for account of the Syndicate, and may incur for account of the Syndicate any and all expenses deemed by the Managers to be necessary or advisable in carrying out, or in endeavoring to carry out, the transactions in this agreement contemplated or in doing anything deemed by the Managers to be in the interest of the Syndicate. Any and all expenses heretofore or hereafter incurred by the Managers in connection with any such matters are to be borne ratably by the Syndicate, and are to be deducted from the assets of the Syndicate prior to final distribution. Any and all moneys received by the Managers for account of the Syndicate may be held by the Managers as bankers in general account. The Managers also shall have power and authority finally to fix and to pay all compensations of depositaries, brokers, agents, counsel or others, and

in the expense account may include such commissions to brokers and others (whether or not members of the Syndicate) as compensation for services rendered, as from time to time the Managers may determine and may have paid or have become obligated to pay.

FIFTH. The net profits or losses of the Syndicate shall be shared by the Participants in proportion to their participations as above stated, and all of the obligations of the Participants hereunder are several and not joint. No death of any individual member or of any partner in any partnership member, and no dissolution or termination of any corporate member, shall dissolve the Syndicate or terminate the rights or powers of the Managers in respect of any such member, or on account thereof shall entitle any surviving member, or the representative of any member then deceased or ceasing to exist, to demand any dissolution, distribution or accounting. All rights and powers of the Managers shall vest in the co-partnership or firm doing business under the name of J. P. Morgan & Co. as from time to time constituted.

SIXTH. The rights and powers of the Managers and the interests of the Participants hereunder, severally and respectively, shall continue until the final distribution hereunder. No Participant shall be entitled before the termination of the Syndicate to receive any of the assets of the Syndicate, subject to this agreement. The Managers shall be the sole and final judges as to whether at any time it is in the interest of the Syndicate to proceed further under this agreement, and whenever they may deem expedient they may abandon the objects contemplated by this agreement and any and all further proceedings hereunder. Unless otherwise determined by the Managers in the exercise of their unrestricted discretion, the Syndicate transactions shall be terminated December 15, 1920. As soon as may be after the termination of the Syndicate, the Participants shall be entitled ratably to receive the assets of the Syndicate then held by the Managers, after the deduction of any and all expenses and liabilities incurred by the Managers for any purpose of this agreement.

SEVENTH. The managers shall not be liable under any of the provisions of this agreement nor for any matter therewith connected, except for good faith in performing, or in refraining from performing or carrying out, the obligations by them herein expressly assumed. It is understood that in the same manner as other Participants, the parties of the first part, as Managers of the Group hereinabove mentioned, shall become Participants in the Syndicate hereunder with the same rights and benefits as any other Participant.

EIGHTH. This agreement shall bind, and is for the benefit of, the parties hereto and their successors, executors and administrators, severally and respectively. Nothing herein contained shall be construed as creating any trust or obligation whatsoever in favor of any person or corporation other than the Managers and the Participants, nor any obligation in favor of the Participants excepting only as is herein expressly provided. Each Participant shall set opposite his signature hereunder an address, to which notices, calls or other communications may be sent, and any notice, call or other communication addressed to any Participant at the address so given, and either left at such address or

mailed thereto, shall be deemed ~~actually~~ given to such Participant, and shall be sufficient for all the purposes hereof.

NINTH. In consideration of the irrevocable rights in them vested hereunder, and the promises of the several Participants the parties of the first part have been as parties to and in good faith will endeavor to consummate the purposes of this agreement. The Managers shall not be liable for the act or acts of any other person nor for anything but their own general and wilful misconduct.

TENTH. This agreement shall become operative and be binding on the parties when and as soon as Participants shall have subscribed this agreement in respect of Participations for an aggregate amount not less than $10,000,000. The Managers may at any time and from time to time admit additional Participants in the Syndicate and increase the aggregate amount of the participations; provided, however, that nothing herein contained is intended or shall be deemed to authorize the Managers to increase or decrease the amount of the participation specified by any participant in his subscription hereto. Any additional Participants so admitted shall have the same ratable rights and obligations under this agreement as he would have if he were an original member of the Syndicate.

IN WITNESS WHEREOF, One counterpart of this agreement has been signed by the parties of the first part, and upon several other counterparts the parties of the second part at various dates subscribed their names and the amounts of their several participations, respectively, it being understood that for convenience this agreement may be

may be so signed in several counterparts with like force and effect as though all signatures were upon one part thereof.

(2971)

NAME	ADDRESS	AMOUNT OF PARTICIPATION
J.P. Morgan & Co Syndicate Managers.	23 Wall St	$3,000,000
R.S. McLaughlin	Oshawa. Ont.	500,000
Norman de Vaux	Oakland Calif	500.000.
W.C. Durant	New York	1.000.000.
Alfred P. Sloan Jr	New York	500000
William Hoffman	New York 1707 B'way.	500.000.00
E A Deeds	Dayton	500,000.00
C.F. Kettering	Dayton.	500,000
T. W. Warner Co.	Muncie Ind.	500,000 in Stock
Chevrolet Motor Co By W.C. Durant Prest.	N.Y.	7,000.000.
E. I du Pont de Nemours & Co. Irénée du Pont, Pres.	Wilmington Del	$1,000,000.
Hubert and Florence Dalton	W. 42 St N.Y.	500.000.00

NOTE: Check marks appear after first, second, third and fifth lines of hand-written portion.

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Government's Exhibit No. 1313

THIS MEMORANDUM OF AGREEMENT, Made and entered into this 30th day of April, A. D. 1926, by and between AMERICAN RESEARCH LABORATORIES, INC., a corporation duly organized and existing under and by virtue of the laws of the State of Colorado, hereinafter called the "Research Company", and ETHYL GASOLINE CORPORATION, a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, hereinafter called the "Ethyl Company",

WITNESSETH:

THAT WHEREAS, the Research Company represents that it the owner of a secret process for the manufacture of tetraethyl of lead, for which it is about to make application for letters patent of the United States; and

WHEREAS, said Ethyl Company desires to purchase, to the extent hereinafter stated, tetraethyl of lead manufactured by said Research Company under said secret process:

NOW, THEREFORE, For and in consideration of the premises and mutual covenants and agreements hereinafter contained, by the parties hereto to be respectively kept and performed, it is mutually understood and agreed as follows:

FIRST: Said Research Company agrees to make application for letters patent of the United States upon its said secret process within thirty (30) days from the date of this agreement, and to prosecute the same with reasonable diligence to a conclusion. If application for patent shall not be made within said period of thirty (30) days, then said Research Company agrees to authorize the Ethyl Company to apply for a patent in the name of the Research Company. And said Research Company further agrees that it shall deliver its said process forthwith to its attorney or some other escrow holder, and in the event that said patent shall not be applied for as in this paragraph provided, said process shall be turned over to the Ethyl Company so that patent may be applied for as herein provided, in the name of the Research Company.

SECOND: If upon the application for said patent a search shows that the process so claimed and owned by the Research Company has been anticipated in any prior patent or patents or publication or in applications pending, then this contract shall be terminated as to both of the parties hereto and each party relieved from any obligation or liabilities hereunder.

Ecfo by Euw
ARK. Inc
by Jmt

The opinion of Melville Church, of the law firm of Church & Church, or of J. W. Morrison of said firm, shall be conclusive as to anticipation, and said opinion as to anticipation and notice to said Research Company shall be given within forty (40) days after the filing of the applications for patent and the furnishing of a copy thereof to said Morrison; and in the event that said opinion as to patent shall be to the effect that the process of the Research Company has not been anticipated, then delivery of the product as provided in this agreement shall begin within ninety (90) days after the receipt of said notice.

THIRD: After the date when delivery of the product is to begin said Research Company agrees to manufacture and load for shipment on cars, in accordance with shipping instructions received from the Ethyl Company, tetraethyl of lead of a purity equal to that now contracted to be supplied said Ethyl Company by The E. I. Du Pont de Nemours Company, said tetraethyl of lead to be supplied at the rate of 17,500 pounds per month, in fairly equal daily deliveries of 575 pounds per day, said tetraethyl of lead to be delivered F. O. B. Denver in drums to be furnished by the Ethyl Company, or its representatives, which said drums, at the option of the Ethyl Company, may contain the constituents necessary to make up ethyl fluid when said tetraethyl of lead shall have been added thereto. If said drums are supplied partly filled as herein provided, the Research Company agrees to add to said drums the necessary quantity of tetraethyl of lead, and after the contents of the drum have been mixed, said Research Company agrees to agitate thoroughly said contents after being mixed and before shipment. The Research Company agrees to be responsible for such drums while in its possession. Said Research Company further agrees that each batch shipped shall be numbered serially and tested, and the tests (and a test sample if requested) forwarded to the Ethyl Company; and impurities, if any, shall be reported to the Research Company and claim made therefor by the Ethyl Company within a reasonable time; provided that, at its option, the Ethyl Company shall have the right to inspect at the plant of the Research Company. All the things in this contract agreed to be done by the Research Company shall be done at its expense and is included in the sale price hereinafter set forth.

FOURTH: It is further mutually understood and agreed that all manufacture and handling of said tetraethyl of lead shall be carried on in accordance with the existing rules and regulations promulgated from time to time by the Surgeon General of the United States Public Health Service for the manufacture and handling of tetraethyl of lead and ethyl fluid and in accord with any local rules and regulations, state or municipal, relating thereto.

FIFTH: It is mutually understood and agreed that in the manufacture and mixing of said tetraethyl of lead, the chief medical adviser of the Ethyl Company, or one of his assistants, shall have the right at any and all reasonable times to examine anyone in the employ of said Research Company, who, in the opinion of said medical adviser, may be exposed to hazard in the manufacture, mixing or handling of tetraethyl of lead or ethyl fluid, said examination to take place both before such employment and at such times thereafter as may be determined upon by said chief medical adviser; and it is mutually understood and agreed that no one shall be put to work, or continued upon work in said manufacture of tetraethyl of lead or ethyl fluid who refuses to be examined or who fails to meet the physical requirements laid down by the examiner, contrary to the advice of said chief medical adviser. Such examination shall be carried on at the expense of said Ethyl Company, but said Ethyl Company, or its chief medical adviser shall be under no further legal liability or duty of whatever kind on account of such examination. Said Research Company further agrees to follow such reasonable recommendations and suggestions as may be made from time to time by said chief medical officer of the Ethyl Company, in the manufacture of said product.

SIXTH: It is mutually understood and agreed that said obligation of the Research Company to furnish 17,500 pounds of tetraethyl of lead per month to the Ethyl Company shall continue for eight months after the date when delivery shall commence under this agreement; provided, however, that any time during said period of eight months provided for manufacture and delivery of the product, the Ethyl Company shall have the right, at its option, to terminate said contract upon giving thirty (30) days notice of its intention so to do. And in consideration of said option to terminate this contract, it is mutually agreed that said Ethyl Company shall pay to the Research Company Ten Thousand Dollars ($10,000.00) if said contract shall be canceled, as in this paragraph provided, prior to the delivery of one-fourth of the total amount of product contracted for said eight months period; Seventy Five Hundred Dollars ($7500.00) if said contract shall be canceled between the time when one fourth and one half of the total amount of product shall have been delivered; Six Thousand Dollars ($6,000.00) if said cancellation shall occur between the time when one half and three fourths of the product shall have been delivered, and Five Thousand Dollars ($5,000.00) if canceled at any time between the delivery of three fourths and the entire amount contracted for, which sums shall be in full satisfaction and liquidated damages to said Research Company on account of said cancellation.

SEVENTH: It is further mutually understood and agreed that upon sixty (60) days written notice from the Ethyl Company to the Research Company, the amount of product shall be increased to 1,350 pounds per day, at the same price per pound of product, and with the same right in said Ethyl Company to cancel the contract upon thirty (30) days notice; provided, however, that if such cancellation shall take place prior to the expiration of said first eight months of this agreement after delivery has commenced, that it shall pay the sum of Five Thousand Dollars ($5000.00) in addition to the payments specified in paragraph Sixth hereof, in consideration of the right to exercise said option, and in full satisfaction and liquidated damages to said Research Company on account of said cancellation.

EIGHTH: It is mutually understood and agreed that in case of delays in delivery or in accepting delivery of said product which are caused by circumstances unavoidable or outside the control of either party hereto, or unavoidable delay in shipment, that such delays shall not cause a cancellation of said contract, but delivery of material hereby contracted for may be partially or wholly suspended, as the case may be, during the continuance of such interruption, and the contract shall be extended for the period of such delays, and delivery shall be continued at the specified rate and no liability shall be incurred by either party for damages resulting from such suspension of shipments; provided that the party asking for such delay shall use its best efforts to remove all difficulties causing the delay, and provided further that such delay shall not continue beyond a period of sixty (60) days, in which case the contract may be canceled, at the option of the other party.

NINTH: It is mutually understood that said Research Company shall sell and said Ethyl Company shall buy said tetraethyl of lead at a price of ninety cents (90¢) per pound, F.O.B. Denver, during the first eight months after delivery has commenced; and that said Ethyl Company agrees to make payment for all of the product (tetraethyl of lead) delivered F.O.B. Denver, by said Research Company, on or before the 15th day of each and every month during which this agreement shall be in force and effect, said Research Company rendering its statement therefor on the first day of the month.

TENTH: It is further mutually understood and agreed that said Ethyl Company shall have the right and option, upon written notice delivered to said Research Company thirty (30) days prior to the expiration of said eight months' period after the date when delivery begins under this contract, to elect to continue this contract and require deliveries from said Research Company, as hereinafter provided, upon the same terms and conditions as hereinabove set forth for said eight months period, except as hereinafter modified; provided that said Research Company, within fifteen (15) days after receipt of said notice, may elect not to continue manufacture and delivery under the terms hereof, and in such case, written notice so stating its election not to continue delivery to said Ethyl Company shall excuse said Research Company from any further manufacture and sale under this contract, but such written notice from the Research Company shall automatically cancel this contract and grant to said Ethyl Company, or whomsoever it may designate, a license, not exclusive, to use the process so patented, or for which patent is applied, and manufacture tetraethyl of lead thereunder for the life of the patent. In such case said Ethyl Company agrees to pay to said Research Company a license fee or royalty of two (2¢) cents per pound upon the first five hundred thousand pounds, one and one-half (1½¢) cents per pound upon the second five hundred thousand pounds, and at the rate of one (1¢) cent per pound thereafter, for all tetraethyl of lead so manufactured and produced under said license by it or its designee.

ELEVENTH: Said Ethyl Company shall have the further right and option to require said Research Company to manufacture and produce in additional production units of six hundred seventy-five (675) pounds, thirteen hundred fifty (1,350) pounds, and or twenty-seven hundred (2700) pounds each per day, any amount in excess of six hundred seventy-five (675) pounds per day, up to and including six thousand seven hundred fifty (6750) pounds per day, and sell the same to the Ethyl Company at a price not to exceed ninety (90¢) cents per pound of product, and at such price less than ninety (90¢) per pound of product as will meet competition, upon condition that said Ethyl Company shall give the Research Company sixty (60) days' written notice for each 675 pound unit and ninety (90) days' written notice for each 1350 pound or 2700 pound units per day so required, which period shall not overlap; provided that said Research Company shall have the right to elect not to meet the price of competition upon thirty (30) days' written notice, in which event said Ethyl Company, or its nominee, shall have a license, not exclusive, to manufacture under said process upon payment of the same royalty as provided in paragraph Tenth hereof.

TWELFTH: It is mutually understood and agreed that in the event said Research Company shall breach this contract and shall fail to remedy said breach within fifteen (15) days after receipt of written notice from said Ethyl Company to remedy said breach, that said Ethyl Company shall have the right and option to terminate this contract and be relieved from any liability to make any of the payments provided herein in the event of cancellation, and it or its nominee may then manufacture as a licensee, not exclusive, under said process, without the payment of any royalty; provided, however, that if said Ethyl Company shall exercise said option, that said right and license to manufacture under said process, as set forth herein, shall be in full satisfaction and as liquidated damages to said Ethyl Company on account of failure to perform by said Research Company.

THIRTEENTH: It is further mutually understood and agreed that at all times said Ethyl Company shall have the right to cancel this contract upon delivery of sixty (60) days' written notice to said Research Company; provided that in consideration of such right of cancellation said Ethyl Company shall pay to said Research Company, on account of units other than as provided in paragraphs Sixth and Seventh hereof, as follows:

(5257)

Seventy-five Hundred ($7,500.00) Dollars for each six hundred seventy-five (675) pound unit installed within one year next prior to the date of cancellation;

Ten Thousand ($10,000.00) Dollars for each thirteen hundred and fifty (1,350) pound unit installed within one year next prior to the date of cancellation;

Seventeen Thousand Five Hundred ($17,500.00) Dollars for each twenty-seven hundred (2,700) pound unit installed within one year next prior to the date of cancellation.

Said amounts so to be paid shall be decreased fifteen (15%) per cent. for each additional year or fraction thereof for which any of said units shall have been installed and operated by said Research Company.

Said amounts so paid as aforesaid shall be in full satisfaction and liquidated damages for any and all losses caused said Research Company by reason of cancellation by the Ethyl Company.

FOURTEENTH: In the event that the Ethyl Company shall exercise its option to require further deliveries of tetraethyl of lead after said initial period of eight (8) months, as hereinabove provided, then if satisfactory arrangements cannot be made as to blending of the product by the Research Company in order to make ethyl fluid, the Research Company agrees to deliver the tetraethyl of lead product, as provided in paragraph Third hereof, or at the option of the Ethyl Company F. O. B. cars, or to the local blending plant of the Ethyl Company, if one should be built in the locality of the Research Company's plant, and in case of such delivery, the Ethyl Company agrees to supply containers or drums for said product.

FIFTEENTH: Said Research Company agrees to protect and save said Ethyl Company harmless from claims of infringement of letters patent by others than the parties hereto on account of the manufacture of tetraethyl of lead, as provided in this agreement, upon notice to said Research Company so to do.

SIXTEENTH: Wherever notice is stipulated to be given in this contract by one party to the other, such notice shall be considered as delivered to the other party in due course of mail when the same shall be deposited in the mail with proper stamps affixed and registered, with the registry fee prepaid, and addressed to the other party at its last known post office address.

SEVENTEENTH: In the event that this contract shall be continued as is provided in paragraph Tenth hereof, then it shall continue for a period of ten (10) years, subject to the rights of cancellation of the ~~Ethyl Company~~ as herein provided, and shall be binding upon the respective successors and assigns of the parties hereto.

IN WITNESS WHEREOF, each of the parties hereto has caused its corporate name to be subscribed by its President, and its corporate seal attached hereto and attested by its Secretary the day and year first above written.

AMERICAN RESEARCH LABORATORIES, INC.,

(S E A L)

By J M Huff
President.

Attest:
T B Huff
Secretary.

ETHYL GASOLINE CORPORATION,

By E W Webb
President.

(S E A L)

Attest:
Secretary.

We, the undersigned, D. K. Proffitt and J. G. Sharon, of the City and County of Denver, State of Colorado, have read the attached and foregoing contract, and assent and agree thereto, as the inventors of the process for the manufacture of tetraethyl of lead therein referred to, which process we have sold and assigned to American Research Laboratories, Inc., a Colorado corporation.

IN WITNESS WHEREOF, We have attached our hands and seals, at Denver, Colorado, this day of April, A. D. 1926.

D K Proffitt (SEAL)

J. G. Sharron (SEAL)

In consideration of the execution of the attached and foregoing contract and the sum of One ($1.00) Dollar to us in hand paid by Ethyl Gasoline Corporation, a Delaware corporation, the receipt whereof is hereby acknowledged, we, the undersigned, T. B. Huff and J. N. Huff, holders of the majority of the stock of American Research Laboratories, Inc., and officers and directors thereof, being desirous that American Research Laboratories, Inc., should make the foregoing contract, do hereby guarantee, promise and agree to and with said Ethyl Gasoline Corporation, that the above named American Research Laboratories, Inc., will well and faithfully perform and fulfill everything by the foregoing agreement on its part and behalf to be performed and fulfilled, at the times and in the manner provided.

J N Huff

T. B. Huff

Government's Exhibit No. 1314

Answer of E. I. du Pont de Nemours and Company,
Filed March 7, 1952, to Interrogatory 7(a) and 7(b)

7. During the years 1946 and 1947 E. I. Du Pont de Nemours and Company produced and sold no Tetraethyl Lead or lead antiknock compounds to others than the Ethyl Corporation. For the years 1948 through 1950 the data requested are as follows:

(a) See Exhibit 1 attached hereto.

(b) To the best of our knowledge, all companies listed in the response to question 7(a) except those listed below had been customers of Ethyl Corporation prior to the time that E. I. du Pont de Nemours and Company commenced selling Tetraethyl Lead or lead antiknock compounds:

Absorption Plant Inc.
American Republics Corporation
Atlas Processing Company
California Company
California Refining Company
Canadian Industries, Ltd.
Carthage Corporation
Carthage Hydrocoll Inc.
Gilcrease Oil Company
How-Kola Refining Corporation
Eli Lilly & Company
Port Fuel Company, Inc.
Rosewood Oil & Refining Company
Salt Lake Refining Company
Southwest Gas Producing Company, Inc.
Western States Refining Company
Winnsboro Refining Company

Exhibit I

ANSWER TO QUESTION 7(a) OF INTERROGATORIES OF NOVEMBER 5, 1951

Company	1948 Sales		1949 Sales		1950 Sales	
	Pounds*	$	Pounds*	$	Pounds *	$
Absorption Plant, Inc.	152 560	53 502	-	-	-	-
Aquila S. A. Tecnica Industriale	-	-	-	-	110 015	37 471
American Liberty Oil Company	293 147	101 530	255 331	89 754	293 290	102 454
American Mineral Spirits Company	190 740	60 612	153 360	54 147	-	-
American Oil Company	7 099	2 215	7 103	2 636	-	-
American Republics Corporation	-	-	114 580	40 187	190 480	65 782
Arkansas Fuel Oil Company	152 660	49 992	191 800	66 795	419 660	145 054
Ashland Oil & Refining Company	-	-	2 187 940	767 656	2 315 420	806 765
Asiatic Petroleum Corporation	-	-	4 869 919	1 845 299	-	-
Associated Ethyl Company, Ltd.	-	-	-	-	5 981 078	1 965 015
Atlantic Refining Company	996 980	350 609	2 611 680	[illegible] 877	3 373 075	1 157 509
Atlas Processing Company	-	-	-	-	381 940	134 970
Aurora Gasoline Company	114 700	41 679	727 308.2	252 498	610 923	211 350
Bahrein Petroleum Company, Ltd.	-	-	4 880 999	1 754 092	-	-
The Bay Petroleum Corporation	419 340	135 960	650 630	229 168	572 720	196 886
Bell Oil & Gas Company	38 240	13 895	153 140	54 765	571 740	196 554
Ben Franklin Refining Company	-	-	229 640	80 902	-	-
Ben-Hur Refining Corporation	36 873	12 750	34 087	12 650	34 066	12 136
California Company	-	-	238 619	85 428	340 861	119 551
California Refining Company	617 608	201 686	931 830	326 798	1 489 980	513 547

52261

Company	1948 Sales Pounds*	1948 Sales $	1949 Sales Pounds*	1949 Sales $	1950 Sales Pounds*	1950 Sales $
California Texas Oil Company, Ltd.	-	-	15.9	33	-	-
Canadian Industries Ltd.	-	-	-	-	1 757 763	574 805
Carter Oil Company	96 516	31 958	-	-	-	-
Carthage Corporation	-	-	307 144.2	107 298	-	-
Carthage Hydrocoll Inc.	-	-	-	-	5	11
Chicago Corporation	612 340	203 111	844 060	298 366	76 460	26 042
Claiborne Gasoline Company	290 976	96 244	272 629	100 092	442 984	156 188
Comitato Italiano Petroli	671 447	209 469	-	-	-	-
Cooperative Refinery Assoc.	191 000	66 496	369 975.6	131 611	-	-
Cosden Petroleum Corporation	648 320	211 755	573 780	202 421	916 440	316 977
Crown Central Petroleum Corporation	-	-	230 062.1	80 801	918 640	316 534
Derby Oil Company	-	-	152 840	54 894	114 800	39 431
Deutsche Benzin U. Petroleum Ges., Gbm	-	-	-	-	157 571	53 724
Deutsche Shell A. G.	-	-	-	-	157 628	53 688
Deutsche Vacuum Oel A. G.	-	-	-	-	157 612	53 724
Eastern States Petroleum Company, Inc.	1 379 180	479 135	1 382 100	487 422	1 303 680	444 639
Esso Deutsche Amerikanische Petroleum Ges.	-	-	-	-	157 606	53 681
Esso Standard Oil Company	14 359 295.2	4 741 873	13 150 684.4	4 751 805	17 344 966	6 025 880
Frontier Refining Company	289 140	75 584	153 806.3	53 305	190 900	65 322
General Petroleum Corporation	3 215 640	1 030 075	4 213 780	1 490 430	5 061 060	1 743 715

Company	1948 Sales Pounds*	1948 Sales $	1949 Sales Pounds*	1949 Sales $	1950 Sales Pounds*	1950 Sales $
Gilcrease Oil Company	38 420	12 987	38 060	14 795	-	-
Globe Oil & Refining Company	-	-	-	-	459 040	158 784
Governatorato Della Citta Del Vaticano	-	-	-	-	4 261	1 451
Gulf Oil Corporation	-	-	3 498 447	1 361 168	3 117 697	1 183 094
How-Kola Refining Corporation	5 680	2 108	5 680	2 023	-	-
Huber, J. M., Corporation	-	-	76 480	29 730	-	-
Humble Oil & Refining Company	7 226 719	2 378 023	7 039 312	2 513 580	7 810 158	2 731 945
H. L. Hunt	-	-	102 242	36 733	68 138	23 736
Hunt Oil Company	73 805	26 455	110 705	40 606	161 733	63 896
Husky Refining Company	38 280	11 645	-	-	-	-
Imperial Oil Limited	3 980 440	1 311 680	4 338 600	1 527 652	4 175 384	1 426 304
Industrial Raffinazione Oli Minerali	-	-	-	-	32 647	11 120
Jugonafta	-	-	-	-	115 009	39 475
Kerr-McGee Oil Industries Inc.	-	-	38 220	13 320	114 700	39 670
Eli Lilly & Company	-	-	-	-	240	147
Lago Oil & Transport Company, Ltd.	1 253 712	476 625	3 984 000	1 473 871	5 200 803	1 860 359
Magnolia Petroleum Company	2 146 340	741 047	3 964 520	1 405 060	6 637 141	2 312 006
McBride Refining Company	-	-	-	-	178 904	62 729
McCarthy Chemical Company	-	-	612 740	215 616	571 600	196 798
McColl-Frontenac Oil Company, Ltd.	687 514.7	226 295	1 035 146.3	359 758	1 063 938	363 214
McMurrey Refining Company	-	-	-	-	152 740	52 633
Mexican Petroleum Corp. of Georgia	31 218	9 739	51 131	18 468	-	-
Midland Cooperative Wholesale	38 080	12 872	153 280	54 001	76 380	26 015
National Cooperative Refinery Association	76 460	27 783	229 880	79 908	457 960	157 801
Northwestern Refining Company	2.1	4	25 570	8 961	59 631	20 974

Company	1948 Sales Pounds*	 $	1949 Sales Pounds*	 $	1950 Sales Pounds*	 $
Norwalk Company, Inc.	-	-	204 023	73 771	204 506	71 508
Pan American Refining Corporation	1 156 140	375 532	3 062 334	1 103 670	5 547 860	1 924 081
Pana Refining Co., Division of Illinois Farm Supply	-	-	76 880	27 140	76 280	26 590
Peteo Corporation	-	-	229 500	79 793	305 660	105 321
Petroleum Specialties, Inc.	51 114	18 369	89 494	33 154	127 138	44 893
Phillips Petroleum Company	253 240	100 466	2 617 365.2	1 008 279	168 580	64 381
Pontiac Refining Corporation	612 040	203 027	1 040 360	368 213	1 212 925	425 176
Port Fuel Company, Inc.	-	-	-	-	76 580	26 083
Pure Oil Company	2 756 784.2	915 744	3 767 780.8	1 321 161	5 677 056	1 953 871
Rado Refining Company	38 140	12 892	38 220	13 557	76 460	26 042
Refinaria Nacional De Petroleo, S. A.	-	-	-	-	66 744	22 733
Republic Oil Refining Company	-	-	-	-	76 240	27 186
Richfield Oil Corporation	1 302 760	475 627	2 618 740	956 115	2 284 960	801 999
Roosevelt Oil & Refining Corporation	-	-	-	-	114 580	39 086
Roosewood Oil & Refining Company	38 260	11 639	-	-	-	-
Rothschild Oil Company	-	-	147 681	55 103	73 801	26 298
Salt Lake Refining Company	76 624.2	27 849	997 326.3	348 013	919 661	315 682
Shamrock Oil & Gas Corporation	343 100	112 769	574 020	202 747	495 363	169 651
Shell Oil Company	10 147 938.1	3 344 584	12 799 901.8	4 562 821	15 915 633	5 551 348
Shell Oil Company of Canada Ltd.	574 100	194 721	804 860	281 790	267 940	91 865

Company	1948 Sales		1949 Sales		1950 Sales	
	Pounds*	$	Pounds*	$	Pounds*	$
Sinclair Refining Company	-	-	-	-	1 919 122	727 589
Skelly Oil Company	-	-	612 412.1	215 320	535 101	183 171
Sociedade Anonima Concessionaria de Refinacao	-	-	-	-	141 962	48 806
Socony-Vacuum Oil Company (Ultramar)	-	-	-	-	72 419	24 666
Socony-Vacuum Oil Company	5 650 484	1 870 835	7 198 947	2 542 634	7 258 769	2 508 404
Sohio Petroleum Company	-	-	-	-	38 100	12 977
Southwest Gas Producing Company, Inc.	-	-	230 280	80 946	458 704	159 277
Southwestern Oil & Refining Company	152 920	49 106	115 060	40 224	919 680	317 413
Standard Oil Co. of California	6 920 545	2 277 890	6 677 056	2 448 617	6 736 576	2 428 717
Standard Oil Co. (Ind.)	-	-	-	-	1 064 137	404 509
Standard Oil Co. of Texas	67 791	23 373	67 779	26 383	185 737	65 848
Standard Oil Development Company	298	330	-	-	-	-
Standard-Vacuum Oil Company	-	-	-	-	462 777	166 340
Standard-Vacuum Petroleum Company, NIJ (N.V.)	-	-	496 933	177 613	-	-
Stanolind Oil & Gas Company	-	-	306 604.2	106 441	996 324	344 659

---

* Pounds of antiknock compound, the form in which du Pont sells its tetraethyl lead.

Company	1948 Sales Pounds*	1948 Sales $	1949 Sales Pounds*	1949 Sales $	1950 Sales Pounds*	1950 Sales $
Sun Oil Company	84 240	33 420	-	-	1 569 886	540 519
Taylor Refining Company	306 840	103 071	154 060	54 388	419 960	144 245
Texas Company	10 720 506.5	3 591 734	14 480 973.4	5 034 636	14 425 153	4 983 515
Union Oil Company of California	8 611 291	2 740 134	8 359 429.1	2 948 095	5 755 011	1 996 880
United Gas Pipe Line Company	191 760	66 766	460 200	160 089	76 600	26 765
United States Government	-	-	82	101	26	43
Utah Oil Refining Company	194 540	65 289	386 960	136 422	431 000	152 576
Venezuela Gulf Oil Company	-	-	13.3	19	263 918	96 708
Warren Petroleum Corporation	38 160	13 666	38 240	13 105	-	-
Wesson Oil & Gas Company	-	-	204 487	73 838	272 588	96 038
Western States Refining Company	-	-	34 092	12 652	68 154	24 010
Winnsboro Refining Company	113 533	37 338	28 381	10 533	-	-
Total	90 713 621	$30 074 304	134 121 595.2	$46 072 662	153 741 898	$53 487 989

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* Pounds of antiknock compound, the form in which du Pont sells its tetraethyl lead.

Government's Exhibit No. 1315

FABRICS ROUTINE TRADE REPORT - Sales Manager's Copy

Received for Typing 4/27/48
Date Typed 4/27/48

Customer Fisher Body Div., General Motors Corp.
St and No. General Motors Bldg.
City - Zone Detroit 2
County - State Wayne - Michigan
Persons Interviewed Fred Walker, Vern Fisher, etc.

B C. 23
Class I
Report No. 59
Salesman T. A. Nalle
Date of Call 4/2/48

COPIES TO:

1.	Nbg.	5.	JB.
2.	TA	6.	Fld.
3.	ALB ✓	7.	
4.	TAN	8.	

RESULTS OF CALL

1. Business Condition (a) Capacity now operating 70 %
   (b) Outlook next quarter - Good ☒ Fair ☐ Poor ☐
2. Competition (a) List competitive items purchased since last report. Did you secure samples? (b) Have we lost business to competition since last report? (c) What new competitive products are affecting our market?
3. Du Pont - Report any conditions re: quality, service, price, credit or policy that affect our relationship with this firm (a) to our benefit (b) Adversely.
4. Sales - What is being done to improve our sales volume here?

(Number your answers to questions 2, 3 and 4)

2. (a) Purchasing pyroxylin and vinyl materials from Textileather and Federal Leather, in addition to ourselves. Competitive samples have been sent in from time to time, as available.
(b) In general have a policy of purchasing from more than one source. At present they have three, in line with long-standing policy and practice. We are securing a reasonably large percentage of the business.
(c) All sources have been doing work on various vinyl constructions. Some tests have been run on a convertible top material made of vinyl film in which a low count fabric is embedded. A test top performed very well in service in this vicinity but they were not at all satisfied with the result of continuous aging in Florida.

3. (a) and (b). Everything running along smoothly now that the top material situation has been straightened out.

4. Frequent contacts and follow-up.

ACTION NEEDED

Show Separately for Newburgh and Fairfield

5. List all samples and literature to be forwarded.
6. What other service is desired for this firm ~~prior to your~~ next call?
7. When will customer next be in market 4/30/48 (date)? Should office follow up with customer - Yes ☐ No ☒
8. List any changes in consumption or mailing list data that should be made in the Master Trade Report.

(Number your answers to questions 5, 6 and 8)

5. None.

6. None.

8. None.

REMARKS

Have been running along at a fairly even rate, requiring from us approximately 165,000 yards of coated fabric per month. However, the coal strike is bound to cause some considerable loss in production which will be reflected in reduced schedules later on. The extent of this is not yet definitely known.

Three "Fabrilite" items, namely 6961, 4502 and 706 qualities in a red Spanish, have been adopted for the Oldsmobile station wagon which will be built at the Fisher Cleveland plant.

The change-over in 4502 quality from "Fabrikoid" to "Fabrilite" is moving along and is expected to be completed by April 19.

Government's Exhibit No. 1316

EXCERPTS —

July 24, 1925

TO: EXECUTIVE COMMITTEE

FROM: PAINT, LACQUER & CHEMICALS DEPARTMENT

MONTHLY REPORT—JUNE, 1925—PAINT, LACQUER & CHEMICALS DEPARTMENT

July 20, 1925

• • •

Fairfield's June billings show an increase of 60% over May and 10% over forecast. This is principally due to the Chevrolet contract, which was supposed to cover July, August and September, but under which a considerable volume of releases was given us in June.

For the first six months of 1925, our Fairfield sales were 27% lower than for the first half of 1924. This was due entirely to our lack of the Chevrolet and Buick business over the first half of this year. This, it will be recalled, we had the opportunity of taking at competitive prices, but refused to book on an unprofitable basis. Against the loss of volume and consequent impairment of current profits resulting from this refusal, we feel there is a substantial offset in the form of a somewhat improved general tone of the market in which we must operate.

Last Half?

(2991 E)

Government's Exhibit No. 1317

Excerpt from Report of Fabrikoid Division to Executive Committee, for January, 1927, dated February 23, 1927.

"Many of our competitors show a tendency toward cutting prices. We attribute this condition to the fact that they are generally short of a fair volume of business to operate on. During the month we lost Chrysler's teal business to the Haartz Auto Fabric Company. The latter's prices are within three cents of our bare factory cost. An initial order has been received from the American Motor Body Corporation for wide deck material. Their business was formerly enjoyed by the J. C. Haartz Company."

5220

EXCERPTS FROM THE MONTHLY REPORT OF THE CELLULOSE PRODUCTS DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR MAY 1923, DATED JULY 2, 1923.

* * * * *

Chevrolet has placed orders with us for their September requirements of 150,000 yards of Fabrikoid and 276,000 yards of Rubber. Buick's September requirements total 46,500 yards of Fabrikoid and 128,000 yards of Rubber. Orders for Oakland's September needs have also been placed with us, and prices have been quoted Cadillac on Rubber.

* * * * *

Profits:-

The Fairfield net profit of $8,000 in May is after absorbing a loss of $15,000 on the $112,362 of May sales to Chevrolet. These sales amounted to 31-1/2% of Fairfield's total business. Our profit on the remaining 68-1/2% was $23,000, which figures a little better than 10% net on sales. This is encouraging. The Executive Committee is familiar with the circumstances surrounding the low price at which the Chevrolet rubber business was booked over the first half of 1923. It is estimated that one-third of Fairfield's June sales will be to Chevrolet, which will again net a loss on that account of approximately $17,500. Fortunately the July/August business has been booked at prices 20% higher. For the last four months of 1923 Chevrolet decided to place only 75% of their business with DuPont and 25% elsewhere. We have had their business 100% up to and including September 1923. The business for the last four months was booked at 54¢, which nets 52.92¢ after deducting cash discount.

* * * * *

2993

E

Excerpt from Industrial Sales Trade Report
Re Call on Packard Electric Co., Dated 10/20/32.

PURPOSE OF CALL - 1) Follow up on X-62-7 clear
2) Discuss X-62-8 Black
3) Find out regarding competitive conditions on L. T. Dope.

RESULTS - 1 - X-62-7 did not show up well on either the 175° heat test or 285° test. It pinholed on both tests, due I believe to fact that there were minute bubbles in the film before testing.

2 - In view of the apparently great improvement in X-62-8 black I am dropping X-62-7 at least for present, until we try out a clear of type of X-62-8.

3 - It is reported that Arco has cut price on 13-1/2% film scrap solution to $.56 or $.57. If so would we be interested in meeting this figure? I am going to quote Nye $.60 next week.

4 - PRODUCTION - They are operating much better now as shown by orders for total of 25 drums of our black during past 30 days. Aside from low automotive production the reason for low taking of black all summer was that Packard had a stock of two million feet of black when G-M took them over, from which they shipped all summer. Large stocks are not necessary now as they get the benefit of G-M forecast. We are getting all of the Black H.T. business and have had all of it this year except for 25 drums bought from Arco last March to apply on their unfilled order of July 1931. Although the Arco black now shows much better heat resistance than 6249 the latter is still the only approved black because former does not meet cold test of 4" bend at 0°F.

Ed Rumpler tells me that he frequently has to put an extra 4 coats of 6249 on now. Stated that he had not reported this to Marshall, figuring to work out of the difficulty. He mentioned this on last call but at that time we decided it was probably due to hard wipers caused by not using them. Altho new soft wipers have been installed the trouble continues. If our solids have been ok on recent shipments, it looks as though the trouble is due to too low viscosity in the pans which might be caused by any one of following -

1 - Loss in viscosity of 6249 during transit or after manufacture.

2 - Different evaporation conditions in their pans. I will investigate this.

ACTION REQUESTED - Please investigate record samples of the three last shipments made prior to 10/17.

Ed thinks the condition can be improved by cutting the grease content more and may order "1/2 grease content" on next order. Please refer to our records for formula put through that way last year.

Government's Exhibit No. 1320

Chicago, Ill. December 15, 1932

Salesman's Name **W.P.Fisher**

Customer **Packard Electric Corp.** Class **1**

Address **Warren, Ohio** Mfg. **Auto Cable**

DuPont Sales 1932 (9 mon.) $ **7862** DuPont Sales 1931 $ **24285**

Total estimated value of material to be used in 1933

A—Finishing materials that will be used in 1933 (Include every item)

P. X. PRODUCTS

Product	Supplier	DuPont Gals.	Competitor Gals.	Price	Pkg.
Blk.H.T.	Arco duP	6000	6000	1.85 dld.	drs.
Clear H.T.	F-S Co.		2500	1.90	"	"
Film Strap	duP Arco	9000	9000	.56	"	"
Thinner	duP	500		.80	"	"
"	Arco		1000	.49	"	"

P. & V. PRODUCTS

Product	Supplier	DuPont Gals.	Competitor Gals.	Price	Pkg.
Asphalt	Suydam		1000	.40	drs.

B—What is your forecast of business we will receive from this concern in 1933?

This should represent the value of the Products to be supplied by DuPont in 1933 as shown above.

P. X. Products $ 16,100
P & V Products $
TOTAL $ 16,100

C. Finishing schedules for each article manufactured.
1. Type of metal.
2. Cleaning method.
3. Method of application; spray, brush, dip, or roller coat.
4. How is article finished; give number of coats, reduction, drying or baking time and temperature.

Article **H.T. Cable**	Article **L.T. Cable**
1	1
2	2
3 **Special wiper**	3 **Special wiper**
4 **14 coats dried An average of 8 min. between coats at 1200 to 1600F.**	4 **4 coats dried average of 8 min. between coats at 1500F.**

D. If customer is not using our materials 100% answer the following.
1. If price give details.
2. If product answer the following.
   a; What products have we submitted for trial and what was the reaction?
   b; If we have not already offered materials, what standard products should we offer?
   c; If special product is necessary in what respect should it differ from our nearest standard product?
   d; What qualities is the customer most interested in?

Item **Black H.T. Lac.**

1 **Now using 100% but attitude of Delco Remy indicates they will release against old Arco order dated July, 1931, as soon as approval is given. Unfilled**
2-a **balance on said order is 120 drums.**

2-b

2-c

2-d

Item Clear H. T.

1

2-a 6211 and 3 special X-developments would not stand 300° hour test.

2-b X-62-10 as soon P. S. order gets down to point where we can secure business. Unfilled balance is around 70 drums.

2-c

2-d

Item Film Scrap Solution

1 We finally met Arco price of 56¢, dld. in Warrn on 13½ Gal. Mr. Nye of Delco-Remy is so far unwilling to take this away from Arco at same price. Will not push as long as we get all the Black which is more profitable.

2-b

2-c

2-d

Item Asphalt Varnish

1

2-a V-1217. Nor report on 5 gal. trial

2-b

2-c

2-d

E-What is your plan of solicitation for this account? Include in your plan any special type of service it is necessary for us to render in order to acquire this account. Be complete.

Work closely with the Engineers at Warren on new developments on H.T.Cable. Packard so far has not used any of the new High Heat Resistant lac. in production because it does not meet the cold test although Arco is very close. Our lab. should bend every effort to modify ours to meet this.

F-Are there any reasons why this account will not buy from dupont?

No

G-When in your opinion, should we be able to obtain this business?

Should continue to get bulk of the profitable items.

H-What items if any, should be removed from your potential and why?

None

I-If this was a selected account in 1932 what progress has been made as a result of concentrated effort during the past year?

Obtained 138 drums out of 163 drums of Black H.T. used during 1932.

J-Add any remarks that are pertinent and necessary to enable us to successfully plan how to obtain this business.

2907

Government's Exhibit No. 1321

Form PP 3749 25M Sets 1-35

WILMINGTON F & F SALES RECORD COPY
INDUSTRIAL SALES TRADE REPORT
E. I. DU PONT DE NEMOURS & COMPANY, Inc.
Finishes Division

CC: R.C. Williams
T.T. Taylor

Salesman W.P. Fisher Date 4-24-35 Report No. 109

Customer Packard Elect. Company Class No. 1

Street and No. None Business Auto Cable

Town Warren State Ohio

Person Interviewed W.S. Johnstone Title Buyer Title

Products Used	Normal Purchases	Grade	Price	Pkg.	F.O.B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS	H.B. Fry							
	Thomas							
SOLUTIONS	Fusserman							
LACQUERS								
THINNERS								
BR. LIQUIDS								
PX ENAMEL								
PX PRIMERS & UNDERCOATERS								
BR. POWDER								
READY MIXED								
VARNISHES								
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS & UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATS								
BLACK JAPANS								
MAINTENANCE								

1 Give information relative to competitive activities:
(a) Why does customer or prospect buy from competitors (quality, service and price, etc.)?
b Additional competitive information:

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Rec'd 4-26 Typed 4-29-35 AW

A) General solicitation.

B) Varnish.

V-1424 is apparently going to be O.K. for cable when reduced, as well as for harnesses.

Black High Tension

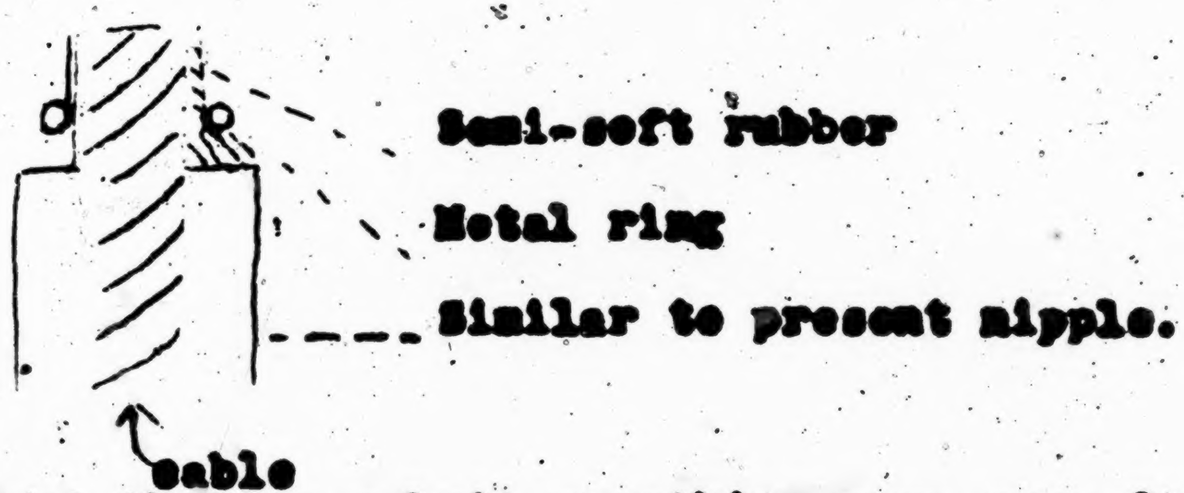
Sample coated with X-600-462 by our Lab. aged 5 weeks stood a ⅛" bend after one hour at 300 deg. F. and 3 pieces out of 4 stood the cold test so it appears that product will be O.K. for heat and cold. They have been operating the drum of this product since Monday and the report is that it builds well and does not stick on the reels. The only objection is that the film appears to be softer than the A & W in that it shows the print of the braid from being wound on the reels much more than the A & W. This is illustrated by a length of each cable which I will send Parlin and Chicago. The A & W material is the one with the trade mark. I am not certain as to whether this will rule it out as yet. Due to the importance of getting a product for the new ovens I am not asking for a revision yet, even though X-600-462 may not be quite right.

Material for trial in new oven.

It appears that the ovens will be ready for test by next Wed. 5/1. The first concern offering a

(over)

suitable material will get the business. They are saving enough X-600-452 to try but it appears likely that this will be too thin for the new wipers. They are going to use nipples which are supposed to be duplicates of those used by Belden. See sketch. It is packards opinion that a viscosity of about twice the present one will be needed.


Semi-soft rubber
Metal ring
Similar to present nipple.
cable

C) It is very important that we submit something very soon for the new equipment.

(2999 E)

Government's Exhibit No. 1322

Form FF 3749 25M Sets 1-35

WILMINGTON F & F SALES RECORD COPY CC: T.T. Taylor
INDUSTRIAL SALES TRADE REPORT R.C. Williams

E. I. DU PONT DE NEMOURS & COMPANY, Inc.

Finishes Division

Salesman W.S.Robertson Date 6-17-36 Report No. 136

Customer Packard Electric Company Class No. 1

Street and No. Dana St. Business Ins. Cables

Town Warren State Ohio

Person Interviewed J.B. Litman Title Eng. Buyer E.E. DeBolt Title P.A.

Products Used	Normal Purchases	Grade	Price	Pkg.	F. O. B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS					Supp.			
SOLUTIONS								
LACQUERS								
THINNERS								
BR. LIQUIDS								
PX ENAMEL								
PX PRIMERS & UNDERCOATERS								
BR. POWDER								
READY MIXED								
VARNISHES								
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATS								
BLACK JAPANS								
MAINTENANCE								

1 Give information relative to competitive activities:
(a) Why does customer or prospect buy from competitors (quality, service and price, etc.)?
(b) Additional competitive information:

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Rec'd & Typed 6-19-36 AW

A) At customer's request.

B) DeBolt is now asking for M & U paint quotations for a new building which is in course of construction. I gave him quotations on the various items listed in your letter of 5-26. He wants these confirmed by letter and wants prices in both drums and fives.

While he will probably use the same materials which Anderson does he also wants prices on lower priced mill whites to match with other competitive quotations which he is asking for. I suggest you quote on "Dulite" and on some orthodox mill white which can be sold for about $1.75 or $1.80. Quoting on a lower priced mill white will also make it necessary to quote on a lower priced undercoat.

We should also quote on Trim & Trellis Green for use on the metal window casements. He asked that we have these quotations in his hands not later than Monday June 22. Send him these dope in duplicate.

In addition DeBolt wants to get a list of all the items we sell Anderson both M & U and Industrial. He wants the name of the product, our code number, the Delco Specification number and the price. This can come thru after you have had an opportunity to collect the data.

I could make little headway with DeBolt on the possibility of increasing his takings of black, other

-over-

Defendants' Trial Ex. No. ________

5278

than his admission that he was trying to squeeze us further on price.

I noticed that the code given in your letter for G.M. Gray Machinery Finish (83-403) is different than either of the grays we are selling to local machinery manufacturers for G.M. work. It might be well to check this point.

Had a few minutes with Litman before closing time and learned that the Black High Tension Cable Lacquer situation is all up in the air again. Belden is selling a Black H.T. cable which is far superior to the Packard Cable in heat resistance and their sales department is raising an awful howl. The Belden cable (imprinted "77 Belden 77" in orange) will stand eight hours at 300 deg. F. without cracking around a half inch mandrel. It also resists decomposition better in a crude test which Belden is promoting. This test consists of putting a 100 watt light bulb in a small cardboard box and suspending samples of cable to be tested about ½ inch from the bulb. Litman says our finish decomposes very quickly whereas the Belden cable does not. The Belden cable also has satisfactory cold crack resistance. While X-600-213 is not good in this respect. I urged Litman to test it because of its heat resistance. I am sending you a small piece of Belden cable which should be sent to Parlin. I will try to get more on my next visit.

Someone has already offered Packard a lacquer approaching the quality of the Belden finish but it is somewhat difficult to dry. We are going to have to move fast in doing likewise for there is no question in my mind but what Packard will be using a more heat resistant finish in the near future.

I will get more detailed information on the whole situation if possible early next week. However, if Parlin has any ideas at all I believe it would be well for Tom Taylor to stay over a day at the time he visits Ashtabula to discuss the situation with Litman. He has requested that we arrange this if at all possible.

C) Get M & U prices out promptly.

Give DeBolt a list of items purchased at Anderson with Delco specification numbers.

Get Parlin working on the Black problem at once.

Advise me whether Taylor can spend a day at Packard when he visits Ashtabula.

Government's Exhibit No. 1323

Government Exhibit 1323 Defendants Exhibit ( ) Iden. ( )Rec'd.
In the [illegible] States, BEFORE
[illegible], Eastern Division LA BUY, J.
Harry A. Garnden - Official Court Reporter

FF-3086

FINISHES DIVISION Rec'D 6/25/42 Typed 6/26/42 je

E. I. DU PONT DE NEMOURS & CO. (INC.)

War Service

BY R.J.Kadlec DATE 6/24/42 REPORT No. 98
CONTACT Packard Electric Co. - Div. of G.M.
PRIME CONTRACTOR
STREET AND No. Dana St. SUB CONTRACTOR
TOWN Warren STATE Ohio
PERSONS INTERVIEWED Dr. Littman TITLE Chemist
" Mr. A.W.DeBaldt " P.A. Gen'l.
" Mr. K.F.Rymond " Buyer, Maintenance

PRODUCTS USED	SPEC. NO.	PRIORITY RATING	PRICE	PKG	F.O.B.	FROM WHOM	APP. CONS NEXT 12 MOS.	INITIATING GOVERNMENT AGENCY

CC: G.A.D.) IN TURN
J.E.F.)
R.C. WILLIAMS
F.J.EHIG
C.J.LINAHAN

REPORTS ON CALLS MUST BE MADE ON BASIS OF:
(A) PURPOSE OF CALL (B) RESULTS OF CALL (C) ACTION NEEDED

A) To follow tests on

J 6200-4922	Clear Cable Lacquer
J 6200-4964	Blue Metallic Cable Lacquer
6233	Black Cable Lacquer

B) Dr. Littman advised tests on the drum of 6233 Black ran fairly equal to present source. Advised it was pretty hard to tell on a one drum run just what the material was capable of doing. However, as the black is now practically an obsolete item with them Dr. Littman stated it was impossible to have a longer run.

Dr. Littman advises that in the future where colored lacquer is necessary they will make their own colors using a clear as the base. In this respect he requested we send him 1 gallon of clear vehicle based on same composition as used in the black and he will test. (3662)

The J 6200-4922 sample is still on test but Dr. Littman advises we may as well forget about this type of material as Sunlight are going to produce their own. They have in the past produced their own low tension lacquers and feel they should do so in this case. So we can forget this item for time being. Dr. Littman was not sure whether the last sample J 6200-X-4964 Blue Metallic was the one tested which discolored but stated the Blue was out under the new idea of making their own colors. Asked Littman why we were not getting some of present business and who present suppliers were. He stated present main two suppliers were Forbert-Shorndorfer & Arco Co., and stated they had been working on this type material for years with Packard but we would be given every consideration when occasion arose.

Discussed shipping the Red & Black Mchy finishes in 5's with Mr. K. Rymond. Told him shortage of 1 gal. cans forced us to do this. He was satisfied and stated they just dump the material into 1 gal. cans or paint buckets when needed.

Spoke of our "three dimensional painting" with Dr.

(Over)

Littman and he advised our Mr. Irwin was in on this last week.

6) Send - if satisfactory - 1 gal of clear based on same composition as the 6233 Black to Dr. Littman for test. Please advise if we want do this for policy reasons.

(3003)

Government's Exhibit No. 1324

5281

Copy to RMD
" " JWN

ESTABLISHED 1802
E. I. du Pont de Nemours & Company
INCORPORATED
Fabrics & Finishes Department

1616 Walnut Street
Philadelphia, Pa.

June 28, 1949

MR. HENRY E. LACKEY
Wilmington.

FRIGIDAIRE - PORCELAIN FINISH

I understand that the publicity campaign by Frigidaire, featuring Porcelain finish inside and out on their refrigerators, is quite familiar to everybody in Wilmington but I am attaching copy of the ad anyhow for its informative value.

This brings back quite some interesting memories to you and myself because it portrays to my mind the dramatic episode at Parlin when Mr. Moosmann advised us some twenty years ago that we had lost our last DUCO(Frigidaire)account due to the fact that they had spent over $1,000,000 in putting in their own Porcelain Enamelling equipment.

We all realize that these things do not happen all of a sudden; that Frigidaire must have been considering this major step for a number of years. Also none of us can overlook the fact that C. L. Van Derau, Manager of Westinghouse Elec. & Mfg. Company at Mansfield is and always has been pro-porcelain in his thinking and it was always considered absolutely necessary by me to develop on an annual basis evaluation ratings to convince Van and Frigidaire that DULUX offered superior advantages over Porcelain.

About ten or twelve years ago, after one of Van's visits to Phila., I wrote to Streeter a note re-emphasizing the necessity of presenting an annual progress report to both Frigidaire and Westinghouse in the same manner and we do accordingly with the Simmons Company as we did formerly with G.E. when we were handling the account. This type of procedure always enabled us to bring out into the open the thinking and ideas as to competitive threats to DULUX and enabled us to keep our fences strongly built so as to protect this business.

While recognizing the fact that there have been tremendous improvements in Porcelain as compared with DULUX and recognizing that the publicity campaign by Frigidaire on the subject of a Porcelain finish inside and out will undoubtedly have a major influence on the thinking of their principal competitors such as G.E., Westinghouse and others, it does seem to me that with the large "stake" we have in the refrigerator picture, the type of Porcelain used by Frigidaire should be re-evaluated against DULUX.

In this connection, the Frigidaire ad features nine plus values which are all powerful influences to the purchasers of refrigerators and DULUX should be evaluated against these factors. Also the production economics should be included as well as the field touch-up and repair factors.

In addition and based on this re-evaluation, it seems as though the situation calls for the preparation of a dynamic advertising campaign, featuring the advantages of DULUX on electrical appliances and particularly refrigerators, directed to the attention of the people who purchase electrical appliances.

Perhaps because of the fact that you and I have always had a lot of pride in the development of sales of DULUX tc the refrigerator industry, I feel that I should at least place before you my current thinking and ideas which were generated by reading over the attached advertisement.

S:G

JOH[illegible]. STUTT

Government's Exhibit No. 1325

[illegible]

5283

SALESMAN'S REPORT

JUN 7 1940

Salesman J. B. Morton Agency Wilmington Date 5/15/40 Report No. 175

Firm U. S. Rubber Products Mill Call No. 5

No. and Street E. Jefferson City Detroit. State or Province Michigan

Interviewed G.H. Sloman Title Mgr. New Products Div.

Dr. Merrill & Yost

Percentage of Mill Activity

Competitive Product in Use (or Quoted)	Competitive Seller	Price	Next in Market	Approx. Annual Consumption	Corresponding du Pont Product	Quoted
				cc—	V.A.C.	
					H.A.B.	
					S.L.W.	
					E.H.K.	
					P.P.Y	
					B.K.R.	
					H.J. ordan	
					San Francisco Office	

List in This Block All Samples and Literature Forwarded	List in This Block All Matches Forwarded

In addition to the information regularly reported in the body of the Trade Report, replies to the following specific questions should be made. Answers may be tabulated by number.

1. What technical problem should be investigated, or what other service do you desire for this firm prior to your next call?
2. Is an increase or decrease expected here in the consumption of any particular items?
3. What new competitive products are appearing on the market at this point?
4. Has any situation developed of interest to our Credit Department?
5. Is there any information of interest to another Department of the Company?

REMARKS:

Called with F.L.Y.

Technical details of the discussion will be reported by F.L.Y. The following items, however, should be emphasized.

1. A rubber-like material is needed having the following characteristics:

   1. Uniformity
   2. Dynamic fatigue resistance.
   3. Stability in physical properties at operating temperature of from -50° F. to + 180° F.
   4. Low Creep.
   5. Ability to bond to metal.
   6. Shear modulus of 75#/sq. in. or less.

It should be noted that oil resistance is not one of the required properties.

2. While Sloman is now working with several G.M. units, he is planning to switch to Chrysler because they are so much more agressive on developments pertaining to rubber.

3. Sloman believes that the mechanical applications of rubber and rubber-like materials will eventually demand the tonnage now used in tires.

In Reply Refer to
File No. 123-Z-00

Government's Exhibit No. 1326

5281

August 22, 1946

Mr. V. A. Cosler
E. I. DuPont de Nemours & Co., Inc.
1007 Market Street
Wilmington 98, Delaware

Dear Cos:

In order to complete my report on work done to date on the rubber suspension problem, I would appreciate it if you would have your laboratories send me the following samples of Neoprene:

Two (2) Yerzley Sheer specimens of each of the following stocks:

116CN-453
454
455
456
457
458

I have discussed our recent 'phone conversation regarding new polymers with the Chrysler management. They feel very pleased that DuPont is taking such an interest in this problem and will work according to your suggestions, that is, we will treat any samples submitted on purely research basis.

Personal regards.

Very truly yours,

CHRYSLER CORPORATION

J. V. Hendrick
Rubber and Plastics Laboratory

JVH/sl

QB-2085*

Government's Exhibit No. 1328

E. I. du Pont de Nemours & Company
Incorporated
Wilmington, Delaware

ORGANIC CHEMICALS DEPARTMENT

5285

February 7, 1939

General Motors Corporation
Detroit Diesel Engine Division
13400 Outer Drive at P. M. R. R.
Detroit, Michigan

Gentlemen: Attention: Mr. C. W. Truxell, Jr., Chief Engr.

In reply to your letter of February 1, we are enclosing a copy of issue No. 1 of "The Neoprene Notebook." Our stock of this issue is very low and it is fortunate that we received your letter before it was completely exhausted.

We note in your letter that you are using neoprene in your diesel engine injectors. In this connection we are wondering if you have made any applications of our material which we might use as a write-up in "The Neoprene Notebook." As you will note from our publication we do not mention company names; however, in any publicity distributed to trade papers and based on articles from "The Neoprene Notebook" we do include these names.

If you have any interesting applications which you believe might be suitable for our publication we would very much appreciate receiving the details so that we might prepare such a write-up. We would then submit the article to you for check before publication.

Very truly yours,

E. I. DU PONT DE NEMOURS & COMPANY, INC.

AFClark/s
Enc.

Rubber Chemicals Division

(3008 E)

[fol. 3009] No copies: probably written in 1946

Government Exhibit No. 1329

THE ELECTROPLATING SITUATION

By F. F. Oplinger

This is a discussion of the present status of most of the Electroplating Processes in which Du Pont is interested. It is hoped that the picture as presented will serve as a guide in determining the lines which Research and Development should follow over the next year or two.

Outline

1. Copper Plating
2. Zinc Electroplating
3. Alloy Plating
4. Cadmium Plating
5. Silver Plating
6. Gold Plating
7. Tin Plating
8. Nickel Plating
9. Chromium Plating

Commercial Copper Plating

Present Status

Interest in copper plating in connection with the copper-nickel-chromium combination for decorative plating is greater than ever before and continues to be of utmost importance.

There is no really satisfactory process on the market as yet.

There are two schools of thought concerning decorative plating. One advocates the use of heavy nickel coatings, followed by chromium, dispensing with copper entirely; the other recommends heavy copper coatings, followed by light nickel and chromium.

The advocates of "no copper" argue that better corrosion protection is obtained by omitting copper. This is a controversial subject and absolute facts are not available.

Advantages of Using Copper.

1. Throwing power, except in the case of acid copper, is much greater than that of nickel, which is quite poor. For this reason, zinc die castings cannot be plated directly in nickel.

2. Copper is required to prevent attack of nickel solutions on the base metal, and to give satisfactory adherence to the nickel.

[fol. 3010] 3. Heavy, smooth deposits of copper on steel can readily be buffed. Polishing steel is a very expensive operation; when copper is used, less polishing on the steel is required.

4. Bright nickel deposited directly on polished steel would have to be buffed anyhow to cover die marks, etc., and buffing would be very difficult because of the hardness of nickel. Dull nickel on steel followed by buffing is in some cases a definite threat to any copper plating.

5. Corrosion resistance of the copper-nickel combination is about the same as that of an all nickel coating and may, according to some field tests, be better when properly applied.

Processes in Commercial Usage

(I) *Rochelle Type*—The old type Rochelle Process is suitable only for lightweight coatings. Such baths are fairly dilute and may contain:

Copper Cyanide	3.5 oz./gal.
Sodium Cyanide	4.6 "
Rochelle Salts	4.0 "
Sodium Carbonate	4.0 "

Only a small percentage of users continue to operate this bath.

(II) *Unichrome Copper Process*—This is an ammoniacal copper pyrophosphate type bath, being marketed by the United Chromium Corporation. Like Acid (Sulfuric) Copper, it is a monovalent bath.

This bath is fairly widely used. It is, at least to some extent, competitive with High Speed Copper. It is estimated that from 50,000 to 100,000 gals. of Unicrome copper are in commercial operation. The bath has a number of advantages and some disadvantages.

Advantages

a. Little trouble is experienced with roughness of deposits as in the case of High Speed Copper.

b. No trouble has been experienced commercially with the adherence of subsequent nickel deposits, as in High Speed Copper.

c. The bath is less sensitive to the effect of impurities, both organic and inorganic.

[fol. 3011] *Disadvantages*

a. The major disadvantage of the process is the inability to use anything but low cathode current densities. The rate of plating is entirely too slow hence the bath cannot be used in many cases because the equipment required would occupy too much space and be too costly. Heavy coating (.001"-0.0002") cannot be produced on a large commercial scale because of this factor.

b. Frequently the bath is difficult to control because of some unknown factors.

c. A cyanide "strike" must be used prior to Unichrome copper and traces of cyanide are very bad when dragged into the plating solution.

d. Completely satisfactory rinsing is sometimes very difficult to obtain.

Generally speaking, Unichrome does not appear to be a serious threat to High Speed Copper. Nevertheless some improvements must be made in our process in order to forestall wider usage of this process in certain types of installations.

(III) *Acid Copper Plating*—Ordinary acid copper plating as practiced for years continues to be used mainly for special purposes (printing rolls, etc.,) except in isolated cases, and is not a threat to High Speed Copper plating.

(IV) *Gen. Motors Acid Copper*—This is the old type acid copper process to which additional agents have been added. This bath, developed just before the war, is note widely used, even throughout the General Motors Corporation. Indications are that control difficulties are too serious to make it a really satisfactory commercial bath.

(V) *Daybrite Acid Copper Process*—This is a newly developed process using the old type acid copper formulation together with addition agents and wetting agents. It has found only limited usage as yet but we anticipate that its use may become fairly general, but only *on the types of articles that do not require good throwing power.* Many items fall into this category hence *in time*, unless definite inprovements in High Speed Copper plating are forthcoming, considerable loss of business, especially in steel automotive fittings and on some types of die casting, is anticipated.

[fol. 3012] *Advantages*

Insofar as can be determined accurately at this time, the process has a number of definite advantages.

a. It plates about twice as fast as Unichrome which makes it about equivalent to the best that High Speed Copper can do. In some cases, speed of plating may exceed that of High Speed Copper.

b. Difficulties with roughness are not serious even when the solution is agitated (cathode rod). Deposits are, for the most part, very smooth.

c. Deposits are quite bright (sufficiently so to plate bright nickel directly), and also quite uniform in color. When too much current is used edges are burnt.

d. Bright nickel deposits on this type of copper appear to have a higher luster and deeper color than on other type of copper deposits.

e. This process is not difficult to control, according to present users.

f. Quite low in cost, averaging about 15-25¢ per gallon for the solution. The addition agents are not especially high-priced.

g. Deposits buff beautifully.

h. Even though a wetting agent is used, no rinsing difficulties have been experienced between copper and bright nickel. Adherence of nickel is excellent.

Disadvantages

a. The solution has poor throwing power and cannot be used very satisfactorily on deeply recessed die castings because:

1. The solution itself will become loaded with zinc.

2. The nickel solutions will build up in zinc rapidly due to zinc dissolving.

b. The solution is quite acidic so special acid-proof equipment is required for filtration and handling. Rubber linings must be entirely free from pores, lest the acid eat holes in the steel tank.

[fol. 3013] c. The solution cannot be air agitated because this decomposes the addition agent.

Agitation (mechanical) is definitely required in order to use high current density or serious burning will take place.

d. Special racking is required on some types of articles so that proper agitation can be obtained.

In general, to the experienced plater interested in a low cost solution, this process has attractive features and we anticipate that in time it may replace some of our large full-automatic units used mainly for steel plating.

(VI) *MacDermid (Rocheltex Bath)*—This process is in very limited usage but is in direct competition with High Speed Copper. The bath formulation is about the same but the addition agents are different. We expect the use of this process to grow as time goes on.

(VII) *Fluoborate Copper Process (General Chemical Co.)*—This process, which uses copper fluoborate, etc., manufactured by General Chemical, has limited commercial usage.

Formula

$Cu(BF_4)_2$ — 224-448 g./1.
Cu — 60-120 "
pH — 1.2-2.2-0.6

Claimed Advantages

Very high speed of plating up to 300 A/SF. Deposits buff very readily.

Disadvantages

a. Solution very highly acid, presenting serious equipment difficulties.

b. Solution is expensive—$1.50 to $2.00 per gallon.

For special purposes, this bath may in time find considerable usage.

(VIII) *High Speed Copper*—Our process has some very serious disadvantages. Unless these difficulties [fol. 3014] are eliminated or greatly minimized, progress will become more difficult and further serious loss of business will result. Specific examples of such losses of accounts are as follows:

Guide Lamp Dir. GMC, Anderson, Ind.

40-50,000 gals. lost. Converted to GMC Acid Copper. Further conversion and further installations of Acid Copper are anticipated.

Alemite Die Casting Corp., Corcoran Brown Lamp Division, Kings Mills, Ohio.

10,000 gals. lost to Unichrome.

Pontiac Motors Dir. GMC, Pontiac, Mich.

25,000 gals. Unichrome to be installed about January 1st.

Ternstedt Mfg. Co., Dir. GMC, Detroit, Mich.

8,000 gals. High Speed Copper, lost before the war, was never regained. The potential business there for a really good process is 50-75,000 gals. We have no chance of getting any of this business at present, at either the Detroit or Trenton, N. J. plant.

Miscellaneous Installations

an estimated 25,000 gals. has been lost to competition elsewhere during 1946.

A total of no less than 100,000 gals. has gone to competition during 1946. Further losses are anticipated unless improvements in our process are forthcoming.

Disadvantages of High Speed Copper

a. *Roughness*—The outstanding and most serious difficulty with High Speed Copper is the very serious tendency toward producing rough nodular deposits that are difficult or almost impossible to buff. Commercially, deposits entirely suitable for buffing (0.0005" to 0.0015") cannot generally be produced using current densities in excess of 15-20 amps. even under the most ideal conditions.

Note: The Research Group is actively working on this problem and definite progress seems to have been made.

Rough deposits on steel are almost universal. *No* [fol. 3015] competitive process has this difficulty in the same serious proportions.

b. *Nickel Adherence*—Frequent difficulties have been experienced with the adherence of Bright Nickel to High Speed Copper. The causes are wetting agents, impurities (organic and inorganic) or both. The above is true for buffed or unbuffed copper. Poor rinsing may also be a factor.

In any event, competition, so far as we have been able to determine, has less trouble along these lines. Less trouble has been experienced in recent months than formerly. However, in many cases, the situation remains critical.

c. *Buffing*—In general, High Speed Copper deposits cannot be buffed satisfactorily. This point is difficult to describe. Obviously, some of the difficulty (but probably not all of it) is due to roughness. Smooth deposits are not necessarily easy to buff, especially when bright.

Competition has used this weakness in our process quite widely. It was the primary reason for the Ternstedt Div., GMC interest in Acid Copper and accounted almost entirely for the fact that they give our process no consideration.

d. *Pitting*—Under certain conditions, High Speed Copper deposits are subject to very violent pitting unless a wetting agent is used.

RH 556 has, so far as we are aware, never failed to cure the difficulty but it has the serious objection that at times, when it or other wetting agents are used, good adherence of nickel is difficult to obtain. We now have four wetting agents—RH 556, RH 774, RH 1085, RH 1032. It would be highly desirable to have only *one or two at the most.*

Pitting is believed to be caused mainly by small amounts of organic or inorganic impurities, or both.

Competition, using the same conditions of cleaning and rinsing, seems to have less trouble with pitting. *Unichrome* does not use a wetting agent but requires periodic treatment with activated carbon to remove organic material.

Daybrite Acid Copper uses a wetting agent which does not interfere with nickel adherence.

[fol. 3016] Generally the trade prefers to use a process not requiring a wetting agent, hence it would be desirable to get away from the use of the term "Wetting Agent".

We have a number of solutions operating without "Wetting Agents", namely:

National Lock, Rockford, Ill.—1700 gal. full-automatic plating on steel—8 months operation.

Metal Finishing Co., Hamden, Conn.—steel-1 month.

Andover Kent Mfg. Co., Middletown, Conn.—steel—4 months.

There is no serious objection to using any addition agent or wetting agent as long as it does not interfere with free rinsing or adherence of nickel or does not cause hard brittle deposits.

Research Suggestions

Note: *Regardless of the difficulties with High Speed Copper as mentioned above, the process, because of certain basic factors, has a greater potential field of usefulness than any offered by competition.*

It is characterized by:

a. Superior throwing power.

b. Double the plating rate of acid baths—cuprous vs. cupric.

c. Direct application on steel or die castings.

d. Low equipment cost because alkaline solutions are not as corrosive as acid solutions.

e. Suitable for current reversal plating. This factor now appears to be of extreme importance.

No other process is directly competitive on the same basis. Therefore, with the proper research and development work, High Speed Copper should continue to lead the field for quite some time to come.

[fol. 3017] *Bath Formulation*

Ever since High Speed Copper was developed, the basic bath formulation has been:

	RH 553	*RH 661*
CuCN	16 oz./gal.	8 oz./gal.
NaCN	18.5 "	12.3 "
NaCNS	2 "	2 "
NaOH	4 "	–
KOH	–	6 "

NaCNS

Heretofore the function of the NaCNS has not definitely been understood. Originally, it was added because "it seemed to produce better results". The amount used was mainly the result of guesswork.

Later, work by H. L. Benner indicated that NaCNS reduced the bright plating range and may be harmful in other ways.

Quotations which remain unanswered are:

1. Just what are the limits of NaCNS concentration?
2. Does NaCNS function the same in both the Na and K baths?
3. While NaCNS is a brightener does it do more harm than good?
4. Most baths contain some impurities when made up. Is NaCNS itself a brightener or is its brightenening action due to its reaction with organic material or inorganic impurities such as Pb?

Caustic Content (NaOH or KOH)

Originally NaOH (4 oz./gal.) was added to the RH 553 bath because uniformity and smoothness of deposits were improved. This bath operated with very low free NaCN (0.5 oz./gal., or less).

1. What should be the pH or caustic content of a High Free Cyanide bath as operated today? Some investigators claim when the pH is "too high" (above 12.6) the bath pits badly but does not when the pH is reduced.

[fol. 3018] 2. Does a pure bath (free from organic and inorganic impurities) require as much as 4 oz./gal. NaOH?

3. Should the pH be the same for the Na and K baths? When the K bath was developed, it was claimed that it was far less subject to pitting than was the Na bath. Is this a function of pH?

The Research Department is actively working on some of these problems and progress is being made.

Brightness for High Speed Copper Plating

When High Speed Cooper was developed, the feeling existed that a so-called "Bright Deposit" was the final answer to all copper plating problems. Entirely too much emphasis has been placed on "Brightness".

Plating of Steel

"Bright" deposits are not required on steel. In fact there may be some objection to having "bright" deposits on steel because such deposits are almost invariably hard, somewhat brittle, and difficult to buff. Bright, soft, easily buffed deposits present another story.

Copper plated on steel is invariably buffed hence there is no basic necessity for having a "bright" deposit unless the deposit "builds up" in brightness and hides imperfections in the steel thereby eliminating the necessity for buffing the copper prior to Bright Nickel plating. Current reversal shows considerable promise along those lines. Frequently a buffer prefers a dull deposit because when he buffs it bright, the contrast is so great he thinks he has really accomplished something. The main requirements of a copper deposit on steel are:

1. The deposit must be smooth.
2. The deposit must be soft enough that the wheel and buffing compound does not drag.
3. The deposit must be 100% free from nodules.
4. The deposit must be thick enough so that "cut thru's" are held at a minimum and so there is enough body to the copper to cover or conceal polishing scratches.

Additional agents for copper plating baths must have functions other than merely making a deposit bright.

[fol. 3019] *Brighteners for Plating Die Castings*

High luster of copper on zinc base die castings is highly desirable. Bright nickel functions best on a bright undercoat because when the undercoat is dull, excessive amounts of brightener are required in the nickel solution, causing brittle nickel deposits. Deposits on die castings must be absolutely uniform and free from films, even in the deepest recesses, otherwise poor coverage of nickel or adherence or both result.

Note: It is desirable to have a process applicable to both steel and die castings, but it may well be that we should have two processes—one for steel and another for die castings.

Current Reversal

Work on current reversal plating must continue. It has been installed in a number of General Motors Plants and has shown itself to be a very useful tool whereby:

1. Roughness of deposits is minimized.
2. Speed of plating may be increased 30 to 60%.
3. Uniformity of deposits is greatly improved.

3. Example: On samples of commercially plated Buick bumperettes, the thickness of deposits in the recess was equal to or greater than that on the high spot edge.

Note: While our information is not complete, all the information we have indicates that current reversal does not function equally well in Unichrome or Acid Copper plating. These facts should be checked.

Copper plating is by no means confined to the automobile industry, although this is probably its largest field, but definite and serious interest exists in the use of heavy copper coatings up to 0.03″ on such things as printing rolls, bearings, etc. A very considerable amount of copper is plated on rolls. The main requirement in plating rolls is to put on uniform and smooth heavy weight coatings at a high rate of speed. Improvements, which are being made now, together with current reversal, lead us to believe that we can, when time permits, pick up a very considerable amount of business in the roll plating field.

Very serious interest in the plating of steel wire with heavy deposits (0.004″ or more) of copper has arisen since the war. As time permits, we anticipate looking into this field also. Virtually all of these specialized uses are dependent on the ability to produce heavy, smooth deposits at high rates of speed. In other words, [fol. 3020] our research on copper, in many fields other than the automotive and the general plating trade, is important.

ZINC PLATING

Present Status

We have two processes—"Zin-O-Lyte" and "durobrite", both of which are well-established in the trade. They serve a very useful purpose and our competitive situation is very good in that we enjoy a major share of whatever business there is and should continue to do so for some time to come. In general our processes are superior to those marketed by competitors.

Service and salesmen are in an excellent position to handle and service present and new business.

Research

There is no *serious* need for broad basic research on cyanide zinc plating at this time, due mainly to our excellent present position in this field.

Research Possibilities

(I) *Stainless Non-tarnishing Bright Zinc*

Present day bright zinc deposits remain bright for only limited periods due to tarnishing on aging and handling. There is an urgent need for improvement in this direction. Such improvement is now done by means of a series of chronic acid treatments (competitive processes)—Lusteron or Anozinc. These treatments are impractical and expensive and are in general not suitable for use in full-automatic equipment because of the many steps required by such treatment. The industry needs a bright deposit direct from the bath which, after rinsing and drying, is tarnish or stain-resistant or can be rendered so by some simple treatment not requiring a long series of dips.

Suggestions

Note: Acid zinc deposits are in general more resistant to tarnishing and staining than are those from cyanide solutions.

1. A very thin plastic film which does not change the color of the zinc to any great extent might be a partial answer.

2. New addition agents, that segregate or otherwise render certain impurities harmless, might be useful since impure deposits tarnish more readily than pure ones.

Note: "Spectroscopic Zinc"—100% pure or nearly so is very resistant to tarnish and is almost completely insoluble in mineral acids.

[fol. 3021] 3. A short heat treatment in a controlled atmosphere following plating might have some value since the film on hot galvanizing is quite resistant to tarnish even though the deposit may be very impure. The idea is to produce a molecular film having non-tarnishing qualities.

(II) *Strip Steel*

Complete information on the zinc cyanide plating of strip steel is not available. Serious work can be delayed until an actual installation is in prospect. The requirements for strip vary quite widely, depending on many factors and on the equipment that may be involved.

Uses: Heavy coatings (0.0005″ to 0.001″) on flat wire used for making BX cable. Current densities should be no less than 200 to 250 A/SF.

Heavy coatings (0.0005″ to 0.002″) on conduit pipe. Current densities no less than 200 to 250 A/SF.

Lightweight coatings (0.00005″ to 0.002″) on strip steel.

Note: A number of such installations, using cyanide solutions and low current densities of 50 A/SF, are now in commercial operation or in prospect.

Acid zinc solutions have several great advantages over cyanide solutions such as, speed of plating, and an apparent lower cost. The disadvantages of acid solutions are:

For Sulfate: Slow speed and sludge formation. Inability to hold pH of the solution, poor conductivity, and poor throwing power.

For Chloride: The chloride solution is very corrosive and equipment maintenance becomes a serious problem. The throwing power is almost non-existent and the bath is difficult to control because of the effect of impurities.

(III) *Sulfamate Bath*

Some further work on the Sulfamate bath seems justified. It may offer real advantages over other types of acid zinc deposits. See Cleveland Group reports.

[fol. 3022]

ALLOY PLATING

Brass Plating

During the past ten years, Elchem has spent in excess of $25,000 for improving present methods of brass plating. Prior to the war, a High Speed Brass process, which proved unsuccessful, for one reason or another, was developed.

Commercial brass plating as it is now practiced, i.e., for the production of lightweight coatings 0.0001″ or less (mainly for coloring purposes), is reasonably satisfactory. Our high Speed Brass process offers little advantage over present methods, unless operated with extreme care and accurate control.

Offhand, it does not appear that cyanides alone (meaning some mixture of copper cyanide, zinc cyanide, and sodium cyanide) or the potassium formulation will provide a satisfactory answer to the problem of producing heavy coatings of 0.0005″ or more. To produce such deposits on a practical economical basis, a new factor other than cyanide will have to be developed. Well-informed persons are not certain whether or not a process for producing satisfactory heavy coatings would be universally received by the trade because no serious demand for heavy coatings of brass exists. There are, of course, differences of opinion on this. For many purposes people will always prefer solid brass.

There is no serious need for research on brass plating for the time being except perhaps that of a scouting nature which may come as a result of members of our staff having new and radical ideas.

Other Alloy Plating

Elchem has spent a considerable amount of money on the development of various alloy plating solutions. The only moderately successful and important process developed during the last twenty years was Brite-A-Loy. This process was used commercially for a period of years for producing alloy coatings of 90% zinc and 10% cadmium. After suitable purification of the bath, i.e., removal of impurities such as copper and lead by low current density electrolysis, bright deposits having a very high luster were produced directly from the bath without the use of addition agents. In other words, cadmium in small amounts is very good brightener for zinc deposits. At the time the process was used commercially, cadmium cost about $1.50 per pound. Through the use of Brite-A-Loy, a considerable saving to the customer was possible because Brite-A-Loy anodes sold for about 35¢ per pound.

The process was abandoned when the price of cadmium dropped quite low—around 60¢ per pound. The process had several serious difficulties. Anodes had to be removed from the solution when it was idle, otherwise all of the cadmium precipitated on the anodes and was lost as a sludge. Bright deposits could be produced only at high current density; hence the process was not too satisfactory for barrel plating.

Some consideration should be given to reviving this method of plating, if for no other reason, because the present serious shortage of cadmium may continue for a long period of time.

[fol. 3023] *White Brass Plating*

Some time prior to the war, a white brass plating process, 70% zinc and 30% copper, was developed. The process used copper cyanide, zinc cyanide, sodium cyanide, and caustic soda. Very bright, lustrous deposits were produced directly from the bath, using "Zin-O-Lyte" Brightener and A.A. "O" (Mo) Molybdenum. This was a reasonably good plating process. One serious difficulty was that the deposits, at least under certain conditions, were quite brittle. However, an apparent important advantage was the fact that the deposits were remarkably resistant to tarnish. Under certain conditions they maintained their bright luster for a period of years. The process was finally abandoned, because at that time no large commercial usage was apparent, and our personnel became seriously interested in Bright Zinc and High Speed Copper plating.

It is recommended that the subject of white brass plating should be carefully reviewed by the Research Staff with the thought that, in the light of our present-day knowledge of plating, there may be sufficient reason for reopening the subject.

Copper-Nickel-Zinc Alloy

Several years ago, the Research Department did a considerable amount of work on the triple alloy of copper, nickel and zinc. This was somewhat similar to the alloy process (nickel, copper and tin) being exploited by the Hanson-Van Winkle-Munning Co., Matawan, N. J. Our process was abandoned chiefly because of the extreme brittleness of the alloy, the high rate of consumption of cyanide, and inability to fabricate any kind of suitable anode. The process exploited by Hanson enjoys moderate success for very limited and highly specialized usage. No extended usage is anticipated. For the time being, we have no interest in such alloys.

Nickel-tin Alloys

Years ago, in connection with the work on tin plating, the writer found that alloys of nickel and tin, either high or low nickel content, could be readily produced by adding sodium nickel cyanide to sodium stannate solution. Very little work was done but it is conceivable that such an alloy might be extremely resistant to corrosion—at least for certain purposes. A scouting program is recommended.

Recently, D. A. Swalheim suggested that the best way to approach the alloy plating problem was first to make some alloys by whatever means is available, and then by means of a series of corrosion tests, etc., to find out what they are good for. The general idea, as I understand it, was to determine a use for such alloys and then devise a means of obtaining them by electrodeposition. The writer believes that this idea merits serious attention and should be discussed further at an early meeting of the Research Group.

Cadmium Plating

The cadmium plating situation varies greatly from that of zinc in that the supply of cadmium is insufficient to meet the demand and all indications are that this situation will continue for a long time to come. Consequently, the [fol. 3024] main job is to get cadmium materials to sell. Our sales are generally limited to ability to get materials.

The trade often speaks of doing cadmium plating without any specific reference to which process may be used. In other words, results with our own "Cadalyte" and a leading competitive process—Udylite, are generally about the same and meet requirements reasonably well. Even though our present process does have advantages in certain cases, this may mean very little to many potential customers because they have been in the habit of buying from Udylite for many years. In some cases, these habits are very strong.

We do not anticipate that the picture on cadmium will change very much in the near future.

Silver Plating

Present Status

The amount of silver plating has been reduced to about 20% of wartime volume. We anticipate that it will remain at this level, barring normal business fluctuation, for some time to come. No substantial new usage is in sight so far as we are aware nor are there any indications of such usage being contemplated by anyone.

The technique of silver plating was so greatly improved during the war years that the normal post-war requirements present no serious problem.

Research

No long-time research work is justified. Some work might be done in the development of brighteners. However, sales would not be large because, for the most part, regardless of what brighteners were developed, the trade would require a buffed or burnished finish. It is doubtful whether the development of a new and radically different process would lead to increased profits to any great extent.

Gold Plating

Total U. S. consumption of gold plating materials is small and the sales profits are low.

There is no justification for research work on this item at this time.

Tin Plating

Halogen-Tin Plating

The Du Pont Halogen-Tin process is being used successfully by a number of the leading manufacturers of tin plate. The Bethlehem Steel Co., a large producer, is currently showing serious interest. Royalties currently being paid to the Du Pont Company for use of this process are about $50,000 a year.

The writer believes that we are quite vulnerable because the process, as it now stands, has some serious disadvantages, mainly the ease with which the solution oxidizes, and the sludge forms. Serious thought should be given to [fol. 3025] further research work on an improved process in order to protect our royalty position. The favorable situation we enjoy at present may be upset, perhaps as a result of one of our consumers or competitors developing a process which correct or greatly minimizes the above mentioned difficulties.

Sodium Stannate-Sodium Acetate Process

This process is widely used throughout the general plating trade on items for which Halogen-Tin is not suitable. The process has been well-established for many years.

No research work is justified at this time but completed work on use of Potassium Stannate should be reviewed by the Research Group to familiarize them with the program.

Potassium Stannate, should it become readily available, might replace most of the sodium stannate.

Nickel Plating

The past history of Du Pont's activities in nickel plating is well known. Generally speaking, the Bright Nickel plating situation has not changed for some time. The field is dominated by the following firms, probably in the order given:

McGoan Chemical Co.
Harshaw Chemical Co.
Udylite
Hanson-Van Winkle-Munning
The Seymour Chemical Co.

Factors of interest are:

1. All bright plating processes with the exception of Hanson's Nickel-Cobalt process are substantially alike. The solutions contain nickel sulfate, nickel chloride, boric acid, and various brighteners. For the most part they give the same general result.

2. All processes have poor throwing power as compared with cyanide or alkaline processes.

3. All processes are intolerant of impurities, organic or inorganic, and frequent or continuous purification is generally necessary to produce satisfactory deposits.

There is no room in the field for "just another process". Any alkaline process having good throwing power (better than the present processes) and capable of producing ductile nickel at a rate equivalent to the present ones should receive wide usage for both dull and bright nickel plating, providing the cost is not too far out of line.

Research work on this project is now under way.

[fol. 3026]

CHROMIUM PLATING

Some years ago, the Cleveland Group spent quite a bit of time and money in an attempt to develop a chromium plating process competitive with the present one. Those efforts were largely unsuccessful.

The demand for an improved chromium plating solution continues to exist. Further laboratory work (particularly scouting tests) seems justified, provided some one can suggest a new approach.

Government's Exhibit No. 1331

Excerpts from

MINUTES OF MEETINGS OF INTERDIVISIONAL RELATIONS COMMITTEES

GENERAL PURCHASING COMMITTEE

GENERAL MOTORS CORPORATION

Held at Detroit, Michigan, on February 6, 1925.

(e) Purchases from Outside Companies Obtainable from Allied Companies. A circular letter has been addressed to all purchasing agents requesting that report on GME-55 covering every purchase of materials from outside companies obtainable from allied companies be made. It was decided that these reports should be summarized and reviewed by the committee at its meetings.

* * * *

A study will be made to arrive at a method of determining how much lower the price of the successful outside company must be than the price of the allied company bidding in order to justify placing the business outside.

(3027 E)

Government's Exhibit No. 1335

DELAWARE REALTY AND INVESTMENT COMPANY

DU PONT BUILDING

WILMINGTON, DEL.
April 13, 1944

MEMORANDUM DATED MARCH 29, 1944

Copies to: Members of Advisory Committee

Messrs. R. R. M. Carpenter
Pierre S. du Pont, III
S. Hallock du Pont
W. W. Laird, Jr.
Ernest N. May
H. Rodney Sharp
Irénée du Pont
Lammot du Pont

DELAWARE REALTY AND INVESTMENT COMPANY

Du Pont Building
Wilmington, Delaware

Subject: Advisory Committee consideration of whether it might be advisable to liquidate under the provisions of Section 112-b-7 of the Internal Revenue Code enacted with the 1943 Revenue Act.

This memorandum is not purported to include all factors relative to the subject matter, but instead is intended as a starting point to facilitate consideration of the subject by the Advisory Committee.

Section 112-b-7 permits complete liquidation with various specified conditions for Federal income tax purposes; a brief statement of the conditions being as follows:

(a) Liquidation must occur within one of the months of March to December, 1944 (each inclusive).

(b) Unrealized appreciation of the corporation's assets is not taxed to either the corporation or the stockholders.

(c) Any surplus at the time of liquidation is taxed to the stockholders as a dividend at their current-year individual income tax rate.

(d) The tax basis of the assets received in liquidation is the taxpayer's base of the stock cancelled or redeemed. (In the majority of cases, this would be an amount equivalent to $1.00 per share of Delaware Realty and Investment Company stock owned.)

This tax base is increased by the amount of surplus taxed as a dividend (Item (c) above).

The Revenue Act of 1938 contained similar provisions, except that the liquidation was required to be in only the one month of December, 1938; this law was not enacted until May 27, 1938, with substantially no advance notice of these special liquidation conditions which constituted an innovation in income tax procedure. There were no corresponding conditions under 1938 Delaware law to so facilitate a liquidation, and if a liquidation had been effected, the total amount of "unrealized" appreciation would have

been subject to Delaware income tax. Subsequent to 1938, liquidation provisions were enacted into the Delaware income tax law and they are currently in operation. Liquidation this year would incur no liability for Delaware income tax.

An attempt is now made here to crystallize how the liquidation conditions referred to above would apply in the case of Delaware Realty and Investment Company were it to liquidate thereunder. As a premise, the following Delaware Realty and Investment Company conditions are stated:

(1) The "present value" of the annuity contract at December 31, 1943, is specified in the contract to be $8,379,684.

(2) Delaware Realty and Investment Company's insurance policies can be cashed for about $1,725,000 without incurring any tax liability. Delaware Realty presently has about $1,000,000 cash funds.

The two together, aggregating $2,725,000 cash, could be used to retire the $1,160,000 outstanding debenture notes, and about $1,400,000 used toward settlement of the annuity contract.

(3). Delaware Realty and Investment Company has a "closing agreement" with the U. S. Treasury Department covering treatment for income tax purposes of transactions relative to its annuity contract. This "closing agreement" was obtained by Delaware Realty and Investment Company incident to its paying sums aggregating about $1,000,000 in settlement of disputed income tax liability for the years 1933/1938, and interest thereon. The "closing agreement" establishes the tax base of Delaware Realty's securities investments, and that all payments made under the annuity contract after May, 1939, (when payments had aggregated $13,500,000, the amount of the annuity consideration) shall be treated as losses and expenses from the annuity contract. Accordingly, the $900,000 annual payments under the annuity contract have been treated since May, 1939, as deductible expense in determining Delaware Realty's net taxable income; and apparently a present lump-sum payment in final settlement of the annuity contract would be a deductible expense.

(4) The following is a list of Delaware Realty and Investment Company's securities investments showing their tax base, "quoted" market value, and indicated appreciation:

		Market Value			
		A Share	Amount	Cost, and "tax base"	Profit, or "capital gain"
11,270	U. S. Steel common	$ 53	$ 597,310	$ 342,455	$ 254,855
9,600	Hercules Powder common	78	748,800	401,879	346,921
16,256	Du Pont $4.50 cum. pfd.	128	2,080,768	1,298,056	782,712
25,500	Christiana 7% cum. pfd.	142	3,621,000	2,142,000	1,479,000
	(*)		$ 7,047,878	$ 4,184,390	$ 2,863,488
18,000	Christiana 7% cum. pfd.	142	$ 2,556,000	$ 1,512,000	$ 1,044,000
96,000	Hercules Powder common	78	7,488,000	978,121	6,509,879
304,480	Du Pont common	145	44,149,600	3,736,979	40,412,621
49,000	Christiana common	2,300	112,700,000	2,970,359	109,729,641
			$166,893,600	$ 9,197,459	$157,696,141
			$173,941,478	$13,381,849	$160,559,629

(*) Segregation at this point is arbitrary; its purpose being to indicate profit which would be incurred to pay off the annuity contract by selection of securities having approximately $7,000,000 value involving the minimum taxable gain. It is not known whether these securities plus $1,400,000 cash would be acceptable to the holders of the annuity contract.

It is estimated that Delaware Realty's surplus after settlement of the annuity contract and upon liquidation would be approximately $6,900,000, which is briefly explained as follows:

1.	Surplus, December 31, 1943, per books		$1,500,000
2.	Annuity contract reserve, December 31, 1943, per books	$10,900,000	
	Less: Value of assets required to pay off the annuity contract—assumed in the approximate amount of the "present worth" of the annuity. (In surplus account, the cost of paying off the annuity contract would offset this portion of the reserve which would no longer be required.)	8,400,000	

Balance of the annuity contract reserve, being the special reserve required equivalent to 30% of the present worth of the annuity contract and which is Delaware Realty surplus accumulated in the early years of the annuity contract and set aside for such purpose	2,500,000
3. Capital gain which would be incurred in the use of securities in part settlement of the annuity contract (see tabulation above)	2,900,000
	$6,900,000

—4—

	Entire Company	Each of 8 Families	Per Share D.R.&I.Co.
Estimated surplus which would be taxable as a dividend in the tax return of of each individual shareholder	$6,900,000	$862,500	$8.63
Income tax on the preceding item at 70% (assumed to be the average tax rate applicable to Delaware Realty and Investment Company stockholders, and having in mind that this "income" would be substantially all additional above the normal annual income; probably the majority of Delaware Realty's shares would be subject to a tax rate higher than 70%, in some cases as high as 90%)	4,830,000	603,750	6.04
In order to have sufficient left after capital gains tax to pay the above income tax, it would be necessary to sell securities, of market value of approximately	6,400,000	800,000	8.00

It is estimated the preceding item would consume the equivalent of approximately 82,000 shares Hercules Powder common which would leave thereafter the following securities, on which 1943 income was:

	Entire Company	Each of 8 Families	Per Share D.R.&I.Co.
14,000 Hercules Powder common @ $2.50	$ 35,000		
18,000 Christiana preferred @ $7.00	126,000		
304,480 Du Pont common @ $4.25	1,294,000		
49,000 Christiana common @ $75.70	3,709,300		
	$5,164,300	$645,538	$6.46
Compared with Delaware Realty and Investment Company's 1943 distribution	4,440,000	555,000	5.55
Indicated increased income to Delaware Realty stockholders (before tax thereon)	$ 724,300	$ 90,538	$ .91
Retainable portion of preceding amount is 30% (based on the above assumed 70% average tax rate), or	$ 217,290	$ 27,161	$ .27

To obtain the indicated increased income of the preceding line, it would be necessary to have paid out total assets of $14,800,000 ($8,400,000 plus $6,400,000). Although the securities retained by the Delaware Realty and Investment Company stockholders would be out of the company and held directly by the stockholders, they would have a low tax base to the stockholders.

Considering the above annual amount of $217,290 as a "forgoing of income", or perhaps better expressed as a saving (disregarding fluctuation in value of the securities, and without discounting to a present-worth basis), Delaware Realty could afford to pay the annuity for 68 years ($14,800,000 + $217,290 = 68) in order thereby to retain in the company the $14,800,000 of assets. The present joint and survivor life expectancy of the annuitants is something less than 17 years; on a 17-year basis, ownership of the $14,800,000 assets would be obtained for only $3,693,930 (17 x $217,290 =$3,693,930) "forgoing of income" or savings. This is based on continued "status quo" of income tax rates and the conditions of Delaware Realty's "closing agreement" continuing to hold. Of course, in a relatively long period of years, all sorts of changes in tax conditions may come about, including possibly conditions more favorable to liquidation than those applying under this year's income tax law.

From the viewpoint of valuation: in the cases of the latest substantial gifts of Delaware Realty stock, values for gift tax purposes were finally settled at approximately 120% of the price of du Pont common stock on the date of gift. 120% of the present $145 price of du Pont common is $174. The four securities assumed on Page 4 to be retained by the stockholders after liquidation would have a "quoted" market value as follows:

14,000 shs.	Hercules Powder common @ $78	$ 1,092,000
18,000 "	Christiana 7% preferred @ $142	2,556,000
304,480 "	Du Pont common @ $145	44,149,600
49,000 "	Christiana common @ $2,300	112,700,000
Aggregate value to all Delaware Realty stockholders		$160,497,600
Value to each of the 8 families		$20,062,200
Value per share of Delaware Realty and Investment Company		$200,622

$200.622 compared with $174.00 indicates a 15% increase in amount on which death taxes might be applicable. It is entirely possible that in some cases the spread might be greater than 15%.

* * * * * * * * * *

—6—

Substantially all of the foregoing is consideration fundamentally from the tax angle, which although a very important factor, is not necessarily the only factor requiring to be considered and given relative weight. Some other factors which come to mind at the moment are:

> Liquidation would afford greater flexibility, including better marketability, and permit of diversification. Without liquidation, the stockholders are practically compelled to go along together; whereas if liquidated, each stockholder could do as he thought best suited his individual purposes. There is no certainty whether these factors would in the final analysis represent reasons for or against liquidation.
>
> Delaware Realty, at least to some extent, facilitates control of the du Pont and General Motors Industries. While liquidation would not eliminate this immediately, it would weaken it; more particularly so with the passage of time.

Welcome is extended to presentation of any thoughts or ideas, either in addition to or in amplification of the foregoing, which will facilitate the contemplated study and consideration.

E. H. Tinney

3/29/44

Government's Exhibit No. 1343-A

Schedule "I"

GENERAL MOTORS CORPORATION

Purchases From Competitors of E. I. du Pont de Nemours & Co.

SUMMARY

	1st. Six Months of 1948	Calendar Year of 1947	Calendar Year of 1946	Total
	$	$	$	$
Chemicals				
Anodes	756,463.84	1,205,506.72	896,775.97	2,858,746.53
Solvents	1,982,383.24	3,183,403.19	1,799,285.21	6,965,071.64
Total Chemicals	2,738,847.08	4,388,909.91	2,696,061.18	9,823,818.17
Finishes				
Paints, Enamels, Primers & Laquers	3,494,153.17	6,844,012.84	4,104,669.23	14,442,835.24
Solvents	408,853.11	1,102,389.33	530,397.31	2,041,639.75
Thinners	362,148.87	582,796.30	291,219.05	1,236,164.22
Pyroxylin	69,887.77	105,482.48	37,577.67	212,947.92
Adhesives	1,697,504.33	3,055,580.69	1,967,476.55	6,720,561.57
Total Finishes	6,032,547.25	11,690,261.64	6,931,339.81	24,654,148.70
Fabrics				
Coated Fabrics	1,995,115.54	3,421,682.96	1,205,519.04	6,622,317.54
Imitation Leather	1,444,362.76	2,393,134.18	695,976.68	4,533,473.62
Total Fabrics	3,439,478.30	5,814,817.14	1,901,495.72	11,155,791.16
Anti-freeze				
Methanol Type	93,929.70	11,713.50	10,177.29	115,820.49
Ethylene Glycol type	20,639.06	31,136.83	10,655.83	62,431.72
Total Anti-freeze	114,568.76	42,850.33	20,833.12	178,252.21
GRAND TOTAL	12,325,441.39	21,936,839.02	11,549,729.83	45,812,010.24

Cost Analysis Section.

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GENERAL MOTORS CORPORATION PURCHASES OF ANODES FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 AND 1947

(Listing suppliers of $30,000 worth or more)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	$897,000	$1,206,000
Allied Industrial Products, Inc.	274,000	124,000
The Udelite Corp.	143,000	288,000
McGean Chemical Co.	119,000	178,000
Hanson-VanWinkle-Munning Co.	89,000	219,000
American Smelting & Refining Co.	80,000	44,000
Chase Brass & Copper Co.	45,000	68,000
Revere Copper & Brass, Inc.	36,000	35,000
George L. Nankervis Co.	33,000	--
A. T. Wagner Co.	--	36,000
All Others (Over 25 suppliers)	78,000	214,000

Source: General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena,"-- Schedule "I 3a" p. 1, and Schedule "I 2a" p. 1.

* Figures rounded to nearest $1,000.

GENERAL MOTORS CORPORATION PURCHASES OF SOLVENTS (CLASSIFIED UNDER "CHEMICALS" BY GM) FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 AND 1947

(Listing suppliers of $40,000 worth or more)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	$1,799,000	$3,183,000
Detrex Corp.	212,000	338,000
Carbide and Carbon Chemicals Corp.	139,000	833,000
Parker Rust Proof Co.	123,000	166,000
McGean Chemical Co.	112,000	74,000
Solventol Chemical Products, Inc.	89,000	82,000
Harshaw Chemical Co.	62,000	51,000
Wyandotte Chemical Corp.	57,000	104,000
American Chemical Paint Co.	50,000	52,000
Carrier Stephens Co.	46,000	62,000
Norton Co.	44,000	95,000
North West Chemical Co.	44,000	--
Oakite Products Co.	43,000	47,000
Dow Chemical Co.	40,000	44,000
Udylite Corp.	--	79,000
Wm. Lynn Chemical Co.	--	74,000
Amsco Products Co.	--	56,000
Air Reduction Sales Co.	--	50,000
Pennsylvania Salt Manufacturing Co.	--	46,000
Klem Chemicals Works	--	42,000
Eaton-Clark Co.	--	40,000
All Others (Over 330 suppliers)	738,000	848,000

Source: General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule "I 3a," pp. 1-9, and Schedule "I 2a" pp. 2-8.

* Figures rounded to nearest $1,000.

GENERAL MOTORS CORPORATION PURCHASES OF PAINTS, ENAMELS, PRIMERS, AND LACQUERS FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 and 1947

(Listing Suppliers of $20,000 Worth or More)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	4,105,000	6,844,000
Rinshed-Mason Co.	1,930,000	3,128,000
Pittsburgh Plate Glass Co.	572,000	916,000
Pontiac Varnish Co.	173,000	260,000
Kay and Ess Co.	136,000	220,000
Ferbert Schorndorfer Co.	124,000	291,000
Schenectady Varnish Co., Inc.	108,000	248,000
Roxaline Flexible Finishes, Inc.	108,000	--
R. A. Becker Co.	103,000	122,000
Standard Varnish Works	94,000	107,000
Parker Rust Proof Co.	61,000	--
M. B. Suydam Co.	56,000	104,000
The Stanley Chemical Co.	54,000	111,000
Thresher Varnish Co.	47,000	45,000
Arco Co.	35,000	160,000
Michigan Chrome & Chemical Co.	22,000	35,000
Jamestown Finishing Products Co.	22,000	32,000
Berry Brothers, Inc.	22,000	33,000
Forbes Varnish Co.	--	191,000
Interchemical Co.	--	68,000
Mansfield Paint Co.	--	56,000
Parker Paint & Varnish Co.	--	39,000
Glidden Co.	--	36,000
American Marietta Co.	--	32,000
Intercoastal Paint Co.	--	31,000
American Chemical Paint Co.	--	30,000
Egyptian Lacquer Co.	--	29,000
Saginaw Paint Mfg. Co.	--	27,000
Parr Paint & Color Co.	--	26,000
Nelson J. Quinn Co.	--	23,000
Advance Paint Co.	--	22,000
Insulation Mfg. Co.	--	22,000
Akron Paint & Varnish Co.	--	20,000
All Others (Over 400 suppliers)	438,000	380,000

Source: General Motors Corporation tabulation of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule "I 3b," pp. 1-9, and Schedule "I 2b" pp. 1-11.

* Figures rounded to nearest $1,000.

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GENERAL MOTORS CORPORATION PURCHASES OF SOLVENTS (CLASSIFIED UNDER "FINISHES" BY GM) FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 and 1947

(Listing Suppliers of $12,000 Worth or More)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other Than Du Pont	530,000	1,102,000
Detrex Corp.	106,000	374,000
Liquid Glaze Co.	71,000	--
Grow Solvent Co.	43,000	40,000
Parker Rust Proof Co.	38,000	--
American Mineral Spirits Co.	35,000	74,000
Wyandotte Chemical Corp.	25,000	80,000
American Chemical Paint Co.	24,000	48,000
Western Solvents & Chemical Co.	16,000	68,000
Solventol Chemical Products, Inc.	--	54,000
G. S. Blakeslee & Co.	13,000	25,000
Amsco Products, Inc.	--	18,000
Anderson-Pritchard Oil Co.	--	18,000
Standard Oil Co.	--	17,000
Peerless Chemical Co.	--	16,000
U. S. Industrial Chemicals, Inc.	--	16,000
Buffalo Solvents & Chemical Co.	--	15,000
Shell Oil Co.	--	14,000
Carbide and Carbon Chemicals Co.	--	12,000
All Others (Over 100 suppliers)	159,000	213,000

Source: General Motors Corporation tabulations of "Sales and Purchases Data in response to the Federal Grand Jury Subpoena" - Schedule "I 3b" pp. 9-11, and Schedule "I 2b" pp. 11-15.

* Figures rounded to nearest $1,000.

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GENERAL MOTORS CORPORATION PURCHASES OF THINNERS FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 and 1947

(Listing Suppliers of $10,000 Worth or More)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	291,000	583,000
Western Solvents & Chemicals Co.	31,000	25,000
Barker Chemical Co.	30,000	48,000
Socony-Vacuum Oil Co.	24,000	28,000
Standard Oil Co.	18,000	29,000
Amsco Products Co.	18,000	21,000
Lowe Bros. Paint Store Co.	18,000	--
Anderson-Pritchard Oil Co.	17,000	21,000
Eastman Kodak Co.	11,000	28,000
American Mineral Spirits Co.	11,000	16,000
Pierce & Stevens, Inc.	10,000	26,000
Shell Oil Co.	10,000	24,000
Rinshed-Mason Co.	--	75,000
Arco Co.	--	35,000
Moran Paint Co.	--	27,000
Pittsburgh Plate Glass Co.	--	22,000
Grow Solvent Co., Inc.	--	18,000
Union Oil Co.	--	11,000
Commercial Solvents Corp.	--	10,000
All Others (about 150 suppliers)	93,000	119,000

Source: General Motors Corporation tabulation of "Sales and Purchases in Response to the Federal Grand Jury Subpoena" - Schedule "I 3b," pp. 11-15, and Schedule "I 2b" pp. 15-19.

* Figures rounded to nearest $1,000

GENERAL MOTORS CORPORATION PURCHASES OF PYROXYLIN FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 AND 1947

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	$37,578	$105,482
Eastman Kodak Co.	37,039	103,222
Rinshed Mason Co.	539	2,072
Fabricon Products, Inc.	0	66
American Paint Co.	0	59
John C. Dolph Co.	0	24
Resinous Products & Chemical Co.	0	18
General Electric Supply Co.	0	8
Barnard-Porter-Remington & Fowler	0	5
McQuinn Paint Co.	0	4
Castines	0	3

Source: General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule "I 3b," p. 15 and Schedule "I 2b" p. 19.

* Figures rounded to nearest $1.00.

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GENERAL MOTORS CORPORATION PURCHASES OF ADHESIVES FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 AND 1947

(Listing Suppliers of $10,000 worth or more)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	$1,967,000	$3,056,000
Minnesota Mining & Manufacturing Co.	1,026,000	1,482,000
Flintkote Co.	342,000	502,000
J. W. Mortell Co.	146,000	248,000
Intercoastal Paint Co.	116,000	172,000
Kendall Co.	87,000	128,000
Industrial Tape Corp.	26,000	30,000
Parr Paint & Color Co.	24,000	36,000
St. Clair Rubber Co.	23,000	167,000
Witco Chemical Co.	22,000	54,000
Crane Co.	10,000	--
The Presstite Engineering Co.	--	31,000
U. S. Rubber Co.	--	15,000
Peter Cooper Corp.	--	14,000
J. J. Siefer Co.	--	11,000
All Others (Over 250 suppliers)	146,000	166,000

Source: General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule "I 3b," pp. 15-19, and Schedule "I 2b," pp. 20-25.

* Figures rounded to nearest $1,000

GENERAL MOTORS' PURCHASES OF COATED FABRICS FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 and 1947

(Listing Suppliers of $30,000 Worth or More)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	1,206,000	3,422,000
Haartz Auto Fabrics, Inc.	375,000	1,413,000
Backstay Welt Co.	184,000	432,000
George R. Carter Co.	137,000	178,000
Detroit Gasket & Mfg. Co.	90,000	208,000
Jansen Mfg. Co.	58,000	--
U. S. Rubber Co.	52,000	435,000
Brunsene Co.	47,000	117,000
Chicopee Mfg. of Georgia	47,000	58,000
Allen Industries	46,000	72,000
Columbus Coated Fabrics Co.	38,000	134,000
Cotan Corp.	33,000	48,000
Goodall Fabrics	--	77,000
Automotive Products, Inc.	--	48,000
Hood Rubber Co.	--	36,000
All Others (Over 27 suppliers)	99,000	166,000

Source: General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena," - Schedule "I 3c" p. 1, and Schedule "I 2c" pp. 1-2.

* Figures rounded to nearest $1,000.

GENERAL MOTORS CORPORATION PURCHASES OF IMITATION LEATHER FROM SUPPLIERS OTHER THAN DU PONT FOR THE YEARS 1946 AND 1947

(Listing suppliers of $2,000 worth or more)

	Dollar Volume 1946*	Dollar Volume 1947*
Total Purchases from Firms Other than Du Pont	$696,000	$2,393,000
Textileather Corp.	393,000	1,328,000
Federal Leather Co.	145,000	787,000
U.S.Rubber Co.	135,000	196,000
Ashtabula Hide & Leather Co.	13,000	11,000
Eagle Ottawa Leather Co.	8,000	4,000
Goodall Fabrics, Inc.	--	53,000
Blanchard Bros. & Lane Co.	--	13,000
All Others (8 Suppliers)	2,000	1,000

Source: General Motors Corporation tabulations of "Sales and Purchases Data Submitted in Response to the Federal Grand Jury Subpoena"-- Schedule "I 3c" p. 2, and Schedule "I 2c" p. 2.

* Figures rounded to nearest $1,000.

Government's Exhibit No. 1343-B

GENERAL MOTORS CORPORATION

COMPTROLLERS CIRCULAR LETTER

NO. 1383

DATE January 31, 1949

SUBJECT: U. S. District Court Subpoena

5326

TO: Divisional Comptrollers

A Grand Jury Subpoena has been served upon General Motors Corporation which necessitates the compilation of certain sales and purchases data relative to previous transactions with the following companies including divisions, departments and subsidiaries:

E. I. du Pont de Nemours & Co.
Bendix Aviation Corp.
North American Aviation, Inc.
Ethyl Corporation
Kinetic Chemicals, Inc.
U. S. Rubber Co.
Remington Arms Co., Inc.

It is also necessary that the Corporation furnish the Government related information with respect to purchases effected from competitors of these named companies.

Detailed instructions relative to the preparation of the foregoing are contained in attachments "A" and "B". The following, however, briefly summarizes the general information required:

1. Annual sales to each of the aforementioned companies for each of the years of 1946 and 1947, as well as for the first six months of 1948, segregated according to your normal product breakdown.

2. Annual purchases from each competitor of E. I. du Pont de Nemours & Co. and Bendix Aviation Corp. of certain products for each of the years of 1946 and 1947, as well as for the first six months of 1948.

3. Annual purchases, by product, from North American Aviation Inc., Remington Arms Co. and competitors, for each of the years of 1946 and 1947, as well as for the first six months of 1948.

4. Annual purchases, by product, from Ethyl Corp. Kinetic Chemicals Inc. and competitors for each of the years from 1930 through 1947 (omitting the years of 1942 to 1945, inclusive), as well as for the first six months of 1948.

5. Annual purchases of tires and tubes from companies other than U. S. Rubber Co. for each of the years from 1927 through 1947 (omitting the years of 1942 to 1945, inclusive), as well as for the first six months of 1948.

All invoices and other related documents supporting this report are to be retained by the division until otherwise instructed by this office.

It is desired that this report reach the Cost Analysis Section by April 1, 1949.

R. E. Hammond
Comptroller

RCM:IB

Attachment "A"

INSTRUCTIONS FOR THE DEVELOPMENT OF SALES DATA

1. Total annual sales in dollars to each of the following companies and their subsidiaries, for each of the years of 1946 and 1947, as well as for the first six months of 1948:

E. I. du Pont de Nemours & Co.
Bendix Aviation Corp.
North American Aviation, Inc.
Ethyl Corp.
Kinetic Chemicals, Inc.
U. S. Rubber Co.
Remington Arms Co., Inc.

2. Sales to each of these companies are to be segregated according to your regular product breakdown, i.e., principal product (detail), parts and accessories and sundry sales.

3. Sales dollars indicated under the above classifications should be restricted to normal sales, excluding such items as; dies, patterns, tools, jigs, buildings, facilities, experimental or research services, et cetera. Particular care should be taken to ascertain that the foregoing or other such items have been eliminated from sundry sales reported herein.

4. The net amount of the sales invoice, and adjustments thereto, should govern (after considering equalized freight, discounts, et cetera). Since cash discounts normally are not netted on the individual invoices, the total cash discounts allowed each customer for the year may be allocated to the product on an appropriate basis from the information readily available.

5. All sales are to be limited to those consummated within the United States.

6. Sales effected through factory owned retail stores, branches, etc. are to be included, while such transactions made by dealers and distributors are to be excluded.

7. Transactions on government subcontracts are to be included.

8. Cash sales are to be excluded.

All invoices and other related documents supporting this report are to be retained by the division until otherwise instructed by Central Office.

Attachment "F

INSTRUCTIONS FOR THE DEVELOPMENT OF PURCHASES DATA

Competitors of E. I. du Pont de Nemours & Co.

Total annual purchases in dollars from each supplier (including allied divisions), other than E. I. du Pont de Nemours & Co., or a subsidiary thereof, of each of the following products, for each of the years of 1946 and 1947, as well as for the first six months of 1948;

Chemicals
  (a) Anodes
  (b) Solvents (for metal cleaning, dry cleaning and extraction)

Finishes
  (a) Paints, enamels and primers
  (b) Lacquers
  (c) Solvents
  (d) Thinners
  (e) Pyroxylin
  (f) Adhesives

Fabrics
  (a) Coated fabrics
  (b) Imitation leather

Anti-freeze
  (a) Methanol type
  (b) Ethylene glycol type (permanent)

Attachment "B-1" is submitted as an aid in determining what type of items to include under the above product classifications. In addition thereto, any similar products purchased from competitors of E. I. du Pont de Nemours & Co. are to be included. Your report should not be restricted to the items listed.

The purchases reported for products reflected under "Finishes", "Fabrics" and "Anti-freeze" from companies other than E. I. du Pont de Nemours & Co. for the 1947 calendar year, should agree with those reported for the Federal Trade Commission Inquiry (Circular Letter #1376) by product classification, supplier and amount of each.

Competitors of Bendix Aviation Corp.

Total annual purchases in dollars from each supplier (including allied divisions) other than Bendix Aviation Corp. or a subsidiary thereof, of each of the following products, for each of the years of 1946 and 1947, as well as for the first six months of 1948;

Competitors of Bendix Aviation (Continued)

(a) Air brakes
(b) Automotive brakes and parts
(c) Carburetors and parts
(d) Steering gear parts
(e) Starter drives
(f) Brake lining
(g) Any other product which was also purchased from Bendix Aviation Corp.

Competitors of U. S. Rubber Co.

Total annual purchases in dollars of tires and of tubes obtained from each company other than U. S. Rubber Co., for the first six months of 1948 and going back as far as invoices are available, but not prior to January 1, 1927 (excluding the years of 1942 to 1945, inclusive). Any portion of this period not covered, due to the unavailability of invoices or for any other reason, is to be accompanied by a certificate indicating, lack of records, etc.

The total purchases from each supplier should be segregated between tires and tubes purchased for use on original equipment and those purchased for replacement or sale.

Tires and tubes purchased by Central Office and rebilled to you should not be reported.

Exclude tires and tubes purchased for replacement on company cars, trucks or other factory vehicles.

Include tire and tube purchases made for or by retail stores branches, etc.

North American Aviation Inc. and Competitors

Total annual purchases in dollars for each product obtained from North American Aviation, Inc., or a subsidiary thereof, for each of the years of 1946 and 1947, as well as for the first six months of 1948. On each of the products obtained from North American Aviation Inc. the annual purchases are also required for each such product purchased from each company (including allied divisions), other than North American Aviation, Inc., for the same period.

Remington Arms Co. and Competitors

Total annual purchases in dollars for each product obtained from Remington Arms Co., or a subsidiary thereof, for each of the years of 1946 and 1947, as well as for the first six months of 1948. On each of the products obtained from Remington Arms Co. the annual purchases are also required for each such product purchased from each company (including allied divisions), other than Remington Arms Co., for the same period.

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Ethyl Corp. and Competitors

Total annual purchases in dollars for each product obtained from Ethyl Corp., or a subsidiary thereof, for the first six months of 1948 and going back, on an annual basis, as far as invoices are available, but not prior to January 1, 1930 (excluding the years of 1942 to 1945, inclusive).

On each of the products obtained from Ethyl Corp. the annual purchases are also required for each such product purchased from each company (including allied divisions), other than Ethyl Corp., for the same period.

Kinetic Chemicals, Inc. and Competitors

Total annual purchases in dollars for each product obtained from Kinetic Chemicals, Inc., for the first six months of 1948 and going back, on an annual basis, as far as invoices are available, but not prior to January 1, 1930 (excluding the years of 1942 to 1945, inclusive). On each of the products obtained from Kinetic Chemicals, Inc. the annual purchases are also required for each such product purchased from each company (including allied divisions), other than Kinetic Chemicals, Inc., for the same period.

General

(a) All purchases are limited to those consummated within the United States.

(b) Allied purchases are to be restricted, when possible, to materials manufactured or processed by the supplying division.

(c) Purchases effected by factory owned retail stores, branches, etc. are to be included, while such transactions made by dealers and distributors are to be excluded.

(d) Transactions on government contracts are to be included.

(e) Purchase price adjustments received through Central Office should be excluded, but any adjustments received directly from the supplier should be considered.

(f) Net amount of the invoice, and adjustments thereto, will govern after giving consideration to special price discounts, etc. The cash discount rule outlined for sales is also applicable to purchases.

(g) Cash purchases are to be excluded.

All invoices and other related documents supporting this report are to be retained by the division until otherwise instructed by Central Office.

The following attachments are also furnished as an aid in preparing this report and are not to be considered complete or comprehensive:

1. Attachment "B-2" listing suppliers from whom some of the products referred to herein may have been acquired.

2. Attachment "B-3" lists some of the major subsidiary companies, departments and divisions of E. I. du Pont de Nemours & Co. and Bendix Aviation Corp.

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Attachment "B-1"

The following list is indicative of the type of items to be included as competitive purchases under section "Competitors of E. I. du Pont de Nemours & Co." (your report should not be restricted to these items):

CHEMICALS

Anodes

- Graphite Anodes
- High Purity Zinc Base Anodes
- High Speed Brass Anodes
- Nickel Anodes
- Pur-o-tin Anodes
- Tin Anodes
- Tin Crystals
- Zinc Dust
- Block Anodes
- Cadmium Anodes
- Copper Anodes
- Lead Anodes
- Nickel Anodes
- Zinolyte Anodes

Solvents

- Carbon Tetrachloride
- Chloroform
- Perchlorethylene
- Polyvinyl Alcohol
- Tetrachlorethane
- Acetic Acid
- Aqua Ammonia
- Sulfuric Acid
- Muriatic Acid
- Nitric Acid
- Ammonium Hydroxide
- Duclean
- Soldering Flux
- Cut Acid Flux
- Kleanrol Crystal
- Tinning Flux
- Acetone
- Liquid Chlorine
- Orthodichlorobenzene
- Hydrofluoric Acid
- Hydrofluosilic Acid
- Phosphoric Acid
- Acetic Anhydride

FINISHES

Paints, Enamels and Primers
- Oil Type Varnishes, Stains, Driers & Treated Oils
- Oil Type Varnishes & Japans - Black
- Synthetic Resins & Varnishes
- Synthetic Resin Pastes
- Synthetic Resin Enamels
- Synthethic Resin Undercoats
- Ready Mixed Oil Type Paints
- Oil Type Pastes
- Putties & Ground Colors
- Pyroxylin Putties & Stencil Pastes
- Bronze Powder
- Aluminum Powder & Paste
- Recovered Primer & Enamel Sludge
- Maintenance Paints
- White Lead in Oil
- Pyroxylin Base Undercoats

Lacquers
- Clear Pyroxylin Base Lacquers
- Pyroxylin Base Enamel Lacquer

Solvents
- Acetylated Solvents

Thinners
- Thinners for Pyroxylin Lacquers & Enamels
- Thinners for Synthetic Resin Enamels

Adhesives
- Heavy Bodied Cements & Pyroxylin Solutions

FABRICS

Coated Fabrics
- Fabrikoid
- Fabrilite
- Cavalon
- Fairprene

Attachment "B-2"

The following list of companies from whom some of the aforementioned products may have been acquired is being furnished as a possible aid in determining various suppliers of certain products. However, in addition thereto, purchases made from suppliers other than those listed are to be reported. Your local purchasing department can probably best determine the names of other suppliers.

CHEMICALS

Anodes

Hanson - Van Winkle
Chase Brass and Copper
Hewitt Metals
Udylite Corp.
Federated Metals Division
McGean Chemical Co.
Eaton Chemical

Solvents

Kelite Products Inc.
Parker Rust Proof Co.
Wyandotte Chemical
American Chemical Paint Co.
Detrex Corp.
Klem Chemicals
Shell Oil
Apex Chemical Mfg. Corp.
G.S. Blakeslee and Co.
Fletcher Oil Co.
R.O. Hull and Co.
McGean Chemical Co.
G.L. Nankervis Co.
F.B. Stevens Co.
Udylite Corp.
Western Solvents and Chemical Co.
Eaton Chemical and Dyestuff Co.
Grow Solvents
Hoosier Solvents and Chemical Co.
Western Solvent and Chemical Co.
Apex Chemical Co.
B&B Chemical Co.
Sliger Chemical Co.
Lendon Sales Engr. Co.
American Mineral Spirits Co.
Dow Chemical Co.
Industrial Chemical Co.
Industrial Chemical Products
Peerless Chemical Co.
Reliance Chemical Co.
Sno-Flake Products
A.T. Wagner Co.
A.E. West Petroleum Co.

FINISHES

Paint, Enamel, Primer and Lacquer

Cummings Brothers
Flint Paint and Varnish
Forbes Finishes Division
Pontiac Varnish Co.
M.B. Suydam Div.
Truscon Laboratories
Morgan Auto Paint
Rex Sales
Barney Taylor Co.
Rinshed Mason
Dibble Color Co.
J.W. Mortell Co.
Siebert Varnish Co.
C.L. Schroeder and Bros.
Expert Window Cleaning Co.
Bricker and Andes
G.L. Nankervis Co.
R.J. Brown
Gage Products
Grow Solvent
Pontiac Paint Co.
Egyptian Lacquer Mfg. Co.
Ferbert Schorndorfer Co.
Rogers Paint Products
Stanley Chemical Co.
A.T. Wagner Co.
Acme White Lead and Color Works
Bins and Equipment Mfg. Co.
Boyer Campbell Co.
Di-Noc Co.
E.R. Kriper Hardware
Gagnier Paint Co.

FINISHES
Paint, Enamel, Primer and Lacquer (Continued)

Eastern Lacquer
Kellerman Paint Co.
Metro Lacquer and Fender Co.
Intercoastal Paint Corp.
A.C. Horn
Anderson Puchard Oil Co.
Standard Oil Co.
Boydell Bros.
American Marietta Co.
Tropical Paint and Oil Co.
Sargent - Gerke Co.
The Garland Co.
Morley Bros.
Saginaw Paint Mfg. Co.
Buckeye Paint and Varnish Corp.
Union Oil Co.
The Barrett Div.
Saginaw Hardware Co.
Missouri Solvents and Chemicals Co.
Socony Paint Prod.
Interchemical Corp.
Baer Bros.
Anderson Pritchard
R.A. Becker
Commercial Solvents
Hoosier Solvents
Insulation Mfg.
Schenectady Varnish Co.
Baker and Collinson
Delscamp Paint and Glass Co.

General Electric Supply Corp.
J. Goldberg
Hooker Glass and Paint Mfg. Co.
National Lead
Pittsburgh Paint and Glass Co.
Testor Chemical Co.
Sky Bright Co.
Tung Oil Paint Mfg. Co.
American Chemical and Paint Co.
Bestall Inc.
Falks Finishes
Parr Paint and Color Co.
Sno-Flake Products
Arco Co.
Glidden Co.
Kay and Ess Co.
Western Solvent and Chemical
V.E.P. Co.
Metals Disintegrating Co.
Forbes Varnish
Irving Jervel and Vinson Co.
Lowe Bros. Co.
Roemhildt Co.
M.B. Suydam Co.
Phelan Faust Paint and Mfg. Co.
Wagenman Paint Co.
Geo. Worthington Co.
Berry Bros.
Ozalid Div.

Solvents

American Mineral Spirits
Calsol Inc.
Detrex Corp.
Di-Noc Co.
Ferbert Schorndorfer Co.
Grow Solvents Co.
Peerless Chemical Co.
Rinshed Mason

Shell Oil
Sherwood and Co.
Sno-Flake Products
F.B. Stevens Inc.
Tung Oil Paint Mfg. Co.
A.T. Wagner Co.
Western Solvents Chemicals
Wyandotte Chemical Corp.

Thinner

Standard Oil Co.
G.L. Nankervis Co.

Shell Oil

Government's Exhibit No. 1344

(5340)

SALES BY PRODUCT TO
GENERAL MOTORS CORP. AND 100% OWNED SUBSIDIARIES
FOR THE FOLLOWING YEARS
AND INDUSTRIAL DEPARTMENTS
E. I. DU PONT DE NEMOURS & CO.

	1938	1939	1940	1941	1946	1947
AMMONIA						
Product						
Anti-freeze						
Ethylene Glycol Type	$ —	$ —	$342,750	$296,894	$266,891	$969,412
Ethanol Type	—	—	—	—	35,382	—
Methanol Type	289,231	404,697	455,532	428,014	366,712	740,774
Total Anti-freeze	289,231	404,697	798,282	724,908	668,985	1,710,186
Anhydrous Ammonia, Cyl.	6,017	9,952	16,290	31,739	12,465	15,608
Anhydrous Ammonia T/C	--	--	—	2,610	1,311	—
Aqua Ammonia	—	14	--	213	11	73
Ammonium Bicarbonate	—	—	--	--	—	2
Ammonium Carbonate	--	--	--	—	—	40
Ethylene Glycol	—	--	—	110	--	--
Hexalin	—	—	46	—	—	—
Isobutanol	—	—	—	—	—	8
Methyl Methacrylate Monomer	—	—	—	6	—	—
Methanol	6,217	10,481	11,745	13,184	2,935	—
Sulfur Dioxide	—	--	—	39	—	—
Urea, Crystal	—	--	—	--	58	162
Total	$301,465	$425,144	$826,363	$772,809	$685,765	$1,726,079

	1938	1939	1940	1941	1946	1947
FABRICS & FINISHES DEPARTMENT						
Fabrics Products						
Fabrikoid	151,555	278,811	755,393	1,221,325	1,021,537	2,380,547
Fabrilite	--	—	—	—	755,995	1,151,289
Cavalon	248,552	473,814	486,659	499,269	254,865	41,285
Fairprene	66,250	51,229	43,228	52,485	50,769	66,195
Finishes Products						
Oil Type Varnishes, Stains, Driers & Treated Oils	37,427	54,454	66,939	79,790	113,766	222,303
Oil Type Varnishes & Japans - Black	4,043	5,082	9,212	6,518	19,493	62,758
Synthetic Resins & Varnishes	7,005	7,879	15,487	10,813	17,840	41,535
Synthetic Resin Pastes	—	50	431	268	159	1,079
Synthetic Resin Enamels & Undercoats	740,114	1,115,948	1,365,852	2,021,446	1,586,320	3,179,225
Ready Mixed Oil Type Paints	658,894	1,031,099	1,137,174	1,322,432	1,462,622	2,595,792
Oil Type Pastes	3	956	925	(cr) 245	415	—
Thinners for Pyroxylin Lacquers & Enamels	1,551,357	1,838,477	2,160,878	2,461,583	2,394,809	3,842,804
Thinners for Synthetic Resin Enamels	41,995	57,201	52,654	92,026	84,620	109,722
Putties & Ground Colors	3,313	2,506	5,084	11,611	6,178	10,542
Clear Pyroxylin Base Lacquers	138,370	226,232	205,265	191,906	236,972	277,862
Pyroxylin Base Enamel Lacquer & Undercoats	2,879,877	4,247,296	6,510,827	7,114,630	4,279,815	8,104,132
Heavy Bodied Cements & Pyroxylin Solutions	2,533	2,951	13,440	6,679	11,260	11,654
Pyroxylin Putties & Stencil Pastes	2,332	3,249	3,212	3,903	3,894	3,506
Rubbing & Polishing Compounds	39,356	61,951	60,209	66,692	45,130	202,501
Plastic Protective Coating	—	—	--	--	2,096	—
Wax Solid & Liquid	--	3	(cr)3	--	(cr) 8	—
Bronze Powder	2,695	840	1,703	2,845	2,504	1,511
Aluminum Powder & Paste	—	211	35	20	13,225	9,665
Recovered Primer & Enamel Sludge	--	--	--	1,729	3,097	21,030
Maintenance Paints	79,278	96,698	112,297	108,250	124,645	220,608
Miscellaneous Raw Materials & Supplies	5,429	4,391	2,626	17,045	21,000	—
Acetylated Solvents	1,229	3,330	2,814	5,567	—	—
White Lead in Oil	79	45	—	—	--	—
	$6,659,586	$9,568,703	$13,012,341	$15,298,587	$12,513,018	$22,577,545

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ELECTROCHEMICALS DEPARTMENT Products	1938	1939	1940	1941	1946	1947
Accelerated Salts	$ 702	$ 390	—	56	28	1,101
Anode Baskets & Hangers	—	—	—	—	169	9
Black Cobalt Oxide	15,782	26,887	—	—	—	—
Calcium Metal	356	1,405	56,467	2,955	—	—
Carbon Tetrachloride	558	1,218	2,099	2,891	5,061	7,245
Carburizing Salts	—	990	6,430	8,848	15,897	19,493
Case Hardener 30%	2,542	9,671	17	930	—	—
Chevrolet #30 & #35	—	—	10,500	21,819	5,150	—
Chloroform	—	—	—	—	16	—
Copper Cyanide	6,013	7,208	17,100	27,778	25,093	40,250
Cyanide-Chloride Mixture 75% & 45%	35,072	65,010	44,450	61,203	38,330	52,020
"Darsil" (Ounces)	—	4	59	—	16	—
Formaldehyde	181	79	—	75	1,835	568
Graphite Anodes	—	—	18	15	—	—
Heat Treating Salts	—	162	353	1,087	6,735	9,652
Hexamethylenetetramine	198	149	1,813	6,720	5,652	1,794
High Purity Zinc Base Anodes	397	—	—	—	—	—
High Speed Brass Anodes	—	—	—	258	—	—
Hydrogen Peroxide	14	55	84	94	143	651
Methyl Chloride	205	970	1,406	2,092	3,328	1,136
Nickel Anodes	—	—	—	1,431	—	—
Paraformaldehyde	—	6	—	48	22	—
Perchlorethylene	—	20	11	—	—	—
Polysulphide	—	301	977	1,012	—	—
Polyvinyl Acetate	6	—	—	—	—	25
Polyvinyl Alcohol Commercial	10	—	—	—	—	17
Potassium Cyanide	—	—	64	7,481	40,205	—
Potassium Cyanide Special	—	—	1,312	—	13,481	118,042
Potassium Ferrocyanide	—	—	2	59	—	—
Potassium Gold Cyanide 41% (Ozs.)	—	—	15	173	—	—
Potassium Hydroxide	—	8	42	—	—	—
"Pur-o-tin" Anodes	—	—	596	5,036	5,062	1,822
RH 309 Zinc Plating Brightener	—	—	2,502	8,908	21,684	19,871
RH 460 "Elvacet" Emulsions-Polyvinyl Acetate	—	—	—	7	—	—
RH 488 "Elvanol" Polyvinyl Alcohol	—	—	4	—	—	—
RH 489 "Elvanol" Polyvinyl Alcohol	—	—	7	—	—	—
RH 491 "Elvanol" Polyvinyl Alcohol	—	—	12	—	—	—
RH 539 Ethanol Acetamide	—	—	5	—	—	—
RH 546 Plating Brightener	379	963	(cr)138	—	—	—
RH 553 HiSpeed Copper Plating Salts	2,288	30,523	67,203	186,166	2,550	3,122
RH 555 Sodium Sulfacyanide	431	473	680	210	—	—
RH 556 Addition Agents for HiSpeed Copper Plating	100	1,499	2,981	6,056	1,726	3,312
RH 584 Dimethylol-Urea	—	—	2	—	—	—
RH 623 "Elvanol" Polyvinyl Alcohol	—	—	4	—	—	—
RH 661 Potassium HiSpeed Copper Plating Salts	—	—	—	—	268,348	303,198
RH 774 Addition Agents for HiSpeed Copper Plating	—	—	253	4,477	10,259	27,194
RH 775 Brass Plating Salts	—	—	—	469	—	—
RH 1032 Addition Agents for HiSpeed Copper Plating	—	—	—	—	4,625	(cr)660
RH 1085 Addition Agents for HiSpeed Copper Plating	—	—	—	—	9,430	5,500
Silver Cyanide (Ozs.)	—	226	3,894	23,411	—	—
Silver Preparations	—	—	—	—	124	164
Sodium Cyanide	68,267	94,751	96,230	249,189	210,048	277,341
Sodium Gold Cyanide 46%	—	—	—	161	—	17
Sodium Lead Alloy Hydrone	—	—	1	—	—	—

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ELECTROCHEMICALS DEPARTMENT (CON'T'D) Products	1938	1939	1940	1941	1946	1947
Sodium Monoxide	$ —	$ —	$ —	$ —	$ —	$ 15
Sodium Perborate	—	60	6	80	—	40
Sodium Stannate	15,945	28,737	27,391	87,949	19,172	42,473
Sodium Sulphocyanide	—	—	180	150	—	—
Tetrachlorethane	—	—	—	—	—	34
Tin Anodes	337	133	—	—	—	—
Trichlorethylene	677	—	55	—	161	627
Zinc Cyanide	1,254	1,535	4,560	5,742	16,449	9,321
Total	$151,714	$273,443	349,647	$719,294	$730,798	$945,394

GRASSELLI CHEMICALS DEPARTMENT Products						
Acetic Acid Glacial C.P.	699	1,917	835	1,074	865	(cr)107
Acetic Acid Glacial U.S.P.	—	—	—	—	29	53
Acetic Acid Glacial	409	341	271	611	626	1,352
Acetic Acid 28%	—	—	—	7	—	—
Acetic Acid 56%	—	—	—	101	—	—
Aqua Ammonia 26	550	547	518	2,037	7,276	14,821
Ammonium Sulfate	10	—	—	—	—	—
Chromic Acid Flake	81,231	140,889	205,094	221,564	213,212	316,500
Sulfuric Acid C.P.	2,311	3,650	3,898	2,932	806	1,888
Muriatic Acid C.P.	3,809	2,202	2,566	2,995	1,480	1,929
Nitric Acid C.P.	987	1,067	1,317	2,039	1,438	1,609
Ammonium Hydroxide C.P.	477	644	793	1,671	1,821	2,086
Duclean #1A	310	1,790	1,696	1,790	1,574	2,019
Duclean #2	—	43	64	24	95	110
Formic Acid 90% Technical	—	—	14	(cr)14	102	58
Inhibitor #3	—	(cr)92	99	157	—	(cr)99
Inhibitor #8	666	640	850	688	757	1,225
Lactic Acid Lt. 44%	—	—	—	—	1,621	3,560
Muriatic Acid 18°	20,521	27,072	33,836	43,268	31,056	47,509
Muriatic Acid 20°	2,307	4,502	4,644	8,982	11,139	10,092
Muriatic Acid 20° SD5	—	—	—	—	—	478
Muriatic Acid 22°	693	929	1,726	613	—	—
Nitric Acid 36°	16,985	24,956	28,647	16,812	5,623	1,329
Nitric Acid 38°	1,405	2,056	2,669	4,540	1,154	3,861
Nitric Acid 38° Spec. G.M.C.	491	261	649	5,226	412	2,762
Nitric Acid 40°	233	208	305	859	20	4,817
Nitric Acid 40° L.C.L.	54	—	23	—	—	—
Nitric Acid 42	227	181	331	130	1,668	1,482
Nitric Acid 42° L.C.I.	—	—	—	—	119	—
Nitric Acid 60-62% Basis 100%	—	—	—	11,716	11,616	16,828
Sulfuric Acid 66°	55,853	68,384	91,642	99,269	76,426	114,067
Sulfuric Acid 66° W W	—	—	—	—	7,190	9,743
Sulfuric Acid 1.835	60,800	89,376	124,505	137,343	81,629	174,699
Sulfuric Acid 1.225	—	4	—	—	—	—
Sulfuric Acid 1.260	—	—	—	1,222	—	—
Sulfuric Acid 1.275	—	—	—	15	—	359
Sulfuric Acid 1.300	—	—	—	—	4	42
Sulfuric Acid 1.335	—	—	45	41	58	68
Sulfuric Acid 1.345	—	—	—	—	—	9
Sulfuric Acid 1.400	161	132	76	75	27	57
Sulfuric Acid 1.500	9	5	—	—	—	—
Aluminum Sulfate IF Ord.	28	—	30	34	—	72
Ammonium Chloride Gr. #1	—	—	—	—	340	272
Ammonium Chloride Gr. #2	—	—	—	27	—	—
Ammonium Sulfamate	—	1	—	7	58	

GRASSELLI CHEMICALS DEPARTMENT (CONT'D)

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Products	1938	1939	1940	1941	1946	1947
Barium Chloride Anhy.	$ —	$ 52	$ 52	$ —	$ 354	$ 860
C M Fire Retardant	—	—	—	—	—	54
Lead Acetate Wh. Flake	—	10	—	—	163	—
Nogas Metal Pickling Agent	—	15	15	—	—	131
Salabar	—	—	—	—	67	86
O B E Soda	—	—	—	—	9	69
Sodium Thiosulfate Pea Crystal	45	20	—	—	—	—
Sodium Thiosulfate Reg. Crystal	137	231	255	328	428	418
Sodium Metasilicate Reg.	2,036	3,685	4,612	8,180	6,313	11,507
Sodium Metasilicate, Fines	—	—	—	9	—	—
Sodium Nitrite U S P	—	35	—	132	—	—
Di Sodium Phosphate Anhydrous	—	—	—	—	—	66
Di Sodium Phosphate Anhydrous Gran.	—	100	—	—	—	22
Trisodium Phosphate	3	43	14	205	—	—
Trisodium Phosphate, Fine	1,308	2,829	4,213	4,915	5,317	7,774
Trisodium Phosphate R M	—	—	—	—	382	2,093
Trisodium Phosphate Powder	—	—	—	—	—	44
Trisodium Phosphate Powder Flake	—	—	—	—	—	44
Tetra Sodium Pyrophosphate	—	60	—	—	—	—
Tetra Sodium Pyrophosphate Granular	7	—	87	—	—	—
Tetra Sodium Pyrophosphate Anhydrous Granular	—	139	712	2,755	466	868
Sodium Sulfate, Very Fine Grade	16	49	—	—	—	—
Glaubers Salt, Granular	173	241	412	572	—	753
Glaubers Salt #7 Granular	—	—	—	—	624	—
Sodium Sulfide Concentrate Flake	—	6	—	14	511	446
Sodium Sulfide Concentrate Broken	—	—	—	—	50	—
Sodium Sulfite Crystal Technical	—	—	—	59	—	—
Tin Crystals	—	26	—	102	39	55
Sulfamic Acid	—	1	—	72	1,872	2,784
Sulfamic Acid Powder	—	—	—	—	30	—
Zinc Ammonium Chloride, Non-Foaming	—	—	—	—	—	28
Zinc Ammonium Chloride	—	—	32	365	—	—
Soldering Flux	—	14	—	—	—	—
Soldering Flux F.S. 1010 Fisher Body Spec.	305	1,405	2,091	2,245	175	—
Soldering Flux Eureka #41	53	108	28	—	419	663
Soldering Flux Eureka #55	1,656	771	51	22	1,783	2,248
Soldering Flux, Eureka #150	36	—	—	—	—	—
Soldering Flux, #1862-M	—	—	151	256	—	—
Soldering Flux, #1863-M	260	—	—	—	—	—
Soldering Flux, High Speed 50°	—	—	—	—	150	—
Soldering Flux, T.L. 40°	24	19	28	18	—	—
Soldering Flux Eureka Crystal	229	198	160	120	707	62
Zinc Chloride, Granular	441	730	2,702	2,864	2,420	4,821
Zinc Chloride Solution 50°	249	147	—	—	—	89
Zinc Chloride Solution 50%	—	—	—	49	102	342
Zinc Chloride Solution 53°	—	—	—	—	53	—
Zinc Chloride Solution 70°	—	—	—	—	1,481	—
Cut Acid Flux 53°	178	—	—	—	—	—
Soldering Flux Kleanrol Crystal	—	—	—	—	375	1,112
Kleanrol #M29 Crystal	707	732	883	1,004	—	811
Tinning Flux, F.S. 1010	6	24	29	18	—	—
Tinning Flux, High Speed 50°	—	—	—	—	50	—
Zinc Sulfate Crystal 22½%	—	—	—	—	83	—
Sodium Silicate F	180	254	270	208	335	577
Sodium Silicate J M	445	437	767	836	689	877
Sodium Silicate G48	75	25	3	31	57	77

Adhesives

Bauer and Black
Buromin Co.
Flintcote Co.
Forbes Varnish
B.F. Goodrich Co.
Hagan Corp.
Intercoastal Paint Corp.
Minnesota Mining and Mfg. Co.
J.W. Mortell Co.
Press Tite Engr. Co.
Rinshed Mason Co.
St. Clair Rubber
Std. Electric Co.
Superior Insulating Tape Co.
Swift and Co.
Vibra Damp Corp.
Cooke Paint and Varnish Co.
Van Cleef Bros.
Pittsburgh Paint and Glass Co.

FABRICS
Imitation Leather

Textileather Corp.

Coated Fabrics

Backstay Welt Co.
George R. Carter Co.
Federal Leather Co.
Goodall Fabrics
Haartz Auto Fabric Co.
Textile Corp.

Air Brakes

Wagner Electric Co.
Midland Steel Products

Automotive Brakes and Parts

Ainsworth Mfg. Co.
American Chain & Cable Co.
Brewer Tritchener Co.
Flannery Bolt Co.
Flex-O-Tube Co.
Green Bay Drop Forge
Houdaille Hershey Co.
Auburn Heights Mfg. Co.
W. E. Du Bard
Dana Corp.
Youngstown Metal Products
Lamson & Sessions
Allied Parts Corp.
National Cold Forging Co.
Eaton Mfg. Co.
Accurate Spring Co.
Barnes, Gibson, Raymond Co.
Quality Spring Products Co.

Carburetors and Parts

Carter Carburetor Co.
Dix Auto Electric Service

Brake Lining

American Brake Shoe Co.
Asbestos Mfg. Co.
Thermoid Co.
American Brake Block Co.
Raybestos - Manhattan

Attachment "B-2"
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Tires and Tubes

- B. F. Goodrich Co.
- Goodyear Tire & Rubber Co.
- MacGregor Tire
- Firestone Tire & Rubber Co.
- General Tire & Rubber Co.
- Goodall Rubber Co. Inc.
- Eagle Tire Co.
- Bielfield Tire Co.
- Dayton Tire & Rubber Co.
- Seiberling Rubber Co.

Attachment "B-3"

The following reflects some of the major subsidiary companies, divisions and departments of E. I. du Pont de Nemours & Co. and Bendix Aviation Corp., purchases from whom, are not to be included in your purchases from competitors:

E. I. du Pont de Nemours & Company

Ammonia Department
Electrochemicals Department
Explosives Department
Fabrics Department
Finishes Department
Grasselli Chemicals Department
Organic Chemicals Department
Photo Products Department
Pigments Department
Plastics Department
Rayon Department

Bendix Aviation Corporation

Bendix Radio Division
Bendix Aviation Research Laboratories
Bendix-Westinghouse Automotive Air Brake Company
Bendix Products Division
Eclipse-Machine Division
Eclipse-Pioneer Division
Friez Instrument Division
Marshall-Eclipse Division
Magnesium Foundry Division
Pacific Division
Red Bank Division
West Coast Sales and Service Division
Zenith Carburetor Division
Scintilla Magneto Division
Hydraulic Brake Company
Skinner Purifiers Division

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HASELLI CHEMICALS DEPARTMENT (CONT'D)

Products	1938	1939	1940	1941	1946	1947
Sodium Silicate #9	—	98	13	—	—	35
Sodium Silicate #14	—	38	32	11	(or) 44	—
Electroplating Equipment	61,947	—	—	—	—	—
Acetone	—	—	—	—	56	—
Methyl Acetone AAA	—	—	53	—	—	—
Aluminum Stearate	—	—	—	—	—	23
Ammonium Alum Lump	—	—	—	—	—	26
Aluminum Sulfate Ground	25	—	—	—	62	40
Aluminum Sulfate Lump	—	63	84	167	138	212
Ammonium Carbonate Lump	—	—	—	—	—	18
Ammonium Carbonate Powder	—	—	—	—	—	12
Ammonium Chloride White	1,987	1,912	480	384	—	—
Ammonium Chloride W. F.	118	149	244	30	27	76
Ammonium Nitrate Technical	—	—	27	86	73	63
Ammonium Nitrate C.P.	—	—	6	—	—	—
Di Ammonium Phosphate	54	—	5	—	—	15
Di Ammonium Phosphate Crystal	—	—	—	—	—	15
Di Sodium Phosphate	—	—	—	9	—	—
Ammonia Sulfate Purified	—	—	39	—	—	—
Arsenic White	1	—	—	—	—	—
Barium Carbonate	1	—	6	—	—	4
Barium Carbonate Ceramic	—	—	—	—	6	2
Barium Carbonate Free Flow.	—	—	—	3	—	—
Barium Hydroxide	—	—	—	—	9,337	—
Blanc Fixe	—	—	—	74	—	—
Copper Sulfate	25	332	—	—	—	—
Copper Sulfate Crystals	48	293	304	471	—	—
Copper Sulfate Small Crystals	24	28	22	282	328	439
Copper Sulfate Large Crystals	—	—	—	—	66	—
Borax Granular	—	—	3	—	—	—
Borax Powder	—	—	17	10	7	24
Boric Acid	17	—	—	—	—	—
Boric Acid Granular	—	24	—	23	1,443	—
Boric Acid Refined Granular	—	—	6	—	—	—
Boric Acid Powder	—	25	100	33	—	140
Calcium Chloride	109	—	—	—	—	—
Calcium Chloride Flake	13	21	87	—	36	49
Calcium Chloride Flake 77-80%	26	—	—	—	—	—
Carbon Tetra Chloride	278	2,207	2,019	3,132	—	—
Carbon Tetra Chloride 99.9%	2,294	1,429	2,147	4,275	—	—
Carbon Tetra Chloride C.P.	—	—	—	56	—	—
Liquid Chlorine	—	—	—	44	1,202	1,284
Copperas Granular	—	—	—	—	—	569
Orthodichlorobenzene	—	—	—	8	—	209
Hydrofluoric Acid 60%	—	16	154	294	187	—
Hydrofluoric Acid 52%	—	25	297	—	—	—
Hydrofluoric Acid 48%	—	—	84	717	—	12
Hydrofluoric Acid 30%	1,480	240	102	—	—	—
Hydrofluosilic Acid 29	—	22	—	—	—	—
Hydrofluosilic Acid 28	—	23	—	—	—	—
Chloride of Lime	128	16	—	—	—	—
Magnesium Fluosilicate Crystals	—	—	—	—	72	—
Epsom Salts	—	—	—	15	—	2
[illegible]	—	40	—	—	648	926

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GRASSELLI CHEMICALS DEPARTMENT (CONT'D)

Products	1938	1939	1940	1941	1946	1947
Potassium Bichromate Crystals	--	70	* 27	* 321	* (ar)10	762
Potassium Bichromate Granular	--	--	--	--	152	109
Potassium Bichromate Powder	73	9	--	--	--	--
Potassium Carbonate	171	227	54	240	--	--
Potassium Chloride 98-100%	--	--	--	--	7	--
Caustic Potash	--	--	--	--	158	--
Caustic Potash Flake	--	--	--	175	9,176	12,435
Caustic Potash Ground	--	--	--	399	--	--
Potassium Nitrate Granular	54	--	--	--	--	--
Potassium Permanganate	--	--	--	--	--	11
Potassium Permanganate U.S.P.	--	--	5	--	90	56
Sal Soda	10	42	86	--	--	--
Sal Soda Lump	136	--	--	--	--	--
Soda Ash Light 58%	13	--	85	12,048	892	4,768
Soda Ash Fluffy 58%	--	--	--	497	1,991	--
Soda Ash Flake 58%	--	--	--	2,440	--	--
Sodium Acetate Anhydrous	--	--	--	--	70	344
Sodium Acetate Flake	6	31	60	108	93	--
Sodium Bicarbonate Technical	3	3	--	44	213	288
Sodium Bicarbonate Granular	--	--	--	--	--	50
Sodium Bicarbonate Pure	--	6	3	--	--	--
Sodium Bicarbonate Powder U.S.P.	3	--	--	--	7	3
Sodium Bichromate	28	24	39	78	2,015	7,749
Sodium Bichromate Crystals	--	219	--	--	94	253
Sodium Bichromate Granular	--	--	--	--	2,022	2,754
Sodium Bisulfite Anhydrous	--	--	--	--	54	63
Sodium Bisulfite Powder	7	--	17	149	--	--
Caustic Soda Flake	890	217	135	192	459	565
Caustic Soda Flake A	--	--	--	--	266	266
Caustic Soda Flake E	--	--	960	2,088	28	402
Sodium Nitrate Commercial	275	240	418	369	239	276
Sodium Sulfate Anhydrous	8	--	--	--	--	184
Sodium Sulfite Anhydrous	4	--	--	--	29	75
Sulfur Flour	--	22	78	321	60	11
Sulfur Powder	--	3	--	--	--	--
Sulfur Flowers	--	6	--	--	--	--
Sulfur Roll	5	4	--	--	21	--
Antu	--	--	--	--	85	42
Ammate Weed Killer	--	--	--	--	63	63
Deenal 5-H	--	--	--	--	--	40
Lime Sulfur Solution	--	--	--	--	(ar)65	--
Zinc Dust AAA	--	4	16	65	--	--
Zinc Dust AA	--	--	--	--	145	78
Black Anodes	--	18	--	--	--	--
H. & S. Test Solution	--	--	2	--	--	--
Acetic Anhydride 96%	90	380	393	444	--	--
Cadalyte	195	--	--	--	--	--
Cadalyte 38°	420	--	--	--	--	--
Cadalyte 39°	900	427	585	--	--	--
Cadalyte Brightner	--	--	16	109	--	--
Cadalyte Maintenance Compound	25	50	125	325	--	--
Cadmium Anodes	1,504	1,111	290	434	--	--
Anode Baskets	--	20	171	--	--	--
Cadmium Oxide	--	80	127	5	--	--
Cadmium Sponge	--	--	14	--	--	--
[illegible]	714	223	286	281	--	--

Government's Exhibit No. 1345

THE DATA IN THIS REPORT IS INTENDED ONLY
FOR THE PARTY TO WHOM ADDRESSED.
THE REPORT SHOULD BE TURNED OVER TO
THE SECRETARY IMMEDIATELY AFTER THE MEETING AT WHICH IT IS CONSIDERED (Stamp)

August 19, 1921.

To: DIRECTORS—E. I. DU PONT DE NEMOURS & CO.

FROM: MR. J. J. RASKOB.

GENTLEMEN:—

The enclosed history of the Du Pont Company's investment in the General Motors Corporation (Exhibit –I) is very full and has been prepared with a great deal of care by Mr. Echols, Assistant Treasurer.

We decided to invest in this industry in December 1917 and completed an initial investment of $25,000,000. early in 1918. In 1919 this investment was increased to $45,182,000; in 1920 to $47,532,000; and in 1921 to $75,581,000.

The report (Exhibit-II) shows that the average cash return, in the way of dividends, on our investment during the three years (1918-1919 and 1920) was 12.34%, with average earnings equal to 36.8% on the investment and at the present time the book value of General Motors shares is $15.75 per share as against an average cost to us of $10.27 per share for the 7,362,540 shares, which we now hold.

As the Directors know we are now in control of the company and are completely responsible for its politics and management and our voting strength may be summarized as follows:

GRASSELLI CHEMICALS DEPARTMENT (CONT'D)

(P.5346)

Products	1938	1939	1940	1941	1946	1947
Lead Anodes	$ 206	$ —	$ 127	$ —	$ —	$ —
Moly Black Salts A	—	135	416	630	—	—
Moly Black Salts B	—	735	2,235	2,782	—	—
Nickel Anodes	—	127	—	—	—	—
Nickel Salts Double	—	—	14	—	—	—
Zinolyte Addition Agent O	330	22	174	3,052	—	—
Zinolyte Anodes	311	—	—	—	—	—
Zinolyte Brightner	2,310	3,895	4,209	24,771	—	—
Zinolyte Salts	—	210	4	3,795	—	—
Zinc Dust Double B	—	—	—	—	22	—
Electroplating Chemicals	13,512	22,445	17,954	5,881	304,180	261,419
Total	$351,875	$430,543	$578,799	$701,487	$830,011	$1,082,733

Preferred and debenture stocks outstanding, (which are non-voting) approximately $100,000,000—

Common stock outstanding......	20,477,734	shares
du Pont Company Holdings.....	6,882,108	"
Chevrolet Company Holdings (this company is controlled by duPont Co.)	2,001,091	"
DuPont—Nobel Holdings	400,000	"
Canadian Explosives, Ltd........	258,243	"
Nobel Industries	609,425	"
Bonus Custodian	11,213	"
Savings & Investment Fund......	228,958	"
J. P. Morgan & Company........	516,887	"
TOTAL..............	10,907,925	"

—2—

On July 11th the Company had 43,000 common stockholders, (representing an increase of 5,000 in three months) and about 23,000 preferred and debenture stockholders, making a total of approximately 65,000 stockholders. The present condition of the company is well set forth in our Report to the New York Stock Exchange as of June 30th, 1921 copy of which is attached hereto (Exhibit-IV).

It is interesting to note the relation of our investment in General Motors Corporation to our total investment and

Mr. Exhols had prepared statements which show that Du

Pont Company has a total investment, excluding good-will, of	$251,800,000
Of this, the amount invested in General Motors is	75,600,000
Leaving the total of all of our other investments.	$176,200,000

An estimate of probable future earnings of the Du Pont Company on its total investment in other than General Motors Corporation, over say the next three years, is attached. (Exhibit -III) which shows a return of 6%. I understand it is the feeling of the Executive Committee that it will be difficult to realize the figures shown in this estimate as an average over the next three years, but, of course, this is a matter of opinion. It is the writer's belief that we should in some way or other be able to earn at least 6% on our investment.

A statement is also attached (Exhibit -III) showing;

(A) If General Motors Corporation earns $58,100,000. (equal to 10% on its gross assets) the du Pont Company's portion will be $17,200,000.

(B) If General Motors Corporation earns $72,638,000. (equal to 12½% on its gross assets) the du Pont Company's portion will be $22,421,000.

(C) If General Motors Corporation earns $87,200,000. (equal to 15% on its gross assets) the Du Pont Company's portion will be $27,700,000.

Using the data as contained in these statements, the relative investment of the Du Pont Company in General Motors, VS, its total investment in all other properties and the relative amount of earnings accruing to it from these sources, under varied assumptions, may be stated as follows:

ESTIMATED EARNINGS

du Pont Co's Investment In		Du Pont Co. @ 6% on Assets in Mfg. & all other than Gen. Motors Investment; Gen. Motors @ 10% on its Gross Assets.	DuPont Co. @ 8% on Assets in Mfg. & all other than Gen. Motors Investment; Gen. Motors @ 12½% on its Gross Assets.	DuPont Co. @ 10% on Assets in Mfg. & all other than Gen. Motors Investment; Gen. Motors @ 15% on its Gross Assets.
General Motors Corp. Stock	$75,600,000*	$17,200,000*	$22,421,000*	$27,700,000*
Manufacture & All other than Gen. Motor Stock	176,200,000*	10,640,000*	14,096,000	17,620,000
TOTAL	$251,800,000*	$27,840,000	$36,517,000	$45,320,000
Less:—				
Bond Interest ($35,000,000-7½% Bonds		$ 2,650,000		
Preferred Dividend @ 6%		4,270,000		
Total Charges		$ 6,920,000	$ 6,920,000	$ 6,920,000
Balance available for Common Stock		$20,920,000	$29,597,000	$38,400,000
Equals % on du Pont Common Stock ($63,378,300)		33%	46.7%	60.5%

* These figures are brought forward from Exhibit III.

J. J. RASKOB.

NOTE. "Return to Executive Committee Room 9069" is stamped at top and bottom of first page of document.

(3071)

Government's Exhibit No. 1346

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

LEGAL DEPARTMENT

September 24, 1936

MR. W. S. CARPENTER, JR.,
VICE PRESIDENT.

I am returning your memorandum to Finance Committee dated September 18th. A short memorandum is attached with two suggestions.

CRMudge
Director.

CRM:T

Suggested substitution for first new paragraph on page 5.

In considering the acquisition by du Pont Company of a further large stock holding in General Motors Corporation, which would increase our earnings from securities to a point in excess of one-half of our total earnings, and which would not only substantially increase the stock control of the latter by the former company, but would also apparently greatly strengthen the character of such control as a result of the managers of General Motors Corporation becoming important stockholders of du Pont Company, the Committee might well give attention to the legislative trend of recent years with respect to holding companies and various forms of intercorporate control, and consider whether or not such action on our part might direct critical public attention to the nature and potentialities of such a relationship between the two companies.

Suggested substitution for first sentence on page 9.

The concensus of opinion is that no general revision of taxes can be accomplished before March 1, 1937, and that, therefore, the tax on intercorporate dividends will be in effect at least covering the year 1936. With a change in administration it seems probable that this tax will be eliminated.

Government's Exhibit No. 1348

GENERAL MOTORS CORPORATION

BROADWAY AT 57TH STREET
NEW YORK, N.Y.

December 27, 1933

Mr. Lammot duPont,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

RE: GENERAL MOTORS ORGANIZATION.

My dear Lammot:-

We were discussing this afternoon the constitution of the Executive Committee and, naturally, the subject came up of your desire to withdraw from the activities of that Committee.

I am not going to repeat to you what I have said so many times -- that we are accepting this under protest -- but I want to again register the thought that we very much regret it because, outside of the personal relationship, which is so very, very pleasant, we will miss the support of your attendance and the opportunity that it gives you of knowing what we are doing; how we are doing it, etc.

The purpose of this letter is to ask whether it would be your pleasure for us to extend the invitation to Walter. Everybody thinks very highly of Walter's judgment; he has always been interested in our problems, and we would like very much to have him join the Committee and continue the relationship just as you have, if that should appeal to Walter and yourself.

I recognize that the principle you have in mind would apply to Walter just as much as it does to yourself, and that is the reason why I haven't advanced it before, but in the hopes of trying to accomplish something in the direction we all think is desirable, I am advancing it at this time specifically. If this should be acceptable to Walter and yourself, there is no reason why it should interfere with the presentations we are arranging to make to such group in Wilmington as you may wish to get together from time to time to deal with same.

Very truly yours,

Alfred P. Sloan

(3074)

Government's Exhibit No. 1349

FABRICS INDUSTRIAL MASTER TRADE REPORT

Customer	Fisher Body - Div. of General Motors
St. & No.	General Motors Bldg.
City - Zone	Detroit 2
County - State	Wayne, Mich.
Persons Interviewed	R.F. Oliger, V. Fisher, etc.

B. C.	23
Class	1
Report No.	237
Salesman	T. A. Nalle
Date of Call	11/29 - 12/6/46

Copies To:

1.	Newburgh ✓	5.	
2.	Fairfield	6.	
3.	New York	7.	
4.		8.	

1. Associated Companies, Affiliations, Subsidiaries and Branches Division of General Motors, with numerous assembly branches. All productive materials purchased at Central Office, Detroit.

2. General type of business Manufacturer

3. Products made from our type materials Upholstery and trim for automobiles and trucks.

4. Indicate (in order of importance) firm buys on: Friendship 1 Price 4 Quality 2 Service 3

5. Attitude toward du Pont. Favorable

6. Our prospects for regular business. Good

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	F. J. Walker	Purch. Agent	X
2.	Vern Fisher		X
3.			
4.			

8. DU PONT SALES (yards)

	Newburgh	Fairfield
1946 (9 mos.)		
1945 (12 mos.)	63,390	102

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS & PAPER

Quality & Width	Price	Manufacturer	Supplier	Yards
6950 - 50"		Du Pont	Same	410,000
4000-4500-4502		"	"	150,000
2251-55"&50"		"	"	185,000
Broken Twills		Textileather	"	115,000
Sateens		"	"	80,000
Drills		"	"	85,000
Broken Twills		Federal	"	30,000
Sateens		"	"	45,000
Drills		"	"	25,000

RUBBER (NATURAL & SYNTHETIC) COATED FABRICS & SHEET STOCK

RESIN COATED FABRICS & SHEET STOCK

"Fabrilite"		Du Pont	Same	65,000
Tolex		Textileather	Same	10,000

What is the potential yardage of this firm if raw materials were available?

2,500,000

FF4600A-4M-846-SR2829

* Based on to date 1946 purchases.

The consumption figures shown on the other side of this sheet are based on the production of 700,000 passenger cars in 1946 and the usage of 1.6 yards per car.

Since post-war production was resumed, we have received orders totalling 2,760,000 yards. This amount is broken down as follows:

"Fabrikoid" (without listing substitutes)

6950 Quality - broken twills	1,040,300
4000 "	294,100
2251 " - 55" and 58"	480,700
4500 " (sedan delivery head lining)	62,000
4502 " (convertible trim)	78,000

"Fabrilite"

7030 or 6028 (trim for sedan deliveries	54,750
4022 and taxicabs)	66,500

The shipments of the above started in mid-1945 and will continue until April-May, 1947.

Everything has been running along smoothly but it is very important to watch delivery schedules closely, unless of course current conditions force a shut-down.

Prices effective December 2 were submitted and have been accepted by Bob Oliger. In discussing these, he pointed out that on the red antique 4502 quality, our price was $1.375 vs. Textileather $1.39, and on part 40-T-1242 (drill) our price was $.74 versus Textileather $.75. However, on the 4000 Spanish, Textileather quoted $1.02 against our $1.048. Oliger asked me to see if we were in a position to bring the $1.048 figure more in line with competition. After talking to Mr. Doremus, I have informed him that we would like to keep it as is. He has accepted this.

Mr. C. E. Wilson has just announced that it is the present intention of General Motors to defer their plans for bringing out 1948 models in the late summer of 1947 on all the cars except Buick and Cadillac. If this plan carries through, undoubtedly Buick and Cadillac will bring out new models, but the other lines will continue on the 1947 models to be brought out in early 1947 until some undetermined date.

Government's Exhibit No. 1350

DU PONT

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 2/24/48
Date Typed 2/25/48

Customer Fisher Body Div. - General Motors Corp.
St. and No. General Motors Building
City - Zone Detroit 2
County - State Wayne, Michigan
Persons Interviewed Mr. F. J. Walker

B. C. 23
Class 1
Report No. 23
Salesman T. A. Nalle
Date of Call 2/17/48

COPIES TO:

1. Newburgh	5.
2. Fairfield	6.
3. ALB	7. E. D.
4.	8.

FEB 27 1948

1. Associated Companies, Affiliations, Subsidiaries and Branches Division of General Motors Corp. manufacturing passenger bodies for all Divisions, station wagon bodies for Chevrolet, and light delivery bodies for Chevrolet.

2. General type of business Manufacturer.

3. Products made from our type materials Automotive upholstery and trim.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price 3 Quality 1 Service 2

5. Attitude toward du Pont: Very satisfactory.

6. Our prospects for regular business. Good.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	Fred Walker	Purch. Agent	X
2.	Vern Fisher, Dir.-Trim Fabric Stds. & Spec. Sec.		X
3.			
4.			

8. DU PONT SALES (yards) (All locations.)

	Newburgh	Fairfield
1947 (12 mos.)	1,852,501	127,932
1946 (12 mos.)	1,131,364 (incl. Grand Rapids Stamping)	79,641

9. Other Remarks on Back 1947 Total: 1,980,433

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards
6950		Du Pont	Same	1,100,000
4502		"	"	110,000
4000		"	"	240,000
2251		"	"	320,000
3500		"	"	80,000
21 oz. B. T.		Textileather	"	300,000
22½ oz. Sat.		"	"	125,000
17½ oz. Sat.		"	"	75,000
2.25 Drill		"	"	125,000

~~RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK~~

Quality and Width	Price	Manufacturer	Supplier	Yards
21 oz. B. T.		Federal	Same	200,000
22½ oz. Sat.		"	"	15,000
17½ oz. Sat.		"	"	50,000
2.25 Drill		"	"	100,000

RESIN COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards
6028 "Fabl."		Du Pont	Same	70,000
4025 "		"	"	58,000
Tolex		Textileather	"	25,000
20 ga. Unsupported (*)				25,000

What is the potential yardage of this firm if raw materials were available?

* Goodall, Goodrich and Textileather thru Fabricon.

(OVER)

• Based on 1946 purchases.

FF460 A 5M 9.46 D

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP

All details have been covered in letters, etc.

Production is being maintained at a fairly even rate. There are no immediate prospects for improvement.

We have had under discussion the question of changing the 4502 "Fabrikoid" to 4502 "Fabrilite".

The Engineering Department is working on a 1949 Chevrolet station wagon body, and has requested a sample of 59" material embossed in a wood grain, light tan color. The "Fabrikoid" sample has been delivered and the "Fabrilite" is expected shortly from Newburgh. If this idea is adopted, very probably a design will be wanted simulating birch or maple, instead of the Native Oak.

We have done some work on the use of 3020-U for arm rests, which are purchased by Fisher cut to shape. We are not equipped to do this so I have interested Bob Connolly, who represents Western Leather Company of Milwaukee. They are equipped and interested, and already supply some leather items such as straps for convertibles, etc. to Fisher.

Government's Exhibit No. 1351

DU PONT

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 10/18/48
Date Typed 10/19/48

Customer Fisher Body Div., General Motors Corp.
St. and No. General Motors Building
City - Zone Detroit 2
County - State Wayne, Michigan
Persons Interviewed F. J. Walker

B C. 23
Class 1
Report No. 168
Salesman T. A. Nalle
Date of Call 10/18/48

COPIES TO:

1. NBG. ✓	5. FLD.
2. TA	6. EJB
3. ALB	7.
4. TAN	8.

6703

1. Associated Companies, Affiliations, Subsidiaries and Branches Division of General Motors Corporation.

2. General type of business Manufacturer of passenger bodies for all Divisions, station wagon bodies for Chevrolet, Pontiac and Oldsmobile, and light delivery bodies for Chevrolet.

3. Products made from our type materials Automotive upholstery and trim.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price 3 Quality 1 Service 2

5. Attitude toward du Pont. Very satisfactory.

File

6. Our prospects for regular business. Good.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	F. J. Walker	Purch. Agent	X
2.	Vern Fisher, Dir.-Trim Matl. Stds. & Spec. Section		X
3.			
4.	(Jack Cronin, General Manager, recently succeeded L. C. Goad.)		

8. DU PONT SALES (yards)

	Newburgh	Fairfield
1948 (8 mos.)	1,273,096	None provided.
1947	1,851,270	

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	DU PONT ~~Manufacturer~~	TEXTILEATHER ~~Supplier~~	FEDERAL LEATHER ~~Yards~~
6950-50"	Contract	556,000	185,000	90,000
4000-50"	"	134,400	45,000	22,000
4502-50"	"	76,800	30,000	15,000
3500-55"	"	53,000	-	-
SWH#1-59"	"	18,000	-	-
2251-55"	"	160,000	55,000	22,000
		Vinyl Resin	Coated	
Fabl. 6950-50"	Contract	330,000	110,000	55,000
6959-61-7030	"	35,000	12,000	7,000

~~RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK~~

4000-50"	"	70,000	25,000	12,000
4001-55"	"	5,000	-	-
4502-50"	"	257,000	95,000	50,000
4022-25	"	37,000	-	-
6028	"	32,000	-	-
755-54"	"	1,300	-	

TOP MATERIAL ~~RESIN COATED FABRICS AND SHEET STOCK~~

		DU PONT	HAARTZ	
Teal - 56"	Contract	85,000	490,000	
Bow Lining	"	37,000	2 50,000	

What is the potential yardage of this firm if raw materials were available?

(over)

Gmc 1645

* Based on 1946 purchase.

FF-A-5M-5-47

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

All figures based on orders placed to date plus estimate of those to be placed to December 31.

Pyroxylin in 0950 and 4000 discontinued beginning with 1949 model orders.

Pyroxylin in 4502 discontinued in April and replaced by vinyl coatings.

6028 and 4025 will not be used in '49 models--replaced by 30 oz. 1.14 broken twill and 50" sateen in 0-11 grain.

Textileather purchased through Automotive Materials Company--others direct.

Unsupported sheet previously reported for arm rests has been replaced by 21 oz. broken twill. Arm rests are made by Fisher Carpet Co., Norwalk, Ohio.

Government's Exhibit No. 1352

C O P Y

FABRICS INDUSTRIAL MASTER TRADE REPORT

Customer Chevrolet-Indianapolis (formerly Chev.-Commercial Body)
St. & No. Holly & Henry Sts.
City - Zone Indianapolis 6
County - State Marion, Ind.
Persons Interviewed Mr.Pugh,Gen.Mgr.; Carlen,P.A.; Gleason, Asst.P.A.; Schwengel,Eng.; Lowe,Matl.Cont.; Ralph Smith,Serv.Matl.Cont.; Ed. Mertz on sick leave.

B. C. 23
Class 1
Report No. 224
Salesman T. A. Nalle
Date of Call 10/29/46

Copies To:

1. ALB-ED	5.
2. HDMcL	6.
3.	7.
4.	8.

1. Associated Companies, Affiliations, Subsidiaries and Branches Division of General Motors Corp.

2. General type of business Manufacture truck bodies (knocked down) for Chevrolet

3. Products made from our type materials Truck upholstery and trim.

4. Indicate (in order of importance) firm buys on: Friendship 1 Price 1 Quality 1 Service 1. All about equally important.

5. Attitude toward du Pont. Favorable

6. Our prospects for regular business. Excellent

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	L.J. Carlen	Purch. Agent	X
2.	E.H.Mertz	Eng. Dept.	X
3.			—
4.			—

8. DU PONT SALES (yards)

	Newburgh	Fairfield
1946 (9 mos.)		
1945 (12 mos.)	111	58,374

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS & PAPER

Quality & Width	Price	Manufacturer	Supplier	Yards
6200 50"	List	Du Pont	D.S.	3,000
for service work				

(a)

RUBBER (NATURAL & SYNTHETIC) COATED FABRICS & SHEET STOCK

AT
ROY H. JOH

RESIN COATED FABRICS & SHEET STOCK

6028 50"	Contr.	Du Pont	D.S.	900,000
Naugahyde	"	U.S.Rubber	"	100,000
Headlining	-	Not placed	?	10,000

What is the potential yardage of this firm if raw materials were available? 1,500,000 yards

* Based on to date 1946 purchases.

FF4600A-4M-846-SR2829

5361

Saw Messrs. Pugh, General Manager; Carlen, P.A.; Dan Gleeson, Asst. P.A.; Schwengel, Eng.; Lowe, Material Control; Ralph Smith, Service Material Control and Ed. Mertz on sick leave.

Construction of extensive plant addition and new office coming along slowly.

Will probably need new red color part 3676062 for February delivery for March fabrication in Indianapolis and April use in the assembly plants.

In the meantime, Lowe says he is running quite close and hopes Fairfield can keep up to schedule. He may have to place additional releases against present color. On the last release, when we received approximately 100,000 yards, U.S. received 6,000, which they cannot ship until late November (have had strike trouble), and Textileather 2,000, which has been on order for about a year.

Questioned Carlen about a contract on the drill number, part 3676063, says this was placed with two other sources, as we were just under ten per cent higher than anyone else on this one. He will continue to check prices after production gets underway.

Ralph Smith has not yet succeeded in getting an Engineering O.K. on the narrow duck at Fairfield for the service order.

Schwengel will need a 54" headlining to go with the attached metal color. (Sample with E. Doremus' copy) in suburban bodies. Perhaps a 16 ounce drill pyroxylin coated will be O.K. Solid color satisfactory if Newburgh can provide a color, or if you prefer, they would take a P.C. job - Newburgh or Fairfield.

Carlen will have to buy some Osnaburg or sheeting for use in the grey in the seat construction. He will appreciate advice from Purchasing Department as to sources from which this might be purchased.

Government's Exhibit No. 1353

DU PONT

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 1/19/48
Date Typed 1/19/48

Customer Chevrolet-Indianapolis, Div. of General Motors
St. and No. 340 S. White River Pkwy., W. Dr.
City - Zone Indianapolis 6
County - State Indiana
Persons Interviewed Messrs. Carlen, Schwengel, Mertz, Lowe, Abrams, and Smith, Trim Foreman

B. C. 23
Class 1
Report No. 3
Salesman T. A. Nalle
Date of Call 1/15 & 1/16/48

COPIES TO:

1.	Newburgh	~~5.~~	
2.	Fairfield	6.	
3.	ALB	7.	
4.		8.	

1. Associated Companies, Affiliations, Subsidiaries and Branches Part of Chevrolet Division, General Motors Corp.

2. General type of business Manufacturer.

3. Products made from our type materials Upholstery for truck cabs and other types of commercial vehicles.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price 1 Quality 2 Service 3

5. Attitude toward du Pont. Favorable

6. Our prospects for regular business. Excellent

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	L. J. Carlen	Purch. Agent	X
2.	E. H. Mertz	Eng. Dept.	X
3.			
4.			

8. DU PONT SALES (yards)

	Newburgh	Fairfield	Lbs.
1947 (11 mos.)	-	487,541 yds.	1910
1946 (12 " .)	3	535,013 "	3407

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	

E. D.
JAN 22 1948

RECEIVED
JAN 23 1948
A. L. B.

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

Headlining 46"	62¢ Est.	Cotan	Same	90,000
D.F. Curtain 36"	1.03 Est.	U.S. Rubber	Same	20,000

RESIN COATED FABRICS AND SHEET STOCK

6026 - 50"	Contr.	Du Pont	Same	532,681
Tolex		Textileather	Same	150,000
Naugahyde		U.S. Rubber	Same	100,000

What is the potential yardage of this firm if raw materials were available?

1,500,000

3083

5362

FF400A 5M 9-46

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

(OVER)

* Based on 1946 purchases.

The two principal matters covered in this call, which included January 15 and 16 due to Mr. Carlen's absence on the 15th, were the complaint arising from defective grey goods and the change in schedule just received which showed no requirements from us for January and February.

The trouble with the defective grey goods should work itself out in time and will probably prove to be less costly by their cutting up the material and charging us for the extra labor and any excessive loss, than it would be to return the material to Fairfield for reinspection. A number of the roll tags have been forwarded to Fairfield. On several of these the number of cuts which they had to make was noted. These ranged from 7 to 21 on four or five rolls. I spent considerable time in the cutting room with Clyde Smith, the cutting foreman, and Fred Schwengel of Engineering. Some of the rolls were practically perfect and no cuts required. Then one would come up which had numerous defects and five or six cuts were necessary. The principal loss of material is in the splicing. Even though they use the short ends in the portion of the lay from which the smaller pieces are cut, there is always over-lap and as much as one to five yards may be lost in a particularly bad roll. The extra labor involved is required in the additional walking up and down the table to make the inspection and the time required for making the cut-outs and fitting the pieces into the lay.

I feel definitely certain that they are trying to handle it with the least possible additional labor as well as loss of material. Schwengel asked me to write him another letter authorizing this procedure on the last carload as my previous letter covered only the 15,000 yards in the first car in which the trouble was noticed.

Considerable time was also spent with the scheduling department on Thursday. I secured authorization to ship a car in January, which was confirmed by Carlen the next day. From information picked up it seems definite that U.S. material caused considerable trouble last Fall from crocking. A fair quantity of roll goods and some cushions already made up were returned to them. Prior to the call I had been informed that U.S. were on the way out and that we would secure a larger share of the business. The angle which I cannot reconcile is that in spite of the trouble they have had with the Naugahyde, Carlen has purchased a special lot from them. Details of this will be covered further on.

I pointed out to all concerned that the abrupt and unexpected change in schedule worked a great hardship on us, as it meant the possibility of laying off a calender crew which would be hard to reassemble when needed. Carlen said that whenever any changes they made worked any hardship we were to let him know and he would try to work out something for us; but that

(Cont'd.)

DU PONT

SHEET #2

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 1/19/48
Date Typed 1/19/48

Customer Chevrolet-Indianapolis
St. and No.
City - Zone
County - State
Persons Interviewed

B. C.
Class
Report No. 3
Salesman T. A. Nalle
Date of Call

COPIES TO:

1.	5.
2.	6.
3.	7.
4.	8.

1. Associated Companies, Affiliations, Subsidiaries and Branches

2. General type of business

3. Products made from our type materials

4. Indicate (in order of importance) firm buys on: Friendship ____ Price ____ Quality ____ Service ____

5. Attitude toward du Pont.

6. Our prospects for regular business.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.		Purch. Agent	
2.			
3.			
4.			

8. DU PONT SALES (yards)

Newburgh	Fairfield

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

RESIN COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

What is the potential yardage of this firm if raw materials were available?

FF4600A 5M 9-46

USE REVERSE SIDE FOR ADDITIONAL REMARKS. LEFT SIDE AS TOP.

* Based on 1946 purchases.

Govt. Trial Ex. No. 5364

3085

5365

Govt. Trial Ex. No. ________

in this instance he felt we were probably busy and would welcome not having to make shipments to them for a while. I then explained that Fairfield had been more or less geared around their business and that on many occasions we had not gone after other business in order to be in a position to take care of them, mentioning the heavy production required last Fall. I will follow up in about a week to find out what the situation is and see if we cannot get another car for early February in addition to the one already authorized for January.

Several factors enter into the reduced schedule to us:

(a) January production is not up to schedule and February is expected to be behind also due to steel shortage.

(b) On the basis of their schedule dated 12/15/47, which was the last one prior to the one just received, dated January 10, 99,660 yards had been shipped on order 7040 up through 11/28. This schedule showed 10,000 yards more due prior to January 1. But in December we shipped 45,154 yards, which was actually 35,000-odd yards out of the then January schedule for 40,000 yards. They have no complaint on these shipments having been made ahead of schedule and, in fact, Fairfield has an excellent record for service. Actually, if these shipments had not been made, they would very likely have called for at least part of this yardage. I am merely citing this situation as it helps to explain the absence of requirements in January.

(c) U.S. Rubber came to them with a special lot of cloth, I understand around 80,000 yards, to finish 43" wide. I am not sure whether they took the stand that they had purchased this in order to handle Chevrolet requirements or whether they merely stated that it was a special lot of cloth which they could not dispose of except to the surplus dealers, and offered it to Carlen at the same price they would have to sell it through such outlets. He said that Engineering tested the cloth and found that it was satisfactory, and that since the saving amounted to so much he did not feel justified in passing it up. It was his plan to take in all of this cloth in January and February and clean up the deal with U.S. (This is the first instance of this sort I can recall in all our dealings with General Motors.) In view of the hardship to us as set forth

(cont'd.)

DU PONT

SHEET #3

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 1/19/48
Date Typed 1/19/48

Customer Chevrolet-Indianapolis
St. and No.
City - Zone
County - State
Persons Interviewed

B. C.
Class
Report No. 3
Salesman T. A. Nalle
Date of Call

COPIES TO:

1.	5.
2.	6.
3.	7.
4.	8.

1. Associated Companies, Affiliations, Subsidiaries and Branches

2. General type of business

3. Products made from our type materials

4. Indicate (in order of importance) firm buys on: Friendship Price
Quality Service

5. Attitude toward du Pont.

6. Our prospects for regular business.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.		Purch. Agent	
2.			
3.			
4.			

8. DU PONT SALES (yards)

Newburgh	Fairfield

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

RESIN COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

What is the potential yardage of this firm if raw materials were available?

Govt. Trial Ex. No. 5366

3087

FF460A 5M 9-46

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

* Based on 1946 purchases.

> in our conversation, they will most likely spread this material over a longer period and thus reduce the quantities which would otherwise have been taken from us in March and April.

In figuring their requirements by using their total cab production, it should be remembered that they are now making the cabs for GMC Truck but are not upholstering them, so that any Chevrolet-Indianapolis figures on cab production would include those for GMC for which we are shipping trim material to GMC at Pontiac.

I understand that Federal Leather are also now "making passes" at this upholstery business and have submitted samples. Cotan has been supplying the light weight headlining material for some time. On the last buy for headlining, Carlen placed the business with Federal (presumably they had a lower quotation than Cotan), but Federal were not notified immediately and when they called for shipments Federal could not supply, with the result that they had to go back to Cotan for additional quantities beyond their contract period.

Government's Exhibit No. 1354

DU PONT

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 11/24/48
Date Typed 11/24/48

Customer Chevrolet-Indianapolis Div., General Motors Corp.
St. and No. 340 White River Pkwy. W. Dr., South
City - Zone Indianapolis 6
County - State Indiana
Persons Interviewed Messrs. Gleason, Carlen, Lowe, Abram and Mertz

B. C. 23
Class 1
Report No. 191
Salesman T. A. Nalle
Date of Call 11/22/48

COPIES TO:

1.	NBG ✓	5.	FLD.
2.	TA	6.	EJB
3.	ALB	7.	
4.	TAN	8.	

1. Associated Companies, Affiliations, Subsidiaries and Branches Part of Chevrolet Division, General Motors Corp.

2. General type of business Manufacturer

3. Products made from our type materials Upholstery for truck cabs and other types of commercial vehicles.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price 1 Quality 2 Service 3

5. Attitude toward du Pont Favorable

6. Our prospects for regular business Excellent

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	L. J. Carlen	Purch. Agent	X
2.	E. C. Mertz	Eng. Dept.	X
3.			
4.			

8. DU PONT SALES (yards)

to Chevrolet Motor Div.	Newburgh	Fairfield
1948 (8 mos.)	547	363,217
1947	80	537,930

9. Other Remarks on Back.

FF4600A-5M-5-47 ☐

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	

E.D. NOV 26 1948

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

Curtain-36" Part 2806524	$.94	U.S. Rubber	Same	20,000
Headlining-48" - Part 3808698 Lacquer finish	.63	Federal	Same	90,000

RESIN COATED FABRICS AND SHEET STOCK

"Fabrilite" 6026-50"	Contr.	Du Pont	Same	475,000
Reddo -50"	"	Goodall	"	120,000
Naugahyde	"	U.S. Rubber	"	120,000
Tolex	"	Textileather	"	100,000

* What is the potential yardage of this firm if raw materials were available?

*Federan	Contr.	Federal	Same	80,000

(over)

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

* Based on 1946 purchase.

gmc 1648

Presented to Mr. Gleason the quotation form due today containing the prices outlined in Mr. Brown's letter of November 18. All prices were not expected to be in for several days. Landers had advised they would come down later in the week to present their figures.

I understand from lobby gossip that a great many firms are quoting on this business. It appears that the Engineering group have encouraged everyone to submit samples in the red combination, who are at all interested in doing so.

U.S. Rubber and Textileather were not sources for the last half of 1948. Every indication points to their making a determined effort to get back in. Mr. Green of Textileather was there during my visit. Also, Goodall, who supplanted them, will undoubtedly try to stay in the picture. Others who have probably put in quotations include Landers, Federal, Cotan and Athol.

As all quotations had not been tabulated, I could not develop any information whatever as to what their trend may be. I told Dan Gleason that I would get in touch with him on Friday, and he later asked me to defer this until Monday or Tuesday as he does not want to make a definite decision until Schwengel of the Engineering Department returns next week, so that he can discuss the situation with him. As you know, Mr. Schwengel has been following the matter of color, etc. very closely. Rather than take any chances on a possible slip-up, I plan to go back down there Monday morning.

The consumption figures for resin coated fabrics are all in the red Spanish, with the exception of the Federan item of 80,000 yards. This is the plain tan color, part 3676052, used on suburban bodies.

Under date of November 1 you made quotations on part 3806524 of $1.12 and on part 3808698 headlining, 48", of $.73. The first price was 18¢ high and the second one, 10¢.

Mertz remarked that they are still getting red-banded material but he could not say in which car this was found. I will obtain more information on this from Schwengel next week. Mertz also remarked that they were going to be extremely critical of the car scheduled to come out this week, as they understood it would contain the new and uniform color match as well as the improved grain. I hope it is good and, if not, that it does not arrive until the contracts are placed. I called

(cont'd.)

DU PONT

SHEET #2

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 11/24/48
Date Typed 11/24/48

Customer Chevrolet-Indianapolis Div.
St. and No.
City - Zone
County - State
Persons Interviewed

B. C. 23
Class
Report No 191
Salesman T. A. Nalle
Date of Call 11/22/48

COPIES TO

1.	5
2	6
3	7
4	8

1. Associated Companies, Affiliations, Subsidiaries and Branches

2. General type of business

3. Products made from our type materials

4. Indicate (in order of importance) firm buys on: Friendship Price
Quality Service

5. Attitude toward du Pont.

6. Our prospects for regular business.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.		Purch. Agent	
2			
3			
4			

8. DU PONT SALES (yards)

Newburgh	Fairfield

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

RESIN COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

What is the potential yardage of this firm if raw materials were available?

FF4600A-5M-5-47 ☐

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

* Based on 1946 purchases.

Mr. Powers on the 'phone and suggested that if it was not loaded, it be deferred a few days as the schedule for the 22nd had now been moved back until the 29th. He reported that it was being loaded and so I suggested that he not hold it up.

In checking over a piece taken from the roll which they have retained and representing the standard recently given us, which is Goodall material, I noticed a smoky appearance and, on creasing, found that it showed a decided bloom. The sample retained here in the office, from the piece sent to Fairfield, does not show it as prominently. You might check the piece at Fairfield and see how it shows up, just as a matter of information.

Also advised Mr. Powers of a new order for 60,000 yards and a new schedule calling for 40,000 yards in January and 20,000 February 7.

Government's Exhibit No. 1355

Received for Typing 7/11/47
Date Typed 7/11/47

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Customer GMC Truck & Coach Div.-Gen.Motors Corp.
St. and No. South Boulevard
City - Zone Pontiac 11
County - State Oakland, Michigan
Persons Interviewed Mr. E. H. Nelson

B. C. 23
Class 1
Report No. 99
Salesman T. A. Nalle
Date of Call 7/8/47

COPIES TO:

1. Newburgh	5.
2. Fairfield	6.
3. ALB	7.
4.	8.

1. Associated Companies, Affiliations, Subsidiaries and Branches Division of General Motors Corporation, manufacturing trucks and coaches.

2. General type of business Manufacturer

3. Products made from our type materials Upholstery for trucks and trim for coaches.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price 3 Quality 1 Service 2

5. Attitude toward du Pont. Very satisfactory.

6. Our prospects for regular business. Good

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	E. H. Nelson	Purch. Agent	X
2.	Fred Hall	Engineer	X
3.			
4.			

3093

8. DU PONT SALES (yards)

	Newburgh	Fairfield
1947 (5 Mos.)	15,084	32,089
1946	10,310	55,226

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards
6200	List	Du Pont	Same	10,000
3000 LBC	"	"	"	2,000
Broken Twill	"	Goodall	"	3,000

E. D.
JUL 15 1947

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

RESIN COATED FABRICS AND SHEET STOCK

6026 "Fabrl."	Contr.	Du Pont	Fairfield	75,000
Naugahyde	"	U.S.	Same	40,000
Redolite	"	Goodall	Same	30,000
6200 "Fabrl."	List	Du Pont	Newburgh	10,000

What is the potential yardage of this firm if raw materials were available? Probably 25% above yardage shown.

5372

Gme 1650

FF4600A-5M-9-46

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

* Based on 1946 purchases.

Delivered Mr. Brown's letter relative to extension of blanket order to Mr. Nelson and discussed it with him. He is satisfied with the arrangement as set forth by Mr. Brown.

Are slowly getting started on new truck production, and have six pilot models on the production line. It will be a month or so before they are in real quantity production.

Government's Exhibit No. 1356

DU PONT

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 1/9/48
Date Typed 1/9/48

Customer GMC Truck & Coach Div.-General Motors Corp.
St. and No. South Boulevard
City - Zone Pontiac 11
County - State Oakland, Michigan
Persons Interviewed Mr. E. H. Nelson

B. C. 23
Class 1
Report No. 2
Salesman T. A. Nalle
Date of Call 1/7/48

COPIES TO:

1. Newburgh ✓	5.
2. Fairfield	6.
3. ALB	7.
4.	8.

1. Associated Companies, Affiliations, Subsidiaries and Branches Division of General Motors Corporation, manufacturing trucks and coaches.

2. General type of business Manufacturer.

3. Products made from our type materials Upholstery for trucks and trim for coaches.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price ___ Quality 1 Service 2

5. Attitude toward du Pont. Very satisfactory.

6. Our prospects for regular business. Good

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	E. H. Nelson	Purch. Agent	X
2.	Fred Hall	Engineer	X
3.			
4.			

8. DU PONT SALES (yards)

	Newburgh	Fairfield
1947 (11 mos.)	18,462	71,145
1946 (12 mos.)	10,310	55,226

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards
6200	List	Du Pont	Same	10,000
3000 LBC	"	"	"	2,000
Broken Twill	"	Goodall	"	3,000

E D
JAN 12 1948

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

JAN 12 1948
A. L. B.

RESIN COATED FABRICS AND SHEET STOCK

6026 "Fabrl."	"Contr.	Du Pont	Fairfield	75,000
Naugahyde	"	U.S.	Same	40,000
Redolite	"	Goodall	Same	30,000
6200 "Fabrl."	List	Du Pont	Newburgh	10,000

What is the potential yardage of this firm if raw materials were available? 20% above figures shown

* Based on 1946 purchases.

FF408A-5M-9-46

USE REVERSE SIDE FOR ADDITIONAL REMARKS. LEFT SIDE AS TOP.

Govt. Trial Ex. No. 1356

5371

3095

5375

I understand the sample of D.C. "Fabrilite" curtain material is en route. It will be delivered immediately upon arrival.

See letter 1/9/48 to Mr. Costello regarding new shipping schedule for part 3676062.

They are planning to use considerable vinyl materials in a new coach, including "Fabrilite" type for side walls and a linoleum type for floor coverings.

They have a very fine new Engineering Building and considerably more laboratory facilities than previously. The laboratory is doing considerable test work but their personnel is quite inexperienced in the procedure for testing coated fabrics. I think it would be an excellent plan if when Dr. Vaala plans a trip in this section of the country, he could arrange to devote a half day to a general discussion of the value of the various tests, methods, etc., with several of the GMC Truck engineering and laboratory personnel. For example, they are using the Tabor abrader and their results are not too satisfactory or dependable. Incidentally, I have never received any information on the Tabor abrader situation covered in the last paragraph of T.R. #164 dated 12/3/47.

I would like very much to get into the heavy duty upholstery situation. Due to the continued scarcity of leather, their consumption of such material will be worthwhile. It is used in the heavier, more expensive truck models. You will recall that we had an order for this in December, 1946, in "Fabrilite" 7140, but could not provide a satisfactory color match. Consequently U.S. have been enjoying this business. I dislike to be continually asking for samples, but I think it is very important to attempt another match (laboratory sample) of their leather color, samples of which were furnished you.

They are now using Naugahyde 52" wide, weighing approximately 60 oz. per linear yard, made on a 11.46 60" duck. Nelson is of the opinion that this is somewhat heavier than actually required. Therefore I suggest that the construction you figure on for the laboratory sample represent Fairfield's idea of the minimum weight coating to provide maximum wearing surface. In other words would the 50 oz. as represented by #7150, 54", provide service equivalent to 60 oz., 52". For my own information and use, I would like very much to be informed as to the minimum weight essential for best wearing quality.

This same information will be useful in endeavoring to get "Fabrilite" specified for coach work. If you have any samples available in the 7150 range in green or any other colors, except the red of which I have a swatch, please send them out. The only heavy green I have received is the "Fabrilite" 6036, and I am sure this will not be considered heavy enough for coach work unless we can give them

DUPONT

SHEET #2

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing
Date Typed

Customer GMC Truck & Coach Div.
St. and No.
City - Zone
County - State
Persons Interviewed

B. C.
Class
Report No. 2
Salesman T. A. Nalle
Date of Call 1/7/48

COPIES TO:

1.	5.
2.	6.
3.	7.
4.	8.

1. Associated Companies, Affiliations, Subsidiaries and Branches

2. General type of business

3. Products made from our type materials

4. Indicate (in order of importance) firm buys on: Friendship ____ Price ____ Quality ____ Service ____

5. Attitude toward du Pont.

6. Our prospects for regular business.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.		Purch. Agent	
2.			
3.			
4.			

8. DU PONT SALES (yards)

Newburgh	Fairfield

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

RESIN COATED FABRICS AND SHEET STOCK

Quality and Width	Price	Manufacturer	Supplier	Yards

What is the potential yardage of this firm if raw materials were available?

FF4600A-5M-9-46

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP

* Based on 1946 purchases.

every assurance that it will do a job equally as good as the heavy Koroseal. Incidentally, I am told that while they started using the heavy Koroseal for coach seats with considerable misgivings, they have not had any complaints whatever, some of it having been in service for over a year.

In line with previous reports and correspondence, vinyl coated fabrics will be used in trimming the interior of coaches, as mentioned in the beginning of this report. I have asked Mr. Brown to investigate the probability of offering a fairly heavy drill, approximately 36" wide, or in the absence of this, a #4024 construction.

Confirming information given Mr. Costello today, he was requested to make a new match (laboratory sample) of the pumpkin color attached to T.R. #164. Our laboratory color FM-3024 - Ink 3031-A was not considered sufficiently close. However, according to a letter dated January 7 from Mr. Mitchell, the laboratory sample tested out quite well for abrasion. Their report is that for 5,000 cycles, using CS-17 wheels and 1,000 gram load, the loss per thousand cycles was .0150.

It is requested that the preparation of this new sample be expedited all possible as the business is to be placed the week of January 12, and I would like to be able to honestly tell them that a sample is being made forthwith.

I have been receiving increasing criticism from a number of the GMC Truck people on our more or less deliberate way of getting out samples and special runs, in general. On some occasions we have come through with excellent service and on others not so good, particularly the vinyl curtain material and matching the heavy duty upholstery about a year ago. They do admit, however, that when we do sell them something the chances are that they will have no trouble with it. This feeling may be summed up as follows: chemically we are fine, but commercially and service-wise some of our competitors out-distance us.

Government's Exhibit No. 1357

DU PONT

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 10/22/48
Date Typed 10/25/48

Customer GMC Truck & Coach Div., General Motors Corp.
St. and No. South Boulevard
City - Zone Pontiac 11
County - State Oakland, Michigan
Persons Interviewed Mr. E. H. Nelson

B. C. 23
Class 1
Report No. 169
Salesman T. A. Nalle
Date of Call 10/18/48

COPIES TO:

1. ~~NBG.~~	5. FLD.
2. TA	6. EJB
3. ALB	7.
4. TAN	8.

1. Associated Companies, Affiliations, Subsidiaries and Branches Division of General Motors Corp., manufacturing trucks and coaches.

2. General type of business Manufacturer

3. Products made from our type materials Upholstery for trucks and trim for coaches.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price 3 Quality 1 Service 2

5. Attitude toward du Pont. Very satisfactory.

6. Our prospects for regular business. Good.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	E. H. Nelson	Purch. Agent	X
2.	Fred Hall	Engineer	X
3.			
4.			

8. DU PONT SALES (yards)

	Newburgh	Fairfield
1948 (8 Mos.)	9,214	51,338
1947	18,462	71,605

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards
3000 LBC	List	Du Pont	Same	1,500

File

~~RUBBER (NATURAL AND SYNTHETIC)~~ RESIN COATED FABRICS AND SHEET STOCK

Fab. 6200		Du Pont		8,000
" 6026		Du Pont		85,000
Naugahyde		U.S. Rubber		35,000
Reddo		Goodall		30,000
Heavy Duty) Naugahyde)		U.S. Rubber		15,000

RESIN COATED FABRICS AND SHEET STOCK

What is the potential yardage of this firm if raw materials were available?

gmc 1652

PF4600A-5M-5-47

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

(over)

* Based on 1946 purchases.

Have been turning out both trucks and coaches at a reasonably satisfactory rate, commensurate with the steel shortage.

The U. S. Naugahyde item shown in the consumption figures includes a small yardage of a special color, used in both the sheeting and 1.12 sateen constructions, for Greyhound coach work. The volume is not large, and the price, particularly on the sheeting item, is quite low.

Submitted a sample of heavy duty material just received from Fairfield, but have not yet been able to get a definite decision from them on it, due to the difference in the grain from what they have been using, and also the fact that the soup color is too dark and prominent. I have asked Mr. Powers to run another small sample if possible, using a lighter soup color, as the combination submitted is not an entirely satisfactory color match.

Government's Exhibit No. 1358

DUPONT

"FABRIKOID" AND RUBBER TRADE REPORT - Correspondent's Copy

COPIES TO: Fairfield

Customer Chevrolet-Commercial Body Div.
St. and No. Holly & Henry Sts.
Town and State Indianapolis, Indiana.
Buyer and Title L. J. Carlen

B.C. 23
Class 1
Report No. 223
Salesman T.A.Nalle
Date of Call 10/16/39

For What Purpose Are Our Products Used? Truck upholstery
Suggest New Uses
Show Assoc's and Other Locations
Rec'd for Typing 10/17/39

NOV 11 1939
E. D

CONSUMPTION PYROXYLIN COATED GOODS - NEXT TWELVE MONTHS

LIGHT (Inclusive: Sheetings - Clear Coating - Coated Paper)						HEAVY (Inclusive: Drills - Twills - Sateens - Moleskins)					
Quality	Width	Price	Manufacturer	Bought From or Supplied By	Approx. Normal Annual Cons.-Yds.	Quality	Width	Price	Manufacturer	Bought From or Supplied By	Approx. Normal Annual Cons.-Yds.

CONSUMPTION RUBBER COATED GOODS - NEXT TWELVE MONTHS

						Headlining Sheeting	40"	Contract	Landers	D.S.	50,000
6130	50"	Contract	Du Pont	D.S.	400,000						
Reddo	50"	"	L.C.Chase	"	4,000	Curtain Material	36"	Contract	Landers		15,000
Headlining Drill	50"	"	"	"	1,000						

CONSUMPTION - OTHER FABRICS, COMPETITIVE IN USE, - NEXT TWELVE MONTHS

1. COMPETITION: Specific reasons for purchase - any new competitive activities or products bought since last call? Did you secure samples?

2. DU PONT: Favorable comments, criticisms or complaints of our prices, policies or products.

3. ECONOMIC OUTLOOK: Customer's outlook on business next three months.
a.-Percent capacity operating, at this call.
b.-Any new, regained, or lost business to report, since last call? Give specific reasons for change and tell competitors affected

4. What assistance can organization give you prior to next call?

5. Report change in firm name, address, purchasing agent, class, mailing list.

GENERAL: Each report should show continuity of effort from last visit, as well as purpose, results and needed action of call.

Answer completely each call questions 1, 2, and 3 - General remarks to follow - Separately for Newburgh and Fairfield Products.

PERSONS INTERVIEWED: (Other Than Buyer) Messrs. Baldauf and Miller.

1. Landers supplies a very cheap sheeting which is entirely satisfactory. Also were low on curtain stock. Chase were lower than we were on the recent olive drab inquiry. We were third. In addition to Chase, Landers were low. I do not believe Cotan, now represented by Mr. Scott, formerly with Chase, was seriously considered.

2. No comments.

3. Very busy and do not look for any decrease in production.

3-A. Estimated 90%.

3-B. See I

4. Baldauf gave me the attached piece of olive drab from last Chase shipment. You will see our color submitted 10/9 is very different. Their specification call for this to match "Dulux" color 94-2870. I am arranging to obtain a panel of this color and will forward it to Fairfield for consideration. Baldauf feels it would be desirable to have this question of color standardized. Incidentally, they have had trouble with the Chase material because of color variation.

GENERAL: Refer to Mr. Brown's letter 10/10. I advised Mr. Carlen that for his current requirements contract we had covered on sufficient raw materials (over)

USE REVERSE SIDE FOR WRITING OR TYPING ADDITIONAL REMARKS
(Use Left Side As Top)

Form FF4600 15M Sets-11-38 ☐

Govt. Trial Ex. No. ________

to supply 185,000 yards of "Cavalon", which is about 12% more than the 165,000 used to January 1st for the 1939 model, and that if needed, we could obtain an additional 75,000 yards by January 1st, 1940, which quantity would represent an increased cost of seven cents per yard. Also pointed out that we could not handle all of the 305,000 yards, representing total orders received including the last one for 118,700 yards to be held in raw materials, because it would not be possible to obtain this much cloth; costs were up seven cents, and it did not appear this much would be needed for production. Carlen replied he did not know just how much would be needed. That Mr. Kroner, Material Supervisor, had made an estimate on steel, and he would have him make one on "Cavalon". This worked out to 64,000 yards above the 147,000 yards already released. This makes a total of 211,000 yards. I asked Carlen how he would feel about being asked to pay 7¢ additional on 26,000 yards, representing the additional above the 185,000 originally covered. His reply was that he would not mind being asked, but he felt there was very little chance of our collecting. Obviously, such matters would have to be decided by higher authority. He pointed out that Kroner's figure of a total of 211,000 yards was only a guess. I told him that we had to have something definite and would consider this figure the maximum and would prepare to supply this quantity. Miller will send in a schedule releasing 16,000 yards each November 13th, 22nd and December 1st, 11th. This will cover all the balance of order 71048 not yet scheduled and 25,800 yards of order 71265 for 118,700 yards, leaving a balance in this order of 92,900 yards.

Carlen remarked that where prices on a new contract would be higher, Mr. Klansmeyer, local Manager, might want to bring in by the end of year the entire quantity ordered and store it. He agreed that this would not be in keeping with the spirit of a requirements contract. Where sources cannot deliver the entire quantity ordered such as the 92,900 yards above, they will probably cancel such quantities not actually needed.

Inquiries for next year will be sent out late this month, and he expects to have all new contracts closed by December 1st.

The use of cord welt runs about 3 yards to one of "Cavalon" and I figure one yard of "Cavalon" will produce 45 yards of welt. Miller estimates total welt requirements will be 352,000 yards.

Government's Exhibit No. 1361

EXCERPTS FROM AUTOMOTIVE PRODUCTS TRADE REPORTS

Fisher Body Corporation

Salesman	Date of Report	
R. K. Cathcart	1-7-26 (GMC 1685)	1. [Customer's complaint] Mr. Wilson not thoroughly satisfied with our primer. He feels it ought to be bodied up a little. He feels that it is really too light a product for best results. Therefore, Flint wants to body up this Primer and maintain the same sheen and drying time as the present product. 2. [Are competitors' products satisfactory?] Not entirely. They see no advantage over our 1012. 3. [Why customer buys from competitors] To satisfy themselves whether Acme Black is as good as it has been pictured to them.
R. K. Cathcart	1-8-26 (GMC 1686)	Ran some experiments with 1525 and 1526, both thinned two parts of Duco to one of Thinner. 1526 did not look a bit good. It had numerous particles of foreign matter which looked like unground pigment. This did not polish any better than our 1012 Black. 1525 seemed to lay flatter, but was not sufficiently smooth to polish without a sanding operation.
R. K. Cathcart	1-25-26 (GMC 1688)	Production 200 a day. Mr Wilson says Acme Black goes further in as much as they can use it - Black 40 parts to Thinner 60 parts. He also approved 207412 Black. I am having a drum of 6979 Oxide Primer shipped up to this plant for trial in as much as Mr. Wilson is not satisfied with 6974. Mr. Wilson requested we make up Farrie Red, Ivory, our Flint #67 and Acme Pistachio Green in Pyroxylin striping colors. Mr. Cross is not satisfied with our deliveries. We had better step on these before some one beats our time.

Salesman	Date of Report	
R. K. Cathcart	2-4-26 (GMC 1690)	1. [Customer's complaint] Primer 6974 not satisfactory. Trying 6979 2. [Are competitors' products satisfactory?] Yes. 3. [Why customer buys from competitors] For trial and they state it goes further than Duco. 9. Production 211 a day. Primer being tested this week. Rubbing Compound shows no advantage over what they are using.
G. E. Branham	2-1926 (GMC 1689)	Are still running Acme Black. Cross said they were showing a saving in material cost. Acme Black $3.85; Acme Thinner $1.60. He could not prove this with his own figures for Duco and 3614 over whole body showed a saving of approximately 15¢ per body. They have no 3614 in Lansing, but it is posted for their first Thinner order. There is more and more pressure being put on, use of Acme from Detroit.
G. E. Branham	3-4-26 (GMC 1692)	R. C. Williams: Send five gallon sample same Primer used at Pontiac marked attn: "C. [illegible] Cross." When new Duco Black is ready advise me as Cross will order same. Using V. E. P. Striping color. Says Duco Striping sent recently is not nearly so good in working, covering, etc. as V. E. P.
R. K. Cathcart	3-29-26 (GMC 1663)	Bowling Green situation unchanged. They are still using R & M thinner and getting by with same. I feel that something should be done so when one of our customers start using this green and similar colors in case of a repetition of pitting we will be able to offer some assistance. Right now the only thing we

Salesman	Date of Report	
R. K. Cathcart (Cont'd.)	3-29-26 (Cont'd.)	could offer would be R & M Thinner. A condition like this is serious in as much as other Fisher units experiencing anything like this will immediately start using a competitive thinner. This plant is now running 540 a day. Scheduled for 600 in May.

Government's Exhibit No. 1362

EXCERPTS FROM PLASTICS DEPARTMENT - INDUSTRIAL DIVISION MOLDING POWDER TRADE REPORT

Inland Manufacturing Co.

Salesman	Date of Report	
Mack	1-9-41 (GMC 1718)	1 - 7 - We are out here because our powder fails to pass their specifications: while Celluloid Company does pass, it doesn't as consistently as does Eastman, moreover they have greater molding difficulties with Lumarith. Consequently they are using Tenite exclusively and I have so shown the consumption for the year 1941 and will keep it so till we get an approved powder.
Mack	3-24-41 (GMC 1719)	1 - Production sample rejected a/c failure to pass cold box. This is 19135. Production (KF-844) is standing up best of all I should say, tho I'm sure they will insist on a test of further quantities of it and from production molds before approving and this because present test shows it somewhat critical from both cold break and humidity standpoint. Research 5156 failed cold box and humidity and is rejected. 2 - Research both failed in humidity but stood up in 4 cycles in cold box and probably will stand up through 5th cold box. Despite failures in humidity they are continuing thru 5th heat and cold box test.

* * *

Regarding colors: - The four colors mentioned in Stu Miller's report #89 came in today. However, it seems that Inland have some information direct from Cadillac that they prefer Lumarith 0-4188-N or Plastacele K-26007. I don't know just what is meant by this or from whom in Cadillac it came. Are you sending Inland any K-26007. If not, I suggest you do.

* * *

Salesman	Date of Report	
Mack (Cont'd)	3-24-41 (Cont'd)	Oldsmobile: Our K-46092 very close to Lumarith O-5222-K. It's a trifle lighter i.e. should have a trace more tan in it, Shroyer believes. It's very close but I suggest we take another crack at it. For my information, is K-46092 a new development or is it our production of 1941 Pontiac? The '42 Olds. is the '41 Pontiac. * * * KF-884-A 1 wheel failed in initial cold 5 wheels passed 4 complete cycles. slight unmolding in humidity test. M-5155 6 wheels passed 4 complete cycles in last cycle O.K. Failed in Humidity test. M-5156 Rejected for cold test. Unmolded in humidity test. M-5157 6 wheels completed 4 cycles O.K. Failed in Humidity test.
Mack	3-26-41 (GMC 1720)	While I haven't much hope for KF-884, except should an emergency occur, I think since its performance was not too bad, that we should send out more of this powder (25 pounds) for further tests in production. Since KF- is standing up in 4 cycles, and the two Research ones are too, with the exception of humidity, I'm of the opinion there will be no change in their status thru the 5th and last cycle. I base my contention that KF-884 won't do on the fact that they have now a competitive product that is much better. KF-884 is obviously too critical to compare with Tenite which passes their specifications with ease. I simply suggest additional powder to keep up the action and to serve

Salesman	Date of Report	
Mack (Cont'd)	3-26-41 (Cont'd)	as a breathing spell until we have some modification of the two research developments. These showed up well in the cold box but poor on humidity. Possibly we could cut down on cold resistance and build up against water sensitivity. Since KF-884 much better than 19138 I'd like to see us go further than we did on KF-884 if possible. I'm afraid, despite Dr. Flower's altruistic view, that price will stop us on higher cost Research types. In closing I want to repeat what I've said many times before: we've got to get busy and keep busy if we want to get back in here. It's been over six months since I've been able to solicit business here.
Mack	4-24-41 (GMC 1721)	Both Shroyer and O'Brien feel we are premature in our efforts to obtain the information about Inland's requirements. Were we on the approved list or even nearing such a stage your request would be a natural. What they feel is more vital to us is a genuine effort to develop a material as good as Tenite. To be frank, our seeming lack of interest, and by this I mean two submission in 6-7 months has, I feel, aroused their suspicions we are not greatly interested and I had to do some fast talking to Doc Flower et al following receipt of your letter, to convince them, otherwise. I have no comment from you on my last several Trade Reports reporting results on latest tests run, tho I asked for them: no word of any further steps being taken by Plant or Research to eliminate shortcomings of our last developments; no follow up in a personel way by Quinn or any other member of Research Department to see and check results of the tests run at Inland. To sum it up briefly and directly to the point, no nothing since Joe Quinn stepped on the spirit some 6 - 7 weeks ago to return to Arlington. I follow up color submissions but truthfully I can't get too excited about them. Nor could anyone else in my opinion with the lack of encouragement I'm getting that we are making

5388

Salesman	Date of Report	
Mack (Cont'd)	4-24-41 (Cont'd)	anything like an "all out" effort to develop a material that will pass their molding specifications. Matching colors, you must realize yourself, is of no avail to us, and by this I mean no business to us will result unless we pass the material specifications and after all it's business we are after. To illustrate: We are approved for color in fact selected on Pontiac. Eastman will match and secure the business and we'll get nothing but the glory of having our color originally selected. I realize it would be an advantage to have color approvals now so we could jump right into production when our material passed the specifications, but, at the slow pace we are traveling in this latter regard, we should not worry too much about color approval. I don't feel it's necessary to send Monroe out: the color situation is this: Buick - we have not matched; redevelopments will be molded Monday - I'll report Wednesday in the throes of a change; going to Lumarith 05583 from 0-5222K. Pontiac is ours so fas i.e. 26084. Inland has just sent a raft of colors to Cadillac. I've expressed verbally and in reports and letters what I think should be done to secure a material approval and once we get this I feel sure I can get not only the desired information but a fair share of the business.

Government's Exhibit No. 1363

EXCERPTS FROM INDUSTRIAL SALES TRADE REPORTS
FINISHES DIVISION

Packard Electric Co.

Salesman	Date of Report	
W. P. Fisher	1-9-36 (GMC-1722)	1a. [Why does customer buy from competitors (quality, service and price, etc.)?] All three.
		* * *
		B) Our black X-700-753 looks good. Our slow manufacturing service and distance are serious handicaps to us. They are now awaiting 2 dr. order. If this works O.K. we will get a real order. Littman is also interested in the same thing at lower solids and same or higher viscosity along lines of my letter of last week. He will order a drum for trial as soon as we advise him code number. My idea is to get some business on X-600-753 at $2.10 and at same time to start them testing a lower solids at same or higher viscosity to be supplied at a price close to the competitive price of $1.90.
W.S.Robertson	4-28-36 (GMC 1728)	A) With W. P. Fisher to follow up tests on low tension cable lacquer mixtures.
		B) The results are still not satisfactory, although the increased ratio of oil to PX made a very definite improvement. However, the cable still shows a white cast in the crevices of the braid due to bubbles and has a rough feel. Further mixes are being made in which small quantities of butyl acetate have been added to help eliminate the bubbles and get better flow.
		* * *
		Dibolt has hinted that we are going to have to watch our prices on these high tension lacquers. There is nothing definite but in preparation to a serious discussion of this subject in the near future please ask Parlin for the theoretical as well as the maximum and minimum solids limits on both the clear and black.

Salesman	Date of Report	
W. S. Robertson	5-5-36 (GMC 1729)	1(a) [Why does customer buy from competitors (quality, service and price, etc.)?] All three. DuPont usually given break on equal basis. * * * B. Litman phoned me that our X-600-809 Black H.T. cable lacquer was causing bad sleeving because of its very high viscosity. This trouble was encountered on one of the last three drums of batch 446081 - MOC - 110531. Apparently this condition was not caught until about 15,000 feet of cable had been run. This cable will now have to be reworked because of its poor appearance. When this condition was reported to Litman he immediately took down the drum in use and ran a viscosity which was 3 minutes 47 seconds at 76° F in a Gardiner Mobilometer. He immediately got a sample of a drum in our last shipment and found it to run 2 minutes 16 seconds at 70° F. Because the viscosity was so high he did not try this material in regular production. This was batch 426126 - MOC - 108370. Complete details are covered in a memo to Parlin, copy of which is attached. They are rejecting the 16 1/2 drums of our material which they have on hand. It is being held pending the outcome of our investigation.
W. S. Robertson	5-13-36 (GMC 1731)	What appears to be a complaint on our clear high tension cable lacquer, has now developed. The sales department are complaining about the non-uniformity of color on the cable finished with our clear. From an examination of the

Salesman	Date of Report
W. S. Robertson (Cont'd)	5-13-36 (Cont'd)

samples of cable and of the lacquer film stripped from the cable, it looks as though the dye was left out, or partially left out of some of our clear. Three samples of cable showing this are being sent you under separate cover. They are:

1. Thick cable showing the light color which is unsatisfactory and about which they are complaining.

2. Thick cable showing dark color desired.

3. Thin cable showing dark color desired. This cable was finished with X-600-679 Batch 431563 MOC 108163.

They are unable to tell what batches were based on the first two samples. It was our lacquer, because they have not used any competitive clear.

* * *

DeBolt said he felt the price of our clear was too high. He admitted that a clear would cost more than a black, but felt that at $2.00 our clear was out of line. He said this before any discussion of a reduction in price on the black took place and he was apparently basing his contention on lower competitive quotations on black. I believe that it will be necessary for us to maintain a ten cent differential on the clear and that he will force us to reduce our price to $1.90 just as soon as a second source of supply is approved. At present we are the only approved source, but the recent trouble on both the black and the clear, will speed up the search for a 2nd source. There is nothing to force us to reduce our price now, except the unfavorable psychological reaction of holding our price up until he forces us to go down to a ten cent differential over the black by a second approved source on clear.

Salesman	Date of Report	
W.S. Robertson (Cont'd)	5-13-36 (Cont'd)	Up until now, DeBolt has been buying trial lots from various suppliers (this refers to black). It is his intention to discontinue this as soon as possible and line up about two regular suppliers on both clear and black and give them future dated orders to work on. He saidtoday that he would be perfectly satisfied to have us start manufacturing ten drums just as soon as he releases ten drums, even though we don't have a formal order. We can adopt this practice on both clear and black until he gets squared away on his plan to issue future dated orders.
W.S.Robertson	6-17-36 (GMC 1735)	I could make little headway with DeBolt on the possibility of increasing his takings of black, other than his admission that he was trying to squeeze us further on price. * * * Had a few minutes with Litman before closing time and learned that the Black High Tension Cable Lacquer situation is all up in the air again. Belden is selling a Black H.T. cable which is far superior to the Packard Cable in heat resistance and their sales department is raising an awful howl. The Belden cable (imprinted "77 Belden 77" in orange) will stand eight hours at 300 deg. F. without cracking around a half inch mandrel. It also resists decomposition better in a crude test which Belden is promoting. This test consists of putting a 100 watt light bulb in a small cardboard box and suspending samples of cable to be tested about 1/2 inch from the bulb. Litman says our finish decomposes very quickly whereas the Belden cable does not. The Belden cable also has satisfactory cold crack resistance. While X-600-213 is not good in this respect I urged Litman to test it because of its heat resistance. I am sending you a small piece of Belden cable which should be sent to Parlin. I will try to get more on my next visit. Someone has already offered Packard a lacquer approaching the quality of the Belden finish but it is somewhat difficult to dry. We are

Salesman	Date of Report	
W.S. Robertson (Cont'd)	6-17-36 (Cont'd)	going to have to move fast in doing likewise for there is no question in my mind but what Packard will be using a more heat resistant finish in the near future.

Government's Exhibit No. 1364

[5394]

EXCERPTS FROM AUTOMOTIVE PRODUCTS TRADE REPORTS
FLINT PLANT

Olds Motor Works

Salesman	Date of Report	
Frank Hamaker	12-7-26 (GMC 1695)	1. [Customer's complaint] They are contemplating putting through a test of Donahue's and R. A. Becker Fender Enamels. Their complaint regarding ours is that it does not cover solid enough or fill good enough. Donahue's Salesman (Mr. Ed. Farr, formerly of the Flint Motor Co.) claim they can give them a better job than we can. Am trying to arrange for test of our new rubber coat.
		* * *
		3. [Chief reasons why customer buys from competitors] Both Price & Quality.

Government's Exhibit No. 1365

5395
[5395]

EXCERPTS FROM AUTOMOTIVE PRODUCTS TRADE REPORTS
FLINT PLANT

Cadillac Motor Car Co.

Salesman	Date of Report	
G. E. Branham	1-15-26 (GMC 1705)	Wheels in F-6402 and FP-4230 are ready for inspection. F-6402 and FP-4230 sent here will not air dry in 36 hours or anything like it. They were given same drying time as Demming Primer and Acme Lead - 24 to 36 hrs. at 100, then 2 or 3 days A.D. Said our Lead Ground finer than Demming and thought did not fill quite as good. After wheels were given FP-6764 Surfacer they were reputtied on this account four sets of wheels given four coats Duco, last coat one part 1838 to 1 part Duco and 4 sets 1838 tinted with Duco. This brought gloss to approximately that of high polished Duco job. These wheels will have both roof and road test. #7 Polish Looks as though Warner, Mgr. Parts Dept., had stopped the idea of putting #7 Polish in Cadillac cars. His objection being it will interfere with Parts Dept. sale of Isis Polish.
Louis Adams for G. E. Branham	3-2-26 (GMC 1714)	Called at Cadillac today, talked with Larry Keho and Mike Stone. They informed me that everything was O.K. except one thing and that was about special Duco colors. For instance, they order Ditzler's Victoria Blue D.D. We match it and we call it Alexandra Blue D.D. They send an order to the Paint Shop to paint a certain body with Ditzler's Victoria blue D.D. They don't say Alexandra Blue D.D. There are two ways that we can make users of special colors satisfied and contented. First to educate the purchasing department in the different plants to make their orders read with our names when ordering and send same name to paint shop instead of the name of the color we are matching. Or let us put their name on our label, but use our numbers. What difference does it make whether its Valentine's, Ditzler's,

Salesman	Date of Report	
Louis Adams for G. E. Branham (Cont'd)	3-2-26 (Cont'd)	Reams etc. Blue so long as the DuPont oval is above? Whats a little name or two in our sweet young lives?

Government's Exhibit No. 1366

EXCERPTS FROM SALESMAN'S TRADE REPORT
RUBBER CHEMICALS DIVISION

Inland Manufacturing Division, GMC

Salesman	Date of Report	
R. B. Appleby	7-5-49 (GMC 1740)	2. Neozone D is principal antioxidant for regular work. Antox has been dropped when rubber replaced by GR-S in windshield stripping. Staining important in a lot of their work and use AgeRite Alba in refrigerator strip and AgeRite White in windshield strip. Also working with Ionol and also trying Deenax, a new Enjay antioxidant, of the non-staining type. 3. Using some RPA #2 but volume off also because of GR-S replacing rubber. Use a little RPA #5 in GR-S. * * * 9. Business is still good here and expected to be as long as automotive industry stays good. Christensen said he saw today the Government was suing us as a trust and to split the two of us apart. Said their purchases would show no favoritism to du Pont as F & F Department has had no business this year except a little maintenance on former jobs and Pigments Department gets no TiO_2 as others took care of them during War and will keep the business. Our division is doing OK but even so competitive items are split though we do get best part.

Government's Exhibit No. 1367

EXCERPT FROM THE MONTHLY REPORT OF THE
CELLULOSE PRODUCTS DEPARTMENT TO THE
EXECUTIVE COMMITTEE FOR APRIL, 1922,
DATED MAY 15, 1922.

-14-

* * * *

PRICE POLICY - COMPETITION:

Conditions are generally the same as outlined in the previous months of this year, namely, a continued necessity for making special prices to meet low competitive quotations.

As pointed out in last month's report, it has not seemed wise to meet the very low prices being quoted on Rubber owing to the fact that General Motors business has been enabling us to run Fairfield at a fair rate, but this condition may change unless General Motors orders continue as in the past.

In view of the greater volume of business for Fabrikoid, largely brought about with by the business given us by the General Motors Co. with resulting lowered costs, (with the prospect of being able to maintain these costs for some time to come) it was thought advisable to give General Motors a revised price on the qualities of Fabrikoid so affected. This was done the latter part of April with credits on all such business shipped since April 1st. This had a very good effect upon the General Motors units, and while it has not been possible to date to give them a similar advantage on rubber, should conditions warrant the same policy will be followed.

* * * *

Note: Handwritten word "Good" appears in lefthand margin opposite third paragraph.

Government's Exhibit No. 1368

EXCERPTS FROM THE PAINT, LACQUER AND CHEMICALS DEPARTMENT MONTHLY REPORT TO THE EXECUTIVE COMMITTEE FOR NOVEMBER, 1926, DATED DECEMBER 23, 1926

FAB-2

* * * *

FAIRFIELD BRANCH:

Sales.

FAIRFIELD BILLINGS COMPARISON - DOLLARS

	November 1926	October 1926	Jan.-Nov. 1926	Jan.-Nov. 1925
Carriage Cloth - GMC -	$163 816	$98 902	$1 863 973	$877 028
" " - All others	58 615	62 422	670 570	644 318
Specialties - Ventube	19 750	9 674	177 091	158 924
" - All others	84 341	151 801	1 030 925	473 374
Export - All products	41 988	70 035	579 236	652 729
Total	$368 510	$392 834	$4 321 795	$2 806 373

* * * *

FAB-5

Prices and Competition. We have additional reports of extremely low prices made by Cotex, Federal Leather, Masland and Duratex to automotive trade, their prices on volume business in some instances being lower than our average factory costs. We are watching this competition very closely but have not yet been obliged to break our general prices materially, although it is apparently becoming more serious and giving us more concern. The Duratex Company are becoming one of our most disturbing competitors on leather substitutes, and the evidence would indicate their willingness to take business at almost any price they can secure.

* * * *

Government's Exhibit No. 1369

Harry A. [illegible]

EXCERPTS FROM THE MONTHLY REPORT OF THE CHEMICAL PRODUCTS DIVISION TO THE EXECUTIVE COMMITTEE FOR FEBRUARY, 1927, DATED MARCH 22, 1927.

CP-4

* * * * *

The principal increase occurs in sales of colored Duco and Thinner to automobile manufacturers and a noticeable increase in sales to the refinish trade. Sales of pigmented Duco to automobile manufacturers amounted to 138,182 gallons of which 81,798 gallons represent sales to the General Motors group, as compared with January sales of colored Duco of 100,693 gallons of which 61,827 gallons were sold to General Motors units.

* * * * *

CP-5

Total sales of colored Duco during the month of February amounted to 215,000 gallons, distributed by industries as follows:

General Motor units	39%
Other Motor manufacturers	27
Automotive refinishers	15
Railroads	1
Furniture manufacturers	8
General Industrial	8
Export	2
	100%

* * * * *

Increases in sales of Parlin Chemicals other than Duco occur in both the decorative and non-decorative lines. In the decorative line the increase is caused chiefly through unusually heavy purchases of Engenamel by a number of regular customers, notably Chevrolet and Oakland Companies.

Government's Exhibit No. 1370

EXCERPTS FROM MONTHLY REPORT OF THE
AUTOMOTIVE FINISHES DIVISION TO WILLIAM
RICHTER FOR MAY, 1931, DATED JUNE 13,
1931.

* * * * *

DIVISION OF SALES TO AUTOMOBILE MANUFACTURERS

	May 1931	Percent	April 1931	Percent
General Motors	$542 632	81.0	$513 966	78.0
Other Auto Mfgrs.	125 919	19.0	144 611	22.0
Total	$668 551	100.0	$658 577	100.0

* * * * *

AF-2

AUTO MANUFACTURERS - General Motors

May sales to General Motors were $542,632 compared with $513,966 in April, 1931, an increase of $28,666, or 5.6%. Sales were lower to Fisher Body and Buick but these reductions were more than off-set by increased purchases by the other units, principally Chevrolet.

* * * * *

AF-3

Other Auto Manufacturers

Sales to "other Auto Manufacturers" in May were $125,919 compared with $144,611 in April, 1931.

* * * * *

AF-4

June sales to "Other Auto Manufacturers" are estimated at $100,000 compared with $125,919 in May, 1931.

Government's Exhibit No. 1371

EXCERPTS FROM MONTHLY REPORT OF THE FINISHES DIVISION FOR DECEMBER, 1932, UNDATED.

5402

* * * *

-2-

AT
R

GENERAL MOTORS

December sales to General Motors were $370,463 compared with $158,459 in November.

* * * *

-3-

OTHER AUTO MANUFACTURERS

Sales to Other Manufacturers were $23,709 in December compared with $17,462 in November.

* * * *

Government's Exhibit No. 1372

EXCERPT FROM THE MONTHLY REPORT OF THE FABRICS AND FINISHES DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR AUGUST, 1935, DATED SEPTEMBER 20, 1935.

-6-

* * * * *

AUTO MANUFACTURERS

	August 1935	July 1935	To-Date 1935	To-Date 1934
General Motors	$319 924	$670 948	$4 957 279	$4 229 642
Other Auto Mfrs.	195 967	161 668	2 973 597	2 012 527
Total	$515 891	$832 616	$7 930 876	$6 242 169

* * * * *

5404

EXCERPT FROM THE MONTHLY REPORT OF THE FABRICS AND FINISHES DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR JULY, 1946, DATED AUGUST 23, 1946.

* * * * *

-1-

Most of our automotive and industrial customers are increasing production at a rapid rate and their current finishes requirements are greater than at any time since the end of the war. Despite all our efforts, we may not be able to supply the full requirements of customers in the automobile and refrigerator industries and are reconciled to falling far short of satisfying the demand in the other branches of the business, due to the scarcity of raw materials.

* * * * *

Government's Exhibit No. 1374

5405

EXCERPT FROM THE MONTHLY REPORT OF THE FABRICS AND FINISHES DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR MAY 1947, DATED JUNE 27, 1947.

* * * * *

-2-

SALES - May dollar sales were 14% under the record month of April and 6% below forecast. This was entirely the result of a 30% decline at Fairfield due partly to deferments on the shipment of existing orders from important customers and partly to our inability to complete some substantial orders because of delays in receipt of cotton textiles. Russell business continued subnormal, reflecting the lethargy in the shoe industry. There is little likelihood of any substantial improvement until fall.

* * * * *

Government's Exhibit No. 1375

Excerpts from Annual Competitive Report (1935), dated March 5, 1936, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

Total Finishes Division sales for 1936 are estimated at about the 1935 level; an increase of $2,000,000 (10%) in sales exclusive of automotive finishes being offset by a decrease in automotive of 17% due to the adoption of new formulas by General Motors, which greatly reduces their requirements for thinners, and to the fact that the Ford Motor Company will manufacture a larger percentage of their own requirements.

* * *

The decline in our position in rubber fabrics for automotive industry is due to General Motors' adoption of all-steel top for all their models except the standard Chevrolet, while other manufacturers whose business goes to competition have not abandoned fabric tops to the same extent. Further declines in available business from this field are expected as all-steel tops become more generally adopted. . . .

* * *

Government's Exhibit No. 1376

Excerpts from Annual Competitive Report (1936), dated March 24, 1937, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

Automotive

Requirements of finishes by automobile manufacturers in 1936 exceeded 1935 by approximately 10% and our sales gained only 1%. This served to lower the duPont participation in the automotive industry's total requirements from 50.3% in 1935 to 46.6% in 1936. The change was not caused by loss of business to competition but through the following circumstances:

1. The Ford Motor Co. in 1935 and until June 1936 manufactured 50% of their requirements of synthetic resin enamels and purchased the other half from us. In the last seven months of 1936, Ford manufactured 75% of their requirements and purchased 25% from us.

2. An improvement in the quality of Duco sold to General Motors decreased the quantity of Thinner used per car.

3. Reductions of $350,000 in selling prices were effected in 1936 versus 1935.

* * *

In 1936 other automobile producers followed General Motors' earlier adoption of all-steel tops. This further reduced the available business in the automotive section of the rubberized fabrics industry.

The almost universal adoption of the turret top for the 1937 automobile models will eventually result in elimination of the remaining replacement business on top material from jobbers.

* * *

Government's Exhibit No. 1377

Excerpts from Annual Competitive Report (1937), dated March 23, 1938, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

Automotive

Requirements of finishes by automobile manufacturers in 1937 exceeded 1936 by 8%, and our sales gained only 3%. This served to lower duPont participation in the automotive industry's total requirements from 46.6% in 1936 to 43.8% in 1937. The change was not caused by loss of business to competition but thru the following circumstances:

1. The Ford Motor Co. until June 1936 manufactured 50% of their requirements of synthetic resin enamels and purchased the other half from us. During all of 1937, Ford manufactured 75% of their requirements and purchased 25% from us.

2. Loss in competitive position by General Motors, (Principal sales outlet of this Division) in 1937, their production showing but a 3% increase over 1936, as compared to an industry increase of 8%.

* * *

The adoption of turret tops by the automotive industry has reduced outlets in this field largely to jobbing, replacement business and sales of winterfront materials. DuPont's sales to the automotive industry in 1937 were $721,300; aided by sales of Cavalon, an upholstery material for commercial cars and trucks, replacing pyroxylin materials. Principal competition in this type material is the U.S. Rubber Company with "Naugahyde" and the L. C. Chase Company with "Redo."

Government's Exhibit No. 1378

Excerpts from Annual Competitive Report (1938), dated March 9, 1939, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

The reduction in the Department's composite percentage of total business resulted in general from customer requirements declining to a greater extent in those industries from which we secure a large share (35% to 80%) of the available business than in the industries where our participation is relatively small (3% to 35%). There were no actual losses of importance in individual markets, the 1937 positions being either maintained or bettered in practically all lines.

* * *

Automotive

Finishes Division sales of $6,482,900 to automobile manufacturers in 1938 were 49% less than in 1937 and as total requirements by the industry decreased 52%, our participation increased to 46.5% from 43.8% in 1937. The improved position resulted from:

(1) Gain in competitive position by General Motors (principal sales outlet of this Division) in 1938, their production decreasing 43% from 1937, as compared to a reduction of 47% for the industry.

(2) Lower dollar sales per car by competitors due to several automobile manufacturers (De Soto, Dodge, Chrysler and Nash) changing from lacquer to synthetic resin finishes. The reduced sales occur through partial elimination of thinner and lower prices per gallon of synthetic finishes versus lacquer.

(3) Securing a larger share of Nash, Studebaker and Oldsmobile requirements of finishes.

* * *

Fabrikoid -

Sales of pyroxylin coated fabrics by the Fabrikoid Division are 30% under last year. Sales by the entire industry decreased 23%, resulting in the duPont position decreasing to 23.0% in 1938 from 25.2% in 1937. The main causes for the loss in position in this field are:

(1) A switch by General Motors Corporation from pyroxylin coated products for automobile truck seats, etc., to rubber coated upholstery, "Cavalon," a Fairfield product. Other automobile manufacturers are still using pyroxylin coated materials supplied by our competitors.

(2) A trend in the market for pocketbook materials from high-grade pyroxylin coated fabrics to a cheaper product manufactured by Columbus Coated Fabrics Co. and Taunton Coating Mills, Inc., consisting of fabrics coated with drying oil or a combination of drying oil and pyroxylin in patent leather finish. DuPont has led in this field with the synthetic resin finish material, "Super-Flex," which is of higher quality and cost.

(3) Refusal to meet low competitive prices on several miscellaneous items. A great many cases were encountered where competitors were quoting prices less than our replacement cost.

* * *

Government's Exhibit No. 1379

Excerpts from Annual Competitive Report (1939), dated March 12, 1940, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

Automotive

Finishes Division sales of $8,363,000 to automobile manufacturers in 1939 were 29% above 1938 and as total requirements by the industry increased 42%, our participation dropped to 42.1% from 46.5% in 1938. The changed position resulted from:

(1) Ford Motor Co. inaugurated a policy in the latter part of 1938 of discontinuing all purchases from General Motors and the latter's affiliates, which from their point of view includes the duPont Co. This action resulted in 1939 sales of finishes to Ford decreasing $834,000 from 1938, no shipments having been made to them since January 1939.

(2) During the latter part of 1939 several General Motors plants switched to new formulations of Duco and thinner developed in our laboratories. These improved compositions permit application of the desired film thickness with fewer spraying coats than heretofore required, resulting in lower thinner usage. This change had the effect of reducing sales of thinner to General Motors in 1939 by $272,000, which amount also represents the savings from this development in General Motors' finishing costs. The reduction estimated for 1940 is $700,000.

(3) Partially offsetting the losses explained in (1) and (2) above, new business aggregating $130,000 was secured from Ternstedt Mfg. Co. The supplier displaced was Ferbert-Schorndorfer.

* * *

Fabrikoid

Sales of pyroxylin coated fabrics by the Fabrikoid Division in 1939 were 19% above 1938. Sales by the entire industry increased 20%, resulting in our position decreasing to 22.7% in 1939 from 23.0% in 1938. The main causes for the small loss in position in this field are:

(1) For the past two years General Motors Corp. has been gradually switching from pyroxylin coated products for automobile truck seats and some of their other upholstery requirements to rubber coated materials. The extent of change was greater in 1939 than the previous year and although the business was retained with "Cavalon," our rubber coated upholstery, the position in the pyroxylin coated fabrics market was adversely affected, as some of the other automobile manufacturers are still using pyroxylin type materials supplied by our competitors.

* * *

Government's Exhibit No. 1380

Excerpts from Annual Competitive Report (1940), dated March 4, 1941, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

Automotive Finishes

The improved competitive position in 1940 over 1939 resulted largely from General Motors securing a greater portion of the total automobile business (43.9% in 1940 against 42.1% in 1939).

* * *

Automotive

About five years ago rubber coated fabrics started to supplant pyroxylin materials for automobile truck seat upholstery and usage of the latter by the automobile industry gradually decreased until 1940 when style changes resulted in considerably higher requirements of pyroxylin coated fabrics as trim on the interior of closed cars. Our sales improved from $360,000 in 1939 to $870,000 in 1940, approximately 50% of the industry's total requirements.

* * *

E

Government's Exhibit No. 1381

Excerpts from Annual Competitive Report (1941), dated March 12, 1942, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

Automotive Finishes

The improved competitive position in 1941 over 1940 resulted mostly from General Motors securing a greater portion of the total automobile business (45.8% in 1941 against 43.6% in 1940) and partly from obtaining a larger share of the finishing requirements of Willys, Hudson, Nash, A. O. Smith, Diamond T Truck, and E. G. Budd.

* * *

Automotive

The trim of the interiors of 1941 and 1942 passenger cars was such as to permit increased usage of pyroxylin coated fabrics for such purposes as the tops and backs of front seats, kick-pads, shelves behind rear seats, etc. Du Pont sales increased to $1,365,000 in 1941, 57% over 1940, and represented 30% of the total automotive requirements. It is believed that Textileather Corporation secures the next largest share, as they supply a sizeable portion of Chrysler's needs.

* * *

Remarks:

The Fairfield business expanded substantially (1941 sales 88% above 1940) and the type of products differed considerably from past years. The largest increase (from $200,000 in 1940 to $2,000,000 in 1941) was in "Fairprene" products which are neoprene coated fabrics, compounds, etc. for self-sealing airplane fuel cells, cable tapes, gaskets, etc. Important gains occurred also in sales of "Cavalon," a rubber coated upholstery material used principally in the furniture and automobile industries; and in "Ventube" and other mine supplies. These products all yield a wide margin of profit and as their increased volume required nearly all of the plant capacity, a considerable amount of narrow margin profit business which might have been secured was not solicited.

U. S. Rubber Company improved their competitive position from 7.3% of total available business in 1940 to 14.7% in 1941. Their improvement resulted largely from contracts with the Government for raincoat material, business which was not particularly attractive to us but which may have been to U. S. Rubber Company, who make both the material and the raincoats.

* * *

Government's Exhibit No. 1382

Excerpts from Annual Competitive Report (1946), dated March 17, 1947, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

* * *

AUTO MANUFACTURERS - Our competitive position declined from 45.0% in 1945 to 37.1% in 1946 because of a strike in General Motors plants during the first quarter of 1946. During this period, other auto manufacturers, supplied largely by competition, maintained production at fairly satisfactory rates. Actually, analysis shows a stronger position than pre-war since our position with General Motors has been maintained and since important gains were made with such accounts as Ford, Chrysler, Nash and Hudson. Dollar sales to accounts other than General Motors reached $2,014,000, more than double the 1941 figure despite auto production, exclusive of General Motors, 32% below 1941.

* * *

Our competitive position on pyroxylin coated fabrics dropped from 13.7% in 1945 to 12.6% in 1946, because of inability to obtain fabrics to meet trade demands. Several competitors were in a more favorable position through ownership of textile mills, while some others resorted to coating goods for cotton manufacturers who sold the goods direct to the trade.

The trend in the important automotive and upholstery markets is away from pyroxylin coated fabrics in favor of resin coated fabrics and unsupported sheet stock, not only because of successful adaptations but also because of a trend toward flameproof requirements.

In recognition of this trend many of our pyroxylin competitors have installed, or are in the process of installing, calenders to produce vinyl resin products.

* * *

Our competitive position dropped sharply from 14.9% in 1945 to 6.2% in 1946 due to the termination of war business in which our products were widely used, because of the large scale entrance of new competitors in this field, and because we were in an unfavorable position with respect to resin supplies.

Our resin sources were B. F. Goodrich and the Bakelite Division of Carbide and Carbon from whom we were able to obtain only about one-third of our needs. Several competitors were able to do better because they contracted for their annual requirements, an opportunity that we turned down with Carbide and Carbon because of unsatisfactory requirements in the agreement, and because Goodrich had indicated that our requirements would be met without a contract.

* * *

Government's Exhibit No. 1383

Excerpts from Annual Competitive Report (1947), dated March 11, 1948, from Fabrics & Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

The Department's over-all competitive position improved from 10.1% in 1946 to 10.8% in 1947. greater availability of raw materials permitted the recapture of substantial business lost during the period of more restricted supplies, and enabled the expansion of selected markets in which the du Pont position is strong.

The Fabrics Division's competitive position increased from 10.2% in 1946 to 10.9% in 1947 and was due to a freer supply of fabrics and other raw materials excepting resin and plasticizers. This permitted the regaining of substantial business in pyroxylin coated fabrics and shade cloth lost during the 1946 and earlier periods of short supply, and more than offset a position loss in resin, synthetic rubber, and natural rubber products.

* * *

Du Pont's competitive position in 1947 improved as a result of greater availability of raw materials, particularly greige goods. Our dollar sales volume increased 48% while that of competitors decreased 3.3%. On a comparative yardage basis, du Pont gained almost 10% over 1946, while competition dropped 26%. The decline in competitors' sales reflects an acceleration of the trend from pyroxylin to vinyl resin as a fabric coating. The high quality of our pyroxylin coated fabrics has permitted us to run counter to this trend and hold our position in the market while we are laying the groundwork for a more orderly exploitation of our own vinyl coated fabrics.

* * *

Despite higher selling prices, du Pont's 1947 dollar sales declined almost 10% from the 1946 level, resulting in a drop in our competitive position. The sales decrease was due mainly to curtailed demand for rubberized raincoats and the switch from rubber to resin coated fabrics for automotive upholstery.

The Hodgman Rubber Company has developed a synthetic rubber coated fabric for use in making up automotive heater and air conditioning tubing at a price which has enabled it to take the major share of this 500,000 yard market. At their present price we cannot successfully compete with this concern. We continue to receive the Cadillac business which approximates 40,000 yards ($30,000) annually.

* * *

AUTO MANUFACTURERS - Sales to this industry were $19,797,000, an increase of 84% over 1946, of which 54% was due to volume and 30% to price. Our competitive position improved from 37.1% in 1946 to 41.5% in 1947, largely due to uninterrupted production by General Motors as they were closed by strikes through most of the first quarter of 1946.

* * *

Government's Exhibit No. 1384

Excerpts from Annual Market Survey (1948), dated April 15, 1949, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

AUTOMOTIVE - 1948 shipments to manufacturers of passenger cars, trucks, busses, tractors, motorcycles and automotive accessories are estimated at 15 million yards valued at roughly $20 million, increasing 11% in yards and 25% in value over the 1947 level largely as a result of a 10% greater production of passenger cars and trucks.

Du Pont 1948 sales of 3,161,000 yards valued at $4,500,000 accounted for 21% of the total, and were greater than those of any individual competitor. Other major suppliers include Ford (who manufactures for own requirements) with about 13% of the market, Textileather 12%, U. S. Rubber 10%, Columbus Coated Fabrics 8%, and Goodall-Sanford, Landers and Weymouth 7% each.

Our competitive position in 1948 was about the same as in the previous year. (General Motors accounted for over 80% of our volume in both periods). Also, there was no material change in the competitive position of other major suppliers.

* * *

Normally, the automotive business shows a seasonal decline in the fall months during change-over to new models Style influence is a strong factor in determining the consumption of coated fabrics for passenger automobiles. For instance, because of a change in contour of seat backs in some 1949 models of General Motors' cars, coated fabrics could not be applied satisfactorily and were replaced with uncoated body cloth resulting in a reduction in usage of about 18%. Then, too, some manufacturers, for example, Kaiser-Frazer, use no coated fabrics whatsoever.

Government's Exhibit No. 1385

Excerpt from Annual Market Survey (1949), dated April 14, 1950, from Fabrics and Finishes Department to Executive Committee of E. I. du Pont de Nemours and Company

Our percentage of the market declined in 1949, principally because we did not obtain as large a share of General Motors' requirements for truck upholstery due to price competition.

Government's Exhibit No. 1386

Excerpts from Annual Market Survey (1950), dated
April 11, 1951, from Fabrics and Finishes Department to
Executive Committee of E. I. du Pont de Nemours and Company

Automotive - This includes original equipment and sales to the accessories trade. Industry consumption, estimated at $40 million, is up 33% over $30 million in 1949. Du Pont sales are up 51%.

Total domestic passenger car and truck production hit an all-time high of 8 million units, up 28% over 1949. General Motors, our largest customer, produced 36.% more units.

* * * *

The following data compare Du Pont sales with estimated industry performance:

	1949	1950	% over 1949
Du Pont	$26,338,000	$35,351,500	34.2
Industry	64,239,000	83,573,000	30.1

The increase in sales by the industry reflects the unprecedented production rate of the automotive manufacturing industry.

Our better performance is due in part to the effect of the Chrysler strike on other suppliers during the first half of the year, we having but a relatively small share of Chrysler business.

The major companies sharing in this market are listed below, with estimated market penetration. Of interest is the decreased per cent of the market obtained by Pittsburgh, who were affected by the Chrysler strike.

	% of Market	
	1949	1950
Pittsburgh (Ditzler, Forbes Varnish)	21.4	18.8
* Ford Motor Co.	13.7	15.0
Rinshed-Mason	6.2	7.6
Cook Paint & Varnish	4.3	4.4

	% of Market 1949	% of Market 1950
American-Marietta (Ferbert-Schorndorder)	1.7	2.2
Devoe (Jones-Dabney, Beckwith-Chandler)	3.1	2.0
Valspar Corp.	2.2	1.6
* International Harvester	2.1	1.5
Sherwin-Williams (Acme)	0.9	1.4
W. P. Fuller (Nason)	0.5	0.6
Glidden	0.7	0.4
Arco	0.3	0.1
O'Brien Varnish	0.2	0.1
All Others	1.7	2.0
Total Competitors	59.0	57.7
Du Pont	41.0	42.3
	100.0	100.0

* Produce a large part of their own requirements.

Government's Exhibit No. 1387

DU PONT SALES OF FINISHES (PRODUCTS OF FINISHES DIVISION)
TO
THE AUTOMOBILE INDUSTRY

	1938	1939	1940	1941	1946	1947
Percentage of requirements of all auto manufacturers supplied by Du Pont Finishes Div.	46.5% 1/	42.1% 2/	43.8% 3/	45.6% 4/	37.1% 5/	41.5% 6/
Du Pont Finishes Division dollar sales to all auto manufacturers	$6,688,000 1/	$8,444,000 2/	$11,600,000 3/	$13,400,000 4/	$10,762,000 5/	$19,797,000
Du Pont Finishes Division Sales to General Motors 8/	$6,193,000	$8,765,000	$11,727,000	$13,525,000	$10,430,000	$18,938,000
Du Pont Sales to General Motors as a percentage of Du Pont sales to all auto manufacturers	92%	100%+	100%+	(Note A) 100%+	(Note B) 97%	(Note 95%

SOURCE:

1/ 1938 Annual Competitive Report, Fabrics and Finishes Department of Du Pont, to Executive Committee
2/ 1939 " " " " " " " " " " " " "
3/ 1940 " " " " " " " " " " " " "
4/ 1941 " " " " " " " " " " " " "
5/ 1946 " " " " " " " " " " " " "
6/ 1947 " " " " " " " " " " " " "
7/ 1948 Annual Market Survey, " " " " " " " " " "
8/ Totals of sales of "Finishes products" reported by Du Pont in response to grand jury subpoena, entitled "Sales by Products to General Motors Corp. and 100% owned subsidiaries, covering years of 1938-1941 and 1946-1947."

NOTE A: 1947 Annual Competitive Report, supra, further states (p 7): ". . . sales to other than General Motors totaled . . . $994,000 in 1941, 7% of total sales."

NOTE B: 1946 Annual Competitive Report, supra, further states (p 3): "Our competitive position declined from 45.0% in 1945 to 37.1% in 1946 because of a strike in General Motors plants during the first quarter of 1946. During this period, other auto manufacturers, supplied largely by competition, maintained production at fairly satisfactory rates . . . /Du Pont Finishes Division/ dollar sales to accounts other than General Motors reached $2,014,000 /19% of Du Pont's reported total Finishes sales to all auto manufacturers/. . ."

NOTE C: 1947 Annual Competitive Report, supra, further states (p 7): ". . . In 1947 sales to other than General Motors totaled $3,446,000, 17% of total sales . . ."

Government's Exhibit No. 1388

GENERAL MOTORS' PURCHASES (IN DOLLARS)
FROM DU PONT AND COMPETITORS OF DU PONT
(INVOLVING PRODUCTS PRODUCED BY DU PONT AND OTHERS AS COMPETITORS IN THE MARKET)

Revised 6/23/53

	1946				1947			
	From Du Pont	From Competitors of Du Pont	Total GM Purchases	% Purchased From Du Pont	From Du Pont	From Competitors of Du Pont	Total GM Purchases	% Purchased From Du Pont
FINISHES								
Paints, Enamels, Primers, and Lacquers 1/	$ 7,939,163	4,104,669	12,043,832	65%	$ 14.974,149	6,844,012	21,818,161	68%
Pyroxylin 2/		37,577	37,577	0%		105,482	105,482	0%
Thinners	2,479,429	291,219	2,770,648	89%	3,952,526	582,796	4,535,322	89%
Total	$10,418,592	4,433,465	14,852,057	70%	$ 18,926,675	7,532,290	26,458,965	71%
FABRICS								
Upholstery & Trim (Fabrikoid, Fabrilite & Cavalon from Du Pont, "Imitation Leather" from Competitors)	$ 2,032,397	695,976	2,728,373	74.5%	$ 3,573,121	2,393,137	5,966,258	60%
ANTIFREEZE	$ 668,985	20,833	689,818	97%	$ 1,710,186	42,850	1,753,036	97.6%
TOTAL	$ 13,119,974	5,150,274	18,270,248	72%	$ 24,209,982	9,968,277	34,178,259	70%

SOURCE:

Du Pont Sales to General Motors: From Summary submitted by Du Pont, in response to grand jury subpoena, entitled: "Sales by Product to General Motors Corp. and 100% Owned Subsidiaries."

GM Purchases from Competitors of Du Pont: From General Motors' tabulation of "Sales and Purchase Data in Response to Federal Grand Jury Subpoena."

1/ "Paints, Enamels, Primers and Lacquers" includes all items listed in Du Pont's "Sales by Products to General Motors" summary which are classified in it under the heading "Finishes Products," except thinners and heavy-bodied cements and pyroxylin solutions.

2/ No data available on whether Du Pont produces this item which is listed in General Motors' grand jury exhibit above as "Pyroxylin" in general category of "Finishes."

Government's Exhibit No. 1389

GENERAL MOTORS' PURCHASES OF ANTIFREEZE FROM DU PONT AND OTHER SUPPLIERS WHO SOLD $500 OR MORE TO GENERAL MOTORS DURING 1946

Supplier	Dollar Volume	% of Total Purchases
E. I. du Pont de Nemours and Company	$668,985	97
Grimm-Hansen-Treland Co., Inc.	4,163	3
Hoosier Solvents & Chemical Co.	1,789	
Dix Auto Electric Service, Inc.	1,649	
Forncrook Auto Supply, Inc.	1,441	
W. H. Barber Co.	1,381	
Chapin Oil Co.	1,128	
Carbide & Carbon Chemicals Corp.	761	
Commercial Solvents Corp.	680	
Western Solvent & Chemical Co.	679	
Automobile Equipment Co.	654	
Motor Tire & Vulcanizing Co.	630	
Lee Finishing	557	
Sheldon Tire Co.	551	
Mich-I-Penn Oil & Grease Co.	520	
All Others (43 Suppliers)	4,250	
TOTAL PURCHASES	$689,818	

Source: (a) General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule I-3d.

(b) Summary of Sales of "Antifreeze" submitted by E. I. du Pont de Nemours and Company in response to federal grand jury subpoena, entitled "Sales by Products to General Motors Corp. and 100% Owned Subsidiaries" [illegible]

Government's Exhibit No. 1390

GENERAL MOTORS' PURCHASES OF ANTIFREEZE FROM DU PONT AND OTHER SUPPLIERS WHO SOLD $500 OR MORE TO GENERAL MOTORS DURING 1947

Supplier	Dollar Volume	% of Total Purchases
E. I. du Pont de Nemours and Company	$1,710,186	97.6
Miller Auto Supply & Equipment Co.	10,634	
Grimm-Hansen-Treland, Inc.	9,575	
M. D. Larkin Co.	2,799	
Automobile Equipment Co.	2,498	
Buhl Sons & Co.	1,473	
Speedway Petroleum Corp.	1,395	
Western Solvent & Chemical Co.	1,333	
Automotive Electric Service Corp.	1,330	
Dix Auto Electric Service Co.	957	
Deluxe Motor Service	853	
U. S. Industrial Chemicals Co.	810	
Terminal Sales Co.	637	
Sheldon Tire Co.	613	
Cumings Bros.	609	
H. Channon Co.	517	
All Others (81 Suppliers)	6,807	
TOTAL PURCHASES	$1,753,036	

Source: (a) General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule I-2d.

(b) Summary of Sales of "Antifreeze" submitted by E. I. du Pont de Nemours and Company in response to federal grand jury subpoena, entitled "Sales by Products to General Motors Corp. and 100% Owned Subsidiaries" covering the years of 1938-1941 and 1946-1947.

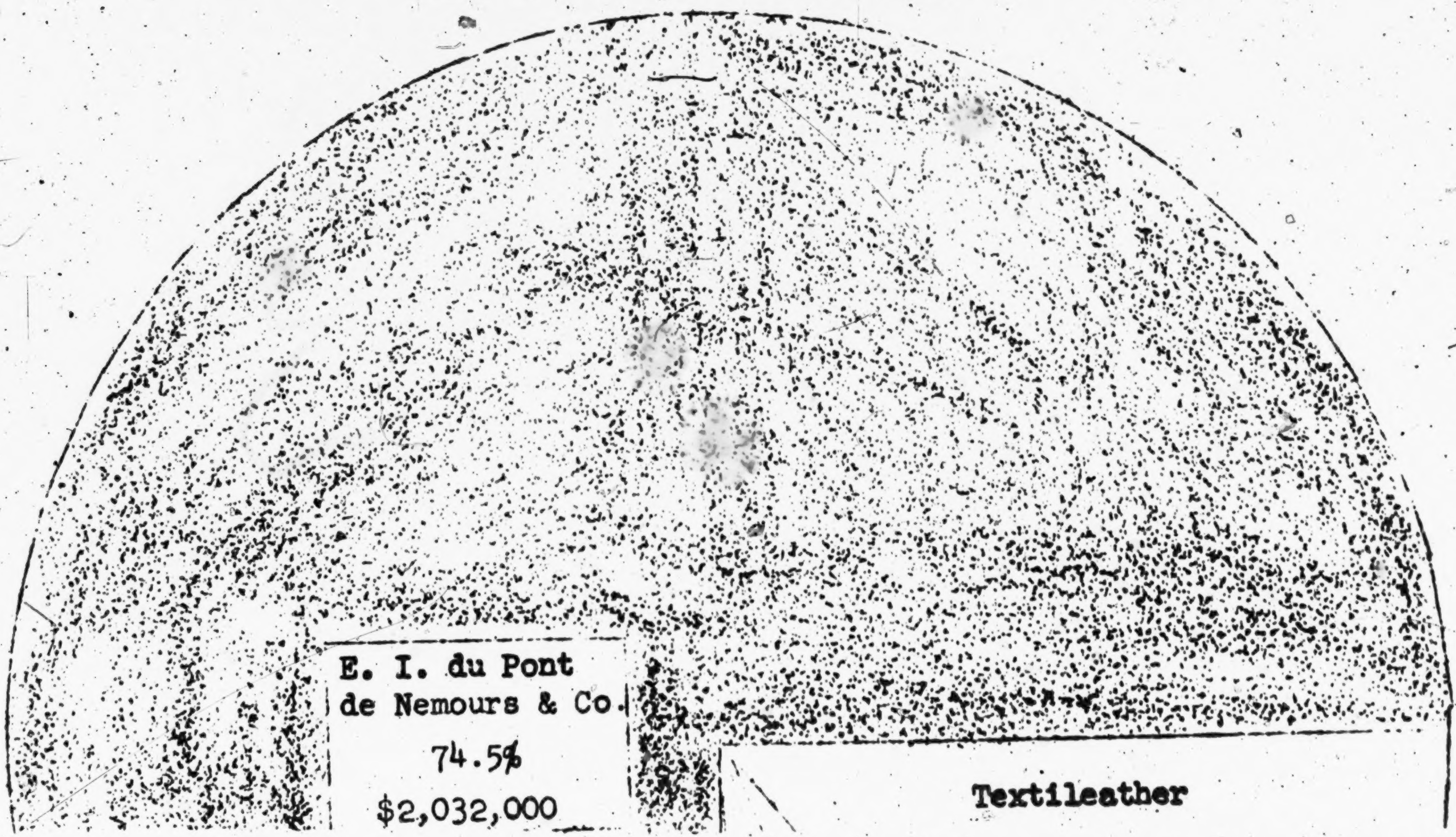
Government's Exhibit No. 1391

GENERAL MOTORS CORPORATION
PER CENT AND DOLLAR VOLUME OF PURCHASES
OF
UPHOLSTERY AND TRIM

1946

(Round Numbers)

TOTAL DOLLAR PURCHASES $2,728,000



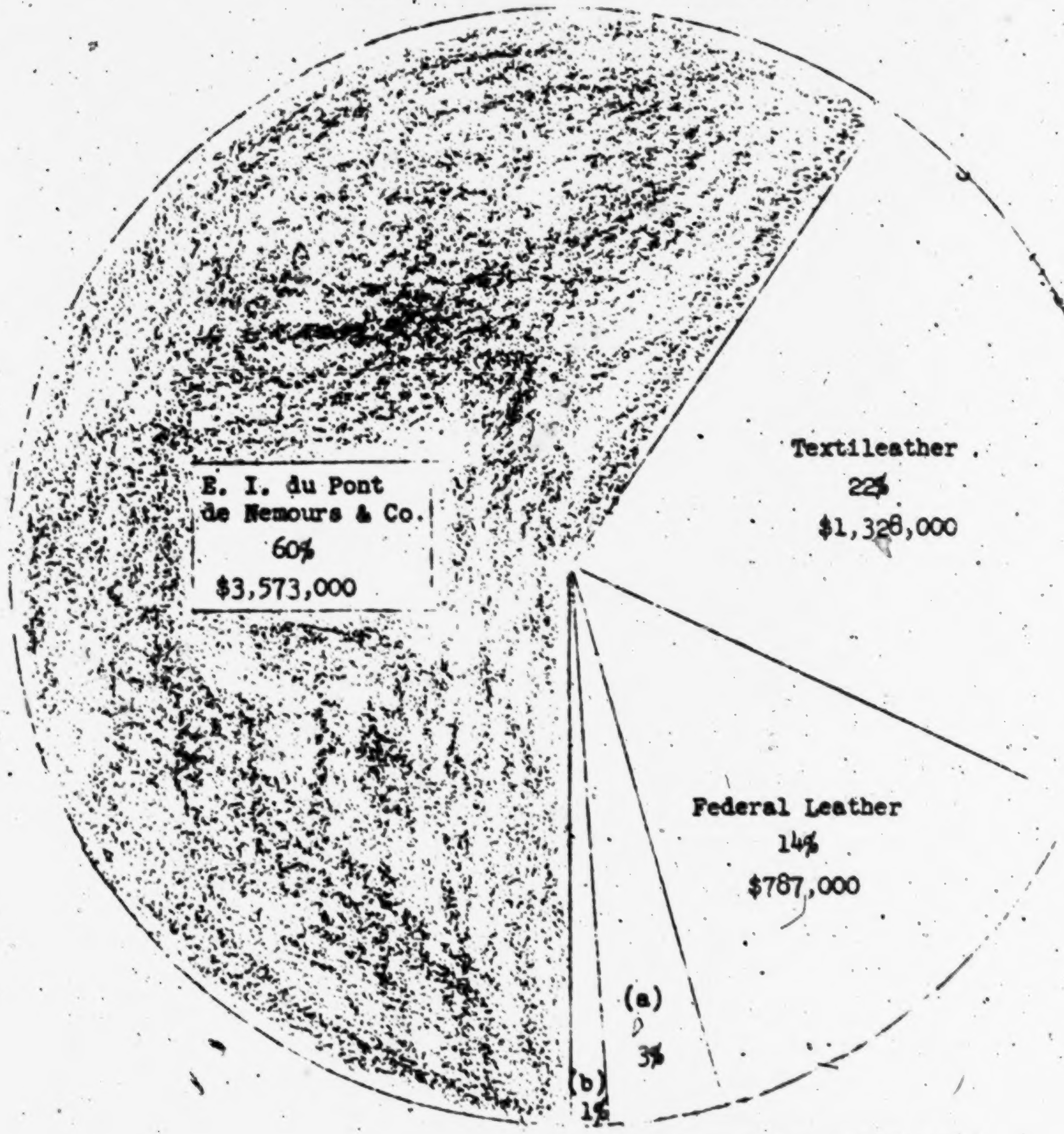
Government's Exhibit No. 1392

GENERAL MOTORS CORPORATION
PER CENT AND DOLLAR VOLUME OF PURCHASES
OF
UPHOLSTERY AND TRIM

1947

(Round Numbers)

TOTAL DOLLAR PURCHASES $5,966 000



(a) U.S. Rubber, $196,000
(b) All Others (19 Suppliers) $82,000

Source: (1) General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - "Imitation Leather" - Schedule I-2c

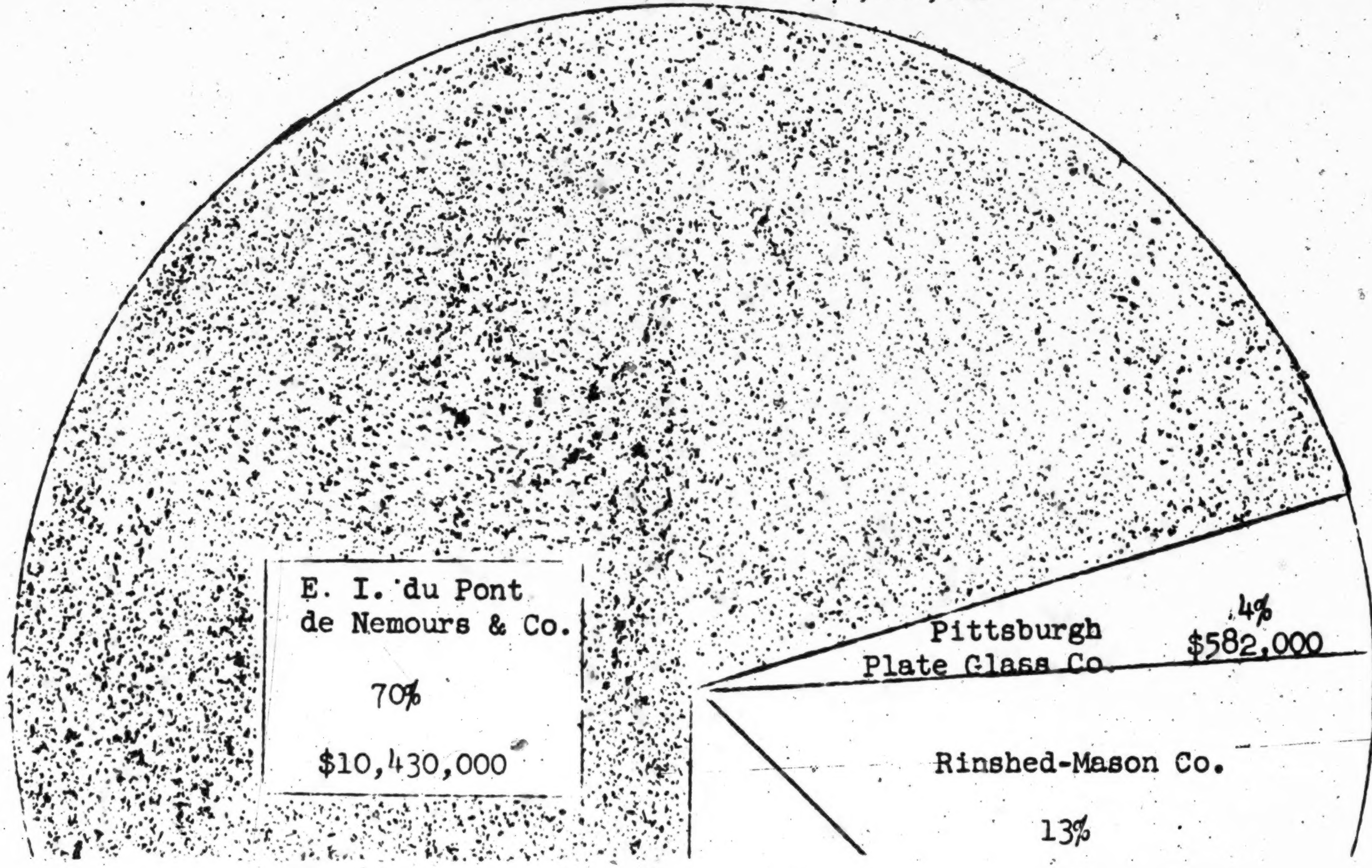
(2) Summary of Sales of "Fabrikoid, Fabrilite and Cavalon" submitted by E. I. du Pont de Nemours and Company in response to federal grand jury subpoena entitled "Sales by Products to General Motors Corp. and 100% Owned Subsidiaries" covering the years of 1938-1941 and 1946-1947.

Government's Exhibit No. 1393

GENERAL MOTORS CORPORATION
PER CENT AND DOLLAR VOLUME OF PURCHASES
OF
PAINTS, ENAMELS, PRIMERS, LACQUERS, THINNERS, AND PYROXYLIN
FROM THE THREE LARGEST SUPPLIERS
FOR THE YEAR
1946

(Figures rounded to nearest thousand)

TOTAL DOLLAR PURCHASES $14,864,000

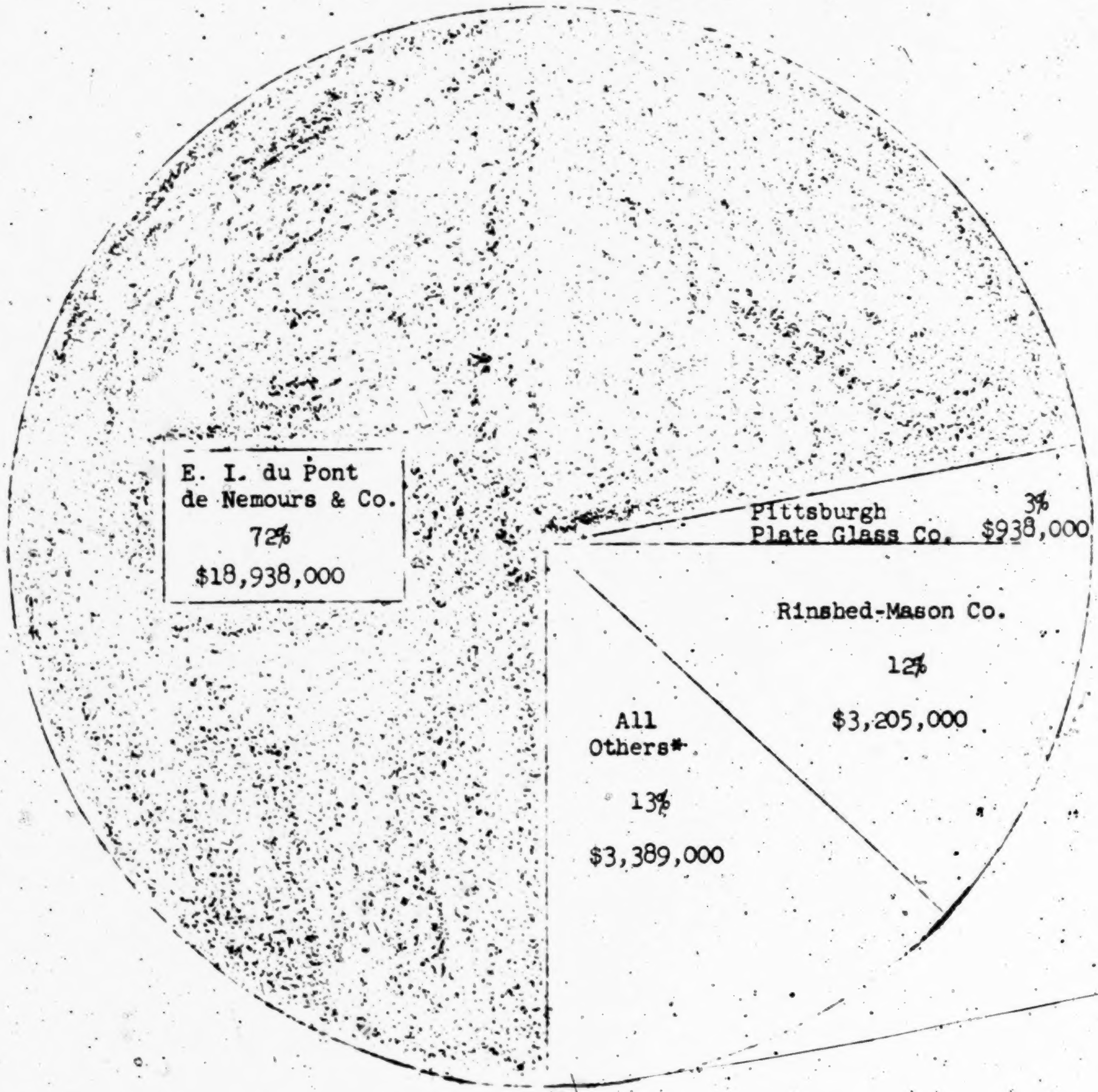


Government's Exhibit No. 1394

GENERAL MOTORS CORPORATION
PER CENT AND DOLLAR VOLUME OF PURCHASES OF PAINTS, ENAMELS, PRIMERS, LACQUERS, THINNERS, AND PYROXYLIN FROM THE THREE LARGEST SUPPLIERS FOR THE YEAR 1947

(Figures rounded to nearest thousand)

TOTAL DOLLAR PURCHASES $26,470,000



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* Approximately 500 Suppliers

Source: (a) General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule I-2b

(b) Summary of Sales of "Finishes Products" submitted by E. I. du Pont de Nemours and Company in response to federal grand jury subpoena, entitled "Sales by Products to General Motors Corp. and 100% Owned Subsidiaries" covering the years of 1938-1941 and 1946-1947.

Government's Exhibit No. 1395

March 16, 1921.

Mr. Irenee duPont, President,
E. I. duPont deNemours & Co.,
Wilmington, Del.

My dear Mr. duPont:-

I notice in the annual report of the E. I. duPont deNemours & Co., signed by you, which has been given considerable publicity, the following personal reference:

> "He desired to resign and sell his interest in the Corporation to liquidate his personal indebtedness which was very large and pressing."

There is evidently some mistake and I feel that I should acquaint you with the facts:

On the evening of November 15th, a personal friend of mine, representing the duPont interests, called at my apartment and informed me that my resignation as President of the General Motors Corporation was desired and would be accepted - the reason given, that I was not in sympathy with the policies of the controlling interests and would not cooperate. I must and do plead guilty to the charge.

Two days later, when I came to discuss the matter with Mr. P. S. duPont and Mr. Raskob, I told them (and up to that time they knew nothing of the situation) of the burdens which I had assumed in attempting to correct the mistakes and errors which had been made, for which I was in no way responsible, and FROM THAT POINT we started to work out a plan which would relieve me of my embarrassment and which resulted in the duPont Securities Co. taking over my General Motors holdings.

In our attempt to adjust to the new conditions, I trust nothing will occur to destroy our friendship.

Very truly yours,

Government's Exhibit No. 1400

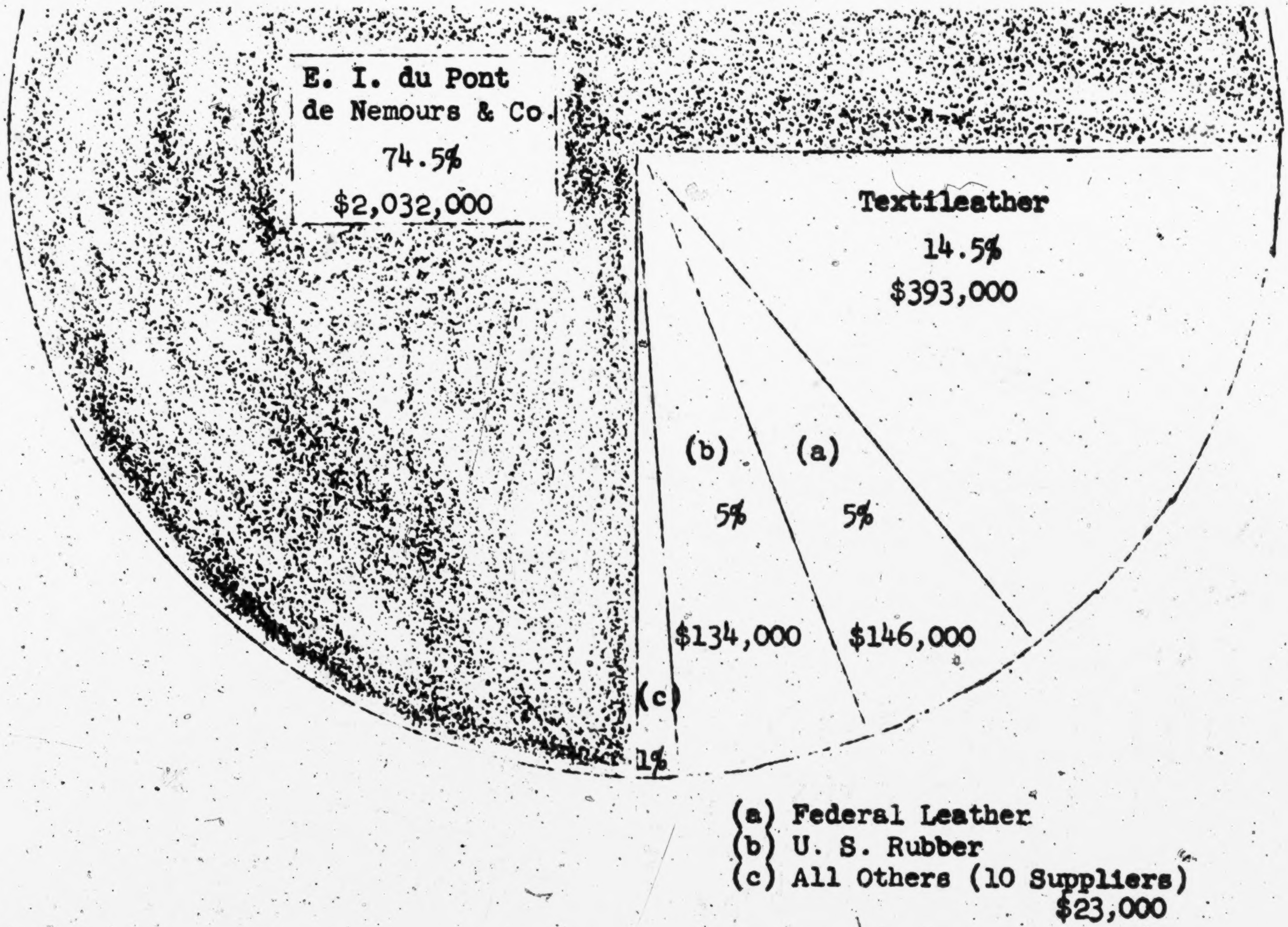
GENERAL MOTORS' PURCHASES OF PAINTS, ENAMELS, PRIMERS, LACQUERS, THINNERS, AND PYROXYLIN FOR THE YEARS 1946 AND 1947

(Listing Suppliers of $30,000 Worth or More)

	1946 Dollar Volume*	%	1947 Dollar Volume*	%
Total - All Suppliers	14,864,000	100	26,470,000	100
E. I. du Pont de Nemours & Co.	10,430,000	70.17	18,938,000	71.55
Supplied by Other than du Pont:				
Rinshed-Mason Co.	1,934,000	13.01	3,205,000	12.11
Pittsburgh Plate Glass Co.	582,000	3.92	938,000	3.54
Pontiac Varnish Co.	188,000	1.26	264,000	1.00
Kay and Ess Co.	141,000	.95	229,000	.87
Ferbert Schorndorfer Co.	125,000	.84	293,000	1.11
R. A. Becker Co.	112,000	.75	131,000	.49
Roxaline Flexible Finishes, Inc.	108,000	.73	---	
Schenectady Varnish Co., Inc.	108,000	.73	248,000	.94
Standard Varnish Works	94,000	.63	108,000	.41
Parker Rust Proof Co.	61,000	.41	---	
M. B. Suydam Co.	56,000	.38	104,000	.39
Stanley Chemical Co.	54,000	.36	113,000	.43
Eastman Kodak Co.	48,000	.32	131,000	.49
Thresher Varnish Co.	47,000	.32	46,000	.17
Western Solvents & Chemicals Co.	46,000	.31	25,000	.09
Arco Co.	36,000	.24	196,000	.74
Barker Chemical Co.	30,000	.20	48,000	.18
Berry Bros., Inc.	---		36,000	.14
Forbes Varnish Co.	---		193,000	.73
Mansfield Paint Co.	---		56,000	.21
Parker Paint & Varnish Co.	---		39,000	.15

Standard Varnish Works	94,000	.63	108,000	.41
Parker Rust Proof Co.	61,000	.41	---	
M. B. Suydam Co.	56,000	.38	104,000	.39
Stanley Chemical Co.	54,000	.36	113,000	.43
Eastman Kodak Co.	48,000	.32	131,000	.49
Thresher Varnish Co.	47,000	.32	46,000	.17
Western Solvents & Chemicals Co.	46,000	.31	25,000	.09
Arco Co.	36,000	.24	196,000	.74
Barker Chemical Co.	30,000	.20	48,000	.18
Berry Bros., Inc.	---		36,000	.14
Forbes Varnish Co.	---		193,000	.73
Mansfield Paint Co.	---		56,000	.21
Parker Paint & Varnish Co.	---		39,000	.15

American Marietta Co.	---		38,000	.15
Jamestown Finishing Products, Inc.	---		35,000	.13
Michigan Chrome & Chemical Co.	---		35,000	.13
Glidden Co.	---		34,000	.13
Intercoastal Paint Co.	---		33,000	.12
Egyptian Lacquer Co.	---		30,000	.11
All Others (400(+) suppliers)	664,000	4.47	924,000	3.49



Source: (1) General Motors Corporation tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - "Imitation Leather" - Schedule I-3c

(2) Summary of Sales of "Fabrikoid, Fabrilite and Cavalon" submitted by E. I. du Pont de Nemours and Company in response to federal grand jury subpoena, entitled "Sales by Products to General Motors Corp. and 100% Owned Subsidiaries" covering the years of 1938-1941 and 1946-1947.

Government's Exhibit No. 1404

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

September 27, 1930.

520-6

Mr. E. K. Bolton, Chemical Director,
E. I. du Pont de Nemours & Co.,
Wilmington,
Del.

Dear Mr. Bolton:

We will be very glad to have one of your chemists visit with us to discuss the matters that you mention in your letter of September 24. We have some rather starting developments along lubrication lines which I think we can open up to you quite freely.

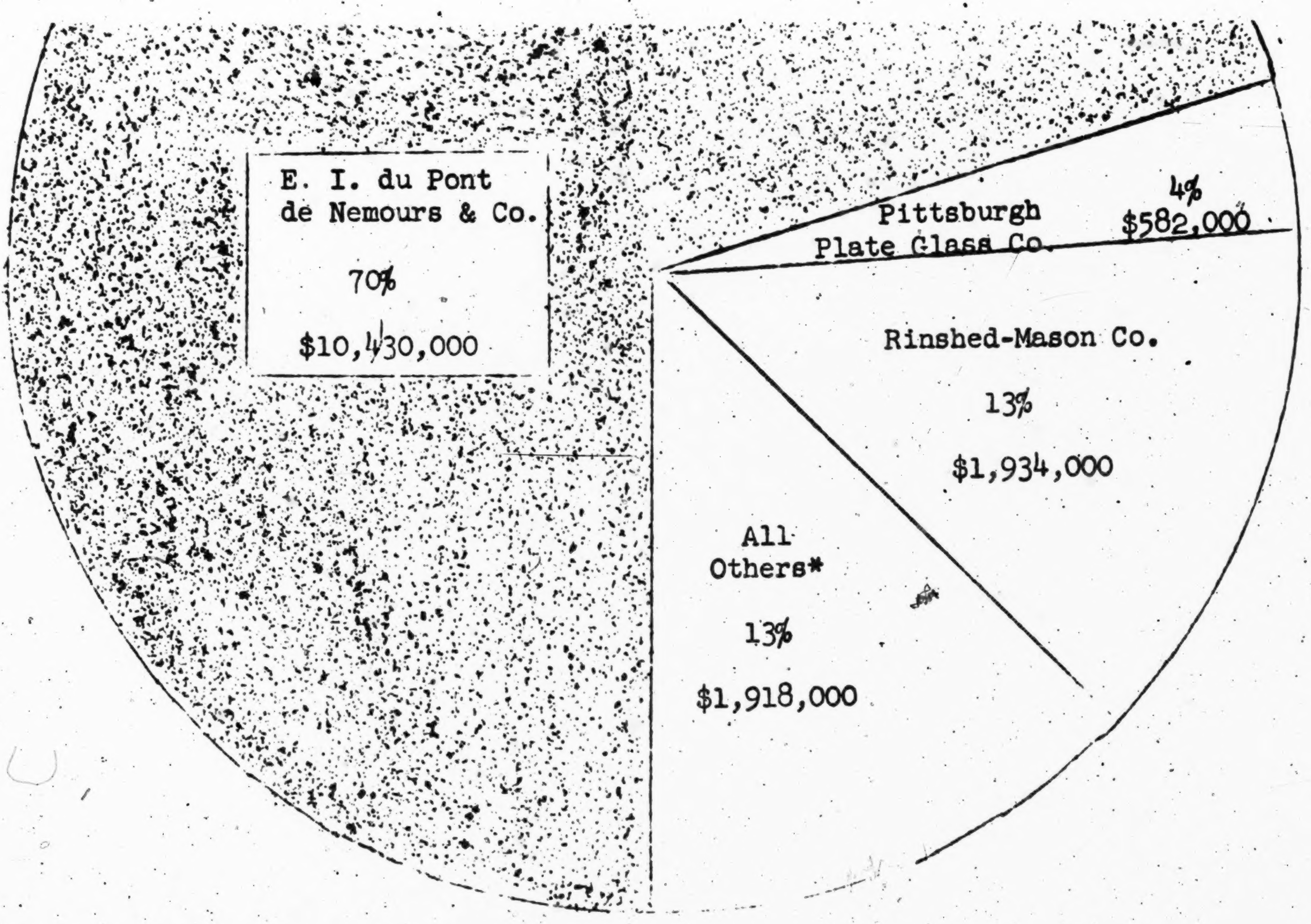
We know of no one to whom we would prefer to extend this courtesy, more than your own organization, for we look upon du Ponts as sort of grandpa to General Motors.

Perhaps you had better give me a little preliminary notice of the arrival of your representative so that we can be certain that our boys will be on hand.

Yours very truly,

F. O. Clements,

F. O. Clements,
Technical Director,
Research Laboratories.



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* Approximately 500 Suppliers

Source: (a) General Motors Corporation Tabulations of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" - Schedule I-3b

(b) Summary of Sales of "Finishes Products" submitted by E. I. du Pont de Nemours and Company in response to federal grand jury subpoena, entitled "Sales by Products to General Motors Corp. and 100% Owned Subsidiaries" covering the years of 1938-1941 and 1946-1947.

Government's Exhibit No. 1407

FEH:arm 11/8/48 2

Melville C. Williams, Esquire
Chief, Chicago Office
Anti-Trust Division
United States Department of Justice
Suite 826 - 200 South La Salle Street
Chicago 4, Illinois

NOV 1 3 1948

Re: Grand Jury Subpoena No. 9072 -
General Motors, du Pont, et al.

Dear Mr. Williams:

Since my letter to you dated September 17, 1948, setting forth certain understandings between us with respect to compliance with the above subpoena, General Motors Corporation has submitted to you its spot check for the month of June, 1948, and du Pont and U. S. Rubber Company have submitted, or expect within a few days to submit, the results of their checks for that month.

As a result of the information that has been furnished, it is now your desire that certain of the companies proceed to obtain additional information called for by paragraph 3 of the subpoena, and it is the purpose of this letter to state the matters which are next to be investigated and reported upon by the respective companies.

General Motors Corporation

General Motors Corporation will investigate and report to you the following:

a. The material called for in paragraphs 3 (a) and 3 (b) of the subpoena for the period from January 1, 1946, to August, 1948, inclusive.

The material called for in paragraphs 3 (c) and 3 ([illegible]) for the period from January 1, 1946, to August, 1948, inclusive, with respect to purchases from Bendix Aviation

(3156)

31

Corporation, North American Aviation, Inc., and Remington Arms Co., Inc. General Motors Corporation will accept as its purchase figures the reports of sales to it made under paragraphs 3 (c) and 3 (d) by du Pont, Kinetic, Ethel, and U. S. Rubber.

c. The total annual purchases (in dollars) of each of the following products purchased by it and its subsidiaries from companies other than those listed in paragraph 3 of the subpoena specifying the names and amounts with respect to each company:

1. (Purchases from competitors of du Pont)

   Coated Fabric
   Paints, Enamel, and Primer
   Solvents
   Thinner
   Pyroxylin
   Adhesives

2. (Purchases from competitors of U. S. Rubber Company)

   Tires and tubes with a breakdown between original equipment and replacements.

3. (Purchases from competitors of Bendix)

   Air Brakes
   Automotive Brakes and Parts
   Carburetors and Parts
   Steering Gear Parts
   Starter Drives
   Any other product purchased from Bendix during the aforesaid period in a quantity comparable to the above items.

3157

4. (Purchases from competitors of North American Aviation, Inc.)

All products purchased during the aforesaid period from North American Aviation, Inc.

~~from 38 of [illegible]~~

5. (Purchases from competitors of Ethyl Corporation)

All products purchased during the aforesaid period from Ethyl Corporation.

~~from 30 of [illegible]~~

6. (Purchases from competitors of Kinetic Chemicals, Inc.)

All products purchased during the aforesaid period from Kinetic Chemicals, Inc.

~~from 30 of [illegible]~~

7. (Purchases from competitors of Remington Arms Co., Inc.)

All products purchased during the aforesaid period from Remington Arms Co., Inc.

~~from 31 of [illegible]~~

du Pont

Du Pont will investigate and report to you the following:

a. The material called for in paragraphs 3 (a) and 3 (b) of the subpoena for the period ____________________ with respect to the following products:

Coated Fabric

All products (without breakdown of items) of the finishes department.

b. The material called for in paragraphs 3 (c) and 3 (d) for the period ____________________ ____________________ with respect to purchases from Bendix, North American Aviation, Inc., and Remington Arms Co., Inc. du Pont will accept as its purchase figures the reports of sales to it made under paragraphs 3 (a) and 3 (b) by General Motors, Ethel, Kinetic, and U. S. Rubber.

Source: (a) General Motors Corporation tabulation of "Sales and Purchases Data in Response to the Federal Grand Jury Subpoena" -- Schedule "I 3b," pp. 1-9, 11-15, and Schedule "I 2b," pp. 1-11, 15-19.

(b) Summary of Sales of "Finishes Products" submitted by E. I. du Pont de Nemours and Company in response to federal grand jury subpoena entitled, "Sales by Products to General Motors Corp. and 100% Owned Subsidiaries" covering the years of 1938-41 and 1946-47.

* Figures rounded to nearest $1,000.

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials
ILLINOIS										
CHICAGO										
Automatic Electric, Inc.		400(1)	200(1)							
Bell & Thorn Machine Co.	1000(1)									
Borg & Beck	6000(1)		40000(1)							
Central Screw Co.										
Chicago Screw Co.	20000(1)						500			
Chromium Corp. of America										Chapman Comp. 20000
Duro Metal Prod. Co.			20000(4)							
Fairbanks Morse & Co.	600(3)									
International Harvester Co.	See totals on individual plants									
International Register Co.			4000(2)							
O. D. Jennings & Co.	500(1)									
Johnson Fare Box Co.		1500(2)								
Kellogg Switchboard & Supply Co.	500(1)							HC 5000		
Lindberg Steel Treating Co.	20000(4)									
Mills Novelty Co.		3000(1)	5000(4)							
Stewart Warner Corp.	150000(1)					25000				
Teletype Corp.	3500(1)	9000(1)	9000(1)							
Victor Adding Machine Co.	2000(3)									
Western Electric Co.	10000(1)					15000				
Union Special Machine Co.										

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(1) R & H direct
(2) R & H thru Chem. Dist.
(3) A.C.Co. direct
(4) A.C.Co. thru Bell & Gossett

'Government's Exhibit No. 1408

5437–
5438

Sept. 16, 1937

CASE HARDENING SURVEY
CHICAGO OFFICE TERRITORY

INTRODUCTION

The object of this report is to present data and information compiled by representatives of the Chicago Office in contacts with all of the major users and most of the minor users of salt bath case hardening processes in this territory as of September 1, 1937. Specifically, we have endeavored to obtain answers, insofar as possible, to the following six questions proposed by Dr. D. A. Holt:

1. What are the limitations of the cyanide bath and what operations has it been found uneconomical for, which have been successfully carried out in other baths?
2. Which deep hardening bath is in use and the reasons for the selection?
3. What are the details of the treating conditions and results obtained with straight cyanide and the deep hardening bath? We are particularly interested in data on case depth per unit of time, comparative costs based on dragout, replenishment, fuel and pot life.
4. Is a scumming bath preferred and has the user noted any difference in the manipulation of scummed cyanide and deep hardening baths?
5. What is the maximum cost per pound, time and temperature of treatment in deep hardening baths which is competitive with pack hardening?
6. Would a large unit, such as the Ajax Hultgren type, which could be economically and safely operated, be desirable, and if so, what size would be preferred?

(a) Increased pot life
(b) Lower fuel costs
(c) Greater comfort for the operator from diminished surface heat radiation and from almost complete absence of fumes.

—3—

5. There is very little interest in the possible use of deep-hardening salt baths to replace any pack hardening operations; in fact, the belief is expressed that this is impractical.
6. Very little consideration is being given to Ajax-Hultgren type furnaces for continuous salt bath hardening because the interest of those who perform operations where such equipment could be so used is principally in the replacement of salt baths with gas furnaces.

—4—

CONCLUSIONS

1. The concensus of opinion among metallurgists of the automotive industry indicates that gas carburizing for shallow cases is much cheaper than the use of salt baths and is physically practical for mass production in continuous furnaces (or for batch production in rotary or small furnaces). For the moment attention is being focused only on large continuous operations where refinements are still necessary but there are few who doubt the ultimate success of this process for both purposes.

   The trend towards gas hardening for *all* purposes is thought to be sound, primarily because of the economies of continuous operation whereby labor costs are lowered.
2. It is estimated that during a period of from two to

three years, equipment and process changes now in progress will be completed. Due to these changes our annual loss of Sodium Cyanide sales ("Cyanegg" and mixtures) will be about 1,750,000 lbs. (equivalent to 1,078,500 lbs. of 100% Sodium Cyanide) to shallow case gas carburizing but only about 150,000 lbs. (equivalent to 133,500 lbs. of 100% Sodium Cyanide) to deep-hardening salt baths. This statement is made to emphasize the preponderantly greater sales we stand to lose to gas furnaces than to accelerated salt baths once these contemplated changes have been made. (See Tables II and III)

3. In other words, the tendency among the present large users of salt bath hardening materials is towards the much greater use of gas carburizing practice. In the interim deep-hardening baths will make some inroads on our cyanide sales, but as indicated we believe this condition to be but temporary.
4. Specifically, our greatest losses of Sodium Cyanide sales, especially mixtures, will be at the Ford Motor Co. and Pressed Metals of America, Inc. where present programs call for almost complete substitution by gas carburizing.

NOTE ON TABLES

In the following tables it has been necessary for us to estimate, where accurate information could not be secured, the proportion of the consumption of 96/98% Sodium Cyanide being used for case hardening purposes where both plating and case hardening are done.

A. C. STEPAN
CHICAGO DISTRICT MANAGER

R. B. K'Burg

By: R. B. K'Burg

RBK:HF

cc: C. L. Wiswall
R. O. Humphrey (3)
D. A. Holt
W. M. Gager
A. C. Stepan
R. B. K'Burg
Trade Analysis
Chicago File

Note: Italics indicate signature. A check mark appears after R. O. Humphrey (3).

TABLE I

ESTIMATED ANNUAL CONSUMPTION OF CASE HARDENING SALTS BY MAJOR CITIES AND BY STATES

	96/98% NaCN		75% NaCN		45% NaCN		30% NaCN					
	R&H	Comp.*	R&H	Comp.	R&H	Comp.	R&H	Comp.	Aerocase	Perliton	Holden	Parkcase
CHICAGO	191,500	22,600	14,900	—	53,200	25,000	—	—	40,000	500	5,000	—
ILLINOIS (excl. Chicago)	49,600	500	2,400	—	39,100	—	—	—	68,500	6,200	25,000	—
INDIANA	142,600	500	1,700	—	21,000	2,300	—	—	—	500	—	—
DETROIT	288,200	35,000	1,139,000	2,500	451,500	5,000	111,000	10,000	132,000	465,000	40,000	40,000
MICHIGAN (excl. Detroit)	173,100	39,000	126,400	—	813,600	32,300	—	—	5,000	500	319,000	45,000
MILWAUKEE	8,300	3,000	5,500	8,000	8,000	33,000	—	20,000	5,000	100	300	10,000
WISCONSIN (excl. Milwaukee)	4,800	—	45,500	—	18,300	5,200	—	—	—	6,400	3,600	—
MINNESOTA	1,500	1,700	1,000	1,000	6,300	11,200	—	—	—	—	—	—
TOTAL	859,600	102,300	1,336,400	11,500	1,411,000	114,000	111,000	30,000	250,500	479,200	392,900	95,000

*Competition

In addition to the above, there are used about 30,000 lbs. of Chapmanizing Compound, 15,000 lbs. of 60% Sodium Cyanide, small amounts of 27% Sodium Cyanide and of "DuCase."

TABLE II—Probable Annual Loss of Sales After Two or Three Years of "Cyanegg" and Cyanide—Containing Salts where Substitution by Gas Carburizing is Known to be in Progress.

1.	"Cyanegg"	95,000 lbs.
2.	75% Cyanide-Chloride Mixture	800,000 lbs.
3.	45% Cyanide-Chloride Mixture	870,000 lbs.
4.	Holden Light Case	300,000 lbs.
5.	Perliton	150,000 lbs.

Table III—Probable Annual Loss of Sales After Two or Three Years of "Cyanegg" and Cyanide—Containing Salts Where Substitution by Deep-Hardening Salt Baths is known to be either in Progress or Seriously Contemplated.

1.	"Cyanegg" to Perliton	100,000 lbs.
2.	75% Cyanide-Chloride Mixture to Perliton	30,000 lbs.

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials
ILLINOIS										
AURORA										
Indep. Pneum. Tool Co.	500(3)					1000				
Stephens-Adamson Mfg. Co.	200(2)									
EAST MOLINE										
International Harvester Co.	500(1)									
DECATUR										
Oakes Products Corp.						30000				
HARVEY										
Buda Mfg. Co.							5000			
Perfection Gear Co.	6000(1)									
MOLINE										
Deere & Co.	16000(1)		3000(1)					Experimenting		
MORTON										
Getz Power Washer Co.	300(1)		600(1)							
NO. CHICAGO										
Oakes Products Corp.						Experiment. HC 25000				
PEORIA										
Altorfer Bros. Co.						1500				
Caterpillar Tractor Co.	6000(1)									
ROCKFORD										
Amer. Cab Hdw. Corp.	2000(1)									
Atwood Vacuum Mach. Corp.			3500(1)							
Barber Colman Co.		2000(1)								
Elco Tool & Screw Corp.						16000				
Frederick Steel Treating Co.		400(1)					1200			
O. T. Muehlmeyer Heat Treat. Co.	500(1)									
National Lock Co.	2000(1)		20000(1)							
Rockford Drilling Machine Co.						20000				
Spengler Loomis Mfg. Co.	1500(1)									
Sundstrand Mach. Tool Co.	100(1)									
ROCK ISLAND										
International Harvester Co.	5000(1)									
Rock Island Arsenal	1000(1)									
C. U. Scott & Son	4500(1)									
WEST PULLMAN										
Ingersoll St. & Disc. Div. B. W.	4000(1)		12000(1)							

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(1) R & H Direct
(2) R & H thru Chem. Dist.
(3) A. C. Co. direct

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials
MICHIGAN										
DETROIT										
Acme Steel Treating Co.			2000(5)							
Allied Products Corp.	500(5)									
Anderson Steel Process Co.	1000(7)									
Auto City Steel Treating Co.	1000(5)									
Brown McLaren Mfg. Co.	1200(2)									
Budd Wheel Co.	2000(1)			80000(1)						
Burroughs Add. Mach. Co.		65000(1)			3000					27%NaCN 500(5)
Cadillac Motor Car Div. GMC							15000(?)			60% " 15000(5)
Chevrolet Gear & Axle Div. GM	5000(1)						100000			
Chrysler Corp.	25000(1)	200000(1)								27% " 1000(5)
Comm'l Steel Treating Co.	25000(5)									Chapman Comp. 10000
Commonwealth Industries, Inc.	3000(2)									
Detroit Bevel Gear Co.		12000(1)								
Detroit Gear & Mach. Div. B. W.	50000(1)							20000 LC		
Detroit Steel Treating Co.			3000(5)							
Ex-Cell-O-Corp.	1000(5)								10000	
Ford Motor Co.	50000(1)*	850000(1)	450000(1)			20000	Over 100000			
Gemmer Mfg. Co.						90000	50000			
General Steel Treating Co.	500(5)									
Hudson Motor Car Co.	120000(1)					15000	100000			
Hupp Motor Car Corp. (Closed)										
Kelsey Hayes Wheel Co.									30000	
Lincoln Engineering Corp.				18000(1)						
Long Mfg. Div. Borg-Warner	25000(1)	12000(1)								
Motor Products Corp.	500(4)									
National Machine Prod. Co.				10000(6)						
Packard Motor Car Co.	3000(3)									
Service Heat Treating Co.			1500(1)	12000(1)						
Standard Heat Treating Co.		2500(5)								
Universal Products Corp.	6000(5)					7000				
Vincent Steel Process Co.	3000(1)		3000(1)					10000 LC 10000 HC		
Whitman & Barnes Co.	500(1)									

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(1) R & H direct
(2) R & H thru Wagner
(3) R & H thru E-C
(4) R & H thru Udylite
(5) French thru Park
(6) A.C.Co. direct
(7) A.C.Co. thru F.B.Stevens

3169

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials
MICHIGAN										
ADRIAN										
Schwarze Electric Co.	1000(1)									
ALLEGAN										
Blood-Bros. Mch. Co.	8000(4)									
BAY CITY										
Chevrolet-Bay City Div.GM		100000(1)						5000 LC		
BENTON HARBOR										
New Products Corp.			500(6)							
BIG RAPIDS										
Hanchett Mfg. Co.							500			
BUCHANAN										
Clark Equipment Co.	15000(1)									
FLINT										
AC Spark Plug Div.GM	15000(1)		4000(5)							
Buick Motor Div. GM	10000(5)							300000 LC	20000	
GRAND HAVEN										
Ottawa Steel Products Co.	300(2)									
GRAND RAPIDS										
Knape & Vogt Mfg. Co.	2000(2)									
Keeler Brass Co.	35000(1)									
National Brass Co.			1200(1)							
JACKSON										
Frost Gear & Forge Co.	20000(5)									
Ryerson & Haynes, Inc.								4000 LC		
Teer-Wickwire & Co., Inc.	800(1)									
KALAMAZOO										
Fuller Mfg. Co.	500(4)		3000(4)							
LANSING										
Olds Motor Works Div. GM			25000(5)							
Motor Wheel Corp.	1000(3)									
Reo Motor Car Co.	1000(3)									
LAWTON										
Stearns-Stafford, Inc.	500(4)									
MT. CLEMENS										
Mt. Clemens Tool & Gear Corp.			1500(1)							60% NaCN 600(1)

(1) R & H Direct
(2) R & H thru J. C. Miller
(3) R & H thru Carrier Stephens
(4) A.C.Co. direct
(5) French (Hardy) thru Park
(6) Dutch thru Houghton

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials
MICHIGAN										
MUSKEGON										
American Coil Spring Co.			300(2)							
Brickner-Kropf Mch. Co.					200					
Continental Motors Corp.	2000(1)	25000(1)								
Muskegon Motor Spec. Corp.	18000(1)									27% NaCN 2000(2)
OXFORD										
Master Machine Gear Co.			10000(1)							
PONTIAC										
General Motors Truck Corp.	2000(1)					5000				
Pontiac Motors Div. GM	60000(1)									
PORT HURON										
Pressed Metals of America			500000(1)							
SAGINAW										
Chevrolet Parts Mfg. Div. GM	20000(2)		300000(1)					LC 10000(1)		
Columbia Mills, Inc.										
Lufkin Rule Co.		1000(1)								
Nelson Bros. Co.		400(1)								
Saginaw Steering Gear Div. GM									25000	
ST JOSEPH										
St. Joe Machines, Inc.			600(1)							

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(1) R & H Dircet
(2) French (Hardy) thru Park

3171

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials
INDIANA										
FORT WAYNE										
General Electric Co.	500(2)									
Horton Mfg. Co.							500			
International Harvester Co.	120000(1)		2000(3)							27% NaCN 500(3)
Griscer Industries				600(1)						
GOSHEN										
Penn Electric Switch Co.	500(1)	700(1)	1000(1)							
LOGANSPORT										
Logansport Machine Co.			300(3)							
SOUTH BEND										
Bendix Products Corp.	12000(1)		20000(1)							
Oliver Farm Equipment Co.		1000(1)								
Studebaker Corp.	10000(1)									

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(1) R & H direct
(2) French thru Hardy direct
(3) French (Hardy) thru Park

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND

ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials	
WISCONSIN											
MILWAUKEE											
Allis-Chalmers Mfg. Co.	300(1)										
Briggs & Stratton Mfg. Co.	5000(1)										
Cutler Hammer, Inc.		5500(1)									
Harley Davidson Motor Car Co.						5000					
International Harvester Co.	500(1)								10000		
Jambor Tool & Stamping Co.	3000(3)		3000(3)								
Thurner Heat Treating Co.	2500(1)		8000(1)				100	LC 300			
Wesley Steel Treating Co.		8000(2)	30000(2)	20000(2)			Little	Little		Chapman Comp.	?

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(1) R & H direct
(2) A. C. Co. direct
(3) Dutch thru Houghton

3174

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location	96/98%	75%	45%	30%	DuCase	Aerocase	Perliton	Holden	Parkcase	Other Materials
WISCONSIN (Excl. Milwaukee)										
CLINTONVILLE										
Four Wheel Drive Auto Co.			2500(1)							
GREEN BAY										
Northwest Engineering Co.	300(1)			800(1)						
KENOSHA										
Mac Whyte Co.										
Nash-Kelvinator Corp. Nash Div.	4500(1)	45000(1)	15000(1)				5000			
MADISON										
Madison Kipp Corp.		500(1)								
NEENAH										
Kimberly Clark Corp.			800(1)							
RACINE										
Andis Clipper Co.							400			
J. I. Case & Co.			2000(2)							
Twin Disc Clutch Co.							1000			
RIPON										
Barlow & Seelig Mfg. Co.			Pending							
WEST BEND										
Pick Mfg. Co.			2000(3)							
OSHKOSH										
Wisconsin Axle Co.			1200(4)					3600 HC		

(1) R & H direct
(2) A.C.Co. direct
(3) Dutch thru Houghton
(4) French (Hardy) thru Park

5151

CUSTOMERS AND POSSIBLE PROSPECTS FOR CASE HARDENING AND HEAT TREATING MATERIALS OF ANY KIND
ESTIMATED ANNUAL CONSUMPTION

Customer and Location.	96/98%	75%	45%	30%	DuCase
MINNESOTA					
MINNEAPOLIS					
Getchell Steel Treating Co.	1000 (2) & (3)		5000(5)		
Hart-Carter Co.		2000 (1) & (7)	10000 (1) & (7)		
Twin City Steel Treating Co.	1200(7)		1200(7)		
FARIBAULT					
Nutting Truck Co.			500(4)		
HOPKINS					
Minn. Moline Power Impl. Co.	500(3) 500(6)				
MANKATO					
Truth Tool Co.			800(3)		

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(1) R & H Direct
(2) R & H thru Northern Machinery
(3) R & H thru Frost Naus
(4) R & H thru T. K. Gray
(5) A C. Co. thru Thompson Hayward
(6) A C. Co. thru C. B. Lyon
(7) Dutch thru Houghton

ILLINOIS

CHICAGO

Automatic Electric Co.

Case hardening operations at this plant are very limited, and in the one pot which they operate, using cyanide, they employ 75% and 45% Cyanide-Chloride Mixtures purchased from us. In view of the little salt bath hardening operations carried on here no information of value was obtained.

Bell & Thorn Machine Co.

They recently installed an Ajax-Hultgren furnace and began operation with "Cyanegg". It is expected that this furnace will be operated only at infrequent intervals, so that their salt bath operations will always be small. No information of any consequence was developed here.

Borg & Beck Division—
Borg-Warner Corporation

They use a considerable quantity of cyanide purchased from us for case hardening operation and apparently are not considering the use of accelerated salt baths at the moment. They have had in mind trials of Perliton, but are giving no consideration to it now. In view of this there is no data to obtain as to their interest or use of deep hardening salt baths.

Central Screw Co.

We have very little information as to the extent of hardening operations here, but it is judged to be very small. They have one cyanide pot, probably of small capacity and in which they are using cyanide purchased from an unknown source. Later developments may disclose the nature of their operations.

Chicago Screw Co.

The last report made on this concern (by O'Donnell #314 of 4/29/37) indicates no present interest in accelerated salt baths, and they continue to purchase "Cyanegg" from us for case hardening purposes. Consequently we have no information showing their interest in deep

CHICAGO (cont'd)

Chicago Screw Co.

hardening baths at the moment, and very little information of value can be given.

Chromium Corp. of America

The only salt bath operation carried out here is Chapmanizing for which, of course, they purchase Chapmanizing salt. They have never used anything but this so have no comparative date as to its merit along side of Sodium Cyanide. This work was formerly done for them by Lindberg Steel Treating Co., Chicago, and was Chapmanized which is the reason that this process was installed when the change was made. Technical data on this installation is very meager, but we are given to understand that they are quite satisfied with the process.

Duro Metal Products Co.

This concern is a large consumer of 45% Sodium Cyanide, and since this product appears to produce the desired results, they claim to have no interest in accelerated salt baths. Consequently we have no comparative information to offer, especially as they state they intend to continue as at present.

Fairbanks-Morse & Co.

They use a very small amount of 96/98% Sodium Cyanide purchased from American Cyanamid Company, and because they are such small users no effort was made to check with them as to present and future operations.

International Harvester Co.

The main office of this company is in Chicago. Heat treating operations at the individual plants are reported under locations of such plants.

International Register Co.

They are small users of 45% Cyanide-Chloride Mixture purchased thru Chemical Distributors, and as such, claim not to be interested in competitive accelerated salt baths.

CHICAGO (cont'd)

D. D. Jennings & Co.

This concern is a very small purchaser of "Cyanegg" for case hardening purposes, consequently they were not in a position to offer us any assistance in this survey.

Johnson Fare Box Company

This is another small user of 75% Cyanide-Chloride Mixture, whom we did not contact for their views on the present trends in case hardening.

Kellogg-Switchboard & Supply Co.

They use a very small amount of "Cyanegg" for case hardening and were not in a position to give us information along this line.

Lindberg Steel Treating Co.

This is the largest job heat treating shop in the Chicago area, and in common with other job heat treaters of any size, must be prepared to perform any type of hardening operation requested by the customer. Consequently they have most of the competitive processes available, although they were not in a position to give us much helpful data. The consumption of such products by a concern of this type is extremely variable and about which they would hesitate to make predictions.

Mills Novelty Co.

This concern uses several Sodium Cyanide Mixtures for case hardening operations, but as best as we can determine do not use accelerated salt baths nor are they interested in them. As the result we have no comparative data to offer upon this concern's activities.

Stewart-Warner Corp.

1 The bulk of the salt bath hardening operations conducted by this concern are done with "Cyanegg", although they still purchase an appreciable amount of material for use in accelerated salt baths. The latter is used on several parts, which must be hardened to a greater depth than normally would be obtained with straight cyanide.

—4—

CHICAGO (cont'd)

Stewart-Warner Corp. (cont'd)

2 The accelerated salt bath in question is Aerocase

and has been operated for many years, the chief reason probably being that it was the only one of the accelerated salt baths on the market at the time their interest developed.

3 From straight cyanide they obtain a case of about 0.005″ in 30 minutes at around 1550° F.—they nearly double this with Aerocase in about 40 minutes. Technical information here is difficult to secure and none was available on costs.

4 No information.

5 None of these operations are carried on competitively to pack hardening, therefore, we can offer no information along this line.

6 No information.

Teletype Corp.

1 In addition to their present operations with cyanide, they maintain one bath with an accelerated salt for one job where they require a deeper case than they feel can be obtained economically with cyanide.

2 The deep hardening bath they operate is Aerocase.

3 Cases up to 0.005″ depth are all done in cyanide, but for anything deeper they expect to use Aerocase. A rough guess on their part as to the comparative cost of operating both baths was given as follows:

> The operation of Aerocase costs about half again as much, to produce a case of 0.010″ as a case of 0.005″ in cyanide would cost.

4 Their chief objection to a scumming bath is that in their opinion it reduces the depth of case obtainable in any given time.

5 No information.

6 Ajax-Hultgren furnaces are installed and being installed here so it is evident that they approve of this type of equipment.

—5—

Chicago (cont'd)

Union Special Machine Co.

All their hardening operations are done in Aerocase inasmuch as they require a deeper case than can be produced economically with Sodium Cyanide. This operation has been carried out here for a long time and they claim not to be interested in any other type of accelerated salt bath.

Victor Adding Machine Co.

They are not large users of Sodium Cyanide for salt bath operations but apparently are contented to continue with the use of this material in preference to accelerated salt baths. In view of this we have no information to offer in connection with the present survey.

Western Electric Co.

Although we have been informed that it is their intention to eliminate cyanide heat treating operations in their plant, they are still operating six small pots and are consuming "in the neighborhood of 10,000 lbs." of "Cyanegg" per year for this purpose. The elimination of cyanide hardening operations also precludes their interest in accelerated salt baths so we can offer little information along the lines of this report. At the present time they are attempting to replace cyanide pots with heavy duty gas carburizers, using a drip method for introducing hydrocarbon liquids into the furnace chamber. This method has been none too successful for their present work, and it is possible that they will have to go to gas carburizing in the continuous type of furnace in order to completely satisfy all of their requirements. Meanwhile, however, they continue to use Sodium Cyanide, and they are not experimenting with accelerated salt baths.

—6—

ILLINOIS (EXCLUSIVE OF CHICAGO)

AURORA

Independent Pneumatic Tool Co.

They buy 1000 lbs. Aerocase and 500 lbs. of Sodium Cyanide 96/98% from American Cyanamid Co. annually. Being very small consumers this concern was not called on recently and information requested in questions No. 1 to No. 6 not developed.

Stephens-Adamson Mfg. Co.

They buy 200 lbs. of Cyanegg from R & H annually. Being very small consumers this concern was not called on recently. Therefore information requested in questions No. 1 to No. 6 not developed.

BARTONVILLE

Keystone Steel & Wire Co.

Gager reported April 15, 1936 (Report #85) that they were operating a salt bath (mixture of potassium chloride and soda ash, with addition of 1% borax). Bath holds 3600 lbs. of salt which is mixed for them by Harshaw.

Papp has not called on them since.

DECATUR

MUELLER CO.

Last call on June 23, 1937, by Papp. They operate one Ajax Electric Heat Treat. Pot and use our No. 1 Heat Treat. Salt. (300 lbs. annually).

OAKES PRODUCTS CO.

1. Do not secure sufficient depth of case by use of Cyanide.
2. Use Aerocase bath because get greater depth of case in shorter time.
3. Operate their bath at 1600° F. In 20 minutes secure a case of 0.010". In 30 minutes they get over 0.012". They have no data on dragout, replenishment or fuel. They use pressed steel pots costing $38.00 each, which last only 200 hours.
4. Prefer no scumming.
5. Cannot answer.
6. Have no opinion.

HARVEY

BUDA MFG. Co.

Last report by Papp (5/25/37 #406) states have started using Perliton, say 5,000 lbs. annually. Papp intended following up, but has had no opportunity to date.

PERFECTION GEAR CO.

Last report by Papp (5/25/37 #405). Papp gives no information of any consequence in this report. Another call should now be made to develop the desired information.

EAST MOLINE

International Harvester Co.

Their main job is to copper plate (especially cam shafts) for selective carburizing purposes. Work is all treated in gas furnaces. Only place they use Cyanide is for certain tools. They use less than 500 lbs. annually for heat treating. Could not furnish any information as to depth of case, etc.

MOLINE

Deere & Co.

1. Cyanide does not give a deep enough case.
2. They are experimenting with Holden's Hardcase compound because it serves an inbetween job for them. They must have a 0.020" to 0.025" case. This is too much to attain with cyanide and carburization is difficult because small parts are in question. Generally, however, these would be carburized, but the job can now be done in two hours with Holden's Hardcase.
3. Mr. Bornstein, Metallurgist, states that he believes Holden's Hardcase costs them 25¢ per lb. Starting with a full pot for every 300 lbs. of work going thru, they must add 10 lbs. of Holden's Hardcase compound.
   Temperature 1550° F. Time 2 hours.
   Fuel cost 1¢ per pound of metal.
   Use pressed steel pots which have a life of about 350 hours.
4. Prefer no scum.
5. No data other than that given in 3.
6. No.

MORTON

GETZ POWER WASHER CO.

Papp has made no calls on them this year. They treat parts made of 1120 steel. So far this year they bought from us 400 lbs. of 45% and 200 lbs. of Cyanegg:

ILLINOIS (cont'd)

NORTH CHICAGO

Oakes Products Corp.

1 All salt bath operations at this plant are now being conducted with accelerated salt baths because insufficient depth was obtained thru the use of straight cyanide in a reasonable length of time.

2 Holden Hard Case is being used extensively, although they are experimenting with Perliton largely as a matter of comparison. The reason for the selection of these two baths is not evident.

3 No information.

4 We have no information regarding this.

5 These processes are not competitive with pack hardening as used at this plant.

6 No information.

PEORIA

Altorfer Bros. Co.

Very little information is available as to this concern's activities because of their policy regarding interviews with Technical Departments. We know they are using

Aerocase in a very limited way, but have no data as to the results obtained or costs of performing them.

Caterpillar Tractor Co.

We have no data on their specific heat treating operation, but they continue to purchase cyanide from us for this purpose. Papp's last Trade Report on this call is #425 of 6/24/37, which indicates that the use of cyanide for this purpose should continue.

ROCKFORD

American Cabinet Hardware Co.

Salt bath hardening operations at this plant are quite limited and Sodium Cyanide continues to be favored. We have no evidence of any interest on their part in accelerated salt baths.

ROCKFORD, ILLINOIS (cont'd)

Barber-Colman Co.

Their hardening operations are limited to the production of quite shallow cases, which, of course, can be done best with Sodium Cyanide. Consequently they are not interested in deep-hardening salt baths nor in gas carburizing for this purpose.

Elco Tool & Screw Corp.

1 They are using accelerated salt baths to produce a case which appears could be done with the use of straight Sodium Cyanide. Consequently, it is doubtful if a cyanide bath offers any limitations which require the use of the deep-hardening type of bath.

2 Aerocase is the preferred product here and they claim the reason for its selection is that it fumes less than

straight Sodium Cyanide baths operating at the same temperature.

3 They were able to produce a case of 0.007" in 25 minutes at 1550° F. on self-threading type of screws which other producers heat treat with Cyanide. Inasmuch as all of their operations are Aerocase, they have no comparative costs for this process against cyanide.

4 Their baths all operate with a certain amount of scum which appears to be preferable, and which offers them no difficulties in manipulation.

5 This operation is not competitive to pack hardening.

6 They are unfamiliar with the Ajax Hultgren furnace.

Frederick Steel Treating Co.

1 This is one of the few job heat treating shops operating accelerating salt baths, and they do so in order to produce deeper cases than are normally obtained thru the use of straight cyanide.

2 In this case Perliton is being used, although we are informed that they had considerable trouble with the material when first tried out.

ROCKFORD, ILLINOIS (cont'd)

Frederick Steel Treating Co. (cont'd)

3 In Perliton they obtain a case depth of about 0.010" in 30 minutes or 0.025" in 3 hours. In the latter case they are substituting such treatment for pack carburizing operations. Comparative costs between the operation of straight cyanide and Perliton were not available.

4 They would rather have no scum, but in operating Perliton must use it.

5 See No. 3.

6 They have no interest in the Ajax-Hultgren furnace.

O. T. Muehlmeyer Heat Treating Co.

This is a small job heat treating shop consuming a very limited amount of cyanide for case hardening purposes. They are not using accelerated salt baths and claim not to be interested in same. Consequently, information obtained here is of little value.

National Lock Company

This is our chief heat treating customer in Rockford and from Papp's Report #511 of 8/2/37, they apparently are quite satisfied to continue to use Sodium Cyanide for all of these operations. Inasmuch as they are not interested in accelerated salt baths, we have no comparative data along this line.

Rockford Drilling Machine Co.

1 They are operating an accelerated salt bath in order to produce a deeper case than can be economically produced in Sodium Cyanide.

2 Aerocase is the preferred material, but we have no information as to the reason for this selection in preference to any other deep-hardening bath.

3 They claim to obtain a case of 0.006″ to 0.020″ in Aerocase in 20 minutes, although it is more likely to be the former figure. No data was available on costs of Aerocase as compared to cyanide.

4 They had no objections to scumming baths.

5 No information.

6 No information.

Spengler Loomis Co.

1 On their particular type of work they are able to obtain

from cyanide a sufficient depth of case in a reasonable time so that the use of accelerated salt baths is not warranted.

2 They have made trials of Perliton, Aerocase and Holden materials, and have decided to continue with Sodium Cyanide.

3 They endeavor to obtain a case of 0.007" at 1600° F in about 20 minutes in an electric fired furnace. This enables them to get maximum pot life.

4 At the temperature which they operate scum does not remain, although even at normal temperatures, they would prefer to have no scum.

5 These operations are not competitive with pack hardening.

6 They claim to be unfamiliar with Ajax-Hultgren furnace.

Sundstrand Machine Tool Company

Heat treating operations here are extremely limited and they purchase a very small amount of "Cyanegg" annually for use on tools in the only salt bath in operation at this plant.

ROCK ISLAND

International Harvester Co.

Although they use a fair amount of "Cyanegg" for heat treating purposes, we have no late information as to their present operations. The last report of this concern is Papp's #804 of 9/24/36.

Rock Island Arsenal

Although they are experimenting with Perliton and have not arrived at a decision as to its merit, their heat treating operations in general are rather small. For this they have used "Cyanegg" purchased from us for many years. Later calls will probably determine the value of Perliton for the type of heat treating done here.

ROCK ISLAND, ILLINOIS (cont'd)

C. U. Scott & Sons Co.

1 This is a job heat treating shop where "Cyanegg" seems to be preferred for salt bath hardening.

2 They have made trials of Perliton and Holden Hard Case, but do not use them in regular practice.

3 In Cyanide they try to produce 0.003" to 0.004" case at 1500° F in 20 to 30 minutes. This seems to be the limit of their requirements since they recognize that deeper cases would require considerably greater time and would be impracticable.

4 They prefer not to operate a scumming bath.

5 None of this work is competitive to pack hardening, consequently we have no information.

6 The Ajax-Hultgren furnace has been considered here, but because of local power costs, it is thought to be entirely too expensive.

WEST PULLMAN

Ingersoll Steel & Disc Division—
Borg-Warner Corporation

We have no late report on the activities of this concern, but in view of their increasing consumption of cyanide purchased from us, it does not appear as though they are using accelerated salt baths. A later call will have to be made to determine whether any interest in deep hardening baths has developed.

INDIANA
FORT WAYNE

General Electric Co.

Very little heat treating with salt baths is done here and as most of this is tool room work, they use straight Sodium Cyanide. Consequently they appear to have no interest in accelerated salt baths.

Griscer Industries

Hardening operations here are limited to one very small pot in which they use 30% Case Hardener purchased from us.

Horton Mfg. Co.

1 They were never able to obtain with our 75% Cyanide-Chloride Mixture sufficient depth for the one part which they harden. Consequently they installed an accelerated salt bath.

2 This bath is Perliton and there appears to be no particular reason why this bath was installed in preference to any of the other deep-hardening baths on the market.

3 No details were available.

4 Apparently the use of a scummed bath means very little to them, and they certainly are not at all concerned with any possible disadvantage a scum offers in manipulation.

5 No information.

6 No information.

International Harvester Co.

1 Accelerated salt baths do not appear to be a factor in this plant at the moment, but we are faced with considerable competition thru the installation of gas fur-

naces for shallow case work.

2 Most of the accelerated salt baths have been tried, but no particular advantage over use of straight cyanide was found.

3 Practically all of their cyanide work is for reheating truck transmission gears which have been carburized, and they figure the cost of reheating about 75¢ per hundred pounds.

FORT WAYNE, INDIANA (cont'd)

International Harvester Co. (cont'd)

4 A small amount of scum appears on most of their cyanide baths at all times, and they consider this highly desirable and not in anyway interferring with the operation of the baths.

5 None of their operations with salt baths are considered competitive to pack hardening.

6 Ajax-Hultgren furnaces are of no consequence here. A large Holcroft gas furnace now being installed is expected to handle transmission gears on which they want a slightly deeper case than now being obtained with straight cyanide. Consequently they do not expect to replace all of their cyaniding operations with such a furnace, although it is reasonable to assume that should this operation work out as contemplated, efforts would be made later to change the remainder of the cyanided work to gas. They feel quite sure that in the interest of economy, this move should be made particularly in view of the large amount of this type of work which they have to do.

GOSHEN

Penn Electric Switch Co.

Heat treating operations here are on a very small scale, and we sell them Sodium Cyanide for this purpose. It is not anticipated that accelerated salt baths will replace any of this work.

LOGANSPORT

Logansport Machine Co.

One small pot is operated here using French 45% Sodium Cyanide, and since their operations are so limited no call was made here.

SOUTH BEND

Bendix Products Corp.

Competition to our 45% Cyanide-Chloride Mixture here is not accelerated salt baths, but small rotary gas furnaces. In the latter type of equipment they are able to produce about 0.015″ in 30 minutes, using city gas and ammonia mixtures. This produces a case

SOUTH BEND, INDIANA (cont'd)

Bendix Products Corp. (cont'd).

which appears to be very similar to a cyanide case, and certainly adequate for their purposes. They expect to replace all of their cyaniding operations with this type of furnace in the next year or so. Gas is preferred because of its labor saving advantages and ease of operation.

Oliver Farm Equipment Co.

Salt bath operations are confined to the use of 75% Cyanide-Chloride Mixture purchased from us, and they do not anticipate the use of accelerated salt baths. The particular operation for which this is used has been carried out for many years and is considered to be routine.

Studebaker Corporation

Although their Metallurgical Division believes that accelerated salt baths have a very definite place in the heat treating field, they have not been permitted to carry out any trials to confirm this, because of the receivership they have just passed thru and subsequent rulings which limit the amount of money which can be spent on experimental work. For the time being, however, they intend to continue to use Sodium Cyanide, which after all is not considered to be a major operation here. Gas furnaces will probably not be used unless Studebaker should resume the manufacture of their own transmissions and rear axles.

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MICHIGAN

DETROIT

Allied Products Corporation

This is a small concern operating only one pot using 96/98% Sodium Cyanide purchased from Park Chemical Company. This pot is operated only intermittently, consequently their consumption of cyanide is extremely small. Because of these factors they are not experimenting with accelerated salt baths and no information of value was obtained.

See K'Burg's Trade Report #538 of 8/25/37.

Brown-McLaren Manufacturing Co.

This concern operates two pots using "Cyanegg" purchased from A. T. Wagner Company, but most of their work is hardening of tools. Consequently they have little interest in other types of baths, and will probably continue to use "Cyanegg". No other information of interest was developed. Please see K'Burg's Trade Report #10 of 1/7/37.

Budd Wheel Company

1. A temporary operation carried out a few months ago could not be hardened to the required depth in cyanide, and during this period they operated Perliton in one pot with complete satisfaction. This was merely a matter of obtaining case depth greater than produced by cyanide but less than obtained thru carburizing, and would probably be done again in Perliton if the operation should be resumed.
2. None.
3. They have no data comparing the cost of cyanide operation and Perliton nor do they have any on cyanide alone for publication.
4. Although recognizing some possible economic advantages of scum, they prefer to operate their own baths without this layer, but make no particular effort to control the amount of scum which appears normally.

Budd Wheel Company (cont'd)

5. No information.
6. They operate one furnace of the Ajax Hultgren type, which has never been very satisfactory due to faulty construction, rather than inability to produce results. It has been their plan to install this type of furnace throughout the Heat Treat Department, but because of their adverse experiences they now intend to purchase more gas fired equipment. In general they be-

lieve that where only skin hardness is desired cyanide will always be used, at least, insofar as the Budd Wheel plant is concerned. See K'Burg's Trade Report #509 of 8/10/37.

Burroughs Adding Machine Co.

1. With the exception of one operation their work is peculiarly adapted to cyanide hardening only, and consequently, they do not intend to make any changes. The cyanide bath has been found uneconomical because of inability to produce a deep enough case for one job only and on this "Ducase" is used.
2. "Ducase" is used to produce a deeper case on medium steel parts used as dies in order to save them the expense of manufacturing or purchasing expensive and permanent dies.
3. They ran one trial with Holden's Light Case as compared to "Ducase" and discarded it because they found it deteriorated more rapidly. No data was available concerning the operating cost of both processes.
4. Scumming baths are objectionable.
5. No information.
6. They have only abstractly considered the Ajax-Hultgren type of furnace but have concluded that it has no particular advantages for them.

DETROIT (cont'd)

Cadillac Motor Car Division
General Motors Corporation

1. They have run in adjacent pots the special 60% Sodium Cyanide Mixture made for them by Park Chemical Company and Perliton, Holden Light Case, Holden Hard Case, and Parkcase. Right now they are operating Perliton at the rate of about 15,000 lbs. annually

in order to produce a deeper case than could be obtained in cyanide. It should be emphasized that Perliton has not been definitely decided upon as permanent replacement for a portion of their cyaniding operations, but rather as being used pending the final evaluation of the results of all of these tests. In any event some accelerated salt bath will be used here for about half of the work which ordinarily is salt bath hardened.

2. (See #1).
3. No actual cost figures are available, but we were given to understand that they feel there is very little difference between cost of operating cyanide and Perliton. This belief is based upon comparable operating time, temperature, etc., although they do know that in the same time they obtain greater case depth with Perliton.
4. They prefer not to operate a scumming bath, but at the same time seem to have no particular objection to the scum which is necessary on a Perliton pot. Insofar as their own operations are concerned manipulation with a scum surface is not difficult.
5. They are not considering substitution of deep-hardening salt baths for pack hardening, and consequently have no data on this comparative basis.
6. They claim to have no interest in the Ajax-Hultgren type of furnace.

DETROIT (cont'd)

Chrysler Corporation

At the Jefferson Avenue plant a little heat treatment is done and this with "Cyanegg". No changes in this operation are contemplated here. No heat treating is done at the DeSoto plant and very little at the Plymouth and Chrysler Highland Park plants. Practically all heat treatment for this organization is done by the Dodge Division.

Concerning the Dodge Division practically no information has been developed beyond what Mr. Scott Taylor, metallurgist, has given to Mr. Gager at various times. We know that they operate a small amount of Aerocase and their Holcroft furnaces are used for certain purposes. Meanwhile they have continued to purchase large amounts of cyanide for hardening purposes, and to the best of our knowledge, they are not immediately planning to replace any cyanide with gas carburizing, although accelerated salt baths may be under consideration.

Commercial Steel Treating Corp.

This is the largest production job shop in Detroit, and probably in the middle west, so that it is imperative that they not only be prepared to heat treat by any method specified, but also have complete knowledge of the various processes offered for every purpose. Consequently, should a customer specify any one of the various types of accelerated salt baths, this concern would be in a position to perform the operation satisfactorily.

However, where no specification has been made, they always operate with straight cyanide, inasmuch as they claim to have performed thorough tests on the comparative operation of these various accelerated salt baths against Sodium Cyanide and found that in every case where the Sodium Cyanide content of the bath was maintained above 30% that there were no advantages whatsoever in the accelerated salt baths. This information is not at all in agreement with other data

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given us by industrial concerns in Detroit, but at least is governing present salt bath operations at this plant. Please refer to K'Burg's Trade Report #536 of 8/25/37.

DETROIT (cont'd)

Commonwealth Industries, Inc.

This is a small job shop doing both production hardening and production plating. Their chief interest is in plain heat treatment and carburizing, and very little is done in cyanide or salt baths. They have no data on the operation of various types of accelerated salt baths nor are they particularly interested. No information of value could be obtained here.

Detroit Bevel Gear Company

Their chief heat treating operation requires the use of heat treating salts purchased from us. We were informed that they have made no effort to study accelerated salt baths as compared to 75% Cyanide-Chloride Mixture purchased from us nor do they intend to do so. Consequently they had no information along this line and said that we need have no worry concerning their substitution of some other material for the use of our cyanide.

Detroit Gear & Machine Division—Borg-Warner Corporation

1. Although they operate two fairly large pots with Holden's Light Case, cyanide appears to have no particular disadvantages or limitations here.
2. As best we can determine Holden's Light Case was installed here originally, only as an experiment, and they have continued to use it to substitute a portion of

the work formerly done in our cyanide. They attempt to obtain no greater case depth, but inasmuch as the difference in cost of operating these two baths is so slight (probably in favor of Holden's Light Case) they have never cared to return to cyanide for the same operation.

3. All heavy production work, that is, Ford truck gears, is cyanide in the Warner Gear type continuous furnace and basket work is done in Holden's Light Case in average size pot furnaces. In both processes they obtain about 0.003″ to 0.005″ of case in 20 to 40 minutes time at 1550° F.

Detroit Gear & Machine Division—(cont'd)
Borg-Warner Corporation

4. They have always objected to a scumming bath. A certain amount of scum is always present on their cyanide bath, but they no longer consider it a matter of major concern.
5. They make no effort to use the accelerated salt baths in competition with pack hardening so have no information.
6. They claim to have no particular interest in a furnace of the Ajax-Hultgren type, and for the time being, at least, they are not considering the installation of one.

Ex-Cell-O Corp.

1. At this particular plant the limitation of cyanide is failure to produce sufficient case depth in a reasonable time. For cases of 0.003″ depth, they continue to use cyanide, but have changed over all of their other work to Holden Hard Case.

2. (See #1)
3. They had no data available.
4. No information was obtained.
5. They are not concerned with the substitution of accelerated salt baths for pack hardening, and consequently had no information.
6. No information.

Ford Motor Company

In the Ford Motor Company where the variety of the salt bath hardening operations is probably greater than in any other single plant in the country, it is almost impossible to give specific answers to the six questions proposed by Dr. Holt.

Ford Motor Company (cont'd)

As generally as possible these answers would be as follows:

1. The greatest single limitation to the cyanide bath is stated to be its slow rate of case hardening as compared to the newer type of case hardening baths. It is not their purpose to substitute deep hardening baths for cyanide in order to obtain a greater depth of case than they were in the practice of obtaining with straight cyanide.
2. Perliton is in wide use throughout the Ford plant, because it produces a deeper case than cyanide in about two thirds of the time. It also operates with a scummed surface, which they believe to be highly advantageous in view of the greater comfort of the operator, the added pot life, and the lower cost of heating a pot where radiation is minimized.

3. Operations are too varied to give this information in detail, but this is partially answered in Question #2.
4. The scumming bath is definitely preferred and they do not find that the manipulation of this type of bath is much more difficult than straight cyanide.
5. They are making no effort to introduce accelerated salt baths to compete with pack hardening, consequently we cannot answer this question.
6. They are favorably impressed with furnaces such as the Ajax-Hultgren type, but inasmuch as their present intention is to replace salt baths with gas carburizing furnaces there is no point in their investing in this type of equipment. It is possible that some of the salt baths which they must continue to operate will eventually be placed in this kind of furnace.

For details of the situation here please see K'Burg's Trade Report #525 of 8/30/37.

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DETROIT (cont'd)

Gemmer Manufacturing Co.

1. For many years this concern has operated a bath of the accelerated salt type, chiefly because they were unable to obtain with cyanide a sufficient case depth in a reasonable hardening time.
2. They operate both Aerocase and Perliton for the reasons mentioned in No. 1.
3. We are unable to provide this information.
4. No data on this.
5. No effort is made to compare the operation of deep-hardening baths with pack hardening, consequently we have no information on this subject.
6. They operate Ajax-Hultgren furnaces only and are considerably pleased with the results obtained thereby.

Hudson Motor Car Company

1. The chief limitation of the cyanide bath here is its inability to produce deep cases, and it is their intention to substitute accelerated salt baths for cyanide in an effort to compete with pack hardening and carburizing.
2. The Perliton bath is favored here now, inasmuch as they are able to obtain good cases up to 0.035″ depth in a time which compares most favorably with the overall time required to do the same operation by pack hardening.
3. At the moment they are using Perliton chiefly to perform operations formerly done in cyanide and not to substitute for pack hardening as is their ultimate intention. They use Perliton for both decreasing the amount of time required to produce a shallow case in cyanide and also to produce a deeper case in the same amount of time. Cost data is not available, but they believe they show an operating saving through using Perliton, in that less fuel is required to fire a pot of it. They have noticed very little difference in pot life obtaining around 1600 hours with cast steel pots.

Hudson Motor Car Company (cont'd)

4. A scumming bath is definitely preferred not only for the reasons mentioned in No. 3, but because the workmen experience much less discomfort from heat radiation and fumes. So far they have not been troubled to any extent by the scum in manipulation of the bath.
5. This is about the only concern in this territory where any thought has been given to the use of accelerated salt baths in competition with pack hardening. Even

for this they do not intend to carburize to as great a depth as they do with pack hardening, but expect to use it up to depths of 0.035", which can be produced in about 2½ hours at 1550° to 1600° F. The cost for producing this, they expect will be slightly less than the same operation done by pack hardening.

6. They are interested in the Ajax-Hultgren type furnace as a means of obtaining continuous salt bath hardening operation, but are a little afraid of difficulties which may be encountered if a scumming bath is used. Because they like the latter type of bath, they will probably hesitate some time before investigating the Ajax furnace for this purpose. Please refer to K'Burg's Trade Report #528 of 8/24/37.

Kelsey-Hayes Wheel Co.

1. Althought they are now using an accelerated salt bath for operations almost identical to those carried out by Budd Wheel Company with cyanide, it would seem that they have no particular objection to the use of cyanide nor did they find any limitations to it. This same operation was formerly carried out in a cyanide mixture manufactured for them by the Park Chemical Company.
2. They are operating Parkcase throughout and apparently the only reason for selection was that they were induced to do so by Park Chemical Company. They claim there is very little difference between the price of this particular grade of Parkcase and that of the mixture formerly supplied them by the same concern, which would indicate that they had used either a 60% or 70% Sodium Cyanide.

DETROIT (cont'd)

Kelsey-Hayes Wheel Co. (cont'd)

3. They have no comparative data on the relative cost of the use of Parkcase and cyanide, although it is their belief that they save a very little bit on operating time.
4. They prefer not to have a scumming bath although they never made any effort to control this factor when using straight cyanide.
5. No information on this subject inasmuch as they are not considering the use of this type of bath in competition with pack hardening.
6. In theory the Ajax-Hultgren furnace appeals to them, but they have no particular interest in the operation of such a furnace now. If they did it would be merely to replace their present gas equipment and not with the idea of installing a larger pot.

Lincoln Engineering Co.

This concern operates several small pots using 30% Case Hardener purchased from us, merely as a clean heat treating medium. They have no other hardening operations and consequently are uninterested in accelerated salt baths or gas furnaces.

Long Mfg. Division—
Borg-Warner Corporation

1. So far they have found no limitation to the use of straight cyanide and are not at the moment using any accelerated salt baths and claim not to be contemplating their use.
2. See No. 1.
3. See No. 1.

4. They do not prefer a scum type bath.
5. No information.
6. They intend to install an Ajax-Hultgren type furnace for use with heat treating salts in connection with brazing operations. So far this concern has not experimented with accelerated salt baths, although I believe such could be used if properly sold to them. Evidently this has not been done yet and they state that they prefer to continue to use cyanide.

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DETROIT (cont'd)

Motor Products Corp.

Heat treating operations at this plant are extremely limited as they operate but three small pots, two with "Cyanegg" and one with Perliton. These pots are operated very intermittently and as a consequence their consumption of these materials is very small. No information of value was obtained.

National Machine Products Co.

This concern has one Ajax-Hultgren furnace in which they use 30% Sodium Cyanide purchased from American Cyanamid Company as a clean heat treating medium only. They are not interested in accelerated salt baths nor gas hardening furnaces.

Packard Motor Car Co.

We were given to understand by their metallurgist that they operate only two salt bath pots throughout the Packard plant, one of which is a cyanide mixture, which they make by dilution of "Cyanegg" with Sodium Chloride and the other pot in which they are experimenting with Perliton. They have drawn no conclusions as to the value of the latter process, and consequently were not in a position to give us much information. We were previously advised by their Purchasing Department that they were experimenting with Holden's Hard Case and also Parkcase, so it is evident they are making a complete trial of the materials in this field, although in any event; their total consumption is not likely to be very large even after the final decision as to which bath will be used is made.

Service Heat Treating Co.

This is a job heat treating shop which uses our Sodium Cyanides, chiefly as a clean heat treating medium for nuts and bolds for one of their customers. Their salt bath facilities are very limited and they are not using nor contemplating using any accelerated salt bath.

DETROIT (cont'd)

Timken-Detroit Axle Co.

Practically all heat treating operations here are of the pack hardening type, although they operate two cyanide pots intermittently with "Cyanegg". They are not interested in the use of accelerated salt baths nor do they have sufficient shallow case operations to warrant the installation of expensive gas furnace equipment. At their Wisconsin Axle plant, Oshkosh, Wisconsin, they are experimenting with Parkcase in competition with cyanide, but nothing definite has been started as yet we understand. Please refer to K'Burg's Trade Report #539 of 8/25/37.

Universal Products Co., Inc.

1. The only limitation which they found for cyanide which forced them to consider accelerated salt baths was on

a special part manufactured for Dodge where they ran into brittleness on a many-edged piece. They were able to overcome at the suggestion of Dodge by installation of a bath which produces a predominately carbon case.

2. For this operation Aerocase was selected because of the nature of the case produced and because Dodge was using the same bath successfully for a similar operation.
3. They make no particular effort to obtain a deeper case with Aerocase than they did with cyanide and their time of treatment is extremely short any~~how~~. They have no definite data comparing costs between the two processes.
4. No information.
5. No information.
6. No information.

Vincent Steel Process Co.

This is a fairly large job shop doing practically every type of heat treatment with the exception of some of the special processes such as nitriding or Chapmanizing. Up until recently they operated with our cyanide only, but because the son of the owner, is the local representative for Holden, they have replaced much of their cyaniding operations with both Holden's Hard Case and Light Case. As the result our cyanide sales here have decreased, but not because of any particular limitation

DETROIT (cont'd)

Vincent Steel Process Co. (cont'd)

of the cyanide bath. They believe that it costs them about the same to operate either Holden baths as compared to Sodium Cyanide.

Whitman & Barnes Co.

They are a very small user of cyanide for heat treating purposes, consequently no call was made here recently. They consume approximately 500# of cyanide yearly.

Job Heat Treating Plants

The following concerns are all job heat treating plants located in Detroit and which consume cyanide or cyanide mixtures in varying small amounts from local suppliers. No contracts were made at any of these plants because of the limited amount of information we could obtain from such a user, but they are listed here in order to complete the picture in the Detroit area:—

- Acme Steel Process Co.
- Anderson Steel Treating Co.
- Auto City Treating Co.
- Detroit Steel Treating Co.
- General Steel Treating Co.
- Standard Heat Treating Co.

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MICHIGAN (EXCLUSIVE OF DETROIT)

ADRIAN

Schwarze Electric Co.

This concern is a relatively small user of Sodium Cyanide for heat treating purposes, but what they use they purchase from us. No recent call has been made here although we understand that in view of the limited extent of their hardening operations they will continue to use Sodium Cyanide.

ALLEGAN

Blood-Brothers Machine Co.

Although they have experimented with Perliton, they were unable to note sufficient advantages to warrant replacing straight cyanide heat treating with this bath and consequently the use of accelerated salt baths in general are not under consideration. For their present purposes Sodium Cyanide does adequately, and they expect to continue its use.

BAY CITY

Chevrolet-Bay City Division
General Motors Corporation

1 DuPont 75% Cyanide Chloride Mixture continues to be used here for practically all operations except the hardening of the Chevrolet speedometer gear on which they find they require a deeper case than can be produced with cyanide.

2 For the speedometer gear operation they use Holden's Light (?) Case for the reason mentioned above.

3 No information was obtained.

4 They prefer not to have a scumming bath, which is one of the reasons why they installed Holden's Light Case instead of Perliton. It will be recalled that they complained some years ago about scum on straight cyanide baths, and although this was never completely eliminated they were convinced that there was some merit in a certain amount of scum on the surface of most any molten bath.

5 No information

6 No information

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BENTON HARBOR, MICHIGAN

New Products Corp.

No calls have been made here recently, but this is a very small concern, which formerly operated a single pot using straight Sodium Cyanide. Heat treating requirements at that time were extremely limited, and judging from the appearance of the plant, we are doubtful if any increases in this operation have occurred.

BIG RAPIDS

Hanchett Mfg. Co.

This concern operates one salt bath using Perliton which they find very satisfactory for their purposes. They require a slightly deeper case than they formerly obtained with straight Sodium Cyanide and expect to continue its operation. Salt bath operations are very limited, consequently we have no information of value on this concern's activities.

BUCHANAN

Clark Equipment Co.

1 They are using "Cyanegg" for all salt bath hardening operations; the remainder of the heat treatment in this plant being pack hardening. Cyanide is used largely as a reheat after pack hardening or as a clean heat treating medium. Where salt baths are required they have not found cyanide to offer any limitations.

2 They are operating Holden's Light Case in one small pot, but this appears to be an error as they really require Holden's High Speed Case for the purpose intended. The use of this bath as a substitute for cyanide was not contemplated when the material was purchased. This, of course, does not preclude the possi-

bility of an attempt on their part to use it for this purpose.

3 No information available.

4 They prefer not to have a scumming bath, but make no effort to control this factor on the cyanide bath they operate at present.

BUCHANAN, MICHIGAN (cont'd)

Clark Equipment Co. (cont'd)

5 Some years ago they attempted to substitute Aerocase for some pack hardening operation and found that this was entirely too costly, although they were able to obtain fairly satisfactory results on the particular operation in question.

6 They have no information on this type of furnace and do not appear to be interested.

FLINT

AC Spark Plug Division-
General Motors Corp.

No deep hardening baths are in operation here and it is very unlikely that any will be installed because of the nature of the small parts which they must harden in salt baths. Many years ago they found that for a certain group of very small parts, the use of a salt bath was too expensive because of the excessive drag-out and for this purpose a gas carburizing furnace was installed. This was always used with complete satisfaction.

Buick Motor Division-
General Motors Corp.

1 We have been given to understand that for most of the

operations Buick has conducted in salt baths during the past few years Sodium Cyanide had no particular limitation. For speedometer gears, however, they found that better results could be obtained with a deeper case produced thru the use of deep hardening salt baths.

2 Holden's Light Case has been used here in very large quantities through 1936 and 1937 as a heating medium for the reheat of gears manufactured from oil hardening steel. Formerly this operation was carried out in a bath made up from 40% Sodium Cyanide mixed by themselves. The real reason for this change was not disclosed inasmuch as it did not seem to be one of improvement in treatment, and it definitely increased their cost. The Metallurgical Department of Buick recommended against it. Probably the only reason why Holden's material was used here was

because this was the first of the accelerated salt baths of this type to be installed in the Buick plant, and this was done only experimentally on a small job prior to its general use on gears.

On speedometer gears Parkcase is being used and is producing very satisfactory results. In this instance they wished a deeper case than could be obtained thru use of cyanide.

3 No data could be secured except that the Metallurgical Department of Buick feels that the use of Holden Light Case instead of 40% Cyanide has cost the company

just about the difference between the material costs of the two products. This is in the neighborhood of 4c to 5c per pound in favor of the 40% cyanide.

4 Scumming baths are not preferred.

5 None of their experimenting with accelerated salt baths has been done with the object of replacing pack hardening operations.

6 Because they are now installing Holcroft furnaces for shallow case gas carburizing, they have no interest in the Ajax-Hultgren furnace.

GRAND HAVEN

Ottawa Steel Products Co.

This company is a very small user of Sodium Cyanide for heat treating purposes, consequently no call has been made here recently.

GRAND RAPIDS, MICHIGAN

Keeler Brass Co.

1 For their purposes they have discovered no limitation of the cyanide bath.

2 Trials have been made of Perliton, Holden Light Case and Hard Case, and also Parkcase, all of which possessed disadvantages as compared to cyanide, and insofar as they were able to determine, no advantages.

3 They attempt to obtain about 0.004" to 0.005" case in 30 minutes, and feel that they come quite close to this with "Cyanegg." During their trials with deep-hardening salt baths no attempt was made to secure comparative data on cost, drag-out, etc.

4 A scumming bath is particularly objectionable to them.

5 No information.

6 They are not interested in the Ajax-Hultgren furnace and plan to install several new gas fired furnaces soon. Gas costs are very low in Grand Rapids since natural gas has been piped into the city recently.

Knape & Vogt Mfg. Co.

Salt bath hardening operations here are very limited, although they purchase "Cyanegg" for this purpose thru J. C. Miller Co. No call was considered necessary during this survey.

National Brass Co.

They operate one small pot using our 45% Cyanide-Chloride Mixture for Tool Room work. Consequently they have no interest in deep-hardening salt baths.

JACKSON

Frost Gear & Forge Co.

Because the plant was closed and personnel absent on vacation no up-to-date information was obtained. In the past they have been using French 96-98% Sodium Cyanide purchased thru Park Chemical Company, but to the best of my knowledge were not using any accelerated salt baths. Due to the nature of their work it is quite likely that an accelerated salt bath would produce even better results than are obtained from Sodium Cyanide so it would not be surprising to find that they are experimenting with such processes.

JACKSON, MICHIGAN (cont'd)

Ryerson & Haynes, Inc.

One large pot is in operation using Holden Light Case on a part which might better be heat treated in cyanide. They know very little of heat treating operation so merely have continued with the first material brought to their attention at the time their salt bath furnace was installed. Use of low test cyanide has been suggested for their purpose and it is possible that the change will be made later at some saving to themselves.

Teer-Wickwire & Co., Inc.

Salt bath operations here are very limited and becoming less year by year. They harden a Ford replacement part and use "Cyanegg" for this purpose. Due to their lessening interest in cyanide or any salt bath, they see no point in investigating accelerated salts.

KALAMAZOO

Fuller Mfg. Co.

One small gear which they produce is hardened in 45% Sodium Cyanide purchased from American Cyanamid Co. They have tried Holden Light Case, which produces about the same type of case they now obtain with cyanide, but which offered some operating difficulties, making its use objectionable. Consequently they are not looking into accelerated salt baths of any form and expect to continue to use Sodium Cyanide.

LANSING

Motor Wheel Corp.

Salt bath operations are very small and they use cyanide purchased from Carrier-Stephens Company for this purpose. They claim to have no interest in accelerated salt baths and the amount of heat treating they do would not warrant the installation of gas hardening furnaces for this purpose.

LANSING, MICHIGAN (cont')

Olds Motor Works Division— General Motors Corporation

1 Although they intend to experiment with a deep-hardening salt bath this is not because they feel they are unable to obtain the same results with Sodium Cyanide.

2 At the present no deep hardening bath is in operation here, although they have made trials with Perliton, but discarded it because they found it produced non-uniform cases. They expect to make a trial with Parkcase soon, because Park Chemical Company have claimed that this bath will eliminate fuming, which is their one single objection to the operation of straight cyanide.

3 Their work is strictly production of shallow cases in cyanide or the use of the latter as a clean heat treating medium. They emphasize that they are not looking for a bath which will produce a deeper case than they are now obtaining. Whether they will continue with Parkcase after the trial is entirely dependent upon the type of results produced.

4 If a scumming bath is the only answer to their objection to fuming, it is likely that they will be in favor of it.

5 No information,

6 They are not concerned with the Ajax-Hultgren furnace nor at the moment substitution of gas hardening equipment for this shallow case work. They believe that the latter operation is quite feasible and with further refinements in this type of furnace they may be interested.

Reo Motor Car Co.

Very little of the Sodium Cyanide which they purchase here is used for case hardening as heat treating operations here are very limited.

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LAWTON, MICHIGAN

Stearns-Stafford, Inc.

No calls have been made here for quite some time, but this is a very small concern manufacturing roller bearings, the races of which are hardened in one pot using 96-98% Sodium Cyanide purchased from the American Cyanamid Co.

MT. CLEMENS

Mt. Clemens Tool & Gear Works

This is another small concern operating one small pot with our 45% and 75% Cyanide-Chloride Mixture. They harden Ford water pump gears to a depth of about 0.002" and do this in a very short time. As the result they have no particular interest in deep-hardening baths nor gas furnaces.

MUSKEGON

American Coil Spring Co.

Heat treating operations here are confined mostly to wire annealing or to heat treatment in controlled gas atmospheres. They do a small amount of cyaniding for which they use French cyanide. No call was made here because of the limited amount of work of this type being done.

Brickner-Kropf Machine Co.

They operate "Ducase" in exactly the same manner as Burroughs Adding Machine Company and obtain good results. This is the only pot they have so it is evident their heat treating operations are very small. They treat at a temperature of about 1500° F for three hours and obtain a case of about 0.025″.

Continental Motors Corporation

1 As compared to accelerated salt baths, they so far have found no advantages of these over a straight Sodium Cyanide bath.

MUSKEGON, MICHIGAN (cont'd)

Continental Motors Corporation (cont'd)

2 Trials have been made of Perliton, Holden Hard Case and Holden Light Case, and also Parkcase, but none of these are in operation here now. So far as this plant is concerned all of these baths have the same disadvantage, that is, failure to produce as clean a job as can be done in cyanide.

3 No information.

4 They definitely prefer a bath operated without scum.

5 No attempt is made to operate any salt bath in competition with pack hardening.

6 They are not familiar with the Ajax-Hultgren furnace and do not appear to be interested. They are, however, very impressed with the possibilities of small rotary gas furnaces for shallow case work on small parts. Should they ever enlarge the heat treating department it is quite likely that several of this type of furnace would be installed, which, of course, would be competitive to cyanide.

Muskegon Motors Specialties Company

Inasmuch as no changes are planned which would install a process or processes competitive to cyanide there was little information to be obtained here. They use "Cyanegg" as a reheat after carburizing and do not believe that accelerated salt baths could improve upon the results they now obtain. For Cam Shafts, which is the chief item of their manufacture at this plant, they are not planning to change the type of steel to one which can be quenched directly from the carburizing operation.

OXFORD

Master Machine & Gear Co.

This concern, like Mt. Clemens Tool & Gear Works, produces water pump gears for Ford and cyanide them in accordance with Ford's directions. They are not interested in accelerated salt baths, and gas hardening is practically out of the question.

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PONTIAC, MICHIGAN

General Motors Truck & Coach Division-
Yellow Truck and Coach Mfg. Co.

1. For many years they have operated accelerated salt baths to produce a case of greater depth than can be obtained with straight cyanide.
2. This bath is Aerocase and it was selected because at the time it was the only one of the accelerated salt baths on the market.
3. They require case depth of about 0.018", which they produce in Aerocase in about one hour. They have in the past operated pots with "Ducase" and with Perliton, but decided not to use the former because it proved to be more costly in operation than Aerocase and the latter had no advantages over Aerocase in any respect. They state that they were well pleased with the operation of "Ducase" and might have continued with it except for the expense involved.

4. They would rather not have a scumming bath, which is one of the reasons they decided not to continue with Perliton.
5. No information.
6. No information.

Pontiac Motor Division-
General Motors Corporation

No accelerated salt baths are in operation here although they have tried out practically all of them. The Metallurgical Department was unable to note any advantages whatsoever over straight Sodium Cyanide so use of the latter will be continued. Concerning possible use of gas furnaces for shallow cases, they feel that the quality of case produced by this type of treatment is not as high as they are able to obtain thru the use of cyanide so no changes will be made. In support of this contention they are now enlarging their heat treating plant and installing additional cyanide pots. These are not of the Ajax-Hultgren type for the reason that they feel that gas firing is more reasonable in the long run in Pontiac.

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PORT HURON, MICHIGAN

Pressed Metals Of America, Inc.

This large user of our 45% Cyanide-Chloride Mixture is making changes which tend to the elimination of Sodium Cyanide, but not thru the use of accelerated salt baths. Gas furnaces for shallow case work are being installed only as a matter of economy and very little else can be said about it. Please see K'Burg's Trade Report #542 of 8/26/37.

SAGINAW

Chevrolet Parts Mfg. Division—
General Motors Corporation

1 Sodium Cyanide is used throughout this plant except for a special clutch part, which they found they could not harden in cyanide without holding the cyanide concentration at a point considerably above that at which it would be normally maintained thru the use of 96-98% material with normal drag-out. The use of an accelerated salt bath maintained at a fairly high Sodium Cyanide concentration thru the addition of 96-98% material has proven quite satisfactory.

2 For this work Holden Light Case was selected due chiefly to the fact that this was the material Buick happened to be using.

3 In cyanide they treat Chevrolet transmissions of SAE 5145 steel for 15 minutes at 1490° F. and then at 10 minutes at 1400° F. for quenching. This treatment has proven to produce excellent transmissions. Altho they could use Holden Light Case for the same operation it would be too expensive and no effort has been made to treat gears in this manner. The comparative cost figures for the operation now being done in Holden Light Case, both before and after, are of little value because of the acknowledged high cost of the process as previously done in straight cyanide.

SAGINAW, MICHIGAN (cont'd)

Chevrolet Parts Mfg. Division—(cont'd)
General Motors Corporation

4 They prefer to operate a bath with a scum and add

graphite to the surface of the Holden bath in order to accomplish this. At present they are not doing this on the cyanide bath, but may do so in the near future. So far the manipulation of the scum type bath has not been any more difficult than of one without scum.

5 No attempt is made to use accelerator salt baths to produce a case otherwise done by pack hardening so no information is available.

6 Ajax-Hultgren furnaces are not being considered because of the extremely low gas rate in the Saginaw area.

Columbia Mills, Inc.

They do a small amount of heat treatment using 30% Case Hardener, but these operations are very limited. Consequently no call was made here.

Lufkin Rule Company

They also have very limited cyaniding operations and advise that they are not considering the use of accelerated salt baths for this work.

Nelson Bros. Company

They use our 75% Cyanide-Chloride Mixture for one operation which is carried out at very infrequent intervals. Consequently salt bath operations are not of importance here.

Saginaw Steering Gear Division— General Motors Corporation

1 The use of salt baths was a matter of small moment up until very recently when they installed a large furnace, using an accelerated salt bath. Straight Sodium Cyanide was never tried for this operation as it was formerly done by a concern in Detroit using deep-hardening salt baths.

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SAGINAW, MICHIGAN (cont'd)

Saginaw Steering Gear Division—(cont'd)

General Motors Corporation

2 Parkcase is being used here now, although it is still indefinite as to whether its use will be continued, inasmuch as it has not been operated long enough for complete evaluation. They did try Aerocase, but discarded it because of the cleaning problem involved. Parkcase was then tried because of the success of this bath at Kelsey-Hayes Wheel Company.

3 They have no data on cost of operation of these baths. An attempt is made to obtain about 0.010" to 0.012" case in thirty minutes.

4 This bath is operated with a scum, and so far they have not found it difficult to use this scum and still obtain clean work.

5 This operation is not competitive to pack hardening.

6 Their only furnace is an Ajax-Hultgren with which they seem to be very pleased.

ST. JOSEPH

St. Joe Machines, Inc.

Heat treating operations here are extremely limited and they purchase 45% Cyanide-Chloride Mixture from us for this purpose. No information was sought here.

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WISCONSIN

MILWAUKEE

Allis Chalmers Mfg. Co.

1 They have found cyanide to be ineffective for a depth

of case of 0.008″ to 0.010″ and consequently they are installing an electric heat treating furnace. (See Papp's Trade Report #552 of 9/2/37). No detail was given on this type of furnace but we assume it to be one in which they use a controlled gas atmosphere. Accelerated salt baths are not under consideration.

2 See No. 1.

3 At 1650° to 1700° F. they are able to produce their required depth of case in the electric furnace in about 20 to 30 minutes.

4 On the cyanide baths which they are still operating, but which it is their intention to replace, they prefer to have no scum.

5 No information.

6 No information.

Briggs & Stratton Corp.

1 The cyanide bath for their particular purposes appears to have no limitations.

2 Experimental work has been conducted with Perliton and Holden materials, but the use of both or either was decided against when no advantages could be found over their present operations with straight Sodium Cyanide.

3 No information.

4 They prefer not to have a scum on their baths.

5 These operations are not competitive to pack hardening, consequently, we have no information.

6 They are not familiar with the Ajax-Hultgren furnace.

Cutler-Hammer Mfg. Co.

There is no indication that this company is concerned with accelerated salt baths or with gas-hardening equipment, so we have very little information along this line. They continue to use our 75% Cyanide-Chloride Mixture exclusively for their salt bath operation.

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MILWAUKEE, WISCONSIN (cont'd)

Harley-Davidson Motor Co.

1 They require a deeper case than can be economically obtained in cyanide, and consequently have operated one of the accelerated salt baths for a number of years.

2 Aerocase has been used here successfully and was probably chosen originally because it was the only bath of this type on the market at the time.

3 They have no information as to comparative costs, but endeavor to produce 0.005" case in 15 minutes and 0.015" case in 1½ hours with Aerocase.

4 They prefer to have no scum.

5 There is no information.

6 Their metallurgist has given some thought to a furnace of the Ajax-Hultgren type and feels that certain economies could be obtained thru its use. However, what is true for cyanide in this type of furnace would also be true for Aerocase.

International Harvester Co.

1 Mr. Papp's Trade Report #374 of 5/27/37 indicates that they have recently begun heat treating operations, using Parkcase, and apparently have no data to offer as to its merits compared to cyanide.

2 See No. 1.

3 No information.

4 Material is supposed to be equivalent to Perliton, which, of course, operates with a scum, so it is evident that they prefer this type of bath.

5 No information.

6 We understand that they intend to install an Ajax-Hultgren furnace in which other types of cyanide compounds in addition to Parkcase will be tried.

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MILWAUKEE, WISCONSIN (cont'd)

Jambor Tool & Stamping Co.

1 With their present method of operation a straight cyanide bath appears to be quite satisfactory.

2 No accelerated salt baths are being used here now, although Perliton was once tried and no advantage was noticed.

3 All of their cyaniding operations are for reheating, wherein they remove the carburized work and without cooling immerse it in cyanide for 15 minutes at 1600° F. They claim that this produces a case of 0.012″ thickness. Their cost for this operation is about 1½¢ per pound.

4 They prefer to operate a non-scumming bath.

5 This operation is not intended to be competitive to pack hardening.

6 They are not familiar with the Ajax-Hultgren furnace.

Thurner Heat Treating Co.

This is a job shop in which, of course, they are expected to be able to do any type of heat treating. The use of accelerated salt baths here is only on specification, and as a consequence, is extremely limited. No information of particular value was obtained.

Wesley Steel Treating Co.

This is one of the higher type job heat treating shops in the middle west, and must always be in a position to do most any type of work. Mr. Papp in his Trade

Report #553 advised us that they are, however, operating but little accelerated salt baths as straight Sodium Cyanide is preferred.

—45—

WISCONSIN (EXCLUSIVE OF MILWAUKEE)

CLINTONVILLE

Four Wheel Drive Auto Co.

Although they use a fair amount of 45% Cyanide-Chloride Mixture for reheating, they appear to have no interest in accelerated salt baths, and consequently we have no information of value along this line.

GREEN BAY

Northwest Engineering Co.

Cyaniding requirements are very limited and they appear to have no interest in accelerated salt baths.

KENOSHA

MacWhyte Co.

This concern uses heat treating salt only.

Nash Division-
Nash-Kelvinator Corp.

1 The cyanide bath here is operated only as a very short reheat or wash prior to quenching their transmission gears from atmospheric control furnaces. For deeper cases, that is, 0.010″ and 0.015″, they are now experimenting with Perliton.

2 The reason for the selection of Perliton instead of any of the other accelerated case hardening baths, it is not evident, although it is known that Nash are in close touch with Houghton.

3 Their uses of Perliton and of cyanide are not particularly competitive, so comparative cost data would mean little. With Perliton they are able to obtain 0.010" to 0.015" case in about 30 minutes at 1550° F. No cost data is available.

4 They prefer to have no scum on their cyanide baths, although it is evident that with the use of Perliton, they must take this ~~factor into~~ consideration.

5 It appears that their use of Perliton is in part connected with a desire to eliminate some carburizing work where the usual deep case of pack hardening is unnecessary. However, no cost data on this operation was secured.

KENOSHA, WISCONSIN (cont'd)

Nash Division- (cont'd)
Nash-Kelvinator Corp.

6 They are not using the Ajax-Hultgren furnace nor does it appear that they are interested in it. Their Metallurgical Department believes that for certain types of work the operation of such a furnace should be quite economical.

MADISON

Madison Kipp Corp.

Heat treating operations here are very limited and are confined to the use of a small amount of 75% Cyanide-Chloride Mixture purchased from us. There is no indication that they are interested in an accelerated salt bath in substitution.

NEENAH

Kimberly-Clark Corp.

A very small amount of 45% Cyanide-Chloride Mixture is used here for hardening purposes, and it would appear that this is largely tool room work. It is unlikely that accelerated salt baths are of interest to them.

OSHKOSH

Wisconsin Axle Co.

In Papp's Trade Report #571 of 9/10/37 he points out that the use of Holden's Hard Case and Park Chemical Company's Quick Case is new here, and consequently he was unable to obtain much data. The quantities reported are relatively small, however.

RACINE

Andis Clipper Co.

In Papp's Trade Report #720 of 8/26/36, he shows an annual consumption of Perliton of 400 lbs. This apparently is the limit of their heat treating operation, which of course, is to small to warrant any special calls for this survey.

RACINE, WISCONSIN (cont'd)

J. I. Case & Co.

This concern purchases a small amount of 45% Cyanide-Chloride Mixture from American Cyanamid Company and apparently has no interest in accelerated salt baths. Their salt bath operations throughout are very limited, and consequently no information was developed.

Twin Disc Clutch Co.

1 Their cyaniding operations were discontinued some time ago and replaced with accelerated salt baths because cyanide failed to produce sufficient depth of case in a reasonable length of time.

2 They have experimented both with Perliton and Holden's Hard Case and at the present seem to be using Perliton.

3 Perliton enables them to obtain 0.015″ case at 1550° F in 1½ hours. This, of course, is too shallow a case to be done by pack hardening and too deep for straight cyanide. No data was available regarding costs, etc.

4 No information.

5 Their operation is not competitive to pack hardening.

6 No information.

RIPON

Barlow & Seelig Mfg. Co.

In Papp's Trade Report #132 of 2/17/37, he indicates a very small amount of 45% Cyanide-Chloride Mixture consumed for heat treating. In view of this no information of value in this survey could be obtained.

WEST BEND

Pick Mfg. Co.

Last report of call here was by Papp on 2/27/36 in which he lists a small amount of 45% cyanide (Houghton) in use for heat treatment. It is evident that their consumption is quite small and their case hardening operations would be likewise.

MINNESOTA

MINNEAPOLIS

Getchell Steel Treating Co.

Information from this job heat treating shop is limited and unimportant, because their consumption of salt bath materials is quite small.

Hart-Carter Co.

Papp reports in his #494 of 7/22/37 that cyanide and carburizing compounds are the only materials used here.

Twin City Steel Treating Co.

1 They expect to install several pots of Perliton soon to harden work which requires a deeper case than can be produced thru the use of straight cyanide.
2 (See No. 1)
3 No information.
4 No information.
5 No information.
6 No information.

FAIRBAULT

Nutting Truck Co.

This concern is a very small user of cyanide for heat treating purposes, and consequently was not called upon during ~~this~~ survey.

HOPKINS

Minneapolis, Moline Power Co.

This company has very limited cyaniding requirements and consequently little information of value could be obtained here.

MANKATO

Truth Tool Co.

Heat treating operations are very limited and are confined to the use of a little 45% Cyanide Chloride Mixture and some Perliton. Papp's last Report #255 of 4/6/37 indicates extremely limited consumption of these materials.

Government's Exhibit No. 1409

That portion of the 1917 Report of the du Pont Company to its stockholders which was read into the record, as it appears on printed page 2245 of the Transcript (February 27, 1953) is Government Trial Exhibit No. 1409.

NOTE:-The portion that was read into the record is as follows:

> "Announcement was recently made of the acquisition of a large interest in the General Motors Corporation and Chevrolet Motor Company. Though this is a new line of activity, it is one of great promise and one that seems to be well suited to the character of our organization. The motor companies are very large consumers of our Fabrikoid and Pyralin as well as paints and varnishes."

[illegible]

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. du PONT de NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

FILED JUNE 14, 1955

PROBABLE JURISDICTION NOTED OCTOBER 10, 1955

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VOL. IX

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No. 109—Memorandum dated November 3, 1921, from Charles L. Reese, Chemical Director, to Executive Committee	3615	5890
No. 110—Excerpt from Minutes of Meeting #467 of the Executive Committee, du Pont, November 30, 1921	3616	5891
No. 111—Letter dated January 28, 1922, from F. B. MacNab (General Motors Research Corp.) to Charles L. Reese (du Pont)	3618	5893
No. 112—Letter dated March 18, 1922, from Chief Engineer, Fuel Section, to Mr. Frank A. Howard (Standard Oil)	3619	5894
No. 113—Communication dated May 15, 1922, from C. M. Stine to Lammot du Pont	3620	5895
No. 115—Letter dated June 14, 1924, from W. F. Harrington (du Pont) to Thomas Midgley (General Motors Chemical Co.)	3622	5897
No. 116—Letter dated August 6, 1925, from E. W. Webb (Ethyl to Alfred P. Sloan, Jr., et al.	3625	5900
No. 117—Letter dated March 30, 1926, from A. E. Mittnacht (Ethyl) to W. F. Harrington (du Pont)	3635	5909
No. 118—Letter dated September 29, 1933, from E. G. Robinson (du Pont) to Ethyl Gasoline Corporation	3636	5911
No. 119—Du Pont Sales Volume of Tetraethyl Lead and Average Price per Pound for Years 1926 through 1937	3639	5914
No. 121—Letter dated February 25, 1926, from W. F. Harrington to E. W. Webb (Ethyl Gasoline)	3640	5915
No. 122—Tetraethyl Lead—"The Distribution of Profits"	3641	5916

duPont Exhibits:

	Original	Print
No. 123—Letter dated June 14, 1934, from E. G. Robinson (du Pont) to A. E. Mittnacht (Ethyl)	3643	5918
No. 124—Letter dated November 2, 1934, from E. G. Robinson (du Pont) to A. E. Mittnacht (Ethyl)	3644	5919
No. 125—Excerpts from Minutes of Meeting #1285 of Executive Committee (du Pont) November 6, 1935	3645	5920
No. 126—Letter dated July 3, 1936, from E. W. Webb to Cesare Protto (du Pont)	3646	5921
No. 128—Memorandum dated April 14, 1930, from Jackson Laboratory to Dr. H. W. Elley	3647	5922
No. 129—Letter dated May 6, 1930, from E. G. Biechler to E. G. Robinson (du Pont)	3650	5925
No. 130—Letter dated August 3, 1930, from Robert F. Laird to E. G. Robinson	3651	5926
No. 131—Excerpts from Annual Report 1931, Kinetic Chemicals, Inc.	3654	5929
No. 132—Outline of Organization and Operation of Proposed Fluorocarbon Products Corporation	3656	5931
No. 133—Agreement dated June 6, 1945, between General Motors Corporation and E. I. du Pont de Nemours & Company	3670	5945
No. 134—Memorandum from Executive Committee to Finance Committee dated July 17, 1930	3673	5948
No. 135—Monthly Report of President to Board of Directors of Kinetic Chemicals, Inc. for January, 1932	3683	5958
No. 136—Memorandum entitled "Kinetic Sales Activities" dated November 7, 1935	3685	5960
No. 137—Communication dated May 27, 1931, from E. B. Newill to E. G. Biechler	3686	5961
No. 138—Letter dated August 9, 1932, from E. G. Biechler to C. D. Porch (Kinetic Chemicals Inc.)	3689	5964
No. 139—Letter dated November 24, 1933, from W. W. Rhodes (Kinetic Chemicals Inc.) to A. A. Levine (du Pont)	3690	5965
No. 140—Agreement dated September 18, 1939, between Kinetic Chemicals Inc. and General Motors Corporation	3691	5966
No. 141—Letter dated April 3, 1942, from Sales Director, Kinetic Chemicals, Inc. to F. E. Anderson	3696	5971
No. 142—Letter dated October 20, 1943, from C. D. Porch (Kinetic Chemicals, Inc.) to E. F. Johnson (General Motors)	3697	5972
No. 143—Letter dated February 23, 1944, from E. R. Godfrey (Frigidaire) to C. D. Porch (Kinetic Chemicals, Inc.)	3698	5973
No. 144—Letter dated April 22, 1944, from E. F. Johnson to C. D. Porch (Kinetic Chemicals, Inc.)	3699	5974

duPont Exhibits:

	Original	Print
No. 145—Letter dated November 30, 1949, from Herbert A. Bergson (Assistant Attorney General) to E. I. du Pont de Nemours & Company	3700	5975
No. 148—Memorandum from Fin Sparre to F. W. Pickard dated March 19, 1925	3707	5976
No. 154—Letter dated November 4, 1919 from "Chemical Director" (du Pont) to J. A. Haskell (General Motors)	3782	5977
No. 155—Advice of action dated May 4, 1920, from M. D. Fisher, Sec'y Executive Committee to Lammot du Pont	3784	5979
No. 156—Letter initialled LduP dated May 4, 1920, to Dr. C. L. Reese	3785	5930
No. 157—Extract from Minutes of Executive Committee Meeting #367, June 22, 1920 (du Pont)	3786	5981
No. 158—Memorandum dated March 24, 1922, from M. D. Fisher, Sec'y Executive Committee to H. F. Brown, V.P., (du Pont)	3787	5982
No. 159—Communication dated May 10, 1922, from L. du Pont to H. F. Brown, V.P.	3788	5983
No. 160—Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of February, 1928	3789	5984
No. 161—Excerpt of Report of the President of the du Pont Viscoloid Company dated September 22, 1928	3790	5985
No. 162—Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of October, 1923	3792	5987
No. 163—Excerpt of the Report of R. W. Brokaw to Board of Directors of the du Pont Viscoloid Company dated February 21, 1929	3793	5988
No. 164—Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of April, 1929	3795	5990
No. 165—Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of May, 1929	3796	5991
No. 166—Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of September, 1929	3798	5993
No. 167—Excerpts of Minutes of Meeting of Board of Directors of the DuPlate Corporation Held October 24, 1929	3799	5994
No. 168—Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of December, 1929	3800	5995
No. 169—Excerpt of Annual Report of the du Pont Viscoloid Company for the Year of 1929	3802	5997

duPont Exhibits:	Original	Print
No. 170—Excerpt of Minutes of Meeting of Board of Directors of the DuPlate Corporation Held March 4, 1930	3803	5998
No. 171—Excerpt of Addendum to Monthly Report of the President of the du Pont Viscoloid Company for August, 1930	3804	5999
No. 172—Agreement dated January 29, 1931, between Du Pont Viscoloid Company and Pittsburgh Plate Glass Company	3806	6001
No. 173—Advice of Action dated February 3, 1931, from M. D. Fisher, Sec'y Finance Committee (du Pont) to Mr. C. K. Davis, Du Pont Viscoloid Company	3813	6008
No. 174—DuPlate Shipments—Feet and Dollars—to General Motors Corporation and Subsidiary Companies, Years 1928 to 1931, Inclusive	3814	6009
No. 175—Positions Held in E. I. du Pont de Nemours & Co., 1917 to Date, by Richard C. Williams	3816	6011
No. 176—Finishing Products Used in Automobile Production	3817	6012
No. 177—Report of Visit to General Motors Research Laboratory, dated March 28, 1922, by R. C. Williams	3818	6013
No. 178—Report of R. C. Williams to General Motors Company, dated May 4, 1922	3821	6016
No. 179—Report of the Work begun at the Buick Plant Flint, Michigan, July 18, 1922, dated August 16, 1922 by R. C. Williams	3824	6019
No. 180—Letter dated October 12, 1922, from "Red" to "Mr. Hitt"	3830	6025
No. 181—Letter dated March 17, 1923, from R. C. Williams to Mr. J. W. Elms	3833	6028
No. 182—Memorandum dated June 14, 1923, titled "Visit of R. K. Cathcart to H. H. Franklin Mfg. Co., Syracuse, New York	3838	6033
No. 183—Letter dated August 13, 1923, from R. C. Williams (du Pont) to J. J. Moosmann	3839	6034
No. 184—Undated letter from "Red" to Mr. Flaherty	3844	6039
No. 185—Letter dated December 3, 1923, from R. C. Williams (du Pont) to E. M. Flaherty	3847	6042
No. 186—Letter dated May 1, 1923, from R. C. Williams (du Pont) to J. J. Moosmann (du Pont)	3853	6047
No. 187—Letter dated April 30, 1923, from A. C. Rogers to R. C. Williams	3855	6049
No. 188—Promotion Report for October, Automobile Industry, dated November 7, 1923	3856	6050
No. 189—Letter dated May 12, 1924, from J. J. Moosmann to E. M. Flaherty	3864	6058

duPont Exhibits:

	Original	Print
No. 191—Excerpt from the Monthly Report of the Fabrics and Finishes Department to the Executive Committee for May, 1947, dated June 27, 1947	3868	6062
No. 192—Excerpt from the Monthly Report of the Fabrics and Finishes Department for April, 1946, dated May 22, 1946	3870	6064
No. 193—Excerpts from the Monthly Report of Chemical Products Division to the Executive Committee for March, 1926, dated April 19, 1926	3871	6065
No. 194—Excerpt from the Monthly Report of the Paint, Lacquer, and Chemicals Department to the Executive Committee for May, 1927, dated June 20, 1927	3872	6066
No. 195—Sales of Finishing Products by E. I. du Pont de Nemours and Company to General Motors Corporation (1938 through 1941; 1946 through 1947)	3874	6068
No. 196—Excerpts from the Monthly Report of the Fabrics and Finishes Department to the Executive Committee for July 1946, dated August 23, 1946	3875	6069
No. 197—Positions Held by Edmund M. Flaherty in E. I. du Pont de Nemours & Company, 1911 to date	3877	6071
No. 198—Excerpt from "Motor Vehicle Monthly", July 1924	3879	6073
No. 199—United States Patent Reissue No. 16,803 (November 29, 1927)	3882	6076
No. 200—Letter dated February 24, 1922, from "Control Chemist" to G. R. Downs (du Pont)	3887	6081
No. 201—Letter dated March 14, 1922, from J. J. Moosmann by E. M. Flaherty, to General Motors Research Corporation	3888	6082
No. 202—Memorandum dated March 22, 1922, from Committee Appointed to Study Enameling and Varnish Drying Practices to Car Division Managers, Mr. L. R. Beardslee	3889	6083
No. 203—Letter dated August 22, 1922, from "control Chemist" to Murphy Varnish & Co.	3892	6086
No. 204—Letter dated September 27, 1922, from Pratt & Lambert, Inc. to General Motors Corporation	3894	6088
No. 205—Letter dated November 7, 1922, from H. C. Mougey to Pratt & Lambert, Inc.	3895	6089
No. 206—Letter dated February 23, 1923, from H. C. Mougey to L. V. Pulsifer (Valentine & Company)	3896	6090
No. 207—Letter dated October 2, 1923, from R. S. Kavanaugh to H. C. Mougey (General Motors)	3897	6091

duPont Exhibits:

	Original	Print
No. 208—Letter dated November 19, 1923, from H. C. Mougey, to J. L. Armitage Co.	3898	6092
No. 209—Letter dated September 12, 1924, from H. C. Mougey to The Tokiol Paint & Varnish Company	3899	6093
No. 210—Excerpt from the Monthly Report of the Cellulose Products Department to the Executive Committee for April 1922, dated May 15, 1922	3900	6094
No. 211—Undated memorandum to Paint and Enamel Committee from F. O. Clements	3902	6096
No. 212—Letter dated October 16, 1922, from "Director of Research" to Mr. P. S. du Pont	3905	6099
No. 213—Excerpts from the Cellulose Products Department Monthly Report to the Executive Committee for March, 1923, dated April 23, 1923	3906	6100
No. 214—Excerpt from the Monthly Report of the Cellulose Products Department to the Executive Committee for September, 1923, dated October 27, 1923	3907	6103
No. 215—Advertisement from The Saturday Evening Post, April 26th	3911	6106
No. 216—Flint Varnish and Color Works, Sales to Buick and to Fisher Body and Buick and Fisher Body Production, 1923 and 1924	3911	6107
No. 217—Memorandum dated April 29, 1918, from R. R. M. Carpenter to Executive Committee enclosing report of Paint and Varnish Industry	3912	6108
No. 218—Memorandum dated April 23, 1918, from R. R. M. Carpenter to Executive Committee enclosing report of Development Department on the Flint Varnish & Color Works	3921	6117
No. 219—Letter dated April 9, 1923, from H. Grubb, General Manager, to L. du Pont	3925	6120
No. 220—Letter dated May 7, 1923; initialled LduP to Mr. Hunter Grubb	3926	6122
No. 221—Flint Varnish and Color Works, Net Income, by Years, 1916-1924, inclusive	3927	6123
No. 222—Du Pont Sales of Finishes to Fisher Body and Fisher Body Production, Years 1924-1927	3928	6124
No. 223—Letter dated July 25, 1928, from General Purchasing Committee to E. I. du Pont de Nemours Company	3929	6125
No. 224—Excerpt from Minutes of Standing Sub-Committee, General Purchasing Committee, June 28, 1927	3930	6126
No. 225—Letter dated November 7, 1922, from F. S. MacGregor (du Pont) to J. L. Pratt	3931	6127

duPont Exhibits:	Original	Print
No. 226—Letter dated November 6, 1922, from R. H. Sheppard (du Pont) to F. S. MacGregor	3932	6128
No. 227—Letter dated June 30, 1922, from B. Buchler (Philadelphia Paper Mfg. Company) to E. I. du Pont de Nemours & Co.	3933	6129
No. 228—Chart (du Pont) of Divisions and products	3934	6130
No. 229—Diagram of Organization, Experimental Station, May 1, 1912 (duPont)	3935	6131
No. 230—Excerpt from letter dated June 28, 1913, from Chas. L. Patterson to Executive Committee (du Pont)	3936	6132
No. 231—Excerpt from letter dated August 2, 1913, from Patterson to Executive Committee (du Pont)	3937	6133
No. 232—Excerpt from Report of Sales Department to Executive Committee for November, 1913, dated January 2, 1914	3938	6134
No. 233—Excerpt from Report of Sales Department to Executive Committee, dated January 26, 1914	3939	6135
No. 234—Excerpt from Sales Department's Report for September, dated November 24, 1914, to Executive Committee	3940	6136
No. 235—Excerpt from Sales Department's Report for the month of February, 1915, dated March 31, 1915, to Executive Committee	3941	6138
No. 236—Excerpt from Sales Department's Report for the month of March, 1915, dated April 30, 1915, to Executive Committee	3942	6139
No. 237—Excerpts from a list of Accounts Receivable of the E. I. duPont de Nemours Powder Company, Schedule of Fabrikoid Agency, dated July 31, 1913	3943	6140
No. 238—Letter dated July 20, 1916 (signature illegible) to Board of Directors (du Pont Fabrikoid Company) enclosing Operating Department Report for May 1916	3946	6143
No. 239—Excerpt from du Pont Magaizine February 1916	3948	6145
No. 240—Letter dated July 8, 1947, from J. R. Owens (du Pont) to A. L. Brown	3949	6146
No. 241—Memorandum dated December 26, 1947, from A. L. Brown to T. A. Nalle	3950	6147
No. 242—Memorandum dated August 5, 1940, from T. A. Nalle to E. Doremus	3951	6148
No. 243—Unsigned Memorandum dated May 15, 1918, entitled "Our File FO Chevrolet Motor Co. —FK"	3952	6149
No. 244—Excerpt from Report of du Pont Fabrikoid Company to C. W. Phellis, General Director of Sales, for the month of November, 1919, dated January 2, 1920	3955	6152

duPont Exhibits:	Original	Print
No. 245—Excerpt from Report of the du Pont Fabrikoid Company to F. W. Pickard for the month of March, 1919, dated May 8, 1919	3956	6153
No. 246—Unsigned memorandum, undated, entitled "Buick Motor Company"	3957	6154
No. 247—Excerpt from Report of Fabrikoid Division to Executive Committee for November, 1922, dated December 18, 1922	3961	6158
No. 248—Excerpt from Report of Cellulose Products Department to Executive Committee for October, 1923, dated November 23, 1923	3962	6159
No. 249—Memorandum dated July 15, 1936, from A. L. Brown to T. A. Nalle	3963	6160
No. 250—Dollar Sales of Coated and Combined Fabrics to the Chevrolet Motor Company—1922 to 1935 (du Pont)	3964	6161
No. 251—Letter dated July 23, 1918, from W. P. Chrysler to J. A. Haskell	3965	6162
No. 252—Memorandum dated July 28, 1920, unsigned	3967	6164
No. 253—Excerpt from Report of Fabrikoid Division to Executive Committee for January, 1922, dated February 15, 1922	3968	6165
No. 254—Excerpt from Report of Fabrikoid Division to Executive Committee for October, 1922, dated November 17, 1922	3969	6165a
No. 255—Excerpt from Report of Fabrikoid Division to Executive Committee for March 1923, dated April 23, 1923	3970	6166
No. 256—Excerpt from Report of Fabrikoid Division to Executive Committee for May, 1923, dated July 2, 1923	3971	6167
No. 257—Excerpt from Report of the Fabrics Division to Executive Division for March 1929, dated April 19, 1929	3972	6168
No. 258—Excerpt from memorandum dated September 21, 1931, unsigned, to Wm. Richter, re Fabrikoid Division, Monthly Report—August, 1931	3973	6169
No. 259—Dollar Sales of Coated and Combined Fabrics—The Buick Motor Company—1919 to 1933 (du Pont)	3974	6170
No. 260—Dollar Sales of Coated and Combined Fabrics to the Cadillac Motor Car Co.—1921 to 1926 (du Pont)	3975	6171
No. 261—Letter dated April 10, 1918, from du Pont Fabrikoid Company to Olds Motor Works	3976	6172
No. 262—Letter dated October 12, 1918, from Chas. L. Petze to J. A. Haskell	3977	6173
No. 263—Dollar Sales of Coated and Combined Fabrics to the Olds Motor Works, 1922 to 1930	3979	6175

duPont Exhibits:

	Original	Print
No. 264—Letter dated February 8, 1922, from E. I. du Pont de Nemours & Company, Fabrikoid Division, to C. O. Miller (Oakland Motor Car Co.)	3980	6176
No. 265—Dollar Sales of Coated and Combined Fabrics to the Oakland Motor Company, 1922 to 1933 (du Pont)	3981	6177
No. 266—Letter dated July 6, 1925, from John T. Allmand to E. I. du Pont de Nemours & Company	3982	6178
No. 267—Letter dated July 17, 1925, from John T. Allmand to H. A. Lindsey (du Pont)	3983	6179
No. 268—Letter dated September 1, 1925, from N. P. Wescott to J. Henry Smith	3984	6180
No. 269—Memorandum dated September 29, 1925, from H. A. Lindsey to E. R. Cathcart—Manager Fairfield Plant	3986	6182
No. 270—Memorandum dated September 30, 1925, from J. Henry Smith to H. A. Lindsey, Dir. of Sales	3987	6183
No. 271—Memorandum dated November 20, 1925, from Fabrikoid Division to W. F. Allen, General Manager, entitled Report for October 1925	3988	6184
No. 272—Memorandum dated June 22, 1926, from Fabrikoid Division to W. P. Allen, General Manager, entitled Report for May 1926	3989	6192
No. 273—Memorandum dated October 30, 1931, from J. J. Moosmann to Mr. J. Thompson Brown	3997	6198
No. 274—Memorandum dated March 25, 1926, from Hamilton Bradshaw to M. N. Nickowitz	3998	6199
No. 275—Memorandum dated May 21, 1929, from Sales Mgr. Fairfield Automotive Products, to M. N. Nickowitz	3999	6200
No. 276—Excerpt from Report of Fabrikoid Divison to Executive Committee for February, 1927, dated March 27, 1927	4001	6202
No. 277—Excerpt from Report of Fabrikoid Division to Executive Committee for March, 1928, dated April 21, 1928	4002	6203
No. 278—Excerpts from memorandum dated July 24, 1929, from Fabrikoid Division to W. Richter, General Manager	4003	6204
No. 279—Excerpts from memorandum dated March 20, 1929, from Fabrikoid Division to W. Richter, General Manager	4005	6206
No. 280—Undated memorandum from H. S. Plank to E. S. Nickerson	4007	6208
No. 281—Comparison of Passenger Car Production with Possible Potential in Auto Field—11 Months 1930	4009	6210

duPont Exhibits:

	Original	Print
No. 282—Potential Existing in Automotive Field for Use of Pyroxylin or Rubber-Coated Textiles as Original Equipment, 11 months 1930	4010	6211
No. 283—Excerpt from Memorandum dated October 19, 1931, unsigned, to Wm. Richter, General Manager, re Fabrikoid Division, Monthly Report, September, 1931	4011	6212
No. 284—Memorandum dated June 13, 1932, from E. S. Nickerson to G. A. Staples	4012	6213
No. 285—Memorandum dated April 18, 1938, from A. L. Brown to G. S. Sherin	4014	6215
No. 286—Memorandum dated January 16, 1934, from A. L. Brown to H. S. Plank	4015	6216
No. 287—Memorandum dated March 28, 1938, from A. L. Brown to G. A. Staples	4017	6219
No. 288—Memorandum dated May 15, 1939, from A. L. Brown to E. R. Cathcart	4018	6220
No. 289—Memorandum dated May 23, 1939, from A. L. Brown to T. A. Nalle	4019	6221
No. 290—Letter dated June 17, 1940, from Fabrikoid Division to Fisher Body Detroit Division	4020	6222
No. 291—Memorandum dated January 20, 1947, from T. A. Nalle to A. L. Brown	4021	6223
No. 292—Unsigned memorandum dated January 20, 1947, to C. A. Alt re "Fisher Body Division—Convertible Top Material"	4022	6224
No. 293—Memorandum dated January 24, 1947, from M. N. Nickowitz to W. S. Lynch—Purchasing	4023	6225
No. 294—Memorandum dated March 25, 1947, from A. F. Schildhauer to A. L. Brown	4024	6226
No. 295—Office Trade Report #2 dated January 27, 1947, from M. N. Nickowitz	4025	6227
No. 296—Memorandum dated October 10, 1949, from A. L. Brown to R. C. Williams	4026	6228
No. 297—Dollar Sales of Coated and Combined Fabrics to Fisher Body Company—1923 to 1949 (du Pont)	4029	6231
No. 298—Yardage Sales of Coated and Combined Fabrics to Fisher Body Company—1923 to 1949 (du Pont)	4030	6232
No. 299—Excerpt from Report of the Fabrikoid Division to the Executive Committee for April 1928, dated May 26, 1928	4031	6233
No. 300—Memorandum dated March 7, 1940, from A. L. Brown to T. A. Nalle	4032	6234
No. 301—Memorandum dated June 5, 1940, from W. W. Kaminsky to T. A. Nalle	4033	6235
No. 302—Fabrikoid and Rubber Trade Report dated November 25, 1940	4034	6236

duPont Exhibits:

	Original	Print
No. 303—Memorandum dated November 20, 1940, from A. L. Brown to T. A. Nalle	4035	6237
No. 304—Memorandum dated December 20, 1940, from A. F. Schildhauer to F. J. Brannigan	4036	6238
No. 305—Dollar Sales of Coated Fabrics to Yellow Truck & Coach Co.—1927 to 1943, inclusive (du Pont)	4039	6241
No. 306—Yardage Sales of Coated Fabrics to Yellow Truck & Coach Co.—1927 to 1943 (du Pont)	4040	6242
No. 307—Dollar Sales of Coated Fabrics to General Motors Truck & Coach Division, 1944 to 1950 (du Pont)	4041	6243
No. 308—Yardage Sales of Coated Fabrics to General Motors Truck & Coach Division, 1944 to 1950 (du Pont)	4042	6244
No. 309—Memorandum dated September 25, 1940, from W. W. Kaminsky to Messrs. E. R. Cathcart and A. F. Schildhauer	4043	6245
No. 310—Memorandum dated May 9, 1947, from T. A. Nalle to A. L. Brown	4047	6249
No. 311—Dollar Sales of Coated Fabrics to Chevrolet Commercial Body Division, 1931, to 1950 (du Pont)	4049	6251
No. 312—Yardage Sales of Coated Fabrics to Chevrolet Commercial Body Division, 1931 to 1950 (du Pont)	4050	6252
No. 313—Excerpt from Report of Fabrikoid Division to C. W. Phellis, General Director of Sales, for February, 1921, dated April 2, 1921	4051	6253
No. 314—Excerpt from Report of Fabrikoid Division to C. W. Phellis, General Director of Sales, for April, 1921, dated June 8, 1921	4052	6254
No. 315—Excerpt from Report of the Fabrikoid Division to the Executive Committee for May, 1923, dated July 2, 1923	4053	6255
No. 316—Excerpt from Report of Fabrikoid Division to Executive Committee for September, 1928, dated October 20, 1928	4054	6256
No. 317—Excerpt from Report of Fabrics Division to Executive Committee for October, 1929, dated November 22, 1929	4055	6257
No. 318—Excerpt from memorandum dated December 17, 1929, unsigned, to Wm. Richter, re Fabrikoid Division, Monthly Report, November, 1929	4056	6258
No. 319—Undated memorandum from C. W. Weaver to J. J. Moosman	4057	6259
No. 320—Excerpt from Report of the du Pont Fabrikoid Company to F. W. Pickard for the month of January, 1919, dated March 6, 1919	4064	6266

duPont Exhibits:

	Original	Print
No. 321—Dollar Sales of Coated and Uncoated Fabrics to the Chrysler Corporation, 1925 to 1934 (du Pont)	4065	6267
No. 322—List Price of 6200—50" Fabrikoid	4066	6268
No. 323—Yardage Sales of Coated and Combined Fabrics to the Chevrolet Motor Company, 1922 to 1935 (du Pont)	4067	6269
No. 324—Yardage Sales of Coated and Combined Fabrics to the Oakland Motor Company, 1922 to 1933 (du Pont)	4068	6270
No. 325—Purchases of Coated and Combined Fabrics per Car Basis from GM 151 and DP 259, 263 and 265	4069	6271
No. 326—Letter dated July 5, 1918, signed "Vice President" to F. W. Warner (Oakland Motor Car Company)	4070	6272
No. 327—Letter dated July 5, 1918, from "Vice President" to E. VerLinden (Olds Motor Works)	4071	6273
No. 328—Memorandum dated October 24, 1932, from T. A. Nalle to C. W. Weaver	4072	6274
No. 329—Letter dated June 1, 1953, from "General Counsel" to Ira C. Werle (Eastman Kodak Company)	4074	6276
No. 330—Letter dated June 5, 1953, from M. K. Robinson, Secretary, to Stanley L. Abrams (du Pont)	4075	6277
No. 333—Industrial Sales Trade Report (du Pont) dated January 14, 1932	4077	6279
No. 334—Industrial Sales Trade Report (du Pont) dated May 7, 1934	4079	6281
No. 335—Industrial Sales Trade Report (du Pont) dated May 8, and 9 1936	4080	6282
No. 336—Wilmington F & F Sales Record, dated September 11, 1941	4082	6284
No. 337—Automotive Products Trade Report dated April 13, 1931	4084	6286
No. 338—Industrial Sales Trade Report (du Pont) dated March 16, 1926	4086	6288
No. 339—Automotive Products Trade Report (du Pont) dated December 3, 1930	4087	6289
No. 340—Finishes Division Report (du Pont) dated January 25, 1939	4090	6292
No. 341—Finishes Division Report (du Pont) dated July 17, 1939	4091	6293
No. 342—Industrial Sales Trade Report (du Pont) dated Sep. 20, 1940	4093	6295
No. 343—Memorandum dated January 8, 1940, from L. C. Streeter (du Pont) to C. J. Linahan re Gibson Refrigerator Co. and Frigidaire Division	4095	6297

duPont Exhibits:

	Original	Print
No. 344—Excerpt of memorandum dated October 3, 1940 from L. C. Streeter to G. A. Biesecker	4097	6299
No. 345—Memorandum dated March 17, 1947, from W. E. Kreuer to Messrs. J. B. Bullett and C. R. E. Neikle	4098	6300
No. 346—Excerpt from undated, unsigned memorandum entitled "Trade Report Covering Visit of John O'Donnell to Frigidaire on August 1, 1950	4100	6302
No. 348—Memorandum dated April 1, 1940, from R. M. Cook to L. C. Streeter	4101	6303
No. 349—Summary, Refrigerator, Washing Machine and Steel Kitchen Cabinet Meeting, November 10, 1944	4102	6304
No. 351—Industrial Sales Trade Report (du Pont) dated January 23, 1942	4105	6307
No. 352—Excerpt from Trade Report Covering Visit of John D. O'Donnell to Frigidaire on September 14, 1950	4106	6308
No. 353—Memorandum dated April 12, 1949, from SWM to JBL re Pontiac Motor Co. Radiator Hose	4107	6309
No. 354—Excerpt from Development Report of the Rubber Chemicals Division dated May 15, 1950	4108	6310
No. 355—Office Trade Report dated February 8, 1945 to J. A. Turner, Mgr. Chicago Office	4110	6312
No. 356—Salesman's Trade Report (Rubber Chemicals Division) dated January 11, 1950	4111	6313
No. 357—Salesman's Report (du Pont) dated February 27-28, 1940	4112	6314
No. 358—Salesman's Report (du Pont) dated July 22, 1940	4114	6316
No. 359—Office Trade Report (du Pont) dated October 3-4, 1940	4119	6321
No. 360—Salesman's Report (du Pont) dated August 25, 1941	4121	6323
No. 361—Salesman's Trade Report (Rubber Chemicals Division, du Pont) dated October 22, 1950	4127	6329
No. 362—Estimated Annual Requirements of General Motors Divisions and Other Automobile Manufacturers of Case-Hardening and Heat Treating Materials Sold by du Pont and Other Companies respectively, Selected from General Survey of All Users of Such Products by R. B. K'Burg in September 1937	4128	6330
No. 363—Case hardening and Heat Treating—Du Pont's Participation in Supplying Requirements of General Motors Divisions	4129	6331
No. 364—Excerpts from R&H Chemicals Department's "Sales Research and Development Monthly Summary Reports" concerning Chevrolet #30 Salt	4130	6332

duPont Exhibits:

	Original	Print
No. 365—Excerpt from the Report for February 1933 of the R. and H. Chemicals Department to the Executive Committee dated March 21, 1933	4131	6333
No. 366—Excerpt from the Report of the R. and H. Chemicals Department for April 1933 to the Executive Committee, dated May 25, 1933	4132	6334
No. 367—Excerpt from Report of D. A. Holt entitled "Metal Cyanide Research," dated September 7, 1933	4133	6335
No. 368—Excerpt from Report of W. M. Gager of the Technical Service Department of the Roessler & Hasslacher Chemical Company, Inc. entitled "Sodium Cyanide—Its Present Status in the Steel Treating Industry," dated December 19, 1932	4134	6336
No. 369—Excerpt from Report of R. B. K'Burg entitled "Division [R H Metallurgical Division] Progress Report for January 1–July 1, 1931," dated August 18, 1931	4135	6337
No. 370—Report by W. M. Gager dated November 15, 1928, on "Visit to the Delco Remy Co., Anderson, Ind., Thursday, November 15th"	4136	6338
No. 371—Excerpts from Report to Executive Committee entitled "Technical Accomplishments for 1938", dated February 2, 1939	4138	6340
No. 372—Copper Plating Processes—du Pont's Participation in Supplying Requirements of General Motors Division	4139	6341
No. 373—Technical Service Report (du Pont) dated April 25, 1939 by F. F. Oplinger.	4140	6342
No. 374—Technical Service Report (du Pont dated June 10, 1941, by H. W. Kennedy	4142	6344
No. 375—Technical Service Report (du Pont) dated October 1, 1940, by H. W. Kennedy	4143	6345
No. 376—Master Report (du Pont) dated January 2, 1941, by H, W. Kennedy and R. R. Bair	4144	6346
No. 377—Technical Service Report (du Pont) dated September 6, 1939, by F. F. Oplinger	4145	6347
No. 378—Technical Service Report (du Pont) dated May 29, 1945, by H. L. Benner	4147	6349
No. 3 9—Routine Trade Report (du Pont) dated May 8, 1941, unsigned	4148	6350
No. 380—Technical Report (du Pont) dated March 31, 1949, unsigned	4150	6352
No. 381—Memorandum, dated August 17, 1949, from W. A. Marsh (du Pont) to P. R. Lindsay	4152	6354
No. 383—Excerpt of Memorandum dated November 19, 1934, from Arthur G. Weber to J. C. Woodhouse	4153	6355

duPont Exhibits:

	Original	Print
No. 384—Excerpt of Memorandum undated, from John C. Woodhouse entitled "Report for the Week Nov. 26-Nov. 28, 1934"	4155	6357
No. 385—Excerpt of Memorandum dated November 23, 1934, from Arthur G. Weber to J. C. Woodhouse	4156	6358
No. 386—Excerpt of Memorandum dated December 12, 1934, from Arthur G. Weber to J. C. Woodhouse	4157	6359
No. 387—Excerpt of Memorandum dated August 2, 1935, from Arthur G. Weber, to J. C. Woodhouse	4159	6361
No. 388—Memorandum dated January 14, 1938, from K. E. Walker (du Pont) to J. C. Woodhouse	4161	6363
No. 389—Excerpt of Memorandum dated January 14, 1938, from K. E. Walker to J. C. Woodhouse	4162	6364
No. 390—Excerpt of Memorandum dated August 8, 1938, from K. E. Walker to J. C. Woodhouse	4163	6365
No. 391—Memorandum dated August 10, 1938, from K. E. Walker to J. C. Woodhouse	4164	6366
No. 392—Excerpt from memorandum dated August 10, 1938, from K. E. Walker to J. C. Woodhouse	4165	6367
No. 393—Memorandum dated September 12, 1938, from K. E. Walker to J. C. Woodhouse	4167	6369
No. 394—Excerpt of Memorandum dated December 23, 1938, from K. E. Walker to J. C. Woodhouse	4169	6371
No. 395—Memorandum dated December 29, 1938, from K. E. Walker to J. C. Woodhouse	4171	6373
No. 396—Memorandum dated March 24, 1939, from "Ammonia Department" to J. D. Eby (Wagner Electric Corporation)	4174	6376
No. 397—Excerpt of Memorandum dated April 2, 1940, from K. E. Walker, to J. C. Woodhouse	4176	6378
No. 398—Excerpt of Memorandum dated May 6, 1940, from K. E. Walker to J. C. Woodhouse	4177	6379
No. 399—Volume of Brake Fluid Purchased by General Motors Divisions from Moraine Products Division (formerly Delco Products), 1936-1951	4179	6381
No. 400—E. I. du Pont Sales of Cellulose Acetate Molding Powder, 1937 through 1947	4180	6382
No. 401—Memorandum dated June 7, 1939, from H. A. Rosley to J. M. Mack	4181	6383
No. 402—Unsigned handwritten memorandum dated September 19, 1939	4183	6385

duPont Exhibits:

	Original	Print
No. 403—Unsigned handwritten memorandum, initialled JMM dated October 23	4184	6386
No. 404—Handwritten letter dated 10-30, signed Johnnie Mack to "Stu"	4185	6387
No. 421—Sales of Pyralin, 1916 through 1932 (du Pont)	4187	6389
No. 422—Sales of Pyralin, 1946 through 1950 (du Pont)	4188	6390
No. 423—Extract from Minutes of Executive Committee Meeting #20, December 20, 1915 (du Pont)	4189	6391
No. 424—Excerpt from The Arlington Company Monthly Report to Executive Committee of E. I. du Pont de Nemours & Co., month of January, 1916	4192	6394
No. 425—Excerpt from The Arlington Company Monthly Report to Executive Committee of E. I. du Pont de Nemours & Co., month of February, 1916	4194	6396
No. 426—Excerpt from The Arlington Company Monthly Report to Executive Committee of E. I. du Pont de Nemours & Co., month of June, 1916	4197	6399
No. 427—Excerpt from The Arlington Company Monthly Report to Executive Committee of E. I. du Pont de Nemours & Co., month of October, 1916	4201	6403
No. 428—Excerpt from Minutes of Executive Committee Meeting #145, July 2, 1917, E. I. du Pont de Nemours & Company	4205	6409
No. 429—Memorandum dated January 22, 1918, from Lammot du Pont to Mr. Gudger, et al.	4209	6410
No. 430—Excerpt from Pyralin Department Report for October 1923	4211	6413
No. 431—Extract from Minutes of Meeting #6 Board of Directors, Du Pont Viscoloid Company, August 18, 1925	4212	6414
No. 432—Extract from Minutes of Meeting #13, Board of Directors, Du Pont Viscoloid Company, February 23, 1926	4215	6417
No. 433—Excerpt from "Du Pont Viscoloid Company, November 1926"	4219	6420
No. 434—Excerpt from "Pyralin Department Report, September 1924"	4220	6422
No. 435—Extracts from Minutes of Meeting #11, Board of Directors, Du Pont Viscoloid Company, December 22, 1925	4224	6426
No. 436—Letter dated October 3, 1927, from Zack Phelps to James Lynah	4226	6428
No. 437—Letter dated October 6, 1927 from James Lynah to Z. Phelps	4227	6429

duPont Exhibits:

	Original	Print
No. 438—Excerpt from letter of H. Fletcher Brown to Mr. F. K. Kielberg, Managing Director, United Molasses Company, Ltd., dated July 24, 1929	4228	6430
No. 439—Excerpt from Minutes of Meeting of Interdivisional Relations Committee, General Purchasing Committee, General Motors Corporation, September 30, 1927	4229	6431
No. 441—Sales of Ammonia and Ammonia Products to New Departure Manufacturing Company and Successors, 1933 through 1938	4230	6432
No. 442—Value of 1947 Shipments du Pont vs. Total United States Industries in which du Pont Participates	4231	6433
No. 443—Growth in Net Sales, du Pont and 27 Chemical Companies with Sales over $20,000,000 in 1948	4232	6434
No. 444—Paints and Varnishes, Dollar Value of Shipments—du Pont vs. Total Industry, 1939 vs. 1947	4233	6435
No. 445—Sales, by Department, to General Motors Corporation compared with Total Departmental Sales, 1938 through 1941; 1946 through 1948	4234	6436
No. 447—Sales of Brake Fluid (du Pont) Years 1936-1950, inclusive	4235	6437
No. 448—Petition, power of attorney and specification to the Commissioner of Patents by Don Kyle Proffitt and Joel George Sharron dated May 11, 1926	4236	6438
No. 449—Memorandum dated February 16, 1932, from President, Viscoloid Company, to Executive Committee, du Pont	4242	6444
No. 451—Sales of Products New to the Company since 1928 (Year 1950) (du Pont)	4243	6445
No. 452—Application of Proceeds of 7½% 10-Year Bonds, issued May 1, 1921, for Permanent Financing of Outstanding Obligations (du Pont)	4244	6446
No. 453—Undated Memorandum signed by Pierre S. du Pont	4245	6447
No. 454—Letter dated August 28, 1923, from Irenee du Pont to Finance Committee	4247	6449
No. 455—Letter dated October 27, 1923, from Alfred P. Sloan, Jr., to The Common Stockholders of General Motors Corporation	4249	6451
No. 456—"Investment in General Motors Corporation Common Stock" from Minutes of Meeting of the Board of Du Pont March 21, 1932	4257	6459
No. 457—Excerpt from Minutes of Meeting #513 of the Finance Committee (du Pont) May 15, 1933	4258	6460

duPont Exhibits:

	Original	Print
No. 458—Excerpt from Minutes of Meeting #428 of the Finance Committee (du Pont) November 4, 1929	4260	6462
No. 459—Memorandum dated March 5, 1937, entitled "In re General Motors Securities Company"	4261	6463
No. 460—Memorandum dated April 26, 1918, from R. R. M. Carpenter to M. D. Fisher	4263	6465
No. 461—Letter dated October 6, 1922, from Dunham Body Company to E. I. du Pont de Nemours Co.	4264	6466
No. 462—Production of Open Cars 1915 through 1930 (GMC)	4266	6468
No. 463—Sales by du Pont of Plastics to Fisher Body Division of General Motors Corporation, 1927-1931, inclusive	4267	6469
No. 464—Positions held by Walter S. Carpenter, Jr., in du Pont Company 1909 to date	4268	6470
No. 465—Positions held by Crawford H. Greenewalt in du Pont Company 1922 to date	4269	6471
No. 556—Ammonia Department, Sales of Antifreeze (du Pont)	4270	6472
No. 557—Fabrics Industrial Master Trade Report dated January 13, 19[illegible]	4271	6473
No. 558—Excerpts from the Paint, Lacquer and Chemicals Department Monthly Report to the Executive Committee for November, 1926, dated December 23, 1926	4273	6475
No. 559—Excerpt from the 1937 Annual Competitive Report of the Fabrics and Finishes Department	4277	6479
No. 560—Excerpt from the 1940 Annual Competitive Report of the Fabrics and Finishes Department	4278	6480
No. 561—Excerpt from the 1941 Annual Competitive Report of the Fabrics and Finishes Department	4279	6481
No. 562—Excerpt from the 1947 Annual Competitive Report of the Fabrics and Finishes Department	4280	6482
No. 563—Excerpt from the 1950 Annual Market Survey of the Fabrics and Finishes Department	4281	6483
No. 564—Excerpt from the 1935 Annual Competitive Report of the Fabrics and Finishes Department	4282	6484
No. 565—Excerpts from Du Pont Products Index	4283	6485
No. 566—Sales of Ethyl Alcohols (including Ethyl Alcohol Type Antifreeze) to the General Motors Car Divisions, 1932 through 1941	4322	6524
No. 567—Sales of Ethyl Alcohols (including Ethyl Alcohol Type Antifreeze) 1932 through 1941	4323	6525
No. 568—General Motors Corporation purchases of finishes from du Pont and its competitors, 1946 and 1947	4324	6526

duPont Exhibits:

	Original	Print
No. 569—General Motors Corporation purchases of fabrics (imitation leather and coated fabrics) from du Pont and its competitors, 1946 and 1947	4325	6527
No. 570—General Motors Corporation purchases of adhesives from du Pont and its competitors, 1946 and 1947	4326	6528
No. 571—General Motors Corporation purchases of Anodes from du Pont and its competitors, 1946 and 1947	4327	6529
No. 572—General Motors Corporation purchases of chemicals (solvents) from du Pont and its competitors, 1946 and 1947	4328	6530
No. 573—Government Exhibit 1388 corrected to include all products reported by General Motors Corporation to Grand Jury as purchased from competitors of du Pont Company	4329	6531

Defendant's Exhibit (DP) No. 1

Pierre S. du Pont
Positions Held in E. I. du Pont de Nemours & Co. and Predecessors
1890 to Date

1. E. I. du Pont de Nemours & Co. (Partnership)

Entered employ 9/1/90.

Assistant Superintendent of black powder operating department at Brandywine Mill 9/15/90-March, 1892

Superintendent of smokeless powder operating dept. at Carney's Point March, 1892 - March, 1899.

2. E. I. du Pont de Nemours & Co. (1899 Corporation)

None

3. E. I. du Pont de Nemours & Co. (1902 Corporation)

Treasurer	2/28/02 - 3/ 5/05.
Vice President	2/20/04 - 8/31/06.
Director	2/28/02 - 11/19/12.

4. E. I. du Pont de Nemours Powder Co. (1903 Corporation)

Treasurer	6/18/03 - 2/25/14.
Vice President	6/18/03 - 7/28/03.
	2/25/14 - 3/ 6/15.
Acting Pres.	9/ 1/14 - 3/ 6/15.*
President	3/ 6/15 - 12/31/19.
Director	5/20/03 - 5/22/26.
Exec. Comm. Member	6/18/03 - 9/19/14.
Finance Comm. Member	3/ 4/04 - 2/11/10.
	3/22/10 - 3/27/18.
Finance Comm. Chairman	3/ 6/15 - 3/27/18.

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*Served as Acting President also at various times between January 7, 1909 and September 1, 1914 during the absence of T. Coleman du Pont.

5. E. I. du Pont de Nemours & Co. (1915 Corporation)

President	9/ 8/15 - 5/ 1/19.
Chairman of Board	5/ 1/19 - 5/20/40.
Finance Comm.	9/ 8/15 to Date.
Finance Comm. Chairman	9/ 8/15 - 3/15/26
Director	9/ 8/15 to Date.
Hon. Ch. of Board	4/15/46 to Date.

Defendant's Exhibit (DP) No. 3

C
O
P
Y

December 7th, 1914

Mr. P. S. duPont,
Vice President.

2/16—Original handed to M-D-Fisher

Dear Sir:

As you know I have always felt those in responsible positions in our company should be encouraged to become importantly interested in the common stock and I have, as you know, always thought well of the common stock and put a higher figure on it than you have. I think it well worth 185 today and think it will go to 190 or 200 before the year 1915 is many months old.

This ownership of common stock by the leading men is of so much importance to the Company that as a member of the Finance Committee (the Company having cash away beyond its requirements), I would recommend the funds needed to carry stock for these men be advanced by the Treasury.

I am willing to sell for the purpose twenty thousand (20,000) shares at 160 per share ex-dividend payable in say 30 to 60 days.

To guide me I should like to have a suggestion from the Finance Committee or a Committee appointed by them as to how it should be distributed.

In as much as important men associated with us have asked me to sell them some stock I should like to have a prompt answer from the Finance Committee to enable me to reply.

If the important stockholders in Hercules Powder Co. think well of the plan, make a similar offer to the President of the Hercules Powder Co. except the number of shares will be much smaller say 4,000 and I think and hope you gentlemen feel the important stockholders in that Company should recommend to the directors of

that Company that the Hercules Co. advance the cash needed as the Company can spare it to enable the Directors (and those they suggest) to secure this stock.

The same with much reduced number of shares, 700 or 800 to the President of the Atlas Co.

I attached a copy of letter I was going to write to the President of the Hercules and of the Atlas Co.s but before sending same would appreciate any suggestions you gentlemen care to make.

Yours very truly,

(S) T. C. duPont

NOTE. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 4

December 14, 1914.

Mr. P. S. duPont,
Building.

Dear Sir:—

I have given a great deal of thought to my letter of Dec. 7th as to distribution of this stock and my judgment is that each member of the Executive Committee be allowed 1,500 shares. That the men whose salary is $500 a month and over will be allowed to subscribe for three times the amount of their salaries. This makes a total according to the memorandum you left with me, of 20,700 shares. I am willing to furnish the other 700 or the Company can do this as in your judgment seems advisable.

I suggest you make this announcement sometime prior to the 23rd of this month as I think it has some advantage.

As I am going away today and do not know how long I will be gone, I have left the matter in Mr. L. L. Dunham's hands. He can come to Wilmington and see you upon receipt of telegram from you.

Yours very truly,

(S) T. C. duPont.

Defendant's Exhibit (DP) No. 5

December 14, 1914

Mr. P. S. duPont, V. P.,
Building.

Dear Sir:

After giving the question of purchasing a certain large block of duPont common further consideration, I believe that 160, the price you talked of, is too high. 150 would be purchasing it on a 6% basis, and 160 a 5%. This is too low a rate for the Company to invest its spare funds, and furthermore, if it were offered to any of our employes, it would not be sufficiently attractive at that price. I see no objection to the Company's purchasing this stock, but the question of price is one of grave importance, owing to the large investment.

I would suggest that no decision as to the actual price be given the owner until the Finance Committee has had ample time to think the matter over, and discuss it together.

Yours truly,

(S) Alfred I. duPont,
Vice President

AIduP-RB

Defendant's Exhibit (DP) No. 6

Letterhead of

THE KAHLER

Rochester, Minn.

12/17/14

Dear Pierre

I talked to three Doctors today they all seemed to know what they were doing and they are going to take some x rays and do other stunts tomorrow they are most thorough in their methods and if any one can find out my trouble and correct it they ought to

These attacks have continued

—2—

almost daily since last Monday and I feel that this krick or what ever it is has taken a permanent "set" that can only be relieved by an operation or a fall like I had once before that kept pain away 6 weeks but no such good luck and I think after the whole gauntlet has been run they will decide to make an exploratory examination to see what the trouble is and I hope find it.

Else will write or telegraph

—3—

you as soon as there is anything definite to say. And when she can say I will be in a condition not to write or anything else for 3 or 4 days

The town is all Mayo's the Hotel their offices and Hospital the main town. I suppose there were 100 people waiting this morning and 100 more this afternoon, the

hotel is full of convalescents and if a well person stayed here a week he might have the feeling that he was in a hospital.

As I will be here likely 2 mos I told Lew Dunham of the stock sale, but made all necessary financial arrangements for the Equitable for Dec and until about middle of Jany. to be on the safe side.

Love to the family

Your aff cousin

Coleman

NOTE: The document is a handwritten letter. In the upper left hand corner are written the words ans'd 12/20/14. In the right hand corner appears P and the number 275.

Defendant's Exhibit (DP) No. 7

December 21, 1914

Mr. P. S. duPont, V. P.,
Building.

Dear Sir:

I find that I made an error in writing to you under date of December 14th, regarding the purchase of a certain large block of DuPont common stock, in stating that 150 would be purchasing it on a 6% basis. I presume the discrepancy was noted by you, as it should have been 133 and not 150.

I doubt whether the investment of the Company's surplus earnings by the Finance Committee on a basis even as high as 6% could be justified. In other words, if the Company is unable to invest its surplus earnings at a rate better than the stockholders might, themselves, they might contend that these earnings should be distributed in the form of a dividend.

I presume that this matter will be discussed at our next Finance Meeting on December 30th.

Yours truly,

(S) Alfred I. duPont
Vice President

AIduP—RB (Here follow handwritten memo of PS)

If we take earnings at 12% = 7.5% basis at 160
" " 18 = 11.25% "

Defendant's Exhibit (DP) No. 8

Defendants' Exhibit No. 22

Excerpt of

COPY OF MINUTES OF FINANCE COMMITTEE MEETING #56

E. I. DU PONT DE NEMOURS POWDER COMPANY

HELD IN WILMINGTON, DELAWARE ON DECEMBER 23, 1914

• • • • •

E. I. DU PONT DE NEMOURS POWDER COMPANY FINANCE COMMITTEE.

Meeting #56, (Special Meeting) held at the office of the Company, Wilmington, Delaware, 10:15 a.m., December 23, 1914.

Present: P. S. duPont, in the Chair
Alfred I. du Pont,
William duPont.

Absent: T. C. duPont.

• • • • •

Purchase of Common Stock Owned by Mr. T. C. duPont.

Mr. P. S. duPont presented a letter from Mr.T.C.duPont, offering to sell 20,700 shares of Common Stock of this Company at $160. per share. After discussion, it was moved and carried, (Mr. P. S. duPont voting in the negative), that Mr. P. S. duPont be instructed to advise Mr. L.L. Dunham attorney for Mr. T.C.duPont, that we do not feel justified in paying more than $125.00 per share for this stock.

Upon motion the meeting was adjourned.

/s/ Alfred I. duPont
/s/ P. S. duPont

Approved as
to legality:

/s/J. P. Laffey
Time—1 hr.30 min.
23.

I hereby certify that the foregoing is a true copy of the minutes of Finance Committee Meeting #56, E. I. du Pont de Nemours Powder Company, held in Wilmington, Delaware on December 23, 1914.

/s/ F G Hess
Sec'y, Finance Committee
E. I. du Pont de Nemours and Company
Successor to
E. I. du Pont de Nemours Powder Company

[seal]

April 30, 1951.

2
E

Defendant's Exhibit (DP) No. 9

T. C. duPont, President,
Rochester,
Minnesota.

Dear Coleman:

I have been intending to write you about the reception of your proposition by the Finance Committee. Unfortunately, Alfred, who had approved the plan before you went away, got somewhat cross-wise in the meeting and I think it wise to let the matter rest for the moment; preferably until I can see you, before taking any other step. I am sorry and provoked that the proposition did not go through, for I feel that your offer was a generous one and should have had more considerate treatment; but, like many other things, the final result cannot be obtained quickly.

The Hercules plan was accepted in very good spirit. It is held up temporarily because their attorneys have told them their company cannot loan the money to the Directors. Technically, this may be correct; but I do not think they should hesitate to put the thing through, nor do I think they will. The Atlas people, acting under the same laws (of Delaware) have accepted the proposition and I understand from Lou Dunham today have taken over the stock. Undoubtedly the Hercules will come to the same conclusion.

Colonel Buckner still continues busy. The Nobel and Russian contracts are to be closed today or tomorrow and we have other similar items in view. The actual sales amount to about Thirty-five Million. Construction work is reported well along.

On New Year's Day I was surprised to find Moxham ill in bed. By this time you have probably heard that he was threatened with pneumonia, but I believe all danger has now passed. He seemed quite himself and willing to talk. I understand that his company is determined to go ahead on smokeless powder and guncotton. It seems a great mistake, but not for us to dictate.

Lou Dunham gives me the good news that you have been up from bed already. It seems almost too good to be true and shows your reserve strength. Altogether your operation, severe as it was, seems to have promise of very good results. All here are interested in hearing from you. I have daily inquiries.

Your affectionate cousin,

(S) Pierre S. duPont,
Vice President

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Defendant's Exhibit (DP) No. 10

January 14, 1915

Mr. T. C. duPont,
Rochester,
Minnesota.

My dear Coleman:

It was very good to hear from you again and at such length, showing improvement you are feeling. Dale Bumstead called on me yesterday and reported his visit to you and the prescription in the shape of a "Big Stick" that he left with you. Liberal doses of this may be necessary if you keep on improving, for I am sure that you will be wanting to get back to work at the earliest possible date. I hope, however, that you will be induced to take all precautions so that recovery will be complete this time.

Things are still moving rapidly with the company. At last all the contracts in negotiation when you left here are signed and the first payments made,—an aggregate of 35,000,000 pounds of powder, 3 100 000 pounds of guncotton and 5,116,000 pounds of trinitrotoluol. Meantime other important negotiations are in progress. I think I wrote you that Nobels want 4,300,000 pounds and Bethlehem Steel 2,600,000 pounds of powder and Nobels 3,500,000 pounds of guncotton. In addition to this we have the large Russian negotiation part payable in bonds, but in looking over your letter I find I have not clearly explained the proposition. You are correct in understanding there are two alternatives; one of thirty million pounds, another of fifty. In case the price of one dollar per pound payable one half in cash and half in bonds (the latter valued between

80 and 85). At the end of the contract and upon final payment, a two and one-half percent discount, in cash, is to be allowed on the one dollar price. However, our offer to purchase $5,000,000. Russian bonds on the larger proposition would be the equivalent to the taking of thirty million bonds and twenty million cash. I hope this is now made clear to you. You understand of course that this order would be filled out of existing plants, so that no depreciation would have to be charged off. The cash would be very ample for taking care of manufacture. If, however, we should accept all bonds, we would have to put up on the larger proposition, say, twelve and a half million, which I think we could easily arrange through sale of bonds, or our other resources. With such large business as this, such an item is quite safe. Apparently the proposition has been well received by the Russian representative in this country. We hope to hear from Petrograd this week. Of course anything final can hardly be expected, but we should at least have an indication of their interest Buckner has made a similar proposition to the French representative and cables have been sent to France on this subject. It seems possible that two large orders could be secured in this way, thus establishing our 1916 business. I believe in my last letter I wrote you these orders would necessitate our increasing, this year, our guncotton capacity from the figure I gave you (70,000,000 lbs.) to about 100,000,000 lbs. Powder capacity must be raised from sixty to ninety million pounds. This means we will have to increase our appropriation to $8,300,000. A total of $5,700,000, is the figure already authorized.

TC-3

Today the Finance Committee authorized the purchase of $3,000,000. short terms notes and bonds, in order to make some return on our large cash balances. I do not think it the right time to invest any funds in a permanent way, particularly if we are to take securities in payment for future powder orders.

Our raw material arrangements seem in satisfactory shape. Very large quantities of cotton have been covered at a low price, as well as sufficient nitrate of soda; the latter, however, is in storage in Chile. We are now working on a plan to have in this country sufficient nitrate to produce all the powder already sold, as a matter of insurance. Diphenylamine, over which we had some concern, is now being manufactured by us; the plant having been started, but it has not operated sufficiently long to establish what we can do. The General Chemical Company have also succeeded with their factory, so I think it unlikely that we shall fall short of a supply. Sulphuric acid is to be supplied largely by the General Chemical Company, but in addition we are to erect a comparatively small plant at Hopewell, Virginia. Nitric acid we will of course supply ourselves in the usual way. I do not see how we can "fall down" in any way as far as raw materials for existing contracts are concerned.

It is reported that Francis I. is negotiating with Moxham in regard to guncotton and smokeless powder manufacture. I understand that Peyton announced he was going into the smokeless powder business on his own account if the Aetna Explosives Company did not join him; hence their determination to go ahead, in which they are, I believe, much in error. Francis will have to decide soon whether he is to go with them or not. He should not be working on both sides of the question.

The demand for offices is not sufficient to necessitate any change in the rooms occupied by you. I think that everything is straightened out at present, though the building is pretty well filled.

At to the stock offer: In Willie's absence I shall do nothing. He will be here in a week and I will try to ge some action. If this is not possible it will mean that the question of value of the stock was not uppermost in their minds. If not finally accepted would you approve making an offer direct to the men? I should think that a financing suitable to you might be arranged. I am quite sure that they would like to take the stock, but do not feel in position to say anything while you are negotiating with the company. No one but the Executive Committee and Directors know of the offer as far as I know. The Board of course knew it through the minutes of the Finance Committee.

Getting back to the large orders we are negotiating: I will let you know as soon as anything develops, as they are of great importance. Colonel Buckner, who has been in New York the last few days, returns tomorrow and there may ppossibly be something to report.

Your affectionate cousin,

Note. "P. S. du Pont" is stamped across each page of letter. "P-275" is written in the upper right hand corner of page 1.

DEFENDANTS' TRIAL EX. No. DP11

Jany 15, 15.

Dear Pierre:

Thinking over the stock offer matter, I still think it an advantage to the company, but in view of Alfred's position I think it best to withdraw it if the Finance Committee has not accepted my proposition,; when I get home we can talk it over and if best I can renew it, but it seems very unbusiness like to leave it in its present condition.

Of course if you have talked to Willie or are in any way committed that settles it I will carry out any statement you have made, on the other hand if you have not made any my judgment is to withdraw it, again if you have any good reason for not doing so let me know your position.

Glad to say I am gaining a little daily about one day in four or five I get an off day and feel "Bum" but four out of five or six I feel that I am gaining.

Love to all the family in which Else joines me, I am

Your aff. cousin,

(S). Coleman.

Defendant's Exhibit (DP) No. 12

Telegram — Postal

6—Wg C15
Rochester, Minn. Jan. 17th, 1915

P. S. duPont,
Wilm.

Letter of fourteen received if you are not committed withdraw my offer will write.

Coleman duPont
12:05 pm

Defendant's Exhibit (DP) No. 13

Rochester, Minnesota,
Jan. 19, 1915

Mr. P. S. du Pont,
Wilmington, Del.

Dear Pierre:

Upon receipt of your letter of the 14th, I telegraphed you "Letter fourteenth received. If you are not committed withdraw my offer. Will write" which is now confirmed.

Inasmuch as Christmas and January first are past I don't think two or three more months will make any difference, and in my mind it would be such a good thing for the young men to have a stock interest that I am sure we can arrange for them to take it without it being purchased by the Company, through one of the New York banks, probably the Bankers Trust Company, but I believe if this is left until I get home we can work it out better.

I note by the Wilmington papers of a few days ago that common stock was selling at 155 to 160. With the outlook and the orders ahead I can't understand why the prediction in my letter to you that the stock would be 180 even 200 during the first few months of 1915, is not being fulfilled.

I note that the total orders are something over $40,000,000 with $10,000,000 more in prospect, not counting the two partially payable in bonds. These should certainly make the dividend 50 percent on 1915 and 1916 and 1917 which should make the stock easily worth 200. At any rate, I feel sure we can work out some plan that will be beneficial to the important men ~~in~~ the Company and, therefore, beneficial to the Company, just as soon as I get back home.

Speaking from memory, you or someone told me that Alfred considered the common stock worth 300; therefore the price was not the reason for his changing his mind after I left Delaware.

Your letters are all fully appreciated, but, of course, there is nothing going on at this end of the line . . . . (torn) . . . . give me the opportunity of writing much in reply.

Your affectionate cousin,

(S) Coleman du Pont.

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B

Defendant's Exhibit (DP) No. 14

Mr. T. Coleman duPont,
Rochester
Minnesota.

My dear Coleman:

On my return from New York, where I have been for a couple of days, I find your letter and am glad to hear from you again. I am sure that some plan of advantage can be worked out when we next meet. A couple of days ago Alfred suggested to me that the Finance Committee take up the question of selling Treasury-stock to our important men. What would you think of such a plan? I do not know what he has in mind, but suppose something similar to your offer, excepting at a lower price. I do not think it need interfere with your arrangement if you desire to put it through also.

Since my last letter, the Nobel Company has closed for 6,500,000 more pounds of powder and guncotton on account of the British Government. This order comprised three different lots which had been negotiated for the Belgians and Vickers' Sons originally, but the British Government stepped in and took them, so that Mr. Purvis, the Nobel representative here in the States, has asked for deliveries on the duplicate orders for the original buyers. I feel confident that this duplicate will also be closed. We have heard from the Russians that they cannot consider our offer further; I judge on account of the difficulty to issue bonds. However, Colonel Buckner has taken up the question of supplying powder for the British Government with J. P. Morgan & Company who have been appointed financial agents for the purchase of supplies. He has offered them substantially the same amounts as offered Russia, namely:

7 000 000 lbs for delivery this year

3 000 000 " per month over next year

These offerings together with what we have closed take up practically all that we have for delivery between now and March, 1916; though we have increased our capacity, as I wrote you, 103 000 000 lbs. guncotton (94 000 000 lbs. powder) starting with September and October deliveries.

My New York visit was to meet Mr. Kraftmeier, who, with his wife and daughter, arrived on the LUSITANIA Saturday. He had cabled he wished to meet Irenee and me immediately on his arrival. I supposed that his mission was to place additional orders so we took Colonel Buckner along and were much surprised to find that Mr. Kraftmeier made no mention of orders. Finally, after he succeeded in drawing me aside, he told me that they had had a report that Kuhn, Loeb & Company of New York (who are pro-German firm) had gained control of our company through the embarrassment of one of our large stockholders and that they on that account had fears concerning the orders placed with us. I, of course, assured him that nothing of the kind had happened, or would happen; that all orders would be filled according to contract without any

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shadow of a doubt. He semed somewhat relieved to hear this and said this was one of the important things that brought him over. From his conversation I judge that it was THE important thing, for no other part of our discussion seemed to be of moment. I imagine that the orders placed with our company are of serious concern to the Allies and a rumor such as Kraftmeier outlined might well be worth a visit of investigation to the United States.

Kraftmeier inquired for you and was glad to learn of your improved condition. He expects to be here about a month, though I understand he will go to Palm Beach for part of his stay.

I am recommending to the Finance Committee the equalization of Executive Committee salaries. Do you not think this a good plan?

Owing to the congestion of our Brandywine Machine Shop, we have been obliged to lease the shop of J. Morton Poole, in Wilmington. Here we will do work on special pieces of apparatus such as powder presses. We do not contract outside, owing to the necessity of keeping secret our designs. Pusey & Jones Company have undertaken to manufacture guncotton wringers for the Aetna Explosives Company on designs which are substantially ours, though we have no legal claim. This shows the importance of keeping our own designs to ourselves.

Your predictions as to the common stock have been nearly realized. John Raskob tells me this morning that the price *has reached $188/190.*

—4—

It is difficult to judge of the effect of earnings by the extraordinary business. In the neighborhood of 100%

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seems a fair guess. That amount reinvested, say, on a 10% basis would mean a permanent increase of 10% on the earnings. Eventually this can be accomplished, so I think it would be fairer to count on 5 or 6% for the first couple of years. My judgment is that we will be warranted in resuming a 12% dividend basis for this year. I have another reason for advocating this, entirely,—That I am quite thoroughly persuaded it will be a mistake to publish our quarterly statements this year. Perhaps the connection of the two ideas is not obvious! As to the discontinuance of the statements: I think it would not benefit the company and probably do material harm to publish the effect of the extraordinary business any sooner than is necessary, which I judge will be the end of the year 1915. We could hardly be criticised for witholding information, excepting that stockholders might accuse us in the future of having withheld the report of profits in order to buy in the stock. To safeguard ourselves against this accusation and to be quite fair with the stockholders, I propose to increase the dividend, which, together with rumors of large orders, should certainly place any stockholder on guard against selling. Increase of dividend alone should be a warning that withholding of statements is due to prosperity and not reverses. Those who notice the absence of a quarterly statement and write to us about it can receive a reply that will satis-

fy them that statements are not withheld because of their poor showing. I should like to have your thought on this question. I have not talked it over to any extent,—with John and Irenee only, I think. I confess that they do not respond very readily to he idea, but we have plenty of time to think it over, as the first quarterly statement is not published until May. The annual statement for 1914, which reflects little of the extraordinary business will be published in due season.

You probably do not realize how much this extraordinary military business has diverted attention from the routine of the company's business. We must be careful that our point of view is not entirely warped out of line by this temporary situation. It will take very careful thought and manouvering to return to former conditions. The Engineering Department has expanded beyond our wildest dream. Those in the Smokeless Operating Department have seized men from the other departments in order to quickly meet demands. The other departments have responded splendidly and have done their utmost to adjust themselves to the new conditions. As far as I can see there is but one purpose throughout the entire force; that is to "make good" on these large contracts and to do it quickly. It is a situation of which we may well be proud and satisfied. There is of course a danger of over-loading, but apparently no danger of anybody "falling down" through lack of willingness to work and co-operate.

The following are the figures on total sales, to date:

—6—

	Quantity Pounds
Cannon	33 291 000
Rifle	7 952 200
Guncotton	8 772 000
Triton	5 984 375
TOTAL	55 999 575

In addition to the above we have offers for 14 027 500 lbs.

Your affectionate cousin,

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NOTE. "P. S. du Pont" is stamped across each page. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 15

Copy

January 28, 1915.

Mr. T. C. duPont,
Rochester,
Minnesota.

My dear Coleman:

In talking over the Kraftmeier rumor with the Finance Committee, it was suggested that we four large stockholders place our stock together for a period of time covering this extraordinary war condition with an agreement that the certificates would not be sold or used as collateral unless by common consent. I do not think it was intended to mean that any individual would be forbidden to use his certificates without consent of the others. In my opinion it would be better to agree that one could not use his certificates unless the others knew about it. Alfred proposed that any loans that might be now outstanding with DuPont stock as collateral could be taken up by the company and thus enable each individual to carry out the plan. The company could not suffer by this as they cannot put out within a reasonable time their large cash balance at more than ordinary interest. Surely loans with company stock as collateral would be more than safe. After suggesting this plan Alfred stated he had no loans on his stock, in a way that suggested a proposal for a show-down. Willie then stated that he had no loans and I said that I had none. As far as I know neither was acquainted with the others position up to that moment. They then asked me to communicate with you to see if you would approve of the plan as outlined. Personally, I think it a good idea, as our ability to state positively that control of the stock was absolutely safe would put our foreign orders in much better position. Our business with the side of the Allies is so large now it may mean to them the turning point of the war. It is, therefore, of the utmost importance that they know our situation. If you approve the plan and are in position to have Lou Dunham put it through, it would be a very good thing to tell Mr. Kraftmeier that we had determined to do this in order to assure our customers of the true position. In view of the importance of the question, I have talked with Lou in order that he might be in position to communicate with you intelligently. I have, however, stipulated that he shall not acquaint me with your situation until the whole question has been thoroughly ventilated. I know that he would not tell me anything that you desired to keep to yourself, but even if you are willing I think it better for me not to know your situation in talking with the Finance Committee. Either you or Lou should tell them whatever you wish them to know.

The more I think of Kraftmeier's question, the more I appreciate the importance of our financial position with the Allied nations. We have gone so far with the latter in the way of orders, I am beginning to feel it dangerous to place an order with the other side; for they would then have access to our factories in a way that might mean great danger to us. Of course there seems little likelihood of being approached with German orders.

Please let me know what you think of this question. If it will cause you any trouble, or worry, just turn it down until you are ready to discuss it with us.

Your affectionate cousin,

Defendant's Exhibit (DP) No. 16

Copy

Richester, Minn,
Jany 31, 1915

Dear Pierre:

I am in receipt of your letter of Jany 28th in regard to dispositing stock and am sending the answer through Lew in same mail, if it is not inconsistent with what he has done since I left and the statements I make from memory correspond with the record he will take or mail it to you. I have been out of touch with the details left in Lew's hands so long that this is only fair to him & me, neither do I cafe (sic) to give you anecient history.

Your aff. cousin,

(S) Coleman du Pont

Defendant's Exhibit (DP) No. 17

Rochester, Minnesota
Feb. 13, 1915

Mr. P. S. duPont,
Wilmington, Del.

Dear Pierre:

I got a little too gay last week and have been on the "blink" for five or six days, but am getting along alright now.

The more I have thought of the stock question the more I believe with what little information I have that the common stock should reach 250 and may reach 300. If this is true, the men who are now at the helm and actually doing things should make the profit as between today's figures and that figure; it will be by far the best thing that can happen to the Company. So clear I am that this is the right time to get them interested that I am willing, figuring as surely as I can that that this stock will go much higher, to let go for the benefit of the men who are working, which, of course, means the benefit of the Company, 20,000, 30,000, or even 40,000 shares at today's market, which I assume is about 200. As to the details of working this out I am entirely willing to leave this to you and Lew.

If much time is desired the price should be higher. If the arrangement for cash payment is made through banks there should be no increased price. In order to get time when we purchased the Company originally what we gave to be allowed time amounted to, I believe, over one hundred percent increased price, this because the element of chance must necessarily come in.

Of course, I am only using my best judgment in this matter, but I am willing and strongly urge that the heads of departments and younger members of the family become most interest in the common stock.

I read with great interest your letter of February 5th in regard to the outlook and also in regard to Mr. Kraftmeier's position. What I am most afraid of at this time is that the "Powers that Be" at Washington will do some fool thing that will draw the United States into controversy before we know it, and in this case we would have to supply our own government in addition to the other orders.

I think the statement you propose making to the Finance Committee is exactly the right one and has my entire approval.

Your aff cousin,

(S) Coleman duPont

Defendant's Exhibit (DP) No. 18

POSTAL TELEGRAPH — COMMERCIAL CABLES

TELEGRAM

Wilmington, Del., February 17, 1915

To Mr. Coleman DuPont
Hotel Kahler
Rochester, Minn.

Wire me if you would be willing to sell forty thousand shares and pool balance for voting purpose. Another proposition would you be willing to sell entire holdings. Both cash.

L. L. DUNHAM

Chg. C. duPont.

Defendant's Exhibit (DP) No. 19

February 20th, 1915

Mr. Coleman duPont,
Blackstone Hotel,
Chicago, Illinois.

My dear Coleman:

I beg to confirm my telegrams of today and your phone conversation:—

TC has got
63314 com
14599 pfd
L L Dunham
2,21,'15

> "Have arranged final conference with bankers Tuesday and Wednesday. Propose purchasing your sixty three thousand two hundred fourteen common at two hundred and thirteen thousand nine hundred eighty nine preferred at eighty—paying eight million cash and five million seven hundred sixty two thousand in seven year five percent notes of company to be formed. Collateral on notes to be thirty six thousand shares common stock. We to have privilege of paying notes before maturity. Also prepared to close immediately. Do you accept this proposition? Has Dunham full authority and necessary power to act for you? Important this be kept confidential for present. PIERRE."

> "We accept your modifications to our telegram, six percent on deferred payments and eighty-five for preferred stock. This makes deferred payment five million eight hundred thirty-one thousand eight hundred sixty-five dollars, carrying the six percent. Please write letter confirming. Details will be settled with banks on Tuesday. PIERRE."

I understand I have purchased from you sixty-three thousand two hundred fourteen, (63,214) shares of the common stock of E. I. duPont deNemours Powder Company at Two Hundred (200) Dollars per share and thirteen thousand nine hundred eighty-nine (13,989(shares of the preferred stock of E. I. duPont deNemours Powder Company at eighty-five (85) dollars per share. Also, you are to be paid eight million (8,000,000) in cash and five million eight hundred thirty-one thousand eighty hundred sixty-five (5,831,865) dollars in

—2—

six percent (6%) seven (7) year notes of a company to be formed to complete this transaction; the collateral on the notes being thirty-six thousand four hundred fifty (36,450) shares of the common stock of E. I. duPont deNemours Powder Company. The company is to have the privilege of paying these notes before maturity. Until we have all the details arranged, I suggest that the transaction be kept confidential. I will let you know as soon as it is announced, which of course must be fairly soon. I have arranged for the loan in New York, but some details will have to be finished on Tuesday, February twenty-third (Monday being a bank holiday). I will arrange immediately with Lou Dunham for the transfers.

Your affectionate cousin,

Defendant's Exhibit (DP) No. 20

WESTERN UNION TELEGRAM

Feb. 22 1915
2-22 Copy LLD

T. C. duPont,
Blackstone Hotel,
Chicago, Ill.

Please wire acceptance of proposition my letter twentieth in order that we may have definite proposition for banks tomorrow.

Pierre

Chg: P. S. duPont, Personal

Defendant's Exhibit (DP) No. 21

WESTERN UNION TELEGRAM

13-Wi C 23 2-22 copy LLD

Chicago Ills Feb. 22 nd 15.

P S du-Pont,
Wilmn.

PROPOSITION ACCEPTED FOR ENTIRE HOLDINGS DON'T KNOW EXACT NUMBER SHARE ASSUME COLLATERAL ON DEFERRED PAYMENTS TO BE MAINTAINED RELATIVELY SAME AS AT START.

Coleman

11:57-A-M.

Defendant's Exhibit (DP) No. 22

Letters up to & including that of T C 2, 13, '15 speak for themselves & give all of the transactions re stock sale up to the latter date. Letter of 2, 13, '15 was received by me 2, 16, '15. On 2, 17, '15 had a talk with L L Dunham in which I asked him to find out if T C would pool his remaining stock. Dunham thought he would or perhaps sell all. This was first intimation to me that sale of all was possible or probable. In accordance with this statement L. L.D's telegram 2, 17, '15 was sent out.

After talking with L L D, I made some rough figures & on the afternoon of 2, 17, '15 told J J R of the proposition. The next day Thursday 18th I dP L dP JJR RRMC & I had a conference during which L L D came back to say that he had heard from TC who was willing to sell all of his stock but would not go into a voting pool unless he knew of the terms. This decided us to entertain a negotiation for all of TC's holdings & it was decided that JJR would visit Morgan & Co. in N Y the next day to try for a loan of $13,500,000 or thereabouts in order to make purchase.

J. J. R. returned from NY 2:30 train Friday 19th & met me in Bellevue Hotel Phila. He had found Morgan & Co. (Mr. Porter) in a favorable attitude & Porter immediately started out to sound the banks.

On Sat 20th we met in Wil & on calling Mr. Porter in NY found that he had practically secured 10,800,000 out of the necessary 13,500,000-14,000,000. At this time Mr.

Porter had suggested a 6% rate with 1% commission to banks & 2% to Morgan & Co. 3 yr loan.

It was determined to try for a part deferred payment to TC

—4—

& accordingly telegram of 2, 20, '15 was sent.

T C called LLD on 'phone & said he would rather hold his pfd than sell at 80 but would sell at 85 otherwise proposition satisfactory also telegraphed me.

This was accepted in 2nd telegram of 2, 20, '15 & confirmed by letter of same date.

Note. Italics indicate handwriting.

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Defendant's Exhibit (DP) No. 23

DISTRIBUTION OF DU PONT SECURITIES COMPANY STOCK

		Total shares in original distribution	Shares to be supplied to principal employes	Balance of shares remaining	Allotment of shares to principal employes	Final share holdings
Pierre S. du Pont	50%	37,500	5,875	31,625		31,625
Lammot du Pont	16%	12,000	1,880	10,120	1,250	11,370
Irenee du Pont	16%	12,000	1,880	10,120	1,250	11,370
R. R. M. Carpenter	6%	4,500	705	3,795	1,250	5,045
John J. Raskob	4%	3,000	470	2,530	1,250	3,780
A. Felix du Pont	8%	6,000	940	5,060		5,060
Wm. Coyne					1,250	1,250
H. G. Haskell					1,250	1,250
H. F. Brown					1,250	1,250
F. G. Tallman					1,250	1,250
W. G. Ramsay					1,250	1,250
J. P. Laffey					500	500
	100%	75,000	11,750	63,250	11,750	75,000

Defendant's Exhibit (DP) No. 24

CHRISTIANA SECURITIES COMPANY

METHOD OF FINANCING PURCHASE OF E. I. du PONT de NEMOURS POWDER CO. STOCK FROM T. COLEMAN du PONT, MARCH 2, 1915

Stock Purchased from T. Coleman du Pont

63,314 shares Powder Co. common at $200	$12,662,800
14,599 shares Powder Co. preferred at $85	1,240,915
	$13,903,715

Payments to T. Coleman du Pont

Cash (borrowed from banks on 6% 1-1/2 year notes)	$ 8,000,000
6% 7-year notes to T. Coleman	5,903,715
Total payments	$13,903,715

Du Pont Powder Co. Stock Required for Use as Collateral to Secure Borrowings

	Shares Common	Shares Preferred
Deposited as collateral to secure 6% 7-year notes to T. Coleman du Pont	36,900	0
Required as collateral to secure 6% 1-1/2-year notes to banks	54,591	14,599
Total collateral requirements	91,491	14,599
Stock purchased from T. Coleman du Pont	63,314	14,599
Additional stock required for use as collateral	28,177	0

Acquisition by Christiana Securities Co. of the 28,177 Shares of du Pont Powder Co. Common Stock Required for Use as Collateral

Du Pont Powder Co. Common Stock Acquired		Source	Christiana Securities Co. Stock Issued in Payment	
Shares	% of Total		Shares	% of Total
14,089	50%	Pierre S. du Pont	37,500	50%
4,508	16%	Irenee du Pont	12,000	16%
4,508	16%	Lammot du Pont	12,000	16%
2,254	8%	A. Felix du Pont	6,000	8%
1,691	6%	R.R.M. Carpenter	4,500	6%
1,127	4%	John J. Raskob	3,000	4%
28,177	100%		75,000	100%

Defendant's Exhibit (DP) No. 25

Employees of E. I. du Pont de Nemours Powder Company to Whom Christiana Securities Company (Du Pont Securities Company) Assigned 11,750 Shares of its Capital Stock, March 19, 1915

Name of Employee	Positions Held in E. I. du Pont de Nemours Powder Company
Irenee du Pont	Director Chairman of Executive Committee Member of Finance Committee Vice President
H. Fletcher Brown	Director Member of Executive Committee in charge of Smokeless Powder Dept.
R.R.M. Carpenter	Director Member of Executive Committee in charge of Development Dept.
William Coyne	Director Member of Executive Committee in charge of Sales Dept.
Lammot du Pont	Director Member of Executive Committee in charge of Black Powder Dept.
Harry G. Haskell	Director Member of Executive Committee in charge of High Explosives Dept.
John J. Raskob	Director Member of Executive Committee in charge of Accounting and Auditing Depts. Treasurer
John P. Laffey	General Counsel
William G. Ramsay	Chief Engineer
Frank G. Tallman	Director of Purchasing Dept.

Defendant's Exhibit (DP) No. 26

THIS AGREEMENT, Made this *19th* day of March, A. D., nineteen hundred and fifteen, by and between duPont Securities Company, a corporation existing under the laws of the State of Delaware, party of the first part, William Coyne, Harry G. Haskell, and Harry F. Brown, ..., as Trustees, parties of the second part, and Irenee duPont, Lammot duPont, R. R. M. Carpenter, William Coyne, Harry G. Haskell, Harry F. Brown, John J. Raskob, William G. Ramsay, Frank G. Tallman and John P. Laffey, parties of the third part, WITNESSETH:—

WHEREAS, the party of the first part hath this day assigned unto the parties of the third part eleven thousand seven hundred and fifty shares of the capital stock of du Pont Securities Company, a corporation existing under the laws of the State of Delaware, in the amounts following, to-wit:

Irenee duPont,	1250 shares,
Lammot duPont,	1250 shares,
R. R. M. Carpenter,	1250 shares,
William Coyne,	1250 shares,
Harry G. Haskell,	1250 shares,
Harry F. Brown,	1250 shares,
John J. Raskob,	1250 shares,
William G. Ramsay,	1250 shares,
Frank G. Tallman,	1250 shares,
John P. Laffey,	500 shares.

AND WHEREAS, the certificates representing the said eleven thousand seven hundred and fifty shares of the said stock have been assigned in blank by the respective holders thereof and delivered to the parties of the second part;

—2—

AND WHEREAS, the parties of the third part hereto are now in the employ of E. I. duPont deNemours Powder Company, a corporation existing under the laws of the State of New Jersey;

NOW, THEREFORE, in consideration of the premises, as well as for and in consideration of the sum of One Dollar by each of the parties hereto to the other in hand paid, at and before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, it is agreed by and between the parties hereto as follows, to-wit:

That the said stock was issued by the party of the first part unto the parties of the third part and has been assigned by them and is now held by the parties of the second part for the purposes hereinafter mentioned.

(a) Should the parties of the third part respectively continue in the employ of the said E. I. duPont deNemours Powder Company for the period of one year from the date hereof, or should any of the parties of the third part die within the said period of one year while still in the employ of the said Company, the said stock shall become the absolute property of the parties of the third part respectively, or their legal representatives, and the certificates therefor shall be delivered by the parties of the second part unto the parties of the third part respectively, or their legal representatives, at the expiration of three years from the date hereof, and during the said period of three years, the said parties of the second part shall continue to hold the said certificates and shall not deliver the same to the parties of the third part, or any of them, or to their legal representatives, for any purpose whatsoever.

(b) Should any of the parties of the third part cease to be employed by the said E. I. duPont deNemours Powder Company for any reason whatever (death excepted) within one year from the date hereof, the said stock standing in the name or names of the person so

leaving the said employment shall be returned unto the party of the first part and become its sole and absolute property.

(c) The parties of the third part respectively so long as the said stock shall continue to stand in their names on the books of the said Company shall be entitled to vote the same at any meeting of the stockholders and for all purposes arising thereat, and shall likewise be entitled to receive any dividends which may be declared and paid on such stock, but none of the parties of the third part shall be entitled to withdraw the said certificates from the care and custody of the parties of the second part at any time within the period of three years from the date hereof, nor shall any of the parties of the third part sell, pledge, hypothecate, or in any manner dispose of the said stock or any part thereof until the expiration of the said period of three years. The said stock having been assigned unto the parties of the third part by the party of the first part to be held by them and each of them only in accordance with the provisions of this agreement.

In witness whereof, the party of the first part hath caused the hand of P. S. duPont, its President, and its corporate seal to be hereunto affixed, and the parties of the second and third parts respectively have hereunto set their hands and seals the day and year first aforesaid.

Signed, Sealed and Delivered
in the presence of,

duPont Securities Company,
By /s/ Pierre S. du Pont
President.

Attest:
/s/ J J Raskob
Secretary.
/s/ Wm. Coyne Trustee (seal)
/s/ Harry F. Brown Trustee (seal)
/s/ Harry G. Haskell Trustee

Signed, Sealed and Delivered
in the presence of,

A. Rae du Bell as to
all ten signatures
M. N. Thorp as to all
ten signatures

/s/ Harry G. Haskell (seal)
/s/ William G. Ramsay (seal)
/s/ F. G. Tallman (seal)
/s/ J J Raskob (seal)
/s/ R R M Carpenter (seal)
/s/ Irénée du Pont (seal)
/s/ Lammot du Pont (seal)
/s/ Wm Coyne (seal)
/s/ Harry F. Brown (seal)
/s/ John P Laffey (seal)

Note. Italics indicate written entries.

Defendant's Exhibit (DP) No. 27

This letter sent to:
Charles Copeland, Esq.
W. W. Laird,
H. Rodney Sharp,
H. F. duPont, Esq.,
Wilmington, Delaware.

Alexis I. duPont
Eugene E. du Pont
Eugene du Pont,
Francis I. du Pont
Ernest du Pont
E. Paul du Pont

April 16, 1915

A.M.L.du Pont
Philip F.du Pont

Dear Sir:

The purchase of Mr. T. C. du Pont's holdings in E. I. du Pont de Nemours Powder Company, made by a syndicate of which I am a member resulted in the formation of the du Pont Securities Company, whose notes to the amount of $14,400,000 and stock amounting to $7,500,000 we issued in payment for the above mentioned stock as well as shares of, common stock of E. I. du Pont de Nemours Powder Company owned by the syndicate. The members of the latter now hold stock in the Du Pont Securities Company in the proportion of 500 shares of the latter for each 222.75 shares of the common stock of E. I. du Pont de Nemours Powder Company acquired from the syndicate members by the Du Pont Securities Company.

Now that this whole transactions is definitely closed, I offer you opportunity to become a stockholder of Du Pont Securities Company on the basis above outlined; that is, if you will transfer to me 223 shares of common stock of E. I. du Pont de Nemours Powder Company, I will transfer to you 500 shares of Du Pont Securities Company and $50 in cash, representing the quarter share of E. I. duPont de Nemours Powder Company common at theoriginal price of $200 per share.

The assets and liabilities of Du Pont Securities Company are set forth on the attached statement, which will be a guide to you in reaching a decision as to this investment. As a matter of convenience I have listed the values at the price originally paid, as well as today's approximate market. I shall be glad to give you more information if I have not made the proposition perfectly clear.

Yours very truly,

P. S. du Pont

38 38

Defendant's Exhibit (DP) No. 28

E. I. du Pont de Nemours and Company

Members of Executive Committee to Each of Whom Pierre S. du Pont Transferred 400 Shares of the Capital Stock of Christiana Securities Company, April 8, 1921(1)

F. Donaldson Brown

W. S. Carpenter, Jr.

A. Felix du Pont

Lammot du Pont(2)

J. B. D. Edge

C. A. Meade

C. A. Patterson

F. W. Pickard

W. C. Spruance

---

(1) These transfers were equivalent to a transfer of 800 shares of the current common stock and 800 shares of the preferred stock of Christiana Securities Company to each of the persons listed, totalling 7,200 shares of the current common stock and 7,200 shares of the preferred stock.

(2) "Member of the du Pont family" as defined in paragraph 7 of the Complaint as amended on January 16, 1953.

Defendant's Exhibit (DP) No. 29

LAIRD & COMPANY
NEMOURS BUILDING
WILMINGTON, DELAWARE

BRANCH OFFICES
NEW YORK
PHILADELPHIA

RECEIVED
JUL 14 1937
LAMMOT DUPONT

July 9th
1937

ANSWERED
JUL 15 1937
LAMMOT DU PONT

Mr. Lammot du Pont
DuPont Building
Wilmington, Delaware

Dear Mr. du Pont:

For the past three weeks I have made a concentrated drive to sell a large block of Christiana Securities common stock in whole or in part. It occurred to me that in view of your interest in the company, it might be of interest to you to know the results of these efforts, together with the reactions and comments of the people interviewed.

People and organizations interviewed were -

H. R. Tudhope, President, A. E. Ames & Company, Toronto, head of the largest underwriting house in Canada.

S. R. McLaughlin, President, General Motors of Canada, Oshawa, Ontario.

F. W. Scott, Chairman of the Finance Committee, University of Virginia, Richmond, Virginia.

Henry Shattuck, Treasurer, Harvard University.

Channing H. Cox, President, Old Colony Trust Company, Boston, Massachusetts, in charge of investment of funds for Massachusetts Institute of Technology.

Robert Stone and Prescott Bigelow, partners of Hayden Stone & Company, brokers in Boston and New York.

Charles Gordon, partner Fahnestock & Company, with large offices and connections in London and Paris.

W. H. Farnum, Comptroller, Yale University.

July 9, 1937.

5561

In all cases I have offered the stock at approximately 25% discount from the book value.

Obviously, the most logical purchaser of this type of security is a foundation, a university, or any such organization that is so situated that it can sell stocks, particularly duPont, without paying a profits tax.

UNIVERSITY OF VIRGINIA: As a result of Mr. Philip duPont's gift of several million dollars in duPont stock to this University, which is held as a permanent investment, I suggested that a portion, at least, of this holding be exchanged for Christiana common. I interviewed personally Mr. F. W. Scott, Chairman of the Finance Committee of the University. After consideration he writes me as follows:

> "None of us could get very excited about the switch of the University's duPont into Christiana since Lehman Corporation, American International, and General American Investors (well known investment trusts) all with very active markets, are now selling at from 20% to 30% discounts under their book values, and we do not believe that Christiana Securities is cheap at a 25% discount considering the market for it is so narrow."

YALE UNIVERSITY and HARVARD UNIVERSITY: These people did not consider the stock cheap at the offering price in view not only of lack of marketability, but also because as an investment trust type of investment it lacks diversification.

S. R. McLAUGHLIN, PRESIDENT, GENERAL MOTORS OF CANADA: This individual I felt positive would be interested in the security inasmuch as he had available cash, together with the desire to give away this type of common stock holding to his children. After some three hours discussion with him and his financial secretary on the subject, at his request we withheld the stock from the market for three days. He wires as follows:

> "On account of nonsaleability and possible trouble under succession duty requirements have decided to take no action."

H. R. TUDHOPE, PRESIDENT, A. E. AMES & COMPANY, TORONTO: As a result of Mr. McLaughlin's introduction, Mr. Tudhope took the matter of distribution of the stock in Canada and London under consideration. He writes -

> "..........but have finally come to the conclusion that while the security is of the type in which we would be normally interested, still the price at which the stock is selling, and the fact that it has not a ready market, limits so greatly the type of buyer one could approach that we would hesitate to discuss it with clients for fear we might handicap you in anything you might design to do in other directions, as we do not feel confident that we could satisfactorily complete the transaction. ......the holder is faced with the withholding tax on dividends and the uncertainties as to an increase therein, double succession duties if a Canadian resident, and is also seriously concerned with the labor unrest and government intervention in business affairs which is so prevalent."

HAYDEN, STONE & COMPANY, BROKERS: These gentlemen stated that if marketability were a consideration the stock should be split. But, in its present status, their firm could not sell the security.

FAHNESTOCK & COMPANY, LONDON & PARIS: Lack of marketability, coupled with fear of high taxation on foreign holdings makes it impossible to interest anybody abroad in this security, say these people.

CHANNING H. COX, PRESIDENT, OLD COLONY TRUST COMPANY, HANDLING INVESTMENT FUNDS FOR MASSACHUSETTS INSTITUTE OF TECHNOLOGY: This fund has 50 shares of Christiana Securities common and 1500 shares of duPont. Because of lack of marketability he would not consider any further investment in Christiana Securities under the circumstances.

With your permission, I should like to discuss the situation with you personally at an early date.

Sincerely,

George

NOTE: Illegible initials appear in the left hand margin. On the second page is written the word "true" and a question mark and a line following. Illegible handwriting appears in the left hand margin. "George" is handwritten at the end of the document.

THIS INDENTURE, made the Thirty-first day of May in the year of our Lord one thousand nine hundred and twenty-four,

BETWEEN DELAWARE REALTY AND INVESTMENT COMPANY, a corporation of the State of Delaware, party of the first part, and PIERRE S. DuPONT and ALICE BELIN DuPONT, of the City of Wilmington, County of New Castle and State of Delaware, hereinafter called the "ANNUITANTS", parties of the second part,

WITNESSETH that the said party of the first part, for and in consideration of the sum of Thirteen Million Five Hundred Thousand Dollars ($13,500,000.00), to it in hand paid by the said Pierre S. duPont, by the conveyance, transfer and delivery, at and before the sealing and delivery hereof, of the following real and personal property, to-wit,-

44,000 Shares, Christiana Securities Company 7% Preferred,
49,000 Shares, Christiana Securities Company, Common
12,500 Shares, E. I. duPont deNemours & Company, Debenture
24,000 Shares, E. I. duPont deNemours & Company, Common
12,000 Shares, Hercules Powder Company, Common
11,000 Shares, Atlas Powder Company, Common
400 Shares, Longwood, Incorporated, Capital.
Lands in Chester County, Pennsylvania under lease to Longwood, Incorporated, (not including residence and fifty (50) acres surrounding same),

which said property is hereby accepted by the said party of the first part at the valuation of the said sum of money and the receipt whereof the said party of the first part doth hereby acknowledge, hath given, granted and confirmed, and by these presents doth give, grant and confirm unto the said ANNUITANTS, severally and in succession, as hereinafter provided for, an annual annuity of Nine Hundred Thousand Dollars ($900,000.00), lawful money of the United States of America, to be paid to the said Pierre S. duPont annually during the term of his life and, after his death, to the said Alice Belin duPont annually during the term of her life, if she should survive the said Pierre S. duPont:

TO HAVE AND TO HOLD the said annual annuity of Nine Hundred Thousand Dollars ($900,000.00) unto the said ANNUITANTS, severally and in succession as aforesaid, payable and to be paid in equal monthly portions on the Fifteenth day of each month, in each and every year until the termination of the said annuity, beginning on the Fifteenth day of June next after the date hereof; and if it shall happen that the said annuity, or any part thereof, shall be in arrears and unpaid, in part or in the whole, for the space of thirty days, next after any of the said days or times of payment whereon the same should or of right ought to be paid, as aforesaid, then and so often and at all times thereafter, it shall and may be lawful to and for the said ANNUITANTS, or either of them, or the Executors, Administrators or Assigns of either of them, having an interest in said annuity, to institute any appropriate legal or equitable proceeding to compel the specific performance of this contract, or to collect any such amount or payment that may be in arrears, as aforesaid, or otherwise to enforce this contract, or to secure the said ANNUITANTS, or the survivor of them, against future breaches thereof, or to cancel this contract and enforce the repayment to the said Pierre S. duPont, if he be then living, or to the said Alice Belin duPont, if the said Pierre S. duPont be then deceased, of the then value of the said annuity calculated according to the table hereto attached, and/or to apply for, and obtain from a court of equity, the appointment of a receiver of the said party of the first part to marshal the assets of the said party of the first part and to apply the same in accordance with the provisions of this annuity contract.

And the said party of the first part, for itself and its successors, doth hereby covenant, promise, grant and agree to and with the said ANNUITANTS and each of them, severally, his or her Heirs, Executors, Administrators and Assigns, by these presents, that the said party of the first part and its successors shall and will well and truly pay, or cause to be paid, unto the said ANNUITANTS, severally and in succession as aforesaid, or to the Executors, Administrators or Assigns of either of them, having an interest in said annuity, until but no beyond the death of the survivor of said ANNUITANTS, the said annuity of Nine Hundred Thousand Dollars ($900,000.00) annually, above mentioned, in and upon the several days and times above mentioned, in manner and form above expressed, according to the true intent and meaning of these presents; and the said party of the first part, for itself and its successors, doth hereby further covenant, promise and agree to and with the said ANNUITANTS and each of them, severally, his or her Heirs, Executors, Administrators and Assigns, by these presents, that it, the said party of the first part, shall not and will not distribute by way o dividend or otherwise to its stockholders, or use to pay salaries or for any other purpose than paying the annuity hereby granted, any of the income or earnings, if any, received by the party of the first part from the real and personal property hereinabove mentioned and referred to as constituting the consideration paid to the party of the first part for the granting of the annuity granted hereby, or any of the income or earnings, if any, received by the said party of the first part from any property, of any nature whatsoever, into which the said above mentioned real and personal property may have been converted by the said party of the first part, but, on the other hand, all of any such income or earnings shall be applied to the payment of the said annuity and if, at any time before the termination of the said annuity, there shall be an excess of such income or earnings above the amount necessary to pay the instalment of said annuity then due or falling due, such excess shall be accumulated by the said party of the first part and held or invested by it as a reserve and guarantee fund to secure the payment of the said annuity, until and unless the reserve and guarantee fund, thus accumulated or in any other manner derived, applicable to this annuity contract and to the payment of the annuity granted hereby, shall amount to at least thirty per cent (30%) of the value, calculated according to the said table, of the said annuity, so that the aggregate of said reserve and what remains of the original consideration paid for said annuity shall equal one hundred and thirty per cent (130%) of the then value of said annuity, so calculated, and thereafter such reserve shall not, at any time, be reduced below thirty per cent (30%) of such value by any payment therefrom other than a payment of the annuity hereby granted; and the said ANNUITANTS, or either of them, shall be entitled to apply to any court of competent equitable jurisdiction for injunctive relief to prevent a breach of this covenant whenever there may appear to be danger thereof, or, in case of a breach thereof, to institute any appropriate legal or equitable proceeding to cancel this contract and enforce the re-payment to the said Pierre S. duPont, if he be then living, or to the said Alice Belin duPont, if the said Pierre S. duPont be then deceased, of the then value of the said annuity, calculated according to the said table, and/or to obtain the appointment of a receiver as hereinabove provided for.

The annuity hereby granted shall terminate with the death of the last surviving annuitant and there shall be an adjusted payment for the interval between the date of the last monthly payment of annuity preceding such death and the date of such death.

IN WITNESS WHEREOF the said party of the first part hath caused this Indenture to be duly executed by the signatures of its proper officers and by the affixation of its corporate seal, the day and year first hereinabove written.

DELAWARE REALTY AND INVESTMENT COMPANY

By ________________
President.

Attest: R R M Carpenter
Secretary.

Table, referred to in the foregoing indenture, of present values of the annuity thereby granted, based on American Annuitants' Select Mortality Tables (1920 - males and females), an interest rate of approximately 4½% per annum, birth of male annuitant January 15, 1870, and birth of female annuitant July 15, 1871.

Date	Present Value
May 29, 1924	$13,500,000.
Dec.31, 1924	13,357,998.
" " 1925	13,114,296.
" " 1926	12,871,935.
" " 1927	12,631,428.
" " 1928	12,390,930.
" " 1929	12,149,172.
" " 1930	11,901,978.
" " 1931	11,650,104.
" " 1932	11,393,838.
" " 1933	11,133,495.
" " 1934	10,869,480.
" " 1935	10,601,973.
" " 1936	10,331,163.
" " 1937	10,057,590.
" " 1938	9,781,659.
" " 1939	9,503,613.
" " 1940	9,223,974.
" " 1941	8,943,201.
" " 1942	8,661,555.
" " 1943	8,379,684.
" " 1944	8,098,083.
" " 1945	7,817,139.
" " 1946	7,537,482.
" " 1947	7,259,157.
" " 1948	6,983,253.
" " 1949	6,709,995.
" " 1950	6,439,599.
" " 1951	6,172,982.
" " 1952	5,910,192.
" " 1953	5,651,768.
" " 1954	5,398,380.
" " 1955	5,149,998.
" " 1956	4,907,286.
" " 1957	4,670,091.
" " 1958	4,438,917.
" " 1959	4,214,115.
" " 1960	3,995,811.
" " 1961	3,784,374.
" " 1962	3,578,400.
" " 1963	3,379,293.
" " 1964	3,185,334.
" " 1965	2,997,324.
" " 1966	2,811,186.
" " 1967	2,624,931.
" " 1968	2,433,906.
" " 1969	2,233,683.
" " 1970	2,035,701.
" " 1971	1,823,013.
" " 1972	1,571,283.
" " 1973	1,250,226.
" " 1974	921,978.
" " 1975	762,075.
" " 1976	555,840.
" " 1977	450,000.

STATE OF DELAWARE,)
: SS.
NEW CASTLE COUNTY.)

BE IT REMEMBERED, That on this Thirty-first day of May, in the year of our Lord one thousand nine hundred and twenty-four, personally came before me, the subscriber, a Notary Public for the State of Delaware, Charles Copeland, President of Delaware Realty and Investment Company, a Corporation of the State of Delaware, party to this Indenture, known to me personally to be such, and acknowledged this Indenture to be his act and deed and the act and deed of the said Delaware Realty and Investment Company; that the signature of the President is in his own proper handwriting; that the seal affixed is the common or corporate seal of the said Delaware Realty and Investment Company; and that his act of signing, sealing, executing, acknowledging and delivering said Indenture was duly authorized by a resolution of the Board of Directors of the said Delaware Realty and Investment Company.

GIVEN under my hand and seal of office the day and year aforesaid.

Aaron Finger
Notary Public.

Defendant's Exhibit (DP) No. 35 5580.

Paul B. Belin, Esquire,
701 Jefferson Avenue,
Scranton, Pa.

Dear Paul:

Thanks for your reply to my letter in regard to "selling out". You are wrong in assuming that my move has been guided by questions of taxation, in fact, this plan has been in contemplation for some time for the reason that I think it best to pass on the burdens when one has yet opportunity to be of assistance to the new bearers. If Irenee, Lammot and I had been equally interested in the du Pont Company and if I had had a flock of children, perhaps the situation would have been different. But I had by far the largest share, with no direct heirs. The uncertainties concerning this large investment would certainly prove a burden to others if I should become incapacitated or even if I only should become unduly secretive, as many do as years go by. I think those who are in active charge of the business are entitled to know the final disposition of this property. Looking at the problem in another way, I am much less active in the details of the business than I was during the war or prior to that time. My usefulness as an adviser will probably be as great without actually owning this block of stock, and, as I remarked before, having no incentive to further accumulation, nothing is to be lost on that score.

In some ways I would have preferred selling out to the next generation ie, to my nieces and nephews, but, as the greater part of them are now quite young, I doubt if time will permit awaiting their development to determine which of the crowd are to be the likely workers in the business. Moreover, the older members of the generation—especially Belin and Hallock—will profit if they are made to realize the burden that they should assume. Of course, I have talked over these matters with Irenee, Lammot and the brothers-in-law at various times and in various ways, without reaching any determination; so that it was not surprising that they should make an offer to me.

I do not know the details of what they are going to do, but Rod told me yesterday they would divide the investment into eight shares; one to Irenee; one to Lammot; one to Belin; one to Ethel's three children; one each to Lou and Bob, Mary and Winder, Bella and Rod, and Peggy and Ruly. If I had had choice in the matter I should have allotted the stock in equal shares to the nieces and nephews. However, the immediate division among fourteen different people does not leave too much concentration in any one person, and I think it fairer to sell

out, leaving to a number of capable people the decision as to the ultimate disposition of the stock than to attempt to decide so important a matter myself, especially as I could not expect much advice from the brothers and sisters and the "in-laws" when their own interests are intimately concerned.

On the tax question; One never knows what is going to happen and is lucky if he knows what has happened. When inheritance taxes were lower, I provided all the life insurance that I could get in order to make the du Pont investment safe in event of my death. In my position, this seemed a useless locking of up income; but I could find no other prudent course. If this offer to purchase had not been made, I should have been at considerable loss in disposing of a large part of my holdings and I do not think that the destructive effects of liquidating so large a block of securities would have helped the du Pont Company; certainly the stock would have been reduced in value for a long period of time, even beyond that required to liquidate my shares.

Again, History repeats itself. When the old crowd sold out to Coleman, Alfred and me, there were practically no buyers on the market and an attempt to sell elsewhere would have reduced the value of the property. We came along at an opportune time, and, I am sure, saved the original holders a great deal of money by taking over the property "enbloc" from them. Again, when Coleman determined to sell out in 1915, I doubt very much if he could have obtained such a high price for his stock if Irenee, Lammot, John, Ruly, Felix and I had not been interested and stepped up with an offer. It is really the most satisfactory and economical way of passing on large interests, i.e., selling out to the younger men who know the business and are willing to assume the burden.

I am interested in your views on the general situation. To my mind the worst of our troubles is the one least talked about, i.e., the present utter disregard for law; first, by the lawmakers; second, by the enforcers; and third, by those to whom the law applies. As a cold, hard fact we are rapidly asuming a position where we have no laws because what masquerade as such are either so indefinite that no lawyer or Court, let alone an ordinary man, can tell what they mean, or are so impossible of enforcement that it is foolish to attempt obeyance, and the officers and Courts

Defendant's Exhibit (DP) No. 30

Mr. Charles Stewart Mott,
General Motors Bldg.,
Detroit, Michigan.

My dear Mott:

Your letter of July 15th has remained unanswered until my return last Monday from Europe.

As to Christiana Securities Company common stock, I know of nothing that is likely to change the status excepting possibly adverse legislation in Washington, such as the legislation now proposed to further annoy corporations and individual effort. However, I am sure you are as good or better judge of this situation than I am.

The Christiana Securities Company common stock has varied from 75 to 80% of the break-down value of the stock as expressed in the value of du Pont shares. However, the Government does not accept this as values made for the purpose of taxation. Since receipt of your letter this week, I have learned of a tentative offer of 73% of the break-down value for 600 shares of the common stock.

I have been contemplating sale of part of my holdings of Christiana Securities Company in order to obtain cash for other purposes, but I feel doubtful about the wisdom of going as low as 73% or even 75%.

The above is about the situation as I see it at present.

Sincerely yours,

Note: PS du Pont is stamped diagonally across the document.

Defendant's Exhibit (DP) No. 31

Letterhead of
LAIRD, BISSELL & MEEDS
DU PONT BUILDING
Wilmington, Delaware

October 26, 1939

Mr. Pierre S. du Pont,
Wilmington, Del.

Dear Mr. du Pont:—

We are terribly embarrassed to report that we have sold only two shares of Christiana common for you to date.

About the time we received your order a substantial lot of Christiana was offered by another broker at about our price, which spoiled the market for sales at 77% or better.

As mentioned in our letter of the 6th, we refrained from making some sales on a 77% basis, as the du Pont market broke down to 176½. We subsequently received instructions on October 9th to sell Christiana so long as du Pont did not go below 173.

It has been our experience that as du Pont advances it becomes more difficult to sell Christiana above 75% of break-up.

We would like to submit, for your consideration, a method of arriving at your minimum prices of Christiana.

Instead of limiting sales to 77% of break-up, regardless of the price of du Pont above 173, we would suggest that you give us some latitude for making sales.

Our suggestion is as follows:

Disregard General Motors market changes and fractional changes in the price of du Pont.

Consider 2649 as your low price of Christiana on a 77% basis when du Pont is 173, and progressively advance the price of Christiana but reduce the percentage to 75% when du Pont is 183 or higher.

—2—

The following tabulation shows the minimum prices for Christiana, according to the above suggestion:

Christiana	du Pont	%
2649	173	77
2659	174	—
2668	175	—
2676	176	—
2684	177	—
2692	178	76
2700	179	—
2708	180	—
2716	181	—
2724	182	—
2732	183	75
2748	184	75
2763	185	75
2778	186	75
2794	187	75
2809	188	75
2824	189	75
2840	190	75

The following quotations and comparisons may be helpful:

Date	Bid	Asked	du Pont	Approx. Bid Basis	Proposed Minimum Basis
10/21	2750	2770	183	75.5%	2732
10/24	2730	2760	181	75.7%	2716
10/25	2750	2780	183	75.5%	2732
10/26	2770	2800	184	75.7%	2748

As you were willing to sell Christiana at 2649, it would seem advantageous to take advantage of the higher prices of du Pont, to sell Christiana at prices higher than your minimum, even though, percentagewise, the basis is a little lower.

Should you approve the above changes, we will use our best endeavors to obtain prices better than the minimum prices shown for Christiana.

—3—

As mentioned to Mr. Montaigne from time to time, the usual commission on Christiana is $10. We have been charging you $5.00 commission. However, should you wish, we can buy or take down the stock, as sold, without charging a commission. I am confident it is to your advantage to allow sales at the best possible price and pay the minimum commission.

We shall continue our efforts to make sales on a 77% basis.

Thank you very much for this nice business.

Sincerely yours,

Cecil Backus

CFB/wan

Note: The number 596 is written in the upper right hand corner.

Defendant's Exhibit (DP) No. 32

Letterhead of
THE EQUITABLE LIFE ASSURANCE SOCIETY
OF THE UNITED STATES
120 Broadway, New York
W. A. Day, President

WILLIAM J. GRAHAM
Second Vice-President
WJG/C5

May 22, 1924.

Mr. F. A. McHugh,
E. I. du Pont de Nemours and Co.,
Wilmington, Del.

Dear Mr. McHugh:

Confirming the information given you over the telephone this afternoon, I first want to state that the rates which I gave you this morning were our old rates and have not been in use since January 1, 1924.

The two types of annuities which are most common and serve the greater purpose are, first the Life Annuity which contracts to pay a certain amount annually, semi-annually, quarterly or monthly, the first payment being a year, a half year, a quarter year or a month respectively after the purchase of the annuity. Payments continue as long as the annuitant lives. Upon the death of the annuitant no further payments are made. For your information I quote below the rates for this type of annuity at age 55.

Price of Annuity		Annuity Purchased by $1,000			
		Income Payable			
$100 Annually	$10 Monthly	Annually	Half-yearly	Quarterly	Monthly
$1,223.40	$1,536.78	$81.07	$39.70	$19.65	$6.50

The other type of annuity known as Refund and Cash Refund Annuity, provides for payment in the same manner with the exception that (a) under a Refund Annuity in event of the annuitant dying before the annuities paid equal the amount of capital invested, the annuity payments under the Refund Annuity form will be continued until the return equals the price paid; (b) under the Cash Refund Annuity, the difference between the annuities paid and the capital invested is returned in cash.

	Price of Annuity		Annuity Purchased by $1,000			
			Income Payable			
	$100 Annually	$10 Monthly	Annually	Half-yearly	Quarterly	Monthly
Refund	$1,381.50	$1,714.50	$72.39	$35.52	$17.60	$5.83
Cash Refund	1,413.80	1,753.26	70.73	34.73	17.21	5.70

None of these contracts are participating, but under the Refund and Cash Refund annuities liberal surrender values are allowed. Under a Life Annuity there are no surrender values.

For Income Tax purposes, Annuity Payments are not taxed until the payments to the annuitant exceed the price paid for the annuity. There are other special forms of annuities issued by the Society, an outline of which we would be glad to send you, if you are interested.

We will be glad to give you any further information or assistance that we can in your study of annuity contracts if you will let us know your wishes.

Very truly yours,

JOHN M. CLAYTON,
Secretary to Mr. Graham.

3

Defendant's Exhibit (DP) No. 33

Wilmington, Delaware,
May 30th, 1924.

Mr. Pierre S. duPont,
Wilmington, Delaware.

Dear Sir:

In an endeavor to close up our verbal negotiations of the past week, Delaware Realty & Investment Company, a Delaware corporation, hereby makes you the following definite and firm offer, viz., the said Company offers you and your wife, Alice Belin duPont, severally and in succession, an annuity of $900,000. annually, to be paid by said Company in such installments as you may elect, in consideration of your payment to the said Company of the sum of Thirteen Million Five Hundred Thousand Dollars ($13,500,000.), which sum may be paid by you, at your pleasure, either in cash or by delivery to said Company of the following securities, viz.:

44,000	shares Christiana Securities Company 7% Preferred;
49,000	shares Christiana Securities Company Common;
12,500	shares E. I. duPont deNemours & Company Debenture;
24,000	shares E. I. duPont deNemours & Company Common;
12,000	shares Hercules Powder Company Common;
11,000	shares Atlas Powder Company Common;

400 shares Longwood, Incorporated, Capital;
Lands in Chester County, Pennsylvania, under lease to Longwood, Incorporated, (not including residence and fifty (50) acres surrounding same.)

For your information, though not to be regarded as a condition upon which you may accept this offer, the said Delaware Realty & Investment Company states that it expects to forthwith increase its authorized and paid-in capital stock so that the same shall not be less than the sum of $800,000.

In case of your acceptance a contract obligating the said Company to the payment of said annuity will be immediately tendered you for your approval.

Yours very truly,

DELAWARE REALTY & INVESTMENT CO.,

By /s/ C. COPELAND PREST.

Accepted

ACCEPTED:

/s/ PIERRE S. DU PONT

May, 30, 1924

E

Defendant's Exhibit (DP) No. 34

INDENTURE GRANTING ANNUITY

-from-

DELAWARE REALTY AND INVESTMENT COMPANY

-to-

PIERRE S. DuPONT

-and-

ALICE BELIN DuPONT

refuse to enforce literally. The net result is that we are getting to be as much at the mercy of the individual office holder as were people under the old system of France under the monarchy. This system is bound to lead, and has already led, to bribery and corruption of the worst kind. If we succeed in enforcing

our prohibition laws, it will be because we have reduced the whole scheme to a system of graft in the form of tolls that must be paid the officers in order to secure a settlement with them. It is easy to point to a condition where arrests and violations are less frequent when officers of enforcement adopt a system of payments by their victims in order to avoid arrest. I do not agree with you as to the better conditions that seem to have been brought about by prohibition. We were fast coming to these conditions at any rate. It was very noticeable in clubs and at colleges before the war, and I believe that the moral effects of the war would have been distinctly in favor of less tippling had we never heard of the Prohibition Act. I agree with you that doing away with the saloon as it had been operated before the war was a good thing, but this could have been accomplished without prohibition by closing all the saloons if that had been the best way of going about it. Even this would have been imprudently harsh and would have been an invasion of personal rights.

A lot of people got the notion that alcohol is a bad thing to take for some, and by a majority or perhaps a minority vote managed to get through an act prohibiting its use by all including those who know not only how to use it rightly, but do so. Why should not a group of divorcees get the notion that marriage is a failure and that a system of free love is best and then put through a bill prohibiting marriage or the claiming of a wife or husband? I often wonder how our good prohibition people would feel if such a thing were put in the constitution. I am sure they would have quite a different view on law enforcement. Or, to touch another crowd; if the socialistically inclined got through a bill leveling all property ownership, do you think that many, including those who are parlor socialists and those who are paid for promoting socialism, would buckle down and obey the law without complaint when they discovered that their own property was affected as well as the property of those they had heretofore assumed to attack?

It is not to be wondered that a wave of immorality and lack of consideration of human rights should be prevalent after the experiences of the war, when by the nature of things, all moral laws and laws of individual right were thrown overboard. I am hopeful of the swing of the pendulum in the opposite direction. My somewhat slight acquaintance with history lends us to believe that this is always the case, and it is natural that it should be so. Our duty will be to keep things on as even a keel as possible, until the reform sets in. For

the moment there seems to be a glimmer of light in Cleveland in the determination of the Convention to stand up for things that are worthwhile and not compromise with those who have no idea of playing fair.

Affectionately,

(s) Pierre S. du Pont

17

Defendant's Exhibit (DP) No. 36

LAW OFFICES

ROBT. H. RICHARDS
AARON FINGER
JAMES I. BOYCE

4060 Du PONT BUILDING
WILMINGTON, DELAWARE
Bell Telephone 411

February 12, 1925.

Mr. Charles Copeland,
DuPont Building,
Wilmington, Delaware.

My dear Copeland:

I acknowledge your letter of February 10 enclosing a memorandum of reasons for making the annuity agreement with the Delaware Realty and Investment Company. I can see no legal or other objection to the memorandum and am returning it herewith.

Yours very truly,

Robt. H. Richards.

RHR MMA
Encl.

—2—

The management of the du Pont Co. having been in the hands of the du Pont family for more than a century, the business should be regarded as a sacred trust to be carried on by the coming generation. As the Company has steadily progressed in importance from a small beginning to a concern of international standing, the men to whom it will pass must be trained to handle matters of great magnitude, and in order that its prestige may not only be maintained but increased to keep abreast of changing conditions, its traditions must continue to be part of the family honor. The fortunes of the family and the corporation are identical and rise and fall together.

The largest interest in the company is that of Mr. Pierre S. du Pont, who has no direct heirs but his wife, after whose death his next of kin being his brothers and sisters and their children. His brothers are now actively interested in the management; their children are too young and inexperienced to assume any measure of control. The property carries with it a great responsibility and were the children to receive it before they were prepared to accept it there is danger that their holdings might be dissipated and pass into the hands of outsiders or become depreciated through unwise management of the business. By strengthening the hands of the brothers who are in control and training the younger generation to be ready for their burden, which in the course of events must come, the vital interests of the company and the family would be maintained.

In the event of his death, the settlement of his estate might necessitate a sacrifice of his holdings which would create a disturbance of the market adversely affecting the credit of the Company or throw the control of the Company into hostile or incompetent hands.

This concern over the disposition of the estate of a man whose life is the greatest asset the company has ever had, whose counsel is accepted with profound respect by all, and whose place in the family is enshrined in their love and esteem, would be the grossest materialism unless his advantage were also adequately considered. Mr. du Pont has devoted his great ability to building up the business to its proud position and with the accumulation of wealth has successfully endeavored to spend his money wisely where it could do the most good for others. He needs more time for the expansion of his many plans for the public welfare.

Little by little he has passed along to his brothers the details of management, holding himself always ready to aid with counsel and advice.

His brothers have therefore devised a plan by which a large income can be assured to him, free from the annoyance of details, business cares and worries over investments, at the same time preserving the control in competent, friendly hands and training the younger generation so that they may be competent to carry on the business when the responsibility falls upon them. They are therefore presenting the following arrangement for his consideration:

—3—

Letterhead of

CHARLES COPELAND
Wilmington, Del.

Dec. 9, 1924.

Dear Rod:

It has seemed to me that in connection with the offer to Pierre to make the annuity arrangements we should have in our file some definite reasons for such action; one that could be understood by the Revenue Agt. when the returns are audited. I have submitted the enclosed to Winder suggesting that it might be adopted by The Board or some similar paper, if you prefer—and made a part of our minutes. Will you please read it over and use your pencil freely. I have not discussed it with Richards as I wanted the idea of the crowd first. My references to P. S. may seem a little flowery, but I put them in to emphasize the point.

Bob.

3

I approve; think your idea is good though I doubt if the tax people would pay much attention to the intent.

It can do no harm and it is certainly worth having on our records.

ROD.

NOTE: "Winder, please not return. CC" is written in the lower left hand corner of the first page. In the left hand margin of the second page appears the word "are" with a line going to the word "being" in the third sentence of the second paragraph. The italicized paragraph on the second page is on a separate sheet; an arrow indicates that it is to be inserted after the second paragraph on the second page. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 37

February 12th, 1914.

Henry P. Scott, Esquire,
Wilmington, Delaware.

Dear Mr. Scott,

I have read with a great deal of interest the annual report of the General Motors Company for the year ending July 31, 1913, which I am returning herewith.

I can attribute the low price at which this stock is selling only to the fact that they are not paying dividends. I cannot understand why it is not worth at least $100 per share and my belief is that on an earning basis, which with proper management is bound to continue, the stock is worth at least $200 per share and anyone buying it now and holding it for a year will double his money, and if he holds it for two years, I think it will be selling for from $150 to $200 per share. The net assets of the Company, excluding good-will, after taking care of all liabilities, leave a value of approximately $110 per share for the common stock. The Company could easily put this stock on a 10% dividend basis, issue $9 000 000.00 additional common at par to their stockholders, using the proceeds of sale to take up their notes, and be in a position of having no indebtedness other than current debts, with an issue of approximately $15 000 000 preferred stock and $25 000 000 common stock.

Their earnings last year were - - - - - - - - - - - - - $8 184 000
from which deduct their preferred dividend - - - - 1 048 000
leaving a balance for the common stock of - - - - - - $7 136 000,
and this is equivalent to over 28% on an issue of $25 000 000 common stock. If this common stock paid 10% dividends, it would be paying but one-third of its earnings, which would certainly be ultra-conservative.

My best advices are that earnings for the present year will run at least $2 500 000 over last year, which would be equivalent to an additional 10% on $25 000 000 of common stock.

Since seeing you I have purchased another block of this stock.

Sincerely yours,

Defendant's Exhibit (DP) No. 38

February 28th, 1914.

Wm. A. Brady, Esquire,
New York City.

My dear Mr. Brady,

I thank you very much for your telegram of congratulations, which I assure you is very much appreciated indeed.

In regard to General Motors, I think that this stock is easily worth double what it is selling at at the present time and I feel perfectly certain in my own mind that this stock will be selling about 120 within a year or eighteen months at the outside, and it may be that it will be selling there within six weeks. The Company is most excellently managed, has tremendous resources and a very small capitalization indeed, and I do not hesitate in strongly advising you to buy this stock even at present market prices. I bought 500 shares myself at 70½, in addition to the stock I previously purchased about which I told you. I would not recommend, however, that this stock be bought by anyone in quantities they could not protect in case of a material drop in price. I say this for the reason that the issue is very small indeed, only $16 000 000, and it would be possible for you or I, or anyone else to buy $1 000 000 and put the price to par today, or likewise we could put it down to 50 by short selling, but as soon as our $1,000,000 was exhausted, the fundamental conditions of the Company are such as would make the stock bound back to its present figures or higher.

I note what you say about cancelling the concerts. I think this is rather a wise move, for the reason that Johnson appears to have treated us very badly indeed. I am sure the concerts would have been highly successful in Wilmington and there are going to be a very great many disappointed people. Nevertheless we can make up for this in some other way, and next year perhaps offer something even better.

Sincerely yours,

3315

Defendant's Exhibit (DP) No. 39

COPY, Mr. Raskob

October 26, 1915

J. J. Storrow, Esquire,
Boston,
Massachusetts.

My dear Mr. Storrow:

As you have probably learned from Mr. Raskob, he and I, with Mr. Lammot Belin, are arranging to visit Detroit on Wednesday of next week. After this it might be well to have another meeting on the Chairmanship of the Finance Committee. I hope that the suggestion of Mr. Wiggin will eventually meet with the approval of yourself and Mr. Nash; but it is quite necessary that we all be candid in our expressions of approval, or disapproval. Both Mr. Raskob and I feel that we have not sufficient time at our command to warrant accepting your suggestion as to the Chairmanship. We will hold ourselves ready to cooperate in any plan that may be agreed upon as best for the interests of the General Motors Company.

Very truly yours,

18

NOTE. "P S Du Pont" is stamped across letter.

J-21

E

Defendant's Exhibit (DP) No. 40

March 21, 1916

L. G. Kaufman, Esquire,
New York City.

My dear Mr. Kaufman:

Owing to Mr. Raskob's absence from the office I have only today found opportunity to talk with him about your offer. We both feel hesitancy in accepting an offer that is so generous, in view of the time that has elapsed since the exchange of stock was originally suggested to us; however, apart from this feeling, neither of us is yet convinced that we would be taking a proper step in making this exchange, in view of our relations to the General Motors Company and its stockholders in general. On that account, we have decided not to accept your offer. Mr. Raskob asked me to thank you on his part for your offer, as I do for myself, personally.

Very sincerely yours,

P S DU PONT

January 24th, 1917.

W. C. Durant, Esquire,
600 West 57th Street,
New York City.

Dear Mr. Durant,

GENERAL MOTORS COMPANY DIVIDEND POLICY

I have been giving a great deal of thought and attention to the matter of establishing a permanent dividend policy for the General Motors Company, the common stock of which Company I consider conservatively well worth $200.00 per share, and speculatively worth considerably more than this figure. If I am right in this opinion, it should be possible to put the stock on a conservative dividend basis of 12% in order to return 6% on an investment in this stock at $200.00 per share. In arriving at my conclusions I have used certain assumptions and certain figures as follows:—

1st. A staple industrial operation in this country, in my opinion, should return at least 12½% on the capital (excluding good will) actually employed in the business.

2nd. The General Motors Company has and for the next five years will undoubtedly enjoy earnings far in excess of an amount equal to 12½% on the total capital assets employed by it.

3rd. The actual new capital put in the General Motors Company for the year ending July 31, 1916, was all supplied out of earnings and amounted to $14,682,438.00. For the year ending July 31, 1915 this amount was $7,771,732.00.

4th. My figures assume that without the sale of any new stock at all we can place the common stock on a 12% dividend basis and put back into the business out of the earnings the following amounts:

1917	$ 23,392,978.00
1918	14,000,000.00
1919	10,000,000.00
1920	6,000,000.00
1921	6,000,000.00
or a total in five years of	$59,392,978.00

5th. Should any new capital in addition to this $59,000,000.00 supplied from earnings be needed in the business, it can be easily supplied through the sale of common stock at $150.00 per share, the rights to subscribe to this stock to be offered to the common stockholders of the Company and should be quite valuable.

I have assumed that the future earnings of the Company will be as follows:

1917	$ 28,067,978.63
1918	25,000,000.00
1919	21,000,000.00
1920	17,000,000.00
1921	17,000,000.00
or a total in five years of	$108,067,978.63

It would seem that this estimate of earnings is quite conservative as it seems that in 1921 we are only earning $17,000,000.00 regardless of the fact that we will have employed in the business $59,000,000.00 more than we have in 1917 when the estimated earnings are $28,000,000.00.

With the above explanation, my figures work out roughly as follows:

The total assets employed August 1st, 1916 may be stated as follows:

Real Estate, Plants and Equipment	$24,347,500.14
Less Reserve and Depreciation	5,981,095.44
Balance	18,366,404.70
Miscellaneous Investments	358,428.50
Current and Working Assets	53,882,188.17
Total capital employed excluding patents, agreements, good will, etc	$72,607,021.37

Forward			$72,607,021.37
Estimated earnings 1917		$28,067,978.83	
Preferred stock dividend, say	$1,200,000.00		
Common stock dividend at 3% payable May 15th, say	3,475,000.00		
Total dividends		4,675,000.00	
Balance of earnings put back into business			23,392,978.63
Total capital employed August 1st, 1917			$96,000,000.00
Estimated earnings 1918		$25,000,000.00	
Dividends:			
6% on preferred stock	$1,200,000.00		
12% on common stock	9,800,000.00		
Total dividends		11,000,000.00	
Balance of earnings put back into business			14,000,000.00
Total capital employed August 1st, 1918			$110,000,000.00
Estimated earnings 1919		$21,000,000.00	
Preferred and common stock dividends		11,000,000.00	
Balance of earnings put back into business			10,000,000.00
Total capital employed August 1st, 1919			$120,000,000.00
Estimated earnings 1920		$17,000,000.00	
Preferred and common stock dividends		11,000,000.00	
Balance of earnings put back into business			6,000,000.00
Total capital employed August 1st, 1920			$126,000,000.00
Estimated earnings 1921		$17,000,000.00	
Preferred and common stock dividends		11,000,000.00	
Balance of earnings put back into business			6,000,000.00
Total capital employed August 1st, 1921			$132,000,000.00

It will be seen from the foregoing that the total capital employed on August 1st, 1921 is estimated at $132,000,000.00, 12½% of which equals $16,500,000.00. I feel that an industry in this country which is stabilized to the extent of being satisfied with 12½% earnings on its total capital employed can most conservatively arrange to pay two-thirds of its earnings in dividends, putting the other one-third back into the business

and, if this proves insufficient to meet the growing demands of the business, additional capital should be supplied through the sale of stock, and such sale of stock can be easily accomplished in a company having an earnings record of 12½% on the actual capital employed in the company, two-thirds of which earnings are paid out in dividends. This policy has been most carefully thought out and has been in successful operation in the Du Pont Company for more than ten years past.

Personally I feel that there are much better prospects in store for the General Motors Company than the figures used herein indicate, but I have purposely used conservative figures in order that when you and the Finance Committee agree on a proper dividend policy, the figures presented to the Board of Directors in support of that policy may be such as to give them a feeling of security in the policy recommended for their adoption.

I am taking the liberty of sending a copy of this letter to Mr. Kaufman, Chairman of our Finance Committee. I expect to be in New York to attend the meeting of the Board of Directors of The Chatham & Phenix National Bank Friday morning at 11:30 o'clock and will be there the balance of the day and also Saturday and will be glad to discuss this question with you, if you can find a little time to give to it then. If not, we can arrange to go over it later.

Mr. du Pont is leaving tomorrow for California to return on February 20th. In talking this matter over with him this afternoon, he asked me to say to you that he recommends and strongly urges that the Directors adopt a policy of placing the General Motors Company stock on a regular dividend basis of 12% per annum, payable 3% quarterly. He feels that this property is well worth an amount equal to $200.00 per share on the common stock and that the owners thereof should receive dividends which will give them a proper return on a conservative estimate of the worth of their stock.

I am leaving for Palm Beach on February 8th and expect to return shortly after the first of March. Mrs. Raskob is going with me. A little vacation would do you a tremendous amount of good and it has just occurred to me that possibly we can persuade you and Mrs. Durant to go south with us or meet us there later. I am sure we would all have a most delightful time and we would secure a much needed rest. Please think this matter over seriously and then write and tell me you will come.

With kindest personal regards, I remain

Sincerely yours,

NOTE: In the fourth paragraph the amount of earnings were faded and have been written as $14,682,438.00; The fifth paragraph 7,771,732.00 was written over the faded numbers; and in the sixth paragraph the words at the end of the lines, "the sale, common stock on a, and business out of" have been written over. On the second page in the last paragraph the numbers have been written over in pencil.

5
E

Defendant's Exhibit (DP) No. 43

W. C. Durant, President,
General Motors Company,
600 West 57th Street,
New York City,

Dear Mr. Durant,

In order to secure a better and more concentrated organization, and incidentally avoid the excessive cost in the way of duplicate income taxes which are now becoming quite heavy, and to clarify the atmosphere generally, I think it would be a very good plan, and I suggest that the General Motors Corporation consider seriously the matter of purchasing the properties of the Chevrolet Company. I do not feel sufficiently conversant in detail with the Chevrolet affairs to outline a plan of purchase except in a very rough way, as follows:

The Chevrolet Company is capitalized at $70 000 000.00, $50 000 000.00 of which was issued for General Motors Company stock and $20 000 000.00 of which represents its total properties excepting its General Motors Corporation stockholdings. Inasmuch as the earnings of the General Motors Corporation are equal to approximately 35% on its common stock and inasmuch as the earnings of the Chevrolet Company from sources other than its General Motors Company holdings are equal to approximately 35% on the $20 000 000.00 of capital above referred to, it would seem to me highly advisable for the General Motors Company to make an offer to the Chevrolet Company to purchase its entire, plant, properties, etc; In fact, all of the assets of the Chevrolet Company except the Chevrolet Company stockholdings in the General Motors Corporation, paying therefor, say, $20 000 000.00 of General Motors Corporation common stock plus possibly some amount in cash: The Chevrolet Company would then be in the position of having no properties whatever, but having in its treasury $70 000 000.00 of General Motors Corporation common stock with some cash, and having outstanding $70 000 000.00 of its own capital stock.

The plan would further contemplate that the Chevrolet Company should then be dissolved by distributing one share of General Motors Corporation stock to each share of Chevrolet Company stock outstanding together with any cash that might be left after the payment of its attorney's fees and other miscellaneous expenses.

—2—

In this way the General Motors Corporation would secure a perfectly splendid low priced car which would round out its line of cars in excellent shape and the stockholders of the Chevrolet Company would secure a direct interest in a company with a diversant line of cars and would be relieved of paying the duplicate income taxes which the Chevrolet Company will be compelled to pay on all dividends which it will receive from its holdings in the General Motors Corporation.

As previously stated, I am not sufficiently conversant with the figures in detail, but feel that those used herein are approximately correct and I would very strongly urge that this or some similar plan be adopted after careful consideration.

I am leaving for Palm Beach on February 8th and will return shortly after the first of March, after which time I hope we will have opportunity to go over this matter together with the dividend matter, about which I wrote you a few days ago.

Sincerely yours,

79

Defendant's Exhibit (DP) No. 45

Durant = W. C. Durant, Associates or Nominees.

Dupont = P. S. du Pont, Associates or Nominees.

—0—

Durant-Du Pont agree to form Securities Company under Delaware laws with 7% cumulative non-voting preferred stock and common stock for the purpose of buying Chevrolet and General Motors Company common stocks.

Paying $50.00 in preferred stock and $70.00 in common stock for each share of Chevrolet Motor Company and $66⅔ in preferred stock and $33⅓ in common stock for each shares of General Motors Company

Durant agrees to sell 162 000 shares Chevrolet and 120 000 shares General Motors Company common stock to Securities Company on above basis.

Durant agrees to supply Du Pont

30 000 shares Chevrolet for $2,379 000.00 Cash
22 800 " " " 2 736 000.00 Cash or Notes

Notes to run for two years and be secured by proper collateral with 25% margin.

Du Pont will acquire 47 200 shares Chevrolet additional or the equivalent in General Motors Company common stock on basis of one share Chevrolet equals 1.2 shares General Motors Company common stock, or both, thus making Du Pont's total holdings 100 000 Chevrolet or equivalent in General Motors Company common stock, or both, which will be sold to Securities Company on same basis as Durant stock. Du Pont or Durant may sell additional stock to Securities Company on same basis, but the common stock of the Securities Company shall be divided equally between Durant and du Pont and in order to accomplish this Durant will sell to Du Pont common stock of Securities Company in amount sufficient to even respective holdings at $165.00 per share payable $4 500 000.00 in cash and balance in the preferred stock of Securities Company at par.

The purpose of this plan is to interest Du Pont in Chevrolet-General Motors in a substantial way so that du Pont will assume responsibility for financial management of Chevrolet-General Motors affairs thus making it possible for Durant to give entire time and attention to operating end.

To this end Chevrolet-General Motors will each have Finance and Executive committees for the governing of these divisions of the activities of the companies. Durant and Du Pont shall be represented on both the Finance and Executive committees.

An appropriation system similar to that used by E. I. du Pont de Nemours & Company will be installed under which all appropriations for amounts in excess of $100 000.00 will require the approval of both the Executive and Finance committees before work can be started.

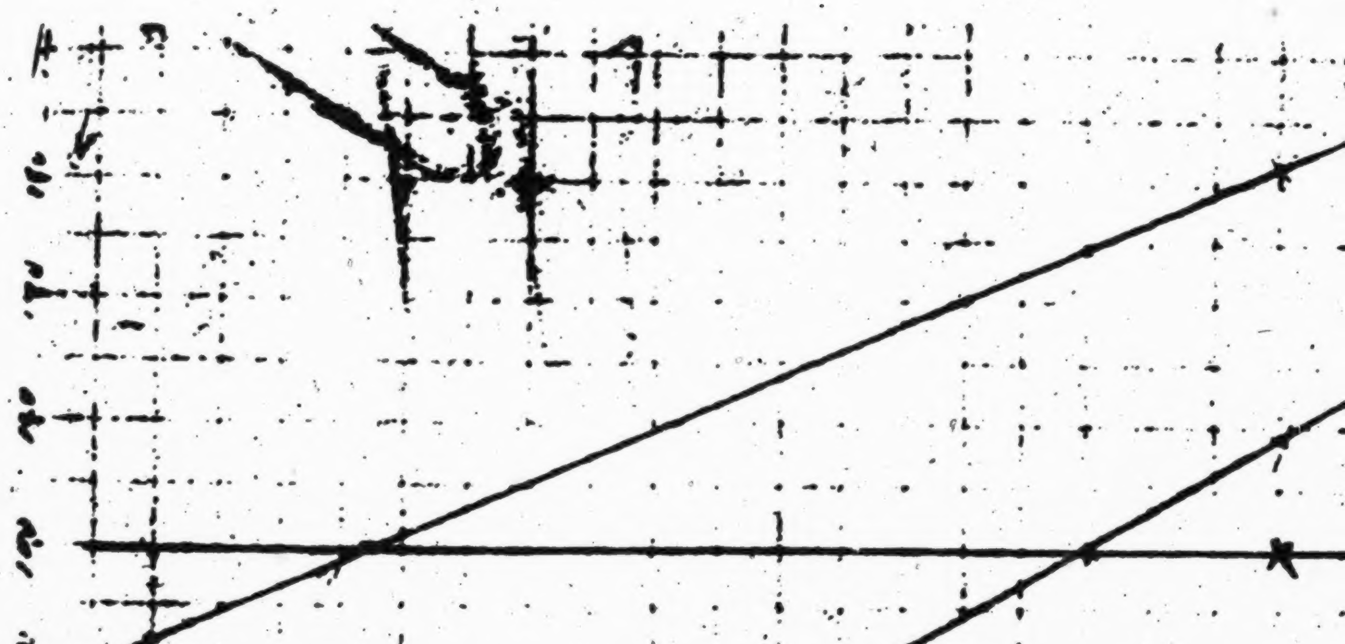
Form Motors Securities Company, under laws of Delaware, with Seven per cent Cumulative Non-Voting Preferred Stock and Common Stock.

Purchase From		Payable In	
		Preferred	Common
W. C. Durant,	162,000 shares Chevrolet at 120,	$8,100,000.	$11,340,000.
W. C. Durant,	120,000 General Motors Corp., at 100,	8,000,000.	4,000,000.
		$16,100,000.	$15,340,000.
duPont,	100,000 Shares Chevrolet, at 120,	5,000,000.	7,000,000.
	TOTAL	$21,100,000.	$22,340,000.

* W. C. Durant will then sell 4,170,000 shares Securities Company Common Stock to duPont for $4,500,000. Cash and $2,400,000. Motors Securities Company Preferred Stock, thus giving Durant and duPont equal ownership in common stock of Motors Securities Company, distributed as follows:

	Preferred Stock	Common Stock
W. C. Durant,	$18,500,000.	$11,170,000.
duPont,	2,600,000.	11,170,000.
TOTAL,	$21,100,000.	$22,340,000.

**W.C.D. would get for 59,571 shs of his 162,000 Chev*
2,978,550 Pfd & 4,170,000 Com
the latter sold as above for cash 4,500,000 2,400,000 "
5,378,550
or $75.5 cash & $90.4 pfd
Compare with PS & JJR who for 22,000 shs get $2,600,000 pfd
=$118.2 pfd & *no cash* & others who get par in cash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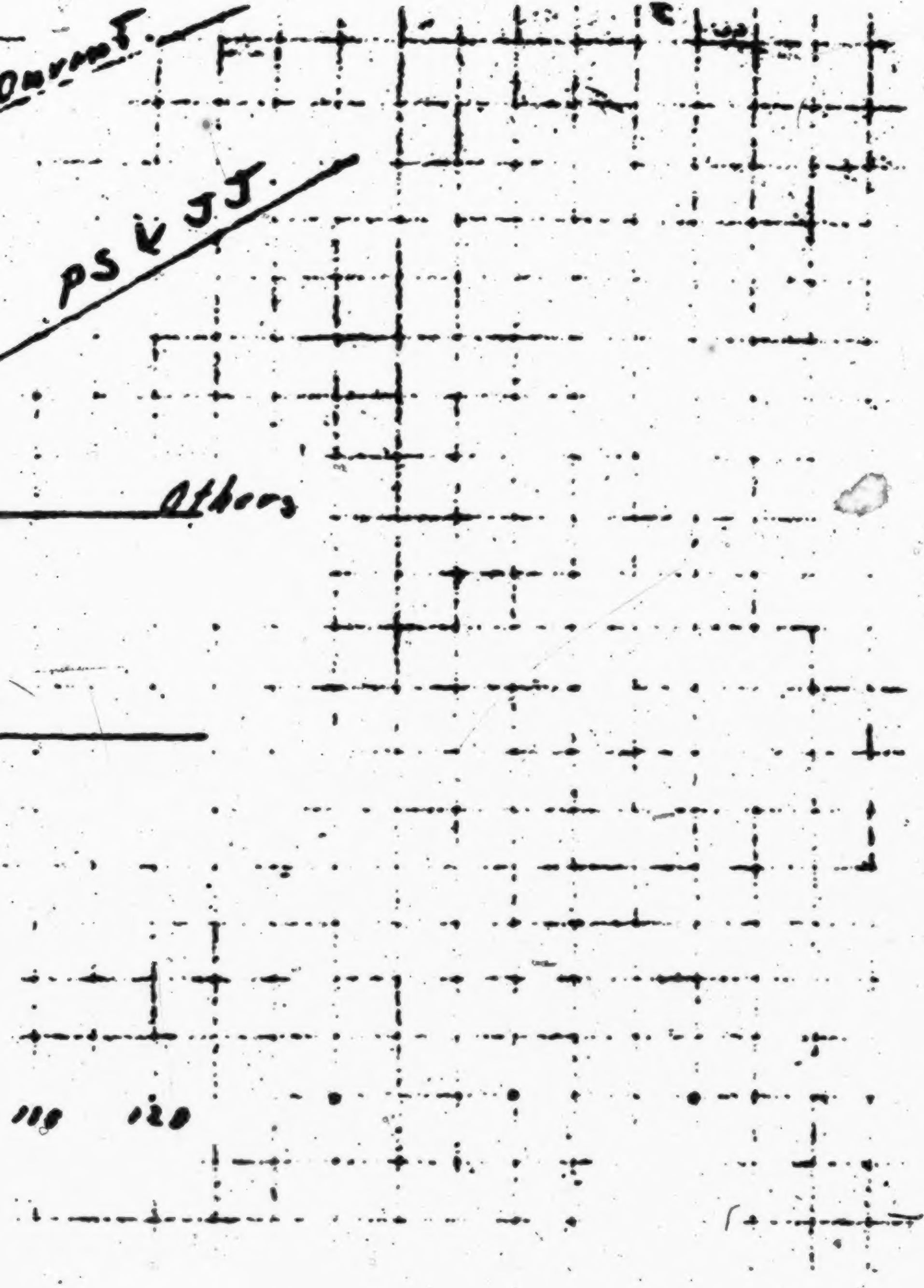

Current
PS & J.J.
Others
118
120

MOTORS SECURITIES COMPANY

	Dividends	**Earnings**
382,000 shares stock at 12% Dividend, 50% earnings,	$4,584,000.	$19,100,000.
Less 7% on $21,100,000 preferred,	1,477,000.	1,477,000.
Balance for Common Stock,	$3,107,000.	$17,623,000.
Equals percent on $22,340,000 Common Stock,	13.9%	78.89%

5608

DUPONT SECURITIES COMPANY

BUY		Cash Requirements
22,000 shares	Chevrolet from P. S. duPont and J. J. Raskob. (Pay in Motor Securities Company Preferred Stock)	0
25,200 shares	at par,	$2,520,000
30,000 "	Options,	2,379,000.
22,800 "	Options	2,736,000.
100,000 shares	TOTAL	$7,635,000.

Buy from Durant:

41,700 shares Motor Securities Company Common, (and $2,400,000 Motor Securities Co., Preferred)	4,500,000.
Total investment for du Pont Securities Co.,	$12,135,000.

duPont Securities Company Cash on Hand,		$ 103,000.	
Dividends Receivable in Cash,		823,500.	
Dividends Receivable in Liberty Bonds,		5,856,000.	
Total.		$6,782,000.	
Less:			
Notes Payable,	$100,000.		
Dividend 5%,	375,000.		
Necessary Cash Balance,	107,000.	582,000.	6,200,000.
Balance to be Financed.			$5,935,000.

Issue two year 6% Notes to sellers of 22,800 shares, included in above purchase,	$2,736,000.	
Issue additional two year 6% Notes to be sold,	3,200,000.	$5,936,000.

INCOME:	Dividends	Earnings
11,170,000 shares Motor Securities Co., Common Stock,	$1,553,500.	$8,811,500
Equals % on $12,135,000 Investment,	12.8%	72.6%

Defendant's Exhibit (DP) No. 45A

5609

DURANT = W. C. Durant, Associates or Nominees.

DUPONT = P. S. du Pont, Associates or Nominees.

-0-

Durant-Du Pont agree to form Securities Company under Delaware laws with 7% cumulative non-voting preferred stock and common stock for the purpose of buying Chevrolet and General Motors Company common stocks.

Paying $80.00 in preferred stock and $70.00 in common stock for each share of Chevrolet Motor Company and $66-2/3 in preferred stock and $33-1/3 in common stock for each shares of General Motors Company

Durant agrees to sell 162 000 shares Chevrolet and 120 000 shares General Motors Company common stock to Securities Company on above basis.

Durant agrees to supply DuPont

30 000 shares Chevrolet for	$ 3 370 000.00	Cash
25 000 " " "	2 750 000.00	Cash or Notes

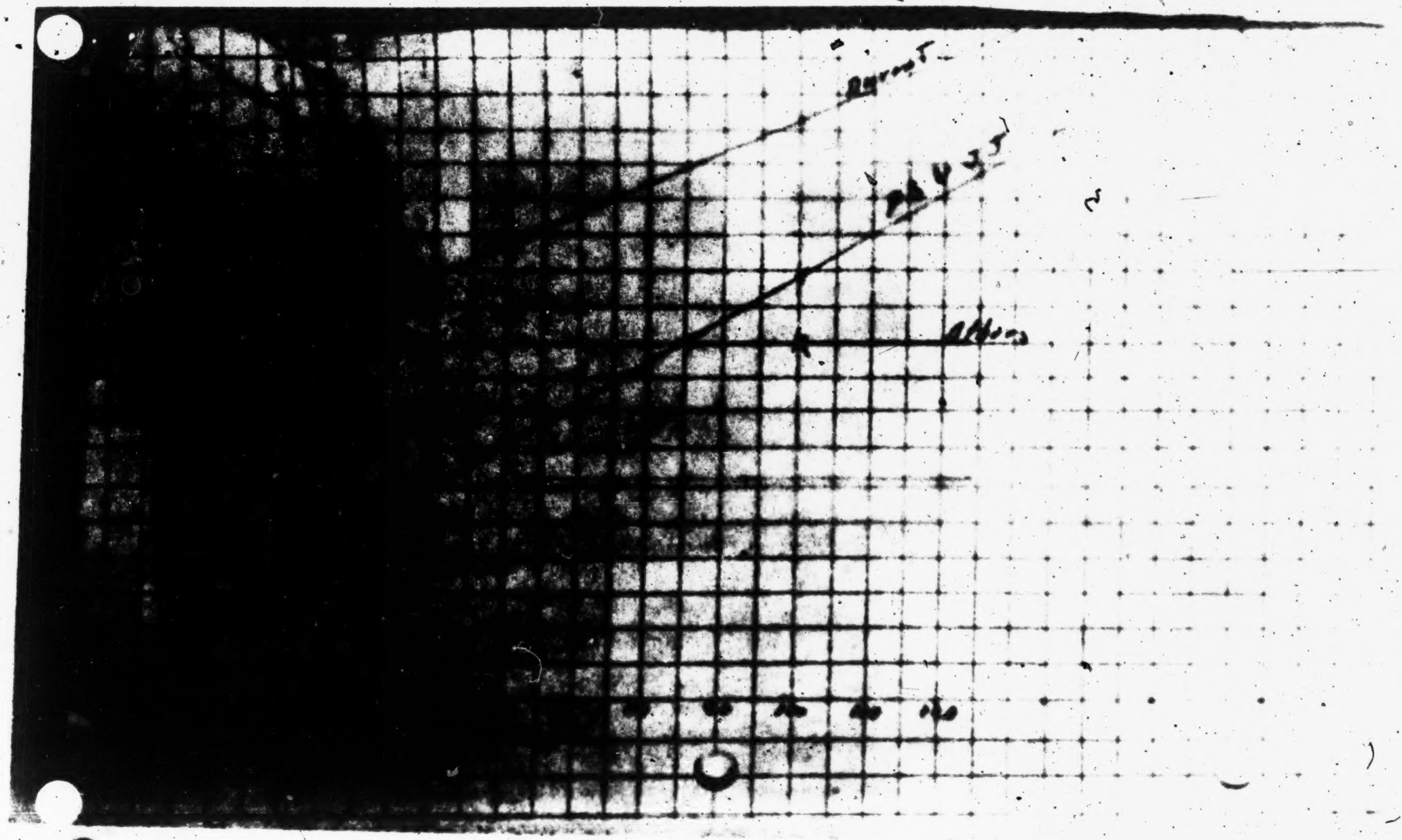
Notes to run for two years and be secured by proper collateral with [illegible] margin.

[illegible] will acquire [illegible] 500 shares Chevrolet additional or the [illegible] General [illegible] Company common stock on basis of one share [illegible] General Motors Company common stock or [illegible] Chevrolet or equiv- [illegible], which will be [illegible]. Du Pont [illegible] Company on same basis, [illegible]

Form Motors Securities Company, under laws of Delaware, with Seven per cent Cumulative Non-Voting Preferred Stock and Common Stock.

Purchase From			Payable In	
			Preferred	Common
W. C. Durant,	162,000	shares Chevrolet at 120,	$8,100,000.	$11,340,000.
W. C. Durant,	120,000	General Motors Corp., at 100,	8,000,000.	4,000,000.
			$16,100,000.	$15,340,000.
duPont,	100,000	Shares Chevrolet, at 120	5,000,000.	7,000,000.
		TOTAL.	$21,100,000.	$22,340,000.

* W. C. Durant will then sell 4,170,000 shares Securities Company Common Stock to duPont for $4,500,000. Cash and $2,400,000. Motors Securities Company Preferred Stock, thus giving Durant and duPont equal ownership in common stock of Motors Securities Company distributed as



MOTORS SECURITIES COMPANY

	Dividends	Earnings
382,000 shares stock at 12% Dividend, 50% earnings,	$4,584,000.	$19,100,000
Less 7% on $21,100,000 preferred,	1,477,000.	1,477,000.
Balance for Common Stock,	$3,107,000.	$17,623,000.
Equals percent on $22,340,000 Common Stock,	13.9%	78.89%

DUPONT SECURITIES COMPANY

[illegible]	Cash Requirements
37,[illegible] Shares Chevrolet [illegible] duPont and J. J. Raskob (Pay in Motor Securities Company Preferred Stock)	$
[illegible] Shares [illegible]	$2,520,000
30,[illegible] " Options,	[illegible],373,000.
22,800 " Options	2,738,000.
1[illegible],[illegible] Shares TOTAL	$7,635,000.

- - - - - - - - - - - -

Buy from Durant

41,70[illegible] Shares Motor Securities Company Common, (and 30,40[illegible] [illegible] Motor Securities Co., Preferred)	[illegible],000
Total Investment [illegible] duPont Securities Co.,	$[illegible],7[illegible]5,[illegible]

duPont Securities Company Cash on hand	$[illegible],[illegible]03,000.
Dividends Receivable in Cash	373,500.
Dividends Receivable in Liberty Bonds	5,196,000.
Total	$8,782,000.

[illegible] General Motors Company common stock or
[illegible] Chevrolet or equiv-
[illegible] stock, or both, which will be
[illegible] as preferred stock. Du Pont
[illegible] Securities Company on same basis.
[illegible] Company shall be divided equally
[illegible] order to accomplish this Durant
[illegible] Securities Company in amount suffi-
[illegible] per share payable
[illegible] preferred stock of Securities.

[illegible] in Chevrolet-
[illegible] respon-
[illegible] Motors affairs
[illegible] and Executive

[illegible] Finance and
[illegible] of the Executive
[illegible] represented on both

[illegible] P. S. du Pont as
[illegible]
[illegible]
[illegible]

* W. C. Durant will then sell 4,170,000 shares Securities Company Common Stock to duPont for $4,500,000. Cash and $2,400,000. Motors Securities Company Preferred Stock, thus giving Durant and duPont equal ownership in common stock of Motors Securities Company, distributed as follows:

Preferred Stock	Common Stock
$18,500,000.	$11,170,000.
2,600,000.	11,170,000.
$21,100,000.	$22,340,000.

[illegible] for 59,571 shs of his 162 [illegible] Chev

2,992,550 Pfd + 4,170,000 Com

[illegible] Cash 2400000 2400000 "

5,378,550

3333

[illegible] for 22000 shs get 2 [illegible]

[illegible]

3[illegible]35

Dividends Receivable in Cash,			$373,500.
Dividends Receivable in Liberty Bonds,			6,406,000.
Total			$6,782,000.
Less:			
Notes Payable,	$100,000.		
Dividend 5%,	375,000.		
Necessary Cash Balance,	107,000.	582,000.	6,200,000.
Balance to be Financed,			$5,935,000.

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Issue two year 6% Notes to sellers of 32,800 shares, included in above purchase,	$2,736,000.	
Issue additional two year 6% Notes to be sold,	3,200,000.	$5,936,000.

INCOME:

	Dividends	Earnings
11,170,000 shares Motor Securities Co., Common Stock,	$1,553,500.	$8,811,500
Equals % on $12,135,000 Investment,	12.8%	72.6%

Defendant's Exhibit (DP) No. 46

COPY OF MINUTES OF MEETING #84 of the FINANCE COMMITTEE,

E. I. duPONT deNEMOURS & COMPANY,

HELD IN WILMINGTON, DELAWARE, ON DECEMBER 20, 1917.

* * * * * * *

E. I. duPONT deNEMOURS & COMPANY FINANCE COMMITTEE.

Meeting #84 (Special Meeting) held at the office of the Company, Wilmington, Delaware, 9:00 a.m., Dec. 20, 1917.

PRESENT: P. S. duPont, in the Chair,
Irenee duPont,
H. F. duPont,
H. M. Barksdale,
J. J. Raskob.

GENERAL MOTORS-CHEVROLET MOTOR STOCK INVESTMENT:

Report was received from the Treasurer, dated December 19, 1917 (#9849) on the above-mentioned subject, and same was read to the Committee by the Secretary. The matter was discussed until 10:30 a.m., at which time the Committee adjourned to join the Executive Committee in a joint discussion of this matter.

2.

TIME: 1 hr. 30 mins.

/s/ P. S. duPont

/s/ Irenee duPont

/s/ M. D. Fisher
Secretary

/s/ J. J. Raskob

APPROVED AS TO
LEGALITY:

/s/ H. M. Barksdale

/s/ H. F. duPont

/s/ J. P. Laffey

I hereby certify that the foregoing is a true copy of minutes of meeting #84 of the Finance Committee, E. I. duPont deNemours & Company, held in Wilmington, Delaware on December 20, 1917.

/s/ *F G Hess*
SEC'Y, FINANCE COMMITTEE
E. I. DUPONT DENEMOURS & COMPANY

April 30, 1951

[CORPORATE SEAL]

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Defendant's Exhibit (DP) No. 47

MINUTES OF SPECIAL MEETING OF THE BOARD OF DIRECTORS OF THE E. I. DU PONT DE NEMOURS & COMPANY, HELD AT THE OFFICE OF THE COMPANY, WILMINGTON, DELAWARE, ON FRIDAY, DECEMBER 21ST, 1917, AT ELEVEN:FIFTEEN O'CLOCK A.M.

Present: Mr. P. S. du Pont, in the Chair;
Mr. Irenée duPont,
Mr. H. F. Brown,
Mr. F. G. Tallman,
Mr. H. F. du Pont,
Mr. Wm. Coyne,
Mr. J. P. Laffey,
Mr. H. M. Barksdale,
Mr. Lammot duPont,
Mr. R. R. M. Carpenter,
Mr. J. J. Raskob,
Mr. A. Felix du Pont,
Mr. H. G. Haskell,
Mr. J. A. Haskell,
Mr. C. L. Patterson,
Mr. Eugene duPont,
Mr. H. M. Pierce,
Dr. C. L. Reese,
Mr. Eugene E. duPont,
Mr. Alexis I. duPont,
Mr. E. G. Buckner.

The President orally advised that this meeting was called for the purpose of considering the question of this Company making an investment in the Common Stocks of the Chevrolet and General Motors Companies. He stated that this matter had been given consideration by the members of the Executive and Finance Committees, but no definite action on the subject had been taken by said Committees. He presented a report on the subject from the Treasurer to the Finance Committee, dated December 19, 1917, which was read by the Secretary. The matter was discussed until 1:40 p.m., at which time the Board adjourned until 3:00 p.m., it being understood that a further joint meeting of the Executive and Finance Committees would be held in the meantime for the purpose of taking some action.

The Board reconvened at 3:00 p.m., the same members being present as at the morning session. The President orally advised that at a joint meeting of the Executive and Finance Committees just held the following resolution was offered and unanimously adopted:

—2—

RESOLVED, that the President and Treasurer of this Company be and they are hereby authorized to purchase up to Twenty-five Million Dollars ($25,000,000.00) worth of the Common Stocks of the Chevrolet and General Motors Companies, paying for these stocks an average price not to exceed Ninety-five Dollars ($95.00) per share, and in the calculation considering Chevrolet stock equivalent to 1.2 shares of General Motors Company stock;

BE IT FURTHER RESOLVED, that they be and are hereby authorized to do all acts and things necessary to finance and carry out this purchase in accordance with recommendations contained in the Treasurer's report to the Finance Committee, dated December 19, 1917, modified as follows:—

"While it doubtless will be necessary for the duPont Company to do a good deal in the way of temporary financing, my recommendation is that we incorporate a new company with an authorized capital of $75,000,000.00, $50,000,000.00 of which shall be Class 'A' stock and $25,000,000.00 Class 'B' stock;

"Class 'A' stock to be a 12% cumulative non-voting stock, callable at any time in the discretion of the Board of Directors at $150.00 per share plus accrued and unpaid dividends;

"Class 'B' stock to be stock with sole voting power and entitled to all earnings of the Company after the payment of the 12% dividend on Class 'A' stock;

"The duPont Company to subscribe immediately to $7,000,000.00 Class 'B' stock at par payable in cash, in consideration of which the new company will allow us to make the following offer to the common stockholders of the duPont Company, to-wit:—

"The Common Stockholders of the duPont Company will be entitled to subscribe to an amount of the new Company Class 'A' stock at par equal to thirty per cent. (30%) of their present holdings of E. I. duPont de Nemours & Company Common Stock, payable either in cash or Liberty Bonds at par and accrued interest. Payments may be made in full at the time of subscription, or may be made in four installments of 7-1/2% each, payable on the 20th days of March, June, September and December, 1918, respectively. Stock will not be issued until fully paid, but interest at the rate of six per cent. (6%) per annum will be paid on installments."

After full discussion of the above matter, the following resolution was offered and adopted (Messrs. E. G. Buckner,

A. Felix duPont and Eugene E. duPont voting in the negative):—

"RESOLVED, that the action taken by the Executive and Finance Committees of this Company in connection with the purchase of General Motors-Chevrolet Motor Stocks be and the same is hereby approved, ratified and confirmed."

There being no further business before the Board, on motion the meeting was adjourned.

(Sgd.) Alexis I. duPont
Secretary.

O.K. form
J.P.L.

I hereby certify that the foregoing is a true and correct copy of Minutes of meeting of the Board of Directors of E. I. du Pont de Nemours & Company held on December 21st, 1917.

Wilmington, Delaware
Dated *4-27-51*

/s/ *E. L. Zilpin*
Assistant Secretary

(SEAL)

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Defendant's Exhibit (DP) No. 48

January 17th, 1918.

TO : FINANCE COMMITTEE
FROM : TREASURER

GENERAL MOTORS—CHEVROLET MOTOR STOCK INVESTMENT

We have purchased and paid for a total of 77,600 shares of General Motors Company common stock and 121,440 shares of Chevrolet Motor Company stock being the equivalent of 223,328 shares at an average cost of $94.75 per share, which has been paid for as follows:

Cash	$11,523,473.69
Liberty Bonds at par	7,240,000.00
Notes of General Industries, Inc., dated January 8th, 1918, maturing September 1st, carrying General Motors Company stock valued at $70.00 as collateral	3,000,000.00
a total of	$21,763,473.69
from which should be deducted the 3% dividend due February 1st	597,120.00
making the net cost	$21,166,353.69
Should we make an additional deduction of the three points on the $7,240,000.00 Liberty Bonds, representing decrease in the value to the amount of	217,200.00
it makes the net cost	$20,949,153.69

or an average of $93.80 per share.

Since my report of December 19th our cash position has been materially altered through having made arrangements with the Ordnance and Navy Departments of the United States Government whereby our contracts with them have been modified to provide an advance payment in cash equal to 25% of the value of the contract in lieu of advances equal to 80% of the cost of materials assembled at our plants provided for in the original contracts. This places us in position to finance the materials, etc. necessary for the manufacture of powder called for by these contracts and releases a corresponding amount of our own capital which would otherwise have been diverted to this purpose. Under this arrangement we have received approximately $20,000,000.00 in cash during the past few days and will receive

$12,000,000.00 additional before the 25th instant. In view of the release of cash due to this transaction it becomes necessary to revise the elaborate cash forecast contained in my report to your Committee under date of November 19th, which results as follows:

The estimated cash and investment notes on hand January 31, 1918, as shown in that report, is	$62,800,000.00
from which should be deducted the special dividend of 32% paid December 22, 1917,	18,800,000.00
leaving a balance of	$44,000,000.00
The cash advance payments receivable from the Government during January, as hereinbefore recited, aggregate	32,000,000.00
making a total of	$76,000,000.00
If we deduct from this the amount we are authorized to invest in the motor industry...	25,000,000.00

we have a balance of	$51,000,000.00
of which the amount invested in investment notes, etc., is	25,400,000.00
leaving our cash balance after paying for our motor securities	$25,600,000.00

Making similar corrections over the balance of the year, the corrected figures show as follows:

	Cash	Investment Notes	Cash and Investment Notes
January 31st	$25,600,000.	$25,400,000.	$51,000,000.
February 28th	21,400,000.	25,400,000.	46,800,000.
March 31st	41,700,000.	1,800,000.	43,500,000.
April 30th	38,400,000.	1,800,000.	40,200,000.
May 31st	43,400,000.	1,800,000.	45,200,000.
June 30th	21,100,000.	1,800,000.	22,900,000.
July 31st	26,000,000.	1,800,000.	27,800,000.
August 31st	29,400,000.	1,800,000.	31,200,000.
September 30th	32,400,000.	1,800,000.	34,200,000.
October 31st	37,200,000.	1,800,000.	39,000,000.
November 30th	43,900,000.	1,800,000.	45,700,000.
December 31st	47,100,000.	1,800,000.	48,900,000.

In view of this showing I strongly recommend that we do not at this time make an offering of the Class A stock of General Industries, Inc. as outlined in my report of December 19th. It would be a mistake to resort to such an extravagant method of financing this purchase unless the necessity were such as to make it seem advisable, and our present necessities are not such as to warrant any such action. It must,

—3—

also, be remembered that by keeping this total investment for the Company it results in our having $3,000,000.00 dividend from the motor industry to add to our net earnings and this is equivalent to approximately 5% on our common stock, which will be very helpful in maintaining the du Pont dividend.

In lieu of the plan outlined, I would recommend the following:

1st. The du Pont Company to subscribe to $25,000,000.00 par value of General Industries, Inc. (this name to be changed as soon as possible to du Pont American Industries, Inc.).

2nd. General Industries, Inc. to make a call of 5% on this subscription, under which the du Pont Company would pay 5% of $25,000,000.00 or $1,250,000.00.

3rd. The du Pont Company to sell to General Industries, Inc., $25,000,000.00 motor securities, receiving in payment $1,000,000.00 in cash and $24,000,000.00 in note (one year with privilege of renewal for one year) of General Industries, Inc., which note will carry all the motor stocks as collateral.

4th. The du Pont Company will take this note and pledge, say, $18,000,000.00 of U. S. Treasury Certificates, Liberty Bonds or other U. S. obligations as additional collateral and sell it, thus securing $24,000,000.00 additional cash with which to pay for U. S. Government obligations. The sale of this $24,000,000.00 note should not be difficult for the reason that approximately $6,000,000.00 can perhaps be sold to du Pont Securities Company in payment for Liberty Bonds purchased from them, $3,000,000.00 to Messrs. Durant and Hofheimer in payment for motor securities purchased from them, leaving a balance of $15,000,000.00 to be sold to our banks or otherwise disposed of.

There should be no difficulty in disposing of these notes in which it appeared that, we representing the duPont interest, were willing to help materially in this very desperate situation. Mr. Morrow stated that he thought the plan impossible of execution because of the very critical condition in the market and recommended that we endeavor to place a loan of $20,000,000. among the banks, in order that an offer of cash for all Mr. Durant's indebtedness might be made. Mr. Raskob and I agreed on part of the duPont interests that we could furnish $7,000,000., and sufficient additional collateral toward the project. The Morgan partners were very complimentary as to the willingness of duPont to help in the situation, Mr. Cochran using the expression that "there are two firms in this country who are real sports, viz., duPont and Morgan."

Discussion ensued as to the treatment of Mr. Durant, Mr. Morrow making the suggestion that one-fourth of the equity in the shares should remain with Durant and that some portion of this equity might have to be used in order to help place the notes. He stated in the beginning that Morgan & Company

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would ask no commission or payment of any kind for their services in the deal. This division of the equity was discussed with careful consideration of justice to Mr. Durant and those carrying the load. After this preliminary discussion, the Morgan partners stated that they must go as carefully as possible into Mr. ~~Durant's~~ accounts before any attempt was made to float a loan. This investigation they proposed to start upon immediately and, therefore, went to Mr. Durant's room, and checking of the accounts was carried forward and the proposition of relief presented to Mr. Durant by Mr. Morrow. Mr. Durant thought that one-fourth of the equity returned to him was harsh. Mr. Morrow then moved to one-third. Mr. Durant suggested to me that 40% to him and 60% to the duPont interests would be more nearly fair. This part of the negotiations was all in good spirit and with apparent endeavor on all sides to be just in a difficult situation. Checking of accounts and discussion of the subject continued without interruption until about 5:30 o'clock Friday morning, about which time Mr. Durant and I signed a memorandum, agreeing to the general proposition of a $20,000,000. note issue and issue of stock to support the $7,000,000. furnished by the duPont interests; also, the loan of additional collateral, estimated at 1,300,000 shares. Memorandum also agreed that the equity in the stock representing the selling price above $9.50 per share, plus costs and interest, should be divided one-third to Durant and two-thirds to duPont. Even at this date the total indebtedness was uncertain and the syndicate accounts still involved.

—11—

After a hurried breakfast we all retired for a couple hours' sleep and returned to business at nine to 9:30 o'clock that morning. Messrs. Morgan & Co. arranged a loan of $20,000,000. with the principal banks in New York before

(Nov. 19th)

five o'clock that evening./ In the meantime, the plan was suggested that the duPont interests take 8% Preferred stock for their cash, and for the loan of collateral, 80% of the Common stock, the latter representing the equity in the selling price of the stock above $9.50, plus costs and interest. Twenty per cent. of this common stock was set aside for the bank interests furnishing the loan of $20,000,000.

On that day the duPont Finance Committee met and agreed to divide the 80% Common stock equally with Mr. Durant, leaving the proportions 40% Durant, 40% duPont and 20% bankers. This is the plan that has been finally consummated. While rumors of the deal were active on
(Nov. 20th) (Nov. 22nd)
Saturday,/ announcement was not made until Monday,/ when Morgan & Company started to gather in the stock. Throughout the whole transaction the Morgan partners have appeared to greatest advantage. They threw themselves into the situation wholeheartedly, stating at the start that they asked no compensation. They have acted with remarkable speed and success, the whole deal involving $60,000,000. or more, having been planned and practically completed in less than four days, in which are included a Saturday and Sunday.

Very truly yours,

17 /s/ PIERRE DU PONT

NOTE. P. S. DuPont is stamped across each page of above letter.

Defendant's Exhibit (DP) No. 51

GENERAL MOTORS CORPORATION

BANK LOANS OUTSTANDING

End of Month	1920 $	1921 $	1922 $
January	20,605,566	74,160,253	45,083,097
February	30,786,246	73,226,347	48,895,573
March	49,004,530	74,845,807	41,577,049
April	56,300,122	74,324,536	37,908,524
May	67,926,932	71,750,346	19,605,000
June	78,257,898	68,808,250	-
July	78,753,047	65,252,049	-
August	78,292,806	63,870,965	-
September	79,416,261	61,360,399	-
October	82,784,824	60,420,947	-
November	80,699,748	57,810,044	-
December	72,421,451	48,974,996	-

Defendant's Exhibit (DP) No. 52

W.C.D. to sell to a new corporation to be formed by P.S.du P. 2,700,000 shares General Motors Co. common stock at $9½ per share.

It is contemplated that such new corporation shall issue $20,000,000 one year notes and ~~that P.S.du~~ P. and associates shall (1) furnish $7,000,000 in cash in return for the stock of said corporation and (2) loan or otherwise transfer to said corporation common stock of G.M.Co. to an amount sufficient to enable the said $20,000,000 of notes to be collateraled by 4,000,000 shares of G.M.Co. common stock.

P.S.du P. and associates shall name the directors and officers of said corporation, who shall sell all the G.M.Co. common stock at their discretion and retire said notes and stock. After all of said notes have been retired and also all of said $7,000,000 has been returned with interest thereon at the same rate as the notes bear and all expenses have been paid, the remainder, if any, shall be considered profits and divided ⅔ to P.S.du P. and associates and ⅓ to W.C.D. Such share of the profits, if any, required to be used as a bonus with the sale of the notes shall reduce proportionately the share of profits of P.S.du P. and W.C.D.

The conditions discussed with reference to the other stock of W.C.D. are to be met by him.

W.C.D. agrees to foregoing in consideration of P.S.du P. securing him a loan of $530,000. on Nov. 19th.

P.S.du P. agrees to use his best efforts to put through foregoing plan.

O.K. Nov. 19, 1920.
W.C.D. " " "
P.S.du P. " " "

Defendant's Exhibit (DP) No. 53

E. I. DUPONT DE NEMOURS & CO.

FINANCE COMMITTEE

Minutes of meeting held at the office of General Motors Corporation, #224 West 57th Street, New York City, November 19th, 1920:

PRESENT: P. S. duPont, Chairman,
Irenee duPont,
Lammot duPont,
J. J. Raskob,
R. R. M. Carpenter,
H. F. Brown,
Wm. Coyne,
F. G. Tallman,
F. D. Brown.

The following minutes of the meeting of the Executive Committee of the duPont American Industries were presented to the meeting:

"The Chairman presented the following plan for consideration of the Finance Committee:

'It is proposed to organize a corporation for the purpose of purchasing approximately 2,700,000 shares of General Motors Corporation common stock at $9.50 per share. For the purpose of financing this purchase, the company is to be authorized to issue $20,000,000. one year notes, bearing 8% interest, and to sell stock to the amount of $7,000,000. The proceeds of the sale of these securities, $27,000,000., is estimated sufficient to make the stock purchase. The company also proposes to borrow or to purchase and pay for in common stock approximately 1,300,000 shares of General Motors Corporation common stock, making a total of 4,000,000 shares to be used as collateral on the above mentioned $20,000,000. notes. It is recommended that this company authorize its officers to subscribe to $4,000,000. of the above mentioned common stock and to loan the proposed new company 750,000 shares of General Motors Corporation common stock to be used as collateral in accordance with the plan. As it is the purpose of this company to resell all or part of the stock purchased, it is recommended that the officers of the company assent to the use of 20% of the profits resulting from the sale of stock to assist in the placing of the notes of the proposed company, and agree to divide equally the remaining 80% of the profit between those from whom the common stock is purchased and the common stockholders of the proposed company.

After a full discussion, the above recommendations were approved and the officers of the company authorized to assist in the carrying out of the plan.' "

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After discussion, it was resolved that the Finance Committee approve the action of the Executive Committee of the duPont American Industries and recommend that the plans outlined be carried out.

Upon motion duly made and seconded the following resolution was unanimously adopted:—

WHEREAS, it appears necessary to use $780,000. on account of the purchase of General Motors Corporation common stock before the actual consummation of the plan above outlined; J. P. Morgan & Company being willing to furnish $265,000. and to advance for account of E. I. duPont de Nemours & Company an additional $265,000. which, together with $250,000. otherwise obtained, will be sufficient to accomplish the results desired;

Resolved, that the use of $265,000. as and for the purpose above stated be approved.

Defendant's Exhibit (DP) No. 54

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)

March 28, 1921.

Mr. P. S. duPont, President,
General Motors Corporation,
New York City.

Copy to Mr. J.J.Raskob, V.P.

I am enclosing enclosing herewith copy of the proposition submitted by Mr. Raskob to the Board of Directors at today's meeting together with copy of the resolution which which was unanimously adopted.

/ *last page*

[STAMP] M. D. FISHER.
Asst. Secretary.

ENCL.

NOTE: Italics indicate handwriting. "Return to Executive Committee Room 9069" is stamped at bottom and "F-402" is written at top. "gmc-897 l" appears in lower right corner.

Vice President J J Raskob ~~The President~~ called attention to the statement contained in ~~his~~ *the* Annual Report to the Stockholders to the effect that plans were under consideration for permanently financing the purchase from Mr. W. C. Durant by du Pont Securities Company of shares of the General Motors Corporation, and stated that various plans had been discussed.

He stated that in addition to the indebtedness of the duPont Securities Company it appeared desirable to consider also the indebtedness of the Chevrolet Company, approximately sixty per cent of the shares of which are owned by the E. I. duPont de Nemours & Company through the duPont American Industries Company. He also stated that the Canadian Explosives Company, Ltd. Forty five per cent of the common stock of which is owned by your Company through the DuPont American Industries Company, was indebted to the General Motors Corporation in the sum of approximately $8,000,000.00, and that he recommended that consideration be given some plan by which this indebtedness could be discharged. He stated that two plans of dealing with the situation had been prepared, and he submitted them as follows:

PLAN NO. 1

1st. Du Pont American Industries will be wound up, with a distribution of its assets to E. I. du Pont de Nemours & Company in final liquidation.

2d. A new company to be known as E. I. du Pont de Nemours Manufacturing Company will be incorporated under the laws of such state as may be selected as being most advantageous, with charter provisions similar to those of the present E. I. du Pont de Nemours and Company, and with appropriate authorized capital divided into:

6% Debenture Stock of $100 per value per share—
and Common Stock of $100 par value per share.

3d. E. I. du Pont de Nemours Manufacturing Company will buy all of the business and assets, except stock of General Motors Corporation directly or indirectly represented, now or at the time of consummation, owned by E. I. du Pont de Nemours & Company, paying therefor in securities, and assuming all current liabilities. The payment will be as follows:

$56,503,240 Par Value of 6% Debenture Stock —
$63,378,335 Par Value of Common Stock.

4th. E. I. du Pont de Nemours & Company will thus be thrown into the position of a holding company with assets and liabilities as follows, on the basis of values as of December 31, 1920.

—3—

STATEMENT "A"

Assets:

6% Debenture Stock E. I. du Pont de Nemours Manufacturing Co.—Par Value	$56,503,240.
Common Stock E. I. du Pont de Nemours Manufacturing Co.—Par Value	63,378,335.
Excess Net Asset Value of Latter	39 272,936.
General Motors Stock, directly or indirectly owned, at cost	50,124,419*
	$209,278,930.

Liabilities:

6% Debenture Stock	70,629,050.
Common Stock	63,378,335.
Surplus	75,270,545.
	$209,278,930.

* This represents the Investment Cost at December 31, 1920.

—4—

5th. The holders of Debenture Stock of E. I. de Nemours and Company will be given the opportunity to convert 80% of the stock held into the 6% Debenture Stock of E. I. du Pont de Nemours Manufacturing Company, with the desired result that $50,503,240 Par Value of Debenture Stock of the holding company will thus be redeemed and cancelled, having $14,125,810 remaining in the hands of the public.

for the reason that the notes would be gilt edged in every respect and be secured as follows:

1st. by subscription of du Pont Company for $35,000,000. stock;

2nd. by $25,000,000. of motor securities;

—3—

3rd. by $18,000,000.00 of U. S. Government obligations.

The net cost of doing this will be a profit to us; we gain the prestige of subscribing to a very substantial additional amount of Liberty Bonds; we will have the advantage of offering the banks an investment which will be very attractive to them and incidentally an opportunity to introduce motor securities in a substantial way in the banking field, which the writer feels is bound to be of benefit to us in the future, through having the motor securities well and favorably known to the banking community and particularly to our bankers.

J. J. Raskob.

P.S.—As a matter of record I should like to report that the General Industries, Inc. has been incorporated under the laws of the State of Delaware with an authorized capital of $25,000,000.00 consisting of 250,000 shares of common stock, par value $100.00 each. E. I. du Pont de Nemours & Company is sole stockholder and the officers and directors are as follows:

President:	P. S. du Pont
Vice President:	H. M. Barksdale
" "	Irenee du Pont
" "	H. F. du Pont
Treasure	J. J. Raskob

Secretary	Alexis I. du Pont
Directors	P. S. du Pont
	H. M. Barksdale
	Irenee du Pont
	H. F. du Pont
	J. J. Raskob

)(

NOTE: Gmc 910a appears in the lower right hand corner of each page.

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B

EXCERPT FROM MINUTES OF JOINT MEETING OF EXECUTIVE COMMITTEE #188 & FINANCE COMMITTEE #91, E. I. DUPONT DENEMOURS & COMPANY, HELD IN WILMINGTON, DELAWARE, JANUARY 21, 1918.

* * * * * *

GENERAL MOTORS - CHEVROLET MOTOR STOCK INVESTMENT:

Report from the Treasurer, dated January 17, 1918, on the above-mentioned subject, was presented for consideration. After full discussion, the following resolution was offered and unanimously adopted:—

> WHEREAS, at a joint meeting of the Executive and Finance Committees of this Company held on December 21, 1917 the President and Treasurer were authorized to make an investment of $25,000,000.00 in the stocks of the Chevrolet and General Motors Companies along lines more fully stated in said authorization; and
>
> WHEREAS, under date of January 17, 1918 the Treasurer recommended a change in the method of financing the purchase of these stocks; and
>
> WHEREAS, at a meeting of the Finance Committee held on January 9, 1918 the average price authorized to be paid for these stocks was increased from $95.00 per share to $100.00 per share;
>
> RESOLVED, that the plan of financing this purchase as outlined in said Treasurer's report of January 17, 1918 be and the same is hereby approved;
>
> RESOLVED, that the action of the President and Treasurer of this Company in causing the General In-

dustries, Inc. to be incorporated under the laws of the State of Delaware, with an authorized capital of $25,000,000.00 divided into 250,000 shares of the par value of $100.00 each, be approved;

Resolved, that this Company do subscribe to $25,000,000.00 par value of General Industries, Inc. stock, five per cent. (5%) of which subscription is to be paid immediately and the balance when called by the Board of Directors of General Industries, Inc.;

Resolved, that the Secretary be requested to immediately forward to the Directors of this Company a copy of this resolution, together with a copy of resolution of the Finance Committee of January 9, 1918, together with a copy of the Treasurer's report of January 17, 1918, advising the Directors that they will be asked to approve, ratify and confirm the action of this joint meeting at the next regular meeting of the Board to be held on Wednesday, January 30, 1918.

****

I hereby certify that the foregoing is a true excerpt from minutes of joint meeting of Executive Committee #188 and Finance Committee #91, E. I. duPont deNemours & Company, held in Wilmington, Delaware, on January 21, 1918.

F. G. Hess (Stamp)
Sec'y, Executive Committee
E. I. duPont de Nemours & Company

December 20, 1948

Defendant's Exhibit (DP) No. 50

November 26th, 1920.

Mr. Irenee duPont, President,
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Sir:

Recent developments in General Motors Corporation's affairs make it necessary to record developments of the past two weeks, which I do from notes made by me and from circumstances that are still clearly in mind. Before dealing with this part of the history I should like to record a few words in regard to my previous understanding of Mr. Durant's personal affairs.

Since my first acquaintance with Mr. Durant some years ago he had never up to Thursday, November 11th, 1920, said anything to me concerning his personal affairs. When the duPont interests bought into the General Motors Company and acquired an investment of $25,000,000. worth of stock at slightly above par, it was understood from Mr. Durant that he, possibly together with his immediate family, held a similar amount of stock (including his holdings in the Chevrolet Company, which was then, as now, a holding company of General Motors Common stock). It was known to us at that time that the larger part of Mr. Durant's stock stood in the name of brokers, but this was supposed to be a matter of convenience. I am quite sure that if Mr. Durant was a borrower on

—2—

this stock at the time, nothing was said about it. During the months that followed our acquisition of stock up to last spring I knew at times that Mr. Durant had permitted his stock to be lent in the street. I also knew that he was at times purchaser of stock, both directly and through advising people to buy. I had never supposed that he purchased other than by payment outright or in amount within his ability to carry, in view of his seemingly large fortune. I do not remember his mentioning any case in which he was a seller of stock, nor does it appear now that he has ever been other than a purchaser. I have never abetted Mr. Durant in any thoughts of stock and market control which he mentioned to me; in fact, what little has been said would tend to discourage market operations rather than to encourage them; but, as I said before, Mr. Durant has never spoken to me about personal affairs and it has never appeared that the stock operations were anything but personal. I have a strong impression, which Mr. Raskob confirms, that Mr. Durant was entirely out of the stock market in the spring of 1920. I have supposed that he owed no money, particulrly on brokers' accounts. When syndicates were formed in recent months by Morgan & Company, it was my understanding that Mr. Durant would not operate in the stock market in any way, as it is impossible for two parties to act independently in a satisfactory way. I have been disappointed during recent weeks to hear Mr. Durant mention supporting the market, in view of

—3—

the fact that the Morgan syndicate was not doing so properly. My judgment has been against this independent action, but I am not sure that the subject has been discussed in a way that has indicated to Mr. Durant any clearcut ideas on my part; in fact, I have pictured his purchases to sustain the market as being limited to a number of shares well within his supposed purchasing power and that of his immediate friends who might be helping him in placing the stock. I have felt quite certain up to November 11th that Mr. Durant was not operating in the stock market and was not a borrower of money.

Notwithstanding the above opinions that were quite firmly fixed in my mind, there have been rumors of Durant's speculations. Both Mr. Raskob and I have felt that Morgan & Company have been ignorant of the extent of Mr. Durant's operations since they became purchasers of General Motors Common stock. Morgan & Company have had every opportunity to question Mr. Durant on the subject and I have not felt it my duty to pry into Durant's affairs. Some time within the past six weeks Mr. Morrow of Morgan & Company asked Mr. Raskob and me some questions regarding Mr. Durant's personal affairs, particularly as to his possible stock market operations. To this we replied that we knew nothing of his personal affairs and that he had never confided in us. I advised Mr. Morrow that he question Mr. Durant personally, as we felt sure that he would be candid in his answers. This led to a meeting in Mr. Morrow's office in November, 1920

—4—

at which he, Mr. Durant, Mr. Raskob and I were present. During that meeting I stated that it was fair that the partners in ownership of General Motors stock should know each others position and informed the meeting on the part of the duPont interests that all of our stock, both General Motors and Chevrolet, was held by the company, unpledged, and that we were not buyers or sellers of stock in any amount. I also stated that I, personally, was not a borrower of money on the stock; that my shares were held by me, and that I had not bought or sold stock recently. I stated that so far as I knew, none of the individuals in the duPont group were borrowers on General Motors stock or operating in any way. Mr. Morrow stated that the shares purchased by Morgan & Company and their friends were still held and that there was no intention to sell. I do not remember that Mr. Durant made as positive a statement on his part, but he did not give any intimation that he was a borrower on the stock or operating in the market in any way. Mr. Morrow asked him the direct question whether he knew of any weak accounts in the market, to which Durant replied "no". He left us with the impression that his holdings were as clear as our own. Knowing Mr. Durant and the peculiarities of his makeup, I do not think that he intended to deceive us in any way; but Mr. Morrow, who was not inclined to be as generous, I think censures Mr. Durant severely for his failure to be frank with us.

We now come to Thursday, November 11th, 1920. Without any idea in the heads of Mr. Raskob or the writer that

Mr. Durant was involved in any way, on the date above mentioned Mr. Durant asked us to lunch with him. At the meeting he stated that he had been informed that "the bankers" had demanded his resignation as President of the

General Motors Company,/ to which demand he was ready to accede, as he was determined to "play the game", for the reason that the company as well as he, personally, "was in the hands of the bankers" and must act accordingly. I immediately took exception to his statement about the company, explaining that our borrowings were not greater than could be prudently carried in view of our large working capital and other assets and in view of the cash balance carried by the company and the forecasts of our financial affairs. I explained that our banking partners concurred in this opinion and saw no difficulty in carrying our loans until liquidation through the operations of the business could be accomplished. Mr. Durant stated that he was worried about his personal accounts but made no definite explanation, and no opportunity was presented for an inquiry, which did not seem necessary at the time. However, after leaving this meeting, Mr. Raskob speculated on the probable meaning of Mr. Durant's words. In answer to Mr. Raskob's question the next day as to the condition of Mr. Durant's affairs and particularly as to whether his indebtedness amounted to "six or twenty-six million dollars", Mr. Durant replied that he would have to look up the matter. Mr. Raskob and I left New York on Friday/ (12th) and did not return until the following Tuesday, November 16th, at which time we went to Mr. Durant's office in the morning, with the determination to endeavor to find out his true position, as we had agreed in conversation that Durant's personal affairs, if seriously involved, might indirectly affect the credit of General Motors Company. Mr. Durant was very busy that day, seeing people, rushing to the telephone, and in and out of his room, so that, although we waited patiently for several hours, interrupted only by lunch time, it was not until four o'clock that afternoon that Mr. Durant began to give us figures indicating his situation. He had pencil memoranda of the number of loans at banks. The total memoranda, as written down by us from what he said, showed an indebtedness of twenty million dollars, all presumably on brokers' accounts and supported by 1,300,000 shares of stock owned by others and by an unknown amount of collateral belonging to Durant; also, $14,190,000. which Durant estimated he owed personally to banks and brokers, against which he held three million shares of General Motors stock, this, of course, exclusive of the 1,300,000 shares owned by others. Mr. Durant stated that he had no personal books or accounts and was wholly unable to give definite statement as to the total indebtedness; what part of it was his personal and what part was the indebtedness of others on which he had lent collateral without other commitment. Apparently, he had no summary of brokers' accounts in hand. However, the whole situation, besides being very involved, seemed very serious. Mr. Durant promised to ask his brokers for accounts in order to make some positive statement.

(Nov. 16th.)

On Tuesday evening Mr. Durant had a call from McClure, Jones & Reed, brokers, for $150,000., to support his account. This amount was fixed up in some way.

(Nov. 17th)

On Wednesday/ we inquired for the brokers' accounts and found that directions had been given to make the statement as of the close of business Wednesday, November 17th, so that nothing could be done that day. Meantime, the statements already given appeared so indefinite that Mr. Raskob and I were loath to believe the accounts in any way accurate. However, the situation seemed serious enough to warrant speculating on a plan for relief. We decided that, in order to avert a crisis, it might be possible to organize a company to take over Mr. Durant's holdings, issuing $20,000,000. of notes, which would be offered as collateral to the holder of obligations, and that the duPont interests might invest $7,000,000., or even $10,000,000. in securities of the company in order to furnish cash to liquidate pressing accounts and make payments, in part, of others.

On Thursday, November 18th, the broker accounts started to come in, and it required all of that day to get the statement in shape that was agreed upon by Mr. Durant as correct. The statement, however, was not capable of accurate checking, excepting from the broker accounts presented. There was nothing to show that these covered all the broker accounts, and there was nothing very definite in regard to bank loans, nor to the syndicate accounts in which Mr. Durant was involved as lender of collateral. However, a summary sheet was made up from the data and given to the typist for copying late Thursday afternoon. About that time Mr. Durant called Mr. Raskob and me to his office, stating that some of the Morgan partners were to call upon him shortly and asked us to be present at the meeting. We told him that his position differed so entirely from that represented to us and to Morgan & Co. that it was impossible for us to sit in a meeting with him and the Morgan partners, unless he agreed to make a complete statement to them. He did not agree to this point and we left the room. About 6:30 P. M. we started to leave for the hotel and met Messrs. Morrow, Cochran and Whitney, who had met Mr. Durant, with a promise on the part of Mr. Whitney to return at nine o'clock that evening. Mr. Morrow called me aside and stated that they wanted to get in touch with me for a few minutes' interview. He and his associates and I then repaired to Mr. Raskob's room and, after a few preliminaries, I asked whether Mr. Durant had made a complete statement to them. To this Mr. Morrow replied "yes", and produced a copy of the typed summary which I had prepared but which I had not yet myself seen in finished form. Then ensued a discussion of the whole subject, in which the Morgan partners outlined their opinion of the extreme seriousness of the situation and the panic that might result, in the event of Mr. Durant's failure, which might possibly involve the failure of several brokers and some of the banks, particularly as there were two large and critically weak accounts in the street. Mr. Morrow stated that he would give up an engagement and return at nine o'clock and I agreed to break an engagement and do likewise. Our conversation occupied not much more than a half hour. I returned to the hotel and, together with Mr. Raskob, went to the office at the appointed time, where three Morgan partners had assembled. Mr. Raskob outlined to Mr. Morrow our rough plan of giving assistance, 6th. It is understood that as a part of this plan, there will be supplied through channels as hereinafter set forth, such amount as may be necessary, not exceeding $35,000,000, towards completely clearing up indebtedness at banks and elsewhere of the following:

Du Pont Securities Company
Chevrolet Motor Company
Canadian Explosives, Ltd. (In respect to the ($8,000,000 due General Motors Corp. in subscription to 400,000 shares of Common stock at $20)

7th. Twenty-five million dollars, ($25,000,000) will be supplied by E. I. du Pont de Nemours & Company (the holding company) in its entirety towards meeting the requirements outlined in Article 6 above, through outright purchase of General Motors Corporation Common Stock.

8th. The balance required, but not to exceed $10,000,000, will be supplied by E. I. du Pont de Nemours Manufacturing Company, either by way of advances (except that there will be no advances to E. I. du Pont de Nemours & Company) or by outright purchase of General Motors Corporation Common Stock, it being understood that any General Motors Corporation common stock thus acquired by E. I. du Pont de Nemours Manufacturing Company will be sold at the earliest advantageous opportunity in the discretion of its board of directors.

9th. Twenty-five million dollars ($25,000,000) required by E. I. du Pont de Nemours & Company (the holding company) will be available from sale through J. P. Morgan & Company of like amount of ten year collateral trust notes, secured by 100% of the Common Stock of E. I. du Pont de Nemours Manufacturing Company and all of the Common Stock of General Motors Corporation owned (not less than 6,500,000 shares).

10th. Should it prove desirable under this plan to offer to the stockholders of E. I. du Pont de Nemours & Company, the right to purchase common stock of E. I. du Pont de Nemours Manufacturing Company and/or General Motors Corporation common stock, such course will be followed provided the common stock of E. I. du Pont de Nemours Manufacturing Company and of General Motors Corporation available for collateral under the note issue of E. I. du Pont de Nemours & Company shall not be reduced to below seventy-five percent (75%) of the amounts respectively specified in Article 9 hereof, and further provided that the amount of notes to be issued by E. I. du Pont de Nemours & Company shall be reduced in ratable proportion to the reduction in collateral available for security.

—6—

PLAN NO.2

1st. This plan has as its object a final result similar to that set forth in Plan No. 1, the approach being different. The procedure would be under the following lines:

2nd. du Pont American Industries will be wound up, with a distribution of its assets to E. I. du Pont de Nemours & Company in final liquidation, as in the case of Plan No. 1.

3rd. A new company, to be known as du Pont Securities Company (or such other name as may be deemed suitable) will be formed, to occupy the position of holding company as employed in Plan No. 1, with appropriate authorized capital divided into:

7% Debenture Stock, similar in conditions to the Debenture Stock of E. I. du Pont de Nemours & Co. and Common Stock, of $100 Par Value.

4th. du Pont Securities Company, in consideration for mutual covenants will offer to exchange shares of its authorized common stock of $100 par value for common stock of E. I. du Pont de Nemours & Co, share for share, conditioned upon at least 75% of the common stock of E. I. du Pont de Nemours & Company being thus exchanged.

5th. du Pont Securities Company ~~will~~ issue to E. I. du Pont de Nemours & Company for value received, $14,125,810. par value of its authorized 7% Debenture Stock, in consideration of the latter corporation undertaking to employ the same for the purpose of buying in and retiring a like par value of its own 6% Debenture Stock outstanding; or otherwise retaining same in its treasury.

6th. After a closing of the offer of exchange of du Pont Securities Company Common Stock for Common Stock of E. I. du Pont de Nemours & Company, and in the event that at least 75% of the outstanding stock of E. I. du Pont de Nemours & Company has been so excahnged, E. I. du Pont de Nemours & Company will offer to its Common Stockholders pro-rata to their holdings, not less than 6,500,000 shares of General Motors Corporation Common Stock, for cash, or its equivalent to the aggregate amount of $25,000,000. plus a proper valuation of $14,125,810. of 7% Debenture stock of du Pont Securities Company, applied as part payment on account of subscription from the latter under its rights as holder of at least 75% of the Common Stock of E. I. du Pont de Nemours & Company.

7th. Under this plan E. I. du Pont de Nemours & Company will supply, not to exceed $35,000,000., cash set forth in Plan No. 1 as being required. Of this aggregate amount something over $25,000,000. will be supplied by the stockholders, including du Pont Securities Company.

8th. du Pont Securities Company will supply such percentage of $25,000,000. as corresponds to the percentage ownership of Common Stock of E. I. du Pont de Nemours & Company and will derive such amount of cash from the sale of 10 year collateral trust notes secured by all of the Common Stock of E. I. du Pont de Nemours & Company acquired through exchange, and all of the General Motors Corporation Common Stock acquired by purchase fom E. I. du Pont de Nemours & Company.

—8—

9th. If all of the Common Stockholders of E. I. du Pont de Nemours & Company were to exchange their stock for Common Stock of du Pont Securities Company, the final result would be that the latter would hold 100% of the Common Stock of E. I. du Pont de Nemours & Company and not less than 6,500,000 shares of General Motors Corporation Common Stock—all available for collateral security under a note issued required in the amount of $25,000,000.

To the extent that stockholders fail to enter the exchange, the collateral available for security and the amount of note issued by du Pont Securities Company will in each case be proportionately reduced.

—9—

Mr. Raskob
~~The President~~ stated that the occasion for considering the matters referred to in the foregoing plans was due to the desirability of enabling General Motors Corporation to procure additional loans from the banks in order to strengthen its cash position, and particularly to enable it to effect the settlement of a large number of contracts for materials which it was represented could be disposed of on advantageous terms if approximately $15,000,000.00 were made available to the Company for that purpose. He said that he had been advised by Messrs.
that a careful investigation of the situation had convinced them that owing to the present condition in the money market it was difficult, if not impossible, for the General Motors Corporation materially to increase its loans from banks until the notes of the DuPont Securities Company and the Chevrolet Company, now held by banks, had been retired. He explained that it appeared possible to do this if either of the plans referred to above were adopted, and in view of the large interest held directly and indirectly by the E. I. duPont deNemours & Company in the General Motors Corporation it appeared clearly to be in the interests of the stockholders of the E. I. duPont deNemours & Company to adopt some plan by which the financial position of the General Motors Corporation could be strengthened.

After discussion, the following resolution was offered and unanimously adopted:-

Resolved, that Mr. P. S. duPont be and he is hereby authorized to give assurances to Messrs. J. P. Morgan & Company and/or other banking institutions and firms either that one of the plans referred to above will be adopted within ninety days or in the event that neither of such plans are found to be desirable from our point of view then to give assurances that there will be substituted therefor some other plan satisfactory to Messrs. J. P. Morgan & Company, or that the notes of the duPont Securities Company and Chevrolet Motor Company now held by the banks will be taken up before July 1, 1921, it being understood that in the event that a plan is developed whereby the Board of Directors of E. I. duPont deNemours & Company feels that it would be justified in authorizing an issue of notes of the Company not to exceed $35,000,000.00, such a note issue will constitute an acceptable plan;

Resolved further, that the Finance Committee be given full power and authority to make such modifications in the foregoing plans as to details and to take such action in connection therewith as in its discretion may be in the best interest of this corporation, and to give such assurances as may be reasonably required under the circumstances.

Note: Italics indicate handwriting. Underscoring on first page, and deletions on first and ninth pages, are by hand. "Return to Executive Committee Room 9069" is stamped at the bottom of each page. "gmc-897m" is written at the bottom of the first nine pages and "gmc-897n" at the bottom of the last page.

Defendant's Exhibit (DP) No. 56

MEMBERS OF GM BOARD AND GOVERNING COMMITTEES,

AUGUST 22, 1917 TO DECEMBER 31, 1952

5655

General Motors Corporation

BOARD OF DIRECTORS
(as of December 31)

Aug. 22, 1917	1917	1918	1919	1920	Term of Office
AGBishop	AGBishop	AGBishop	AGBishop	AGBishop	8-22-17 to 1-22-44
WPChrysler	WPChrysler	WPChrysler	WPChrysler		8-22-17 to 3-25-20
RHCollins	RHCollins	RHCollins	RHCollins	RHCollins	8-22-17 to 6-30-21
WLDay	WLDay	WLDay	WLDay	WLDay	8-22-17 to 5-13-25
PSduPont[1]	PSduPont[1]	PSduPont[1]	PSduPont[1]	PSduPont[1]	8-22-17 to 8- 7-44
WCDurant	WCDurant	WCDurant	WCDurant	WCDurant	8-22-17 to 4-20-21
JAHaskell	JAHaskell	JAHaskell	JAHaskell	JAHaskell	8-22-17 to 9- 9-23
LGKaufman	LGKaufman	LGKaufman	LGKaufman	LGKaufman	8-22-17 to 4-25-39
JHMcClement	JHMcClement	JHMcClement	JHMcClement		8-22-17 to 4-28-20
CSMott	CSMott	CSMott	CSMott	CSMott	8-22-17 to date
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	8-22-17 to 3- 4-46
EVerlinden	EVerlinden	EVerlinden	EVerlinden	EVerlinden	8-22-17 to 4-19-22
FWWarner	FWWarner	FWWarner	FWWarner	FWWarner	8-22-17 to 9-22-21
		HMBarksdale[2]			6-27-18 to 10-18-18
		HFduPont	HFduPont	HFduPont	2-21-18 to 9- 5-44
		IduPont	IduPont	IduPont	2-21-18 to 9- 6-38
		LduPont	LduPont	LduPont	11- 7-18 to 6- 3-46
		FWHohensee	FWHohensee	FWHohensee	6-27-18 to 1-13-21
		RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
		APSloan,Jr.	APSloan,Jr.	APSloan,Jr.	11- 7-18 to date
			HHBassett	HHBassett	5- 1-19 to 10-17-26
				GFBaker	7-15-20 to 5-30-37
				DBrown	12-30-20 to date
				AChamberlin	4-28-20 to 1- 1-23
				CFKettering	12-30-20 to date
				LMcGowan	4-28-20 to 4- 2-45
				WMcMaster	4-28-20 to 5- 5-30
				SProsser	7-15-20 to 6- 3-40
				JTSmith	3-25-20 to 9-28-47
				ERStettiniusSr	7-15-20 to 9- 3-25
				WHWoodin	7-15-20 to 8-11-27
				CMWoolley	7-15-20 to 6- 6-38
				KWZimmerschied	12-30-20 to 4-18-23
				OWYoung	7-15-20 to 8- 1-38

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[1] Chairman.

[2] Appointed June 27, 1918, resigned October 18, 1918.

General Motors Corporation

BOARD OF DIRECTORS
(As of December 31)

1921	1922	1923	1924	1925	Term of Office
AGBishop	AGBishop	AGBishop	AGBishop	AGBishop	8-22-17 to 1-22-44
WLDay	WLDay	WLDay	WLDay		8-22-17 to 5-13-25
PSduPont[1]	PSduPont[1]	PSduPont[1]	PSduPont[1]	PSduPont[1]	8-22-17 to 8- 7-44
JAHaskell	JAHaskell				8-22-17 to 9-[illegible]-23
LGKaufman	LGKaufman	LGKaufman	LGKaufman	LGKaufman	8-22-17 to 4-25-[illegible]9
CSMott	CSMott	CSMott	CSMott	CSMott	8-22-17 to date
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	8-22-17 to 3- 4-46
EVerLinden					8-22-17 to 4-19-22
HFduPont	HFduPont	HFduPont	HFduPont	HFduPont	2-21-18 to 9- 5-44
IduPont	IduPont	IduPont	IduPont	IduPont	2-21-18 to 9- 6-38
LduPont	LduPont	LduPont	LduPont	LduPont	11- 7-18 to 6- 3-46
RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
APSloanJr	APSloanJr	APSloanJr	APSloanJr	APSloanJr	11- 7-18 to date
HHBassett	HHBassett	HHBassett	HHBassett	HHBassett	5- 1-19 to 10-17-26
GFBaker	GFBaker	GFBaker	GFBaker	GFBaker	7-15-20 to 5-30-37
DBrown	DBrown	DBrown	DBrown	DBrown	12-30-20 to date
AChamberlain	AChamberlain				4-28-20 to 1- 1-23
CFKettering	CFKettering	CFKettering	CFKettering	CFKettering	12-30-20 to date
LMcGowan	LMcGowan	LMcGowan	LMcGowan	LMcGowan	4-28-20 to 4- 2-45
WMcMaster	WMcMaster	WMcMaster	WMcMaster	WMcMaster	4-28-20 to 5- 5-30
SProsser	SProsser	SProsser	SProsser	SProsser	7-15-20 to 6- 3-40
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	3-25-20 to 9-28-47
ERStettiniusSr	ERStettiniusSr	ERStettiniusSr	ERStettiniusSr		7-15-20 to 9- 3-25
WHWoodin	WHWoodin	WHWoodin	WHWoodin	WHWoodin	7-15-20 to 8-11-27
CMWoolley	CMWoolley	CMWoolley	CMWoolley	CMWoolley	7-15-20 to 6- 6-38
KWZimmerschied	KWZimmerschied				12-30-20 to 4-18-23
ODYoung	ODYoung	ODYoung	ODYoung	ODYoung	7-15-20 to 8- 1-38
FJFisher	FJFisher	FJFisher	FJFisher	~~FJFisher~~	6-30-21 to 11- 5-34
AHSwayne	AHSwayne	AHSwayne	AHSwayne	AHSwayne	1-13-21 to 4-16-37
	GHHannum	GHHannum	GHHannum		4-19-22 to 5-13-25
	ABCHardy	ABCHardy	ABCHardy		4-19-22 to 5-13-25
	HHRice	HHRice	HHRice		4-19-22 to 5-13-25
		JDMooney	JDMooney	JDMooney	11- 8-23 to 1- 5-42 3- 5-45 to 12-31-45
		DPage	DPage	DPage	4-18-23 to 2-28-40
		JLPratt	JLPratt	JLPratt	4-18-23 to date
			CTFisher	CTFisher	9-25-24 to 11- 5-34
			LPFisher	LPFisher	9-25-24 to date
			WSKnudsen	WSKnudsen	4-16-24 to 9- 3-40 7- 2-45 to 4-27-48
			GWhitney	GWhitney	9-25-24 to date
				JSMorganJr	9-30-25 to 12- 1-41

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[1] Chairman.

General Motors Corporation

BOARD OF DIRECTORS
(as of December 31)

1926	1927	1928	1929	1930	Term of Office
AGBishop	AGBishop	AGBishop	AGBishop	AGBishop	8-22-17 to 1-22-44
PSduPont[1]	PSduPont[1]	PSduPont[1]	PSduPont	PSduPont	8-22-17 to 8- 7-44
LGKaufman	LGKaufman	LGKaufman	LGKaufman	LGKaufman	8-22-17 to 4-25-39
CSMott	CSMott	CSMott	CSMott	CSMott	8-22-17 to date
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	8-22-17 to 3- 4-46
HFduPont	HFduPont	HFduPont	HFduPont	HFduPont	2-21-18 to 9- 5-44
IduPont	IduPont	IduPont	IduPont	IduPont	2-21-18 to 9- 6-38
LduPont	LduPont	LduPont	LduPont[1]	LduPont[1]	11- 7-18 to 6- 3-46
RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
APSloanJr	APSloanJr	APSloanJr	APSloanJr	APSloanJr	11- 7-18 to date
GFBaker	GFBaker	GFBaker	GFBaker	GFBaker	7-15-20 to 5-30-37
DBrown	DBrown	DBrown	DBrown	DBrown	12-30-20 to date
CFKettering	CFKettering	CFKettering	CFKettering	CFKettering	12-30-20 to date
LMcGowan	LMcGowan	LMcGowan	LMcGowan	LMcGowan	4-28-20 to 4- 2-45
WMcMaster	WMcMaster	WMcMaster	WMcMaster		4-28-20 to 5- 5-30
SProsser	SProsser	SProsser	SProsser	SProsser	7-15-20 to 6- 3-40
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	3-25-20 to 9-28-47
WHWoodin					7-15-20 to 8-11-27
CMWoolley	CMWoolley	CMWoolley	CMWoolley	CMWoolley	7-15-20 to 6- 6-38
ODYoung	ODYoung	ODYoung	ODYoung	ODYoung	7-15-20 to 8- 1-38
FJFisher	FJFisher	FJFisher	FJFisher	FJFisher	6-30-21 to 11- 5-34
AHSwayne	AHSwayne	AHSwayne	AHSwayne	AHSwayne	1-13-21 to 4-16-37
JDMooney	JDMooney	JDMooney	JDMooney	JDMooney	11- 8-23 to 1- 5-42 3- 5-45 to 12-31-45
DPage	DPage	DPage	DPage	DPage	4-18-23 to 2-28-40
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	4-18-23 to date
CTFisher	CTFisher	CTFisher	CTFisher	CTFisher	9-25-24 to 11- 5-34
LPFisher	LPFisher	LPFisher	LPFisher	LPFisher	9-25-24 to date
WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen	4-16-24 to 9- 3-40 7- 2-45 to 4-27-48
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	9-25-24 to date
JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	9-30-25 to 12- 1-41
	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	2-10-27 to date
	CCCooper	CCCooper	CCCooper		8-11-27 to 4-30-30
	WAFisher	WAFisher	WAFisher	WAFisher	2-10-27 to 4-28-42
			FOpel	FOpel	5- 8-29 to 8-30-38
				ABPurvis	6- 2-30 to 12- 4-39

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[1] Chairman. Lammot du Pont succeeded P. S. du Pont, Feb. 7, 1929.

General Motors Corporation

BOARD OF DIRECTORS
(as of December 31)

1931	1932	1933	1934	1935	Term of Office
AGBishop	AGBishop	AGBishop	AGBishop	AGBishop	8-22-17 to 1-22-44
PSduPont	PSduPont	PSduPont	PSduPont	PSduPont	8-22-17 to 8- 7-44
LGKaufman	LGKaufman	LGKaufman	LGKaufman	LGKaufman	8-22-17 to 4-25-39
CSMott	CSMott	CSMott	CSMott	CSMott	8-22-17 to date
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	8-22-17 to 3- 4-46
HFduPont	HFduPont	HFduPont	HFduPont	HFduPont	2-21-18 to 9- 5-44
IduPont	IduPont	IduPont	IduPont	IduPont	2-21-18 to 9- 6-38
LduPont[1]	LduPont[1]	LduPont[1]	LduPont[1]	LduPont[1]	11- 7-18 to 6- 3-46
RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
APSloan,Jr.	APSloan,Jr	APSloan,Jr.	APSloan,Jr.	APSloan,Jr.	11- 7-18 to date
GFBaker	GFBaker	GFBaker	GFBaker	GFBaker	7-15-20 to 5-30-37
DBrown	DBrown	DBrown	DBrown	DBrown	12-30-20 to date
CFKettering	CFKettering	CFKettering	CFKettering	CFKettering	12-30-20 to date
LMcGowan	LMcGowan	LMcGowan	LMcGowan	LMcGowan	4-28-20 to 4-2 -45
SProsser	SProsser	SProsser	SProsser	SProsser	7-15-20 to 6- 3-40
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	3-25-20 to 9-28-47
CMWoolley	CMWoolley	CMWoolley	CMWoolley	CMWoolley	7-15-20 to 6- 6-38
ODYoung	ODYoung	ODYoung	ODYoung	ODYoung	7-15-20 to 8- 1-38
FJFisher	FJFisher	FJFisher			6-30-21 to 11- 5-34
AHSwayne	AHSwayne	AHSwayne	AHSwayne	AHSwayne	1-13-21 to 4-16-37
JDMooney	JDMooney	JDMooney	JDMooney	JDMooney	11- 8-23 to 1- 5-42 3- 5-45 to 12-31-45
DPage	DPage	DPage	DPage	DPage	4-18-23 to 2-28-40
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	4-18-23 to date
CTFisher	CTFisher	CTFisher			9-25-24 to 11- 5-34
LPFisher	LPFisher	LPFisher	LPFisher	LPFisher	9-25-24 to date
WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen	4-16-24 to 9- 3-40 7- 2-45 to 4-27-48
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	9-25-24 to date
JSMorgan,Jr.	JSMorgan,Jr.	JSMorgan,Jr.	JSMorgan,Jr.	JSMorgan,Jr.	9-30-25 to 12- 1-41
WSCarpenterJr.	WSCarpenterJr.	WSCarpenterJr.	WSCarpenterJr.	WSCarpenterJr	2-10-27 to date
WAFisher	WAFisher	WAFisher	WAFisher	WAFisher	2-10-27 to 4-28-42
FOpel	FOpel	FOpel	FOpel	FOpel	5- 8-29 to 8-30-38
ABPurvis	ABPurvis	ABPurvis	ABPurvis	ABPurvis	6- 2-30 to 12- 4-39
		ABradley	ABradley	ABradley	11- 6-33 to date
			RGrant	RGrant	11- 5-34 to date
			OEHunt	OEHunt	11- 5-34 to date
			JJSchumannJr.	JJSchumannJr.	11- 5-34 to date
			CEWilson	CEWilson	11- 5-34 to date

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[1] Chairman.

General Motors Corporation

BOARD OF DIRECTORS
(as of December 31)

1936	1937	1938	1939	1940	Term of Office
AGBishop	AGBishop	AGBishop	AGBishop	AGBishop	8-22-17 to 1-22-44
PSduPont	PSduPont	PSduPont	PSduPont	PSduPont	8-22-17 to 8- 7-44
LGKaufman	LGKaufman	LGKaufman			8-22-17 to 4-25-39
CSMott	CSMott	CSMott	CSMott	CSMott	8-22-17 to date
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	8-22-17 to 3- 4-46
HFduPont	HFduPont	HFduPont	HFduPont	HFduPont	2-21-18 to 9- 5-44
IduPont	IduPont				2-21-18 to 9- 6-38
LduPont[1]	LduPont	LduPont	LduPont	LduPont	11- 7-18 to 6- 3-46
RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
APSloanJr	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	11- 7-18 to date
GFBaker					7-15-20 to 5-30-37
DBrown	DBrown	DBrown	DBrown	DBrown	12-30-20 to date
CFKettering	CFKettering	CFKettering	CFKettering	CFKettering	12-30-20 to date
LMcGowan	LMcGowan	LMcGowan	LMcGowan	LMcGowan	4-28-20 to 4- 2-45
SProsser	SProsser	SProsser	SProsser		7-15-20 to 6- 3-40
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	3-25-20 to 9-28-47
CMWoolley	CMWoolley				7-15-20 to 6- 6-38
ODYoung	ODYoung				7-15-20 to 8- 1-38
AHSwayne					1-13-21 to 4-16-37
JDMooney	JDMooney	JDMooney	JDMooney	JDMooney	11- 8-23 to 1- 5-42 3- 5-45 to 12-31-45
DPage	DPage	DPage	DPage		4-18-23 to 2-28-40
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	4-18-23 to date
LPFisher	LPFisher	LPFisher	LPFisher	LPFisher	9-25-24 to date
WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen		4-16-24 to 9- 3-40 7- 2-45 to 4-27-48
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	9-25-24 to date
JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	9-30-25 to 12- 1-41
WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	2-10-27 to date
WAFisher	WAFisher	WAFisher	WAFisher	WAFisher	2-10-27 to 4-28-42
FOpel	FOpel				5- 8-29 to 8-30-38
ABPurvis	ABPurvis	ABPurvis			6- 2-30 to 12- 4-39
ABradley	ABradley	ABradley	ABradley	ABradley	11- 6-33 to date
RGrant	RGrant	RGrant	RGrant	RGrant	11- 5-34 to date
OEHunt	OEHunt	OEHunt	OEHunt	OEHunt	11- 5-34 to date
JJSchumannJr	JJSchumannJr	JJSchumannJr	JJSchumannJr	JJSchumannJr	11- 5-34 to date
CEWilson	CEWilson	CEWilson	CEWilson	CEWilson	11- 5-34 to date
	MECoyle	MECoyle	MECoyle	MECoyle	4-27-37 to 12/31/50
		HBduPont	HBduPont	HBduPont	10- 3-38 to date
				HHCurtice	8- 5-40 to date

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[1] Chairman. A. P. Sloan, Jr. succeeded Lammot du Pont, May 3, 1937.

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General Motors Corporation

BOARD OF DIRECTORS
(as of December 31)

1941	1942	1943	1944	1945	Term of Office
AGBishop	AGBishop	AGBishop			8-22-17 to 1-22-44
PSduPont	PSduPont	PSduPont			8-22-17 to 8-7-44
CSMott	CSMott	CSMott	CSMott	CSMott	8-22-17 to date
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	8-22-17 to 3- 4-46
HFduPont	HFduPont	HFduPont			2-21-18 to 9- 5-44
LduPont	LduPont	LduPont	LduPont	LduPont	11- 7-18 to 6- 3-46
RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	11- 7-18 to date
DBrown	DBrown	DBrown	DBrown	DBrown	12-30-20 to date
CFKettering	CFKettering	CFKettering	CFKettering	CFKettering	12-30-20 to date
LMcGowan	LMcGowan	LMcGowan	LMcGowan		4-28-20 to 4- 2-45
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	3-25-20 to 9-28-47
JDMooney				JDMooney[2]	11- 8-23 to 1- 5-42 3- 5-45 to 12-31-45
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	4-18-23 to date
LPFisher	LPFisher	LPFisher	LPFisher	LPFisher	9-25-24 to date
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	9-25-24 to date
WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	2-10-27 to date
WAFisher					2-10-27 to 4-28-42
ABradley	ABradley	ABradley	ABradley	ABradley	11- 6-33 to date
RGrant	RGrant	RGrant	RGrant	RGrant	11- 5-34 to date
OEHunt	OEHunt	OEHunt	OEHunt	OEHunt	11 - 5-34 to date
JJSchumannJr	JJSchumannJr	JJSchumannJr	JJSchumannJr	JJSchumannJr	11- 5-34 to date
CEWilson	CEWilson	CEWilson	CEWilson	CEWilson	11- 5-34 to date
MECoyle	MECoyle	MECoyle	MECoyle	MECoyle	4-27-37 to 12-31-50
HBduPont	HBduPont	HBduPont	HBduPont	HBduPont	10- 3-38 to date
HHCurtice	HHCurtice	HHCurtice	HHCurtice	HHCurtice	8- 5-40 to date
	FGDonner	FGDonner	FGDonner	FGDonner	1- 5-42 to date
	EFFisher	EFFisher	EFFisher	EFFisher	4-28-42 to date
			TPArcher	TPArcher	8- 7-44 to 8-10-49
			LduPCopeland	LduPCopeland	9- 5-44 to date
			LWDouglas	LWDouglas	12- 4-44 to date
			ABEchols	ABEchols	8- 7-44 to date
				WSKnudsen	4-16-24 to 9- 3-40 7- 2-45 to 4-27-48

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[1] Chairman.

[2] Appointed March 5, 1945, retired December 31, 1945.

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General Motors Corporation

BOARD OF DIRECTORS
(as of December 31)

1946	1947	1948	1949	1950	Term of Office
CSMott	CSMott	CSMott	CSMott	CSMott	8-22-17 to date
RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
APSloan, Jr[1]	APSloan, Jr	APSloan, Jr[1]	APSloan, Jr[1]	APSloan, Jr[1]	11- 7-18 to date
DBrown	DBrown	DBrown	DBrown	DBrown	12-30-20 to date
CFKettering	CFKettering	CFKettering	CFKettering	CFKettering	12-30-20 to date
JTSmith					3-25-20 to 9-28-47
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	4-18-23 to date
LPFisher	LPFisher	LPFisher	LPFisher	LPFisher	9-25-24 to date
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	9-25-24 to date
WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	2-10-27 to date
ABradley	ABradley	ABradley	ABradley	ABradley	11- 6-33 to date
RGrant	RGrant	RGrant	RGrant	RGrant	11- 5-34 to date
OEHunt	OEHunt	OEHunt	OEHunt	OEHunt	11- 5-34 to date
JJSchumannJr	JJSchumannJr	JJSchumannJr	JJSchumannJr	JJSchumannJr	11- 5-34 to date
CEWilson	CEWilson	CEWilson	CEWilson	CEWilson	11- 5-34 to date
MECoyle	MECoyle	MECoyle	MECoyle	MECoyle	4-27-37 to 12-31-50
HBduPont	HBduPont	HBduPont	HBduPont	HBduPont	10- 3-38 to date
HHCurtice	HHCurtice	HHCurtice	HHCurtice	HHCurtice	8- 5-40 to date
FGDonner	FGDonner	FGDonner	FGDonner	FGDonner	1- 5-42 to date
EFFisher	EFFisher	EFFisher	EFFisher	EFFisher	4-28-42 to date
TPArcher	TPArcher				8- 7-44 to 8-10-49
LduPCopeland	LduPCopeland	LduPCopeland	LduPCopeland	LduPCopeland	9- 5-44 to date
LWDouglas	LWDouglas	LWDouglas	LWDouglas	LWDouglas	12- 4-44 to date
ABEchols	ABEchols	ABEchols	ABEchols	ABEchols	8- 7-44 to date
WSKnudsen	WSKnudsen				4-16-24 to 9- 3-40 7- 2-45 to 4-27-48
RKEvans	RKEvans	RKEvans	RKEvans	RKEvans	6- 3-46 to date
LCGoad	LCGoad	LCGoad	LCGoad	LCGoad	6- 3-46 to date
EFJohnson	EFJohnson	EFJohnson	EFJohnson	EFJohnson	1- 7-46 to date
		ERGodfrey	ERGodfrey	ERGodfrey	8- 2-48 to date
		BDKunkle	BDKunkle	BDKunkle	6- 7-48 to date
		RKMellon	RKMellon	RKMellon	1- 5-48 to date
		FLBurke	FLBurke		8- 2-48 to 1[illegible] 9-50
			HCAlexander	HCAlexander	9-12-49 to date

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[1] Chairman.

General Motors Corporation

BOARD OF DIRECTORS
(as of December 31)

1951	1952	Term of Office
CSMott	CSMott	8-22-17 to date
RSMcLaughlin	RSMcLaughlin	11- 7-18 to date
APSloanJr[1]	APSloanJr[1]	11- 7-18 to date
DBrown	DBrown	12-30-20 to date
CFKettering	CFKettering	12-30-20 to date
JLPratt	JLPratt	4-18-23 to date
LPFisher	LPFisher	9-25-24 to date
GWhitney	GWhitney	9-25-24 to date
WSCarpenterJr	WSCarpenterJr	2-10-27 to date
ABradley	ABradley	11- 6-33 to date
RGrant	RGrant	11- 5-34 to date
OEHunt	OEHunt	11- 5-34 to date
JJSchumannJr	JJSchumannJr	11- 5-34 to date
CEWilson	CEWilson	11- 5-34 to date
HBduPont	HBduPont	10- 3-38 to date
HHCurtice	[illegible]HCurtice	8- 5-40 to date
FGDonner	[illegible]Donner	1- 5-42 to date
EFFisher	[illegible]Fisher	4-28-42 to date
LduPCopeland	[illegible]uPCopeland	9- 5-44 to date
LWDouglas	[illegible]Douglas	12- 4-44 to date
ABEchols	ABEchols	8- 7-44 to date
EFJohnson	EFJohnson	1- 7-46 to date
RKEvans	RKEvans	6- 3-46 to date
LCGoad	LCGoad	6- 3-46 to date
RKMellon	RKMellon	1- 5-48 to date
BDKunkle	BDKunkle	6- 7-48 to date
ERGodfrey	ERGodfrey	8- 2-48 to date
HCAlexander	HCAlexander	9-12-49 to date
CROsborn	CROsborn	1- 1-51 to date
JFGordon	JFGordon	1- 1-51 to date
HJKlingler	HJKlingler	1- 1-51 to date
CHKindl	CHKindl	1- 1-51 to date
SESkinner	SESkinner	1- 8-51 to date
LDClay	LDClay	6- 4-51 to date
	KTCompton	1- 7-52 to date

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[1] Chairman.

General Motors Corporation

FINANCE COMMITTEE
(as of December 31)

Aug. 23 1917	1917	1918	1919	1920	Term of Office
PSduPont	PSduPont	PSduPont	PSduPont	PSduPont	8-23-17 to 5- 3-37
WCDurant	WCDurant	WCDurant	WCDurant	WCDurant	8-23-17 to 1-13-21
LGKaufman[1]	LGKaufman[1]				8-23-17 to 2-21-18
JHMcClement	JHMcClement				8-23-17 to 3-21-18
JJRaskob	JJRaskob	JJRaskob[1]	JJRaskob[1]	JJRaskob[1]	(8-23-17 to 8- 9-28 (5- 9-29 to 5- 3-37
		HMBarksdale[2]			6-27-18 to 10-18-18
		HFduPont	HFduPont	HFduPont	2-21-18 to 5- 3-37
		IduPont	IduPont	IduPont	2-21-18 to 5- 3-37
		LduPont	LduPont	LduPont	11- 7-18 to 5- 3-37
		JAHaskell	JAHaskell	JAHaskell	2-21-18 to 9- 9-23
				GFBaker	7-15-20 to 5- 3-37
				SProsser	7-15-20 to 5- 3-37
				ERStettiniusSr	7-15-20 to 9- 3-25

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[1] Chairman.

[2] H. M. Barksdale served from June 27, 1918 to Oct. 18, 1918.

1921	1922	1923	1924	1925	Term of Office
PSduPont	PSduPont	PSduPont	PSduPont	PSduPont	8-23-17 to 5- 3-37
JJRaskob[1]	JJRaskob[1]	JJRaskob[1]	JJRaskob[1]	JJRaskob[1]	(8-23-17 to 8- 9-28 (5- 9-29 to 5- 3-37
HFduPont	HFduPont	HFduPont	HFduPont	HFduPont	2-21-18 to 5- 3-37
IduPont	IduPont	IduPont	IduPont	IduPont	2-21-18 to 5- 3-37
LduPont	LduPont	LduPont	LduPont	LduPont	11- 7-18 to 5- 3-37
JAHaskell	JAHaskell				2-21-18 to 9- 9-23
GFBaker	GFBaker	GFBaker	GFBaker	GFBaker	7-15-20 to 5- 3-37
SProsser	SProsser	SProsser	SProsser	SProsser	7-15-20 to 5- 3-37
ERStettiniusSr	ERStettiniusSr	ERStettiniusSr	ERStettiniusSr		7-15-20 to 9- 3-25
DBrown	DBrown	DBrown	DBrown	DBrown	1-13-21 to 5- 3-37
	APSloanJr	APSloanJr	APSloanJr	APSloanJr	4-25-22 to 5- 3-37
			GWhitney	GWhitney	9-25-24 to 5- 3-37
			FJFisher	FJFisher	9-25-24 to 11-5-34
				JSMorganJr	9-30-25 to 5- 3-37

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[1] Chairman.

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General Motors Corporation

FINANCE COMMITTEE
(as of December 31)

1926	1927	1928	1929	1930	Term of Office
PSduPont	PSduPont	PSduPont	PSduPont	PSduPont	8-23-17 to 5- 3-37
JJRaskob[1]	JJRaskob[1]		JJRaskob	JJRaskob	(8-23-17 to 8- 9-28 (5- 9-29 to 5- 3-37
HFduPont	HFduPont	HFduPont	HFduPont	HFduPont	2-21-18 to 5- 3-37
IduPont	IduPont	IduPont	IduPont	IduPont	2-21-18 to 5- 3-37
LduPont	LduPont	LduPont	LduPont	LduPont	11- 7-18 to 5- 3-37
GFBaker	GFBaker	GFBaker	GFBaker	GFBaker	7-15-20 to 5- 3-37
SProsser	SProsser	SProsser	SProsser	SProsser	7-15-20 to 5- 3-37
DBrown	DBrown	DBrown	DBrown[1]	DBrown[1]	1-13-21 to 5- 3-37
APSloanJr	APSloanJr	APSloanJr	APSloanJr	APSloanJr	4-25-22 to 5- 3-37
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	9-25-24 to 5- 3-37
FJFisher	FJFisher	FJFisher	FJFisher	FJFisher	9-25-24 to 11- 5-34
JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	9-30-25 to 5- 3-37
	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	2-10-27 to 5- 3-37
			CSMott	CSMott	5- 9-29 to 5- 3-37

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[1] Chairman. J. J. Raskob resigned on Aug. 9, 1928. Donaldson Brown was appointed Chairman on May 9, 1929.

1931	1932	1933	1934	1935	Term of Office
PSduPont	PSduPont	PSduPont	PSduPont	PSduPont	8-23-17 to 5- 3-37
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	(8-23-17 to 8- 9-28 (5- 9-29 to 5- 3-37
HFduPont	HFduPont	HFduPont	HFduPont	HFduPont	2-21-18 to 5- 3-37
IduPont	IduPont	IduPont	IduPont	IduPont	2-21-18 to 5- 3-37
LduPont	LduPont	LduPont	LduPont	LduPont	11- 7-18 to 5- 3-37
GFBaker	GFBaker	GFBaker	GFBaker	GFBaker	7-15-20 to 5- 3-37
SProsser	SProsser	SProsser	SProsser	SProsser	7-15-20 to 5- 3-37
DBrown[1]	DBrown[1]	DBrown[1]	DBrown[1]	DBrown[1]	1-13-21 to 5- 3-37
APSloanJr	APSloanJr	APSloanJr	APSloanJr	APSloanJr	4-25-22 to 5- 3-37
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	9-25-24 to 5- 3-37
FJFisher	FJFisher	FJFisher			9-25-24 to 11- 5-34
JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	JSMorganJr	9-30-25 to 5- 3-37
WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	2-10-27 to 5- 3-37
CSMott	CSMott	CSMott	CSMott	CSMott	5- 9-29 to 5- 3-37
		ABradley	ABradley	ABradley	11- 6-33 to 5- 3-37

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[1] Chairman.

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General Motors Corporation

FINANCE COMMITTEE
(as of December 31)

1936[2]	Term of Office
PSduPont	8-23-17 to 5- 3-37
JJRaskob	(8-23-17 to 8- 9-28 (5- 9-29 to 5- 3-37
HFduPont	2-21-18 to 5- 3-37
IduPont	2-21-18 to 5- 3-37
LduPont	11- 7-18 to 5- 3-37
GFBaker	7-15-20 to 5- 3-37
SProsser	7-15-20 to 5- 3-37
DBrown[1]	1-13-21 to 5- 3-37
APSloanJr	4-25-22 to 5- 3-37
GWhitney	9-25-24 to 5- 3-37
JSMorganJr	9-30-25 to 5- 3-37
WSCarpenterJr	2-10-27 to 5- 3-37
CSMott	5- 9-29 to 5- 3-37
ABradley	11- 6-33 to 5- 3-37

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[1] Chairman.

[2] No change to May 3, 1937.

were not wholly completed and working capital requirements were not determined. It is now possible to give account of the expenditures of this development period and the sources of capital provided. With the exception of the final payments on the General Motors Building in Detroit, for which funds are held in reserve, the program is now finished, so that further construction or expansion will be determined entirely from current and future needs of the business independent of plans and commitments laid down prior to the year 1921.

On January 1, 1918, General Motors Corporation had total assets of $133,789,724, including $11,971,603 goodwill, patents and copyrights. On January 1, 1923, assets total $522,335,034, including $22,370,811 goodwill, patents and copyrights. At the earlier date the Corporation consisted of the four passenger car manufacturing divisions—Buick, Cadillac, Oakland and Oldsmobile—and the General Motors Truck Division, having a capacity of about 223,000 cars and trucks per annum, as measured by maximum quarterly sales prior to 1918. The Corporation owned no plant manufacturing small cars, had no owned supply of accessories, such as lighting, starting and ignition sets, roller bearings, ball bearings, etc.; it had no central experimental or development laboratories. Since January 1, 1918, the construction and expansion program has brought the Corporation to a manufacturing capacity of 750,000 passenger cars and trucks per annum, has placed it in position to manufacture all of its electrical equipment, including spark plugs and warning signals, all radiators, anti-friction bearings, wheel rims, steering gears, transmissions, engines, axles and open bodies. Through its stock holdings in Fisher Body Corporation, it controls the manufacture of its supply of closed bodies. The program was not developed as a whole but resulted from the constructive planning of three years. Confidence in the future was not misplaced, as sales in the last nine months of 1922 were at the rate of 515,000 units per annum, or 70% of the present manufacturing capacity; and single months have reached 80% of capacity. Estimates for the future indicate that the full manufacturing output will be required at no distant date.

The total cost of carrying out this program may be summed up as follows:

Real Estate, Plant and Equipment, Tools, etc., acquired three years, 1918 to 1920, inclusive	$214,605,825
Invested in allied and accessory companies	66,950,279
Total	$281,556,104

The cash for carrying out this work was supplied from several sources as follows:

FROM EARNINGS:				
Net earned income, three years, 1918 to 1920, exclusive of extraordinary write-offs of year 1920		$193,801,804	(100%)	
Less: Federal taxes paid	$47,274,750		(24%)	
Dividends paid	57,386,370		(30%)	
Balance of earned income available for program		89,140,684	(46%)	
Net amount available from reserve accounts		13,394,246		
Total cash available for construction and expansion program, from operations of 1918 to 1920 inclusive			$102,534,930	(27%)
FROM SALE OF SECURITIES:				
Proceeds from sale of Common Stock		$ 98,494,835		
Proceeds from sale of 6% Debenture Stock		25,425,000		
Proceeds from sale of 7% Debenture Stock		10,998,700		
Total cash due for construction and expansion program from sale of securities, 1918 to 1920, inclusive			134,918,535*	(35%)
FROM FUND FOR BONUS, ETC.:				
From funds set aside in cash for bonus, etc., but paid in newly issued stock			13,569,144	(3%)
Total cash available from all sources			$251,022,609*	(65%)
SECURITIES ISSUED IN PAYMENT FOR PROPERTIES WERE:				
Debenture and Common Stock		$122,141,520		
Purchase notes for part payment Fisher Body Corp. stock		9,840,000		
Mortgages assumed on properties purchased		1,629,070		
Total value of securities issued			133,610,590	(35%)
Total amount available for construction and expansion program			$384,633,199	(100%)

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* Of this total $3,881,879 only remained uncollected on January 1, 1921.

SUMMARY

Total funds, provided	$384,633,199
Total expended on capital account	281,556,104
Balance available for working capital	$103,077 095
Net working capital, January 1, 1918	65,605,969
Net working capital provided under program	$168,683,064

As the net working capital requirement of today, operating under a schedule almost identical with that laid down for the year August, 1920, to August, 1921, is about $126,000,000, the net working capital available under the original program, about $168,000,000, should have been much more than sufficient for the lesser operations of the year 1921. From the above it is clear that full provision for the construction and expansion program of the years 1918 to 1920, including working capital, was made prior to the end of the year 1920. Therefore, this program was in no wise responsible for the financial difficulties under which the Corporation labored during the latter part of 1920 and the year 1921. Explanation of these difficulties lies in another quarter.

OPERATIONS OF THE YEARS 1920, 1921 AND 1922

At the close of the year 1920 the net working capital, exclusive of notes payable, in use prior to the write-off of inventories, was $242,830,271 or $116,354,034 above the amount required (December, 1922) to carry more than double the production of the earlier period. This made it necessary to borrow a maximum of $82,784,824 (on October 31, 1920). The reduction of the surplus materials purchased at high prices, and of inventory and other commitments made prior to December, 1920, resulted in a total liquidation loss of $84,869,893.

This condition of affairs was not reached without anticipatory warning. In the month of March, 1920, the President presented to the Executive Committee a schedule of proposed production made possible by the construction and expansion program then well on toward completion. He proposed that this schedule be adopted for the year August, 1920, to August, 1921. Though approved at the time, the schedule was revised in the month of May, 1920, to a proposed production almost identical with that in force during the last nine months of 1922. At this early date (May 13, 1920), the Executive Committee and Finance Committee noted the continued increase of inventories (to $167,965,641 on April 30, 1920). The Chairman of the Finance Committee explained fully to those in charge of operations of the Corporation the necessity of control, and, at his suggestion, a committee was appointed to allot among the Divisions of the Corporation the $150,000,000 considered available for inventories. The Chairman also stated that it was necessary not to increase inventories beyond this amount during the succeeding twelve months.

The report of the Inventory Allotment Committee was presented and approved before June 1, 1920. It was unfortunate that the rulings of the Executive and Finance Committees and their cautions remained unheeded. As a result, inventories reached a total of $209,000,000 at the end of October, 1920, exceeding by $60,000,000 the allotments of the

Executive and Finance Committees and by $100,000,000 the amount in actual use during the active summer of 1922. This excess accounted for about 70% of the borrowings at that time.

It was doubly unfortunate that the spirit of the committee rulings was totally disregarded by a few of the Divisions, the losses of which, due to expanded inventories and commitments for the future, amounted to $48,579,872, or much more than the total operating deficit of the whole Corporation during the year 1921. The operating losses of these Divisions during the liquidation and reconstruction period of 1921 added $15,330,938, making a total of $63,910,810 on their account.

Though the losses above enumerated were enormous, it should be fully realized that they were not typical of the operations of the Corporation as a whole; in fact, they related to ten Divisions only out of a total of thirty-four. The sales and profits of the twenty-four normally operated Divisions are shown below in Group I; the sales and profits of the ten unsatisfactory Divisions are shown in Group II. Of these ten, five were of small importance and were liquidated in 1921. Another, the Samson Tractor Division, is dealt with separately. The remaining four Divisions of Group II have since been restored to more normal conditions and to an earning power in line with the Divisions classed as Group I.

The following tabulation will better illustrate the relative importance of the two groups:

	GROUP I	GROUP II
Divisions involved	24	10
NET SALES:		
1920	$362,409,005	$204,911,599
1921	208,438,291	96,048,952
1922	296,756,778	161,713,088 (a)
NET PROFITS:		
1920	$ 68,525,545	$ 18,336,690
1921	22,802,537	*15,330,938* (b)
1922	59,078,448	11,007,517 (c)
Extraordinary write-offs, inventory adjustments and liquidation losses, 1920–1921–1922	36,290,020	48,579,872
Extraordinary write-offs compared to 1920–1921–1922 sales	4.2%	10.5%

(a) Does not include liquidating sales of Tractor Division. (b) Loss. (c) Does not include $5,688,091 liquidating loss of Tractor Division.

TRACTOR INVESTMENT

In the year 1917 General Motors Corporation purchased the stock of the Samson Sieve Grip Tractor Company of California. This company and its product had been under investigation by the President, and the purchase was made by him. He became General Manager of the Samson Tractor Division of the General Motors Corporation. On his recommendation the Executive and Finance Committees voted appropriations for permanent investment in the Tractor Division amounting to $10,428,416, afterwards increased by $3,021,034, principally to cover overrun expenditures, and, in May, 1920, allotted to the division $7,000,000 for inventories. At the close of the year 1919 the Division's new facilities for the production of 100,000 tractors per annum were reported practically complete. (At that time the total investment amounted to $7,485,346.) On October 31, 1920, the fixed investment in the Tractor Division amounted to $10,905,927, and working capital to $18,595,144, a total of $29,501,071. The operating losses prior to December 31, 1920, and exclusive of extraordinary write-offs of that year were:

1917	$ 24,467
1918	1,868,986
1919	1,823,883
1920	8,228,956
	$11,946,292

After the tractor was fully developed and priced at $650, it was found that it could not be marketed profitably. Prices were raised only to discover that sales could not be made in competition with more cheaply designed tractors. In the meantime, numerous commitments for materials had been entered into, with a view to producing 70,000 tractors of this class; and, in addition, materials for producing 60,000 tractors of another class. This was the situation as it appeared December 1, 1920. The loss in liquidating inventories and commitments of this Division amounted to $21,293,752, in addition to the operating losses above noted of $11,946,292, making a total loss incurred of $33,240,044. Today the plant of the tractor division has been turned, in greater part, to other uses. As the liquidation of this Division has been completed, no further operating loss is to be expected.

The localization of the troubles of 1920–1921 makes it possible to present a fair comparison of the Corporation's earnings of the years 1919–1922 inclusive:

	1919	1920	1921(a)	1922
Gross capital employed at end of year	$469,737,345	$604,806,868	$404.914,312	$522,335,034
Earnings before dividends and Federal Taxes	90,517,519	67,779,710	21,116,697	62,611,244
Federal Taxes	30.000,000	3,894.000	....	6,250,000
Earnings for Stockholders before write-offs	$ 60,517,519	$ 63,885,710	$ 21,116,697	$ 56,361,244
Write-offs of inventories and commitments	....	26,002,188	59,796,490(b)	4,553,796
Net earnings as per annual statements	$ 60,517,519	$ 37,883,522	$ *38,679,793*(c)	$51,807,448
Sales, cars and trucks	391,738	393,075	109,396(d)	456,763

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a) Group I Divisions only. (b) Includes losses of Group II Divisions. (c) Loss. (d) Sales Group I Divisions only.

The earnings of these four years, 1919 to 1922 inclusive, as shown above, may be summarized as follows:

SUMMARY

EARNINGS:		
Total earnings four years, 1919–1922 before taxes (including Group I Divisions only for 1921)	$242,025,170	
Less extraordinary losses (Group I Divisions 1920, 1921, 1922)	36.290.020	
	$205,735,150	
DISPOSITION:		
Cash Dividends, Debenture and Preferred Stocks	$ 22,572,176	
Cash Dividends, Common Stock	65,863,224	
Total Cash Dividends	$ 88,435,400	43%
Stock Dividends paid on Common Stock	12,940,435	6%
Federal Tax Provision	40,144,000	20%
Total Losses, Group II Divisions	63,910,810	31%
Surplus	304.505	00%
	$205,735.150	100%

Thus has General Motors Corporation, in the brief period of five years, expanded its plant investment five times under a program that was completely financed as work progressed. The wisdom of the plan is shown by the fact that there is now demand for 80% of the facilities provided, with promise of full use of these facilities at an early date. The plan is one that calls for no apologies for its inception and development, but it should be a source of satisfaction and pride to those who were responsible therefor.

Excepting for the year 1921, earnings of the Corporation have been satisfactory. The year 1921 showed a shrinkage of 45% in number of cars produced, and 44% in volume of sales, when compared with an average of the two preceding years, a record not in itself abnormal, considering the general trend of economic conditions at that time. The greater part (68%) of the Corporation's business in 1921 was satisfactory though suffering losses through the rapid decline in values, but these losses, if averaged into the period in which they justly belong, leave a satisfactory profit for these years as a whole.

Narrowing now to the smaller part (32%) of the business of 1921, involving only four Divisions now active, we find conditions accounting for 70% of the loans that were a matter of great concern during the winter of 1920–1921, and accounting for losses of $63,000,000. This localization of the source of trouble is a comfort for it reduces the likelihood of recurrence. There seems to have been no real necessity for the management of the Divisions involved in losses to have faced greater troubles than those experienced in other Divisions of the Corporation where conditions were satisfactory.

Three considerations make recurrence of the 1920–1921 disaster seem unlikely, if not impossible. First, it is very doubtful if the sharp decline in prices witnessed during that period will recur. The extreme rise was due to the war and deflation was more precipitate than ever before known. Second, a complete system of inventory and purchase control has been established in the Corporation. This system embraces a monthly statement of inventories and future commitments beyond which the Divisions are not permitted to proceed without specific authority. Under this system a shrinkage in business such as occurred in the years 1920–1921 could not result in a repetition of the inventory troubles of those years. Third, the system of consolidated cash control installed during the year 1922 makes possible more effective use of the funds of the Corporation.

The purpose of the above recital is to show definitely that the troubles of past years were not related to an ill-financed expansion program or to delay in receiving the proceeds of financing. It is quite certain that the funds provided before the close of the year 1920 were sufficient to carry out the whole program and also to finance new business offered during the year 1921 and the first half of the year 1922. It is equally certain that disregard for control of inventories and purchase commitments cost the Corporation a very large sum of money, of which the greater part might have been saved by proper safeguards in Divisions now differently managed. Further, it is important to the stockholders to know that the financial misfortunes of the Corporation in the past were only slightly related to the manufacture and sale of its products, but that these misfortunes were directly related to loose and uncontrolled methods which are now corrected.

CAR, TRUCK, ACCESSORY AND PARTS DIVISIONS

BUICK MOTOR CO. DIVISION	Flint, Mich.
CADILLAC MOTOR CAR CO. DIVISION	Detroit, Mich.
CHEVROLET MOTOR DIVISION	Detroit, Mich.
GENERAL MOTORS OF CANADA, LTD.	Oshawa, Ont.
GENERAL MOTORS TRUCK CO. DIVISION	Pontiac, Mich.
OAKLAND MOTOR CAR CO. DIVISION	Pontiac, Mich.
OLDS MOTOR WORKS DIVISION	Lansing, Mich.

A C SPARK PLUG COMPANY *Spark Plugs and Speedometers*	Flint, Mich.
BROWN-LIPE-CHAPIN COMPANY *Differentials and Gears*	Syracuse, N. Y.
DAYTON ENGINEERING LABORATORIES CO. *Starting, Lighting and Ignition Sets*	Dayton, Ohio
HARRISON RADIATOR CORPORATION *Radiators*	Lockport, N. Y.
HYATT ROLLER BEARING COMPANY *Roller Bearings*	Newark, N. J.
JAXON STEEL PRODUCTS COMPANY *Wheels, Rims, Tire Carriers and Rim Parts*	Jackson, Mich.
KLAXON COMPANY *Warning Signals*	Newark, N. J.
LANCASTER STEEL PRODUCTS CORPORATION *Special Steels*	Lancaster, Pa.
MUNCIE PRODUCTS COMPANY *Transmissions and Steering Gears*	Muncie, Ind.
NEW DEPARTURE MANUFACTURING CO. *Ball Bearings, Coaster Brakes, Bells and Bicycle Hubs*	Bristol, Conn.
NORTHWAY MOTOR & MFG. CO. *Motors and Transmissions*	Detroit, Mich.
REMY ELECTRIC COMPANY *Starting, Lighting and Ignition Sets*	Anderson, Ind.
SAGINAW MALLEABLE IRON COMPANY *Malleable Castings*	Saginaw, Mich.
SAGINAW PRODUCTS COMPANY *Motors, Steering Gears and Grey Iron Castings*	Saginaw, Mich.

All of these Divisions are active and in satisfactory shape for the production of high grade products at minimum cost. The Divisions are well balanced and need comparatively little further capital expenditure at present.

FISHER BODY CORPORATION

In the year 1919 General Motors Corporation purchased for $27,600,000, three hundred thousand shares (60%) of the common stock of Fisher Body Corporation. The latter is now capable of producing all the closed car bodies needed by the several divisions of General Motors Corporation. The product is of the highest quality of workmanship and of durability. Design and finish are most acceptable so that the emblem with words "Body by Fisher" is now well appreciated by customers and is proving a very valuable asset.

To meet the growing demands of the industry, Fisher Body Corporation has recently sold an issue of $20,000,000 notes and offered for sale $7,500,000 of common stock at $75 per share. The latter has been underwritten without commission. These funds will permit the retirement of underlying bonds, bank loans and preferred stocks, approximately $15,500,000, leaving $12,000,000 for extension of Fisher Body Corporation facilities including working capital.

The Corporation is in very good position financially, its products are the best of their kind and its business is in very satisfactory condition.

At the close of 1921, General Motors Corporation had outstanding on account of its original acquisition of Fisher Body Corporation stock, Purchase Money Notes in the sum of $4,000,000, maturing at the rate of $1,000,000 annually, August 1, 1922 to August 1, 1925. During the year 1922 General Motors anticipated its notes maturing beyond 1923 in the sum of $3,000,000, thus leaving outstanding at the close of 1922 $1,000,000 which will be met at maturity August 1, 1923.

RESEARCH LABORATORIES

The Research Laboratories of the Corporation at Dayton, Ohio, are subject to generous appropriation for development and research in the field of the Corporation's operations. The result of this work is encouraging.

One development, the result of several years' study, has been introduced to the public as the "copper cooled" car of the Chevrolet Division. The engine of this car is cooled by means of copper fins brazed directly to the cylinder walls, thus doing away with radiator, water, pump, and water jacket. This feature attains great value in winter as the engine is free from troubles incident to cold weather and freezing; and also in summer or on heavy roads, where the water cooled car is subject to overheating and consequent loss of water, the "copper cooled" car does not overheat or lose power. In addition, the engine is light and powerful and shows great fuel economy.

DELCO-LIGHT COMPANY

This Division of General Motors Corporation is quite separate from the Dayton Engineering Laboratories Division that manufactures ignition, lighting and electrical starting equipment for automobiles. The Delco-Light Company devotes its energies primarily to production and sale of lighting sets for houses, barns, etc., in districts not reached by public service corporations or other sources of electric current. The Company maintains 53 distributors and 3163 dealers. There are in use 175,000 Delco-Light Plants. The Company also manufactures and sells electrically driven pumps for both deep and shallow wells, and has taken over and brought to satisfactory development the "Frigidaire", electrically operated, iceless household refrigerator, formerly a separate division of General Motors Corporation. The Company has also developed a washing machine of very simple design. This machine, as well as Frigidaire, is satisfactorily operated from the power and lighting sets furnished by the Company or from public service current, direct or alternating.

The Company is doing good and profitable work and its products are increasing in popularity.

GENERAL MOTORS ACCEPTANCE CORPORATION

This Corporation was organized in the year 1919 in order to assist dealers in financing their purchases and sales of General Motors Corporation products. The success of the plan is best measured by the volume of business done. From inception to December 31, 1922, the Corporation has extended to GMC dealers over $337,000,000 of financial accommodation and by so doing has financed the purchase by dealers of 165,782 cars, trucks and tractors and the sale by dealers of 274,775 cars, trucks and tractors exclusive of other General Motors products and export shipments. The retail value of all products financed is in excess of $440,000,000. The Corporation has financed its business by the sale of its obligations, in every State of the Union, to over 1,500 banking institutions; numbered among these is nearly every important financial institution of the country. The loss experience of this Corporation is indicative of the care exercised

General Motors Corporation

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EXECUTIVE COMMITTEE
(as of December 31)

Feb. 21, 1918	1918	1919	1920	1921	Term of Office
WPChrysler	WPChrysler	WPChrysler			2-21-18 to 3-25-20
RHCollins	RHCollins	RHCollins	RHCollins		2-21-18 to 1-13-21
WLDay	WLDay	WLDay	WLDay		2-21-18 to 1-13-21
WCDurant[1]	WCDurant[1]	WCDurant[1]	WCDurant[1]		2-21-18 to 1-13-21
JAHaskell	JAHaskell	JAHaskell	JAHaskell	JAHaskell	2-21-18 to 9- 9-[illegible]3
EVerLinden	EVerLinden	EVerLinden	EVerLinden		2-21-18 to 1-13-[illegible]1
FWWarner	FWWarner	FWWarner	FWWarner		2-21-18 to 1-13-21
	FWHohensee	FWHohensee	FWHohensee		6-27-18 to 1-13-21
	RSMcLaughlin	RSMcLaughlin	RSMcLaughlin		11- 7-18 to 1-13-21
	APSloanJr	APSloanJr	APSloanJr	APSloanJr	11- 7-18 to 5- 3-37
		HHBassett	HHBassett		(5- 1-19 to 1-13-21 (9-25-24 to 10-17-26
			DPage		5-13-20 to 1-13-21
				PSduPont[1]	1-13-21 to 2- 7-29
				JJRaskob	1-13-21 to 8- 9-28

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[1] Chairman

1922	1923	1924	1925	1926	Term of Office
JAHaskell					2-21-18 to 9- 9-23
APSloanJr	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	11- 7-18 to 5- 3-37
PSduPont[1]	PSduPont	PSduPont	PSduPont	PSduPont	1-13-21 to 2- 7-29
JJRaskob	JJRaskob	JJRaskob	JJRaskob	JJRaskob	1-13-21 to 8- 9-28
FJFisher	FJFisher	FJFisher	FJFisher	FJFisher	11-16-22 to 2- 5-34
CSMott	CSMott	CSMott	CSMott	CSMott	11-16-22 to 5- 9-29
		HHBassett	HHBassett		(5- 1-19 to 1-13-21 (9-25-24 to 10-17-26
		DBrown	DBrown	DBrown	9-25-24 to 5- 3-37
		CTFisher	CTFisher	CTFisher	9-25-24 to 11- 5-34
		LPFisher	LPFisher	LPFisher	9-25-24 to 5- 3-37
		JLPratt	JLPratt	JLPratt	9-25-24 to 5- 3-37

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[1] Chairman. A. P. Sloan, Jr. succeeded P. S. du Pont on May 10, 1923.

General Motors Corporation

EXECUTIVE COMMITTEE
(as of December 31)

1927	1928	1929	1930	1931	Term of Office
APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	11- 7-18 to 5- 3-37
PSduPont	PSduPont				1-13-21 to 2- 7-29
JJRaskob					1-13-21 to 8- 9-28
FJFisher	FJFisher	FJFisher	FJFisher	FJFisher	11-16-22 to 2- 5-34
CSMott	CSMott				11-16-22 to 5- 9-29
DBrown	DBrown	DBrown	DBrown	DBrown	9-25-24 to 5- 3-37
CTFisher	CTFisher	CTFisher	CTFisher	CTFisher	9-25-24 to 11- 5-34
LPFisher	LPFisher	LPFisher	LPFisher	LPFisher	9-25-24 to 5- 3-37
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	9-25-24 to 5- 3-37
		WSKnudsen	WSKnudsen	WSKnudsen	5- 9-29 to 5- 3-37
		JTSmith	JTSmith	JTSmith	5- 9-29 to 5- 3-37
			LduPont	LduPont	2- 6-30 to 2- 5-34

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[1] Chairman.

1932	1933	1934	1935	1936[2]	Term of Office
APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	APSloanJr[1]	11- 7-18 to 5- 3-37
FJFisher	FJFisher				11-16-22 to 2- 5-34
DBrown	DBrown	DBrown	DBrown	DBrown	9-25-24 to 5- 3-37
CTFisher	CTFisher				9-25-24 to 11- 5-34
LPFisher	LPFisher	LPFisher	LPFisher	LPFisher	9-25-24 to 5- 3-37
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	9-25-24 to 5- 3-37
WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen	5- 9-29 to 5- 3-37
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	5- 9-29 to 5- 3-37
LduPont	LduPont				2- 6-30 to 2- 5-34
		ABradley	ABradley	ABradley	8- 6-34 to 5- 3-37
			RHGrant	RHGrant	8- 5-35 to 5- 3-37
			OEHunt	OEHunt	8- 5-35 to 5- 3-37
			JDMooney	JDMooney	8- 5-35 to 5- 3-37
			CEWilson	CEWilson	8- 5-35 to 5- 3-37

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[1] Chairman.

[2] No change to May 3, 1937.

General Motors Corporation

POLICY COMMITTEE
(as of December 31)

May 3, 1937	1937	1938	1939	1940	Term of Office
ABradley	ABradley	ABradley	ABradley	ABradley	5- 3-37 to 6- 3-46
DBrown	DBrown	DBrown	DBrown	DBrown	5- 3-37 to 6- 3-46
WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	5- 3-37 to 6- 3-46
LduPont	LduPont	LduPont	LduPont	LduPont	5- 3-37 to 6- 3-46
WSKnudsen	WSKnudsen	WSKnudsen	WSKnudsen		5- 3-37 to 9- 3-40
APSloan, Jr[1]	APSloan, Jr[1]	APSloan, Jr[1]	APSloan, Jr[1]	APSloan, Jr[1]	5- 3-37 to 6- 3-46
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	5- 3-37 to 6- 3-46
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	5- 3-37 to 6- 3-46
CEWilson	CEWilson	CEWilson	CEWilson	CEWilson	5- 3-37 to 6- 3-46
				OEHunt	8- 5-40 to 6- 3-46

1941	1942	1943	1944	1945[2]	Term of Office
ABradley	ABradley	ABradley	ABradley	ABradley	5- 3-37 to 6- 3-46
DBrown	DBrown	DBrown	DBrown	DBrown	5- 3-37 to 6- 3-46
WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	5- 3-37 to 6- 3-46
LduPont	LduPont	LduPont	LduPont	LduPont	5- 3-37 to 6- 3-46
OEHunt	OEHunt	OEHunt	OEHunt	OEHunt	8- 5-40 to 6- 3-46
APSloan, Jr[1]	APSloan, Jr[1]	APSloan, Jr[1]	APSloan, Jr[1]	APSloan, Jr[1]	5- 3-37 to 6- 3-46
JTSmith	JTSmith	JTSmith	JTSmith	JTSmith	5- 3-37 to 6- 3-46
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	5- 3-37 to 6- 3-46
CEWilson	CEWilson	CEWilson	CEWilson	CEWilson	5- 3-37 to 6- 3-46

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[1] Chairman.

[2] No change to June 3, 1946.

General Motors Corporation

FINANCIAL POLICY COMMITTEE
(as of December 31)

June 3, 1946	1946	1947	1948	1949	Term of Office
A Bradley[1]	A Bradley[1]	A Bradley[1]	A Bradley[1]	A Bradley[1]	6- 3-46 to date
DBrown	DBrown	DBrown	DBrown	DBrown	6- 3-46 to date
WSCarpenterJr	WSCarpenterJr	WSCarpenterJr	WSCarpenterJr		6- 3-46 to 6- 6-49
FGDonner	FGDonner	FGDonner	FGDonner	FGDonner	6- 3-46 to date
JLPratt	JLPratt	JLPratt	JLPratt	JLPratt	6- 3-36 to date
APSloanJr	APSloanJr	APSloanJr	APSloanJr	APSloanJr	6- 3-46 to date
JTSmith	JTSmith				6- 3-46 to 9-28-47
GWhitney	GWhitney	GWhitney	GWhitney	GWhitney	6- 3-46 to date
CEWilson	CEWilson	CEWilson	CEWilson	CEWilson	6- 3-46 to date
		ABEchols	ABEchols	ABEchols	12- 1-47 to date
				LduPCopeland	6- 6-49 to date

1950	1951	1952	Term of Office
ABradley[1]	ABradley[1]	ABradley[1]	6- 3-46 to date
DBrown	DBrown	DBrown	6- 3-46 to date
FGDonner	FGDonner	FGDonner	6- 3-46 to date
JLPratt	JLPratt		6- 3-46 to 1- 7-52
APSloanJr	APSloanJr	APSloanJr	6- 3-46 to date
GWhitney	GWhitney	GWhitney	6- 3-46 to date
CEWilson	CEWilson	CEWilson	6- 3-46 to date
ABEchols	ABEchols	ABEchols	12- 1-47 to date
LduPCopeland	LduPCopeland	LduPCopeland	6- 6-49 to date
HCAlexander	HCAlexander	HCAlexander	12- 4-50 to date
	HHCurtice	HHCurtice	1- 8-51 to date
		LDClay	1- 7-52 to date

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[1] Chairman.

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General Motors Corporation

OPERATIONS POLICY COMMITTEE
(as of December 31)

June 3, 1946	1946	1947	1948	1949	Term of Office
TPArcher	TPArcher	TPArcher	TPArcher		6- 3-46 to 8-10-49
ABradley	ABradley	ABradley	ABradley	ABradley	6- 3-46 to date
MECoyle	MECoyle	MECoyle	MECoyle	MECoyle	6- 3-46 to 12-31-50
HHCurtice	HHCurtice	HHCurtice	HHCurtice	HHCurtice	6- 3-46 to date
FGDonner	FGDonner	FGDonner	FGDonner	FGDonner	6- 3-46 to date
RKEvans	RKEvans	RKEvans	RKEvans	RKEvans	6- 3-46 to date
LCGoad	LCGoad	LCGoad	LCGoad	LCGoad	6- 3-46 to date
OEHunt	OEHunt	OEHunt	OEHunt		6- 3-46 to 9-30-49
CEWilson[1]	CEWilson[1]	CEWilson[1]	CEWilson[1]	CEWilson[1]	6- 3-46 to date
			BDKunkle		6- 7-48 to 3- 1-49
			FLBurke	FLBurke	8- 2-48 to 12- 9-50
			ERGodfrey	ERGodfrey	8- 2-48 to date

1950	1951	1952	Term of Office
ABradley	ABradley	ABradley	6- 3-46 to date
HHCurtice	HHCurtice	HHCurtice[2]	6- 3-46 to date
FGDonner	FGDonner	FGDonner	6- 3-46 to date
RKEvans	RKEvans	RKEvans	6- 3-46 to date
LCGoad	LCGoad	LCGoad	6- 3-46 to date
CEWilson[1]	CEWilson[1]	CEWilson[1]	6- 3-46 to date
ERGodfrey	ERGodfrey	ERGodfrey	8- 2-48 to date
MECoyle			6- 3-46 to 12-31-50
	JFGordon	JFGordon	1- 1-51 to date
	CHKindl	CHKindl	1- 1-51 to date
	HJKlingler	HJKlingler	1- 1-51 to date
	CROsborn	CROsborn	1- 1-51 to date
	SESkinner	SESkinner	1- 8-51 to date

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[1] Chairman.

[2] Appointed Acting Chairman on Dec. 1, 1952.

38[illegible]4

Defendant's Exhibit (DP) No. 57

Report of

GENERAL MOTORS CORPORATION

FOR THE

Calendar Year Ended December 31, 1922

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GENERAL MOTORS CORPORATION

224 West 57th Street
New York, N. Y.

General Motors Building
Detroit, Mich.

Officers

Pierre S. du Pont, *President*	Wilmington
Harry H. Bassett, *Vice-President*	Flint
Arthur G. Bishop, *Vice-President*	Flint
Donaldson Brown, *Vice-President*	New York
William L. Day, *Vice-President*	Pontiac
George H. Hannum, *Vice-President*	Pontiac
Alex B. C. Hardy, *Vice-President*	Lansing
J. Amory Haskell, *Vice-President*	New York
Charles F. Kettering, *Vice-President*	Dayton
R. Samuel McLaughlin, *Vice-President*	Oshawa, Ont.
James D. Mooney, *Vice-President*	New York
Charles S. Mott, *Vice-President*	Flint
John L. Pratt, *Vice-President*	New York
John J. Raskob, *Vice-President*	Wilmington
Herbert H. Rice, *Vice-President*	Detroit
Alfred P. Sloan, Jr., *Vice-President*	New York
John T. Smith, *Vice-President*	New York
Alfred H. Swayne, *Vice-President*	New York
Karl W. Zimmerschied, *Vice-President*	New York
Thomas S. Merrill, *Secretary*	Detroit
Meyer L. Prensky, *Treasurer*	Detroit
Frank Turner, *Comptroller*	Detroit

Finance Committee

John J. Raskob, *Chairman*

George F. Baker, Jr.
Donaldson Brown
Henry F. du Pont
Irénée du Pont
Lammot du Pont

Pierre S. du Pont
J. Amory Haskell
Seward Prosser
Alfred P. Sloan, Jr.
Edward R. Stettinius

Executive Committee

Pierre S. du Pont, *Chairman*

Fred J. Fisher
J. Amory Haskell

Charles S. Mott
John J. Raskob

Alfred P. Sloan, Jr.

GENERAL MOTORS CORPORATION

Board of Directors

PIERRE S. DU PONT, *Chairman*

GEORGE F. BAKER, JR.
Vice-President, First National Bank,
New York, N. Y.

HARRY H. BASSETT
President, Buick Motor Co.,
Flint, Mich.

ARTHUR G. BISHOP
President, Genesee County Savings Bank,
Flint, Mich.

DONALDSON BROWN
Vice-President, in charge of Finances,
New York, N. Y.

ARTHUR CHAMBERLAIN
Director, Nobel Industries, Ltd.,
London, Eng.

WILLIAM L. DAY
President, General Motors Truck Co.,
Pontiac, Mich.

HENRY F. DU PONT
Director, E. I. du Pont deNemours & Co.,
Winterthur, Del.

IRÉNÉE DU PONT
President, E. I. du Pont deNemours & Co.,
Wilmington, Del.

LAMMOT DU PONT
Vice-President, E. I. du Pont deNemours & Co.,
Wilmington, Del.

FRED J. FISHER
President, Fisher Body Corporation,
Detroit, Mich.

GEORGE H. HANNUM
President, Oakland Motor Car Co.,
Pontiac, Mich.

ALEX B. C. HARDY
President, Olds Motor Works,
Lansing, Mich.

J. AMORY HASKELL
Vice-President, in charge of Advisory Staff,
New York, N. Y.

LOUIS G. KAUFMAN
President, Chatham & Phenix National Bank,
New York, N. Y.

CHARLES F. KETTERING
President, General Motors Research Corp.,
Dayton, Ohio

SIR HARRY MCGOWAN
Chairman, Nobel Industries, Ltd.,
London, Eng.

R. SAMUEL MCLAUGHLIN
President, General Motors of Canada, Ltd.,
Oshawa, Ontario, Can.

WILLIAM MCMASTER
President, Canadian Explosives, Ltd.,
Montreal, Can.

CHARLES S. MOTT
Vice-President, Director Advisory Staff,
Detroit, Mich.

SEWARD PROSSER
President, Bankers Trust Company,
New York, N. Y.

JOHN J. RASKOB
Vice-President, Chairman Finance Committee,
Wilmington, Del.

HERBERT H. RICE
President, Cadillac Motor Car Co.,
Detroit, Mich.

ALFRED P. SLOAN, JR.
Vice-President, in charge of Operations,
New York, N. Y.

JOHN T. SMITH
Vice-President, and General Counsel,
New York, N. Y.

EDWARD R. STETTINIUS
J. P. Morgan & Company,
New York, N. Y.

ALFRED H. SWAYNE
Vice-President, in charge of Banking Relations,
New York, N. Y.

WILLIAM H. WOODIN
President, American Car & Foundry Co.,
New York, N. Y.

CLARENCE M. WOOLLEY
President, American Radiator Corporation,
New York, N. Y.

OWEN D. YOUNG
Chairman, General Electric Company,
New York, N. Y.

KARL W. ZIMMERSCHIED
Vice-President,
New York, N. Y.

REPORT TO THE STOCKHOLDERS
OF
GENERAL MOTORS CORPORATION

For the Calendar Year ended December 31, 1922

NEW YORK, MARCH 19, 1923

To the Stockholders:

The automobile industry is notable in having passed through three distinct phases in a brief period of three years and at the same time having transformed itself from a member of the luxury class to that of a prime necessity. To many the culmination of the period of inflated prices in the latter months of 1920 marked also the probable culmination of the wide demand for automobiles then commonly known as "pleasure cars." At that time growth in the use of automobiles was compared with and attributed to the period of inflation and extravagance brought about by the redistribution of wealth in the war years and those immediately following. Two years ago the term "pleasure car" applied to all cars excepting commercial vehicles, and properly described the then popular conception of the position of the automobile in modern life. The year 1920 witnessed the development of the automobile to its limit, as a supposed luxury, with the natural accompaniment of careless and extravagant production and sales methods.

Deflation, following in the year 1921, furnished two lessons: first, that the automobile, no longer a pleasure vehicle, had become a necessary tool—one which, as measured by its use in gasoline consumed, is not to be lessened in utility by the pinch of a severe financial and industrial readjustment; and, also, that the automobile, as shown by the registrations of 1921 and 1922, may be repaired and continued in use longer than normally expected. This first lesson was delivered not only to manufacturers but to the public in general. The second lesson applied more strictly to those catering to the public. It was to the effect that the manufacture and sale of the automobile as a commercial necessity must follow the same careful economic and resourceful methods as those found necessary in other standardized industries.

The development of the year 1922—a natural outcome of the year preceding—has dealt with the re-establishment of the automobile industry along sane lines and with the same aims that mark the successful conduct of other industries. To be sure, the effects of the past are not yet wholly blotted out, but the wave of reform has nearly overcome the mistakes of prior years. The future will have its problems, its inflations and depressions, but it is impossible to forecast a return to the critical conditions that have marked the regeneration of the industry during the three years now happily passed.

General Motors Corporation has followed the trend of the industry; its regeneration was necessary and it has been complete. Facilities for manufacture and sale have been revised, bettered and made more economical. Cars are more carefully designed, with a view to longer life, and greater economy in maintenance and operating costs. The aesthetic and useful have been studied in combination. System in management and control has been developed. In the year 1920 the Corporation may properly have been considered a maker of pleasure cars, to-day it furnishes economical transportation with appropriate comfort and appearance. To many this period of transformation has been one of doubt, fear and misgiving, confused by large and unfinished developments but to those of clearer vision the possibilities of a greater, stronger and more useful and prosperous corporation have been constantly in mind. To them the period of regeneration is distinct from and independent of the development of the Corporation as planned in earlier years.

DEVELOPMENT PROGRAM

The Annual Report for 1920 made mention of the construction and expansion program of the years 1918, 1919 and 1920. At that time plans

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in extending credits. Actual losses sustained, plus reserve to cover possible additional losses, show a loss ratio of about 3/10ths of 1%. The General Motors Corporation subscribed for and holds the entire capital stock of the General Motors Acceptance Corporation, amounting to $4,800,000. The surplus and undivided profits are $1,509,256. However, the Acceptance Corporation is in fact an independent banking institution, managing its own affairs and operating at a profit under principles consistent with sound banking practice and with the one actuating purpose of promoting a maximum distribution of General Motors Corporation products.

General Motors Building, Detroit

In the last Annual Report attention was called to the sale of $12,000,000 bonds of this Building for the purpose of repaying in part to General Motors Corporation the investment already made and for finishing the Building. The half of the Building first completed is now fully occupied and the non-occupied space is almost finished and ready for lease.

Housing Plans

During the war period the Corporation was obliged to build a number of dwelling houses at several points in order to accommodate its employes. A total of 1,633 houses were finished, of which 1,039 have been sold. The investment now stands at $6,274,782, consisting of 2,547 lots, 774 acres of residential real estate, and 521 houses. Of the latter 239 were rented December 31, 1922.

Acquisition of Brown-Lipe-Chapin Company Stock

General Motors Corporation has for some years past held a 22% stock interest in the Brown-Lipe-Chapin Company, Syracuse, New York, the largest manufacturers of differential gears in the world, and for years a source of supply for General Motors Divisions. At the close of 1922 the Corporation acquired the outstanding capital stock not already owned, paying therefor $1,725,200 in cash and $5,250,000 in Seven Per Cent Debenture Stock of the par value of $100. The increase in outstanding Seven Per Cent Debenture Stock appearing on the balance sheet December 31, 1922, is on account of this purchase.

Institutional Advertising

Two years ago the General Motors Corporation began a systematic effort to give publicity to its affairs through a series of communications to its stockholders.

The time has arrived to reach out to another audience—the employes of General Motors and its dealers, the 3,000 companies from which materials are purchased and the more than two million users of General Motors products. The most effective means of reaching this audience, and the general public of which it is a part, is through national advertising.

Accordingly, after much thought and study, a campaign was prepared for advertising in monthly publications having a nation-wide circulation and a second series of advertisements in business and financial publications. This institutional advertising appeared January, 1923, and will continue monthly. It tells the story of General Motors and is of a different character from the advertising of the manufacturing divisions.

Like every other important force, advertising works slowly; goodwill and public understanding are not won in a day. But as the months go by and the story of General Motors unfolds itself chapter by chapter, the average man and woman will have a much clearer understanding of the scope of General Motors Corporation, and of the force and logic in the union of its varying activities.

Bonus Plan

To induce employes of exceptional merit to remain with the Corporation over a period of years a Bonus Plan was adopted in 1918. As amended effective for the year 1922 and subsequent years, the Directors each year, after deducting 7% on capital employed, are authorized to set aside an amount equal to not more than 10% of net earnings to be placed in a Bonus Fund and invested in stock of the Corporation.

From this Bonus Fund employes of exceptional merit are awarded bonus in stock. At the time of award one-fourth of the stock is delivered and the remaining three-fourths held in trust to be delivered in equal installments at the end of each of the three following years. Dividends declared upon the stock held in trust are paid to the employes. Awards made under the Bonus Plan during the years 1918, 1919, 1920 and 1922 have been as follows: (No amount was available for distribution for the year 1921.)

7% Debenture Stock awarded	20,530 shares
Common Stock awarded	767,079 shares
Number of bonuses awarded	15,886

NUMBER OF EMPLOYES

The number of employes of the Corporation for 1922 and prior years has been as follows:

1909	14,250	1913	20,042	1918	49,118
1910	10,000	1914	14,141	1919	85,980
1911	11,474	1915	21,599	1920	25,333
1912	16,584	1916	25,666	1921	35,931
		1917	25,427	1922	75,214

These figures do not include the employes of the affiliated companies.

SAVINGS PLAN

The continued response by employes to the opportunity for thrift under the Corporation's Savings and Investment Plan, inaugurated in 1919, is gratifying.

Employes are permitted to pay in 10% of their wages or salaries not to exceed $300 in any year. Interest is credited semi-annually at 6%. Employes may withdraw their savings and interest at any time. Under the original plan the Corporation agreed that if savings remain undisturbed for a period of five years it would match dollar for dollar the savings of the employes. Under the amended plan the Corporation agrees to contribute fifty cents for every dollar paid in by the employes. A summary of the results of this savings fund follows:

Year Ended Dec. 31	Amount Paid in by Employes	Amount Paid in by Corporation	Accumulation of Interest, and Income from Investment	Aggregate Receipts	Withdrawals by Employes	Net Amount in Fund
1922	$ 2,598,090	$ 1,143,977	$ 644,576	$ 4,386,643	$ 849,898	$ 3,536,747
1921	2,603,090	2,162,565	603,801	5,369,456	2,376,157	2,993,299
1920	4,502,185	4,502,185	382,476*	9,386,846	2,758,781	6,628,064
1919	2,249,065	2,249,065	22,907	4,521,037	179,382	4,341,654
	$11,952,430	$10,057,792	$ 1,653,760	$23,663,982	$ 6,164,218	$17,499,764

* In addition to this amount, which was received in cash, there was also received as a stock dividend 12,604 39/40th shares of General Motors Corporation Common Stock.

This net amount, $17,499,764, is the accumulated "Savings" of employes now interested in the plan.

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NUMBER OF STOCKHOLDERS

At the end of 1922 there were 65,665 stockholders. Of the 44,000 common stockholders, 37,000 owned less than 100 shares and 13,000 owned 10 shares or less. One-fourth or 11,244 of the stockholders are women.

A comparison of the total number of stockholders of all classes by quarters follows:

Year Ended Dec. 31	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1917	1,927	2,525	2,669	2,920
1918	3,918	3,737	3,615	4,739
1919	8,012	12,523	12,358	18,214
1920	24,148	*26,136	31,029	36,894
1921	49,035	59,059	65,324	66,837
1922	70,504	72,665	71,331	65,665

* In January, 1920, stockholders authorized the exchange of one share of Common stock, par value $100, for 10 shares of Common stock without par value, the first exchange having been made March 1, 1920.

PROGRESSIVE GROWTH

The growth of the Corporation during recent years is not shown completely in the total of cars and trucks sold, as the sales of accessories and other goods, and the manufacture of parts for its own consumption have added greatly to the volume of business. On the other hand, the net volume of sales does not give a very accurate measure of increased business due to the recession of prices during the two years past; however, both records are given below:

NUMBER OF PASSENGER CARS, COMMERCIAL CARS, TRUCKS AND TRACTORS SOLD

1918	246,834
1919	391,738
1920	393,075
1921	214,799
1922	456,763

NET SALES, ALL PRODUCTS MANUFACTURED

1918	$269,796,830
1919	509,676,695
1920	567,320,604
1921	304,487,243
1922	463,706,733

DIVIDENDS

The regular dividends on the Debenture and Preferred stocks have been paid during the year 1922. A detailed record of the quarterly dividend payments during the year ended December 31, 1922, is as follows:

7% Debenture Stock	6% Debenture Stock	6% Preferred Stock	Date of Payment	Stock of Record
$1.75	$1.50	$1.50	Feb. 1st	Jan. 14th
1.75	1.50	1.50	May 1st	Apr. 7th
1.75	1.50	1.50	Aug. 1st	July 3rd
1.75	1.50	1.50	Nov. 1st	Oct. 9th

Dividends on the Debenture and Preferred stocks have been paid regularly since the stocks were issued, as follows: The 6% Preferred has paid $1.50 a share quarterly, $6 a share a year, since February 1, 1917. The 6% Debenture has paid $1.50 a share quarterly, $6 a share a year, since February 1, 1919. The 7% Debenture has paid $1.75 a share quarterly, $7 a share a year, since May 1, 1920.

The initial dividend on the no par value common stock was 25 cents cash and a stock dividend of 1/40th of a share of common paid May 1, 1920, which rate was also paid on August 2 and November 1, 1920. During 1921 the dividend was at the rate of $1 per share per annum, payable 25 cents quarterly upon the first of February, May, August and November. During 1922 no quarterly dividends were paid but at a meeting of Directors held November 16, 1922, there was declared a "special" dividend of 50 cents a share on the common stock payable December 20, 1922, to stockholders of record November 27, 1922.

PRESENT POSITION

The present position of the Corporation is one of great strength. The plants are, with few exceptions, modern and the greater part new. Machinery is quite up to date. Each of the six car manufacturing divisions has sufficient capacity to operate at lowest cost and the sales organizations are in strong position. The Corporation owns complete plants for manufacturing essential accessories and has a research and development division extraordinarily well equipped, both as to apparatus and personnel. Working capital is sufficient for present production. The organization is well developed and is operating with great harmony and co-operation.

Financially the situation is satisfactory. The current and working assets as of December 31, 1922, amounted to $180,239,160, consisting of cash, sight drafts, notes and accounts receivable, materials, etc., substantially all of which liquidate in four months or less. Against these assets there is no indebtedness in the form of notes or bank loans, and the only fixed indebtedness consists of $2,279,750 purchase money notes and mortgages. Current liabilities amount to $53,762,923, of which $16,166,564 is for accrued taxes, payrolls and sundries not due. Debenture and preferred stocks, of which there is a total outstanding at the close of the year of $109,166,000, are secured by net current and working assets (i. e., current assets with all liabilities deducted, including purchase money notes and mortgages) of $124,196,487. In addition there is $291,267,967 permanent investment, exclusive of plant depreciation fund, or a total of assets less liabilities of $415,464,454, equal to 3.8 times the par value of the debenture and preferred stocks outstanding. Incidentally it may be remarked that the annual dividend on the present total issue of Debenture and Preferred Stocks has been earned every calendar year from 1912 to date, a period of eleven years, excepting the year 1921, when the earnings, exclusive of extraordinary adjustments, of the normally operated divisions were equal to more than three times the present Debenture and Preferred dividend requirements. The earnings of four years, 1919 to 1922 inclusive, even after all extraordinary adjustments and losses, average four times the present Debenture and Preferred dividend charge.

The financial statement of the Corporation may be considered remarkably clean. Current assets are, undoubtedly, liquid and written at conservative values. Investments are worth more than cost (the latter figure is used in this statement). Plant values were subject to appraisal and adjusted in 1919.

GOODWILL, PATENTS, COPYRIGHTS, ETC.

The item of "Goodwill, Patents, Copyrights, etc.", has increased only $2,046,922 since 1919 to a present total of $22,370,811. From this it must not be concluded that this account is considered of small or doubtful value; in fact, these intangible values might be rated, conservatively, equal to the manufacturing plants, for of the two items it would be much easier to replace the latter than to build up the goodwill and organization now enjoyed and controlled by General Motors Corporation. The co-ordination of departments and facilities, the development of accounting practice and prompt reporting on all subjects, the systematizing of manufacture and sales, the selection of a sufficient and capable personnel, the loyalty and effectiveness of sales and manufacturing organizations, all developed during recent years, have added greatly to the goodwill value of the tangible assets; in fact, the latter would quickly return to lifeless materials were it not for the livening influence of the intangible values classed as goodwill. However, these intangibles remain without material increase in their expressed values on the balance sheet, after several years of painstaking development.

PERSONNEL

In closing it is appropriate and just to pay tribute to the zealous co-operation, loyalty and hard work of the organization as a whole. While much has been accomplished, partly under adverse circumstances, the way is now paved for greater accomplishment and to this end all are turning their best efforts.

By Order of the Board of Directors.

PIERRE S. DU PONT
President

[3416]

GENERAL MOTORS CORPORATIO

Condensed Comparative Consolidated Balance

ASSETS	Dec. 31, 1922	Dec. 31, 1921
Current and Working Assets:		
Cash in banks and on hand	$ 27,872,722.92	$ 40,057,401.53
United States Government Bonds	3,950.00	5,228.04
Marketable securities	29,618.10	27,009.31
Sight drafts against B/L attached and C. O. D.	13,179,664.05	4,677,241.39
Notes receivable	4,455,042.33	4,794,978.99
Accounts receivable and trade acceptances, less reserve for doubtful accounts (in 1922, $1,431,143.55; in 1921, $1,078,772.26)	15,921,934.93	17,866,071.83
Inventories at cost or market, whichever is lower	*117,417,823.05	108,762,625.35
Prepaid expenses	1,358,404.98	1,944,988.35
Total Current and Working Assets	$180,239,160.36	$178,135,544.79
Fixed Assets:		
Investments in allied and accessory companies, etc.	$ 57,293,864.72	$ 56,377,031.68
General Motors Corporation common and debenture stock held in treasury	3,275,432.65	3,889,799.51
Real estate, plants and equipment	255,207,970.82	248,593,751.60
Deferred expenses	3,947,794.49	4,609,677.87
Goodwill, patents, copyrights, etc.	22,370,811.06	22,438,401.22
Total Fixed Assets	$342,095,873.74	$335,908,661.88
TOTAL ASSETS	$522,335,034.10	$514,044,206.67

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* At some plants demand for product precluded shut-down for taking physical inventory. At such points book values are used, careful scrutiny having led to the conclusion that these values are conservative.

D SUBSIDIARY COMPANIES

Sheet as of December 31, 1922 and 1921

LIABILITIES, RESERVES AND CAPITAL	Dec. 31, 1922	Dec. 31, 1921
Current Liabilities:		
Accounts payable	$ 34,812,441.20	$ 15,640,429.41
Notes payable	—	48,974,996.29
Taxes, payrolls and sundries accrued not due	16,166,563.70	15,894,778.40
Federal taxes	1,650,821.93	—
Accrued dividends on preferred and debenture stock, payable February 1	1,133,096.23	1,043,763.07
Total Current Liabilities	$ 53,762,923.06	$ 81,553,967.17
Purchase money mortgages ($100,602.12 due in 1923)	$ 1,279,750.12	$ 1,475,592.82
Purchase money notes, account Fisher Body Corporation stock purchase ($1,000,000.00 due August 1)	1,000,000.00	4,000,000.00
	$ 2,279,750.12	$ 5,475,592.82
Reserves:		
For depreciation of real estate, plants and equipment	$ 50,827,907.11	$ 37,527,774.94
For employes' investment fund	1,143,962.50	2,171,885.00
For sundry contingencies	7,016,667.35	3,139,579.72
For bonus to employes	1,344,098.70	17,630.87
For anticipated losses and unforeseen contingencies of prior years	—	14,000,000.00
For completion of office building	—	2,499,261.00
Total Reserves	$ 60,332,635.66	$ 59,356,131.53
Capital Stock:		
Debenture stock 7%	$ 32,181,600.00	$ 26,931,600.00
Debenture stock 6%	60,801,000.00	60,801,000.00
Preferred stock 6%	16,183,400.00	16,183,400.00
Common stock, no par value:		
20,557,750 shares issued and outstanding at $10.00 per share	205,577,500.00	206,456,575.25
Common stock ($100 par value)	700.00	7,400.00
Total Capital Stock	$314,744,200.00	$310,379,975.25
Interest of minority stockholders in subsidiary companies with respect to capital and surplus	1,278,662.18	1,464,379.44
Surplus over and above $10.00 per share of no par value common stock	89,936,863.08	55,814,160.46
Total Capital Stock and Surplus	$405,959,725.26	$367,658,515.15
TOTAL LIABILITIES, RESERVES AND CAPITAL	$522,335,034.10	$514,044,206.67

Statement 2

GENERAL MOTORS CORPORATION AND SUBSIDIARY COMPANIES

INCOME ACCOUNT

	Year Ended Dec. 31, 1922	Year Ended Dec. 31, 1921
Net earnings for year before deducting interest, but after all expenses of manufacturing (including maintenance), selling and administration, as well as ordinary taxes, insurance, depreciation ($13,584,788.95 in 1922; $6,750,674.54 in 1921) of plant and equipment	$ 66,781,613.52	$ 13,246,523.30
Less: Provision for employes' bonus	$ 1,341,997.52	——
Provision for employes' savings and investment fund	1,477,216.28	$ 2,174,080.00
Interest on notes and accounts payable	1,351,155.40	5,281,084.67
	$ 4,170,369.20	$ 7,455,164.67
	$ 62,611,244.32	$ 5,791,358.63
Less: Write-down of inventories to cost or market, whichever is lower (in 1922 carried direct to operations in accordance with usual practice)	——	$ 16,603,073.25
Employes' housing development	——	5,600.00
Provision for refunds due dealers and distributors on account of price reduction effective January 1, 1922	——	2,441,376.07
Adjustments and losses in excess of reserve created at the close of previous years	$ 4,553,796.10	11,421,102.78
	$ 4,553,796.10	$ 30,471,152.10
	$ 58,057,448.22	*$24,679,793.47
Less: Provision for Federal taxes and extraordinary expenses	6,250,000.00	——
	$ 51,807,448.22	*$24,679,793.47
Less: Special reserve established December 31, 1921, to cover anticipated losses and unforeseen contingencies	——	14,000,000.00
	$ 51,807,448.22	*$38,679,793.47
General Motors Corporation proportion thereof	$ 51,496,135.65	*$38,680,770.05
Debenture dividends at rate of 7%	$ 1,860,936.41	$ 1,807,490.09
Debenture dividends at rate of 6%	3,597,570.05	3,531,515.50
Preferred dividends at rate of 6%	970,721.50	971,004.00
	$ 6,429,227.96	$ 6,310,009.59
Amount earned on Common stock	$ 45,066,907.69	*$44,990,779.64

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Statement 3

SURPLUS ACCOUNT

	YEAR ENDED Dec. 31, 1922	YEAR ENDED Dec. 31, 1921
Surplus over and above $10.00 per share of outstanding no par value Common stock at the beginning of the year	$ 55,814,160.46	$121,273,217.00
Additions through acquisition of properties	117,111.93	——
Deduction account of cancellation of delinquent Common stock subscriptions	*884,200.00*	——
Amount earned on Common stock as per income account above	45,066,907.69	* *44,990,779.64*
	$100,113,980.08	$ 76,282,437.36
Less: Cash dividends paid on Common stock		
February 1, $0.25 share	——	$ 5,087,110.40
May 1, .25 share	——	5,143,836.00
August 1, .25 share	——	5,119,159.25
November 1, .25 share	——	5,118,171.25
December 20, .50 share	$ 10,177,117.00	——
	$ 10,177,117.00	$ 20,468,276.90
Surplus over and above $10.00 per share of outstanding no par value Common stock December 31	$ 89,936,863.08	$ 55,814,160.46

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*Deficit

ATLANTA
BALTIMORE
BOSTON
BUFFALO
CHICAGO
CINCINNATI
CLEVELAND
DALLAS
DENVER
DETROIT
KANSAS CITY
LOS ANGELES
MINNEAPOLIS
NEWARK
NEW ORLEANS

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
NEW YORK

NEW YORK
PHILADELPHIA
PITTSBURGH
PORTLAND
SAINT LOUIS
SALT LAKE CITY
SAN FRANCISCO
SEATTLE
TULSA
WATERTOWN

HAVANA
LONDON
PARIS
SHANGHAI

GENERAL MOTORS CORPORATION,
Detroit, Michigan.

We have audited your general accounts and those of your subsidiary manufacturing companies for the year ended December 31, 1922, and, subject to our not having examined the minutes of your governing bodies,

WE HEREBY CERTIFY that, in our opinion, the accompanying Condensed Consolidated Balance Sheet, December 31, 1922, and related Summaries of Income and Surplus for the year ended that date, are correct.

HASKINS & SELLS.

New York,
February 23, 1923.

Defendant's Exhibit (DP) No. 58 ~~P-58~~

GENERAL MOTORS CORPORATION
Excerpt of Meeting of Executive Committee
New York City

March 15, 1921

Present: P. S. duPont
J. A. Haskell
J. J. Raskob
A. P. Sloan, Jr.

• • •

TESTS OF NEW PRODUCTS:

The following resolution was offered and unanimously carried:

> WHEREAS, in the judgment of this Committee it is not only eminently proper but absolutely essential that an independent engineering test should be conducted on every new piece of apparatus under development or a major change on any piece of apparatus in production by any Division or Subsidiary before any commitments are made other than experimental commitments, and
>
> WHEREAS, this Committee feels it is essential that a method of procedure should be adopted in order to reduce to the minimum losses in connection with the developing and marketing of new products,
>
> NOW THEREFORE, BE IT RESOLVED, that the following method of procedure be outlined and that same be presented at the next meeting of the Operations Committee for its information and guidance, and for any further recommendations that the Operations

Committee may wish to make, with ~~a view to a better~~ method, if possible, of effecting the desired result:

1. That upon the completion of preliminary sketches the Research Section of the General Staff be duly advised and have an opportunity to make such suggestions as in their judgment may be deemed proper for the benefit of the Operating Division.

2. That a sufficient number of experimental models be developed, having in view the testing of such models not only by the Operating Division but concurrently by the Research Section of the General Staff.

3. That on the completion of such tests a report be submitted by the Director of the Research Division to the General Manager of the Operating Division, such report setting forth in reasonable detail, the result of the Research Section's analysis of the product and approval of its performance or recommendations, if any, as to changes.

4. That upon the submission of this report the General Manager of the Operating Division or anyone deputized by him should, in a conference with the Research Section, agree upon such recommendations as they can agree on and disagree on such as they cannot agree on and the complete report so developed be submitted for consideration.

5. That after an analysis has been made of the report so submitted, the Operating Vice President will advise the Operating Division as to what changes, if any, in his judgment are essential to protect the Corporation's interests.

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Defendant's Exhibit (DP) No. 59

GENERAL MOTORS CORPORATION

Meeting of Executive Committee
New York City

September 13, 1921

PRESENT: P. S. duPont
J. J. Raskob
A. P. Sloan, Jr.

* * *

QUALITY OF CARS NOW MANUFACTURED BY GENERAL MOTORS CORPORATION.

Report was received from the President, dated September 8, 1921, dealing with the line of cars now manufactured by the Corporation and the question of continuing or discontinuing certain models. After full discussion of this subject, the following resolution was offered and unanimously carried:

WHEREAS, The President has submitted a report to the Executive Committee in which he calls attention to the necessity of adopting certain fundamental principles to be observed in the planning of our line of cars to be manufactured in the future, and feels, among others, that the following principles should be enunciated:

1. That each car shall be designed to be manufactured as cheaply or more cheaply than competitive cars in the same class.

2. That all parts shall be carefully studied to decrease weight, add strength and durability, and improve quality of performance.

3. That no novel features shall be introduced without most exacting test.

—2—

4. That each new design accepted shall embody salient features of appearance, comfort, use and performance equal to and, in some particulars at least, better than similar features existing in competitive cars.

5. That no car of new design shall be put on the market without having gone through a standard 25,000 miles test under the direction of the Dayton Laboratories, and the results thereof reported to the Executive Committee.

6. That a car design once established shall not be changed in a manner to increase cost (i.e., to raise the car toward a higher class). Costs shall be maintained or lowered unless increase in base value of material or labor demands an increase in cost without change in design.

Now, THEREFORE, BE IT RESOLVED, That a copy of this resolution be forwarded to each Division Manager, with the request that he be prepared to discuss this matter at the next meeting of the Car Division Managers with the Executive Committee, with the view to determining exactly what fundamental principle should be adopted to govern our future manufacturing policy, and that each Division Manager report to the Executive Committee as to how far the cars now being constructed measure up to the principles named.

BUICK.

Referring to the comments of the President in his report regarding the Buick Division, it was moved and unanimously carried that the President be requested to discuss with the

Buick management the best ways and means of insuring the continued success of the Buick car.

—3—

CADILLAC.

Referring to the President's remarks on Cadillac, action on this matter was deferred, awaiting report now being prepared by the Cadillac management on the subject of future Cadillac production.

CHEVROLET.

The following motion was offered and unanimously carried:

WHEREAS, The President has transmitted a report giving his views as to the development of Chevrolet design and production for the future, in which the ideas of the Executive Committee concur;

NOW, THEREFORE, BE IT RESOLVED, That this matter be discussed with Messrs. Kettering and Zimmerschied, with a view to reaching final conclusions.

OAKLAND.

The following motion was offered and unanimously carried:

WHEREAS, The President has transmitted a report giving his views as to the development of Oakland design and production for the future, in which the ideas of the Executive Committee concur;

NOW, THEREFORE, BE IT RESOLVED, That this matter be discussed with Messrs. Kettering and Hannum, with a view to reaching final conclusions.

Olds.

Referring to the President's remarks on the Olds product, this question was discussed, but no definite action taken.

* * *

Defendant's Exhibit (DP) No. 60

March 8, 1918

H. E. Ellsworth, Esquire,
Simsbury, Connecticut.

Dear Sir:

Nothing would have pleased me more than the frank letter you have written in regard to the bonus question, coupled with the enclosure of your proxy upholding the acts of the management of the DuPont Company.

It is difficult to put in writing a brief statement that will show merits of our bonus system. Undoubtedly the success of the company in recent years has been due to the activity of the leading men, not necessarily the officers and directors, but all the men whose leadership and example, devotion to duty and willingness to serve beyond the value of salary paid to them, has brought about a condition where the lesser men have been stimulated to great effort and where results have been accomplished far beyond any reasonable expectation of the stockholders. All of us realise that the success of the company has been phenomenal. The opportunity for achievement has been open to many in recent years. Few have tried and in our line of those who have tried several have failed. I believe that our bonus plan has been one of the most powerful instruments in winning out. We had in our organization at the beginning of the war a nucleus of men representing the best talent in their line. Not one of them has deserted the company, though flattering offers of salary

P S DU PONT

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and participation in profits were open to all of them. Many if not all of these men were not substantial stockholders. Few of them had stock in our company other than that which had been won by them under the operations of our bonus plan. But for the latter we could not have expected these men to stay with us, sacrificing their personal interests and fortunes and I, as president of the company, should have been obliged to advise the best men we have to seek other and more remunerative positions.

The leading men in the company are appropriately numbered among the officers and directors, to them greatest credit is due, therefore it is to them that the greatest awards have been made. They have won and magnificiently, who would not have offerred to give them double their salary and bonus for the production of such results had they been foreseen.

It has been my fortune to be at the head of our company during this war period. Throughout I have been a stockholder of moment. Therefore I have been an interested party in every way. Had it not been for the bonus plan or some similar method of attracting, holding and rewarding men of merit I should have refused not only to have undertaken the work which has produced such wonderful results, but should have used my influence as director and stockholder to oppose an undertaking which would have been impossible of completion without the services of the great number of capable men whom

P S DU PONT

the bonus plan has held to us.

Our company has never paid high salaries to its officers and principal men. The salary of the president has been $30,000. a year since 1904. This is the highest salary that has ever been paid. The compensation of other officers and leading men is less, but in appropriate proportion. I am a great believer in paying reasonable salaries with very substantial added compensation for successful results. This is the plan under which we work and under which our record has been made.

As a stockholder I should prefer increasing the bonus distribution rather than to reduce it in any way.

I have written this letter to show you how earnestly I support our bonus plan, also to show you that while I appreciate your loyalty to the management I want added to this loyalty your approval and support of the most potent feature in the company's success.

Sincerely yours,

P S DU PONT

Defendant's Exhibit (DP) No. 61

March 16, 1937

Mr. Lammot du Pont,
Building.

Dear Lammot:

Thanks for your congratulatory letter of March 10th. While I had a break in my employment with E. I. du Pont de Nemours & Company for a period of three years, 1899-1902, I have always felt that these years were better spent in the service of the company than a number of others, so that I look at my connection with the company as one of 47 years. However, technically you are quite right.

It has been, as you say, a period of wonderful development and expansion but far from a one man job. As Barksdale once said, very wisely, in computing the assets of the corporation, he would value the organization as worth more than the bricks, mortar and working capital.

In bringing about the result, the plan of awards to competent men has certainly worked out to the best advantage. To my mind it has been uppermost in achieving the company's great success. I hope that there may be many more years of such continued enlightened management.

Again thanking you, I remain

Sincerely yours,

P S DU PONT

Defendant's Exhibit (DP) No. 62

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
WILMINGTON, DELAWARE

VICE-PRESIDENT

July 23, 1923.

Mr. P. S. du Pont,
Building.

My dear P.S.:

Yours July 19th:

Ferd La Motte assures me that the du Pont Company does not divide orders for Raw Materials for the purpose of having two sources of supply, and that the only instance where we buy the same commodity from two people is when one supplier is not able to care for our total requirements.

While the loss of 25% of the Chevrolet top business seemed a little cruel, because of our having waived a very large sum due us under our 1920 contract; because of having given them splendid service and quality and having met their unusual and unexpected heavy requirements during 1922,—buying gray goods at the market because our commitments were not heavy enough to meet their demands, and not charging them for the difference between the market and our contract price; expressing many shipments and not charging them the difference between express and rail rates; perhaps there is some justification for Mr. Knudsen's attitude, in the fact that we have but one Plant and if anything serious happened to it his production might be interfered with, although I have no hesitancy in saying that we would take care of him in some way, even if we had to buy from our competitors, because the rubber manufacturing facilities are nearly double the requirements.

/s/ WM. COYNE
VICE PRESIDENT

WC/emm

Return to
(name illegible)

March 18th, 1921.

R. H. Collins, General Manager,
Cadillac Motor Car Co.,
Detroit, Michigan.

My dear Mr. Collins:—

I have delayed answering your letter of January 20th as it seemed unnecessary to do so during your absence, but I do wish to write you frankly on the subject of the withdrawal account of $280,000. I shall be quite frank in what I say and hope you will take my remarks in good spirit and correct me if I seem to be wrong.

To be brief in my point, I do not like this action nor do I think it a proper one for officers of General Motors Corporation. To be equally brief on the other side, I realize fully that you are acting according to custom of the past and evidently in the belief that I expected such action. From these two brief statements you will realize that I have no criticism of what has happened, but desire your cooperation in avoiding a recurrence of similar action, either in your Division or elsewhere. When you spoke of a possible withdrawal of a large amount of cash, and then refrained from further reference to the matter without having reached a decision with me, I understood that the question had been dropped by you, although I was apparently not warranted in this assumption. In our failure to understand each other, I am equally at fault with you. As to the particular act of withdrawal of so large a sum in cash, do you not agree with me that it is highly inadvisable to permit any man in General Motors, from the President down, to withdraw so large a sum for personal use on his own signature or approval?

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I have had in mind to recommend that all such withdrawals, as well as payments of salaries of the Heads of Divisions, be made from a main office account, on properly approved authority. This has been brought to mind as applying to my own position more than any other.

—2—

As to the amount of your withdrawal, it seems to me in excess of the annual compensation which will be allotted you under any understanding that may exist as to 1920 payment. I understand that this amount of $280,000. is over and above the $150,000. drawing account, making a total of $430,000. It has been my understanding that although the new form of contract was not signed by you, its terms were accepted with the possible exception of the payment in stock. Perhaps you have figured the account accurately for 1920 and know that you are within bounds. I am judging by a rough statement made in November which may prove inaccurate.

While writing this letter my attention has been called to yours of January 17th, 1921 to Mr. Sloan. That letter might be construed to mean that you consider the 1917 arrangement in force during the year 1920. This is not my understanding, as my conversation with you and other correspondence indicates that you agree with me, though you would be willing to reinstate the 1917 arrangement. However, in view of your letter of January 17th, I think it important that I should record definitely that neither Messrs. Durant, Sloan, Haskell nor myself believe that any arrangement other than that embodied in Mr. Durant's letter of January 2nd, 1919 is now in force, and that the only possible modification heretofore claimed by you is that relating

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to continuation of the stock payment in event of your leaving the company's service through your own volition.

This is a long letter, but I hope it will serve to draw out your views on the principles involved, taking as a text your action, which, as I said above, remains an open question until I see you on your next trip to New York at which time we can discuss the details.

Very truly yours,

1/* President.

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Defendant's Exhibit (DP) No. 64

May 11th, 1921.

To: FINANCE COMMITTEE

FROM: P. S. DU PONT.

On January 27th, 1921, the Finance Committee authorized the writer to enter into contracts with several managers of the principal divisions of the corporation covering compensation for the year 1921. Because of the uncertainty as to retaining Messrs. Collins and Warner as heads of divisions, it was thought inexpedient to press the closing of these contracts, particularly as the terms thereof did not differ materially from the existing arrangement, automatically in force for the year 1921. However, contracts have been closed with Messrs. Bassett and Craig. Messrs. Collins and Warner are retiring from their positions as division managers and will be paid up to date of retirement, in accordance with the terms of the 1920 arrangement.

There remain contracts to be closed with the following:

E. VerLinden,
K. W. Zimmerschied,
W. L. Day,
A. H. Sarver,
DeWitt Page.

While treating this subject I wish to call attention to the fact that three of the managers of our five leading manufacturing divisions, namely, Messrs. Hohensee, Collins and Warner, have arranged to leave the service of the corporation, and that Mr. Verlinden seems far from satisfied with compensation arrangements. To lose four out of five leading men during the first six months of a new administration is a fact worthy of note and of careful thought, and frank discussion of the Finance Committee on this subject is invited.

In this connection two occurrences should be brought to the attention of the Finance Committee:—

First, during the early part of January, 1921, Mr. Collins informed the writer that he required a considerable sum of money to liquidate certain personal accounts and suggested that he draw $240,000 in advance of settlement of compensation for the year 1920. The suggestion was not approved, nor was there positive refusal to concur in the request. Under the writer's previous experience in business affairs it was not supposed that a transaction involving so much money would be carried out without very positive authority. It was therefore quite surprising to receive a letter under date of January 20, 1921, to the effect that Mr. Collins had drawn $280,000,—$40,000 more than originally contemplated. Mr. Collins left immediately for a trip to California, so it was not until March 18th that a letter frankly criticizing his act was forwarded and discussion of the subject requested. Meantime the Executive Committee had been told of the transaction in question and had authorized the President to handle the matter of settlement. On April 6th, Mr. Collins came to New York. A note made immediately after his departure appears on the record as follows: "Early in the day Mr. Collins told me that the money withdrawn by him during the early part of the year had been returned to Cadillac immediately upon receipt of my letter". Recently I have been surprised to find that the repayment of money withdrawn referred to a further withdrawal of $211,000, which Mr. Collins needed for the payment of his taxes. This action was also without authorization, so that the total withdrawals amounted to $491,000, although, as above noted, $211,000 has since been returned. In the meantime, there has been quite active discussion with Mr. Collins in regard to his compensation for the year 1920. On April 17th of that year he wrote to Mr. Durant and referring to a certain date, said "at which time my contract with you, providing for 5% of the Cadillac profits, was annulled and superseded by the arrangement now under discussion." (This arrangement has reference to the existing form of contract with the division managers, which contract has not been formally signed by Collins.) Recently Collins has claimed that he is not working under the "arrangement", but is entitled to 5% of the Cadillac profits for the year 1920. The writer has refused to consider this claim and intends to insist on the repayment of $280,000 wrongfully withdrawn from the Cadillac Company, or to the application of this sum to the final adjustment of Collins's compensation.

The second incident referred to relates to the compensation of Mr. VerLinden. In discussing with him the question of renewal of contract for the year 1921, it was understood that he accepted an offer of a salary of $100,000 in cash, with further compensation under the general bonus plan of the corporation without definite contract. On April 28th this understanding was confirmed to him, but VerLinden replied under date of May 5th that "in the absence of any formal written contract specifically applying to this year, my old contract having continued over the first of the year, is the contract under which I am working and will be so construed by me." In the meantime VerLinden has been invited to discuss the calculation of compensation for the year 1920 and has arrived at a figure approximating $140,000 in addition to salary of $100,000, whereas the Treasurer's calculation calls for an extra payment of

$40,000 only. The difference relates to the writing down of inventories, etc. at the end of the year 1920. With the determination of this question still open, VerLinden writes, under date of May 5th:

> "I do not approve of the settling of my compensation for 1920 as per calculations submitted by you. As the Corporation has delayed, since the first of the year, paying me the compensation due for my services under the contract, I have drawn sufficient money to cover the compensation due me pending settlement."
>
> "I have also in mind that the Corporation is holding as custodian for me, certificates of stock issued in my name covering a portion of my bonus for the years 1918 and 1919. Of course as to the latter, upon the delivery of that stock to me I will repay the money drawn by me covering those items."

While no amount of withdrawal is mentioned in this letter, it appears that VerLinden has, without authority, drawn cash against his own disputed calculation of 1920 compensation and also cash against delivery to him of certificates of stock, which, under the plan heretofore accepted by him, the Corporation is custodian of for him. A letter has been written VerLinden requesting that he return the money withdrawn and come to New York to settle the question of compensation immediately.

The above incidents are related in some detail, in order that the Finance Committee may issue definite orders if it is thought wise to do so. To the writer, such transactions appear to approach closely to misappropriation of funds and were it not for the heretofore customary loose control of division managers, Messrs. Collins and VerLinden would be subject to severe reprimand and cancellation of authority to withdraw funds for their own account.

PIERRE S. DUPONT

1/*

Defendant's Exhibit (DP) No. 65

Detroit, July 13, 1922.

FUEL DOPE

Messrs.C.F.Kettering, C.S.Mott and P.S.duPont

Kettering proposed that the manufacture of dope be started as soon as possible by the duPont Company in order to produce 100 gallons per day or thereabouts, possibly working up to greater production, leaving to the future the determination of building of large plants capable of producing 8,000,000 gallons per annum, sufficient to dope all gasoline fuel in the United States.

The Standard Oil people would like to get the first production, in order to dope fuel at Baltimore, Scranton and other points where trouble is experienced with existing fuels. It has been suggested they pay 1¢ per gallon royalty on all fuel doped and purchase the dope, say, at $25 per gallon. As the dope would require one gallon in 1500, the total amount received per gallon would be $35, and would cost approximately $5.

Another alternative is to use the first dope in manufacture of pills to be used in Cadillac cars. These pills, made out of para toluidine, covered with parrafine, would be about 1" in diameter for a 5 gallon charge of gasoline.

l/en

Defendant's Exhibit (DP) No. 66

IRENEE DU PONT

Positions Held in E. I. du Pont de Nemours and Company and Predecessors

1903 to Date

1. E. I. du Pont de Nemours Powder Company (1903 corporation)

Engineer, Black Powder Department, Construction Division,	12/ 1/03—11/30/04
Assistant Treasurer, Treasurer's Department,	12/ 1/04— 8/30/11
Director,	12/20/04— 5/22/26
Finance Committee Member,	3/24/05—10/ 4/05 3/ 6/15— 3/27/18
Manager, Development Department,	2/20/09— 1/31/11
Assistant to General Manager of the Company,	2/ 1/11— 2/14/14
Vice President,	2/15/14— 2/28/14
Assistant to President,	3/ 1/14— 9/18/14
Executive Committee Chairman,	9/19/14— 3/27/18

2. E. I. du Pont de Nemours and Company (1915 corporation)

Executive Committee Chairman	9/ 8/15— 4/18/19 9/26/21— 3/15/26

Finance Committee Member	9/ 8/15—12/31/46
Vice President	9/ 8/15— 4/30/19
Director	9/ 8/15 to date
President	5/ 1/19— 3/15/26
Vice Chairman of Board of Directors	3/15/26— 5/20/40
Finance Committee Chairman	3/15/26— 3/17/30

JUN 9 - 1955

COPY

May 14, 1914.

Mr. T. C. du Pont,

We, the undersigned, being the owners of approximately 16,000 shares of the Common Stock of the Powder Company, wish to lay before you for your consideration the following proposition:

Several members of our Executive Committee have reached the point where age should cause them to lay aside the active work of the Company, in fact have reached nearly the age and position your predecessors had when you relieved them of the duties of actual management.

We have had, and still have, such faith in the Company as to have invested practically all our money in it.

We are anxious to increase our Common Stock holdings in case you, Mr. A. I. du Pont and Mr. P. S. du Pont are willing to sell us a sufficient portion of your holdings on terms to be agreed upon to make the proposition interesting to us, and will turn over to us the management of the Company; details of this to be worked out in case you look upon it favorably.

We are about the ages you were when you took hold, and the present is a more opportune time to break in the younger men, than later when we may have to jump in in a hurry without our present opportunity to call upon you and others for advice from time to time, when we desire it.

Respectfully,

(Signed) Irenee du Pont
A. Felix du Pont
Lammot du Pont
R. R. M. Carpenter

Defendant's Exhibit (DP) No. 68

WHEREAS, I, IRENEE DuPONT, of Christiana Hundred, New Castle County, Delaware, have this day received from Delaware Realty and Investment Company a certificate evidencing one hundred shares of the capital stock of said company, to be held as a Trust Fund for the purposes hereinafter disclosed; and

WHEREAS, I have consented to accept said shares of stock only upon the trusts, terms and conditions hereinafter declared and made known and have also consented to accept any other securities, cash or property, real or personal, that may be hereafter transferred, conveyed or delivered to me by any person or persons or from any source, whatsoever, upon the same trusts, terms and conditions; and

WHEREAS, I desire hereby to declare and make known the said trusts, terms and conditions;

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, That I, the said Irenee duPont, for and in consideration of the sum of One Dollar to me in hand paid, at and before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, and also in consideration of the premises, hereby declare, covenant and agree as follows, to-wit:

THAT I have received, now hold, will continue to hold, and will dispose of the said One hundred shares of stock and will hereafter receive, hold, continue to hold, and dispose of any other securities, cash or other property, real or personal, that may be hereafter transferred, conveyed or delivered to me, by any person or persons or from any source whatsoever, to be so received, held and disposed of, and also any other securities, funds or property into which such shares of stock may be converted under the terms hereof or into which any accretions to the Trust Fund, as hereinabove or hereinafter provided for, may be converted under the terms hereof, IN TRUST for the following uses, intents and purposes, that is to say:—To collect and receive the income arising therefrom and, after deducting the expenses of administering the trust, until my daughter, Eleanor Frances duPont, shall have attained the age of thirty-one years, to invest the net income of the trust estate, or part thereof, in good and safe securities as accretions to and in augmentation of the Trust Fund, or to pay over such net income, or part thereof, to or for the use of my said daughter, as in my judgment, as Trustee hereunder, may be for the best interest of my said daughter, and upon the attainment by my said daughter of said age of thirty-one years to assign, transfer, convey, pay over and deliver the whole of the then corpus of the trust estate hereby created, including all accretions thereto from whatsoever source derived, unto my said daughter free and discharged from any and all trusts whatsoever.

—2—

In case my said daughter should die before attaining said age of thirty-one years, leaving lawful issue her surviving, the trust estate hereby created shall continue, upon the same terms and conditions, for the benefit of such issue, in equal shares, until such issue shall, respectively, attain the age of twenty-one years and, as each of such issue shall reach said age of twenty-one years, he or she shall receive his or her respective share of the corpus of said trust estate.

In case my said daughter should die before attaining said age of thirty-one years, without leaving lawful issue her surviving, the corpus of the trust estate hereby created shall be equally divided among or for the benefit of my other children, viz.,—Irene Sophie duPont, Margaretta Lammot duPont, Constance Simons duPont, Doris Elise duPont, Mariana duPont, Octavia Mary duPont, Lucille Evelina duPont, and Irenee duPont, Junior, or the survivors of them and the lawful issue of such of them as may be then deceased, in the following manner, to-wit,—the shares of those of such other children who shall have attained the age of thirty-one years shall be assigned, transferred, conveyed, paid over and delivered to them respectively; the shares of those of such other children who have not attained said age shall be added to and become parts of trust estates similar to this that have been created, simultaneously with the creation of this trust estate, for their benefit, respectively; and the shares of those of such other children who shall then be deceased leaving lawful issue then surviving shall continue to be held upon the same trusts and conditions as are herein prescribed but for the benefit of such lawful issue, in equal shares, per stirpes and not per capita, until such issue shall respectively attain the age of twenty-one years and as each of such issue shall reach said age of twenty-one years he or she shall receive his or her respective share of the corpus of the trust estate hereby created.

As such Trustee, I shall have the right, in my absolute discretion, to sell all or any portion of the trust estate, or of any accretions thereto, and to re-invest the proceeds thereof in any securities or other property that I may deem proper and to call in and re-invest the same in my absolute discretion, but it shall be my duty to hold all such property or securities and manage the same only as constituting the whole or a part of the Trust Fund hereby created or contemplated.

In case I should die before the termination of this trust, the person or persons who shall be the Executor or Executors of my last will and testament, or who shall have the execution thereof, shall forthwith become Trustee or Trustees of the Trust Fund hereby created or contemplated and shall administer the same in the manner herein prescribed with all the discretion and right to exercise judgment hereby vested in or reserved to me.

—3—

In making investments of the Trust Fund, neither I, as original Trustee, nor any succeeding Trustee or Trustees shall be limited to such investments as may now or hereafter be authorized by law, but shall be permitted to make investments of the Trust Fund in any class of bonds, stocks or other securities or property, without reference to any present or future statutes or rules governing the investment of trust funds.

Neither I nor any succeeding Trustee or Trustees shall be held responsible for any loss incurred by the decrease in the market value of the securities or property at any time constituting the trust estate or for any other loss incurred in any other manner except as the result of fraud or breach of trust.

IN WITNESS WHEREOF I, the said Irenee duPont, have

4

hereunto set my hand and seal this 4th day of June, A. D. 1924. (Executed in duplicate).

Signed, Sealed and Delivered
in the Presence of:

(S) W. E. Kolck (S) Irenee du Pont (SEAL).

This is to certify that the foregoing is a true and exact copy of certain trust agreement executed June 4, 1924, which is still in full force and effect.

Feb. 5, 1936 *Irenee du Pont*
Date Laird & Co.

Note: "Signature guaranteed" is stamped between Irenee du Pont and Laird & Co. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 69

COPY

December 17, 1908

Messrs. J. A. Haskell,
P. S. duPont,
Wm. B. Dwinnell.

Building.

Gentlemen:-

This to advise you of the following action taken by the Executive Committee December 16th:-

Mtg. #179
ec: 16, 1908
P. 2747
Book #9.

> "A general discussion ensued concerning the probable amount of smokeless powder orders wex are likely to receive from the Government in the future, and the likelihood of our having considerable idle capacity at our smokeless powder plants. It was moved and unanimously carried that Messrs. J. A. Haskell, P.S. duPont and Wm. B. Dwinnell be appointed a committee to report as to what steps are already being taken, and what additional steps they would recommend, in the direction of developing further uses for guncotton or any of the other products of our smokeless powder plants."

Yours very truly,

L. R. Beardslee.

Sec'y, Executive Committee.

Defendant's Exhibit (DP) No. 70 March 6, 1909.

Messrs. J. A. Haskell,
P. S. duPont,
Irenee duPont.

5727

Building.

Gentlemen:-

This to advise you of the following action taken by the Executive Committee March 4th:-

Mtg. #185,
Mar. 4, 1909,
P. 2777
Book #9.

"It was moved and unanimously carried that the Special Committee appointed on December 16, 1908, to make a study of the question of further uses for gun-cotton and the other products of our smokeless powder plants be changed to consist of Messrs. J. A. Haskell and Irenee duPont."

Yours very truly,

L. R Beardslee.

Sec'y, Executive Committee.

Defendant's Exhibit (DP) No. 71

E. I. DU PONT DE NEMOURS POWDER CO.
DEVELOPMENT DEPARTMENT.
WILMINGTON, DELAWARE

Sept. 12, 1913

Mr. R. R. M. Carpenter, Manager,
O F F I C E.

Nitrocellulose Industries.

Dear Sir: OUR FILE 800-A.

You recently asked me to give some attention to the purposes for which nitrocellulose is used in the various arts and manufactures, to determine whether there are uses, other than those with which we are already familiar, that seem susceptible of development into outlets for material quantities of nitrocellulose in addition to our present sales.

I submit as follows a list of the principal industries using nitrocellulose and a few minor uses, in order to cover the field more fully:-

1. Explosives
2. Artificial leather, including dress shields, hospital sheetings, etc.
3. Lacquers, dips, enamels, paints, bronzing liquids, varnishes, etc.
4. Collodion
5. Finishing leather splits
6. Finishing patent and other leathers
7. Seals for fruit jars
8. Backing for linoleum (pyroxylin coated paper)
9. Cement for belting
10. Celluloid
11. Photographic films
12. Artificial silk and imitation horse-hair
13. Imitation cork
14. Imitation furs, imitation feathers, india rubber substitutes and other miscellaneous uses

I report as follows on the above:

1 to 4 inclusive: We are engaged in the manufacture of these commodities and also sell nitrocellulose and mixtures to competitors in some of these lines.

5 and 6: We sell considerable quantities of nitrocellulose and mixtures to leather finishers.

7, 8 and 9: These are now receiving the attention of the Operating and Sales Departments.

10 and 11: Celluloid and photographic films are now being carefully studied by this Department.

12: The rapidly decreasing popularity of pyroxylin products of this class prohibits the establishment of a plant in this country.

13: In the manufacture of imitation cork by cementing finely ground cork under pressure, pyroxylin was used as a cement ingredient, but there are cheaper cements that are just as effective and there is probably no pyroxylin being used for this purpose at the present time.

14: The manufacture of imitation furs, imitation feathers, India rubber substitutes and other miscellaneous articles does not require enough nitrocellulose to warrant study of these industries, but I have called them to the attention of Mr. Moosman and offered to assist him in developing them from a sales standpoint.

SUMMARY

From the above it appears that, aside from any new and novel uses for nitrocellulose that may be developed, the present work of the Development Department covers the situation quite thoroughly, although it might later be found desirable to investigate the leather industry, i.e. particularly the finishing of leather splits. I recently talked to Mr. Moosman regarding this and have also discussed it with Mr. Kniffen, and they both feel that our present relations with the leather finishers are satisfactory and that we should wait at least several months before deciding whether to investigate this subject. Mr. Moosman has some partly developed plans under way and does not want to have them interfered with. I asked him to collect available data in the meantime and will take the subject up again about the end of this year.

Yours very truly,

W. W. Richards

WWR/M

NOTE: R-71-A is underlined and appears in the upper right hand corner of the document. "Noted" and illegible initials and "also noted C.L." is stamped in the right hand margin. "38 pt 1" is written following the date of the document.

Defendant's Exhibit (DP) No. 72

EXCERPTS FROM DEVELOPMENT DEPARTMENT

ANNUAL REPORT OF DEVELOPMENT DEPARTMENT FOR THE YEAR 1909

February 9th, 1910.

Executive Committee,
Building.

Gentlemen:

ARTIFICIAL LEATHER.

The study of this subject was commended early in the year 1909 as a possible outlet for nitrocellulose in case our Government Smokeless Powder business should dwindle. The early work on the subject indicated that most of the artificial leather on the market was of a poor quality although there existed an unsatisfied demand for a high grade artificial leather beside which there was reason to believe that the demand for the high grade article would increase greatly were an ample supply of reliable material placed on the market.

With a view of determining whether a satisfactory artificial leather can be produced at a reasonable cost as well as to determine whether the solvents used in the manufacture can be recovered, a coating machine for manufacturing artificial leather was set up in the fall at the Oakland plant, while this plant was being abandoned by the smokeless department. Experiments in the early winter have been impeded by minor difficulties, probably largely due to our lack of familiarity with the subject, so that the year closed without our having the data desired but we have gained information which will enable us to make more rapid progress in the future.

ARTIFICIAL SILK.

A study of the different methods of manufacturing artificial silk assures us that the product resulting from the nitrocellulose method, though more expensive, is of the best quality and therefore like artificial leather is a possible outlet for our nitrocellulose should Government orders decrease to a marked extent. Of the nitrocellulose processes, that of Chardonnet, which is being worked on a large scale at Besancon, France, with a subsidiary company operating in Italy, is the best known and most successful. It was thought that our best move would be to purchase the experience and rights of such a company and for this purpose negotiations with the Chardonnet people were entered into and a proposition received, but by this time the immediate necessity of finding an outlet for nitrocellulose had disappeared because of the large orders received from the Government and the work on the subject was not pushed rapidly. The considerable capital cost required, together with the decreased likelihood of the United States Government cutting off our orders for smokeless powder, caused us to delay active work on the subject from that time, although it was recognized that should our alcohol factory be eminently successful the low cost of this material and other resulting therefrom would make the artificial silk industry much more attractive.

In the fall Dr. Sparre visited the Besancon factory and has made a full report thereon. We have also kept negotiations alive so that they can be again taken up with a probable benefit from the delay as soon as our alcohol factory is a proven success.

Celluloid.

A study of this subject was made as another possible outlet for ntirocellulose. It demonstrated that it would be necessary to engage in a great amount of detail manufacture to successfully compete with the large companies at present engaged in this business and who sell their product largely in the finished form of combs, collars, knick-knacks, etc. or in sheets in hundreds of different thicknesses and colors. We have therefore not recommended going into this line of manufacture but have recommended a study of making nitrocellulose from short fibre cotton which would be suitable for celluloid manufacture. The Experimental Laboratory have scheduled this study as part of their 1910 work; it being our idea, if successful, to try to supply the nitrocellulose as such to the celluloid companies. This would have to be on a narrow margin of profit, but would be desirable as it would tend to keep them out of the nitrating business.

—15—

Respectfully submitted,

Irenee duPont,
Mgr. Development Department.

JMS.

Defendant's Exhibit (DP) No. 73

TO EXECUTIVE COMMITTEE. SERIAL NO. S-[illegible]35.

FROM DEVELOPMENT DEPARTMENT. NOVEMBER [illegible]th, 1914.

5733

BUILDING AND OPERATING A CELLULOID PLANT.

This report is compiled in compliance with the request of the Executive Committee under date of April 27th, 1914, reading as follows:

> "RESOLVED, that the report from the Development Department in reference to the Fiberloid Company be received and that the Development Department be requested to carry forward a complete study as to the details of building a plant for the manufacture of celluloid at one of our existing Smokeless Powder Works, embodying in its study both phases of the situation, i.e. - a large plant which would make an economical unit, or a small plant for the purpose of working into the celluloid business gradually, in order that we may be in a position to make a decision on any time hereafter when it may seem desirable".

PREVIOUS WORK.

For further information regarding celluloid the reader is referred to the previous reports of this Department to the Executive Committee on this subject, dated June 12th, 1913, February 16th, 1914 and April 17th, 1914.

Inasmuch as it is thought that the conditions of the celluloid industry in this country were quite fully covered in those reports and as subsequent investigation has failed to reveal any radical change in or variance from the conditions outlined in those reports, and also as the above resolution indicates a lack of interest in the acquisition of control of a present operating celluloid plant, the scope of the present report is confined almost entirely to a discussion of the entering of this Company upon the production of sheet celluloid by the building of a new plant.

SOURCES OF INFORMATION.

The sources of information relied upon for the figures consolidated into this report are as follows:

Information collected during ~~the study~~ of the celluloid operations at Troisdorf.

General data collected during investigation of the industry from a commercial standpoint in the United States.

Assistance afforded by a celluloid expert of a number of years' experience with both the Fiberloid and Viscoloid Companies employed by this Department.

Close co-operation with the various departments of the Company in working up various phases of the manufacture in the particular branch covered by those departments.

SCHEME OF REPORT.

To facilitate the study of the report it has been divided into two parts, namely -

First - The text, in which the subject is discussed in a general way and

Second - The exhibits, in which the subject is worked up in detail. Also the exhibits are preceded by explanatory notes on each one, where necessary.

GENERAL.

Upon commencing the study, the question of location was taken up with the Smokeless Operating Department and the Haskell plant was, for a number of reasons, decided upon as the logical location, one reason being that certain parts of the plant and equipment were, at that time, believed to be not required for powder operations and have, therefore, been included in the estimates as part of the celluloid plant. Though these conditions do not exist at the present time, it is quite possible that they will when the time arrives for proceeding with the work. However, the estimates have been made based on the actual cost of installation so that the figures should not be appreciably altered whether the plants and equipments be old or new.

In accordance with the request of the Executive Committee estimates were compiled of a large economically operating plant and for the small plant a capacity of 10% of the large one was accepted. Inasmuch as the small plant was so designed as to readily facilitate enlargement, as might be expected, neither its original cost nor its cost of operation are such as might be expected had it been layed out with a view to economy of installation and efficiency in operation.

However, circumstances which have arisen during the last two months may make it expedient to postpone for the present the erection of even the small plant at Haskell. This possibility has prompted the consideration of one more step in the development of this manufacture which, even had such conditions not arisen, might not have been inadvisable, namely - taking advantage of this period of postponement to install and operate an experimental plant at the Experimental Laboratory.

The apparent diversity of opinions regarding the most efficient process of operation among the oldest and most experienced manufacturers, as referred to in Exhibit "A", seems to easily justify the most thorough investigation of the various steps before attempting to erect even a small commercial unit.

In view of the above an estimate has been made and attached to this report in the form of a request for appropriation, this covering cost of purchasing one unit of the necessary celluloid equipment and installing it in present unused buildings at the Experimental Laboratory. Machines of commercial size have been estimated upon so that they might be transferred to the large celluloid plant should it later be built, and also that the product produced even during experiments might, if satisfactory, be sold to consumers and thereby not only assist in covering the costs of the experiments but also introduce the product in the market. The balance of the equipment not transferrable would be a valuable addition to the Experimental Laboratory for subsequent work, both for general nitro-cellulose experiments and especially so for subsequent celluloid work.

PLANT CAPACITIES.

The capacity estimated upon for the large plant has been selected, large enough that the plant could be operated economically and small enough that its output might be absorbed in a reasonable length of time by the trade without greatly affecting market prices. Although it cannot be said that the present demand exceeds the supply in this country, it is indisputable that consumption is steadily increasing. Present celluloid companies are almost constantly increasing their productive capacity to supply this increment of increase so that it seems reasonable to suppose that after entering upon the operation of the small plant and securing a portion of the present market demand, and also a percentage of the annual increment of increase, results will justify gradual enlargement.

The present production (which may be accepted also as the consumption) in this country amounts to, as near as it is possible to ascertain, from eight and one half to ten million pounds of celluloid in the form of sheets, rods, tubes, etc. per year. Of this approximately fifty per cent is manufactured into celluloid articles by the raw celluloid manufacturers themselves. The estimated productive capacity of the large plant figured upon in this report is 1,056,000 pounds of nitro-cellulose per year, resulting in 1,476,000 pounds of celluloid, or, say, about 15% of the present production in this country.

The productive capacity of the small plant, or in other words, of the first unit of the large plant, will equal 10% of the above. The experimental plant would be operated at as small a capacity as would be possible and at the same time show results of value for use later on a larger scale.

FOREIGN COMPETITION.

This has been discussed at length in previous reports but it may be added that since detailed cost figures have been made up on production it is believed that, while it is possible that competition from importations may slightly affect the market prices, the cost of production abroad will not allow foreigners to seriously threaten the profits of United States manufacturers of sheet celluloid, especially in view of the handicaps discussed in previous reports, such as difficulties of making prompt deliveries, cost of shipping, duties, prejudice against foreign product, etc. With regard to celluloid articles, it is believed that owing to the interruption of their importations, especially of the cheaper grades which have heretofore been very largely imported from Germany, this manufacture will be considerably stimulated in this country. Though the prospects in this business have not been sufficiently lucrative to attract United States manufacturers to take it up in the past on a large scale in competition with the foreigners, in view of the requisite amount of hand work, it is thought that once this manufacture is entered upon the business will not be readily surrendered to foreigners. Actual cases of this manufacture being started since the cessation of importations are known and it is thought that the new demand stimulated by this new business will, in time, be felt in this country.

DUPONT AS CELLULOID PRODUCERS.

While the commercial and manufacturing experience, established business, and financial resources of the present large celluloid companies in this country are not to be despised, a celluloid plant operated by the duPont Company will not be without its own advantages, which will assist it in overcoming the difficulties of first obtaining a foothold and later expanding its field in face of the antagonism to be expected from powerful competitors. Among these advantages may be mentioned probable cheaper source of part of the raw materials manufactured by the duPont Company, such as acids and alcohols, more efficient method of nitro-cellulose manufacture which should result in cheaper cost of production, probable greater knowledge of cellulose, which may result in a cheaper substitute for the expensive tissue paper now nitrated by celluloid companies, and advantage of a large sales force to press a more active campaign than is now customary in the celluloid business.

In general, while the duPont Company will, upon entering this new market, do so as an unknown, it is believed that the difficulties are no greater than may be expected in most other new fields and are certainly well within the competency of the duPont Company to master.

INVESTMENT & EARNINGS.

The amount of the investments and earnings is carefully detailed in the exhibits, the results showing that to erect and equip for operations a one unit plant susceptible of being gradually enlarged as conditions warrant, the total investment, including fixed and working capital, would equal about $285,000 and the receipts from sales would a little more than pay for the cost of operations. As the plant is gradually increased the profits would increase until, when the large plant with an annual output of 1,476,000 pounds of celluloid is reached, the annual profits should equal about $220,000 with a total investment of $950,000 or a return of about 23%. As, strictly figuring, such charges as past and future cost of investigating and experimental work, interest on investment during period of erection and early operations, etc. should be capitalized and added to total investment, this $950,000 should be somewhat increased, but the extent of increase is at present practically inestimable. As the earnings of $220,000 per year would equal a return at the rate of 20% per year on $1,100,000, or

$150,000 more than the $950,000 which should amply cover these items, it may be said that the return on the total investment in celluloid should eventually show a return of in the neighborhood of 20% on the total investment.

RECOMMENDATION.

In view of the close resemblance between the manufacture of celluloid and that of smokeless powder which will permit of the utilization, not only of part of the buildings and equipment of the Haskell smokeless powder plant left idle under normal conditions, but will also afford an opportunity for employing to good advantage the technical and manufacturing ability of the smokeless powder organization, thus taking advantage of the facilities and capabilities rendered superfluous by the decreasing smokeless powder business and in view also of the prospects of the generous return of twenty percent on the capital invested, it is recommended that active work on this subject be continued and that should the present time not be considered auspicious for the erection of even a small celluloid plant at Haskell advantage be taken of the time by the granting of the attached request for appropriation to install at the Experimental Laboratory suitable equipment for carrying out experimental work on a semi-commercial scale, which will be of valuable assistance in connection with the subsequent erection of a small celluloid plant to be gradually increased as results warrant, until the capacity of an economically operating plant is reached.

APPROVED BY: PREPARED BY:

R. R. M. CARPENTER

NOTE: The words Holdover and the initials LRB are written at the top of the document.

Defendant's Exhibit (DP) No. 74

E. I. DU PONT DE NEMOURS & COMPANY
DU PONT

ANNUAL REPORT 1918

5741

E. I. du Pont de Nemours & Company

DU PONT

ESTABLISHED 1802

3465

Annual Report

of

E. I. duPont de Nemours & Company

The sudden ending of the war on November 11, 1918, brought about an almost immediate curtailment of the activities of E. I. du Pont de Nemours & Company, and the few remaining weeks of the year 1918 were sufficient to eliminate almost completely all munition business. The magnitude and rapidity of this reduction is well illustrated in the shrinkage in number of employees at munition plants, of whom on November 11th there were 85,638 engaged on war orders, while on December 27th, 28,101 only remained on the payrolls. Officers of the company encouraged the departments at Washington to cancel all contracts quickly in order to save material and labor in producing unnecessary explosives. It so happens that orders for the year 1918 were practically completed. Little will be done on contracts covering the first six months of 1919 and no profit will be derived from the uncompleted portion thereof. The contracts cancelled amounted to about $260,000,000.

The company now returns to its commercial business, consisting of lines of manufacture of previous years supplemented by others to be dealt with later in this report.

The reconstruction period and the future of the company has received continuous thought and attention even during the very first year of the war. Uncertainty as to outcome of the latter, in point of time, and as to the position of the company at the close of hostilities, has made it heretofore impossible to forecast the future with certainty, but today many doubts have cleared away. In order that the stockholders may have a better picture of our war activities and of the company's present position, a review of recent years may not be inopportune.

From 1915 to 1918 the gross capital employed by the company has increased from $83,432,000 to $308,846,000, or 270%. In addition there has been distributed to stockholders $140,983,000, making a total increase during the war period of $366,397,000. The resulting gross business has amounted to $1,049,000,000, including the cost of construction work.

Providing so much capital, without the sale of securities and building up the management of this large business in so brief a time, has called for unceasing and exacting attention of the entire force of employees of the company. Their zeal, industry and efficiency, their cooperative spirit, their loyalty to the company and to the Nation is unexcelled, and is counted the most satisfactory part of their successful accomplishment.

Construction costing $220,000,000 has been executed by our own Engineering Department, numbering at times 45,000 men. This organization was built up from a nucleus of about 800 employed in that department during the six months prior to the war. The construction work involved much that is peculiar to the explosives business for which designs, layouts, etc., nearly all, were prepared by our own men, being unobtainable elsewhere. Though the larger part of the undertaking has been of this strictly technical nature, the supplementary work of ordinary engineering construction may give a better idea of the magnitude of the whole, thus:

The Power Houses of the factories at full capacity require the continuous development of 200,000 boiler horse-power.

The Pumping Stations have a capacity of 305,000,000 gallons per day, exceeding the combined daily water consumption of the cities of Philadelphia and Boston.

The Filtration Plants filter and purify 175,000,000 gallons of water per day, to a degree satisfactory for domestic as well as for manufacturing use.

The Refrigeration Apparatus has a capacity of 9,350,000 pounds of ice per day, equal to the consumption of the city of Chicago.

Railroad Classification Yards, capable of handling 1,600 cars at one time, have been laid out and are in operation.

One hundred miles of standard railroad and two hundred and eight miles of narrow-gauge railroad have been constructed.

The enclosing of the plants required over 150 miles of fencing.

Arrangements have been made for storage of 500,000 tons of coal, a provision deemed advisable for a daily consumption of 10,700 tons.

The factories have handled 1,330,000,000 pounds of cotton, or 2,660,000 bales.

Production of nitric acid, 1,930,000,000 pounds, required the handling of 2,812,000,000 pounds of nitrate of soda.

The Sulphuric Acid Plants have produced 2,500,000,000 pounds of acid, requiring 922,000,000 pounds of sulphur.

The factories have handled 216,500,000 gallons of alcohol, of which 86,600,000 gallons have been consumed and the balance recovered for reuse.

Individual dwellings to the number of 10,790 have been built. These, together with the accompanying hotels, boarding houses, women's dormitories and bunk houses are capable of housing 65,000 persons. All of these dwellings are lighted and furnished with purified water from the company's plants and are connected to modern sewage systems. In addition to these dwellings, the Engineering Department has built 570 community buildings, such as those to house the Young Men's Christian Association and Young Women's Christian Association, cafeterias, school-houses, lodge halls, post-offices, drug stores, banks and railroad stations, a total of 11,360 buildings, costing with

the necessary streets, sidewalks, fire protection, etc., about $37,000,000.

The military powder factories constructed by E. I. du Pont de Nemours & Company and its subsidiary Du Pont Engineering Company, cover 9,025 acres (14 square miles), equal to twice the built-up area of the city of Wilmington, Delaware. Incidentally their cost is about double the assessed value of Wilmington. Their annual capacity is 893,000,000 pounds of explosives or in carloads sufficient to extend from Baltimore to New York in continuous line.

At the height of the work the rate of yearly expenditures was three times as great as that of the construction of the Panama Canal.

In the last annual report attention was called to the contract of January 29, 1918, under which the company undertook the construction and operation of a military powder plant near Nashville, Tennessee, for the United States Government.

For the purpose of segregating this work the Du Pont Engineering Company was organized. All of the stock of this company is owned by E. I. du Pont de Nemours & Company.

Seven miles of railroad to take building materials to the plant site was begun February 9, 1918, and was completed on March 9th, 29 days.

Ground was broken for the erection of the plant on March 8th.

The contract called for the erection of a factory capable of producing 900,000 pounds of military smokeless powder in each day of twenty-four hours, the plant to be divided into nine complete units of 100,000 pounds daily capacity each.

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A Sulphuric Acid Plant, the first of fifteen units of 28,000 tons annual capacity each, began continuous operation on June 1st, 67 days after breaking ground for this acid plant.

The Nitric Acid Plant began operation on June 10th.

Guncotton, the raw material of powder manufacture, was produced on June 23d.

The first finished powder was granulated on July 2d, or 116 days after breaking ground for erection of the factory, 121 days ahead of contract requirement.

The second powder unit began manufacture on July 24th, at which time the first unit was manufacturing 65,000 pounds per day.

The third powder unit began operation on August 20th, at which time the first and second units were manufacturing 150,000 pounds per day.

The fourth powder unit began operations September 3d, at which time the first, second and third units were producing 200,000 pounds per day.

The fifth powder unit began operation on September 24th, at which time the first four units were producing 275,000 pounds per day.

The sixth powder unit was ready for operation on November 11th, but owing to the cessation of hostilities, it has not been operated. However, the sixth guncotton unit began operation November 2d, at which time the first five powder units were producing 501,000 pounds per day.

The seventh powder unit was about 98% complete on November 11th, and the seventh guncotton unit was ready for operation; eighth and ninth units were approximately 60% complete. At that time the entire plant was about 93% completed.

The manufacture of guncotton was reduced on November 27th and ceased totally on December 7th; since that time the conversion of this guncotton into smokeless powder is proceeding at a leisurely rate and will probably be finished about the middle of January.

The production of powder at this factory will total about 36,000,000 pounds at the cessation of operations. At signing of the armistice manufacture of powder was 13,000,000 pounds ahead of contract requirements and the factory was 93% completed or 96 days ahead of scheduled time. The estimated cost of construction was $75,000,000. Had the contract been completed there would have been an over-expenditure not to exceed 7%, exclusive of the increased wage schedules fixed by the Government.

Under the contract no profit was to be paid for construction work and, owing to cancellation prior to the completion of manufacture of all powder required, the total profit after paying taxation will probably amount to $1,300,000 on transactions covering $125,358,500 or 1%.

However, the directors always considered this work a military necessity and they never had expectation of profit adequate to compensate for the disadvantages of the burden assumed.

The operation of the factories of this company above mentioned has resulted in production of 1,466,761,219 pounds of military explosives of all kinds furnished to the United States and the Allied Nations. The importance of this work is better realized from the fact that this output is estimated at 40% of the amount of explosives made throughout the world for the Allies during the war. During the four years of these operations the manufacturing departments have been continually ahead of deliveries required under contracts and at all times have held large quantities of explosives in the company's magazines awaiting shipping instructions. The number of men employed in the military factories alone reached a maximum of 47,914, an organization built up from a total of 5,300 men employed in all departments of the company before the war.

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The total capacity of the company's factories for military propellant powders in 1913 and 1914 was rated at about 700,000 pounds per month, but this output had never been maintained for any considerable period of time. The rated monthly capacity reached 37,962,000 pounds in March, 1918, and actual output of 37,700,000 pounds was made in that month. Thereafter the diversion of part of the plants to the production of special powders somewhat reduced the output, but from March to October an average monthly production of 35,380,000 pounds was maintained. In addition to this quantity the factory at Nashville, Tennessee, built for the United States Government, was brought to a production of 12,500,000 pounds monthly at the time of the signing of the armistice. Had the war continued the completion of the Nashville plant "Old Hickory" would have raised the annual productive capacity of all military propellant powder factories operated by the company in 1919 to 815,000,000 pounds.

In the line of disruptive explosives for military purposes the capacity of the factories of the company prior to the war was negligible. At the end of the year 1918 a total annual capacity of 139,000,000 pounds had been installed.

This great development was not a mere duplication of existing units of production. The handling and storage of enormous quantities of explosives and combustible ingredients called for a complete revision of previous practice. Without the radical improvements adopted it is doubtful if the requirements of customers could have been filled; certainly they could not have been met in proper time.

The revolutionary changes adopted resulted in a rapidly increased output, at the same time economy in labor and material was effected. The 1918 output required the employment of 22,000 men less than the proportionate number necessary under pre-war practice. Operating methods developed during the war period resulted in calculable savings of $74,000,000.

Prior to the war the company had made comparatively little powder for foreign nations. The sudden call of the Allied Governments required the fitting of our form of powder, then

almost unknown abroad, to guns designed to use other ammunition. This necessitated development of forty different powders for as many guns. These powders function under exacting specifications—though some of them average 42,000 pieces to the pound each of these pieces is a perfectly formed cylinder with one or seven longitudinal perforations whose important dimensions require an accuracy of not more than 1/1000-inch variation from the mean.

In addition to the foreign powder the United States Government needed, for Army and Navy use, ninety different powders all produced under strict specifications. Many changes in the ballistic requirements of the guns made it necessary to re-establish the characteristics of the powder, a change that was equivalent to the fitting of entirely new guns.

It will be appreciated that the production of military propellant powders is an exact science and that the wonderful achievement in enormous production brought about by our Smokeless Powder Operating Department is increased in value when we consider the minute care that is necessary to produce accurate results. The measure of success attained lies in the fact that all specifications have been met while not a single lot of powder has failed of final acceptance and no powder has been returned to us as unsatisfactory.

Great as has been the output of standard military products it should not be allowed to overshadow the production of special explosives and of countless accessories such as caps, fuzes, ignition pellets and the loading of explosives for use in the field. Sales of these so-called minor items aggregated $206,000,000, an amount eight times the company's total annual business prior to the war. In the cap works and loading department alone the number of employees increased from 225 before the war to over 4,800 in November, 1918.

The production of so large a quantity of explosives and accesssories has not been without attendant risk due to accident or enemy interference. The company has maintained a most efficient guard at all of its principal factories, 1,400 men having been employed in this service. The organization and maintenance of this guard is in a line of military activity that had been unnecessary before the war. The work has been handled with great efficiency, and as far as can be observed no accident has befallen through failure of this "Protective Division" to act at the proper moment. The company has been fortunate in its freedom from serious disaster during the war period. The ratio of the number of killed and injured and property loss to total men employed was far less than in preceding years, indeed was much less than in many reputed safer industries. However, this should not lead one to minimize the importance of the accident question during the four years under consideration. Three hundred and forty-seven employees have lost their lives through accidents that have cost $6,700,000, including value of property destroyed by fire and explosion. Sixty-two hundred and fifteen fires have been reported and accidents of more or less consequence have happened nearly every day. Numbers of these were possible starting points of disaster that was prevented by the prompt action of the fire-fighting forces of the company and by unremitting attention to the prevention of spread of fire and explosion. In consequence a loss of over $5,000 has resulted from 51 only out of this great number of accidents.

The foregoing program placed a great burden upon our purchasing organization and those who assisted in the difficult task of furnishing punctually when and where needed enormous quantities of materials and supplies not only for construction but for operation.

Their task was performed successfully and with foresight, ability and vigor. Every pound of material required was secured without a single hour's delay, either in the completion of construction work or in the execution of contracts, and the company was at all times able to sell, manufacture and deliver the maximum output of its plants.

The purchasing program was handled in such a way as to effect large savings and to materially augment profits for the stockholders.

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The number of employees in the department in 1914 was 56; in November, 1918, 268.

The total purchases increased from $25,200,000 in the year preceding the war to an approximate total of $800,000,000 for the four and one-half war years.

The Military Sales Department of the company is numerically a small organization whose chief, Colonel Edmund G. Buckner, has handled personally the greater part of the many contracts under which all military explosives were produced. These contracts called for the production of 1,800,000,000 pounds of standard explosives valued at $1,020,000,000 and special explosives and accessories worth $206,000,000. The greater part of these contracts provided for cash advances which at one time exceeded $100,000,000, unsecured except by the general credit of the company as shown in its statement. Few salesmen have undertaken such large work, none has been more successful. No dispute has arisen with respect to any of these munition contracts, nor has it been necessary to modify their terms after execution. The innumerable specifications for different kinds of explosives and accessories has made it necessary to employ a force of men in arranging modifications that became desirable to customers during the progress of the war, but happily all of these changes were made to their entire satisfaction, with no consequent delay and without necessity of modifying the general terms of contracts. No additional charge has been made on account of any change in original terms or specifications.

At the beginning of hostilities the Military Sales Department showed great foresight in establishing a price for powder and terms of payment that enabled the company to do great work rapidly. This price, though high, was not more than 25 per cent. higher than that applying to foreign business before the war, but differed from the latter in the fact that factories to be used in the completion of war contracts must be constructed out of the purchase price of the powder itself. However, the question of price cannot be dealt with fairly without considering the war period as a whole. Taking military cannon powders, by far the most important in quantity sold—1,398,700,000 pounds—it is to be observed that the average cost to the United States Government and the Allies for powder contracted during the four years, 1915-1918, was 6½% higher than the price fixed by Congress for several years prior to the war. The contracts with the United States Government, made in the years 1917 and 1918, were at prices 10.7% lower, and for 1919, 16.8% lower than that prevailing before the war. At all times a uniform price was made to the United States and the Allies. Inquiry has failed to reveal another case where a war essential has been sold below pre-war price. It must be remembered that during these four years the cost of all raw material has advanced tremendously. During the last year of the war, their cost was 132% higher than for the year prior to the war.

This enormous saving is largely attributable to the very efficient work of our Chemical and Mechanical Research Departments, including the laboratories of the company, with the most intimate and earnest coöperation of the men in the factories themselves. The Chemical and Mechanical Research Departments numbered 212 men prior to the war, while at the end of the year 1918, 987 men were employed in this service. The economies effected, by them and by those working at the factories, have not been questions of dollars and cents alone, as conservation of the materials saved was of prime importance to the world at large. Thus the reduction in consumption of alcohol was the equivalent to the saving of 10,400,000 bushels of corn. The total expenditure for experiment and research during the four years, 1915-1918, amounts to $3,360,000.

Outside of the company the Development Department seeks out new products, and examines into the merits of new fields of operation. To compensate the loss of munitions business investigations and studies of 100 separate industrial subjects have been made. These investigations have been valuable in the development of the

military powder business also, as the source and character of raw materials was under constant development throughout the war. The Development Department has handled its work in a masterful manner and deserves great credit for results obtained.

Among the accessory departments that have contributed importantly to the success of the military program, mention should be made of the Traffic Department. Their work covered supervision of shipping to and from Chile for the maintenance of an adequate supply of nitrate of soda at a time of greatest congestion and, in the earlier years, of uncertainty of operation of the Panama Canal. The planning of railroad facilities in the United States for the assembling of materials for construction and operation has been a difficult task, but there has been no case of failure in this important work, except for a brief period when the control of fuel by the United States Government made independent action impossible. Results have been attained by resorting to many ingenious expedients and by ceaseless attention to every detail of every shipment. Foresighted provision of shipping facilities, especially during the early part of the war, resulted in savings estimated at $18,700,000.

The Medical and Welfare Departments of the company have played an important rôle during the war years. While past experience had furnished much data concerning the injury to health of employees manufacturing our products, production on larger scale presented new and difficult problems. To these have been added the study of several new and more or less poisonous products that were introduced to our line of manufacture. All of these problems have been satisfactorily met, but good health under factory conditions was a small part of the medical and welfare work. The expansion of business required the massing at isolated points of may thousands of men, their families and the necessary trades people. The furnishing of pure water and good food, the disposition of sewage and waste, all presented difficult problems; failure of solution might have brought about grave complications.

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In these new towns, where crowding was unavoidable, no case of epidemic even in mild form has occurred, excepting, of course, the all-prevalent influenza. There has been no delay or loss of product through illness of employees. This good record is due to the action of the Medical Department in preventing trouble by its anticipation.

In connection with the rapid assembling of employees at points of greatest activity, it was necessary to establish commissaries, mess halls, restaurants, hotels, etc., for the temporary accommodation of the men. The operation of these accessories in the chief centers cost $8,000,000, and in the years 1916-1917-1918, 25,000,000 meals were served. Exclusive of the Government plant at Nashville, the rental of company houses built during the war totaled over $900,000. The sanitary conditions of all these houses were cared for by the Medical and Welfare Departments in a highly-satisfactory manner.

The accomplishment of the above results has been made possible by a well-organized accounting, auditing and financial system under management of the Treasurer's Department. During the war period this department has increased from a force of 213 men and women to over 1,186. Cost sheets of all products have been issued promptly, an important item in a situation where knowledge of cost and details of operation has been so necessary for economy in manufacture. The enormous business of receiving and checking goods, approving and paying vouchers and freight bills (for the year 1918 estimated at 850,000 separate items), as well as the collection of accounts, has been handled with greatest despatch. At no time has the company been in any way embarrassed or troubled by the failure of the accountants to carry on smoothly the transactions that were necessary in such great operations.

The Treasurer's Department has handled the finances of the company with equal skill. Forecasts of probable financial conditions extending twelve months in advance have been maintained and revised every month. All the numerous financial problems, involving not infrequently items of several millions of dollars, have

been forecasted and reported in detail in proper season for consideration by the Executive and Finance Committees and by the Directors. The business of the company has brought in large amounts of cash, for which temporary employment has been necessary pending its use for purposes originally planned. This has led to purchase of securities of all kinds amounting to $297,000,000. Excepting Liberty Bonds, none of these investments have been resold at a loss. There remains in the treasury at present $1,705,000 only of these investments. The company has been the purchaser of $112,000,000 of the securities of the Foreign Allied Governments. It has subscribed to $157,000,000 of various offerings of the United States Government, of which $121,700,000 have been allotted and purchased. The management of the Treasurer's Department, and the financial policy adopted by the Executive Committee and Finance Committee on the Treasurer's recommendations, are largely responsible for the excellent credit of the company upon which its great business has been founded. In the great transactions of the war years the treasurer has made no call upon the stockholders for funds, no sale of the company's obligations has been made and current borrowings, all without collateral, have never exceeded $10,000,000. The distribution of regular dividends has been maintained throughout the period.

The work, above outlined, has been accomplished by the joint efforts of a very able body of men. Those primarily responsible for the success of the campaign as a whole are the members of the Executive Committee, viz.:

Irenée du Pont, *Chairman.*
H. Fletcher Brown, *Smokeless Powder Operations.*
Robert R. M. Carpenter, *Development Work.*
Frank L. Connable, *Special Purchasing.*
William Coyne, *Sales.*
Lammot du Pont, *Miscellaneous Manufacturing Operations.*
Harry G. Haskell, *Explosives Manufacturing Operations.*
John J. Raskob, *Finance.*
Frank G. Tallman, *Purchases.*

All of whom have held office throughout the four-year war period. Each of these men, excepting Mr. Irenée du Pont, who occupies a position equivalent to that of General Manager, though not so named, is at the head of the important department indicated in addition to his duties as a member of the Executive Committee and Vice President. During the four years, 1915-1918, this Executive Committee has held 334 formal meetings and has acted upon 5,760 subjects, of which 3,886 were embodied in written reports.

It is appropriate to mention also the heads of the other chief departments:

Colonel Edmund G. Buckner, *Military Sales.*
Major William G. Ramsay, followed by Mr. Harry M. Pierce, *Engineering.*
Dr. Charles L. Reese, *Laboratories and Research.*
Daniel Cauffiel, *Real Estate.*
William A. Simonton, *Traffic.*
John P. Laffey, *Chief Counsel.*

These sixteen men have been constant in their attention to the affairs of the company and have ably managed the great work entrusted to their joint and individual direction. They have been supported by an efficient corps of assistants whose number at the beginning of the war was 94 men, receiving annual salaries of $4,200 or more. At the cessation of hostilities there were 259 such men in the employ of the company. During the four-year period nearly 90% of the original men in the above group, excluding those pensioned or resigned for military service, have advanced themselves, and none has failed to make good at the work allotted him. Among the greater number that have come into the employ of the company during the war period, nearly 70% have been advanced, and there is no case of discharge for cause or for failure to make good in the work allotted. To the wonderful performance of these men is traced the chief source of the very satisfactory results obtained for the stockholders.

In calling attention to the leading men in the company and to their uniform success in carrying out their work it is not intended to minimize the importance of other employees at one time numbering over 112,000, nor to leave unrecognized

their share in the whole. This large body of men, the greater number of whom were new in their employment with the company, have carried their burden and executed their work in a highly satisfactory manner. Though 8,497 of them yielded to the call to the colors during the war, it was necessary for the company to ask for exemption from military service for the greater part of its employees. This exemption was a keen disappointment to many, especially to the younger men; it is therefore proper to acknowledge the superior importance of their civilian work, the satisfactory way in which their duties were carried out and the very marked effect that their success has had upon the termination of the war.

The record of the company during the war would not be complete without notice of losses sustained through death, fortunately very few in number, exclusive of those killed in accidents.

The great factories built for the filling of the European orders of 1914 and 1915 were almost completed when death took from us Major William G. Ramsay, Chief Engineer of the company, whose brilliant work was the foundation of the success of our original construction program and consequently of the entire performance. The organization founded by him, under the able management of his right-hand man, Mr. Harry M. Pierce, has carried to completion the great work that stands a monument without equal to the honor of its originator and to that of his worthy successor.

On October 18, 1918, the company suffered great loss in the death of Mr. Hamilton M. Barksdale, for many years prominent in the company's affairs. His most active work was in the manufacture of high explosives and the administration of that department. In later years as Vice-President and member of the Finance Committee he became one of the strongest and most respected advisers in the planning of the policy of the company and in the administration of its affairs. To Mr.

Barksdale's fine qualities, his unselfishness, his patience, his thoroughness, his candor, in short to his exemplification of all that is noble, can be traced much of the splendid esprit de corps of the duPont organization today.

While a brief description of the work accomplished during the four years past may serve to better inform the stockholders of the conduct of the officers and employees of their company, it is in the financial result of the four years' campaign that they are most interested. This result is the measure of success or failure, and it may be summed up in a very few words.

The stock of E. I. du Pont de Nemours Powder Company, the predecessor of E. I. du Pont de Nemours & Company, sold during the early months of the war at $125 per share. The share of debenture stock and two shares of common stock of E. I. du Pont de Nemours & Company which were exchanged for the former security are worth in today's market (December 31, 1918) $593, or an increase in value of 374%. In the meantime (1915-1918) the total dividends on the common stock of E. I. du Pont de Nemours Powder Company and on the exchanged securities of E. I. du Pont de Nemours & Company have amounted to 458% on the par value of the original stock. It is difficult to imagine a more satisfactory financial result, especially in view of the fact that the liquidation of the balance of the military powder investment as it stands today cannot materially alter the conditions above recited. The result has been accomplished without friction with customers, one minor law suit concerning a claimed commission being the only dispute on record. All construction work has been done strictly in forecasted time and without material overrun of estimate, while economies effected for the joint benefit of customers and stockholders have been enormous.

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In seeking means of continuing this satisfactory conduct of the company's business, too much cannot be said in favor of the bonus plan of the company. The officers and directors believe it has been of great value in securing and retaining at highest efficiency the best men in the explosives industry. The bonus plan furnishes for distribution among employees of recognized merit a number of shares of stock of the company each year. As the amount of this bonus stock is based on earnings, many shares were available for distribution during the years 1915 to 1918. In the years 1915, 1916 and 1917, there was awarded as B bonus a total of 6,286 shares of common stock of E. I. du Pont de Nemours Powder Company, 24,301 shares of debenture stock of E. I. du Pont de Nemours & Company, 42,839 shares of common stock of E. I. du Pont de Nemours & Company. For the year 1918, 8,006 shares of debenture stock of E. I. du Pont de Nemours & Company and 8,680 shares of the common stock of E. I. du Pont de Nemours & Company (cost value $3,162,493.72) have been awarded for distribution as B bonus to 2,329 employees by the Executive and Finance Committee and finally approved by the Special Committee of the Board of Directors. The total cost of these securities for the four years, 1915-1918, has been $16,379,914.11. The merits of the plan have been recognized by the officers and directors of the company and its predecessor for many years. Formerly the directors themselves owned a majority of the common stock and, throughout, other stockholders have been informed as to the operations of the plan, therefore it has not been thought necessary to ask for specific action to approve bonus granted at the annual meetings. However, to the surprise of many directors, a law suit has been brought by a small number of stockholders attacking the validity of the bonus plan. This action was the more surprising because the suit was not brought until these

stockholders had been enriched, without effort on their part, by dividends almost equal to the total bonus paid out to the workers during the first two years of the war period. It is to **be** noted also that the leading stockholders in the suit have participated, both as officers and directors of the company, in the establishing of

the bonus plan and in its administration. On account of this law suit a specific ratification and approval of the bonus plan and the administration thereof was asked at the last stockholders' meeting. Of the total shares represented by person or proxy 414,263 were recorded in favor of such ratification and none against, a favorable vote of 100%. (Seventy per cent. of the voting stock was represented at this meeting.) At the coming annual meeting the stockholders will be asked to ratify and approve the administration of the bonus plan during the year 1918 and its continuation in the future.

Since the beginning of the war the officers of the company have been active in preparation for peaceful pursuits and, as opportunity has offered, many new projects have been investigated in order to supplement the former commercial business of E. I. du Pont de Nemours Powder Company. Over one hundred different subjects have been under scrutiny and many are still followed actively. The principal investments already made are:

> *First.*—The manufacture of Py-ra-lin, the chemical relation of which to military powders is such as to make it a very desirable addition to the list of our

products. Entry into this business was through the purchase of the Arlington Company, already a successful manufacturer of many years standing. The business has expanded to approximately double its output when taken over in 1915, and under peace conditions has great promise of further development.

Second.—The manufacture of paints, varnishes and colors. The relation of this industry to explosives lies in a common interest in the production of certain so-called "heavy chemicals," while a more intimate tie exists between the paint and color industry and the so-called chemical mixture business in which the Du Pont Company has been engaged for many years. The manufacture of colors has also a close relation to the produc-

tion of dyes. Our entry into the paint and color industry has been through the purchase of the following interests:

Harrison Brothers & Company, Inc., a concern well known and of long standing, for a period even longer than the life of the Du Pont interests.

Cawley Clark & Company.

Beckton Chemical Company.

Bridgeport Wood Finishing Company.

Flint Varnish and Color Works.

New England Oil, Paint and Varnish Company.

These purchases have given importance to this line of business and have established a working trade at the outset. The acquisition is further attractive in the great field opened for the economical use of by-products and interchange of facilities.

Third.—Dye manufacture. The chemical composition of many dyes being similar in nature to that of a number of modern explosives, makes study and development of the dye industry an appropriate adjunct to the main business of E. I. du Pont de Nemours & Company. The industry being comparatively new in this country, it was decided to obtain rights to patents and processes, starting in the industry without a nucleus of existing business and contrary to the plan followed in other cases. It was originally thought that a part of the apparatus for the installation of the dye industry could be diverted from the manufacture of explosives at the termination of the war, but continuation of hostilities has negatived this expectation. The company is already producing indigo in large quantity and is producing fair amounts of many other dyes, all of a satisfactory quality. The business is complex but of great interest and promise.

Fourth.—Manufacture of motors. The interest of certain officers of the company in the motor field was engaged for many months prior to the making of an investment by the company. While there is no immediate relation between the explosives industry and the manufacture of motors, this investment was made in such a way as to give opportunity for our financial organization to be of service, and at the same time increase greatly our financial strength. The large engineering and construction forces of our company, the development, legal and accounting department facilities, coupled with the demands of the motor industry for talent of that kind, has furnished a connecting link which seems desirable in all investments. The consumption of paints, varnishes and fabrikoid in the manufacture of automobiles gives another common interest. In entering this field it was necessary to make investment in a thoroughly developed property. This has been found in the General Motors Corporation, already equipped in a most thorough manner with technical men of experience for the proper conduct of its business. The officers of E. I. du Pont de Nemours & Company are fortunate in having secured a 27.6% interest in this corporation, as it now stands equipped with factories for producing all kinds of cars, tractors and trucks, together with the greater part of the accessories needed in their manufacture. We feel fortunate also in our partnership with Mr. William C. Durant, President of the General Motors Corporation, and the father and leader of the motor industry, not only in the United States but in the world. This alliance leaves the management and general conduct of the General Motors Corporation as heretofore, except that the responsibility for financial management is now shared by the officers of our company. The general function of the Du Pont interests is advisory only, though already there has sprung up an intimacy between the organizations that promises great benefit through the exchange of facilities and use of important men for specific duties to which they are particularly well adapted.

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Great activity in military lines has not left undeveloped the commercial business of the company. Sales that averaged about $26,000,000 gross in the years 1913 and 1914 have increased until the commercial business of the year 1918 totaled over $72,000,000. This amount is exclusive of sales of companies in which we hold a minority interest, such as General Motors Corporation; the gross business of that company in the year 1917 amounted to about $300,000,000. To this steadily increasing commercial business the officers and directors look with confidence for the continued success of the company.

Stockholders may be fearful lest the sudden cutting off of munition orders may bring about a reduction of earnings, jeopardizing dividends and the strong financial position of the company. To allay such fears it is well to point out that, prior to the European War, the company had been engaged in commercial business for 113 years, of which 8½ years only might be termed war years. Therefore, its history is not one of a military establishment. Preparation for the great struggle just ended was made under conditions of peace. After liquidation of munition business the company will hold about $200,000,000 of assets, from which, under normal conditions, earnings of 11½% are to be expected, as this was the average maintained for many years before the war. These earnings, $23,000,000 compare favorably with present dividend requirements of 6% on debenture stock and 18% on the common stock, or

$14,250,000. Military powder business prior to the war amounted to about 5% of the gross earnings of the company, so that the complete loss of munition orders cannot prove a very serious blow to the future of the company.

On January 4, 1918, Du Pont American Industries Company was organized under the laws of the State of Delaware, for the purpose of holding the investment of E. I. du Pont de Nemours & Company in General Motors Corporation and other companies in which interests have been purchased. All the stock of the Du Pont American Industries is owned by E. I. du Pont de Nemours & Company.

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On December 16, 1918, the Du Pont Chemical Company was organized under the laws of the State of Delaware, for the purpose of purchasing the military powder plants and some other manufacturing companies of E. I. du Pont de Nemours & Company. All the common stock of this company is owned by Du Pont American Industries Company; the preferred stock of Du Pont Chemical Company has been distributed as dividend to stockholders of E. I. du Pont de Nemours & Company.

Following the precedent of the previous year, the directors of the company have declared a special dividend of 2% on the common stock of the company, recommending that the amount received be donated to the Red Cross Fund. Such disposition of the dividend was entirely voluntary on the part of the stockholders, but it is believed that the American Red Cross benefited to the extent of a very large percentage of the total.

In line with the above action a special dividend of 1% on the common stock was declared with recommendation that the stockholders donate the amount so received to the United War Work Campaign.

For the year 1918 the directors have authorized the distribution to the common stockholders of four quarterly cash dividends of 4½% each, a total of 18% for the year and a dividend in preferred stock of Du Pont Chemical Company of 5%, in addition to the above mentioned special dividends totalling 3%. No special dividend was declared at the end of the year though the earnings of the company considered alone would have justified such action. However, uncertainties in the Federal Tax situation and the time required for liquidation of the investment in materials used in military powder business made conservative action on the dividend advisable and the directors have deferred the question of determining to what extent, if any, the 1918 surplus may be distributed.

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The complete dividend record of the company and its predecessor, E. I. du Pont de Nemours Powder Company, follows:

E. I. DU PONT DE NEMOURS POWDER COMPANY:

1904	½%
1905	3½%
1906	6½%

1907		7%
1908		7%
1909		7¾%
1910		12%
1911		12%
1912		12%
1913		8%*
1914		8%
1915		22%**
1916		6%
1917		6%
1918	$10 par value	6%***

E. I. DU PONT DE NEMOURS & COMPANY:

1915	30%
1916	100%
1917	51%****
1918	26%*****

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*Does not include 48.474% paid in securities of Atlas Powder Company and Hercules Powder Company.

**Does not include distribution of two shares of common stock of E. I. du Pont de Nemours & Company for each share of common stock of E. I. du Pont de Nemours Powder Company.

***Based on par value of $10.

****Includes 1% Red Cross dividend paid June 23, 1917.

*****Includes Red Cross 2% Dividend, 1% United War Work Dividend and 5% Dividend in Preferred Stock of Du Pont Chemical Company $5 par value.

The number of stockholders and those of them employed by the company is shown in the following tabulation covering a number of years. The record from 1907 to 1914, inclusive, is of E. I. du Pont de Nemours Powder Company; that for the later years, of its successor, E. I. du Pont de Nemours & Company:

1907—	809,	of whom	218, or 27%	were	employees
1908—	955,	"	200, or 26%	"	"
1909—	1,335,	"	524, or 39%	"	"
1910—	1,695,	"	764, or 45%	"	"
1911—	2,163,	"	990, or 45%	"	"
1912—	2,697,	"	1,440, or 53%	"	"
1913—	2,935,	"	1,047, or 36%*	"	"
1914—	3,093,	"	1,184, or 38%	"	"
1915—	3,840,	"	1,122, or 29%	"	"
1916—	4,221,	"	1,448, or 34%	"	"
1917—	5,409,	"	2,445, or 45%	"	"
1918—	7,203,	"	3,220, or 45%	"	"

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*Decrease due to loss of employees through organization of the Hercules Powder Company and Atlas Powder Company.

Respectfully submitted,

PIERRE S. DUPONT,
President.

New York
Chicago
Detroit
St. Louis
Cleveland
Baltimore
Pittsburgh

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
Cable Address "HASKSELLS"
30 BROAD STREET
NEW YORK

San Francisco
Los Angeles
Seattle
Denver
Atlanta
Watertown
London

NEW YORK, February 28, 1919.

E. I. DU PONT DE NEMOURS & COMPANY,
Wilmington, Delaware.

We have audited your general books and accounts and those of your subsidiary companies for the year ended December 31, 1918, and, subject to not having examined the minutes of your governing bodies,

WE HEREBY CERTIFY that the accompanying Consolidated General Balance Sheet as of December 31, 1918, and related Summary of Consolidated Income and Profit and Loss for the year ended on that date are correct.

HASKINS & SELLS,
Certified Public Accountants.

E. I. DU PONT DE NEMOURS & COMPANY WITH SUBSIDIARY COMPANIES
COMPARATIVE BALANCE SHEET, DECEMBER 31st

ASSETS	1915	1916	1917	1918
Cash, Accounts Receivable, Materials and Finished Product	$64,894,106.81	$82,325,103.43	$145,028,674.47	$222,633,581.86*
Investments in short term notes and quickly marketable securities	49,332,874.22	57,172,510.85	30,679,886.67	1,705,918.65
Securities held for permanent investment	21,295,367.92	26,540,679.55	16,885,099.89	18,842,595.79
Realty, not including Plant Real Estate	516,697.85	504,023.39	508,420.70	545,998.98
Permanent Investment in manufacturing property, Patents, etc.	122,224,173.95	51,309,323.10	70,291,113.63	65,118,201.79
Total Assets	$258,263,220.75	$217,851,640.32	$263,393,195.36	$308,846,297.07
LIABILITIES				
Accounts and Bills Payable, including Accrued Dividends on Debenture Stock	$9,108,627.58	$7,883,623.00	$22,750,517.19	$38,337,762.70
Deferred Liabilities and Credit Items, including estimated Federal Taxes	4,102,673.95	19,461,171.41	22,125,661.51	20,478,956.55
	$13,211,301.53	$27,344,794.41	$44,876,178.70	$58,816,719.25
CAPITALIZATION				
Debenture Stock Issued	$60,774,033.33	$60,813,950.00	$60,813,950.00	$60,813,950.00
Debenture Stock (held in reserve)	45,006.11	45,006.11	45,006.11	....
Common Stock Issued	58,854,200.00	58,854,200.00	58,854,200.00	58,854,200.00
Common Stock (held in reserve)	31,425.90	31,425.90	31,425.90	....
	$119,704,665.34	$119,744,582.01	$119,744,582.01	$119,668,150.00
Advance Payments on Contracts and Reserves for Depreciation, Accidents, etc.	$116,379,036.81	$42,195,226.28	$54,617,863.45	$62,060,537.15†
Surplus	8,968,217.07	28,567,037.62	44,154,571.20	68,300,890.67
Total Liabilities	$258,263,220.75	$217,851,640.32	$263,393,195.36	$308,846,297.07

*Includes advances to and open current accounts with affiliated companies amounting to $50,179,521.50.

†Includes $12,643,703.36 for adjustment of materials and supplies to market value December 31, 1918. A portion of this amount may be recovered through claims arising from cancellation of contracts.

E. I. DU PONT DE NEMOURS & COMPANY WITH SUBSIDIARY COMPANIES
COMPARATIVE INCOME ACCOUNT, YEARS ENDING DECEMBER 31st

	1915	1916	1917	1918
Gross Receipts from sales	$131,142,015.35	$318,845,684.76	$269,842,464.75	$329,121,607.64
Net Earnings after providing for Amortization	$57,399,899.61	$82,013,019.90	$49,112,952.65	$47,221,367.68
Profit and Loss on sale of Real Estate, Securities, etc, and Extraordinary Adjustments	440,857.92	94,672.65	145,708.93	4,123,292.96*
Net Receipts	$57,840,757.53	$82,107,692.55	$49,258,661.58	$43,098,074.72
DEDUCTIONS				
Earnings capitalized in reorganization, October 1st, 1915	$29,955,799.36	....	....	....
Interest on Funded Debt	583,450.00	....	....	....
Debenture Stock Dividends	1,715,032.50	$3,648,222.00	$3,648,822.00	$3,648,822.00
Common Stock Dividends	24,130,222.00	58,854,200.00	30,015,642.00	15,302,092.00
Dividends on Subsidiary Company Stocks	6,450.00	6,450.00	6,664.00	841.25
Total Deductions	$56,390,953.86	$62,508,872.00	$33,671,128.00	$18,951,755.25
Surplus for the Year	$1,449,803.67	$19,598,820.55	$15,587,533.58	$24,146,319.47
Accumulated Surplus to Date	$8,968,217.07	$28,567,037.62	$44,154,571.20	$68,300,890.67

* Indicates Loss.

Defendant's Exhibit (DP) No. 75

"A"

File: ID-37

May 3, 1915.

DEVELOPMENT DEPARTMENT:

I am convinced that we should make a special effort to extend the operations of the Development Department, looking into new industry which we might profitably enter, as an offshoot from our present business, and to find an outlet for the probable surplus products after the war is over. This study will require so much time that we should arrange to promptly take on additional capable men.

Irenee du Pont

Defendant's Exhibit (DP) No. 76

July 24th, 1915.

To FINANCE AND EXECUTIVE COMMITTEES

From TREASURER

Acting on report No. 5400 from Mr. Connable the Executive Committee on June 17th, 1915, passed the following resolution:

> "It was resolved and unanimously carried that the communications be feferred to the Treasurer with the request that he make a careful study of the financial policy of the Company and report to this Committee within six months."

In approaching this subject it seems well to recall the steps previously taken in this direction.

In the year 1911 the directors approved the recommendations contained in a report from P. S. du Pont, Treasurer, providing a plan for refinancing our Company with two classes of securities; a senior security known as "DEBENTURE STOCK", and a junior security—common stock. A special meeting of stockholders was called for June 26th, 1911, to ratify action of the directors and to pass resolutions necessary to amend our charter for the consummation of the plan. On June 21, 1911, the Circuit Court of the United States entered an interlocutory decree in our so-called Government Suit, and thereupon our attorneys advised us it was highly desirable that matters be left in statu quo and no changes be made in our charter pending final decision of this suit. This resulted in the meeting of stockholders, called for June 26th, 1911, adjourning without acting on the proposed plan. The final decree, as entered, involved the sale of a substantial portion of our properties to the Hercules Powder Company and the Atlas Powder Company, and this coupled with the work and uncertainties involved in adjusting ourselves to these new conditions made it seem desirable to indefinitely defer plan for a financial reorganization of our company.

—2—

The DuPont Company of the future should be a much larger corporation than the Du Pont Company of the past. We are now in the position of having a large and splendid organization, thoroughly proficient, as demonstrated in the results now being accomplished, with ample capital to properly finance new undertakings which it will be necessary to enter in order to properly employ this larger organization. Our total assets in the future will doubtless exceed $120 - 000 000.00 as against $75 000 000.00 in the past. The capital necessary to build our assets up to this larger amount may be supplied out of earnings on our present abnormal business. The capitalization of our company is now unsuited for this larger organization and requires radical change. If we retain, say, but $45 000 000.00 of our earnings for the expansion of our business, it means the common stockholders will not receive at least $45 000 000.00 which would otherwise be declared to them in cash dividends. In lieu of this cash dividend, it would seem well to have our reorganization plan provide a means of declaring a dividend of this amount payable in some form of security which our common stockholders can sell and dispose of should they so desire without surrendering any part of their interest in the company's earnings which would be the case should they sell part of their common stock.

RECOMMENDATION

After very careful thought and consideration my recommendation is as follows:—

1. Organize a new corporation under the laws of the State of Delaware to be called E. I. du Pont de Nemours & Company, hereinafter called "Delaware Corporation", with an authorized capital of $240 000 000.00 divided into $160 000 000.00 par value of 6% cumulative non-voting debenture stock and $80 000 000.00 par value of common stock.

2. This new Delaware corporation to purchase all the assets, property, contracts and good will and assume all the liabilities of E. I. du Pont de Nemours Powder Company hereinafter called "New Jersey Corporation", for the sum of $120 000 000.00 payable as follows: $1 484 100.00 in cash, $59 661 700.00 par value in said debenture stock and $58 854 200.00 par value in common stock (being all of the stock of the Delaware corporation to be issued at this time).

3. The New Jersey corporation to declare a dividend of 200% to their common stockholders payable in Delaware corporation common stock at par.

4. The New Jersey corporation to offer to purchase all its outstanding bonds and stock as follows:

a. $14 166 000.00 par value 4½% bonds to be purchased at par payable in Delaware corporation debenture stock at par. Thus a person holding $10 000 of our 4½% bonds will receive in exchange $10 000 in 6% debenture stock, the interest on which at 6% per annum

amounts to $600.00

as against a present income of 4½% on $10 000, or 450.00

This results in a gain of $150.00

which is equal to an increase in annual income of 33⅓%. This offering seems so attractive as to almost insure acceptance on the part of our 4½% bondholders.

b. $1 230.000.00 of our 5% bonds to be called at 105 and interest under the provisions of the mortgage and paid for in cash. These bonds carry a sinking fund provision under which $124 000 per annum are retired. Bonds mature in the year 1922.

All bonds purchased under subdivisions (a) and (b) shall be cancelled and retired.

c. $16 068 600.00 par value 5% cumulative preferred stock to be purchased at par payable in Delaware corporation debenture stock at par. A person holding $10 000 par value of our preferred stock will receive in exchange $10 000 in 6% debenture stock, the interest on which

at 6% per annum equals $600.00

as against a present income of 5% on $10 000, or 500.00

resulting in a gain of $100.00

which is equal to an increase in annual income of 20%. This offer should be most attractive to our preferred stockholders for the reason that in addition to an increase of 20% in annual income through exchanging, they receive a much better security in the 6% debenture stock than they now have in their 5% preferred stock for the reason previously stated that there will be no mortgage or other fixed lien ranking pari passu or ahead of the debenture stock, whereas our preferred stock now follows $15 396 000.00 of bonds. It is true that the voting privilege is surrendered, but this is immediately regained in case of bad management. The proposed debenture stock is fully described on page 6 of this report.

REASONS FOR INCORPORATING NEW COMPANY UNDER DELAWARE LAWS

Our previous plan was to amend our charter to accomplish our financial reorganization, but our legal department point out that it will be much simpler and is only a short step further to form a new company. This gives us opportunity to go back to our original name, i.e., "E. I. du Pont de Nemours & Company" and to incorporate under the laws of the State of Delaware. From a sentimental standpoint these are both desirable, but more substantial reasons are pointed out by the legal department as follows:—

1. To amend our charter will require a special meeting of our stockholders to create debenture stock, which debenture stock when created will follow our two bond issues and rank even in lien with our present preferred stock and, therefore, will not be as attractive in an exchange offering as will the sceurities of a new company whose debenture stock will have no mortgage or other fixed lien ranking prior to or pari passu with it. Later a second meeting of

stockholders will be necessary to again amend our charter to retire the preferred stock.

2. Our charter with its amendments is now so voluminous as to be cumbersome.

3. a. Owing to amendments to the general corporation laws

of the State of New Jersey, passed since the time of securing our charter, restrictions have been placed upon the powers of New Jersey corporations which appear to be undesirable, and which in our belief impose not only unnecessary restrictions, but are so uncertain in their meaning and effect as to leave the question of our corporate powers in great confusion.

b. The charges and taxes imposed by the State of New Jersey upon these corporations are considerably greater than those imposed by the State of Delaware.

c. The inheritance tax laws of the State of New Jersey are not only onerous, but are difficult to comply with and have been the occasion of much annoyance to our stockholders where death has intervened. There are no similar requirements under the Delaware statutes.

d. Under the constitution of the State of Delaware shares in the capital stock of Delaware corporations, when owned by persons or corporations outside of the state, are not subject to taxation by any law now existing or hereafter to be made.

e. There is no personal property tax on the stock of corporations imposed by any law of the State of Delaware.

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f. Experience has demonstrated that the corporation law of the State of Delaware is less likely to be changed in any material and important particular than is the case in the State of New Jersey, and more certainty is, therefore, obtainable in incorporating under the laws of this State.

g. The plan will give the company the option to remove litigation to the Federal Courts of New Jersey, which may become a matter of considerable importance.

—6—

Reasons for and Description of Debenture Stock

In considering the financial reorganization of a growing industrial company such as ours one of the principal objects to strive for is to provide a senior security which will enable the company to obtain new capital at all times by paying the minimum rate therefor and one which will admit of the company's credit expansion keeping pace with its trade expansion.

Bonds are issued for limited amounts and must have fixed maturities, both of which features are objectionable as they unduly hamper the credit of a growing company.

American industrial corporations usually have large bond issues ranking ahead of their preferred stocks and after the payment of bond interest the margin of earnings to secure the preferred stock dividend is generally comparatively small. These preferred stocks have no preference except as against common stock, and it is usual to give the preferred shares a vote in order that they may have a voice in the maintenance of their slender margin of safety. To better illustrate the general status of American preferred stock, a list of the best known industrial preferred stocks is attached hereto and perusal thereof clearly indicates that new capital cannot be obtained at a minimum rate through sale of this class of security.

England has apparently recognized the necessity for corporations to be in position to issue securities with some degree of elasticity and under Act of Parliament, passed in 1863, with various amendments since that time, corporations have been granted the right to issue "DEBENTURE STOCKS". A few of these debenture stocks are secured by mortgage, but as a rule the security is a floating charge on the entire properties and earnings of the company much the same as that of our 4½% bonds. The debenture stock has no vote and provision is usually made under which additional debenture stock may be issued from time to time, provided the total amount issued does not exceed a certain percentage of the total capital of the company. It is suggested herein that our debenture stock be given equal voting privileges with the common stock in case the earnings of the company in any calendar year are equal to less than one and one-half times the interest accrued on the debenture stock issued and outstanding during such year; also, that the debenture stock be given sole voting privileges to the exclusion of the common stock in case of default in any quarterly dividend on the debenture stock continuing for six months. English debenture stocks have no vote, but the managers of Lloyds Bank Limited, the London City & Midland Bank and Messrs. Glyn Mills Currie & Company feel that this proposed voting privilege will strengthen the security in that it will give the senior security holder opportunity to come into the management of the property in a case of trouble before the assets are so dissipated as to make rehabilitation of the company practically impossible, or such as to require an exorbitant amount of new capital. In order to secure such new capital debenture stockholders might have to subjugate their rights to those of such new capital.

If the above reasoning is correct it would seem that we should issue a senior security with proper degree of elasticity; that such security cannot be a bond and we are not warranted in justice to ourselves and successors to class it with American preferred stocks, that English debenture stocks are exactly in line with the nature of security contemplated and command a high position in the category of investment securities and we are, therefore, justified in selecting "DEBENTURE STOCK" as the name of our senior security.

Granting the selection of name is proper, the nxt step to consider seems to be the conditions under which this debenture stock is to be issued, on which please note the following comments:

NON-VOTING The ownership of an undertaking is usually that of the common stockholders; their capital assumes all the risk and is annihilated before any risk is assumed by the senior securities and the earnings are theirs after paying the agreed interest rate to the senior security holders, who, therefore, may be considered as lenders of capital—not investers in the enterprise. The sole interest of the senior securities in the operations of the enterprise lies in the direction of insuring the safety of their own investment; this, however, is also one of the prime interests of the common stockholders, whose selfish interests prompt them to secure their creditors in every way possible in order to be in a position to secure the maximum amount of capital at the lowest interest rate. Such being the fact, there is no warrant for giving voice in the management to the senior securities unless the nature of the undertaking or the methods of the common stockholders fail to produce that measure of safety that may be properly expected by a lender of capital.

RETIREMENT It would seem well to provide some figure at which the stock may be called in whole or in part for payment or retired in voluntary liquidation and it is suggested that provision be made under which this may be accomplished at $125.00 per share. On involuntary or forced liquidation, however, the stock will receive par.

It is, therefore, recommended that the charter of the company carry the following provisions regarding debenture stock:—

Debenture stock to be a six per cent. cumulative non-voting stock with the following conditions:

The debenture stock to have no vote on any question whatever, except (a) in the event that the company shall fail to pay any quarterly dividend thereon, and such default shall continue for the period of six months, in which event the debenture stockholders shall have the sole and exclusive right of voting to the exclusion of the common stockholders for the ensuing year and for each year thereafter until the company shall pay all accrued dividends on debenture stock, and (b) in the event of the earnings of the company in any calendar year amounting to less than one and one-half times the dividend accruing on the debenture stock issued and outstanding during such year, the debenture stockholders shall have equal voting rights with the common stockholders, which voting rights shall continue until the net earnings for some future calendar year shall equal one and one-half times the annual dividend on the debenture stock,

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issued and outstanding in such future year.

New debenture stock may be issued from time to time to provide fresh capital, to pay for properties acquired or to convert the company's surplus account in whole or in part into capital account provided, however, that the net assets of the company above all direct liabilities except capital stock liability shall never equal less than one and one-half times the par value of debenture stock issued and outstanding.

New issues of debenture stock may be offered for sale to debenture stockholders to the exclusion of the common stockholders, or may be offered to both the debenture stockholders and the common stockholders at the discretion of the directors, but in no event shall the debenture stockholders be excluded from participating in the issue, except in cases where the directors may find it necessary or desirable to issue debenture stock directly to the seller in payment for property, cash or other assets which the directors may find it necessary or desirable to purchase for account of the corporation, or where the directors may find it desirable to declare a dividend on the common stock payable in debenture stock. Nothing herein contained shall prevent the directors from selling debenture stock for cash to persons other than stockholders of the company after the same has been offered to and not taken by such stockholders.

No mortgage, specific lien or pledge may be placed upon the whole or any part of the property of the company without the consent of 75% in amount of the debenture stock then outstanding. This prohibition shall not apply to purchase money mortgages or the assumption of mortgages or liens upon property purchased, nor shall it prevent the pledge of securities at any time, held and owned by the company, for the purpose of securing cash to be used in the ordinary course of the business of the company, provided such cash advances are secured on obligations of the company with maturities not more than three years from date thereof.

Any of the provisions of the certificate of incorporation

securing the debenture stock may be altered, amended or modified by and with the consent of three-fourths of the debenture stockholders concurring with two-thirds of the common stockholders.

Debenture stock may be called for payment in whole or in part at any time or retired in voluntary liquidation at $125.00 per share and accrued and unpaid dividends to date of such call or retirement; in involuntary liquidation it shall receive par plus accrued and unpaid dividends.

J. J. Raskob (Stamp).

Note. "11548" and "Received Aug 3 1915 J.A.H." are stamped at top of first page. "J.A.H.", "Exec. Com. #5548", and "Fin Com #5549" are handwritten at top of first page. "Return to Executive Committee Room 9069" is stamped along lower left margin of first page. Lines on document pp. 6 and 7 are hand drawn.

Defendant's Exhibit (DP) No. 77

Mtg. No. 364
March 31, 1915.

EXCERPTS OF A REPORT TO THE EXECUTIVE COMMITTEE DATED DECEMBER 31, 1914.

EXECUTIVE COMMITTEE,

The following is a brief report of the work done at the Experimental Station during the six months ending December 31, 1914.

—4—

INVESTIGATION OF THE MANUFACTURE OF CELLULOID:

Plans were completed and work commenced on the installation of an experimental celluloid plant at the Experimental Station under an appropriation granted to the Development Department. At the date of writing this report (March 31, 1915) the pot nitrating equipment is ready to operate and the mixing, rolling, pressing and sheeting machinery will be ready when needed.

PHOTOGRAPHIC FILMS:

A preliminary investigation was made at the request of the Development Department of certain formulae for the preparation of sensitized emulsions and methods of applying them to films. A comparison of the formulae with those found in the literature indicated that there are no especial secrets about the formulae, but that the difficulty of obtaining good emulsions lies rather in the mechanical operations. The first attempts to prepare negative emulsions were unsuccessful, but the difficulty was found to be local overheating. An arrangement for heating the emulsion was devised which gave fairly satisfactory results.

5791

MANUFACTURE OF DIPHENYLAMINE:

In the manufacture of smokeless powder it is considered necessary to add a small percentage of diphenylamine as a stabilizing agent. Diphenylamine has never been manufactured in this country in any quantity and, when the war conditions interrupted the supply from Europe, it became necessary at once to take steps toward its manufacture. The subject became of acute importance because of increasing smokeless powder output and the work was divided between the Eastern Laboratory and the Experimental Station. Manufacture was commenced at Repauno during December. Much difficulty has been experienced in securing satisfactory enameled digestors and yields so far have not been up to expectations. At the present time (March 31, 1915) with three digestors the capacity is about 12,000 pounds per month and additional apparatus is being installed with the expectation of bringing the output up to 50,000 pounds per month by May 1, 1915.

PRODUCTION OF TOLUENE:

The lack of sufficient toluene to keep the trinitro-toluol plants running at their capacity made it desirable that possible syntheses of this compound be investigated, and especially that a method of synthesis be developed which

could be utilized immediately. Experiments were started late in December and the indications are that the method selected will be feasible on a commercial scale.

Charles L. Reese

NOTE: In the upper right hand corner is stamped, "Noted I. duP." Two stamps appear in the center of the document—one reading "Executive Committee, Secy's No. 5257" and the other "passed by Executive Committee 4/12/15 Mtg. No. 365."

Defendant's Exhibit (DP) No. 78

Serial No. L-518
July 26, 1915.

Mr. R. R. M. Carpenter.

DYESTUFF—INTERMEDIATES.

I am attaching hereto a number of charts showing products which we are either making or can make with very slight expenditures. For all of these products there is a demand in this Country and in fields which we have not, up to this time, entered.

BENZOL DERIVATIVES.

Nitro-Benzol:

This product we are already making in large quantities. In addition to our own requirements there is quite an extensive demand for this material. Heller & Merz Co. use about six tons per year; Schoellkopf, Hartford & Hanna use about twenty tons per month. The Rubber Industry requires large amounts, the Goodyear Company alone using about twenty tons per month. As far as I can learn the rubber companies reduce this to aniline which is the product which they actually require. Of course we could supply either nitro-benzol or aniline, whichever was the more profitable to us.

Meta-Dinitro-benzol:

This product is already being made in our plants. Heller & Merz Co. use about twenty-five tons per year. Central Dyestuff & Chemical Company use about fifteen to twenty tons per year. This product is, evidently, used for the production of meta-phenylene-diamine, the latter product being used for the production of bismarck brown. The preparation of meta-phenylene-diamine from meta-dinitro-benzol is just as easy as the production of aniline from nitro-benzol.

Chlor-benzol:

We have already contracted for a large amount of chlor-benzol. The derivatives of most importance are para-nitro-chlor-benzol and chlor-dinitro-benzol. We have already had an inquiry for twenty-five tons of para-nitro-chlor-benzol. The para-nitro-chlor-benzol is used for the production of para-phenylene-diamine through para-nitro-aniline. Para-phenylene-diamine is the starting point for a number of dyes. In the manufacture of picric acid from chlor-benzol we will produce nitro products and it will only mean the separation of them at the proper stage in the operation in order to supply whatever demand there is for these products in the dyestuffs industry.

Benzidine:

This is produced by the reduction of nitro-benzol, a milder reducing agent being employed than that used for the production of aniline. It is the starting point for a large number of dyes. Schoellkopf, Hartford & Hanna alone require one hundred tons per year.

Aniline:

We are already producing this in large quantities and the process has been worked out pretty well.

Diphenylamine:

Of the products derived from aniline diphenylamine is one of the most important. We are already producing this in large quantities.

Para-nitro-aniline:

Produced from para-nitro-acetanilid which, in turn, is produced by the nitration of acetanilid or from para-chlorbenzol. This product is an intermediate in the production of para-phenylene-diamine which has been mentioned before under the chlor-benzole.

—3—

Dimethyl aniline:

A plant is now being installed for the manufacture of this product. A large amount of it is used in the Dyestuff Industry. A considerable amount of diethyl aniline is also used. This could be manufactured by the same process as the dimethyl aniline.

Acetanilid:

This is produced by digesting together anilid and glacial acetic acid. There is quite a large demand for it in this country. Price in normal times is about 21¢ per pound. Present quotations are around 65¢.

Hydro-Chinon:

This is used as a photograph developer. It is produced from aniline by oxidation with potassium bichromate and reduction of the quinone formed by sulphur-dioxide. Process is comparatively simple. The yields are very good. The market price at present for this material is about $4.50 per pound.

TOLUOL DERIVATIVES.

Ortho-Nitro-Toluol:

This is produced together with para-nitro-toluol in the first stage of our T.N.T. manufacture. Keller & Merz Co.

use about thirty tons per year of a mixture of ortho and para. The ortho compound is easily separated from the para by distillation. By reduction of the ortho compound we obtain ortho toluidine and telidine, just as nitro-benzol yields aniline and benzidine.

Para-Nitro-Toluol:

This compound, prepared as stated under ortho-nitro-toluol, yields para-toluidine and dipara-telylamine by the same re-actions that nitro-benzol yields aniline and diphenylamine. Both compounds are extensively used in the Dyestuff Industry.

Dinitro-Toluol 1.2.4.:

This is produced in the second stage of our T.N.T. manufacture. We are already separating it in a fairly pure state. Heller & Merz Co. use about fifty tons per year. They probably require it for the production of alpha-toluylene-diamine, which is produced from dinitro-toluol by the same re-action that nitro-benzol yields aniline.

PHENOL DERIVATIVES.

Para-nitro-phenol is used quite extensively as an intermediate in the production of photograhic developers metol, rodinal and amidol. It seems likely that a market could be developed for this product. We could manufacture it in the same apparatus as we use for picric acid, except that we would have to separate it from the ortho-nitro-phenol formed at the same time. Separation is easily accomplished, being nothing more than a distillation with steam.

PICRIC ACID

There is considerable demand for picric acid in normal times for the Leather Industry. If we should make para-nitro-phenol any residues of this product or of the ortho compound could be converted into picric acid and made salable.

NAPHTHALENE DERIVATIVES.

We are already obtaining quite large quantities of crude naphthalene at the Bayway and Deep Water Plants. Plans for a naphthalene subliming plant have been prepared and I understand that the Operating Department is now putting through Work Order Card for this project. We are already nitrating quite a large amount of naphthalene and I understand that the production of this material is to be increased. The alpha-mono-nitro-naphthalene yields alpha naphthylamine by reduction, just as nitro-benzol yields aniline. The Dyestuff Trade requires a large amount of alpha-naphthylamine.

BETA-NAPHTHALENE-SULPHURIC ACID:

This is an intermediate in the production of beta-naphthol for which there is a large demand. Schoellkopf, Hartford & Hanna use about one thousand tons per year. The re-actions involved in the production of beta-naphthol from naphthalene are the some as those for the production of phenol from benzine. It seems likely that the Plants now being erected in this Country for the production of synthetic phenol will turn to the manufacture of beta-naphthol when the war is over. As we have not taken up the manufacture of synthetic phenol it might be unwise for us to attempt to make beta-naphthol on account of the competition.

In connection with the demand for all of these products I am giving below a list of products which are classified in the quarterly statements of imports entered for consumption under Coal Tar Products, not medicinal and not colors or dyes.

Toluidine,
Xylidin,
Cumidin,
Binitrotoluol,
Binitrobenzol,
Benzidin,
Tolidin,
Dianizidin,
Naphthylamin,
Diphenylamin,
Benzaldehyde,
Benzyl Chloride,
Nitro-benzol,
Nitro-toluol,
Naphthylaminsulfoacids,) and their sodium
Naphtholsulfoacids,)
Amidonaphtholsulfoacids) or potassium salts
Amidosalicylic acid,
Binitrochlorbenzol,
Diamidostilbendisulfoacid,
Metanilic acid,
Paranitranilin,
Dimethylanilin.

Of a total of twenty-three compounds we are making, or are in a position to make with comparatively small additional expenditure, twelve. The value of the imports for the first half of 1914 was $306,083.00. Assuming that the products are all of equal value, there is a possible business of about $300,000 per year in the products which we would make. During the same period the imports of aniline oil amounted to 922,733 pounds, valued at $72,512.00, or, approximately, 8¢ per pound. Of aniline salts 1,590,916 pounds were imported, valued at $111,457.00 or, approximately, 7¢ per pound. The prices in the trade are usually about 3¢ higher than those given in the Government reports, but unless benzol goes to a very low price after the war we would not be able to meet the prices above given.

I wish to state that most of the information in this report is compiled from data collected by Mr. Richards, Mr. Rocker, and the Chemical Division. Additional information concerning trade requirements at prices is being collected as rapidly as possible.

Yours very truly,

A. D. Chambers.

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Defendant's Exhibit (DP) No. 79

Wilmington, Delaware,
January 15, 1916.

To — Executive Committee
From — William Coyne

At our Monday's Meeting, I propose to introduce the following resolution:

Whereas, we have approximately $22,000,000. invested in Hopewell, Virginia, Plant, and have orders to keep the Plant employed only to the end of November, 1916.

Therefore, be it resolved:

That, notwithstanding there is likelihood of further orders, the work of finding employment for that plant, either on present product, or different product or products, be most actively prosecuted:

That the United States Government be approached to ascertain if it would be possible to arrange for it to pay upkeep, depreciation, taxes, operating expenses, and six percent upon the actual investment, for not less than ten (10) years, provided we, at the conclusion of our heavy business, hold the plant subject to their use:

That the Committee has no more important duty before it than the conservation of $22,000,000., and until further notice the matter be given attention by the Executive Committee every second week, and a

Progress Report to the Committee be made every second week by the Department in active charge of the subject.

WM. COYNE.

5800

NOTE: "Return to Executive Committee Room 9069" is stamped at the bottom of the document. A circular stamp reading Executive Sec'y No. 6093 appears in the top center of the document.

Defendant's Exhibit (DP) No. 80

January 18, 1916.

MR. R. R. M. CARPENTER:

SUBJECT: FUTURE USE FOR HOPEWELL PLANT:

Action Taken By Executive Committee,

At Meeting January 17, 1916.

REMARKS:

Communication from Mr. Coyne dated January 15, 1916, (#6093) attached hereto:

It was moved and unanimously carried that this communication be referred to the Development Department with a request that they submit to this Committee for consideration at our next regular meeting a progress report on what has been done to date in the matter of finding new uses for our Hopewell Plant, together with their recommendations, if any, as to what should be done in the future.

M. D. Fisher,

Sec'y. Executive Committee.

3/ Encl.

Defendant's Exhibit (DP) No. 81

Serial No. S-576
January 19, 1916.

Executive Committee,
Building.

Hopewell Plant—Progress Report

Gentlemen:

In accordance with the Advice of Action of the Executive Committee as of January 17th under the subject "Future Uses for Hopewell Plant" we are submitting attached hereto a letter from Mr. Edgar of this Department for your information.

Yours very truly,

T. S. Carpenter, Jr.
Assistant Director Development Dept.

WSC:M

Serial No. 576
January 19, 1916.

To Executive Committee
From Development Department

HOPEWELL PLANT — PROGRESS REPORT

Partial Later Use of Hopewell Plant:

After making a careful inspection and study of the Hopewell Plant and its equipment we are impressed with the probable impossibility of finding any one industry capable of using a plant of this size through a long period of time. While the present demand for explosives may continue for sometime we may be reasonably assured that only a portion of the present equipment will be useful after the present European Wars are settled.

GOVERNMENT REQUIREMENTS:

It may be that the United States would look with favor upon a plan for maintaining possibly a major portion of this plant in workable condition or in such condition that it can be quickly prepared for active manufacture in case of need. This plant is sufficiently inland to make its defense possible and is well located for the economic handling of cotton by rail to this point.

GENERAL STUDY:

In the majority of large manufacturing enterprises the major portion of investment is in land, rail and water facilities, including the installation of both broad and narrow gauge track, storage facilities for both raw materials and finished product, water supply and sewage, power

equipment and storage of coal, employes houses, offices and commissary, stables and the general equipment in cars, tools, repair shops, and buildings for housing the equipment which might be used for other manufacturing purposes. The direct investment in special equipment which in this case consists in the manufacture of Nitric Acid, Sulphuric Acid, purified and nitrated cotton, not including buildings, is a minor portion of the total plant cost.

The study of the possibilities at Hopewell is somewhat simplified by the size of the plant and its location. Only comparatively large industries need be at first considered on account of the plant facilities, as small industries, in which the specialized equipment is a factor, would not take advantage of an appreciable portion of the Hopewell plant facilities.

RAW MATERIALS:

Hopewell is about 80 miles by water from Norfolk and no large sea-going boats can be expected to dock at the plant wharf. The present channel of the James River is dredged to a depth of 20-ft. and will require constant Government dredging to maintain this channel on account of the amount of silt deposited each year by the rivers and streams flowing into the James between Richmond and Norfolk. The channel is torturous so that it is improbable that its present condition will ever be greatly improved. It is possible to barge raw materials even with sea-going tugs but in the case of materials coming from Abroad this would involve a transfer at Norfolk, including this handling charge which in case of some materials should not be excessive. Hopewell is well located for the receipt of materials by water both from the East coast and Abroad.

—3—

DISTRIBUTION OF FINISHED PRODUCT:

The economic point for rail distribution considering the whole of the United States and Canada is Detroit or in that vicinity. This has been clearly proven by the automobile industry and has been worked out by this Department in the case of box supply for our various plants. Hopewell is well located for distribution for the East coast and it should here be noted that the probable consumption of the products of Hopewell would be in the East due to manufacture.

GENERAL CLASSIFICATION OF MANUFACTURES:

Manufactures may be generally classified as mechanical or chemical. In mechanical manufactures the United States is far in advance at present of any country in the world. In the chemical manufactures Germany is undoubtedly in advance of any country in the world. In considering the possibilities at Hopewell we believe the facilities are peculiarly adapted for chemical manufacture, although it is probable that in mechanical manufacture this location would be well adapted for the manufacture of paper and gray goods for use in the manufacture of artificial leather.

CHEMICAL MANUFACTURES:

In chemical manufacture Abroad one of the chief advantages is the low cost of labor. In some classes of work in Germany involving more or less skill, workmen receive 8c to 12c an hour as compared with corresponding rates of 18c to 22c an hour in this country under normal conditions. In all probability at the close of the present War there will be marked advances in labor rates due to a shortage of men. The Badische Company employed at the start of the War approximately 12,000 workmen in their plant, the first service call the German Army, we are informed, drew out 6,000, and the second call 3,000. Later it was found that

certain classes of work of the Badische Company was seriously affecting war supplies and some of the workmen were put back into the factories. This type of confusion was strongly manifest in the cyanamid industry in Germany when a large percentage of the workmen were drawn under arms and before they could be returned a number of men, some of whom were foremen or superintendents of branch operations in the factory, and one general foreman, were killed, or disabled so as to be unfit for factory work.

FERTILIZERS:

The manufacture of fertilizers at Hopewell presents certain marked advantages among which are: (1)—plant location near Norfolk with short haul of phosphate rock from Florida and South Carolina deposits, (2)—plant handling and storage facilities for large amounts of raw material, (3)—sulphuric acid manufacture, although this would require modification perhaps requiring major changes in equipment, (4)—good location for the receipt of potash from Abroad, (5)—location well adapted for shipments to the South, Baltimore District, Philadelphia District and the New England market, (6)—the plans for the future development of the fertilizer industry are in strong hands and I believe these interests would favor a location in the South for a large eastern central plant.

OTHER CHEMICAL MANUFACTURES:

There are a number of other chemical industries which would apparently be economical at this point either for partially treated raw materials or finished product such as artificial silk, celluloid, films, pyroxylin solutions, dyes and other coal tar products.

—5—

PAPER:

Under Exhibit "A" are shown specifications on 37 of the largest manufacturing industries in the United States at present, arranged in the order of their percentage earning on capital. From this table it will be noted that paper and pulp manufacture rank tenth in capital invested and show an earning on capital invested of only 7-6/10%, whereas fertilizers ranking as 37th in capital invested, show an earning of 11-4/10%, and chemicals ranking 28th in capital invested, show an earning of 15-3/10%.

From the information so far obtained it appears that a larger profit is made in the manufacture of pulp than in the manufacture of finished papers, and that the manufacture of high grade linen and cotton papers are not at present earning a large return on investment. The study of the paper industry is a large one involving a great variety of product. There are three general classifications of wood paper: first, mechanically ground wood pulp paper as used for newspaper manufacture; second, sulphite paper which is made from wood stock and an acid treatment giving a strong fibre paper used for the manufacture of bags and wrapping paper; and third, soda pulp which is a wood product treated with an alkaline. Abroad sulphate pulp is used extensively. This sulphate paper is tough and would be particularly adapted for parcel post packages and expressage.

Mechanically ground wood papers require a considerable amount of power in their manufacture, and from the data collected to date, it would seem that the power cost is an important factor in the manufacturing cost, and that the

use of economically developed water power is of prime importance. It has been found in the limited study made to date that a number of newspaper manufacturers use a large percentage of auxiliary steam power, due principally to the growth of the industry and the lack of water power at plant locations during a portion of the year. It would seem that other things being equal, the companies located at large cheap water powers and having a cheap raw material supply of wood have a distinct advantage over their competitors.

The present digestor capacity at Hopewell could be well utilized in the manufacture of cotton pulp for use in the manufacture of the better grades of paper if this material can be economically used to replace a portion of the rags now used in this industry. A study is now being made of this possibility to determine; first, what form of product could be used by the cotton paper trade; second, whether or not this material could be produced economically in competition with rags; and third, what volume of business could be expected for this use and the profit which may be hoped for.

It has been suggested that the acquisition of the Oliver De-linting Machine would be of advantage in controlling this possible market for cotton pulp and this subject is now being actively investigated.

RECOMMENDATIONS:

(1) In order to intelligently pursue the chemical side of this study the services of an industrial chemist of broad experience should be obtained and eliminate quickly unfruitful work and assist in the study of chemical industries economically possible at Hopewell.

(2) We would urge that this study be brought to the attention of all the heads of the Departments of the Company so that suggestions may be carefully considered and followed through in this study.

(3) We would further suggest that the proper officials of the United States Government be sounded as to the desirability of maintaining this plant in whole or in part for smokeless powder.

Approved by: Submitted by:

NOTE: A circular stamp appears in the center of the first page. RRM Carpenter is stamped under the words Approved by. An illegible name is stamped under the words Submitted by.

Defendant's Exhibit (DP) No. 82

January 26, 1916.

Mr. P. S. du Pont—Copy to Mr. R. R. M. Carpenter.

FUTURE USES FOR OUR SMOKELESS POWDER AND GUNCOTTON PLANTS.

Referring to attached report from Development Department dated January 19, 1916, in regard to future use for Hopewell Plant:

At meeting of the Executive Committee January 24th, careful consideration was given to the question of finding new uses for our Smokeless Powder and Guncotton Plants, and it was moved and unanimously carried that recommendations 1 and 2 in the attached report from the Development Department, revised to include all Smokeless Powder and Guncotton Plants, be approved, to-wit:

> (1) In order to intelligently pursue the chemical side of this study the services of an industrial chemist of broad experience should be obtained and eliminate quickly unfruitful work and assist in the study of chemical industries economically possible at our various guncotton and smokeless powder plants.
>
> (2) We would urge that this study be brought to the attention of all the Heads of the Departments of the Company so that suggestions may be carefully considered and followed through in this study.

Referring to the Development Department's third recommendation, to-wit:

> (3) We would further suggest that the proper officials of the United States Government be sounded as to the desirability of maintaining this plant in whole or in part for smokeless powder after the war."

it was moved and unanimously carried that the President be advised that it is the feeling of the members of the Executive Committee that the United States Government should be advised that we have at different points plants which were built or materially enlarged in order to fill abnormal orders; that after the European War is over and these orders have been filled said plants may be put to other uses, and we are now actively prosecuting a study to ascertain what purposes they can best be put to; that if the United States Government is interested in having these plants or any part thereof maintained as explosives plants, we of course, are willing to negotiate with the Government at any time, provided our negotiations for other disposition of such plants have not progressed to a point where it would be impossible to do so.

It was further moved and unanimously carried that the Development Department be requested to prepare an appropriation to cover the cost of properly studying the matter of future uses for our Smokeless Powder and Guncotton plants, it being the feeling of the Executive Committee that this subject is one which will warrant the creation in the Development Department of a special Division to give its whole time and attention to this subject, and that a progress report be submitted to this Committee every two weeks.

25 Sec'y Executive Committee.

NOTE: *W. S. C. Jr.* is stamped in the right hand corner. A handwritten check appears after the name Carpenter. Noted CU is stamped in the right hand margin.

SERIAL No. S-657.
FEBRUARY 1st, 1917.

EXECUTIVE COMMITTEE,
Building.

Gentlemen:—

EXCESS PLANT UTILIZATION AND NEW INDUSTRIES.

In view of the discussion and the tentative resolution offered by Mr. Raskob relative to report SU-118 Executive Committee No. 7836 held over from last Monday's meeting, I would like briefly to supplement the discussion.

I fully appreciate the fact that the Committee should be in possession of every bit of information possible before committing itself on such important subjects, and while I feel that full data have been placed from time to time in the hands of the Committee, I also feel that we have been to blame for flooding the Committee with too many progress reports, and that it would have been better to have supplied full report at the time we were prepared to make recommendation.

It has been suggested at various times that we should collect full data on the different subjects and later select those most attractive to us. This is really what has been done during the past eighteen months. The reports of May 15 (U-106) and May 31 (U-107) were the result of the rejection of a multitude of suggestions. These reports outlined a scheme of industrial development which then appeared to offer the best means for future progress. The investigations which resulted in the various reports subsequent to these dates have confirmed our belief in the system proposed, but the Executive Committee hardly could be expected, in view of the large number of reports, to keep in mind the details of the development planned, and I feel now that it would have been better to have held all this data or at least the Committee should

have been allowed to retain the past reports awaiting the final one. The idea of the reposts, however, was to present a gradual unfolding and checking of the general plan and in these various reports are answered nearly all of the questions recently asked on various matters, and particularly in connection with the proposed purchase of Fels & Company.

The Department, after practically eighteen months of study, has reached the point where certain industries seem best suited for our purposes (Reports SU-116 and SU-118), in that they appear best to combine the specifications of being suitable for our organization, promising from an investment standpoint, and by virtue of their possibilities in the expansion of a large tonnage business, as useful in plant utilization as we can expect.

Having reached this point we must decide whether we agree with the recommendations to adopt these industries for the utilization of plants and excess capital, as no movement from now on satisfactorily can be made without such decision. Certain purchases in order to secure processes and information, or good trade foundations, must be made, and detailed plans laid down for the most economical location of allied industries in their proper areas. Also to a certain extent, the personnel of the Department depends on this question.

I attach herewith a chart (arranged in harmony with the graphical charts of report SU-116) with topical index, which endeavors to show more clearly and in more detail, than report SU-118, the financial forecast therein given. Some modifications and rearrangements have been made.

Details of information may be secured by referring in the chart and the index, to the index number given in the first column of figures in the chart and the first column in the topic index where report and page number will be found relating to the topics given on the heading.

It must be understood that the chart really represents

but the beginning of a development which easily may require a generation for the expansion which seems entirely possible for the industries selected.

If the amount given in column "Utilization of plant investment" seems small at the beginning as compared with the total cost of the war expansion, it must be remembered that this will steadily increase as expansion proceeds. As an instance, the utilization at Hopewell, of cotton purification plant is arbitrarily fixed at $300,000. This is the equivalent of thirty-five tons daily of paper stock utilizing only six to eight digesters or about 12,000 tons per annum. It is possible that this might grow to nearer 100,000 tons per annum, with a corresponding increase in plant utilization. As these industries grow the utilization of the primary facilities of land, tracks, water supply, power and housing must steadily increase. Detailed investigation of the possibilities of building and equipment utilizaton up to this time has not seemed warranted in the determination of industries suitable for our needs.

I therefore recommend the adoption of the following resolution:—

WHEREAS, the Development Department has, during the past eighteen months, been engaged in the matter of finding industries allied and otherwise to our organization which will be capable of utilizing our military powder plants after the war, and

WHEREAS, this study develops the fact that there are no industries which will likely use much more than 25% to 30% of the value (cost) of these plants, and

WHEREAS, it has been developed that there are industries which can utilize much more extensively our organization, and at the same time offer good returns;

RESOLVED, that it is the sense of the Executive Committee, and that the Development Department be advised as follows:—

That from the studies made and reported in detail to this Committee, the Executive Committee are of the opinion that the energies of the Development Department should therefore be in the direction of employing our organization to the full and that their efforts be confined, especially as to future action, to the development of the following industries:—

1—Dyestuff and allied organic chemicals

2—Vegetable oil industry

3—Paint and Varnish

4—Water Soluble Chemicals

5—Industries related to Cellulose and Cotton purification.

Very truly yours,

R. R. M. CARPENTER (Stamp)
VICE PRESIDENT.

NOTE. In upper right hand corner of first page appears stamp: "Noted, W. S. C. Jr."

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SPECIAL TOPIC INDEX.

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Note:

Page 5819 is on card 56.

Defendant's Exhibit (DP) No. 84

COPY

R I du Pont de Nemours & Co.

ADVICE OF ACTION

February 6, 1917.

Mr. R. R. M. Carpenter

Subject Utilization of Excess Plant Capacity
Investment in New Industries:

Action Taken by Executive Committee
At Meeting February 5, 1917.

Remarks

Referring to your reports of January 26, 1917 (#7836) and February 1, 1917 (#7873) on the above subject.

The following resolution was offered and unanimously adopted:

Whereas, the Development Department has been studying the problem of utilizing our military powder plants after the war; and

Whereas, this study develops the fact that there are no industries which will likely utilize more than 25% of the value (cost) of these plants; and

Whereas, it has been developed that there are industries which can utilize much more extensively our organization and at the same time offer good returns.

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RESOLVED, that it is the sense of the Executive Committee, and that the Development Department be advised as follows:—

That from studies made and reported in detail to this Committee, the Executive Committee are of the opinion that the energies of the Development Department should therefore be in the direction of employing our organization to the full and that their efforts be confined, especially as to future action, to the development of the following industries:—

1. Dyestuff and allied organic chemicals.
2. Vegetable oil Industry;
3. Paint and Varnish;
4. Water soluble chemicals;
5. Industries related to cellulose, and cotton purification.

(S) M. D. FISHER
Sec'y Executive Committee

Defendant's Exhibit (DP) No. 85

Serial No. S-571
December 29, 1915.

Executive Committee,
Building.

Gentlemen:

DYESTUFFS

I have asked the Chairman to call this special meeting in order to discuss a policy to be adopted in reference to our entering the dye industry along the lines as suggested by Mr. M. H. Poucher, the head of the American Badische Company.

Mr. Poucher came to us about two weeks ago and stated that the American Textile Industry was in a very serious condition, due to the lack of dyes which had previously come in from Germany. He said that it was absolutely necessary, in order to prevent the complete shut-down of the Textile Industry, for someone to take steps to produce intermediates in order that the United States might secure a supply of dye from Europe.

There are three or four large dye plants in England that are willing to produce their full capacity of dyes if the United States can supply the intermediates, they to keep one-half of the dye produced for English consumption and to ship one-half to the United States, this arrangement to be made through Lord Moulton, who has full charge of the subject to England under the Government.

Mr. Poucher's suggestion to us was that the du Pont Company should immediately enter into the production of intermediates as far as they were able, these intermediates to be sold to a company to be organized by Mr. Poucher, in which we could subscribe up to 50%, Mr. Poucher's company to ship the intermediates to England under a contract to be arranged between Mr. Poucher's company and the English companies, the English companies to return 50% of their output of dyes to Mr. Poucher's company, who

—2—

would, in turn, sell to the Textile Industries under contracts to be arranged, the Powder Company to secure their profits through their 50% interest in Mr. Poucher's company, as well as from a profit on the sale of the intermediates. It is stated by Mr. Poucher that in this way the Dye Industry in this country, especially as far as the intermediates are concerned, could get a good start and by the time the war is over would be in a position to be independent of Europe. He states that it is not a question of an endless variety or a complete assortment of dyes, but rather a wise selection of possible and profitable articles.

The matter is so critical with the textile people that Mr. Poucher requests from us an immediate answer as to our position and has asked for a meeting with the textile people in Boston early next week. He states that there is in England today a quantity of about two hundred tons of dyestuffs which they would release to the United States if we could assure them in the near future of a supply of intermediates to make up this quantity for their own consumption. Several discussions have been had on this subject and I attach a memorandum of meeting held this morning between Mr. C. A. Meade, W. C. Spruance, Dr. Reese, and the writer.

There appears to me reasons both for and against our going into this proposition. I thoroughly concur in the opinion of the meeting held this morning that we should not go into a company with Mr. Poucher for the trade of intermediates and dyestuffs with England, but if we go in at all all to stop at the production of intermediates and leave the balance of the work to him.

The most serious part of it, from our standpoint, is that we have no plants at the present time available for the production of intermediates, nor have we any crude oils for the production of intermediates. We have either contracted or offered material which will occupy all of our plant up to the end of 1916 and considerably more raw material than we are covered for for the production of trivelene and trinitretoluol. There is a great scarcity of crude material in the country and every gallon that has appeared we have imme-

diately taken for our own requirements.

There is only one policy I can see that we could adopt and that would be a policy to stop the manufacture of explosives, using these materials at our present contracts plus what we have offered. Even with this is would mean that we would have to build a complete new plant at a cost of, in the estimation of the Operating Department, some hundred thousand dollars, and develop an entirely new supply of crude material.

As Mr. Poucher is talking about supplying intermediates to Germany within the next couple of months, it looks like a hopeless task for us. It is impossible, due to our inexperience, and also due to the fact that we have no idea what we would have to pay for oils, to estimate what the profits from the production of these intermediates would be.

The only advantage of our getting into this situation at this time would be that we would probably have a start on anyone else who should take it up after the war, but this is somewhat offset by the fact that we are compelled to build entirely new plants for this production and would have a tremendous excess capacity on our hands after the war. Again, in case the textile industries of the country are compelled to shut down, due to lack of dye materials, public opinion may severely criticise the explosive industries who have corralled the crude materials for shipment of explosives to Europe rather than allowing them to be utilized for the production of dyestuffs.

One point brought out by Mr. P. S. du Pont is that if we inform Mr. Poucher that we are not prepared to go ahead with the proposition he is very likely to get someone else to go in with him and in an endeavor to buy raw materials take a considerable amount out of the market and thereby increase the cost to us.

My personal feeling is that we should notify Mr. Poucher that we are not prepared to take advantage of his proposition for the following reasons:

First: That as all of our plant capacity is fully occupied we would have to build a complete new plant for the production of intermediates.

Second: Due to the scarcity of crude material.

Third: Due to the time of our technical men being fully occupied.

I might say that Mr. P. S. du Pont does not altogether agree with this step, owing to the fact stated above that Mr. Poucher with someone else will, no doubt, enter the market for the purchase of crude materials. He believes it would be better to state to Mr. Poucher that we will agree to enter into the production of intermediates if we can secure crude material over and above what is needed to fill our orders for explosives, or that after our present orders and offers are taken care of we will utilize one-half of additional crude materials we can secure for the production of intermediates.

I think this is a question of Company policy for the Executive Committee to decide, that is, whether we shall forego sure present profits on all of the crude material we could possibly buy for a problematic profit on the production of intermediates in which we are, up to the present time, inexperienced.

Yours very truly,

W. S. Carpenter,
Director, Development Department

Note: In the upper right hand corner of first page is stamped Noted RRMC. The name W. S. Carpenter is stamped at the end of the letter.

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R

Defendant's Exhibit (DP) No. 86

I. du Pont de Nemours Powder Co.

5827

ADVICE OF ACTION

December 30, 1915.

MR. R. R.M.CARPENTER:

SUBJECT DYE STUFFS.

ACTION TAKEN BY Executive Committee

AT MEETING December 29,1915.

REMARKS

"RESOLVED, that the Development Department be advised that the Executive Committee feels that due to the raw material situation and the lack of information on which to base any definite action we are not prepared to commit ourselves at this time to go into the manufacture of intermediates for the production of chemical dyes, but that the Development Department be requested to keep closely in touch with this matter with a view to securing final decision of the Executive Committee later.

M. D. Fisher

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Sec'y.Executive Committee.

NOTE: "Ex Com. Binder.C U 4, 228-D" is written in the upper right hand corner. "Noted WSC Jr., Noted GAW," and "R.M.C.," and "Noted CU" are stamped in the upper right hand corner of the document. "2 & 1 pink" with a line through it appears above the letterhead of the E. I. du Pont de Nemours Powder Co.

Defendant's Exhibit (DP) No. 87

D

To Executive Committee — Serial No. U-106.

From Development Department — May 15, 1916.

TENTATIVE REPORT ON GENERAL UTILIZATION OF PARLIN, CARNEY'S POINT AND HASKELL PLANTS.

This report is submitted from the standpoint that the above three plants can best be discussed together, while the other new or greatly enlarged plants should be considered separately.

Parlin, Carney's Point and Haskell have similar characteristics as to construction, location and management, so that one report covering the three plants enables a clearer discussion. The fundamental idea has been that of selecting certain new industries logical to each plant, which together with some assured existing business will enable economical operations. Another basic reasoning is that these new lines should not necessarily utilize at the start the whole of the excess plant capacities, preferably engage in the new manufacture on a modest scale at first, but capable of large, logical development.

REPAUNO:

It is assumed that this plant is assured of a large commercial business and the proportion of excess capacity is relatively small. A suitable development of the other plants requiring acids, aniline and similar raw materials for other industries will offer sufficient utilization of Repauno.

DEEP WATER POINT:

For several reasons which will be developed in a separate report this plant is held to be the logical one for an organic industry and plans under preparation will show ample utilization of the plant in a more economical manner than by any of the industries discussed in this report.

—2—

HOPEWELL:

On account of its location, size and construction this plant can best be considered by itself, and probably especially because there is at present no assured commercial business, with which new lines of manufacture must harmonize. Several special studies and special reports will therefore probably discuss this plant.

Hopewell has been proposed for manufacture of Pyraline. We can see no reason for this that does not equally apply to, for instance, Haskell. Further Haskell could utilize a proportionately greater part of its equipment (mixers, alcohol storage, refrigerating machinery, hydraulic presses,) not available at Hopewell, and the proximity to Arlington would give more economical management.

Hopewell has been proposed for manufacture of Fabrikoid. Exactly the same line of reasoning applies in this case. Hopewell is not logical for such industries and will receive separate attention.

PARLIN:

It is considered that the manufacture of varnish would be a logical new line for Parlin and one which should prove rofitable.

Uses for Varnish

Varnish is used very extensively all over the country for a great variety of purposes and in many ways similar to the uses for pyroxylin solutions now manufactured at Parlin. Of the uses may be mentioned; the protective covering of toys, cardboard, leather goods of all kinds, furniture, picture frames, interior decorations, finishing of floors of all kinds, book binding, etc. Varnish of different kinds is used in large quantities by manufacturers of furniture, leather goods, etc., while there is similarly a large consumption of varnish by numerous consumers each requiring relatively small amounts. Varnish is handled by every paint store and used by every painter in the country. It is unnecessary for the purpose of this report to investigate the actual consumption in this country of varnish which is well known to be of very great proportions or it's manner of distribution which is well known to be both in the form of wholesale purchases from the manufacturers and an extensive small package business.

Raw Materials Required.

Varnishes may be divided into two classes, i.e. spirit varnishes and oil varnishes. The purpose of varnish in either case is to leave on the goods to be covered a hard and smooth protective surface which is water-proof and which sometimes should be colorless and transparent but in other cases colored. The principal constituents are always one or more gums and a solvent which, in the case of oil varnishes, is composed of one or more vegetable oils, but in the case of the spirit varnishes is principally grain alcohol. The raw materials required are quite numerous and the principal ones are the following:

Grain Alcohol
Wood Alcohol
Benzol
Solvent Naptha
Turpentine
Rosin Spirit

Amber
Capal
Rosin
Dammar
Shellac
Sardarac
Mastic
and other gums.

Linseed Oil
Castor Oil
Rosin Oil
Copal Oil
and other oils.

To a small extent pigments are used similar to those used in paints and dyestuffs similar to those used in the manufacture of pyralin and pyroxylin solutions.

Methods of Manufacture.

The manufacture of spirit varnish is relatively simple, consisting essentially in mixing together the solvents, such as alcohol, with gums, such as shellac, in suitable proportions. In the case of manufacture on a large scale this should also include to some extent rectification of solvents as well as refining and purification of some of the gums. This manufacture is very similar to that of the manufacture of pyroxylin solutions from solvents and pyroxylin.

The manufacture of oil varnishes is similar to the spirit varnish and pyroxylin solution manufacture but involves relatively more manipulation and more equipment.

The equipment required for varnish making is relatively simple. It is not expected that any of the present powder

manufacturing machinery could be utilized to any great extent in the manufacture of varnish but portions of the general equipment, such as boiler plant, power plant, store houses, and storage tanks, grounds and buildings, as well as roads and railroad sidings could be utilized and the additional equipment required is not expensive.

The varnish making business is a large one with probably an increasing consumption due to a growing population and progressively high standard of living, which tends to increase the size of dwellings, increase in production of furniture and articles of both comfort and luxury, all of which must use varnish. It does not appear that any substitutes for the varnishes here discussed is possible. The pyroxylin varnishes and lacquers are more expensive to manufacture and are for many purposes much less suitable so that these need hardly be considered. Varnish making is a large business which is certain to be profitable if carried out under suitable conditions and should not require greater skill than can be obtained through our own developments aided by the services of a few practical men engaged from the trade.

General View-Point.

The subject of varnish manufacture and sales has been discussed personally with some members of the Smokeless Powder Operating Department and Sales Department and no objections have been made nor any special difficulties mentioned, it being apparent that the proposition of varnish manufacture and sales appeared satisfactory.

From the consumers standpoint and therefore from a sales standpoint, paint and varnishes go together and paint and varnish manufacture are therefore frequently combined. The combination of these two kinds of manufacture is also to an extent logical from a manufacturing standpoint. We are not at this time submitting any proposition in respect to paint manufacture, but attentionis called to the probability that paint manufacture should be kept in mind and may be proposed at a later date as a further extension of the manufacturing industries.

Special Reasons for our Company Engaging in the Manufacture of Varnish and Locating such Manufacture at Parlin Plant.

I. A certain proportion of excess plant capacity at the termination of the excess powder manufacture at the Parlin Plant may be utilized, such as a portion of the boiler plant, power plant, storage tanks, railroad sidings and roads, buildings and general facilities.

II. Owing to the similarity in manufacture and uses of varnishes and pyroxylin solutions the present force at the plant should relatively quickly become experts in varnish making and the combination would give great manufacturing advantages inasmuch as to a large extent a considerable proportion of the plant equipment and raw materials could be used for the manufacture of both pyroxylin solutions and varnishes, which would give a more economical utilization of the investment as compared with concerns manufacturing only one of the products.

III. Inasmuch as to a large extent varnishes are used for the same or quite similar purposes as pyroxylin solutions, varnish manufacture would give the Company a more complete business which would make it easier to meet trade conditions. The present sales organization could undoubtedly handle the varnishes to a large extent by the same salesmen and force in general as in the case of pyroxylin solutions and thereby reducing the selling expenses for both. To some extent pyroxylin solutions and lacquers compete with varnishes and our own varnish manufacture would place our salesmen in a position to supply products to the best advantage of the customer which would give our Company a stronger position with the trade.

IV. To a considerable extent the raw materials are the same in the manufacture of our present pyroxylin solutions and pyroxylin lacquers as compared with the varnishes, and in this connection our Company would have a stronger position than at least some other varnish makers. It is, for instance, understood that our Company is able to purchase its grain alcohol materially cheaper than it is possible for any other concern in this country and this would give us a decided advantage, in the manufacture of spirit varnishes. It stands to reason that with respect to other raw materials our Company should be able to obtain these as cheaply on an average as other concerns. Further, a particular advantage of our Company is that we would probably be in a position sooner or later to enter into the manufacture of raw materials, and thus in part reducing the cost to a greater extent than possible for the average varnish manufacturer. In this connection it is mentioned that a study is being made of our Company engaging in the oil production and oil refining of vegetable oils for several purposes such as, for instance, linseed oil for varnishes, etc. Another possibility would be that of undertaking the production of rosin and turpentine in conjunction with operations of the Georgetown alcohol plant by a suitable addition to this plant operated by the same management. Although the manufacture of varnish is proposed without being dependent in any way on projects such as this, they are mentioned as an indication of possible further development.

V. Engaging in the manufacture of varnishes will give an opening to the manufacture of paints which is a very large business and which could suitably be located at the Parlin Plant. This indicates the desirability of paint manufacture from a standpoint of further extension although it is a relatively less allied business than that of varnish making.

General Scheme of Utilization of Parlin.

I. Parlin is assured of a large and profitable business in its manufacture of pyroxylin solutions, solvents, commercial ether, etc.

II. The proposed spirit and oil varnish making will add considerable to the business, being capable of development into a volume as great or greater than pyroxylin solutions.

III. A future development into the large industry of paint manufacture is possible.

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CARNEY'S POINT:

Vegetable oil production and refining with allied industries is proposed for Carney's Point.

Reasons for Engaging in Vegetable Oil Manufacture.

I. Vegetable oil production and refining is a large and growing business. It is a growing business on account of increasing population and an even more rapidly increasing consumption of linoleum, oil cloth, artificial leather, varnishes, paints, soap, etc. for which oils are used. To a large extent oil manufacture is not connected with other industries and must therefore be capable of being lucrative by itself.

II. An oil plant would not utilize powder making machinery, but portions of plant could be utilized as follows:

Ground, railroad and wharf facilities,
Offices, chemical laboratory and storehouses
Steam boiler plant and power plant
Probably some hydraulic press equipment

III. Castor oil is consumed in considerable and increasing quantity for Fabrikoid and it would be advantageous and no doubt profitable to become independent of middlemen. Castor oil should be produced in such quantity as to cover more than the Fabrikoid demand.

IV. Castor oil is used for a variety of purposes, such as for instance for Turkey Red oil (made from castor oil and sulphuric acid) used in large quantities in cotton printing and dyeing, (for instance, Eddystone Print Works). The manufacture of Turkey Red Oil and other uses of Castor Oil could be developed.

V. Varnish manufacture has been recommended for Parlin. This would require among other oils, especially linseed oil. This linseed oil business could be increased by going into paint manufacture at Parlin.

VI. Manufacture of linseed oil would facilitate our engaging in the manufacture of oil cloth and linoleum.

VII. Production of fatty oils of various kinds would form a suitable starting point for soap, soapstock and glycerin production, by utilizing the lower grades of oils for these purposes.

—8—

It is almost necessary that the plant should be located on tide water and within easy reach by ocean going steamers, inasmuch as the raw materials would largely have to be imported from such countries as India, Philippine Islands, Oceania, Africa, etc. Hopewell is not suitably located and Repauno is assured of sufficient commercial business. Deep Water Point could be considered, but other plans are being prepared for this plant.

Reasons for Selecting Carney's Point.

General Scheme of Itilization of Carney's Point.

I. Carney's Point has a certain amount of commercial manufacture assured, such as bulk shot gun powder and commercial rifle powder and it would probably be found advantageous to operate the cotton purification plant.

II. It is assumed that some cannon powder orders will be obtained and that it will be the main reserve smokeless powder plant.

III. Vegetable oil production and refining would add considerable permanent commercial business as explained above.

IV. Carney's Point should be considered as the future location of a soap, fatty acid and glycerin plant to be studied later.

HASKELL:

A preliminary study of the utilization after the War of the Haskell Plant has led to the conclusion that this plant should be considered primarily for commercial nitrocellulose industries. This conclusion has been reached to a great extent by a process of elimination.

Fabrikoid:

It appears that Haskell is as well situated for Fabrikoid manufacture as any other plant of the Company's. There is little to choose with respect to cost of nitrocellulose. Parlin has the advantage of saving freight and handling of a portion of the solvent (ethylacetate), but this is not a large item and Haskell has cheaper fuel. Further, Parlin has an assured and considerable commercial business already and another line of expansion has been recommended. We are also more favorably impressed with the local conditions at Haskell. It is our understanding that the Operating Department prefers Haskell as the proper location for the new Fabrikoid Plant, whenever wanted, and this fits in with our plans.

Pyralin

To some extent the above statements apply to this subject. Ethylacetate is not used, so that Parlin has no advantage in this respect over Haskell. Haskell has the great advantage over the other plants of a purer water, which is of some importance and the proximity to Arlington should also be in its favor. We understand that the Arlington plant cannot expand much more and that the Operating Department of our Company would favor a new plant at Haskell, whenever wanted. This would fit in entirely with our plans.

Artificial Silk.

We cannot see any special reason at this time for entering on the viscose process. Our interest in the subject is only in case—in a measure against expectation—the pyroxylin process should prove attractive.

The Chardonnet, Nobel and other pyroxylin artificial silk processes were investigated very thoroughly some years ago, especially during 1909 and 1910. The Executive Committee of this Company decided against engaging in this industry at the time for very good reasons.

The strongest reason was probably that the then new viscose process was developing rapidly and it was expected almost with certainty that it would take the place of the pyroxylin process. However, the case does not at all appear definitely against the pyroxylin process.

Reasons for Greater Profit Under Present Conditions.

I. In 1910 the Chardonnet Company demanded cash payments for rights of $135,000 and a plant was figured for a capacity of 400,000 lbs. of silk per annum and a capitalization of $800,000. At 20% return on the investment this is equivalent to 7¢ per pound silk. Unquestionably the cash payment could be reduced to a relatively small amount now on account of the competition of viscose silk.

II. The excess plant capacity was not a great factor in 1910, but is now very important, and pyroxylin manufacture for silk would be closely related to such manufacture as Fabrikoid and Pyralin. Furthermore we have now an excess capacity of ether manufacture and ether is next to pyroxylin the most important rawmaterial. Pyroxylin, alcohol and ether constitute at least 80% of the total raw materials.

III. Great advancements have been made by our Company since 1910 in manufacture of nitrocellulose, solvent recovery, etc.

IV. The necessary plant investment would be much smaller than in 1910. Not only is there now available an ample nitrocellulose and ether plant, but also boiler plant, power plant, offices, laboratory, dwellings, hospital as well as hydraulic presses, which could be utilized for filtration of the solution and refrigerating machinery for solvent recovery. The old estimate was $428,460 actual investment.

Reasons Why the Viscose Process May not be Superior to the Pyroxylin Process.

Unquestionably the raw materials are much cheaper for viscose and only some special conditions might make it possible for the Chardonnet process to compete successfully. It is quite probable that without disadvantages the viscose silk can be manufactured at a cost of about 20 to 25 cents per pound less than for pyroxylin silk.

I. It appears that for the same weight and thickness of goods the pyroyxylin silk has 40% greater length. The merchant buys the silk by the pound and at least for some purposes sells it by the yard, giving a possible 10% price advantage of pyroxylin silk, if properly handled. The minimum price for artificial silk (wholesale) is probably $1.20 per pound, or a possible 12 cent advantage for pyroxylin. The price has always been much higher.

II. Seconds do not seem to appear on the market of pyroxylin silk, it being of very uniform quality. On the other hand, relatively large quantities are sold of ~~both~~ second and

third quality of viscose silk, at greatly reduced price. Assuming for the sake of argument, 30% seconds and thirds at an average price concession of 50¢ (say $1.25 instead of $1.75), this is equivalent to 15¢ per lb. of total product

These two factors might balance any difference in cost of production.

It seems probable that assistance and rights could be obtained readily and relatively cheaply and the manufacture would be well suited to the Haskell Plant. This plant would have better climatic conditions (less humidity) and purer water than Carney's Point and probably good labor conditions for girls and boys, being not far from Paterson, N. J., the seat of the silk industry in this country.

RECOMMENDATIONS:

It is recommended that this Company should engage in the manufacture of varnishes of the several varieties and

a.Parlin.

locate this manufacture at the Parlin Plant. This manufacture should be commenced on a relatively small scale and enlarged as warranted by developments. It is in this connection suggested that spirit varnishes could undoubtedly be manufactured with relatively little preparation and after relatively little study. It is also recommended that the Sales Department should obtain information on the subject and prepare for possible sales through its present customers.

It is further recommended that the best plan would be to engage the services of one or more persons of practical knowledge and engage at an early date in this business as the best means of obtaining information. In the case of a business of this nature a special study of plant investment and trade estimates appear unnecessary.

b. Carney's Point.

It seems advisable for our Company to engage in the manufacture of vegetable oils such as castor oil, linseed oils and also some other vegetable oils in order to cover the demand of

such oils for Fabrikoid, varnishes and future possible extensions into paints, oilcloth and linoleum, as well as possible manufacture of Turkey Red oil and other commercial uses for oils. It is considered that this would give the best starting point for a future soap manufacture. Carney's Point is proposed as the suitable location for this industry.

A commercial study should therefore be made of this subject and results submitted as early as practicable.

c. Haskell.

It is recommended that the Arlington Company and the Operating Department should be advised that it would suit our plans if a new Pyralin plant, whenever wanted, should be located at Haskell.

Similarly the Operating Department should be advised that it would suit our plans to have a new Fabrikoid plant, whenever wanted, located at Haskell.

We also recommend that a study should again be made of artificial silk from pyroxylin with a view to locating such plant at Haskell if estimated to be profitable.

PREPARED BY:

FIN. SPARRE (Stamp)

APPROVED BY:

R. R. M. CARPENTER (Stamp)

NOTE. "Noted W. S. C. Jr." stamped at top of first page.

Defendant's Exhibit (DP) No. 88

November 23rd, 1917.

COMPLETED RECOMMENDATIONS OF EXCESS PLANT UTILIZATION DIVISION.

During May 1916 two reports were submitted, outlining in a general way the new chemical industries proposed for a complete system of plant utilization. Further study of these plans was continued and in December 1916 a report was submitted giving a specific outline of the proposed new industries.

This plan has been consistently followed and the following industries, grouped under five heads, have been recommended and are in commercial operation.

Dyestuff and Allied Organic Industries:

An electrolytic chlorine and caustic soda plant has been erected at Deep Water Point. With this plant as a basis, the manufacture of chlor benzol, benzoic acid, benzaldehyde and phosphoric trichloride and chlor acetic acid have been added.

The general dyestuff group has been transferred to an operating department so that these may be considered in operation relative to the Excess Plant Utilization Division.

A salicylic acid plant has been acquired and put into operation, through the purchase of the Delaware Acid Works.

Water Soluble Chemicals, Acids, etc.:

A cream of tartar plant has been established at Hopewell, through the purchase of the Pan Chemical Company.

Although an appropriation request for a tartaric acid plant has been prepared by the Engineering Department at our request, and appropriation obtained for a portion of the equipment, we have not proceeded with this industry on account of the difficulty in obtaining raw material, which is produced only in

Europe. This manufacture is ready for completion whenever this situation becomes normal.

Bichromate of soda manufacture has been added through the acquisition of Cawley, Clark & Company.

Acetic acid, lactic acid, lead acetate, alum, alumina hydrate, sodium nitrite, strontium nitrate are new products added through acquisition of Harrison Bros. & Co. Inc. Additional capacity for sulphuric acid, nitric and hydrochloric acids and sodium acetate were also obtained by this purchase.

PAINTS and VARNISHES; COLORS and PIGMENTS:

These have been added through purchase of Kumaron patents, Harrison Bros. & Co. Inc., Cawley Clark & Company, and Beckton Chemical Company.

The cumaron patents furnished us control of a new base for paints and varnishes. Harrison's furnished a line of mixed paints and these important pigments, white lead, red lead, litharge, blanc fixe and some varnish. Cawley Clark furnished a line of colors and pigments very closely related to Harrison products. Beckton furnished lithopone. The acquisition of the Bridgeport Wood Finishing Company now in process of transfer will add to the mixed paint and varnish lines, but more particularly will establish a line of wood finishes.

INDUSTRIES RELATED TO CELLULOSE and COTTON PURIFICATION:

The purification of linters and hull shavings for cotton pulp for paper has not been found to be a commercial proposition and the subject has been dropped. The study of wood pulp and paper has been substituted.

Of the five groups of industries to which the activities of this division have been confined since February 1917, the paint and varnish group may be considered as complete, if the purchase of Lowe Bros. is consummated.

In the group of water soluble chemicals and acids, Rochelle salt and Seidlitz mixture manufacture is ready for addition to Hopewell. Appropriation request with Engineering Department plans is ready for signature and report on same to Mr. R. R. M. Carpenter is ready for transmittal.

The manufacture of formic and oxalic acids has been worked out by the Chemical Department, and Engineering Department plans are almost complete.

A report on the vegetable oil group is ready for transmittal.

The subjects covered in this summary are only a portion of those under consideration, and it should not be assumed that the non-mention of the balance is any criterion of the opinion of the Excess Plant Utilization Division as to their comment or technical value. This memorandum is to summarize particularly those manufactures which have been recommended and passed by the Executive Committee, but those mentioned in addition are the subjects which have been sufficiently completed by this Division for presentation for official approval.

The attached sheet shows the new products added to date.

NOTE. At top of first page appear pencil notation "Noted WSCJr" and partially legible notation apparently "Copy to progress charts".

Defendant's Exhibit (DP) No. 89

Serial No. S-673
May 1st, 1917.

EXECUTIVE COMMITTEE,
Building.

Gentlemen:

ACQUISITION OF CAWLEY, CLARK & CO.

I am handing you report on Cawley, Clark & Co. which I would ask you have brought up at the special meeting on Thursday. If we are interested in this matter it is necessary to give them a reply at once as they have written us along the following lines:

> "I do not think it fair to us that the decision about this matter should be unduly delayed as this is the time of year when we generally make certain important arrangements for the future and it is highly important that we know immediately just where we stand."

This letter was written to Mr. Lammot du Pont April 20th and I feel we should give them a prompt reply.

I also quote from their letter on their reason for selling Cawley, Clark & Company.

> "The business is one in which we have the greatest pride and over which we have full control, and were it not that our business and the Beckton Chemical Company's business is mixed up to some extent we should not be inclined to sell out at any price within reason."

Yours very truly,

R. R. M. Carpenter,
Vice President.

L.

C46

5847

Serial No. S-673
May 1st, 1917.

EXECUTIVE COMMITTEE,
Building.

Gentlemen:

ACQUISITION OF CAWLEY, CLARK & CO.

At your last meeting you requested the ~~Development~~ Department to present to you recommendations and reasons on the subject of the acquisition of Cawley, Clark & Company.

Cawley, Clark & Company, being large color manufacturers, fill in the gap between heavy chemical and dye manufacture and paint manufacture. It has always been the belief of the du Pont Company that it was advisable to manufacture or produce as much of our own raw material, such as nitrate, and other important ingredients, as possible, and on the same argument large paint manufacturers are in a much stronger position if they produce their own colors. For example—Sherwin, Williams & Company, the largest in the country, who always produced their own colors. The du Pont Company and the Harrison Company are in a splendid position to manufacture a great many of the ingredients which Cawley, Clark & Company use and better profits can be secured by the further elaboration of these ingredients than by selling them simply as ingredients. In other words—by elaborating the heavy chemicals which we can manufacture economically, and the colors, we can secure better prices than if we simply sell them on the market.

The whole scheme on which the Development Department

2

has been working in this endeavor to invest our excess capital and utilize our plants is to eliminate the middleman's profits by beginning with raw materials and selling ultimate products to the consumer, Cawley, Clark & Company fits right in this proposition admirably.

We feel that the above reason is a sufficient one to give for the acquisition of this company.

Now as regards the profit, and which is, of course, all important, we would give the following figures:

—2—

According to Mr. Lammot du Pont's report of April 20th it is proposed to purchase the Cawley, Clark & Company, for $1,440,000 as of December 1st, 1916, the date of their last paint sheet, and to pay any additional amount for further earnings between that date and June 1st, 1917. As per the report of April 20th the net tangible assets were $1,219,000. The proposed purchase price being $1,440,000 left a good-will item of $221,000 or only 15%.

We call your attention to the earnings for the year ending June 1st, 1916, namely—$546,744. At the present rate of earnings it seems safe to assume that the earnings for the year ending June 1st, 1917 will be at least $400,000. The purchase price being $1,440,000 as of December 1st, 1916, we should add to this the estimated earnings from this date to June 1st, 1917, bringing the total to $1,640,000. There should be deducted from this an amount of $400,000 as excess capital, which is at present in the business as of December 1st, 1916, and which we could take out, reducing this to $1,240,000. There should also be deducted the additional earnings as above of $200,000 which would bring the net investment as of June 1st, 1917 to $1,040,000.

3

We see no reason why the earnings for the year ending June 1st, 1918 should be reduced materially below the year ending June 1st, 1917, namely—$400,000. By allowing 10% on the investment of $1,040,000 there would be an amount of $296,000 available to reduce the total investment, leaving an investment as of June 1st, 1918 of $744,000.

If the earnings after June 1st, 1918 were to drop suddenly to $100,000, which Cawley, Clark & Co. believe to be a most conservative estimate of the normal earnings on their present capacity, the return on $744,000 would be 13½%. We do not believe it likely, however, that the earnings for the succeeding three or four years will drop as suddenly as this but that for the years 1918 and 1919 and 1919 and 1920 there will be earnings in excess of $100,000 which will still further reduce the investment ultimately to a very handsome earning basis.

In order to make these figures clearer to you we attach Exhibit "A". In those figures we have not considered additional earnings

which might be brought about by du Pont management. We would have the advantage possibly, of more aggressive selling as well as the Chemical Department finding ways to cut corners and improve costs and develop new processes which a smaller organization would not have. Personally I see no reason why the normal earnings should not be raised from $100,000 to $125,000 or even $150,000.

There is another thing in favor of the purchase of Cawley, Clark & Co. which was not mentioned above, namely—that the business and the plants of this company and the Beckton Chemical Company are so intermeshed that it will be rather difficult to separate them and might lead to some complications, although, of course, not insurmountable.

4

The Development Department would recommend the adoption of the following resolution:—

"Whereas, Cawley, Clark & Co. are joint owners with Harrisons, Incorporated of the Beckton Chemical Co.; and

Whereas, Harrisons, Incorporated are desirous of purchasing the Cawley, Clark & Co.'s interest in the Beckton Chemical Company; and

Whereas, the business and also certain portions of the plants of the Beckton Chemical Co. and Cawley, Clark & Co. are difficult to segregate; and

Whereas, the purchase of Cawley, Clark & Co. will round out the plans of this Company to enter into the manufacture of certain heavy chemicals, dyestuffs, and paints at an attractive profit, with the opportunity of increasing this profit through more aggressive management and research;

Resolved, That Harrisons, Incorporated be authorized to offer $1,440,000 for one hundred per cent (100%) of the stock of Cawley, Clark & Company, provided:

1st: That the stock will be delivered, approximately, June 1st, 1917, and that the payment will be made on the same date.

2nd: That an additional payment will be made as soon after June 1st, 1917 as an inventory can be taken and the profits ascertained, the amount of this additional payment to be the amount of the net profits of Cawley, Clark & Co. from December 1st, 1916 to June 1st, 1917, less any dividends or distribution of profits made during that time.

3rd: An inventory to be made at cost price and checked by a representative of Harrisons, Incorporated.

4th: Purchaser to have full access to books, records, and plants of Cawley, Clark & Co. for the purpose of

checking figures and statements presented by the sellers, the purchase to be contingent on the check of these figures to the satisfaction of the buyer."

Yours very truly,

R. R. M. Carpenter,
Vice President.

L.

NOTE: File 1, pt. 1 is written in the upper right hand corner. Noted W.S.C. Jr. is stamped in the right hand margin. Illegible writing appears in the left hand margin of the 3rd page.

Defendant's Exhibit (DP) No. 90

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE
MEETING #156—AUG. 31, 1917

E. I. DU PONT DE NEMOURS & COMPANY

* * * * * * * *

QUESTION OF PURCHASING AN ADDITIONAL PAINT AND VARNISH COMPANY—BRIDGEPORT WOOD FINISHING COMPANY:

In compliance with resolution adopted at meeting of this Committee on August 24, 1917, Mr. Lammot duPont, President of Harrisons, Incorporated, submitted to the Committee the following resolution adopted by the Board of Directors of that Company at meeting August 29, 1917:

> **RESOLVED**, That the Board of Harrisons, Inc. recommend the purchase of the Bridgeport Wood Finishing Company for the sum of $350,000. as recommended in Development Department Report SU-128 with the understanding that it would probably cost an additional $25,000. to install the Bridgeport equipment at the Harrison Plant, this figure of $350,000. being arrived at as follows:

Inventory of Raw and Finished Products, Accounts Receivable, and Machinery at $275,000. less $25,000. estimated cost of installation at Harrison Plant	$ 250,000.
Good Will	50,000.
Loan to Mr. Breinig	50,000.
Total	$ 350,000.

Provided: that on examination of the customers' accounts of the Bridgeport Wood Finishing Company by Mr. Hatt the General Paint Sales Manager of Harrisons, Inc., the Board may be assured that the price of $50,000 for the Good Will is a fair one and that the business can be retained; and provided further that there are no unusual or onerous or unprofitable sales contracts on the books; and provided also that proper arrangements for the rental to Harrisons, Inc. of the Bridgeport Factory can be made until such time as Harrisons, Inc. can arrange to transfer the business to the Harrison Plant.

After discussion, it was moved and unanimously carried that the above action taken by the Board of Directors of Harrisons, Incorporated, be approved.

COPY

August 18, 1923.

Mr. Irenee duPont,
President.

Referring to attached communication by you to the Finance Committee and to your request that I comment on same, not only with respect to its legal aspect but also as to any business aspect which I care to make:

In compliance therewith will say it would seem for the reasons pointed out by you that the sale by duPont Company of thirty per cent. of its holdings in G.M.C. common stock under the Brown-Raskob plan would be an improvident transaction. It is quite evident that if the dividends and bonus payments (if any) received by the Managers Securities Company are sufficient to enable it to pay its bonds at maturity, this ipso facto demonstrates the improvidence on the part of duPont Company in selling the stock. The unwisdom of this bargain is apparent unless, as will probably be contended, the benefits flowing to duPont Company's remaining investment in G.M.C. common stock from the benefits received by G.M.C. from the existence of the Managers Securities Company balance or outweigh the improvidence apparent in the sale. Whether the carrying out of the M. S. Company's plan will increase the business and prosperity of the G.M.C. over what it would have been if the M. S. Co. did not exist, and to what extent it will increase the prosperity of the G.M.C., is largely a matter of speculation and is a question on which individual judgments may arrive at different conclusions. Personally, I am skeptical about these benefits for reasons which, if set forth here, would

unduly prolong this memorandum. In addition to the matters pointed out by you as showing from the standpoint of the duPont Company the improvidence of the sale of thirty per cent. of its holdings in G.M.C. stock, I desire to point out that the plan as proposed would involve an expenditure on the part of duPont Company of $20,000 or $25,000 in stamp taxes incident to original issues of stock and transfers of stock. In addition to this, it is apparent that if this sale is made the duPont Company will be converting stock, the income from which is not subject to Federal income tax, into bonds, the interest upon which is subject to the normal tax of 12-1/2%. Under the present conditions, we pay no Federal income tax on dividends received from the stock proposed to be sold. When this stock is sold and we take in payment therefor $30,000,000 7% bonds, the interest on the principal at the outset amounts to $2,100,000 and the Federal income tax upon this income is $262,500. As and when the principal of these bonds is reduced, the tax will be reduced; but so long as any part of the principal remains unpaid, the income received will be subject to a tax of 12-1/2% per annum. In addition to this, the 5% bonus payments made by the G.M.C. to the M.S.Co. annually will be subject to Federal income tax of 12-1/2%. As to whether or not the managers holding stock in the M.S.Co. will be taxed in accordance with their interest in these annual payments, is a question which cannot be conclusively answered at this time. While I incline to the opinion that they are not subject to an annual tax because of the uncertainty as to the fact of their receiving any benefit during the taxable year, it is sufficient to say that, in event they are held to be subject to this tax, they are in no

worse position than they will be if they receive the equivalent awards in bonus stock under the present bonus plan.

I feel quite confident that no legal objection can be successfully urged against the duPont Company's selling the stock at $15 per share under the Brown-Raskob plan.

As to your suggestion that the desired result can be obtained by following the method you outline which, in its essence, I understand to be that the Managers Securities Company, in lieu of buying the stock from the duPont Company and P. S. duPont, solicit sealed bids for G.M.C. common stock in an amount not exceeding $30,000,000 worth and that the M.S. Co. pay for this stock so secured through this method in cash, that it raise $4,000,000 cash by the sale of its own stock to the managers and that it borrow the remaining $26,000,000 necessary to complete the purchase from the G.M.C., securing the payment of the moneys borrowed by a pledge of the stock so purchased:

This being done, I assume that the dividends received on the stock as well as the annual 5% payments, if any, will be applied to the discharge of the indebtedness.

My first observation on this is my belief that the requisite amount of stock cannot be obtained by this method at a reasonable price. However, this is a matter of opinion. My second observation is that Section 36 of the Corporation Laws of Delaware provides that no corporation created under "this Chapter" shall make any loan to any stockholder upon the security of the stock of the corporation,

and if any such loan be made the officer or officers who make it or assent thereto shall be jointly and severally liable until the repayment of the sum so loaned with interest. Nor shall any corporation created under "this Chapter" take as security for any debt a lien upon any part of its capital stock unless such lien shall be necessary to prevent loss upon a debt previously contracted. The only consequence of a disregard of this statute is to make such officers and directors as assent to the loan personally, jointly and severally, liable for the debt so secured. The officers and directors of the G.M.C. may or may not decide to assume this responsibility. In any event, I think they should not be subjected to this liability without their consent. Except as indicated above, the modification of the plan suggested by you in the communication is free from legal objections. However, the following may be noted: duPont Company could not sell any shares of G.M.C. common stock as such without subjecting itself to a Federal tax on the profits it would make in such a sale, being the difference between the cost of the stock and the selling price. In order to avoid liability for profit taxes, it will be necessary to sell the equivalent in an original issue of stock in the duPont American Industries. To do so would involve reorganization of the duPont American Industries substantially in the manner outlined in the Brown-Raskob plan. The interest received by the G. M. C. on the $26,000,000 loaned the M.S. Co. would be subject to the Federal income tax applicable to corporations. Would also add that the transfer tax on the sale of 1,667,000 shares of G.M.C. common, if this stock should be sold, would be $33,340. The profit tax and the transfer tax would form a substantial obstacle to our selling G.M.C. common as such.

Respectfully submitted,

General Counsel.

L/G

NOTE: "1167.A1" is written in upper right corner of first page and "EXTRA COPY" is stamped at top right of first page.

Defendant's Exhibit (DP) No. 93

The Dayton Engineering Laboratories Co.

Dayton, Ohio

April 20, 1916.

Mr. Frederic W. Kurtz,
c/o E.I.Du Pont de Nemours & Co.
Henry Clay P. O., Delaware.

5859

Dear Sir:

I have your letter of April 18th. The talk to which Mr. Clarkson refers was given at Cleveland, and was an off-hand series of statements relative to the fuel situation. We do not happen to have any copies of this, as it was given more just as a talk, and I do not believe had in it any vital stuff relative to the keronene problem.

We are doing a little investigation work here on quite a number of types of fuels, but have nothing which would be of any definite value to anybody. I will be very glad to keep you in touch with this thing, and any time that we get anything of interest we will be glad to give you the benefit of it. We are doing this more from the standpoint of acquainting ourselves with the problem, rather than with the idea of commercializing either the apparatus or the fuel.

The writer is revamping this talk to be given on the boat trip of the S. A. E., and, perhaps, that will contain a little more definite stuff than the Cleveland talk did, and I shall be very glad to send you copy of that when it is ready.

Yours very truly,

THE DAYTON ENGINEERING LABORATORIES CO.

Vice President.

cfk-b

NOTE: At upper right is written "NES-558" below which is written the letter "W"; signature is C. F. Kettering.

Defendant's Exhibit (DP) No. 94

(Letterhead of)

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
CHEMICAL DEPARTMENT
Wilmington, Delaware

Copy to: Mr. Irenee duPont✓
Mr. Lammot duPont✓
Mr. John Raskob.

February 2, 1920.

Mr. C. F. Kettering, Pres.,
The Dayton Engineering Laboratories Co.,
Dayton, Ohio.

Dear Sir:—

OUR FILE RW-126-4. MOTOR FUELS.

Enclosure: Copy of letter from Eastern Laboratory of January 30th.

I have asked the Eastern Laboratory to recapitulate the motor fuel work with a view to giving me the present status of the whole problem. I consider that the enclosed letter is important because of its bearing on the matter you had in mind when we discussed this motor fuel problem in New York during the first week in January. You felt that, in view of the obvious urgency for a solution of the fuel problem, the work on the utilization of aromatic amines should be pushed as rapidly as possible. I am sure that this entirely coincides with my views. I have felt, however, that we were not quite in a position to decide how much knock suppressor should be added because the composition of motor fuel which would best serve to supplement the insufficient supplies of gasoline has been uncertain and, I feel, is at this time still somewhat uncertain. It is obvious that until we can decide with a reasonable degree of certainty how much kerosene or other higher boiling fractions will be available for introduction into gasoline the question of the price differential between these various distillates will be open. It is further obvious that the amount and nature of knock suppressants which can be employed economically depends upon the price differential between the hypothetical composite fuel and that of gasoline.

I have called Mr. Midgley's attention to the fact that the supply of aromatic amines will be determined largely by the demands of the dyestuff and rubber industries for these materials... It is obvious here again that any greatly increased demand for the aromatic amines may quickly put the price to a point where they will not be economically available for use as knock suppressors. It occurred to me some time ago that another possible solution of the problem of knock suppressants lay in the utilization of the unsaturated compounds present in cracked hydrocarbons. I have called your attention to the fact that certain unsaturated hydrocarbons such as olefines can readily be transformed into diamines. I have asked the Eastern Laboratory to prepare diamines of this nature from cracked hydrocarbons with a view to studying their properties, and this work is well under way.

In connection with the preparation of amino bodies produced by cracking, such as olefines, I would like to call your attention to the probable considerably lower cost of such diamines as compared with the best cost of aromatic amines which we can hope for. There are so many obvious factors involved in the possibility of preparing diamines from hydrocarbons produced by cracking that I feel this work should be urged forward with all possible speed and I have instructed the Eastern Laboratory accordingly. I have already prepared patent applications on the use of diamines in motor fuels.

There are certain questions in connection with such patents

as we may apply for from time to time in connection with our work on motor fuels or other General Motors problems which we can advantageously discuss as soon as you, Dr. Clements and I can arrange to go into this whole question of cooperation.

In conclusion, it seems to me that there is no reason why we should not proceed directly to the use of the aromatic amines as knock suppressants just as soon as we can reach a definite decision as to the method by which kerosene will be employed. I feel that the decision on this subject depends in a very large measure on the results of the experiments at present under way in the laboratories of the Dayton Metal Products Company, and I also feel that we should arrange for a conference at which an attempt will be made to decide this important question at the earliest feasible date.

I should like particularly to call attention to the altered complexion of the motor fuel problem in view of the probability that kerosene is not available to a sufficient extent to materially increase the supply of motor fuel. This fact has led us all to think about the possible utilization of fuel oil in the motor and I believe there are certain other questions such as the question of a blended fuel containing constituents other than fuel oil which could advantageously receive close attention at this time. We should like very much to have the benefit of your thought on these points.

With kind personal regards, I remain

Yours very truly,

C. M. Stine.
ASSISTANT DIRECTOR.

CMS:AR

NOTE: "8" above a check mark and "X-1100" are written at top of first page; "RECEIVED FEB 3 1920 LAMMOT DUPONT" is stamped in upper right of first page; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of first and third pages. Scoring under and check mark after "Mr. Lammot du Pont" at top of first page are by hand. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 95

Letterhead of
E. I. du PONT de NEMOURS & COMPANY
(Incorporated)
Chemical Department
Wilmington, Delaware

May 1, 1920.

Mr. Lammot du Pont:
Our File RW-126-4.
Knock Suppressors for Automobile Motors.

It seems to me that the real object of Mr. Kettering's visit here on April 22nd was to see if he could interest the du Pont Company in the manufacture of aniline on a large scale for wholesale treatment of motor fuels with a view to suppressing the knock and increasing the efficiency of the motor. I do not know whether Mr. Raskob may have discussed this question with him, but there is no doubt in my mind that Mr. Kettering considers this the most important thing in connection with the motor fuel problem at the present time.

There are many angles to this question of whether the du Pont Company would be interested in enlarging its capacity for the production of aniline to serve as a knock suppressant. First is the question of what advantage could acrue to the du Pont Company through making the considerable expenditures necessary to produce largely increased amounts of aniline. This involves the question of the nature of the patents which the General Motors Corporation may have taken out or may contemplate taking out covering the use of aniline and similar aromatic amines as knock suppressors. It involves not only the validity of these patents but also the question of whether someone is likely to get something much better than aromatic amines to serve the same purpose in the near future.

There is the question of how thoroughly the General Motors

—2—

may have canvassed the motor fuel situation and *their con-conclusions* as a result of their consideration of the problem *and* there is the question of the degree to which we can depend upon the accuracy of their conclusions. This involves not merely the question of the thoroughness and completeness of the laboratory work which may have been done on the motor fuel problem and on this particular phase of knock suppressors, but also the thoroughness of the*ir* canvass of the commercial field; i.e., the correct estimate of all the various sources of supply of probable or possible motor fuels, and their availability both in point of time and quantity.

It seems to me that we cannot avoid answering Mr. Kettering's question as to the du Pont Company's interest in the manufacture of aniline or other aromatic amines for knock suppressors. It seems to me further, that we are scarcely in position to answer this question without a rather careful consideration of both the technical and commercial phases of the question. I should appreciate an expression of your opinion in this connection.

C. M. Stine,
Assistant Director for Research.

CMS:AR

NOTE: At upper right of 1st page is written X-1100; at upper middle of first page appear a check mark and the figure "8"; across the first page is stamped "Answered, May 7, 1920 Lammot du Pont" and "Received, May 3, 1920, Lammot du Pont"; on both pages is stamped "Return to Executive Committee Room 9069"; italics indicate handwriting.

Defendant's Exhibit (DP) No. 96

THE DAYTON ENGINEERING LABORATORIES CO.

August 17, 1920.

Mr. L. duPont, Vice President,
E.I. duPont de Nemours & Company,
Wilmington, Del.

My dear Mr. duPont:—

I am in receipt of your very kind letter of August 14 and note what you say.

I should, of course, anticipate that if the manufacture of aniline could not be done with profit it would not be a success as a commercial venture. The thing I should like for you to do for me is to tell me what aniline would cost in large quantities and in what quantities it would have to be produced in order to make it a profitable investment for you. In other words, if we were to undertake the distribution of it, in what quantities would you have to make it and at what price?

If you will advise me on this matter I think I can tell you directly whether such a thing would be practical or not.

With kindest regards, I am

Yours very truly,

President.

Copy for lab.

Note: Across the top of the page is stamped "Copy": at upper right is written "K file" followed by illegible letters and the figure "1921".

April 15, 1921.

Dr. C. M. Stine,
Assistant Director,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

My dear Dr. Stine:

Have had your favor of April 8, but have neglected answering it due to some rather unforeseen developments at this end. I know you will be interested in hearing that we have recently discovered an antiknock material which is twenty-four times as strong as aniline, volumetrically. The material looks very, very practical, and I feel sure that this is going to radically change our previous plans, obsoleting the injector; in fact, obsoleting the use of aniline, or coal tar products, in any way, shape, or form, except, possibly, as carbon removers.

As you will readily appreciate, this is so revolutionary with respect to the work in progress, that I think it would be very advisable to hold up the work at the Eastern Laboratory until we know more exactly where we are. This new antiknock material throws a very considerable light upon the entire subject of knocking and antiknocking. Until we have considerable more data on this point, I really think we might be wasting money to have any work done at the Eastern Laboratory.

Always with the very kindest of personal regards, I am,

Very truly yours,

Chief Engineer,
Fuel Research Section.

TM-JT:M.

EXTRACT FROM MINUTES OF FINANCE COMMITTEE MEETING #258

SEPTEMBER EIGHTEENTH, 1922

E. I. DU PONT DE NEMOURS & COMPANY

TETRA-ETHYL LEAD—PATENTS AND SECRET PROCESSES:

The following resolution was offered and unanimously adopted:

WHEREAS, this Company is engaged in some chemical research work for the General Motors Corporation in connection with the production of Tetra-Ethyl Lead; and

WHEREAS, in the conduct of such work this Company may develop secret processes and processes subject to patent which will involve our taking out patents for the protection of our customer, namely, the General Motors Corporation;

RESOLVED, that it is the sense of this Committee that all patents so taken out and all secret processes so developed are the property of the General Motors Corporation, and that such patents should be assigned to and such secret processes should be turned over to the General Motors Corporation;

I duP
v

RESOLVED FURTHER, that the President or any Vice President of this Company, together with the Secretary or any Assistant Secretary be and they are hereby authorized to execute the necessary papers to carry the above into effect.

NOTE: "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of page. Check mark in left margin is by hand. Italics indicate handwriting.

EXCERPT FROM MINUTES OF MEETING #637 OF THE EXECUTIVE COMMITTEE,

E. I. DU PONT DE NEMOURS & COMPANY,

HELD IN WILMINGTON, DELAWARE, ON SEPTEMBER 3,1924.

A

* * * * *

****

PROPOSED CONTRACT WITH ETHYL GASOLINE COMPANY FOR MANUFACTURE AND DELIVERY OF TETRA ETHYL LEAD:

Mr. W. F. Harrington, General Manager, Dyestuffs Department, appeared before the Committee and stated that he was negotiating a contract with the Ethyl Gasoline Company (a company recently organized by the Standard Oil Company of New Jersey and General Motors Corporation on a fifty-fifty basis) under which we agree to build a plant capable of producing one thousand gallons per day of Tetra Ethyl Lead by the Ethyl Chloride process, and to deliver to them from said plant prior to April 1, 1926 a minimum of 4,000,000 pounds and a maximum of 5,000,000 pounds at $1.17 per pound; also that we will continue to deliver to them after the expiration of our present contract, estimated in November of this year, Tetra Ethyl Lead from our Ethyl Bromide plant at $1.66 per pound, with the understanding that deliveries from said plant at said price may continue until April 1, 1925 (at which time it is estimated the Ethyl Chloride plant will be operating at full production—1,000 gallons per day) and thereafter until such time as the Ethyl Gasoline Company serve notice on us to stop deliveries from said plant. After full discussion, it was moved and unanimously carried that Mr. Harrington be authorized to proceed with negotiations with the Ethyl Gasoline Company along the lines indicated above.

****

I hereby certify that the foregoing is a true excerpt from minutes of meeting #637 of the Executive Committee, E. I. du Pont de Nemours & Company, held in Wilmington, Delaware, on September 3, 1924.

F. G. Hess

SEC'Y, EXECUTIVE COMMITTEE
E. I. DU PONT DE NEMOURS & COMPANY

December 29, 1948

NOTE: At lower right is written "GMC-14"; at lower left is stamped "E. I. du Pont de Nemours & Co. * Delaware * Founded 1802 * Seal"; italics indicate handwriting.

Defendant's Exhibit (DP) No. 99A

Mr. Alfred P. Sloan, Jr.
224 W. 57th Street,
New York City.

5871

Dear Mr. Sloan:-

This will acknowledge copy of your letter of December 4th, addressed to Mr. Teeple on the subject of proposed investigation of poisoning effects of ethyl gas, etc.

I think that it is unwise to delay reply concerning such an investigation and am sorry so much time has already passed since Sergeant-General H.S.Cummings' letter of November 29th.

From the point of view of manufacture of tetraethyl lead I would say that it is imperative that a competent man see the Sergeant-General at once, preferably soliciting the aid of General Fries and explain to him -

1. That Prof. Henderson knows nothing of the manufacture and has never been visited our plant which is the only commercial one in existence.

2. The accident at Bayway was in an experimental unit of a different design and by a different method from ours. It was manned by workmen who were not familiar with handling poisonous materials.

3. After a year's operation we believe the manufacture of tetraethyl lead is far less poisonous than such an every-day commodity as anilin.

4. There is no public body who has had the experience to even attempt to lay down rules for the manufacture of tetraethyl lead which would be as wise as those which we have evolved by actual practice and no good can come from such a commission's work.

Am sure that the Sergeant-General will see the matter right and pay no attention to that phase of the investigation.

Incidentally, I spoke to General Fries last Tuesday and feel sure that he does not consider the manufacture of tetraethyl lead as a hazard when properly operated by experienced men. He told me they went through the identical kind of trouble when they started manufacturing mustard gas and other poisonous materials and that the dangers are gradually eliminated by experience. Incidentally he is very keen on the use of ethyl gas and has carried on quite extensive research in the poisoning effect of tetraethyl lead on animals. He is 100% with us, purely based on a scientific point of view.

Am phoning you today to get your acquiescence to letting one of our men see the Sergeant-General at the earliest possible moment.

Sincerely yours,

Irénée du Pont, President

COPY FOR MR. W. F. HARRINGTON.

June 8, 1925.

Mr. Alfred P. Sloan,
General Motors Corp.
224 W. 57th Street,
New York City.

Dear Mr. Sloan:—

I was sorry to find you could not attend the Yama Conference although I hardly expected it in view of your long trip just finished. Also, I was disappointed to find that Mr. Bedford was not there. I wanted to discuss with him the question of ethyl gas and to try to put some courage into your Standard Oil partners.

I am a little disturbed for fear that the Ethyl Gas will not actively pursue the Sub-Committee appointed by the Surgeon General to report on ethyl gas as a possible menace to public health. If it is not pushed vigorously the topic will carry along with nothing done either for or against for a protracted period. The evidence which was submitted at the hearing (see Mr. Webb's report May 20th) makes it perfectly clear in my mind that nothing has developed which would warrant the Surgeon General finding that the sale of ethyl gas or its use in automobiles constituted a public health menace. The Committee must make this finding on the evidence and my only fear is that they will delay in making it or that they will couple with that finding a recommendation that certain research be carried out in an endeavor to make sure that the evidence submitted is really representative. The latter may run into years of work unless the Ethyl Gas Corp. takes the position that time is too important to warrant considering unduly the remote contingency fear.

I think it would be worth while for you, or if you would prefer for me, representing you from the General Motors point of view, to give Mr. Webb some encouragement and support of a more or less official character. Individually I have been doing my best but of course that cannot carry the weight of official responsibility.

Sincerely yours,

Irénée du Pont

NOTE: "C-26-E [In GM-9]" and "[Response by Brandt, on 6/9/24, in C-26]" are written in upper right of first page. "FILE COPY" is printed across each page.

A-17079 1M 11-23 Defendant's Exhibit (DP) No. 100

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
DEVELOPMENT DEPARTMENT
WILMINGTON, DELAWARE

November 28, 1924

Copy to:
W. F. Harrington, Gen. Mgr.
Irenee duPont, President

C. M. A. STINE - CHEMICAL DIRECTOR

In my talk Wednesday with Mr. Midgeley he stated that he considered it proper that the duPont Company should be paid for whatever work it may do on the bromine subject for the Ethyl Gasoline Corporation. However, he also stated that this would have to be decided by the Board of Directors of the Ethyl Gasoline Corporation and he did not want to take the matter up with his Board at this time because he did not have any definite proposition. He therefore suggested that we finish the preliminary laboratory work which is now under way and on its completion we should endeavor to arrive at some decision as to what the duPont Company should do, and at such time make a definite arrangement with the Ethyl Gasoline Corporation.

I advised Mr. Midgeley that our accounts had been kept in such a way that we can at any time show our expenses in connection with bromine and if we make an arrangement with the Ethyl Gasoline Corporation we should undoubtedly cover our past expenses as well as our future expenditures.

DIRECTOR

FCIM

Defendant's Exhibit (DP) No. 101

December 8, 1924

Copy: c/o General Motors Research Corp.
Dayton, Ohio

Mr. T. J. Midgeley, Jr.
Ethyl Gasoline Corporation
25 Broadway
New York City

Dear Mr. Midgeley:

Our preliminary experiments with the extraction of bromine from sea water are now pretty nearly finished. I am satisfied that we could not do any more work with this subject beyond the present week until some understanding has been reached between us. In fact it looks now as if we will finish this preliminary work not later than the 10th so that we are ready to discuss the further handling of the subject with you any time convenient to yourself.

I would therefore suggest that we get together as quickly as you can arrange it in order to arrive at some understanding, particularly with respect to whether you think the du Pont Company should do any more work, and if so, what form of contract should be arranged so that the matter may be decided officially and arranged accordingly by your Board of Directors and our Executive Committee.

I understand that you are going to be in the West all of this week but so far as I know now I can see you any day next week either in Wilmington or New York.

Yours very truly,

FIN SPARRE
Director

FS:M.

Note: Diagonally across the page is stamped "File Copy". The signature "Fin Sparre" has been placed on the document by rubber stamp.

E

Defendant's Exhibit (DP) No. 102

December 30, 1924

Mr. Thomas Midgley, Jr.
Ethyl Gasoline Corporation,
25 Broadway,
New York City.

Dear Mr. Midgley:—

In accordance with resolution of the Board of Directors of the Ethyl Gasoline Corporation, held December 23d, those appointed to arrange for the building of the anilin tri-bromide plant decided that it would be best for the du Pont Co. to build and put in operation a plant (the site to be selected by the du Pont Co. with your approval) of a capacity of 100,000 lbs. per month (based on a 70% yield of the bromine in the water handled). The du Pont Co. will charge for its services actual cost of material, labor and salaries of those on the ground plus a fee of $20,000 to cover expert supervision from Wilmington, accounting, administrative and profit and such laboratory or semi-works scale experimentation as we deem advisable to carry out without delaying the immediate construction of the plant and necessary in the design thereof.

It is not expected that this experimental work will be in any wise complete, for manifestly a complete research would cost many times the proposed fee and would consume so much time as to delay the construction of the plant. In other words, the Ethyl Gasoline Corp. are gambling on going into a "quarter-baked" process on a plant scale, knowing that the money will be wasted if the project does not work out, but on the other hand knowing that they will reap a harvest if it should go well.

We will render you accounts monthly covering the cost of the work to date and will add a charge of $2000 a month on account of the commission to the time the project is completed. If the project is completed before ten months the balance will be then due.

It is understood that the plant on completion is the property of the Ethyl Gasoline Corporation. If it should fail to function they can do with it what they wish. If it should function we will get together and work out across the table what is best for all concerned in the way of operating it; i.e. whether it would be best for du Pont to purchase and run as a commercial undertaking or whether it would be better to operate for the account of the Ethyl Gasoline-Corporation on a commission basis or whether du Pont should drop out of the picture and have the Ethyl Gasoline Corporation run it themselves.

It is understood, also, that should a process be worked out the du Pont Co. is free to use the process for the production of anilin tri-bromine or other materials for its general business without the payment of royalty should any step be patentable.

The writing of this letter has been delayed as I understood on Tuesday last that Kettering would outline the letter to me and I simply accept it. He told me yesterday that he had the reverse idea. My apologies if I have been at fault.

In anticipation of the acceptance of this letter we have already started an experiment on the beach near Ocean City, Maryland, to try to determine in a rough measure of the size of the floatation basin required. A truck with pumps, pipe and the necessary chemicals has been despatched there and it is expected that the cost of this experiment will be charge-

able to our fee above referred to.

Please approve one copy, which is attached, and return, to oblige.

Very truly yours,

Irénée du Pont, President

Approved by :—

....

....

Note: At upper right on first page is written "Copy to Mr. Alfred P. Sloan" beneath which appear the initials "RM"; the initials "RM" appear at upper right on the second and third pages.

Defendant's Exhibit (DP) No. 103 (5-541)

January 30, 1925.

Copy to Messrs: Fin Sparre
J. B. E. Edge

Mr. A. P. Sloan, President,
General Motors Corporation,
234 West 57th Street,
New York City.

Dear Sir:

I agree with you that it is important to have clear understandings in order to fix compensation which Ethyl Gas should pay either to General Motors, Standard Oil or duPont for services rendered. I have tried to bear in mind that the charge should be fair from both sides and should be arranged for in advance of any undertaking.

I think there is no room for doubt either as to explicitness or fairness in our Tetra Ethyl Lead contracts, and in our arrangement to build a plant which will have for its object an endeavor to extract Bromine from sea water economically. The "$20,000 commission" payable by Ethyl Gas to duPont from that contract is not of the nature of a profit but rather a fund which they could use to cover time of important men looking after the undertaking, and such minor experiments as we could perform in the very short time between the date of contract and actualconstruction. Preliminary experiments at Ocean City of this character clearly indicated the great value even in negative information. When Midgley saw the results he agreed

with us that work should be continued at Ocean City to obtain data, and authorized us to spend up to $20,000 additional in carrying on semi-works research there. I think that is clear and no profit to duPont is contemplated.

With regard to miscellaneous negotiations for the purchase of Bromine and other materials in Germany, I think our Purchasing Department in rendering Ethyl Gasoline Corporation bills covering the cost of the work on exactly the same basis which they bill our several departments. I do not think this is too generous on duPont's part because the information we incidentally obtain is of value, and the good will which we should succeed in obtaining from Ethyl Gas I think is compensation enough. ✓

Yours very truly,

Irénée duPont, President.

Note: Across the top of the first page appear the stamps: "Noted F.S.", "Noted R & M", and referred to "F. S. MacGregor, for attention"; following the name "J. B. E. Edge" at the top of the first page is a large check mark beneath which is stamped "Received Feb. 2, 1925 Development"; at lower right of both pages is written "GMC-696"; check mark is by hand.

2

COPY

April 2, 1925.

Mr. Thomas Midgley, Jr.,
Ethyl Gasoline Corporation,
25 Broadway,
New York City.

Dear Mr. Midgley:—

Under our contract we agreed not to manufacture tetra ethyl lead by the bromine method after April 15th; this in order to conserve all the available bromine supply for your uses as ethylene-di-bromide.

The consumption of bromine per pound of tetra ethyl lead has been decreasing quite rapidly in our present plant. Our operating department consider it a far safer route than the chlorine method. Without wishing to in any wise go back on our agreement, I am wondering if we can uncover, through our Development Department, additional sources of bromine, whether you would not be willing for us to operate the plant on such a supply?

Am writing you this in case I should fail to get you on the phone to discuss it this morning and also to make a record of the suggestion.

Very truly yours,

IRENEE DUPONT, President.

NOTE: At lower right is written "GMC-694"; in right margin appear four small illegible figures.

Defendant's Exhibit (DP) No. 105

April 6, 1925.

Mr. Thos. F. Midgley, Jr.,
Ethyl Gasoline Corporation,
25 Broadway,
New York City.

FILE COPY

Dear Sir:

Just to summarize the conclusion of this morning's conversation with Dr. Sparre and F. G. MacGregor of our Company and Dr. Edgar of yours. The recommendation is the Ethyl Gas Corporation should designate those sources of supply of Bromine in which they are interested as a source of supply of Bromine for their needs, leaving other sources temporarily available for duPont Company if they should see fit to endeavor to obtain supplies therefrom. Of course, they could not undertake such a development unless it was previously agreed that the clause of our present contract prohibiting the operation of the Tetraethyl Lead plant by the Ethyl Bromine route was waived so far as utilizing new supplies of Bromine is concerned.

I don't know if it would be to the duPont Company's interest to attempt a development on their own account when this is accomplished, but it would at least open the door for a possibility of considering the advisability duPont would have an interest in developing an independent supply under that revision so as to insure production of Ethyl Lead even if the Ethyl Chloride plant was not available, and should the Ethyl Chloride plant supply all the Ethyl Lead needed we would still have the opportunity of selling Bromine from the developed supply to you should you have need for it.

Please let me hear from you on the matter, and oblige,

Yours very truly,

Irénée duPont, President.

FILE COPY

Mr. E. W. Webb, President,
Ethyl Gasoline Corp.
25 Broadway,
New York City.

Dear Mr. Webb:

From the newspapers I understand Ethyl Gas and Dow Chemical are going to make a joint endeavor to secure bromine from sea water at some point on the North Carolina Coast.

Without knowing the process which you propose to use I would like to remind you that if it depends on filtering out a precipitated compound of bromine, the sediment in litoral waters along the continental area makes the filtration job much more difficult where large volume of the liquid must be handled.

Hope you do not think I am "butting" in on this but it is one of the results obtained in the earlier experiment at Rehoboth, Del., before the good ship "Ethyl" was sent to sea.

I think the trouble can be entirely obviated if you were to put the plant on the shore of Porto Rico, which is washed by the North equatorial current and where there is, therefore, practically zero sediment in the ocean water, which water is also about 10% higher in bromine than the Atlantic Coast water.

Very truly yours,

k

NOTE: "VC 25." is written in upper right corner of page and "FILE COPY" is printed across page. Underscoring is by hand.

Defendant's Exhibit (DP) No. 107

Mr. E. W. Webb, President
Ethyl Gasoline Corporation
135 E. 42nd Street
New York City

Dear Mr. Webb:

I was pleased with Mr. Mittnacht's letter and the annual report of the Ethyl Gasoline Corporation. You are certainly to be congratulated on the progress made and I have no doubt it will continue and even augment.

I see that we have put about a million dollars into the bromine plant. I have had no information about it except rumor and would like, if you can do so, that you advise me just how much bromine we are obtaining and the likely cost, both present and future.

Yours sincerely,

wm

NOTE: "VC 25" is written in upper right corner of page and "FILE COPY" is printed across page.

Defendant's Exhibit (DP) No. 108

ETHYL GASOLINE CORPORATION
CHRYSLER BUILDING
135 East 42nd Street

NEW YORK February 15, 1934.

Mr. Irénée du Pont,
Wilmington,
Delaware.

Dear Mr. du Pont:

The Dow Chemical Company and ourselves organized the Ethyl-Dow Chemical Company for the purpose of building and operating a shore plant for the extraction of bromine at Kure Beach, which is about eighteen miles south of Wilmington, North Carolina. Under the contract we were to advance up to one million dollars for the construction of the plant, for which we were to and have received six per cent cumulative preferred stock. Any amount beyond that was to be contributed equally by the two stockholding companies and they were to receive the same type of stock. The common stock is held equally by the two companies. The plant, although laid out to take care of any quantity of bromine we might require in the future, was designed initially to produce five hundred thousand pounds of ethylene dibromide a month. It is now producing at the rate of about four hundred thousand, but there is every reason to believe that there will be no serious difficulty in realizing the five hundred thousand pounds monthly after the plant has been in operation a little while.

In the contract between the Ethyl-Dow company and the Ethyl Corporation the former agrees to sell to the latter on monthly deliveries of five hundred thousand pounds or less at 30¢. This price is gradually reduced on increased purchases to 25¢ per pound when the deliveries reach fourteen hundred thousand pounds a month.

There is to be set aside annually by the Ethyl-Dow Company a sum at least equal to 2¢ per pound of ethylene dibromide production for the purpose of gradually retiring the outstanding preferred stock.

It is estimated that the net cost to the Ethyl-Dow company for ethylene dibromide on present cost and production basis will be somewhere between 18¢ and 19¢ per pound, making proper allowances for depreciation, etc. If our requirement should necessitate the addition of other units (each unit being on a two hundred and fifty thousand pound per month basis), so that we would take as much as one million pounds a month, it is estimated the net cost to the Ethyl-Dow company will be approximately 16¢.

The Dow Chemical Company is obligated under the contract to grant to the Ethyl-Dow company a license under all patents relating to such industry which it now or may hereafter own or control. It is to make available to the Ethyl-Dow company all scientific, technical, engineering and other skill and data which it has attained or may attain in the field of bromide manufacturing, and to render at all times such assistance as it may have available for the purpose of supervising the maintenance and operation of said plant and the construction, maintenance and operation of any additions or expansions, to the same extent as if the company was wholly owned by the Dow Chemical Company.

—2—

There are six members of the board—three from the Dow company, consisting of Messrs. Willard Dow, Edwin

O. Barstow and Ivan F. Harlow. The two last named I am advised had more to do with the development of bromine and ethylene dibromide works at the Dow plant at Midland, Michigan, than any others in that organization. The three members of the board from this company are: Dr. Graham Edgar, who is in charge of our research work, Mr. Midgley and myself. The president of the company is Mr. Dow, the vice-president is Dr. Edgar, and the secretary and treasurer is Mr. Mittnacht, who as you know holds the same position in this company.

I wish it could be made convenient for you and other members of our Board to visit this plant sometime this year. You would undoubtedly find it most interesting.

I appreciate very much your congratulations on the progress of our general business.

Sincerely yours,

Earle W. Webb

A:H

NOTE: "RECEIVED FEB 19 1934 LAMMOT DUPONT" is stamped in upper right of first page; "CMS", a large "S" encircled by hand, and "Lammot du Pont to note" are written at upper left of first page. Italics indicate handwriting.

November 3, 1921.

To. EXECUTIVE COMMITTEE,

FROM CHEMICAL DIRECTOR.

OUR FILE RW-315.

Mr. Midgley of the General Motors Research Corporation was here last week, and asked us to undertake some work for them at an expenditure to be not over $12,000. He wishes this work done aside from the general agreement which is now being taken up between Mr. Lammot duPont and Mr. Kettering, and has asked us to draw up a contract embodying the ideas included in the contract, copy of which I am enclosing herewith.

This matter has been drawn up practically by the Legal Department, and I am sending same to you for your approval. I might say that we have very definite ideas as to how to undertake this problem, provided it meets with your approval.

CHARLES L. REESE,

CHEMICAL DIRECTOR.

CLR/S.

NOTE: "EXECUTIVE COMMITTEE SECY'S No. 6625" is stamped at upper right, and "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of page. "X-1100", See X-139", what appears to be "F. W. P.", and what appears to be "p." in a circle are written at top of page.

Defendant's Exhibit (DP) No. 110

EXCERPT FROM MINUTES OF MEETING #467 OF THE EXECUTIVE COMMITTEE, E. I. DU PONT DE NEMOURS & COMPANY, HELD IN WILMINGTON, DELAWARE, ON NOVEMBER 30, 1921.

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AGREEMENT WITH GENERAL MOTORS RESEARCH CORPORATION COVERING WORK ON DEVELOPMENT OF NON-KNOCKING FUELS:

Letter was received from the Chemical Director dated November 23, 1921 (#6716), referring to this Committee's action of November 9, 1921 in approving an agreement with the General Motors Research Corporation for work at the Experimental Station on the development of non-knocking fuels. The Chemical Director enclosed a revised agreement containing certain modifications suggested by Mr. Midgley of the General Motors Research Corporation. These modifications were explained to the Committee personally by Dr. Reese, and after discussion the following resolution was offered and unanimously adopted:—

> RESOLVED, that the revised agreement between E. I. duPont deNemours & Company and the General Motors Research Corporation re development of non-knocking fuels, as presented to this meeting by Dr. Chas. L. Reese, Chemical Director, be and the same is hereby approved, and the President or any Vice President, together with the Secretary or any Assistant Secretary, be and they are hereby authorized to execute same on behalf of this Company.

* * * * * * * * * *

H-3

I hereby certify that the foregoing is a true excerpt from minutes of meeting #467 of the Executive Committee, E. I. duPont deNemours & Company, held in Wilmington, Delaware, on November 30, 1921.

F. G. Hess
SEC'Y, EXECUTIVE COMMITTEE
E. I. DU PONT DE NEMOURS & COMPANY

December 22, 1948

NOTE: At lower right is written "GMC-9"; at lower left is stamped "E. I. du Pont de Nemours & Co. * Delaware * Founded—1802—Seal". Italics indicate handwriting.

Defendant's Exhibit (DP) No. 111

COPY

GENERAL MOTORS RESEARCH CORP.
Dayton, Ohio,
January 28, 1922.

Mr. Charles L. Reese, Chemical Dir.,
E. I. du Pont de Nemours & Co.,
Wilmington, Del.

Dear Mr. Reese:

File RW-126-4.

In conference with Mr. Midgley, regarding copy of contract forwarded by you with your letter of December 6, 1921, it has been decided that for the time being we would not be interested in entering into the aforementioned contract.

The reason for our reaching this decision is that our work at the Laboratories along fuel lines has taken an entirely different turn from what we expected.

We want to thank you for your past kindnesses and to assure you that if we decide to continue the work upon which this copy of agreement is predicated, we will take the matter up with you at that time.

Yours very truly,

(S.) F. B. MacNab
Business Manager.

NOTE: "Return to Executive Committee Room 9069" is stamped, and "GMC 1544" is written, at bottom of page.

Defendant's Exhibit (DP) No. 112

March 18, 1922.

Mr. Frank A. Howard,
Standard Oil Company,
26 Broadway,
New York City.

My dear Mr. Howard: -

I have indeed, been wondering just why I have not heard from you and probably should have written you without waiting, but as matters are developing I could see really no harm in this delay and really was glad that you were responsible for it and not myself.

Very shortly after seeing you in Chicago, our research work took a very sudden turn in a direction that would indicate that it would be a mistake both on your part and on ours to enter into an agreement such as we discussed at that time. I must naturally apologize after the trouble that I put you to in the expectation that this problem would be solved at the refinery. However, as you will readily appreciate, one never knows just what tomorrow may hold in store in this research work. I am not in a position to discuss our recent results as yet, but believe me as soon as I am permitted to, I shall tell you everything that has transpired to cause this change of front on our part.

Under the circumstances of course, there is only one thing for me to advise you to do before your prolonged absence, and that is simply to leave matters with respect to us stand precisely as they are and I can assure you of our most hearty co-operation in the future.

With regard to co-operation on lubricating oil M.I.T., I am very glad that you are going to come in on this problem as I feel we will both benefit by the speed of this new arrangement.

Always with the kindest personal regards, I am

Very truly yours,

Chief Engineer,
Fuel Section.

TM-Jr-D

E

Defendant's Exhibit (DP) No. 113

E. I. Du PONT de NEMOURS & COMPANY
(INCORPORATED)
CHEMICAL DEPARTMENT
WILMINGTON, DELAWARE

May 15, 1922.

MR. LAMMOT DU PONT:

OUR FILE RW-126-4.

Reference: Your note to Dr. Reese enclosing copy of recent letter from Mr. Kettering in connection with contract between the General Motors Research Corp. and the duPont Company's Chemical Department.

I am returning to you herewith the letter from Mr. C.F. Kettering dated May 8th to you. I am also enclosing our correspondence file from January 1st to date which contains the very limited exchange of letters that there has been between the Dayton crowd and ourselves. Will you please return this to our files when you have had an opportunity of reading it.

This correspondence file does not tell the whole story, however, You know that Dr. Reid, Prof. of Organic Chemistry at John's Hopkins University, has for a couple of years been retained by us in a consulting capacity. A couple of times when Mr. Midgley has been on here for a discussion of his work Dr. Reid has been present and has contributed somewhat to the discussion of some of the organic chemical questions involved. Further, at my suggestion, last year Mr. Midgley got in touch with Dr. Reid and they exchanged information on the preparation of amines from alcohols. I tell you this in order that you may appreciate that Mr. Midgley knew enough of Dr. Reid to appreciate that he might be of considerable assistance to them in connection with purely organic chemical problems. It was, therefore, not surprising to us that Mr. Midgley and Dr. Reid should discuss Mr. Midgley's work during the Birmingham meeting of the American Chemical Society this spring. Mr. Midgley suggested to Dr. Reid that he come to Dayton and look over their laboratory and discuss some of their problems. Dr. Reese suggested to Mr. Midgley that the proper way to request Dr. Reid's services was through a letter to us, since we had contracted for all of Dr. Reid's spare time. This suggestion I believe was made in the course of the three-cornered conversation between Messrs. Midgley, Reid and Reese. I am not certain, but I believe Dr. Reid went home from Birmingham by way of Dayton with Mr. Midgley and spent a day with Mr. Midgley in Dayton. I propose to ask Dr. Reid the next time he is in Wilmington.

—2—

The foregoing, then, together with the attached correspondence file covers our relations with the Dayton people since January 1st, 1922. I believe that Mr. Midgley has purposely refrained from asking any advice or assistance from us since the first of the year.

C. M. Stine.
C. M. STINE, ASST. DIRECTOR.

CMS:R

NOTE: "Received May 16 1922 Lammot du Pont" and "Answered May 26 1922 Lammot du Pont" are stamped at top of first page and "Return to Executive Committee Room 9069" is stamped at bottom of second page. "GMC 1554" is written at bottom of each page. Italics indicate handwriting. Letterhead, of du Pont Production Department, in upper left corner has been overprinted with large X's. A large check mark appears at the top of the first page.

2

Defendant's Exhibit (DP) No. 115

June 14th, 1924.

Mr. Thomas Midgley, Jr., V.P.,
General Motors Chemical Co.,
Dayton, Ohio.

Dear Midgley:—

We have made an examination of the Standard Oil Company of New Jersey's process for the manufacture of Tetra Ethyl Lead by the Ethyl Chloride method, and have been able to duplicate their accomplishments. The process followed is essentially the same as their process. After having accomplished the same yields as claimed by them, a comparative cost has been made of the Ethyl Chloride and the Ethyl Bromide processes, with the following results for material costs only. The Standard Oil Company of New Jersey's Ethyl Chloride process—approximately 48¢; the Ethyl Bromide process, with what we look upon as reasonable goal yields and recoveries—approximately 52¢. A detail of the make up of these cost calculations is attached.

No figures for the cost exclusive of materials are given in those estimates, because of the fact that it is almost impossible to estimate this figure for the Ethyl Chloride process with the information which we have so far obtained. We believe, however, that it is safe to assume that the cost exclusive of materials will be no greater with the Ethyl Chloride process, and should be somewhat less on account of the fact that this process involves less complicated recovery operations and less purification of the final product. Moreover, it should be pointed out that in the Ethyl Bromide process the recoveries have a much larger effect on the net cost of the finished product, and although we believe that the assumptions made as to recoveries are comparable for the two processes, failure to obtain the percentage recovery assumed would produce much more effect on the net result in the case of the Ethyl Bromide process.

The probabilities are that the investment will be less for the Ethyl Chloride process than for the Ethyl Bromide process, because there is very much more work involved in the recovery of Bromine than there is in the recovery of Ethyl Chloride. We have already agreed that a further extension of the manufacture of Tetra Ethyl Lead by the Ethyl Bromide process is impossible because of the lack of available supplies of Bromine.

We are giving this information to you with sufficient extra copies for you to transmit the same to the Standard Oil Company of New Jersey, or to use it in any other way that you see fit.

Very truly yours,

W. F. HARRINGTON,
ASST. GENERAL MANAGER.

WFH-M

COMPARATIVE MATERIAL COSTS OF TETRA ETHYL LEAD BY ETHYL CHLORIDE OR ETHYL BROMIDE PROCESS

		Ethyl Chloride		Ethyl Bromide	
Ingredient	Price	Used per 100 lbs.	Cost	Used per 100 lbs.	Cost
Lead	$ 7.50	366.3	$27.50	184.0	$ 13.80
Sodium	18.25	40.7	7.43	36.2	6.60
Ethyl Chloride	22.00	161.3	35.50		
Ethyl Bromide	32.00			325.5	104.16
Sod. Sulphide 60%	3.00	12.5	0.38	22.0	0.66
Calc. Hypochlorite	2.50	4.5	0.11	4.5	0.11
Magnesium Bromide	37.00			4.5	1.66
Dimethylaniline	33.00			17.6	5.81
Soda Ash	1.50			7.3	0.11
Sulphuric	0.60			20.8	0.13
Total Cost—			$70.92		$133.04

Recoveries						
Lead	75% of excess	@ .5¢	225.0	$11.25	90.0	$ 4.50
Ethyl Chloride		33 1/3%	53.8	11.83		
Ethyl Bromide					135.0	43.20
Sodium Bromide		19¢			160.5	30.50
D. M. A.	50%	33¢			8.8	2.90
Total Credits—				$23.08		$ 81.10
Net Materials Cost—				$47.84		$ 51.94

June 13, 1924.

Note: Diagonally across both pages of the letter is stamped "File Copy."

Defendant's Exhibit (DP) No. 116

ETHYL GASOLINE CORPORATION
25 BROADWAY

NEW YORK August 6, 1925.

IN REPLY PLEASE REFER TO
Subject: Lead Contract

Messrs. Alfred P. Sloan, Jr. and Walter C. Teagle,
Directors of Ethyl Gasoline Corporation.

Gentlemen:

I will attempt to bring you up to date on the negotiations for adjustment.

Enclosed is copy of my letter to Mr. duPont of July 27th. At Mr. Harrington's request Mr. Mittnacht and I went to Wilmington last Thursday where the matters referred to in my letter were discussed between Messrs. duPont and Harrington and ourselves. The items were taken up in the order of presentation inmy letter, and will likewise be treated here.

Power Plant Cost—$84,582.00

Mr. Harrington stated that there was appropriated in 1920 for the construction of an additional power house and equipment the sum of $549,268. of which$375,451. had been spent prior to January 1923. That the work had been stopped because of business depression in the latter part of 1920.

That the sum of $84,582. charged to us represented one-half of $169,163.59 which was necessary to complete the installation of four boilers, two of which were for their own purposes and two for the ethyl chloride plant. That it was foundnecessary to complete the work on these two boilers after signing the lead contract, and that such work would not have been done except for the contract. These two boilers were taken out of their reserve stores and together with the necessary equipment were of the following value:

2 boilers	$ 35,335
1 turbine engine	2,471
1 economizer	18,767
2 soot blowers	1,436
1 duplex fan	3,340
	$ 61,350

That in addition $46,870 was spent for installation, making a total of $108,220 for material and labor, which he claims they would be entitled to charge us, less a fair amount for any depreciation (he doubts there was any) for the materials taken out of stores.

Instead of charging us with this $108,220 they arbitrarily assessed us one-half of the total expense of installing four boilers, or $84,582. He says there is no logical reason for arbitrarily fixing this amount, but they doubted the propriety of charging us full value for the "in stores" equipment and felt the splitting of the total cost of installing the four was a method of adjustment entirely fair to us. He further stated that since these boilers were installed they had to buy additional boilers for other plants, so that they had not worked off against us anything that they did not expect to have later call for in some of their plants away from Deepwater.

Messrs. duPont and Harrington, however, admitted that there was some merit in our contention that by reason of this additional equipment they had at hand a reserve power to meet future requirements of their general business, and expressed a willingness to make some allowance for it. The amount suggested by them will be mentioned later.

Research Expense

The total of this expense amounts to $216,394.09. Of this amount $112,986.90 is charged direct to the chloride-process and $103,407.19 was originally charged to the bromide-process. We asked why the latter amount had been switched to the chloride-process plant, particularly as $65,824 of it covered expenditures prior to signing the chloride contract. They told us that their system of handling research expense was to allocate and charge off each month the full cost of all research to producing industries; but had not charged any lead research to dyestuffs or anything but lead; that they had a separate charge on research for lead and haven't charged any of it to anything else nor any other research to it; that as the bromine plant was the only one operating in 1924 they originally charged all of the lead research expense to that project although most of it was for account of the chloride-process; this was because the latter process had not yet become an industry; when they compiled their bill against us they took an arbitrary percentage of the total lead research and charged a portion of it to each, bromine and chloride, plant.

It may be mentioned that there was a monthly decrease in the percentage charged to bromine process and a corresponding increase charged to chloride process from and after January 1924. This, they stated, was due to the fact that the chloride process after January gradually became the predominant research issue; that inasmuch as the bromide-process was no longer of research importance, and the chloride was to be substituted therefor, the research work became increasingly heavy on the latter.

They stated they did not feel that there was any way of justly determining the apportionment of this expense, other than the method they had employed. I felt that this was a subject beyond my ability to fix a proper division. I was, of course, not connected with the Ethyl enterprise at that time and have no information on the subject to justify my forming a fair conclusion. I feel that it is a matter that can best be handled on our part

—4—

by some one who knows more about the subject than I do.

However, I desire to call attention to the information in the previous discussions on prices, we agreed to $1.66 per pound because the duPont Company stated the original contract on the bromine process had resulted in aloss, partially due to heavy research. We accepted delivery of all lead that was tendered under the $1.66 price and were receiving $1.17 lead when the plant was shut down. The query naturally arises whether we were paying for this research in the $1.66 lead? Was it included in the price of $1.66? If so, then a certain percentage, if not all, of it has already been absorbed and we should not have to pay again. (Ido not remember this question being asked at the interview) This is a matter which should be taken up at the time hereinafter mentioned.

Changing the Riverside Club—$21,400.34

This was for converting a club into an eight family apartment for use by supervisors employed in the chloride plant.

At the interview they did not know if it was now being used by their other employees; what the rentals were, etc.

I told them that my idea of being "made whole" would be to appraise the actual loss incurred in connection with the change over of thisbuilding; if as a result of the close down the house will never be of any value, actual or potential, then we should pay whatever the expense involved in the alterations. But if by reason of the improvements they have a better house and can get higher rentals, etc. we were to be credited with such increase in value to the DuPont Company; that I did not see how we could assess the correct amount to charge us until something more definite had

had been ascertained as to the probable loss to the duPont Company by this expenditure of $21,400.34. Their idea of adjustment will be later referred to.

Comfort Station

I believe they will concede that this station has some value to their company, even if the lead plant should never be used. We did not get the opportunity to discuss this very fully.

Salvage or Conversion Value of the Plant

Mr. duPont says he will not consider the proposition of our having any financial interest in the plant; that this was thoroughly understood at the time the contract was made; that even assuming some of my statements are correct, to wit, that the plant cost $500,000 more than anticipated and that unforseen expenses were incurred in connection with poison troubles, etc. and which also were not possibly taken fully into consideration at the time the contract was made, that nevertheless, if the contract had not been cancelled by us they would have at least got out of it what they are now asking of us: that at the time of the shut down they had 8 autoclaves in operation and expected to have them all working by June; that with the added precautions employed they had no reason to apprehend further trouble, and that we are not justified in assuming that they would have had.

I stressed to my uttermost the point that I tried to make in my letter, to wit that by our paying the amount of their bill and having no interest in the salvage or conversion value of the plant, they were, in my opinion, getting more out of it than they would have if the contract had actually run its natural course to its termination. I based this argument on the

increased cost of the plant, the poison troubles, the heavy compensation liability and shut down expenses, none of which were apparently anticipated at the time of entering into the contract, and the small production at the time of shut down; and that the then production had been at a loss rather than a profit. Mr. duPont urged that it was unfair to attempt to assess their profits on a profit and loss basis during all the period up to the time of the shut down; that at the latter time they were going nicely; and even if their records showed a then loss on every pound made, (which he didn't admit) this was not a fair test by which to judge future production.

He also objected to our assumption that there would not be the profit they claimed; he insisted that inasmuch as we broke the contract, we were not entitled to as favorable a presumption as they were; that the presumption is that if we had not interfered they would have performed the contract rather than that they would have fallen down.

Mr. Harrington asked me to name a sum which I thought would be fair to pay them (if not the entire bill) and they to keep the plant, as they would not consider our having any.

salvage or conversion interest in it. I told them I couldn't name a fixed sum at that time, as my orders were to pay a sum which would make them whole; that to do less than that would be unfair to them and contrary to the wishes of our Board; that to pay more than making them whole would also be unfair to us, unless it was understood and expected that we were not only to make them whole but also pay a profit. That upon their own statements they would have got no more if the contract had continued to its end, than they are now demanding from us. That of necessity there would have to be more or less guessing indulged in on my part if I stated an amount which I believed would make them whole; but that I had the feeling, founded solely upon the known conditions above enumerated, that they would be entitled to less than their bill if they expected to keep the plant, how much that was I was not prepared to say at that time. They then stated that their idea of a fair adjustment would be to deduct $30,000 from the power item as representing potential value to them of this additional equipment and deduct $10,700.17 from the Riverside Club item as representing potential value to them of this property; they to have all the property, including the plant, free and clear of any rights on our part, excepting the right to have any payments made by us considered in fixing the future price for lead to be made at this plant. This suggestion on their part, they said, was in order to effect a settlement and was not due to any uncertainty about the charges for power and club conversion having been correctly charged originally.

Inasmuch as Mr. duPont was adamant in his position about salvage or conversion value of the plant, and stated that his position on the subject would remain unchanged no matter how long I urged our contention, and realizing that there was no hope of he and I reaching an agreement, I told him that we might be stirring up trouble over a matter which may be of no particular importance after the decision of the Surgeon General; for if the decision is favorable and we make another contract with them this salvage problem will have answered itself, and therefore, suggested that it be left to await the decision of the Surgeon General's Committee; and that meanwhile we will not make any further payment; that if subsequent to the Committee's report we should decide not to make another lead contract we then attempt to agree upon the balance due from the standpoint of our having or not having any interest in the plant, with the understanding that we agree now upon the Power, Riverside Club and Research items. However, I told them I personally felt that our Board would be willing to let the entire subject go over until after the Committee's report.

—8—

This suggestion was not acceptable to Mr. duPont, who stated that there was no reason why the whole matter could not be disposed of at this time.

I told Mr. duPont I could not recommend the terms of adjustment mentioned by him; that unquestionably it was a matter about which men might differ; that there was no definite amount anybody could fix with any assurance of its reflecting the exact sum now due his company if anything; but I did not see the picture the way he did; that in view of our evident inability to agree after many discussions it would be best, in my opinion, to have the matter taken up at our next Board meeting; this, he said, was entirely satisfactory to him.

I have tried to correctly set forth the substance of the interview. Inasmuch as I have attempted to set forth in writing, the views verbally presented by Mr. duPont and Mr. Harrington, and realizing this, with the keenest desire to do so, is not always done,it might be well to send a copy of this letter to Mr. duPont, so that he may correct my version if he sees fit, and in order that all parties may be fully appraised of what points may come up for discussion relative tothis contract adjustment at the Board Meeting. Kindly indicate if you concur in this suggestion.

I regret the length of this letter, but felt it was a matter warranting full treatment.

Very truly yours,

E. W. Webb.

EWW/dB

NOTE: Check mark is by hand; italics indicate handwriting.

Defendant's Exhibit (DP) No. 117

Letterhead of
ETHYL GASOLINE CORPORATION
NEW YORK

March 30, 1926.

Mr. W. F. Harrington, General Manager,
Dyestuffs Department,
E. I. du Pont de Nemours & Company,
Wilmington, Del.

Dear Mr. Harrington:

I wrote you the enclosed letter late yesterday afternoon in the hope I would be able to get it off to you, but the attorneys were unable to finish their suggestions on the contract until today.

Confirming this mornings telephone conversation, Mr. (?) Webb wired from Saginaw that he has closed a contract with the Dow Chemical Company for our requirements of Ethyl Chloride. He suggests that a clause be included in the lead contract which we are negotiating with you to the effect that before you make any other commitments for Ethyl Chloride, you first undertake to inform us the price of such expected commitment and all Ethyl Chloride purchased shall be at the price so advised, unless we elect to supply it on better terms, in which case the du Pont Company agrees to purchase it from us or our nominee. As I see it, he is probably pretty well agreed with Dow on price and he doesn't want you to have the right to make further commitments with anyone else until we have had a chance to meet the price of bids from other parties. We hope you are agreeable to such a clause.

5910

Unless you hear from me to the contrary, we expect to be in your office early tomorrow afternoon to go over all contracts that are pending between us.

Yours very truly,

A. E. Mittnacht

AEM/ES

NOTE: Through the address, salutation and first paragraph appears a large check mark; at far right is stamped "Noted Apr. 1, 1926 WFH"; marginal notation is by hand; at lower right is written "GMC 1628"; italics indicate handwriting.

Defendant's Exhibit (DP) No. 118

Letterhead of
(DU PONT)
Reg. U. S. Pat. Off.
Established 1802

E. I. du PONT de NEMOURS & COMPANY
Incorporated

Organic Chemicals Department
Wilmington, Delaware

September 29, 1933.

Ethyl Gasoline Corporation,
Chrysler Building,
New York, N. Y.

Gentlemen:

In accordance with my conversation with Mr. Mittnacht of today, I understand that you desire to have us proceed promptly with the installation of an additional unit for the manufacture of Tetraethyl Lead at the Dye Works, which will increase the rate of capacity from 36,000,000 pounds to 48,000,000 pounds per annum. I understand also that you are willing to make the necessary modifications in our existing contract, dated August 18th, 1933, to make it consistent with this increased capacity. We believe that the necessary changes would consist of the modification of only two paragraphs, namely, paragraphs 3 and 10 in the existing agreement.

(1). Paragraph 3 — This would require insertion of the following between the second and third sentences:

> "Provided that as and when an additional unit for the manufacture of Tetraethyl Lead now contemplated

by the parties hereto shall be installed and placed in operation at du Pont's Deepwater Plant and from and after the first day of the first calendar month during which 500,000 pounds or more of Tetraethyl Lead shall be manufactured in said unit, the price shall be reduced to 34¢ a pound, if between such date and December 31, 1934, Ethyl shall purchase Tetraethyl Lead at an annual rate of 42,000,000 pounds. Adjustment to said price of 34¢ in such event shall be made in the form of a rebate of 1¢ per pound to be credited on the December bill if, as of the end of the year 1934, the above conditions have been fulfilled."

(2). Paragraph 10 — We believe that this paragraph can be satisfactorily amended by striking out the first seven words in line five of this paragraph, which read:

"—as of the date of execution hereof".

If these modifications are satisfactory to you, will you please so certify by signing and returning one copy of this letter, by which

the above modifications will be understood to be incorporated in and become part of the contract of August 18th, 1933. Upon receipt of such acknowledgment we will proceed immediately to obtain authority for the installation of the additional capacity.

Very truly yours,

E. G. Robinson,
General Manager.

EGR:EM
esn

Accepted:
Ethyl Gasoline Corporation

Graham Edgar
Vice President

Note: Italics indicate handwriting.

3
E

Defendant's Exhibit (DP) No. 119

DU PONT SALES VOLUME OF TETRAETHYL LEAD AND AVERAGE PRICE PER POUND FOR YEARS 1926 THROUGH 1937

(In Thousands of Pounds)

1926	657	$ 1.433
1927	1,769	1.276
1928	3,400	1.030
1929	7,999	.830
1930	17,037	.607
1931	15,432	.559
1932	9,935	.478
1933	24,033	.370
1934	35,665	.342
1935	44,243	.314
1936	52,998	.274
1937	62,492	.264

Sources: Govt. Trial Exh. 774
Organic Chemicals Department Records

Defendant's Exhibit (DP) No. 121

February 25th, 1926.

Mr. E. W. Webb, President,
Ethyl Gasoline Corporation,
25 Broadway,
New York, N. Y.

Dear Mr. Webb:—

I have carefully considered the proposition as to the price of Tetraethyl Lead to be delivered in 1927, and find myself unable to go below the $1.00 per pound figure. The risks are of such an uncertain character that after reducing the price from $1.04 to $1.00, I cannot see my way clear to go any farther without more experience of successful performance back of us.

Obviously we cannot expect to reach the cost upon which our price of $1.00 is predicated until late in 1926. I think you can readily see, under these circumstances, the wisdom of my position in feeling that I have gone to the limit of safety to myself and the Company which I represent in making the reduction from $1.04 to $1.00 per pound, to which I have already agreed. You understand that the $1.00 price assumes the basis of settlement discussed orally with you on Tuesday, and that we will be able to satisfactorily settle the conditions of the contract, also orally discussed, such as cancellation features and reduced production conditions.

Very truly yours,

W. F. HARRINGTON,
GENERAL MANAGER.

NOTE: "FILE COPY" is printed across page.

Defendant's Exhibit (DP) No. 122

TETRAETHYL LEAD

THE DISTRIBUTION OF PROFITS

(In thousands of dollars)

Year	Ethyl Profit (A) (Col. 1)	du Pont Profit (B) (C) (Col. 2)	du Pont Profit as % of Col. 1 Plus Col. 2 (Col. 3)
1924	$ (64)	$ (289)	
1925	(1,356)	357	
1926	(1,212)	(14)	
1927	(99)	771	
1928	1,625	1,385	46.0%
1929	6,168	3,654	37.2
1930	8,188	4,613	36.0
1931	9,013	4,695	34.3
1932	4,533	1,784	28.2
1933	7,246	3,472	32.4
1934	10,520	4,628	30.6
1935	10,446	5,519	34.6
1936	11,579	4,882	29.7
1937	13,787	5,262	27.6
1938	14,898	4,783	24.3
1939	23,255	5,534	19.2
1940	32,297	6,902	17.6
1941	34,985	6,509	15.7
1942	16,854	3,942	19.0
1943	20,148	3,918	16.3
1944	22,339	3,853	14.7
1945	21,882	3,800	14.8
1946	14,652	3,948	21.2
1947	16,012	2,784	14.8
Total	$ 297,696	$ 86,692	22.5%

(A) Profit after royalty paid to General Motors but before taxes and bonus.

(B) Profit before taxes and bonus.

(C) Does not include profits attributable to materials used in production of tetraethyl lead or ethyl fluid.

TETRAETHYL LEAD

THE DISTRIBUTION OF PROFITS (Continued)

PRODUCTION PURSUANT TO THE MANUFACTURING SERVICE AGREEMENT (Jan. 1, 1938-Dec. 31, 1947)

(MILLIONS OF POUNDS)

Year	Production as to which du Pont received one-third of the profits	Production as to which du Pont received one-tenth of the profits
1938	53.0	24.8
1939	53.0	37.2
1940	53.0	95.2
1941	53.0	97.7
1942	53.0	94.0
1943	53.0	133.5
1944	53.0	188.8
1945	53.0	170.8
1946	53.0	92.1
1947	53.0	144.6

Source: Organic Chemicals Department

Defendant's Exhibit (DP) No. 123

DU PONT
ESTABLISHED 1802
E I DU PONT DE NEMOURS & COMPANY
INCORPORATED
ORGANIC CHEMICALS DEPARTMENT
WILMINGTON DELAWARE

Mr. A. E. Mittnacht, Secretary & Treasurer,
Ethyl Gasoline Corporation,
Chrysler Building,
New York, N.Y.

My dear Mr. Mittnacht:

Following our conversation in Wilmington last week, we have studied the basis of our agreement under which we agreed to make a price reduction to you on Tetraethyl Lead if it should prove that you would buy at the rate of 42,000,000 pounds per annum after the "E" Plant was completed and put into operation. This proviso was covered by our letter to you of September 29, 1933.

We are agreeable to interpreting this proviso so as to make the price of 54¢ a pound referred to in said proviso, effective from and after June 1, 1934 and until December 31, 1934, even though we may not operate the additional unit for the manufacture of Tetraethyl Lead, which is now being completed; provided that between June 1, 1934 and December 31, 1934, you shall purchase Tetraethyl Lead from us at not less than the rate of 42,000,000 pounds per annum.

Adjustment to said price of 54¢ per pound in such event shall be made in the form of a rebate of 1¢ per pound to be credited on the December bill if, as of the end of the year 1934, the above conditions have been fulfilled.

If this is satisfactory will you please sign and return the attached copy of this letter.

Very truly yours,

E. G. ROBINSON,
GENERAL MANAGER.

ACCEPTED:

ETHYL GASOLINE CORPORATION.

By A E Mittnacht
Secretary & Treasurer

EGR:EM

Defendant's Exhibit (DP) No. 124

CC—Mr. T. M. Nichols
Mr. J. E. Kupperian

E. I. du Pont de Nemours & Company
(Incorporated)
ORGANIC CHEMICALS DEPARTMENT
Wilmington, Delaware

November 2, 1934

Mr. A. E. Mittnacht, Secretary & Treasurer;
Ethyl Gasoline Corporation,
Chrysler Building,
New York, N. Y.

Dear Mr. Mittnacht:

I am enclosing herewith our regular monthly invoice covering sales to you or tetraethyl lead, dyes, service, etc., for the month of October.

You will note that on this invoice tetraethyl lead has been billed at 32c instead of 34c, which is the price that has been in effect. We have made this reduction in accordance with our desire to make our prices of lead to you commensurate with costs of manufacture. As a result of the progress which we have made in the manufacturing operation and the quantities which you have taken, it seems to us after consideration of our figures, that this reduction is justified and accordingly we have the pleasure of making it effective as of the first of October.

It is our expectation that we will bill you on the same basis for the months of November and December as well.

Very truly yours,

E. G. ROBINSON,
General Manager.

EGR EM

E

Defendant's Exhibit (DP) No. 125 5920

EXCERPT FROM MINUTES OF MEETING #1285 OF EXECUTIVE COMMITTEE,

E. I. DU PONT DE NEMOURS & COMPANY,

HELD IN WILMINGTON, DELAWARE, ON NOVEMBER 6, 1935.

*****

* * * * * * * * *

MODIFICATION OF TETRAETHYL LEAD CONTRACT:

The following resolution was offered and after discussion was unanimously adopted:—

> RESOLVED, that the informal action heretofore taken taken by this Committee in authorizing the Organic Chemicals Department to modify the existing contract with Ethyl Gasoline Corporation by reducing the price of Tetraethyl Lead to 28¢ a pound, effective as of October 1, 1935, be and it is hereby approved, ratified and confirmed.

* * * * * * * * *

I hereby certify that the foregoing is a true excerpt from minutes of meeting #1285 of the Executive Committee, E. I. du Pont de Nemours & company, held in Wilmington, Delaware, on November 6, 1935.

F. G. HESS (Stamp)
SEC'Y, EXECUTIVE COMMITTEE
E. I. DU PONT DE NEMOURS & COMPANY

January 3, 1949

Defendant's Exhibit (DP.) No. 126

ETHYL GASOLINE CORPORATION
CHRYSLER BUILDING
405 LEXINGTON AVENUE

NEW YORK July 3, 1936.

MR. CESARE PROTTO, Asst. General Manager,
Organic Chemicals Department,
E. I. duPont de Nemours & Company,
Wilmington, Delaware.

Dear Mr. Protto:

We very much appreciate the contents of your letter of the 2nd instant regarding the reduction of the blending charge from 19¢ a hundred pounds to 11¢ for bulk material, the drum charge of 50¢ being unchanged.

I consider your letter and this acknowledgment to be entirely sufficient for our respective records and that it will be unnecessary to rewrite the present agreement.

Again thanking you, I am,

Very truly yours,

E. W. Webb

A:H

NOTE: At lower right is written "GMC-1014d"; italics indicate handwriting.

Defendant's Exhibit (DP) No. 128

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)

DYESTUFFS DEPARTMENT
JACKSON LABORATORY
P. O. BOX. 525. WILMINGTON, DELAWARE

April 14, 1930

OUR FILE JF-30-60

DR. H. W. ELLEY, DIRECTOR,

CHEMICAL SECTION.

F-12 - DIFLUORO-DICHLOROMETHANE
F-21 - FLUORODICHLORO METHANE

Attached find memorandum which we have drawn up covering a proposed process for the production of the above two fluorine derivatives.

This memorandum is being written at the present time in order to place on record, outside of our laboratory notebooks, a clear statement of the work which we are doing. If you compare this memorandum with the application for Part No. 1 of the project for difluoro-dichloromethane (J-30-60), you will notice that our line of attack has completely changed since we began on this work. The method outlined in the above mentioned preliminary statement before beginning our work was identical with the method now being carried out on a semi-commercial scale by the Frigidaire Corporation. Soon after beginning our work we became aware of the disadvantages in the original Swarts method as now being carried out by the Frigidaire Corporation, and therefore sought to develop another method of attack which would overcome the difficulties incident to the Swarts method. The attached memorandum sets forth in general terms our present ideas of a process for manufacturing the desired fluorine derivatives. We may find that this process must be altered considerably before our experimental work is completed, but up to date we have carried out no experiments which indicate that the process in general is other than practical.

JACKSON LABORATORY

L. C. Hill

LCH:F

5923

PROCESS FOR MANUFACTURING FLUORINE DERIVATIVES OF METHANE

Fred Swarts, a Belgian chemist, has shown in a series of communications in the Bull. Acad. roy. Belgique that chlorine can be replaced by fluorine from carbon tetrachloride and chloroform by the action of antimbny trifluoride in the presence of bromine, which produces some pentavalent antimony. As the replacement does not take place in the absence of the pentavalent form of antimony it is the natural conclusion that the active fluorine is itself in the pentavalent compound as perhaps SbF_3Br_2.

By the use of his reagent Swarts prepared $CFCl_3$ from carbon tetrachloride and $CHFCl_2$ from chloroform. It is fluorine derivatives of this type that are of particular interest to us. Swarts did not prepare higher fluorine derivatives of methane by further replacement of Cl from carbon tetrachloride but he shows that in certain ethane derivatives it is possible to replace two bromines attached to one carbon by fluorine with ease but that the replacement of more bromine takes place only with difficulty. From this it appears very probable that more of the chlorine of carbon tetrachloride or of chloroform can be replaced to give at least difluoroderivatives.

Swarts prepared the SbF_3 which he used by dissolving Sb_2O_3 in aqueous HF, evaporating to dryness, drying the product and then subliming it. It is necessary to have a completely water-free product; otherwise undesired oxygen containing products will result.

Otto Ruff, of the University of Breslan, has shown that antimony pentafluoride SbF_5 can be made from the pentachloride by careful treatment with a large excess of anhydrous HF.

We have now devised a process for producing fluorine derivatives which, while it makes use of the reaction of Swarts between pentavalent antimony compounds containing fluorine and methane chlorine derivatives, combines this with the observation of Ruff in a novel and practical way. We believe this proposed process has patentable features.

We propose to start with $SbCl_3$ and convert this to $SbCl_5$ by means of chlorine. This is liquid at ordinary temperature. The next step is the replacement of a portion of the chlorine from the $SbCl_5$ as hydrogen chloride by means of substantially anhydrous hydrogen fluoride. This can be done in a number of ways. We may mix the desired amount of liquid hydrogen fluoride with $SbCl_5$ at a temperature of about 0°C. which is below the boiling point of anhydrous HF. The evolution of HCl will begin at once. After standing a number of hours the reaction mass is gradually warmed to about 60°C. Additional HCl will be evolved along with some HF. The mass is now ready for fluorination of carbon tetrachloride or chloroform. The mixture of antimony chloride and fluoride thus prepared is solid at ordinary temperatures.

Efforts were made to bubble gaseous HF thru $SbCl_5$ at various temperatures but difficulty was encountered in the stoppage of the inlet tube due to the formation of solid products. It was then found that in the presence of CCl_4 the reaction mass remained liquid. Our preferred method of carrying out the process is as follows.

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In a suitable reactor of copper or other HF resisting metal, a charge of $SbCl_5$ is placed. This is warmed to about 50-60°C. and a stream of anhydrous, gaseous HF is bubbled directly into the $SbCl_5$ thru a suitable inlet tube. The evolution of HCl replaced by the HF begins at once. The addition of CCl_4 is begun at the same time as the flow of HF is started. The amount of CCl_4 to be added will depend upon the product desired. If the replacement of one chlorine only to form $CFCl_3$ is desired, an excess of CCl_4 can be used without harm but if the product wanted is CF_2Cl_2 a deficiency of CCl_2 should be employed in order to have an excess of fluoride present to encourage the removal of the second chlorine. Our work has not yet progressed to the point where we can give exact charge figufes but the general principle to be followed is clear from the above.

The CCl_4 will react promptly with the fluorinated $SbCl_5$ and particularly if a deficiency of CCl_4 has been used a mixture of fluorinated derivatives will be formed. In case CF_2Cl_2 is the desired product the reaction is run under a reflux condenser kept at a temperature of -10 to -15°C. As CCl_4 boils at 77°C. and $CFCl_3$ at 8°C., the greater part of these carried up with the HCl and CF_2Cl_2 (B.P. -29°C.) gases will be returned to the reaction mass for further fluorination.

The gas escaping from the cold reflux will consist of a mixture of HCl, CF_2Cl_2, CF_3Cl, saturated at the temperature of the condenser with CCl_4 and $CFCl_3$ and carrying some HF. If much HF is present it may prove to be desirable to run these gases thru a second $SbCl_5$ reactor. Any number of such reactors can be placed in series till the HF content of the escaping gas is reduced to an economic limit.

The final gas emerging from the reactor or series of reactors is passed into alkali, preferably milk of lime altho the more expensive caustic soda may be used if desired but not soda ash. This alkaline treatment removes the uncondensable portion of the gas which is HCl, together with any phosgene ($COCl_2$) or fluorine analogue which may be produced as a result of moisture coming into the system. A scrubbing with water might be used to remove all but the last traces of HCl but it may be difficult to find apparatus in which this water treatment can take place.

The neutral gas emerging from the alkaline scrubbers is dried, condensed by well known means and subjected to fractional distillation. If $CFCl_2$ is the desired product the CCl_4 and $CFCl_3$ recovered from the distillation step are returned to the process.

Our information is not yet sufficiently complete to give definite charge and yield data but every step in the proposed process except the final distillation has been tested out qualitatively and proven to work, therefore the process has been reduced to practice.

By the same method other fluorinations such as the conversion of chloroform to $CHFCl_2$, or probably the conversion of CH_2ClCH_2Cl, ethylene dichloride to CH_2FCH_2Cl or to CH_2FCH_2F, will be possible.

The advantages of this proposed processare as follows:

1. It avoids the use of all water in every step except in the alkali scrubbers, and therefore corrosion will be a minimum.
2. It uses the antimony continuously as a fluorinating catalyst and therefore eliminates all recovery and reworking of antimony.
3. It operates at atmospheric pressure.
4. The highest temperature in the system is about 50°C. again favoring low corrosion.

L C Holt

Note: Dr. Chambers, underlined, is written in the upper left hand corner. K.C.-7, underlined, appears in the upper right hand corner. Illegible handwriting appears in left hand margin.

Defendant's Exhibit (DP) No. 129

May 6, 1930

Mr. E. G. Robinson, Manager,
Dye Division,
E. I. du Pont de Nemours & Co.,
Wilmington, Dela.

Dear Mr. Robinson:

I just wanted to drop you a line to say I was mighty happy to meet you and all of your associates, and I feel we are well on our way to getting the new refrigorant matter on a basis where it will be mutually advantageous to all concerned.

Everybody here in Dayton is happy you will send an operator to take over our present semi-works plant. The sooner the better, and I will be happy to know who the man is and when he will be here, because we will receive him with open arms.

Yours very truly,

E. G. Biechler
President and General
Manager

EGB/CL

CC Messrs. Pratt, Midgley, Williams, Fordham.

NOTE: Ace-Frigidaire-Prod Sup & Nat. Gas—F-12-R is handwritten across the top of the document. An illegible stamp with a handwritten check appears in the upper right hand corner. A handwritten check appears above the name "Pratt." Italics indicate handwriting.

Defendant's Exhibit (DP) No. 130

400 ROOMS - 400 BATHS
CIRCULATING ICE WATER

HOTEL MIAMI
DAYTON, O.

Aug 3, 1930.

E. S. Robinson
General Manager

Dear Mr. Robinson:

Immediately on my return to Dayton July 31st, as you suggested I discussed the results of our Wilmington Conference in detail with Mr. H. M. Williams.

After this discussion, Mr Williams said that he would call a meeting of those concerned and endeavor immediately to let you have a schedule of their present and future demands for both F-12 and F-21.

It was also decided that in a

400 ROOMS - 400 BATHS
CIRCULATING ICE WATER

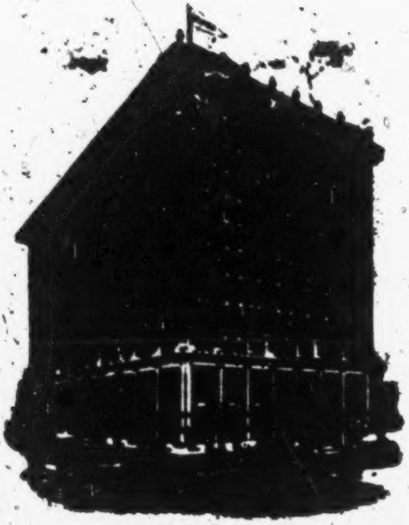
DAYTON, O.

would keep our expenditures down to a minimum, and endeavor to meet their present requirements with the equipment now on hand.

I feel that I have convinced Mr. Williams that a plant erected here and based on this process, for the production of 3000# per day would be highly impractical.

In fact he made the statement that they were not chemical manufacturers and that he would be glad when du Pont's could satisfy their needs.

We are proceeding with what equipment we have to get all the information and maximum production possible. This production is now



400 ROOMS - 400 BATHS
CIRCULATING ICE WATER

HOTEL MIAMI
DAYTON, O.

Decided between F-12 and F-21. We are producing about 50 lbs of F-21 and 30 lbs of F-12 per day.

Should any change in our present procedure arise I will advise you at once.

Yours very truly
Robt G. Laird

NOTE: In upper right hand margin appears illegible handwritten notations.

Defendant's Exhibit (DP) No. 131

EXCERPTS
FROM
ANNUAL REPORT
1931
KINETIC CHEMICALS INC.

• • • • •

F-12 YEARLY REPORT

The manufacture of F-12 originated from the desire of the Frigidaire Corporation to equip their electrical refrigerating units with a more desirable refrigerant than SO2. In July, 1928, active research was started on this problem in Dayton, and certain fluorine compounds, difluoro dichloro methane (F-12) and mono fluoro di chloro methane (F-21) were prepared in the laboratory. Samples of these two products tested for toxicity, inflammability, corrosion, etc., indicated that they far surpassed any known refrigerant and that di chloro difluoro methane, in particular, approximated the properties of the "ideal" refrigerant. A plant for the manufacture of these products was erected and started operating in Dayton in October, 1929. The process consisted of treating antimony trifluoride with carbontetrachloride (or chloroform) in the presence of a catalyst—antimony pentachloride. The reaction was a batch process, carried out in an autoclave. In June, 1930, a still with a packed column, brine condenser and separate receivers was installed and with certain other changes in operating conditions, the Dayton Plant was brought up to a capacity of about 5,000 lbs. per month of F-12 or F-21. In a plant of this size and with the process used, the cost of the product was prohibitive—being in the neighborhood of $2.50 a pound.

In the early part of 1930, research work was started in the Jackson Laboratory on methods of manufacturing these products and a continuous process developed involving the use of anhydrous hydrofluoric acid. This product was vaporized and passed into a catalyst simultaneously with carbon tetrachloride, in molecular ratio. The catalyst was prepared by chlorinating antimony trichloride to antimony pentachloride and then passing in hydrofluoric acid gas until the fluorine content of the catalyst approximates 10-14%. This corresponds to a mixture of SbCl4F and $SbCl_3F_2$, which is an excellent catalyst. (If the catalyst were entirely SbCL4F, the fluorine content would be 6.8% —if it were $SbCl_3F_2$ the fluorine content would be 14.4%). The continuous process developed at the Jackson Laboratory was considered sufficiently satisfactory and so superior to the Dayton process to warrant the erection of a plant at the Dye Works to manufacture F-12. This plant was designed to produce 3,000 lbs. of F-12 per day, though the transposition of the process from a laboratory to a plant scale rendered this figure uncertain. The erection of the plant was started in October, 1930, and completed in December, 1930.

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Defendant's Exhibit (DP) No. 132

OUTLINE OF ORGANIZATION AND OPERATION OF PROPOSED FLUOROCARBON PRODUCTS CORPORATION

The following paragraphs embody an outline of the purpose, structure and operation of the proposed new company to be organized by the General Motors Corporation and E. I. du Pont de Nemours and Company for the immediate purpose of manufacturing and marketing certain chemicals useful as refrigerants.

Name of Company—A company name compounded from the names of the parent corporations might, in this case, prove rather lengthy, awkward and cumbersome. It would therefore seem advisable to select a corporation name which has no relationship to either General Motors or Du Pont.

There are objections to such a name as "Fluorine Chemical Company" or "Fluorine Products Corporation" because they might imply too extensive an activity in the manufacture and sale of derivatives of fluorine, for example, hydrofluoric acid, and thus invite annoying and undesirable inquiries.

A coined term such as "Fluorocarbon Products Corporation" might, therefore, serve the purpose. For simplicity, the new corporation is referred to hereinafter as "Fluorine."

Purpose—The corporate purpose of the company, as should be set forth in its charter, shall be the manufacture, use and/or sale of halogenated methane or ethane in which at least one hydrogen atom is substituted by a fluorine atom. Assuming the company is incorporated in Delaware, which is desirable from many standpoints, there appears to be no particular object in having the charter either very broad or very narrow because, in the first place, the activities of the company will doubtless be confined to a definite field by contract agreement between General Motors and Du Pont and by the actions and policies of the Board of Directors and, in the second, the charter can easily be expanded within a few days' time if it is considered necessary or advisable to enlarge the company's functions.

—2—

However, the primary and immediate purpose of the corporation shall be to manufacture and sell the said chemicals for use as refrigerants. In other respects, the corporation should be chartered to acquire and dispose of property and engage in chemical and marketing research of whatever nature is connected with the manufacture, use and/or sale of its chemicals. It should also be authorized to engage in building construction and engineering projects and to employ whatever class of labor necessary for these various purposes.

The usual form employed by the Du Pont Legal Department will unquestionably cover the remaining charter requirements of the new company such as negotiating loans, investing in government or other securities, etc.

Capital Structure—As already tentatively agreed to between officials of the General Motors Corporation and the Du Pont Company, each of these parent organizations should furnish 50% of the capital. It would seem, for the time being at least, that an authorized capital of $2,000,000, consisting of 20,000 shares of $100 par value each should prove entirely adequate until such a time as production and sales exceed five to seven million pounds annually. When fully subscribed, this would provide $1,400,000 for fixed investment in plant and $600,000 for working capital.

For such period as the production and sales do not exceed 1,000,000 pounds annually, it appears that the issuance of 3,000 shares of stock, providing a capital of $300,000, should be sufficient.

OFFICERS—The officers should consist of a President, Vice-President, Treasurer (who would be an Assistant Secretary), Secretary (who would be an Assistant Treasurer), and an Assitant Treasurer.

Since the corporation is being created to exploit a General Motors' development, it seems fitting that an officer of that firm should be elected President of Fluorine and thereafter that the offices should be filled alternately according to nominal authority from Du Pont and General Motors respectively. This will provide for a Du Pont executive to be Vice-President, for a Treasurer from General Motors and a Secretary from Du Pont. The

Assistant Treasurer could be selected from either Du Pont or General Motors, acording to availability.

The two active executive officers will doubtless be the Vice-President, who would probably perform the functions of a General Manager, and the Assistant Treasurer who could have general charge of accounting, purchasing, shipping and financial matters under the general supervision of the General Manager, but reporting to the Treasurer on purely financial affairs. While it is probable that the Assistant Treasurer could perform most of the work connected with the purchasing of Fluorine's raw materials and other supplies, nevertheless, the Du Pont Purchasing Department stands ready to provide its services on important contracts at a cost of approximately 1% of the materials purchased. The duties, authority and responsibility of the Vice-President and General Manager are treated further under the subject of "Plant Management."

In order to have adequate diversification of representation of the various technical, financial and executive interests of both Du Pont and General Motors, it seems that the Board of Directors should consist of not less than six members, three from each of the parent corporations. Carrying out further the idea of diversification of representation on the Board of Directors, it would assist toward keeping it as small as possible yet at the same time maintaining its greatest breadth of knowledge and experience to provide that no more than two of the officers of the company shall at any time be members of the Board of Directors. This might readily result in the other two officers of the company being invited to sit in a purely advisory or informative capacity at the meetings of the Board.

Semi-Commercial Plant—It appears to have been accepted by both General Motors and Du Pont that the semi-commercial plant for testing the engineering and chemical principles of the process or processes eventually developed by research should be located on the Du Pont Dye Works' property at Deepwater Point, New Jersey. It should be constructed by the Du Pont Engineering Department, have a capacity of at least 600 pounds a day and be operated by members of the Du Pont Dyestuffs Department's staff preparatory to final development of the process considered suitable for the large scale factory. All charges incurred by Du Pont in connection with the designing, construction and operation of the semi-commercial plant shall be paid for at cost by Fluorine pending the erection of its own factory and the establishment of its own operating organization.

Permanent Plant Location—Considerable discussion has already taken place concerning the location of the permanent factory. Nothing apparently can be added to the principle that the manufacturing operations should be placed where available supplies of raw materials and distribution of finished products make possible the greatest efficiency, provided, however, we constantly bear in mind the false economy of sacrificing proximity of our own broad chemical manufacturing experience for the sake of saving a few thousand dollars annually, on raw materials' or finished products' freight charges, by locating where we made frequent consultation impossible or at least difficult during the formative years of the business.

Plant Management — It is apparent that at least the nucleus of the plant management staff should be furnished by Du Pont because the nature of the General Motors' operations is not such as to develop junior executives capable of operating chemical factories.

At the inception of operations it will therefore be necessary for Du Pont to furnish the senior plant officer, who would be the Superintendent and at least two supervisors, all of whom should be capable of development for more responsible positions as the corporation grew. The remainder of the staff, such as analytical chemists, plant operators, etc., could be built up by a few transfers and new engagements. Common labor would, of course, be drawn from the local plant source.

Inasmuch as it is recognized that there is considerable advantage of having, in the establishment of a new enterprise involving, as this one does, rather complex chemical processes, the benefit of broad development and manufacturing experience such as is possessed by the Dyestuffs Department's organization, it is advisable to have the factory of the new company operate under the cooperative technical assistance which Du Pont is qualified and

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equipped to render. For its services, during the five years beginning with the designing of the commercial scale factory, in furnishing, as occasion requires, such knowledge, information and professional services of its employes as are necessary to solve the problems encountered in the successful operation of Fluorine's factory, Fluorine shall pay Du Pont a management fee of $50,000 a year. This fee represents approximately 1.7¢ per pound on a production of 3,000,000 pounds annually and 1¢ per pound on a production of 5,000,000 pounds a year.

To provide for proper delegation of authority and responsibility by the Board of Directors and officers of Fluorine and to accomplish the most efficient and economical operation of the factory, it would seem advisable to designate the Du Pont executive who is elected Vice-President of Fluorine and who would simultaneously be an official of the Du Pont Dyestuffs Department, to have general charge of the factory operations and to whom the factory superintendent would report. The authority and responsibility thus vested in the Vice-President and the knowledge and experience of the plant superintendent, who shall have been trained in the Du Pont Dyestuffs organization, would pave the way for simple and efficient cooperation between the staff of the Fluorine factory and the research and manufacturing organization of the Dyestuffs Department.

FRIGIDAIRE AND G. M. PATENTS—Frigidaire, including all subsidiaries or associated companies of the General Motors Corporation, shall grant licenses to Fluorine under all applications and/or patents, covering halogenated methane or ethane in which at least one hydrogen atom is substituted by a fluorine atom, such compounds hereinafter being referred to as "products", which are useful as refrigerants or for other purposes later deemed within the province of Fluorine, according to the following terms and conditions:

1—Such licenses shall be exclusive to Fluorine, Frigidaire retaining no manufacturing or sales rights but only the right to use for the purposes claimed. These licenses shall also be non-transferrable excepting with the entire assets of Fluorine.

2—These licenses shall convey to Fluorine the right to manufacture, use and/or sell the products claimed and, further, the right to grant written or implied sub-licenses to its customers to use the products purchased by them.

3—Beginning with the free and unrestricted sales of the licensed products to consumers, other than Frigidaire, Fluorine shall pay Frigidaire as a royalty, which shall constitute compensation under all patent licenses and for all patent licensed products, an amount equivalent to 20% of its profits remaining after a preferred dividend of 10% is paid to General Motors and Du Pont on their respective investments in Fluorine.

4—Such payments of royalty shall be made quarterly within thirty days after the close of Fluorine's fiscal quarter year period.

5—Frigidaire shall prosecute at its own expense all patent applications under which it licenses Fluorine.

6—Should no patents issue to Frigidaire as a result of its applications within five years from the date on which Fluorine begins deliveries to Frigidaire of any product or products claimed under the latter's applications, then Fluorine's obligation to pay the aforesaid royalty shall cease with respect to such product or products until controlling patents do issue and, further, should the patent or patents covering any or all licensed products be held invalid or not infringed, then Fluorine shall also be relieved of the obligation to pay royalty on the products involved until such decision is reversed; provided nothing under this section shall be construed to relieve Fluorine of the obligation to pay royalties, as aforementioned, during that portion of the five year period in which it delivers to customers other than Frigidaire, as adequate and final compensation to Frigidaire for granting whatever rights and opportunities it may possess in this field.

7—Frigidaire shall be under no obligation to prosecute alleged infringers of the Frigidaire patents under which Fluorine is licensed, but shall grant Fluorine power of attorney to bring suit under the said patents, at the same time reserving the right to join, at its own expense, with

Fluorine in such suits and to share in the recoveries in the direct proportion that the expenses contributed by Frigidaire bear to the total.

Du Pont Patents—Du Pont shall grant to Fluorine exclusive licenses, excepting as hereinafter provided, that are non-transferrable excepting with the entire assets of Fluorine, under all its patent applications and/or patents claiming the said products, or processes for their manufacture, and for the said product purposes, according to the following conditions:

1—Such licenses shall be exclusive to Fluorine insofar as the products or processes claimed ~~there~~in may be utilized for the purposes of Fluorine, du Pont retaining all other rights thereunder.

2—Fluorine shall pay du Pont as a royalty, in compensation for its research and development expense, 5% of the net selling price of the products under which it is licensed provided, however, that if no patents are issued to Du Pont within two years after Fluorine begins deliveries of the licensed products to Frigidaire or other consumers, Fluorine shall thereafter be relieved of the obligation to pay a royalty on any of the said products not covered by patents but its obligation shall resume upon the subsequent issuance of any patent or patents to Du Pont claiming the said products but such obligation shall apply only to the products covered by said patents, all others being free of the liability to pay royalty.

3—Such payments of royalty shall be made quarterly within thirty days after the close of Fluorine's fiscal quarter period.

4—Du Pont shall prosecute at its own expense all patent applications under which it licenses Fluorine.

5—Du Pont shall be under no obligation to prosecute alleged infringers of Du Pont patents under which Fluorine is licensed but shall grant Fluorine power of attorney to bring suit under its patents, at the same time reserving the right to join, at its own expense, with Flourine in such suits and to participate in any recoveries in the same proportion as it contributed to the total expense.

Midgley Patents—It is difficult to suggest any basis of licensing or transferring whatever applications or patents to which Thomas Midgley, Jr. may lay claim through his private and personal researches because we are not acquainted with the nature of his obligation to either General Motors or Frigidaire on such matters. We know, of course, that he has certain ideas, possibly patentable, respecting uses for derivatives of fluorine for purposes other than refrigerants. On the assumption, however, that his inventions are assignable, under conditions with which Fluorine need not be concerned, to Frigidaire or General Motors, then the provisions already stated for the licensing of Frigidaire applications or patents can be followed in the case of the Midgley rights.

Foreign Patents—General Motors, Frigidaire, Du Pont and Fluorine shall apply for and endeavor to obtain patents corresponding to their United States applications in such foreign countries as is deemed necessary for the protection of their respective rights and especially those of Fluorine. Essentially the same arrangements as to licenses and the payments of royalties, prosecution and defense of suits shall prevail in all such foreign countries as exists in the United States. The owners of the various patents shall pay all fees and taxes required for the maintenance of foreign patents as well as for the cost of obtaining them.

RESEARCH—Chemical research in this field would consist of two types, i.e., fundamental and applied. By fundamental is meant the creation of new chemicals, a study of their inherent properties and an investigation of efficient methods for their manufacture. By applied research is meant the adaptation of such new compounds to old or new and useful purposes. With the facilities now possessed by Du Pont and General Motors for conducting both fundamental and applied research, it would seem inadvisable for the new corporation to undertake such a program of research with all the duplication in investment and facilities that such a plan implies. It is therefore recommended that Du Pont and General Motors conduct the necessary research during at least the first few years of development, according to their existing facilities and under autnorized appropriations by the Fluorine Board of Directors.

SALES—The sales of Fluorine's products shall be conducted according to plans and policies to be formulated as occasion requires by the Board of Directors. In this connection it should be remembered that the du Pont Dyestuffs Department, by reason of its sales of sulfur dioxide to manufacturers of household and merchandising refrigerators of a type now charged with refrigerants other than ammonia and that the Du Pont Ammonia Company and/or the National Ammonia Company, as a result of their established position in supplying ammonia for power plant, hotel and other similar refrigerating installations, have accumulated valuable experience in marketing to consumers in these respective fields that could be utilized in selling the products of Fluorine.

Should it later be deemed advisable and logical for these organizations to sell the products of Fluorine, they should receive a sales commission equivalent to 15% of the gross selling price of the products and for this compensation shall defray all expenses of developing and establishing sales, exclusive of advertising, provided, however, that neither of these sales agencies should be required for such compensation to conduct technical research for the development of information necessary to the marketing of the products, it being the obligation of Fluorine to furnish such technical data.

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ADVERTISING—Whatever advertising of Fluorine's products is deemed necessary in trade journals and by means of technical or popular pamphlets or other similar printed matter, exclusive of ordinary sales correspondence or circular letters, shall be provided for under appropriations authorized by the Board of Directors of Fluorine.

SELLING PRICES — It is perhaps a little premature to speculate as to the amount of the selling prices that should be quoted in view of the current indefinite information we have with respect to actual costs. However, a typical example of the method of arriving at a suitable price can be worked up for the product now known as F-12 and on the assumption that the production of even as much as 5,000,000 pounds a year would cost $.30 per pound at the factory.

Selecting arbitrarily a selling price of $.55 a pound, the selling expense charges at the rate of 15% would be 8.25¢ per pound. To this deduction must be added the other deductions for cash discount, packages and administrative costs which are roughly estimated at 3.55¢ per pound, making a total deduction of 11.8¢ or a net price to Fluorine of 43.2¢. The margin would then be 13.2¢ per pound on a production of 5,000,000 pounds or a net of $662,000.00 before deducting for taxes, research and royalties to either Frigidaire or Du Pont.

We can estimate that if the research expenses run as high for the next few years as $5,000 a month it would leave about $600,000 annually to provide for taxes, royalties to Frigidaire and Du Pont, advertising, contingencies such as patent expense and litigation, and return on investment to General Motors and Du Pont. We do not know what the taxes would amount to because these would necessarily vary according to the State in which the plant is located but it appears that as long as the $.55 price was maintained Frigidaire would receive about $80,000 annually in royalties and that Du Pont and General Motors would obtain somewhat better than a 20% dividend on their respective investments of $1,000,000.00 each.

The price of $.55 per pound sounds high in comparison with present costs of refrigerants but its greatly superior properties will doubtless justify a greatly increased figure, especially since the amount used per machine is of little consequence in contrast with the total cost of the refrigerator. The prospects are, of course, that the cost on a volume of 5,000,000 pounds annually will be nearer $.15 than $.30, making it possible to bring the price of the refrigerant down to about $.40 per pound and still yield the same return on investment.

J. Warren Kinsman,
Director of Sales, Organic Chemicals

May 27, 1930

Note: In center of page 1 (approximately) appears a handwritten "X"; at top of page, on right hand side, appear illegible handwritten notations. In left-hand margin, in approximately the center of page, appears "K C-7-(illegible)"; A portion of the eighth and tenth lines from the bottom of the page are underscored (by hand) and the entire ninth line from bottom of page is underscored; opposite these lines, in left hand margin appear two vertical handwritten lines, to the left of which is written "1", enclosed by circle, and the letters "OK" in handwriting. On page two diagonal handwritten lines appear across lines 12, 13 and 14 from top of page. The 15th, 16th, 17th, 18th and 19th lines from top of page are underscored with handwritten lines, to the right of which (in right-hand margin) appear handwritten notations "D.P.51%" and "G.M.49%", and to the left of which (in left hand margin) appear "5,000,000?" with line drawn through it and the handwritten notation "OK". The eighth and ninth lines from bottom of page are underscored by hand and notation "(illegible) all *Du Pont*" appears opposite these lines in left hand margin. In left hand margin of page three appears following handwritten notation: "3 DP 5 2 GM." Page five at end of first paragraph (8th line from top of page) appears handwritten notation as follows: "for 5 years, after build new organization." Page seven in lower left-hand margin appears an illegible handwritten note. Page eight in lower left-hand margin appears an illegible handwritten note. Page nine in lower left-hand margin appears the following handwritten notation: "no charge for sales to Frigidaire—" Page eleven handwritten signature of J. Warren Kinsman appears at end of document. Illegible handwritten notation appears at bottom left-hand margin of document.

14
E

Defendant's Exhibit (DP) No. 133

AGREEMENT entered into on the 6 day of June 1945, between GENERAL MOTORS CORPORATION, a corporation of the State of Delaware, hereinafter referred to as GENERAL, and E. I. DU PONT DE NEMOURS & COMPANY, also a Delaware corporation, hereinafter referred to as DU PONT,

WITNESSETH, That:

WHEREAS, DU PONT and GENERAL entered into an agreement under the date of August 27, 1930 providing for the formation of a new company (subsequently incorporated as Kinetic Chemicals, Inc.) for the manufacture of certain chemicals, and

WHEREAS, said agreement provides in Paragraph Seventh for the offer of future chemical developments originating in the laboratories of GENERAL or its subsidiaries to the new company, and

WHEREAS, the aforesaid provision of said Paragraph Seventh has not been and is unlikely to be operative and the parties hereto desire to eliminate that provision from Paragraph Seventh from said agreement;

NOW, THEREFORE, for and in consideration of the mutual undertaking hereinafter contained, the parties hereto agree as follows:

1. Effective as of the date of this agreement that portion of Paragraph Seventh of said agreement of August 27, 1930 reading as follows:

> "it being further agreed that future chemical developments, (other than those relating to 'said products') originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, then General shall be free to dispose of the same elsewhere."

is cancelled in its entirety, it being understood and agreed that the cancellation of that portion of said Paragraph Seventh shall not in any manner affect any other provision of said agreement as heretofore amended.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their officers, duly authorized, and their respective corporate seals to be hereunto affixed, on the day and year first above written.

GENERAL MOTORS CORPORATION
By_______________________
Vice President

ATTEST:
____
Secretary

E. I. DU PONT DE NEMOURS & COMPANY
By_______________________
General Manager
Organic Chemicals Department

ATTEST:
____
Secretary

KINETIC CHEMICALS INC., a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware, hereinafter referred to as KINETIC,

HEREBY ACKNOWLEDGES that it has read the above agreement of June 26, 1945, between GENERAL and DU PONT and has full knowledge of its contents; and that it assents to the cancellation of that portion of Paragraph Seventh of the agreement of August 27, 1930, as provided in the aforesaid agreement of June 28, 1945.

IN WITNESS WHEREOF KINETIC has caused this instrument to be executed by its officers duly authorized and its corporate seal to be hereunto affixed as of the day and year first above written.

KINETIC CHEMICALS INC.

BY ______________________
President

ATTEST:

____
Secretary

Defendant's Exhibit (DP) No. 134

July 17, 1930.

TO : FINANCE COMMITTEE

FROM : EXECUTIVE COMMITTEE

PROPOSED NEW COMPANY FOR THE EXPLOITATION OF F-12:

Attached hereto please find copy of report from Mr. E. G. Robinson, General Manager, Dyestuffs Department, dated July 14, 1930 (#2882), on the above subject, enclosing copy of proposed agreement in connection therewith between General Motors Corporation and the duPont Company:

At meeting of the Executive Committee held yesterday, it was moved and unanimously carried that the report and enclosure be received and ordered filed, and that the Dyestuffs Department be advised that the Executive Committee approves the program in principle, subject to approval of the Finance Committee, with the understanding that the proposed agreement will be modified so as to clarify the meaning of certain paragraphs thereof in accordance with the views expressed at this meeting, and with the further understanding that the modified agreement will be presented to this Committee for final approval before execution.

This matter is now presented to your Committee for consideration and approval.

M. D. Fisher,
Sec'y Executive Committee.

29-enc.

July 14, 1930

TO : EXECUTIVE COMMITTEE
FROM : DYESTUFFS DEPARTMENT

PROPOSED NEW COMPANY FOR THE EXPLOITATION OF F-12

The Frigidaire Corporation have developed a series of chemical compounds which are apparently particularly fitted for use as refrigerant liquids. ~~These~~ These compounds apparently possess a combination of physical and chemical properties which make them more suitable for this purpose than any of the refrigerants at present in use. The General Motors Corporation have proposed that on account of our experience in the manufacture of chemicals, they and we should form a company to exploit them.

We are attaching hereto draft of an agreement which covers the basis upon which it is proposed to form this new company. This draft is the result of our discussions with the General Motors representative and is now, we believe, in substantially its final form.

The plan, as you will observe from the agreement, contemplates the ultimate use of $2,000,000 of capital by the new company, to which the duPont Company would subscribe 51%, or $1,020,000. It is not possible at this time to give any estimates of the profit which it is expected this company will ultimately make, since this will depend primarily upon the cost of manufacture which can be realized and the value of these products as refrigerants which will be developed by the experimental work to be conducted by the Frigidaire Corporation. It is accordingly planned at this time to issue 10% of the proposed amount of stock involved, or a subscription of $102,000 from the duPont

Company and a corresponding amount from General Motors. This money will be used to reimburse the duPont Company for research work which they have already done for the new company, to build a semi-works plant in which the manufacture of the products can be studied, and in which sufficient material can be produced for the experimental program on its application and to provide for the cost of operating the semi-works plant. Before additional money is required by the new company, it is expected that sufficient information will have been developed to enable us to determine whether, before proceeding further with the project, it is justified.

It might be stated that the General Motors people are all very enthusiastic in their belief that these compounds, on account of their properties, are destined to replace all other refrigerants in domestic refrigerating machines and probably to find other important commercial uses:

Your approval of this program is requested.

E. G. ROBINSON,
General Manager.

P.S.—The Exhibits A and B referred to in the agreement have not yet been drawn up but are to be made a part of the agreement before its final execution.

Moreover, the name given for the New Company in the agreement, namely, Du Pont-General Motors Chemicals, Inc., is not the name to be used but it is simply used in this draft until a more suitable name shall have been finally selected.

Agreement entered into on the   day of July, 1930, between General Motors Corporation, a corporation of the State of Delaware, hereinafter referred to as General, and E. I. du Pont de Nemours & Company, also a Delaware corporation, hereinafter referred to as du Pont.

Witnesseth:

Whereas du Pont is extensively engaged in the business of manufacturing various chemicals, and among others, certain chemicals used in mechanical refrigeration, and

Whereas General, and its subsidiary, The Frigidaire Corporation, have developed certain chemicals containing Fluorine which the parties hereto believe will be useful as refrigerants, and

Whereas du Pont at the request of General has, prior to the date hereof, conducted various researches and experiments pertaining to the manufacture of such Fluorine compounds, and

Whereas the parties hereto desire to engage in the business of manufacturing and selling such Fluorine compounds and other chemicals in the manner and upon the terms and conditions hereinafter set forth,

Now, Therefore, they have agreed and by these presents do agree with each other as follows:

First: The term "said products" as hereinafter referred to, to be manufactured by the New Company, as herein provided, shall be deemed and considered to mean Halogenated Methane or Ethane, in which at least one Hydrogen Atom is replaced by a Fluorine Atom, including the intermediates therefor.

Second: Promptly upon the execution hereof a corporation shall be formed under the laws of the State of Delaware, which corporation shall be named du Pont-General Motors Chemicals, Inc., and shall have a total authorized capital stock consisting of twenty thousand (20,000) shares, with a par value of One Hundred Dollars ($100.00) per share, such corporation being hereafter referred to as the New Company.

Third: Upon the organization of the New Company, du Pont shall subscribe for fifty one percent (51%) of said total authorized capital stock and General shall subscribe for forty nine percent (49%) thereof, which subscriptions shall be payable to the New Company from time to time at such times and in such amounts as the Board of Directors of the New Company shall determine.

Fourth: The New Company shall have such powers as shall be necessary and/or adequate to enable it to engage in the manufacture and sale of the "said products", and to carry out the purposes and intention of this agreement.

Fifth: The officers of the New Company shall be a President, one or more Vice-Presidents, Treasurer and Secretary, with such Assistants as the Board of Directors of the New Company may determine to be necessary or requisite.

Sixth: The Board of Directors of the New Company shall be composed of five members, and the parties to this agreement agree that they will cast their votes at all meetings for the election of such directors in such a manner that three of said directors will be representatives of du Pont and two of said directors will be representatives of General.

Seventh: As soon as the New Company has been organized and the first calls on the subscriptions of the parties hereto to its capital stock have been paid, the New Company shall engage in the manufacture and sale of the "said products"; it being understood and agreed that for the time being said New Company will operate the semi-commercial plant owned by The Frigidaire Corporation at Morain City, Ohio, which operation shall be carried on at the cost and expense of the New Company, and shall be continued for such time as the Board of Directors of the New Company shall determine; it being further agreed that future chemical developments originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, then General shall be free to dispose of the same elsewhere.

Eighth: du Pont agrees that it will be responsible for the management of the New Company and will give to the New Company the benefit of its experience in the manufacture and sale of chemicals, for which service the New Company will pay to du Pont a fee of Fifty Thousand Dollars ($50,000.00) per year for a period of five years from the date of this agreement; it being understood and agreed, however, that if after one year from the date of this agreement the net profits of the New Company shall be less than Fifty Thousand Dollars ($50,000.00) per year, then the fee payable for any such year shall not exceed the amount of such net profits.

Ninth: The services of du Pont to the New Company, referred to in the last preceding paragraph, shall be available only with respect to the production of "said products" referred to in Paragraph First of this agreement, and shall be provided upon the condition that the New Company shall pay the salaries of du Pont employees while temporarily engaged in such service for the New Company, and shall pay the travelling and living expenses of such employees, should their duties require them to travel in such service; it being agreed that the general administration offices of du Pont located in Wilmington shall make no charge for their time in administering the affairs of the New Company, and the New Company shall be liable only for the traveling and living expenses of employees of said offices while engaged in the service of the New Company.

Tenth: General shall cause its subsidiary, The Frigidaire Corporation, promptly upon the execution of this agreement to grant to the New Company an exclusive license (*subject to a license to be retained by Frigidaire for its regular refrigerators*) to manufacture, use and sell "said products" under all patents or applications for Letters Patent, whether issued or applied for, in the United States and/or foreign countries at the date hereof, or which may hereafter be issued or applied for in said United States or foreign countries by General or by the said The Frigidaire Corporation; it being understood that the obligation of said The Frigidaire Corporation under this paragraph shall extend to and include all patents and applications pertaining to the "said products," in so far as said The Frigidaire Corporation shall have a right to dispose of the same, subject, however, to any rights heretofore granted to the Ethyl Gasoline Corporation; it being further understood and agreed that said license shall be substantially in the form attached hereto, made a part hereof and marked Exhibit "A".

Eleventh: Du Pont shall transfer and assign to the New Company all processes and patents now or hereafter owned by du Pont pertaining to the manufacture of the "said products", and arising out of information received from General or The Frigidaire Corporation, which assignment shall be substantially in the form attached hereto, made a part hereof and marked Exhibit "B".

Twelfth: It is agreed that the transfer to the New Company of the processes, patents and patent rights of The Frigidaire Corporation, hereinabove referred to, shall be upon the condition and understanding that the New Company shall pay to The Frigidaire Corporation a royalty equal to five percent (5%) of the selling price of all "said products" manufactured and sold by the New Company under said patents, which royalties shall be determined after freight and cash discounts have been deducted, and upon the further understanding that if during any year the net profits of the New Company shall be insufficient to pay said royalties and the fee of du Pont, under Paragraph Eighth of this agreement, then the New Company shall deduct from the total royalties payable to The Frigidaire Corporation during such year an amount which shall equal one-half of the difference and shall pay the same to du Pont.

Thirteenth: The royalty of five percent (5%) payable to The Frigidaire Corporation, and referred to in the last preceding paragraph, shall be payable for a period of seventeen years from the date hereof, but if at the end of five years from the date hereof said Letters Patent, or any of them, shall not be issued, then said royalty shall cease and terminate with respect to any of the "said products" not covered and protected by Letters Patent, to the extent that the New Company shall enjoy a practically commercial monopoly in the production thereof.

Fourteenth: It is agreed that du Pont shall be reimbursed by the New Company for the cost of any and all research or experimental work carried on with reference to "said products" prior to the time that the New Company shall commence to function as a going concern, and thereafter both du Pont and General shall be reimbursed for any and all research or experimental work conducted at the request of the New Company.

Fifteenth: Neither du Pont nor General will sell, pledge or otherwise dispose of any of their stock in the New Company without first offering such stock to the other and giving to the other fifteen days to purchase the same at a price and upon terms at least as favorable as the price and terms at which it is intended to dispose of such stock, and if a disposition to a third party is not effected at such price and terms within

forty five days after the expiration of such fifteen days, then the stock may not be disposed of without again offering the same as hereinabove provided.

In Witness Whereof the parties hereto have caused this agreement to be executed by their officers, duly authorized, and their respective corporate seals to be hereunto affixed on the day and year above written.

GENERAL MOTORS CORPORATION,

By ....

Attest:

....

E. I. DU PONT DE NEMOURS & COMPANY,

By ....

Attest:

....

NOTE: A handwritten check mark appears in upper right hand margin after typewritten notation "Copy to Mr. E. G. Robinson," through which typewritten notation has been drawn a pencilled line. A handwritten check mark appears opposite the date July 14, 1930.

At bottom of document appears the signature (handwritten) of M. D. Fisher.

NOTE: In line 8 from top of page the words "in such service" have been underscored by hand; in ninth line from top the word "such" has been underscored by hand; in tenth line from top of page the words "such service" have been underscored by hand. Between the 17th and 18th lines from top of page appears illegible handwriting in parentheses.

10
E

Defendant's Exhibit (DP) No. 135

MONTHLY REPORT OF PRESIDENT

TO BOARD OF DIRECTORS OF KINETIC CHEMICALS, INC.

FOR JANUARY, 1932

* * * * * * * * * * * * * * * * *

7. SALES ACTIVITIES

Several important changes have been made in the original contract set up for the sale of Freon. The price of Freon was reduced on January 1st to Frigidaire Corporation from $.55, f.o.b. Deepwater Point, freight allowed, to $.45 per pound, f.o.b. Deepwater Point.

As we are following a one price policy, this necessitated a reduction of the price schedule for the general trade.

While there have been many inquiries concerning the price and availability of our product no contracts have yet been negotiated. This is due to several conditions which must be corrected before we can expect to place many prospective buyers under contract.

The first in matter of importance is the code situation. Definite effort on the part of certain manufacturers of refrigerating equipment, using long established refrigerants, is being made to prevent Freon from receiving the special classification to which it is entitled due to its superiority from the standpoint of toxicity and flammability. Vigorous attempts have been made to have Freon grouped with refrigerants such as SO_2 and ammonia, both in the A.S.A. and New York City codes. Every effort is being made by Kinetic to secure for Freon the proper recognition by all public authorities interested in the regulation of its use. It is felt that definite progress has been made for the proper protection of Freon in the codes, but, general sales will be adversely affected until this matter is finally settled.

The Sales Department has contacted many prospective customers during the month and has carried on a vigorous educational campaign which is creating a growing interest in our product.

* * *

3684

Defendant's Exhibit (DP) No. 136

November 7, 1935

Kinetic

SALES ACTIVITIES

During the month of October there was sold 155,740 pounds of "Freon" refrigerants which was 86.0 per cent of the forecasted amount, and a decline of 29.3 per cent from September.

It is exceedingly difficult to forecast requirements in the final quarter of a year because of the ~~vagaries of~~ refrigerating machinery manufacturers in their product programs. It is likely that our forecast will not be far wrong covering a ~~three months~~ period. ¶ During the month we signed a contract with the Deissler Machine Company on ~~the~~ a cash basis.

The small manufacturers of refrigerating equipment mean very little to us in sales volume. 93.5 per cent of our sales of "Freon-12" are made to a group of nine companies, 86.7 per cent to six companies, 63.3 per cent to three companies, 50 per cent to two companies, and only 6.5 per cent to fourty-one other concerns. However, for the sake of open competition it is a wise policy to sell to the smaller companies.

I anticipate that not more than eight companies will always contribute more than 85 per cent of our business.

W. W. Rhodes

SALES MANAGER

WWR:ALL

NOTE: In upper right hand margin of page appears handwritten notation "R.C.26-A"; in top center of page appears handwritten word "Kinetic"; first sentence of document is encircled by handwritten parenthesis; in first sentence of second paragraph the words "vagaries of" have been stricken and "changes being made by the" inserted in substitution therefor in handwriting; in first sentence of 2nd paragraph typewritten word "product" has been changed in handwriting to word "production". Illegible handwritten inserts or corrections appear in second sentence of 2nd paragraph. Handwritten paragraph sign appears at beginning of third sentence of second paragraph; word "the" (typewritten) has been stricken from third sentence of second paragraph and handwritten "a" substituted therefor. A vertical line (handdrawn) appears in the left hand margin opposite the third and fourth paragraphs of document. Handwritten signature of W. W. Rhodes appears at end of document.

Defendant's Exhibit (DP) No. 137

May 27, 1931.

Mr. E. G. Biechler:

2

During our meeting yesterday with Mr. Robinson, at which time you requested him to progress rapidly on the expansion of the plant facilities at Kinetic Chemicals, the possibility of future use of F-114 in commercial equipment, instead of F-12, was mentioned. To be sure that we are making the right move in changing to the new refrigerant, and that we are changing to the correct refrigerant, I have reviewed this question rather fully this afternoon with interested members of the Engineering Department.

Of course there are a number of variables, and we cannot be sure that the moves we are making now are exactly in line with what we will be doing two or three years from now. However, we feel that the use of F-12 in the commercial equipment this Fall is the correct thing to do, and we cannot foresee the use of F-114, or other refrigerants in the future which would make that decision an incorrect one.

So that all interested parties are posted, I am sending you a summary of the conclusions and the reasons why they were reached.

It is not logical to assume that either F-12 or F-114 solves all of the problems for the different kinds of machines and the different applications. Therefore, we will probably have to have both of these refrigerants for a considerable time to come. The F-12 is particularly suited to low temperature work because of its low boiling point (—22). It is also especially suited to piston type compressors where stuffing boxes are required. F-114 is less suited to piston type compressors because they cannot continuously and efficiently pump to the low back pressures demanded for low temperature work. The F-114 is not so well suited to compressors having stuffing boxes as F-12, because the former must operate below atmospheric pressure and thus any slight leaks will admit air to the system instead of permitting refrigerant to leak out of the system, thus causing high head pressures, low operating efficiencies, and overloaded and burnt out motors.

Without any doubt, it will be necessary for us to use piston type compressors in our larger sizes for a good many months, even though we make very rapid progress toward rotary units for commercial work. We are of course starting this work on the small sizes. Furthermore, it may be necessary to continue the use of stuffing boxes in the larger compressors for a number of months, or possibly indefinitely, because it is impracticable to get rid of the motor heat in a totally enclosed air cooled motor.

May 27, 1931.

The above considerations demand that F-12 be used in certain of our commercial jobs for the immediate present and for some little time in the future.

On the other hand, F-114 is especially suited to our rotary type compressors and F-12 is very much unsuited to this type of compressor because of the higher pressure difference with F-12 between the high and low sides. Therefore, we must use F-114 in a certain number of the household and smaller commercial jobs which can be handled as package goods.

These considerations leave us only one possible conclusion, and that is that we will use both F-12 and F-114 during 1932, and therefore our decision to go ahead with F-12 apparatus, as rapidly as the plant capacity of Kinetic Chemicals permits, is the correct one.

E. B. Newill

CC—Messrs. Godfrey
Harlan
Vandoren
Barney
Williams
Schweller
Hull

3
E

Defendant's Exhibit (DP) No. 138

August 9,

Mr. C. D. Porch, Vice President,
Kinetic Chemicals, Inc.,
Wilmington, Dela.

Dear Mr. Porch:

We sincerely appreciate your letter of August 2, outlining basis on which F-114 can be supplied to us.

Mr. Pratt was here yesterday and he, too, was pleased with the way this subject had been handled, having read previously, copy of your letter to us.

We would like to go ahead on the basis outlined in your letter and we suggest you get ready to supply us F-114. I will ask Mr. Barney to supply you with tentative schedules within the next few days.

Mr. Pratt and we are very much impressed with the possibilities we have in mind in connection with the use of F-114 in the machine you saw when you were here and, Mr. Pratt has expressed the wish, with which we concur, that F-114 be held exclusively for us for an indefinite period. We would very much appreciate it if you would handle the matter on this basis and this can be more definitely discussed at the next Kinetic Board meeting.

Assuring you of our appreciation and your cooperation in this entire matter, we are

Yours very truly,

/s/ E. G. Biechler
President and General Manager

EGB/CL
CC Mr. Pratt, Mr. Newill, Mr. Barney

Note. "Copy" stamped across face of letter. "Mr. Newill" is checked at bottom.

Defendant's Exhibit (DP) No. 139

KINETIC

KINETIC CHEMICALS INC

5965

November 24, 1933

File

Mr. A. A. Levine
E. I. duPont de Nemours & Company
The R. & H. Chemicals Department
Niagara Falls, N. Y.

Dear Mr. Levine:

Referring to your letter of November 20th addressed to the Jackson Laboratory for the attention of Dr. L. C. Holt, would advise that we can ship you 10 pounds of F-12 at any time, but through a ruling of the Board of Directors of our company there is not any F-114 available for sale or transfer. Consequently, we shall not be able to supply you with even a small amount of F-114.

With respect to the F-12, you may either send us one of your cylinders for filling or we shall supply it to you in one of our own. It makes little difference. If you send the cylinder to our Works at Carney's Point, please advise us when it goes forward.

Yours very truly
KINETIC CHEMICALS, INC.

W. W. Rhodes
Sales Manager

Ames
Test a ten lb.
cylinder and ship
to Kinetics
OAD 13

This has been
ordered

WWR NSS

3690

THIS AGREEMENT made this 18th day of September, 1939, by and between

KINETIC CHEMICALS, INC., a corporation of the State of Delaware (hereinafter referred to as KINETIC)

and

GENERAL MOTORS CORPORATION, a corporation of the State of Delaware (hereinafter referred to as GENERAL MOTORS).

WITNESSETH, that:

WHEREAS, by an agreement dated May 1, 1932, Frigidaire Corporation, a corporation of the State of Delaware, granted to KINETIC an exclusive license under its applications and patents to make, use and sell certain products, said grant being subject to the right reserved by Frigidaire Corporation for itself and GENERAL MOTORS, to use such products as refrigerants in their own business;

WHEREAS, the license so granted by Frigidaire Corporation conferred upon KINETIC, inter alia, the exclusive right, subject to the reservation noted above, to make, use and sell tetra-fluoro-dichloro-ethane covered by the Henne U.S. Patent No. 2,007,198, issued July 9, 1935;

WHEREAS, GENERAL MOTORS has succeeded to the rights and obligations of the Frigidaire Corporation under the said agreement and the parties hereto desire to amend said agreement in the manner and to the extent hereinafter set forth in so far as it concerns the use and sale of tetra-fluoro-dichloro-ethane.

NOW, THEREFORE, in consideration of the payment by GENERAL MOTORS to KINETIC of One Dollar ($1.00), receipt of which is hereby acknowledged, it is mutually agreed as follows:

ARTICLE I

Subject to the limitations and conditions hereinafter set forth, KINETIC hereby grants to GENERAL MOTORS the sole and exclusive right and license, under said Henne Patent 2,007,198 and under any other patent licensed to KINETIC by virtue of said agreement of May 1, 1932, and covering tetra-fluoro-dichloro-ethane or its use as a refrigerant, to use said product in, and to sell said product in or for use in, refrigerating apparatus or equipment, it being expressly understood and agreed, however, that no right or license is granted to GENERAL MOTORS by this agreement, or reserved by GENERAL MOTORS by said agreement of May 1, 1932 to make tetra-fluoro-dichloro-ethane.

ARTICLE II

It is agreed between the parties that if in any calendar year expiring subsequent to the date hereof and during the term of said Patent 2,007,198, fifty per cent (50%) or more than fifty per cent (50%) of the number of units of household refrigerators sold by GENERAL MOTORS under its own name plate do not contain, at the time of sale or installation, tetra-flucro-dichloro-ethane as the refrigerant, then KINETIC may at its option convert the exclusive license granted to GENERAL MOTORS under Article I hereof to a non-exclusive license for the remainder of the term of said license by giving GENERAL MOTORS written notice to that effect within ninety (90) days from the expiration of any such year, provided however, that this provision shall not apply in any year in which KINETIC refuses or is unable, by reason of strikes or for any other reason, to supply GENERAL MOTORS with its requirements of tetra-fluoro-dichloro-ethane. For this purpose, GENERAL MOTORS agrees to furnish KINETIC within thirty (30) days from the expiration of each calendar year in question a verified statement showing the percentage of household refrigerators sold by it during the preceding year under GENERAL MOTORS' own name plate and not containing tetra-fluoro-dichloro-ethane as the refrigerant.

ARTICLE III

(a) GENERAL MOTORS hereby confirms in KINETIC, under the patents hereby licensed to GENERAL MOTORS, the exclusive right and license to manufacture tetra-fluoro-dichloro-ethane, and further confirms in KINETIC the exclusive right and license under such patents, with the right to sub-license others, to use and sell for use tetra-fluoro-dichloro-ethane in any connection or field outside of the field of refrigeration.

(b) GENERAL MOTORS further confirms in KINETIC the non-exclusive right and license under the said patents, with the right to sub-license others, to use and sell for use tetra-fluoro-dichloro-ethane in the field of refrigeration, but only in the event the exclusive license hereby granted GENERAL MOTORS is converted to a non-exclusive license in accordance with the provisions of this agreement.

(c) In the event KINETIC hereafter sells tetra-fluoro-dichloro-ethane to any other party pursuant to sections (a) and (b) of this Article, KINETIC agrees that it will not sell said product to any such party at a more favorable price than that at the same time offered to GENERAL MOTORS.

ARTICLE IV

(a) The rights and licenses herein confirmed or granted shall terminate upon the termination of this agreement, and shall extend to all patents, domestic and foreign, licensed to KINETIC by virtue of said agreement of May 1, 1932 and covering tetra-fluoro-dichloro-ethane or its use as a refrigerant, but to no other patent.

(b) In so far as there is any conflict between this present agreement and the said agreement of May 1, 1932 with respect to the use and sale of tetra-fluoro-dichloro-ethane, the provisions of this present agreement shall supersede the former agreement and shall be controlling, it being understood and agreed, however, that any right or license hereby confirmed or granted shall be subject to the conditions set forth in the second, third, fourth, fifth, sixth and seventh paragraphs of said agreement of May 1, 1932.

(c) It is specifically agreed between the parties hereto that nothing herein contained shall be construed as affecting, by implication or otherwise, the rights of the parties as set forth in said agreement of May 1, 1932, with respect to any other product than tetra-fluoro-dichloro-ethane.

ARTICLE V

(a) In the event that the claims of the licensed patents dominating tetra-fluoro-dichloro-ethane and the use thereof as a refrigerant are declared invalid by a lower court from which no appeal is taken or by a court of last resort, then, after the expiration of the limit for appeal or after the date of entry of the decree of the court of last resort, as the case may be, either party hereto may, at its option, terminate this agreement by written notice to the other.

(b) This agreement shall terminate in its entirety on July 9, 1952 unless sooner terminated, either in a manner hereinbefore provided for or by mutual consent of the parties hereto.

ARTICLE VI

(a) This agreement and the licenses herein granted shall inure to the benefit of each of the parties hereto and their subsidiaries and to the benefit of the successors and assigns of the entire business relating hereto of each of the parties, but otherwise shall not be assignable.

(b) For the purpose of this agreement a subsidiary company shall be defined as any corporation or organization more than fifty per cent (50%) of the voting shares of which are owned directly or indirectly or the voting rights of which are controlled by the party concerned.

IN WITNESS WHEREOF the parties hereto have caused this instrument to be executed in duplicate by their representatives, duly authorized, and their respective seals to be hereunto affixed as of the day and year first above written.

KINETIC CHEMICALS, INC.

By E. G. Robinson (s)
President

ATTEST:

E. A. Howard (s)
Asst. Secretary

L.R.G.
H.C.H.
J.E.K.

GENERAL MOTORS CORPORATION

By E. R. Breech
Vice President

ATTEST:

J. E. Davidson
Asst. Secretary

Defendant's Exhibit (DP) No. 141

CC: Mr. E. G. Biechler
Frigidaire Division
General Motors Corporation
Dayton, Ohio

KINETIC CHEMICALS, INC.
WILMINGTON, DELAWARE

April 3, 1942

Mr. F. E. Anderson
F. E. Anderson Oil Company
Portland, Connecticut

Dear Mr. Anderson:

Mr. E. G. Biechler, of the Frigidaire Division of the General Motors Corporation, has forwarded to me your letter of March 28th, and I note that you have disclosed to Mr. Biechler information which I requested in my letter of March 19th.

We will supply you with approximately a gallon of "Freon-114" which you require for your experimental work at the price of 80¢ per pound when contained in a pressure cylinder of approximately eleven pounds capacity. The cylinder is charged extra at $15.00, but is returnable to our Works at Carney's Point, New Jersey, if returned within 90 days of date of shipment in good condition.

The above prices are f.o.b., Portland, Connecticut, and the cylinder may be returned on a collect bill of lading for full allowance. Our terms are net cash 30 days for "Freon-114" and a deposit must be made on the cylinder at the same time the remittance is sent us for its contents.

If you developed a commercial use for the "Freon-114" and could take it in larger size cylinders, we could make you a lower price. On receipt of your purchase order the shipment will be made promptly.

Yours very truly,

KINETIC CHEMICALS, INC.

Sales Director

WWR:DR

Defendant's Exhibit (DP) No. 142

FORM OR-5019

KINETIC CHEMICALS, INC.
WILMINGTON, DELAWARE

CABLE ADDRESS KINETICHEM

5972

October 20, 1943

Mr. E. F. Johnson
Vice-President
General Motors Corporation
Detroit, Michigan

Dear Mr. Johnson: **"FREON-114"**

In our meeting in Mr. Harrington's office on September 2nd the above subject was discussed. It was suggested that inquiry should be made to determine whether Frigidaire is now in a position to release its control of this refrigerant so that Kinetic could offer it to the general trade without further restriction.

We are interested to know whether you have had an opportunity to look into this matter, and, if so, would appreciate your advising us at your convenience of its present status.

Yours very truly,

C. D. Porch

C. D. Porch,
President

CDP/h

Defendant's Exhibit (DP) No. 143

FRIGIDAIRE DIVISION
GENERAL MOTORS CORPORATION
DAYTON OHIO. U.S.A.

EXECUTIVE OFFICES

February 23, 1944

Mr. C. D. Porch
Kinetic Chemicals, Inc.
Wilmington, Delaware

Dear Mr. Porch:

In accordance with our telephone conversation yesterday, I am attaching a copy of our proposed arrangement on Freon-114 which, if agreed to by all parties concerned, would make it possible to sell Freon-114 to any prospective customer.

I realize that the five cents per pound license fee mentioned in agreement, will present a problem to Kinetic as far as obtaining OPA approval for the price increase necessary to cover this fee.

However, we at Frigidaire feel that the fee is entirely justified to enable us to recover part of the expense of $1,000,000 or over which we have spent for Engineering development costs for the satisfactory commercial utilization of Freon-114.

We will be glad to have your comments after you and your organization have had an opportunity to study the matter.

Very truly yours,

E. R. Godfrey

E. R. Godfrey
General Manager

ERG:RH
Attachment

NOTE: "Received Feb 25 1944 C. D. Porch" is stamped under date line.

Defendant's Exhibit (DP) No. 144

GENERAL MOTORS CORPORATION

DETROIT, MICHIGAN 5974

April 22, 1944

Mr. C. D. Porch, Pres.,
Kinetic Chemicals, Inc.,
Wilmington, Delaware.

Dear Mr. Porch:

After further review and consideration of point of view expressed in your letter dated March 10, 1944, it has been decided that the interests of all concerned will best be served by terminating agreement of September 18, 1939 which grants an exclusive license to our Frigidaire Division for the use and sale of F-114 in refrigerating apparatus. Three copies of agreement effecting this cancellation are enclosed. If acceptable to you, will you kindly sign in space provided, returning two copies to us for our files, retaining one for your own files.

It is understood that this action does not modify in any manner the terms of agreement of May 1, 1932 between Frigidaire Corporation and Kinetic.

Yours very truly,

E F Holm

Vice President

EFJ/LM
Encl. (3)
cc to Messrs. O. E. Hunt
J. T. Smith
E. R. Godfrey
L. M. Spencer

E

C O P Y

Defendant's Exhibit (DP) No. 145

UNITED STATES

DEPARTMENT OF JUSTICE

WASHINGTON 25, D. C.

November 30, 1949

E. I. du Pont de Nemours & Company
Wilmington
Delaware.

Attention: Mr. H. C. Haskell

Dear Sirs:

I refer to letters from Mr. Horsky of October 13 and November 8, 1949, in which he advised me that an agreement has been reached whereby the du Pont Company is prepared to purchase all of the stock now held by General Motors Corporation in Kinetic Chemicals, Inc., and transmitted to me the minutes of the du Pont Executive Committee setting forth the details of the proposed transaction.

This is to advise you that the Department does not object to the consummation of the agreement referred to. In the event that du Pont thus acquires the stock now held by General Motors, the Department will waive that part of its prayer for relief relating to Kinetic (Paragraph 17, page 69 of the Complaint) in United States v. E. I. du Pont de Nemours & Co., Civil Action No. 49 C-1071 (N.D. Ill.).

It should be clearly understood, however, that the Department, if it deems it desirable and advisable to do so, is free to introduce evidence at the trial of the above action relative to history and background and all other aspects of joint operation and control by du Pont and General Motors of Kinetic.

Sincerely yours,

/s/ Herbert A. Bergson

HERBERT A. BERGSON
Assistant Attorney General

Defendant's Exhibit (DP) No. 148

March 19, 1925

Copy to:
J. E. Crane - London

F. W. PICKARD, VICE PRESIDENT

IRON CARBONYL

Mr. Midgeley of the Ethyl Gasoline Corporation comes into my office about once a week and each time I ask him how they are getting along with the tests relative to the suitability of iron carbonyl. Each time Mr. Midgeley tells me that iron carbonyl probably will be all right except that they have been entirely unable to overcome bridging of the spark plugs which necessitates the cleaning of the spark plugs in 400 miles and upwards. Mr. Midgeley's opinion is that iron carbonyl will be of no commercial value unless this difficulty can be overcome. He has stated to me repeatedly and as recently as yesterday repeated that to-date they have found no way to overcome this difficulty and they have not even any idea as to how it might be done, though they are working on the subject.

I told this to Mr. Lammot duPont this morning and suggested that it would be probably best for us to see that the Badische Company is acquainted with this difficulty before they come over here. It would probably would not look well to advise them of this difficulty only on their arrival in this country. Further Mr duPont suggests that it might be well to check Mr. Midgeley's statement by talking with Mr. Kettering. I tried to talk with you this morning about this subject but find that you are in New York and will not return until Saturday, for which reason I am writing you this letter. I would be very glad to talk this matter over with you on your return to your office.

FILE COPY

FIN SPARRE

DIRECTOR

FS:M

Note: The signature "Fin Sparre" has been placed on the document by rubber stamp.

Letterhead of

E. I. du Pont de Nemours & Company
(INCORPORATED)
CHEMICAL DEPARTMENT
WILMINGTON, DELAWARE

Copy to—Mr. Irenee duPont.

Mr. J. A. Haskell,
General Motors Corporation
1764 Broadway,
New York City.

November 4, 1919.

Dear Sir:—

Study of Motor Fuels.

Enclosure: Copy of a letter from General Motors Corporation of October 28th.

In connection with Mr. K. W. Zimmerschied's letter of October 28th, we shall, of course, be glad to co-operate with the Dayton Laboratories in every possible way, and to undertake "the development of chemicals which may be added to undesirable fuels for the purpose of converting them into useful products". It seems to us that the scope of the problem of the utilization of undesirable fuels in Internal Combustion Engines is not merely the discovery of some cure-all which can be added in small quantities to kerosene in order to bring about the use of kerosene instead of gasoline, but rather the problem of utilizing a fuel consisting of a mixture of gasoline with the maximum possible quantities of other undesirable fuels, such, for example, as kerosene.

In connection with Mr. Zimmerschied's letter, I note the suggestion that the expense of developing some chemical which may be added to liquid fuel for the purpose of utilizing undesir-

—2—

able fuels in Internal Combustion Engines should be borne by the DuPont Company. As we have no funds available for research work of this character, it will be necessary to obtain an appropriation from some source for this work. Insofar as the question of the ultimate distribution of the expense of such research work is concerned, it seems to me that this can only be decided on the basis of the results of the work, since it is obvious that if the General Motors Corporation derives more benefit from such research than does the DuPont Company, the General Motors, rather than the DuPont Company, should ultimately take up the expenditures for work of this character.

Yours very truly,

Chemical Director.

CMS:SJB

NOTE: At upper right of first page is written the figure "91"; the name of Mr. Irenee du Pont at the top of the first page is underlined by hand and is followed by a pencilled check mark; the address is deleted by an irregular line; at the bottom of both pages is written "GMC-781".

2

E. I. du Pont de Nemours & Company
(Incorporated)

ADVICE OF ACTION

May 4, 1920.

Mr. Lammot duPont, Chairman.

Subject

Chemical Work for General Motors Corporation:

Action taken by Executive Committee

At Meeting May 3, 1920.

Remarks

Referring to your report of April 22nd:

It was moved and unanimously carried that this report be accepted and ordered filed, and that the proposed method of handling chemical work for the General Motors Corporation be approved in principle, with the understanding that the final agreement will be submitted to this Committee for approval before execution.

[Stamp] M. D. Fisher.
3: Sec'y. Executive Committee.

Note: "Return to Executive Committee Room 9069" is stamped at bottom of page. "X-1100" and "Copy X-234" are written at top of page. "GMC 1520." is written at bottom of page.

Defendant's Exhibit (DP) No. 156

May 4, 1920.

DR. C. L. REESE:

CHEMICAL WORK FOR GENERAL MOTORS.

I enclose herewith copy of my report, April 22d, to the Executive Committee (No. 2900), which was approved in principle by the Executive Committee yesterday, with the further provision that any definite agreement executed with General Motors Corporation be finally submitted for approval.

You will note the correction at the end of the second line of the second paragraph of this report. This was not in the report when submitted to the Executive Committee, but was added afterwards at the suggestion of Mr. Irenee du Pont. If and when it seems desirable to make a definite agreement with General Motors, will you please proceed, as far as possible, in accordance with this report and submit the agreement for approval of the Executive Committee before execution?

LduP/MD

NOTE: "File Copy" is printed across page and "Return to Executive Committee Room 9069" is stamped at bottom of page. "X-1100" is written at top and "GMC 1521." is written at bottom of page. At top center is written a check mark.

Defendant's Exhibit (DP) No. 157

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING #367

JUNE TWENTY SECOND, 1920

E. I. DU PONT DE NEMOURS & COMPANY

FORM OF PROPOSED AGREEMENT BETWEEN GENERAL MOTORS CORPORATION AND CHEMICAL DEPARTMENT OF DU PONT COMPANY:

Letter was received from the Chairman, dated June 15, 1920 (#3220), submitting copy of the above-mentioned proposed agreement, and after discussion the following resolution was offered and unanimously adopted:—

L duP
CLR
✓

RESOLVED, that the form of proposed agreement between General Motors Corporation and the Chemical Department of this Company, as submitted with the Chairman's letter of June 15, 1920 (#3220), be and the same is hereby approved and the President or any Vice-President of this Company together with the Secretary or an Assistant Secretary be and they are hereby authorized to execute said agreement on behalf of this Company.

NOTE: Italics indicate handwriting. Check mark in left margin is by hand.

Defendant's Exhibit (DP) No. 158

E. I. du Pont de Nemours & Company
(Incorporated)

March 24, 1922.

Mr. H. F. Brown, V.P.

In accordance with your request at the last Executive Committee meeting, this merely to remind you to look up the present status of the proposed agreement between this Company and the General Motors Corporation with reference to chemical work.

M D Fisher

2. Sec'y, Executive Committee.

Note: "Return to Executive Committee Room 9069" is stamped, and "GMC 1545" is written, at bottom of page. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 159

Mr. L. duPont✓

~~MR. H. F. BROWN, V. P.:~~

Please note the attached for your information. It seems to me a most remarkable position for the Head of the Research Corporation to take.

L. du Pont, V. P.

May 10, 1922.

Note: "Received May 11 1922 Lammot du Pont" is stamped at top and "GMC 1553." and "Noted & ret'd H F Brown" is written at bottom of page. Italics indicate handwriting. Line through "MR. H. F. BROWN, V. P.:" is a pencil line.

Defendant's Exhibit (DP) No. 160

Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of February, 1928.

* * * *

We have contacted and are working with the safety glass committee of General Motors in an effort to help them develop the safety glass proposition.

* * * *

Defendant's Exhibit (DP) No. 161

Excerpt of Report of the President of the du Pont Viscoloid Company dated September 22, 1928.

* * * *

THIN PLATE GLASS INDUSTRY

The ultimate acceptance of safety glass will mean a revolution in the plate glass industry in order to provide the necessary quantity of thin plate glass to replace the heavy plate glass now in use. That the plate glass industry believes such a revolution is to be expected is clearly indicated by the tremendous construction program which is now being carried out by the glass manufacturers.

The Pittsburgh Plate Glass Company has adopted a construction program requiring the expenditure of $14,000,000. for the purpose of remodeling plants and machinery for the production of thin plate glass (1/8").

Libby Ownes Sheet Glass Co., according to recent newspaper announcement, is spending $5,000,000 for similar improvements.

The National Plate Glass Co. is reported to be proceeding with the construction of a new plant for the production of 24,000,000 feet per year of the thin plate.

In a recent article in the Wall Street Journal of September 19, 1928, all of the above projects are mentioned and the statement was made that the Ford Plate Glass Co.,

5986

the Standard Plate Glass Co. and the American Window Glass Co. are all engaged upon extensive construction programs because of the new safety glass development.

* * * *

3791

E

Defendant's Exhibit (DP) No. 162

Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of October, 1928.

* * * *

Considerable operating time was lost during the month of October because of lack of orders. This condition, however, is considered to be merely temporary as there are excellent prospects for largely increased sales as soon as the new models are brought out by the different automobile manufacturers. Both Hudson and Studebaker will adopt DUPLATE windshields; in addition Chrysler will continue to use DUPLATE windshields in Model 75, with the possibility of adopting DUPLATE throughout this model. Chrysler will also continue using DUPLATE throughout on Model 80; Cadillac and LaSalle will continue to use safety glass throughout, altho we understand that their requirements will be divided between DUPLATE and the product of other manufacturers.

* * * *

Defendant's Exhibit (DP) No. 163

Excerpt of Report of R. W. Brokaw to Board of Directors of the du Pont Viscoloid Company dated February 21, 1929.

* * * *

To date Safety Glass has been adopted by the following manufacturers:

Make of Car	Windshield only	All Windows
Buick	Optional	Optional
Cadillac-LaSalle		X
Chrysler	75 Model	80 Model
DuPont		X
Cunningham		X
Ford	X	DeLuxe Model
Franklin	X	
Hudson	X	
Lincoln		X
Pierce Arrow		X
Rolls Royce		X
Studebaker	X	
Stutz		Black Hawk
Viking (Oldsmobile)	X	
Yellow Cab	Division windows	

We are also advised by General Motors officials that if safety glass is a success it probably will eventually be adopted for use in the Chevrolet in competition with Ford, provided it would not increase the cost over $15 or $20 per car.

5989

General Motors is installing experimental equipment for compositing safety glass which they hope will take care of Cadillac and LaSalle demands. When they have determined the best method of compositing they also expect to build a regular compositing plant at their subsidiary, the National Plate Glass plant at Ottawa.

National Plate Glass Co., Ottawa, Ill., are building a plant for the production of 22,000,000 sq. ft. per year at a cost of three to four million dollars and expect to double this capacity after the compositing plant is completed.

* * * *

Defendant's Exhibit (DP) No. 164

Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of April, 1929.

* * * *

Forecast For Next Month's Sales

The forecast which had been made for May indicated sales of 200,000 square feet. It is now evident that this forecast will not be met as several of the automobile manufacturers have reduced output. Furthermore, a larger proportion of the safety glass for Cadillac and LaSalle is being produced by the Fisher Body Company. The progress which is being made by the General Motors and its subsidiaries in laminating safety glass indicates that the best prospects for the immediate future for Duplate sales depend upon manufacturers other than General Motors.

There is nothing to indicate that either Buick or Chevrolet will adopt safety glass in the immediate future.

* * * *

Defendant's Exhibit (DP) No. 165

Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of May, 1929.

* * * *

Sales Comments

Shipments during the month of May were approximately 138 000 square feet. The volume of sales for May was disappointing and considerably less than the estimate made in last report. Solicitation has been carried on and quotations made with practically all of the automobile and body manufacturers. There is a general interest but apparently each is waiting for the other to adopt safety glass. The increased cost of Duplate over plate glass per car is the greatest obstacle for making sales and it is quite natural that manufacturers hesitate to increase the cost of their car unless compelled to do so by competition.

The adoption of laminated glass by any of the leading manufacturers in medium priced cars would do much to stimulate the demand. The manufacturers solicited state that there is a very small consumer demand and that they receive very few inquiries or comments from their agents with respect to laminated glass. When the general public begin to appreciate the safety glass factor of laminated glass and insist upon having their automobile equipped with it, the automobile manufacturers will be more receptive to our solicitation.

While Fisher Body is laminating glass in their own plant for Cadillac and LaSalle, Duplate is supplying part of their requirements. Fisher is making the Viking windshield.

General Motors are not yet ready to consider the use of laminated glass in their cheaper models although they are of the opinion they will be forced to do so later on. They are going to postpone the adoption as long as possible in order to save the money that would be added to the cost of the car through the adoption of Duplate.

* * * *

Defendant's Exhibit (DP) No. 166

Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of September, 1929.

* * * *

Sales prospects in automobile industry appear encouraging altho there are no important developments with General Motors units.

Marmon previously reported as having adopted a combination of sheet and plate glass lamination, have reconsidered and will use Duplate throughout for their best models.

Franklin are using Duplate for 50% of their requirements. The balance is being purchased from Safetee Glass Company.

* * * *

Excerpt of Minutes of Meeting of Board of Directors of the DuPlate Corporation Held October 24, 1929.

* * * *

SALES PROSPECTS -SIX- TWELVE MONTHS

Mr. Pitcher inquired as to the prospects for increased sales within the next period of six to twelve months.

It was stated that there was practically no prospect for Buick until July 1930, except for optional equipment, which is now running on a fairly large scale, but is being supplied principally by the Fisher plant. Chevrolet was also reported as being out of the question until 1930.

* * * *

Defendant's Exhibit (DP) No. 168

Excerpt of the Monthly Report of the President of the du Pont Viscoloid Company for the Month of December, 1929.

* * * *

Use of Safety Glass in Automobiles

At the beginning of 1930 the use of safety glass in automobiles is approximately as follows:

FORD	Windshields, made by Triplex and Ford.
LINCOLN	Safety Glass throughout, made by Triplex.
GENERAL MOTORS	
Buick	Optional, extra expense. Made by Duplate or Fisher Body Corporation.
Cadillac	Safety Glass throughout. Made by Duplate or Fisher Body Corporation.
LaSalle	Safety Glass throughout. Make by Duplate or Fisher Body Corporation.
Chevrolet	No safety glass.
Oaklend	" " "
Pontiac	" " "
Oldsmobile	" " "
Marquette	" " "
Viking "8"	Windshield safety glass. Made by Fisher Body Corp. or Johnston Glass Company..
CHRYSLER "80"	Safety Glass throughout. Made by Duplate.
" "others"	No safety glass.
DE SOTO "8"	" " "
DODGE	" " "
HUDSON	Windshield safety glass. Made by Duplate.
ESSEX	No safety glass.
HUPMOBILE	Now considering adopting safety glass.
NASH "8"	Safety glass throughout. Made by Duplate.
NASH "6"	No safety glass.
PACKARD	Safety glass throughout. Made by Libbey-Owens Glass Company and Indestructo Glass Company.

STUDEBAKER "8"	Safety glass throughout. Made by Duplate.
STUDEBAKER "6"	Windshields on some models made by Duplate.
ERSKINE	No safety glass.
WILLYS KNIGHT	" " "
WHIPPET	" " "
GRAHAM-PAIGE	Safety glass throughout. Made by Libbey-Owens.
MARMON	" " " Made by Duplate.
ROOSEVELT	Considering special type Duplate.
PEERLESS	Safety glass throughout in special models. Made by Duplate.
PIERCE-ARROW	Safety glass throughout. Made by Duplate.
AUBURN	No safety glass.
CORD	" " "
WINDSOR	" " "
STUTZ	Safety glass throughout in special model. Made by Duplate and others.
DURANT	No safety glass.
FRANKLIN	Safety glass throughout. Made by Indestructo.
REO	Considering safety glass for windshields or throughout.

Defendant's Exhibit (DP) No. 169

Excerpt of Annual Report of the du Pont Viscoloid Company for the Year of 1929.

* * * *

Competition became more severe during the year. In the latter part of 1929 the new factory of Libbey-Owens Glass Company came into production with strong sales efforts being made to secure business. Fisher Body Company increased production with the result that they were able to supply practically all safety glass required for Cadillac and LaSalle, and with a consequent loss of this business which had previously been supplied by Duplate.

* * * *

Defendant's Exhibit (DP) No. 170

Excerpt of Minutes of Meeting of Board of Directors of the DuPlate Corporation Held March 4, 1930.

* * * *

SALES PROSPECTS:

Mr. Higgins states that there are no indications of any important changes in the sales situation. General Motors are contemplating no change in their policy. Cadillac and LaSalle production is very small and can easily be provided from the Fisher plant. Mr. Higgins thinks that Ford has for the present given up all idea of using Safety Glass throughout. Mr. Higgins thinks that Hudson may be the next to adopt Safety Glass throughout and quotes the President of the Hudson Company as saying that, in his opinion Safety Glass should be required by law in all cabs and public conveyances.

* * * *

Defendant's Exhibit (DP) No. 171

Excerpt of Addendum to Monthly Report of the President of the du Pont Viscoloid Company for August, 1930.

* * * *

We report as follows on the various accounts.

GENERAL MOTORS

At the present time are producing in Fisher Plant No. 1 laminated plate that is used in such models as Cadillac and LaSalle, and for optional equipment in other makes. Until they decide to use laminated glass more generally the Fisher plant will undoubtedly be able to supply their entire requirements.

PIERCE-ARROW

Continue to use Duplate exclusively throughout.

STUDEBAKER

Continue to use Duplate to the extent of about 90% of their requirements. The Libbey-Owens-Ford Co. will obtain about 10% of their business.

NASH

Have discontinued using laminated glass in their Kenosha models but are offering such for optional equipment in all models. So far have purchased only Duplate.

MARMON AND PEERLESS

Continue to use Duplate exclusively in the top models.

HUDSON

Continue to use Duplate in all windshields.

REO

Have decided to use Duplate and we understand will give us the bulk of their laminated glass business. While they are only using it in the top models they are likely to decide to use it in the lower priced models very shortly.

PACKARD & GRAHAM-PAIGE

Use Libbey-Owens-Ford laminated glass exclusively.

FRANKLIN

Have been using Safetee and Indestructo but are now considering a proposition from other companies. We hope they will be inclined to give us a portion if not all of their business but they are likely to purchase elsewhere if our competitors make a lower price.

BUS BUSINESS

We lost the Checker Cab contract on account of our competitors quoting lower prices than ourselves. Are supplying some of the smaller cab and bus manufacturers with limited quantities.

We estimate our shipments for the month of September at from 75,000 to 85,000 sq. ft.

Defendant's Exhibit (DP) No. 172

AGREEMENT entered into this twenty-ninth day of January, 1931, by and between DU PONT VISCOLOID COMPANY, a corporation of the State of Delaware, hereinafter referred to as "Viscoloid Company", and PITTSBURGH PLATE GLASS COMPANY, a corporation of the State of Pennsylvania, hereinafter referred to as "Glass Company".

WITNESSETH:

WHEREAS each of the parties hereto is the owner of five thousand (5,000) shares (par value $100 per share) of the issued capital stock of Duplate Corporation, a corporation of the State of Delaware, engaged in the manufacture and sale of non-splintering glass in the United States and elsewhere; and

WHEREAS Duplate Corporation is indebted to Viscoloid Company on open account in the total sum of Five Hundred Fifty Thousand Dollars ($550,000), for moneys heretofore advanced from time to time by Viscoloid Company to Duplate Corporation for use as working capital; and

WHEREAS Glass Company desires to purchase and acquire from Viscoloid Company all of the latter's right, title and interest in and to the claim aforesaid, provided Viscoloid Company will assign, transfer and deliver to Glass Company, in consideration of the purchase by it of said claim, all of the certificates for the shares of the capital stock of Duplate Corporation owned by Viscoloid Company; and

WHEREAS Viscoloid Company is willing to sell and transfer all of its right, title and interest in and to the claim aforesaid, and to assign, transfer and deliver to Glass Company all of the certificates for the shares of the capital stock of Duplate Corporation owned by Viscoloid Company, upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the promises and the mutual agreements herein contained, the parties hereto have agreed, and by these presents

do agree, with each other, as follows:

I.

Glass Company hereby agrees to purchase and acquire from Viscoloid Company and Viscoloid Company hereby agrees to sell, assign and transfer to Glass Company, for the total sum of Two Hundred Twenty-five Thousand Dollars ($225,000), to be paid in cash or its equivalent, all of Viscoloid Company's right, title and interest in and to its claim of Five Hundred Fifty Thousand Dollars ($550,000) against Duplate Corporation; and it is further agreed that in consideration of the purchase by Glass Company of the claim aforesaid, Viscoloid Company will assign, transfer and deliver to Glass Company, without any further or additional consideration, all of the certificates, properly endorsed, for the five thousand (5,000) shares of the capital stock of Duplate Corporation now owned by Viscoloid Company.

Upon the assignment and transfer by Viscoloid Company to Glass Company for the claim aforesaid, and the assignment, transfer and delivery to Glass Company of all the certificates for the five thousand (5,000) shares of capital stock aforesaid, it is understood and agreed that Glass Company shall thereupon assume all obligations and liabilities of every character and description of Viscoloid Company due to or resulting from its ownership of said five thousand (5,000) shares of the capital stock of Duplate Corporation, and/or due to or resulting from any suits, judgments, claims or demands whatsoever now pending or which may hereafter be entered against Duplate Corporation for or on account of any acts or conduct of the business of Duplate Corporation prior to the date payment is made under the provisions of Article III hereof, and in the event that any such judgments, claims or demands are not satisfied by Duplate Corporation, Glass Company agrees that it will satisfy any such judgments, claims or demands in full; and it is further agreed that if the total amount of any such judgments, claims or demands against Duplate Corporation shall not amount in the aggregate to the total sum of Five Hundred Seventy-eight Thousand Dollars ($578,000), and Viscoloid Company shall be obligated to pay or satisfy any judgments, claims or demands against Viscoloid Company due to or resulting from its ownership of said shares of said capital stock, and/or due to its participation in any acts or conduct of the business or operations of Duplate Corporation, as a supplier of materials or otherwise, Glass Company shall reimburse Viscoloid Company on account of any such judgments, claims or demands against Viscoloid Company to the extent of the sum determined by subtracting from Two Hundred Eighty-nine Thousand Dollars ($289,000) one-half of the total amount paid by Duplate Corporation and/or by Glass Company in settlement of judgments, claims or demands against Duplate Corporation.

Example: Assume Duplate Corporation and/or Glass Company should be obliged to pay the total sum of $300,000 in satisfaction of judgments, claims or demands against Duplate Corporation, there would then remain a balance of $278,000, of which one-half, or $139,000, would be paid by Glass Company to Viscoloid Company in the event Viscoloid Company should be obliged to pay or satisfy any judgments, claims or demands in that amount against it.

II.

It is further agreed between the parties hereto that a certain agreement entered into on December 14, 1927, by and between the parties hereto (which provided, among other things, for the organization of a corporation under the laws of Delaware to engage in the manufacture and sale of non-splintering glass), shall be terminated and canceled in its entirety upon the assignment, transfer and delivery by Viscoloid Company to Glass Company of the claim and the certificates for the shares of capital stock described in Article I hereof.

III.

It is further agreed that Glass Company will make payment to Viscoloid Company of the total consideration of Two Hundred Twenty-five Thousand Dollars ($225,000), specified in Article I hereof, not later than February 3, 1931, and the simultaneously with such payment, Viscoloid Company will assign, transfer and deliver to Glass Company all of its right, title and interest to the claim and the shares of capital stock specified in Article I aforesaid.

IV.

This agreement shall also be binding upon the respective successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto, by their duly authorized officers, have caused this agreement to be executed, in duplicate, and their respective corporate seals to be hereunto affixed, on the day and year first above written.

DU PONT VISCOLOID COMPANY

By ....
President.

Attest:

....
Secretary.

PITTSBURGH PLATE GLASS COMPANY

By ....
President.

Attest:

....
Secretary.

—5—

KNOW ALL MEN BY THESE PRESENTS:

That DU PONT VISCOLOID COMPANY, a corporation of the State of Delaware, in consideration of One Dollar ($1.00) and other valuable considerations, to it paid by PITTSBURGH PLATE GLASS COMPANY, a corporation of the State of Pennsylvania, the receipt whereof is hereby acknowledged, does hereby give, grant, bargain, sell, assign, transfer, set over and confirm unto Pittsburgh Plate Glass Company, its successors and assigns, all the right, title and interest of Du Pont Viscoloid Company in and to that certain open account or claim against DUPLATE CORPORATION, a corporation of the State of

Delaware, in the total sum of Five Hundred Fifty Thousand Dollars ($550,000), for moneys heretofore advanced from time to time by Du Pont Viscoloid Company to said Duplate Corporation for use as working capital, to be held by said Pittsburgh Plate Glass Company as its own absolute property.

TO HAVE AND TO HOLD the same unto the said Pittsburgh Plate Glass Company, its successors and assigns, with full power and authority in the name of the said assignor, but at the risk, cost and charge and for the sole benefit of the said assignee, its successors and assigns, to sue for, recover and receive the debt and moneys hereby assigned and to give good and sufficient releases for the same. It is expressly understood, however, that Du Pont Viscoloid Company, the said assignor, is forever to be kept and saved harmless by the said Pittsburgh Plate Glass Company, the said assignee, from all cost or charge hereafter in any way or manner which may arise from the expense of collection of the sum or sums hereby sold and assigned.

IN WITNESS WHEREOF, said Du Pont Viscoloid Company has caused these presents to be executed by its President, thereunto duly authoriz-

ed, and its corporate seal to be hereunto affixed and attested this day of February, A. D. 1931.

DU PONT VISCOLOID COMPANY

By ....

President.

Attest:

....

Secretary.

6

State of
County of } ss.

Be it remembered that on the day of February, A. D. 1931, before me ...., a Notary Public, personally came ...., to me known, who, being by me duly sworn, did depose and say, that he resides in ....; that he is .... of DU PONT VISCOLOID COMPANY, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

GIVEN under my hand this day of February, A. D. 1931.

....

Notary Public.

My commission expires the day of , 19

Note: "WSGV.126.7" is handwritten in upper left corner, and illegible initials and "2/1/31. 126.7" in upper right corner of first page. On document page 5 "126.7" is written in upper right corner.

Defendant's Exhibit (DP) No. 173

DP-194

6008

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

February 3, 1931

ADVICE OF ACTION

Copy to:
Mr. W. F. Jensen
Mr. G. L. Naylor

Mr. C. K. Davis, President,
DuPont Viscoloid Company.

SUBJECT: SALE TO PITTSBURGH PLATE GLASS COMPANY OF DU PONT VISCOLOID COMPANY'S INTEREST IN DUPLATE CORPORATION:

ACTION TAKEN BY: Finance Committee

AT MEETING: February 2, 1931

REMARKS

Reference: Executive Committee action of January 28th, 1931, on the above subject:

It was moved and unanimously carried that the Finance Committee concur in the Executive Committee's approval of the action taken by the Board of Directors of DuPont Viscoloid Company on January 27, 1931, regarding sale of that Company's interest in Duplate Corporation to Pittsburgh Plate Glass Company.

M. D. Fisher,
Sec'y Finance Committee

8.

Defendant's Exhibit (DP) No. 174

DUPLATE SHIPMENTS - FEET AND DOLLARS
TO GENERAL MOTORS CORPORATION AND SUBSIDIARY COMPANIES
YEARS 1928 TO 1931, INCLUSIVE

Period	TOTAL		FISHER BODY CORP.		CADILLAC MOTOR CAR CO.		GENERAL MOTORS TRUCK	
	Feet	Dollars	Feet	Dollars	Feet	Dollars	Feet	Dollars
1928								
Jan.	-	-	-	-	-	-	-	-
Feb.	-	-	-	-	-	-	-	-
Mar.	-	-	-	-	-	-	-	-
Apr.	-	-	-	-	-	-	-	-
May	1,377	$ 2,581	1,377	$ 2,581	-	-	-	-
June	100	187	100	187	-	-	-	-
July	69,681	130,983	69,681	130,983	-	-	-	-
Aug.	125,876	235,913	125,876	235,913	-	-	-	-
Sept.	142,686	267,439	142,686	267,439	-	-	-	-
Oct.	180,435	338,214	180,358	338,021	77	$193	-	-
Nov.	82,182	156,283	82,100	156,078	82	205	-	-
Dec.	12,509	23,460	12,509	23,460	-	-	-	-
1928-Year	614,846	$1,155,060	614,687	$1,154,662	159	$398	-	-
1929								
Jan.	93,760	$ 177,607	93,760	$ 177,607	-	-	-	-
Feb.	70,974	134,064	70,974	134,064	-	-	-	-
Mar.	73,885	138,753	73,885	138,753	-	-	-	-
Apr.	36,232	68,531	36,232	68,531	-	-	-	-
May	39,647	75,481	39,647	75,481	-	-	-	-
June	9,180	17,106	9,180	17,106	-	-	-	-
July	27,987	52,712	27,987	52,712	-	-	-	-
Aug.	137,755	259,757	137,755	259,757	-	-	-	-
Sept.	108,944	204,775	108,944	204,775	-	-	-	-
Oct.	74,766	141,007	74,766	141,007	-	-	-	-
Nov.	38,435	72,359	38,435	72,359	-	-	-	-
Dec.	907	1,605	907	1,605	-	-	-	-
1929-Year	712,472	$1,343,797	712,472	$1,343,757	-	-	-	-
1930								
Jan	4,303	$ 8,032	4,303	$ 8,032	-	-	-	-
Feb.	1,006	1,897	1,006	1,897	-	-	-	-
Mar.	1,337	2,221	1,271	2,095	-	-	66	$126
Apr.	65	97	-	-	-	-	65	97
May	671	1,117	628	1,052	-	-	43	65
June	1,012	1,654	1,012	1,654	NA	NA	NA	NA
July	8,476	15,605	8,476	15,605	NA	NA	NA	NA
Aug.	6,977	13,837	6,977	13,837	NA	NA	NA	NA
Sept.	8,934	16,449	8,934	16,449	NA	NA	NA	NA
Oct.	2,878	6,907	2,878	6,907	NA	NA	NA	NA
Nov.	-	-	-	-	NA	NA	NA	NA
Dec.	51	72	51	72	NA	NA	NA	NA
1930-Year	35,710	$ 67,888	35,536	$ 67,600	-	-	174	$288

DUPLATE SHIPMENTS - FEET AND DOLLARS
TO GENERAL MOTORS CORPORATION AND SUBSIDIARY COMPANIES
YEARS 1928 TO 1931, INCLUSIVE

	TOTAL		FISHER BODY CORP.		CADILLAC MOTOR CAR CO.		GENERAL MOTORS TRUCK	
Period	**Feet**	**Dollars**	**Feet**	**Dollars**	**Feet**	**Dollars**	**Feet**	**Dollars**
1931								
Jan.	1,661	$ 3,058	1,661	$ 3,058	NA	NA	NA	NA
Feb.	2,939	5,411	2,939	5,411	NA	NA	NA	NA
Mar.	3,834	7,058	3,834	7,058	NA	NA	NA	NA
Apr.	2,786	5,128	2,786	5,128	NA	NA	NA	NA
May	2,556	4,705	2,556	4,705	NA	NA	NA	NA
June	3,067	5,646	3,067	5,646	NA	NA	NA	NA
July	-	-	-	-	NA	NA	NA	NA
Aug.	2,556	4,705	2,556	4,705	NA	NA	NA	NA
Sept.	358	665	358	665	NA	NA	NA	NA
Oct.	-	-	-	-	NA	NA	NA	NA
Nov.	-	-	-	-	NA	NA	NA	NA
Dec.	-	-	-	-	NA	NA	NA	NA
1931-Year	19,757	$ 36,376	19,757	$ 36,376	-	-	-	-
Total 1928-1931	1,382,785	$2,603,081	1,382,452	$2,602,395	159	$398	174	$288

Notes: (1) Shipments are stated gross (before returns, adjustments and allowances).
(2) N. A. indicates dataare not available.
(3) Sources of data - Triplex Corp., Patent Infringement Suit Workpapers and Pittsburgh Plate Glass Sales Ledgers.

6/20/52

T.J.T.

Defendant's Exhibit (DP) No. 175

RICHARD C. WILLIAMS

POSITIONS HELD IN E. I. DU PONT DE NEMOURS & CO.

1917 TO DATE

Date	Position	Location
August, 1917	Chemist, du Pont Experimental Station	Wilmington, Delaware
1918	Supervisor, Chemical Department	Parlin, New Jersey
January, 1923	Duco Demonstrator	Detroit, Michigan
January, 1925	Assistant Manager, Automotive Sales	Detroit, Michigan
May 1, 1943	Manager, Automotive Sales	Detroit, Michigan

Defendant's Exhibit (DP) No. 176

FINISHING PRODUCTS USED IN AUTOMOBILE PRODUCTION

Bonderite (or Solvent Cleaner)

Primer

  Dip primer for sheet metal
  Spray primer for bodies

Putty glaze

Surfacer

Primer-Surfacer

Sandpaper

Topcoats (lacquer or enamel mixed with thinner)

Rubbing compounds

Chassis enamel

Motor enamel

Miscellaneous lacquers and enamels for ~~small~~ parts

Interior enamels

Insulating Varnish

Cable lacquer

Body sound deadener

Defendant's Exhibit (DP) No. 177

REPORT OF VISIT TO GENERAL MOTORS RESEARCH LABORATORY, DAYTON, OHIO.

3/28/1922.

The General Motors research men being entirely unfamiliar in handling our materials, as well as not having done spray work, it was necessary to spend some time in teaching one of their chemists to familiarize himself with such in order that they may continue their experimental work in our absence.

The material selected for our work was black sheet metal used by the manufacturers as body metal.

In order to find out whether it was necessary to prepare the metal in any way before spraying, the General Motors arranged a series of plates as follows:

All plates were washed in gasolene. Each series included 1 plate 14'' x 24'' and 3 plates 4'' x 12''.

1.—Metal scuffed with sandpaper.

2.—Metal thoroughly roughed with sandpaper.

3.—Bare metal as received.

These were sprayed in our standard way: 1 coat of 93002 sprayed lightly as an intermediate, 3 coats of enamel, and rubbed smooth with pumice and water. In each case the large plates were finished with MS/296 and the small ones with MS/295.

On drying the plates were tested for adhesion, 1 & 3 being very unsatisfactory, while 3 with roughed metal held fairly well. Here the subject of improper cleaning came up, and Mr. Flaherty suggested washing the metal in hot KON. This was done and a standard finish gave us a very satisfactory finish from the adhesion viewpoint, and it was this point they seemed most interested in.

They desire, however, to use a priming coat that will give a satisfactory adhesion without treating the metal chemically previous to spraying.

On clean metal they requested a primer of clear lacquer free from Silex, as in using Silex a sanding operation will be necessitated and this would be prohibitive from a cost viewpoint.

A number of finished plates were given a flow coat of Murphy's finishing varnish and held for durability results. They consider this the first possibility: Our standard finish to the point of buffing followed by a coat of varnish. Likewise, they consider buffing provided the labor cost is not prohibitive and they are able to obtain a satisfactory gloss.

—2—

They requested a clear lacquer be attempted after rubbing to restore the lustre.

In order that they may be in a position to buff, they requested us to buy what equipment was necessary for this work. This the writer did in Philadelphia and same will go out this week with directions as how same should be set up and used.

All plates finished by us were put to wear test, being placed on the roof at 45° angle facing the south. Another test they were interested in was the effect of gasolene and kerosine on our material. To determine this, plates were cut up and placed in beakers and covered with gasolene or kerosine. At the end of a week, no effect was noted.

Mr. Mougey outlined the work to Mr. Flaherty that he thought we should attempt at the factory and feeling satisfied that we had familiarized them in handling our material, the work was concluded temporarily.

We visited the Delco Light Plant and arranged to finish a Frigidaire box in our VS/1 at some future date.

R. C. WILLIAMS

RCW/JJL

NOTE: Upper right corner numerals 137.

Defendant's Exhibit (DP) No. 178

REPORT OF R. C. WILLIAMS TO GENERAL MOTORS COMPANY

5/4/1922

A visit to the Buick Plant was made by Mr. Mougey, of the General Motors Research Corporation, and the writer. We discussed the work we had done in connection with the Research Laboratory, and Mr. Weeklen (*Weckler*) (Works Engineer) did not think it advisable to wait longer for panel test, but felt the best method of checking durability would be to spray a couple of bodies, which would be assembled and washed often. He felt that in such a manner a year's results could be obtained in six months.

We were reluctant, however, without discussing the proposition with Mr. Flaherty. On meeting Mr. Flaherty in Dayton, the proposition was gone over, and it was agreed that 3 bodies should be finished as follows:

1—sandblast, 3 coats MS/295—rub.
2— " 3 " " plus additional light coat MS/295.
3— " 3 " MS/296—finishing varnish.

On arriving at the Buick Plant, the bodies were prepared (sandblast), and the 3 coats of MS/ enamels applied as outlined. MS/296 did not cover well. The General Motors authorities doubted the probability of applying our material over sandblast directly, due to defects in the metal that could only be taken care of by filler or under coats. This, however, was not discussed fully as the primary object was to get the durability tests.

At the end of the 3d coat, the bodies were allowed to air dry over night and rubbed down.

The two bodies sprayed with MS/295 looked very good, while the MS/296 needed additional coats to get covering power. At this stage, Mr. Brown, who under Mr. Weeklen (*Weckler*) has control of all paint work, brought out that it would be necessary to use rough stuff (under coats) in order to obtain a smooth surface, and felt it was unnecessary to continue the work started over sandblast surface. However, as Mr. Weeklen (*Weckler*) had sanctioned the work as started, it was decided to send the two bodies in MS/295 thru as planned originally and stop the work on the MS/296 body.

Mr. Weeklen (*Weckler*) and Mr. Brown then requested we use the remaining material over one of their bodies with rough stuff. This we were reluctant about, explaining that our experimental results had proven that adhesion over similar materials was not as good as desired, and we would rather not attempt such without first checking up our laboratory tests. They insisted, however, and said ∧ it was *if* not done by us

they would request the material and conduct a few experiments on such lines. We then agreed to try same, at the same time not being responsible for the results obtained.

3 coats were applied, a mixture of MS/295 and MS/296, on a roadster type body. The material flowed out well, leaving a very smooth surface. They seemed satisfied when we left that the adhesion would be all that was desired.

The foreman of the shop told us before leaving that his orders were to send the 3 bodies thru as follows:

1—Touring in the water rub state.
2— " final coat of finishing varnish.
3—Roadster hand rub.

The Research Laboratory at Dayton will be kept posted as to any test that are made on the bodies and results of wear tests. The entire Buick organization visited seemed to be well pleased with the toughness of our material and feel the possibilities of using same are good.

RCW/JJL

NOTE: "137" in upper right corner. Handwritten "if" inserted on bottom line of first page. Italicized names in parentheses indicate correct spelling.

Defendant's Exhibit (DP) No. 179

August 16, 1922.

REPORT OF THE WORK BEGUN AT THE BUICK PLANT FLINT, MICH. JULY 18, 1922.

Messrs. Hitt, Flaherty, Hinze, Mougey and Williams visited this plant on the above date and outlined the work to be done on Buick bodies using our MS enamels.

The defects in the metals, the methods of preparing the bodies, the number of coats necessary, and any deviations from our regular procedure in order to obtain a suitable body, are outlined in the following report.

Each body is taken individually and assigned a number—the number is shown just inside the cowl in red enamel, where it can readily be observed. A record of all bodies will go on file. In this work the greater part of our work was done with the MS2/ enamels, however, it was necessary to use the MS/ in some cases as noted in this report.

Rather than use the cup method of spraying, our enamel was made up in quantities and placed in a reservoir in the ceiling and fed to the spray gun by gravity, in using this method a greater pressure was obtained, hence much heavier coats were applied, than in ordinary spray work. The proportion for thinning was 9 parts of MS2/8 enamel to 5 parts of 85882 thinner.

Body #1.

Model and type—45—touring.
Preparation—Sandblasted.

INSPECTION—Edges of doors unblasted, top rail at rear of right rear door unblasted. Remainder of body blasted too deep, making rough surface.

This body was not rejected, however, as it was the only one that could be obtained within a period of twenty minutes and in that time the Cadillac visitors at Buick on that date wished to see a coat of our material applied.

Two coats of our MS2/8 were applied. On drying the enamel peeled in places unblasted as pointed out. These places were patched in our regular way and adhesion was satisfactory. (It is true that when our material lifts once it carries grease and dirt and on second application, adhesion will be O.K.).

Body was rubbed out using pumice and water, sandpaper being necessary in places due to rough surfaces from heavy sandblast. All rubbing operations were done by Buick rubbers.

Third coat (double) MS2/8; rubbed, effect of sandblast still showed. A double coat indicates one sprayed right over the other, not allowing drying between coats.

Body rubbed out with pumice and water, effect of sandblast still present.

Fourth coat applied, rubbed, inspection at this point, satisfactory, metal well filled and surface smooth.

Finish—Buick stripe—finish varnish.

Body #2

Model and type—45—touring.

Preparation—Sandblast, followed by Buick Primer and rough stuff and rubbed.

Inspection—Dents in the body, these were bunped out by Buick. A number of small holes in the metal on right rear door showed through the rough stuff coats.

Two coats MS2/8, rubbed. The bad spot in right rear door glazed with our special glazer, sanded and patched—very satisfactory.

Third coat MS2/8 rubbed. This body was to remain in a dull finish or semi-gloss. A very light coat of our two to one VSC and MS2/8 was applied, this did not improve the lustre to any noticeable extent, however, as one-half of the bodies were to go in a dull finish it was sent to the assembling room in this finish. Surface smooth and well covered and satisfactory from all angles.

Body #3.

Model and type—45—touring.
Preparation—Sandblasted.

Inspection—Body rejected due to unsandblasted places on rails around top of body, edges of doors and under fender parts. Resandblasted and accepted. Note bad spot in metal on the rear where the back and side join near the top. Double coat of MS2/8.

Surface rough due to sandblast and bad spot on back glazed with our special glazing dope, brushed smooth with 85882 and rubbed.

Four coats of MS2/8; this was necessary to fill the sandblasted metal, rubbed.

Finished with a very light coat of VSC and MS2/8 at a ratio of two to one as in body #2. Surface not as well filled as in body #2 over rough stuff. Accepted and sent to assembling room in dull finish.

Body #4.

Model and type—45—touring.

Preparation—Sandblasted—Buick primer and rough stuff—rubbed out.

—3—

INSPECTION—Good—This was the most satisfactory body received up to this time.

Two coats MS2/8, rubbed.

One coat MS2/8, rubbed.

Finish—Buick Stripe—Varnish.

Bodies #5 and 6.

Model and type—44—Roadster.

Preparation—Sandblasted—Buick primer and rough stuff.

INSPECTION—Two bodies, both in good condition accepted after being bumped out. These bodies were sprayed to carry out Mr. Weekler's (*Weckler's*) (works engineer) idea of putting two finishes on one body. A line was drawn down the center and on the left side of body 5 and right side of body 6, we applied three coats of MS2/8. The Buick people were to bring up the vacant sides and rub and varnish. On our last day we examined these bodies and found that ground coats only had been applied at that time. Mr. Prohl, (*Prahl*) however, will furnish us with the remaining details.

Body #7.

Model and type—45—touring.

Preparation—Sandblasted.

Inspection—Well sandblasted—no places noted in bad condition. Entire surface glazed by one of Buick's experienced glazers using our special glazing compound. He complained it set up a trifle fast, but otherwise it worked very satisfactory. This was allowed to dry over night and sanded. Surface good.

Three coats of MS2/8 applied and rubbed.

Finish coat—3 pts. VSC—1 pt. MS2/8. This gave a better lustre than was obtained on the other dull cars, and a very satisfactory finish. This was the smoothest surface obtained including all cars. Body was sent to assembling room in this finish.

Body # A—55.

This was a special job for a friend of Mr. Durhams. Sport model, brought up with Buick primer and rough stuff. Our MS/326 Maroon was used. Three coats were applied and rubbed and two more coats applied. We left the body in this state to be rubbed, striped and varnished. We experienced poor covering power with this enamel having to build in places where metal showed through rough stuff.

Body B—49—2 passenger.

This body was the property of Mr. C. D. Smith a Buick official and had been refinished several times. As much of the old paint as possible was removed and brought up with rough stuff. The surface was not as smooth as desired, defects in the metal showing through the rough stuff, however, our enamel eliminated a number of these.

Two coats of MS/325 were applied and rubbed out.

Two coats applied and rubbed out and striped and varnished. We saw this a finish job and it compared favorably with the Buick new job and was satisfactory to all concerned.

Body—C—45—touring.

This body was brought up with primer and rough stuff and was to be finished in MS/672, and will be the property of Mr. Brown of Buick. We taught a man taken on by Buick for this work, the application of our material and the handling of a spray gun and he was doing the work on this body. On leaving, two coats had been applied and the job seemed very satisfactory at that time.

All hoods were done to match the bodies and numbered accordingly. The metal in each case was etched and three coats applied, rubbed and left in a dull finish or to be varnished. All bodies in numerals have MS2/ enamels.

Bodies in letters have MS enamels.

R. C. WILLIAMS.

RCW/AFM

NOTE: "137" in upper right corner. Arrow points to word "rough" on fourth page. Third paragraph of fourth page enclosed in parentheses. Italicized names in parentheses indicate correct spelling.

Defendant's Exhibit (DP). No. 180

Letterhead

Direction of
UNITED HOTELS
of America

THE DURANT
FLINT, MICH.

Thus., 10/12/22

Dear Mr. Hitt:.

My wire of to-day gives a general line of progress to date.

Twenty of the bodies are in this stage.

1st Coat Duco 1292—2d coat 50% Duco 1292; 50% MS/672. These were washed in gasolene and dried. Adhesion good. Between coats the high spots, such as dust that came from the air were knocked off with sand paper —probably only two or three minutes time required on each. These 20 now await 3d and last coat of MS/672 which

—2—

apply tomorrow. In addition the hoods have received one coat Duco 1292. Five remaining bodies will be started tomorrow. I'm breaking in a man & will let him do these under my whip. Incidentally, I sprayed the 1st coat on the 20 bodies in 4½ hrs.: & pulled them away when finished.

Mr. Knudsen blew in this a.m. & asked to see the jobs —after seeing the two coat jobs, asked for a third. We finished one up & he said he'd return after lunch to see it — & believe me he was there at the time stated. He was.

very much pleased and asked that all be completed and assembled as soon as possible as they were

—3—

already sold in the Detroit district.

Mr. Wettrend's car will be cleaned tomorrow—had a talk with him today — & he suggested that the man I'm breaking in finish his as he thought it would be good experience. McQuaid (*MacQuaid*) thought this a good idea and I'll outline the procedure.

I spent an hour at Buick late this P. M. They are rushing panels that I'll bring back in their colors, and Mr. Weckler asked that we match these and I return as

—4—

soon as possible. The cars to be finished there will be production jobs as per Mr. Durham's orders. They are sold at last and have petitioned off a room to work in, all equipped with good light, air, ect. Saw three of our jobs and they *do look good*—free from checks or deterioration of any nature—under varnish they are beautiful. Brown, the "bird" that fought us was so nice it was hard to realize it was the same man. His black job is improving so he welcomes the day we return to do more. Mr. McQuaid (*MacQuaid*) feels confident that Duco will be substituted for color varnish at

—5—

Buick & says if he was there it would be in effect now.

Buick is making 722 cars a day and after all I believe we'll get in production there first. Prahl told me today that he felt sure it was coming & welcomed the day when

Durham says "Mullen Duco in place of color varnish." I too would love to be present when old Mullen gets that.

The entire Flint Varnish Organization watched me spray the Chev bodies this A.M. and asked

—6—

numerous questions. I tried to be courteous, but gave no information.

The Chev men have resorted to all methods to try to peel some of our jobs, but Duco holds fast.

Mr. McQuaid (*MacQuaid*) introduced me to a little polka party last eve & I let him know the Parlin boys are well versed by coming out $7.00 up.

Please tell Cal. what I've done here, as I don't want him to feel that I'm going over his head by writing you direct. Have some work for me when I return.

Respectfully,
RED.

P.S.—Tell Al Burke (*illegible*) here O.K.

NOTE: Handwritten document. At upper right hand corner of first page are numbers 903.14. Italicized names in parentheses indicate correct spelling.

Defendant's Exhibit (DP) No. 181

Letterhead of

Du Pont Fabrikoid
E. I. du PONT de NEMOURS & COMPANY
(Incorporated)
Wilmington, Delaware

SALES DEPARTMENT

Copy—J. J. Moosmann, Director of Sales

Attention, Mr. E. M. Flaherty

March 17, 1923

Mr. J. W. Elms—

Attention: Mr. M. V. Hitt

SUBJECT: AMERICAN WOOD RIM COMPANY
Onaway, Michigan

Spent three days with this concern assisting them in the use of our Viscolac on Steering Wheels. Interviewed here Mr. Kendrick, General Manager, Mr. Lobdell, Jr., son of the President and Mr. Lockwood, Superintendent of Finishing.

Found these men all very open minded, but the "show me" type. In other words if we could show them a more durable finish in a shorter time than their present schedule, which is eight days they gave the impression that they would in time go over to our product entirely. They insist however, that our materials of different shipments must not lack consistency and uniformity in any way. They object very seriously to the odor of our clear 1699, which is indeed very objectionable and it was my understanding some time ago that we would not have this to cope with any longer; and I hope the shipment you are now preparing will not carry this lasting and disagreeable odor.

All Franklin wheels will be coated in the future with our materials and the American Wood I feel will gradually go to our products on all production as they gain familiarity with the use of same and have time to note its superiority.

Kindly furnish me with the method used in finishing the inlaid portion of the Franklin spider. It is impractical to finish these from a production view-point by spray and I'd like to know the exact procedure we followed at our laboratory in coating the one's for Franklin, so I may furnish the American Wood Rim with the information.

We coated a number of wheels following the procedure used by Parlin in finishing the wheels sent them by this concern. The time of drying was however shortened by us here some what due to the factory conditions, principally because of their over capacity.

We experienced no sinking effect; obtained good adhesion, but

it necessitated three coats to get a satisfactory build. It is my experience that VSC 1618 is superior to 1699 in this respect and request we furnish them with 1618 on their present order.

You will no doubt note the 50 gallon order for Duco 2442. While working in their factory I noted a number of Black wheels going through and sought information on how they were finished. Found the materials and procedure almost identical with finishing an auto body. Further inquiries disclosed the fact that this finish caused them the most grief, so suggested our 2442. Not having 2442 available I gave them an idea of our black by coating a couple of wheels with 2672. They were so pleased with the results obtained except for body that I convinced them that our 2442 was what they needed. The fifty gallons will afford sufficient material to give them a further insight into the merit of our product and as they desire a dull finish in black wheels, I feel we will immediately obtain this end of the finishing entirely.

The American Wood has a production of 4000 wheels per day which they anticipate doubling. This means a mighty fine account which is within our grasp, if we will co-operate with them in the manner expected. I request their shipment be made as soon as possible. Before leaving this plant I broke in a foreman in the use of air ~~guns~~ and the use of our materials with same.

American Wood Rim order should read.

50 gallon VSC 1618
50 " Intermediate 1639
100 " Thinner 3600
50 " Duco 2442 in 5 gallon cans.

SUBJECT: OAKLAND MOTOR CAR CO.
Pontiac, Michigan

Received an urgent call to come to Pontiac on my arrival today. Interviewed Mr. Rogers and he is dissatisfied with the shade of our Duco 2442 Black. He claims the bluish cast is destroyed when rubbed, bringing out a purpleish or reddish cast, which when under varnish is not a true black. He is correct in his statement, in that it is not a true black when varnished. We note in direct sun-light it is decidedly purpleish.

Mr. Rogers requests us to ship him immediately the following

—3—

1	gallon	Black as free as possible from cast described
1	"	2442 with ½ our present pigment content
1	"	Blue 24434

As you know the Oakland authorities have worked diligently and quietly on Duco and have surpassed all other units in accomplishments. Just what their idea is in wanting these materials in such haste I am unable to say. I do know however, that more cars than we have known about have gone out at this factory and from general conversation with the different Oakland authorities, it is essential that we get at least the 2442 with ½ the pigment content and the 24434 off immediately; and follow with the truer black as soon as possible.

The results have indicated that these people are more interested than ever and in view of the fact that Mr. Rogers makes this request it MUST be granted at this time. Regards of what he asks give it to him now, even tho his requests may not be in accordance with our ideas. He is extremely anxious to have these tests out in less than ten days. Furthermore he requests all of his materials fall between 15 degrees and 20 degrees Bé useing a Light liquid hydrometer for mineral oils—Temperature 60 degrees F.

SUBJECT: GARBER-BUICK COMPANY
Saginaw, Michigan

On March 9th and 10th, Mr. Groff and the writer demonstrated Duco as a refinish proposition to the above concern. The body, a Buick roadster had been roughed previously to our arrival. It air dried six days. Three coats of Duco 2442 were applied, air dried over night, and rubbed. The body is to be finished in wax. No fender work was done. We succeeded in obtaining some interest here from Mr. Grevia, Foreman and feel we should develop an account.

R. C. WILLIAMS.

RCW:JPT *Red*

NOTE: Mr. Callahan crossed out in upper left corner; 277, 291 crossed out in upper right corner. Other illegible numerals in upper right corner. Mr. MV Hitt is checked at top center. "Still using gum until gone" is written in right margin. Third paragraph checked. The figure 1639 on second page is illegibly changed. 2442 is circled at bottom of second page. Handwritten "make up Spec. Duco" circled in left corner of last page. 2442 written at bottom of last page followed by (575 base) on lowest limits. Italics indicate handwritten signature.

Defendant's Exhibit (DP) No. 182

June 14, 1923.

VISIT OF R. K. CATHCART TO
H. H. FRANKLIN MFG. CO.
SYRACUSE, NEW YORK

A visit was made to this plant to explain methods of polishing Duco and the best way to remove smut marks left on the surface from sandpapering.

Mr. Lewis, Paint Engineer of the above concern seemed very well pleased with what was shown him and said he had been working quite industriously for the past two weeks endeavoring to run down a suitable method of polishing.

The above concern has switched the entire plant back on rubbing with pumice stone, felt and water. This, I believe, will help a whole lot on obtaining a smooth surface. They have been using sandpaper and water.

The biege Duco received by Franklin was satisfactory and they were getting some demi-sedan bodies ready to shoot.

At present this firm's painting department is quite upset owing to a change in ovens, spray booths and rubbing decks in order to be able to handle steel bodies. Steel touring bodies are now being received by them.

R. K. CATHCART.

RKC/AFM

Defendant's Exhibit (DP) No. 183

Letterhead of

Du Pont
E. I. du PONT de NEMOURS & COMPANY
(Incorporated)
Dime Savings Bank Building
Detroit, Michigan

SALES DEPARTMENT

Aug. 13, 1923

Mr. J. J. Moosmann:

Attention: Mr. Flaherty

Report week ending Aug. 11th, 1923.

OAKLAND MOTOR CO.

You are aware of the difficulties we are experiencing at this concern with our 34 blue. The Oakland Motor Company is in production about ten cars going through per day. No difficulty is encountered at this writing with Newport blue but 34 is certainly not up to standard.

After Rogers had exhausted all means of getting a 100% job with 34 blue, he took the matter up with Mr. Orr and told him he felt the DuPont Company had put it over on him. Mr. Orr called me in and after a lengthy discussion he asked Mr. Elm to come out in order to settle the situation once and for all.

While Phillipp's analysis may be incorrect, there is surely "A negro in the wood pile somewhere." Inasmuch as it is necessary to thin the 24434 down so far to obtain spraying consistency and the old 340 sample can be used almost as received, makes the problem look as if the difficulty may be in the Viscolac used rather than the mill base. We are unable to produce results even with three coats. This, however, may be accomplished if rubbed between coats.

Thinned to spraying consistency we find a decided lack in hiding power. Where bare metal spots are evident, it is necessary to spot spray every one, and on the present bodies, these spots are numerous.

I assure you that we have done everything, even vary the undercoats and believe you will agree it is to our advantage as much so as to Oakland's to put out 100% jobs. The defects would not be noted by the casual observer, but every Automobile Manufacturer and paint man is out to kill or pick flaws in the usual departure. This is one reason for wanting the best that we can get and we have had it in the old 340.

We feel upon Mr. Elm's arrival and conference with Mr. Orr, some agreement can be made where satisfaction will be for all.

FISHER BODY CORPORATION

I have spent a lot of time chasing Breslin around the various

J. J. Moosmann #2

Fisher plants and find our products will be found useful at some of the Fisher Plants in the near future. At Cleveland and St. Louis apparatus is being installed for the use of Duco and Viscolac on all Chevrolet mouldings. We should have these in operation in a few weeks.

At the Detroit plants, Mr. Hurley has assumed charge and on Cadillac mouldings where 1610 and 1618 were being used followed by one coat of varnish, he has discarded for the present. He is not enthusiastic about Viscolac and overlooks durability and places superiority in finish above everything. He claims mouldings finished as follows are superior in looks to anything they have tried and at the same time creates a saving worth consideration:

1 Coat 1610 Over filler
3 " Varnish

The mouldings are equally as good in looks as if 1618 were used in place of two coats of varnish. Mr. Hurley states however, this is only a temporary arrangement and is willing to conduct some experiments along with his present procedure. On bodies, he feels Duco has a lot of merit and while they are not planning any immediate deviation in in finishing schedule, he says the Fisher officials are watching the bodies in this vicinity with particular interest, and they will be guided a great deal by Oakland's success or failure.

CADILLAC MOTOR COMPANY

Mr. Priebe is anxiously awaiting the samples coming and plans putting out a number of cars if samples submitted prove satisfactory.

CHEVROLET MOTOR COMPANY

Two cars are in the process of finishing with our 399 Dust Proof Gray. Mr. Knudsen of Chevrolet is responsible for having these bodies done and as near as I can determine, on the outcome of these depends whether we get the export business or not. Cathcart is conducting this work. I examined the bodies after being sprayed and in the process of rubbing and they looked very good and I feel they will polish up in a very satisfactory way. We were delayed a day getting started due to the primer coat not being thoroughly dry upon our arrival. Work should be complete today after which cars will be assembled and shipped to Detroit for Mr. Knudsen's inspection.

BUICK MOTOR CAR COMPANY

Unable to locate Mr. Weckler to find out Buick's plans for the year.

J. J. Moosmann #3

GENERAL MOTORS EXPORT

Wrote Mr. Daniels, Superintendent here that it would be necessary to postpone work there a few days due to pressing engagements with General Motors Corporation here. This arrangement is satisfactory and we will go here two weeks hence, after Mr. Daniel's vacation.

STUDEBAKER CORPORATION

Arrangements have been made to finish the 3 bodies in South Bend, Indiana this coming week. Brown is available for the work and I'll not accompany him down but plan to see the work sometime during the progress for one day.

LINCOLN MOTOR COMPANY

Exact date unsettled but hope to complete same by end of week ending August 20th.

COMPETITIVE

Sending samples of Glidden Black and thinner. Will ask Groff to get details of Nicholas product as it has been tried at Maxwell. Acme has sample of clear material at Fisher. Will attempt to get same for the laboratory. Looks like a gum proposition.

R. C. WILLIAMS

RCW:LJ *Red*

NOTE: *1568* and RC Williams in upper right corner. At bottom of second page Gocheler is deleted and Weckler is inserted. At Maxwell is inserted in second line of last paragraph of last page. Italics indicate handwritten signature. Letters "EF" appear on right hand margin of each page.

Defendant's Exhibit (DP) No. 184

Letterhead of

Du Pont Fabrikoid
E. I. du PONT de NEMOURS & COMPANY
Incorporated
230-231-232 General Motors Bldg.
Detroit, Michigan

SALES DEPARTMENT

Friday 4:30.

Mr. Flaherty:

Just came from Ternstedt where am going after Duco on wind-shield frames. Am going to have Dolan finish some there—means from 3 Barrels up per week and feel should be able to get it. Hope this will meet with your approval. As long as it is so close to Bodies & Fisher felt I was not getting out of my territory.

Red

For your information following are concerns and status:

Cadillac Awaiting colors originally submitted June 28.
Lincoln " " recently "
Ford Using 244412 Black on trucks over baked primer.
Buick Putting thru a number of Exp'l cars in colors.
Oakland Planning 125 open jobs per day. 2 cars 526. 1 car 418.
Oldsmobile Using weathered Bronze on open sport models.
GMC Truck awaiting Fawn gray.
" Refinish Finishing a car a week.
" Export Oshawa Exp'l—will visit in Dec.
" " Australia See A. K. Mearns.
Chevrolet Planning to use on Exports.

Hupmobile Awaiting samples—plan putting some cars in trade.
Paige Demonstration now near completion. }
Amer. Auto Trim Demonstration now near completion. } Dolan
Maxwell See Chalmers
Overland Simon Sales—not equipped to handle Duco.
Fisher Body # 9 Det. Plan Exp'l work on Buicks.
" " Pontiac—Running 60 closed bodies per day.
" " Cleveland. All instrument boards and mouldings.
" " St. Louis. All instrument boards and mouldings.
" " Flint. All instrument boards and mouldings.

Wilson Body—Demonstration started.
Dodge—Two bodies now on exp'l tests.
Velie—One body recently done, much pleased.
Rickenbacker—Have not yet called.
Studebaker—Want further demonstration.
Moon—Will visit while in St. Louis in Dec.
Marmon—Will visit while in St. Louis in Dec.
Morris—Will visit while in St. Louis in Dec.
Chalmers—Fine job—412 complete. Others planned.
Reo—One car on exp'l tests. No recent remarks.
Lawson Body—Demonstration now on Lincoln Body — Dolan.
Widman Body—Have not called.
Amer. Wood Rim—Using 412 Black.
Packard—Nothing new.

Thought you would like to have this.

Red

Fri. 4:45

Mr. Flaherty

Nickerson of Hupp says if Blue is shipped Monday as per wire to-day—We are exonerated—Otherwise he is off us for life. You know the other colors do not have to be exact matches, so can't we hasten it up a bit. I was advised 10 days ago that these would be shipped Sat. Nov. 10th.

Red

Hold Ford orders for
2000—412 in fives until advised.
2000 3601. Had a battle on price
but got it 4.10 and 2.25

R.

Note: Handwritten letter. 1568 and "Stamped Rec'd Nov. 19, 1923" handwritten in upper right corner. "EF" stamped on each page.

Defendant's Exhibit (DP) No. 185

Letterhead of
DU PONT FABRIKOID COMPANY
Incorporated
Manufacturers of
ARTIFICIAL LEATHER

SALES DEPARTMENT

Wilmington, Delaware

December 3, 1923

J. J. Moosmann, Director of Sales

Attention: E. M. Flaherty

Report ending week of December 1, 1923

FISHER BODY CORP.

The most interesting and incidentally profitable progress made in the territory in the past few weeks has been with the Fisher Body Corp. You through my recent reports have learned that all Fisher plants where Chevrolet Motor cars are manufactured are using our 412 Black on instrument boards and windshield frames and some black and 1610 on mouldings. Cleveland is the distributing agent for the following plants: Flint, Janesville, Buffalo and Norwood Cincinnati. At the Cleveland plant on my last trip some bodies were being put through and polished, but have heard no further comments. Will make it a point to check up on the out-come in a week or two.

TERNSTEDT MANUFACTURING CO.

Closely connected with Fisher Body Corp., is the Ternstedt Mfg. Co. This concern manufacturers all hardware used at the various Fisher Plants. We recently ran a series of tests at the Ternstedt plant using one and two coats of our 412 over numerous primers. Satisfactory results have been obtained as far as adhesion and application is concerned but a little more lustre than 412 gives is requested. Nor having 26672 available I plan to make some top coat material for test there this coming week, but will be cautious to hold down the percentage of 1640 that is to be used. On completion of these tests a decision will be reached as to whether the process will be adopted or not. Should it go through O.K., Ternstedt will prime and bake the frames and they in turn will be sent to the numerous Fisher assembly plants and here the Duco will be applied. I feel the out-come will be a two coat proposition the base coat being 412 and the top 26672. There is a considerable difference in cost of materials here which will be a factor in the decision to be made.

FISHER BODY—PONTIAC

The last of the Varnished jobs are going through the plant this week and beginning next week all closed models will be Duco. The Supt. here is attempting to cut out the use of rough-stuff and use additional coats over a baked primer. No detailed method has been worked out on this as yet, so am unable to give you anything definite on the probable consumption, but suggest you be ready to meet a large demand, as production calls for 100 jobs per day and it will require at least a gallon to a job.

FISHER BODY—DETROIT

The most encourageing results are being obtained at the experimental plant here. Mr. Hurley has taken over the work and he is going after it in a manner sure to bring out the merits; he has given me wonderful cooperation in the past few weeks. At this writing there are seven Buick Sedans, one Cadillac and a number of Oaklands in progress. With all due respect to the other units Mr. Hurley has recently finished an Oakland sedan that has the highest polish I have ever seen on Duco. It is superior to the Cadillac Roadster that was exhibited in the show room here. The Cadillac job here is for one of the du Pont's but has been requested finished in Varnish. This will be done. You can readily see the interest that has developed here and we can maintain same by closely following, that I will do from this end, but the factory must do its part on deliveries.

CADILLAC MOTOR CAR COMPANY

You have received orders calling for 10 gallons each of Cadillac Gray and Claret Lake and I understood this shipment had been made, however same has not been received and in the meantime Cadillac roadsters are being held pending arrival of same. Incidentall I was advised that the Cadillac blue was to be ready on Nov. 23rd, but at this writing no delivery has been made. Mr. E. F. Johnson is planning to have a new Cadillac finished in Duco. I have succeeded in selling him the idea of a polished job, but he has not definitely decided when he will purchase same.

BUICK MOTOR COMPANY

The Buick Motor Co., has recently completed five open cars in 412, these now stand ready to be polished. One has been completed and sold to R. D. Kavanaugh. The job is polished and a very high lustre has been obtained. Mr. Bassett personally inspected this job and stamped his approval. This is the first time we have succeeded in interesting Mr. Bassett to the extent of examining a body finished in Duco, and feel this is a big step in our favor.

A closed body in Blue is now going through for Mr. Durham, and on receipt of the Dark sage green, a body in same will be put through for Mr. Bassett.

—3—

Mr. Weckler is quite agitated, because of the fact that we have not offered more feasible methods for rubbing operations and feels we are passing the Buck to them. I explained that the various methods used by the different automobile plants using Duco had been suggested, but none seemed to meet with their approval and they continue to use their own methods. He then brought up changes in materials and attributes better work to this. I disputed this and used the argument that it was skill on their part in handling the material and a change of heart on the part of the paint authorities that was responsible for the better work.

Regardless of this he wants a letter from us stating when the last basic change was made and why also our present recommendations for rubbing, so he may have something in writing when discussing same with the officials. Prospects appear better here than at anytime today and if we can continue our present progress it looks as though we may land some of the Buick business during the next year.

While at Buick Messrs. Weckler and Brown were quite alarmed over a report that came through Mullin in reference to a new Oakland. The report had it, that the Duco was breaking away to the metal in large chips and the owner was so much provoked, he had same removed and repainted.

I ran this down and found the owner Mr. Earl McGinnis of the Union Trust Co., Flint and the investigation disclosed that his car was purchased in May 1923 was a paint and varnish job, and he had not owned a Duco job. A letter to Mr. Weckler from me on Nov. 30th, should clear up this misunderstanding, a copy of same was sent to you. I have reason to believe this rumor started at Flint Varnish and magnified accordingly.

OAKLAND MOTOR CAR COMPANY

Production here continues to run approximately 125 jobs per day with the Newport Blue running off color. We have several bodies to prove this should Parlin come to see same. The standard blue is giving satisfactory results. At this writing Rogers is devoting a lot of time to polishing in an effort to eliminate rubbing operations entirely. We are unable to report any thing yet on the 531 material which carries additional softener content. In reference to the laboratory's report on recent complained Newport serials No. 23015, 22699, 23216, and 22617, why should this variation in shade continue. We have promised Oakland standard colors and have advised that our methods were fool proof and yet the difficulties are not remedied.

HUPP MOTOR CAR COMPANY

A number of Hupp roadsters are going through in Blue here, but at this writing no decision has been made as to how same will be finished.

The Hupp authorities are still much peeved over our failure to complete their orders and I believe unless the delivery is made next week they will cease to be further interested in Duco, for at least some time.

LINCOLN—FORD

Spent some time in the Ford factory recently watching their methods on trucks. They coat the entire body with 412 two coats over a thoroughly oxidized primer. The finished job, though dull is a pleasing one. They continue to experiment on colors for Lincoln work.

SIMON SALES—WILLYS-OVERLAND

Interviewed these people and they are interested from refinish view point. Nothing definite until they investigate the costs of apparatus, etc.

GENERAL MOTORS CORP.—REFINISH

Continue to put through a few jobs a week.

GENERAL MOTORS TRUCK COMPANY

Colors here will arrange demonstration as soon as possible.

OLDS MOTOR WORKS

Plan visit here at earliest opportunity.

GENERAL

The General Motors Corp., Fisher and Ternstedt have taken practically all of my time the past few weeks which has prevented my seeing the other prospective Duco users, but plan to get around shortly.

R. C. Williams

RCW:JPP

NOTE:- 1568 at upper right corner. The second full paragraph on page 2 is underlined near left margin and has arrow pointing to next paragraph. EF along right margin of second, third and fourth pages.

6
E

3852

Defendant's Exhibit (DP) No. 186

Du Pont Fabrikoid

Letterhead of
E. I. du PONT de NEMOURS & COMPANY
(Incorporated)
Wilmington, Delaware
SALES DEPARTMENT

May 1, 1923

J. J. Moosmann, Director of Sales

Attention: Mr. E. M. Flaherty

Enclosed you will find a memorandum given to me today by Mr. Rogers, Supt., of assembly and finishing at the Oakland Motor Car Co. This will give you an approximate idea of the amount of material the Oakland Motor people will use up to October 1st. This amount of material will take care of only one half the production that Oakland is making plans for. Beginning October 1st, it is likely that they will jump to 300 cars a day which would mean approximately 4000 gallons Duco per month. In reference to the part of the memorandum in regard to shipping specifications, I have not had time to take this matter up with the Oakland Purchasing Dept., as yet but will do so and advise you the latter part of this week.

Again we wish to emphasize the importance of having the Operating Department seeing that this material leaves Parlin the best that we can make. Providing we encounter no difficulties with these three months supplies we feel that this order will be but a trivial one.

6048

We have a memorandum today from Mr. Breslin of the Fisher Body Corp., stating that they desire to start six bodies tomorow in Black Duco. Not having material on hand it is possible that I will be able to borrow five gallons from the Oakland Motor Car Co., for this work. In such case please be prepared to return same to Mr. Rogers without delay.

Visited Buick Motor Co., this morning and after talking to Mr. Weckler we should be prepared to furnish them 10 gallons of 244376 Maroon and 10 gallons of the closed body Buick blue, which I believe the factory has matched in color.

The work at the Flint Varnish & Color Works laboratory is about complete as far as actually coating panels is concerned. These tests are now on the roof and will be examined by us on May 23rd, which will be a one month test.

Have a wire from the Pierce Arrow people asking assistance on top work. Will arrange to spend Monday there unless urgently needed in General Motors work here.

R. C. Williams

RCW:JPT

Note: Answered May 1923 EM Flaherty is stamped in right corner. Check after Mr. EM Flaherty at top center. Words Oakland Motor Car Co. is circled with line extending to upper right corner. RCW handwritten after signature.

Defendant's Exhibit (DP) No. 187

April 30th, 1923.

Mr. R. C. Williams.

Dear Sir:—

As per your request I am listing below the estimated requirements of duco material for our production, covering a period from July 15th to October 1st:

July 15th to July 30th	698 gallons
August	2018 "
September	2209 "

For further information regarding the specifications on this material would advise you to get in touch with our purchasing department, would also suggest that your sales department get in touch with our purchasing department relative to shipping specifications.

A. C. Rogers.

NOTE: A handwritten R correction in salutation. 1565 underlined at upper right corner. "Mr. Flaherty, Mr. Elms and Mr. Lackey seemed especially interested in getting this information. *RCW*" in lower left corner.

Defendant's Exhibit (DP) No. 188.

November 7, 1923.

PROMOTION REPORT FOR OCTOBER.

AUTOMOBILE INDUSTRY

CADILLAC MOTOR COMPANY

No further work with Duco was done at this factory during October and none can be done until we send out colors in Duco, matching the three Cadillac standards. These standards were given to us in the latter part of June and we are encountering adverse criticism not only at the Cadillac factory, but elsewhere throughout General Motors, because of our delay in matching them. While this delay does not mean that Cadillac's work has not had constant attention in our laboratory, it does clearly indicate that we must provide increased color matching facilities and personnel if we hope to take care of the needs of our expected Duco customers at all promptly.

BUICK MOTOR COMPANY

A renewed interest in Duco, as mentioned last month, is noted at this factory. The officials wish to have a steady production of a few Duco cars per day and here also they are simply awaiting our colors before inaugurating this plan.

OAKLAND MOTOR COMPANY

Oakland continues to use Duco on all open models with increasing satisfaction, and a slight improvement in the quality of the jobs. Experimental batches with slightly increased softener content have given good results, and in November it is expected that four or five hundred cars will be put out with an Enamel containing a higher amount of softener than the standard 526. The most important development at Oakland was in reference to the use of Duco on closed cars. There has been an almost unanimous demand on the part of Oakland distributors for Duco on the closed jobs, because they say they are in an illogical position when they attempt to explain to a prospective Oakland purchaser why the Oakland Company uses a better finish on the cheaper open cars than on the more expensive closed models. The new Fisher Body plant at Pontiac has already started to turn out a few closed Oaklands in Duco and it is expected that this output will gradually increase until no paint jobs are finished. This means scrapping of a great deal of new and expensive paint-drying equipment, otherwise the adoption of Duco would probably now be an accomplished fact at this Fisher plant.

—2—

THE OLDS MOTOR COMPANY

There were no new developments at this factory, but we learned of the intention of the management to finish about 400 sport jobs in Duco for a comparative cost and service test with a new type of paint finish in which they are also interested. Our match in Duco for the Oakland "weathered bronze" was apparently satisfactory.

FISHER BODY CORPORATION

As far as Duco is concerned, this was covered under the Oakland notes, and we are also glad to report increased business in both Viscolac and Duco from the Cleveland and St. Louis factories.

FORD MOTOR COMPANY

Ford has ordered a total of 3400 gallons of Duco and 3500 gallons of Thinner within a space of a few weeks. Duco is used on a new model Ford truck, and a great portion of the above quantities were shipped to various assembly plants throughout the country. We feel that Ford has ordered somewhat in excess of immediate requirements, believing that prices on Duco were about to advance. It is so unlike the Ford Company's policy to purchase such a high priced material as Duco in a non-competitive market, that we are quite certain he will make every effort to obtain a second source of supply. While a real match for Duco will not readily be developed by our competitors, it is certain that an Enamel sufficiently good for Ford's requirements, will be offered at a price below that of Duco. We have, accordingly, asked the laboratory to try to develop a cheaper modification not necessarily of as good quality as Duco, in anticipation of the time when we shall need it to meet competition for Ford's business.

We now have a resident representative in the Cleveland district, who is carrying on a great deal of Duco work with the more important manufacturers there. Cleveland and Jordan are our best prospects. During October Cleveland sent out a few polished jobs to distributors to get the feeling of the public toward that finish.

Jordon has sent in colors to be matched and expects to turn out 30 or 40 jobs for a similar purpose as soon as we supply the colors.

—3—

Demonstration work was also done for the Cleveland Akron Bus Company, Kissel Motor Company, the General Motors Re-finishing shop in Detroit, The Moon Motor Company and some assistance given Franklin on polishing. We understand that Franklin has sent out a number of Duco jobs to important distributors recently.

The re-finishing trade continues to be a problem, as we are offered plenty of opportunities for relatively small sales which would follow expensive demonstrations. We are trying as a tentative plan the offer to furnish a skilled demonstrator to important re-finishers, making a charge of $20. per day and traveling expenses for his services. One immediate result of this plan is the discouragement of small unimportant re-finishers with whom correspondence alone would soon become too great a burden. It seems probable now that the other important General Motors units will hardly adopt Duco on a large scale before the next car season, and so while the solvent situation remains unsatisfactory, there is no reason why we should not encourage more of the manufacturers to proceed with their Duco experiments, as it is very unlikely that we shall be unable to fill any orders received.

SPLIT LEATHER INDUSTRY

We have been continuing our efforts to obtain business from the Ashtabula Hide & Leather Company in Powder Dope. They finally told us that they would probably be willing to purchase another carload if our Dope could be used with a supply of competitive Thinner which they had on hand in great excess. We found that our Dope apparently would work with this Thinner, and are going after the order on this basis.

The Split Leather business in general remains quiet.

FURNITURE INDUSTRY

A very important conference was held in Parlin during October in which the three salesmen calling exclusively on the furniture trade were present, as well as representatives from the sales office and the laboratory. The handicaps Viscolac has been under were very thoroughly discussed and a constructive program for overcoming them was adopted. Our most serious trouble has been the development of white pores in the filler, but very recent work which was reported at this meeting, indicated that several commercial

Fillers now on the market will work under Viscolac without this difficulty. A new Filler has also been made in our laboratory, which is free from this defect, so it looks as though the white pore trouble which has been our most serious drawback, is about conquered.

The next most serious trouble has been the development of a gray or white haze on top of the Viscolac finish. While the true cause of this haze is still not definitely determined, one remedy for it at least has been suggested. It has been found that if, immediately after rubbing, the furniture is washed thoroughly with soap and water the gray haze will not appear. This remedy may not be practical in the furniture factories, but it is of some assistance to us to have even this to suggest when the trouble is encountered.

Progress has also been made in the development of oil stains which will not bleed, and our laboratory has made both Mahogany and Walnut Stains, which are free from bleeding troubles. Whether or not we can get these made at a reasonable price for the furniture trade, is still to be determined. We have also found at least one commercial product which seems to work perfectly, so this trouble too is not so baffling as it has been until recently.

As a result of this meeting our furniture salesmen are back in their territories with considerably greater confidence in Viscolac than they had ever had, and it is fair to expect more productive work from them in the future. We have been receiving reports of reduced prices on competitive products which, however, are not yet seriously interfering with Viscolac sales.

Below is given a resume of the work done in the various furniture districts during October.

Miner gave a demonstration at the Lentz Table Company, at Nashville, Michigan, also at Grinnell Brothers, at Holly, Michigan. In both cases the white pore trouble developed. He also arranged for a demonstration to be given at the Ranney Refrigerator Company at Greenville, Michigan.

Heald secured an additional order from the Nypenn Furniture Company at Warren, Pennsylvania, and after giving a successful demonstration at the Herrick Manufacturing Company, at Falconer, New York, secured a trial order for four drums of material. This concern is apparently entirely satisfied with our material, and we look for a good volume of business from them. We feel that this foot-hold we have obtained in the Jamestown district will assist

materially in breaking down the apparently general prejudice against Lacquer finishes in that territory.

The successful demonstration which Grubb gave at the Parkersburg Chair Company, Parkersburg, West Virginia, has resulted in a five drum trial order. The fact that they are using a competitive Lacquer in their regular production leads us to believe that we have obtained a permanent customer through the superiority of our materials, and we expect a good volume of business from them. He gave a successful demonstration at the B. F. Huntley Furniture Company, Winston-Salem, North Carolina, and took a trial order for Duco material to be used in finishing a special order for hotel furniture. They have not definitely adopted our material for their regular production as yet. He also gave a successful demonstration at the Thomasville Chair Company, Thomasville, North Carolina, but no decision has been reached as to their adoption of our material as yet.

About the only thing to report in La Fleche's territory during the month is additional orders from the Davis-Burley Table Company at Shelterville, Indiana, and the Star Piano Company at Richmond, Indiana, of four drums each.

The demonstration given by Simmons at the Jacob Doll & Sons Piano Company in New York was not a success, because of the development of pin holes throughout the finish due to poor filling. The Viscolac finish was very good, but another demonstration will be given, and special care and pains taken that the wood is properly filled.

We have an additional eight drum order from the Abernathy Furniture Company, at Leavenworth, Kansas, and Sprong reports that the Bonner Furniture Manufacturing Company at Nashville, Tennessee, will use our materials on all mahogany and walnut production in the future. He does not expect them to be large users, however, as a large percentage of their production is of the cheaper grades of wood on which they will not use our materials.

Allen has shown unusual activity during the month in furniture sales promotion work, and has secured trial orders from the F. S. Harmon & Company, Murphy Manu facturing Company, Northwest Chair Company, Gregory Furniture Company, all of Tacoma, Washington. Also from the Doernbecher Manufacturing Company and Carmen Manufacturing of Portland, Oregon, and the Rainier Furniture Manufacturing Company and the General Furniture Company of Seattle, Washington. In several cases he failed to sell the intermediate to be used as a first coat under the 1640, and we have taken the matter up in quite some detail with Matthey, recommending that if these concerns insist on using the 1640 over Shellac we go on record by writing them a letter to the effect that we cannot be responsible for any poor results which they are most likely to obtain.

We were disappointed to learn from the Inland Manufacturing Company that, because of the continued failure of our Clear Viscolac to stand any sort of weathering test, they had decided to discontinue purchasing from us until we could improve our product in this respect. They said that they have a local source of supply, which we presume to be Lowe Brothers, for a product as good as ours, and since purchasing from this Company removes the necessity for carrying any stock; no more purchases are being made either from du Pont or Glidden the former source of supply.

NOTE: Paragraph sign in eighth line of second paragraph of third page.

Defendant's Exhibit (DP) No. 189

E. I. DU PONT DE NEMOURS & CO.
(INCORPORATED)
CELLULOSE PRODUCTS MANUFACTURING DEPARTMENT
PARLIN, N. J.

6058

May 12, 1924.

Mr. E. M. Flaherty,
Director of Sales

BUICK MOTOR CO.,
Flint, Mich.

The following report covers calls made at Flint with Williams on May fifth and sixth.

On the fifth we found four sport models, two roadsters and two tourings, in process of completion. All had only two coats of Duco (537) over a paint ground coat, contrary to Williams' agreement with Browne following our previous visit that one of each would be finished in this manner and one of each with three coats of 537 without any ground. The only difference between the two pairs was that on one pair two coats of surfacer instead of one had been used.

The workmanship as regards spraying, rubbing and polishing was very good, and it was evident that the men in charge of the preparation of these cars had really tried to turn out good jobs, with the exception that Browne had insisted on using only two coats of Duco.

In my opinion this is not sufficient to guarantee a first-class job in this color, although Browne and Williams do not agree with me. Williams admits the finish looked thin, but believes this will be remedied in regular production by heavier coats.

One of the cars showed a number of dark streaks, where the spraying had been lighter or the rubbing heavier. Another showed a slight difference in shade between the body and the hood, which Browne explained was due to less surfacing material being used on the hood. I believe that if three coats were used it would cover up such variations as these, and also provide a heavy enough finish to prevent the development of such variations in service due to the wearing down of the film from the owner's cleaning and polishing operations.

The weather was cloudy on the morning of the sixth when the official inspection was made, and I think this fact was largely responsible for the failure of these imperfections to attract more than passing notice. The inspection was made by Bassett, Durham and Strong in the presence of Browne, Williams and myself. All were favorably impressed, and pronounced the work satisfactory after very little discussion. Apparently Durham had seen the cars before, but Bassett and Strong appeared pleasantly surprised by the degree of lustre, which was very good.

In general, Durham's attitude indicated that he was entirely satisfied with the work and regarded the inspection as an unnecessary waste of time. Bassett, on the other hand, made up his mind rather slowly, but appeared satisfied when he made his decision, which was influenced by Strong's unqualified approval. It looked to me that Bassett's favorable first impression was weakened

E. I. DU PONT DE NEMOURS & CO.
(INCORPORATED)
CELLULOSE PRODUCTS MANUFACTURING DEPARTMENT
PARLIN, N. J.

Mr. Flaherty 5/12/24

by his following critical inspection, during which he probably noticed the imperfections previously mentioned, and that Strong's emphatic O.K. was the deciding factor. Strong spent most of the time walking around the cars at a distance of about ten feet and admiring the polish. It seemed to be a case of love at first sight on his part.

Bassett approved the adoption of this finish as standard on these two models as soon as the necessary arrangements can be made, which it is estimated will be about May 25th. Later in the day we secured our first production order, for 500 gallons of Duco and 750 gallons of Thinner, for prompt shipment.

Bassett asked me to see L. P. Fisher right away about getting started on the closed cars of this type, instead of waiting until Flint had been in production for about a week, as was arranged at our previous conference. He said Fisher would return from New York on the eighth, and I promised to see him on that day. I spent most of the eighth and ninth trying to get an appointment with Fisher, but he had not returned and nothing had been heard from him up to the time I left Detroit late in the afternoon of the ninth. I did not wait over the week-end for him because it will be necessary for me to go back to Detroit this week in connection with the trouble that has developed at Chevrolet and Cadillac.

We submitted to Bassett panels showing finishes obtained with our two new blues, 598 and 605, to match their standard "Cobalt Blue". The panel finished with one coat of 598 followed by two coats of 605 matched exactly, while the one with three coats of 598 was very close and represented the nearest we could get when using only one Duco. Bassett was disappointed that three coats were necessary, but seemed satisfied with my explanation that satisfactory covering could not be obtained with two coats when using pigments of transparent character that are necessary to secure the brilliant color he wants. He told Browne to prepare a seven passenger touring car, known as model 49, to duplicate each of the two panels mentioned; whereupon Browne promptly renewed his objections to three coat work and urged the use of two coats over a paint ground, pointing to the sport cars that had just been approved as evidence that this method would be satisfactory. Just as it looked as if we might drift into an argument unless either he or I surrendered, Durham came to the rescue with the suggestion that two cars be done one way and two cars the other, which Bassett promptly approved.

It was evident that Browne did not like this decision, and it was because he gave me the impression that he had no intention of doing any three coat work that I wrote him as per copy attached upon my return to Detroit May 7th. You will note I avoided any reference to the decision regarding three coat work, in order to avoid antagonizing him by putting this on record.

E. I. DU PONT DE NEMOURS & CO.
(INCORPORATED)
CELLULOSE PRODUCTS MANUFACTURING DEPARTMENT
PARLIN, N. J.

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Mr. Flaherty

5/12/24

Browne says his objection to three coats is because it is more expensive and no better than two coats over a paint ground. There is no doubt that he is right on the first half of his argument, but it is evident that he cannot be sure of the second half until he has done some three coat work in direct comparison with the other method. It is merely his opinion, but apparently he is so sure of it that he does not consider it worth while to make a test.

Even if color and covering are equal by both methods, I would still feel that three coats of Duco without a paint ground would be safer for a high class finish in delicate or transparent colors as long as our product has its present tendency to rub off in service, but we are handicapped in being unable to present this important point for fear of frightening the prospective user on the entire proposition.

In this connection, it has occurred to me that it might be advisable to reduce the viscosity of all our automobile Ducos if this can be done without sacrificing any desirable properties. This would make it unnecessary to use so much thinner to obtain a satisfactory spraying consistency, with the result that a heavier film would be deposited on the work by each application.

It is my impression that the viscosity of Oakland dark blue (531) is lower than any of our other colors, and that Oakland started by using it in the proportion of seventy parts to thirty parts thinner. If this is correct, it is evident that we are now getting films approximately 30% lighter with each coat with the present general practice of using Duco and thinner in 50/50 proportions, and that the heavier viscosity of our other colors may explain why it has been necessary to increase the proportion of thinner to obtain satisfactory spraying consistency. I believe this question should be discussed at our next Staff Meeting.

We delivered to Buick one five-gallon can each of 598 and 605 blues, and it is expected that the sample cars finished with these colors will be ready for inspection the latter part of this week.

The Buick Paint Superintendent, Mullin, did not participate in any of our conferences, and the only interest he displayed was with respect to the decision reached following inspection of the sport jobs. His general attitude seemed to be that of sullen indifference, and I am afraid we cannot count on him for any enthusiastic co-operation for the success of the Duco program. It is of course our intention to try to win him over to our side.

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E. I. DU PONT DE NEMOURS & CO.
(INCORPORATED)
CELLULOSE PRODUCTS MANUFACTURING DEPARTMENT
PARLIN, N. J.

Mr. E. M. Flaherty

5/12/24

Bassett told us that Allen, P.A., had received an inquiry from one of the Dodge buyers, J. S. Ebner, asking what Buick's experience had been with Duco, et cetera, to which Allen had replied that they considered it very satisfactory, are adopting it as standard on two of their models, and that it is their present expectation to extend it to the entire line. Our call on Ebner on May 7th will be covered by a separate report.

J. J. MOOSMANN

J J Moosmann

JJM:ML

NOTE: X at upper right corner of first page. Handwritten signature of JJ Moosmann. EF and 13 along right margins of ~~all~~ pages.

Defendant's Exhibit (DP) No. 191

EXCERPT FROM THE MONTHLY REPORT OF THE FABRICS AND FINISHES DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR MAY 1947, DATED JUNE 27, 1947.

—5—

Chemical Division

A sheet metal primer is a vital part of the finishing system in an automobile plan. The primer is used in large tanks of eight to ten thousand gallons capacity and all of the sheet metal, including hoods, fenders, and miscellaneous parts, are primed by dipping in these tanks from a conveyer line. For some years, du Pont has been the principal supplier of this type of primer to the Automotive industry.

Before the war and immediately after we supplied a product based upon lithopone as the primary pigment and a conventional linseed oil limed rosin varnish as the vehicle. Although generally satisfactory, this product sometimes became "seedy" on low-temperature storage as the result of the precipitation of zinc soaps formed by interaction of the lithopone pigment and vehicle.

During the past year the Flint Laboratory developed a new sheet metal primer that has improved our position in the field. The product has a basically new vehicle made from an air blown linseed oil produced at high temperature and hardened with ester gum. The hydrophillic character of the oil gives it wetting and dispersing properties for the pigments which make possible the use for pigmentation of a combination of cheap extender pigments that in previous vehicles gave bad settling and severe flocculation.

In dipping products of this sort a very delicate balance is required between flocculation and dispersion of the pigment if the product is to have adequate flow on sheet metal without excessive settling in dip tanks. This balance is achieved by the use of a small percentage of a specially bodied oil in the pigment grind.

It is estimated that during 1947 approximately 400,000 gallons of this product will be sold at a saving of around $120,000 in mill cost and 400,000 pounds in linseed oil consumption.

Defendant's Exhibit (DP) No. 192

EXCERPT FROM THE MONTHLY REPORT OF THE FABRICS AND FINISHES DEPARTMENT FOR APRIL, 1946, DATED MAY 22, 1946.

—2—

A new and patented finish, "Duco Metalli-Chrome", was formally introduced to the automobile industry at an exhibit in the Masonic Temple in Detroit, Michigan on May 8th. The latest models of eleven new automobiles had been finished with the new product and were exhibited. Also on display was a car which had been finished with "Duco Metalli-Chrome" about five years ago and had since been in constant use. The new models consisted of Buick, Cadillac, Chevrolet, Ford, Lincoln, Mercury, Hudson, Nash, Oldsmobile, Packard and Pontiac.

The exhibit was attended by at least 365 of the executive personnel of the automobile industry in the afternoon, following a preview and luncheon for the press in the morning. Most of those who attended in the afternoon were entertained at the Recess Club for dinner. About 250 representatives of competitive lacquer manufacturers viewed the exhibit on May 9th and were informed that licenses under the "Duco Metalli-Chrome" patents would be offered in the near future.

The exhibit aroused considerable interest in the new finish and indications are that it will be used extensively by the automobile industry.

NOTE: There are two check marks in the left hand margin, one opposite the second line in the first paragraph and the other opposite the last line in the second paragraph.

Defendant's Exhibit (DP) No. 193

EXCERPTS FROM THE MONTHLY REPORT OF CHEMICAL PRODUCTS DIVISION TO THE EXECUTIVE COMMITTEE FOR MARCH, 1926, DATED APRIL 19, 1926.

—13—

PRICE AND COMPETITIVE SITUATION.

While the lower prices on Duco and Duco Thinner, which were made effective during the month of March, were naturally well received by our customers, only small increases in our business can as yet be traced to the new prices.

We developed a new and superior black at the same time the price was lowered and it is expected that this will give us at least a large proportion of the black business of the Fisher Body Corporation which has been going to competitors.

As a direct result of the price reduction our relations with the Fisher Body Corporation have improved to a considerable degree, and they have virtually promised us a considerably larger portion of their business than we have heretofore enjoyed.

—14—

EXPERIMENTAL

A complete pyroxylin system for automobile finishing, including primer, putty and surfacer, has been perfected to a degree that we feel warranted in offering it to those manufacturers who need the extra speed of operation offered by such a system, and substantial orders have been received for these products.

EXCERPT FROM THE MONTHLY REPORT OF THE PAINT, LACQUER, AND CHEMICALS DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR MAY, 1927, DATED JUNE 20, 1927.

—2—

The departmental sales for the five months ending May 1927 amount to $20,624,767 and the earnings for the same period amount to $2,849,251. This last figure includes a reserve of $55,500 set up in anticipation of General Motors super-discount which it is expected they will have earned for the nine months ending June 30, 1927.

This super-discount is not as large as was anticipated, for several reasons. In the beginning of the year there was a radical reduction in Duco and Thinner prices, as has already been reported, and which reduced the total gross sales dollars against which the super-discount is figured. In addition to this it was hoped that the introduction of this plan might be helpful in acquiring the Fisher Body Duco Black business and the Fisher Body Undercoat business, which to date has not materialized.

—14—

Price and Competitive Situation

During May the market price of ethyl acetate suddenly advanced 13¢ a gallon and accordingly our schedule price was advanced from 77¢ a gallon to 90¢ a gallon.

The competition in the wood lacquer and enamel field is becoming very keen and in a great number of instances we are receiving reports of where competitive lacquers and enamels are being sold at prices considerably below ours. However, we do not feel that we are as yet in a position where we are actually losing business as a result of these quotations, but of course they may be standing in the way of our acquiring new business.

Competition in the Bronze Powder field is becoming very severe, quotations and sales having been made at a figure as low as 35¢ a pound as compared with our schedule price of 45¢ a pound.

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It has finally been decided by the Fisher Body Corporation not to adopt our pyroxylin surfacer as an undercoating material, but to continue the use of oil-type products purchased from competitors. They claim its higher price results in a net increase in cost per body, after allowing for the savings due to faster production and elimination of high-temperature ovens. They also object to it on the ground of increased fire hazard, although it is no more hazardous than the pyroxylin finishes they are using in large quantities.

Defendant's Exhibit (DP) No. 195

SALES OF FINISHING PRODUCTS BY E. I. DU PONT DE NEMOURS AND COMPANY TO GENERAL MOTORS CORPORATION

(Years 1938 through 1941; 1946 (1) through 1947)

	1938	1939	1940	1941	1946	1947
"Duco" Lacquer*	$3 018 247	$4 473 528	$ 6 716 092	$ 7 306 536	$ 4 516 787	$ 8 381 994
"Duco" Thinner	1 551 357	1 838 477	2 160 878	2 461 583	2 394 809	3 842 804
Total "Duco"	4 569 604	6 312 005	8 876 970	9 768 119	6 911 596	12 224 798
All Other Finishes	1 625 625	2 448 844	2 850 091	3 757 389	3 518 256	6 713 431
Total Finishes	$6 195 229	$8 760 849	$11 727 061	$13 525 508	$10 429 852	$18 938 229

(1) Years 1942 through 1945 excluded because of suspension of automobile production During The War.

* Includes very small amounts of Primer made of Pyroxylin materials.

Prepared By:
E. I. du Pont de Nemours and Company
Treasurer's Department

Defendant's Exhibit (DP) No. 196

EXCERPT FROM THE MONTHLY REPORT OF THE FABRICS AND FINISHES DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR JULY 1946, DATED AUGUST 23, 1946.

Further progress can be reported in developing better trade relations with the Ford Motor Company, which recently placed with us orders for more than $110,000 worth of DULUX for finishing cars. In tendering us that business Ford expressed the hope that such action would mark the beginning of long and pleasant relations between Ford and du Pont.

The McGraw-Hill Research Department recently conducted a survey for the publication "FACTORY" to determine the preference for brands and kinds of paints in the broad manufacturing industries including metal production, metal working, chemical processing, foods, textiles, and lumber products such as furniture, housing, etc. One hundred seventy-eight returns were received from plants, practically 60% of which employed 500 to 2500 or more people.

The results showed that 18.7% of all those industrial buyers named du Pont interior finishes as their first choice; 11.4% as their second choice and 2.4% as their third choice. Only our largest competitor, the Sherwin-Williams Company, outranked us by a slight margin (19.5%) when it came to first choice; the Pittsburgh Plate Glass Company being in third position with 17.9% of the first choice votes. No other firm was even close, the next two ranking 8.9% and 5.7% respectively, with the remaining 49 named trailing from 2.4% to zero. Totaling all first, second and third choices for du Pont finishes, 32.5% of the field voted for du Pont products.

As to exteriors, preference for du Pont paints also ranked second with 20% of the first choice votes, Sherwin-Williams being in first position with 21% and Pittsburgh third with 15%. No other firm ranked higher than 4% of the votes and most of the others mentioned were accorded the preference

—3—

of only 1% of the industries reporting. Ten per cent of the buyers voted for du Pont products as second choice and 2% as third choice, maintaining our position throughout as second with 32% of all expressed preferences.

The growth in the preference for our brand may be expressed as having advanced from a rough average of 5.65% in 1929 to 10.5% in 1939 and 19.4% in 1945.

NOTE: The words "18.7%" in the first line of the third paragraph, "du Pont interior finishes" in the second line of the third paragraph, "32.5%" in the last line of the third paragraph, "exteriors" and "du Pont paints" in the first line of the fourth paragraph, "20%" in the second line of the fourth paragraph, and "32%" in the second to the last line of the fourth paragraph have been underlined. There are two check marks in the left hand margin, one opposite the second line in the first paragraph and the other opposite the last line in the last paragraph.

Defendant's Exhibit (DP) No. 197

EDMUND M. FLAHERTY

POSITIONS HELD IN E. I. DU PONT DE NEMOURS & CO.

1911 TO DATE

Date	Job	Department	Location
July 1911-Jan.1913	Chemist in charge of general analytical work and training course	High Explosives Operating Dept.	Eastern Laboratory
Jan.1913 -Sep.1914	Research chemist - Pyroxylin	Smokeless Powder Operating Dept.	Parlin, New Jersey
Sep.1914 -Feb.1917	Assistant Superintendent, Pyroxylin Department	Smokeless Powder Operating Dept.	Parlin, New Jersey
Feb.1917 -Jan.1921	Superintendent, Pyroxylin Department	Smokeless Powder Operating Dept.	Parlin, New Jersey
Jan.1921 -Jan.1922	Assistant Manager, Pyroxylin and Nitrocellulose Section	Smokeless Powder Operating Dept.	Wilmington, Delaware
Jan.1922 -Dec.1924	Assistant Director of Sales, Chemical Products Division	Paint, Lacquers & Chemical Dept.	Parlin, New Jersey
Jan.1925 -Feb.1926	Director of Sales	Paint, Lacquers & Chemical Dept.	Parlin, New Jersey
Feb.1926 -Feb.1930	Assistant Division Manager, Chemical Products Division	Paint, Lacquers & Chemical Dept.	Parlin, New Jersey
March 1, 1930 - December 1932	Division Manager (Finishes Division)	Fabrics & Finishes Dept.	Wilmington, Delaware
December 9, 1932 - May 5, 1941	Division Manager (Fabrikoid Division)	Fabrics & Finishes Dept.	Wilmington, Delaware

May 6, 1941 - November 1944	Assistant to General Manager	Fabrics & Finishes Dept.	Wilmington, Delaware
Dec. 1, 1944 - April 28, 1945	Division Manager (Finishes Division)	Fabrics & Finishes Dept.	Wilmington, Delaware
April 29, 1945 - July 31, 1946	Leave of absence (illness)		
August 1, 1946	Transferred to Pension.		

Note:

Pages 6073 - 6074 are on card 56.

Page 6075 is first exposure following card.

Reissued Nov. 29, 1927. Re. 16,803

UNITED STATES PATENT OFFICE.

EDMUND M. FLAHERTY, OF PARLIN, NEW JERSEY, ASSIGNOR TO E. I. DU PONT DE NEMOURS & COMPANY, OF WILMINGTON, DELAWARE, A CORPORATION OF DELAWARE.

LOW-VISCOSITY LACQUER AND FILM PRODUCED THEREFROM.

No Drawing. Original No. 1,629,999, dated May 24, 1927, Serial No. 471,931, filed May 23, 1921. Application for reissue filed September 19, 1927. Serial No. 220,023.

This invention relates to low viscosity lacquers and films produced therefrom, and more particularly to lacquers made from cellulose esters or nitrates having a greatly reduced viscosity and containing resins or oils that will impart such qualities to the lacquers that, upon drying in two or three coats, films will result that will be hard, durable, tough, and adhesive, together with other valuable properties.

It is an ultimate object of my invention to provide a film whose principal constituent will be a cellulose nitrate, which film will possess the characteristics of hardness, durability, toughness, transparency, freedom from acidity, lustre, and capability of adhesion to a surface to be coated; and which will at the same time be built up of only two or three layers or coats. A further object in this connection is to utilize cellulose nitrates which have been greatly reduced in viscosity, but which have not been reduced to the point that the nitrogen content is degraded and the transparency and solubility of the cellulose nitrate impaired. A further object is to prepare lacquer and enamel compositions that will, upon drying, provide a film as aforesaid possessing a continuous unbroken appearance. Further objects of the invention will appear as the following description proceeds.

According to my invention pyroxylin solutions, and particularly lacquers, having an abnormally high nitrocellulose content in conjunction with a suitably low viscosity are produced by subjecting pyroxylin mixtures of the character hereinafter described, for a prolonged period, say from one to three weeks, preferably at ordinary room temperature, to the action of a metal salt of a weak acid, for example an alkali-forming metal acetate. The discovery of the action of salts of this kind on the viscosity of pyroxylin solutions is described in the patent of Earle C. Pitman No. 1,636,319, and the application of this discovery to the reduction of viscosity of pyroxylin solutions is claimed broadly therein. By a particular application of this discovery to high percentage pyroxylin solutions, I have found it practicable to produce solutions, such as lacquers and colored enamels, of such a high pyroxylin content that they will deposit in two coats a film as heavy and satisfactory as the ordinary solutions do in four coats or more.

My invention may be illustrated in detail by the following examples:

I. I first make up a solution of from 25 to 30% pyroxylin in suitable solvents. A typical pyroxylin base solution for this purpose may be made according to the following formula:

	Parts.
Amyl acetate	11
Amyl alcohol	5
Acetone	35
Toluene	14
Denatured alcohol	5
Pyroxylin	28

To this mixture is added .56 part by weight of crystalline sodium acetate preferably dissolved in methyl alcohol. The amount of sodium acetate added may with advantage be from about 0.1 to 3% of the weight of pyroxylin in the solution; I preferably use 2%.

The resulting mixture is allowed to stand several weeks in a warm room and at the end of this time the viscosity is found to have dropped to a very low point, too low even for most purposes. I then add a slight amount of heavy viscosity pyroxylin which brings the solution viscosity up to a suitable working point where it stays indefinitely, there being no further action of the sodium acetate. To the solution containing a very high percentage of pyroxylin I now add suitable gums, oils and colors to impart extra adhesiveness, flexibility and shade as desired. Thus, after the viscosity has been reduced to a minimum and brought back to a suitable point, a lacquer can then be prepared by making a mixture containing 56% of this base solution, 9% of castor oil and 35% of a 50% gum solution in suitable solvents. This gum may be dammar, shellac or any of the other common gums used in lacquers. Dammar may first be dissolved in a mixture of toluene and benzene. Shellac may be used in the form of its solution in alcohol. Instead of castor oil, various other

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vegetable oils, such as blown cotton-seed oil, may be added to impart flexibility to the coating.

In a similar way a colored enamel can be made from the original base solution by the addition of pigments ground in oil.

II. Instead of preparing the base solution of high percentage pyroxylin and correct viscosity in two steps, I may prepare it in one step by mixing all the pyroxylin with the solvent at the start, adding about 2%, based on the weight of pyroxylin, of sodium acetate, and allowing to stand, until the reduction in viscosity has progressed to the desired extent. The amount of pyroxylin added in this alternative procedure may be such, for example, that the resulting mixture will contain from about 30 to 40% of pyroxylin. After adding the sodium acetate the mixture is preferably allowed to stand at room temperature for about three weeks. Where less than 2% of sodium acetate is used, a longer time will be required.

By following the procedure set forth in the above examples a 25 to 40% pyroxylin solution may be obtained having a viscosity below 25,000 centipoises, as determined in the Stormer viscosimeter, at 28° C., 25,000 centipoises being practically the upper limit for any commercial solution which is to be used for coating without thinning. A centipoise is a c. g. s. unit of viscosity, water being about 1 centipoise at 20.2° C. Such solutions will, as a rule, be considerably diluted with solvents before being used in spraying or brushing surfaces to be coated.

In place of sodium acetate various other substances may be used as viscosity-reducers, either singly or two or more together. The alkali-metal formates and acetates are especially useful, and the alkaline earth metal salts, as well as the cadmium, cobalt, and zinc salts, of these same acids have a marked effect on the viscosity of pyroxylin solutions. In general, of the salts of organic acids, the water-soluble salts of the lower monobasic aliphatic acids appear to act as the best viscosity-reducers. Salts of some inorganic acids also exhibit this property, as for example the alkali-metal borates, iodides, sulphocyanates, etc.

The pyroxylin solutions coming within the purview of my invention are, of course, not confined to the particular solvent mixture given in the above examples. Thus instead of amyl acetate and amyl alcohol, I may use butyl acetate and butyl alcohol, respectively; and in place of toluene, the other benzenoid hydrocarbons such as benzene and xylene may be used. In fact any of the well-known solvent mixtures may be substituted for the one mentioned in the above examples without departing from my invention, said mixtures usually comprising a diluent such as benzene.

The maximum pyroxylin content of pyroxylin solutions which have heretofore been of practical use for coating purposes, has been about 15%, whereas the solutions made according to my invention will contain as a rule, if undiluted, more than 20% of pyroxylin, and in many cases between 25 and 40%. The above figures of 15% and 20% have particular reference to pyroxylin which has been dissolved in a mixture of solvents instead of in a single solvent. Such solutions may, of course, be diluted with solvents for spraying or brushing purposes.

The new lacquer is differentiated from cellulose nitrate lacquers heretofore known in that it contains at least 25% and sometimes from 50 to 150% more cellulose nitrate at a given viscosity than does a corresponding lacquer of the same viscosity and having the maximum content of cellulose nitrate which has not been subject to the above subscribed treatment with sodium acetate or a similarly functioning agent.

My new lacquer may be differentiated from prior lacquers by stating that the viscosity-characteristic of the nitrocellulose in the new lacquer is substantially lower than that of the nitro-cellulose contained in the lacquers heretofore known. This distinctive feature of the new lacquer makes it possible to identify the same irrespective of the extent to which the new lacquer is modified or thinned by the addition of gums, volatile solvents or diluents, etc. The above-mentioned viscosity-characteristic of the pyroxylin component of the new lacquer may advantageously be defined in terms of the viscosity that it imparts to some convenient solution taken as a standard when measured by a standard method. I have found it desirable to express this inherent viscosity-characteristic in terms of the viscosity possessed by a 16 ounce ethyl acetate solution of the reduced viscosity nitrocellulose when measured by the Stormer viscometer, at 28° C. Thus, a 25% pyroxlin solution having the solvent composition set forth in Example I above, and having a viscosity of 25,000 centipoises, as determined in the Stormer viscometer at 28° C., using a 500 g. weight, contains nitrocellulose which, when dissolved in toto in pure ethyl acetate (over 99.5%) to form a 16 oz. solution, imparts to said ethyl acetate solution a viscosity of about 1200 centipoises when tested in said viscometer at 28° C. In the preferred embodiment the lacquers and base solutions constituting my invention are consequently clearly differentiated from the lacquers of the prior art by containing, for their pyroxylin content, nitrocellulose whose inherent viscosity-characteristic is such that when said nitro cellulose is dissolved in pure ethyl acetate to form a 16 oz. solution, said solution possesses a viscosity of less than 1200 centipoises when

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tested in the Stormer viscometer at 28° C. (using a 500 g. weight), and generally the said lacquers and solutions are distinguished over the prior art by containing a nitrocellulose whose inherent viscosity characteristic is such that at above 20% concentration in a mixed solvent of the character described in Example I, it will provide a solution below 25,000 centipoises in viscosity.

I use the expression (1) "16 oz. solution" and (2) "16 oz. ethyl acetate solution" in the sense customary in the art of pyroxylin solutions, that is, to mean (1) 16 ounces of nitrocellulose dissolved in 1 gallon of solvent, and (2) 16 ounces of nitrocellulose dissolved in 1 gallon of ethyl acetate, respectively, at ordinary room temperature (22° C.).

When the new solutions hereinbefore described are used to coat various kinds of surfaces, particularly rigid metal or wood surfaces, to provide films thereon, either by spraying, brushing or dipping, the resulting films will be hard, durable, lustrous, transparent, tough, and continuous, and will adhere to the underlying surface. These films may be made of proper and sufficient thickness by the application of two or three coats, whereas in former practice where high viscosity nitrocellulose was used, a much larger number of coats had to be applied to obtain a film of sufficient thickness. My new films are particularly characterized by their toughness, i. e., the absence of any brittleness, this result being achieved by the admixture of the ingredients of the lacquer or enamel, with nitrocellulose, whose viscosity has been reduced by means of sodium acetate, or its equivalent in function, whereby the nitrogen content is not seriously reduced and correspondingly the resulting solubility of the nitrocellulose and toughness of the film remains substantially unimpaired. The use of the sodium acetate, which has an alkaline reaction, and the absence of acidic products in the low viscosity solutions or lacquers, permits of the addition of basic pigments without liability of incurring undesirable reactions.

It will, therefore, be apparent that I have provided lacquers and enamels containing a much higher proportion of nitrocellulose for a given viscosity than was hitherto possible, without in any way impairing the aforesaid characteristics of the film to be prepared, while at the same time making possible the easy application of these lacquers and enamels upon surfaces to be coated. As a result, films of the aforesaid excellent characteristics may be prepared, by the application of only two or three coats of my new lacquers or enamels, whereas in the old art it was necessary to put on many more coats in order to build up a film of proper and suitable thickness, this latter difficulty having been due to the necessary low nitrocellulose content of the prior art solutions at a working viscosity.

As many apparently widely different embodiments of this invention may be made without departing from the spirit thereof, it is to be understood that I do not limit myself to the foregoing examples, except as indicated in the appended claims.

I claim:

1. A pyroxylin coating composition comprising nitrocellulose, a softener therefor, and a volatile nitrocellulose-solvent, the viscosity characteristic of the nitrocellulose, expressed as the viscosity of a 16 oz. solution thereof in C. P. ethyl acetate, being less than 1200 centipoises when measured by the Stormer viscometer at 28° C.

2. A pyroxylin coating composition comprising nitrocellulose, a softener therefor, a gum, and a volatile solvent for the three first mentioned ingredients, said nitrocellulose, when 16 ounces thereof is dissolved in 1 gallon of pure ethyl acetate, yielding a 16 oz. solution whose viscosity is less than 1200 centipoises when measured by the Stormer viscometer at 28° C.

3. A pyroxylin coating composition comprising nitrocellulose, a volatile nitrocellulose-solvent, a softener for the nitrocellulose, a gum, and a pigment, said nitrocellulose, when 16 ounces thereof is dissolved in 1 gallon of pure ethyl acetate, yielding a 16 oz. solution whose viscosity is less than 1200 centipoises when measured by the Stormer viscometer at 28° C.

4. A coating composition comprising cellulose nitrate having an inherent viscosity characteristic such that at 25% concentration in a mixed solvent of the composition hereinbefore described it will provide a solution below 25000 centipoises in viscosity, and comprising also a resin and a solvent.

5. A composition comprising cellulose nitrate having a viscosity, as determined upon a 16 oz. solution of ethyl acetate with the Stormer viscometer at 28° C., of less than 1200 centipoises, and comprising also a resin and a solvent.

6. A coating composition comprising cellulose nitrate having an inherent viscosity characteristic such that at 25% concentration in a mixed solvent of the composition hereinbefore described it will provide a solution below 25000 centipoises in viscosity, and comprising also a resin, an oil, and a solvent.

7. A composition comprising cellulose nitrate having a viscosity, as determined upon a 16 oz. solution of ethyl acetate with the Stormer viscometer at 28° C., of less than 1200 centipoises, and comprising also a resin, and solvents to bring the viscosity of the composition below 25000 centipoises.

8. An article covered with a hard, dura-

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ble, tough, and adhesive film formed from a composition comprising a cellulose nitrate having an inherent viscosity characteristic such that at 25% concentration in a mixed solvent of the composition hereinbefore described it will provide a solution below 25000 centipoises in viscosity, and comprising also a resin.

9. A composition comprising cellulose nitrate having a viscosity, as determined upon a 16 oz. solution of ethyl acetate with the Stormer viscometer at 28° C., of less than 1200 centipoises, and comprising also a solvent and a resin, said composition being adapted upon drying of not over three coats to form a hard, durable, tough, and adhesive film.

10. A composition comprising cellulose nitrate having a viscosity, as determined upon a 16 oz. solution of ethyl acetate with the Stormer viscometer at 28° C., of less than 1200 centipoises, and comprising also a solvent, a resin, and a basic pigment, said composition being non-acidic whereby no reaction occurs with said pigment, and said composition being adapted upon drying of not over three coats, to form a hard, durable, tough, and adhesive film.

11. An article covered with a hard, durable, tough, and adhesive film formed from a composition comprising a cellulose nitrate having a viscosity, as determined upon a 16 oz. solution of ethyl acetate with the Stormer viscometer at 28° C., of less than 1200 centipoises, and comprising also a resin and a solvent.

12. An article covered with a hard, durable, tough, and adhesive film formed from a composition comprising a cellulose nitrate having a viscosity, as determined upon a 16 oz. solution of ethyl acetate with the Stormer viscometer at 28° C., of less than 1200 centipoises, and comprising also a resin, an oil, and a solvent.

13. A composition comprising cellulose nitrate having an inherent viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinbefore described it will provide a solution below 25000 centipoises in viscosity, and comprising also a resin and a solvent.

14. A composition comprising cellulose nitrate having an inherent viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinbefore described it will provide a solution below 25000 centipoises in viscosity and comprising also a resin and solvents to bring the viscosity of the total composition below 25000 centipoises.

15. An article covered with a hard, durable, tough, non-shrinking and adhesive film formed from a composition comprising a cellulose nitrate having a viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinbefore described it will provide a solution below 25000 centipoises in viscosity, and comprising also a resin.

16. An article coated with a hard, durable, tough, and adhesive film formed from a composition containing a resin, a softener, and a cellulose nitrate having a low viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinfore described it is capable of producing a solution below 25000 centipoises in viscosity.

17. A rigid article coated with a hard, durable, tough, and adhesive colored enamel formed from a composition containing a resin and a cellulose nitrate having an inherent viscosity characteristic such that at 25% concentration in a mixed solvent of the composition described in Example I the latter will have a viscosity below 25000 centipoises.

In testimony whereof, I affix my signature.

EDMUND M. FLAHERTY.

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DISCLAIMER

Re. No. 16,803.—*Edmund M. Flaherty*, Parlin, N. J. LOW-VISCOSITY LACQUER AND FILM PRODUCED THEREFROM. Patent dated November 29, 1927. Disclaimer filed May 26, 1932, by the assignee, *E. I. du Pont de Nemours & Company.*

Hereby enters this disclaimer to that part of said specification and claims which is in the following words: to wit: "and generally the said lacquers and solutions are distinguished over the prior art by containing a nitrocellulose whose inherent viscosity characteristic is such that at above 20% concentration in a mixed solvent of the character described in Example I, it will provide a solution below 25,000 centipoises in viscosity" (P. 3, 11.2-9.)

"13. A composition comprising cellulose nitrate having an inherent viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinbefore described it will provide a solution below 25,000 centipoises in viscosity, and comprising also a resin and a solvent.

"14. A composition comprising cellulose nitrate having an inherent viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinbefore described it will provide a solution below 25,000 centipoises in viscosity and comprising also a resin and solvent to bring the viscosity of the total composition below 25,000 centipoises.

"15. An article covered with a hard, durable, tough, nonshrinking, and adhesive film formed from a composition comprising a cellulose nitrate having a viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinbefore described it will provide a solution below 25,000 centipoises in viscosity, and comprising also a resin.

"16. An article coated with a hard, durable, tough, and adhesive film formed from a composition containing a resin, a softener, and a cellulose nitrate, having a low viscosity characteristic such that at above 20% concentration in mixed solvent of the composition hereinbefore described it is capable of producing a solution below 25,000 centipoises in viscosity."

[*Official Gazette June 14, 1932.*]

Defendant's Exhibit (DP) No. 200

February 24, 1922

Mr. G. R. Downs,

E. I. Du Pont De Nemours & Co.,
Parlin, N. J.

Dear Mr. Downs:

We are starting some rather extensive experiments on automobile finishes at our laboratory. During my recent visit at your plant, you showed me some experimental automobile finishes which you have not yet perfected to your entire satisfaction. However, since we are putting out a number of panels, representing the finishes used in our different plants, we would like very much to make an exposure test on some panels prepared with your finishes at the same time.

We are very much interested in this work and assure you that we will not allow any unsatisfactory results, due to the finishes still being in an experimental stage, prejudice the possible use of your material in a more highly developed condition.

These panels of course, are in addition to the panels in black which you are preparing for us on terne plates, galvanized iron, etc., as a substitute for the black enamel on the Delco-Light fuel tank.

We are very much interested in this work and would like to know how soon we may have the pleasure of having you visit us at our plant.

Very truly yours,

....

Control Chemist.

HCMougey—T

Defendant's Exhibit (DP) No. 201

ADDRESS ALL CORRESPONDENCE TO THE COMPANY (SALES DEPARTMENT) AT PARLIN, N. J.

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY

CHEMICAL PRODUCTS DIVISION
PARLIN NEW JERSEY

March 14, 1922.

General Motors Research Corp.,
Dayton, Ohio.

Gentlemen: **Attention - Mr. H. C. Mougey**

We acknowledge receipt of your telegram of March 10th and are arranging to have Mr. R. C. Williams, our chemist in charge of demonstration work on automobile finishes and Mr. E. M. Flaherty, Assistant Director of Sales, call on you at Dayton next Monday. These men will be prepared to spend several days with you and we are sending ahead sufficient material for any reasonable number of experiments. A further supply can, of course, be obtained from Parlin at a notice.

The plates are being finished today and will be shipped to you by express tomorrow. These should be in Dayton at the time our men arrive next Monday, and they ~~should~~ be glad to discuss them with you at that time.

Very truly yours,

J. [illegible] Moosmann, Director of Sales,

By: E. M. Flaherty

/eh

Defendant's Exhibit (DP) No. 202

March 22, 1922

From: Commmittee Appointed to Study Enameling and Varnish Drying Practices.

To: Car Division Managers,
Mr. L. R. Beardslee, Secretary.

Subject: Minutes of Second Meeting of the Committee Appointed to Study Enameling and Varnish Drying Practices.

The Enameling and Varnish Drying Committee held its second meeting in Detroit, Tuesday, March 21. With the exception of Mr. MacQuaid of the Chevrolet organization, the full committee was on hand.

To date, we have cost-accounted and processed each particular finishing job in every one of our car plants. Each car plant has prepared, by production methods, panels to be exposed in four different parts of the United States: Fort Worth, Texas; Tarrytown, N. Y.; Detroit, Michigan; and Dayton, Ohio. These panels will be subjected to exposure tests to determine durability to weather.

Mr. Bergland has made considerable progress in comparing the economic side of the various heating methods utilized in the various car plants. This work will proceed quite expeditiously henceforth. This will give us different methods of heating, costs, the temperatures required, the amount of air utilized, time, heat losses and all data that has to do with the relative costs of the various methods.

The work as planned by the committee will now be largely along the lines of laboratory work, to determine the theoretical principles that underlie the entire finishing process.

We will proceed with all expedition in exploiting the value of the two new materials that have come to our attention:

(1) The Westinghouse japans, in which the present volatile thinners are displaced completely by similar volatile thinners of the non-inflammable type. This type of material would do away with all fire hazard and would probably save thirty to forty per cent of the heat required, due to the fact that large amounts of air now have to be heated in order to keep a mixture in the ovens sufficiently lean so as not to be explosive in nature.

(2) Material proposed by the du Pont Company. Their chemist is now at the G. M. R. C. Laboratory, working in conjunction with our organization in determining the value of this product. Briefly: it is a nitro-cellulose type of lacquer or dope, carrying large amounts of total solids. A thinner can be designed for volatility, so that it will approximate the volatilities of the thinners now in use. To date, the only way that this material has been applied is by means of an airbrush. This material is somewhat similar to the finish put upon wooden and metal articles, resembling solid celluloid. The utilization of such a material will do away almost entirely with the necessity of heat, using possibly only a few degrees above room temperature to regulate humidity.

The outstanding difficulties of the process at the present moment are whether the material will stick to the surface and not peel off and whether sufficiently high lusters can be obtained to withstand car plant inspection. Other details seem to be capable of satisfactory solution.

These two methods will be pushed with all celerity; for they have great bearing upon the entire investigation.

The Committee requests the following data, arranged in order of importance:

(1) The amount of air, time and temperature, effect of fumes, etc. in enameling.

(2) The comparison of the different types of heat and their effect upon appearance and durability. The cost will be obtained in actual production from Mr. Bergland's figures.

(3) Is it possible to dry finishing varnish at higher temperatures than actually present? If not, why not?

(4) How clean metal?

(5) How check durability by laboratory tests?

(6) What does change in undercoats have to do with durability?

(7) Prepare microphotographs of enamels subjected to different types of heat.

(8) Flow coating versus brushing, and its effects upon gloss finish.

—3—

We consider that this committee is making real progress. From now on, the results obtained will begin to have real value. For instance, we are accumulating data like the following: every square foot of metal requires 7.3 cu. ft. of air during the evaporation of the solvents to prevent the forming of explosive mixture; after evaporation of the solvent, only one-half cubic foot of air per square foot of mixture is required to complete the oxidation portion of the process. Exact data of this kind is essential in securing the fundamentals that underlie the entire process. When we thoroughly know these fundamentals, we can begin to make plans that will save money.

Respectfully submitted,

F. O. Clements
Chairman

FOC—G

Defendant's Exhibit (DP) No. 203

August 22, 1922.

Murphy Varnish & Co.,
224 McWhorter St.,
Newark, N. J.

Gentlemen:

Our laboratory is doing considerable work on paint, varnish and enamel finishes as applied to General Motors cars. We find that the standard paint finishes in which color is used are not as durable as we believe they should be. We do not think that this is a criticism which particularly applies to our own cars, since examination of the automobiles finished by other companies show that, except in the cases of those finished with black baking enamel, the durability of practically all is less than we believe it should be.

Our tests indicate that the weak links in the chain are the coats of color varnish and rubbing varnish. These materials if not protected by finishing varnish will stand exposure on our test roof about a week to a month. We believe that one of the principle reasons for the failure of finishes on automobiles is due to the fact that the finishing varnish is injured or removed in spots by washing or by other methods, exposing either a very thin film of finishing varnish over the rubbing varnish or actually exposing the rubbing varnish. In order to meet this condition, we believe it is necessary to have a color varnish and rubbing varnish which will more nearly approach a finishing varnish in durability so that after the finishing varnish is removed by wearing, the exposed color varnish and rubbing varnish will still stand up in service.

We realize that the automotive industry has demanded quick drying in the color varnish and rubbing varnish, however, at many of our plants, we are prepared to dry the color varnish and rubbing varnish by means of forced heat. At present, using a material of low durability which seems to be standard in the automotive industry, we do not allow

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very much time for color varnish and rubbing varnish, but if a big enough difference in durability could be obtained, we believe that this drying time would be increased.

August 22, 1922.

Does your company make any material which will enable us to finish automobiles and obtain a very much more durable finish than is now customary practice? If so will you please send us a quart each of color varnish and rubbing varnish, which you would recommend, together with a bill for same?

Very truly yours,

....

Control Chemist.

HCMougey-T

Duplicate letters sent to firms: Valentine, Willey, Murphy,
Acme White Lead Works, and Ditzler.

Defendant's Exhibit (DP) No. 204

LETTERHEAD OF
PRATT & LAMBERT INC.
73-97 Tonawanda Street
Buffalo, N. Y.

September 27, 1922

The General Motors Corp.,
Research Dept.,
Dayton, O.

(Attention Mr. F. O. Clemens)

Gentlemen:

After the interview which you were kind enough to grant our representative, Mr. L. P. Gilligan, we received a letter in detail from him, outlining the steps your department is going to take in solving and overcoming the various difficulties experienced in the finishing of automobiles.

We have had considerable experience in this respect and maintain a Research Department at present, which is devoting a great portion of its time to this problem, and within the past year or two, we believe have accomplished some very good results.

Only a few days ago, we received the steel panels sent us and will immediately finish panels in three shades with such materials that we recommend, which in our estimation, help in the building up of an automobile finish that will be noted for its extreme durability.

Panels will be ready for sending to you within the next ten days or two weeks and as soon as they are sent you in addition to liquid samples of the materials for you to make parallel tests, we will write you more fully.

Very truly yours,

PRATT & LAMBERT INC.
J. C. ROTH
Sales Department

JCR:LB

Defendant's Exhibit (DP) No. 205

November 7,1922.

Pratt & Lambert, Inc.,
Buffalo, New York.

Attention Mr. J. C. Roth, Sales Dept.

Gentlemen:

A short time ago you wrote to us concerning automobile finishes, and mentioned the fact that your Research Department has been doing some good work toward improving the durability of these finishes.

You also promised to send us some panels and samples showing some of the results you had obtained, since we also are keenly interested in these results as well as the entire problem of automobile finishes, we sincerely trust that you will continue to bear us in mind when the samples are ready to be submitted.

Yours very truly,

H. C. Mougey

Control Chemist.

By

[illegible]

Defendant's Exhibit (DP) No. 206

February 23, 1923

Mr. L. V. Pulsifer,
Valentine & Company,
456 Fourth Ave.,
New York, N. Y.

Dear Mr. Pulsifer:—

When you were here this week we discussed the matter of your preparing for us test panels showing the most durable finish which you can possibly prepare on a schedule taking the same number of coats and the same number of days as the present Cadillac schedule.

We discussed sending you samples of the Cadillac material to use as standards for comparison. We believe that it would be very much better if we could arrange to get some tests on cars made at the same time the panels are finished. For this reason we suggest that instead of finishing these panels, you send us your schedule for finishing a Cadillac car, using your materials and using approximately the same number of coats as the Cadillac Company now use, and taking no longer to completely finish the car than the Cadillac Company now take. Also, please send us the experimental test panels which you prepared about a year ago.

On receipt of this material we will try to arrange with the Cadillac Company to get a few cars finished with your material on your schedule.

Yours very truly,

H. C. Mougey,
Control Chemist.

M:B

Defendant's Exhibit (DP) No. 207

#2967 Grand Boulevard,
Detroit, Mich. Oct. 2, 1923

Mr. H. C. Mougey, Control Chemist,
General Motors Research. Corp.,
Dayton, Ohio.

My dear Mougey:—

I was informed to-day by a representative of the Ault and Weiborg Company that they had taken at order at Olds for about 200 gallons of what is claimed to be "color enamel".

I was told that the colors were maroon, blue and gray and in addition to these colors, a primer, putty and surfacer was to be used. The baking temperature of the base coats was said to be about 300 deg. F. while the colors coats were to be baked at 225 to 250 deg. F. Upon questioning the salesman—over the phone—he said that these temperatures might have to be about 210 or 225.

I asked him to furnish me with samples of the very best color materials they made and he rather reluctantly promised to send me some. When these arrive I will shoot them on to you and you can put them through your "mill". I believe, however, that it would be a good plan for you to get in touch with their factory at Cincinnati and get after this material.

I have seen some of their maroon "color enamel" used on Buick sport model cowl lights and it was baked at about 250 deg. F. for 1½ hours. After some service many of these lights turn black whether due to the heat from the lights or to the material I cannot say.

It seems to me that when any of those paint companies have something good they should be only to glad to have you people pass on it. If it is good, they won't have to advertise it, we will attend to that for them.

Very truly yours,

R. S. Kavanaugh

Defendant's Exhibit (DP) No. 208

November 19, 1923.

J. L. Armitage Co.,
Newark, N.J.

Gentlemen:-

As you know, our laboratory is very much interested in the possibility of obtaining more durable finishes for automobiles. We have heard that your Company has developed color enamels which may be used in place of the regular color and rubbing varnish and may either be used with or without finishing varnish over them, baking the color enamels at fairly high temperatures for comparatively short times.

We are very much interested in this development and would like an opportunity to test this material. Will you please send us pint samples of several of these enamels with instructions for their use? Please send me a bill for this material and we will cover it with an order.

Yours very truly,

H. C. Mougey.
Control Chemist.

M:B.

Defendant's Exhibit (DP) No. 209

September 12, 1924.

The Tokiol Paint & Varnish Company,
Tackawanna & Womrath Sts.,
Philadelphia, Pa.

Gentlemen:—

In "Motor Vehicle Monthly", September, 1924, we notice an advertisement for permanent high gloss quick drying varnish and in the same magazine there is an article by one of the commercial refinishers claiming that your finishing varnish dries hard in two hours and is durable on exposure.

We are very much interested in material that will do what is claimed for your material and we would like very much to receive samples.

Yours very truly,

H. C. Mougey,
Control Chemist.

M:B

EXCERPT FROM THE MONTHLY REPORT OF THE CELLULOSE PRODUCTS DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR APRIL 1922, DATED MAY 15, 1922.

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PROMOTION WORK

The most important promotion work was the further development of pyroxylin enamels for new automobiles. The General Motors Research men with whom we are working had asked us to concentrate first on the problem of adhesion. This problem was solved to their complete satisfaction when we demonstrated that on a freshly sand-blasted surface excellent adhesion is obtained when our automobile enamels are sprayed on directly without any intermediate cost.

Because of the progress made in this respect the General Motors people wished to start collecting data on the durability of our materials at once. At their request we finished the bodies of three new Buicks at the Flint Plant. They are to go on service cars used around the factory and the wearing qualities of the enamel will be carefully observed.

We still have before us the problem of final finishing. They practically demand a flow coat because this is not only the cheapest method of application but it gives a new look to a car not possible, apparently with any method of spraying. But flow coating as they practice it with paints and varnishes brings up a serious fume question with enamels and we shall exhaust every other possibility before recommending it. Our work at Flint and Dayton in April raised a number of questions which will be worked on in the Parlin laboratory before another visit is made to Dayton.

Defendants' Trial Ex. No. ———

Several demonstrations of our refinishing process for old cars were made at Parlin during April for painters who came here at their own expense. Only two outside demonstrations were made because the General Motors work is taking all of the time of the men available. An apparent fault in our process developed on several cars refinished recently and was the subject of complaint from one customer. The Silex in our intermediate coat works thru and not only roughens the top surface but in some cases actually shows white spots in it. This difficulty should be worked out before we exploit the process any further.

A few sales, mostly trial orders, were made of our new dip white enamel. A demonstration for one of the largest buyers will be made at Parlin within a few days. We have great confidence in this enamel and are urging our salesmen to push it.

Defendant's Exhibit (DP) No. 211

PAINT AND ENAMEL COMMITTEE:

Minutes of Meeting held in Mr. Bergland's office, General Motors Building, Detroit, Thursday, October 5, 1922 at 9:30 a.m.

Those present were:

Messrs.	Rogers	Oakland Motor Car Company.
	Bartholomew and Kidd	Olds Motor Works.
	Jamieson,	Chevrolet Motor Company
	Flaherty,	duPont Company
	Wechler,	Buick Motor Company
	Priebe, Widman and)	
	Tumms, of)	Cadillac Motor Car Company
	Kavanaugh,	of Mr. Bergland's office.
	Philips,	of Mr. Barton's office.
	Clements and Mougey,	of the Dayton Laboratory.

A preliminary study was made of the various car unit finishes, which have been on the roof at Dayton, subject to exposure tests, since May 20, 1922.

Mr. Flaherty, of the duPont Company, was present by invitation, to discuss the status of the duPont materials, called 'Duco' enamel.

All of our car units, with the exception of the General Motors of Canada, have finished cars with this type of material; some fifteen being on service tests and part of them having had four months of service.

Three considerations are of prime importance in discussing this new material; adhesion, durability and final finish.

It seems to be the consensus of opinion, that if the metal parts were free from rust and grease, and were sand-blasted, that no trouble would be experienced from peeling, cracking or chipping. Some of the companies are putting this material on over their customary paint primers; the only precaution necessary being to see that the primers are baked at high temperatures, so as to be hard and dry, thereby preventing the subsequent 'Duco' enamel coats from softening the under coats.

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Characteristics of Pyroxylin Enamels and their Application

(Continued from page 35)

of the companies now using "Duco" made its first deliveries by freight and subsequent deliveries to a western distributor over the road. The latter cars went through hard rains in the fall and arrived with a heavy coating of the worst gumbo mud. Such treatment in the past had always meant refinishing and the distributor wired into the factory at once that the cars would have to be returned to be done over. The factory replied with a suggestion that he wash off the mud, and the next day received a telegram from him asking that all his cars in the future be driven over the road because after washing them he said they were actually superior in appearance to those that had been coming by freight.

In factory practice we do not recommend the use of "Duco" directly on steel. It can be done when the steel is cleaned perfectly, but this cleaning is difficult and expensive, because any oil occluded in the steel will spoil the adhesion of the "Duco." For surfacing purposes we recommend the usual types of primer and roughstuffs or surfacers with the precaution, however, that they must be thoroughly oxidized before the first coat of "Duco" is applied. Unless this oxidation is complete the solvents in "Duco" will act as a paint remover and leave a soft spot down the metal. In other words, "Duco" should be considered as a substitute for color varnish, rubbing varnish, and finishing varnish, in the present schedules.

Sprayed and Air-Dried

"Duco" is applied by air spray, which is economical, rapid and very easily learned. With some colors two coats are sufficient, although three coats are necessary in the case of those colors more transparent by nature. With skillful spray work the final coat will have a flat but even surface, and we are finding a number of manufacturers who feel that this type finish is likely to become very popular in the future and are

one department and bodies at another time or in another department. It has been very difficult to get the hoods and the bodies sufficiently close in color if any heat was used in drying the color varnish, and if heat were not used the painting of these cars took so long that production was seriously curtailed. "Duco" when dried by air or with mild heat does not change at all in shade, and there is no difficulty at all in matching hoods and bodies even though they may have been finished at different times.

By permission of the Oakland company I shall now outline methods and cost figures this company has worked out in its use of "Duco." All open models of the 1924 Oakland are finished in "Duco," and practically all closed models manufactured since early in December.

Oakland Finishing Method

At the Oakland factory a priming coat of oxide metal primer has been used with either air or oven drying. In the oven drying a temperature of 250 degrees Fahrenheit for 80 minutes is used, and if the ovens are not used, 24 hours in warm room temperature was the practice. Oven drying was finally standardized on both for the saving in time and because it was found that superior durability resulted.

After the priming coat spot glazing is done in the usual manner, while the bodies are still warm, and sand surfacer immediately applied. One baking coat then at 250 degrees Fahrenheit for 80 minutes thoroughly oxidizes both the glazing and the surfacer.

The next operation is a wet sanding of the surfacing coat, following which, after rubbing dry with cloth, the first coat of "Duco" is applied by air spray at 40 pounds pressure. Thirty minutes at 125 degrees Fahrenheit is allowed for drying this coat, and after 15 additional minutes for cooling, a second coat is applied in a similar manner. This second coat, when it is to be the final coat, is allowed to dry overnight in a room with an air temperature between 75 and 80 degrees Fahrenheit. At this point the finish has the wavy or pebbly appearance characteristic of spray work, although the more skillful opera-

S. A. E. Summer Meeting

The technical program of the summer meeting of the Society of Automotive Engineers at Spring Lake, N. J., June 24th-27th, consisted of sessions on riding quality, oil dilution and contamination, new transmission systems, and air cleaners.

Shock absorbers, tires, spring design and instruments which record the riding quality of a car were the subjects discussed at the session on riding quality. At the session on oil dilution and contamination the causes and effects of dilution and contamination were set forth and Ralph L. Skinner, inventor of the oil rectifier adopted by the Rickenbacker Motor Co., Detroit, presented the history of the development of that device. The possibility of improving the sliding-gear transmission and the possibility of dispensing with transmission gears entirely were subjects of papers at the session on new transmission systems. At this session an unconventional universal-speed transmission and an automatic-shift gear transmission also were described and demonstrated. Air cleaners were treated from different viewpoints and methods of testing them were described at the session on those contrivances.

A meeting of the Standards Committee, at which recommendations relating to automobile chassis and airplanes were considered, and the semi-annual business meeting of the society, which was addressed by H. M. Crane, president of the society, were held. Outdoor sports occupied a prominent position on the general program.

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been reduced to 5.715 hours with the "Duco" system. The cost of materials was $2.33 per body, and it has been reduced to $2.26, using "Duco."

These are very important savings to a factory in large production, and it should be remembered that with them is produced a finish that in durability is decidedly superior than its more expensive predecessor. The saving in floor space resulting from the increased speed in which "Duco" can be applied is also an important feature at Oakland. It took over 101,000 square feet of

(2- Minutes of Meeting held in Mr. Bergland's office)

Quite a number of the little troubles that have arisen in connection with this new material, were discussed at length and much good resulted therefrom.

We know nothing of the durability of the 'Duco' enamel, due to the fact that this is a modification of the Viscolac and no exposure tests have been made, so far. The 'Duco' enamel covers better, evaporates somewhat slower, and can be handled to better advantage in a number of particulars. It is very much more brittle than the Viscolac enamels which we have tested.

Mr. Weckler, and the boys at the Buick, have worked out a wax type of finish that seems to give a very high gloss and overcomes the difficulties that have been experienced heretofore. We propose patenting this special wax finish.

In order to push our program ahead with rapidity, the following action was taken by the committee:

(1) The duPont Company is to furnish a man who will stay in the Detroit district, so as to be available wherever needed;

(2) Mr. Barton, of Mr. Bergland's office, is also to furnish a man, representing the General Motors Corporation, who will work with the various plants in processing the application of the 'Duco' enamels and studying both the time required and the cost, along with the processing;

(3) The duPont Company's man will be able to interpret back to his organization, at Parlin, New Jersey, any changes that are necessary to make the materials still more satisfactory;

(4) Mr. Clements, of the Dayton Laboratory, is to see Mr. Pierre duPont, relative to an option on material for a reasonable length of time. This was deemed desirable and, at the same time, reasonable, due to the fact that we have put a lot of time upon this finish and have helped the duPont Company to work out methods of application. It seems to us that we should

(3-Minutes of Meeting held in Mr. Bergland's office)

have some rights that would prevent others from capitalising on our research and adopting the material prior to ourselves.

(5) Each of the car units agrees to put out quite a number of cars under well controlled conditions;

(6) The two men mentioned above, will keep in close touch with all conditions and, at the same time, see that definite reports are sent to the main committee, at least, once a month, giving the condition of each car put through with this new finish.

The Fisher Body Corporation folks have been invited in at most of the meetings. To date, no attention has been paid to the General Motors of Canada. It may be wise to process both of these jobs and to prepare panels for exposure on the roof.

In connection with this new finish, it seems desirable that part of the money spent on finishing, be put into the bodies themselves. This means better materials, better workmanship and a smooth body prior to the sand blasting operation.

The committee is counting on pushing this matter through to an early decision. However, we must be sure of each step and not do anything that would hazard the welfare of any of our car units.

This program, as outlined above, starts immediately.

F. O. Clements
Chairman

Defendant's Exhibit (DP) No. 212

October 16, 1922.

Mr. P. S. duPont, President,
General Motors Corporation,
224- W. 57th Street,
New York, New York.

Dear Mr. duPont:

This is to serve as a reminder of our conversation relative to the duPont enamels, called 'Duco'.

You were to discuss this matter with your brother, Irenee, to see whether we could not have some kind of an option on the use of the material, at least, until all methods of application were completed.

As I told you, this material looks very promising: but we must be certain of every step. The production of the material and its utilization, go hand in hand and I am sure that the duPont boys will admit that we have helped them very materially in getting the product ready for the market.

It behooves both organizations to see that the material is right before the production proceeds very far. For that reason, we feel, that the duPont Company should not negotiate with other companies relative to the use of this material, until a reasonable time has elapsed, permitting the assurance of high service which is necessary to the success of the finish.

To bring the matter before you with the utmost degree of clearness, I am attaching a copy of the last report of the Enamel and Varnish-Drying Committee, and trust that this can be worked out to the satisfaction of all concerned.

Yours very truly,

Director of Research.

FOC-M.

1-Encl.

Defendant's Exhibit (DP) No. 213

EXCERPTS FROM THE CELLULOSE PRODUCTS DEPARTMENT MONTHLY REPORT TO THE EXECUTIVE COMMITTEE FOR MARCH, 1923, DATED APRIL 23, 1923.

P-3

EXPERIMENTAL WORK:

The operation of the small works equipment for treating 700 pound powder charges, to be utilized in dip and furniture Viscolac has been continued, and no difficulties have been encountered.

Work on the use of pyroxylin materials for preparing automobile surfaces for refinishing before the application of Duco enamels has been continued. A number of automobiles have been finished by this method and excellent surfaces have been obtained.

P-6

PROMOTION OF NEW LINES (MANUFACTURE AND/OR SALES):

During March it was learned that Oakland has decided to use Duco, in place of color varnish, on all open cars of the new model which goes into production July 1st. Best available estimates indicate a minimum consumption of 4,000 gallons during the last half of this year. Black will be used and special efforts are being made to satisfy Oakland with a black that will be free from the tendency toward a purplish coat which is characteristic of our present product. Three modifications of the present black have been sent to the Oakland factory and one of our technical men is on the ground to follow up tests with them.

Franklin has decided to put out one Duco finished car per day and have ordered 75 gallons of their standard green in Duco to start this work. Officials of the Franklin

Company are highly pleased with Duco and express confidence in the complete replacement of color varnish with Duco within a short time.

P-7

Cadillac ordered 25 gallons of Duco during March which evidently means that they plan to put out several additional Duco finished cars.

As a result of visits to automobile plants in the Cleveland district, arrangements have been concluded for demonstrations as soon as the necessary material can be shipped. These demonstrations are scheduled for Jordan, Chandler, Cleveland, Peerless and Land Body Company (manufacturer of Lincoln bodies). In addition to these demonstrations already arranged, requests for demonstrations have been received from Reo, Lincoln, Apperson and Bay State.

Parlin and Flint Varnish & Color Works are cooperating in the development of a complete automobile finish for use with Duco. Higher grade primers, rough stuffs and finishing varnishes are needed to produce a long lived high gloss finish, and a Parlin technical man will make tests at the Flint Laboratory on their primers, rough stuffs and varnishes in connection with their use with Duco. Similar tests will also be made at Parlin.

The carload of powder base leather dope shipped to Eagle Ottawa Company, as noted in this report under "Sales", is a tangible result of our campaign among the leather manufacturers. This order was secured after tests which proved satisfactory. A carload of this material was shipped to Ashtabula Hide & Leather Company in February and they report that it is working satisfactorily. General Leather of Newark have been interested in powder dope and have one drum for trial.

Viscolac and Duco are now standard with White Furniture of High Point and they are using as a sales argument the improved finish secured with our materials.

Tests on the new cheap powder base Viscolac, where completed, have been successful and it is planned to offer it to the trade generally as soon as arrangements can be completed to manufacture in quantity.

After a satisfactory test period, the Draper Company, Hopedale, Mass., recently finished 5,000 bobbins with Viscolac. These will be put in actual service to determine whether or not the finish stands up under mill conditions. Tests have already shown that it has the necessary water and steam resisting qualities. This firm has an output of around 750,000 bobbins per week, being one of the largest in this line, and the test will be closely followed in an endeavor to secure the large business which would result from the adoption of Viscolac as a finish for these bobbins.

During March it was decided to have one man from the Parlin Office concentrate on General Electric Company business. This Company, at its nine plants, is a large consumer of lacquers and enamels, but competitors have enjoyed all but a small portion of their business. On the first visit to their Schenectady headquarters our representative demonstrated the marked superiority of Duco over a competitive black enamel in use at the Schenectady plant. It is expected to lead to this business coming to us in future. Arrangements were made for visits to the other plants in the near future.

Defendant's Exhibit (DP) No. 214

EXCERPT FROM THE MONTHLY REPORT OF THE CELLULOSE PRODUCTS DEPARTMENT TO THE EXECUTIVE COMMITTEE FOR SEPTEMBER, 1923, DATED OCTOBER 27, 1923.

—P-6—

PROMOTION OF NEW LINES (MANUFACTURE AND/OR SALES):

Duco for Automobiles

The campaign to promote the sale of Duco is now producing more tangible results. Orders from Oakland in September amounted to $45,000. Active interest in this finish is also noted from other prominent automobile makers. Our own efforts have been supplemented by remarkable free publicity in the trade journals.

It was learned that during September the Franklin Company received orders from various sections of the country for 15 cars on which customers specified Duco finish. This is ascribed to this publicity and the appearance of the Duco finished Oaklands.

Franklin, Chandler, Moon, Jordan and Cleveland are the most active companies (outside of General Motors) experimenting with Duco at present. The prospects for selling Cleveland at an early date are good. Demonstrations at Hupp and Moon were successful and both have asked for assurance that an uninterrupted supply of Duco in the required quantities is available.

The solvent situation is the fly in the ointment. This necessitates confining promotion work to those companies who have asked for demonstrations and not offering Duco to the trade in general.

Oakland is using Duco exclusively on their open models

—P-7—

and is asking Fisher Body Corp. to use it on Oakland closed bodies. Gradual improvement is noted at Oakland in the finish obtained with Duco as the workmen become more skilled in handling it. Slight modifications in the formula are also adding to the appearance of the finish and probably to its durability.

Any apprehension that may have been felt by General Motors and Parlin as to the reception by the trade and the public of the satin semi-gloss finish with Duco on the Oakland cars is dispelled by the enthusiastic reports from Oakland distributors from all over the country and the repeated urgings that Duco be used on the closed as well as the open models.

A renewal of interest in Duco is noted at both Olds and Buick. About 10 cars per day in Duco are planned by Buick in order to hold the interest of their men and to gain experience in the handling of Duco and learn more about its qualities.

Duco to match a new weathered bronze shade desired by Olds for sport models has been submitted and will probably be used in October. Olds hopes to attain the sales of 50 sport models per day in this color.

The publicity given Duco has also resulted in wide spread interest in the refinishing field. This is somewhat embarrassing as no way has yet been developed of serving this trade economically. The annual sales to even a large firm in the refinishing business are so small and the proper application of Duco involves such training even after the first demonstration that the expense of handling these accounts is prohibitive. Duco prices to the refinishers already established have been advanced nearly 50% to $5.75 per gallon.

During September a substantial order was received, for Viscolac from Fisher Body Corporation's Cleveland plant. This product is also used at the St. Louis and Detroit plants in finishing wood mouldings on closed cars.

Note:

Page 6106 is on card 56.

spoil the adhesion of the "Duco." For surfacing purposes we recommend the usual types of primer and roughstuffs or surfacers with the precaution, however, that they must be thoroughly oxidized before the first coat of "Duco" is applied. Unless this oxidation is complete the solvents in "Duco" will act as a paint remover and leave a soft spot down the metal. In other words, "Duco" should be considered as a substitute for color varnish, rubbing varnish, and finishing varnish, in the present schedules.

Sprayed and Air-Dried

"Duco" is applied by air spray, which is economical, rapid and very easily learned. With some colors two coats are sufficient, although three coats are necessary in the case of those colors more transparent by nature. With skillful spray work the final coat will have a flat but even surface, and we are finding a number of manufacturers who feel that this type finish is likely to become very popular in the future and are now putting out their show cars in it. Those requiring a greater degree of luster than this can secure it by rubbing down and polishing the last coat, and if a varnish luster is absolutely essential it may be obtained by a coat of good finishing varnish over the "Duco." This we do not recommend, however, as many of the desirable features of the "Duco" finish are then lost to the car owner, since varnish even over "Duco" will have most of its present characteristics, although it will last from two to three times as long over "Duco" as it will over color varnish.

The fact that "Duco" air-dries without changing color gives it an additional advantage for cars finished in delicate colors, such as maroons, which are thrown off shade by heat. You are all familiar with the difficulties in using maroon and similar color varnishes in those factories where it has been the practice to finish hoods at one time or in was the practice. Oven drying was finally standardized on both for the saving in time and because it was found that superior durability resulted.

After the priming coat spot glazing is done in the usual manner, while the bodies are still warm, and sand surfacer immediately applied. One baking coat then at 250 degrees Fahrenheit for 80 minutes thoroughly oxidizes both the glazing and the surfacer.

The next operation is a wet sanding of the surfacing coat, following which, after rubbing dry with cloth, the first coat of "Duco" is applied by air spray at 40 pounds pressure. Thirty minutes at 125 degrees Fahrenheit is allowed for drying this coat, and after 15 additional minutes for cooling, a second coat is applied in a similar manner. This second coat, when it is to be the final coat, is allowed to dry overnight in a room with an air temperature between 75 and 80 degrees Fahrenheit. At this point the finish has the wavy or pebbly appearance characteristic of spray work, although the more skillful operators are learning to put on this coat with a minimum amount of spray wave in it.

After the overnight drying of this coat the bodies are rubbed with sandpaper and a mixture of boiled linseed oil and gasoline. Then, without removing the oil, dry rotten stone is sprinkled on the body and the surface rubbed to the desired luster. At this point, if inspection shows any surface indentations, they are bumped out, usually without harming the "Duco" finish in any way.

Striping is now applied by standard methods using varnish-type materials, and the entire surface waxed. This waxing is done mainly to protect the stripe, as it adds very little if anything to the appearance of the "Duco."

Under the old paint schedule it required 336 hours to paint an Oakland body, while with "Duco" this time has been cut to 13½ hours. Labor time with conventional materials was 6.728 hours per body, which has been reduced to 5.715 hours with the "Duco" system. The cost of materials was $2.33 per body, and it has been reduced to $2.26, using "Duco."

These are very important savings to a factory in large production, and it should be remembered that with them is produced a finish that in durability is decidedly superior than its more expensive predecessor. The saving in floor space resulting from the increased speed in which "Duco" can be applied is also an important feature at Oakland. It took over 101,000 square feet of floor area to paint 300 bodies per day when paint and varnish were used, while with "Duco" this has been reduced to about 73,000 feet; 2,400 bodies formerly were tied up in the painting department, while now only 600 bodies are going through at one time. Oakland's experience was that about 20 per cent. of the daily production was rejected by the inspectors because of finishing trouble, but since "Duco" has been adopted this rejection figure has been reduced to 2 per cent.

There is, therefore, a saving in direct cost, a saving in investment in finished bodies, and a saving in factory space required by the finishing department when "Duco" is used in place of conventional materials. In addition, there is certainly an intangible good will rapidly built up among automobile users when they have no cause to complain on the finish of their cars. "Duco," we feel, represents a real advance in the art of finishing.

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methods of testing them were described at the session on those contrivances.

A meeting of the Standards Committee, at which recommendations relating to automobile chassis and airplanes were considered, and the semi-annual business meeting of the society, which was addressed by H. M. Crane, president of the society, were held. Outdoor sports occupied a prominent position on the general program.

Defendant's Exhibit (DP) No. 216

FLINT VARNISH AND COLOR WORKS
SALES TO BUICK AND TO FISHER BODY
AND
BUICK AND FISHER BODY PRODUCTION
1923 AND 1924

	1923	1924*
Flint Sales to Fisher	$60,402.92	$50,222.72
Fisher Production (in units)	248,368	347,902
Flint Sales to Buick	$711,510.73	$426,855.93
Buick production (open cars)	124,048	84,056
Buick production (closed cars)**	75,952	76,355
Total	200,000	160,411

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* Flint Varnish and Color Works dissolved October 31, 1924; sales are for 10 months only.

** Buick finished fenders and hoods on this production.

Source:
Flint Sales - Treasurer's Department, E. I. du Pont de Nemours & Co.

Car and Body
Production - Fisher Body Corporation and General Motors Corporation.

May, 1953.

Defendant's Exhibit (DP) No. 217

Serial No. SU-135
April 29th, 1918.

Executive Committee,

Building,

Gentlemen:

I am handing you herewith report of the Excess Plant Utilization Division on the Paint and Varnish Industry. The report appears to be very voluminous but it was thought advisable to include the completed detailed study for those who wished to read it. For those who wished the facts only the first seven pages will cover this.

Yours very truly,

R. R. M. Carpenter,
Vice President.

Serial No. SU-135
April 24th, 1918.

To:
Mr. R. R. Carpenter, Vice President
From:
Excess Plant Utilization Division
(Development Department)

THE PAINT and VARNISH INDUSTRY

This report has been prepared in response to a resolution of the Executive Committee on December 29th, 1917 authorizing the Development Department to institute a very careful survey of the condition of the mixed paint and varnish industry, in accordance with the recommendation in the report of this Department (S-716) on The Purchase of The Lowe Brothers Company.

The questions to be determined are whether the mixed paint business is one in which the du Pont Company can profitably engage, and whether the future of the industry warrants the purchase of the Lowe Brothers Company. It was also a question whether the mixed paint business holds sufficient promise to warrant further investment on the part of our Company.

It may not be amiss at this time to review briefly the steps which have led up to the present relations of our Company to the paint and varnish industry.

In previous reports of this Department on the subject of excess plant utilization it was determined that the paint and varnish business was a large and substantial industry in this country and was a large consumer of raw materials, the manufacture of which was a logical development in our plans for new lines of business.

It was recommended that the paint and varnish industry

should be accepted as a suitable extension of operations at Parlin as soon as practicable and an apparently profitable plan could be developed. As Parlin was already engaged in a profitable manufacture of spirit lacquers, the manufacture of varnish was considered a related line of activity.

The Executive Committee in their Advice of Action of August 22nd, 1916, favored the development of the paint and varnish industry, preferably by the acquisition or purchase of one or more suitable going concerns, provided that a complete study should demonstrate the fact that a satisfactory return on the investment could be secured. The general trend of the previous conclusions indicated that the varnish industry was quite profitable and the paint industry was moderately profitable.

The first step in the purchase of outside companies for purpose of excess plant utilization was the acquisition of Harrison Bros. & Company, Inc. and its related companies, Cawley Clark & Company, Beckton Chemical Company, Lithopone manufacture—an important pigment at Harrisons—was under control of the Beckton Chemical Company, of which Cawley Clark & Company, dry and pulp color manufacturers of Newark, N. J. held the minority stock interest. Part of the lithopone manufacture was conducted in their color factory at Newark. The desirability of absolute control of lithopone manufacture and evidence that the Cawley Clark color plant would be profitable and were desirable as a source for important raw material, i.e. dry colors which Harrisons did not make, brought the purchase of this company, carrying with it complete control of the Beckton Chemical Company. It was also desirable on the other hand because Cawley Clark would be large users of raw material that Harrison did make, i.e. sulphuric acid, acetic acid, alum and blane fixe.

We were enabled to assume an important position at once in the chemical and color business of the country, in fact, only one other concern, namely Sherwin-Williams, is in a similar position of being as large a pigment and color as well as a paint manufacturer.

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The various steps taken and conclusions drawn relative to the acquisition of Harrison Bros. & Company, Inc. have been correct, but certain factors now obtain which have brought certain differences in the trade to be reached not evident at that time.

At that time, however, it was realized that the chemical and acid business had made such strides since 1914 that the paint and varnish end had become the minor portion instead of the major portion. The anticipated profits for 1917 were based chiefly on the chemical manufacture and the whole purchase was such that it could be recommended without using the paint and varnish end, although it was considered to have produced a reasonable profit. It was understood at the time of purchase that we would have merely a good foundation for the development of a pigment and a paint and varnish business. As the policy had already been laid down that in general it was better to purchase a going business than to attempt to start with none, some attention was given to the business of the Bridgeport Wood Finishing Company which was offered to us. This proposition did not involve additional real estate and offered a new and original feature in the marketing of paints, varnishes and wood stains, namely "the lumber propaganda" which recently was explained in a previous report on the purchase of that concern.

The paint and varnish industry is divided very sharply into the two lines; the paint industry and the varnish industry. To-date, they have each played their own game and the present conditions to be understood must be taken up separately.

While the specific question for this study was an analysis of the mixed paint business, it has been found necessary to include the varnish business as well, in order to draw the proper conclusions.

In order to most economically market a *dealer* line of paint and varnishes it is necessary to distribute their manufacture at strategic points in the country. We have already proved this to some extent by the operation of our Chicago works, but this is only a step. To properly cover the country there should be plants for example at Boston, vicinity of New York, Philadelphia, southern Ohio, Chicago, St. Louis or Kansas City, Minneapolis, Memphis or similar southern locations and San Francisco.

There is no doubt that with our skill and experience such a campaign could be consummated if suitable plants were acquired, but there is no indication that there would sufficient profit result from operations to pay for the promotion work and maintain even a ten percent return on the investment.

Although there is now a large gross profit over mill cost and a small net profit, it does not indicate that the gross profit will remain, in fact the present selling prices seem merely sufficient to cover the expenses above mill cost with no attempt to include an adequate profit. There is some talk between a few of the larger national distributors to attempt to hold to higher prices than formerly as raw material cost recedes, but this merely holds the umbrella as it were over the small manufacturer and enables him to stay in business.

We conclude that the small or local mixer will always be an important influence and factor in the trade.

A different state of affairs obtain in the industrial line of sales. This is handled mostly by contract with the consumer or on order so the manufacturer is protected. It gives an opportunity for merit and technical skill in furnishing goods for special requirements. Also the merchandising is similar to our other goods as fabrikoid, pyroxylin lacquers, pigments and chemicals, in that it is with industrial customers. There is no detail which increases with the volume of business as in dealer business. The question of

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distribution, however, is a factor, and as concluded in the dealer portion, it is necessary to have strategically located plants.

The profits from this class of business have been satisfactory with both small and large manufacturers and with a combination as above suggested the large manufacturer will have then the advantages of the small manufacturer.

The gross margin is smaller in industrial lines but the net profit is greater. After the close of the war there will be a tremendous demand for all kinds of industrial paints and varnishes

for rejuvenating equipment of all descriptions, and while there are industrial lines that have no appreciable profit, there will be sufficient attractive lines to warrant attention.

It is concluded therefore than an expansion of the industrial line in which Harrisons already has a very satisfactory portion of its business is warranted. It should be observed, however, that Harrison does not have anything like the proper percentage of the industrial business that is most profitable. This can be accomplished by purchasing very much smaller establishments than in the dealer line. The plant, formulae and customers are much more important than a wide distribution and well known trade name.

It is also believed that an addition of one or more smaller plants at a proper price can carry later a line of dealer goods manufacture, but in the meantime data can be collected from our own operations to show the need.

We believe that our future progress in the dealer line should be so planned that a definite arrangement of Harrison and Bridgeport dealers and branch connections will result in the return within a reasonable time of the promotion and advertising expense and that expenditures on a scale greater than this are not warranted at present.

This will result in our making industrial sales the main idea and the dealer lines to be developed as they will. It is also concluded that if our present dealer business does not show a satisfactory profit over and above all expenses after we have operated it a sufficient length of time, (by the end of 1918 we should have adequate cost figures) that it be sold to the Sherwin-Williams Company. The writer has had a preliminary verbal offer to buy our business from Mr. Cottingham, President of that company.

From an inspection of the earnings of twenty-nine companies which we have had an opportunity to examine with a view to purchasing, during the last year, we conclude that the mixed paint and varnish business as far as trade sales are concerned does not offer an attractive proposition.

We have concluded that next to well located branch factories the strategical location of warehouses is the best solution of the mixed paint distribution. However, this does not permit any expansion of the industrial lines.

Being therefore of benefit only for the trade sale, it is essential that the maintenance expense be reduced by combination with our other products or we have no advantage over competitors. Accordingly we conclude that the mixed paint business should not be made the main reason for the establishment of a branch office or warehouse, but if our other lines of business can support a branch warehouse by themselves, then the paint line can be added provided it will only be required to bear a small portion of the maintenance expense.

From our experience during the past year in operating our businesses it appears that if it is found advisable to add one or two small industrial factories we should not attempt to assimilate them into the company before 1919.

Net profits on investment are shown as follows under four classes of sales; paint manufacturers with national distribution business being principally dealer trade:

Acme White Lead & Color Works	7.6%
Adams & Elting Company	8.0
Devoe & Raynolds Company	5.3
Lowe Bros.	10.4

Three typical paint manufacturers with limited area of distribution and business being part dealer trade and part industrial:

Campbell Glass & Paint Company	9.0%
W. W. Lawrence Company	10.7
New England Oil, Paint & Varnish Co.	11.0

Three principal varnish manufacturers with their business being part industrial and part dealer trade:

Glidden Varnish Company	12.4%
Boston Varnish Company	18.5
Pratt & Lambert	19.0

Three typical varnish manufacturers with their business entirely industrial or through jobbers and in limited area:

Armitage Varnish Company	23.3
National Varnish Company	21.1
Nubian Varnish Company	20.0

RECOMMENDATIONS:

I. That we do not purchase the Lowe Bros. Company.

II. That we expand our industrial paint and varnish business and if opportunity presents by the possible acquisition of one or more small companies of suitable characteristics and at a suitable price.

III. That the prospects and earnings of the dealer line of paints and varnish do not warrant further expansion of that line.

Approved By:

W. S. Carpenter, Jr.

Prepared By:

F. S. Mac Gregor

Note: Gmc 1454 appears in the lower left hand corner of each page of the document. On the sixth page 12.9 has been crossed out and 18.5 has been inserted.

Defendant's Exhibit (DP) No. 218

SERIAL NO. SU-186.
APRIL 23, 1918.

EXECUTIVE COMMITTEE;
Building.

Gentlemen:—

I hand you herewith report of Development Department on the Flint Varnish & Color Works.

Very truly yours,

R. R. M. Carpenter,

VICE PRESIDENT.

TO: MR. R. R. M. CARPENTER, VICE PRES.,
FROM: DEVELOPMENT DEPARTMENT.

SERIAL NO. SU-186.
APRIL 23, 1918.

FLINT VARNISH & COLOR WORKS.

In accordance with your resolution of April 19th authorizing the purchase of a part interest in the Flint Varnish & Color Works of Flint, Michigan at the rate of $120 per share and the Flint Varnish & Color Works of Canada at $100 per share, Mr. R. R. M. Carpenter has effected this purchase as advised in the following letter received from him from New York:—

"Mr. W. W. Mountain,
Waldorf Astoria,
New York City.

April 22, 1918.

Dear Sir:

Confirming our conversation of this afternoon it is understood that you will send to me at Wilmington 7000 shares of the common stock of the Flint Varnish & Color Works,
the price to be $120. per share
also 2000 shares of the common stock of the Flint Varnish & Color Works of Canada,
price to be $100. per share.

I understand that it is your recommendation (and in this I concur) that the remaining stock of the Flint

Varnish & Color Works of Canada be left with Mr. McLaughlin, that Mr. Wyllys is to retain 500 shares of his common stock, you are to retain 1000 shares of yours and the other 500 shares is to be delivered to Mr. Durant for account of the General Motors Corporation.

It is understood that the Preferred Stock situation will be allowed to stand for the moment or until Mr. Wyllys talks further with Mr. Durant on this subject, but I think there will be no trouble whatever in taking care of it through Mr. Wyllys.

Yours very truly,

R. R. M. Carpenter,

Vice President."

Mr. Carpenter further advises that it was thought unnecessary to make any contract covering this purchase as it was

simply a stock transaction with no other conditions.

This for your information.

Respectfully Submitted,
W. S. Carpenter, Jr.

DIRECTOR, DEVELOPMENT DEPARTMENT.

Defendant's Exhibit (DP) No. 219

April 9, 1923.

L. DU PONT, VICE-PRESIDENT.

Referring to attached, took the matter up with Mr. Sohlinger and he advised as follows:

That to the best of his knowledge and belief they are not now playing (as they indicate) with Flint enamel. Sometime ago samples were submitted and they made tests with same along the lines they do with similar materials, but Mr. Sohlinger has not been advised that the material proved out unsatisfactory. As to Flint having made several changes, this is not correct. They must have gotten this proposition mixed with some other one. You will note they state:—

> "To date they have not been able to give us enamel which when applied looks as brilliant and as satisfactory as the enamel we have been using."

Mr. Sohlinger says they do not give the Flint Company a chance to compete for their enamel business; therefore, their statements are confusing. The Flint Company can make an enamel that is satisfactory in allparticulars to the one the Cadillac Company are now using.

They further state that they are working together, hoping in the near future Flint will be able to give a product which will be satisfactory. Mr. Sohlinger regrets to advise that no cooperative work has been done along these lines as indicated.

He will promptly call on Mr. Widman, whom he knows very well, and get this matter straightened out.

The next time Mr. Sohlinger sees you, he will explain more fully the enamel proposition with the Cadillac Company.

Thanks for your kind interest in the matter.

H G
H. GRUBB, GENERAL MANAGER.

NOTE: "Received Apr 10 1923 Lammot du Pont" is stamped at top of page and "Return to Executive Committee Room 9069" is stamped in left margin. "X-1100" is written at top and "GMC 1586" is written at bottom of page. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 220

2

May 7, 1923.

MR. HUNTER GRUBB, GENERAL MANAGER:

I return herewith Mr. Sohlinger's letter to you of April 23d, enclosing list of the General Motors Divisions using Flint products.

I note that Buick Motor Company, Flint; Oakland Motor Company, Pontiac; Oldsmotor Works, Lansing and Cadillac Company, Detroit, do not use our finishing varnish, and apparently the other divisions have no use for a finishing varnish. It thus appears that we are not selling any finishing varnish to any GMC unit. There must be a reason for this. Is it because our finishing varnish is not up to the standards of our competitors? I think this should be looked into carefully.

VICE-PRESIDENT.

LduP/MD

NOTE: "Return to Executive Committee Room 9069" is stamped at bottom of page. "X-1100" and "8" (with a large check mark) are written at top of page. "GMC 1590" is written at bottom of page.

Defendant's Exhibit (DP) No. 221

Flint Varnish and Color Works

NET INCOME, BY YEARS

Years 1916 - 1924, Inclusive

Year	Flint	Chicago	Total
1916	$397 796	$	$397 796
1917	276 686		276 686
1918	151 797		151 797
1919	56 849*		56 849
1920	(65 289)	(249 219)**	(314 508)
1921	(7 295)	(416 261)	(423 556)
1922	435 127	(85 945)	349 181
1923	444 691	53 734	498 425
1924 (10 Mos.)***	196 497	7 825	204 322

( ) Denotes loss.

* In 1919 du Pont received a net amount of $133,631.62 under an operating agreement which was in effect for only that year.

** Beginning May 21, 1920.

*** Dissolved October 31, 1924.

E. I. du Pont de Nemours and Company
Treasurer's Department
April 1953

Defendant's Exhibit (DP) No. 222

DU PONT SALES OF FINISHES TO FISHER BODY
AND
FISHER BODY PRODUCTION
YEARS 1924-1927

FINISHES	Quarters	1924	1925	1926	1927
	1	$ 89 388	$ 362 043	$ 411 483	$ 599 070
	2	16 275	421 736	507 668	562 360
	3	200 698	663 865	783 498	504 614
	4	332 212	521 838	294 896	457 270
Total		$638 573	$1 969 482	$1 997 545	$2 123 314
Percentage Increase Over Previous Year			208.42%	1.42%	6.30%
AUTO BODIES PRODUCED BY FISHER (in units)		347,902	692,334	1,017,260	1,240,825
Percentage Increase Over Previous Year			99%	46.93%	21.97%

Source:

Finish Sales:

Treasurer's Department
E. I. du Pont de Nemours & Co.

Fisher Body Corporation
General Motors Corporation

April, 1953.

Defendant's Exhibit (DP) No. 223

C O P Y

GENERAL MOTORS CORPORATION

Detroit, Michigan

July 25, 1928.

E. I. duPont de Nemours & Co.,
Wilmington, Delaware.

Gentlemen:

Attention of Mr. W. Richter

We have your letter of July 10th together with check in amount of $200,136.79, which represents the discount earned on the total purchases made by all Divisions from July 1, 1927 to June 30, 1928.

We note that you prepared the volume of purchases within a few days after the termination of the contract and we are wondering if you are in a position to let us have the information at the end of each month. We have several contracts of this character and at the end of every month we make a quantity discount performance schedule which is sent to all Divisions. This keeps them pretty well informed as to just how the contract is working. If you could furnish us this data monthly, but on account of its confidential nature you would not wish to have it shown on this schedule, - we would be in a position at all times to advise our major Divisions just what the total volume of purchases is up to date, which would naturally have a great deal of bearing on the future purchases. We would be interested to have an expression from you in this connection at your convenience.

Very truly yours,

GENERAL PURCHASING COMMITTEE
Purchase Contract Investigations Section
A. J. Campau, Director

By - Charles Blake

CB:EW

Defendant's Exhibit (DP) No. 224

EXCERPT FROM MINUTES OF STANDING SUB-COMMITTEE GENERAL PURCHASING COMMITTEE

40th Meeting Held at Detroit, Michigan
On Tuesday, June 28, 1927.
At 10:00 A. M.

• • •

2. General Contracts Authorized.

(a) Duco Thinner.

No contract is authorized with United States Industrial Alcohol Company as they quoted prices materially in advance of those prevailing under Contract Brief #453.

duPont Company quoted prices, effective August 1st, on No. 3601 and 3614 thinner slightly in advance of those prevailing under Contract Brief #433, which expires January 31, 1928, provision being made in the contract for advance of prices on one month's notice.

It was agreed that if the duPont Company eliminate the provision for change in prices in 30 days notice we would agree to an amendment to the contract providing for our placing 60% of our total requirements of thinner with them.

Agreed to supplement contract by adding prices on thinner formulae Nos. 3633, 3634 and 3636. The advance in price on Nos. 3601 and 3614 are accepted because the advance in price of Ethyl Alcohol justifies these increases.

E

Defendant's Exhibit (DP) No. 225

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

PAINT DEPARTMENT

November 7, 1922.

Mr. J. L. Pratt, General Manager
Accessory Divisions,
General Motors Corporation,
224 West 57th Street,
New York, N. Y.

Dear Mr. Pratt:-

Instead of replying directly to your letter of November 1st, I have had our Railway & Industrial Sales Manager answer your letter and am forwarding to you the original. I think his offer in the fourth paragraph gives you an answer to all your questions. If you will indicate on whom our representatives should call, will you please write directly to Mr. Sheppard, Sales Manager of the Railway & Industrial Division. He is located at 3500 Grays Ferry Road, Philadelphia.

Thanking you for your attention in the matter, I am

Yours very truly,

F. S. MacGregor

fsm m

Defendant's Exhibit (DP) No. 226

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
35TH & GRAYS FERRY ROAD
PHILADELPHIA, PA

SALES DIVISION

November 6, 1922

Mr. F. S. MacGregor

HYATT ROLLER BEARING COMPANY

We return herewith Mr. J. L. Pratt's letter of November 1st. There are several comments I would like to make, but these I will forego until sometime when I can discuss same personally.

As far as DuPont paint being satisfactory and one which we can consistently recommend, please be advised that if several of us who have a following with the trade, did not feel it was right, you can bank on it not being recommended.

We have had enough experience to know the reason for some of the complaints that originated at Wawaset, in fact from Wilmington as a whole. When you consider the increase we have made this year, the number of new dealers, new agents and new jobbers, we have landed and who are ordering repeatedly, this should convince Mr. Pratt without a question, that our products are right.

We particularly want to interest Mr. Pratt in Dulite. Last week I talked with a contractor in New York City who ~~are~~ purchasing at least $35000.00 worth of paint materials in the course of a year. I sold him quite a little of Dulite and he has told me it was without a question, the best mill white finish he had ever used; that Rice's could not compare with it in any way. I am attaching herewith copy of letter which was received a few days back from the Philadelphia Paper Mfg Co. If Mr. Pratt wishes to conduct investigation, I will be glad to give him names of the industrial accounts we are selling and let him convince himself that DuPont paint and varnish products are right and that our prices and service will not only equal any other competitor, but will excel a great many.

If there is anything further I can do, will be very glad to hear from you.

R. H. SHEPPARD, SALES MANAGER
RWY & INDUSTRIAL SALES DIV

RHS/c

Defendant's Exhibit (DP) No. 227

COPY

PHILADELPHIA PAPER MFG COMPANY
Office & Mills

MANAYUNK, PHILADELPHIA, Pa.

June 30th, 1922.

E. I. DuPont de Nemours & Co.,
35th & Grays Ferry Road
Philadelphia, Penna.
Attention of Mr. R. H. Sheppard

Gentlemen:

"We beg to state that the Antoxide Paint, which we used in our machine and beater rooms will last for a period of at least five years, judging from the way they are holding out the first year.

We find this paint applies very smoothly and the shades so far have maintained their original colors, notwithstanding the conditions in our mill.

We compliment ourselves on the excellent decision we made, when we placed our order with you for these paints."

Respectfully,

PHILADELPHIA PAPER MFG COMPANY

O (Signed) B. Buchler

Note:

See first exposure next card for page 6130.

Defendant's Exhibit (DP) No. 229

EXCERPTS

EXPERIMENTAL STATION,
E. I. DUPONT DENEMOURS POWDER COMPANY,
MAY 1st, 1912.

DIAGRAM OF ORGANIZATION.

DIRECTOR.

Fin Sparre.

CHEMICAL DIVISION

Murrill, Paul I.

Pyroxylin Solvents and Artificial Leather.

Masland, W. E.- In Charge.

Metheson, H. W. - Chemist.

Stimpson, E. F. - Chemist.

Hamilton, A. F. - Laboratory Boy.

Defendant's Exhibit (DP) No. 230

EXCERPT

Wilmington, Del., June 28th, 1913.

Executive Commitee,
E. I. du Pont de Nemours Powder Co.

Gentlemen—

I beg to submit the following report covering operations of the Sales Department for the month of May 1913.

• • •

Fabrikoids:—Sales of Fabrikoid for the month of May amounted to $118,760.34 as against 99,074.19 in May 1912 and $51,775.36 in the same month 1911. This business generally falls off during the summer season, but the prospects indicate that our increase over last year will continue to be considerable. Both the Hupp and Metz automobile people have been using our Heavy Goods for upholstering for six months past, and other large automobile manufacturers are considering doing so.

• • •

Respectfully submitted,

CHAS. L. PATTERSON,
Vice President.

Defendant's Exhibit (DP) No. 231

EXCERPT

Wilmington, Del., August 2nd, 1913.

Executive Committee,
E. I. du Pont de Nemours Powder Co.

Gentlemen—

I beg to submit the following report covering operations of the Sales Department for the month of June 1913.

• • •

Fabrikoid sales in June amounted to $120,574 as compared with $79,914 in June 1912 and $57,644 in June 1911. There has been some falling off in the sale of light goods, which we believe is due principally to the season. Heavy qualities are holding up well, and sales of combined goods are ahead of last year. Our total business for the six months 1913 is larger than the total business done during the entire year 1911.

The Ford Automobile people have indicated their intention of adopting artificial leather for their cars, if the trials work out satisfactorily, and we have on hand orders at the present time, and hope to get standing orders for a large part of their business in the near future.

• • •

Respectfully submitted,

Chas. L. Patterson
VICE PRESIDENT.

Excerpt from Report of Sales Department to Executive Committee for November, 1913, dated January 2, 1914.

"Business on light weight goods has fallen off to some extent, due almost entirely we feel to a general tendency to 'hold off'. Heavy goods business shows a very large increase due to the adoption of our goods by the automobile manufacturers for upholstering. We feel that we can count on gratifying sales of heavy goods for some months to come."

Defendant's Exhibit (DP) No. 228

E. I. DU PONT DE NEMOURS AND CO.

Fabrics & Finishes Department

Fabrics Division
Central Offices, New York City
Manager - W. A. Mattlage
Asst. Manager - M. N. Nickowitz

Finishes Division

9 Other Manufacturing Departments

Newburgh Plant
Newburgh, N. Y.

Fabrikoid - Pyroxylin Coated Fabrics
- Automobile trim, bindings and welts
- Belts
- Bindings and Welts
- Bookbinding
- Brief Cases
- Card Table Covers
- Case Coverings,
- Draw Sheets for newspaper printing presses
- Footwear quarterlining, sock lining, upper materials and platform wrappers
- Furniture Upholstery
- Hassocks and Floor Pillows
- Hat Sweats
- Luggage coverings, linings and trim
- Millinery and costume trimmings
- Motion Picture Screens
- Novelties (change purses, powder puff containers, card cases, comb cases, etc.)
- Paper Machine Aprons
- Railroad car and vestibule curtains
- School Bags
- Slippers
- Sporting Goods
- Table Mats and Pads
- Tire Liners

PX Cloth - Pyroxylin impregnated cloth
- Bookbindings

Tontine - Pyroxylin impregnated cloth
- Washable window shades

Pre-Doped Fabrics - Pyroxylin coated and impregnated fabrics and tapes
- Coverings for control surfaces (rudders, ailerons, etc.,) on aircraft

Teflon Coated Fabrics
Polytetrafluoroethylene coated glass fabrics and tapes
- Electrical insulation
- Diaphragms
- Gaskets
- Press Pad Covers
- Bakery and candy manufacturing conveyor belts

Fabrilite - Vinyl plastic coated fabrics
- Automotive upholstery and trim, bindings, welts and seat covers
- Baby carriage upholstery and tops
- Belts
- Bicycle Saddles
- Bindings and welts
- Case coverings
- Folding Door and Partition Enclosures
- Footwear quarterlining, sock lining, upper stock and platform wrappers
- Furniture Upholstery
- Handbags and Pocketbooks
- Hassocks
- Hospital Sheeting
- Looseleaf book binders
- Luggage coverings, linings and trim
- Motion Picture Screens
- Novelties (change purses, powder puff containers, card cases, comb cases, etc.)
- School Bags
- Surgical Tape
- Table Pads
- Tablecloths and shelf coverings

Fabrilite - Vinyl plastic sheeting without fabric backing.
- Footwear upper stock
- Gun cases
- Handbags and Pocketbooks
- Looseleaf book binders
- Novelties (change purses, powder puff containers, card cases, comb cases, etc.)

Fairfield Plant
Fairfield, Conn.

Rubberized Fabrics
- Hospital sheeting
- Explosive powder bags
- Replacement auto decking
- Tobacco cover cloth
- Work clothing

Fairprene Synthetic Rubber Coated Fabrics -
- Diaphragms
- Gaskets
- Washers
- Packings
- Shock and insulating pads
- Seam sealants
- Curing bags
- Blankets for molded plywood
- Hospital sheeting

Fairprene Synthetic Rubber Sheet Stock (without fabric backing)
- Diaphragms
- Gaskets
- Washers
- Packings
- Shock and insulating pads
- Seam sealants
- Curings bags
- Blankets for molded plywood

Fairprene P.A.W. Tape
(Protective and Waterstop)
Neoprene Coated Fabric
- Metal seam sealant to take up unevenness and prevent corrosive galvanic action

Teal
Double layers of fabric combined with waterproof synthetic rubber cement
- Convertible automobile tops

Fairprene Industrial Cements - Synthetic rubber cements
- Cements for synthetic rubbers, cured and uncured rubber, leather, fabrics, paper, metal, wood, glass and porcelain

Rug Anchor
Combination natural and synthetic sponge rubber sheeting
- Non-slip rug underlay

Ventube
Rubberized Flexible Tubing
- Ventilation ducts in mines, tunnels, underground construction, shipholds and for cleaning tanks, manholes and boilers

Defendant's Exhibit (DP) No. 233

Excerpt from Report of Sales Department to Executive Committee, dated January 26, 1914

"We are supplying Ford Co. with approximately 3500 yds. Fabrikoid per day, on orders that could be cancelled in 24 hours, have no contract with them.

"Policy of Ford Co. is not to contract for supplies unless they cannot be otherwise secured. We are advised that we have about 65% of Ford's business.

"Ford expects to turn out at least 250,000 cars this year and we understand Fabrikoid is entirely satisfactory, and they have no intention of making any change.

"Under our present arrangement for grey goods for the automobile trade, the maximum we could be compelled to take is about 300,000 yds. before our contract could be terminated, while the minimum is about one-half of that.

"Ford could not well change from Artificial Leather under two months, and in that time he would use about 200,000 yds."

Defendant's Exhibit (DP) No. 234

EXCERPT

November 24, 1914.

Executive Committee.
From Wm. Coyne.

SALES DEPARTMENT'S REPORT FOR SEPTEMBER

• • •

DU PONT FABRIKOID COMPANY

Total Fabrikoid net sales for September were $93,127.05, as against $106,181.61 in September 1913, and $85,159.72 in September 1912. These figures represent sales after deducting all credits.

Light goods business was 2,082 yards behind last September and 189,826 yards below the to-date period.

Heavy goods show an increase of 19,186 yards for the month and 159,779 yards to date.

We have been obliged to make some changes in prices, due to competition. On September 14th we issued a new price list covering prices on some of the heavy grades and advancing sheetings 1¢ a yard. Competitors did not follow in the advance and we had to go back to former prices.

We have renewed arrangements for 1914-1915 with the Ford Motor Car Co., have also secured some good business with the Willeys-Overland Company, and have good prospects of regaining the Hupp Motor Company's trade, so that with other smaller new business prospects for heavy goods, the outlook is encouraging.

NOTE: "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at the bottom of the first page; The handwritten initials I.duP. standing for Irenee du Pont appear at the top left of the first page; a handwritten notation at the top of the first page has been scratched out and is illegible; the following legends are stamped on the first page:

"Passed by Executive Committee, Nov. 9, 1914 mtg #328"; "noted I.du.P."; Executive Committee Secy's. No. 4796".

Defendant's Exhibit (DP) No. 235

EXCERPT

March 31st, 1915.

To: Executive Committee
From: Sales Department

Sales Department's Report for the month of February, 1915.

Respectfully submitted,

WM. COYNE,
Director of Sales.

• • •

DU PONT FABRIKOID COMPANY:

Total net sales for February, 1915 were $131,185.21 as compared with $126,311.02 in February, 1914 and $113,311.65 in February, 1913.

Light goods business shows considerable improvement over the past few months, orders during February, with exception of sheetings, being approximately 50% in excess of February last year. We have asked the Operating Department to perfect a cheaper grade of sheeting than 1100 quality, if possible, to enable us to meet competition both in quality and price.

Heavy goods trade, also, shows material improvement, and we look for continued increased demand. We have closed contract with the Willys-Overland Company, which will aggregate 300,000 yds. artificial leather and approximately 1,000,000 yds. of mohair per annum.

NOTE: The first page bears the following stamped legend "Noted I.duP.", "Executive Committee, Secy's No. 5258"; "Passed by Executive Committee, Apr. 12/1915 mtg. #364"; "RETURN TO EXECUTIVE COMMITTEE ROOM 9069".

E

EXCERPT

April 30th, 1915.

Executive Committee,
From Sales Department.

Sales Department's report for the month of March, 1915.

Respectfully submitted,

Wm. Coyne,
Director of Sales

• • •

DU PONT FABRIKOID COMPANY.

Total net sales for March, 1915, were $248,214.67 as compared with $176,685.83 in March, 1914, and $134,283.19 in in March, 1913.

Light goods business, while showing a gradual improvement, is not yet up to what we consider satisfactory.

Heavy goods business shows a gratifying increase due principally to the suddenly increased demand from the automobile trade. Outlook for these lines very promising, and with return of normal business we expect to show steadily increasing sales.

On Combined goods we are making good progress, due mainly to the large contract with the Willys-Overland Company for all their top materials for the years 1915 and 1916.

NOTE: The handwritten initials "I.duP." appear in the upper left of the first page; some illegible handwritten initials appear in the upper right of the first page; the first page also bears the following stamped legend: "Passed by Executive Committee May 10, 1915 Mtg. #372"; "Executive Committee Secy's No. 5330"; "RETURN TO EXECUTIVE COMMITTE ROOM 9069."

E

Defendant's Exhibit (DP) No. 237

EXCERPTS FROM A LIST OF ACCOUNTS RECEIVABLE OF THE E. I. DU PONT DE NEMOURS POWDER COMPANY, SCHEDULE OF FABRIKOID AGENCY, DATED JULY 31, 1913

LIST A

Customers' Business Identified. (Items $100 and over)

Customer	Type of Business	Accounts Receivable July 31, 1913
American Auto Trimming Co.	Manufacturer - Auto Tops	$ 1,956.33
American Auto Top Mfg. Co.	Manufacturer - Auto Tops	117.90
American Motor Co.	Manufacturer - Automobiles	5,992.92
Atlantia Auto Top & Trimming Co.	Auto Trim Shop	198.87
Autocape Top Co.	Auto Trim Shop	250.98
The Bartholomew Co.	Manufacturer - Automobiles	1,764.76
The Briggs Mfg. Co.	Manufacturer - Auto Bodies & Tops	10,524.01
Buford Bros. Hardware Co.	Jobber - Auto & Carriage Top Material	146.25
Cadillac Motor Car Co.	Manufacturer - Automobiles	9,223.67
D. L. Carpenter & Co.	Jobber - Auto Supplies	119.48
Geo. R. Carter Co.	Manufacturer - Bindings and Belts for Autos	225.63
The Colby Motor Co.	Manufacturer - Automobiles	230.37
Cole Motor Car Co.	Manufacturer - Automobiles	62.37
Cruse & Crawford Mfg. Co.	Jobber - Automobile Material	110.42
Geo. W. Davis Carriage Co.	Manufacturer - Carriages & Automobiles	425.03
Drummond Motor Co.	Manufacturer - Automobiles	379.52
Louis Dusenbury & Co.	Jobber - Carriage & Auto Supplies	324.17
Ford Motor Co.	Manufacturer - Automobiles	671.87
Jacob Gerhab	Jobber - Carriage & Auto Supplies	311.36
Glover Equipment Co.	Jobber - Automotive Material	143.32
C. M. Hoof & Co.	Jobber - Auto & Carriage Supplies	1,278.29
Hupp Motor Car Co.	Manufacturer - Automobiles	652.58
Interstate Auto Co.	Manufacturer - Automobiles	124.71
Landers Bros. Co.	Jobber - Auto Trade	551.41
Marathon Motor Wks.	Manufacturer - Automobiles	263.55
The Metz Co.	Manufacturer - Automobiles	13,690.84
Moore Hardware & Iron Co.	Jobber - Carriage & Auto Material	158.83
McDonald Bros.	Jobber - Carriage & Auto Supplies	239.09
P. W. Norris & Sons	Jobber - Carriage & Auto Supplies	252.91
The Oakland Motor Car Co.	Manufacturer - Automobiles	6,116.92
Olds Motor Works	Manufacturer - Automobiles	589.85
Geo. L. Paetz	Jobber - Carriage & Auto Supplies	209.66
Sligo Iron Store Co.	Jobber - Carriage & Auto Supplies	775.91
H. D. Taylor & Co.	Jobber - Carriage & Auto Supplies	572.86
Geo. Tiel & Co.	Jobber - Upholstery & Auto Supplies	348.65
Total		$ 59,005.32

LIST B

Company Name Suggests That Customer Was in Automotive Industry

Customer	Accounts Receivable July 31, 1913
American Metal Wheel & Auto Co.	$ 779.16
Auburn Auto Top Co.	18.23
Austin Auto Co.	99.88
Auto & Carriage Top Co.	95.40
Auto Leather Goods Co.	48.69
Berg Auto Trunk Specialty Co.	12.19
Bowling Green Motor Car Co.	19.13
Century Auto Top & Supply Co.	94.80
Commercial Auto Body & Mfg. Co.	171.02
Crow Motor Car Co.	96.89
The Croxton Motor Car Co.	99.20
D. K. Auto Specialty Co.	136.85
Duquesne Auto Top Co.	48.90
Dustin Auto Top & Slip Lining Co.	403.31
Elyria Auto Top & Repair Shop	12.52
Empire Auto Top Co.	65.81
Fort Dodge Auto Top Co.	191.70
C. G. Gardner, Trustee, Knox Auto Co.	31.05
Hutchinson Auto Top Factory	103.18
Hyatt Auto Top Co.	38.63
The Ideal Auto Co.	76.13
Klaus Auto & Vehicle Works	38.59
Kline Motor Car Corp.	655.88
Knight Carriage & Auto Co.	53.75
Kreidler Auto Top Co.	1.22
Lackawanna Auto Co.	99.51
Miame Garage & Machine Co.	(10.00)
Missouri Auto Top & Supply Co.	27.06
Monarch Motor Truck Co.	11.25
Motor Car Mfg. Co.	2,386.35
Meyers Auto Top Co.	(.42)
McFarlan Motor Car Co.	14.06
National Auto Top Co.	49.29
N. J. Auto Top Mfg. Co.	48.90
Niagara Auto Cover Co.	135.88
Ohio Auto Carriage Co.	98.71
P. M. Auto Carriage Co.	236.06
Poertner Motor Car Co.	28.53
Receivers, Knox Automobile Co.	(63.00)
Geo. S. Robb Auto Top Co.	32.73
St. Louis Top Co.	81.53
Shirley Auto Fabric Co.	185.19
The Simon Auto Top Mfg. Co.	169.41
Sioux City Auto Top Co.	99.18
Springfield Metal Body Co.	103.76
Standard Top Co.	50.53
Standard Auto Top Co.	(.15)
Standard Top & Equipment Co.	68.45
Trumbly Auto Top & Equipment Co.	47.98
The Union Top Mfg. Co.	61.75
Vehicle Supply Co.	29.91
Vehicle Top & Supply Co.	228.89
Vetter Auto Top Co.	30.76
Western Auto Sales Mfg. Co.	153.34
Western Auto Top Co.	87.74
Williams Top Co.	45.48
Wisconsin Auto Top Co.	627.63
Total	$ 8,558.40

394

SUMMARY

	Accounts Receivable		July 31, 1913	
	Number of Customers	%	Amount	%
List A	35	4.27	$ 59,005.32	28.23
List B	58	7.07	8,558.40	4.09
Identified As Being In Automobile Industry	93	11.34	$ 67,563.72	32.32
Not In Automobile Industry or Unidentified	727	88.66	141,483.96	67.68
Totals	820	100.00	$ 209,047.68	100.00

Defendant's Exhibit (DP) No. 238

Wilmington, Delaware..
July 20, 1916.

6143

THE BOARD OF DIRECTORS,

DU PONT FABRIKOID COMPANY.

Gentlemen:

I enclose, herewith, Operating Department Report for the month of May, 1916, which has been prepared for me by Mr. Frederick Kniffen, Director of Operations.

Respectfully submitted,

Vice-President.

RAP-W.

TO - H. F. BROWN, V.P.-

July 6, 1916.

6144

FABRIKOID - NEWBURGH

The conditions noted in previous months have continued, the output showing further increases. Expressed in standard units, the following figures are of importance:

Average daily orders for 1914	7,600
" " " " January to June 1915	15,200
" " " " July to December 1915	24,800
" " " " January 1916	37,500
" " " " February 1916	55,800
" " " " March 1916	62,300
" " " " April 1916	30,900
" " " " May 1916	23,000
" " " " June 1916	43,000
Factory production May 1916	41,000
" " June 1916	51,500
Factory capacity January 1,1916	20,000
" " June 1, 1916	50,000
" " July 10, 1916	60,000

Analysis of the orders received sheds some light upon the contract shown between the 23,000 received in May and the 43,000 received in June. The difference is due to three large automobile companies having placed in June orders for delivery from July to December. The orders from other sources averaged 16,600 per day. The average daily requirements estimated by the Sales Department for the four large automobile customers whom we are serving regularly (Overland, Ford, Chevrolet and Buick) are 16,200 units; making a total of 32,800 units per day representing the present rate of receipt of orders.

The #3 Process is working upon a small scale with every expectation of increasing in volume.

Orders on our books at the first of June for June shipment were 1,803,487 units. At the first of July for July shipment 1,125,000.

While this is a May report, I have given June figures in some cases as the matter of plant capacity and condition of orders is of supreme importance and the June data is now available.

Costs show moderate increases above the year to date but these increases are not equal to the corresponding increases in cost of materials.

FABRIKOID - TORONTO

Our first coating machine explosion in the history of the plant occurred in May. Damage was slight and as we were operating with one machine in reserve, output was not materially affected. Otherwise, Plant's operations were normal. May cost figures are valueless because of a large adjustment upon the price of jelly.

3947

Defendant's Exhibit (DP) No. 239

Du Pont Magazine - February 1916
Vol. 6, No. 2 - inside back cover

What Standardization Means to Automobile Buyers

IT means VALUE—the utmost in efficiency per dollar of cost. Just to the extent that a car is standardized does the buyer's dollar approach the maximum of purchasing power

Standardization means definite, proved quality, known manufacturing costs and reduced selling costs.

Of the million autos that will be sold in 1916, 75% will be standardized cars selling for less than $1000.00 each. This remarkable American achievement is the result of standardizing motors, starters, carburetors, speedometers, ignition and lighting systems, trans-

Defendant's Exhibit (DP) No. 240

CC: E. J. BRAUN
R. J. DUNN
H. D. MC LEAN
R. D. HANCOCK

126

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
FABRICS & FINISHES DEPARTMENT

New York Office
July 8, 1947

JUL 9-1947
J. G. H.

A. L. BROWN
NEWBURGH

GENERAL MOTOR TRUCK

When I recently called on American Seating Company they advised that the were still using Koroseal for bus seat upholstery on instructions from General Motors Truck. Further, they were not interested in evaluating "Cavalon" 7561 unless requested by their customer. Mr. Hugh Bersie of American Seating is the GM Truck contact man and although G. M. Truck had given him a sample of #7561, he was apparently not asked to consider our material.

Can you give me the status of our sales efforts with G.M. Truck on both "Cavalon" 7561 and "Fabrilite" 6036?

JRO
J. R. OWENS

JRO/bjk

RECEIVED
JUL 10 1947
A. L. B.

Defendant's Exhibit (DP) No. 241

CC: J. W. COSTELLO - F RFIELD

Newburgh, New York
December 26, 1947

T. A. NALLE

GENERAL MOTORS TRUCK

In a recent conversation with Stewart Hayes, who represents us in railway and the street bus field, he gave me the distinct impression that General Motors Truck is continuing to promote Koroseal for bus upholstery where the customer is interested in a substitute for natural leather. Mr. Hayes seemed to feel that it is their practice to submit a sample of leather and of Koroseal material with a price differential in favor of Koroseal. He may not have the facts straight but I am passing it along to you for what it is worth with the hope that G.M. Truck and Coach may be willing to consider our 7150 material or "Fabrilite" 6036 for this.

ALB/rmp

A. L. BROWN

NOTE: "File Copy" appears diagonally across the letter.

Defendant's Exhibit (DP) No. 242

FORM 11986

DU PONT FABRIKOID

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)
FABRIKOID DIVISION
NEWBURGH, NEW YORK, U. S. A.
CABLE ADDRESS "FABRIKOID, NEWBURGH, N. Y."

CC - E. S. Nickerson - New York
G. A. Staples

6148

Detroit, Michigan
August 5, 1940

MR. E. DOREMUS
NEWBURGH

FISHER BODY

Newburgh certainly did a fine piece of work in getting out all of the material scheduled for Fisher last week, some of it was in very short notice and some involving schedules which were advanced unexpectedly.

This is extremely good service and is greatly appreciated by the Fisher people who are responsible for getting the stocks on hand to take care of production, which for some of the divisions was moved ahead in advance of the original planned starting date.

TAN:T

T. A. NALLE
T. A. Nalle

read in sales meeting 8/9/40

Defendant's Exhibit (DP) No. 243

May 15, 1918.

Copy to Mr. J. A. Haskell,
General Motors Bldg.,
1764 Broadway, New York.

OUR FILE FO—Chevrolet Motor Co.----FK

Mr. Hohensee, of the Chevrolet Company, recently advised that reports from his salesmen and an examination of a few cars by him personally in St. Louis had given him the impression that the Fabrikoid used by Chevrolet was not giving satisfaction and that it was not wearing so well as the artificial leather used upon competitive cars, principally Ford. Coming from Mr. Hohensee himself the matter demanded careful investigation and the writer suggested to Mr. Hohensee the propriety of a joint inspection upon the condition of the artificial leather upholstery of a large number of cars in actual service, by representatives (who should be experts in their lines) from both the Chevrolet and Fabrikoid companies, several brands of cars being examined.

This investigation has now been completed so far as New York City is concerned, and separate reports have been prepared by the two investigators.

In general, both agree that the wearing qualities of the Chevrolet upholstery have been certainly not inferior to those of the other cars examined (Maxwell, Ford, and Overland) and in appearance, as to prominence and uniformity of embossing, Chevrolet was somewhat ahead of the others. For several years Chevrolet has used no leather substitute for upholstery, other than Fabrikoid.

The following observations by Mr. Stewart of the Chevrolet Company, who represented that company in the investigation are pertinent:

Extract from Mr. Stewart's report to Mr. Hohensee—

> "In comparing the uniformity of grain impression, imitating genuine leather, of the various Chevrolet cars inspected, will say that our cars show up at least 75% better than any of the other makes of cars which we inspected. However this might possibly be due to the fact that Maxwell, Ford, and Overland are buying material from two or three different sources and for this reason are unable to match their materials."

Extract from Mr. Stewart's letter to Mr. Bristol, the DuPont Fabrikoid Company representative—

> "Believe I have covered every point in my memorandum, of importance, and sincerely trust, with the report which you will turn in to officials of your company together with the report that I am giving Mr. Hohensee, that we will be able to satisfy them while we found conditions generally speaking in comparison with other makes of cars exceptionally good for Chevrolet."

The report of the Fabrikoid representative, Mr. Bristol, (who was one of the plant Superintendents when the complained of goods were made) covered the same points in general.

At our conference with Mr. Hohensee in reference to this complaint, where some of the upholstery under complaint was exhibited, I received the general impression that while in some places the material had worn off to a greater extent than normal, the behavior as a whole had been similar to that of artificial leather used generally for automobile upholstery purposes. Instead of attempting to convince Mr. Hohensee ofthis, however, I thought it wiser to allow him to receive that impression as the result of investigation by men in his own organization.

2

Incidentally it may be mentioned that while we believe the Fabrikoid furnished Chevrolet during the period when

—3—

the complained of material was made (which was more than a year ago) to be fully up to the product of any competitor, we have since introduced improvements in manufacturing methods which should materially cut down the tendency for the coating to wear off, and are at the present time working on still additional improvements.

F. Kniffen.

FK/IRB

Mr. C. L. Petze: --

We are enclosing herewith copies of Mr. Stewart's report, his letter of May 3rd to Mr. Bristol, and Mr. Bristol's reply thereto of May 9th; we are not enclosing copy of Mr. Bristol's report as this was forwarded to you with our letter of May 10th, file FO-40--GTB. These were too voluminous to be of interest to the other recipients of this letter.

F. Kniffen.

FK/IRB

Note. On page 1 at top there is pencil check-mark after "Copy to Mr. J. A. Haskell" and "Messers P. S. duPont, Wm. Coyne, R. R. M. Carpenter, H. F. Brown and C. L. Petze" has been lined out.

1916, 75% will be standardized cars selling for less than $1000.00 each. This remarkable American achievement is the result of standardizing motors, starters, carburetors, speedometers, ignition and lighting systems, transmissions, differentials, tires, wheels, axles, rims, bearings, etc.

Finally the upholstery has been standardized by the almost universal adoption of

DU PONT FABRIKOID

MOTOR QUALITY

40% of all 1915 cars sold were upholstered in this proved, guaranteed material, and in 1916 the total will be nearly 60%.

Fabrikoid is the only standardized automobile upholstery. It wears better than coated splits (commonly sold as "genuine leather") and has the artistic appearance and luxurious comfort of the best leather.

To get the most for your money,
buy a standardized car.

DU PONT FABRIKOID COMPANY
WILMINGTON, DEL.

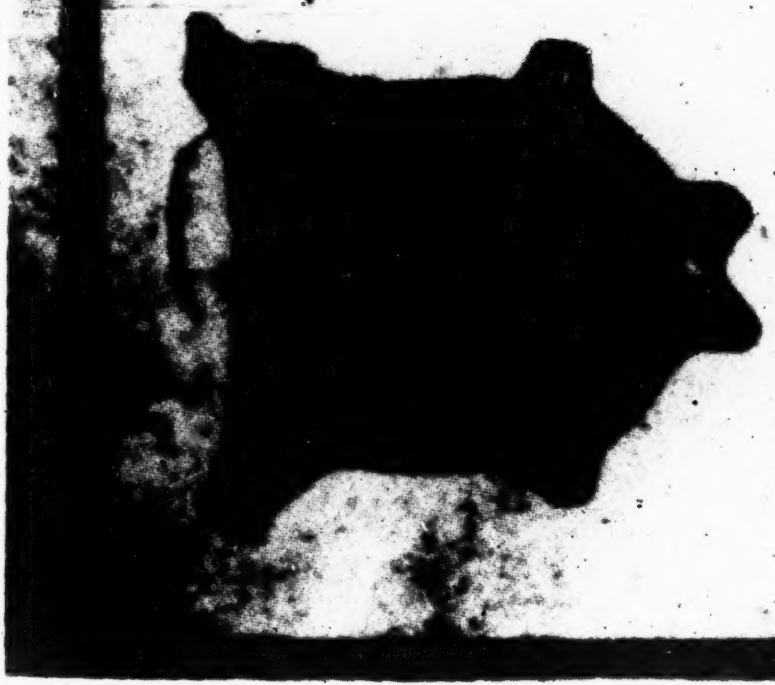
Factory, Newburgh, New York
Canadian Factory and Office, Toronto

Rayntite Fabrikoid

top material, single or double texture, is guaranteed one year against leaking, but built to last the life of the car.

Craftsman Fabrikoid,

the artistic and durable upholstery material for furniture and home decoration is sold by the yard in leading department stores.



Defendant's Exhibit (DP) No. 244

Excerpt from Report of Du Pont Fabrikoid Company to C. W. Phellis, General Director of Sales, for the month of November, 1919, dated January 2, 1920.

"Our capacity at Fairfield is sold up. We are, therefore, making no quotations, although we did accept an additional order from Chevrolet Motor Company for 150,000 yards of Double Texture Rubber at current prices."

* * * *

"Indications for the year 1920 point to very good business in all lines. Fairfield Plant is now sold to capacity until June 30th, and a great deal of business is being offered to us which we are not in a position to accept."

Defendant's Exhibit (DP) No. 245

"Sales are gradually improving. In the case of Fairfield, the Plant is working as rapidly as possible to a capacity basis, but we have given them enough orders to warrant this. The present capacity of the Plant has been sold from July 1 to the end of the year. It should be noted that while heretofore practically all of the Fairfield material sold was of a Rubber Drill for Ford Motor Company, the sales we have recently made are of the high grade top material, and while the capacity of the Plant has been sold, we have no orders from Ford Motor Company. The business on Pyroxylin material is improving, but has not yet reached large proportions. The big furniture manufacturers are stocked until June and July, and none of the automobile companies have ordered any large quantities of this type material. However, prospects look very good."

Defendant's Exhibit (DP) No. 246

BUICK MOTOR COMPANY.

On Monday, May 6th and Saturday, May 11th, Messrs. Petze, Haon, Stark and Lindsey called on Buick and outlined what we could probably do for them as per attached report and letter to Stark May 16th completing quotations.

On June 8th at our solicitation, Stark asked Buick to favor us with an order for 25,000 yards of double texture rubber top material to enable us to get it on test, as it was a comparatively new product with us and before exploiting it generally and increasing our capacity we desired to have some actual service.

Order was placed about June 10th for 25,000 yards each 54" and 36" double and single texture, to be distributed over five equal monthly deliveries, August to December inclusive. Price quoted was $1.20 per yard for 54" and .684¢ per yard for 36".

June 12th we advised Stark, would accept Buick order double texture for delivery over July, August and September, as otherwise our object of getting these goods on test could not be accomplished.

June 12th Stark stated he tried to get Wade to release during July when order was booked, but he refused.

June 13th we wired Stark, would take specifications from Buick for July and August deliveries of anything they wanted to place for double texture rubber up to 25,000 yards.

June 13th Stark wired, Buick still undecided; remaining items open on list but might reach decision next day, and asked whether we would not accept Buick double texture specifications for deliveries specified—to December.

June 14th, we wired Stark didn't care to go beyond August, and that we were not in position to guarantee the same proposition made Mr. Wade, because Buick's delay had forced us to give Chevrolet first chance, they having come into the market and requested us to protect them, and that the whole matter would now require new negotiations, which would be discussed during the week of Convention —June 17th-23rd.

About this time Mr. Cromling succeeded Mr. Wade as Purchasing Agent, and asked Mr. Stark for a full report of what we had agreed to do through Mr. Wade, as he could not find any record of same. This information was given Mr. Cromling June 25th.

June 25th Stark wired, awaiting information how much Fairfield double and single could supply Buick, pending information from Chevrolet.

June 27th, wired Stark that Chevrolet had closed for all available top and curtain rubber material, and we had nothing in sight at present for Buick, but that we would

accept 21,600 yards of 4000 quality combined to 700 sheeting per arrangement with Wade, provided it was accepted by close of business Saturday. (Buick had sent us a contract for 53,000 yards of this material which they wanted to take up to July 1, 1919. We were not in position to offer them that quantity, but decided to negotiate on 21,600 yards).

June 28th, Stark asked by wire if we would hold matter open until Monday or Tuesday because of further information required.

On June 28th we also wrote Stark relative to contract forms sent us by the Buick Company, to some of the paragraphs of which we objected, preferring our own form. Letter attached.

In same letter we explained why we had been unable to give a definite response to his letter June 25th, account negotiations which had developed with Chevrolet, and why we only offered 21,600 yards of the 4000 combined to 700.

June 29th, wired Stark that further negotiations with Chevrolet made it questionable whether we could furnish Buick anything or not, and would wire fuller details Monday.

July 1st Stark wired, our letter relative contract did not advise how long period would accept 21.600 yards—we felt that our letter 28th was clear that it would be over last half of this year.

July 2nd, we wired Stark offer on 21,600 yards expired Saturday. Available grey goods were exhausted and we regretted inability supply them, but their delay in acceptance was responsible.

July 3rd, Stark notified Cromling accordingly.

July 10th, Husted (assisting Stark), wired if grey goods situation had changed so that we could accept Buick proposition of June 7th.

July 11th, wired Husted unable accept Buick proposition account no grey goods.

July 12th, Stark wrote history of negotiations and urging that we protect the Buick Co. even at this late date, which was impossible.

July 20th, Mr. Petze wrote Stark in reply to his letter 12th, giving a general resume of the reasons for our action.

July 23rd, letter from Stark enclosing one from Mr. Cromling, answering our criticisms of contract form.

July 23rd, Stark, in view of cancellation of order for Ford Motor Co. for 4000 quality, asked if this would assist us in supplying Buick with some 4000 combined to 700.

July 25th, wired Stark were actually short about 20,000 yards 700 quality to complete Chevrolet order.

July 25th, Stark wired to know if possible substitute off color, dyed Drill, as backing for 4000.

July 27th, wired him could furnish 4000 combined with 1.70 off color Drill at price formerly quoted and wired ~~acceptance~~. *if acceptable*

July 30th, Stark wires Buick placed order with unknown competitor and that he was writing fully.

HAL/mlm

Excerpt from Report of Fabrikoid Division to Executive Committee for November, 1922, dated December 18, 1922.

"A visit to Martin Parry Corp. of York, Pa. reveals complete satisfaction with our goods, deliveries and service. We feel optimistic about securing their next year's business 100% which they forecast at a 50% increase over 1922 with possibilities of doubling 1922."

Defendant's Exhibit (DP) No. 248

Excerpt from Report of Cellulose Products Department to Executive Committee for October, 1923, dated November 23, 1923

"The Committee is already acquainted in detail with the developments at Chevrolet, resulting in the loss of 2,000,000 yards of Fairfield rubber over the first six months of 1924, and the writing of a contract with them for an estimated 1,000,000 yards of FABRIKOID over the same period on a requirements basis."

Defendant's Exhibit (DP) No. 249

July 15, 1936

T. A. WALLE - DETROIT

Dear Tom:

It is certainly fine news to note in your pen and ink memorandum that Chevrolet has selected 2200-LBC Aluminum for their winter fronts on the new models. Congratulations on this accomplishment. Last year you will recall competitive rubber was used.

I assume that you will follow Detroit Cover closely for a definite yardage contract. It is quite important that we get them under cover as quickly as possible because the gray goods market is in a very uncertain stage at present. Prices have been marked up quite a bit during the past week.

A. L. BROWN

ALB:AJ.

Note: "Received Jul 16 1936 E. M. A." is stamped above date line and "Jul 16 1936 E. S. N." above body of letter.

Defendant's Exhibit (DP) No. 250

E. I. DU PONT DE NEMOURS & COMPANY
DOLLAR SALES OF COATED AND COMBINED FABRICS TO THE CHEVROLET MOTOR COMPANY — 1922 TO 1935

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Open Cars Manufactured	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1922[1]	696,250	800,000[2]	1,496,250	154,067	4.52	5.19	9.71
1923	1,158,537	NA[3]	NA	266,389	4.35		
1924	444,557	220,103[4]	664,660	156,598	2.84	1.41	4.25
1925	887,635	750,185[5]	1,637,820	225,059	3.94	3.33	7.27
1926	541,094	870,157	1,411,251	153,382	3.53	5.67	9.20
1927	499,796	617,391	1,117,187	133,604	3.74	4.62	8.36
1928	538,769	709,769	1,248,538	118,682	4.54	5.98	10.52
1929	450,308	312,625[6]	762,933	81,497	5.53	3.84	9.37
1930	327,608[7]	285,238[8]	622,846	44,714	7.55	6.38	13.93
1931	265,217[7]	194,922	460,139				
1932	100,757[7]	56,374	157,131				
1933	181,438[7]	29,677	211,115				
1934	417,447[7]	63,620	481,067				
1935	324,483[7]	7,947	332,430				

[1] Sales for 1922 are from GM-T. Ex. No. 151. Du Pont has no record of sales for 1922.

[2] Approximately $37,500 placed with O'Bannon included in this figure. G. T. Ex. No. 411.

[3] Twenty-five percent of Chevrolet top business during last six months went to du Pont's competitors.

[4] All of Chevrolet's top business during the first six months went to competitors, G. T. Ex. No. 418.

[5] All top materials purchased from competitors during first five months of 1925 except for one carload purchased from du Pont. Chevrolet started buying uncoated combined decking from Haartz.

[6] Large purchases of uncoated fabrics from Haartz replaced purchases of Pontop from du Pont.

[7] Includes upholstery bought for the Chevrolet Commercial Body Division in Indianapolis.

[8] Chevrolet started using uncoated decking on all new production. Du Pont began supplying about one-half of Chevrolet's requirements of this type of fabric.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 251

Letterhead of
BUICK MOTOR COMPANY
Flint, Michigan, U. S. A.

Please Refer to File No. 370.307

July 23, 1918.

Mr. J. A. Haskell
Vice President
General Motors Corp
New York City

Dear Mr. Haskell:—

In answer to your favor of the 5th inst concerning artificial leather furnished by duPont Company, would advise that the amount of this material used by us in cars assembled in 1917 was as follows:—

	D Models	E Models	Total
50″ Imitation Leather	16,188 yds	140,025 yds	256,213 yds
36″ Raynitite	133,778 "	63,516 "	197,294 "
54″ "	165,270 "	none	165,270 "
54″ Dreadnaught	none	65,975 "	65,975 "

GRAND TOTAL .... 679,752 yds.

Amount used in cars January 1st to May 31st, 1918.

	E Models	
50″ Imitation Leather	"	107,020 yds
36″ Raynitite	"	31,053 yds
54″ Dreadnaught	"	29,792 yds

GRAND TOTAL .... 167,865 yds.

Defendants' Trial Ex. No. ______

6163

Trusting this is the information you desire, I am

Yours very truly,

/s/ W. P. Chrysler
General Manager

M:S

---

[1] Note: At top are written notation "wrote 8/5" and time stamp "Received July 25 1918 J. A. Haskell". At bottom is written notation "how much mohair?" Check-mark appear to the left of each listed article.

Defendant's Exhibit (DP) No. 252

COPY

July 28, 1920.

MEMO:

On the basis of 170,000 open cars production, which was the original estimate, we were originally given an order for 1,300,000 yards of deck and curtain material, and were told that this represented 2/3 of the total quantity required, which on this basis would be 1,950,000 yards.

This order was later on reduced to 780,000 yards, so that our competitor, Haartz, who received the order for the balance of the requirements, received an order for approximately 1,150,000 yds.

We are now advised that in place of a production of 170,000 open cars the production will be approximately 135,000. Therefore tht total yardage required on the reduced production would be approximately 1,500,000 yards.

We are now asked to reduce our quantity from 780,000 yards to 353,000 yards. If we deduct the 353,000 yards from the estimated new requirements of 1,500,000 yards, we have approximately 1,150,000 yards, which is the estimated actual yardage contracted for with Haartz, indicating no reduction in his contract quantities.

CLP*mlm

Defendant's Exhibit (DP) No. 253

Excerpt from Report of Fabrikoid Division to Executive Committee for January, 1922, dated February 15, 1922

"During this month the old uncompleted 1920 Buick contract was finally adjusted - cancelled - and a new contract written under which they will buy their entire requirements of us in 1922, at a satisfactory price."

Defendant's Exhibit (DP) No. 254

Excerpt from Report of Fabrikoid Division to Executive Committee for October, 1922, dated November 17, 1922

"Some special work was carried on with Buick Motor Co. on a trunk covering for the Sport model. A small yardage of drak red, fancy embossed Fabrikoid (to match General Leathers upholstery) has been shipped to their Engineering Dept. These trunks, if exploited, will most likely be made by Buick themselves.

"They are also looking for a top material of combined fabric which is faster to light than the material they are now using, which is khaki duck combined to drill and which will run into considerable yardage for 1923."

Defendant's Exhibit (DP) No. 255

Excerpt from Report of Fabrikoid Division to Executive Committee for March 1923, Dated April 23, 1923

"PROMOTION OF NEW LINES (MANUFACTURE AND/OR SALES):

"An order for 7,500 yards in the Cobra rollergrain was received from Fisher Body Company for use on Oakland work, and covers deliveries for May, June and July. When our material starts thru their plant, in production, it is hoped that the high quality will result in quantity orders.

"Negotiations are in process with General Motors units regarding the supply of khaki top materials for sport jobs. During March shipments were made to Buick of about 3,000 yards which should result in a large yardage, if this shipment is satisfactory.

"Repeat orders were received from Millspaugh & Irish and Rauch & Lang which were noted in last month's report as ordering the new 'Taxi' grain material. Checker Cab, as reported under 'New Business' is also credited to this development. At present work is in progress on Yellow Cab Company business with hope of landing it for the new grain."

Defendant's Exhibit (DP) No. 256

Excerpt from Report of Fabrikoid Division to Executive Committee for May, 1923, dated July 2, 1923

"A further attempt will be made to enter the field for Sport Top material, which is 1.22 drab duck combined to 1.85 Drab Drill. While this class of business is not very profitable, competitors continue to furnish Buick with it which might influence Buick to give them more desirable business in addition to the Sport Top material.

Defendant's Exhibit (DP) No. 237

Excerpt from Report of the Fabrics Division to Executive Division for March 1929, Dated April 19, 1929

"The March increase in total sales can be attributed primarily to sales of Everbright Pontop to Fisher Body Corp. and Ford Motor Co., though there was an appreciable increase in Specialties due to the Spring demand for raincoat material. The present boom in the Copper industry contributed largely to the 100% increase in Ventube sales.

"Production. Fairfield production for the month totaled 1 250 000 stads, or 114% of the rated normal capacity as compared to 1 100 000 stads for the month of February, 1929.

"Construction Appropriations. At Fairfield one Major project was approved in the amount of $53 000 for the erection of three additional vulcanizing chambers. Three Minor appropriations were also drawn totaling $1 800.

"Savings on Construction Projects. The installation of a Railroad Siding at Fairfield, costing $38 700 and promising savings of $13 775, has been completed one year April 1st. Total savings are calculated to amount to $60 000, about $6 000 of which is gained thru reduced labor cost in handling materials and the remainder from lower purchase price of Naphtha, due to ability to purchase in tank car lots.

"Prices and Competition. Fairfield automotive prices remained unchanged during the month, but a slight increase in some of the raincoat numbers was made. We quoted Buick Motor Company on their Teal business for the last nine months of 1929 without success, the business going to the J. C. Haartz Company, as we understand it, solely because General Motors Export insisted on Haartz's material.

"Sales and Items of Special Significance. Studebaker Motor Co. have been sold our Everbright Pontop for two of their models, their initial orders being for 16 200 yards, along with a 1 000 yard order for double texture Duo-tone material. Oldsmobile have specified our Teal material for trimming open cars. Quotations are being submitted to the Chrysler Corporation on their deck material requirements (estimated at 400 000 yards) for the last half of this year. In addition to the numbers we are now supplying to Ford they have adopted our single texture Everbright Pontop 124 for Visor work, and it is believed that this business will run between 30 000 to 35 000 yards monthly, putting total probable sales for May around 200 000 yards. Murray Body Corporation, instructed by Ford Motor Company to use our material on Ford busses, have been sold an initial order for 4 600 yards of 60" Everbright Pontop"

Defendant's Exhibit (DP) No. 258

EXCERPT

September 21, 1931

MR. WM. RICHTER
GENERAL MANAGER

FABRIKOID DIVISION
MONTHLY REPORT—AUGUST, 1931

• • •

Sales and Items of Special Significance. Buick has specified Fairfield teal, (double texture topping for sport models) for the remainder of 1931. This business has been regained after a lapse of two years, during which competitive material was used. The special colors, and especially woven figured backings of the samples submitted, were instrumental in our receiving this business, as competitors did not have a similar product to offer.

• • •

Defendant's Exhibit (DP) No. 259

E. I. DU PONT DE NEMOURS & COMPANY
DOLLAR SALES OF COATED AND COMBINED FABRICS
THE BUICK MOTOR COMPANY—1919 TO 1933

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Open Cars Manufactured	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1919			1,017,908[1]	112,522			9.05
1920			1,225,888	101,081			12.13
1921			142,339	67,287			2.12
1922	361,150[2]	995,000[2]	711,821	85,982	4.20[2]	11.57[2]	8.28
1923			1,208,809	124,048			9.74
1924			526,198	84,056			6.26
1925			127,122[3]	27,282			4.66
1926			126,291	20,658			6.11
1927			172,551[4]	13,869			12.44
1928	84,626	184,767	269,393	19,113	4.43	9.67	14.10
1929	71,927	38,827	110,754[5]	14,867	4.84	2.61	7.45
1930	37,067	36	37,103	4,082	9.08	.01	9.09
1931	1,540	3,284	4,824				
1932	554	1,925	2,479				
1933	0	0	0				

---

[1] Largely represents sales of Pontop.

[2] These figures taken from GM-T. Ex. No. 151 and include purchases of combined and uncoated fabrics from competitors of du Pont.

[3] During first 6 months of 1925 Buick placed all of its top business with other sources.

[4] Buick started buying Teal from du Pont.

[5] Du Pont lost Buick's Teal business to Haartz.

Sources: General Motors Corporation Production Records
Du Pont Accounting Records—Accounts Receivable Ledger

Defendant's Exhibit (DP) No. 260

E. I. DU PONT DE NEMOURS & COMPANY
DOLLAR SALES OF COATED AND COMBINED FABRICS TO THE CADILLAC MOTOR CAR CO. — 1921 TO 1926

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Open Cars Manufactured	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1921			43,421[1]	5,700			7.62
1922	72,657[2]	94,960[2]	153,070	8,900	8.16[2]	10.67[2]	17.20
1923			121,270	8,102			14.97
1924			26,396[3]	3,508			7.52
1925			85[4]	2,280			.04
1926			41[4]	3,062			.01

[1] Cadillac probably using stocks from inventories.

[2] From GM-T. Ex. No. 151.

[3] Imitation leather purchased from Textileather for 6 months of 1924.

[4] Open bodies manufactured by Fisher.

Sources: General Motors Corporation Production Records.
Du Pont Accounting Records—Accounts Receivable Ledger.

Defendant's Exhibit (DP) No. 261

April [illegible]th, 1918.
OUR FILE [illegible]

Olds Motor Works,
Lansing, Michigan.

Gentlemen:- ATTEN. L. D. MAYDON. PUR. AGT.

Answering your letter of April th, you may look for a decided improvement in the Drab back situation.

The samples which accompanied your letter were taken from shipment made to you in Feb. or the early part of March. At that time our supply of this color was uncertain. You will recall that at the time you were badly in need of the material and naturally we were doing everything possible to get goods to you. Our entire organization thoroughly understands the necessity of keeping the Drab back at a uniform color and we have done everything possible to maintain a standard. This, it has not been possible to do, on account of the uncertainty in the raw material market which made it necessary for us to change our source of supply several times. At the time we manufactured this particular lot of goods, we knew that the Drab was not a close match to that previously furnished you and it was our intention to take the matter up with you and furnish sample before shipping the material. However, when you became so badly in need of goods we overlooked doing this in the ~~[illegible]~~ stress of getting some material to you.

On March 20th, in answer to your letter of March 14th, we sent you two sample of the Drab back material which we are making at present. The material started to come through in this color about the middle of March and as explained in

our letter of the 20th, we fully expect to be able to maintain this shade on future shipments. We have a large supply of this color dye on hand and we are quite sure that you will be entirely satisfied with material shipped out by us after March 15th.

Naturally we all feel very sorry on account of the trouble had with Drab back material, but we feel confident in assuring you that this difficulty has now been overcome and will not be experienced in future shipments.

Yours truly,

Defendant's Exhibit (DP) No. 262

Letterhead of

DU PONT FABRIKOID COMPANY
Wilmington, Delaware

SALES DEPARTMENT

October 12, 1918.
Dict. Oct. 11, 1918.
OUR FILE "HAL"

J. A. Haskell, Vice-president,
General Motors Corporation,
1764 Broadway,
New York City.

My dear Mr. Haskell:—

You asked me sometime ago relative to various complaints from the Olds Motor Works on our Rayntite top material, where the drab back was not of a uniform color.

At the time these troubles were most in evidence, after June, 1917, we were having a great deal of difficulty in securing a sufficient supply of uniform dye. It was impossible to get our entire supply from one source. Consequently our material did not run uniformly in this respect —on the other hand, that of our competitors did not. The Olds Company made several complaints regarding off-color, especially in view of the fact that some of our shades were materially different than competitive material which they had, and in two instances during September and November, 1917, we took back from them some of these goods. Later our dyes became more uniform and on some later orders from Olds the plant actually did use some of the returned goods which corresponded very closely to our standard at that time, the Inspectors assuming there would be no objection on the part of the Olds Company.

At the present time our color is very uniform and we believe when we again have the opportunity of figuring with Olds or any of the other General Motors Units, we shall be able to satisfy them, not only as to the shade of drab, but the uniformity, and while our shade is lighter than some of our competitors, we feel it is a better shade and this has been proved by our having supplied the Chevrolet Company with large quantities of it to their entire satisfaction, and as a matter of fact they have changed their standard from that heretofore supplied by the Chase Company to the Fabrikoid Standard.

Yours very truly,

/s/ Chas L Petze
Director of Sales

HAL/mlm

Note. At top right is time stamp "Received Oct 14 1918 J. A. Haskell." To right of addressee caption is written notation "ack & wrote Mr Verlinden 10/15"

Defendant's Exhibit (DP) No. 263

E. I. DU PONT DE NEMOURS & COMPANY
DOLLAR SALES OF COATED AND COMBINED FABRICS TO THE OLDS MOTOR WORKS, 1922 TO 1930

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Open Cars Manufactured	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1922[1]	33,180	176,968	210,148	16,749	1.98	10.57	12.55
1923			82,491[2]	23,466			3.52
1924			252,635[3]	22,722			11.12
1925			52,703[4]	4,520			11.65
1926			42,263	5,734			7.37
1927			16,079[5]	4,217			3.81
1928	16,427	95	16,522	3,012	5.45	.03	5.48
1929	3,974	0	3,974	3,545	1.12	.00	1.12
1930			0	3,500			

[1] Sales taken from GM T. Ex. 151. Du Pont has no records of sales to Olds in 1922.

[2] Olds purchased most of its requirements of coated fabrics from sources other than du Pont.

[3] Olds adopted artificial leather for seat upholstery on a new low priced model about the middle of the year 1924. Olds began to use uncoated fabrics for auto tops and purchased its requirements of this material from du Pont.

[4] Olds discontinued the use of artificial leather for seat upholstery about the middle of 1925.

[5] Olds purchased its requirements of combined uncoated decking from other sources in 1927 and the following years.

Sources: General Motors Corporation Production Records.
Du Pont Accounting Records—Accounts Receivable Ledger.

Defendant's Exhibit (DP) No. 264

Mr. C. O. Miller,
Oakland Motor Car Co.,
Pontiac, Mich.

Feb. 8th, 1922.

Dear Sir:—

Confirming conversation of today.

In consideration of the agreement as outlined below we agree to cancel any undelivered yardage on the contract you now have with us.

You agree to take from us during the year 1922, all of your requirements of whatever qualities you desire of top, curtain and upholstery materials, manufactured by us, paying therefor our current list prices less a discount of 20 and 10% subject to the further regular cash discount which you are now enjoying and subject to your present terms of settlement.

As variations in market value of grey goods occur, based on drills at 28¢ per lb., sheetings at 45¢ per lb., sateens at 29¢ per lb., and moleskins at 34¢ per lb., which are the present market values and on which our present lists are based, to a degree that would warrant the issuance of new lists by us, such new lists will be issued and prices on same revised to the extent that such variations in the market values of grey goods have occurred.

It is agreed that variations of less than 4¢ per lb. in the market value of grey goods, will not necessitate the issuance of new lists.

Yours very truly,

E. I. DU PONT DE NEMOURS & COMPANY
FABRIKOID DIVISION
Division Manager.

CLP-K

Accepted:

NOTE: The words "All Division" are handwritten in the upper right hand corner. Illegible handwritten notations appear in lower left, and initials in right margin opposite second paragraph.

E

Defendant's Exhibit (DP) No. 265

E. I. DU PONT DE NEMOURS AND COMPANY
DOLLAR SALES OF COATED AND COMBINED FABRICS TO THE OAKLAND MOTOR COMPANY, 1922 TO 1933

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Open Cars Manufactured	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1922[1]	80,000	200,000	280,000	14,830	5.39	13.49	18.88
1923	62,807	NA	NA	23,424	2.68		
1924	38,604	91,958	130,562	18,460	2.09	4.98	7.07
1925	15,489	28,441	43,930	5,042	3.07	5.64	8.71
1926	34,108	9,407[2]	43,515	8,723	3.91	1.08	4.99
1927	67,243	8,015	75,258[3]	12,209	5.51	.66	6.17
1928	81,570	7,177	88,747	14,050	5.81	.51	6.32
1929	41,407	618	42,025	8,372	4.95	.07	5.02
1930	8,565	0	8,565	3,202	2.67	.00	2.67
1931	55	416	471				
1932	12,428	0	12,428				
1933	28,532	0	28,532				

[1] Sales for 1922 are from GM-T. Ex. No. 151. Du Pont has no record of sales to Oakland for 1922.

[2] Oakland started using combined uncoated fabrics on that part of its production formerly using Pontop. These fabrics were not supplied by du Pont and Pontop was thereafter used for service parts only.

[3] Du Pont supplied Oakland with a substantial part of its requirements of artificial leather in 1927 and 1928 but had little of its top business after 1922.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records—Fabrics Division Sales Records.

Defendant's Exhibit (DP) No. 266

COPY

Letterhead of
FISHER BODY CORPORATION
DETROIT, MICH.

July 6th, 1925.

E. I. du Pont de Nemours Co.,
Newburgh,
New York.

Attention—Mr. Henry Lindsey.

Dear Mr. Lindsey:—

It has just come to my notice that you recently have changed local representatives and as an old friend of mine, Mr. J. Henry Smith, son of the former Senator Smith of New Jersey, is in quest of a position of this nature. He has had wide selling experience, beginning with his father, and his last position was with the Pullman Car Company of Chicago.

He is a well met fellow and a perfect gentleman and has entree to all the automobile manufacturers and accessory trade, and I think that he would be a very valuable man to you if you could place him in the Detroit territory. If you can consider this request, I would be very pleased to hear from you.

Thanking you very kindly, I remain

Your very truly,

John T. Allmand (Signed)

JTA:K

E

Defendant's Exhibit (DP) No. 267

COPY

FISHER BODY CORPORATION

DETROIT, MICH.

July 17th, 1925.

Mr. H. A. Lindsay,
C/o E. I. DuPont DeNemours & Co.,
Newburgh, New York.

Dear Mr. Lindsey:

I have your letter of the 11th inst., which is in acknowledgment of mine of the 6th inst., subject my inquiry regarding Mr. J. Henry Smith.

Mr. Smith came into the office Tuesday of this week and informed him that I had been in touch with you and had received a reply of inquiry and advised him to wire you which I believe he has.

Answering further your inquiry, will say that Mr. Smith is a son of ex-Senator Smith of New Jersey who were formerly in the patent leather business, that is, manufacturers. Mr. Smith sold his father's line until they gave up. After that he handled a line of valves for automobiles for a number of years and is, I believe, one of the best acquainted men in the industry.

Some three years ago the Pullman Car Company got him to manage their body department, who were building bodies for the Packard Motor Car Company and others. They quit the Body business at the beginning of the year. Since then Mr. Smith, to my knowledge hasn't done anything, and did not know that he was in quest of a position until some few weeks ago.

Will say for Mr. Smith that he is a very fine gentleman, makes a very good appearance and is well liked by the trade, and has entree I believe second to no man calling on the trade..

While he is not familiar with your line he is a good salesman nevertheless, very energetic and enthusiastic with his line that he is selling and am sure that if you should see fit to engage Mr. Smith that you will not regret it as I believe that he can greatly add to your sales in this territory, and if you see fit to communicate directly with Mr. Smith, he left me his present address which is C/o The Pullman Car and Manufacturing Corporation, Chicago, Ill. He still makes his office with the Pullman Company.

With Kindest regards, I remain

Yours very truly,

JTA:K

John T. Allmand (Sgd.)

Defendant's Exhibit (DP) No. 268

PERSONAL & CONFIDENTIAL

Letterhead of
E. I. du Pont de Nemours & Company
Incorporated

Fabrikoid Division
Newburgh, New York, U. S. A.
Cable Address 'Fabrikoid New York'

COPY OF LETTER
for
Mr. W. P. Allen

September 1, 1925.

Mr. J. Henry Smith,
Pullman Car & Mfg. Corp.,
Sales Department,
Chicago, Ill.

Dear Mr. Smith:

This is to confirm the understanding arrived at by you, Mr. Allen, Mr. Lindsey and the writer at Wilmington on August 19th.

We understand that you will come promptly into the employment of our Company in the capacity of special salesman to the automobile trade for the products of this Division, including Fabrikoid and Rubber-coated fabrics, and that you will devote your time and energies exclusively to the work of selling, and in all practicable ways aiding us to sell, these products to that trade. In this undertaking, we understand you will make our Detroit sales office your headquarters, but that you will aim to cover the automobile trade generally, working directly with the important customers there and at other points, and working also thru and with the aid of our regular sales force in accord with the exact arrangements which we will later mutually agree upon as being best calculated to result in the largest obtainable volume of sales.

It is agreed that your compensation will include a salary at the rate of $15,000 per year and commissions at the rate of 4/10 of 1 per cent on our entire volume of automotive sales, including sales to (1) automobile builders, (2) body builders selling to automobile builders and (3) automobile bus builders. In applying this commission arrangement, it is understood that the billings issued in any particular month or other period of time will be taken as representing our "sales" for that period.

Yours truly,

N. P. Wescott,

Division Manager.

N. P. Wescott/me

NOTE: There are two stamps on this document reading as follows: "WR" and "Noted WPA". There are check marks to the right and underneath the name of "W. P. Allen" at the top of the page and two illegible handwritten notations at the top of the page.

2
E

Defendant's Exhibit (DP) No. 269

FORM 1065

DU PONT FABRIKOID

E. I. DU PONT DE NEMOURS & COMPANY
(INCORPORATED)

FABRIKOID DIVISION
NEWBURGH, NEW YORK, U. S. A.

6182 Answered Sept 30/25

September 29, 1925

E. R. CATHCART - MANAGER FAIRFIELD PLANT

FISHER BODY

On September 28th we drew orders #F-3878 and F-3877 calling for 17 179 yards of our Pontop #554 and 62 187 yards of our Pontop #554 respectively. These orders are to be manufactured in strict accordance with the sample which was submitted to Fisher Body sometime ago and tagged with your designatinn R20-400. This material is to be finished in Cobra glazed, all bright, using two coats, having a total finished weight of 46 oz. -48 using a 1.87 Drill combined to a 2.91 sheeting. The width should be 63 1/2 inches and should not run under this specified width. The Fisher Body Co. asked us to ship this material in at least minimum carloads.

Should there be anything that is not clear regarding the specifications of these two particular orders, will you please get in touch with us at once as we do not wish manufacture to be started until the specifications are entirely understood by you.

It goes without saying that these orders are very important due to the fact that they are the first real business we have received from the above customer calling for rubber deck material. We trust that you have the necessary raw material in stock and that you can make deliveries as specified.

H. A. LINDSEY, DIRECTOR OF SALES.

F. A. Price

F.A.Price:EMP

Defendant's Exhibit (DP) No. 270

C
o
p
y

6182

Detroit, Michigan
Sept. 20, 1925

H. A. Lindsey, Dir. of Sales,

FISHER BODY CORP.

I surely hope every effort will be made to make positive delivery by November 1st of the Rubber Pontop No. 554, now on order for Fisher.

I believe as soon as they see the goods in bulk we will obtain additional orders since many in their organization have at least informally expressed themselves.

They are having a great deal of trouble with Carr and I believe we can get a good share of this business. You can ship late in October and date bill November 1st.

We are working for additional orders before arrival of goods and hope we will be successful on that basis.

Mr. Allmand asked me to tell you we should have some one diligently watch our compound so we will have no trouble on these orders.

JHS:BB

J. Henry Smith

'Defendant's Exhibit (DP) No. 271

November 20, 1925.

To: W. F. ALLEN, GENERAL MANAGER.
FROM: FABRIKOID DIVISION.

REPORT FOR OCTOBER 1925.

EARNINGS:

Net receipts were as follows:

	October, 1925	September, 1925
Fairfield	$ 24,575.28	6,621.39
Newburgh	72,548.52	48,415.51
Total	97,123.80	55,036.90

The principal contributing factors to the marked increase in Fairfield earnings are better Chevrolet prices, lower costs, and further manufacturing improvement in the raincoat business. Chevrolet shipments were at an increase of 6¢ a yard over last month with a resulting increase in profit of roundly $11,000. The spread of fixed cost over the lengthened manufacturing month caused a decrease of approximately $2,000 in costs. Raincoat business thru improvement in cost showed a profit of roundly $5,700, an increase of approximately $2600 over last month.

Newburgh earnings of roundly $79,000 on current sales are in line with recently established levels. The final net of $72,548 is after absorbing approximately $7,000 adjustments on old deck material. This loss forms the major portion of the total charges expected during the fourth quarter. Newburgh earning power is well distributed over all departments of activity.

6185

OUTLOOK:

Fairfield volume will continue high over the remainder of the year. Earnings on current sales should continue at a fair level for the remainder of the year; and we have good reason to expect sustained volume over the first quarter of the new year and to look for earnings on a fair level.

Newburgh volume and earnings will continue high over the remainder of the year. We see no reasons to look for any weakening during the first quarter of the new year.

Both plants will probably show a decrease in November automobile volume, when shipments may be deferred while manufacturers are taking inventories. Any November recession will, however, be offset by increases in December.

FAIRFIELD BRANCH:

SALES.

BILLINGS COMPARISON

	Oct. 1925	Sept. 1925	Jan.-Oct. 1925	Jan.-Oct. 1924
Gen. Motors	$ 156,001	154,184	700,400	782,241
* Domestic	164,734	135,848	1,076,738	1,222,952
Ventube	11,945	8,230	150,475	110,694
Export	61,384	91,147	643,843	306,234
Total	$ 394,064	389,409	2,571,456	2,422,121

* - Excluding General Motors.

Billings for 1925 to date are 6% above the corresponding period last year. General Motors to date 1925 volume is now but 10% below the corresponding period for 1924, whereas at the end of the middle of the year, the deficiency was 80%. General domestic business is now but 12% below

3988-A

last year. Ventube and export, because of expansion in sales, are respectively 35% and 110% above last year.

—3—

BUSINESS BOOKED.

BOOKINGS COMPARISON

(Yards Basis)

	Oct. Yards	Sept. Yards	Jan.-Oct. 1925 Yds.	Jan.-Oct. 1924 Yds.
Gen. Motors	201,692	49,020	1,413,506	1,012,358
* Domestic	302,246	282,274	1,865,710	1,397,827
Ventube	24,013	12,688	148,331	95,353
Export	53,985	100,423	893,604	512,665
Total	581,935	444,404	4,321,151	3,018,203

* - Does not include General Motors.

While billings to date 1925 are but 6% above 1924 to date, bookings show a 43% improvement. Because of the absence of fairly definite ideas as to the volume of Chevrolet first quarter requirements recently booked, no recognition is yet taken of this sale in our booking figures. The improvements in Fairfield volume already realized and the potential improvement as promised by bookings are reflected in the following tabulation:—

	% Increase in Billings Jan.-Oct. 1925 over Jan.-Oct. 1924	% Increase in Bookings Jan.-Oct. 1925 over Jan.-Oct. 1924
General Motors	10%	40%
Domestic*	12%	33%
Ventube	35%	56%
Export	110%	74%
Total	8%	43%

* - Excluding General Motors.

Except in the export field where we have suffered the loss of Nelden Body bookings, increased strength is indicated throughout.

3988-B

Trend of Business. All fields give promise of continued heavy consumption over the remainder of this year and during the first quarter of the new year. It is expected that our Company's portion of this consumption will strengthen in all fields except export, where a loss, hoped to be but temporary, has been met with in Australia.

—4—

Prices and Competition: No general price changes were made in October. Although not sufficiently high to permit of earning a full fair return, prices held firm with but few exceptions.

Export. Nelden's Meter Body Builders, Ltd., of Australia, have purchased six months' requirements, or 200,000 yards, from the J. C. Haartz Co. at a price believed to be substantially below ours. This business has heretofore constituted about half of our export rubber sales.

Complaints. There have been no complaints of special significance. October adjustments cost $350.

Production. Mainly because of the long operating month, production rose to 954,000 stads from 790,000 stads in September.

Experimental Development. Guayule, a Mexican wild rubber, selling at half the price of the cultivated product, is being adopted in cements at a saving of approximately $2,500 per month. The possibility of its being used in compounds is being actively explored.

Raincoat material has been the subject of much improvement and refinement and new numbers re-enforcing the line are under development. Our gum rubber line is now very confidently believed to have been developed to the point of being fully equal in quality to the very best competitive goods.

Safety. There were no major or sub-major accidents in October.

Appropriations. Major construction projects totaled approximately $62,000 and minors $5,000.

Inventories. Inventories are roundly $8,000, or 2% in excess of standard.

Sales of Special Significance. Last month marked the beginning of rubber deck material sales to Fisher. This initial order was for 70,000 yards and sales totaling 110,000 have been made since. We have closed with Chevrolet for 1926 first quarter requirements for open cars. Anaconda has placed an order for a carload of Ventube.

Rubber Specialties. To properly and fully advance the sales of rubber specialties, a small but complete Sales Department has been set up at Fairfield. Mr. J. McLaughlin, a man of wide experience in this field, has been employed as Sales Manager.

NEWBURGH BRANCH:

SALES.

BILLINGS COMPARISONS

	Oct. 1925	Sept. 1925	Jan. Oct. 1925	Jan. Oct. 1924
Gen. Motors	$ 76,067	116,729	979,260	867,850
* Domestic	306,990	303,792	2,839,478	2,484,360
Tontine	58,817	70,899	534,871	286,604
Export	102,504	97,063	879,407	555,907
Total	$ 544,378	588,483	5,233,014	4,194,721

* Excluding General Motors & Tontine.

All departments show increases to date 1925 over to date

1924. Total billings are 25% greater. General Motors volume is 13% higher, general domestic 14%, Tontine 86% and Export 58%.

BUSINESS BOOKED.

BOOKINGS COMPARISON

(Yards Basis)

	Oct. Yards	Sept. Yards	Jan.-Oct. 1925.Yds.	Jan.-Oct. 1924 Yds.
General Motors	79,273	33,335	981,869	721,336
* Domestic	526,359	380,374	4,932,650	3,732,898
Tontine	144,325	129,983	1,189,335	588,049
Export	145,207	99,930	1,014,108	643,592
Total	895,164	643,622	8,117,962	5,685,873

* - Excluding General Motors & Tontine.

While billings show a 25% increase to date 1925 over to date 1924, bookings indicate increased strength of 43%. This improvement in bookings applies to all fields, General Motors strengthening 36%, general domestic 32%, Tontine 102% and export 57%.

Prices and Competition. No general price changes were made in October. Prices hold firm at a fair level.

Trend of Business. Continued heavy consumption is looked for over the remainder of this year and during the first quarter of the new year. Newburgh is expected to hold firm its present generous share of the consumption and because of the Company's direct control over marketing to begin a renewed growth in Tontine sales.

Export. Sales of 7,800 yards of Tontine to Australia encourage us as to the future of this outlet. The export situation is satisfactory in general.

3988-E

Sales of Special Significance. Chevrolet and Buick requirements for the first quarter of 1926 have been taken. Additional sales of 75,000 yards of car curtain material have been made to Fisher Body. Backstay, the large gimp manufacturer, has placed orders for delivery of 100,000 yards of drills during November, December and January.

Complaints. Newburgh adjustments cost $6,300, exclusive of the Fisher Body total of about $7,000 on old top material above referred to. There have been no items of special significance.

Production. Chiefly because of the long operating month, production rose to 1,100,000 stads from 838,000 stads in October.

Tontine. Study is being given to the problem of advertising in 1926. At present, a plan is under consideration of which the cost would be probably $65,000, which amount is about 20% more than the 1925 expenditure. The transfer of activities from the Ordinator Co. is being prepared for as rapidly as possible.

Experimental Development. A beginning has been made in the development of a pyroxylin coated raincoat material. This product is intended to enter a higher priced field than that in which our rubber

material is sold. A special auto curtain material for Fisher Body Chevrolet work is the subject of active study.

Appropriations. Major construction projects totaled approximately $40,000 and miners $2,500.

Safety. One major, but no sub-major, accidents occurred in October. A coating machine operator, attempting to release a pile-up between tension rollers, caught and injured his thumb to such an extent that amputation was necessary. Operators are being instructed to report to their Supervisors when a pile-up occurs and the Supervisor will relieve the condition by cutting the goods, thus removing all hazard.

Inventories. Inventories are roundly $240,000 above standard. Of this excess $94,000 is in Pyro, $40,000 in export consigned stocks and $30,000 in Tontine cloth. These items are not provided for in the standards. There remains a true excess of $76,000, which is due chiefly to modifications of Chevrolet's schedules. A thorough study of working capital standards is being made with a view to fitting them to present conditions.

Pyre. Pyre consumed in October totals 143,000 pounds. The pyre reservoir has been completed and 2,000,000 pounds, roughly, two-thirds of the amount to be stored at Newburgh, is now here and under water.

N. P. Wescott
Division Manager.

3988-G

June 22, 1926.

To: W. P. Allen, General Manager.
From: Fabrikoid Division.

REPORT FOR MAY, 1926.

EARNINGS:

Net receipts were as follows:

	May, 1926	April, 1926
Fairfield	$ 1,463	$ 1,288
Newburgh	47,470	68,619
Total	$48,933	$69,907

Fairfield's result for the month is adversely affected by excessive rubber costs of $22,000 (excess of actual cost over February purchases for May consumption), by abnormally high seconds in carriage cloth manufactured to the extent of $10,000, and by over-coating to the extent of $3,000. The last two elements of loss are largely attributable to rush production to meet sudden and unexpected demands. In the final net result, a profit of roundly $11,000 for the month on carriage cloth was reduced by a loss of $9,500 on specialties, where the main burden of our excess rubber cost was felt.

Newburgh's gross margin of 24% was above recent levels, but the final net is low because of somewhat diminished volume and abnormally high selling expense. Into

May selling expense was charged a final item of $4,500 incident to liquidation of the Ordinator Company; and because of deferred handling of traveling

expenses in April, this item was $4,000 high in May.

OUTLOOK:

The proved superiority of our rubber deck materials, backed up by special selling effort, has now apparently resulted in securing for Fairfield the major part of the Fisher Body business; and present indications are for a good level of carriage cloth production in June, July and August. Volume in all specialty lines is now off; and although improvement is looked for, normal activity may not be reached until fall. Earnings for July and later months should improve substantially because of the lower cost at which rubber will be consumed in manufacture.

The increased complexity of the requirements of the automobile industry and the establishment of specialty manufacture have radically changed the character of the Fairfield business. Study of the activities and results of the work of this plant over the past year has seemed to indicate clearly the need of a more direct and comprehensive local control and correlation of the manufacturing and selling activities of that branch of the business. The Assistant Division Manager has therefore been relieved of other duties and transferred to Fairfield, with general control over, and responsibility for, the activities of that branch of that Division; while one of the Assistant Directors of Sales is being placed in direct local control of the marketing activities of Fairfield products. Substantial improvement in results is expected to result from this important change in organization.

At Newburgh, bookbinding and traveling goods sales will suffer seasonal recession in June and July. Automotive business is looked for at good rates. Bookings in June of general domestic business are encouraging. Earnings are expected to hold in line with recently established levels.

—3—

FAIRFIELD BRANCH

Sales.

FAIRFIELD BILLINGS
COMPARISON — DOLLARS

	May 1926	April 1926	Jan-May 1926	Jan-May 1925
Carriage Cloth—G. M. C.	$198,480	$120,120	$ 680,391	$ 46,528
" " —All oth.	63,704	78,039	318,337	312,167
Specialties—Ventube	24,252	14,062	89,967	78,739
" —All Others	85,683	93,517	409,352	133,576
Export—All Products	38,422	52,650	264,764	279,613
Total	$409,541	$358,388	$1,762,811	$850,623

Business Booked.

FAIRFIELD BOOKINGS
COMPARISON — YARDS.

	May 1926	April 1926	Jan-May 1926	Jan-May 1925
Carriage Cloth—G. M. C.	69,200	147,600	426,134	2,753
" " —All Others	23,818	75,483	173,827	342,082
Specialties—Ventube	7,965	37,494	78,882	75,287
* " —All Others	121,107	92,232	817,128	241,610
Export—All Products	28,190	51,740	182,461	354,415
Total	250,280	404,549	1,678,432	1,016,147

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* Gum Specialties converted to yard basis.

The low May bookings figures should be offset by June bookings, which are approximately 400,000 yards as of the 19th of June. The increase is due to large General Motors and Fisher Body bookings.

Prices and Competition. There was no general Fairfield price list change during the month. The Haarty Auto Fabrics Co. has taken part of the Chrysler Teal business at a price 15 cents below ours. In general, however, price schedules are being quite well maintained. It is reported that the Cotex Company, leather substitute manufacturers of Newark, N. J., are about to begin the manufacture of carriage cloth, with a capacity of 25,000 yards per week.

Export Ventube. During the month, sales of fair quantities of Ventube were made to Mexico, Peru, Siberia and South Africa.

Complaints. No Fairfield complaints of special significance received during the month.

Experimental Development. Further tests of the new Fairfield deck material finish Everbrite confirm our belief in the durability of its lustre. We are now making 1,000 yards a day and expect to be in full production of this finish around July 1st. Examination of competitive Teal topping shows that none of those products so far examined possess the virtues of highly fast dyeing and thorough waterproofing, merits of our product thought to be necessary for a durable top. Competitive Teal cloth has been found to be more uniform than our product because of higher grade weaving, and the adoption of this better weaving is being considered. Further refinements have been made in the manufacture of our gum specialties, which now rank with the best on the market.

Production. Fairfield May production was 764,309 stads, as against 745,037 stads in April.

Safety. There were no major or sub-major accidents at Fairfield in May.

Construction Appropriations. In May, Fairfield Minor Appropriations totaled $150; there were no majors.

—5—

Fairfield Inventories.

	Standard	Actual
Raw	$382,750	$496,264
Semi-finished	78,990	73,879
Finished	271,840	269,490
Suspense		27,054
Total	$733,580	$866,687

The excess in Fairfield inventories is due largely to the failure to realize fully expected volume in both carriage cloth and specialties. Fisher Body and Chevrolet are now taking in good volume the material for which contract cloth had been provided. Active effort is being made to overcome specialty excesses as rapidly as possible. Inventories dropped roundly $100,000 during May, and a further marked reduction is hoped for in June and July.

NEWBURGH BRANCH:

Sales.

NEWBURGH BILLINGS
COMPARISON — DOLLARS

	May 1926	April 1926	Jan-May 1926	Jan-May 1925
General Motors	56,758	$ 85,756	$ 370,880	$ 412,253
Domestic—General	262,966	326,051	1,422,539	1,417,118
Tontine	89,838	75,888	328,766	259,170
Export	79,158	85,076	468,916	405,987
Total	$488,720	$572,771	$2,591,101	$2,494,528

Business Booked.

NEWBURGH BOOKINGS
COMPARISON — YARDS

	May 1926	April 1926	Jan-May 1926	Jan-May 1925
General Motors	53,883	323,681	480,989	12,773
Domestic-General	315,554	432,408	2,476,734	2,266,624
Tontine	162,700	143,889	726,913	587,826
Export	51,567	78,261	429,728	450,841
Total	583,704	978,239	4,114,364	3,318,064

As of June 19th, Newburgh bookings stand at roundly 900,000 yards. This indicates that June should offset the low May figure. The improvement is due to good General Motors bookings.

Prices and Competition. There has been no general change made in the Newburgh price list. Somewhat lower but still quite satisfactory net prices are being quoted important automotive accounts. Prices in the other fields hold quite well in line with the quantity discount schedule.

Sales of Special Significance. We have sold the Backstay Machine and Leather Company 100,000 yards of drill qualities for delivery 30,000 yards in July, with the remainder spread over the rest of the year.

Export—Australia. Our Australian Agent, Mr. R. F. Higgs, has just spent a fortnight with us. Mr. Higgs looks for a continuation of business in Australia around present levels.

Complaints. No Newburgh complaints of special significance received during the month.

Production. Newburgh May production was 770,068 stads, as against 972,742 stads in April.

G196

Experimental Development. At Newburgh, laboratory work now in progress in connection with general quality improvement aims at obtaining better dispersion of pigment particles. These studies include consideration of mechanical dispersion methods, as well as dispersion by means of chemical peptization. In this we are working closely with Parlin, Philadelphia and Experimental Station, so as to make use together of any successful results. The use of a softener in the top coat of non-exuding Fabrikoid reduces considerably the tendency toward piping. (Piping and cold cracking are the two most serious drawbacks to the use of this product for top material). A series of plant runs are under way employing the high alcohol solubility cellulose nitrate developed in conjunction with Parlin. The first experiments have indicated a high exudation temperature, even when raw castor oil is used. A broad experimental program has been started to develop a Super Fabrikoid adapted for automobile deck material. The study begins with the choice of a double texture product instead of single texture because of the greater assurance of freedom from leaking; the study of relative merits of bone and carbon black in conjunction with various extenders; comparison of results obtained using 301 oil, 334 oil and various proportions of the two; investigation of results using various types of pyroxylin, and the application of Chinawood oil—pyroxylin lacquer as a finish. It is aimed to come as near as possible to producing a deck material which, like Duco, should last the life of the car.

Construction Appropriation. May Minor appropriations for Newburgh totaled $7,372; Majors—$65,830.

Safety. There were no major or sub-major accidents at Newburgh in May.

Newburgh Inventories.

	Standard	Actual
Raw	$474,470	$ 796,886
Semi-finished	141,600	171,215
Finished	237,840	300,148
Suspense		9,514
Total	$853,910	$1,258,733

Roundly $80,000 of the excess Newburgh inventory is due to the stock of smokeless powder not provided for in the standards. The remaining excess is chiefly in standard Fabrikoid cloths and results largely from the failure to realize fully sales expectations provided for by contract cloth buying. We expect to accomplish substantial decreases in inventory during June and July.

Smokeless Powder. Consumption during May was 97,564 pounds; Nitrocellulose consumption was 4,282 pounds.

N. P. Wescott,
Division Manager.

me

Defendant's Exhibit (DP) No. 273

October 30, 1931

MR. J. THOMPSON BROWN,
VICE PRESIDENT

J. HENRY SMITH

Enclosed salary card represents an additional downward adjustment of $125.00, effective November 1st, due to decreased importance of Mr. Smith's position as Manager of our Fabrikoid Automotive Sales in Detroit.

Prior to the employment of Mr. Smith we were unable to secure any Fabrikoid business from Fisher Body, and for a long time after becoming established as one of their sources of supply we were very largely dependent on him to hold a share of that business.

With the improvement in our relations with the Fisher organization, and particularly since Mr. Staples has established satisfactory contacts with Fisher officials in connection with Fabrikoid purchases during the past year, Mr. Smith's influence has assumed considerably less importance from our point of view; in fact, we are continuing him mainly for the purpose of avoiding possible friction with the Fisher organization in view of the fact that one of their officials was instrumental in bringing about Mr. Smith's employment by us.

J. J. MOOSMANN

JJM:M

Note: A penciled bracket is drawn under J. Henry Smith. File copy appears diagonally across the page.

Defendant's Exhibit (DP) No. 274

Copies to:
N.P.Wescott--NEWBURGH
E.R.Cathcart--FAIRFIELD
Dr. J. Couture

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
CHEMICAL DEPARTMENT
WILMINGTON DELAWARE

MAR [illegible] 1926

March 25, 1926
Dict. 3/24/26

FAIRFIELD
--For Mr. M. N. Nickowitz--

OUR FILE ESR-86-20

I saw Mr. Wescott today for a few minutes in Mr. Richter's office and talked to him about top material. He told me that one of the reasons why our pyroxylin top material which we call Pontex has been given up by the Seaman Body Company is that the film seems to be somewhat soft so that it mars or marks readily. It seemed to me that this has a bearing on the "streak" which we obtain on our asphalt-finished product. Personally, I have been more afraid of the "streak" as an objectionable feature than of the crazing, but apparently the addition of V-2096 practically cures the streak as well as the crazing. However, I suggest that you talk to Mr. Bristol and Mr. Nollau about the trouble which they have had with Pontex so that you may be in a better position to decide how free from "streak" our product must be in order to be acceptable.

Mr. Wescott also told me about some tests made by the Fisher Body Corporation of various rubber-coated top materials. He said that they placed du Pont and Duratex at the top and about on a par, du Pont being slightly better. Chase came next and considerably below these two. Then came Haartz, and lastly Carr. Have you any exposure tests that show any such quality for Duratex? It was my recollection that you placed Chase about on a par with du Pont or perhaps a little below it.

HAMILTON BRADSHAW
ASSISTANT CHEMICAL DIRECTOR

HB:A
7*

Defendant's Exhibit (DP) No. 275

GENERAL LETTER

No. 23

M. N. NICKOWITZ May 21, 1929

EVERBRIGHT PONTOP

You will be keenly interested in the success and popularity which Everbright Pontop has attained. Since its development, and introduction in 1926, about six million yards have been put in service. In this time it has not been necessary to replace a single original top because of leakage or failure of the Everbright Finish.

The Plant is now turning out an enormous daily volume. On one day a few weeks ago, something over thirty seven miles of Everbright Pontop were shipped, in addition to the numerous other products manufactured at Fairfield, such as Hospital Sheeting, Leatherette, Gasket Material, Teal, etc. Additions and enlargements are just being completed which will provide increased capacity for new business, which will undoubtedly develop during the next few months.

Visualize the following procession and you have a picture of the cars which are now being built with Everbright Pontop decks:

On The Road

Chevrolet	Sedan-Coach-Coupe	(43")	Cobra Grain
Chevrolet	Sedan-Delivery	(60")	Cobra "
Ford	Tudor Sedan	(62")	H-9 "
Ford	Truck Cab	(44")	Cross Auto"
Ford	Panel Delivery	(64")	H-9 "
Ford	Station Bus Delivery	(60")	H-9 "
Pontiac	Sedan-Coach-Coupe	(43")	Cobra "
Oldsmobile	Sedan-Coach-Coupe	(43")	Cobra "
Roosevelt	Sedan	(66")	Cobra "
International Harvester	Truck Cab	(60")	Cobra "
Indiana Truck	Truck Cab	(60")	Cobra "
Buick	Hearses and Busses	(54" & 60")	Cobra ".
International Motor	Mack Busses	(50")	Cobra "
Paramount	Taxicabs	(66")	Cobra "
Studebaker	Delivery Wagon	(66")	Cobra "
Yellow Cab	Taxicabs	(64")	Cobra "
General Motors Truck	Delivery Wagons	(54" & 70")	Cobra "
	Cabs - etc.		

In Production But Not Yet On Market

Buick (1930)	All Black Deck Models	(45")	Cobra Grain
Marquette	All Black Deck Models	(43")	Cobra "
Studebaker	Sedan	(66")	Cobra "
Studebaker	Coach	(64")	Cobra "
Studebaker	Collapsible	(54")	Modern "
Ford	Fordor Sedan	(62")	H-9 "
Ford	Town Sedan	(46")	H-9 "
Ford	Visors	(56")	H-9 "

We feel that all in the organization can take a just and pardonable pride in the place which Everbright Pontop occupies in the field of deck materials; and it is hoped that the above list will serve as a stimulus to the Sales Force to go out and add new names to it. Information has been received that several high-priced cars will shortly adopt Everbright Pontop. You will be advised as they get on the band wagon.

Quality, Sales Pressure and Service, coupled with reasonable price, have been responsible for the results. Let us press home the advantage and line up further new accounts until the mill is forced to hang out the "Sold Up" sign.

T.A.Nalle/rd

SALES MGR. FAIRFIELD AUTOMOTIVE PRODUCTS.

T A Nalle

Defendant's Exhibit (DP) No. 276

Excerpt from Report of Fabrikoid Division to Executive Committee for February, 1927, dated March 27, 1927

"Information has reached us this week that Fisher has decided to use pyroxylin coated materials henceforth for Buick jobs. They have been buying approximately some 30,000 yards of 63" rubber material from us each month for this work and it is understood that they expect to begin using pyroxylin on May 1st. Active efforts are being made to secure this business for Newburgh with apparently fair prospects of success. Our business with Fisher on rubber materials for Chevrolet, Pontiac and Olds is apparently not threatened. There have been no complaints from Fisher Body that our rubber material has been defective in any way; and the loss of the business on Buick models is primarily due to the belief of the Fisher Body engineers that pyroxylin is more desirable than rubber because of its stronger claims to lasting lustre."

Defendant's Exhibit (DP) No. 277

Excerpt from Report of Fabrikoid Division to Executive Committee for March, 1928, dated April 21, 1928

"In the automotive field, our expectations have recently encountered a severe setback thru the loss to Textileather of probably the major part, and perhaps all, the business in pyroxylin materials for Buick bodies. This business was taken, according to our information, at an extremely low price (reported to be at least ten cents a yard under our quotation) evidently on the policy of sacrificing profits in order to become re-established in the enjoyment of this part of the Fisher business."

Defendant's Exhibit (DP) No. 278

EXCERPTS

July 24, 1929.

TO: W. RICHTER, GENERAL MANAGER.
FROM: FABRIKOID DIVISION.

REPORT FOR JUNE, 1929

* * *

Viewing the picture by separate selling fields, the main points are as follows: (1) automotive sales of Newburgh products are substantially lower than a year ago. This decline is largely in sales to the Fisher Body Corporation, and results in part from their change from pyroxylin top materials to our Everbright Pontop, and in part from their decision to reduce the pyroxylin business given us because of the very large volume of rubber business that is coming to our company.

* * *

FAIRFIELD OUTLOOK

At Fairfield, in the automotive division, the largest individual account, namely, Ford Motor Company, is apparently still on the upgrade. It may be interesting to note that we recently received all of the orders for Ford's closed car deck material placed for their regular July purchases. Other automotive accounts are holding up well, and it is expected that the July final billings will be slightly in excess of those for June, while August should show about a 10% increase over July. Beginning with September, gradual curtailment in automotive business is expected during the remainder of the year.

* * *

The increase in sales may be attributed to the inherent uniform quality of the product, its superiority over competitive materials and the consequent recognition of its value by a large percentage of the automobile body manufacturers.

Of the Everbright Pontop yardage produced during the first six months of 1928, 82% was shipped to General Motors Units. During this period we did not enjoy any business from the Ford Motor Company, whose sales for the first half of 1929 (all of which was Everbright Pontop) amounted to 40% of the total production. 50% of the first six months' production in 1929 was for General Motors Units, while the balance of 10% was divided between other body manufacturers and distributors. The important automobile manufacturers, other than General Motors and Ford, who are now using Everbright Pontop include Chrysler, (who have just adopted Everbright for their 75), Studebaker, and Marmon (Roosevelt).

EXCERPTS

March 20, 1929.

TO: W. RICHTER, GENERAL MANAGER
FROM: FABRIKOID DIVISION

REPORT FOR FEBRUARY, 1929

* * *

Everbright Competition. Recent indications are that the practical monopoly which we have for some time enjoyed on the rubber deck material of durable lustre, may in the future be considerably reduced. Naturally our competitors have been working very actively to overcome this handicap; and while our own tests still indicate a distinct margin of superiority for Everbright Pontop, yet Haartz and others have made substantial advances and the formerly wide gap between their product and ours is narrowing. As an apparent consequence of these improvements, the Ford Motor Company is now buying in small quantities from two competitors, while we are just informed (March 20th) that some part of the Fisher requirements at Cleveland for Chevrolet bodies will be drawn from Haartz. Both these have heretofore been our exclusive accounts on rubber decking for closed bodies. As against these invasions, however, we are fairly well assured of a minimum of 150 000 yards monthly over the next six months from Ford; while we are informed that the new Marquette model, and certain other Buick work (for the past year using Textileather pyroxylin) will be turned to Everbright Pontop; so that our expectations as to total volume are not diminished, though the price factor may become more difficult. With the aid of the Chemical Department we are still vigorously pushing further developmental work on Everbright, in the hope that we may widen the gap against competitors by further increasing the life of our product; and recent Laboratory results appear encouraging.

Fairfield Export. Fairfield February bookings totaled 54 000 yards, as compared with 73 000 yards booked in January. In general, however, conditions in the export field are satisfactory.

Sales and Items of Special Significance. Total February Fairfield bookings amounted to 660 000 yards as compared with 730 000 yards for January. We have made our first sale to the Durant Motor Company, a relatively small order for teal and bow lining, and we have some reason to expect that we will succeed in developing this new customer into an Everbright account. Fairfield sales in February to leading automotive accounts included 156 000 yards to Fisher, 40 000 yards to Chevrolet and 233 000 yards to Ford. A recent development of special interest is the sale to Studebaker of some 5000 yards of our new type of colored rubber deck material.

* * *

Sales to General Motors, 1929 to date vs. 1928 to date, are down first because of loss of deck material business where rubber has displaced leather substitutes and second because of a switching from Fabrikoid to metal for body visors. These decreases, which total about $150 000 are partly offset by an increase in sales to Chevrolet of $60 000. The large increase in "Domestic—General" is due chiefly to sales of tablecloth and kitchen shelving products.

Defendant's Exhibit (DP) No. 280

CC: H.L.HOPKINS
~~J.H.SMITH~~
W.FULTON,JR.
FAIRFIELD (2)
E.DOREMUS

TO: E.S.NICKERSON

FROM: H.S.PLANK

6208

Attached is the first report on "Potential Yardage for FABRIKOID Division Materials as original equipment on passenger automobiles", as requested by Messrs. Nickerson and Fulton.

It was made up primarily to show a comparison of possible potential with actual Du Pont sales to the various car manufacturers. Its secondary purpose was to indicate the trend of production by make of cars showing just what manufacturers were on the up or down trend, so that costly plans would not be made to secure potential where a distinct and steady downtrend was noticeable.

This report must of necessity be somewhat detailed, but this was necessary in order to properly estimate the approximate potential for FABRIKOID Division products in the various places where it is possible for passenger automobiles to use our materials. It must be remembered too that this report has limitations, especially since in numerous cases the potential estimated for a specific make of car was arrived at by using percentage figures common to the industry as a whole.

The fields chosen as forming a potential were:

1. Closed top materials.
2. Open top & side curtain materials
3. Inside curtain materials (shades)
4. Rumble Seats
5. Open Car Upholstery
6. Bindings & Welts
7. Interior Trim
8. Spring Covers
9. Tire Covers
10. Misc. uses

Open top and side curtain materials were combined because both use the same type of fabric. Inside curtain materials (shades) were included because at least three manufacturers use coated fabrics for this purpose, at present, and more might possibly be converted. As far as known only one car, Chevrolet, uses coated fabrics for open car upholstery, all the rest using genuine leather. Spring covers are furnished on only eleven makes of cars, and of these eight use a metal cover. Sales of additional covers as an accessory were not considered as this report takes into account only original equipment. Tire covers were included because, while they are not generally furnished as original equipment, most of the dealers buy tire covers either from the manufacturer or an authorized accessory house to furnish with every new car. Mr. Owens furnished us with an estimate of tire cover sales by manufacturers, and this was used instead of actual sales figures.

Tool Kit bags were not considered because generally they are made of cheap cloth, or of coated seconds or scrap. Windshield

-continued-

Visors were not considered either, because at present all passenger cars use Metal Visors as an integral part of the car.

Inasmuch as production figures rather than sales are desirable in any study of potential yardage, production of cars by makes was secured from Cramis Monthly Report on automotive statistics. As these production figures included trucks (no separate figures being available) it was found that the only way to eliminate truck production was to deduct sales (registrations) of trucks from the production figures reported by Cramis to arrive at passenger car production.

It should be noted that potential figures are divided into

1. Where coated fabrics are now used.
2. Where coated fabrics could be used, but instead a product competing with coated fabrics, is being used at present, such as genuine leather for open car upholstery, metal for spring covers, and silk and poplin for closed car curtains. (Note that closed car upholstery was not considered as coated fabrics are not being used at present in this field.)

The basis on which potential yardage was developed is shown on separate sheets attached.

H. S. PLANK
SALES RECORD

Plank
WM. FULTON, JR.
DIVISION CONTROL MANAGER

MML/12-31-30

Note:

Page 6210 is on card 56.

Note:

Page 6211 is on card 132.

Defendant's Exhibit (DP) No. 283 DP 283

EXCERPT

October 19, 1931

MR. WM. RICHTER
GENERAL MANAGER

FABRIKOID DIVISION
MONTHLY REPORT—SEPTEMBER, 1931

* * *

Sales and Items of Special Significance. Fisher Body have allocated requirements through November for top material for the new closed models; Fairfield being awarded requirements for Buick and La Salle and a portion of Cadillac; also about one-half of the Chevrolet business, which was held by us 100% last year. Material for Oakland, Pontiac, (which we previously enjoyed) and Oldsmobile, has been awarded to competition,—we believe to Textileather Company. We have received Chevrolet's business on open car requirements for the first six months 1932, which business is placed direct.

* * *

E

Form 914* 300M [illegible] Defendant's Exhibit (DP) No. 284

cc: Mr. J. J. Moosmann- Wilm.
" Mr. E. R. Cathcart- Ffld.
" Messrs. Halle & Brown
"(in turn)- Nbg.

6213

June 13th, 1932.

Personal & Confidential

MR. C. A. STAPLES - DETROIT.

JUN 22 1932
C. W. W.

FORD - FISHER

I was very glad to learn from your letter of June 10th that this rather difficult situation had been so satisfactorily explained to Mr. Crusoe. We are immediately putting thru, effective June 10th, the necessary change in price on the 43¢ to 41-1/2 cents, less 2% for cash and 1% carload freight allowance.

Your letter states that you stated our May loss at Fairfield was $80 000, as indication of how desperate our top material situation is. Our May loss at Fairfield actually, of course, was only $36000, made up of an operating loss of $24 000 and loss on cotton futures of $12 000. The $80 000 that you had in your mind was for the Division. I mention this because there is a possibility that someone might question such a large loss for operations the size of Fairfield. Also, Jim Tomlinson has probably told you that we got an additional 15 000 yards from Ford late Friday, which makes the total 45 000 yards for this account at the new price.

In your current and future efforts to re-gain 100% of the Chevrolet business for us, it seems to me that the strongest argument we have in addition to the superior quality, favorable price, and our unequalled record of furnishing the automotive industry over thirteen million yards of material, practically without complaint, over the last few years, is the significance to the automobile manufacturer of having a fully responsible supply source. To drive this point home, we can, unfortunately, quote actual figures from our own experience of eight years ago. In the years of 1924-1925 and 1926, we actually reimbursed Fisher Body Corporation to the extent of $120 000 to cover the replacement and damage resulting from defective pyroxylin top material. The reason that this loss reached the size that it did, of course, was not the value of the top materials but the labor or replacement and the restoring of expensive upholstery, etc.

Figuring approximately 2 yards per car, it would certainly seem to me that you could draw up a very strong story of the unwarranted risk which an automobile manufacturer would be assuming in buying top materials from any but the most responsible and financially strong source of supply, particularly where the saving in purchasing from others at the outside would probably not exceed 4 or 5 cents per car. Specifically, I have in mind, of course, the J. C. Haartz Company, who took half of the Chevrolet business away from us last fall, despite the fact that at that time this company was literally on the auction block and has since been taken over on an optional management purchase basis, which leaves the future ownership and responsibility very much in doubt. To make the situation even more unsatisfactory, the Hunter Mfg. Company are in serious financial difficulties, having recently been taken over by a group of Southern cotton mills.

I realize that offsetting this, it can be argued that the Haartz material is apparently standing up satisfactorily; but as we know only too well, the manufacture of rubber products always involves substantial risks so far as ageing is concerned and even if it meant shutting down our plant we wouldn't consider taking the risks which Haartz are now incurring by stripping their technical organization, as we know they have done. They may get away with it, but if they don't, the future consequences would be very serious indeed to the automobile manufacturer using their top material.

I appreciate, of course, it would be unfair and improper to use any of the above information specifically, but generally, having the best interests of the General Motors Corporation in mind, it is something to which their purchasing people should certainly give very serious consideration.

E. S. NICKERSON.

ESN:me

Defendant's Exhibit (DP) No. 285

CC: E. S. NICKERSON

April 18, 1938

G. W. SHERIN
FINISHES DIVISION
WILMINGTON

FABRIC TOPS

This acknowledges your letter of April 14th to Mr. Nickerson on the above subject.

The United States registration of passenger cars on December 31, 1937 was 25 400 000. We believe that figure represents about the number of passenger cars in use today, assuming that the cars that have been junked this year about equal the production.

The first steel tops were made toward the close of 1934. General Motors in 1935 supplied steel tops on the Chevrolet Master model, Oldsmobiles and Pontiacs and in 1936 all General Motors cars had steel decks. Ford and Chrysler began supplying steel decks with 1937 models.

We estimate that to date 5 950 000 closed passenger cars with steel decks have been sold and our figures of the passenger cars now in use are, therefore, as follows:

Closed cars with steel tops	-	5 950 000
Convertible type and open cars	-	2 000 000
Closed cars with fabric tops	-	17 450 000

A. L. BROWN

ALB:AJK

E

[fol. 4015] DEFENDANT'S EXHIBIT (DP) No. 286

DON'T SAY IT—WRITE IT

DU PONT

Memorandum

Jan. 16, 1934.

To: H. S. Plank.
From: A. L. Brown.

Remarks: Would like to make a study of our sales of Teal by years, 1929 to date.

Please discuss with me.

AJK.

Excerpts from Memorandum by H. S. Plank to A. L. Brown, 1934, entitled "Sales of Du Pont Toal - In Yards - By Customers 1929 to 1933 inclusive."

	Yards Sold				
	1929	1930	1931	1932	1933
Pierce Arrow Motor Car Co. Buffalo, New York	4,753	5,356	1,591	585	34
Ford Motor Co. Dearborn, Mich.		-	1,843	12,256	692
Briggs Mfg. Co. Detroit, Mich.	-	2,434	5,524	16,599	75
Chevrolet Motor Co. All locations	91,383	275,595	169,525	32,607	13,435
Chrysler Corp. Detroit, Mich.	36,194	18,672	23,366	30,111	8,326
Fisher Body Corp. All locations	28,478	26,608	25,864	10,481	706
Murray Corp. of America Detroit, Mich.	-	-	-	288	2,173
Packard Motor Car Co. Detroit, Mich.	66	63	88	11,595	279
Buick Motor Co. Flint, Mich.	14,232	-	3,226	1,988	-
Reo Motor Car Co. Lansing, Mich.			-	11	-
Seaman Body Corp'n Milwaukee, Wisc.	838	2,692	10,620	-	-
Hayes Body Co. Grand Rapids, Mich.	645	5,473	1,357	-	-
Willys Overland Co. Toledo, Ohio	2,011	2,087	2,965	-	-
H. H. Franklin Mfg. Co. Syracuse, N. Y.	-	15	-	-	-
E. G. Budd Mfg. Co. Detroit, Mich.	538	14,904	4,595	154	-

Defendant's Exhibit (DP) No. 287

March 28, 1938

G. A. STAPLES - DETROIT

6219

FISHER BODY CORPORATION
"T E A L"

Thanks for your letter of March 23rd, which Mr. Nickerson has shown to me.

For your information, the question of guarantee was covered in correspondence in 1933 and, for your current record, I am quoting below the decision made.

The first part of your letter of August 14, 1933 to Mr. Nickerson reads as follows:

> "Referring to your letter of August 8th, we give below the answers to your questions:-
>
> "Question-1. Concerning guarantee we are asked to meet, it actually reads as follows:
>
> 'The rubber combining used is to be such that the combined material will withstand washing or cleaning with gasoline, naphtha or any other standard cleaning fluids which have no detrimental effect on Indanthrene colors, without causing combined fabrics to separate.
>
> 'Regardless of the number of times the material is cleaned or washed with gasoline, naphtha or any other standard fluids, or of the method used in washing or cleaning, the material is guaranteed against separation for two years."

This guarantee was authorized in Mr. Nickerson's letter of October 28, 1933, which is quoted below:

> "Referring to Mr. Moosmann's letter to me of August 25th, of which you received a copy, it is Fairfield's belief- which we endorse- that as a result of careful study and test that the use of gasoline for cleaning Teal tops will not cause the fabrics to separate during the proposed two-year guarantee period. Therefore, this letter will constitute your authority to extend to Fisher Body the guarantee on our combined Teal exactly as quoted under question #1 in your letter of August 14th."

A. L. BROWN

ALB:AJK

E

4017

Defendant's Exhibit (DP) No. 288

CC: W. B. BURNS

Newburgh, N. Y.
May 15, 1939

E. R. CATHCART

FISHER BODY CORPORATION

You have probably read Mr. Nalle's Trade Report of May 11th which indicates that for the first time in a number of years we have an opportunity to quote on Teal type material for Fisher.

Mr. Nalle's report outlines the specifications and also the two year guarantee that Fisher requires.

For your information, the guarantee is the same one that was considered by us in 1933, and at that time we agreed to give the guarantee to Fisher as the result of the conclusions of the New Products Committee covered in Mr. Schildhauer's memorandum of August 11, 1933.

MMcD

A. L. BROWN

Defendant's Exhibit (DP) No. 289

CC: G. A. STAPLES
F. J. BRANNIGAN

6221

May 23, 1939

T. A. NALLE

FISHER BODY "TEAL"

Referring to your trade report of May 11, we are pleased to quote a price of $1.16, less 2%, f.o.b. Fairfield, on "Teal" fabrics (Black and Tan) as described in your trade report. (Should you have difficulty with this price, you are authorized to go to not less than $1.11.)

We are unable to make this a firm quotation until we receive samples of the fabric because we have not had this business in the past and, until we make a run, cannot determine whether or not the material fully meets the tests specified by Fisher, as some of these tests must necessarily be made on the finished material.

We have ordered sample rolls and will obtain these and make the tests as quickly as possible. We understand that these fabrics have been made by Nashua but they have declined to quote us, and the quotations that we have received are from Cannon.

Fisher specifications call for applying a water repellent treatment to the fabric after combining. Pond Lily recommend that the treatment be given to the individual fabrics rather than to the combined job, as they fear excess damage in giving the water repellent treatment as the final operation. We have, therefore, figured on water repellent treatment on each fabric separately.

We will be interested in having the reaction to the price and, in the meantime, we will obtain the fabrics and process them as promptly as we can.

Carries in regular file
6/6 to 10/3/39
Dropped

Cotton mill
weaving - not
satisfactory

A. L. BROWN

ALB:AJK

P.S. - F. J. Brannigan

Will you please secure samples of the Cannon fabrics as quickly as possible and make up a job to meet the Fisher specifications so that the Laboratory can check for tensile strength, shrinkage, fastness to light, etc.

A. L. Brown

Defendant's Exhibit (DP) No. 290

Mr. ~~Verne Fisher~~, Fisher Body Detroit
~~Div. General~~ Motors Bldg., Detroit

A. L. Brown
W. Kaminsky

6222

June Seventeenth

1 9 4 0

Fisher Body Detroit Div.,
General Motors Corp.,
General Motors Bldg.,
Detroit, Michigan.

Attention: Mr. F. J. Walker.

Gentlemen:

We were recently favored with an inquiry from you on various top materials and are pleased to quote as follows on the combinations specified:

Fabric	#4130	-	$1.30
"	#4131	-	.49
"	#4132	-	1.20
"	#4133	-	.40

These prices are less 2% cash discount, f.o.b. Fairfield, Connecticut.

Immediately upon receipt of the inquiry sample rolls of cloth were ordered and we understand that it will require about 4 weeks for the cloth mills to deliver these. We believe it will be possible for the cloth manufacturer to meet tests, but we cannot state definitely regarding the 300 hour Fadeometer test until the samples can be manufactured and tested, which will, of course, require some time after the cloth is delivered to us. Delivery of these samples will be expedited all possible and at that time we can advise ~~you~~ definitely and at the same time submit samples for your consideration which have been tested in accordance with your specifications.

We appreciate your inquiry and trust that we will have the opportunity of supplying this type material.

Very truly yours,

E. I. du Pont de Nemours & Co. Inc.

By TAS

"Fabrikoid" Division

TAN:S

E

Defendant's Exhibit (DP) No. 291

2

FF-3310

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

FABRICS & FINISHES DEPARTMENT

6223

Detroit 2, Michigan
January 20, 1947

MR. A. L. BROWN - NEWBURGH

FISHER BODY DIVISION

Bob Oliger has asked if I knew how long the current prices were good for. I told him that undoubtedly this point was purposely left open as you did not know how long it would be possible to maintain them. He is not in search of new quotations, of course. Nevertheless, they are working up requisitions for new orders which may not be ready for placing for several weeks. If it will be necessary to use new prices on these orders, you may want to look into the situation in advance. Unfortunately, no data are available as to what the volume will be in the various fabrics, but I am confident you can consider the current schedules as minimum.

I hope that you will have good luck on working up the "Teal" situtation for Fisher, and quickly. They are running extremely close and are as anxious as I have ever seen them on anything, for us to get going quickly on it. Vern Fisher and I were talking about it Saturday afternoon and he remarked that Jess Hildebrand, Assistant Director of Purchases, had told practically everyone in the corporation that du Pont were going to help them out on the convertible top situation.

TANalle
T. A. NALLE

TAN:olb

Defendant's Exhibit (DP) No. 292

CC: W. J. LYNCH
M. N. NICKOWITZ
A. F. SCHILDHAUER
E. H. CATHCART
H. D. MC LEAN

Newburgh, New York
January 20, 1947

C. A. ALT

FISHER BODY DIVISION - CONVERTIBLE TOP MATERIAL

Mr. Fred J. Walker visited the New York Office on December 5th and urged us to place ourselves in a position to supply them with sport decking material and Mr. Nickowitz agreed that we would endeavor to do so. I note from your letter of December 17th that Mr. Nickowitz has requested you to work with the Purchasing Department on this problem, hence, I am giving you the samples, specifications and other information. Mr. Jess Hildebrand, Assistant Director of Purchases of Fisher, contacted Mr. Halle the latter part of last week and expressed the hope that we would be in a position to quote by February 1st. Of course, it is extremely doubtful that this is possible but this is an indication of the urgency they attach to the problem. Mr. Hildebrand pointed out that the convertible program is scheduled to be greatly enlarged for the 1948 models and indicated that the figures that have been given to us for 1947 will be enlarged for 1948.

The Fisher sport decking is now being supplied by Hartz, Mason, Brower who will purchase the fabric from Nashua and Fisher wish a second source of supply because they do not want to be dependent upon Nashua alone. It is therefore evident that we should not approach Nashua on this problem.

I am attaching copy of Fisher Body specifications #12-T-1542, 13-T-1542 and 14-T-1542 and you will note that two fabrics are involved. The Tan facing fabric is to be Vat dyed in the piece and the Black facing material is to be dyed in a fast color. The backing fabric is the same for both combining jobs and is sulphur piece dyed.

The lining fabric which we do not coat, and which is part 14-T-1542, is the same fabric as the backing material but is to be bleached and sulphur dyed and receive an aridex treatment.

The quantity involved is 25 000 yards monthly of the surface fabric (½ in Black and ½ in Tan) and 35 000 yards of the drill backing of which 25 000 yards would be used to combine to the surface fabrics and 10 000 yards to be dyed and aridex treated for lining.

Defendant's Exhibit (DP) No. 293

CC: A. L. BROWN
C. A. ALT

6225

New York Office
January 24, 1947.

W. S. LYNCH - PURCHASING

CONVERTIBLE TOP MATERIAL

We acknowledge your letter of January 21st on the subject in reference.

We are anxious to cooperate with Fisher in meeting not only their current expanded needs for sport decking but also in working out new improved constructions for their future consumption. We are not unmindful of the fact that considerable effort was expended in the past without success in procuring satisfactory fabrics to meet Fisher's sport decking needs. Our renewed effort, however, comes as a result of a special plea from Fred Walker, Purchasing Agent for Fisher, and Vern Fisher, Body Trim Engineer for Fisher Body.

You have probably seen the recent publicity by General Motors on their convertible car pricing program. Mr. Walker told us about this some time ago and said that Fisher are forecasting considerable expansion in this type of automobile. Furthermore, they have not been too well pleased with Haartz, Mason, Grower's performance and would like us to at least share in that business.

Fairfield is ideally set up to produce materials of this type today and we plan an aggressive program to go after it. Our success, of course, will be dependent to an unusual extent on our ability to get the necessary fabrics. We realize that the development of suitable sources may take several months, although we are hopeful that we can get started sooner.

NW

M. N. NICKOWITZ

E

Defendant's Exhibit (DP) No. 294

cc: M. N. Nickowitz - New York

DU PONT
ESTABLISHED 1802
E. I. du Pont de Nemours & Company
INCORPORATED
Fabrics & Finishes Department

Fairfield, Conn.
March 25, 1947

A. L. BROWN
NEWBURGH

TEAL AUTO TOPPING FOR FISHER

In compliance with your recent request, we have developed a suitable combining medium for producing a double texture teal construction for collapsible auto tops for Fisher Body. This is based on neoprene with which we get good adhesion to cotton and the durability will, of course, be very much superior to the old rubber used in pre-war days. Another feature of this combining would be its cleanability with gasoline as well as soap and water.

The experimental work has been done on some undyed drills we had in stock and only laboratory panels have been prepared. We also have some older work on both neoprene and butyl rubber on exposure for some time and the results will be available shortly. At present, we are waiting for the proper fabrics so that we can combine them and submit the finished product to Fisher Body for evaluation but according to recent correspondence, it appears that we will not have any properly dyed fabrics to work with in the very near future.

We are considering our part of this problem completed for the time being until fabrics can be obtained for preparation of a working sample for submission to Fisher Body.

A. F. SCHILDHAUER

AFS:mvk

Defendant's Exhibit (DP) No. 295

CC: J. R. BUCKLEY
A. L. BROWN
T. A. NALLE
E. R. CATHCART
H. S. CLEMENS
W. S. LYNCH - PURCHASING

New York Office 6227
January 27, 1947.

OFFICE TRADE REPORT #2

FISHER BODY CORPORATION
DETROIT, MICHIGAN

Mr. Fred Walker of Fisher Body stopped in today to pay us a more or less [illegible] visit but also to urge us to equip ourselves as soon as possible to supplement their supply of sport top fabrics.

Following a conversation with Mr. Lynch, which preceded Mr. Walker's visit, we explained to Mr. Walker that conditions in the textile industry would militate against early solution of this problem and that it might take us three to six months to get lined up on a source. He is hopeful that we can beat that time but urged us not to be discouraged if it took that long because they were determined to develop at least one more source as they are anticipating three to four times as much business in 1948 on convertible jobs as they now have.

Mr. Walker told us that Landers had equipped themselves before the war to supply this type of material in competition with Haartz-Mason-Grover and that they have asked them, too, to help them in this instance. However, they would like for Du Pont to at least share in this business and Mr. Walker believes that it should be attractive for the long pull.

We advised Mr. Walker that T. A. Nalle would be in to see him regarding higher prices. He asked that we write him and explain the reasons for the higher prices. We told him that these were in part made up by higher castor oil prices, higher solvent prices, higher pigment prices, as well as increased cost of gray goods since our previous sales price was established. Mr. Brown will confirm the reasons for the price advance in a letter to Mr. Walker, in order that he may be able to present the facts to his principals.

Mr. Walker said that he had bought very substantial quantities of sheeting in Worth Street on Thursday, January 23rd, at prices approximately 20% above the October ceiling. He covered on these sheetings through June on the basis that he had to do it in order to insure delivery. Mr. Walker stated that they had been offered sheetings for the third quarter at the ceiling price but they are not purchasing, at least for the present, beyond the second quarter. Mr. Walker said that after he had negotiated for a large quantity of sheeting, an offer had come in to the Textile Office for 1¢ per yard more for the sheeting which he purchased.

MW

M. N. NICKOWITZ

Defendant's Exhibit (DP) No. 296

CC: J. W. RICHARDSON
M. H. NICKOWITZ
G. T. VAALA

Newburgh, N. Y
October 10, 1949

CONFIDENTIAL

R. C. WILLIAMS

FISHER BODY—"TEAL"

As you know, we did not plan to see Mr. Vern Fisher on the trip to Detroit last week. However, Dr. Vaala and I encountered him in The Coffee Shop and talked with him in the lobby after that for about half an hour. No mention was made of price nor your current discussion with him and the Purchasing Department.

M Fisher inquired about the run of rayon/cotton that we are making for him, and Dr. Vaala explained that this particular run would probably not provide any reliable information. It will be completed at Fairfield within a few days and shipment made. It was pointed out that we did not know what treatment the fabric had already received or what type of dye was used. Dr. Vaala is writing separately to Mr. Richardson giving his views on this experimental run. Mr. Fisher stated that their results on the rayon/cotton construction from the shrinkage standpoint are not at all uniform and he has serious misgivings concerning the continued use of this construction by them.

After the rayon/cotton material that Fairfield is coating has been received and examined we should be advised whether or not we should look into the matter of a construction of that type. When the question was discussed with Mr. Walker in the spring he suggested that we probably should not attempt to line up a source of supply for the rayon/cotton fabric. He said that his present source was obtaining the construction from two concerns and that if a third were added he was afraid the amount of business would not be sufficient to keep any of them interested.

Mr. Fisher pointed out the large amount of time that he is spending on the top material problem and he mentioned that their present replacements are running at the rate of $250 000 a year. He said that if a top shrinks within one year they are replacing it if it is called to their attention.

He talked some about vinyl coated glass fabric made by Cordo Chemical Company, So. Norwalk, Conn. He said there was some thought that they should go to that construction which is non-shrinkable, but indicated that the chance of using it is very slight because of the manufacturing difficulties they would have. He did ask if we could duplicate it and was informed that we could do so from a technical standpoint but that we probably would recommend "ARMALON" coating as a better bet than vinyl; also that there was the question of handling glass fabric in the plant which has some objections, and would have to be considered.

Mr. Fisher volunteered the information that our present construction is at the top of the list from the shrinkage standpoint at present and he commented that possibly he should recommend to Purchasing that we be given all of the business. He followed this up by saying that it would not be a good thing to make such a recommendation. He then said that possibly we should be given the principal part of the business and should tell the competitor what we are doing to control the shrinkage within such narrow limits. Of course we ducked an answer to that one.

He mentioned that he had heard that Chrysler has had difficulty with Haartz material and has made a purchase from Goodall. He went on to say that he had tested Goodall material and found it unsatisfactory.

The above information was given to Mr. Richardson Friday evening but Mr. Nickowitz requested that I incorporate it in this letter to you.

A. L. BROWN

ALB:AF

Note: In upper left corner of first page appear the initials "JHW, ED, WJP," handwritten, with lines drawn through them. In upper right corner there are three stamps reading, "W.J.P. Oct 11 1949—E. D. Oct 11 1949 and Oct. 11 1949 J.H.W." Handwritten figures "111" underlined also appear here. The words "File Copy" are printed diagonally across both pages.

3
E

Defendant's Exhibit (DP) No. 297 (corrected)

E. I. DU PONT DE NEMOURS & COMPANY
DOLLAR SALES OF COATED AND COMBINED FABRICS TO FISHER BODY COMPANY—1923 TO 1949

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Units Manufactured[7]	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1923	117,286	0	117,286	268,934	.44	0	.44
1924	55,831	0	55,831	229,711	.24	0	.24
1925	100,865	202,308[1]	303,173	442,840	.23	.46	.69
1926	114,705	1,044,358	1,159,063	863,059	.13	1.21	1.34
1927	861,930	1,424,138	2,286,068	1,119,241	.77	1.27	2.04
1928	580,943	1,561,892	2,142,835	1,301,522	.45	1.20	1.65
1929	137,989	1,478,982	1,616,971	1,360,617	.10	1.09	1.19
1930	57,791	866,525	924,316	817,792	.07	1.06	1.13
1931	95,752	734,871	830,623	813,382	.12	.90	1.02
1932	73,038	176,434[2]	249,472	395,604	.18	.45	.63
1933	205,053	353,724	558,777	630,039	.33	.56	.89
1934	233,285	473,025	706,310	816,834	.29	.58	.87
1935	319,834	183,398[3]	503,232	1,220,341	.26	.15	.41
1936	242,136	3,981	246,117	1,505,890	.16	.00	.16
1937	367,501	1,755	369,256	1,524,841	.24	.00	.24
1938	135,350	28,213[4]	163,563	842,632	.16	.03	.19
1939	249,806	69,521	319,327	1,202,690	.21	.06	.27
1940	737,044[5]	78,884	815,928	1,691,226	.44	.05	.49
1941	1,161,035	60,430	1,221,465	1,780,057	.66	.03	.69
1942	23,223	0	23,223	85,897	.27	.00	.27
1943	0	0	0	0	—	—	—
1944	190	597	787	0	—	—	—
1945	143,989	600	144,589	27,832	5.17	.02	5.19
1946	972,942	105,496	1,078,438	805,867	1.21	.13	1.34
1947	2,169,921	186,387	2,356,308	1,407,119	1.54	.13	1.67
1948	2,311,950	311,929[6]	2,623,879	1,524,134	1.52	.20	1.72
1949	2,743,842	346,187	3,090,029	2,208,011	1.24	.16	1.40

[1] Fisher started buying from du Pont in September 1925.
[2] Fisher discontinued purchases of du Pont Teal, 1932.
[3] Fisher converted to steel tops during the years 1935 and 1936.
[4] Fisher started buying Cavalon for sedan delivery trucks.
[5] Fisher started using artificial leather for interior trim in 1940.
[6] Fisher resumed purchases of du Pont Teal, 1948.
[7] Figures represent closed bodies only 1923-1930, but represent all types of bodies, 1931-1949.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 298 (corrected)

E. I. DU PONT DE NEMOURS & COMPANY
YARDAGE SALES OF COATED AND COMBINED FABRICS TO FISHER BODY COMPANY—1923 TO 1949

Year	Newburgh Sales (Yards)	Fairfield Sales (Yards)	Total du Pont Sales (Yards)	Units Manufactured[7]	Newburgh Sales Per Car Manufactured (Yards)	Fairfield Sales Per Car Manufactured (Yards)	Total du Pont Sales Per Car Manufactured (Yards)
1923	80,514	0	80,514	268,934	.30	0	.30
1924	48,004	0	48,004	229,711	.21	0	.21
1925	173,833	182,529[1]	356,362	442,840	.39	.41	.80
1926	189,431	980,500	1,169,931	863,059	.22	1.14	1.36
1927	966,720	1,556,004	2,522,724	1,119,241	.86	1.39	2.25
1928	815,642	1,761,289	2,576,931	1,301,522	.63	1.35	1.98
1929	207,134	2,113,744	2,320,878	1,360,617	.15	1.55	1.70
1930	91,008	1,314,884	1,405,892	817,792	.11	1.61	1.72
1931	173,064	1,338,781	1,511,845	813,382	.21	1.65	1.86
1932	222,717	392,493[2]	615,210	395,604	.56	.99	1.55
1933	593,164	787,200	1,380,364	630,039	.94	1.25	2.19
1934	554,709	889,149	1,443,858	816,834	.68	1.09	1.77
1935	789,828	356,685[3]	1,146,513	1,220,341	.65	.29	.94
1936	898,690	9,111	907,801	1,505,890	.60	.01	.61
1937	882,362	5,218	887,580	1,524,841	.58	.00	.58
1938	310,559	42,427[4]	352,986	842,632	.37	.05	.42
1939	506,081	102,687	608,768	1,202,690	.42	.09	.51
1940	1,431,269[5]	108,606	1,539,875	1,691,226	.85	.06	.91
1941	2,108,735	82,333	2,191,068	1,780,057	1.18	.05	1.23
1942	30,964	0	30,964	85,897	.36	.00	.36
1943	0	0	0	0	—	—	—
1944	359	47	406	0	—	—	—
1945	205,131	102	205,233	27,832	7.37	.00	7.37
1946	1,131,364	79,641	1,211,005	805,867	1.40	.10	1.50
1947	1,851,270	127,932	1,979,202	1,407,119	1.32	.09	1.41
1948	1,820,216	181,433[6]	2,001,649	1,524,134	1.19	.12	1.31
1949	2,097,097	183,233	2,280,330	2,208,011	.95	.08	1.03

[1] Fisher started buying from du Pont in September, 1925.
[2] Fisher discontinued purchases of du Pont Teal, 1932.
[3] Fisher converted to steel tops during the years 1935 and 1936.
[4] Fisher started buying Cavalon for sedan delivery trucks.
[5] Fisher started using artificial leather for interior trim in 1940.
[6] Fisher resumed purchases of du Pont Teal, 1948.
[7] Figures represent closed bodies only 1923-1930, but represent all types of bodies, 1931-1949.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 299

Excerpt from Report of the Fabrikoid Division to the Executive Committee for April 1928, dated May 26, 1928

"During the month we secured an initial order at Fairfield from Motor Bodies, Inc., a body builder, for 1,300 yards, and we also secured 15,000 yards from General Motors Truck Company, which formerly had gone to competition."

Defendant's Exhibit (DP) No. 300

CC: W. W. KAMINSKY

March 7, 1940

T. A. NALLE

GENERAL MOTORS TRUCK & COACH

For your information, we are attaching test cards showing results of tests on L. C. Chase, Olive Drab material, compared with "Cavalon". These cards were requested in your trade report No. 41.

The competitive product is fairly good but the superiority of "Cavalon" is readily indicated, particularly in the scrub test.

A. L. BROWN

ALB:AJK

Note: The handwritten figures "408" appear in the upper right-hand corner. The words "file copy" are stamped diagonally across the face of the page.

Defendant's Exhibit (DP) No. 301

CC: A. L. BROWN

6235

Fairfield, Conn.
June 5, 1940
Dict. 6/4/40

T. A. HALLE

GENERAL MOTORS TRUCK & COACH

The attached samples showing results of Bomb Aging are supplementary to evaluation of U.S. Naugahyde Olive Drab material vs. "Cavalon" #7030 which we previously submitted to you. The U. S. Naugahyde failed after 14 days in the bomb whereas "Cavalon" #7030 #704 Color withstood 19 days.

WK:smf

W. W. KAMINSKY

POTENTIAL EXISTING IN AUTOMOTIVE FIELD FOR USE OF PYROXYLIN OR RUBBER-COATED TEXTILES AS ORIGINAL EQUIPMENT

11 MONTHS - 1930

PASSENGER CARS ONLY	PASSENGER CARS PROD. 11 MOS. 1930	CLOSED TOP MATERIALS		SPRING COVERS		OPEN CAR TOPS AND CURTAINS		SHADE MATERIALS		RUMBLE SEATS		TIRE COVERS		OPEN-CAR UPHOLSTERY		BINDING & WELTS		INTERIOR TRIM		MISCELLANEOUS USES CURTAIN COVERS (BOW COVERINGS, ETC.)		TOTAL POTENTIAL		TOTAL SALES	
		POTENTIAL	SALES N-OR-F	POTENTIAL	SALES N	POTENTIAL	SALES F	POTENTIAL	SALES N	POTENTIAL	SALES N	POTENTIAL	SALES N-OR-F	POTENTIAL	SALES N	POTENTIAL	SALES N	POTENTIAL	SALES N	POTENTIAL	SALES N-OR-F	WHERE FABRIC IS NOW USED	WHERE FABRIC COULD BE USED	N	F
American Austin	10 519	24 980	F-9 935			8 260		•11 285		632		10 519		•3 480		10 519		5 259		5 259		65 428	14 765		9 935
Auburn-Cord	13 655	32 385				10 700		•14 620		820		13 655		•4 510		13 655		6 828		6 828		84 871	19 130		
Buick	114 991	272 400	F-211 130			90 130		•123 000		6 900	35 503	114 991	N-60 000	•38 000		114 991		57 495	73 571	57 495		714 402	161 000	169 074	211 130
Cadillac-LaSalle	21 801	51 640	(F-36 640 (N- 7 634	•21 801		17 100	14 028	•23 325		1 310		21 801	F- 3 000	•7 200		21 801		10 900	1 931	10 900	F-13 976	135 452	52 326	9 565	67 644
Chevrolet (1)	679 000	1 610 000	F-783 179			533 000	265 006	•727 000		95 000		679 000	(F- 7 500 (N-35 000	224 000	225 900	679 000		339 500		339 500	(F-23 794 (N-10 780	4 499 000	727 000	271 680	1 079 479
Chrysler	63 187	150 000		•6 318		49 600	45 614	•67 650		3 800		63 187		•20 850		63 187		31 593		31 593	F - 866	392 960	94 818		46 480
DeSoto	36 145	85 600				28 400		•38 650		2 170		36 145		•11 920		36 145		18 073		18 073		224 606	50 570		
Dodge (1)	72 000	170 750				56 500		77 100		4 320		72 000		•23 775		72 000		36 000		36 000		524 670	23 775		
Durant	26 000	61 650				20 400	7 011	•27 850		1 560		26 000		•8 575		26 000		13 000		13 000	F-1 285	161 610	36 425		8 296
Ford (1)	1 240 000	2 940 000	F-1 467 014			972 500		•1 330 000		173 800		1 240 000	N-24 956	•409 500		1 240 000		620 000		620 000		7 806 300	1 739 500	24 956	1 467 014
Franklin	7 194	17 080				5 650		•7 700		430		7 194	N- 1 000	•2 375		7 194		3 597		3 597		44 742	10 075	1 000	
Gardner	3 062	7 260				2 405		•3 280		184		3 062		•1 010		3 062		1 531		1 531		19 035	4 290		
Graham-Paige (1)	1 200	2 850		•1 200		940		1 285		72		1 200		•397		1 200		600		600		8 747	1 597		
Hudson-Essex	103 280	244 500				81 100		110 600		6 200		103 280		•34 100		103 280		51 640		51 640		752 240	34 100		
Hupmobile	22 809	54 040		22 809		17 900		•24 400		1 370		22 809		•7 540		22 809		11 405		11 405		164 547	31 940		
Jordan	1 634	3 875				1 280	30	•1 750		98		1 634		•540		1 634		817		817		10 155	2 290		30
Lincoln	4 445	10 530				3 490		•4 760		267		4 445		•1 470		4 445		2 223		2 223		27 623	6 230		
Marmon	13 298	31 500	(F-2 895 (N- 364	4 000		10 430	4 721	•14 225		800		13 298	(F- 856 (N-15 000	•4 390		13 298		6 649		6 649	F-1 244	86 624	18 615	15 364	9 716
Moon-Ruxton	2 530	6 000				1 985		•2 710		152		2 530		•835		2 530		1 265		1 265		15 727	3 545		
Nash	61 503	145 900		•9 000		48 300	12 242	•65 900		3 695		61 503		•20 300		61 503	2 108	30 751		30 751	F-2 547	382 403	95 200	2 108	14 789
Oakland-Pontiac	77 527	183 900	F-62 046	77 527	31 552	60 800		•83 000		4 650	2 500	77 527	N-8 000	•25 600		77 527		38 764	10 876	38 764		559 459	108 600	52 928	62 046
Oldsmobile-Viking	49 283	117 000				38 650	10 681	•52 800		2 960	6 000	49 283		•16 280		49 283		24 641	12 231	24 641	F-6 097	306 458	69 080	18 231	16 778
Packard	29 750	70 500				23 340	63	•31 850		1 785		29 750	F-7 500	•9 820		29 750		14 875		14 875		184 875	41 670		7 563
Peerless	5 690	13 500		•5 690		4 470		•6 095		342		5 690		•1 880		5 690		2 845		2 845		35 382	13 665		
Pierce-Arrow	7 164	17 000	N-6 911	•7 164		5 625	9 284	•7 680		430		7 164	F-1 548	•2 365		7 164		3 582	156	3 582	F - 875	44 547	17 209	7 067	11 707
Plymouth	71 327	169 000				56 000		•76 400		4 285		71 327		•23 525		71 327		35 613		35 613		443 165	99 925		
Reo (1)	13 600	32 250	F-5 400	•13 600		10 680		•14 550		815		13 600		•4 485		13 600		6 800		6 800		84 545	32 635		5 400
Studebaker-Erskine(1)	57 200	135 800	F-18 367	•5 700		44 900		•61 300		3 440		57 200	N-1 000	•18 900		57 200		23 600		23 600		345 740	85 900	1 000	18 367
Willys-Overland (1)	82 000	194 500				64 350	2 272	•87 900		4 920		82 000		•27 100		82 000		41 000		41 000		509 770	115 000		2 272
Misc. Manufacturer Sales					13 500												32 333							45 833	
Fairfield Sales ToTal			2 596 606				370 952						20 404								50 684				
Newburgh Sales ToTal			14 909		45 052						44 003		144 956		225 900		34 441		98 765		10 780				
TOTAL	2 891 794	6 856 390	2 611 515	174 809	45 052	2 268 885	370 952	3 098 665		327 207	44 003	2 891 794	165 360	954 722	225 900	2 891 794	34 441	1 440 846	98 765	1 440 846	61 464	18 635 083	3 710 875	618 806	3 038 646

All Potential as well as Sales are shown in lineal yards.

(1) Estimated Truck Prod. deducted from Total Sales to get Passenger Car Sales.

•Indicates that make of car does not use a Coated Fabric but uses a product which competes with Coated Fabrics for Standard Use in that field.

"N" or "F" indicates whether Sales are Newburgh or Fairfield Material.

H.S.PLANK/CAT-10
SALES RECORD
12-31-30

Defendant's Exhibit (DP) No. 302

"FABRIKOID" AND RUBBER TRADE REPORT - Sales Manager's Copy

COPIES TO

2 Fairfield	1.
2.	4.

[illegible] 11/2[illegible]/40
[illegible] 11/[illegible]/40
Customer [illegible] ruck & Coach
[illegible]
[illegible]
[illegible] E. H. Nelson

B. C. 23
Class 1
Rep't No. 340
Salesman T. [illegible] Nellis
Date of Call 11/19/40

What products are made from our Rubber or Pyroxylin materials?
Suggest New Uses:
Show Affiliations and Other Locations

CONSUMPTION - PYROXYLIN COATED GOODS - NEXT TWELVE MONTHS

LIGHT (Inclusive: Sheetings - Clear Coating - Coated Paper) / HEAVY (Inclusive: Drills - Twills - Sateens - Moleskins)

Quality	Width	Price	Manufacturer	Bought From or Supplied By	Approx. Normal Annual Cons.-Yds.	Quality	Width	Price	Manufacturer	Bought From or Supplied By	Approx. Normal Annual Cons.-Yds.

CONSUMPTION - RUBBER COATED GOODS - NEXT TWELVE MONTHS

CONSUMPTION - OTHER FABRICS, COMPETITIVE IN USE, - NEXT TWELVE MONTHS

1. [illegible] Specific reasons for purchase - any new competitive [illegible] bought since last call? Did you inform [illegible]?
2. [illegible] Favorable comments, criticisms or complaints of our prices [illegible] products.
3. ECONOMIC OUTLOOK: Customer's outlook on business next three months.
   a—Present capacity operating, at this call.
   b—Any new, regained, or lost business to report, since last call? Give specific reasons for change and tell competitors affected.
4. What assistance can organization give you prior to next call?
5. Report change in firm name, address, purchasing agent, class, mailing list.

GENERAL: Each report should show continuity of effort from last visit, as well as purpose, results and needed action of call.

Answer completely each call questions 1, 2, and 3 - General remarks to follow - Separately for Newburgh and Fairfield Products.

[illegible]

alled with Mr. Brown and saw E.H.Nelson. He is interested in extending current "Cavalon" contracts to ugust 1st and is anxious that the same price be continued. Mr. Brown agreed to take this up upon his eturn and advise. (In the meantime instructions have een received from him to extend the contract.)

he question of olive drab was also discussed and elson indicated that they had released so far this ear approximately 70,000 yards of olive drab which s now coming from U. S. Rubber. He further stated hat U. S. had agreed at the time of takin; the contract to protect them on add tional government business. This means that they will not be in the market s of January 1st for a new contract on this item and we will be fortunate to secur [illegible] business.

SEE REVERSE SIDE FOR WRITING OR TYPING ADDITIONAL REMARKS
(Use Both Sides As Req)

Form 2037A* 150 pads 1926

Parlin Trade Record

INDUSTRIAL SALES TRADE REPORT
E. I. DU PONT DE NEMOURS & COMPANY
Chemical Products Division

Salesman John L. O'Donnell Date 5-18-26 Report No. [illegible]60
Customer Delco Light Co. Class No. 1.
Street and No. Business Frigidaires
Town Dayton State Ohio
Person Interviewed Title Buyer Title

HANDLES (CROSS OUT GOODS NOT HANDLED)	IMMEDIATE PRIOR PURCHASES: QUANTITY, GRADE, PRICE, FROM WHOM; CONTRACT EXPIRES; APPROXIMATE CONSUMPTION; IN MARKET AGAIN
SOLVENTS	Re. letter [illegible] May 4th.
COTTON SOLUTIONS	
LACQUERS	Black Baking Enamel--for the present they
	have adopted [illegible]
THINNERS	of Dayton for finishing [illegible]. Our
BRONZING LIQUIDS	first sample of Locomotive Black was not sa-
	tisfactory, whereas [illegible]
P X ENAMEL	satisfactory enamel. They have not yet tried
BRONZE POWDER	9209 our latest sample. Will try it as
READY MIXED PAINTS	soon as they can but as the [illegible] mater-
	ial is working [illegible] they are not an-
VARNISHES	xious to change.
PASTE PAINTS	5x10 Flintflex Oak Graining [illegible]--this
OIL ENAMELS	product is very satisfactory. They will use
PASTE FILLERS	this--have sent us their first order for 100
	gal.
STAINS	
BLACK JAPANS Black Enamels	Send F. L. Chase [illegible] sample [illegible]
	dealer.
WHITE LEAD	
PRIMERS & UNDERCOATERS	

Rec'd and Typed 5-21-26 [illegible]

1. Give important reasons why customer or prospect buys from competitors (quality, service and price).
2. (a) Are you familiar with and have you given due consideration to EVERY PRODUCT customer or prospect buys?
   (b) What products should we concentrate on to initiate sales with least delay?
3. Is customer or prospect operating at full capacity? If not, give approximate percentage.

EVERY QUESTION MUST BE ANSWERED, GIVING IMPORTANT DETAILS

Re. letter [illegible] April 15th.

The other day when [illegible] Durham and I were working at Moraine City, I went into the matter of shipments of [illegible] being received with cans broken and found that they are still having this same trouble. They find broken [illegible] shipments are received by Express, Frgt. [illegible] which is delivered them by [illegible] and I took this up with their re[illegible] told us that on the previous day, [illegible] they found two broken cans [illegible] that you write back to Parlin, [illegible] Durham confirm my report that the customer [illegible] receiving cans broken in boxes that [illegible] feel that the cans are not made of [illegible]

Re. letter [illegible] April 30th.

The [illegible] of [illegible] Putty ordered last December was to be used for touch up work at Moraine City. As this material was never supplied we are to consider this matter closed for the present. However, this has nothing to do with the material required for repairing scratches as referred to in my letter of April 26th. They are still looking for a white Duco that they can supply in small cans to their Service Depts. all over the country where it is necessary to repair cabinets that have become scratched or marred.

Defendant's Exhibit (DP) No. 338

6288

4036

Defendant's Exhibit (DP) No. 362

ESTIMATED ANNUAL REQUIREMENTS OF GENERAL MOTORS DIVISIONS AND OTHER AUTOMOBILE MANUFACTURERS OF CASE-HARDENING AND HEAT TREATING MATERIALS SOLD BY DU PONT AND OTHER COMPANIES, RESPECTIVELY, SELECTED FROM GENERAL SURVEY OF ALL USERS OF SUCH PRODUCTS BY R. B. K'BURG IN SEPTEMBER 1937.

	Du Pont Products Pounds						Competing Products Pounds								
Customer	96-98% Sodium Cyanide	75% Sodium Cyanide	45% Sodium Cyanide	30% Sodium Cyanide	Ducase	Total	Imported Sodium Cyanide	Aerocase	Perliton	Holden	Parkcase	Total	Grand Total	% du Pont	% Competing
Cadillac Motor Car	—	—	—	—	—	—	15 000	—	15 000	—	—	30 000	30 000	0	100.00
Chevrolet Gear & Axle	5 000	—	—	—	—	5 000	—	—	100 000	—	—	100 000	105 000	4.76	95.24
Chevrolet Bay City	—	100 000	—	—	—	100 000	—	—	—	5 000	—	5 000	105 000	95.24	4.76
AC Spark Plug	15 000	—	—	—	—	15 000	4 000	—	—	—	—	4 000	19 000	78.95	21.05
Buick	—	—	—	—	—	—	10 000	—	—	300 000	20 000	330 000	330 000	0	100.00
Olds Motor Works	—	—	—	—	—	—	25 000	—	—	—	—	25 000	25 000	0	100.00
General Motors Truck	2 000	—	—	—	—	2 000	—	5 000	—	—	—	5 000	7 000	28.57	71.43
Pontiac Motor	60 000	—	—	—	—	60 000	—	—	—	—	—	—	60 000	100.00	0
Chevrolet Parts Mfg.	—	—	300 000	—	—	300 000	20 000	—	—	10 000	—	30 000	330 000	90.91	9.09
Saginaw Steering Gear	—	—	—	—	—	—	—	—	—	—	25 000	25 000	25 000	0	100.00
Total General Motors Corp.	82 000	100 000	300 000	—	—	482 000	74 000	5 000	115 000	315 000	45 000	554 000	1 036 000	46.53	53.47
Chrysler Corp.	25 000	200 000	—	—	—	225 000	1 000	—	—	—	—	1 000	226 000	99.56	0.44
Detroit Gear & Mach. Division (B.W.Corp.)	50 000	—	—	—	—	50 000	—	—	—	20 000	—	20 000	70 000	71.43	28.57
Ford Motor Company	50 000	850 000	450 000	—	—	1 350 000	—	20 000	100 000	—	—	120 000	1 470 000	91.84	8.16
Hudson Motor Car Company	120 000	—	—	—	—	120 000	—	15 000	100 000	—	—	115 000	235 000	51.06	48.94
Long Mfg. Div., Borg-Warner	25 000	12 000	—	—	—	37 000	—	—	—	—	—	—	37 000	100.00	0
Motor Products Corp.	500	—	—	—	—	500	—	—	—	—	—	—	500	100.00	0
Packard Motor Car Co.	3 000	—	—	—	—	3 000	—	—	—	—	—	—	3 000	100.00	0
Motor Wheel Corp.	1 000	—	—	—	—	1 000	—	—	—	—	—	—	1 000	100.00	0
Reo Motor Car Co.	1 000	—	—	—	—	1 000	—	—	—	—	—	—	1 000	100.00	0
Continental Motors Corp.	2 000	25 000	—	—	—	27 000	—	—	—	—	—	—	27 000	100.00	0
Muskegon Motor Specialty Corp.	18 000	—	—	—	—	18 000	2 000	—	—	—	—	2 000	20 000	90.00	10.00
Studebaker Corp.	10 000	—	—	—	—	10 000	—	—	—	—	—	—	10 000	100.00	0
Four Wheel Drive Auto Co.	—	—	2 500	—	—	2 500	—	—	—	—	—	—	2 500	100.00	0
Nash-Kelvinator Corp., Nash Division	4 500	45 000	15 000	—	—	64 500	—	—	5 000	—	—	5 000	69 500	92.81	7.19
Total Other Automobile Manufacturers	310 000	1 132 000	467 500	—	—	1 909 500	3 000	35 000	205 000	20 000	—	263 000	2 172 500	87.89	12.11

Defendant's Exhibit (DP) No. 363

CASEHARDENING AND HEAT TREATING

Du Pont's Participation in Supplying Requirements of General Motors Divisions

	1930-1937	1938-1941	1946	1947	1948	1949	1950
CADILLAC	Buying 75% cyanide mixture from R&H prior to acquisition -- switched to competitive products about 1935.	Using competitive materials exclusively.	Using competitive materials exclusively.	Commenced using some duP materials for minor part of casehardening.	Liquid hardening baths largely displaced by gas process.	Using gas process for bulk of casehardening -- duP and competitive materials used for small quantity of liquid hardening.	
BUICK	Buying imported cyanide -- commenced using Aerocase in early '30s, later switched to Holden materials -- commenced displacement of liquid hardening with gas process in 1936.	Switched to duP cyanide in 1940 when imports cut off by war -- using gas carburizing for majority of operations.	Using duP cyanide & duP and Park carburizing salt -- using gas process extensively.	Used some imported cyanide but found it unsatisfactory -- rejected duP's carburizing salt in favor of Houghton Perliton.	Further expanded use of gas process.	Majority of heat treating done with gas process -- materials for liquid baths obtained from duP, Park and Houghton.	
CHEVROLET	Buying part of sodium cyanide from R&H prior to acquisition -- some plants using duP materials, others using Houghton, Holden & Park materials.	Special mixture prepared by duP for Chevrolet Gear & Axle, rejected by many other Chevrolet plants.	Liquid baths partially displaced by gas process -- duP supplying part of materials for remaining liquid baths.	Further displacement of liquid baths by gas process.		Liquid hardening used only for tools and emergency work -- duP supplying cyanide, competitors supplying majority of carburizing salts and special mixtures.	
OLDSMOBILE	Used no duP casehardening materials before 1937 -- used imported cyanide mixture for limited casehardening operations.	Major part of casehardening done with gas process -- using some duP 96% cyanide -- all other materials obtained from competitors.	Usage of gas process reduced slightly -- using some duP cyanide and heat treating salts.	Additional gas hardening equipment installed -- liquid baths used only for treating tools and miscellaneous small parts, using competitive materials in these baths exclusively.			
PONTIAC	Buying 45% cyanide mixture from R&H prior to acquisition & thereafter -- also using Park Kwickcase and imported 96% cyanide. Later used duP 96% cyanide.	Using gas, salt and cyanide -- duP supplying part of cyanide, no other materials.	Continuing to operate several liquid baths -- all materials except 96% cyanide supplied by competitors.		Use of gas hardening expanded -- still operating some liquid baths, purchasing 96% cyanide from duP, all other materials from competitors.		
GM TRUCK & COACH	Using small quantities of duP 96% cyanide and Aerocase for limited casehardening operations.	Using competitive materials almost exclusively.	Gas process used for part of operations -- materials for liquid hardening baths purchased by GM specification number on competitive bidding basis. DuP supplying minor part of requirements.				
TERNSTEDT	Using only straight cyanide, purchased entirely from importers.	Using some proprietary casehardening and heat treating mixtures, purchased entirely from duP competitors.	Using gas process for part of operations -- purchasing materials for liquid baths from competitors.	Using duP cyanide for part of operations, but liquid baths largely displaced by gas carburizing.			
A.C. SPARK PLUG	Casehardening and heat treating operations not extensive -- duP supplying part of materials.	Operations considerably expanded -- using some duP and some foreign cyanide -- bulk of work done with competitive materials.	Gas process used almost exlusively for casehardening -- liquid baths used for heat treating with materials purchased by Division specification number -- duP supplying minor part of requirements.				
BROWN-LIPE-CHAPIN	Buying cyanide from R&H prior to acquisition and from duP thereafter, used as reheating bath for pack hardening -- competitive materials used for majority of casehardening.	No casehardening or heat treating operations at this Division since 1936, when such operations were transferred to Saginaw Steering Gear.					
SAGINAW STEERING GEAR	Using 95% cyanide for casehardening, purchased from duP and importers in some years -- other materials for liquid baths supplied by competitors -- using gas carburizing since early '30s.		Continuing to use both liquid baths and gas carburizing -- materials for liquid baths, except small amounts of duP 96% cyanide, obtained almost exclusively from competitors.				
FRIGIDAIRE	Buying straight cyanide and mixtures from R&H prior to acquisition -- using imported cyanide and other competitive materials for majority of operations thereafter.		Using duP cyanide & carburizing salts -- part of requirements supplied by competitors.	Purchasing carburizing salts from competitors -- duP supplying some heat treating compounds and small quantities of cyanide.			
DELCO-REMY	Buying R&H material exclusively prior to acquisition -- thereafter major part of materials supplied by duP.		Purchasing materials on competitive bids -- duP supplying bulk of cyanide and neutral salt.		Purchasing only cyanide from duP, other materials from competitors -- gas process used to increasing extent.		
DELCO PRODUCTS	Purchasing limited requirements of casehardening materials from R&H prior to acquisition and from duP thereafter.	Liquid carburizing substantially increased -- majority of materials purchased from duP's competitors.	Using duP materials for bulk of casehardening -- buying heat treating materials on competitive bids, duP obtaining minor share of business.		Using competitive materials exclusively for casehardening -- duP supplying part of heat treating materials on competitive bidding basis -- gas carburizing used to increasing extent.		

Identification of Major Competitive Suppliers and Products

Supplier		Products
American Cyanamid Company	-	Aerocase
A. F. Holden Co.	-	Hard Case

E

Note:

Page 6236 is on card 132.

Defendant's Exhibit (DP) No. 303

CC: G. A. STAPLES
F. J. BRANNIGAN
E. R. CATHCART

November 20, 1940

6237

T. A. HALLE

GENERAL MOTORS TRUCK CORP.

Referring to our conversation with Mr. Nelson, it is satisfactory to extend the present "Cavalon" contract at the present price to the end of July next. Will you please let me know as soon as you have his final O.K.

With the quantity of Olive Drab material that they are now using, which is running neck-and-neck with "Cavalon" I hope you will be able to prevail on him to give us a carload or two of it. He can do so and still buy a good quantity from competition since he seems insistent on continuing an outside source of supply.

A. L. BROWN

ALB:AKT

P.S. - E. R. Cathcart

This confirms conversation today. I estimate that 60 000 yards of "Cavalon" will be required by G.M.T. during the contract period in the first half of 1941.

A.L.B.

NOTE: "File Copy" appears diagonally across the letter.

Defendant's Exhibit (DP) No. 304

CC: E. R. Cathcart
A. L. Brown
W. W. Kaminsky

Fairfield, Conn.
December 20, 1940

F. J. BRANNIGAN:

GENERAL MOTORS TRUCK
PONTIAC, MICHIGAN

In your letter of December 3 you asked that we prepare for Mr. Nalle some comparative tests to show the comparison of our olive drab "Cavalon" with Naugahyde #720 of which we have recently received some samples in various letters from Mr. Nalle.

We have made a comparison of this Naugahyde with our #7030 quality and our #6028 quality. The test cards are attached and we are commenting as follows:

1. *Abrasion Resistance.* All samples, as will be noted, show no sign of wear at the end of the usual 10,000 cycle test.
2. *Edgewear.* As will be noted, both "Cavalon" constructions show no sign of wear at the end of 50,000 strokes whereas the Naugahyde shows definite signs of wearing.
3. *Scrub Resistance.* All three samples show excellent resistance to scrub at 2,000 strokes which is a rather severe test.
4. *Adhesion of the Rubber to the Fabric.* In this case the #7030 quality and Naugahyde are equal, both

being built on a broken twill. The #6028 quality on the sateen is considerably better.

5. *Flexing.* In the DeMattia flex test all three samples show slight cracking at the corners, but no cracking across the face. In the Bodine flexing test no affect is noted on any of the samples at the end of the 24 hours—100,000 cycle test.
6. *Fade-O-Meter.* Whereas we do not like to mention Fade-O-Meter tests in our discussions with the trade or technical groups because we feel it has no particular bearing on the life of "Cavalon," nevertheless, we do make them for our own information to know how we stand in case this matter is brought up by such people who believe that this test has value, such as Chrysler and Ford. We are attaching the cards showing the greater amount of discoloration of the Naugahyde to our #7030 or #6028 qualities. We would suggest that this information be kept for our own use only and not given to the trade, as we do not wish to be quoted as believing that the Fade-O-Meter is significant for we have been fighting it in Federal Specifications very strenuously during the past year.

In general we would say this group of tests indicates that the Naugahyde material is of fairly good quality. There is one weakness in comparison to "Cavalon" and that is on edgewear. Of course, we feel that this is an important weakness.

We do not have bomb aging tests completed although at this writing the Naugahyde has failed at the end of ten days. Our own material is not expected to fail until about twenty days or more have elapsed—that has been our general performance. Whereas ten days is considered adequate by many of our competitors, we cannot agree with them based on our experience over ten years of correlation between bomb aging and actual service life and we therefore build that extra quality into our products to remove the question of deterioration from aging entirely.

A. F. SCHILDHAUER

AFS:neo

NOTE: In the second to last line on page 2 the word "actual" has been lined out and the word "extra" substituted in handwriting.

Defendant's Exhibit (DP) No. 305

E. I. DU PONT DE NEMOURS AND COMPANY DOLLAR SALES OF COATED FABRICS TO YELLOW TRUCK & COACH CO.—1927 TO 1943 INCLUSIVE

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales
1927	28,447	NA	NA
1928	55,465	26,124	81,589
1929	40,147	13,331	53,478
1930	89,862	9,906	99,768
1931	15,416	9,291	24,707
1932	7,644	985	8,629
1933	37,736	4,364	42,100
1934	27,905	118	28,023
1935	24,892	210	25,102
1936	39,467	17,132	56,599
1937	57,385	22,542	79,927
1938	1,776	37,572	39,348
1939	819	90,943	91,762
1940	1,556	80,168	81,724
1941	1,092	97,164	98,256
1942	1,901	2,162	4,063
1943	3,098	0	3,098

Source: Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 306

E. I. DU PONT DE NEMOURS AND COMPANY YARDAGE SALES OF COATED FABRICS TO YELLOW TRUCK & COACH CO., 1927 TO 1943

Year	Newburgh Sales (Yards)	Fairfield Sales (Yards)	Total du Pont Sales (Yards)
1927	21,889	NA	NA
1928	63,170	34,609	97,779
1929	46,517	12,858	59,375
1930	101,553	11,892	113,445
1931	24,875	13,049	37,924
1932	10,608	1,840	12,448
1933	53,284	7,309	60,593
1934	37,703	134	37,837
1935	32,661	242	32,903
1936	61,510	24,420	85,930
1937	87,919	32,202	120,121
1938	1,933	52,506	54,439
1939	1,106	128,234	129,340
1940	2,017	104,474	106,491
1941	1,299	120,965	122,264
1942	2,001	2,214	4,215
1943	2,834	0	2,834

Sources: Du Pont Departmental Trade Records—Fabrics Division Sales Cards

Defendant's Exhibit (DP) No. 307

E. I. DU PONT DE NEMOURS AND COMPANY
DOLLAR SALES OF COATED FABRICS TO GENERAL MOTORS TRUCK & COACH DIVISION, 1944 TO 1950

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Truck Production	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1944	8,120	28,590	36,710	152,528	.05	.19	.24
1945	10,547	70,693	81,240	115,279	.09	.61	.70
1946	10,435	85,238	95,673	36,393	.29	2.34	2.63[1]
1947	25,834	110,567	136,401	65,895	.39	1.68	2.07
1948	14,366	135,003	149,369	97,306	.15	1.39	1.54
1949	2,382	153,927	156,309	86,677	.03	1.78	1.81
1950	4,248	121,767	126,015	112,557	.04	1.08	1.12

[1] Coated fabrics in short supply and GMT&C bought all du Pont would supply.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 308

E. I. DU PONT DE NEMOURS AND COMPANY
YARDAGE SALES OF COATED FABRICS TO GENERAL MOTORS TRUCK & COACH DIVISION, 1944 TO 1950

Year	Newburgh Sales (Yards)	Fairfield Sales (Yards)	Total du Pont Sales (Yards)	Truck Production	Newburgh Sales Per Car Manufactured (Yards)	Fairfield Sales Per Car Manufactured (Yards)	Total du Pont Sales Per Car Manufactured (Yards)
1944	8,540	26,437	34,977	152,528	.06	.17	.23
1945	10,697	66,100	76,797	115,279	.09	.57	.66
1946	10,310	55,226	65,536	36,393	.28	1.52	1.80[1]
1947	18,462	71,605	90,067	65,895	.28	1.09	1.37
1948	9,735	86,858	96,593	97,306	.10	.89	.99
1949	1,836	106,505	108,341	86,677	.02	1.23	1.25
1950	2,853	89,159	92,012	112,557	.03	.79	.82

[1] Coated fabrics in short supply and GMT&C bought all du Pont would supply.

Sources: General Motors Corporation Production Records
Du Pont Departmental Trade Records—Fabrics Division Sales Cards

Defendant's Exhibit (DP) No. 309

CC: A. L. Brown
M. N. Nickowitz
T. A. Nalle
F. J. Brannigan

Fairfield, Conn.
September 25, 1940
(Dic. 9/23/40)

E. R. Cathcart
A. F. Schildhauer

CHEVROLET-COMMERCIAL BODY
Holly & Henry Streets
Indianapolis, Indiana

We quote below Mr. T. A. Nalle's Trade Report #275 covering his recent visit with Chevrolet-Commercial Body and attach samples of competitive materials referred to therein, namely, U. S. Rubber Company's "Naugahyde" to duplicate the "Cavalon" #6130 Brown #215-219 we are currently supplying, and Chase's Broken Twill construction in Olive Drab color, as well as the same type of material representing Cotan's manufacture known as "Cohyde."

> "Refer to Trade Report #121 and note changes in consumption figures.
>
> "Persons interviewed: Messrs. L. J. Carlin, Purch. Agent; Phil Baldauf, Engineer; O. B. Miller, Follow-Up; Art Tompson, Trimming Dept. Foreman.
>
> "L. C. Chase who obtained the majority of the olive drab business when last contracts were placed have received orders for approx. 20,000 yards. Also Cotan

was just recently given an order for 2,000 yards, altho no deliveries have as yet been made.

"U. S. Rubber have received orders for about 11,000 yards of the regular production material which is again being tried out on a suburban commercial job.

"In connection with the recent complaint on rapid dulling of the knives in cutting "Cavalon," I find that it is not particularly serious. In fact, Mr. Baldauf said that he did not know Carlin had taken it up with us or else he would have headed it off. I told Carlin that I would check up on the situation in the plant and advise the factory accordingly and that it would not be necessary for him to answer Fairfield's letter on the letters of Sept. 12th. It appears that this is not a particularly new situation.

—2—

"I went into the plant and ostensibly to check this condition obtained samples of Naugahyde, Reddo and Cohyde which are being forwarded to Fairfield so that the laboratory can give them any going over they wish. Baldauf is of the opinion that the Cotan Corporation is at present a very live outfit.

"It appears Mr. Bowman has not been contacting this account. LeFever has been down several times and Mr. Scott, formerly of Chase, is the local man on the territory.

"One thing which was brought up is that they are still having trouble in making "Cavalon" lie flat on the cutting table due to tight selvedges which throw

> waves in it making it very difficult to cut accurately to pattern. This condition seems quite prevalent in our material and it is hoped that it can be corrected.
>
> "Mr. Miller advised that nothing other than schedule would be required in September. A new order should be received between now and the first of the month. Production has been proceeding at a satisfactory rate altho due to the lull in selling prior to the introduction of the new models, production is now somewhat ahead of sales.
>
> "I showed Mr. Baldauf samples of welting made up by Carter from material shipped under PS No. 40.241 and 40.244. These welts are being sent to Fairfield for test and include bases made with the following cores: Kraft, Tissue and "Fibreflex." Carter will submit direct to Chevrolet samples of these weltings and Mr. Baldauf will test them out in service locally."

We suggest that the three samples attached be fully analyzed for the various characteristics or essentials for a good upholstery material alongside of corresponding qualities in "Cavalon," results to be mounted on cards so that they can be submitted to Mr. Nalle with detailed comments for further discussion when next calling on Chevrolet-Commercial.

Up to the time of this writing the sample welts have not been received. Immediately upon their arrival they will be submitted to Mr. Schildhauer for the suggested tests.

Particular attention is called to the fact that Chevrolet are continuing to experience trouble because of tight selvages and in this connection it will be recalled that a similar complaint was received from Fisher Body, resulting in the return of

33 rolls of material. Whether the direct cause is the fabric itself or the crown in the calender we are not certain but feel that this matter should be investigated promptly and corrective steps taken.

W. W. Kaminsky

WWK:DLB

NOTE: There is an arrow pointing to the name "T. A. Nalle" at the top of the first page.

Defendant's Exhibit (DP) No. 310

DU PONT
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
FABRICS & FINISHES DEPARTMENT

Detroit 2, Michigan
May 9, 1947

CONFIDENTIAL

MR. A. L. BROWN - NEWBURGH

CHEVROLET - INDIANAPOLIS

I have checked at Indianapolis and also with Jerry Haley, Assistant Director of Purchases in the Central Office, relative to the production picture.

Incidentally, Chevrolet production has to go on a 4-day week starting at once, and I understand Pontiac Fisher Body are closing today, with Buick probably next week, unless the steel situation improves immediately.

Now to go back to the truck situation -- 55,000 jobs per month is the expected capacity of the new Indianapolis plant. I am told that during May, due to change-over complications, they will build 10,000 trucks. They hope to get up to 25,000 for June, and will move towards 40,000 for July. When the 40,000 figure is actually in sight, the orders for "Fabrilite" will be larger.

I have been assured that so far we have not lost any business through color difficulties, and that we are still being given the same percentage as at the beginning of this model. I am quite sure our percentage is a minimum of 50, with the balance being divided between U. S. and Textileather. I understand that the material coming from these two sources is also no model of color uniformity, and I am sure they are having to use broken twills, etc. Although I do not know definitely, I am of the opinion that Textileather is not supplying too much, and it is my expectation that our percentage will actually increase as the model goes along.

You will remember that we ran into this multiple-source situation during the war years, for a combination of reasons with which you are familiar. During the recent period of scarcity the purchasing agents have been working under instructions to maintain several sources for their own protection, and frankly I do not think we can expect an immediate change in that policy.

T. A. Nalle

T. A. NALLE

TAN:olb

Defendant's Exhibit (DP) No. 311

E. I. DU PONT DE NEMOURS AND COMPANY
DOLLAR SALES OF COATED FABRICS TO CHEVROLET COMMERCIAL BODY DIVISION, 1931 TO 1950

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales	Truck Production	Newburgh Sales Per Car Manufactured	Fairfield Sales Per Car Manufactured	Total du Pont Sales Per Car Manufactured
1931[1]	29,911	30,652	60,563	132,018	.23	.23	.46
1932	28,144	17,364	45,508	74,814	.38	.23	.61
1933	14,957	16,407	31,364	126,957	.12	.13	.25
1934	31,509	31,302	62,811	216,731	.15	.14	.29
1935	26,562	26,660	53,222	228,482	.12	.12	.24
1936	150,435	15,818[2]	166,253	256,131	.59	.06	.65
1937	157,143	142,017[3]	299,160	262,223	.60	.54	1.14
1938	391	184,592	184,983	164,017	.00	1.13	1.13
1939	222	314,998	315,220	244,437	.00	1.29	1.29
1940	191	326,933	327,124	243,717	.00	1.34	1.34
1941	0	334,528[4]	334,528	321,826	.00	1.04	1.04
1942	346	70,326	70,672	120,304	.00	.58	.58
1943	0	4,105	4,105	60,257	.00	.07	.07
1944	699	40	739	71,631	.01	—	.01
1945	99	62,518	62,617	91,435	.00	.68	.68
1946	3	820,574[5]	820,577	269,843	.00	3.04	3.04
1947	0	842,183	842,183	337,241		2.50	2.50
1948	0	738,374	738,374	391,141		1.89	1.89
1949	0	498,078	498,078	381,591		1.31	1.31
1950	0	485,000	485,000	492,002		.99	.99

[1] From 1930 through 1939 Chevrolet Commercial used coated fabrics purchased by the parent Chevrolet Division in Detroit which are not included here.

[2] Chevrolet adopted all steel decks on trucks in 1936.

[3] Chevrolet began to use du Pont "Cavalon" for upholstery on about 90% of its production.

[4] Cavalon used on about 60% of Chevrolet's production.

[5] Coated fabrics in short supply and Chevrolet bought all du Pont could supply.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 312

E. I. DU PONT DE NEMOURS AND COMPANY
YARDAGE SALES OF COATED FABRICS
TO CHEVROLET COMMERCIAL BODY DIVISION, 1931 TO 1950

Year	Newburgh Sales (Yards)	Fairfield Sales (Yards)	Total du Pont Sales (Yards)	Truck Production	Newburgh Sales Per Car Manufactured (Yards)	Fairfield Sales Per Car Manufactured (Yards)	**Total du Pont Sales Per Car Manufactured (Yards)**
1931[1]	52,959	62,059	115,018	132,018	.40	.47	.87
1932	60,720	40,626	101,346	74,814	.81	.54	1.35
1933	25,321	44,438	69,759	126,957	.20	.35	.55
1934	44,464	56,335	100,799	216,731	.21	.26	.47
1935	40,473	59,775	100,248	228,482	.18	.26	.44
1936	245,109	39,594[2]	284,703	256,131	.96	.15	1.11
1937	NOT AVAILABLE[3]			262,223	—	—	—
1938	494	262,749	263,243	164,017	.00	1.60	1.60
1939	277	430,499	430,776	244,437	.00	1.76	1.76
1940	213	397,041	397,254	243,717	.00	1.63	1.63
1941	0	392,932[4]	392,932	321,826	.00	1.22	1.22
1942	719	68,635	69,354	120,304	.01	.57	.58
1943	0	3,801	3,801	60,257	.00	.06	.06
1944	792	30	822	71,631	.01	.00	.01
1945	111	58,374	58,485	91,435	.00	.64	.64
1946	3	535,013[5]	535,016	269,843	.00	1.98	1.98
1947	0	534,854	534,854	337,241	.00	1.59	1.59
1948	0	476,009	476,009	391,141	.00	1.22	1.22
1949	0	338,743	338,743	381,591	.00	.89	.89
1950	0	363,698	363,698	492,002	.00	.74	.74

---

[1] From 1930 through 1935 Chevrolet Commercial used coated fabrics purchased by the parent Chevrolet Division in Detroit which are not included here.

[2] Chevrolet adopted all steel decks on trucks in 1936.

[3] Chevrolet began to use du Pont "Cavalon" for upholstery on about 90% of its production.

[4] Cavalon used on about 60% of Chevrolet's production.

[5] Coated fabrics in short supply and Chevrolet bought all du Pont could supply.

Sources: General Motors Corporation Production Records
Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 313

Excerpt from Report of Fabrikoid Division to C. W. Phellis, General Director of Sales for February 1921, dated April 2, 1921

"Early last Fall, Ford Motor Company purchased 900,000 yards of Rubber. After we had delivered approximately 480,000 yards, the orders were held up, leaving a balance of 420,000 yards unshipped. The Ford Company has requested us to make delivery of these goods during April and we have instructed the Plant to do so. Order was accepted and will be delivered at 95¢ a yard. Current market price is 55¢."

Defendant's Exhibit (DP) No. 314

Excerpt from Report of Fabrikoid Division to C. W. Phellis, General Director of Sales, for April, 1921, dated June 8, 1921.

"There has been very little improvement in general lines, but quite some improvement during April and May in the automobile orders. Many of the Automobile Companies have used up practically all of the stocks on hand, and as a result are purchasing material, although in considerably less quantity than last year. We have recently secured fairly large releases from the Chevrolet Motor Company, and some releases from Buick. The Ford orders were cleaned up during April, and even at the present rate of production, Ford will not be required to buy coated fabrics for some months, as he is operating his own manufacturing plant to the full capacity, and he has taken in several hundred thousand yards of material from ourselves and others."

Defendant's Exhibit (DP) No. 315

Excerpt from Report of the Fabrikoid Division to the Executive Committee for May 1923, dated July 2, 1923

"Ford Motor Company are now manufacturing at their own plant between 55,000 and 60,000 yards of leather substitute daily."

Defendant's Exhibit (DP) No. 316

Excerpt from Report of Fabrikoid Division to Executive Committee for September, 1928, dated October 20, 1928

"Ford Motor Company have approved Fairfield Everbright Pontop for certain closed car work and we have induced the Ford Company to change a recently received 50,000 order for Pyroxylin Double Texture material to Fairfield Everbright Pontop at a saving of $12,000 to them and an increase in profit to our company. We feel reasonably sure that we shall continue to receive a steady volume of business from Ford."

Defendant's Exhibit (DP) No. 317

Excerpt from Report of Fabrics Division to Executive Committee for October, 1929, dated November 22, 1929

"An encouraging factor is our present enjoyment of the entire Ford business in black deck material; and we are hopeful that Fairfield's automotive business for 1930 will be reduced by less than 25% from the 1929 volume."

Defendant's Exhibit (DP) No. 318

EXCERPT

December 17, 1929

MR. WM. RICHTER
GENERAL MANAGER

FABRIKOID DIVISION
MONTHLY REPORT—NOVEMBER, 1929

* * *

OUTLOOK:

At Fairfield, though a 13% increase in sales is looked for in December, no wide improvement over present conditions is expected until after the first of the year, when an increase in automotive business is looked for. The Ford Motor Company's requirements are estimated at four carloads weekly, though just when shipments on this basis will begin is uncertain. Samples for the 1930 line for the garment trade and other specialty lines have been prepared and should result in some stimulation of trade.

* * *

Prices and Competition. The Ford artificial leather plant is again being actively offered for sale.

* * *

DRAFT Defendant's Exhibit (DP) No. 319

6259

J. J. MOOSMAN - WILMINGTON

MR. RICHTER'S LETTER OF JANUARY 4
SALES PERCENTAGE 1929 - 1931

Generally, a detailed comparison of this Division's sales for 1931 with those of 1929 show that the decrease is about equally distributed over all industries that we serve, with the exception of tablecloth business at Newburgh and Ford at Fairfield, both of which show abnormally large decreases. Due to revised sales prices and a tendency with the trade to seek cheaper products, the yardage volume has not declined to the same extent as dollars. We estimate that about 15% of the total decline at both plants is attributable to these latter causes.

Government figures published for all artificial leather manufacturers show that we maintain our position of approximately 25% of the total sales in the industry. In 1929 we had 25-9/10% of the business - in 1930 26-4/10% and for 1931 our percentage will be about the same as 1930.

The decline of tablecloth and shelving volume amounted to 95% ($761,000). The year 1929 was the big year for this product, and at that time it was a novelty. Sales declined to $38,000 in 1931 due to the fact that our product was not sufficiently satisfactory to the trade to encourage repeat business; breakdown of our distributive system because of conflict between distributors; the re-styling, with considerable success, of their lines by the oilcloth manufacturers; the general business depression which caused retail stores to discontinue lines that were not showing a high turnover and wide price cutting which proved discouraging to retailers. We have now re-designed our line after securing much lower costs, and are beginning an intensive sales campaign with distribution directly by us. Through these methods, we feel that a substantial volume of business will be built on a constructive basis.

Export volume has declined 5% ($544,000) due to our withdrawel from the former principal markets, England and Australia, and due to world-wide economic conditions.

Bookbinding volume has declined 42% ($464,000). We continue to maintain a dominant position in this industry, and expect to improve our position this year through the promotional plans now under way. The introduction by us of the Lacquer Press is expected to improve our standing with a number of accounts. Our development of an ink which gives very satisfactory results on Fabrikoid, is nearing completion. When this ink is available to the bookbinding trade, the opportunity to increase the sale of Fabrikoid for text book purposes (now used in a limited way) will be greatly improved.

The decline in case covering amounting to 67% ($285,000) is due entirely to the lost popularity of portable phonographs.

Travelling goods industry shows a decline of 55% ($216,000). That industry has been in a weak position for two years. We have excellent contact with the important factors and will promptly capitalize on any improvement in the industry.

A decline of 33% ($126,000) in furniture and upholstery is due to general business conditions, and partly to the trend in the theater field towards the use of soft goods for upholstering chair backs. Fabrikoid continues to be used on the seats, but with the universal use of sound equipment in theaters soft goods are used as they have less of a deadening effect on sound than Fabrikoid. In the furniture field, our position is improving at present through greater sales of card table and glider material.

Novelty business declined only 2%. This includes principally pocketbook material, and we have been successful in maintaining a dominant position in that industry. Prospects are bright for very large volume this year from the pocketbook trade.

Foot Wear at Newburgh increased 75% ($49,000). Our sales were low in 1929 as we were not prepared to produce a high glazed slipper material in style at that time. We have strengthened our selling position in the footwear industry and expect a substantial increase in sales.

Hats and caps increased 239% ($128,000) on account of the vogue which existed in 1931 for high glazed material in the millinery trade. This is strictly a style item, but indications are that in the Spring of this year patent leather will again by stylish and we are expecting to at least equal the large 1931 volume.

Tontine declined 43% ($668,000). This decline is less than the decline that took place in the high end of the shade business generally. In addition, the shade industry has been demoralized because of price cutting, but we have maintained our prices, thus improving the profit margin.

Automotive volume at Fairfield declined 64% or $2,892,000. In 1929 Ford produced 1,946,000 jobs as compared with 725,000 in 1931. In 1929 we had the Ford business 100% as we had no real competition from the rubber industry on our Everbright finish. In 1931 Ford did no buying after May. Up to that time we had about 50% of his business. General Motors volume dropped $918,000 due chiefly to drop in production but partly due to production of a satisfactory varnish finish by our competitors, resulting in Fisher, as well as Ford, splitting their purchases. In 1929 we sold 80% of all rubber deck material used by all manufacturers. In 1931 this percentage will be around 65%. As a result of the imitation of Everbright by competitors our margin of profit on this business has been substantially reduced. Recently we have secured Packard's business on Super-Everbright and are quite hopeful of securing some Studebaker business.

Garment fabrics show a decline of 46% ($445,000). 1931 was a comparatively poor year in the raincoat field, and the demand had largely changed from leatherette fabrics to combined jerseys. The price situation on combined goods was such that we practically withdrew from the market as it was not possible to take business at a profit, as the rubberizers contributed only the labor of combining the two fabrics. We have recognized the necessity of producing a garment fabric distinctly different from, and superior to competitive products, and introduced our Cavaltex during the year which resulted in a substantial volume of sales at an excellent profit margin. Much larger sales of this item are expected in 1932 and we also have other new products that should assist us in materially improving our position in the garment industry this year.

Specialties have increased 110% ($306,000), the revival of the vogue for corsets and reducing garments constituting $168,000 of the increase. This is a style item and has already declined in popularity.. The most favorable significance in the increased Specialties volume is the development of Hospital Sheeting and Pontan sales. Hospital Sheeting volume is 50% ($27,000) greater than in 1929 and because of our contacts established with Sears Roebuck, Ward Montgomery and chain store syndicates; we believe that this business, which is a permanent one with a large potential, holds great promise for the future. Similarly, our increase in Pontan, which is sold to the shoe industry, holds great promise of large volume in the future. Increased sales effort is being applied to the shoe field, our representatives handling all Fabrikoid Division products having taken over this field.

We tabulate below the percentage decline for our several industries and follow with brief comments on the more important items.

6264

DECREASE FROM 1929					
Newburgh			Fairfield		
	Dollars	%		Dollars	%
Automotive	980 000	62	Automotive	2 892 000	64
Tablecloth	761 000	95	Garment Fabrics	445 000	46
Export	544 000	65	Mine Supplies	165 000	46
Bookbinding	464 000	42	Rug Anchor	17 000	19
Case Coverings	285 000	67	Miscellaneous	12 000	33
Travelling Goods	218 000	55	Specialties	206 000 Inc.	110 Inc
Furn. & Uphol.	126 000	33			
Railroads	48 000	55			
Novelties	10 000	2			
Footwear	49 000	75 Inc.			
Hats & Caps	128 000	239 Inc.			
Seconds	83 000	59			
Total Fabrikoid	3674 000	53			
Tontine	668 000	43			
Total Newburgh	4 342 000	51	Total Fairfield	3 225 000	52

Automobile production declined roughly 54% (five and one half million in 1929 to two andone half million in 1931). Newburgh automobile volume declined 62% ($980,000), reduced sales to General Motors accounting for 35% ($346,000) of this, due to curtailed production schedules; sales to Ford declined $110,000, we having sold Ford that quantity in 1929 and nothing in 1931. In 1929 Ford was building a soft back coupe on which he used a material purchased from us. This particular model was withdrawn and not included in the 1931 line. Most of the pyroxylin material used by Ford last year was manufactured in his own plant. The only other important decline in automobile manufacturers business was with Pierce Arrow, our sales to them dropping from $30,000 in 1929 to $1,000 in 1931. After they were taken over by Studebaker the deck material business formerly enjoyed for many years by Newburgh was given to

4062

Standard Textile Products. Of course this volume decreased largely in 31 as compared with 29. 33% ($331,000) of a decline in automotive products occurred in the replacement and accessory field. This was largely caused by decrease in the number of automobiles manufactured but also due to substitution of metal for Fabrikoid on spring boots and the use of uncoated cloth instead of Fabrikoid for curtains for closed jobs (at a considerable saving). At the present time there is a tendency away from metal and back to Fabrikoid for spring boots which will help our situation and we are also improving our position with the tire cover manufacturers by meeting some of the low priced competition that now prevails.

C. W. WEAVER

alb:fm

Defendant's Exhibit (DP) No. 320

Excerpts from Report of the Du Pont Fabrikoid Company to F. W. Pickard for the month of January, 1919, dated March 6, 1919.

"While actual sales at present are small, general conditions are good and appearances indicate that business is assuming a proper basis. Inquiries are good in all lines. In January, we sold 30,000 yards to the Go-Cart trade, and this business is picking up very rapidly. In the automobile field, we sold 94,500 yards of Rubber to Oldsmobile; 10,000 yards to Auburn; 157,500 yards to Willys-Overland and have secured revival of old orders by Chevrolet to the amount of 623,000 yards of Fabrikoid and 300,000 yards of Rubber."

* * * * *

"The general price conditions are very much unsettled. Duratex Company is being equipped for the manufacture of Rubber coated material and expect to produce this within the next six weeks. The Duratex Company is the first source of supply of Willys-Overland Company."

Defendant's Exhibit (DP) No. 321

E. I. DU PONT DE NEMOURS & COMPANY

DOLLAR SALES OF COATED AND UNCOATED FABRICS TO THE CHRYSLER CORPORATION, 1925 TO 1934

Year	Newburgh Sales	Fairfield Sales	Total du Pont Sales
1925	5,155	42,694	47,849
1926	0	122,293	122,293
1927	39,563	61,636	101,199
1928	9,452	130,889	140,341
1929	0	93,947	93,947
1930	60	26,601	26,661
1931	172	21,278	21,450
1932	0	45,666	45,666
1933	0	7,738	7,738
1934	58		

Source: Du Pont Departmental Trade Records—Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 322

LIST PRICE OF 6200 - 50" FABRIKOID

Date of Price Change	New Price
April, 1921	$1.36
July, 1921	1.23
Aug., 1922	1.25
Oct., 1922	1.37
Dec., 1922	1.45
Dec., 1923	1.40
April, 1925	1.45
Nov., 1926	1.40
June, 1927	1.35
Sept., 1927	1.40
May, 1930	1.35
Oct., 1930	1.30

Defendant's Exhibit (DP) No. 323

E. I. DU PONT DE NEMOURS & COMPANY
YARDAGE SALES OF COATED AND COMBINED FABRICS TO THE CHEVROLET MOTOR COMPANY - 1922 TO 1935

Year	Newburgh Sales (Yards)	Fairfield Sales (Yards)	Total du Pont Sales (Yards)	Open Cars Manufactured	Newburgh Sales Per Car Manufactured (Yards)	Fairfield Sales Per Car Manufactured (Yards)	Total du Pont Sales Per Car Manufactured (Yards)
1922	NA	NA	NA	154,067	NA	NA	NA
1923	1,393,587	NA[1]	NA	266,389	5.23	NA	NA
1924	521,367	369,563[2]	890,930	156,958	3.32	2.35	5.67
1925	1,121,563	1,218,640[3]	2,340,203	225,059	4.98	5.41	10.39
1926	687,396	1,278,918	1,966,314	153,382	4.48	8.34	12.82
1927	761,657	999,918	1,761,575	133,604	5.70	7.48	13.18
1928	692,032	1,073,623	1,765,655	118,682	5.83	9.05	14.88
1929	618,021	486,193[4]	1,104,214	81,497	7.58	5.97	13.55
1930	519,699[5]	370,452[6]	890,151	44,714	11.62	8.28	19.90
1931	477,124[5]	227,972	705,096				
1932	211,256[5]	72,613	283,869				
1933	322,207[5]	37,597	359,804				
1934	605,737[5]	81,320	687,057				
1935	508,224[5]	26,365	534,589				

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[1] Twenty-five percent of Chevrolet top business during last six months went to du Pont's competitors.

[2] All of Chevrolet's top business during the first six months went to competitors, G.T. Ex. No. 418.

[3] All top materials purchased from competitors during first five months of 1925 except for one carload purchased from du Pont. Chevrolet started buying uncoated combined decking from Haartz.

[4] Large purchase of uncoated fabrics from Haartz replaced purchases of Pontop from du Pont.

[5] Includes upholstery bought for the Chevrolet Commercial Body Division in Indianapolis.

[6] Chevrolet started using uncoated decking on all new production. Du Pont began supplying about one-half of Chevrolet's requirements of this type of fabric.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records - Fabrics Division Sales Cards.

Defendant's Exhibit (DP) No. 324

E. I. DU PONT DE NEMOURS AND COMPANY
YARDAGE SALES OF COATED AND COMBINED FABRICS TO THE OAKLAND MOTOR COMPANY, 1922 TO 1933

Year	Newburgh Sales (Yards)	Fairfield Sales (Yards)	Total du Pont Sales (Yards)	Open Cars Manufactured	Newburgh Sales Per Car Manufactured (Yards)	Fairfield Sales Per Car Manufactured (Yards)	Total du Pont Sales Per Car Manufactured (Yards)
1922	NA	NA	NA	14,830	NA	NA	NA
1923	63,789	NA	NA	23,424	2.72	NA	NA
1924	40,561	130,182	170,743	18,460	2.20	7.05	9.25
1925	18,490	32,132	50,622	5,042	3.67	6.37	10.04
1926	42,839	11,626[1]	54,465	8,723	4.91	1.33	6.24
1927	94,483	10,512	104,995[2]	12,209	7.74	.86	8.60
1928	122,932	9,084	132,016	14,050	8.75	.65	9.40
1929	61,550	1,005	62,555	8,372	7.35	.12	7.47
1930	12,777	0	12,777	3,202	3.99	.00	3.99
1931	108	570	678				
1932	26,637	0	26,637				
1933	59,305	0	59,305				

---

[1] Oakland started using combined uncoated fabrics on that part of its production formerly using Pontop. These fabrics were not supplied by du Pont and Pontop was thereafter used for service parts only.

[2] Du Pont supplied Oakland with a substantial part of its requirements of artificial leather in 1927 and 1928 but had little of its top business after 1922.

Sources: General Motors Corporation Production Records.
Du Pont Departmental Trade Records - Fabrics Division Sales Records.

Defendant's Exhibit (DP) No. 325

PURCHASES OF COATED AND COMBINED FABRICS
PER CAR BASIS
From GM 151 and DP 259, 263 and 265)

General Motors Division	Total 1922 Purchases	Purchases From Du Pont	
		1925	1926
Oakland (artificial leather)	$ 5.39	$ 3.07	$ 3.91
Buick (artificial leather and top materials)	8.28*	4.66	6.11
Oldsmobile (artificial leather and top materials)	12.55	11.65	7.37

* Purchases from du Pont only.

Defendant's Exhibit (DP) No. 326

1764 Broadway
July 5, 1918

Mr. F. W. Warner,
General Manager Oakland Motor Car Company
Pontiac, Michigan.

My dear Mr. Warner:

The duPont Company are anxious to check their statistical records of 1917 and 1918 in the matter of production of artificial leather and have asked me to obtain for them the amount actually used by us in those years.

I am therefore writing to ask if you will have the following designations checked and see if they are correct as to number of yards purchased, viz:

	1917	1918
Chase	70,090	28,285
Chase Rubber	279,155	83,340 to May 31/18
Boston Hose and Rubber Co.	62,505	83,340 to Apr. 30/18

Trusting that it will not be too much trouble to have this looked up and appreciating any help you may give in the matter, I remain

Yours very truly,

Vice President.

Defendant's Exhibit (DP) No. 327

FILE 78

1764 Broadway
July 5, 1918

Mr. E. VerLinden,
General Manager Olds Motor Works
Lansing, Michigan.

My dear Mr. VerLinden:

The duPont Company are anxious to check their statistical records of 1917 and 1918 in the matter of production of artificial leather and have asked me to obtain for them the amount actually used by us in those years.

I am therefore writing to ask if you will have the following designations checked and see if they are correct as to number of yards purchased, viz:

	1917	1918
Chase	26,005	111,650 to Apr. 30/18
Textileather	23,325	54;150 to May 31/18

Trusting it will not be too much trouble to have this looked up and appreciating any help you may give in the matter, I remain

Yours very truly,

Vice President.

Defendant's Exhibit (DP) No. 328

October 24, 1932

C. W. WEAVER

AUTOMOTIVE SITUATION

The most outstanding thing at the moment in our Detroit situation is the very apparent improved relationship which Mr. Staples has created with the Fisher Body organization. This Fall they are sending us inquiries on items which in the past, in some cases, have gone to competition without our having even a chance to quote on them. I refer particularly to colored deck material. On the 7500 quality business just taken for Chevrolet rumble seat upholstery, last year Fisher did not give us an inquiry until the original orders had been placed with competition, and I believe the inquiry then resulted from our asking them about it.

As near as we can determine at present, all of the coated fabric to be used in the Fisher Chevrolet bodies will be Fabrikoid. Also according to latest information, Everbright Pontop will be used 100% for decks. Likewise, pyroxylin coated curtain materials are being used this year, replacing uncoated fabric used in the previous model. In the case of Fisher-Buick we are not faring quite so well due to the fact that we did not meet competitive prices on the recent Fisher inquiries involving 6000 and 4000 qualities. However, Super Everbright will be used 100% on the Buick bodies requiring black deck material.

One sample of green pyroxylin Pontex has been sent out for Fisher's consideration in connection with Buick and several other Duco chips have been received for matching. As far as possible, all of these colors are being matched in both pyroxylin and in Colortone Pontop.

Although Fisher orders have been received in very good volume during the last few weeks, it must be remembered that these orders are in most cases for delivery from late October until late December. The following orders have been received:

20 500 yards - 4000 quality - Chevrolet kick pads, etc.
(This order was today increased to 35 500 yards)
15 000 yards - 7500 quality - Chevrolet rumble seat upholstery
32 000 " - 711 " - Chevrolet curtain material
70 000 " - Super Everbright Pontop 554-43"-Chevrolet decks
13 000 " - 711 quality - Buick curtain material
35 000 " - Super Everbright Pontop 554-45"-Buick black decks
(delivery scheduled to be completed in November)
1 200 " - 7500 quality - Oldsmobile rumble seat upholstery.
(This order was just received today, specifying shipment beginning November 7th and extending over six weeks).

- continued -

6275

ROY H. JOHNSON, INC.

The quantities of Chevrolet materials indicate reduced production schedules as compared to the same period last year.

You are familiar with the inquiry from Fisher for a very cheap deck material.

We have been awarded the Chevrolet open car contracts on both Fabrikoid and Teal, the major Fabrikoid items (6200 quality) at increased prices of 4-1/2¢ for black and 4¢ for Spanish, and several minor items at decreased prices ranging from 5-1/2¢ to 9-1/2¢ and the Teal at a 2¢ decrease. As you know we have contracts with Chevrolet for these materials running to the end of 1932. Nevertheless, the inquiries were received asking us to quote on the new contracts from date to June 30, 1933. Chevrolet has apparently figured out that the aggregate cost will be greater on the new contracts than on the old, because according to Mr. Tomlinson's letter of October 20th, they wish the new contracts to become effective January 1st instead of at present.

We have matched up several colors for Pontiac curtain material but according to Mr. Tomlinson, this business will probably be given to Textileather, although we do not know if it has already been placed.

FORD MOTOR COMPANY.

Ford production is down very low and we understand that the Ford plant will manufacture from 50 to 100 000 yards of rubber deck material whenever such yardage may be needed. We have forecast no business from Ford for the last quarter of 1932. Ford is also interested in a very cheap deck material, and today Mr. Watt has inquired from Mr. Tomlinson if we could supply curtain material at 8¢ per 27" yard. Also, if we would coat some of their cloth into curtain material and at what price. Attached is a confidential bulletin just received on Ford, indicating that they are still having new model troubles.

Chrysler has announced a six cylinder Plymouth for next year. We have been supplying Chrysler's Teal and expect to do so next year, although so far no new orders have been placed. We are not on the approved list for Fabrikoid, but are endeavoring to get approved.

The total automotive production for October is expected to be considerably less than 50 000 units. The manufacturers are making efforts to time the introduction of new models with one eye on the political situation and the other on Wall St. Dealers stocks are reported to be in very satisfactory condition, leaving them in good shape to plunge into the new model selling.

4073

TAN/AJK

T. A. NALLE

Defendant's Exhibit (DP) No. 329

LG-4884

DU PONT
ESTABLISHED 1802
E. I. du Pont de Nemours & Company
INCORPORATED
Wilmington 98, Delaware

Legal Department

COPY

6276

June 1, 1953

Mr. Ira C. Werle,
Assistant General Counsel,
Eastman Kodak Company
Rochester 4, New York.

Dear Mr. Werle: Re: U. S. v. du Pont, et al.

Could you kindly furnish us with a statement of the total dollar volume of sales of cellulose acetate molding powder made by the Tennessee Eastman Division of your Company to the Inland Manufacturing Division of General Motors Corp. during each of the years 1937-1941 inclusive?

It is our intention to introduce such statement in evidence in the above captioned case now on trial in the Federal District Court for the Northern District of Illinois.

Very truly yours,

General Counsel.

NOTE: Original copy of letter signed by Mr. Stanley L. Abrams.

Defendant's Exhibit (DP) No. 330

June 5, 1953

Stanley L. Abrams, Esq., General Counsel
E. I. du Pont de Nemours & Co., Inc.
Legal Department
Wilmington 98, Delaware.

Dear Mr. Abrams:

By letter dated June 1, 1953, addressed to Mr. Werle, you requested a statement of the total dollar volume of sales of cellulose acetate molding powder made by the Tennessee Eastman Division of this company to the Inland Manufacturing Division of General Motors Corporation during each of the years 1937-1941, inclusive. It is our understanding that this information is requested for use as evidence in the case entitled U. S. v. du Pont et al., now on trial in the Federal District Court for the Northern District of Illinois.

At the dates in question our Tennessee Eastman Division was a wholly owned subsidiary of Eastman Kodak Company known as Tennessee Eastman Corporation. We do not have exact dollar figures of our sales during the period 1937 through 1941, but we believe the information furnished below may serve your purpose. Our records show that Tennessee Eastman Corporation sold the following quantities of cellulose acetate molding powder (known as Tenite I) to the Inland Manufacturing Division of General Motors during the years in question:

1937	517,153 pounds
1938	49,612 pounds
1939	589,696 pounds
1940	784,279 pounds
1941	1,159,942 pounds

We do not have available the invoices covering these sales, but from price lists which were in effect during the years 1937 through 1941, we have been able to estimate the following average prices per pound at which we would have sold Tenite I to Inland Manufacturing Company during the respective years, as follows:

June 5, 1953

1937	57¢ per pound
1938	55¢ per pound
1939	49¢ per pound
1940	45¢ per pound
1941	44¢ per pound

Extending the poundage figures at these estimated average prices, the dollar sales are estimated as follows:

1937	$294,277.21
1938	27,286.60
1939	288,951.04
1940	352,925.55
1941	510,374.48

This would make total sales for the five-year period of approximately $1,475,000.

Since we do not ordinarily publish or otherwise disclose figures such as these, we would expect that they would be used solely for the purpose mentioned in your letter of June 3 and would not be given any wider currency than the situation requires.

Yours very truly,

Secretary

MKRobinson:WC

NOTE: Original copy of letter signed by M. K. Robinson

Defendant's Exhibit (DP) No. 333

[illegible] 342

[illegible] Bureau

INDUSTRIAL SALES TRADE REPORT
E. I. DU PONT DE NEMOURS & COMPANY, Inc.
Industrial Finishes Division

Salesman W. P. Fisher Date 1/14/32 Report No. 8

Customer PACKARD ELECTRIC COMPANY Class No. 1

Street and No. Dana St. Business Cable.

Town Warren State Ohio.

Person Interviewed Hampler, F.F. / Snyder, P.A. Title Buyer Title

HANDLES (CROSS OUT GOODS NOT HANDLED)	IMMEDIATE PRIOR PURCHASES				COMP. CONTRACT EXPIRES	APPROXIMATE CONSUMPTION NEXT 12 MOS.	IN MARKET AGAIN
	QUANTITY	GRADE	PRICE	FROM WHOM			
SOLVENTS							
SOLUTIONS		film scrap	.62	Arco		25000	
LACQUERS	[illegible].drs.	Clear	XXXX	F.S.Co.		3000	
	Gl. blk.		1.85	DuPont		15000	
		3125	.80	DuPont		1000	
THINNERS							
BR. LIQUIDS							
PX ENAMEL							
BR. POWDER							
READY MIXED							
VARNISHES	bbls.	Ins.		F.S. Co.		1500	
	1 V	HM-8564		DuPont		1000	
PASTE PAINTS							
OIL ENAMELS							
PASTE FILLERS							
STAINS							
BLACK JAPANS							
WHITE LEAD I/o							
PRIMERS & UNDERCOATERS							
MAINTENANCE							

PE1

4077

1. Give important reasons why customer or prospect buys from competitors (quality, service and price).
2. (a) Are you familiar with and have you given due consideration to EVERY PRODUCT customer or prospect buys?
   (b) What products should we concentrate on to initiate sales with least delay?
3. Is customer or prospect operating at full capacity? If not, give approximate percentage.
4. What action do you wish us to take?
5. List names and titles of persons to receive mailings.

EVERY QUESTION MUST BE ANSWERED, GIVING IMPORTANT DETAILS

---

1. Quality and friendship.
2. (a) Yes. (b) All.
3. 60%.
4. See below.
5. W.S.Johnstone, J. A. Snyder.

REPORT ON BLACK LACQUERS WITH HALF REGULAR GREASE CONTENT.

X-1-622 has been run, and the report is that it shows a slight tack. Further action in regard to reduction of grease content for production use should be held in obeyance until work has been completed with X-1-621, which will be next Wednesday. At that time I will advise what material to make up for the next shipment.

In the meantime do not make up any Black at all.

CONTRACT FOR FIRST SIX MONTHS OF 1932.

Snyder asked me to have you figure on their business for this period in two ways.

1. On the basis of half the business, estimated at 100 drums.
2. All the business estimated at 200 drums.

This would not need to take the form of a contract, as it

6279

would merely be necessary for you to write him our terms.

It is my suggestion that you quote a price on the basis of a 100 drum order, and that you state that in the event that their purchases for this period are in excess or equal to a total of 200 drums, we will give them a refund of so much per gallon.

I found out that at a meeting last week of the various officials, Eddie Rumpler definitely told them that he thought our material was generally superior to Arco. Of course, right now as everyone knows the present Arco material is not approved. I was in the Laboratory when Arco's last sample was tested, and I would say that it still shows too much shrinkage after heating.

I think that if it is at all possible, it would be very good policy to make a small price reduction. Even though we have not had all of Packard's Black business for 1931, the total volume has been very attractive. According to my records their total purchases have been in excess of $25,000 for 1931. Prices have always been on a profitable basis with no haggling whatsoever. While, as you state in your recent memo, Snyder is friendly to both F. S. and Arco, it is true, but the only competitor we have on Black at present is Arco. There are dozens of lacquer people calling here who never even get a chance to discuss their product, let alone a chance to have samples tested or to find out what Packard's requirements are.

If it were not for Snyder's policy of sticking to the three suppliers, we would probably have a price cutting situation to meet here. Therefore, I believe that if it is at all possible, it would be very wise to make a small price reduction.

I have yet received no reply to the second part of my letter of December 30th, referring to the trouble they are having with 6239 wiping off. I am sending further memo together with sample of cable.

Defendant's Exhibit (DP) No. 334

Form FP 3740 25M 11-33

WILMINGTON F & F SALES RECORD COPY

[illegible]

INDUSTRIAL SALES TRADE REPORT

E. I. DU PONT DE NEMOURS & COMPANY, Inc.

Finishes Division

Salesman W.P. Fisher Date 5-7-34 Report No. 134

Customer Packard Elect. Corp. Class No. 1

Street and No. None Business Auto Cable.

Town Warren State Ohio

Persons Interviewed W.S. Johnstone Eng.
Ed. Rumpler Sup't.
[illegible] [illegible]
Buyer Title

Products Used	Normal Purchases	Grade	Price	Pkg.	F.O.B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS								
SOLUTIONS	C/L	Film	.60	D	Del.	Eastman	30000	
LACQUERS	Reg.	Blk HT		"	"	Arco	18000	
	"	Clear HT		"	"	V.B. Co.	4000	
THINNERS	"		.50			Eastman	12000	
BR. LIQUIDS								
PX ENAMEL								
PX PRIMERS & UNDERCOATERS								
BR. POWDER								
READY MIXED								
VARNISHES	Reg.	Asph.	.37			DuPont	5000	
	"	Impreg.	"			"	2000	
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS & UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATS								
BLACK JAPANS								
MAINTENANCE								

1 Give information relative to competitive activities.
(a) Why does customer or prospect buy from competitors (quality, service and price, etc.)
(b) Additional competitive information:

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Rec'd 5-9 Typed 5-10-34 AW

1 a All three
b -

2 a 50% (Temporary result of Fisher Body strike)
b -

3 W.S. Johnstone, Cable Eng.

A) Follow up tests prior to Johnstones departure for 500 mile races.

B) They had only applied 5 coats our of last drum of X-600-174, plant being shut down today. Rumpler promised to finish this cable up tomorrow. They are going to run heat and oil tests on it, 5/14 and promise me a report by 5/18 which will be O.K. before next buy as they are not purchasing anything this month.

Other Tests

X-600-244 Tangerine
X-600-213 Clear H.T. (Extra heat)
X-600-230 Clear H.T.

No tests have been run on any of these due to recent production trouble, but they promise early action on all.

C) None.

6281

DEFENDANT'S EXHI Defendant's Exhibit (DP) No. 335

Form PP 3749-25M Sets 1-35

WILMINGTON P & P SALES RECORD COPY

CC: T. T. Taylor
R. C. Williams

INDUSTRIAL SALES TRADE REPORT
E. I. DU PONT DE NEMOURS & COMPANY, Inc.
Finishes Division

Salesman W. S. Robertson Date 5-8 & 5-9 '36 Report No. 59

Customer Packard Electric Co. Class No. 1

Street and No. Dana t. Business Ins. Cable

Town Warren State Ohio

Person Interviewed J. L. Litman Title Eng. Buyer E. E. Debolt Title P.A.

Products Used	Normal Purchases	Grade	Price	Pkg.	F. O. B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS								
SOLUTIONS		Supplementary						
LACQUERS								
THINNERS								
BR. LIQUIDS								
PX ENAMEL								
PX PRIMERS & UNDERCOATERS								
BR. POWDER								
READY MIXED								
VARNISHES								
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS & UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATS								
BLACK JAPANS								
MAINTENANCE								

1 Give information relative to competitive activities:
(a) Why does customer or prospect buy from competitors (quality, service and price, etc.)?
(b) Additional competitive information:

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Received & Typed 5/12/36 - C.O.L.

(a) With T. T. Taylor of Parlin and Bill Fisher to investigate complaint on 6256 Black H. T. cable lacquer.

(b) Taylor had brought the Gardiner Mobilometer used by Parlin and the first thing we did was to compare this with Dr. Litman's equipment. We found that both our mobilometer and method of running viscosities were considerably different from those used by Dr. Litman. This explained the wide difference in results obtained

Taylor also explained that our black was originally formulated at a viscosity higher than the clear which accounted for the discrepancy we got between these two materials. The specifications call for the same viscosity.

Knowing that the first shipments had been made at a viscosity much higher than specified and had partially been used satisfactorily, and knowing that the 14 drum shipment complained of was shipped at a lower viscosity than the original shipments, we urged Dr. Litman to try one of the 14 drums in production. Dr. Litman agreed in view of our explanation and a drum was started in production Friday afternoon. Some sleeving was encountered but an adjustment of the wipes helped to eliminate this trouble.

(Cont'd.)

Other than this the cable seemed to be coming thru satisfactorily.

Saturday morning we returned to learn how our lacquer had been working on the night shift. It had worked satisfactorily and Litman, therefore, agreed to use up our 14 drums provided he did not encounter any more trouble. He would not use the two and one-half drums remaining from the first shipment and these are being returned to Parlin. I am also returning the five drums just received at the warehouse, as these are also too high in viscosity.

Taylor will revise 6256 to meet the specifications in viscosity. At the same time he will lower the solids so that our lower limit is the same as the minimum permitted in the specifications.

Arco has submitted a low tension cable lacquer for Packard's new high speed machines. This material was apparently made from celluloid scrap as the odor of camphor was much stronger even than film scrap. It produced an excellent looking cable from the standpoint of smoothness and gloss, but showed the same white bubble trouble we had and had a very strong camphor odor.

It now appears that Litman will be able to use his regular film scrap material (by following leads suggested by us in our blends) for making cable for auto manufacturers. However, he still expects to use a better finish on dealer cable and we have a good chance of getting this portion of the business if we can supply a satisfactory product at a reasonable price.

C. Advise Parlin of the return of the 2½ drums of 6256 by Packard.

Enter a prepare and hold order for 10 drums 6256 with the notation that it is to be revised material and is to be tested by Taylor. I will obtain an order and release from Packard later.

Taylor will write a more detailed laboratory report on his visit.

Defendant's Exhibit (DP) No. 336

WILMINGTON F & F SALES RECORD COPY

Finishes Division

W. S. Robertson Date 9/11/41 Report No. 175

Customer Packard Electric Co. Class No. 1

Street and No. Dana St. Business Ins. cable

Town Warren State Ohio

Person Interviewed DeBolt. Title ___ Buyer ___ Title ___

Products Used	Normal Purchases	Grade	Price	Pkg.	F. O. B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS								
SOLUTIONS								
LACQUERS	c/1	Film	.60	D		Eastman	70,000	
	c/1	6233	1.90	D		Roxylin&others	50,000	
	5 drs	Syn.		D		Glidden-Arco	5,000	
THINNERS	c/1	Film	.50	D		Eastman	40,000	
BR. LIQUIDS								
PX ENAMEL								
PX PRIMERS & UNDERCOATERS								
BR. POWDER								
READY MIXED								
VARNISHES	Drs.	Black	.30	D		Pruitt Schaefer	2,000	
	Drs.	Clear	.52	D		Schenectady	3,000	
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS & UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATS								
BLACK JAPANS								
MAINTENANCE								

FF-3749-B-10M Sets 11-39

INDUSTRIAL SALES TRADE REPORT

E. I. DU PONT DE NEMOURS & COMPANY, Inc.

1 Give information relative to competitive activities:
(a) Why does customer or prospect buy from competitors (quality, service and price, etc.)?
(b) Additional competitive information:

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Received & typed 9/12/41 lw

1. (a) (b) All three

2. (a) 80%
(b) Good

3. E. B. DeBolt, P. A.
J. B. Litman, Chemist

A. To advise customer we could only supply 6233 on a priority.

B. Explained to DeBolt that 6233 contained a raw material that could only be used on orders with a priority. As this type of lacquer is used on Naval cable they are able to give us an A-1-B priority and DeBolt will send one through. This lacquer is also used on regular automotive cable which does not carry a priority. However, as none of our competitors have asked for a priority on this material DeBolt thinks he could give us the naval business and get his regular automotive requirements from his other sources. Incidentally he just placed orders for two carloads of this type lacquer.

-over-

REDIFORM—PATD—AMERICAN SALES BOOK CO. INC. NIAGARA FALLS N.Y.

The competitive price level is still $1.90 and DeBolt expects us to fill this old order entered and accepted by us last June at this price. The new price given for this lacquer is $2.00 but as this is high I would like permission to go at least to $1.95 in 20 dr. lots and $1.90 in carloads.

They are still using an aluminum finish on Allison harness sets for which we have no approved offering.

Enter order with priority for 5 drums 6233 and advise me shipping date.

Advise me on price of 6233.

Defendant's Exhibit (DP) No. 337

Form 159

AUTOMOTIVE PRODUCTS TRADE REPORT cc:- Mr. [illegible], [illegible]

Flint Plant Rec'd & Typed 4/27/51 [illegible]

Salesman R. M. Cook Territory No. Report No. 100

Class Date 4/23/51

Name of Firm Frigidaire Corp. County State Ohio

Street Address

Town Dayton

Name of Purchasing Agent

Name of Man to See Title

Products Used	If Competitor Give Name of Manufacturer	Total Annual Consumption	Price	When in Market or Expiration Date of Contract
	D			
	C			
	D			
	C			
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	D			
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7804

Products Used	If Competitor Give Name of Manufacturer	Total Annual Consumption	Price	When in Market or Expiration Date of Contract
	D			
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6286

1. If customer has any complaint on our products or service, explain nature of same fully.
2. Are competitor's products satisfactory? If not, why?
3. Advise chief reasons why customer or prospect buys from competitors (quality, service, price, etc.)
4. Have you interviewed Superintendent, Foreman, Finisher and all other Supervisors who might affect our sales?
5. Are you familiar with and given consideration to every product customer or prospect uses?
6. Are shop conditions and equipment for finishing good? If not, explain why.
7. Is customer operating at full capacity? If not, give approximate percentage.
8. Customer's approximate schedule (jobs per day) for ensuing three months.
9. Remarks and further details.

NOTE: In answering always use numbers.

Defendants' Trial Ex. No. 6287

Talked to E. J. Barney, Director of Materials and supplies, regarding method of handling contacts between duPont and Frigidaire, sales department, purchasing, engineering and laboratories.

Mr. Barney said, he would see that sample of Lax 8018 submitted some time ago, was tested on Ice Cream Cabinets.

Mr. Barney said that at meeting three weeks ago attended by Mr. Pratt, Vice President, General Motors it was decided again to stick to porcelain for Frigidaire cabinets and that present plans do not call for use of lacquer.

Further developed that Black Porcelain shows promise for Ice Cream Cabinets. This came from Harry Williams.

Note:

Page 6288 is on card 132.

Defendant's Exhibit (DP) No. 339

Form 159

AUTOMOTIVE PRODUCTS TRADE REPORT

CC:- N.J. CALL H.B

Rec'd & Typed 12/5/30

Parlin Copy

Salesman R. M. Cook Territory No. Report No. 46

Class Date 12/5/30

Name of Firm Frigidaire Corp. County State Ohio

Street Address

Town Dayton

Name of Purchasing Agent Mr. Campbell

Name of Man to See Mr. Rowland, A.P.A.—Mr. Olson Title Chief Chemis

Products Used	If Competitor Give Name of Manufacturer	Total Annual Consumption	Price	When in Market or Expiration Date of Contract
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	C			
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Products Used	If Competitor Give Name of Manufacturer	Total Annual Consumption	Price	When in Market or Expiration Date of Contract
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1. If customer has any complaint on our products or service, explain nature of same fully.
2. Are competitor's products satisfactory? If not, why?
3. Advise chief reasons why customer or prospect buys from competitors (quality, service, price, etc.)
4. Have you interviewed Superintendent, Foreman, Finisher and all other Supervisors who might affect our sales?
5. Are you familiar with and given consideration to every product customer or prospect uses?
6. Are shop conditions and equipment for finishing good? If not, explain why
7. Is customer operating at full capacity? If not, give approximate percentage.
8. Customer's approximate schedule (jobs per day) for ensuing three months.
9. Remarks and further details.

NOTE: In answering always use numbers.

Called with R. C. Williams and talked over with Mr. Campbell their policy with regard to purchases, using Clear Waterproof Varnish as an instance. We reduced our quotation from 96¢ to 92¢ for a contract for annual requirements, and then to 88¢. Even then it is doubtful whether we will get the contract because Frigidaire is going back to their present supplier to try to get a quotation less than 88¢.

Mr. Campbell was very cordial and friendly in his attitude, but said that their policy was to buy these specification materials at the lowest price, depending on their laboratories to keep quality satisfactory; at the same time they do not expect the supplier to sell without profit, but expect him to make his quotations, bearing this in mind.

I brought up the question of research and experimental work in developing products for them, such as, the recent request for a finish to apply over wood and galvanized iron, and Mr. Campbell says that if we develop a satisfactory material for them, it would not be thrown open to competition, for a year or so, but if they do not open these items to competition, we would not be able to quote on items such as Clear Waterproof Varnish, which was developed for them by someone else. Their consumption of this item will be materially reduced or eliminated by a change in design which will eliminate the wooden strips inside the cabinet on which the varnish is used.

As gathered from both Mr. Campbell and Mr. Chase the Frigidaire would not be buying Duco or lacquer for [illegible]

1. If customer has any complaint on our products or service, explain nature of same fully.
2. Are competitor's products satisfactory? If not, why?
3. Advise chief reasons why customer or prospect buys from competitors (quality, service, price, etc.)
4. Have you interviewed Superintendent, Foreman, Finisher and all other Supervisors who might affect our sales?
5. Are you familiar with and given consideration to every product customer or prospect uses?
6. Are shop conditions and equipment for finishing good? If not, explain why.
7. Is customer operating at full capacity? If not, give approximate percentage.
8. Customer's approximate schedule (jobs per day) for ensuing three months.
9. Remarks and further details.

NOTE: In answering always use numbers.

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their own cabinets before the latter part of 1951. However, they may buy for finishing competitive cabinets, such as, Westinghouse, on which they are successful bidders for construction. Here may be one of these.

DUX PUTTY-1900:- Mr. Chase brought up a problem they will probably have, caused by a change in design of cabinet. They will want to putty a small depression on the cabinet, before the Primer is applied. Mr. Williams had a quart of Dux 1900 sent which has been used by Chevrolet in the past in this manner.

X-2C-1300--MACHINE [illegible]:- One gallon sample (Marlin's letter Nov. 17th.) received but plant is shut down and cannot test material. Operations will probably be resumed about December 8th.

HM-42006-LOCOMOTIVE BLACK ([illegible]) ON [illegible]:- This business amounting to about 14,000 gallons per year is now held by Key & [illegible]. Our sample was submitted sometime ago and is still under test.

COST OF DUCO vs. PORCELAIN ENAMEL:- Thisquestion is being discussed in Frigidaire Corp. The decision to use one coat of Primer and two coats of Duco on the Westinghouse cabinet will reduce cost. The primary reason for using lacquer is that the cabinet is one piece on which porcelain cannot be used.

I learned that changes in accounting methods at Plant No. 2, will remove some of the overhead from the Duco operation and reduce the book cost.

Defendant's Exhibit (DP) No. 340

FORM PP-[illegible]

Finishes Division

Salesman H M Cook Date 1-25/39 Report No.

Customer Frigidaire Corp Class No.

Street and No. Taylor St. Business Refrig

Town Dayton State Ohio

Person Interviewed Title Buyer Title

E.J. Barney-Purchasing Dept
J.N Rininger-Purchasing Dept
G.R Long-Eng. Dept.

CC:C R.E. Merkle
E. J. Kadlec
J. G. Armstrong
D. J. O'Connor
C. D. Armstrong
T. F. Burns
Phila.-1

Products Used	Normal Purchases	Grade	Price	Pkg	F. O. B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS								
SOLUTIONS								
LACQUERS								
THINNERS								
BR. LIQUIDS								
PX ENAMEL								
PX PRIMERS & UNDERCOATERS								
BR. POWDER								
READY MIXED								
VARNISHES								
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS & UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATS								
BLACK JAPANS								
MAINTENANCE								

INDUSTRIAL SALES TRADE REPORT
E. I. DU PONT DE NEMOURS & COMPANY, Inc.

Give information relative to competitive activities:
(a) Why does customer or prospect buy from competitors (quality, service and price, etc.)?
(b) Additional competitive information:

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Recd 1/31 Typed 2/1/39 E.V.

(A) Called here with L C Streeter

(B) General discussion with Mr Barney With Long and Rininger discussed in detail finish for commercial refrigerator cabinets K & S primer and splatter finish has been adopted Preferred over Hammered Finish submitted by du Pont because;

1 Better general appearance.
2 Lack of undesirable high gloss
3 Finish air-dry instead of bake
4 Air dry finish much easier to refinish in service

Number of cabinets to be produced this year about 1000

It developed that Frigidaire will eventually return to use of wrinkle Also they have one manufacturer who may supply it without paying royalty to the present patent combine

Frigidaire agreed for us to submit our offerings of splatter finish or any other finish which might have application

Defendant's Exhibit (DP) No. 341

Form PP 3760-A

Finishes Division

Salesman R. M. Cook Date 7/17/39 Report No. 148

Customer Frigidaire Corp. Class No. 1

Street and No. Taylor St. Business Refr.

Town Dayton State Ohio

Person Interviewed E. T. Barney Title P.A. Buyer Title

Products Used	Normal Purchases	Grade	Price	Pkg.	F.O.B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS								
		Eng. Dept. - Fred Payne						
SOLUTIONS				Al Kline				
LACQUERS								
		Standards Dept. - Fred Chase						
THINNERS								
BR. LIQUIDS		CC:	G.R.E. Merkle					
PX ENAMEL			E. J. Kadlec					
			J. G. Armstrong					
PX PRIMERS & UNDERCOATERS			D. J. O'Connor G. D. Armstrong					
BR. POWDER			T. P. Burns					
READY MIXED			Phila. 1					
VARNISHES								
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS & UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATERS								
BLACK JAPANS								
MAINTENANCE								

DRIVE ACCOUNT

SPECIAL ATTENTION - PLEASE

INDUSTRIAL SALES TRADE REPORT
E. I. DU PONT DE NEMOURS & COMPANY, Inc.

1 Give information relative to competitive activies:
(a) Why does customer or prospect buy from competitors (quality, service and price, etc.)?
(b) Additional competitive information:

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Rec'd & Typed 7/19/39 lm

(A) General.

(B) 1. Mr. Barney was surprised at price reduction of "Dulux" Enamel.

2. Color Tint "Dulux" Enamel
Hoped to get decision today on color. However meeting was arranged for tomorrow morning.

3. Finishing Anodized Aluminum.
Fred Payne, who returned from weeks vacation today, will go ahead with testing of 704, and 705 Line Enamel.

4. Baking Clear "Dulux" Alum. Vehicle.
As given in my TR #45 of March 22 the use of RC-3041 was discontinued because of yellow color. Following this a sample of RK-266 was submitted in April, as of R.N. Sangers letter of April 4. RK-266 in spite of its higher solids seems to have lower viscosity than RC-3041, and as such does not spray well. Frigidaire reduced 3041 90 to 25% with #30 Union Oil Solvent and can reduce the RK-266 only 10 percent. At the same time, the RK-266 does not give as smooth an appearance after baking as does the Glidden product now in use, the Aluminum powder seems to float and form lumps or aggregates. Fred Payne thinks this may be due to the quicker set-up of the Glidden material, which gives a better appearance than RC-3041 or RK-266

- over -

Also during this period Frigidaire have tried out a Forbes product, which gave a yellowish cast the same as RC-3041.

Fred Payne asks whether the solvents of RX-266 could be modified to give a quicker set up or whether this is the answer.

Since this material is used on the drawers of Electric Ranges, durability does not seem to be much of a factor and the principal problem is to get the drawers by the Frigidaire Inspection Department.

(C) Action - See B-4

1.As the question now stands, this business has been lost since March and is held by Glidden. I do not know whether the Phila. lab. could revise RX-266. The volume is 1500 to 2000 gal. annually, orders 200 to 400 gallons.
2.Please send me gallon 754 line . ite for Frigidaire to try on Bakelite. Need not be tinted to Frigidaire color.

Defendant's Exhibit (DP) No. 342

[illegible] Ohio

[illegible]

CC: [illegible]

[illegible]

1 [illegible] from customer or prospect by their competitors (quality, service and price, etc.)
(c) Additional competitive information.

2 (a) At what percentage of capacity is customer or prospect operating?
(b) What is their business outlook.

3 List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE [illegible] ON BASIS OF:
(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Rec'd 9/20/40 Typed 9/23/40

(A) General.

(B) 1. Sending under separate cover to A. D. Dick two gray panels, one showing a gray baked enamel used on commercial refrigeration, and the other the same enamel but with a lacquer top coat used as a [illegible] on the enamel. Both products are now supplied by K & S, the latter at about a dollar a gallon.

Please advise if we have a "Duco" to match in gloss and color the baked enamel. This would presumably be 26[illegible],218, or similar line. If so, please send me quart sample. Annual usage is about 2000 gal. with individual orders of 200 to 300 gallons.

DRIVE ACCOUNT
SPECIAL ATTENTION - PLEASE

INDUSTRIAL SALES TRADE REPORT
E. I. DU PONT DE NEMOURS & COMPANY, Inc.

EXCERPT FROM FINISHES DIVISION CALL REPORT
DATED SEPTEMBER 18, 1940

(A) General.

(B) 1. Sending under separate cover to A. D. Dick two gray panels, one showing a gray baked enamel used on commercial refrigeration, and the other the same enamel but with a lacquer top coat used as a patch on the enamel. Both products are now supplied by K & S, the latter at about a dollar a gallon.

Please advise if we have a "Duco" to match in gloss and color the baked enamel. This would presumably be 267,218, or similar line. If so, please send me quart sample. Annual usage is about 2000 gal. with individual orders of 200 to 300 gallons.

Defendant's Exhibit (DP) No. 343

Western Sales Office
2100 Elston Avenue

E. I. du PONT de NEMOURS & COMPANY
INCORPORATED
Chicago, Ill.

Finishes Division

Chicago, Ill.
January 8, 1940

GIBSON REFRIGERATOR CO.,
GREENVILLE, MICH.

FRIGIDAIRE DIV.
GENERAL MOTORS CORP.,
DAYTON, OHIO

In regard to Mr. Jack's request that we forward for his test a sample of the clear lacquer being used by Frigidaire, on the tinned evaporator parts, we received this morning the following wire from Mr. Cook, which is self-explanatory:

"YOUR LETTER JANUARY FIFTY UNFORTUNATELY LACQUER REFERRED TO BY JACK OF GIBSON IS NOT DUPONT WE HAVE BEEN TRYING UNSUCCESSFULLY TO GET THIS BUSINESS FOR SEVERAL YEARS UNDER NAME COIL LACQUER LAST SAMPLE SUBMITTED J1100x2498 HAS BEEN WAITING TEST SINXE LAST SUMMER AND IS OUR BEST GUESS AT DUPLICATION OF PRICE AND QUALITY OF COMPETITIVE LACQUER WHICH IS REDUCED ONE PART LACQUER TO EIGHT PARTS SPECIAL DIPPING DU PONT THINNER 3504."

Inasmuch as the material involved is not a du Pont product, we are not taking action at this time. However, it might be that you would want us to submit a sample of J-1100-x-2498 with 3504 Thinner for Mr. Jack's test at this time rather than wait until Frigidaire have completed their test of this material. Please advise what action you now desire.

L. C. STREETER
ADD
BY: A. D. DICK

ADD:EF

Mr. Cook—Thanks for getting this information to us today.
ADD

NOTE: "CC R. M. Cook" at top is encircled with pencil. An irregular line is drawn through "Mr. C. J. Linahan." The letter is signed with the initials "ADD." A check mark appears through the initials "ADD" at bottom of the letter.

October 3, 1940.

MR. G. A. BIESECKER:

CHICAGO OFFICE INDUSTRIAL WEEKLY REPORT
FOR THE WEEK ENDING OCTOBER 2, 1940

* * * *

7. IMPORTANT COMPETITIVE DEVELOPMENTS:

For the past two or three weeks Frigidaire have been making a production run with Lowe Brothers Primer and Enamel. We have just learned that Frigidaire experienced serious trouble with the competitive primer and had to discontinue its use before the competitive run was completed. We have made a rush shipment of "Dulux" Primer to the customer which they will use under the Lowe Brothers enamel until all competitive enamel on hand has been used up. As soon as this is accomplished, Frigidaire will return to the use of "Dulux" Primer and Enamel 100%. We do not as yet have any details of the trouble they experienced with the competitive primer.

* * * *

L.C. STREETER

CC: JOHN D. O'DONNELL
R. N. SANGER
H. E. LACKEY

Cleveland 14, Ohio
March 17, 1947

MR. J. B. BULLETT
MR. C. R. E. NERKLE

FRIGIDAIRE DIVISION

Recently two men from the Philadelphia Laboratory visited Frigidaire, and while in Dayton discussed with Messrs. Sanger and O'Donnell the possibility of refrigerator companies using a wash coat over the Bonderite before priming. They felt that a procedure of this type might increase the humidity cabinet resistance.

As your [sic] probably know, this office has been doing considerable promotion work on DULUX for food compartments with Frigidaire, Westinghouse and Crosley. Westinghouse and Crosley are very interested in the use of DULUX on food compartments and will make the switch if Frigidaire will. Last week we had a meeting with Mr. Schweller of Frigidaire, who is interested in starting laboratory tests on DULUX finishes for food compartments. If the tests look satisfactory, he has agreed to finish 200 food compartments in DULUX. It is our plan to offer 764-042, 67-923, and 704-23780 abrasion resistant DULUX.

Mr. Schweller feels that if a wash coat applied by spray, or preferably dip, over the Bonderite would increase the humidity cabinet resistance of the final finish, he would be interested. This would be a definite asset in our favor.

I would appreciate your reviewing this problem and letting me know the very best system that we can offer and any alternate systems that Frigidaire should test.

W. E. KREUER

Note: The initials "R N S," with a line drawn through them, appears in the upper left corner. The initials "W E K" appear in the upper right corner. Under the date line is written "Fisher 4/1" and it is crossed out with pencil. A check mark appears above "Frigidaire." The words "File Copy" appear diagonally across the letter.

Defendant's Exhibit (DP) No. 346

EXCERPT

Trade Report Covering Visit of John D. O'Donnell to Frigidaire on August 1, 1950.

• • • •

R.N. Sanger and R.O. Sellars called here with the writer today.

1-A. Dulux food compartments presentation.

1-B. Mr. Sanger presented the Dulux food compartment story to all men listed opposite with the exception of S.N. Schweller who unfortunately was not able to be with us being tied up in preparation for the visit of the president of General Motors Corp. tomorrow. We all agreed this story was presented to a sufficient number of key people of Frigidaire who accepted our presentation as a well organized story. However, as we have always known Frigidaire to be the most porcelain conscious refrigerator manufacturer, they told us very definitely that this presentation would have no effect on their plans to continue making all interiors of porcelain as well as all inner door pans, as soon as feasible. We suggested that as there is a growing interest in painting food shelves, we wanted them to know that the same finish would be recommended today for painting food shelves as for the food compartments and they agreed that this presentation gave them reason to [be] encouraged should they at any time decide to put out any painted shelves.

• • • •

Note: Word in brackets is omitted in original.

Defendant's Exhibit (DP) No. 348

3310P

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
FABRICS & FINISHES DEPARTMENT

6303

Dayton, Ohio,

April 1, 1940.

Mr. L. C. Streeter, Chicago. FRIGIDAIRE

DULUX FOR INNER LINERS

This follows up my recent letter concerning the possible use of Dulux on inner liners. E. J. Barney telephoned me at Philadelphia last Thursday morning that he had discussed this question with R. B. Newill, Asst. G. M., and that Mr. Newill's opinion was, so far as Frigidaire's policy was concerned, that they would be very much opposed to the use of Dulux for this purpose, that they would fight it with every facility at their command, including advertising to show the advantage of Porcelain over Dulux, and also that they would take this question up with N. E. M. A.

R. M. Cook

Defendant's Exhibit (DP) No. 349

SUMMARY

REFRIGERATOR, WASHING MACHINE
AND
STEEL KITCHEN CABINET
MEETING

BISMARCK HOTEL — CHICAGO

NOVEMBER 10, 1944

INDUSTRIAL FINISHES DIVISION

. . . .

2. Food Compartment Finishes
Home and Farm Freezer Finishes

Dr. Gowing's paper stated a strong case for the use of "Dulux" on food compartments of domestic mechanical refrigerators. The standard two-coat "Dulux" systems were recommended with the mar resistant system receiving a preferential rating. The same systems were offered for use on the interior of home and farm freezer cabinets but with the stipulation that they be applied on Bonderited zinc coated metal.

All customers who expressed an opinion were in agreement that "Dulux" could be used satisfactorily on the food compartments of domestic refrigerators. Mr. VanDerau of Westinghouse stated that during 1935 they used our 104-Line system on the food compartments of 10,000 four cubic foot refrigerators without the use of a grill or hydrator to protect the bottom. No complaints have been received on the finish performance. Mr. Money pointed out that Crosley used our 704-Line system on several thousand interiors during 1938 without complaint. Ice refrigerator manufacturers have used "Dulux" on several hundred thousand food compartments without complaint.

In spite of this overwhelming backlog of favorable data, no one manufacturer is willing to replace porcelain with "Dulux" because of the selling tactics which have been employed by their competitors, and which would be repeated in all probability. "Dulux" will not be used extensively for this purpose until the majority of the leaders in the field agree upon its adoption. It is not likely that Frigidaire and Kelvinator can

be persuaded to quit porcelain, but there is some hope that

Westinghouse, General Electric, Crosley, Gibson, and Norge will agree on the use of "Dulux". A calculated saving of 50¢ to $2.50 per cabinet, depending upon porcelain costs in various plants, will accrue with the use of "Dulux". Mr. VanDerau stated that the savings would be even higher than estimated by many because the baking of "Dulux" will not distort the liner as in the case of porcelain, which would eliminate the cost of hand fitting of shelf slides with shims. He contends "Dulux" is a "natural" for the job.

Mr. Sosey of Seeger claims that very little would be saved by using "Dulux" in place of porcelain on the interior of home and farm freezers. Mr. VanDerau took firm exception to Mr. Sosey's statement on the basis that the dimensional variation with porcelain coated liners would create an untenable labor cost in the alignment of various compartments and the slides for shelves and baskets.

• • • •

Defendant's Exhibit (DP) No. 351

Form FP 3760-A

Finishes Division

Salesman R. M. Cook Date 1-23-42 Report No. 25

Customer Frigidaire Corp. Class No. 1

Street and No. Taylor St. Business Refrig.

Town Dayton State Ohio

Person Interviewed [illegible] J. Barney Title P.A. Buyer Title

Products Used	Normal Purchases	Grade	Price	Pkg.	F.O.B.	FROM WHOM	Approximate Consumption Next 12 Mos.	In Market Again
SOLVENTS	CC:	J. G. Armstrong						
		E. J. Kadlac						
SOLUTIONS		R. O. Sellars						
LACQUERS		C. R. E. Merkle						
		M. A. Dibble						
		O. J. Spawn						
THINNERS		Phila 2						
BR. LIQUIDS								
PX ENAMEL								
PX PRIMERS & UNDERCOATERS								
BR. POWDER								
READY MIXED								
VARNISHES								
PASTE PAINTS								
OIL ENAMELS								
PV PRIMERS & UNDERCOATERS								
SYN. ENAMELS								
SYNTHETIC UNDERCOATS								
BLACK JAPANS								
MAINTENANCE								

INDUSTRIAL SALES TRADE REPORT

E. I. DU PONT DE NEMOURS & COMPANY, Inc.

1. Give information relative to competitive activities:
   - (a) Why does customer or prospect buy from competitors (quality, service and price, etc.)?
   - (b) Additional competitive information:
2. (a) At what percentage of capacity is customer or prospect operating?
   - (b) What is their business outlook.
3. List names and titles of persons to receive mailings.

REPORTS ON CALLS MUST BE RENDERED ON BASIS OF:

(a) PURPOSE OF CALL
(b) RESULTS OF CALL
(c) ACTION NEEDED

Received and typed 1-26-42. PG

A. General.

B. Production.

Refrigerator production continues at about 1500 cabinets per day, 7500 per week - 6000 "Dulux" and 1500 Porcelain. No information available as to how long this may continue. A meeting is to be held in Washington January 26th after which some information may be available.

C. None.

Defendant's Exhibit (DP) No. 356

OR-6393

DU PONT

SALESMAN'S TRADE REPORT
RUBBER CHEMICALS DIVISION

CANARY — RUBBER LABORATORY
BLUE → WILMINGTON SALES
GREEN — SALESMAN'S COPY
PINK — PROMOTION & ANALYSIS
GOLDENROD — TRADE RECORD
FIRST WHITE TISSUE — RUBBER LABORATORY

SALESMAN S. W. McCune, III BRANCH OFFICE Wilmington MILL CALL No. REPORT No. 1

CUSTOMER General Motors - Chevrolet Div. CALL DATE 1/11/50 WRITTEN TYPED 1/20/50

CLASS PER CENT CAPACITY

ADDRESS Gear & Axle Plant CITY Detroit STATE Mich.

INTERVIEWED

SAMPLES OR LITERATURE

IMPORTANT PLEASE REPORT ON THE FOLLOWING SUBJECTS IN THE ORDER GIVEN: 1. ACCELERATORS; 2. ANTIOXIDANTS; 3. PEPTIZING AGENTS; 4. COLORS; 5. RETARDERS; 6. MISCELLANEOUS CHEMICALS; 7. NEOPRENE; 8. NEOPRENE LATEX; 9. GENERAL INFORMATION.

Called with JBL

Called here to discuss with Mr. Z uel the requirements for rear axle seals. He told us that Chevrolet made no attempt to specify the material used in the manufacture of axle seals and judged their suitability solely on the basis of a performance test. He suggested that if we were interested in developing a neoprene composition for use in automotive rear axle seals that we work closely with the seal manufacturers. He told us that Chevrolet's principal suppliers of these seals were: Victor Manufacturing & Gasket Co; Chicago Rawhide Manufacturing Co.; National Motor Bearing Co., Inc.; Michigan Leathe Co. At the present time Chevrolet is not buying any seals from

COPIES TO		ACTION BY
☐	C & C	☐
☐	AKRON	☐
☐	BOSTON	☐
☐	CHICAGO	☐
☐	LOS ANGELES	☐
☐	NEW YORK	☐
☐	SAN FRANCISCO	☐
☐	RAK	☐
☐	CAB	☐
☐	SGB	☐
☐	WAK	☐
☐	VAC	☐
☐	AHW	☐
☐	CEM	☐
☐	DBF	☐
☐	HHA	☐
☐	LSB	☐
☐	MFT	☐
☐	NLC	☐
☐	EXPORT	☐
☐	(2) C.I.L.	☐
☐	JBL	☐
☐		☐

Defendant's Exhibit (DP) No. 352

EXCERPT

Trade Report Covering Visit of John D. O'Donnell to Frigidaire on September 14, 1950.

• • • •

1950 Production

Refrigerators—1,011,358—(938,737 — "Dulux"
(72,621 — Porcelain
Ice Cream Cabinets — 51,288 — "Dulux"
Home Freezers — 35,032 — "Dulux"
Water Heaters — 40,682 — "Dulux"
Electric Ranges — 265,949 — All Porcelean
Automatic Washing Machines — 113,545 — All Porcelean

• • • •

Defendant's Exhibit (DP) No. 357

[illegible] ☐

5-6-40
5-8-40
jas

ORIGINAL—MAIN OFFICE COPY

SALESMAN'S REPORT

V. M. G.65314

MAR 12 1940

Salesman J. N. Norton Agency Wilmington Date 2-27-28-40 Report No. 78

Firm Chrysler Corp. Mill Call No.

No. and Street Engineering Div. City Detroit, State or Province Mich.

W. J. MacCortney Ch. Chem.

Interviewed J. Hendrick Title Compounder

Percentage of Mill Activity

Competitive Product in Use (or Quoted)	Competitive Seller	Price	Next in Market	Approx. Annual Consumption	Corresponding du Pont Product	Quoted
J. Dudley	Compounder			cc—	V.A.C.	
R. Wheeler	"				W.H.A.	
					Dr. Dales	

SGB VAC
CAB HLL
ERB AFC
FILE RHS

List in This Block All Samples and Literature Forwarded

DISCUSS WITH

List in This Block All Matches Forwarded

RETURN TO

In addition to the information regularly reported in the body of the Trade Report, replies to the following specific questions should be made. Answers may be tabulated by number.

1. What technical problem should be investigated, or what other service do you desire for this firm prior to your next call?
2. Is an increase or decrease expected here in the consumption of any particular item?
3. What new competitive products are appearing on the market at this point?
4. Has any situation developed of interest to our Credit Department?
5. Is there any information of interest to another Department of the Company?

REMARKS:

Called with D.F.F.

Defendant's Exhibit (DP) No. 353

COPY

6309

cc: SGB
SLW
J. A. Turner, Mgr.
For: R. L. Heints

April 12, 1949

TO: JBL

FROM: SWM

Pontiac Motor Co.
Radiator Hose

RAK has reported that Pontiac are interested in using GR-I in the construction of radiator hose and have asked Thermoid for quotations on a product of this type.

Since other car manufacturers are using neoprene radiator hose and believe that it is worth while, we would like to demonstrate to Pontiac that neoprene will make the most serviceable product. To accomplish this, we will need samples of radiator hose constructed from GR-I and neoprene. Do you believe that Lampman would be willing to furnish samples of hose for such a test or had we better obtain samples from some other source. and present to him the results of any tests that we make as an accomplished fact. Any further information which you may have will be of help in setting up this program.

SWM/jes

Note: "FILE COPY" is printed across the face of the document.

EXCERPT FROM DEVELOPMENT REPORT OF THE RUBBER CHEMICALS DIVISION DATED MAY 15, 1950

"Potential Markets for Neoprene in Hose

"Neoprene is now being used by practically every hose manufacturer in certain types of hose. However, a review of manufacturers' catalogs and literature on hose has revealed that neoprene is not yet being used in all types of hose in which its properties are advantageous.

"The types of hose in which we believe that neoprene should be more widely used are as follows:

1. Air Hose (quarry, mine and compressor types)
2. Universal Hose
3. Automotive Radiator and Heater Hose
4. Garden Hose

"Neoprene is now used in the inner tubes of most types of air hose and in the outer covers of premium grades of air hose. There is a field for expansion in the use of neoprene in the covers of hose designed for use in mines and quarries and in the covers on compresser hose.

"Electric Hose and Rubber Company, who pioneered the development of a universal or all-purpose hose which can be used for conveying oil, water or gases, have equipped their product with a high quality neoprene cover and have demonstrated that neoprene tubes give adequate performance in all types of service. Other manufacturers are introducing a universal type of hose. They are equipping their hose with neoprene covers, but some of them are using tubes made of a Buna N composition.

"Automotive radiator and heater hose, constructed of neoprene, is being used as standard equipment by Chrysler and Ford. Their experience in using this hose has demonstrated advantages for neoprene which justify its higher cost. Other automobile manufacturers, who are now using hose made from Butyl rubber, GR-S and reclaimed rubber claim that this hose is adequate for their purpose.

"All of the principal manufacturers of garden hose, except Goodrich, are offering high quality garden hose equipped with a neoprene cover. Plastic hose continues to be a strong competitor for neoprene in this field.

"We are making every effort to demonstrate the advantages of neoprene in these types of hose in order to more firmly establish our position in this field." (pp.3-4)

Defendant's Exhibit (DP) No. 355

OFFICE TRADE REPORT

S. W. McCune III   Wilmington   2-8-45

General Motors Research Laboratories   Detroit, Michigan   6312

Mr. R. K. Williams

To: J. A. Turner, Mgr.
Chicago Office
For: S. L. Weller

Wil. - VAC

Interviewed with NLC, VAC, WHK, HHA, and AMB.

Williams visited the Laboratory to inspect our equipment and discuss new developments as they apply to his problems.

General Motors is interested in developing an adhesive similar to Chrysler's Cycleweld. Williams has been experimenting with mixtures of various resins with neoprene, but has been unable to make a stable solvent cement containing neoprene and a phenolic resin. He has tried various solvent mixtures, but has not been able to produce a satisfactory material. Several suggestions were made, including the use of the unreacted resin components in the cement and to form the resin at the time the bond is made. HHA reviewed some of the work that has been done on latex-resin mixtures.

Williams pointed out that one of the drawbacks of neoprene products was the high compression set of neoprene. We told him that it was possible to compound low set neoprene stocks by using the proper type of neoprene and the right compound and cure. Gave Williams recipes for low set stocks of GR-M and Neoprene Type FR in a 65-70 durometer range.

VAC brought up the subject of oil resistant applications and asked Williams whether there were many automotive applications where dimensional stability during oil immersion was actually necessary. Williams gave several examples and stated that General Motors would not use neoprene in resilient applications where oil resistance was the primary requirement. We discussed the comparative properties of neoprene with blends of Buna N and GR-S, and the methods which could be used to make sure that neoprene was being supplied when desired. Williams pointed out that at present it was not General Motors' policy to specify neoprene products, as such, but rather to describe the physical properties of the vulcanizate desired and leave it up to the supplier to choose neoprene or some other material.

We showed Williams through the Laboratory. He was particularly interested in the equipment we used to evaluate neoprene in resilient mountings.

SWM/ml
2-10-45
2-10-45

☐ DBF ☐
☐ HHA ☐
☐ LSB ☐
☐ MFT ☐
☐ NLC ☐
☐ EXPORT ☐
☐ (2) C.I.L. ☐
☐ JBL ☐
☐ ☐

Called here to discuss with Mr. Zauel the requirements for rear axle seals. He told us that Chevrolet made no attempt to specify the material used in the manufacture of axle seals and judged their suitability solely on the basis of a performance test. He suggested that if we were interested in developing a neoprene composition for use in automotive rear axle seals that we work closely with the seal manufacturers. He told us that Chevrolet's principal suppliers of these seals were: Victor Manufacturing & Gasket Co; Chicago Rawhide Manufacturing Co.; National Motor Bearing Co., Inc.; Michigan Leather Co. At the present time Chevrolet is not buying any seals from Michigan Leather which probably accounts for the interest shown by Herman Boxser in the development of a superior compound for use in rear axle seals. The Acadia Synthetic Products Division supplies the rubber parts which Michigan Leather use in the fabrication of their seals.

During a discussion of the properties of various types of commercial lubricants, Zauel told us that the lubricant used in the rear axle of Chevrolet passenger cars was identified by General Motors Specification 4655M and the lubricant used in Chevrolet trucks was identified by General Motors Specification 4735M. Zauel stated that the latter specification described Elco 28 hypoid lubricant.

Zauel took us to the plant and showed us the bonded brake lining operation which was being used at that particular unit. He stated that four such units are now in operation at Chevrolet plants and that these four units produce all of the brake shoes for Chevrolet cars. A thermal setting adhesive, supplied in dip form by Goodrich, is used in bonding the brake lining to the metal shoe. The shoe is first protected from corrosion by the application of a varnish. This is followed by the application of a priming cement to the surface of the shoe. The adhesive is then applied to the surface of the shoe and the whole assembly is cured under pressure at elevated temperature. After curing, each brake is tested by applying a load of 4,000 pounds in shear on the bond between the lining and the shoe. Every shoe is also subjected to a hammer test in order to make sure that the lining is bonded on firmly over the surface of the shoe. It is believed that the adhesive used in bonding these brake linings is a phenolic one which has been modified by compounding with a Buna-N Type of synthetic rubber.

A COPY OF EVERY REPORT COVERING THE TIRE INDUSTRY SHOULD GO TO THE AKRON OFFICE

In addition to the information regularly reported in the body of the Trade Report, replies to the following specific questions should be made. Answers may be tabulated by number.

1. **What technical problem should be investigated, or what other service do you desire for this firm prior to your next call?**
2. **Is an increase or decrease expected here in the consumption of any particular item?**
3. **What new competitive products are appearing on the market at this point?**
4. **Has any situation developed of interest to our Credit Department?**
5. **Is there any information of interest to another Department of the Company?**

REMARKS:

Called with D.F.F.

D.F.F. had been requested to return to assist in solving two problems. The first concerns the universal joint boot. Hendricks has swung to the belief that neoprene would be satisfactory because recent tests results of which were reported last week, show that neoprene will not get brittle after 2 weeks at -40° F. If Chrysler approves, Universal Products Co. is willing to use neoprene despite their poor experience with the old neoprene-leather construction. After a discussion with Gardner, local representative for Chicago Rawhide, it was decided to telephone Koeliker, chief chemist, in Chicago and recommend he try two neoprene formules. These formulas will be reported by D.F.F. who will confirm them by letter. This is an extremely important problem because it involves from 1000 to 2000 lbs. of neoprene per operating day and because Perbunan is favored for this produce. If we can solve the problem and get neoprene into production, it will be the first large-sized neoprene part going into automobiles as original equipment.

The other problem for D.F.F. concerns a neoprene latex coating for cork gaskets. This job will involve a fair volume of neoprene latex, but will be temproary only. Most of the latex will be furnished through Michigan Latex Co. although purchases may be made at any of the three sources of supply—Chicago Rawhide, Felt Products or Detroit Gasket. The reason the need is expected to be only temporary is because the lignin-neoprene combination is expected to replace the coated cork in a few months.

McCortney is still very anxious to discuss this lignin-neoprene development with

E.R.B. He believes it will be to our advantage to have this discussion in Detroit because E.R.B. can see all developments at first hand. While original work looked dubious, the recent developments appear to be highly successful. Amount of neoprene involved should reach close to 1 million pounds per year.

Wheeler has charge of cements and adhesives. Recently he has been handed Bagley's sound dampener. This product is acceptable, but it dries a little too slowly. Told Wheeler about the early development of this product and why it was necessary to [illegible] Zenite and Neozone D as part of the compounding material.

Defendant's Exhibit (DP) No. 358

CAB-Wil.
Wil.
JHN

16

DU PONT DYESTUFFS

ORIGINAL—MAIN OFFICE COPY

SALESMAN'S REPORT

Salesman D. F. Fraser Agency Wilmington Date 7/22/40 Report No. 28

Firm Chrysler Corp. Mill Call No. 4

No. and Street City Detroit State or Province Michigan

Interviewed W. J. McCortney
J. Hendrick Title Percentage of Mill Activity

Competitive Product in Use (or Quoted)	Competitive Seller	Price	Next in Market	Approx. Annual Consumption	Corresponding du Pont Product	Quoted
J. Dudley				HAH		
				PPM		
				To: B. L. Miller, Mgr.,		
				Chicago Office		
				For: S. L. Weller		
				EHK		
				G.A. Lee, Box 10, Montreal, Canada, C.I.L.		

SGB VAC
CAB HLL
ERB AFC
FILE RHS
DISCUSS WITH
RETURN TO

List in This Block All Samples and Literature

List in This Block All Matches Forwarded

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3. What new competitive products are appearing on the market at this point?
4. Has any situation developed of interest to our Credit Department?
5. Is there any information of interest to another Department of the Company?

REMARKS:

Called with JHN.

Dudley

Delivered another sample of compounded neoprene latex for veneering work. Dudley reports that they are definitely interested in the possibilities of neoprene veneered window stripping and grommets. To date better appearing products have been made with neoprene latex than with Type KC cement. The Type KC cements have an advantage in that self-curing cements could be used. Dudley wanted to know if we would provide the cement and accelerator separately. Told him that we might eventually do this but for the time being would prefer adding the accelerator when the cement was made up. He is going to send me twelve gasoline tank filler neck grommets, half of which are to be coated with latex and the remainder with cement. When they are returned he

55,214

Pale Crepe	100.
Altax	1.
Guantal	.8
Hiflex B	1.
Zinc Oxide	8.
P-33	20.
Laurex	2.
Sulfur	2.5

Cure: 15 minutes at 275°F.

(I reminded him that this stock would cause any self-respecting du Pont salesman to take to drink.)

Hendrick

Tests on Type I are still under way. In connection with the blue sheet describing Type I, Chrysler seemed to be more impressed with the claims for freeze resistance than anything else. Told Hendrick that this was determined under only one set of conditions and for their purposes they would probably find Type GN to be more freeze resistant than Type I. I was shown several samples under test from Manhattan that had been submitted as freeze resistant compositions. They appeared to be withstanding the Chrysler freeze test successfully. Hendrick inquired about our commercial situation on Type I. He told me that Standard Products had been removed from the list as a source of supply for gaskets covered by Spec. M.S. 1616. (Presumably because their supply of Perbunan has become exhausted). General Rubber has replaced Standard Products. Hendrick is anxious to get the latter concern back on the list and the only way they can do it would be to use Type I. Told Hendrick that Type I compositions should meet M.S. 1616 by a wide margin. I promised to develop compounds to meet the specification and send the results to him. About 5,000 units are used per day.

The universal joint boot is being released to production. This neoprene part will probably be molded by Goodyear. As far as Hendrick can see this part will remain in production unless some new political angle concerning the spline drive unit crops up.

No neoprene problems have been encountered so far on the new transmission design.

The next part for neoprene consideration is the proposed thermostat unit. Conventional metal bellows thermostats cost from 24-32¢ each. A design using a flexible rubber bellows has been proposed. Such a unit should cost less than 5¢. The unit consists of a flat brass disc approximately 2½" dia. On this sits a hemispherical shell of rubber. The edges of the disc are peaned back on the rubber to effect a seal. The copper tube connected to the thermostat by-pass valve is attached to and through the vertex of the rubber shell. By means of the tube the air is exhausted from the shell and 1 c.c. of ethyl alcohol introduced. The tube is then crimped to prevent loss of the alcohol vapor. This unit will be cheaper than the metal bellows thermostat and in addition is just as, or more, responsive to temperature changes.

The difficulty so far has been with diffusion of the alcohol vapor through the rubber shell. (The rubber is reinforced on the outside with two layers of balloon cloth.) Perbunan was being tried during my visit. I said that neoprene should be much better than rubber as far as diffusion was concerned. In addition neoprene is not swollen by polar

solvents to the same extent as Perbunan. Promised to run diffusion tests of alcohol through neoprene and rubber and to report the results to Dudley. If this part goes to neoprene a nice volume will result.

Crampton reported that Type GN produced lower set compounds than any other type but it was too unstable to use. Investigation showed that he was not using any Latac or other chemical plasticizer in his compounds.

No one at the Rubber Laboratory knew the type of oil used in the Fluid Drive mechanism. Referring to the specifications Hendrick found that the following were the approved sources of supply:

Standard Oil of New Jersey - Stanco #145R
Socony Vacuum Oil Co. - #414 Indiana White Oil.

Hendrick kindly provided me with all the Chrysler specifications covering synthetic rubber parts. The tabulation appearing below lists these specifications by number and title. The approved sources for each part are shown in the last column. Those specifications marked x may possibly be changed; those marked xx will be changed. In most cases the changes will be concerned with the time and temperature of test conditions in an attempt to standardize on the tests.

Special Note to Salesmen:

By means of copies of this trade report this list is being sent to the interested salesmen for information regarding the source of supply of the various parts. Naturally this information is to be considered as confidential and the fact that we are in possession of the specifications should not be divulged to your customers. In most cases the specifications list the rubber company's compound number or designation.

We have developed compounds to meet some, but not all, of the specifications.

Chrysler Specifications:

	Number	Title	Composition	Supplier
	MS 230	Radiator Hose	Tube - R or S Cover - R	1-2-3
x	667	Vacuum cylinder hose	A. ½" hose Tube - S Cover R or S	4
			B. Larger than ½" Tube - S Cover - S	6
xx	669	Bearing oil seal rubber	R	4-5
x	826	Oil and gasoline hose	Non-metallic tube S	4
			Metal lined tube R	4-7-8
			Metallic tube	7-9-10-11

(R = rubber)
(S = synthetic)

	Number	Title	Composition	Supplier
	988	Exposed rubber parts coated with lustrous finish	R	2-8-12-13-14
x	1119	Radiator hose - very flexible	Tube - R Cover - R	2-4
	1306	Hose - gasoline tank filler tube flexible construction	Tube - S Cover - R or S	2-3-4-8-15-16
	1345	All rubber hot water heater hose	R	12-1-8-17
x	1417	Seals - oil - molded synthetic rubber - very stiff	S	18
x	1425	Gasket and washer stock oil resisting - medium hard	S	12-4-20-14-13-21-8-2-22-3-23-24
x	1446	Gasket and washer stock oil resisting - stiff	S	12-20
x	1476	Hot water heater hose - fabric reinforced	Tube - R Cover - R	2-3-25-26-14-8
	1480	Seals - oil or grease molded synthetic rubber - medium soft	S	12-8-2-6-4-14-22-27-19-28-29-23
	1497	Gaskets for refrigerating Freon compressors asbestos	S	8-30
	1525	Oil hose - snythetic rubber	Tube - S	7-9-11
	1585	Synthetic rubber coated gaskets Chipboard base	S	31-32-33
	1586	Synthetic Rubber coated gaskets Manila lined chipboard base	S	31-32-33
	1587	Synthetic rubber coated gaskets Fibre board base	S	31-32-33
	1616	Seals and gaskets - synthetic rubber - inside cooling system - medium soft	S	2-13-15
	1620	Tubing - synthetic rubber - non-tarnishing of copper	S	8-34-35-12
	1626	Seals - oil or grease - extruded synthetic rubber - medium soft	S	8-2-19-4-14
	1641	Seals or gaskets - synthetic rubber - inside cooling system stiff	S	2-36
	1666	gasket - stiff ligno-neoprene synthetic rubber	S	

	Number	Title	Composition	Supplier
x	1675	Gasket - synthetic rubber - soft	S	18-8-2-19-4
	1683	Synthetic rubber coated gaskets vulcanized fibre base	S	Fibre 37-38 Coating 31-32-33 Gasket 39-40-41
	1691	Seal - synthetic rubber and fabric - crankshaft bearing	S	42.
	1701	Gasket - medium hard ligno-neoprene synthetic rubber	S	
	1704	Gasket - gasoline sealing - medium hard	S	43-44
	1768	Gasket - synthetic rubber coated cork	S	45-39
	1773	Boot or diaphragm material - synthetic rubber - extreme cold resistance	S	2

Suppliers

1. Firestone
2. Goodyear
3. Thermoid
4. Manhattan
5. Miller
6. Inland
7. Flex-O-Tube
8. Goodrich
9. Weatherhead
10. Titeflex Hose
11. Columbia Products
12. Dryden
13. General
14. U. S. Rubber
15. Goodyear (Canada)
16. Dunlop (Canada)
17. Industrial Rubber Goods
18. Chicago Rawhide
19. Griffith (Canada)
20. Western Rubber
21. Toledo Industrial Rubber
22. Corduroy
23. Firestone (Canada)
24. Dominion (Canada)
25. Boston Woven Hose
26. Gates
27. Baldwin
28. Stokes Rubber (Canada)
29. General Rubber (Canada)
30. Raybestos
31. Minnesota Mining & Mfg. Co.
32. St. Clair Rubber
33. O'Day Co.
34. Johnson Rubber
35. Continental Rubber Works
36. Standard Products
37. Spaulding Fibre
38. Continental Diamond Fibre
39. Felt Products Mfg.
40. Vellumoid
41. Michigan Devices
42. Victor Gasket
43. Armstrong Cork
44. Detroit Gasket
45. National Machine Products

DFF:eb

Defendant's Exhibit (DP) No. 359

6321

OFFICE TRADE REPORT

REPORT OF R. F. Fraser AGENCY Wilmington DATE 10/34/40

FIRM Chrysler Corporation ADDRESS Detroit, Michigan.

TALKED WITH J. V. Hendrick TITLE

COMPETITIVE PRODUCT IN USE	COMPETITIVE SELLER	PRICE	WHAT IN MARKET	APPROX. ANNUAL CONSUMPTION	CORRESPONDING DU PONT PRODUCT	QUOTED
				To: B. L. Miller, Mgr.,		
	SGB WAC			Chicago Office		
	GAB HWL			For: E. L. Weller		
	EGB ASC					
	FLE RGS					

LIST IN THIS BLOCK ALL SAMPLES AND LITERATURE FORWARDED

DISCUSSED WITH

RETURN TO

LIST IN THIS BLOCK ALL MATCHES FORWARDED

REMARKS:

Hendrick called to present an estimate of their neoprene requirements for the next three months. The data which he brought with him were incomplete and it took the best part of one day to make the necessary calculations. In its final form the table shows every neoprene part used by Chrysler together with the vendor, the unit weight, the percentage of neoprene by type and the calculated requirements per part for the last three months of this year. Three copies of the table were made. Hendrick retained one; one has been sent to SGB and I am retaining the last copy. Chrysler wish to keep this information confidential, mainly because it shows the estimated production of the various cars for the remainder of the year.

The total neoprene needed is as follows:

	October	November	December
Type GN	17,890	14,820	16,390
Type E	25,000	21,200	23,205
Type I	388	340	370
Type 57 Latex	180	148	206

These figures allow 20% for overflow and scrap. It is felt that the estimate is on the low side. The Type GN is used exclusively for propeller shaft boots. The Type I is an experimental production unit and the Type 57 is used for coating cork front and rear main bearing oil pan gaskets. This information, of course, must be kept confidential.

6322

Goodyear, who make the propeller shaft boot, claim that they can only supply 65% of the requirements with their present and expected stock of Type GN. This means that an additional 6,000 lbs. of Type GN per month are needed to meet the deficiency. After discussion HEB decided to release 6,000 lbs. of Type GN (additional) to Goodyear in November and December, but he could not allow them any extra GN for October. It was apparent that Chrysler are not entirely satisfied with the boots produced at Goodyear. The reasons given were that Goodyear were running a high scrap (approximately 35%) on this part and the remainder was not 100% satisfactory. In addition, Goodyear were reducing the curing time and all of Chrysler's tests have shown that a full cure is essential to meet the freeze resistance requirements of the specification. Undoubtedly, there were other reasons which were not disclosed.

This arrangement will take care of the November and December requirements but does not take care of the October needs. On Friday Hendrick phoned Chicago Rawhide and asked them if they could borrow neoprene from their reserve set aside for national defense purposes in order to take care of 35% of the October boot requirements. Koelliker said he could if he would be assured of getting the additional 6,000 lbs. of neoprene in November and December. The move prompting this arrangement was suggested by statements that Koelliker had made at Chrysler that he had a reserve bank of neoprene about which we knew nothing. This arrangement appeared to be the only one feasible which would allow Chrysler to obtain enough neoprene to supply their boot needs. The 6,000 lb. shipment during November and December will now go to Chicago Rawhide rather than Goodyear since Chicago Rawhide will have the molds. In the conversation with Koelliker it was revealed that the molds were already on the way to Chicago Rawhide. The latter arrangement was made in the absence of HEB but with the approval of CAB and SGB.

According to Hendrick Goodyear have made several energetic attempts to substitute Chemigum for neoprene in the propeller shaft boot. Because of the background with neoprene Chrysler wish to retain neoprene for this part although they will probably go to Chemigum for all or part of the remaining needs depending on how the supply of neoprene lasts.

Both Hendrick and I are very anxious to retain the propeller shaft boot business for neoprene. Should neoprene be not forthcoming Chrysler may return to the leather boot or go to the spline shaft design. In either case it will be exceedingly difficult, if at all possible, to recoup the neoprene business.

Hendrick intimated that Felt Products were to be approved as a source of supply for oil pan end gaskets (neoprene coated cork gaskets). Felt Products are using the basic neoprene latex mix which we gave them but have found that the addition of a dispersion of soya bean meal greatly improves the physical properties of the latex film.

Hendrick gave me unvulcanized samples of two types of Chemigum which I had requested during my last visit to Detroit. These have been handed to HNS for analysis. Hendrick cautioned me not to reveal the source of these samples.

Several problems on hand could not be disposed of during his visit but these will be taken up during my next visit to Detroit.

(4120)

[illegible]:eb
[illegible]/7/40

List in This Block All Samples and Literature DISCUSS WITH

RETURN TO

List in This Block All Matches Forwarded

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REMARKS:

Called with JHN.

Dudley

Delivered another sample of compounded neoprene latex for veneering work. Dudley reports that they are definitely interested in the possibilities of neoprene veneered window stripping and grommets. To date better appearing products have been made with neoprene latex than with Type KC cement. The Type KC cements have an advantage in that self-curing cements could be used. Dudley wanted to know if we would provide the cement and accelerator separately. Told him that we might eventually do this but for the time being would prefer adding the accelerator when the cement was made up. He is going to send me twelve gasoline tank filler neck grommets, half of which are to be coated with latex and the remainder with cement. When they are returned he will subject the grommets to oxygen bomb, Weather-O-Meter, roof and road tests.

McCortney and Dudley told me that their present window stripping and quarter window frame stocks are high grade but generally contain some reclaim. Dudley will send me formulas for representative stocks which we will use as controls in our sunlight exposure tests.

For a control in low temperature tests Dudley suggested that we use their non-freezing brake cup stock.

Defendant's Exhibit (DP) No. 360

6323

ORIGINAL—MAIN OFFICE COPY

FORM OD-3302 25M SETS-8-41 ☐

DU PONT DYESTUFFS

SALESMAN'S REPORT

OMH-Wil.
~~OAB-Wil.~~
VAC-Wil.
AEC-Wil.

EKB
V. M. G.
SEP 16 1941

Salesman D. F. Fraser Agency Wilmington Date 8/25/41 Report No. 21

Firm Chrysler Corp. Mill Call No. 5

No. and Street City Highland Park State or Province Michigan

Interviewed J. V. Hendrick
V. J. McCortney Title Percentage of Mill Activity

Competitive Product in Use (or Quoted)	Competitive Seller	Price	Next in Market	Approx. Annual Consumption	Corresponding du Pont Product	Quote
				JHN		
				HAH		
				To: J. A. Turner, Mgr.,		
				Chicago Office.		
				For: S. L. Weller		

SGB
~~OAB~~
ERB
FILE
VAC
HLL
AEC
~~RHS~~
DISCUSS WITH
RETURN TO

List in This Block All Samples and Literature Forwarded	List in This Block All Matches Forwarded

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REMARKS:

Called with JHN.

JHN asked Hendrick to confirm a rumor going around Detroit that the price of Hycar was to be dropped to 50¢ a pound during the first part of September. Hendrick said that he had been informed that the price would be dropped about that time but did not know the contemplated new price.

The primary cause of the call was to discuss the flexing results on the fluid drive vacuum pump diaphragms which we had compounded and cured at Goodyear on August 8th. Since that time the molds were withdrawn from Goodyear and sent to

Another problem of immediate concern is that of the universal joint boot. Originally this stock (Neoprene Type GN) had a tensile strength around 2,200 lbs., so the specification was written calling for a minimum of 2,000 lbs. per in.^{2} tensile strength. Since that time (over a year ago) the tensile strength has gradually decreased until now they are getting tensile strengths in the neighborhood of 1,600 lbs. per in.^{2} The actual tensile strength does not matter a great deal but Chrysler have found by experience that a lower strength stock means a poor flexing stock. There are indications that the flex life of the boot is less than that of the early production boots although no change has been made in the stock composition or mold design. This has not reached serious proportions yet but we may expect a complaint any time. I told Hendrick that we would see what we could do about this problem from the angle of selecting neoprene for this use and would work directly with Chicago Rawhide who now mold this part. This agreement was satisfactory to Hendrick and I will discuss in detail with the interested members of our laboratory.

Chrysler are going ahead with the long range research program on boots and have completed their mold to produce single convolution boots. A sample molding was brought back to check against the mold which we intend to make. Details of their proposed flexing tests were obtained and these will be discussed with FLY.

While at Chrysler I went over the various neoprene parts now in use and the places on the car where we could expect to see neoprene used. The most interesting new development is that of rear spring covers. At the present time the rear spring is enclosed in a cotton jacket and this in a metal jacket. Due to the shortage of cotton and ternplate Chrysler propose to go to a synthetic rubber jacket. This would be molded as a flat slab with thin supporting ribs and will be wrapped around the spring. It would be held in place on the spring by a metal crimp. Such a development will call for approximately $1\frac{1}{2}$ lbs. of crude per car and would amount to something like 50,000 lbs. of crude per month. Hycar is favored for this application, but if we cooperate I think we can secure some or most of the business for neoprene.

On the discussion of neoprene parts I found that the following are made from neoprene.

Engine oil gauge hose
Fuel filter injector hose
Universal joint boots
Super-charger seals
Gear shift bumpers
Crank shaft rear bearing cap gasket
Fluid drive vacuum pump diaphragm
Automatic gear shift valve seat seals
Vacuum diaphragm
Exhaust pipe bracket grommet
Shock absorber seals
Ignition coil nipple (to be discontinued)
Wheel control arm pinion and bushing dust seals
Fan case cover seal
Rear main bearing seal
Front end suspension dust seal
U shackle seals
Shock absorber piston guide
Spline shaft seal

REMARKS:

Hendrick called to present an estimate of their neoprene requirements for the next three months. The data which he brought with him were incomplete and it took the best part of one day to make the necessary calculations. In its final form the table shows every neoprene part used by Chrysler together with the vendor, the unit weight, the percentage of neoprene by type and the calculated requirements per part for the last three months of this year. Three copies of the table were made. Hendrick retained one; one has been sent to SSB and I am retaining the last copy. Chrysler wish to keep this information confidential, mainly because it shows the estimated production of the various cars for the remainder of the year.

The total neoprene needed is as follows:

	October	November	December
Type GN	17,890	14,820	16,390
Type E	25,000	21,200	23,205
Type I	385	340	370
Type 57 Latex	180	148	206

These figures allow 20% for overflow and scrap. It is felt that the estimate is on the low side. The Type GN is used exclusively for propeller shaft boots. The Type I is an experimental production unit and the Type 57 is used for coating cork front and rear main bearing oil pan gaskets. This information, of course, must be kept confidential.

From the table it appears that the bulk of the Type E neoprene goes into front wheel dust seals, the next largest quantity going into neoprene-lignin gaskets made by Standard Products. The whole list includes forty different applications. There are other applications where they are at present using Thiokol or Chemigum.

Hendrick's chief worry was a supply of Type E for Standard Products to make the neoprene-lignin gasket and a supply of Type GN to make the propeller shaft boot. Standard Products has informed Hendrick that if we live up to our promises on Neoprene Type E they will be able to supply Chrysler's requirements of the neoprene-lignin gasket. On the other hand, Neoprene-lignin materials are used in:

- Tappet cover gaskets
- Valve spring cover gaskets
- Axle drive pinion carrier drive gasket (or Hycar-lignin)
- Oil pan gaskets
- Manual remote gear shift housing gasket
- Fuel gauge tank mounting gasket
- Shock absorber seal gasket
- Oil pan and gasket (at present made from cork covered with neoprene latex)

Hycar is used for:

- Shock absorber gaskets
- Axle drive pinion carrier drive gaskets and several other applications.

Thiokol is used in the gasoline filler neck tube and in the automatic shift hose lining. On trucks neoprene or Chemigum is used for the water pump by-pass elbow and radiator hose connections.

I was told that next year due to a shortage of alcohol they propose to use kerosene as an anti-freeze. In this case the three hose connections will be supplied as a replacement kit with the new cars and will also be available through parts distributors. Neoprene has been ousted from use in horn wire, ignition cable and carburetor hose. Ignition cable is now made with Vinylite tape and carburetor hose is made of metal. The gasoline pump diaphragms are made from linseed oil treated fabric.

Hendrick gave me a list of their current specifications to bring our laboratory file up-to-date. In the list below the same supplier identification has been used as that given in my Trade Report #28, July 22, 1940.

Number	Title	Composition	Supplier
MS-1306	Hose - Gasoline tank filler tube flexible connection	Tube - T Cover - R	2-15-8- 4-3-16
MS-1345	Hose - Synthetic Rubber - Hot Water Heater or By-Pass	C A N	2 8
MS-1425	Gasket or Washer stock - Molded synthetic Rubber - Medium Hard (Same requirements as MS-1830) (Shock Absorber Gaskets)	N A C S	12-8-2-4-14-46 8 2 13-47
MS-1480	Seals - oil or grease - Molded Synthetic Rubber - Medium soft (Same requirements as MS-1626) (Spring suspension dust seals)	A C N P S	8 2 12-8-2-4-14 1 13-47
MS-1497	Gaskets for Refrigerating Freon Compressors (optional with MS-1834)	NA	8-30
MS-1525	Oil Hose - Synthetic Rubber (oil gauge hose)	Tube - S	7-9-11
MS-1585	Synthetic Rubber Coated Gaskets - Chipboard Base	T	31-32-33

Number	Title	Composition	Supplier
MS-1586	Synthetic Rubber Coated Gaskets - Manila lined chipboard base	T	31-32-33
MS-1587	Synthetic Rubber Coated Gaskets - Fibre Board Base	T	31-32-33-44
MS-1616	Seals or Gaskets - Synthetic Rubber - Inside Cooling System - Medium Soft (Thermostat Gasket)	C H S	2-15 47 13-36-48
MS-1626	Seals - oil or grease - Extruded Synthetic Rubber - Medium Soft (same requirements as MS-1480) (Front end suspension dust seals)	A C N S T	8 2 8-2-4-14-19 13 47
MS-1641	Seals or Gaskets - Synthetic Rubber - Inside Cooling System - Stiff (Radiator cap gaskets)	C H N	2 47 3[illegible]-48
MS-1642	Oil Seal Packings (Shock absorber seals)	S	18
MS-1666	Gasket - ligno-synthetic rubber - Medium Hard	NL	
MS-1675	Gasket - Synthetic Rubber - Soft (Rear main bearing cap gasket)	C N	2 2-4-8-13
MS-1683	Gasket - Synthetic Rubber Coated - Vulcanized Fibre Base	T	31-32-33
MS-1691	Seal - Synthetic Rubber and Fabric - Crankshaft Bearing - Type A	N	42
MS-1701	Gasket - ligno-Synthetic Rubber - Soft (Tappet cover - oil pan end and side gasket)	NL	
MS-1704	Gasket - Cork and Synthetic Rubber - Gasoline Sealing - Medium Hard (Fuel pump gasket)	S	43-44
MS-1765	Seals - oil - Molded Synthetic Rubber - Spline Shaft	H N	47 18
MS-1769	Boot or Diaphragm Material - Synthetic Rubber - Medium Cold Resistant (Propeller shaft boot)	N	2-18-36-49
MS-1773	Boot or Diaphragm Material - Synthetic Rubber - Extreme Cold Resistant (Fluid drive vacuum pump diaphragm) (To be superseded by MS-1888)	C	2
MS-1780	Seal - Synthetic Rubber - Chain case cover	N	18
MS-1830	Gasket or Washer Stock - Extruded Synthetic Rubber - Medium Hard (same reouirements as MS-1425)	A C H N S	8 2 13 4 47

Number	Title	Composition	Supplier
MS-1834	Ligno-Neoprene Gaskets for Refrigerating Freon Compressors (same as MS-1666)	NL	
MS-1869	Gasket or Washer Stock - Extruded Synthetic Rubber - Medium Hard - Elevated Temperatures (Shock absorber gasket)	H	8-13
MS-1870	Gasket - Cork and Synthetic Rubber	HC NC	
MS-1883	Gasket - Ligno-Synthetic Rubber - Hard	HL	

Compositions

A	Ameripol
C	Chemigum
H	Hycar
HC	Hycar-Cork
HL	Hycar-Lignin
N	Neoprene
NA	Neoprene-Asbestos
NC	Neoprene-Cork
NL	Neoprene-Lignin
P	Perbunan
R	Rubber
S	Synthetic (exact composition unknown)
T	Thiokol

In most cases where "S" appears as the composition the part is made of Hycar. Hycar is being used more and more on Chrysler cars due, I believe, to the enthusiasm of the individual rubber companies for Hycar. Ohio Rubber and General are the main Hycar suppliers. Hendrick told me that Ohio Rubber was using approximately 30,000 lbs. per month of Hycar.

Suppliers

1. Firestone
2. Goodyear
3. Thermoid
4. Manhattan
5. Miller
6. Inland
7. Flex-O-Tube
8. Goodrich
9. Weatherhead
10. Titeflex Hose
11. Columbia Products
12. Dryden
13. General
14. U. S. Rubber
15. Goodyear (Canada)
16. Dunlop (Canada)
17. Industrial Rubber Goods
18. (Chicago Rawhide
19. Griffith (Canada)
20. Western Rubber
21. Toledo Industrial Rubber
22. Corduroy
23. Firestone (Canada)
24. Dominion (Canada)
25. Boston Woven Hose
26. Gates
27. Baldwin
28. Stokes Rubber (Canada)
29. General Rubber (Canada)
30. Raybestos
31. Minnesota Mining & Mfg. Co.
32. St. Clair Rubber
33. O'Day Co.
34. Johnson Rubber
35. Continental Rubber Works
36. Standard Products
37. Spaulding Fibre
38. Continental Diamond Fibre
39. Felt Products Mfg.
40. Vellumoid
41. Michigan Devices
42. Victor Gasket

6328

43. Armstrong Cork
44. Detroit Gasket
45. National Machine Products
46. Acadia Synthetic Products
47. Ohio Rubber
48. Seiberling
49. Gates

McCortney expects to attend the Atlantic City meeting.

DFF:eb
8/27/41

OHS
ERB
FILE

AEC
RHS

DISCUSS WITH

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REMARKS:

Called with JHN.

JHN asked Hendrick to confirm a rumor going around Detroit that the price of Hycar was to be dropped to 50¢ a pound during the first part of September. Hendrick said that he had been informed that the price would be dropped about that time but did not know the contemplated new price.

The primary cause of the call was to discuss the flexing results on the fluid drive vacuum pump diaphragms which we had compounded and cured at Goodyear on August 8th. Since that time the molds were withdrawn from Goodyear and sent to Chicago Rawhide and the flexing machine has been busy testing the new production lots from Chicago Rawhide. The tests are not entirely complete but Hendrick will give me a report on them and at that time I will make a full report.

It seems doubtful if the present type of pump with the neoprene diaphragm will be continued. Chrysler got into so much grief through the use of Chemigum diaphragms (although the Chrysler Rubber Laboratory had advised against it) that the design engineers are very wary of using any device along these lines. They propose to go to a piston pump in which leather seals would be used. The Rubber Laboratory are fighting to retain the diaphragm because of the background and experience they have had with it so that probably a 50-50 chance of retaining this business exists.

Defendant's Exhibit (DP) No. 361

6329

DU PONT

SALESMAN'S TRADE REPORT

RUBBER CHEMICALS DIVISION

CANARY	RUBBER LABORATORY
BLUE	WILMINGTON SALES
GREEN	SALESMAN'S COPY
PINK	PROMOTION & ANALYSIS
GOLDENROD	TRADE RECORD
FIRST WHITE TISSUE	RUBBER LABORATORY

SALESMAN J. B. LEDDEN

BRANCH OFFICE AKRON MILL CALL No. 6 REPORT No. 29

CUSTOMER FISHER BODY ENGINEERING

CALL DATE 10-19-50 WRITTEN 10-22-50 TYPED 11-8

CLASS PC PER CENT CAPACITY Dec. 11-8

ADDRESS

CITY DETROIT STATE MICH

INTERVIEWED

H. BECKERLEG

G. HANSON

TITLE

CHIEF ENGINEER

ASSISTANT

SAMPLES OR LITERATURE

COPIES TO		ACTION BY
☐	C & C	☐
☐	AKRON	☐
HWD ☒	BOSTON	☐
☐	CHICAGO	☐
☐	LOS ANGELES	☐
☐	NEW YORK	☐
☐	SAN FRANCISCO	☐
☐	RAK	☐
☐	CAB	☐
✓ ☒	~~[illegible]~~	☐
☐	WAK	☐
☐	VAC	☐
☐	AHW	☐
☐	CEM	☐
☐	DBF	☐
☐	HHA	☐
☐	LSB	☐
☐	MFT	☐
☐	NLC	☐
☐	EXPORT	☐
☐	(2) C.I.L.	☐
☐		☐
☐		☐

IMPORTANT PLEASE REPORT ON THE FOLLOWING SUBJECTS IN THE ORDER GIVEN: 1. ACCELERATORS; 2. ANTIOXIDANTS; 3. PEPTIZING AGENTS; 4. COLORS; 5. RETARDERS; 6. MISCELLANEOUS CHEMICALS; 7. NEOPRENE; 8. NEOPRENE LATEX; 9. GENERAL INFORMATION.

NEOPRENE WEATHERSTRIP VENEER

This call was prompted from a note received from HWD, Boston, concerning the amount of neoprene required by Sponge Rubber Products for weatherstrip for Fisher Body. Beckerleg said that the only use of neoprene veneer authorised by Fisher at this time was being done at the Dryden Plant in Keokuk, Iowa. Beckerleg said he had been at Derby, Conn. a few days ago and had found out that Sponge Rubber was supplying the neoprene veneered section of weatherstrip to Fisher. They have been doing this for the past 3 or 4 months and Fisher was not aware of it. It has not been for any particular use or reason that Sponge has been doing this other than it fitted into their works causing less scrap in the plant than if they used GR-S which folded more and resulted in a higher percentage of waste. Beckerleg said that as far as he was concerned the item could have been made from GR-S natural or anything that Sponge desired and that under no conditions could it be assumed that Fisher wanted or required the neoprene veneer on this part. He did state further that it was to Fisher's advantage to have neoprene on the part but that certainly they were not going to pay an extra cent for the neoprene.

AMPLES OR LITERATURE

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☐ LOS ANGELES ☐
☐ NEW YORK ☐
☐ SAN FRANCISCO ☐
☐ RAK ☐
☐ CAB ☐
☒ [illegible] ☐
☐ WAK ☐
☐ VAC ☐
☐ AHW ☐
☐ CEM ☐
☐ DBF ☐
☐ HHA ☐
☐ LSB ☐
☐ MFT ☐
☐ NLC ☐
☐ EXPORT ☐
☐ (2) C.I.L. ☐
☐ ☐
☐ ☐

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JPLedden/ecm

A COPY OF EVERY REPORT COVERING THE TIRE INDUSTRY SHOULD GO TO THE AKRON OFFICE

B

Note:

Pages 6330 - 6331 are on card 132.

Defendant's Exhibit (DP) No. 364

EXCERPTS FROM R&H CHEMICALS DEPARTMENT'S "SALES RESEARCH AND DEVELOPMENT MONTHLY SUMMARY REPORTS" CONCERNING CHEVROLET #30 SALT

"The composition of Chevrolet #30 salt has been revised to 30% NaCN, 15% $BaCl_2$, 30% NaCl, 25% Na_2CO_3 due to excessive scumming of the previous composition. The new salt is giving excellent results and Chevrolet estimates that at 10¢/lb. for Chevrolet #30 its cost per pound of steel treated is about 30% lower than that of two competitive salts now being used." (p. 7 of Report for December 1938)

"Operation of the experimental Chevrolet #30 bath at Detroit has been completed. Chevrolet's Metallurgical Department is preparing a formal report recommending this composition to replace Houghton's Perliton and Park Case. The bath, stabilized at 15% cyanide and 2 to 3% cyanate, is ideal for their work and shows a 30% saving in materials over competitive products. After formal approval, all suppliers will have an opportunity to bid on this composition under a G.M. specification. Since we believe we can make this salt at a lower price than competitors, we should be able to obtain all the business." (p. 6 of Report for January 1939)

"The Detroit Chevrolet plant is at present using up their stock of Perliton and Park Case. They plan to operate a minimum of 8 pots on Chevrolet #30 and a maximum of 4 on Holden 100 or 200. Since each pot requires about 40 lbs. of replenishment per 8 hour shift, their consumption will be approximately 300 lbs. per operating shift or 4500 lbs. per five day week on a 24 hour schedule. They insist on two sources of supply; consequently, we cannot expect all of their salt business." (p. 9 of Report for May 1939)

Defendant's Exhibit (DP) No. 365

EXCERPT FROM THE REPORT FOR FEBRUARY 1933 OF THE R. AND H. CHEMICALS DEPARTMENT TO THE EXECUTIVE COMMITTEE DATED MARCH 21, 1933:

> "Our chief cyanide competitor in the case hardening field has been very active in pushing Aero-case during February. We have developed in our laboratories a new case hardening bath to meet this competition and during March our new process will be demonstrated at the plant of one of our larger customers." (p. 6)

Defendant's Exhibit (DP) No. 366

EXCERPT FROM THE REPORT OF THE R. AND H. CHEMICALS DEPARTMENT FOR APRIL 1933 TO THE EXECUTIVE COMMITTEE, DATED MAY 25, 1933:

"In recent years a demand has appeared for a method of case hardening which will penetrate the steel to a greater depth than can be obtained with cyanide or other baths previously in use. Our laboratories have successfully developed a new fused bath which accomplishes this result using a cyanide derivative as the activating ingredient. 'Ducase' is the name being considered for this activating agent. A three-months' trial of this process is under way at the plant of Warner Gear Company at Muncie, Indiana." (p. 9)

Defendant's Exhibit (DP) No. 367

EXCERPT FROM REPORT OF D. A. HOLT ENTITLED "METAL CYANIDE RESEARCH," DATED SEPTEMBER 7, 1933:

> "The Ducase process was developed to strengthen our position in the case hardening field. The cyanide bath is satisfactory for case depths of but 0.010" or less. The Aero Case process can be used for case depths of at least twice this value and consequently has encroached on cyanide to some extent. With Ducase we have a process which may be used for all case hardening work which can be accomplished by a bath process. Ducase can be operated to give better results than any known bath hardening process as measured in terms of case depth per unit of time, hardness of case and simplicity of operation. We believe Ducase at the right prices (50¢ activator and 8¢ melt) will effectively handle the Aero Case competition." (p. 1)

EXCERPT FROM REPORT OF W. M. GAGER OF THE TECHNICAL SERVICE DEPARTMENT OF THE ROESSELER & HASSLACHER CHEMICAL COMPANY, INC. ENTITLED "SODIUM CYANIDE-ITS PRESENT STATUS IN THE STEEL TREATING INDUSTRY," DATED DECEMBER 19, 1932:

"The Aero-Case process of the American Cyanamid Company is being actively pushed as a reheating medium to replace cyanide. Nearly all of the automobile makers have one or two pots on Aero for case hardening but by far the largest unit for reheating is at the Buick Motor Car Company, Flint, Michigan. They have a pot eight feet in diameter, holding about 3000 lbs. of salt. All transmission gears (5150 S.A.E. steel) made at this plant (for Buick, Pontiac and Oldsmobile) are now heated in this bath instead of cyanide. This installation was originally at Muncie Products Company but was transferred when that plant was closed. Buick claims this to be superior to cyanide and more economical." (p. 4)

EXCERPT FROM REPORT OF R. B. K'BURG ENTITLED "DIVISION /R&H METALLURGICAL DIVISION/ PROGRESS REPORT FOR JANUARY 1-JULY 1, 1931," DATED AUGUST 18, 1931

"The analysis of one of Houghton's many case hardening mixtures, which showed it to be practically equivalent in composition to several of their other salts and to the R. & H. 45% cyanide-chloride mixture, will probably give us the cyanide trade of Fuller & Sons Mfg. Co., Milwaukee, Wis. Their engineer had stated to our salesman in the presence of their purchasing agent that he would not approve work done in R. & H. 45% cyanide-chloride mixture because the cyanide content was too low but must have the equivalent Houghton's Surface Hardening Cubes, for which they were paying considerably more than our quoted price. Their purchasing agent requested us to make an analysis of this Houghton salt, the result of which will probably be sufficient to overcome the prejudice of the engineer.

"Attempts to introduce our cyanide into the Oakland Motor Co., Pontiac, Mich., in place of that supplied by the Park Chemical Co. have been consistently unsuccessful. A trial run was made at their plant and photomicrographs of resulting cases prepared here illustrating a case of 0.002" depth on S.A.E. 1020 and 1010 steels after 20 minutes treatment in a bath which analyzed 32% NaCN. There is only a slight difference in price, that favoring us, and practically no difference in composition between ours and the competitive salt, but here again prejudice is against us.

"These instances are typical of the bias which exists in favor of some of our competitors and their materials irrespective of price." (p. 4)

Defendant's Exhibit (DP) No. 370

REPORT

6338

Name of Co. : THE ROESSLER & HASSLACHER CHEMICAL CO.

Department : CYANIDE SERVICE

Subject : VISIT TO THE DELCO REMY CO. ANDERSON IND. THURSDAY NOVEMBER 15th.

Date Nov. 15, 1928.

Author : W. M. GAGER.

OBJECT:

This visit was made at the request of Cleveland Office in order to compare our 75% cyanide mixture with a similar mixture formerly furnished them by J. T. Kelley Co. of Cleveland, Ohio.

CONCLUSIONS:

They are at present using our 75% mixture with very satisfactory results, and as long as our price is under that of our competitor and probably the same, we will continue to get the business.

The writer spent the entire day of November 15th at the Delco Remy plants and met:

Mr. Jerram, Purchasing Agent.
Mr. Gormley, Supt.
Dr. D. A. Cotton

Mr. Jerram turned the writer over to Dr. Cotton . We discussed their problems and visited their three plants where hardening operations are conducted. These three plants are so laid out that the hardening operations can not be centralized but each plant does their own hardening.

Plant No. 1	manufactures	generators
Plant No. 2	"	distributors
Plant No. 3	"	starters.

They are also building a new plant here at Anderson for casting operations having the latest approved type of permanent moulds so that no sand moulding is required. They have also nearly completed a plant at Muncie for the manufacture of storage batteries.

Hardening Installation: This installation consists of 6 pots gas fired each 18" dia. x 24" deep. - Plant No. 1.

Plant No. 2: 6 pots gas fired 12" x 15" deep.
Plant No. 3: 6 pots gas fired 18" x 24" deep.

All of these pots are of "Nichrome" and each 6 is in one battery, one large hood covering the entire installation. The work treated in these furnaces is chiefly generator, distributor, and starter shafts and also other small parts which have to resist wear. The steel is 30 to 35 carbon for their hardening process is not strictly to obtain a case, but rather a surface hardness and a reheating combined. The parts are heated for 15 minutes in the molten bath temperature ranging from 1500 to 1525°F and are then quenched in oil. This oil quench reduces warpage to a minimum and only about one shaft in ten requires straightening after quenching.

English Cyanide: The cyanide which they formerly used for this purpose was supplied by J. T. Kelley Co. of Cleveland and was of English manufacture, contrary to Mr. Dittmar's impression it was not a physical mixture but a fused product and supplied to them in the form of truncated pyramids very similar to the "Ocean Cyanide" samples which we have formerly examined. None of this material was available as their entire supply had been used before starting on our material but Dr. Cotton stated that he had analyzed this material and while he found it homogeneous and to contain 75% NaCN, he did find that it only contained 11% of salt and the remainder about 14% sodium carbonate. He does not believe that the 75% material should contain sodium carbonate in this amount as it is formed in the regular cyanide bath through it's decomposition and for this reason alone he is more inclined to favor our material. Dr. Cotton has analyzed these materials quite frequently and he tests the bath daily and keeps the concentration around 30% NaCN, replenishing with the 75%.

The present consumption of cyanide is about 10 pounds per pot per day for the smaller sizes and from 20 to 25 lbs. per day for the larger pots. This would give him a maximum daily consumption of 360 pounds or about 9000 pounds per month.

Plating Operations: Considerable plating is done at the plants here and Mr. Cotton is very well acquainted with Mr. Proctor who frequently calls upon him. They are using entirely the French cyanide for their plating operations and a sample of this cyanide was obtained by the writer which will be analyzed both for our own information and also for Mr. Cotton. He states that he has analyzed the cyanide a number of times and has never found it to contain more than 95% NaCN. This cyanide is in the form of "eggs" somewhat flatter than our own and the weight is not uniform, varying from 30 to 40 grams, each. The analysis of this sample will be reported as soon as it is completed. A copy of our "Analytical Methods" was left with Dr. Cotton and he called to the writer's attention that these instructions called for the use of Barium Nitrate for the determination of carbonate whereas our book on "Cad-A-Loy" calls for the use of Barium Chloride for this determination. There is, of course, a different object to be obtained in these analyses. In the cyanide analysis it is desired also to obtain the chloride content and therefore, a chloride as a precipitant for carbonate can not be used.

The proposition of developing a quick convenient shop method for the approximate determination of the cyanide content of case hardening baths was discussed and Dr. Cotton believes that such a thing would be very valuable. He has thought of this before and states that a method was given to him from the description of which we presume it was the J. T. Kelley Co.'s method. The objection as he states is a balance of some sort is required in the shop.

As regards the future business here, we can be assured of this if our price is not higher than that/our competitors, and furthermore we have the backing of Dr. Cotton who believes that our mixture is superior to our competitors on account of having very little carbonate in it.

WMG:EK

Defendant's Exhibit (DP) No. 371

EXCERPTS FROM REPORT TO EXECUTIVE COMMITTEE ENTITLED "TECHNICAL ACCOMPLISHMENTS FOR 1938," DATED FEBRUARY 2, 1939 (PP.1-2)

"Our foremost technical contribution to the electroplating industry was the perfection of the 'Du Pont High Speed Copper' Process. The process was announced in October and has found ready acceptance by the trade as it filled a long-felt need. Sixty-three companies have purchased materials for 'High Speed Copper' plating installations, 14 of these being commercial production units. Gross sales during 1938 were $15,235, with 1939 sales of salts, brightener, and anodes estimated at $150,000.

"Through the cooperation of the two laboratories a process was developed that makes possible the speedy deposition in appreciable thicknesses of smooth, bright copper plating which can be readily buffed. The ultimate cost of copper applied by the process should be considerably less than old-type copper plating baths. The increase in production, reduction in power requirements, and ease of buffing far offset the higher initial costs. The properties of 'Du Pont High Speed Copper' indicate that it may find extensive use in new applications where copper cyanide baths have not previously been used; e.g., heavy deposits on steel wire and printing rolls, and for electroforming. Pending outcome of exposure tests and modifications of specifications, there is a possibility of this copper displacing a portion of the nickel now used as an undercoat for chromium. This should extend the use of copper plating, particularly in the automotive industry, since the lower cost of the 'Du Pont High Speed Copper' Process will enable the plater to increase depth of the copper plated layer, and decrease thickness of the more expensive nickel overcoat, at the same time eliminating a buffing operation."

Note:

Page 6341 is on card 138.

Defendant's Exhibit (DP) No. 373

6312

ELECTROCHEMICALS DEPARTMENT

TECHNICAL SERVICE REPORT

MAY 4 1939

COPIES: FFOplinger-N.F.Gen.File

REC'D BY TRADE ANALYSIS:

CUSTOMER: Cadillac Motor Co. - Div. of GMC

DATE Apr. 25,1939 No. 51

STREET NO.

CITY AND STATE: Detroit, Mich.

AUTHOR F.F.Oplinger

INTERVIEWED (GIVE TITLES): Mr. J. Bunch, Supt. of Plating

INTERVIEWED (GIVE TITLES):

PRODUCT INVOLVED: H.S. COPPER PLATING

INDUSTRY:

PURPOSE OF CALL:

☐ ROUTINE ☐ TROUBLE AND/OR SERVICE

☐ PROSPECT ☐ DEMONSTRATION

The writer found Mr. Bunch and Mr. Kushner (Plater) in a very amiable frame of mind to-day as a result of which I was able to obtain some very valuable information. About a week ago the 2000 gal. High Speed Copper solution was filtered thru a filter having lead plates. As a result considerable lead got into the solution and the result was that it did not function satisfactorily for a short period of time and the anodes had to be cleaned in order to remove lead. Fortunately, not enough lead got into it to cause any serious trouble and the plater was able to proceed without a great deal of difficulty. At the time I called the solution appeared to be functioning entirely satisfactorily.

In going over their replenishing data, I find that they have added almost no sodium cyanide to the solution, having been able to control the cyanide content very nicely thru the use of High Speed Salts. As nearly as could be determined, they do not use in excess of about 15 lbs. of High Speed Salts per day. This is not excessive considering a fairly heavy drag-out.

Mr. Bunch told me confidentially that he was fairly certain that in the near future, they would come to a definite decision to buy a new full automatic unit for copper plating and that about a 6000 gal. solution would be installed.

During the past month they have spent considerable time and money obtaining cost data on the various bright nickel plating processes as well as on High Speed Copper. Mr. Bunch claims that the data is as accurate as it was humanly possible for them to get it. According to the final results the cost of plating 0.001" of copper with the High Speed process including anodes, current, chemicals for replenishing and for cleaning and pickling was found to be 1.1 ct. The cost of bright nickel plating was found to be 2 cts./0.001"/SF. As a result of their cost studies, it is entirely possible that they may discontinue the present method of bright nickel plating and substitute another.

(OVER)

REMARKS BY DISTRICT OFFICER OR WILMINGTON

The important fact is that they have found High Speed Copper plating to cost only one-half as much as bright nickel plating. This most certainly indicates that there will be a definite increase in the amount of copper used and a decrease in the amount of nickel.

The costs of High Speed Copper plating are also being compared with the cost of Rochelle Copper plating. These figures are not yet available.

Solvent Degreasing

This subject was also discussed with Mr. Bunch and the writer learned that our Mr. McKinley had been here several days previous and was returning on Thursday. No doubt Mr. McKinley will report full details concerning their operations.

I gather that Mr. Bunch is well pleased with the interest that the Du Pont Co. is taking in this matter. The only comment I have to make at this time is that while their results are very poor, the problem with which they are faced is about as bad as can be expected to be found anywhere due to the size and shape of the articles and to the fact that automatic buffing is used to a considerable extent. There appears to be no question but what material which is buffed automatically is much harder to clean due to increased heat and pressure whereby the buffing compound becomes encaked in the recesses to a greater extent than if hand buffing were used.

FFO:MS

E

Defendant's Exhibit (DP) No. 374

TECHNICAL SERVICE REPORT

Ternstedt Mfg. Div., G. M. C. [illegible]
6307 W. Fort St
Detroit, Mich.

H. J. [illegible] [illegible] F. Kennedy

High Speed C[illegible]

I called here today at the request of Mr. [illegible] operations, however while I was in [illegible] told me that they wished to return 1100 [illegible] I told him that this sounded as though [illegible] for [illegible] operations. He said he did not know [illegible]

I mentioned this to Mr. Cole and he [illegible] automatic machine of General Motors [illegible] consequently cut down on their High Speed [illegible] know that the High Speed Copper Salts and [illegible] we would glad to accept them for credit. However, I [illegible] Chicago to find out just what they wished to do with the [illegible] that they do not know yet just what they will do in their plant [illegible] possibility that they will move the High Speed Copper Solution [illegible]

Defendant's Exhibit (DP) No. 375

ELECTROCHEMICALS DEPARTMENT

TECHNICAL SERVICE REPORT

REC'D BY TRADE ANALYSIS:

COPIES:

CUSTOMER: Cadillac Motor Car Div., G.M.C.

DATE 10-1-40 NO. 434

STREET NO. 2860 Clark Avenue

CITY AND STATE: Detroit, Michigan

AUTHOR H.W.Kennedy

INTERVIEWED (GIVE TITLES) J. Bunch, Plating Supervisor

PRODUCT INVOLVED: High Speed Copper

INDUSTRY:

PURPOSE OF CALL:

☐ ROUTINE X XXXXXXXXXX

☐ PROSPECT ☐ DEMONSTRATION

The operation of the High Speed Copper solution has improved considerably since last week and as a result their rejections are going down daily. They have installed a pipe to introduce boiler condensate to make up for evaporation losses in the High Speed Copper tank, and this will eliminate the addition of cold water which not only reduces the solution temperature but also reduces hardness which apparently has been a source of roughness in this tank.

They are using sprays on both sides of the tank to cut down on drag out losses as well as to keep the parts wet while being transferred from the High Speed Copper tank to the first hot water rinse tank. At the present time these sprays are city water, but Mr. Bunch intends to use boiler condensate for this purpose to eliminate another source of roughness.

Mr. Bunch said that he has placed a requisition with the purchasing department for the purchase of 4,000 pounds of High Speed Copper Anodes in an attempt to settle once and for all whether there is any difference between our anodes and the Revere anodes which they have been using. If there is no difference he will continue to purchase Revere anodes.

I brought up once again the subject of High Speed Copper anode hangers. Mr. Bunch said that he had discussed this matter with Mr. Oplinger in the past, and it was the consensus of opinion that their present method of handing anodes would be just as satisfactory as using the anode hangers and is of course considerably less expensive, from an installation point of view. He also felt that the use of anode hangers would increase the cost of replacing anodes as they were used up. I pointed out that this might easily be offset by the elimination of the tendency for anodes to drop to the bottom of the tank if they are hung up on the hooks. However, Mr. Bunch said that he was not interested in making a trial of our anodes. I showed him a blue print of our anode hangers and he said that it was essentially the same as has been previously sketched by Mr. Oplinger for him.

I pointed out that there seemed to be a tendency for a white precipitate to form on anodes at points of low current density and that through the use of anode hangers this might be eliminated. Also that as long as he did not wish to use the anode hangers he should at least reduce the number of anodes on any one hook to at least two and preferably one to eliminate the tendency for precipitate to form in between the anodes.

(4143)

Defendant's Exhibit (DP) No. 376

ELECTROPLATING DIVISION
MASTER REPORT

COPIES:

REC'D BY TRADE ANALYSIS: JAN 23 1941

FIRM NAME:	Cadillac Motor Car Co.	DATE:	1-2-41 NO. 1
STREET & NO.:	2860 Clark Ave.	AUTHOR	d W Kennedy R.R.Bair
CITY & STATE:	Detroit, Mich.	CALLS PER YEAR:	12
AFFILIATIONS:	Div. G.M.C.	INDUSTRY:	Mfgrs of automobiles
MEN TO SEE: (WITH TITLES)	W.E.Beckett, P.A. - (See below)		

ELECTROPLATING INFORMATION

TYPE OF SOLUTION	GALLONS	PROCESS	TYPE & MAKE OF EQUIPMENT	REMARKS
H.S.Copper	3800	Du Pont	Stevens Full Automatic machine	
"	2000	"	Still Tank	Grille Plati
"	2000	"	"	Misc.Steel "
Bright Nickel	5900	McGean	Stevens Full Automatic machine	
"	1850	Udylite	Still Tank	Grille Plating
"	1850	"	"	"
"	1780	"	"	Misc.Steel "
Chromium	1770		Stevens Full Automatic machine	
"	545		Still Tank	Grille Plating
Rochelle Copper	345		Stevens Full Automatic	Strik
"	523		Still Tank	Strike
"	1000		Still Tank	Strike

Men to see continued.

Mr. Kupetz, Supt. Motor Div. (Including Plating Department)
Mr. Jesse Bunch, Plating Supervisor
Mr. John Kushner, Plating Foreman
Mr. Harry Blum, Asst. Plat Foreman
Mr. Harold Miller, Plating Clerk

Defendant's Exhibit (DP) No. 377 6347

THE R. & H. CHEMICALS DEPARTMENT
TECHNICAL SERVICE REPORT

COPIES F. F. Oplinger - E.F.File REC'D BY TRADE ANALYSIS

CUSTOMER Chevrolet-Flint DATE 8/8/39 NO. 180

STREET NO.

CITY Flint, Michigan AUTHOR F. F. Oplinger

INTERVIEWED (GIVE TITLES) Mr. G. A. Spencer, Metallurgist

PRODUCT INVOLVED:

INDUSTRY:

PURPOSE OF CALL

☐ ROUTINE ☐ TROUBLE AND/OR SERVICE

☐ PROSPECT ☐ DEMONSTRATION

The 13,800 gallon High Speed Copper solution installed by the above sometime ago is not now being used. They are producing about 150 grills per hour using the same method as for 1939 production which consists of a copper strike on a polished grill prior to Bright Nickel plating. The nickel is also buffed after plating. This matter was discussed with Mr. Spencer and with Mr. Roether, the plater. Their reasons for sudden change in plans are rather vague. We are inclined to believe that we did not get the full and true story.

As the plater told us when they started operations, they had some trouble with the machine which had been installed for automatic buffing of the copper because of this, they tried the method previously used and much to their amazement found that they could polish the steel prior to plating. Because of this, the story now is that it will probably be cheaper for them to use former practice than to resort to High Speed Copper plating prior to the nickel.

The polishing operation which they are now doing in our opinion at least comes a long way from representing a good polishing job. The result is that at least in our opinion the final finish on the grill is not very good. Certainly it is not as good as if the copper was buffed and then Bright Nickel plated over the buffed copper.

No absolutely definite decision has been made not to use the High Speed Copper but Mr. Spencer and the plater seem to be of the opinion that they will not use it at least on 1940 production.

This whole situation was discussed with Mr. William Phillips of the General Motors Research Corp. and he will look into the matter. We plan to do nothing for the present or at least not until we have again had an opportunity to see Mr. Phillips and discuss with him what he may have found out.

R'KD BY DISTRICT OFFICER OR WILMINGTON

DO NOT WRITE BELOW THIS LINE

As previously reported, Mr. Spencer and his assistant have been making some experiments on the toxicity of sulfocyanide to goldfish. This matter was discussed with Mr. Spencer briefly today and as nearly as we could determine, their results indicate that dilute solutions of sodium sulfocyanide are more toxic to goldfish than are dilute solutions of sodium cyanide. The statement was made that fish live for as much as one hour and a half in a sodium cyanide solution containing one thousand parts per million. Such a solution has approximately the same effect on the fish as a solution of sodium sulfocyanide containing only five hundred parts per million. These results, of course, do not agree with those published by the Michigan Experimental Station who claims that one part per million or less of sodium cyanide was toxic to fish. Apparently, also they have made some experiments with trout as well as with goldfish and the two [illegible] check.

As soon as time permits, the writer will again discuss the matter of conversion of cyanide to sulfocyanide as a means of disposal with the Mechanical Department at Niagara Falls in order to arrive at a decision as to our future policy concerning this matter.

FPO:[illegible]

Copper operations. He said he did not know anything else [illegible]

I mentioned this to Mr. Cole and he said that [illegible] automatic machine of General Motors [illegible] Acid Copper [illegible] consequently cut down on their High Speed Copper. I told [illegible] know that the High Speed Copper Salts and [illegible] we would glad to accept them for credit. However, I told him that I would [illegible] Chicago to find out just what they wished to do with the [illegible] that they do not know yet just what they will do in their plant [illegible] a possibility that they will move the High Speed Copper solution [illegible] Evidently, the acid copper has not proved out any too well on [illegible]

Pointed out that if their shutting down of the High Speed Copper [illegible] about principally by the Production Department who found the acid copper [illegible] to be so much easier to buff. They could not afford to continue to operate [illegible] High Speed Copper.

We inspected the Zin-O-Lyte barrel installation and Mr. Cole said that they were very well satisfied with the brightness of deposit, which compared quite favorably with the nickel and chrome deposit previously used. They have had some trouble with brown staining which he feels is due entirely to their rinsing. He has tried bright dipping the parts and has been able to remove some of this stain on parts which were plated last week. These same parts last week however, immediately after plating would not bright dip. I told him that this was something rather new to me in that my feeling has always been that in order for a Bright Dip to work satisfactory on a part, it should be used immediately after plating rather than waiting for a number of days. They will investigate their rinsing procedure further in an attempt to improve the results obtained.

We also inspected the 1,000 gallon still tank which was just installed. The Brightener has not yet been added to this tank, nor do they have sufficient AA6. They placed an order for AA7 and were told that we could not supply it. However, no substitute was sent. Consequently in order to expedite matters, Mr. Hidley gave me an order for 100 lbs. of AA8 and a wire was sent to Cleveland asking that the material be shipped tomorrow morning.

4 42

DEFENDA Defendant's Exhibit (DP) No. 378

ELECTROCHEMICALS DEPARTMENT

TECHNICAL SERVICE REPORT

DEFEND

CHEVROLET GEAR & AXLE DIVISION - GMC
1840 HOLBROOK STREET
DETROIT 12, MICH.

W. D. HUFFMAN, MET.

DATE 5/29/45 NO. 306

AUTHOR H. L. BENNER

PURPOSE OF CALL

TROUBLE AND/OR SERVICE ROUTINE X

DEMONSTRATION PROSPECT

POTASSIUM HIGH SPEED COPPER
UNICHROME COPPER

HAS CUSTOMER ANY TECHNICAL PROBLEMS ON WHICH WE COULD OFFER RESEARCH ASSISTANCE?

YES EXPLAIN BELOW NO

PLEASE GIVE YOUR ESTIMATE OF CUSTOMER'S ANNUAL REQUIREMENTS FOR EACH PRODUCT DISCUSSED

CHEVROLET BAY CITY - COPPER PLATING

AS YOU KNOW FOR A WHILE HUFFMAN WAS SUPERVISING PLANS TO PLATE DIE CASTINGS AT CHEVROLET BAY CITY HE RECOMMENDED THAT HIGH SPEED COPPER BE USED. IT NOW APPEARS THAT BAY CITY HAS DEFINITELY DECIDED ON THE UNICHROME PROCESS AND REASONS FOR THIS PREFERENCE ARE COVERED IN MY REPORT #283 OF 5/17/45. THE ACTUAL CHOICE OF THE PROCESS WAS LEFT TO BAY CITY HUFFMAN GOT THE ABOVE INFORMATION FROM "RED" WILSON WHO VISITED BAY CITY A FEW DAYS AGO. HUFFMAN SAYS THAT HE BELIEVES HIGH SPEED COPPER

	1850	"	"	"
"	1780	"	"	Misc.Steel "
Chromium	1770		Stevens Full Automatic machine	
"	545		Still Tank	Grille Plating
Rochelle Copper	345		Stevens Full Automatic	Strik
"	523		Still Tank	Strike
"	1000		Still Tank	Strike

Men to see continued.

Mr. Kupetz, Supt. Motor Div. (Including Plating Department)
Mr. Jesse Bunch, Plating Supervisor
Mr. John Kushner, Plating Foreman
Mr. Harry Blum, Asst. Plat Foreman
Mr. Harold Miller, Plating Clerk
Mr. Wm. O'Neil, Plating Chemist
Mr. Wesley Edwards, Plating Chemist
Mr. Ray Cordes, Metallurgist

Cyanide Zinc	385	2 Barrel LaSaloo Units
Cyanide Zinc	220	Still Tank

1. Between 90 and 95 percent die castings - balance steel.

2. Indications are that for the 1942 model season from 90 to 95 percent of the work will be steel - the balance die castings. This will no doubt entail some change in plating equipment.

3. Since Udylite brought out their new Bright Nickel these people are inclined to favor this process. Consequently there is some possibility that Udylite Bright Nickel will be installed in the full automatic machine.

Up until the latter part of last year they purchased all of their copper anode on General Motors contract. However, they have been favoring us with their busine since this time. They will continue to do this, however, only as long as they are satisfied our anodes are superior to the competition as they claim that they have to pay more for the Du Pont Anodes than they did in the past.

4. Mr. Bair will report details of work done at this plant today.

Defendant's Exhibit (DP) No. 379

FORM

THE R. & H. CHEMICALS DEPARTMENT

ROUTINE TRADE REPORT

6350

MAY 15 1941

COPIES:

REC'D TRADE ANAL:

CUSTOMER Olds Motor Works Divn. GMC DATE 5/8/41 REP. NO. 283
STREET NO. Townsend St. CUST. CL. 1-4
CITY Lansing STATE Mich.
TYPE OF INDUSTRY (BE SPECIFIC) Mfr. Motor Cars & Army Ordnance
INTERVIEWED (TITLE) C. J. McManus, P. A., and R. W. Redmond, Eng.
INFORMATION DEVELOPED BY:- VISIT ☒ PHONE ☐ RECORD ☐
DISTRICT OFFICE Chicago SALESMAN K'Burg

ADDITIONS TO OR CHANGES IN ESTIMATED ANNUAL REQUIREMENTS
REPORTED ON MASTER TRADE REPORT

PRODUCT	USE	ESTIMATED ANNUAL REQUIREMENTS	MANUFACTURER	BUYS THRU	PRICE AND TERMS	CONTRACT EXPIRES

THE MANAGEMENT IS PARTICULARLY INTERESTED IN SECURING INFORMATION ON THE FOLLOWING POINTS. REPORT FULLY OTHER IMPORTANT DATA DEVELOPED THRU THE CALL. COVER ONLY ONE SUBJECT IN EACH PARAGRAPH AND CAPITALIZE OR UNDERSCORE HEADINGS.

1. INFORMATION RELATIVE TO CUSTOMER'S CREDIT STATUS.
2. INFORMATION CONCERNING COMPETITIVE PRODUCTS AND COMPETITIVE ACTIVITIES.
3. NEW PRODUCTS AFFECTING OUR MARKETS.
4. CONDITION OF CUSTOMER'S BUSINESS: % OF CAPACITY OPERATING; OUTLOOK.
5. WHAT CHANGES, OTHER THAN IN REQUIREMENTS, SHOULD BE MADE ON MASTER TRADE REPORT?
6. HAS THIS COMPANY ANY TECHNICAL PROBLEMS ON WHICH WE MIGHT RENDER ASSISTANCE?
7. CAN THE MAIN OFFICE BE OF ASSISTANCE?
8. OTHER REMARKS.

3. HIGH SPEED COPPER - They are definitely planning upon the installation of 26,000 gallons of High Speed Copper in a new $125,000 plating unit for their bumpers. Although they have asked us to deliver approximately 75,000 lbs. of "RH-553" on August 15th, it is doubtful if they can get the solution and equipment operating earlier than Sept. 15th, and possibly October 1st at the latest. This is entirely unofficial as they still intend to make every effort to start by August 15th.

Despite assertions by company representatives that we are quoting on the above

THE MANAGEMENT IS PARTICULARLY INTERESTED IN SECURING INFORMATION ON THE FOLLOWING POINTS. REPORT FULLY OTHER IMPORTANT DATA DEVELOPED THRU THE CALL. COVER ONLY ONE SUBJECT IN EACH PARAGRAPH AND CAPITALIZE OR UNDERSCORE HEADINGS.

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3. HIGH SPEED COPPER - They are definitely planning upon the installation of 26,000 gallons of High Speed Copper in a new $125,000 plating unit for their bumpers. Although they have asked us to deliver approximately 75,000 lbs. of "RH-553" on August 15th, it is doubtful if they can get the solution and equipment operating earlier than Sept. 15th, and possibly October 1st at the latest. This is entirely unofficial as they still intend to make every effort to start by August 15th.

Despite assertions by company representatives that we are quoting on the above quantity of High Speed Copper Salts subject to our ability to supply it in August, Redmond seems to have taken it for granted that they will get the material when they want it. In fact he said that he does not intend to worry about securing the copper or the nickel since both Harshaw and H-VW-M appear to have fairly well committed themselves on Nickel Anodes and Nickel Salts. Which solution will be used has not yet been decided.

I tried to impress upon Redmond the fact that a definite promise could not be made to deliver as much material as he wants on August 15th, although we would certainly do everything within our power to supply them when the material is needed. He expects to be East some time soon, and if he has a chance will stop in at Wilmington to see Mr. Oplinger. They expect to have equipment released from other work in order to install the trial solution some time during the next six weeks.

SHELL PLANT - NOTE TO DR. GILBERT - I tried to get in touch with Mr. Hartman, asst. supt. in this plant, and Mr. Harry Howell, supt., but neither party was available. Consequently, there is nothing more to add to previous information about their idea to fill forging punches with metallic sodium.

(over)

CHEVROLET GEAR & AXLE DIVISION - GMC
1840 HOLBROOK STREET
DETROIT 12, MICH.
W. D. HUFFMAN, MET.

DATE 5/29/45
AUTHOR H. L. BENNER

PURPOSE OF CALL
TROUBLE AND/OR SERVICE ☐ ROUTINE ☒
DEMONSTRATION ☐ PROSPECT ☐

POTASSIUM HIGH SPEED COPPER
UNICHROME COPPER

HAS CUSTOMER ANY TECHNICAL PROBLEMS ON WHICH WE COULD RESEARCH ASSISTANCE?
YES ☐ EXPLAIN BELOW NO ☐

PLEASE GIVE YOUR ESTIMATE OF CUSTOMER'S ANNUAL REQUIREMENTS FOR EACH PRODUCT DISCUSSED

CHEVROLET BAY CITY - COPPER PLATING

AS YOU KNOW FOR A WHILE HUFFMAN WAS SUPERVISING PLANS TO PLATE DIE CASTINGS AT CHEVROLET BAY CITY. HE RECOMMENDED THAT HIGH SPEED COPPER BE USED. IT NOW APPEARS THAT BAY CITY HAS DEFINITELY DECIDED ON THE UNICHROME PROCESS AND REASONS FOR THIS PREFERENCE ARE COVERED IN MY REPORT #283 OF 5/17/45. THE ACTUAL CHOICE OF THE PROCESS WAS LEFT TO BAY CITY. HUFFMAN GOT THE ABOVE INFORMATION FROM "RED" WILSON WHO VISITED BAY CITY A FEW DAYS AGO. HUFFMAN SAYS THAT HE BELIEVES HIGH SPEED COPPER WOULD HAVE BEEN THE BETTER BET, BUT THAT THE EQUIPMENT ACCORDING TO WILSON WILL BE SUITABLE FOR HIGH SPEED COPPER IN CASE THE UNICHROME PROCESS DOES NOT MEET THEIR EXPECTATIONS. IT IS VERY EVIDENT THAT THERE IS CONSIDERABLE CONFLICT OF OPINION IN THE CHEVROLET GROUP, SINCE HUFFMAN WAS NOT IN FAVOR OF CHEVROLET'S DECISION TO USE FLASH COPPER DEPOSITS FOLLOWED BY HEAVY NICKEL ON BUMPER BARS. HE WOULD HAVE PREFERRED TO BUFF THE COPPER AND THEN FOLLOW WITH BRIGHT NICKEL.

(4147)

6351

NOTE TO DR. SIMINGTON - I understand that [redacted] shells produced by this plant will not be of the armor piercing type and, therefore, there will be no case hardening involved.

4. They are still producing cars at capacity.

8. "CYANEGG" & COPPER CYANIDE - Not long ago McManus cancelled 25,000 lbs. of "Cyanegg" and 6,500 lbs. of Copper Cyan. Material originally was scheduled to be used in a cyanide copper installation to be installed at a later date. Since they have now decided to use High Speed Copper, they will want "RH-553" instead.

ZINC PLATING - They are still zinc plating and getting sufficient zinc anodes for continuous operation. McManus does not say who is supplying them with zinc metal but according to Redmond they are getting it regularly.

[E 4149]

Defendant's Exhibit (DP) No. 372

COPPER PLATING PROCESSES

Du Pont's Participation in Supplying Requirements of General Motors Division

	1938	1939	1940	1941	1946	1947	1948	1949	1950
CADILLAC	Installed duP process in May (1st GM installation).	Expanded usage of duP process.	Using duP process extensively.	Further expanded use of duP process. Installed H-VW-M process for part of production.	Using duP & H-VW-M processes for initial post-war production.	Converted large duP solution to MacDermid process.	Installed duP process in 2 new units -- modified duP solution by adding MacDermid materials. Rejected WICO process.	Using duP process &, to lesser extent, MacDermid process.	Using duP process for major part of plating.
BUICK	Does no decorative plating. Copper plates cam shafts, using standard cyanide process. Has never used du Pont process.								
CHEVROLET	Interested in duP process but did not install solution. Using copper strike only followed by heavy nickel.	Installed duP process at Flint, discontinued after two months.	Again using copper strike followed by heavy nickel.	Replaced some nickel with copper due to shortage -- acid copper process adopted.	Reverted to pre-war heavy nickel for decorative plating -- Bay City adopted Unichrome process for copper plating diecastings.	Continuing with heavy nickel -- no duP copper except at Buffalo.		Copper plating units installed at Cleveland & Saginaw -- MacDermid process used in both installations.	Day-Brite acid process adopted at Flint and Forge due to nickel shortage.
OLDSMOBILE	Doing very little decorative plating -- indicated interest in du Pont process but declined to install trial solution.			Installed duP process on small scale in August, large unit in December, rejecting GM acid copper.	Using duP process extensively.	Using reduced copper plate with heavy semi-bright nickel due to cracking of Bright Nickel.	Resumed use of heavy copper plate, using duP process extensively.	Replaced duP process with WICO process, later switched to Wessex process.	Using Wessex process extensively -- duP process entirely eliminated.
PONTIAC	Using standard cyanide process for relatively thin copper plate.	Samples plated satisfactorily with duP process, but no installation made.	DuP process installed for part of production, using solution discontinued at Chevrolet-Flint.	Increased use of duP process with installation of new plating machine & enlarging of existing tanks.	Installed very large new plating equipment, using duP process in two 25,000 gallon tanks, Unichrome copper in a 3rd.	Using duP process on a large scale, encountering some roughness due to increased thickness of plate.	Using duP process -- experimenting with acid copper in attempt to eliminate buffing.	Continuing with duP process but unable to eliminate buffing.	Costly modifications made in plating equipment in order to replace du Pont process with Day-Brite acid copper.
TRUCK & COACH	Copper plating operations very limited, using standard cyanide process.				Installed decorative plating equipment -- adopted GM acid copper, rejecting duP and Day-Brite processes.	Considered replacing GM process with duP or Day-Brite but decided against this action.	Using GM acid copper for all production except a few miscellaneous parts, which are plated in small Rochelle bath.		
TERNSTEDT	Doing extensive plating with standard cyanide process -- installed experimental unit of duP process in July (2nd GM installation), production unit in December.	Increased use of duP process in January -- discontinued it entirely in July.	Resumed experiments with duP process, later installed large production solution.	Discontinued use of duP process - converted to GM acid copper.	Using GM acid copper and H-VW-M process very extensively -- no duPont copper used.				
A.C. SPARK PLUG	Using standard cyanide solution for production -- duP process installed in experimental unit late in year.	DuP process adopted for part of production.	Increased use of duP process, part of additional solution obtained from Chevrolet-Flint.	Using duP process for most plating.	Use of duP process resumed & expanded with installation of new equipment -- using some GM acid copper.	Trial solution of MacDermid copper installed but discontinued.	Using du Pont process for major part of production.		Using duP process for major part of production, but considering replacement with other processes.
BROWN-LIPE-CHAPIN	DuP process installed on experimental basis after rejection of Rochelle process.	DuP process adopted for production.	Using duP process extensively with very satisfactory results -- adopted at new Elyria plant in 1946.					DuP process partially displaced by WICO process	WICO process discontinued except for 2 small tanks -- using duP process for all other copper plating.
GUIDE LAMP	Using Rochelle process on large scale.	Experimented with duP process and adopted it for production.	Considered discontinuance of duP process due to roughness, but problems solved by duP technicians.	Using duP process extensively with satisfactory results.	Resumed commercial plating with duP process.	GM acid copper process adopted for part of production.	Use of GM acid copper increased with resulting decrease in use of duP process.	Using GM acid copper for major part of plating; duP process for balance.	Large new plating machine installed -- duP process adopted for this equipment.
FRIGIDAIRE	Very little decorative plating employed, if any -- small amount of copper plating used, but du Pont process never tried for this work.								
DELCO DIVISIONS	Some copper plating done at Delco Products, Delco Appliance and Delco Radio, but du Pont process not used at any of these Divisions.								

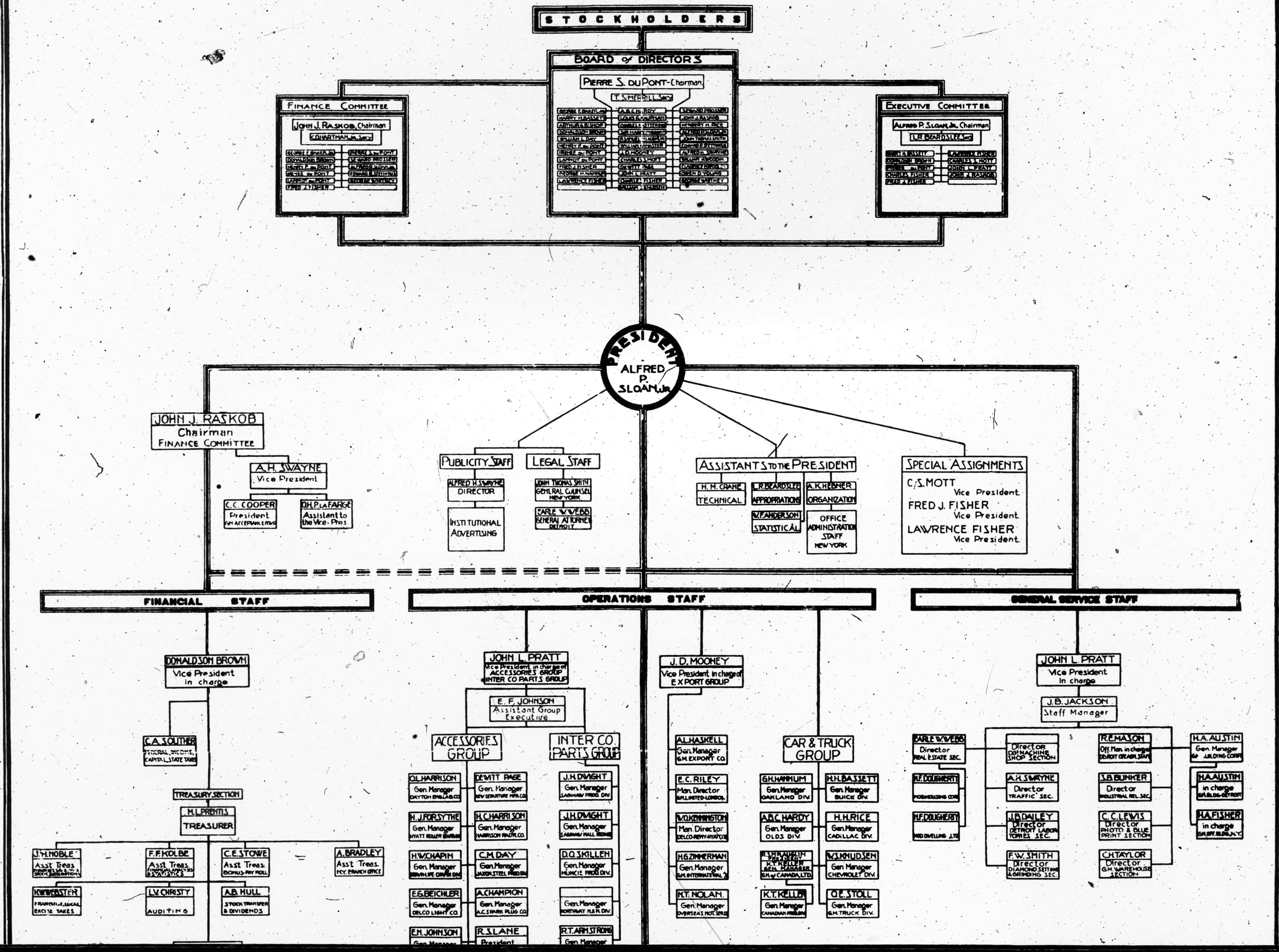
Identification of Processes

duP-----------du Pont High Speed Copper process.
H-VW-M -------Hanson-VanWinkle Munning Co. process.
MacDermid-----MacDermid, Inc. "Rocheltex" process.
WICO----------Wire Coating and Manufacturing Company process.
Unichrome-----United Chromium Inc. process.
Day-Brite-----Dayton Bright Copper Co. acid process.
G.M. acid-----General Motors Research acid process.
Wessex--------Westinghouse Electric Corporation process.
Rochelle------Standard cyanide process -- materials offered by several manufacturers, including du Pont.

Defendant's Exhibit (GM) No. 2

GENERAL MOTORS CORPORATION

ORGANIZATION



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in charge
G.M. OFF. BLDG. N.Y.

Defendant's Exhibit (DP) No. 452

E. I. DU PONT DE NEMOURS & COMPANY

APPLICATION OF PROCEEDS OF 7½% 10-YEAR BONDS, ISSUED MAY 1, 1921, FOR PERMANENT FINANCING OF OUTSTANDING OBLIGATIONS

Obligations Requiring Permanent Financing

1. E. I. du Pont de Nemours & Co.		
Amount borrowed from Christiana Securities Co., plus interest(1)		$2,826,133
Obligation to purchase 200,000 shares of G.M. common stock from Du Pont-Nobel Co.(2)		4,000,000
2. Du Pont Securities Co.		
One-Year 8% Bonds held by banks, plus interest(3)		20,017,778
3. Chevrolet Motor Co.		
Notes payable to banks(4)	$5,250,000	
Notes payable to others	3,000,000	
Accounts payable	43,370	
	$8,293,370	
Less: Current assets	359,349	
		7,934,021
Total Indebtedness		$34,777,932

Application of Proceeds of 7-1/2% 10-Year Bonds

Receipts

Par value of Bonds	$35,000,000
Less: 5% discount	1,750,000
Net receipts from Bonds	$33,250,000
Cash received on dissolution of Du Pont Securities Co.	1,020,424
Total receipts	$34,270,424

Disbursements

To Christiana Securities Co. - on account of loan, plus interest		$2,826,133	
To Du Pont-Nobel Co. - purchase of 200,000 shares of G.M. common stock		4,000,000	
To banks - purchase of 8% Bonds of Du Pont Securities Co., and 20,000 shares of Du Pont Securities Co. common stock		20,217,778(5)	
To Chevrolet Motor Co.- purchase of 28,000 shares of Du Pont Securities Co. preferred stock plus accrued dividends	$2,914,489(5)		
To Chevrolet Motor Co. - purchase of 16,000 shares of Du Pont Securities Co. common stock	1,564,000(5)		
To Chevrolet Motor Co. - purchase of 184,000 shares G.M. common stock	2,024,000(5)	6,502,489	
Expenses in connection with issuing Bonds		135,600	33,682,000
Balance not used in permanent financing			$ 588,424

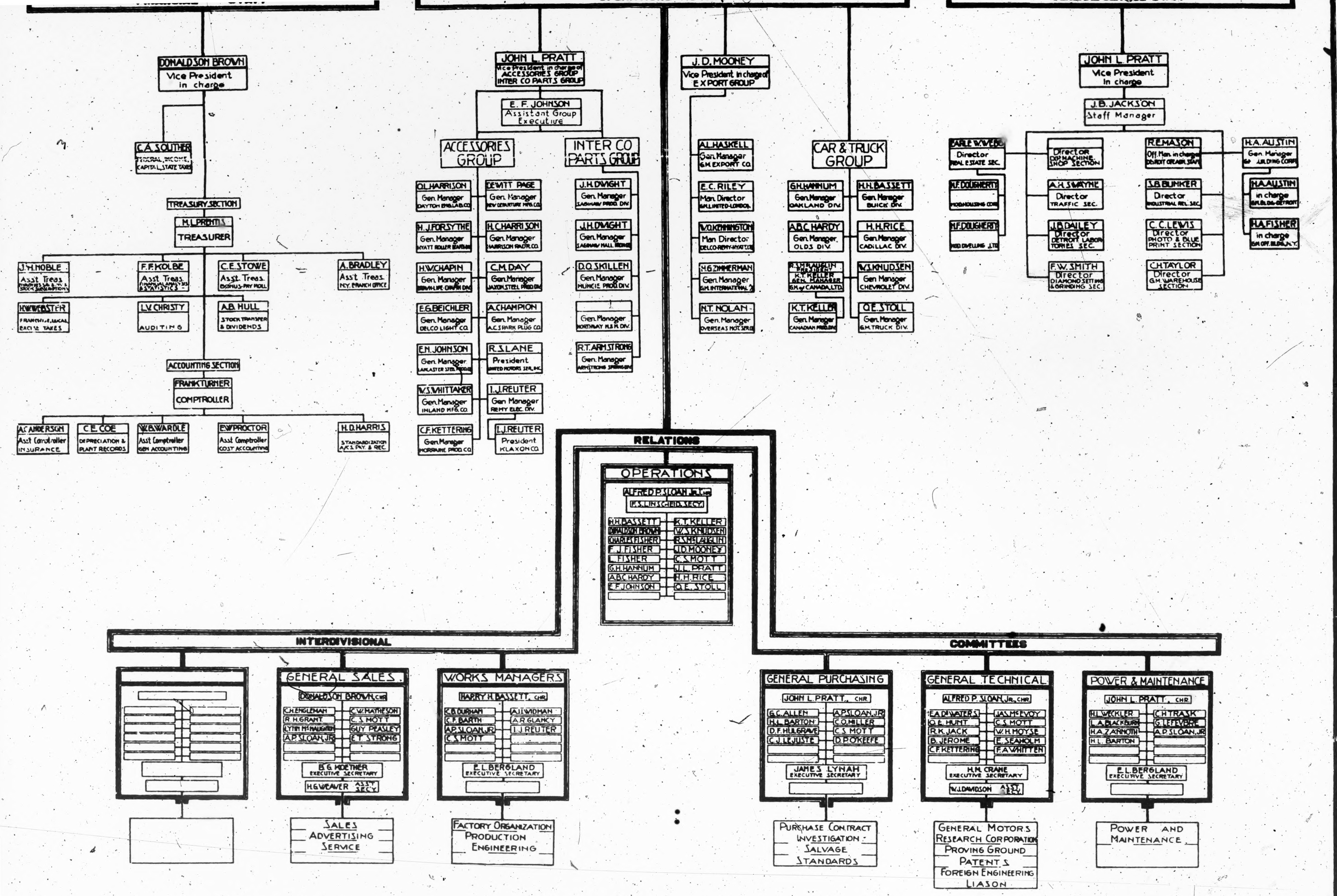
(1) The du Pont Company had borrowed $2,800,000 from Christiana Securities in 1920 and had in turn loaned $4,200,000 to Du Pont American Industries, Inc. to finance that company's purchase of $4,200,000 par value Du Pont Securities Co. preferred stock.

(2) Represents the du Pont Company's portion of 400,000 shares of the 1920 G.M. common stock issue which had originally been assigned to Explosives Trades, Ltd. but which, upon the failure of Explosives Trades to take up the shares, were purchased by Canadian Industries, Ltd. and later sold to Du Pont-Nobel Co. pursuant to an agreement that the du Pont Company and Explosives Trades would eventually relieve Canadian Industries of these shares.

(3) Represents the notes issued by Du Pont Securities Co. in 1920 to aid in financing the purchase of common stock from W. C. Durant.

(4) Represents loans made in 1920 to enable Chevrolet Motor Co. to subscribe to 350,000 shares of the 1920 G.M. common stock issue which had originally been assigned to Explosives Trades, Ltd., but which Explosives Trades had been unable to take up.

(5) These securities were immediately sold by the du Pont Company to Du Pont American Industries, Inc. in return for cash and an issue of $25,000,000 Du Pont American Industries 6% Bonds. Du Pont American Industries then held all of the outstanding securities of Du Pont Securities Co., which was dissolved on June 15, 1921.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A.P. SLOAN, JR.
C.O. MILLER
C.S. MOTT
D. P. O'KEEFE
JAMES LYNAH
EXECUTIVE SECRETARY
PURCHASE CONTRACT
INVESTIGATION
SALVAGE
STANDARDS
GENERAL TECHNICAL
ALFRED P. SLOAN, JR., CHR.
E.A. DEWATERS
O.E. HUNT
R.K. JACK
B. JEROME
C.F. KETTERING
JAS. McEVOY
C.S. MOTT
W.H. MOYSE
E. SEAHOLM
F.A. WHITTEN
H.M. CRANE
EXECUTIVE SECRETARY
W.J. DAVIDSON
ASST. SECY.
GENERAL MOTORS RESEARCH CORPORATION
PROVING GROUND
PATENTS
FOREIGN ENGINEERING LIASON
POWER & MAINTENANCE
JOHN L. PRATT, CHR.
H.I. WECKLER
L.A. BLACKBURN
H.A. ZANNOTH
H.L. BARTON
C.H. TRASK
G. LEFEVBRE
A.P. SLOAN, JR.
E.L. BERGLAND
EXECUTIVE SECRETARY
POWER AND MAINTENANCE

January, 1925

4350

Defendant's Exhibit (DP) No. 380

6352

4/7

COPIES:

RECD. 4/[illegible]/49

CUSTOMER	OLDSMOBILE DIVISION, G.M.C.	DATE	3/31/49
ST/NUMBER	1014 TOWNSEND ST.	REPORT NO	177
TOWN/STATE	LANSING, MICH.	CUST. CL.	
PRODUCTS MFD	AUTOMOBILES	AUTHOR	HILL
MEN CONTACTED	F. WILES, PA.	DIST. OFF	DETROIT
AND TITLES	W. J. FORSYTHE AND C. E. MC DOWELL, PROCESS ENGRS.	MACH. MFD	
[illegible]	HIGH SPEED COPPER	SERIAL NO	
COMPET. PDTS.	WESTINGHOUSE COPPER		

IMPORTANT REPORT: ANY ADDITIONS OR CHANGES IN [illegible] ANNUAL REQUIREMENTS [illegible] PRODUCT, USE, EST. [illegible] AND SUPPLIER. COVER: (1) CREDIT (2) COMPETITION (3) [illegible] (4) TECHNICAL PROBLEMS (5) CAPACITY AND OUTLOOK (6) NEED FOR ASSISTANCE (7) NEW DEVELOPMENTS AND PROGRAMS (8) INVENTORY SITUATION (9) OTHER SUBJECTS DISCUSSED. ASSOCIATIONS: REPORT ONLY CHANGES OR ADDITIONS [illegible]

COPPER ANODES: WILES STATED THAT THEY HAD BOUGHT A CARLOAD OF COPPER ANODES FROM MEXICO DURING THE SHORTAGE AND IN ADDITION 30[illegible] LBS. FROM FEDERATED METALS CO. AS A RESULT THEY HAVE BEEN LOWERING THEIR INVENTORY BY USING UP THIS MATERIAL. THEY DO HAVE AN ORDER IN WITH ELCHEM WHICH HE WILL ORDER RELEASED AS SOON AS THEY GET THEIR INVENTORY DOWN TO WHAT THEY FEEL IS A REASONABLE FIGURE. THEY ARE ALSO LOWERING INVENTORIES ON OTHER ITEMS HENCE HAVE NOT BEEN BUYING AS HEAVY AS THEY WERE A FEW MONTHS AGO.

WILES STATED THAT HE WOULD STILL GIVE DU PONT THE OPPORTUNITY TO QUOTE ON ALL OF THEIR CHEMICAL NEEDS.

BUSINESS CONDITIONS ARE QUITE GOOD IN THEIR PLANT. THEY ARE GRADUALLY INCREASING THEIR OUTPUT [illegible] CO. D. H. [illegible]

[illegible] REQUIRES THE USE OF CURRENT REVERSAL AS DOES THE DUPONT COPPER IN THEIR EQUIPMENT [illegible] FOUND ALSO THE W1000 REQUIRED AS WELL.

[illegible] EXPECT TO GET THEIR NEW BARREL PLATING MACHINE INTO OPERATION IN THE VERY NEAR FUTURE. MC DOWELL REQUESTED THAT WE BE PRESENT WHEN THIS IS STARTED IN ORDER TO GET THEM OFF GETTING THE BEST POSSIBLE RESULTS FROM THIS BATH INASMUCH AS THEY HAVE NOT BEEN GETTING A VERY [illegible] APPEARING DEPOSIT FROM THE OLD MACHINE AND THIS OF COURSE HAS BEEN DUE TO INSUFFICIENT CLEANING AND RINSING BETWEEN PLATING BATH AND ACID BRIGHT DIP, ETC THE NEW EQUIPMENT [illegible] AND ALLOW THEM TO PRODUCE EXCELLENT BRIGHT WORK. MC DOWELL WILL CALL US A DAY OR TWO BEFORE THEY ARE READY TO START SO THAT WE CAN BE PRESENT AT THAT TIME.

[FTP] (4151) [E]

FTP

Defendant's Exhibit (DP) No. 381

CC: R. B. K'BURG
D. W. [redacted]
J. B. HITCHCOCK

6354

DU PONT
E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
ELECTROCHEMICALS DEPARTMENT

DETROIT

August 17, 1949

MR. P. R. LINDSAY, SALES MGR.
SODIUM PRODUCTS DIVISION
WILMINGTON

"COPPRALYTE" COPPER ANODES
DU PONT ZINC BALL ANODES

We were advised today by Oldsmobile that our recent quotation to them on Copper Anodes and Zinc Ball Anodes was slightly off compared to that of our competitors. Not only was our price too high, but also they were given a firm price for a longer period of time.

This same situation prevailed at Pontiac Motor, who stated that the business had been placed elsewhere.

The quantities involved were 30,000 lbs. of copper and 4,000 lbs. of zinc for Oldsmobile, and 50,000 lbs. of copper for Pontiac.

Both firms stated that other suppliers have now advised them that firm prices are no longer being quoted on these metals.

R. B. K'BURG

DETROIT DISTRICT MANAGER

By
W. A. Marsh

WAM:HL

E

Defendant's Exhibit (DP) No. 383

EXCERPT

November 19, 1934.

J. C. WOODHOUSE
EXPERIMENTAL STATION

DELCO PRODUCTS CORP., DAYTON, OHIO - 11-19-34

F. L. Prescott, Gen. Mgr.; C. H. Kindl, Chief Engineer; Frank Born, Engineer; R. G. Olts, Chemist; Riesmussen, Engineer.

The writer was received very cordially by Mr. Prescott and then turned over to Mr. Kindl who, it developed later, is over Born and Riesmussen. The greater part of the day was spent with Kindl and Riesmussen, the remainder with Olts and Born. Mr. Bowen, Engineer of H. B. Co., is still at Delco so the writer was asked to avoid any direct contact with him in order that no information about du Pont fluid would get back to H.B. Co.

Born's interview amounted to several statements by Born that du Pont fluid was giving good results and they wanted to go ahead with tests as rapidly as possible. He contradicted an earlier statement when it was mentioned that Olds and Pontiac had been given samples of Delco fluid (diethylene glycol-glycerine fluid) and discouraging results had been obtained in the Lockheed type brake. Later it was learned that only one car in Dayton was equipped with du Pont fluid and practically no chemical tests had been made. The writer was unable to determine just what shift has been made in responsibility, but apparently Riesmussen, who has been with Delco not over six months, is taking care of G.M. contacts on brakes.

* * * *

Kindl said practically no chemical work has been done on fluids at Delco and that they had but little background for the work. Kindl and Riesmussen themselves seemed to know little about the properties of Lockheed or Chrysler fluids. They feel that the price advantage will be the biggest talking point in going to G.M. units because they and G.M. think that Blue Can fluid is satisfactory in all respects. The improved performance of du Pont fluid at high and low temperatures was admitted but considered as not highly important. This is probably due to the short time test cars have been run and the moderate temperature in Dayton area used for testing.

* * * *

6356

It developed that Delco still thinks they have a good fluid for the Kelsey system. This indicates that if G.M. makes a change that Delco will boost their fluid in preference to du Pont to the G.M. units. The biggest objection to Delco fluid, assuming they correct the corrosion, etc., is that it is not compatible with Lockheed fluids. The introduction of such a fluid might cause an endless amount of trouble between Chrysler and G.M. cars.

* * * *

CHEMICAL DIVISION

Arthur G. Weber

Defendant's Exhibit (DP) No. 384

EXCERPT

J. C. Woodhouse

REPORT FOR THE WEEK NOV. 26-NOV. 28, 1934

* * * *

II. Brake Fluids

Outside Contacts. Weber has remained full time on outside contacts including this week further contacts with Steeldraulic, Reo and Chrysler and continued contact at Delco and General Motors Research Laboratories. Chrysler now reports that their stroking tests have been completed with satisfactory results. Reo's Engineering Dept. and Purchasing Div. have assured us that they will use completely our fluid despite threats by the Hydraulic Brake Co. as to the consequences if they do this. Contacts at General Motors Research Laboratories have been less satisfactory than anywhere else, in fact only there have we met other than a cordial reception.

All outside results obtained with our fluid continue to show it satisfactory and to make favorable comparison with Blue Can fluid.

* * * *

/s/ John C. Woodhouse

JOHN C. WOODHOUSE

Defendant's Exhibit (DP) No. 385

EXCERPT

NOVEMBER 23, 1934.

J. C. WOODHOUSE
EXPERIMENTAL STATION

GENERAL MOTORS RESEARCH LABS. - NOV. 22, 1934
L. B. CASE, T. P. CHASE AND V.J. CASTROP

Mr. Rasmussen and the writer went directly from the Oldsmobile plant to G.M.R.L. After a preliminary conference between Case and Rasmussen, in which Rasmussen told of Delco's interest in du Pont fluid, the writer discussed briefly the developments of the last several months.

* * * *

Case became very much interested asking the composition of our present fluid, etc. When the writer refused to give this, Case indicated that it could be easily obtained through the proper channels when the time came. The writer assured Case that we would give him every bit of information we have at the present time regarding the properties of the mixture but that the compositions could not be given him until some later time when our patent position on this class of fluids is firmly established. Further remarks by Case indicated that the major portion of the residue of F-4 (after distillation of the isobutanol) had been analyzed as castor oil because they had obtained a positive qualitative test for the ricinoleyl radical. (Probably 75% of this material was glycol and glycerine.) Case's interest in our lubricant and fluid composition was probably due more to a desire to improve a fluid G.M. is developing rather than to assist him in properly evaluating our fluid. This was inferred in a statement made by Rasmussen on the return trip to Dayton. It appears that when Rasmussen approached Case to get work done on du Pont fluid, Case tried to sell him on another fluid.

* * * *

CHEMICAL DIVISION

Arthur G. Weber

Defendant's Exhibit (DP) No. 386

EXCERPT 6359

December 12, 1934.

J. C. WOODHOUSE
EXPERIMENTAL STATION

DELCO FLUID TESTS - FLUID RESULTS

Final rubber swelling measurements were made late Dec. 11th after completion of all routine laboratory testing*. Tentative arrangements had been made for a morning conference with Mr. Kindl (Chief Engineer), Mr. Rasmussen (Brake Engineer), Mr. Olts (Engineer in charge of testing) on Dec. 12th. An unexpected call to Detroit Dec. 12th made it impossible for Mr. Kindl to be present.

The conference was opened by Rasmussen asking Olts whether he had changed his mind about du Pont fluid. Olts' answer was: "Frankly, I started work with a strong prejudice against du Pont fluid, but, unless something unexpected develops in the practical tests, I am convinced that du Pont fluid has many technical advantages over Blue Can fluid". This statement was followed by a detailed explanation of all the data on rubber, distillation, cold tests, etc. for du Pont and Blue Can fluid.

* * * *

Olts went to great length to explain the unstable character of Blue Can fluid to Rasmussen. He pointed out that the sample examined was the very best obtainable since it had been obtained directly from Wagner in St. Louis. He showed distillation results from an average sample purchased at a Wagner Service Station, and also results on a sample that had been standing on the shelf several months to prove that Blue Can fluid breaks down on standing without heating. The low viscosity of our fluid was referred to by Olts as a decided advantage except that it might cause noise in the master cylinder if an orifice type pressure compensator is used in place of the present Lockheed type. Rasmussen suggested that the advantages would outnumber the disadvantages.

Questions of how best to hasten the adoption of the fluid by the various units of G.M. were discussed next. Rasmussen said that thus far nothing but favorable reports have been received. A quicker response was quite noticeable with du Pont fluid since the beginning of the cold spell.

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*Corrosion tests in bottles will be continued indefinitely.

This had been reported by Pontiac as well as by local test car. Another report had come in that there was less variation in pedal height with temperature changes with du Pont than with Blue Can fluid. This goes back to pressure drop in the lines at low temperature rather than expansion of the fluid.

Rasmussen said that Mr. Leach, in charge of tests at Pontiac, would be in Dayton Dec. 13th and that he would be shown the Delco data together with the actual cold tests and rubber tests. Olts is to write a report and send it to Pontiac, Oldsmobile and L.P. Case, G.M.R.L. This is to be followed in a week or so by another visit by Rasmussen. Rasmussen said he thought he could push the adoption of our fluid by G.M. with more success than we could by going directly to them. He agreed, however, to let us know immediately if anything comes up such that we can be of any assistance. According to Rasmussen, Chevrolet and Buick are too busy with other things to think of fluid just now. It was his opinion that these units will follow with little hesitancy anything that has proven satisfactory for Olds and Pontiac.

* * * *

CHEMICAL DIVISION

Arthur G. Weber

REASONABLE FIGURE. THEY ARE ALSO LOWERING INVENTORIES ON OTHER ITEMS HENCE HAVE NOT BEEN BUYING AS HEAVY AS THEY WERE A FEW MONTHS AGO.

WILES STATED THAT HE WOULD STILL GIVE DUPONT THE OPPORTUNITY TO QUOTE ON ALL OF THEIR CHEMICAL NEEDS.

BUSINESS CONDITIONS ARE QUITE GOOD IN THIS PLANT. THEY ARE GRADUALLY INCREASING THEIR OUTPUT FROM WEEK TO WEEK. ANTICIPATE A VERY GOOD YEAR.

COPPER PLATING: AS REPORTED IN OUR LAST REPORT OF OUR PREVIOUS CALL HERE THEY WERE CEASING THE OPERATION OF THE [illegible] COPPER BATH. THIS HAD BEEN IN ON TRIAL IN THEIR LARGE PRODUCTION PLATING BATH. AT THAT TIME THEY ANTICIPATED CONVERTING BACK TO DUPONT COPPER. HOWEVER IN THE MEANTIME ARRANGEMENTS WERE MADE FOR A TRIAL OF THE WESTINGHOUSE COPPER BRIGHTENER. FOUND TODAY THAT THEY WERE JUST STARTING THIS BATH THE LAST TWO OR THREE DAYS AND ARE GOING TO MAKE A FULL TRIAL OF THIS PROCESS PRIOR TO CONVERTING BACK TO HIGH SPEED COPPER. THEY [illegible] IF THERE ANY ADVANTAGES OVER HIGH SPEED COPPER IN GIVING THEM A MORE RAPID DEPOSIT OR MORE UNIFORM DEPOSIT ON BUMPER BARS THAT IT IS NOW [illegible].

WE DISCUSSED THE POSSIBILITY OF [illegible] INTO OPERATION AND MC DONALD [illegible] THEY WOULD [illegible] OPERATION [illegible] BATH.

Defendant's Exhibit (DP) No. 387

EXCERPT

August 2, 1935

J. C. WOODHOUSE
EXPERIMENTAL STATION

DELCO PRODUCTS COMPANY, DAYTON, OHIO

O. Rasmussen, J. Martin Kelly and
R. A. Winefordner.

When the writer arrived at Delco July 30th, it was found that Mr. Rasmussen was in Detroit and expected to return early July 31st.

* * * *

When Rasmussen returned, a day later than planned, he put up the argument that Delco has no further interest in du Pont fluid and for this reason Delco shouldn't put themselves out testing the fluid. The writer pointed out that the fluid is a very important part of the brake and that Delco should be interested in the performance of any fluid that might be widely used in their brakes regardless of who sells it. Furthermore, it wasn't a question of starting testing but merely recording observations of a test already completed. In order that Delco might not be out anything, the writer offered to stand the cost of garage work and new parts to replace those taken from the cars.

After some further discussion, Rasmussen agreed to open the cars. He wrote up the necessary work order on the garage, and made arrangements for getting the cars. It was then learned that the garage was very busy overhauling the Company trucks. This work is done each year and is timed to coincide with the period that the plant is shut down for retooling. No other work is accepted by the garage until the overhauling is completed in order that the trucks will be ready in time. When this was learned an attempt was made to have the cars taken to a local garage but Rasmussen would not permit this.

* * * *

During the discussion, Rasmussen said that all the cars in which du Pont fluid was originally installed, were still running and that there have been no troubles reported. It was his belief that all cars originally contained diacetone fluid and this fluid was pumped out of the system and du Pont fluid installed without using new hydraulic parts. Apparently Mr. Olt has the detailed information regarding the practical tests.

During the discussion Rasmussen stated that Delco would have no further interest in du Pont or any other new fluid for a year, and added that Delco had already arranged for their requirements of castor oil for General Motors. In an earlier discussion with Winefordner (Materials Engineer), he mentioned that chemists from Spencer-Kellogg and Baker had been in Dayton about two weeks ago. Although not definitely stated, it appears that Delco is going to use Baker's castor oil. Weinfordner said that Delco service fluid is at present being mixed in 20 gallon batches but that arrangements will have to be made soon for handling larger quantities.

* * * *

CHEMICAL DIVISION

Arthur G. Weber

Defendant's Exhibit (DP) No. 388

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON DELAWARE

AMMONIA DEPARTMENT
CHEMICAL DIVISION
EXPERIMENTAL STATION

Copies to:

J. A. Almquist
R. W. McClellan
M. H. Morriss

January 14, 1938

J. C. WOODHOUSE
EXPERIMENTAL STATION

HYDRAULIC BRAKE FLUIDS
OLDS MOTOR COMPANY
LANSING, MICH., 1/11/38

Mr. Dernier, Purchasing Agent.

Mr. Goldsmith of the F. & F. Flint Plant arranged that Mr. Dernier was to put the writer in touch with the Oldsmobile engineers interested in hydraulic brake fluids. On arriving at Mr. Dernier's office he immediately asked about the price and advantages of No. 21 fluid over the fluid they are now using. He was told the price would be approximately 95¢ per gallon in tank car quantities and informed of the various advantages, including superior low temperature properties and stability. He then called Mr. Wolfram, Assistant Chief Engineer, and asked him if he would like to talk to the writer about No. 21 fluid. During the conversation Mr. Dernier mentioned to Wolfram that the price structure was right. However, Mr. Wolfram was apparently not interested. Under these circumstances Dernier suggested that the best thing to do was for me to send him a definite quotation on No. 21 fluid and a letter setting forth the advantages and points of equality of No. 21 fluid compared with No. 5 fluid. If the price was satisfactory he would then attempt to obtain some action from the Engineering Department.

K. E. Walker
K. E. WALKER.

E

Defendant's Exhibit (DP) No. 389

EXCERPT

January 14, 1938

J. C. WOODHOUSE
EXPERIMENTAL STATION

HYDRAULIC BRAKE FLUIDS
CHEVROLET MOTOR COMPANY
DETROIT, MICH., 1/12/38

Mr. L. A. Chaminade, Chassis Engineer.

Mr. Chaminade was told of our discussion on our brake fluids with Mr. Crawford, his superior, and the possibility of our sending a sample of a cheaper fluid for test was mentioned. He asked for and was given the approximate properties of such a mixture compared with present No. 21, No. 5 and Chrysler fluids. He appeared interested and agreed to test such a mixture as time permitted. He did, however, state that he believed if we submitted a more satisfactory fluid at a cost equal to their present fluid, Delco would immediately cut the price of No. 5 fluid.

During the course of the conversation, Chaminade remarked that the boiling point of No. 21 fluid (240°F.) was considerably above any temperatures which they encountered in their brake systems. He stated that he wished Chevrolet would use No. 21 fluid but was afraid it would not be authorized as long as there was a price differential. His desire to use it was because he believes some time Winters will be severe enough to give them considerable trouble with diacetone mixtures. He has previously stated, however, that until that time the Purchasing Department could not be convinced to pay more money for a premium product.

* * * * *

/s/ K. E. WALKER

K. E. WALKER

Defendant's Exhibit (DP) No. 390

EXCERPT

August 8, 1938

J. C. WOODHOUSE
EXPERIMENTAL STATION

BRAKE FLUIDS
GENERAL MOTORS RESEARCH LABS.

Mr. L. B. Case, Chemist.

Case said he was not in a position to give information on Delco No. 9 fluid or the Delco closed brake system. He has examined the No. 9 fluid very thoroughly and knows all about it but has not as yet been given permission by Delco to discuss this information. He said there is a feeling among G.M. engineers that a higher boiling fluid is required for truck and bus use but he is not willing to vouch for the evidence proving this need because he received it about fourth hand and therefore believes it may have been distorted by the time he heard of it. As far as he knows boiling point of No. 5 and No. 21 are satisfactory for passenger car use and No. 21 is satisfactory for all low temperature operation in Canada except possibly it might require some further dilution if temperatures below -50°F. should be encountered as happens occasionally in northern Canada. Case had no fault to find with No. 21 except the report that it had gassed in some heavy duty service.

* * * *

In discussing limiting values of brake fluid properties Case mentioned that their studies had led them to believe about 210°F. was a satisfactory boiling point for passenger car service, that a rubber swelling somewhat below that of Chrysler fluid and a maximum viscosity of 5000 to 6000 secs. was also to be considered as limiting values for proper operation. It is evident that as their knowledge of brake fluids increases their requirements for a satisfactory fluid also become less severe.

* * * *

/s/ K. E. Walker

K. E. WALKER

Defendant's Exhibit (DP) No. 391

DU PONT DE NEMOURS & COMPANY
NCORPORATED
WILMINGTON DELAWARE

MMONIA DEPARTMENT
HEMICAL DIVISION
XPERIMENTAL STATION

Copies to:

J. A. Almquist 6366
R. W. McClellan
E. D. Ries

TEMPORARY
~~[illegible]~~

August 10, 1938

AUG 16'38

J. C. WOODHOUSE
EXPERIMENTAL STATION

BRAKE FLUIDS
OLDS MOTOR COMPANY
LANSING, MICH., 8/5/38

Mr. Dernier, Purch. Agent, and Mr. Wolfram,
Ass't. to Mr. Youngren, Chief Engineer.

Mr. Dernier said they were not interested in our quotation of $1.00-1/2 per gallon F.O.B. Belle given them last January but would like to have another quotation for next year's production from us in about 10 days, that is, about August 15. Delco No. 9 fluid has been released by the Engineering Department for 1939 production but it has not as yet been specified by Dernier. The writer mentioned to him that we expected to have a somewhat cheaper No. 21 type fluid in the very near future but he showed no particular interest. It appears probable that Dernier is interested in getting our quotation only to use on Delco to keep their fluid costs at a minimum.

Mr. Wolfram in the Engineering Department was also visited. He confirmed Dernier's statement that Engineering had released No. 9 for 1939 production. He did not seem to know much about No. 21 fluid properties and said they would not be interested in it unless we could show a real advantage in price and performance. They have already told Delco they would use No. 9 and Delco have installed equipment and planned production operations on that basis. If this is true it doesn't make much difference whether we quote Oldsmobile or not especially before we have released an [illegible] fluid.

R. E. Walker
R. E. WALKER

4164

NOTE: Four lines of illegible handwriting appear under date line.

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Defendant's Exhibit (DP) No. 392

EXCERPT

J. C. WOODHOUSE
EXPERIMENTAL STATION

BRAKE FLUID
PONTIAC MOTOR CO., PONTIAC, MICH. 8-4-38

Mr. A. E. Leach, Engineer

No tests were made with the samples of No. 21 and F-514 E.G. fluids sent them last January because Delco No. 9 fluid was released for production shortly after that time. No tests were made on the No. 9 fluid, it being released on the basis of tests and data of other G.M. units. Use of No. 9 in production will cost Pontiac about 1/2¢ more per car than No. 5 fluid assuming about 10 cars per gallon of fluid and no waste during bleeding operations. On this basis Delco No. 9 costs about 5¢ more per gallon than No. 5.

Delco have not given Leach any comparison of No. 9 and No. 21 fluids. He thought the boiling point of No. 9 was about 230°F., very close to No. 21, and that the other properties were also very close to those of No. 21. The increased fluid cost over No. 5 is justified only because it provides the customer with a universal fluid. They had no gassing or low temperature troubles with No. 5 but it was necessary to use two diacetone mixtures to cover the temperature range. No. 9 is now being used in production and will be used in 1939. According to Leach No. 9 has been released for production use by all G.M. units except Chevrolet. He thinks they will continue to use No. 5 because of price.

When questioned about the distribution of No. 9 for service, Leach said Delco had promised it would be available generally by the time the 1939 cars are out but he felt it was somewhat doubtful that Delco would keep this promise. No. 9 will probably be retailed by both United Motors Service (Delco) and G.M. Parts Corp. Sale of No. 5 for service is expected to be discontinued.

* * * *

Defendants' Trial Ex. No. ________

6368

Leach said there was no reason why they would not use No. 21 fluid in place of No. 9 if we could sell it to them at a lower price than No. 9. In the future the proper procedure for handling this will be to quote the Purchasing Dept. a price for No. 21. If this is less than Delco No. 9 they will request an examination of the former by the Engineering Dept. If the Engineering Dept. approves the fluid, Purchasing would undoubtedly buy it instead of the No. 9 fluid. While Leach may not know the attitude of the Purchasing Dept. as well as he thinks, it appears reasonable because Pontiac people have never indicated that they were particularly friendly with Delco.

* * * *

/s/ K. E. Walker

K. E. WALKER

Defendant's Exhibit (DP) No. 393

Copies to:
R. W. McClellan
E. D. Ries

September 12, 1938

J. C. WOODHOUSE
EXPERIMENTAL STATION

No. 21 Brake Fluid
Telephone Conversation with Mr. Nyland,
Engineering Department, Buick Motor Co.
Flint, Mich., 9/9/38

The writer told Mr. Nyland that in our conversations with him we understood that he realized our No. 21 fluid was identical with Lockheed No. 21 fluid and since the latter had been widely distributed and used for the past three years would approve it for production use when the price justified. Mr. Nyland said that at the beginning of 1938 they had tested No. 21 in the laboratory and found it satisfactory and had started car tests, but before these tests were completed Delco No. 9 was introduced at a lower price and hence nothing more was done on No. 21. On the basis of their tests to date, he personally would dare to approve No. 21, but stated that it was impossible for the Engineering Department to do this without first having a sample of the fluid in their hands and secondly having some actual car test results to refer to. If the latter rule was not complied with and any trouble developed with No. 21 fluid, the Engineering Department would be severely criticized. He requested that a gallon sample of No. 21 fluid be sent him as soon as possible in order that car tests could be started and said that after receiving the sample only a very short period of time would be required for him to approve the fluid.

All the various automobile companies that have used No. 21 in new car production were enumerated, including G. M. Truck. Approval by Chevrolet was also mentioned. Mr. Nyland was asked if on the basis of this information he would be able to hasten his approval of No. 21 fluid. He again stated that he could not approve No. 21 solely on the information above, but would be in a position to approve it very shortly after receiving the sample of fluid. This was sent to him by the fastest way possible from the Belle Plant on September 9.

Another telephone call is planned in the near future to be sure that he gives it his immediate attention.

K. E. WALKER

KEW:ec

Note: "Temporary - Permanent" is stamped under date line; a line is drawn through "Permanent." "Sept. 14 '38" is stamped in right hand margin.

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E

Defendant's Exhibit (DP) No. 394.

EXCERPT

December 23, 1938

J. C. WOODHOUSE
EXPERIMENTAL STATION

NO. 21 BRAKE FLUID - VISIT TO GENERAL MOTORS RESEARCH LABORATORY, DETROIT DECEMBER 19, 1938

Mr. L. B. Case, Chemist

The results on boiling point and viscosity of No. 21 vs. Delco No. 9 fluid given in Case's recent General Motors' report were discussed with him. He admitted that his value of 230°F. for the boiling point, compared with our value of 237°F., might be in error by at least 5°F. due to the personal factor which enters into the method used. He also admitted that his low temperature viscosity results obtained by extrapolation of data at room temperature might be in error. In any event, he felt that his data were sufficiently accurate for the purpose.

Although he did not know the composition of No. 21 fluid had been changed from F-227 mixture to F-478 mixture in May of 1937, he was satisfied that our present fluid should be as good as the previous mixture. Data given for No. 21 fluid in the above-mentioned report were obtained with our present mixture since he purchased the fluid early in 1938 at a local supply house.

In regard to the higher boiling point of No. 9 fluid compared with No. 21, he admitted that the difference was slight but felt that the higher boiling point was a step in the right direction. Some tests which they have conducted showed, under rather severe conditions, a maximum temperature of 183°F. in passenger car wheel cylinders and 213°F. in truck wheel cylinders. While these temperatures are well under the atmospheric pressure boiling point of No. 21 fluid, Case said that in heavy bus service they believe temperatures are apt to run much higher than this figure. Since he does not feel that the master cylinder check valve can be depended upon to maintain a constant back pressure of 8 lbs., the highest boiling fluid is most desirable, at least in bus service. He therefore felt his statement in the above-mentioned

General Motors' report that Delco No. 9 fluid was superior to No. 21 because of its higher boiling point was justified, although he agreed that No. 21 might be perfectly satisfactory in the great majority of cases.

* * * *

/s/ K. E. Walker

K. E. WALKER

E. I. du PONT de NEMOURS & COMPANY
Incorporated
Wilmington, Delaware

Ammonia Department
Chemical Division
Experimental Station

Copies to:

R. W. McClellan
E. D. Ries

December 29, 1938

J. C. WOODHOUSE
EXPERIMENTAL STATION

NO. 21 BRAKE FLUID
PONTIAC MOTOR DIVISION
PONTIAC, MICH., 12/20/38

Mr. Leach, Chassis Engineer, located at Experimental Plant, and Mr. Gorden, Purchasing Agent for Hydraulic Fluids, located at Main Production Plant

Leach said they were using Delco No. 9 fluid in production because of its higher boiling point compared with No. 21 and better stability and low temperature operation compared with No. 5. He brought up the usual illustrations about gassing troubles with No. 5 fluid in taxicabs, trucks and busses and said that use of No. 9 fluid corrected all this. He finally admitted they had no evidence showing that No. 21 would not have been just as satisfactory as No.

9. The reason for using No. 9 eventually came to light. All GM Engineering Units agreed to approve No. 9 for all production so that Delco could afford to produce it at a reasonable price. No. 9 costs about 8¢ more per gallon that No. 5, which was taken care of by the GM production units paying 4¢ more per gallon than for No. 5 and Delco taking a 4¢ loss per gallon. The new equipment costs required to produce No. 9 fluid are to be written off in a year, after which Delco expects to reduce the fluid price to about that of No. 5 fluid which is still higher than the latest No. 21 price. Because of this promise made before the No. 21 fluid price was reduced, GM engineers have been reluctant to use No. 21 and have given the boiling point argument for support. They admit that the boiling point difference is slight (20°F.), but say it is a step in the right direction.

When told of Mr. Gorden's interest in No. 21 because of its lower cost than either No. 5 or No. 9, Leach said he would have to discuss the matter with Mr. Anibal, Chief Engineer, in a week or so to see whether he wanted to sacrifice the 20°F. boiling point to save the 1¢ per car possible when using No. 21. Pontiac made no tests with the No. 21 sample sent them last January so Leach was told

of the difference between our present F-478 composition and the F-227 composition of several years ago. He did not feel that this change would require additional car tests before approving No. 21 and said that there was sufficient experience with No. 21 in service use that they would approve it at once if Mr. Anibal agreed it was desirable on the basis of price. Leach will wait for Gorden's request for action on No. 21 fluid before announcing whether they will approve it.

The writer then discussed the matter with Mr. Gorden who agreed Leach appeared partial to No. 9 fluid. The writer explained the reason for this and told Gorden he would probably have to bring pressure to bear on Leach to obtain approval of No. 21 fluid. Gorden promised to send Leach the sample of fluid forwarded from Belle December 19 as soon as he received it with a request for action on its approval for production. If no answer is received from Pontiac by January 1, they should be contacted again by phone.

K. E. Walker

K. E. WALKER

KEW:ec

NOTE: A line is drawn through "R. W. McClellan-E. D. Ries". Illegible handwriting appears above date line. "W" is written across "J. C. Woodhouse". "30 Hydraulic 118" and an arrow pointing to "Pontiac Motor Division" is handwritten. "T" is written under date line. "Temporary-Permanent" is stamped in right hand margin; a line is drawn through "Permanent". "Jan 3 1939" is stamped in right hand margin.

Defendant's Exhibit (DP) No. 396

March 24, 1939

Mr. J. D. Eby, Purchasing Agent
Wagner Electric Corporation
6400 Plymouth Avenue
St. Louis, Mo.

Dear Mr. Eby:

Your letter of March 15 was duly received and reply delayed in order that the interested parties here could discuss the subjects raised in your letter.

In reply to the first paragraph of your letter we agree with you that nothing can be gained at the moment by our attempting to sell fluid in the Detroit area and for the time being at least we will make no further effort along this line.

The low price we made of 91¢ was pretty promptly met and unless the price of "21" is reduced to the point where either you or ourselves, and probably both, would be somewhat hurt, I don't think we can do much about it. Since Delco is in the fluid business and has corralled practically all of General Motors business, it is going to be a difficult matter for us to get any General Motors business.

I note your remarks about the material costs of #5 and #21 fluid with normal butyl substituted for isobutyl alcohol. I haven't tried to check those costs because we don't know exactly what normal butyl can be purchased for to be put into brake fluid. Unless there is a special price for this use we can say off-hand that your 63¢ per gallon is entirely too low.

Regardless of what costs of the various fluids are it is quite apparent now, as it has been for sometime, that our job is to develop a fluid comparable in boiling point and price with any fluid on the market and of course without getting into patent difficulties. It is to this end we are working and while we have a couple encouraging leads it is a pretty difficult job, but I don't believe we are too optimistic in the hope that we may have something more definite along this line within the next 60 or 90 days.

—2—

With kindest personal regards, I am

Sincerely yours,

Ammonia Department
Director of Sales

RWM:HMM

Note. "Permanent-Temporary" stamped twice on first page, and once on second. "File Copy" stamped across face of each page of letter.

Defendant's Exhibit (DP) No. 397

EXCERPT

April 2, 1940

J. C. WOODHOUSE
EXPERIMENTAL STATION

MME BRAKE FLUID
CHEVROLET MOTOR DIVISION, DETROIT, 3/27/40
MR. L. A. CHAMINADE, ENGR. IN CHARGE OF BRAKES

Chaminade was very interested in the properties of M-376 high boiling fluid (Sample No. E-9373), but confirmed statements of other GM engineers that Delco No. 9 has been operating satisfactorily hence they would not buy a higher boiling fluid if it cost more than No. 9. None of the engineers would indicate what they were paying for No. 9 fluid but in 1938 with low castor oil prices Pontiac indicated they were paying about 95¢ per gallon, which was a few cents more than No. 21 quotations. Chaminade will do no more than make laboratory tests on the sample supplied him unless we quote a price on an MME fluid competitive in price and properties with No. 9.

* * * *

/s/ K. E. Walker

K. E. WALKER

Defendant's Exhibit (DP) No. 398

EXCERPT

6379

May 6, 1940

J. C. WOODHOUSE
EXPERIMENTAL STATION

MME-CO BRAKE FLUID
DELCO BRAKE DIVISION, DAYTON, OHIO
APRIL 25, 1940

Mr. O. Rasmussen, Chief Engineer.
Mr. Bishop, Brake Fluid Chemist.

Summary

Delco's laboratory tests were interpreted by Mr. Bishop, Delco Chemist, as indicating M-376 (35 CO partially reacted, 65 MME) fluid definitely superior to No. 9 fluid in boiling point, flash point and odor; slightly inferior in viscosity, water tolerance, break-down temperature of lubricant, effect on rubber and low temperature properties; and at least equal in corrosiveness. In Delco tests M-376 froze after 4 days at -40°, instead of meeting their specification that it remain fluid for 5 days at this temperature. The same material was fluid after 4 days at -40° in our refrigerator and it is known that it can be made to remain fluid for 5 days if necessary. Rasmussen admitted the properties classed as inferior to No. 9, with the possible exception of the freezing point, were satisfactory enough for him to approve M-376 for practical tests providing it was competitive with No. 9. Unless high temperature troubles develop with their present fluid, they will pay no more for a higher boiling fluid. Rasmussen feels present Delco fluid boiling point provides no safety factor, especially in trucks and buses, hence they may be forced to change to a higher boiling fluid in the near future.

* * * *

Rasmussen pointed out they would want to produce their own fluid so the next move for us was to quote Mr. Weyer, Delco Brake Purchasing Agent, on MME and an alcohol-MME mixture which might be competitive with n-butanol at an indicated price of 8¢ per pound. This is to cover two alternatives: (1) the use of MME as the only solvent to make a high boiling fluid when and if necessary, and (2) to provide a replacement for n-butanol in present No. 9, the resultant fluid having improved boiling point and possibly viscosity. The advisability of further work on MME fluids by Delco will be based on these quotations.

* * * *

Delco's examination of M-376 was sufficiently favorable to make them interested in the price of MME. It may be difficult to show sufficient advantages for a MME-alcohol solvent to convince Delco to replace n-butanol with such a mixture, but in any case it will insure that MME receives consideration at the start if Delco finds higher boiling fluids necessary. The n-butanol is now being purchased from Carbide and Rasmussen expressed the possibility that if they stop purchasing n-butanol, Carbide might suddenly decide the price of the glycol lubricant would have to be increased, thus eliminating any price advantage which a MME-alcohol mixture might have.

/s/ K. E. Walker

K. E. WALKER

Defendant's Exhibit (DP) No. 399

VOLUME OF BRAKE FLUID PURCHASED BY GENERAL MOTORS DIVISIONS FROM MORAINE PRODUCTS DIVISION (FORMERLY DELCO PRODUCTS)

1936 - 1951

	Dollar Volume	Gallons
1936	294,980	199,000
1937	374,897	260,000
1938	341,294	305,000
1939	557,619	498,000
1940	580,510	518,000
1941	885,253	790,000
1942	Unavailable	Unavailable
1943	Unavailable	Unavailable
1944	Unavailable	Unavailable
1945	Unavailable	Unavailable
1946	494,372	274,651
1947	1,879,761	959,061
1948	2,490,353	1,203,069
1949	1,383,300	674,780
1950	2,080,938	1,250,410
1951	3,242,729	1,491,596

Source:

Cost Analysis Section
General Motors Corporation

Defendant's Exhibit (DP). No. 400 [illegible] 2.

E. I. DU PONT DE NEMOURS AND COMPANY

Sales of Cellulose Acetate Molding Powder

1937 through 1947

Year	Sales To All Customers	Sales to the Inland Manufacturing Division of General Motors
1937	$ 312,354	$ 1,241
1938	359,062	39,997
1939	781,877	157,188
1940	730,196	102,248
1941	1,022,531	4
1942	630,639	0
1943	638,405	0
1944	842,091	0
1945	699,583	0
1946	535,671	0
1947	308,756	0

Prepared from Company records
Treasurer's Department

Defendant's Exhibit (DP) No. 401

L. H. DEAKYNE [illegible]
C. H. HUNTON

AIR MAIL

Arlington, N.J.
June 7, 1939

TO: J. M. MACK

FROM: H. A. ROSLEY

1940 PONTIAC WHEEL COLOR

Enclosed herewith please find a section of a steering wheel used by Buick in 1939 made from Tenite No. 1556. The general color for the 1940 Pontiac is to be this general shade. We have, however, been advised by Mr. C. H. Hunton that certain changes are being made with respect to the thickness of the plastic covering to be put over the steel insert. We quote the following from a letter just received from Mr. C. H. Hunton:-

> "Now a certain color effect is secured by using this thick covering of plastic, however, Pontiac will use this color on their 1940 steering wheels. Now the new Pontiac has a thin Plastic covering so that Pontiac 1940 wheels molded from Tenite 1556 are not this color when finished. It appears now that Tenite will have to dope up the density on the more opaque side to arrive at the same color effect shown in this wheel section.
>
> Mr. Milner of Pontiac Motor Division today stated that this was something Inland Mfg. Division would have to work out with either Tenite or Plastacele.
>
> Milner emphatically stated that he had given Inland Carte Blanche on this problem and suggested we work it out with Inland as he specified only this color effect and doesn't give a damn if the wheel is produced from Plastacele or Tenite."

We believe it would be a good plan for you to use this half steering wheel section enclosed herewith for your reference and that you try and obtain definite information from Inland as to what thickness of plastic they intend to use on a 1940 Pontiac wheel and with this information we will have our Color Lab run some small insert rod tests to submit to Inland through you until a suitable density has been obtained.

The most important thing that we obtain now is some definite information as to how thick a covering will be needed for this new 1940 Pontiac wheel, as it will be on this information that we will base our development work.

Awaiting information from you at your earliest possible convenience.

P.S - sent Inland 8 # K86011
on 5/24 - no info ~~[illegible]~~

HAR:MH

Defendant's Exhibit (DP) No. 402

DU PONT

9-19-39 193

To H Weakeyms
Jm Mack Inland

I went after OB today for an order on Chevrolet and Pontiac. He was not ready to buy; may this week, possibly Friday, and Im coming back purposely from Detroit to be in Dayton Friday to see if I cant pick off an order

This account, as you may have noticed, takes almost 50% of my entire time this past month or more.

Carl Ours expects to meet me here Friday

NOTE: "170° - broke
160° - Orange Peel - 6 o'clock"
is handwritten on the back. "E. I. DUPONT DE NEMOURS & CO., Inc. ARLINGTON, N.J. RECEIVED SEP 21 1939 PLASTIC SALES" is stamped on the back.

Defendant's Exhibit (DP) No. 403

DU PONT

10-23 193

To B Gillie
JM Mack Inland

Pls see my TR 252 today

Im a bear for punishment. I phone Geo Shroyer to ask his cooperation in seeing that the remaining 1600# Chev. of ours is run this week. Said he would, and then hit me with a golf game. Im not adverse to golf but Ive got stacks of detail to attend to. But Im going for 4 holes. Shroyer can do us a lot of good & Im going to try to prevail on him to casually see OB & tell him how swell our powder is working. If I waited around all week I feel confident I could pick off an order; but I cant afford to do it and as Hagen & Ours can tell you, its "out of sight out of mind" with this acct or to put it another way the fellow on the ground gets the breaks

JMM

NOTE: "E.I.DUPONT DE NEMOURS & CO., Inc. ARLINGTON, N.J. RECEIVED OCT 24 1939 PLASTIC SALES" is stamped on the back.

DU PONT

10-30 193_

Dear Stu

Guess you have about given me up. Well, its just a case where I've been so goddam busy – and mostly trouble with my Detroit trade – I've not had a chance to get in to see you. Will, however, on my next trip, probably next week.

Chevrolet I hear at Inlands, are contemplating changing their color. Now using a lousy dubonnet: may change to K:46078 which is the color we are supplying for knobs, escutcheons etc., tho we'll have to adjust density for the wheel. The spinner grip handle is now ivory: with K46078 they may use a color submitted by Tenite. Again they may use the aforementioned Tenite color for the wheel & our 46078 for the grip handle. Of course we'd prefer the former.

Inland are making up sample wheels. They have 46078 on hand & tho too translucent I understand they will submit anyhow, painting the steel insert to minimize effect of translucency.

193

We will Ship them ([illegible]) Five rate developments increasing density 25-50 & 75% So they can submit this 46078 with the correct density and still the correct Surface color.

Will you see Little et al at Chev. and follow this matter and try to influence them toward our color. If they comment on translucency you can explain Inlands first submission was so they could formulate some idea on this color & that we are supplying the correct color & density & Inland no doubt will send them a "corrected" wheel.

It would be a splendid innovation if we could get our color adopted instead of having to match Tenite So see what you can do by pestering hell out of Little & Art & Color & let me know how you come out.

I'm having New York send you a copy of my Inland required TR today so you may have a more complete story. Hastily Johnnie Mac.

Defendant's Exhibit (DP) No. 421

E. I. DU PONT DE NEMOURS AND COMPANY

Sales of Pyralin

1916 Through 1932

Year	Total Sales to all Customers	Sales to Buick	Sales to Chevrolet	Total Sales to Buick and Chevrolet	Sales to Buick and Chevrolet as Percentage of Sales to All Customers
1916	$ 5,560,291	$ 60,681	$ 92,853	$ 153,534	2.8
1917	7,485,442	71,135	82,743	153,878	2.1
1918	7,982,955	14	29,685	29,699	0.4
1919	12,429,615	86,121	0	86,121	0.7
1920	15,586,618	129,457	121,051	250,508	1.6
1921	4,850,192	67,950	80,316	148,266	3.1
1922	7,296,911	129,814	200,145	329,959	4.5
1923	9,993,571	170,563	251,431	421,994	4.2
1924	7,670,686	79,015	132,615	211,630	2.8
1925	11,961,288	31,489	184,029	215,518	1.8
1926	14,409,810	6,050	119,205	125,255	0.9
1927	12,403,193	1,062	102,048	103,110	0.8
1928	14,108,446	1,744	87,412	89,156	0.6
1929	13,898,368	2,019	42,019	44,038	0.3
1930	10,103,381	677	41,463	42,140	0.4
1931	8,490,952	832	17,152	17,984	0.2
1932	6,118,865	1,103	6,431	7,534	0.1

Prepared from Company records
Treasurer's Department
February, 1953

Defendant's Exhibit (DP) No. 422

E. I. DU PONT DE NEMOURS AND COMPANY

Sales of Pyralin

1946 through 1950

Year	Total Sales	Sales to General Motors	Sales to General Motors as Percentage of Total
1946	$5,136,440	$8,121	0.16
1947	4,390,832	6,906	0.16
1948	4,003,351	9,147	0.23
1949	3,707,711	7,986	0.22
1950	5,144,199	9,126	0.18

Prepared from Company records
Treasurer's Department

Defendant's Exhibit (DP) No. 423

X-252

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING #20—
DECEMBER 20, 1915.
E.I.DUPONT DE NEMOURS & COMPANY

* * * * * * * * * *

THE ARLINGTON COMPANY.

Report was received from Mr. Lammot duPont, President of The Arlington Company, dated December 13, 1915, (#5976) giving details in regard to the organization of that Company. The Committee was advised that hereafter a monthly report will be rendered on The Arlington Company's operations. Upon motion, this report was accepted and ordered filed.

Mr. Lammot duPont orally advised the Committee that since the above report was written, Mr. Victor Thomas, who was elected to the Board temporarily, has resigned and Mr. W. S. Carpenter, Jr. has been elected in his place.

Wilmington, Del., December 13, 1915.

EXECUTIVE COMMITTEE.

THE ARLINGTON COMPANY:

In accordance with instructions of the President approved by the Executive Committee, the writer has taken executive charge of The Arlington Co.

The resignations of the former Directors and officers have been accepted, as follows:

Messrs. H. S. Chapman, President.
C. B. Chapman, Vice-President.
J. S. Ellsworth, Treasurer.
E. R. Brown, Secretary.
I. J. Chapman.
J. E. Ellsworth.
R. E. Ensign.
Jos. Ensign.
Emmet Schulz.

The following Directors have been elected:

Messrs. F. A. Gudger (Formerly on Board).
J. E. Crane " " "
J. A. Burckel " " "
Wm. Coyne
Victor Thomas
Frederick Kniffen
L. du Pont

Mr. Thomas was elected temporarily. It is expected that he will resign and be replaced by Mr. W. S. Carpenter, Jr. as soon as the latter has recovered from his illness.

2

The following officers have been elected:

President	L. du Pont
Vice-President	F. A. Gudger
Treasurer	J. B. Broad
Secretary	A. Johnson

The organization of Departments of the company for proper conduct of the business has been planned and personnel arranged.

—2—

In view of the present outlook for business and the fact that the Company is over one month behind on orders, consideration is being given to the question of increased output and important action in accordance with the investigation is expected.

In view of the small profits in certain lines and the prospects for business, a revision of prices upwards has been made and will be put into effect about Jan. 1, 1916.

This report is for the information of the Executive Committee and hereafter a monthly report will be rendered of The Arlington Company's operations.

Lammot DuPont
President.

LduP/MD

Note: "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at the bottom of the cover page and page 1 of the Report. "EXECUTIVE COMMITTEE SECY'S NO. 5976" is stamped at the top of page 1.

Defendant's Exhibit (DP) No. 424

6394

X-252-H

THE ARLINGTON COMPANY MONTHLY REPORT TO EXECUTIVE COMMITTEE OF E. I. DU PONT DE NEMOURS & CO.

Month of January, 1916.

1

6395 Wilmington, Del., March 3, 1916.

EXECUTIVE COMMITTEE.

THE ARLINGTON CO. - JANUARY, 1916:

* * * * * * *

Operations, Arlington: The plant operated continuously during January, the greatest effort being made to turn out as much material as possible. An appropriation of $270,000 has been approved for plant increase, although it is expected that not nearly this amount will be necessary. The normal capacity is considered 75 heats of 165 pounds each per day, in one shift of 10 hours. Arrangements were made as rapidly as possible to go on to two shifts, and by the end of January a production of 100 heats per day had been attained. The supply of paper for nitration was limited by the output of the White Springs Paper Co. Steps have been started to increase the supply by purchase.

* * * * * * *

Sales: As of January 31, 1916, sales were about two months ahead of manufacture. Customers in general are complaining about slow delivery and one French concern has indicated their intention to bring suit against us for non-delivery. These conditions are in spite of the increased prices already reported to the Committee and are most favorable indications for future business. It is fully expected that this condition will improve: first, because the rush season is now over; second, because the present increased capacity and the expectation of shortly increasing to a production of 150 heats per day will relieve conditions.

* * * * * * *

LAMMOT DU PONT,
President.

LduP/MD

Note: "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped across the bottom of the cover page and page 1 of the Report. "EXECUTIVE COMMITTEE SECY'S NO. 6293" and "PASSED BY EXECUTIVE COMMITTEE MAR 14 1916 Mtg. # 40 E. I. duP. de N. & Co." is stamped on the cover page, and "Mtg. # 40 E. I. duP. de N. & Co." is handwritten.

Defendant's Exhibit (DP) No. 425

"EXCERPT"

THE ARLINGTON COMPANY

I DuP.

X-252-H

Passed by
EXECUTIVE COMMITTEE
APR 11 1916
Mtg. #50
E. I. duP. deN. & Co.

EXECUTIVE
SECY'S. No. 6400
COMMITTEE.

THE ARLINGTON COMPANY

MONTHLY REPORT TO EXECUTIVE COMMITTEE
OF
E. I. DU PONT DE NEMOURS & COMPANY

Month of February, 1916.

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

THE ARLINGTON COMPANY

1

Wilmington, Del., April 6, 1916.

EXECUTIVE COMMITTEE.

THE ARLINGTON CO.—FEBRUARY, 1916:

* * * * * *

Sales Department.

In the January report it was stated that unfilled orders were on hand for about two months' output. Owing to the absence of an Order Bureau and any tabulation of orders it is at present impossible to ascertain accurately just how many days' capacity of unfilled orders are on hand. It now appears that the previous estimate was certainly erroneous, the present estimate being that we have three months' orders ahead as of February 29th. The Sales Department has stopped taking orders for definite delivery or price until such time as we can see more clearly the actual cost and capacity available.

Revision of Prices: A general revision of prices has been made, but the result of these increases will not be shown to any appreciable extent before March, and the full effect will not be seen until July. In revising these prices an effort was made to base them more logically upon costs than heretofore. In general, competitors have followed our price increase, but in certain particular items this has not been the case and we anticipate losing considerable propor-

Revision of Prices: (Cont'd)

tion of certain items of business. As we can sell all of our Pyralin production in other lines this is not now serious.

Transparent sheeting for automobile trade is now being sold at 77¢ per pound, where last year the price was 60¢ per pound. There seems to be no lack of demand for this grade.

* * * * * *

(Stamp) LAMMOT DUPONT.
President.

LduP/MD.

Defendant's Exhibit (DP) No. 426

"EXCERPT"

Form 10924 300 8 16

THE ARLINGTON COMPANY

I DuP.

Passed by
EXECUTIVE COMMITTEE
SEP 1 1916
Mtg. #86
E. I. duP. deN. & Co.

EXECUTIVE
SECY'S. No. 7076
COMMITTEE

THE ARLINGTON COMPANY

MONTHLY REPORT TO EXECUTIVE COMMITTEE

OF

E. I. DU PONT DE NEMOURS & COMPANY

Month of June 1916

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

THE ARLINGTON COMPANY

Wilmington, Del., August 31, 1916.

EXECUTIVE COMMITTEE.

THE ARLINGTON CO.—JUNE, 1916:

* * * * * *

Sales Forecast: I quote you as follows verbatim from report of Sales Manager J. A. Burckel, being a matter of interest not only on account of the showing of actual conditions but as an indication of how carefully this subject is being followed

"So far as concerns sales for the balance of the year 1916, the amount in each class of materials is limited by factory production capacity, with the single exception of collars and cuffs.

Looking ahead to 1917, the indications are favorable for a continuation of a demand which will continue to tax our full capacity.

Thin Sheeting (Automobile Stock)

Our relations with the trade in this line are on a highly satisfactory basis, the Willys-Overland Company being the only large user with whom we have not established a satisfactory connection. I feel that we have every prospect of selling the quantity of 2,250,000 pounds in 1917 as estimated in my previous forecast.

Thin Sheeting (Advertising and Novelty Trade)

We have no connections at present with the one largest user of this line, Whitehead & Hoag Company of Newark. We have made no effort within the past year to establish such a connection and I consider it advisable

Sales
Forecast:
(Continued

to defer such an effort until we are in a position to offer proper service. We are on good terms with other manufacturers in this line, to whom our sales are large and growing larger.

Thin Sheeting (Wood Covering)

The use of sheeting for covering of bath room fixtures, etc. is growing very rapidly. We have the bulk of this business.

Heavy Sheeting (Shell)

This trade has apparently suffered more than any other single line through our inability to deliver stock as required. The business is highly competitive between Celluloid Company, Fiberloid Company; Viscaloid Company and ourselves. I feel that we have until recently held our standing with customers in this line as well as any of our competitors, but within the past few weeks there is evidence that both the Celluloid Company and Fiberloid Company are making better deliveries than we are. The Celluloid Company are also, at last reports, selling shell stock 5¢ per pound under our price (65¢ against 70¢).

Heavy Sheeting (Ivory)

Since the approval of selling policy on heavy ivory at last Directors' meeting, we have approached several of the largest users and the indications are that we will be able to contract by August or September for approximately 500,000 pounds, at 85¢ per pound. The Celluloid Company now hold probably 80% of this trade which, for 1916, I estimate at a total of 1,000,000 pounds.

Sales Forecast: (Continued

Manufactured Line (Brushes, Combs, Mirrors, Sets, etc.)

Our further sales for 1916 will be greatly restricted by shortage of materials. All other competitors are apparently in similar predicament.

Forecasting the situation for 1917, and particularly prices for 1917, the results will be dependent to a large extent upon the outcome of our efforts to book ivory sheeting contracts at 85¢. If we succeed in doing this it will be an indication that our competitors are doing the same and will, of course, allow us to figure the selling prices of the same manufacturers of competitive goods as being based upon 85¢ ivory. Our own selling prices will carry a similar increase.

Collars and Cuffs.

This is the only line of our manufacture which shows a downward trend, in spite of the fact that no advance has been made in prices. Our advertising will doubtless bring an increased business, and my previous estimate for 1917 sales was $175,000, which I consider conservative.

Export Business.

Beginning July 1st, we are making 40,000 pounds per month minimum in sheet stock to apply upon old orders for export. I estimate that we will ship in 1916 approximately 500,000 pounds and that we will have a similar amount left on order for shipment in 1917."

(Stamp) Lammot duPont.

LduP/MD

"EXCERPT"

Form 10924 800 8 16

THE ARLINGTON COMPANY

X-252-H

I.duP.

7635

Passed by
EXECUTIVE COMMITTEE
E. I. duP. deN. & Co.
DEC 26 1916
Mtg. # 106

THE ARLINGTON COMPANY

MONTHLY REPORT TO EXECUTIVE COMMITTEE
OF
E. I. DU PONT DE NEMOURS & COMPANY

Month of October, 1916.

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

THE ARLINGTON COMPANY

1

Wilmington, Del. December 13, 1916.

EXECUTIVE COMMITTEE:

THE ARLINGTON COMPANY—OCTOBER, 1916.

* * * * * *

Sales Department.

Comparative Sales: The following figures are presented for September:

THE ARLINGTON CO.—SALES IN DOLLARS.

	Sept. 1916	Sept 1915	To Date 1916	To Date 1915
Thin Sheets	106859.44	101693.42	1205914.41	730151.47
Heavy Sheets	81433.08	68476.24	744929.43	408299.86
Solutions	18764.28	12808.87	208276.47	143456.29
Specialties	93632.49	82287.74	586355.33	394871.60
Combs	39837.64	32899.96	320431.72	210923.49
Brushes	41888.89	41684.95	255182.93	173340.08
Mirrors	46225.41	27261.04	227150.27	136129.30
Collar & Cuff Blanks	10089.82	13604.46	129418.99	131134.16
Sets	33619.50	25071.66	158257.01	98563.84
Miscellaneous	474.63	6596.15	13410.91	26939.99
TOTAL	472825.18	412384.49	3849327.47	2453810.08

Attention is called to the unusually heavy deliveries of Specialties, Mirrors and Sets, due to the demand of the usual heavy fall trade.

Arlington Company of Canada: The following figures show the sales of The Arlington Company of Canada for September and the previous month:

	This Month	Last Month
Collars & Cuffs	$ 6545.23	$ 4352.46
Combs	4138.19	3032.12
Rattles	1011.13	1112.51
Rings & Loops	124.62	910.59
Specialties	554.58	810.11
Miscellaneous	12.92	420.21
TOTAL	$12386.67	$10638.00

Selling Expense: The following shows the total Selling Expense of The Arlington Company as the percentage of gross sales:

—12—

Sept. 1916	August 1916	To Date 1916	Year 1915
3.6%	3.9%	4.5%	9.9%

	Sept. 1916	August 1916	To Date 1916	Year 1915
Average Selling Price:	50.1¢ (lb.)	70.1¢ (lb.)	65.6¢ (lb.)	62.8¢ (lb.)

The price for September is abnormally low, due to the adjustment on account of rough rolled scrap mentioned before.

The newly organized Order Bureau has been compiling a statement of the unfilled orders for Pyralin. At the end of the month the entire figures had not been completed, but the indications are that unfilled orders amount to approximately 2,000,000 pounds, or about four months' production. A small portion of this is for 1917 delivery. Probably 5000 pounds of the amount is already on hand in process of seasoning. It will be noted that this covers only the unfilled orders for Pyralin and does not include unfilled orders for articles.

At a meeting of the Board of Directors in September a revision of prices was adopted and this was put into effect as of November 1st upon all business not then under contract. This revision has not caused any apparent disturbance in the trade.

(Stamp) LAMMOT DUPONT.

LduP/MD

Defendant's Exhibit (DP) No. 428

"EXCERPT"

X-252-H

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING #145—JULY 2, 1917
E. I. DU PONT DE NEMOURS & COMPANY

* * * * * * *

THE ARLINGTON COMPANY REPORTS:

The following reports which were laid on the table at our last regular meeting, were again presented for consideration, and after discussion same were accepted and ordered filed:—

(#8588)—Balance Sheet of The Arlington Co. as of Apr. 30, 1917

(#8677)—Balance Sheet of The Arlington Co. of Can. Apr. 30, 1917

✓ (#8722)—Arlington Co. Regular Monthly report for Apr. 1917.

4205

6408

THE ARLINGTON COMPANY

MONTHLY REPORT TO EXECUTIVE COMMITTEE

OF

E. I. DU PONT DE NEMOURS & COMPANY

MONTH OF......APRIL......1917.

THE ARLINGTON COMPANY

4206

June 18, 1917.

EXECUTIVE COMMITTEE:

THE ARLINGTON COMPANY—APRIL 1917

* * * * * *

Trade Conditions: Trade conditions remain about the same with continued demands for our material beyond our ability to supply. The

(8)

automobile trade is indicating well in advance its requirements for the balance of the year, which, while they are heavy, show some decrease from what present demands have been running; the general report being that this is caused by a failure of the automobile industry to secure their full requirements of steel for the construction of cars, hence a decrease in their output.

* * * * * *

(Signed) F. A. Gudger
Vice-President.

Approved:

LAMMOT DUPONT.
President.

Defendant's Exhibit (DP) No. 429

Wilmington, Delaware,
January 22, 1918.

Messrs. Gudger
Coyne
Mathesius
Richardson
Wiggins
Crane
Burckel ✓

Broad
Wood
Gwyn
Armstrong
Holt
Lord

OPERATING-SALES COMMITTEE:

SEPARATE PLANT FOR TRANSPARENT.

Mr. Richardson will bring this subject before the Committee at the next meeting. It appears to me of such importance as to warrant very careful consideration. As Mr. Broad, Mr. Richardson and the writer had a lengthy discussion on the subject, I thought it desirable to put before the Committee my views, although they differ, to some extent, from those held by Messrs. Broad and Richardson.

The question whether we build an additional plant for transparent, or any other quality, depends primarily on the expectation of an increased demand a year or more hence, or after the war. We are now disposing of the entire output of the present plant. If there is any increased demand we must build additional capacity, and it appears to me obvious that this additional capacity should be in the form of a separate plant, and probably a separate plant for transparent. If there is not to be an increased demand after the war, it appears to me perfectly obvious that we should not build any additional capacity unless from the point of view of economy in cost of manufacture. Surplus capacity will not aid in any way in avoiding competition. It will, in fact, be a detriment. Reduced investment per thousand pounds' capacity will be no advantage in avoiding competition so long as some of the capacity is idle.

The question whether there is going to be any increased demand after the war is one which I feel the Operating Department should not attempt to pass upon, but should accept the judgment of the Sales Department without question.

Anticipating that the Sales Department's opinion will be that as far as The Arlington Works is concerned there will not be an increased demand for Pyralin goods after the war, we must confine ourselves to the question of whether a new plant will operate with sufficient economy to warrant its construction under present excessive building costs. Mr. Richardson has prepared a statement intended to show the economy of a new plant, but has apparently laid greatest stress upon those items of economy which it should be possible to accomplish at the present plant at Arlington, if that plant were properly handled with respect to operations and accounting. It does not appear to me that economies of this nature are suitable to apply as reasons for the construction of a new plant.

In view of the present cost of construction, probably 100% above normal cost, there appears to me little probability that careful analysis of operating savings possible by building a new plant would justify such construction, when perhaps one or two years' delay would save the excess cost.

As stated before, the question depends on the

Sales Department's estimate of demand for Pyralin after the war. In the summer of 1916 Mr. Burckel made a forecast of the demand for Pyralin for several years ahead. This forecast did not show any demand in excess of our present capacity for several years to come. I do not know of any reason justifying Mr. Burckel making a radical change in his forecast of 1916.

It is desirable that the Sales Department be prepared to state their views on this question.

LAMMOT DUPONT

LduP/MD

"EXCERPT"

PYRALIN DEPARTMENT REPORT FOR OCTOBER 1923

* * * * * *

Important Sales Features

An order for 20,000 pounds of hair-pin beading was received from Tilton & Cook Company of Leominster, Mass.

Agreements were reached with the Nash Motors Company and the Studebaker Corporation under which they will place their business with us for the first six months of 1924.

Defendant's Exhibit (DP) No. 431

"EXCERPT"

DO-2

EXTRACT FROM MINUTES OF MEETING # 6 BOARD OF DIRECTORS, DU PONT VISCOLOID COMPANY,

HELD ON August 18, 1925.

PRESIDENT'S REPORT:

Regular report was presented from the President for the month of June, 1925, and after being discussed in detail, it was moved and unanimously carried that same be received and ordered filed.

August 15, 1925.

TO: BOARD OF DIRECTORS
DU PONT VISCOLOID COMPANY

Submitted herewith is report of operations for June 1925, covering Arlington, Leominster and Poughkeepsie Plants.

At the present writing it appears that general business conditions in our industry are showing considerable improvement.

F. B. DAVIS, JR.
PRESIDENT

FBD:H

* * * * * *

Pyralin Sheeting Sales Comments

6416

* * * *

Important Sales Features:

We have been making a campaign among the manufacturers of leather belting. We feel there is a market for our material with this class of trade and are trying to get in on the ground floor, but have been doing it quietly so that our competitors would not know of our activity.

The Rhodes Belting Co. of Wilmington have been using quite a lot of our material for some months past as a binder between plies of leather. They are very secretive about their process, but from all we can learn, a Pyralin Sheeting dipped in a solvent and cemented between the two pieces of belting makes the most secure binder obtainable. The Jewel Belting Co. in Connecticut are also using our material. Our campaign about New York up to date has not been especially successful, but we have succeeded in interesting Grafton & Knight of Worcester, who are one of the largest firms in the business. Two of their representatives were at our plant three weeks ago and we are sending them a few hundred sheets to experiment with. They seem enthusiastic as to the prospects, and if we succeed in lining up Grafton & Knight, we will have one of the outstanding firms in this industry using our material.

Contract from the Nash Motor Car Co. was received, covering their requirements over the balance of the year.

The Bay State Optical Co., one of our good accounts who has been indicating an interest in the Fiberloid Demi-Blonde Shell, recently sent us an order for 8000 pounds. For the time being at least, they are apparently not ready to take up the Fiberloid stock.

4214

Defendant's Exhibit (DP) No. 432

"EXCERPT"

DV-2

EXTRACT FROM MINUTES OF MEETING # 13
BOARD OF DIRECTORS,
DU PONT VISCOLOID COMPANY,
HELD ON FEBRUARY 23, 1926

PRESIDENT'S REPORTS:

Regular reports from the President for the months of December, 1925, and January, 1926, were presented, and after being discussed in detail it was moved and unanimously carried that same be received and ordered filed.

6418

January 26, 1926.

TO: BOARD OF DIRECTORS
DU PONT VISCOLOID COMPANY

MONTHLY REPORT—DECEMBER 1925

Submitted herewith is report of operations for the month of December 1925, covering Arlington, Leominster and Poughkeepsie.

Respectfully submitted,

F. B. DAVIS, JR.
PRESIDENT

* * * * * *

Pyralin Sheeting Sales Comments

* * * *

Important Sales Features:

Contracts were closed with the Nash Motor Car Co., Reo Motor Car Co., and White Motor Car Co., for a six months' period at 50 and 5% discount from list.

Eclipse Pen Company gave us an experimental order for 50,000 fountain pen parts to be made from the tubing developed by the Research Department by the die press method. No additional orders are being taken on this development until we ascertain the results obtained in producing the Eclipse order.

Defendant's Exhibit (DP) No. 433

"EXCERPT"

DU PONT VISCOLOID COMPANY

November 1926

Automobile Trade. Billings $167,000 compared with $234,000 in October and $220,000 in November 1925. This shows very substantial decrease from both the previous month and the same month last year. There was about an equal decrease between the jobbing and automobile manufacturing trade. Our jobbing demand is now tapering off due to seasonal causes and will be considerably less during the next few months. Based on past experience there should be a pick-up in the manufacturing trade during January and February, but we are not sure this will take place due to the constant decrease in consumption in the industry. During the month of November we closed contracts with Buick, Nash, Reo, Olds and the White Motor Company for the first six months of 1927.

Leominster had a quiet month in November on automobile sheeting with no prospects of an improvement in December.

Defendant's Exhibit (DP) No. 434

6122

"EXCERPT"

PYRALIN DEPARTMENT REPORT

SEPTEMBER 1924

6123

October 20, 1924.

TO: EXECUTIVE COMMITTEE

FROM: PYRALIN DEPARTMENT.

MONTHLY REPORT – PYRALIN DEPARTMENT – SEPTEMBER 1924

We are enclosing report covering operations for this department during the month of September. The volume of sales during the month somewhat exceed our forecast, with a considerable increase in profit. The bookings for future orders are falling off somewhat although immediate sales are continuing to run as forecasted. We still feel confident of meeting the profit forecasted for the balance of the year.

F. B. Davis, Jr.
General Manager.

FBD:M

* * * * * *

Important Sales Features

An order of from 40,000 to 50,000 pounds of Sheeting was received from Grigsby-Grunow-Hinds Company of Chicago for use in manufacture of radio horns.

Two additional repeat orders on radio dials have been received from Garod Corporation and their enthusiasm over this article after having used 3000 is increasing.

Our Demi-Blonde Shell, #938, the same color that is used in our Pyralin Line of toiletware, is increasing in popularity with the optical trade and a nice volume of business has been booked. This, without doubt, is the most beautiful Demi-Blonde shell on the market and up to this time competitors have been unable to match it.

—8—

The Standard Tank & Seat Company have just obtained a patent on a new baby rattle which promises to be very popular and we obtained an opening order of 10,000 sheets for manufacture into this article.

We succeeded during the past month in obtaining a substantial order from Maxwell Motor Car Company covering Maxwell and Chrysler requirements. This is an entirely new account for us and we took the business away from Nixon.

A special deal was worked up with the Standard Pyroxyloid Company of Leominster, Mass. through which we sold 24,000 lbs. of ivory sheeting, all of which is on our excess list. This will result in a good inventory reduction on this particular color.

Our exhibition at the New York Radio Show was, from our standpoint, very successful. Thousands of visitors were there and familiarized themselves with Pyradiolin panels, dials and horns. From this exhibit we obtained 55 active prospects for business and about 200 casual inquiries to be followed up. In addition to our own exhibit, the

Grigsby-Grunow-Hinds Company displayed Pyralin horns in connection with their loud speakers; the American Electric Company of Chicago displayed a part Pyralin horn in connection with their loud speaker; the Poster Company of New York displayed Pyralin panels in connection with other panels they manufacture; the Garod Corporation displayed dials made of Pyralin on their radio sets.

We have decided to take space at the Chicago Radio Exhibit to be held from November 18th to 23d.

An order has just been received from the Music Master of Philadelphia for 10,000 tone-arms. This concern is well pleased with the results obtained from the various samples we have submitted and this order is tangible evidence that they are pleased with these tone-arms, which sell at $1.25 each.

* * * * * *

NOTE: "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped on the cover page, the page containing the covering memorandum and page 1 of the Report. "AUTHORIZED BY EXECUTIVE COMMITTEE E. I. DU PONT DE NEMOURS & CO. OCT 22 1924 *Mtg. 646*", "EXECUTIVE COMMITTEE SECY'S NO. 1191" and "RECEIVED OCT 20 1924 LAMMOT DUPONT" are stamped on the page containing the covering memorandum. *"LduP"*, *"R"* and *"P 9, 15"* are handwritten on the upper lefthand corner of the page containing the covering memorandum. Italics indicate handwriting.

"EXCERPT"

DV-2

EXTRACTS FROM MINUTES OF MEETING #11
BOARD OF DIRECTORS,
DU PONT VISCOLOID COMPANY,
HELD ON December 22, 1925

PRESIDENT'S REPORT:

Regular report from the President for the month of November, 1925, was presented, and after being discussed in detail it was moved and unanimously carried that same be received and ordered filed.

* * * * * *

Pyralin Sheeting Sales Comments

* * * * * * *

Important Sales Features:

It is interesting to note that since advancing our price to the Ford Motor Car Company three months ago, we have booked approximately $200,000 of orders at 10% advance in price.

Defendant's Exhibit (DP) No. 436

October 3, 1927

Mr. James Lynah,
Executive Secretary,
General Motors Purchasing Committee,
Detroit, Michigan.

Dear Mr. Lynah:—

On September 12th we quoted you a special transfer price on your alcohol requirements for the next four months. Inasmuch as the published market price for CD-5 alcohol in drums, carload, is now 48¢ per ga[illegible] o.b. distillery, please consider the price which we gav[illegible] to be particularly attractive.

We will be interested to learn whether you have as yet made purchase of your alcohol and what are the prospects of our getting this business.

I might add that we are still in a position to supply you with the old formula CD-5 alcohol and when making your purchase we consider it very important that you specify the old formula alcohol because the new CD-5 formula contains aldehol and has an extremely objectionable odor.

Your very truly,

[Stamp] Zack Phelps

Development Department

ZP:M

Note: "FILE COPY" is printed across the middle of the page. Handwritten *"288-L-20"* appears in the upper right hand corner of the page.

Defendant's Exhibit (DP) No. 437

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

October 6, 1927.

Mr. Z. Phelps,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

Dear Mr. Phelps:

Replying to your letter of October 3rd, I advise that the Committee considered the proposals to supply Denatured Alcohol last week but decided that it was a speculative proposition and believed it preferable not to cover by contract.

It seems that generally they have bought through the winter at more favorable prices than contract proposal prices offered at the beginning of the season. Accordingly, we will not make a general contract for denatured alcohol.

Yours very truly,

GENERAL PURCHASING COMMITTEE.

James Lynah
Executive Secretary.

James Lynah:EB.

NOTE: Handwritten *"288-L-20"* appears in the upper right hand corner of the page. "NOTED Z.P." is stamped in the upper right hand corner of the page.

E

Defendant's Exhibit (DP) No. 438

Excerpt from letter of H. Fletcher Brown to Mr. F. K. Kielberg, Managing Director, United Molasses Company, Ltd., 101 New York City, N. Y., dated July 24, 1929.

"At the outset, it might be well to observe that when the Eastern Alcohol Corporation was originally formed and the stock thereof was issued and paid for equally by the National Distillers interests and the duPont Company, the spirit of a mutual partnership prevailed and has characterized our relationship ever since.

"Although the Eastern Alcohol Corporation is a separate corporate entity, we have always proceeded upon the theory that the duPont Company and the National Distillers Products Corporation were in fact operating Eastern Alcohol Corporation's plant, and were each of them owners of an undivided one-half interest in the plant and property of Eastern Alcohol Corporation, as well as in the alcohol which that plant produced.

"The plant as originally constructed had a capacity of approximately eight million gallons of marketable alcohol per year. However, subsequent additions arising out of the installation of alcohol-glycerin equipment, as well as other additions and improvements have increased that capacity to a gallonage in excess of twelve million gallons per annum, and for the purpose of this letter it may be assumed that the plant of Eastern Alcohol Corporation today has a total productive capacity in excess of the last mentioned figure, subject however to reasonable variations which could be expected to arise in the course of normal operations."

Defendant's Exhibit (DP) No. 439

Excerpt from Minutes of Meeting of Interdivisional Relations Committee, General Purchasing Committee, General Motors Corporation, held September 30, 1927.

"GENERAL MOTORS CORPORATION

Minutes of Meetings of Interdivisional Relations Committees
Standing Sub-Committee
General Purchasing Committee
(State above, name of Committee)

42nd Meeting Held at Detroit, Michigan
On Friday, September 30, 1927.
At 10:00 A. M.

Present: Messrs: G.G.Allen
D.F.Hulgrave
James Lynah
Messrs: C.O.Miller
D.P.O'Keefe

* * * * *

"(d.) Denatured Alcohol.
The question of making a contract for denatured alcohol, formula #5 for Anti-Freeze purposes was again considered. Proposals from duPont Company, Michigan Alkali, and U.S.Industrial Alcohol Co. were considered, and while the proposed prices are at the present time considerably below the market prices, it was agreed that this item is too speculative, experience in the past having shown that prices were frequently reduced during the winter months.

James Lynah

Executive Secretary."

Defendant's Exhibit (DP) No. 441

E. I. DU PONT DE NEMOURS AND COMPANY

(National Ammonia Division of Predecessor,
National Ammonia Company, Inc.)

Sales of Ammonia and Ammonia Products to

New Departure Manufacturing Company and Successors

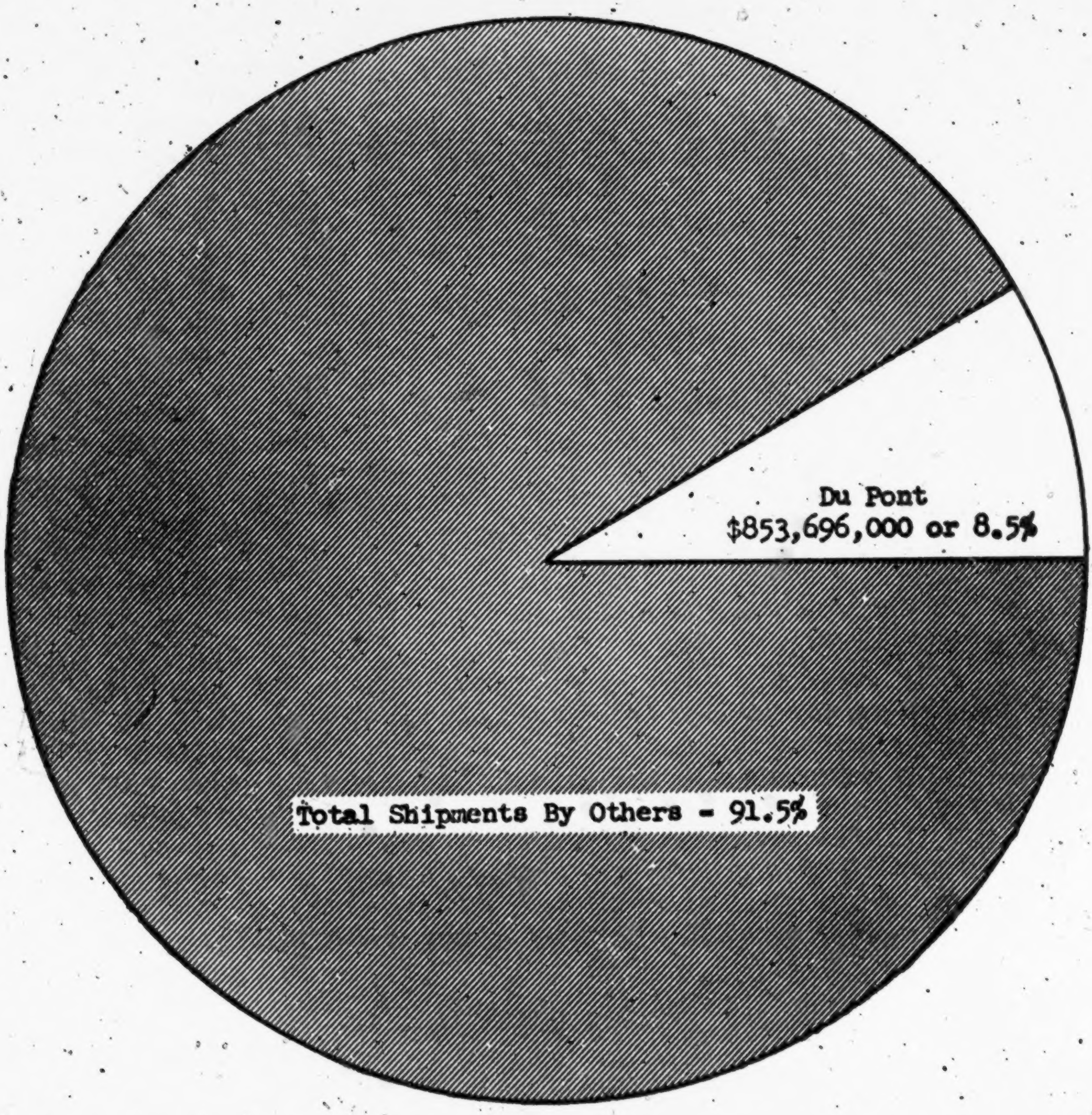
1933 through 1938

Year	Sales
1933	$ 2,284
1934	766
1935	1,185
1936	1,828
1937	1,892
1938	1,743

Prepared from Company records
Treasurer's Department

Defendant's Exhibit (DP) No. 442

VALUE OF 1947 SHIPMENTS DU PONT VS. TOTAL UNITED STATES INDUSTRIES IN WHICH DU PONT PARTICIPATES



TOTAL SHIPMENTS - $9,999,728,000

Source: U. S. Bureau of the Census certified copy (dated March 13, 1950) of a tabulation, based on edited figures appearing on reports filed by Du Pont Company and other companies for the 1947 Census of Manufactures, showing the 1947 aggregate value of products shipped, classified by industry in which they are primary, for 93 Du Pont Company plants and for the United States.

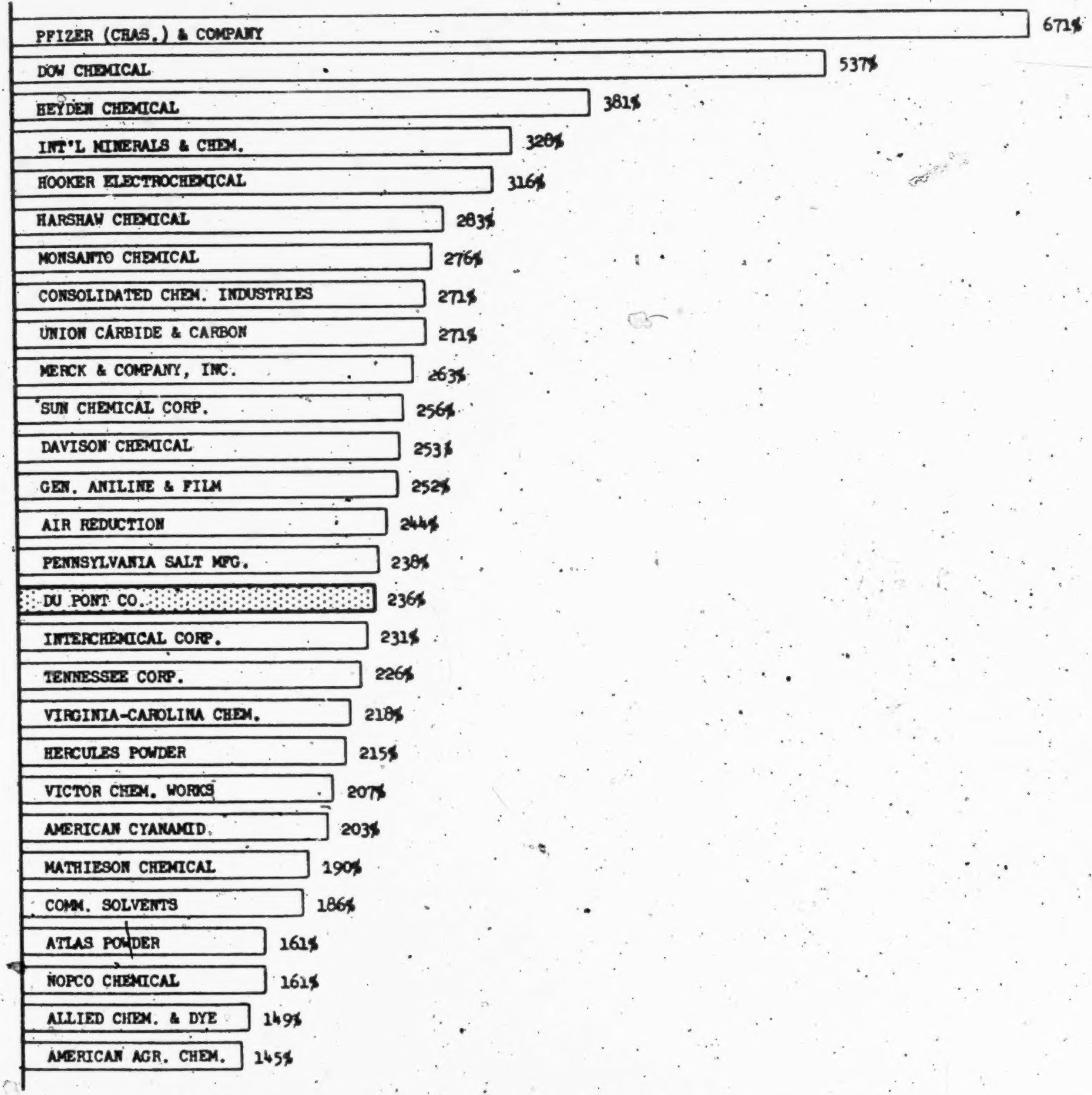
Treasurer's Department
April, 1953

Defendant's Exhibit (DP) No. 443

GROWTH IN NET SALES

DU PONT AND 27 CHEMICAL COMPANIES WITH SALES OVER $20,000,000* IN 1948

% Increase 1948 Over 1939



Source: Moody's Industrials.

* U. S. Industrial Chemical Co., Rohm and Haas and Westvaco Chlorine Products Corp., with sales over $20 million in 1948, have been omitted because sales data were not available in both years in Moody's Industrials.

Treasurer's Department
April, 1953

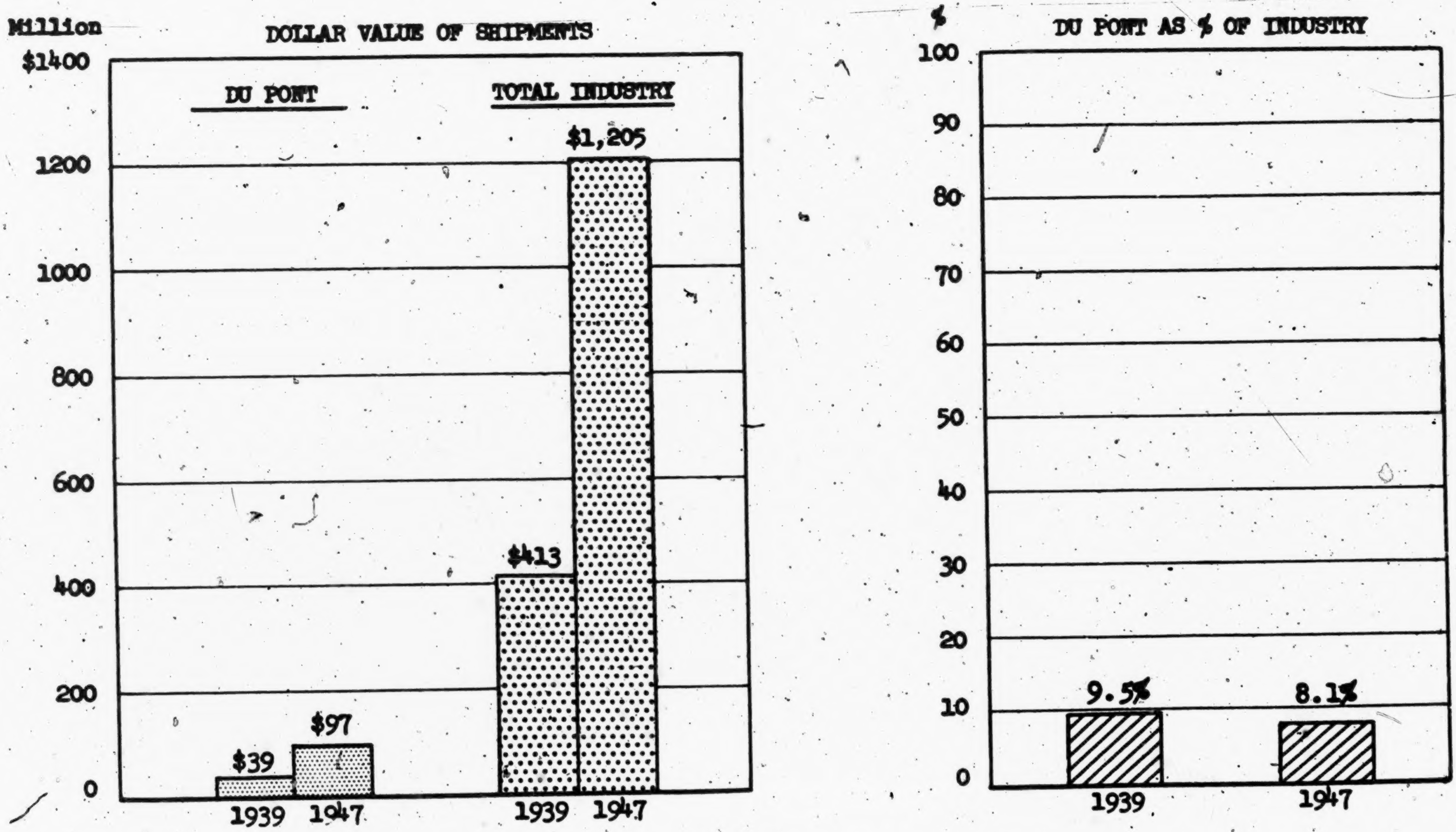
E

Defendant's Exhibit (DP) No. 444

PAINTS AND VARNISHES

DOLLAR VALUE OF SHIPMENTS - DU PONT VS. TOTAL INDUSTRY

1939 vs. 1947



Source: Du Pont - Data reported to U. S. Bureau of Census
Total Industry - U. S. Bureau of Census: 1947 Census
of Manufactures Vol. II, Table 6, Page 416.

Treasurer's Department
May, 1953

Note:

Page 6436 is on card 138.

Defendant's Exhibit (DP) No. 447

E. I. du Pont de Nemours and Company

SALES OF BRAKE FLUID

Years 1936-1950, Inclusive

Year	Total	
	Gallons	Dollars
1936	209 791	196 520
1937	655 468	587 470
1938	671 304	587 623
1939	823 792	698 476
1940	896 974	791 352
1941	1 227 322	1 085 025
1942	1 090 121	1 003 116
1943	1 870 009	1 812 423
1944	1 838 499	1 772 124
1945	1 850 330	1 316 745
1946	1 480 648	1 490 879
1947	1 930 389	2 756 921
1948	2 410 880	3 392 309
1949	1 871 874	2 543 785
1950	2 388 846	3 136 232

Treasurer's Department
May, 1953

Defendant's Exhibit (DP) No. 448

PETITION AND POWER OF ATTORNEY

To the Commissioner of Patents:

Your petitioners, Don Kyle Proffitt and Joel George Sharron, citizens of the United States and residents of Denver, in the County of Denver and State of Colorado, whose post office addresses are 2839 West 29th Avenue, Denver, Colorado and 3325 West 37th Avenue, Denver Colorado, respectively, pray that Letters Patent may be granted to them for the improvement in Process of Manufacturing Alkyl Compounds as set forth in the annexed specification.

And they hereby appoint Riordon and Riordon, a firm composed of Charles E. Riordon, and C. Russell Riordon, with offices in the Washington Loan and Trust Building, Washington, D. C. their attorneys, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to sign the drawings and to receive the patent and to transact all business in the Patent Office connected therewith.

....

....

SPECIFICATION

To All Whom It May Concern:

Be It Known that we Don Kyle Proffitt and Joel George Sharron, citizens of the United States, and residents of Denver, in the County of Denver, and State of Colorado, have invented certain new and useful improvements in Process of Manufacturing Alkyl Compounds, of which the following is the specification:

6439

This invention relates to the manufacture of tetra alkyl lead, and related compounds, and particularly to the utilization of the Grignard process for this purpose.

The recent development in this art has necessitated the employment of better methods of producing the lead alkyls and related compounds. But prior art processes, even those of recent suggestion have failed to prove satisfactory due to the many difficulties involved in the manufacture of these compounds.

Among the objects and advantages of the present application will be found a process of manufacturing the lead alkyls and related compounds, particularly lead tetraethyl, which eliminate many of the difficulties experienced in prior art processes.

Other objects and advantages will appear from the more detailed description set forth below, it being understood in this connection that much detailed description is given by way of example, and not by way of limitation, since various changes may be made therein by those skilled in the art, without departing from the spirit and scope of this invention.

Fundamentally, this process forming the basis of the herein disclosed invention makes use of the Grignard process, in that a magnesium alkyl halide is reacted with a double salt of lead. Primarily this double salt of lead is a lead alkyl salt, particularly the sulphate although other lead alkyl salts of other divalent and polyvalent acids than sulphuric acid may be used. In the production of lead tetraethyl in accordance with this invention, the magnesium ethyl halide is reacted with the lead ethyl sulphate. But as pointed out above, other alkyl compounds may be made in strictly analogous processes.

—2—

The conditions under which the reaction is carried out is of some importance, and should be chosen to yield the best results. For desirable results herein, it has been found that the desired ingredients should be reacted together in the presence of an additional lead salt in a suitable medium or solvent, and in the presence of a catalyst which may desirably be a catalyst such as is used in connection with the preparation of Grignard reagents, namely, an alkyl iodide, iodoform, iodine, etc. For making lead tetra ethyl, ethyl iodide is a desirable catalyst, while when using a double lead ethyl sulphate as one of the reacting ingredients, lead sulphate serves well as the additional lead salt. Other lead salts such as the chloride may be used, but in the recovery of the compounds in subsequent steps, the use of lead chloride may give rise to difficulties or added steps. The reacting ingredients may be used in varying proportions, but the best yields have been obtained by using them in substantially equi-molecular proportions. A suitable medium or solvent for carrying out the reaction may be ether, octane, or benzine fraction.

The following specific example illustrates the preferred method of carrying out the process. A mixture of 21 parts of lead sulphate and 46 parts of colloidal lead ethyl sulphate are suspended in ether. The desired catalyst such as ethyl iodide is added, and into the suspension, an ethereal solution of 83 parts magnesium ethyl bromide is allowed to flow. The mixture is preferably continuously agitated during the process. The temperature is maintained above 20°C. and desirably below about 36°C. for a period of about two hours. The lower limit of temperature is desirable in order to obtain a sufficiently rapid velocity of reaction, while temperatures above 36°C. are principally avoided in order to avoid evaporation of the ether. If temperatures above 36°C. are however used, the reaction vessel should

—3—

be under pressure. After the stated period of reaction, the mixture is drawn off and filtered. The ether is then distilled from the solution, after which the lead tetra ethyl is distilled under vacuum. Substantial yields of the lead alkyl are obtained.

Most desirable results have been obtained by using the double lead salt in colloidal condition, but this is not absolutely essential.

The lead tetra ethyl or other metallic alkyl derivative produced in accordance with this process may be utilized in special fuels for internal combustion engines, or for other purposes.

Having thus set forth my invention, we claim:

1. In a process of making lead alkyl, the step of reacting a double lead alkyl salt with a Grignard reagent.

2. In a process of making lead alkyl, the step of reacting a colloidal double lead alkyl salt with a Grignard reagent.

3. In a process of making lead tetra ethyl, the step of reacting lead ethyl sulphate with magnesium ethyl bromide.

4. A process of making lead alkyl which comprises reacting together a double lead alkyl salt with a magnesium, alkyl halide, in the presence of a catalyst.

5. A process of making lead alkyl which comprises reacting

together a double lead alkyl salt with a magnesium alkyl halide in the presence of a Grignard catalyst and an additional lead salt.

6. A process of making lead tetraethyl which comprises reacting together a double lead ethyl salt with magnesium ethyl halide in the presence of a Grignard catalyst.

7. A process of making lead tetra ethyl which comprises reacting together lead ethyl sulphate with magnesium ethyl bromide in the presence of ethyl iodide and lead sulphate.

8. A process of making lead tetra ethyl which comprises reacting together lead sulphate, lead ethyl sulphate, and magnesium ethyl bromide, in the presence of a Grignard catalyst, at a temperature of from 20 to 36°C. while agitating the mixture.

—1—

In testimony whereof we hereunto affix our signatures.

....

....

OATH

City of Washington }
District of Columbia } ss:

Don Kyle Proffitt and Joel George Sharron, the above named petitioners being duly sworn depose and say that they are citizens of the United States, and residents of Denver, Colorado; that they verily believe themselves to be the original, first and joint inventors of the improvements in

Process of Manufacturing Alkyl Compounds described and claimed in the annexed specification; that they do not know and do not believe that the same was ever known or used before their invention or discovery thereof, or patented or described in any printed publication in any country before their invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; that said invention has not been patented in any country foreign to the United

States on an application filed by them or their legal representatives or assigns more than twelve months prior to this application; and that no application for patent has been filed by them or their representatives or assigns in any country foreign to the United States.

....

....

Subscribed and sworn to before me by the said DON KYLE PROFFITT at Washington, D. C., this 11th day of May, 1926.

....
Notary Public

SEAL

STATE OF COLORADO } ss:
COUNTY OF DENVER }

Subscribed and sworn to before me by the said JOEL GEORGE SHARRON, at Denver, Colorado, this .... day of May, 1926.

....
Notary Public

SEAL

6
E

EXCERPT

February 16, 1932.

TO: EXECUTIVE COMMITTEE
E. I. DU PONT DE NEMOURS & COMPANY

FROM: PRESIDENT
DU PONT VISCOLOID COMPANY

COMPETITIVE REPORT - TWELVE MONTHS 1931

* * * * *

Extensive changes have taken place among manufacturers of safety glass. General Motors Corporation has abandoned their safety glass manufacturing plant, this business having been turned over to Libbey-Owens-Ford Glass Company along with the plate glass business of the National Plate Glass Company.

* * * * *

E

Defendant's Exhibit (DP) No. 451

E. I. DU PONT DE NEMOURS & COMPANY

SALES OF PRODUCTS NEW TO THE COMPANY SINCE 1928

(YEAR 1950)

	Sales	Percent of New Product Sales
Total sales of "new" products	$ 852,465,000	
Sales of "new" products to General Motors	13,057,000	1.5
Sales of "new" products to U. S. Rubber Company	15,607,000	1.8

- Notes -

New products are those that the du Pont Company added to its line after 1928, or on which large scale commercial production was attained after 1928.

Total sales of all products by du Pont in 1950 were $1,297,473,000.

E

Note:

Page 6446 is on card 138.

Defendant's Exhibit (DP) No. 453

Letterhead of
GENERAL MOTORS CORPORATION
224 West 57th Street
NEW YORK, N. Y.

OFFICE OF THE PRESIDENT

Five years ago, on July 26, 1918, the Directors of General Motors Corporation approved a plan under which shares of stock, both Debenture and Common, are awarded to employes of the Corporation in the form of bonus for conspicuous and meritorious service. The object of the plan is to recognize and encourage good service and to bring into the partnership of General Motors those whose efforts make the Corporation successful.

The original bonus plan has been modified so that in the future stock awarded will be distributed one-quarter immediately and the balance in three annual installments. Also the matured installments of bonus heretofore awarded are to be distributed. In accordance with this modification certificates of stock are now being sent out to the bonus beneficiaries of 1922 and to those of other years as well.

Of the stockholders who are also employes of the Corporation, many have received all or part of their holdings through the bonus plan. These employes are warmly welcomed to the partnership of stockholders, as their conscientious work, faithful service and accomplishment have added many thousands of dollars to the good will value of the shares to which they are so justly entitled. The annual report of the Corporation, to be sent out shortly, should encourage all bonus stockholders to treasure these shares

and to hold them as a permanent investment, of which they will be proud and satisfied.

Very truly yours,

Pierre S. du Pont,
President.

NOTE: In the upper left hand corner appears a penciled arrow and an illegible name. The date 2/16/23 is handwritten at the top of the document. In the first sentence of the first paragraph, "July 26, 1918 The" has been inserted.

4246

Defendant's Exhibit (DP) No. 454

Wilmington, Del., August 28, 1923.

FINANCE COMMITTEE,
BUILDING.

Gentlemen:—

Referring to Mr. Raskob's report of July 26th—No. 9754—and my report on the same subject dated August 16th:

This is to recommend the former amended in the following particulars:—

a. Eliminate the purchase of additional shares of common stock of General Motors Corporation to bring our holdings to 7,800,000 shares.

b. The amount of interest in the General Motors Securities Co. sold to be the equivalent of 2,000,000 shares of General Motors common stock.

c. Terms of payment changed to one-half cash ($15,000,000); other half ($15,000,000) in 7% cumulative convertible preferred stock as described below:

The preferred stock will be a closed issue or part of an original closed issue of standing equal to that herein described and except for the notes referred to below the Managers Company will issue no securities ranking equal to or senior to this preferred stock. The stock will be callable at par plus accumulated dividends at any date and will be retired by the Managers Company as early as possible out of its available income as described on page 4 of report No. 9754.

The stock will be convertible par for par in whole or in part at the owners' option on or before April 15, 1931, into 7% Gold Bonds of the Managers Securities Co. maturing April 15, 1931, and to be retired out of the available income as described on page 4 of report No.9754, and to be secured

by a first lien on all of the shares of General Motors Securities Company purchased hereunder. This collateral will be proportionately increased by any increase in the original issue of preferred stock over $15,000,000. To insure this convertible privilege the Managers Securities Co. will suitably lodge these securities to be used as collateral in escrow to be held subject to a first lien by these notes if and when issued.

d. Include as a default under the Note Indenture, failure to pay interest when due.

Respectfully submitted,

IRÉNÉE DU PONT, President
Irénée du Pont

NOTE: "FINANCE COMMITTEE SECY'S No. 9881" is stamped at top right and "RECEIVED AUG 28 1923 M. D. F.", with an "8" written above "M. D. F.", is stamped at top center of first page. "RETURN TO EXECUTIVE COMMITTEE ROOM 9069" is stamped at bottom of first page. Italics indicate handwriting.

Defendant's Exhibit (DP) No. 455

GENERAL MOTORS CORPORATION
224 W. 57TH ST. NEW YORK

New York City, October 27th, 1923.

TO THE COMMON STOCKHOLDERS
OF GENERAL MOTORS CORPORATION:

The enclosed plan involving the formation of the Managers Securities Company is designed to interest the men occupying important managerial positions as partners with the stockholders in this corporation.

In a great structure such as the General Motors Corporation where our problems and our operations are so diversified, where capital must be employed and plants operated in the best interests of the corporation as a whole, as against any separate part or division, and where new capital supplied should be injected where it will accomplish the greatest good, it is important to find, develop and retain men to occupy important managerial positions who are capable of assuming great authority and the responsibilities that make these positions important. Not only is it necessary that these managers be capable of handling efficiently the immediate problems of their respective positions and divisions, but it is essential that they view broadly and understand the policies necessary to co-ordinate the various ramifications of this vast business and thus secure proper return to the stockholders on upwards of five hundred million dollars of capital employed.

There are approximately seventy managerial positions upon the occupants of which the corporation must rely for the successful management of its business. From practical experience and observation your directors believe that the men occupying these positions can secure a better, broader and more sympathetic understanding of the stockholders' interests, and, therefore, of the interests of the corporation as a whole, if they can be attracted into partnership with the stockholders through becoming substantial stockholders themselves. The enclosed plan, calculated to supply all of the above, should prove a vital force in the preservation of sound and efficient management. It is necessarily technical, but may be briefly summarized as follows:

First. The General Motors Corporation will cause the Managers Securities Company to be organized under the laws of Delaware with a capital of $28,800,000 of 7% cumulative non-voting convertible preferred stock, $4,000,000 of Class A stock and $1,000,000 of Class B stock.

Second. The General Motors Corporation will subscribe for all of the Class A and Class B stock, paying therefor $5,000,000 in cash, and will enter into a contract with the Managers Securities Company agreeing to pay to it for each year from 1923 to 1930, both inclusive, 5% of its net earnings in excess of 7% on the capital employed. On January 1st of each year it will advance $2,000,000 to the Managers Securities Company on account of amount due under this contract, or as a loan, or both, as more fully recited in the plan.

Third. The Managers Securities Company will offer to purchase as of October 15th, 1923, the equivalent of 2,250,000 shares of General Motors Corporation common stock at $15 per share, aggregating a total purchase price of $33,750,000, payable $4,950,000 in cash and $28,800,000 in its 7% cumulative non-voting convertible preferred stock; this is at the rate of $2.20 in cash and $12.80 in 7% preferred stock for each share of General Motors Corporation common stock purchased.

Fourth. A special committee of the Board of Directors will select a list of managers (including directors who are occupying managerial positions) to whom the General Motors Corporation will sell at cost the Class A and Class B stocks of the Managers Securities Company theretofore purchased. Sales so made to these managers will be secured by an agreement under which the General Motors Corporation shall have the right to re-purchase said stock under the terms and conditions recited in the plan.

Contingent upon this plan being ratified by the stockholders, each common stockholder is hereby given the right to supply common stock for the purposes of this plan up to ten per cent. of his total common stockholdings, to be paid for at the rate of $2.20 in cash and $12.80 in 7% cumulative non-voting convertible preferred stock of the Managers Securities Company for each share of General Motors Corporation common stock supplied. Rights to supply stock will apply to common stockholders of record November 10th, 1923. Tenders of stock hereunder, accompanied by stock certificates duly endorsed, should be sent to the Wilmington Trust Company, Trustee, of Wilmington, Delaware, on or before December 15th, 1923, at which time all rights hereunder shall cease and terminate.

E. I. duPont de Nemours & Company owns 7,500,000 shares of General Motors Corporation common stock, title to which is held in duPont American Industries, Inc., the name of which company will be changed to General

Motors Securities Company. To insure the success of this plan, if ratified by the stockholders, your directors have been fortunate in perfecting an arrangement by which the General Motors Securities Company has agreed to sell its own capital stock to the Managers Securities Company, in amount pro rata to its holdings of General Motors Corporation common stock, under the terms and conditions outlined in the plan. In the event the Managers Securities Company is not successful in securing from other stockholders the additional stock required under the plan, the General Motors Securities Company will sell, under the same terms and conditions, such additional amount of its own capital stock as is needed. Following the sale of its capital stock to the Managers Securities Company the position of General Motors Securities Company will be that it will hold 7,500,000 shares of General Motors Corporation common stock as its sole assets with no liabilities.

Your directors are convinced that many economies not now attainable should be realized through the adoption of this plan and that with its adoption, the total cost of administering the corporation's affairs in the future will be less than it is under our present plan of operation.

The plan as outlined will be submitted for ratification and approval to a special meeting of stockholders of the corporation to be held at its offices in Wilmington, Delaware, on November 26th, 1923.

Alfred P. Sloan, Jr.,
President

6154

PLAN OF MANAGERS SECURITIES COMPANY

GENERAL MOTORS CORPORATION
224 West 57th Street
New York

PLAN of MANAGERS SECURITIES COMPANY

1. The General Motors Corporation will cause a corporation, Managers Securities Company, to be organized under the laws of the State of Delaware, with an authorized capital of $13,800,000, divided into:

$8,800,000 of 7% cumulative non-voting convertible preferred stock;
$ 4,000,000 of Class A stock; and
$ 1,000,000 of Class B stock.

The 7% cumulative non-voting convertible preferred stock will be in shares of $100 par value, callable in whole or in part at its par value and accrued dividends. Said stock in liquidation shall be preferred as to the par value thereof and accrued dividends in respect to all of the net assets of the company.

In liquidation, after the 7% cumulative non-voting convertible preferred stock has been paid in full at its par value and accrued dividends, the Class A stock shall be preferred as to the par value thereof, plus the total net amount after taxes accruing to the credit of the company by reason of a certain contract between the company and the General Motors Corporation, hereinafter mentioned; and there shall be credited to a Class A surplus account for the benefit of the Class A stock on the books of the Corporation, when and as received, the net amount earned under the aforesaid contract after providing for taxes. This Class A surplus may be used for the payment of special dividends on Class A stock or for the purpose of retiring such Class A stock pro rata either in whole or in part at any time at a price equal to the par value thereof plus its pro rata share of this Class A surplus account. All other net income of the corporation shall be credited to a general surplus account.

Class B stock in liquidation shall receive all of the balance of the property.

All dividends paid, except special dividends on the Class A stock as herein provided, shall be paid from general surplus, and the amount of dividends paid from general surplus to the Class A and Class B stocks, respectively, shall be in the proportion that the Class A capital and surplus and the Class B capital and general surplus, respectively, bear to each other.

Upon the organization of the Managers Securities Company it will enter into a contract with the General Motors Corporation wherein it will be covenanted and agreed

(a) Upon the part of the Managers Securities Company that it will sell and deliver to General Motors Corporation its entire authorized issue of Class A and Class B stock for $5,000,000 cash.

(b) Upon the part of General Motors Corporation that in consideration of the premises the General Motors Corporation shall, on or before April 1st in each year, commencing with April 1, 1924, and ending April 1, 1931, pay to the Managers Securities Company 5% of the net earnings of the General Motors Corporation for the preceding calendar year after deducting from said net earnings 7% on the capital employed during said year. This contract will further provide that on or before January 1st of each year beginning on or before January 1, 1924, and including January 1, 1931, the General Motors Corporation will advance $2,000,000 in cash to the Managers Securities Company on account of amount due under this contract and the balance due shall be paid on or before April 1st following as aforesaid. In the event that the amount due under this contract in any year equals less than $2,000,000 then and in that event the General Motors Corporation will make a minimum annual payment of $2,000,000 hereunder. The difference between the cumulative amounts of all payments made hereunder and the cumulative amounts earned under the contract from the beginning to date shall be treated as an unsecured loan by General Motors Corporation to the Managers Securities Company, bearing 6% interest, which loan shall be repaid when the amounts due under said contract equal the total amounts paid by General Motors Corporation, plus interest as aforesaid; and this loan shall not become due otherwise until after the retirement and cancellation of the bonds of the Managers Securities Company hereinafter mentioned.

2. The General Motors Corporation will thereupon sell to such managers (including directors who are occupying managerial positions) of the General Motors Corporation and subsidiary companies, as a special committee of the directors of the General Motors Corporation shall from time to time determine, such amounts of the Class A and Class B stocks of the Managers Securities Company as said committee shall determine and in such amounts to individual managers as said committee shall fix, at not less than cost upon such terms as to time of payment as may be agreed upon between the purchaser and the Finance Committee. All sales of stock of the Managers Securities Company to man-

agers as aforesaid shall be covered by a written contract, between the seller and the purchaser, wherein it shall be provided that in consideration of the sale upon the terms provided in said contract and the purposes for which said sale is made to the purchaser and of all the premises, the purchasers shall give and grant to General Motors Corporation an irrevocable option to re-purchase all or any part of the shares of either or both classes of stock so sold at any time between January 1st and May 15th in any year up to and including May 15, 1930, as follows:

Class A stock re-purchased under this option on account of the death of an employe or from an employe leaving the company through no fault of his own shall be purchased at a price equivalent to the par value of said stock plus its portion of the Class A surplus account as shown on the books as of April 30th in the year in which said re-purchase is made; in all other cases the price paid shall be the par value of the stock plus 80% of its portion of the Class A surplus. In all events the re-purchase price of Class A stock shall be payable, at the option of General Motors Corporation, either in cash or in common stock of General Motors Corporation on the basis of its net asset value as shown by the published statement of assets and liabilities as of December 31st of the year preceding the date of said purchase.

Class B stock shall be re-purchased at the net asset value thereof as of April 30th in the year in which said option is exercised. For the purpose of determining said net asset value of Class B stock the General Motors Corporation common stock or its equivalent owned by the Managers Securities Company shall be appraised on the basis of the net asset value of General Motors Corporation common stock as shown by the published statement of assets and liabilities of General Motors Corporation as of December 31st of the year preceding the year in which said option is exercised. Payment for re-purchases so made under option herein granted shall be made by the General Motors Corporation in common stock of the General Motors Corporation at the same net asset value as used in determining the net asset value of the Managers Securities Company stock as hereinabove set forth. If any purchaser dies or ceases to be employed by the General Motors Corporation or a subsidiary corporation thereof during the life of said option, the General Motors Corporation shall exercise said option at least with respect to the Class A stock and re-purchase his Class A stock on the terms and at the price aforesaid. Further, in view of the fact that this plan is designed to have substantially interested as stockholders in the corporation only men who are actively contributing to the General Motors Corporation's success, it shall be the duty of the Finance Committee on or before May 15th of each year to review the list of the stockholders of the Managers Securities Company for the purpose of determining whether the stockholding of any manager is disproportionate to the service being currently rendered by him to the General Motors Corporation and, if so, to this extent to re-purchase either or both classes of his Managers Securities Company stock.

The discretion of the Finance Committee in all these matters shall be final and conclusive. In order to facilitate the re-purchase of said stock the certificates evidencing the stock, duly endorsed in blank, shall, at the time of sale and delivery by the seller to the purchaser, be placed in escrow with an escrow holder appointed by the Finance Committee of General Motors Corporation, to be held under an escrow agreement in the usual form during the existence of said option. In case the option is not exercised on or before the 15th day of May, 1930, the right and obligation to re-purchase shall end and the escrow holder shall deliver the stock certificates to the said purchaser or his order on April 15, 1931. At the time the said certificates are placed in escrow, the escrow holder shall issue to the said purchaser negotiable certificates evidencing the number of shares so deposited. The purchaser shall have the right to vote and to receive all dividends paid on the Managers Securities Company stock.

3. The Managers Securities Company will offer to purchase the equivalent of a total of 2,250,000 shares of the common stock of General Motors Corporation from the common stockholders of the corporation at $15 per share as of October 15, 1923, aggregating a total purchase price of $33,750,000, payable as follows:

- $ 2.20 per share, aggregating $4,950,000 in cash;
- $12.80 per share, aggregating $28,800,000 in 7% cumulative non-voting convertible preferred stock of Managers Securities Company at par, carrying dividends accrued from October 15, 1923.

All dividends paid subsequent to October 15, 1923, upon the General Motors Corporation common stock purchased by Managers Securities Company and accruing to the sellers will be credited to the purchase price aforementioned and applied as a deduction from that portion of the said purchase price payable in preferred stock.

All of the stock purchased hereunder by Managers Securities Company, together with the contract between General Motors Corporation and Managers Securities Company, described hereinabove, will be lodged with the Wilmington Trust Company, of Wilmington, Delaware, under a trust indenture to secure an authorized issue of $28,800,000 of seven and one-half year 7% collateral trust gold bonds, dated October 15, 1923, and maturing April 15, 1931; which bonds will be held by the Wilmington Trust Company as Trustee subject to the conversion rights of the holders of preferred stock of Managers Securities Company.

The 7% convertible preferred stock in even multiples of ten shares, at the option of any holder at any time, will be convertible, at par value and accrued dividends, into the 7% collateral trust gold bonds just described, at par value and accrued interest.

4. The indenture securing the authorized issue of $28,800,000 of 7% collateral trust gold bonds of the Managers Securities Company shall, in addition to the usual provisions contained in such instruments, provide as follows:

The Managers Securities Company shall make the following payments to the Wilmington Trust Company, Trustee, on or before April 15th of each year, commencing April 15, 1924, and ending April 15, 1931:

(a) Such portion, in no event less than $1,750,000, of the $2,000,000 payment due to be paid to the Managers Securities Company by January 1st under its contract with the General Motors Corporation as is not required for the payment of normal Federal corporation taxes, not to exceed 12½%, in respect to such payment from the General Motors Corporation:

(b) The balance, if any, due to be paid to the Managers Securities Company by April 1st under its contract with the General Motors Corporation, less any balance of corporation taxes or necessary expenses not provided otherwise.

(c) An amount equal to the entire net income of Managers Securities Company, before bond interest, from all other sources for the twelve months ending April 1st just preceding.

(d) It is understood, however, that the Managers Securities Company may withhold from the amounts which would otherwise be paid to the Trustee, first, from the amount indicated in paragraph (a) and then from the amounts indicated under paragraphs (b) and (c) an amount equal to the dividend paid on the 7% convertible preferred stock during the fiscal year ending April 15th; provided, however, that in no case, shall such withholdment reduce the net amount paid to the Trustee below the amount required for bond interest.

(e) Provided that all dividends accrued and due on the 7% convertible preferred stock shall have been paid, the Managers Securities Company may also withhold from the payment referred to under paragraphs (b) and (c) above, an amount sufficient to pay dividends on its Class A and Class B stock not in excess of 7% per annum on such paid in capital ($5,000,000) and surplus earned thereon.

All amounts paid to the Trustee, as hereinbefore provided, shall be applied by the Trustee towards the payment of interest on the outstanding 7% collateral trust gold bonds issued in conversion of 7% convertible preferred stock; any balance of said payment shall be applied by the Trustee for the retirement of outstanding 7% convertible preferred stock at par and accrued dividends and the redemption of collateral trust bonds at par and accrued interest by lot, according to such methods as the Trustee shall deem proper; provided, however, that with the assent of 75% of the outstanding 7% convertible preferred stock, the entire amount available for retirement may be used to redeem bonds, or, with the assent of 75% of the outstanding bonds, the entire amount available for redemption may be used to retire 7% convertible preferred stock.

Any and all of the 7% convertible preferred stock acquired by the Trustee shall be retired and cancelled, and upon all such cancellations there shall be cancelled a like par value of authorized 7% collateral trust gold bonds in the hands of the Trustee subject to conversion; to the end that the 7% collateral trust gold bonds authorized and in the hands of the Trustee subject to conversion at all times will be in respect of a closed issue, corresponding in par value to the outstanding 7% convertible preferred stock of the Managers Securities Company.

Failure for six months after the same shall become due and payable to make any payment required to be made to the Trustee shall constitute a default on the part of the Managers Securities Company.

Defendant's Exhibit (DP) No. 456

INVESTMENT IN GENERAL MOTORS CORPORATION COMMON STOCK:

Vice-President J. J. Raskob orally referred to the purchase by this Company, on October 29, 1931, of a block of 300,000 shares of General Motors Corporation common stock at $24.00 a share, which purchase was reported to this Board in the Finance Committee's regular monthly report of November 12, 1931. Mr. Raskob stated that it was the feeling of the Finance Committee that this block of stock should be held as a temporary rather than as a permanent investment and in connection therewith offered the following resolution which, on motion, duly made and seconded, was unanimously adopted:-

> WHEREAS, this Board is advised that the Finance Committee believe that the three hundred thousand (300,000) shares of General Motors Corporation common stock, purchased by this Company on October 29, 1931 at $24.00 a share, should be held as a temporary investment;
>
> RESOLVED, that this Board concur in the judgment of the Finance Committee that this stock should be sold at such times and at such prices as the Finance Committee may from time to time deem wise.

I hereby certify that the foregoing is a true excerpt from the Minutes of Meeting of the Board of Directors, E. I. du Pont de Nemours & Company, Inc., held in Wilmington, Delaware on March 21, 1932.

Edw. C. Copeland
Secretary
E. I. du Pont de Nemours & Company, Inc.,

December 20, 1948.

4257

NOTE: gmc 375 appears in the lower right hand corner. 8604-c-2-b and 10/29/31 are written in the upper right hand corner.

Excerpt from Minutes of Meeting #513 of
the Finance Committee,

E. I. DU PONT DE NEMOURS & COMPANY,

Held in Wilmington, Delaware, on May 15, 1933.

• • • • •

SALE OF GENERAL MOTORS CORPORATION COMMON STOCK:

Report was presented from Mr. A. B. Echols, Vice-President in charge of Finances, dated May 12, 1933 (#8077), in connection with the question of disposing of the 281,220 shares of General Motors Corporation common stock held by this Company as a temporary investment. After discussion, it was moved and unanimously carried that the report be received and ordered filed, and that the following resolutions suggested therein be adopted:—

Whereas, this Company under special circumstances purchased a block of 300,000 shares of General Motors Corporation common stock at $24 a share on October 29, 1931; and

Whereas, 18,780 shares of this stock were transferred to the so-called permanent investment in General Motors Corporation, in order to round out that investment to 10,000,000 shares; and

Whereas, it is the feeling of the Finance Committee that the present so-called temporary investment in General Motors Corporation common stock, aggregating 281,220 shares, should be disposed of at not less than $24 a share, and in such a manner as to not materially affect the market for this stock;

Resolved, that Vice-President A. B. Echols and the Treasurer, with the approval of the President and the

Chairman of the Finance Committee, be authorized to dispose of the above-mentioned shares of General Motors Corporation common stock from time to time and at such prices as in their judgment may seem wise, but in no event at less than $24 a share.

Resolved, that the President or any Vice-President of this Company, together with the Secretary or an Assistant Secretary, be and they are hereby authorized and directed to execute the necessary papers to effect the transfer of all or any part of 281,220 shares of common stock of General Motors Corporation.

• • • • •

I hereby certify that the foregoing is a true excerpt from minutes of meeting #513 of the Finance Committee, E. I. du Pont de Nemours & Company, held in Wilmington, Delaware, on May 15, 1933.

F. G. Hess
Sec'y, Finance Committee
E. I. du Pont de Nemours & Company

December 17, 1948

Note: In the lower right hand corner appears the number GMC-254. The numbers 8604-c-d-a appear in the upper right hand corner.

Defendant's Exhibit (DP) No. 458

EXCERPT FROM MINUTES OF MEETING #428 OF THE FINANCE COMMITTEE, E. I. DU PONT DE NEMOURS & COMPANY, HELD IN WILMINGTON, DELAWARE, ON NOVEMBER 4, 1929.

* * * * * *

PLAN FOR CONVERTING MANAGERS SECURITIES COMPANY STOCK INTO GENERAL MOTORS CORPORATION COMMON STOCK:

The following resolution was offered and, after discussion, was unanimously adopted:—

Resolved, that Messrs. W. S. Carpenter, Jr., Vice-President in charge of Finances, and A. B. Echols, Treasurer, be requested to develop a plan under which stockholders of Managers Securities Company who are no longer connected with General Motors Corporation might have an opportunity of converting their Managers Securities Company stock into common stock of General Motors Corporation.

* * * * * * *

I hereby certify that the foregoing is a true excerpt from minutes of meeting #428 of the Finance Committee, E. I. du Pont de Nemours & Company, held in Wilmington, Delaware, on November 4, 1929.

F. G. HESS,
Sec'y Finance Committee,
E. I. du Pont de Nemours & Company

December 23, 1948

Note: In the lower right hand corner appears the number GMC 233. The name F. G. Hess is stamped at the end of the certification. The numbers 8604-C-2-B1 appears in the upper right hand corner.

Defendant's Exhibit (DP) No. 459

IN RE GENERAL MOTORS SECURITIES COMPANY

Since the beginning of our federal income tax law in 1913, intercorporate dividends had always been exempt from tax. In 1918, when General Motors Securities Company was organized, and continuously since then until the Revenue Act of 1936, there was no federal taxation of intercorporate dividends, and there had been no reason to expect any change in this respect.

The holding of the major portion of du Pont's investment in General Motors Corporation through a subsidiary corporation was in the past a practical necessity because of the New York State franchise tax situation. Du Pont has always paid substantial annual franchise tax to the State of New York. The tax laws of that state are such that had the General Motors stock been held directly rather than through a subsidiary corporation many thousands of dollars would have been added annually to that tax burden. During the years prior to 1936 it was possible to take advantage of large savings in New York State franchise tax afforded by the holding of the General Motors investment through a subsidiary without offsetting increase in taxes elsewhere.

Since the beginning, in 1936, of taxation of intercorporate dividends, the management has given consideration to the desirability of working out some plan for non-taxable liquidation of General Motors Securities Company so that the dividends on General Motors investment would flow direct to du Pont rather than through the holding company.

However, because of the 1936 amendments of the Internal Revenue Act, which are as yet untested and for which regulations were not available until very late in that year, the management felt that it was not justified in proceeding with dissolution of General Motors Securities Company in view of the large potential tax exposure in the event that such dissolution was finally held as not being tax free. In addition to uncertainty with respect to your company's tax position in case of dissolution, the tax position of the substantial minority interest also was not clear.

It was accordingly decided, therefore, to defer action for sufficient time to permit of further investigation and study of the relevant tax law changes and supporting regulations. The subject is under active consideration at the present time.

Prepared 3/5/37

Note: In the lower right hand corner appears the number GMC 753. At the top of the document the date 3/5/37 is hand-written.

Defendant's Exhibit (DP) No. 460

COPY

ORIGINAL WITH ORIGINAL PAPERS OF MEETING

APRIL 26, 1918 6465

Mr. M. D. Fisher,
Secretary, Executive Committee.

In order that there may be a record in the Executive Committee files on the Flint Varnish & Color Works proposition in addition to copy of my letter addressed to Mr. Mountain, which was sent to the Committee this week, I would say as follows:

It is understood that Mr. W. . Mountain will be retained as President of the Flint Varnish & Color Works at the same salary which he is getting at the present time and that he will be in full charge of this Company, the same as he is today. There is no question but what Mr. Mountain is a very valuable man and that through his very close connection with Mr. Willys, Mr. Durant, and several other of the large automobile people he holds a very large amount of business. He is also a very prominent man in the vicinity of Flint, Mich., being President of the Chamber of Commerce of that city and also prominent in other affairs.

I was extremely well impressed with Mr. Mountain and am sure he is going to make this Company a very valuable employe.

After discussing with members of the Finance Committee yesterday I notified Mr. Mountain that we would be prepared to take over on some basis satisfactory to Mr. Willys his Preferred stock, for which he asks par, and there is no question but what this is worth par.

(S) R. R. M. Carpenter

RRMC:ETL

NOTE: In the upper right corner appears X-1114 with a line through the number. Beneath this is 1008B. Return to Room 9059 is stamped across the document. (The number is changed to read 9069.) Across the bottom of the document is stamped Return to Executive Committee Room 9069.

Defendant's Exhibit (DP) No. 461

Defendants' Tri

Letterhead of
DUNHAM BODY COMPANY
Succeeding D. B. Dunham & Son
Builders & Repairers of

AUTOMOBILE COACH WORK
Avenue B and Miller Street

Newark, N. J., October 6, 1922

E. I. DuPont DeNemours Co.,
Parlin, N. J.

Attention: Mr. Briggs

Gentlemen:—

The writer, after examining Chandler car which was sprayed at Parlin, wishes to state that there are a great many details on this which certainly could not be passed on, even the cheaper grade of work.

One thing above all is that you must try to manufacture some glazing compound that would satisfactorily fill up file marks in the metal. In most all repair jobs you will find that you have to do a great deal of filling as most of the cars have been damaged at one time or another, dents removed and big file marks made in the metal. In some cases we have to prime the car and glaze it and in many instances put as many as five coats of rough-stuff on the bodies in order to have a proper surface. This all takes a great deal of time and we were hoping your material would eliminate a great deal of these under-coats.

Your system for sales quality jobs would probably work out and of course we will give it a good trial. However, in the kind of business we do, where every color is different and we have to cut in the lower and upper panels with different color, as well as sometimes the window ridges, is going to be a very difficult job indeed to handle the product, unless we can get the customers to accept a solid color. We believe, however, it will work extremely well on cars such as Dodges, Fords, Buicks, Chevrolets, etc.

The writer is very enthusiastic over this product, but feels a great deal more of experimental work is needed, that is from the practical end. We believe we can help you in lots of ways in getting this product to satisfactory state where same would be useful in all branches of work.

It will also be absolutely necessary in conjunction with your spraying product to have a substance that can be brushed on to

—2—

take care of finer details, as instrument board, mouldings, etc.

We are today rubbing down the black surface on the Chandler car and are going to apply a coat of varnish over same, and are also going to make various other tests, and of course will advise you from time to time.

Yours very truly,

DUNHAM BODY COMPANY

LD:CV

NOTE: Handwritten Paint & an illegible word under date. Illegible handwriting over Dunham Body Co. on last page.

Defendant's Exhibit (DP) No. 462

GENERAL MOTORS CORPORATION

Production of Open Cars

1915 through 1930

Year	Total Number of Open Cars Produced by General Motors	Number of Open Cars Produced by Chevrolet and Buick	Buick and Chevrolet Open Cars as Percentage of Total General Motors Open Cars
1915	84,168	55,530	66
1916	230,259	182,933	79
1917	299,488	221,155	74
1918	199,796	149,802	75
1919	319,336	231,915	73
1920	273,073	217,347	80
1921	156,183	127,079	81
1922	280,528	240,049	86
1923	445,429	390,437	88
1924	285,344	240,654	84
1925	264,183	252,341	96
1926	191,559	174,040	91
1927	171,273	147,473	86
1928	160,918	137,795	86
1929	112,202	96,364	86
1930	57,111	48,796	85

Defendant's Exhibit (DP) No. 463

SALES BY DU PONT OF PLASTICS TO FISHER BODY DIVISION OF GENERAL MOTORS CORPORATION

Years 1927-1931, Inclusive

1927	$ 9,731
1928	2,763
1929	51,152
1930	122,798
1931	12,845

Source: Du Pont Viscoloid Company Billings from Accounts Receivable Ledger Sheets.

Defendant's Exhibit (DP) No. 464

WALTER S. CARPENTER, JR.

POSITIONS HELD IN DU PONT COMPANY
1909 TO DATE

Clerk, Purchasing Department (Chile)	Dec. 1, 1909	-	May 31, 1911
Clerk, Treasury Department (Chile)	June 1, 1911	-	Jan.20, 1912
Development Department:			
Clerk	Jan. 2, 1912	-	Nov.30, 1914
Development Staff	Dec. 1, 1914	-	Apr.30, 1915
Acting Assistant Director	May 1, 1915	-	Aug.31, 1915
Assistant Director	Sep. 1, 1915	-	Mar.31, 1917
Director	Apr. 1, 1917	-	May 12, 1919
Treasurer	Jan.10, 1921	-	May 16, 1926
Vice President	Apr.30, 1919	-	May 20, 1940
President	May 20, 1940	-	Jan.19, 1948
Board of Directors:			
Member	May 1, 1919	-	To date
Chairman	Jan.19, 1948	-	To date
Executive Committee:			
Member	May 1, 1919	-	Jan.19, 1948
Vice Chairman	Apr.19, 1926	-	May 20, 1940
Chairman	May 20, 1940	-	Jan.19, 1948
Finance Committee:			
Member	Nov.28, 1921	-	To date
Chairman	Mar.19, 1930	-	May 20, 1940

Defendant's Exhibit (DP) No. 465

CRAWFORD H. GREENEWALT

POSITIONS HELD IN DU PONT COMPANY
1922 TO DATE

Control Chemist:	
Paint, Lacquer and Heavy Chemical Department	Oct. 12, 1922 - Oct. 21, 1923
Chemical Department	Oct. 22, 1923 - Sep. 30, 1924
Chemical Department, Experimental Station:	
Chemist	Oct. 1, 1924 - Feb. 28, 1927
Group Leader	Mar. 1, 1927 - July 31, 1933
Research Supervisor	Aug. 1, 1933 - June 30, 1939
Assistant Director	July 1, 1939 - May 31, 1942
Director, Chemical Division, Grasselli Chemicals Department	June 1, 1942 - Dec. 31, 1942
Manager, Technical Division, Explosives Department	Jan. 1, 1943 - Feb. 4, 1945
Administrative Assistant to Vice President Stine	Feb. 5, 1945 - Mar. 11, 1945
Assistant Director, Development Department	Mar. 12, 1945 - Aug. 31, 1945
Assistant General Manager, Pigments Department	Sep. 1, 1945 - May 31, 1946
Vice President	June 1, 1946 - Jan. 18, 1948
President	Jan. 19, 1948 - To date
Board of Directors:	
Member	Jan. 19, 1942 - To date
Executive Committee:	
Member	June 1, 1946 - To date
Vice Chairman	May 19, 1947 - Jan. 18, 1948
Chairman	Jan. 19, 1948 - To date
Finance Committee:	
Member	Jan. 19, 1948 - To date

Defendant's Exhibit (DP) No. 556

Defendants' Trial Ex. No. DP-556

E. I. DU PONT DE NEMOURS AND COMPANY

Ammonia Department

Sales of Antifreeze

All figures are rounded off to the nearest thousand.

Year	Total Sales To All Customers Gallons	Total Sales To All Customers Dollars	Sales to All General Motors Divisions Dollars	Dollar Sales to Customers Other than General Motors as Percentage of Total Dollar Sales
1930	1,811,000	$ 488,000	0	100.00
1931	1,223,000	327,000	0	100.00
1932	1,356,000	465,000	0	100.00
1933	1,979,000	628,000	0	100.00
1934	2,742,000	1,139,000	0	100.00
1935	4,848,000	2,137,000	0	100.00
1936	5,564,000	2,299,000	371,000	83.86
1937	8,754,000	3,734,000	314,000	91.59
1938	8,521,000	3,638,000	283,000	92.22
1939	9,638,000	4,036,000	396,000	90.19
1940	14,964,000	7,692,000	782,000	89.83
1941	20,328,000	13,071,000	710,000	94.57
1942	11,477,000	7,110,000	302,000	95.75
1943	14,747,000	12,390,000	519,000	95.81
1944	14,551,000	10,033,000	346,000	96.55
1945	12,415,000	10,896,000	485,000	96.55
1946	17,835,000	11,705,000	679,000	94.20
1947	20,173,000	12,582,000	1,705,000	86.45
1948	35,025,000	29,178,000	2,564,000	91.21

Prepared from Company Records
Treasurer's Department

E

Defendant's Exhibit (DP). No. 557

DU PONT

FABRICS INDUSTRIAL MASTER TRADE REPORT - Correspondent's Copy

Received for Typing 1/13/50
Date Typed 1/13/50

Customer Chevrolet-Indianapolis Div., General Motors Corp.
St. and No. 340 White River Pkwy., W.Dr.S.
City - Zone Indianapolis 6
County - State Indiana
Persons Interviewed See reverse side

B.C. - 23
Class 1
Report No. 2
Salesman J. W. Richardson
Date of Call 1/12/50

COPIES TO:

1.	NBG.	5.	MMElckowitz, N.Y.
2.	TA	6.	ALBrown, Newburgh
3.	RCW	7.	HJJonemann,
4.	JWR	8.	Fairfield

1. Associated Companies, Affiliations, Subsidiaries and Branches Part of Chevrolet Motor Div., General Motors Corp.

2. General type of business Manufacturer - Chevrolet trucks and panel deliveries, also manufacture cab shells for GMC Truck light trucks and General Motors of Canada, Oshawa.

3. Products made from our type materials Upholstery and trim for truck and panel delivery jobs.

4. Indicate (in order of importance) firm buys on: Friendship 4 Price 1 Quality 2 Service 3

5. Attitude toward du Pont Excellent

6. Our prospects for regular business. Favorable.

7. Names and titles of individuals to receive mailings and du Pont Magazine.

	Name	Title	Check (x) For du Pont Magazine
1.	Earl A. Hall,	Plt. Mgr. ~~Purch. Agent~~	X
2.	L. J. Carlen,	Director of Purchases	X
3.	E. C. Mertz,	Resident Engineer	X
4.			

8. DU PONT SALES (yards)

	Newburgh	Fairfield
1948		500,068 yds.
1949		341,743 yds.

9. Other Remarks on Back.

Est. Annual* Consumption du Pont and Competitive Products

PYROXYLIN COATED FABRICS AND PAPER

Quality and Width	Price	Manufacturer	Supplier	Yards

W.J.P.
JAN 20

RUBBER (NATURAL AND SYNTHETIC) COATED FABRICS AND SHEET STOCK

36" Curtain Material, Part 3806524	$.89	?	?	30,000
48" Headlining-Part 3808698	.65	?	?	90,000

RESIN COATED FABRICS AND SHEET STOCK

Part 3676062 - Red Spanish

"Fabrilite" 6020	Contract	DuPont	Du Pont	240,000
Naugahyde	"	U.S.Rubber	U.S.Rubber	240,000
Goodall Reddo	"	Goodall	Goodall	320,000

Part 3676052 - Brown

Weymouth	$1.29	Weymouth	Weymouth	80,000

What is the potential yardage of this firm if raw materials were available?

FF 600A 5M 5 47

USE REVERSE SIDE FOR ADDITIONAL REMARKS, LEFT SIDE AS TOP.

(over)

* Based on 1946 purchases

Defendants' Trial Ex. No. DP-557

Persons Interviewed

L. J. Carlen, Director of Purchases
D. E. Gleason, Asst. Director of Purchases
Jack Wilson, Superintendent, Material and Production Control
John Lowe, " " " "
Clarence Abram, " " " "
Vance Phillips, Chief Inspector
E. C. Mertz, Resident Engineer
W. P. Wood, Asst. Resident Engineer
F. C. Schwengel, Special Projects Engineer
Clyde Smith, Cutting Room Inspector
Harry Webber, Cutting Room Foreman

Main purpose of visit was to observe laying and cutting of "Fabrilite" 6026, Red Spanish, part 3676062, 13,000 yards of which were shipped January 6 on IF-948. Our material laid absolutely flat--better than any shipment previously observed. A lay of U.S. Naugahyde was being made on an adjoining table and, although satisfactory, it was not quite as free from wrinkles as our material. In addition, this shipment from U.S. Rubber was darker and duller than the Chevrolet standard. Learned that a previous shipment of U.S. material was darker and brighter than standard.

Our 6026 was very close in color, grain and finish to the Chevrolet standard; however, there was some noticeable color variation as illustrated by swatches of the complete lay which have been forwarded to Mr. Jenemann at Fairfield. Job No. C-1841306-A was slightly lighter red than standard; while Job No. C-1847204-C was very slightly darker than standard. Attached swatch taken from January 6 shipment is practically "on the nose" for color, grain and finish.

For the first half of 1950 Goodall was awarded 40% of the 3676062 red Spanish business on a price substantially lower than our quotation. U.S. Rubber and Du Pont each were awarded 30%. Weymouth again was awarded the business on brown, part 3676052 at a price 3¢ lower than our quotation. Textileather got no business whatsoever for the first half of 1950.

Rubber curtain material and rubber headlining (parts 3806524 and 3808698 respectively) were awarded to unknown competition at 14¢ and 35¢ less per yard than our quotations on these two items respectively.

Within the last few days a production sample of Goodall's part 3676062 was approved by Chevrolet-Indianapolis Engineering Department. However, material and Production Control Section is somewhat doubtful as to whether Goodall's production shipments will meet quality and delivery requirements. If Goodall fail to come through properly our releases will benefit considerably.

Projected production at Indianapolis for the first three months of 1950 is: 31,000 complete trucks per month, 3500 panel deliveries per month, and 6000 cabs per month (not upholstered), for Pontiac and Oshawa.

(Note: Earl A. Hall has replaced J. H. Glass as Plant Manager at Chevrolet-Indianapolis. Mr. Glass has gone to Flint Stamping to take over Mr. Hall's previous assignment.)

Defendant's Exhibit (DP) No. 558

EXCERPTS FROM THE PAINT, LACQUER AND CHEMICALS DEPARTMENT MONTHLY REPORT TO THE EXECUTIVE COMMITTEE FOR NOVEMBER, 1926, DATED DECEMBER 23, 1926.

SALES	November 1926	October 1926
Duco (Domestic)		
Parlin & Flint	$ 594,615.59	$ 858,973.98
Other Products (Domestic)		
Parlin	249,063.79	270,973.51
Flint	93,737.05	143,299.98
Transfers		
Duco (P. & F.)	13,240.40	9,502.15
Parlin Other Products	70,826.04	78,554.42
Flint Other Products	90.02	292.45
Export		
Duco (P. & F.)	43,689.96	71,182.20
Parlin Other Products	3,434.84	7,440.38
Flint Other Products	2,880.38	5,932.30
TOTAL	$1,071,578.07	$1,446,151.37
Duco	651,545.95	939,658.33
Parlin Other Products	323,324.67	356,958.31
Flint Other Products	96,707.45	149,524.73

Total Domestic Sales for the month of November are lower than any month of the year, showing decrease under September our previous high month of 41% and decrease of 26% as compared with the month of October.

Total Domestic Sales for the first eleven months of 1926 amounted to $13,700,000 as compared with $11,842,000 in the corresponding period of 1925.

The decrease of $264,000 in November sales of Duco and Thinner as compared with the month of October is caused almost entirely by decreased activity in the automobile manufacturing field.

Sales in the industrial field also showed a marked decrease, which was offset to some extent by increased sales to the furniture trade. November was the largest month in the sale of Clear Duco to the Furniture trade. We attribute this increase mainly to our lower prices which were announced in October, because with them we were able to take on several new accounts and regain several accounts previously lost, as well as to make increased sales to many of our regular customers.

November sales of colored Duco to automobile manufacturers amounted to 50,809 gallons, of which 18,385 gallons represent sales to the General motors group, October sales being 81,749 gallons and 33,175 gallons respectively. Sales of colored Duco to automobile refinishers in November were 17,027 gallons as compared with 27,097 gallons in October. November sales of colored Duco amounted in total to 98,000 gallons, 10,000 gallons of which were export sales. This quantity is divided into industries and groups as follows:

General Motors Units	19%
Other Motor Manufacturers	33
Automobile Refinishers	17
Railroads	1
Furniture Manufacturers	8
General Industrial	12
Export	10
	100%

The decrease in sales of Parlin products other than Duco and Duco thinner in November as compared with October is occasioned mainly by smaller sales in the decorative group particularly Enamels and Thinners. Shipments in the non-decorative group were larger in volume, but consisted mainly of commodities carrying very low selling prices, such as ethyl acetate and airplane dope. The decrease in sales of

—10—

enamels is caused by decreased shipments of Engenamel, which is explained by October sales being inflated by a large shipment of this material to the Chevrolet Motor Company.

—12—

PRICE AND COMPETITIVE SITUATION

While there is nothing alarming at the present time in the price and competitive situation in the country, still

—13—

we find such firms as Sherwin Williams, Egyptian Lacquer Company and the Zeller Lacquer Mfg. Company taking a few accounts away from us on a price basis, particularly on lacquers and enamels. The last named concern seems to specialize in price cutting. However, we do not feel that the situation has reached a point where any radical changes should be made in our schedules.

The General Motors Corporation are unwilling to make a requirements contract for 1927. We have reduced the price of thinners from $1.75 per gallon to $1.50 per gallon in one instance, and from $1.40 to $1.20 in another instance, these prices being subject to a quantity trade discount, which would in the latter named instance mean a delivered price to General Motors of $1.026 per gallon. Competition in the pyroxylin finish field has apparently caused the General Motors to adopt this attitude.

In addition to the above, some divisions of the General Motors Corporation at least will undoubtedly make their own thinners.

NOTE: Paragraph starting "Sales in the industrial" has illegible handwriting in the left margin.

4
E

Defendant's Exhibit (DP) No. 559

Excerpt from the 1937 Annual Competitive Report of the Fabrics and Finishes Department which is the paragraph that immediately follows the third paragraph of Government Trial Exhibit No. 1377:

Pittsburgh Plate Glass Co. secured the next largest share of automotive finishes business, estimated at 18.58% of the industry's total purchases, through supplying practically all of Chrysler's requirements.

Defendant's Exhibit (DP) No. 560

Excerpt from the 1940 Annual Competitive Report of the Fabrics and Finishes Department, which is the full paragraph quoted in part in Government Trial Exhibit No. 1380: \

Automotive Finishes

'The improved competitive position in 1940 over 1939 resulted largely from General Motors securing a greater portion of the total automobile business (43.9% in 1940 against 42.1% in 1939). The second largest supplier of finishes to the automobile industry, Pittsburgh Plate Glass Co., bettered their competitive position from 13.9% in 1939 to 14.8% in 1940 for a similar reason, i.e. their principal customer, Chrysler Corp., also improved their competitive position in the automotive trade.'

Defendant's Exhibit (DP) No. 561

Excerpt from the 1941 Annual Competitive Report of the Fabrics and Finishes Department which is the paragraph that immediately follows the first paragraph of Government Trial Exhibit No. 1381:

Pittsburgh Plate Glass Company, the second largest supplier of finishes to the automobile industry, secured 13.6% of total available business in 1941 compared with 14.8% in 1940. Their loss in competitive position came about through Chrysler Corporation, their principal customer, manufacturing only 20% of the automobile industry's 1941 total output against 23% in 1940.

Defendant's Exhibit (DP) No. 562

Excerpt from 1947 Annual Competitive Report of the Fabrics and Finishes Department which is the paragraph that immediately follows the third paragraph of Government Trial Exhibit No. 1383:

Increased sales for bookbinding, automotive trim and upholstery and surgical tape were chiefly responsible for du Pont's improvement in 1947. In the first two industries we either regained business from competition, which was temporarily lost during the period of fabric shortage, or obtained new business outright on the basis of superior quality and service.

Defendant's Exhibit (DP) No. 563

Excerpt from 1950 Annual Market Survey of the Fabrics and Finishes Department which is the paragraph that immediately follows the second paragraph of Government trial Exhibit No. 1386:

During 1950 we secured new business at several important automobile manufacturers, namely Ford, Willys and Studebaker. An increased percentage of Fisher Body's "Teal" business resulted from an improved product. Our major competitors in the Automotive market with an estimate of their portion of the sales are shown:

Major Manufacturers	1950 Sales Estimated		Per Cent of Total Auto Market 1950	1949
Du Pont	$6.6	million	16.8	15.2
Ford (a)	6.5	"	16.3	15.0
Textileather	4.6	"	11.5	11.1
U. S. Rubber	3.3	"	8.3	6.7
Goodall Sanford	3.2	"	8.0	10.7
Landers	2.6	"	6.5	5.0
Goodrich	2.5	"	6.3	6.7
Federal	2.1	"	5.3	5.3
All Others	8.6	"	21.0	24.3

Defendant's Exhibit (DP) No. 564

Excerpt from the 1935 Annual Competitive Report of the Fabrics and Finishes Department, which is the full paragraph quoted in part in Government Trial Exhibit No. 1375:

The decline in our position in rubber fabrics for automotive industry is due to General Motors' adoption of all-steel top for all their models except the standard Chevrolet, while other manufacturers whose business goes to competition have not abandoned fabric tops to the same extent. Further declines in available business from this field are expected as all-steel tops become more generally adopted. During 1935 the position of du Pont and leading competitors was:

Chase	18.0%
DuPont	17.7%
Boston Woven Hose	14.0%
All Others	50.3%

Defendant's Exhibit (DP). No. 565 6185

EXCERPTS FROM

DU PONT PRODUCTS INDEX

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

E. I. DU PONT DE NEMOURS & CO. (INC.)
Advertising Department
WILMINGTON 98, DELAWARE

6156

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E. I. DU PONT DE NEMOURS & COMPANY (INC.)
WILMINGTON 98, DELAWARE

JUNE · 1946

Bound in Du Pont "Fabkote" Pyroxylin Coated Material,
17 Point, Color 4075, SB finish, MS grain.

4284

6187

INTRODUCTION

THIS index contains information on chemicals and allied products manufactured and sold by E. I. DU PONT DE NEMOURS & COMPANY (INC.), and its subsidiaries.

The purpose of this index is to provide a convenient source of information on the properties, uses and other data for Du Pont products, where it was found practical to include such material.

Descriptions of products are limited to the bare essentials. For more detailed information, contact main or branch offices of the departments, divisions or subsidiaries which market the products. The addresses of these offices are given in the white section at the introduction for each department, division and subsidiary.

This INDEX contains four sections which are:

1. **GREEN PAGES:** *A major portion of Du Pont trade-marks are listed in alphabetical order.* The page number after each refers to the page in the white section carrying the description of the product under the department or subsidiary by which it is marketed.

2. **BUFF PAGES:** *The names of all Du Pont products are listed in alphabetical order.* The page number after each product refers to the page in the white section carrying the description of the product under the department or subsidiary by which it is marketed.

3. **WHITE PAGES:** *Here descriptions of products are classified under their respective department, division or subsidiary.* Addresses of offices and plants appear at the introduction for each department, division and subsidiary.

4. **BLUE PAGES:** *Geographical section which shows locations of offices, plants and certain stock points.*

ADHESIVES

	DIVISION OR DEPARTMENT	PAGE NO.
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— "RH" 1085 Addition Agent (See "RH" 1032 and "RH" 1085 Addition Agent)	*Electrochem*	132
— Sulfamate Lead	*Electrochem*	132
— "Zin-O-Lyte" Addition Agent "O"	*Electrochem*	132
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— Du Pont Adhesives No. 77 and No. 78	*Grasselli*	167
— Ethyl Methacrylate (See Higher Ester Methacrylate Polymers)	*Ammonia*	124
— Higher Ester Methacrylate Polymers	*Ammonia*	124
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— Polyvinyl Acetate (See "Elvacet" Polyvinyl Acetates)	*Electrochem*	136
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"Adlux" Transparent Film Base (See "Velour Black" "Adlux" Transparent Film Base)	*Photo Prod*	200
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"A.G." Time Bomb	*Explosives*	142
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— — FFC	*Fine Chem*	185
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— Decyl (See Alcohol C-10	*Fine Chem*	185
and Decanol)	*Fine Chem*	186
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— Denatured (Specially)	*Petroleum*	191
— Dodecyl (See "Lorol" Fatty Alcohol)	*Ammonia* *Fine Chem*	125 186

	DIVISION OR DEPARTMENT	PAGE NO.
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— "Fabkote" Pyroxylin Coated Non-Woven Cellulosic Base Material	*Fabrics*	143
— "Fabrikoid" Pyroxylin Coated and Impregnated Fabrics	*Fabrics*	143
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NOTE: Vertical lines added to index to indicate pages describing Adhesives and Cements.

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Diisobutyl Adipate—$(CH_3)_2CHCH_2OOC(CH_2)_4COOCH_2CH(CH_3)_2$: Colorless, odorless liquid; B.P. 278° C.; weight per gal. 8.0 lbs. Use: As plasticizer for synthetic resins, finishes and fibers; especially applicable for low temperature plasticization of elastomers. Containers: 55 gal. drums.

Diisopropyl Carbinol (2,4-Dimethyl Pentanol—3)—$([CH_3]_2CH)_2CHOH$: Colorless liquid; B.P. 140° C.; M.P. below −70° C.; weight per gal. 6.9 lbs.; flash point 49° C. Use: As a solvent; organic intermediate; denaturant. Containers: 55 gal. drums.

Diisopropyl Ketone—Technical—$([CH_3]_2CH)_2CO$: Colorless, clear liquid; camphoraceous odor; boiling range 114–127° C. Use: As a solvent and softening agent for nitrocellulose plastics. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Dimethyl Ether (Methyl Ether)—CH_3OCH_3: Colorless, inflammable liquid. B.P. −24.5° C.; F.P. −138° C.; Sp. Gr. 0.661 at 20° C. Use: In refrigeration; as a solvent and extraction agent; as a propellant for sprays; as a reaction medium. Containers: 50 lb. pressure cylinders.

Dimethyl Formamide—$HCON(CH_3)_2$: Water-white liquid; B.P. 152.8° C.; Sp. Gr. 0.9535 (15.6°/15.6° C.). Use: As a solvent for synthetic resins and acetylene. Containers: 55 gal. drums.

Dimethyl Sulfate (Methyl Sulfate)—$(CH_3)_2SO_4$: Clear, poisonous liquid; M.P. −38.8° C.; B.P. 188.8° C.; Sp. Gr. 1.333 (15°/4° C.). Use: As a methylating agent in making intermediates, dyes, and synthetic drugs. Containers: 100- and 555-lb. steel drums.

Dimethylolurea (DMU) (See "Arboneeld" Dimethylolurea, Page 123).

Du Pont Antifoam B-25: Non-volatile liquid; boiling range 200–300°C. Use: For foam prevention in various processes, such as beet sugar processing; in the manufacture of paper pulp; for caustic soda concentration; in treatment of black liquor from sulfate pulp. Containers: 55 gal. drums.

Du Pont Frothing Oils—B-22, B-23, B-24, B-25: By proper blending of these oils, a froth of the required brittleness to effect the most efficient separation can be obtained. Use: Adapted to flotation work with straight gold ores or tailings from gold cyanide plants; used for complex separation, such as zinc-copper-lead, zinc-lead-silver. Containers: 55 gal. drums.

Ethanol Formamide—$HCONHCH_2CH_2OH$: Colorless, hygroscopic liquid; boiling range 135–145°C. at 0.5–1.0 mm.; 9.8 lbs. per gal. Use: As a plasticizer for resins, adhesives, printers rolls, coated paper and textile sizes. Containers: 55 gal. drums.

Ethylene Glycol—$C_2H_4(OH)_2$: Colorless, practically odorless liquid; very hygroscopic; B. P. 197°C.; Sp. Gr. 1.117 (15.6°/15.6°C.). Use: Explosive manufacture; automotive anti-freeze preparations; airplane coolant; general solvent and plasticizer. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Formamide—Technical—$HCONH_2$: Heavy, colorless, odorless, hygroscopic liquid; decomposes at B. P. (190°C.); F. P. +2.55°C. Use: Exceptionally good solvent; softener, particularly as substitute for glycerol and ethylene glycol; chemical intermediate. Containers: Tank cars; 55 gal. drums.

***"Freon" Refrigerants** (See Kinetic Chemicals, Inc. Page 195).

Glycolic Acid (See Hydroxyacetic Acid, below).

"Hexalin" Solvent (Cyclohexanol)—$C_6H_{11}OH$: Water-white liquid; F. P. + 23°C. (usually shipped with 2.5% methanol as antifreeze); boiling range (pure) 160.4–162.4°C. Use: As a solvent homogenizer and stabilizer in the paint and varnish, soap, dry cleaning and textile industries. Containers: 8,000- and 10,000 gal. tank cars; 55 gal. drums. (Also sold by Organic Chemicals Department—See Page 188).

Higher Alcohols—HTP—B-22, B-23, B-24, B-25, B-27, B-30, B-41: High-boiling branch chain synthetic aliphatic alcohols; boiling range 180–300°C. Use: As antifoam and flotation agents; as solvents and constituents of lubricants, fuels, metal cleaners, insecticides; intermediates and others. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Higher Ester Methacrylate Polymers—$(CH_2{-}C(CH_3)COOR)_x$: R is ethyl, n-butyl, isobutyl and n-butyl-isobutyl (50–50); clear, transparent, thermoplastic resins in granular form; densities from 1.02–1.11; softening temperatures from 30–70°C. Use: Coating compositions; adhesives; textile finishes; tougheners for waxes. Containers: Fiber drums (Also available in monomeric form).

Hydroxyacetic Acid—Technical Grade 70% ($HOCH_2COOH$): A light straw-colored liquid containing approximately 70% Hydroxyacetic Acid with traces of other organic acids. Uses: In leather dyeing and tanning; textile dyeing; manufacture of cleaning compounds; copper pickling; adhesives. Containers: 6,000- and 10,000-gal. tank cars; 500 lb. wooden bbls.

Isobutanol (Isobutyl Alcohol)—$(CH_3)_2CH.CH_2OH$: Water-white liquid; B. P. 107.9°C.; M. P. − 108°C.; Sp. Gr. 0.806. Use: In the manufacture of intermediates, organic solvents, synthetic dyes, fruit essences, perfumes, paint removers, lacquers and others. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Isobutyl Acetate (88–92% in Isobutanol): Colorless liquid; fruity odor; boiling range 100 – 130°C.; Sp. Gr. 0.862 (25/25°C.); soluble in alcohols, ether and hydrocarbons. Use: Nitrocellulose solvent for varnishes and lacquers. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Isobutylamine, Mono—$(CH_3)_2CH.CH_2NH_2$: Colorless liquid; ammoniacal odor; strongly caustic; B. P. (pure) 68.0°C.; M.P. −85.5°C.; Sp. Gr. at 15.6°C. is 0.739; flash point 15°F.; soluble in water, alcohol, ether and hydrocarbons. Use: Manufacture of insecticides; and organic intermediate. Containers: 55 gal. drums.

Note: Vertical lines drawn to set off descriptions of Adhesives and Cements

Isobutyl Hydroxyacetate (Isobutyl Glycolate)—$HOCH_2COOCH_2CH(CH_3)_2$: Colorless liquid; B. P. 172°C.; Sp. Gr. 1.020 (60°/60°F.). Use: As a general solvent in lacquers and printing inks. Containers: 55 gal. drums.

Isobutyl Propionate (83–87% in Isobutanol): Water-white liquid with pleasant, non-residual odor; boiling range 115 – 139°C.; Sp. Gr. 0.853 (25/25°C.). Use: As a varnish, paint and lacquer solvent. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Isobutyraldehyde—$(CH_3)_2CH.CHO$: B. P. 64.5°C.; F. P. −65.9°C.; Sp. Gr. 0.794 (15.6°/15.6°C.). Use: As an intermediate; in the manufacture of rubber accelerators, synthetic resins; in the synthesis of acetals. Containers: 55 gal. drums.

Isobutyric Acid—$(CH_3)_2CH.COOH$: Colorless liquid; B. P. 154.4°C.; F. P. −47°C.; Sp. Gr. 0.946–0.951 (20°/20°C.). Use: In the manufacture of plasticizers and solvents, flavors and perfume bases; as a disinfecting agent. Containers: Special steel and aluminum 55 gal. drums.

"Lorol" Fatty Alcohol: A mixture of straight chain (normal), even-numbered carbon atom alcohols with lauryl alcohol predominating; Sp. Gr. 0.833–0.835 (25/25°C.). Use: As an intermediate in the manufacture of detergents, plasticizers, insecticides and perfume esters. Containers: 10,000 gal. tank cars; 55 gal. drums. (Sold by Organic Chemicals Department—See Page 186).

Methacrylic Acid, Crude Monomer—$CH_2{:}C(CH_3)COOH$: Dark, opaque, thick liquid of about 85% purity. Use: In plastics manufacture. Containers: 55 gal. drums.

Methanol—CH_3OH: Colorless, inflammable liquid; B. P. 64.5°C.; M. P. −97.8°C.; Sp. Gr. 0.7912. Use: As an ingredient of automotive and other anti-freezes; in the manufacture of formaldehyde; as a methylating agent in manufacturing many methyl compounds (dimethyl phthalate, dimethyl sulfate, methyl chloride and others); as a constituent of many solvents for varied purposes. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Methoxymethoxyethanol (MME) — $CH_3OCH_2OCH_2CH_2OH$: Water-white liquid; boiling range 160 – 165°C.; Sp. Gr. 1.038 (25°/25°C.). Use: General solvent; preparation of esters for use as solvents and resin plasticizers. Containers: 55 gal. drums.

***Methyl Chloride:** (See Electrochemicals Department, Page 129).

Methyl Formate—Technical (97%)—$HCOOCH_3$: Water-white, volatile liquid; B. P. 31.8°C. Use: As a fumigant and solvent; in production of formates and organic chemicals. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Methyl Glutarate—$(CH_2)_3(COOCH_3)_2$: Water-white liquid; B. P. 130°C. at 50 mm.; density 1.09. Use: Chemical intermediate; solvent; plasticizer synthesis. Containers: 55 gal. drums; tank cars.

Methyl Hydroxyacetate (Methyl Glycolate)—CH_3OOCCH_2OH: Colorless liquid; B. P. 151°C.; Sp. Gr. 1.20 (60°/60°F.). Use: As a general solvent for synthetic resins. Containers: 55 gal. drums.

Methyl Methacrylate Polymer—$(CH_2{=}C(CH_3)COOCH_3)_x$: Colorless, light stable, high softening thermoplastic resin in granular form; density 1.2; tensile strength—8,000 p.s.i. Use: Adhesive; coating composition ingredient; textile finishes and sizes. Containers: Fiber drums. (Also available in monomeric form).

"Mycoban" Calcium Propionate: Trade mark for Calcium Propionate used in food industry. (See Calcium Propionate, Page 123).

"Mycoban" Sodium Propionate: Trade mark for Sodium Propionate used in food industry. (See Sodium Propionate, this page).

"Opalwax" Synthetic Wax: A high-melting product (86–88°C.) which has unusual properties of grease resistance and penetration: extremely insoluble. Use: For manufacturing candles, shoe polish and carbon paper; for impregnating paper, wood, cloth, etc.; for electrical condenser impregnation. Containers: 100 lb. bags.

"Orel" Rubber Lubricant: Designed for application to rubber parts and metal-to-metal chassis contacts on automobiles, buses and trucks. Effective as a penetrant. Containers: 1 gal. cans (three cans to a case); 5 gal. cans.

Polythene (Polymerized Ethylene): Thermoplastic material characterized by elasticity, flexibility and toughness over a wide temperature range; has excellent electrical properties and very low specific gravity; inert to water and most chemicals. Use: Waterproofing and chemical resistant protective coatings; wrapping film as well as molding, extrusion, etc. Containers: 100 lb. fiber drums.

Propanol (Normal Propyl Alcohol)—$CH_3.CH_2.CH_2OH$: Colorless liquid; vinous odor; B. P. 97.3°C.; M. P. −127°C.; Sp. Gr. 0.804. Use: In the manufacture of intermediates, organic chemicals, lacquers, cosmetics, etc.; as a solvent for dopes, resins, waxes and others. Containers: 8,000- and 10,000-gal. tank cars; 55 gal. drums.

Propionaldehyde (95%)—$CH_3.CH_2.CHO$: Liquid; B.P. (pure) 48.8°C.; Sp. Gr. 0.8066. Use: In the manufacture of rubber accelerators and synthetic resins; as a disinfectant and a preservative. Containers: 55 gal. drums.

Propionic Acid—$CH_3.CH_2.COOH$: B. P. 141.4°C.; Sp. Gr. 0.992 (20°/4°C.); F. P. −20.8°C.; Use: As an esterifying agent; in production of cellulose and other propionates; in the manufacture of ester solvents, fruit flavors and perfume bases. Containers: Special containers (special steel and aluminum 55 gal. drums and tank cars).

Sodium Propionate—CH_3CH_2COONa: White powder. Use: Inhibitor of mold and other microorganisms in foods, tobacco, pharmaceuticals and other products. Containers: 25-, 75- and 225-lb. fiber drums.

VINYLS DIVISION

"Elvacet" Polyvinyl Acetates: Colorless, synthetic resins available in solid (bead), solution and emulsion forms. They are thermoplastic, stable, soluble in a number of organic solvents, compatible with many synthetic resins and plasticizers, and adhere well to materials such as paper, cloth, leather, cork, wood, glass, metal and plastics. USE: Principally as an adhesive in solution, emulsion or hot melt form; also as protective coatings, paper coatings, textile and leather finishes. CONTAINERS: BEADS—100 lb. paper bags. EMULSION and SOLUTION—wooden kegs; bbls.

"Elvanol" Polyvinyl Alcohols: Synthetic resins marketed as white powders, most grades of which are water-soluble. Films cast from water solutions are tough, resistant to most organic solvents and impervious to many gases including air. USE: Adhesives; textile sizes and finishes; emulsifying agents; paper sizes and coatings; molded rubberlike products; transparent films and coatings; photosensitive coatings; stencil screens; ceramic binders. CONTAINERS: 125- and 150-lb. fiber drums.

WEST COAST DIVISION

Inquiries originating on the West Coast for all Electrochemicals Department products will be handled by this division.

"Dactin" Dichlorodimethyl Hydantoin (See Page 129).

"Hydro-Cy" Hydrocyanic Acid: A colorless, volatile liquid containing not less than 96% hydrocyanic acid; inflammable; very poisonous; Sp. Gr. approximately 0.700 at 20°C.; B. P. 26.0°C. USE: In the fumigation of citrus trees. CONTAINERS: 80 lb. drums, shipped only in Du Pont trucks within trucking distance of factory.

Potassium Cyanide (See Potassium Cyanide 96% and Potassium Cyanide Special, Page 134).

SYNTHETIC RESIN COATED AND IMPREGNATED MATERIALS

P. C. "Fabrikoid" Synthetic Resin Coated Fabrics: Heavy weight grades of special purpose, plastic coated fabrics made by spreader process. The fabrics are processed with synthetic resin for end use applications which require greater resistance to flame, heat, cold, flexing and outdoor exposure than that found in regular standard "Fabrikoid". Available in special fire resistant grades. The following list shows how P. C. "Fabrikoid" is used by other manufacturers:

Automotive: For upholstery and trim, bindings and welts and winter fronts.

Baby Carriages: For upholstery and tops.
Belts
Bookbinding: For loose leaf binders.
Furniture Upholstery
Handbags and Pocketbooks
Luggage

"Fabrilite" Synthetic Resin Coated Fabrics: Light weight grades of special purpose, plastic coated fabrics. The fabrics are processed with synthetic resin. A line of special "Fabrilite" cements are available for fabricating the following list of items made from "Fabrilite" coated fabrics by other manufacturers:

Aprons
Bowl Covers
Card Table Covers
Food Bags
Garment Bags
Garment Linings
Heat Sealable Containers
Household Accessories
Ironing Board Pads
Raincoats
Shower Curtains

Tablecloths: A synthetic resin coated fabric for washable, waterproof tablecloths and shelf covering.

CEMENTS

"Fabrilite" Cements: Made from synthetic resin compositions for fabricating raincoats and other items of merchandise made from "Fabrilite" synthetic resin plastic coated fabrics.

"Fairprene" Industrial Cements: These cements are made from synthetic rubber compounds for adhering various combinations of cured and uncured "Fairprene" sheet stock (without fabric insert), cured and uncured "Fairprene" coated fabrics, cured and uncured rubber, leather, fabrics, paper, metal, wood, glass and porcelain.

CHEMICALLY TREATED FABRICS

Brattice Cloth: An air deflecting, fire resistant product developed to withstand varying atmospheric and service conditions encountered in mines.

CHEMICALLY TREATED RUBBER

"Isolac" Chemically Treated Rubber: A composition of chemically treated rubber for use in compounding rubber soles and heels for shoes.

RUBBER COATED, SYNTHETIC RUBBER COATED, AND SYNTHETIC RESIN COATED MATERIALS

"Cavalite" Rubber Coated Fabrics: A light weight, rubber coated fabric for raincoat and hospital sheeting use.

P. C. "Cavalon" Synthetic Resin Coated Fabrics: A line of heavy weight grades of plastic coated fabrics made by the calendered process. The fabric is processed with synthetic resin and designed for heavy duty upholstery on indoor or outdoor institutional furniture and public seating, and for automobiles, tractors, airplanes, railroads, busses and ships. Manufactured in a wide range of bright colors, embossed effects and finishes. Resistant to flexing, heat and cold. Available in special fire resistant grades.

S. R. "Cavalon" Neoprene Coated Fabrics: A line of coated fabrics designed for high grade, heavy duty upholstery use where maximum resistance to wear and abrasion is desired. Made with neoprene, du Pont's chloroprene. S. R. "Cavalon" has outstanding resistance to vegetable and mineral oils, oxidation in sunlight and perspiration. Manufactured in a wide range of colors, embossed effects and finishes. Recommended for all purpose heavy duty seating, in theatres, trucks, busses, automobiles, hotels, restaurants and institutions. Available in special fire resistant grades.

"Cavaltex" Rubber Coated Fabrics: A high grade line of rubber coated fabrics for raincoat and rough wear garment use. Manufactured in colors, finishes and embossed effects reproducing horse hide leather.

"Everbright Decking" Rubber Coated Fabrics: A line of rubber coated fabrics for deck coverings on station wagons, trucks and busses.

"Fabrilite" Synthetic Resin Coated Fabrics: A line of light weight grades of special purpose, synthetic resin plastic coated fabrics made by the calendered process for the raincoat and garment trade. A special line of "Fabrilite" cements are available for fabricating these items.

"Fairprene" Synthetic Rubber Coated Fabrics: A line of special purpose, synthetic rubber coated fabrics designed for industrial applications in the automotive, aviation, chemical, petroleum and marine construction fields. "Fairprene" coated fabrics have unique oil, chemical, heat, cold, flame, abrasion, flexing and sunlight resistance for dia-

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FINISHES DIVISION

AUTOMOTIVE FINISHES

GENERAL OFFICE: Du Pont Building, Wilmington 98, Delaware

AUTO MANUFACTURERS' SALES OFFICES:

Detroit 2, Michigan, 5-238 General Motors Building
Los Angeles 3, California, 5801 South Broadway
San Francisco 6, California, 235 Second Street

"DUCO" COLOR ADVISORY SERVICE:

Detroit 2, Michigan, 5-238 General Motors Building

PLANTS:

Chicago 14, Illinois, 2100 Elston Avenue
Flint, Michigan
Fort Madison, Iowa
Parlin, New Jersey
Philadelphia 46, Pennsylvania, 3500 Gray's Ferry Road
South San Francisco, California, Post Office Box 608
Toledo 12, Ohio, 1930 Tremainsville Road

PRODUCTS

Cement, Automotive Gasket: Prepared in heavy varnish or pigmented paste form; applicable by brush. USE: A sealing cement for gaskets on automotive motors. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Compounds:

"Duco" Polishing or Rubbing Compound: A polishing material in paste form designed for machine application or hand rubbing. USE: For final polishing of "Duco" enamels to smooth surface and to bring up full gloss. CONTAINERS: 1- and 5-gal. cans.

Shielding Compound: A pigmented semi-paste, having non-drying vehicle. USE: Masking parts of surface while another color is being applied. Used with "Duco" finishes only. CONTAINERS: 1- and 5-gal. cans.

Enamels:

Chassis Black: An air-dry, black, pigmented enamel; applicable by brush or spray with an oil, asphalt, pyroxylin or synthetic type base. USE: On automobile chassis for protection and decoration. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums; tank wagons; tank cars.

"Dulux" Enamels: Baking and air-dry, clear and pigmented enamels based on a synthetic type vehicle; applicable by spray. USE: Finishing of steel and wooden automobile bodies, sheet metal parts, wheels and lamps. CONTAINERS: Pt., qt., ½-, 1- and 5-gal. cans; 50 gal. drums.

Engenamel (See Industrial Finishes, Page 152).

Fender: A black oil or synthetic resin modified asphaltum type enamel applied by dipping and baked at high temperature. USE: Fender and miscellaneous parts finish applied over Rubber First Coat. CONTAINERS: 5 gal. cans; 50 gal. drums; tank wagons; tank cars.

Gas-Tank: A pigmented, black enamel based on an oil type vehicle; applicable by spray or flow coating; air-dried or force-dried at temperatures up to 250°F. USE: Exterior finish of terne plate automobile gasoline tanks. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Motor: Air-dry, pigmented, colored enamels; applicable by spray; available in an oil, synthetic or pyroxylin type base. USE: On automobile motors CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Pyralux" Lacquers, Automotive: Air-dry, pigmented, colored finishes having pyroxylin synthetic resin vehicle. USE: On miscellaneous automobile parts as a finish directly over metal or special undercoats. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Radiator Core: An air-dry, black, highly pigmented enamel having high-hiding finish; applicable by spraying or dipping. USE: Finishing automobile radiator cores. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Rubber First Coat: A baking, black, pigmented enamel of the oil-modified, asphaltum type; applicable by dipping. USE: On automobile fenders and miscellaneous sheet metal parts to give satisfactory adhesion between metal and enamel. CONTAINERS: 5 gal. cans; 50 gal. drums; tank wagons; tank cars.

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FINISHES DIVISION: Industrial Finishes

Aluminum Mixing Varnishes: Varnishes to be mixed with aluminum powder or paste for use on wood or metal. CONTAINERS: 1- and 5-gal cans; drums.

Aluminum Paints: Ready mixed and ready-to-mix aluminum paints for use on exterior and interior metal and wood surfaces. CONTAINERS: 1- and 5-gal. cans.

Aluminum Powder and Paste: Various grades for use in varnishes and bronzing liquids. CONTAINERS: ½-, 1-, 2- and 10-lb. cans; 50- and 100-lb. drums.

"Antoxide" Paint: A high grade, metal-protective, rust-inhibitive line of paints. CONTAINERS: 1- and 5-gal. cans.

Asphaltums, Air Drying Types: Black enamels for application to metal. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Baking Japans, Black Gloss: A baking type finish generally used over a Rubber Black First Coat; applied by dipping or spraying. CONTAINERS: 5 gal. cans; drums.

Bronze Powders: In various color shades and various grades of particle size. Applied to surfaces for decorative purposes usually by means of a liquid vehicle. Made by reduction of alloys of copper and zinc to the form of flake-like powder. CONTAINERS: 1-, 5-, 10-, 25-, 50- and 100-lb. cans.

Bronzing Liquids: Of various types including pyroxylin base, oil base and synthetic resin base; used as vehicles for the application of aluminum powder, aluminum paste and bronze powder. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Cable Lacquers: A complete line of lacquers used on various types of fabric covered electric wires and cables in order to increase electrical insulation and to provide protection from effects of oil and grease. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Cements:

Belt Cements: Pyroxylin base cements used in the manufacture of leather belts requiring resistance to the effects of moisture. CONTAINERS: 5 gal. cans; 50 gal. drums.

"Duco" Household Cement (Waterproof Cement): A pyroxylin base cement having a wide utility in the repair of articles made of wood, glass, ivory, leather, pearl or cloth. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Pyralin" Pyroxylin Cements: Pyroxylin base cements for use in cementing "Pyraheel" and other plastic facings to wooden heels by manufacturers of women's shoes. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Thermoplastic Cements: Used for cementing or laminating various surfaces, such as metal foils, cloth, glass and sheets of metal that require the application of heat and pressure. These cements are applied to the surfaces and after thoroughly drying are ready for the necessary heat and pressure treatment required. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Thermosetting Cements: Used for cementing or laminating various surfaces, such as plywood, glass, sheets of metal, etc. These cements are applied to the bondable surfaces and after thorough drying are ready for the required heat and pressure which creates a bond not affected by subsequent application of heat. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Special Cements: A wide range of adhesives for an extended field of specialized uses pertaining to the problems of bonding various substances, and involving many modifications of various application and curing methods. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Clear Lacquers: Gloss and flat lacquers for natural wood finishing. USE: For furniture finishing. CONTAINERS: Pt., qt., 1- and 5-gal. cans.

Collodion: Pyroxylin solutions in ether-alcohol solvents. USE: For production of products such as liquid corn plaster, corn cures and waterproof bandages. Stripping types are supplied for use by photoengravers. CONTAINERS: 5 gal. cans; 50 gal. drums.

Colors in Oil: Paste products used to produce special tints in paints, enamels and undercoats; full line of colors. CONTAINERS: ½ pt., qt. and gal. cans.

Dibutyl Phthalate—$C_{16}H_{22}O_4$: Colorless liquid somewhat oily in character used as a plasticizer in nitrocellulose lacquers. CONTAINERS: 5 gal. cans; 50 gal. drums.

Dopes (See Airplane Dopes and Leather Solutions, Pages 150 and 152).

Drawer Coaters: Waxy gum solutions used as finishes for the inside of wooden furniture drawers. CONTAINERS: 5 gal. cans; 50 gal. drums.

Driers: Compounds used to accelerate the oxidation of a finish which contains drying oils. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Duco" Furniture Lacquer: Used for finishing wood furniture. CONTAINERS: 5 gal. cans; 50 gal. drums.

"Duco" Furniture Sealers: Similar in composition to clear and flat "Duco" lacquers for finishing of wood furniture. Used on wood furniture as a preliminary coat which is sanded and then followed by a clear or flat "Duco" lacquer topcoat.

"Duco" Pigmented Enamel Finishes: Pyroxylin base enamels furnished in a wide range of colors and types for satisfying the finishing requirements of numerous industries. Applied directly to a surface or over undercoats, depending on the finish needed. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"No. 7" CHEMICAL SPECIALTIES

GENERAL OFFICE: Du Pont Building, Wilmington 98, Delaware

BRANCH OFFICE: San Francisco 6, California, 235 Second Street

PLANTS:

Flint, Michigan Parlin, New Jersey Toledo, Ohio

PRODUCTS

*Indicates Resale Products

"Dissolvo" Grease Solvent: A concentrated grease solvent. Mix with kerosene or light fuel oil for cleaning garage floors, grease pits, motors, tools, etc. Containers: 1- and 5-gal. drums.

***Dry-Clean Fabric Cleaner:** A non-flammable cleaning fluid, leaves no odor and does not shrink fabrics; recommended for all color-fast garments, gloves, draperies, upholstery and fine fabrics; removes grease, wax, fresh paint, gum, adhesive tape and road tar. Containers: 8-oz. and gal.

"Duco" Cleaner: A liquid cleaner-polish for all auto finishes. Removes dullness, traffic film and old wax from the finish. Especially recommended for use before applying wax. Containers: Pt. and gal. cans.

"Duco" Household Cement: A transparent, waterproof adhesive used in the manufacture or repair of articles made of wood, glass, china, metal, ivory, leather, paper or fabrics. Containers: 1¾ fl. oz. tubes (twelve to display carton).

"Duco" Wax: An easy polishing paste wax for autos and furniture. Produces a brilliant, durable luster and protects the finish from moisture and harmful ultra-violet rays of the sun. Containers: 7 oz.; 1 lb.

Du Pont Acid and Rust Inhibitor: For reconditioning old ethylene glycol anti-freeze. Neutralizes acid and prevents rust. Can also be used as a summer anti-rust in plain water. Containers: 5 oz.

Du Pont Anti-Rust: A powdered rust inhibitor which keeps auto cooling systems free from rust, helping to maintain engine efficiency. Containers: 2 oz.

Du Pont Bug Remover: An efficient cleaning powder for removing bug residue from fenders, windshields, frames, etc. Containers: 6 oz.

Du Pont Car Wash: A soapless chemical which, when dissolved in water, makes car washing easy. Removes dirt and grease quickly and safely. Makes drying unnecessary. Easy on the hands and car finish. Containers: 6 lbs.

Du Pont Cellulose Sponge: (See Page 211).

Du Pont Cooling System Cleanser: A powerful, acid type cleanser which cleans badly clogged radiators by actually dissolving rust, scale and grease without injury to hose packings or metal parts. Does not require reverse flushing. Containers: 1 lb.

Du Pont Cooling System Sealer: Stops leaks in automotive radiators and cooling systems quickly, without clogging the passages. Harmless to hose and metal parts. Containers: 10 oz. cans.

Du Pont Flint Wax: A soft paste wax that can be applied to the entire car and polished afterward at leisure. Does not "set-up" quickly and stick to the surface. Polishes easily to brilliant, durable luster. Protects car from dirt, moisture and sun. Containers: Qt.

Du Pont Motor-Mend: For repairing cracked cylinders, engine blocks and water jackets in cars, trucks, busses and tractors. Will not harm hose or metal parts or clog the system. Also recommended as a heavy-duty stop-leak. Containers: Pt. cans.

Du Pont Paste Cleaner: A paste cleaner for use on autos which are badly weathered and heavily coated with traffic film. Removes chalked pigment, stains, old wax and film without scratching or injuring the finish. Containers: 11 oz.

Du Pont Refrigerator Polish: Liquid, wax polish for enameled or lacquered refrigerators, ranges, kitchen cabinets, washing machines, mangles, etc. Suitable also for chromium fittings. Containers: 8 oz.

Du Pont Speedy Wax: A quick working liquid polish which cleans the finish and gives it a wax polish in one operation. Especially suited for new cars and finishes in good condition, but may be used on old finishes from which the chalked pigment has been cleaned. Containers: Pt. and gal.

Du Pont Tar Remover: A safe solvent for removing tar, road oil and gummy substances from automobile finishes. Containers: Pt. and gal.

Du Pont Tire Black: A black dressing for brightening automobile tires, rubber mats and running boards. Containers: Gal.

Du Pont Top and Windshield Sealer: A black, waterproof compound for sealing cracks at auto top mouldings, windshield frames, rear windows, trunk joints, etc. Also suitable for patching holes in the top fabric. Containers: 3 oz. tubes.

INDUSTRIAL CHEMICALS

Du Pont Adhesives No. 77 and No. 78: Vinyl resin base white powders; soluble in water at elevated temperatures and with proper agitation. Use: As an adhesive for laminated paperboard. The bond made between flat surfaces of paperboard withstands long exposure to water without ply separation. Containers: 50 lb. paper bags.

Du Pont Industrial Fungicides—IN-2555 Fungicide, IN-5499 Fungicide, IN-793 Fungicide: Various fungicidal compositions in solvent, emulsion, or dry form, based on water insoluble active ingredients. Use: As bactericides and fungicides for the preservation of paper, textiles, wood, oils, adhesives and paints; for prevention of rancidity in certain non-edible vegetable oils; to prevent mildew in fibers and cloth; to prevent the infection of wood by decay fungi. Containers: 33-, 350- and 425-lb. drums.

Du Pont Soil Compound NC (See Soil Compound NC, Page 176).

Du Pont Spreader Sticker (See Page 179).

Engraver's Acid (See Nitric Acid—Technical and Engraver's Grade, Page 171).

***Ferric Chloride—Hydrated—Photoengraving, Industrial, Water and Sewage Treatment Grades (Iron Chloride, Iron Perchloride)—$FeCl_3 \cdot 6H_2O$:** Reddish-brown crystals or crystalline mass; very deliquescent; soluble in water, alcohol, glycerin; M.P. 36° C. Use: In treatment of sewage; as an oxidizing agent, and etchant; in photoengraving and rotogravure work; as a mordant for dyes; in the manufacture of iron salts, dyes and intermediates, dry colors; in the pickling of iron and steel; as a coloring agent in ceramics and glass; for chlorinating silver and copper ores. Containers: Bbls. (300- and 500-lbs., net); drums (100 lbs., net).

***Ferric Chloride Solution—Photoengraving, Water and Sewage Treatment Grades (Iron Chloride, Iron Perchloride)—37 to 47% $FeCl_3$ In Water Solution:** Reddish-brown corrosive liquid; miscible with water and alcohol; slightly soluble in ether; free of excess muriatic acid. Use: As an etchant in photoengraving and rotogravure work; in metallography; as an oxidizing medium; as a dyestuff mordant; in water and sewage treatment. Containers: Tank cars; carboys (140- to 150-lbs., net).

***Ferrous Sulfate (Copperas, Green Vitriol, Iron Sulfate)—$FeSO_4 \cdot 7H_2O$:** Bluish-green crystals, granular or powdered material; soluble in water; insoluble in alcohol; Sp. Gr. 1.898; M.P. 64° C. Use: In the manufacture of iron salts, pigments, dry colors, indigo dyestuffs; in boiler compounds for removal of silica; as a mordant in dyeing and printing textiles; for purification processes in municipal gas, sewage, and water plants; in process engraving and lithography; in tanning; in iron electroplating processes; in the manufacture of stock powders. Containers: Bulk; bbls. (350 lbs., net); 100- and 200-lb. bags.

Fire Retardants CM, T, 3-WG: Fine, white, granular compositions based on inorganic salts and selected addition agents; soluble in water; insoluble in the common dry cleaning solvents. Use: In the fire-retardant treatment of fabrics, paper, paper products, and other cellulosic materials. Designed to give a maximum degree of fire-retardant protection with a minimum effect on the original physical characteristics of the treated material. Containers: 300- and 350-lb. bbls.; 50- and 100-lb. drums.

***Fluorspar—(Calcium Fluoride)—CaF_2:** A white powder containing 97.39% calcium fluoride; insoluble in water; soluble in concentrated acids; M.P. approximately 1650° F. Use: In the manufacture of hydrofluoric acid and fluorine compounds, cements, ceramics, stone and enameled ware; as a metallurgical flux; as an abrasive; in wood preservation; in glass etching compositions. Containers: Bags (221 lbs., net).

Flux, Galvanizing (See Zinc Ammonium Chloride, Page 177, and Ammonium Chlorides, Page 163).

Flux, Soldering—Crystal "Eureka"—Zinc Chloride + Ammonium Chloride: White crystalline powder; soluble in water. Use: As a flux in soft soldering operations and preparation of liquid soldering fluxes. Containers: 700 lb. drums; 10- and 50-lb. pails.

Flux, Soldering—"Kleanrol" Soldering Flux—Zinc Chloride + Ammonium Chloride: White, crystalline powder. Use: As a solder blanket flux in automatic soldering of sideseams in the manufacture of tinned containers. Containers: 600 lb. drums; 10- and 50-lb. pails.

Fluxes, Soldering Liquid—Triple "Eureka" and "Eureka": Clear, colorless water solutions, based on zinc chloride and containing other ingredients. Various gravities and compositions. Use: General soft soldering and solder and lead-coating fluxes for use in the automotive, can, refrigeration, wire and other industries. Containers: 125- to 158-lb. carboys; 610- to 700-lb. drums.

Fluxes, Tinning—Standard and "High Speed": Clear, colorless water solution of zinc chloride and ammonium chloride; Sp. Gr. 1.526; F.P. below −50° F. Use: As fluxing solutions in the manufacture of tin plate, terne plate, tin strips, dairy equipment, refrigerator trays, automobile radiators, wire goods, etc. Containers: 158- to 175-lb. carboys; 678- to 745-lb. drums.

Fly Spray Base IN-930 (Isobutyl Undecylenamide): Yellow to yellowish-brown crystalline material, or straw-colored liquid; insoluble in water; soluble in ether, acetone, alcohol, carbon tetrachloride, toluene, and kerosene; M.P. approximately 25° C.; Sp. Gr. approximately 0.87. Use: With pyrethrum in the manufacture of insecticides to increase their insecticidal efficiency. Replaces a substantial portion of pyrethrins previously required for an active base. Containers: 55 gal. drums (380 lbs., net).

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insoluble in alcohol and ether. USE: In the manufacture of boiler and water-softening compounds, fertilizers, evaporated milk and other phosphates; as an emulsifier in the manufacture of processed cheese; as a phosphorous supplement in mineral animal feeds; in the preparation of casein paper coatings, fireproofing compositions; as a discharge in pottery and porcelain glazes. CONTAINERS: 100 lb. paper bags; 303- to 350-lb. bbls.

Sodium Phosphate—Monobasic—Crystal (Monosodium Orthophosphate, Sodium Acid Phosphate, Sodium Biphosphate)—$NaH_2PO_4.H_2O$ (Monohydrate): Colorless, translucent crystals. ANHYDROUS—NaH_2PO_4: White, amorphous powder. Both compounds soluble in water; insoluble in alcohol. Aqueous solutions possess an acid reaction. USE: As a water softener for treatment of boiler feed waters; as an ingredient of baking powders; as a cattle food supplement. CONTAINERS: 100 lb. paper bags.

Sodium Phosphate—Tribasic (Trisodium Orthophosphate, Tertiary or Trisodium Phosphate)—$Na_3PO_4.12H_2O$ (Dodecahydrate): Colorless crystals, small spheroidal pellets or thin flakes; soluble in water; M.P. approximately 73° C.; aqueous solution alkaline in reaction. MONOHYDRATE—$Na_3PO_4.H_2O$: White, amorphous powder or granular material; soluble in water. USE: As a water softener; in the manufacture of phosphates, soaps, detergents, paint cleaners, boiler compounds, scouring powders, household cleaners; as an alkali builder for laundries; for cleaning textiles, glass, metals, dairy and food-processing equipment; for neutralizing acid residues on pickled steel; in degumming and scouring textiles, and washing wool. CONTAINERS: 100 lb. paper bags; 200- to 325-lb. bbls.

Sodium Polysulfide Solution—Na_2S_x: In aqueous solution, containing the equivalent of approximately 18.5% Na_2S and 22.9% polysulfide S. USE: In the manufacture of sulfur colors and dyes, pharmaceuticals, insecticides; in the production of rubber substitutes, and petroleum additives; in soaking of hides. CONTAINERS: Drums.

Sodium Pyrophosphate (Tetrasodium Pyrophosphate)—$Na_4P_2O_7$: White, granular, powdered or amorphous material; soluble in water; insoluble in alcohol; aqueous solution possesses an alkaline reaction, water-softening and a dispersing action on hard-water soaps, clay and other inerts. USE: In the manufacture of iron and other pyrophosphates; as a water softener, soap builder, and as an ingredient in detergents for cleaning fabrics, glass, metals, etc.; in electroplating solutions; as an agent for neutralizing freshly pickled steel; in thinning clay slips for paper coating, de-inking magazine paper stock for reuse; as an assistant in boiling off and bleaching cotton and rayon; in wool scouring; as a general dispersing agent. CONTAINERS: 100 lb. paper bags; 325 lb. bbls.

Sodium Silicate—Anhydrous—Glass and Powder: Na_2O: 3.25 SiO_2 and Na_2O: 2.0 SiO_2; clear, colorless to slightly greenish, glassy lumps or white powder; soluble in water at elevated temperatures and pressures. USE: In the manufacture of sodium silicate solutions; as a metallurgical flux; in enamel frits; in coated welding rods and cement. CONTAINERS: GLASS—Bulk; 400 lb. bbls.; 400 lb. drums; 100- and 200-lb. bags. POWDER—450- and 500-lb. drums.

Sodium Silicate Solution (Liquid Silicate of Soda, Water Glass): Clear or slightly cloudy liquids of various SiO_2:Na_2O ratios; Sp. Gr. from 34°-50° Bé. USE: In the manufacture of soap, silica gel, artificial zeolites, magnesium and calcium silicates, refractory and acidproof cements, cement-asbestos products, welding rod coatings, detergents, abrasive wheels, veneer products, paint and varnish removers, boiler compounds; as a binder in welding rod coatings; as an adhesive in manufacture of solid fiber and corrugated paper board; in production of synthetic clay catalysts for petroleum cracking; for sizing wood and fabrics; as a stabilizer in peroxide bleaching of cotton and rayons; for silk weighting; as a resist in dyeing and printing fabrics; in metallurgy as hot-top collars for pouring molten metals and for sealing porous casting; as an inorganic carrier in fire-resistant and corrosion-proof paints. CONTAINERS: Tank cars; 600- to 750-lb. drums; 1- and 5-gal. containers.

Sodium Silicofluoride (Sodium Fluosilicate)—Na_2SiF_6: White, granular powder; moderately soluble in water; insoluble in alcohol; aqueous solutions possess an acid reaction. USE: As an opacifier in the manufacture of glass and enamels; as a flux in vitreous enamels, and in remelting secondary aluminum; in the manufacture of laundry sours, artificial marble and acidproof cement; in the electrodeposition of tin and lead; in insecticides and rodent poisons. CONTAINERS: 425- to 450-lb. bbls.; 100-lb. fiber drums.

***Sodium Sulfate—Anhydrous (Glauber's Salt, Anhydrous; Super Sulfate of Soda)—Na_2SO_4:** White crystals; soluble in water; M.P. 884° C. USE: In the manufacture of glass; for standardizing dyestuffs and dyeing textiles; for boiler feed water treatment. CONTAINERS: 500 lb. bbls.; 150 lb. bags.

Sodium Sulfate—Decahydrate (See Glauber's Salt, Page 168).

Sodium Sulfate—Technical (See Salt Cake, Page 172).

Sodium Sulfide—Crystal (Sodium Sulfuret)—$Na_2S.9H_2O$: Deliquescent, yellow to brown crystals; soluble in water; slightly soluble in alcohol; decomposed by acids. CONCENTRATED—60% Na_2S: Deliquescent, yellow to brown solid or thick flakes. Aqueous solution strongly alkaline in reaction. USE: In the manufacture of intermediates, sulfur dyes, paper pulp, special soaps, insecticides, sheep dips; as a depilatory in tanning; in textile dyeing and printing; denitrating rayon; the beneficiation of

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ANODES

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refrigerant in centrifugal compressors; as refrigeration brine; as a solvent for animal and vegetable oil extraction; for dewaxing of lubricating oils; and for synthetic fibers such as cellulose acetate. Containers: 55 gal. drums; 5 gal. cans; tank cars.

Parting Liquid No. 168: A colorless, non-flammable liquid; B.P. 160.5°C. = 320.9°F.; Sp. Gr. 1.681. Vapors relatively toxic. Use: For coal beneficiation. Containers: 55 gal. drums; 5 gal. cans.

Pentachlorethane, C_2HCl_5: A colorless, non-flammable liquid; B.P. 160.5°C. = 320.9°F.; Sp. Gr. 1.681. Vapors relatively toxic. Use: In chemical synthesis and as a solvent. Containers: 55 gal. drums; 5 gal. cans; tank cars.

Tetrachlorethane (Acetylene Tetrachloride, 1,1,2,2-Tetrachloroethane)—$C_2H_2Cl_4$: A colorless, non-flammable liquid chlorinated hydrocarbon, unstable in the presence of moisture; vapors relatively toxic; B.P. 146.3°C. = 295.3°F.; Sp. Gr. 1.596. Use: As a solvent in special preparations; as a weed killer; in chemical synthesis. Containers: 55 gal. drums; 5 gal. cans; tank cars.

ELECTROPLATING DIVISION

***Anode Baskets:** Helical steel wire coil containers or holders for 2 in. diameter ball anodes. Use: In cadmium or zinc plating. Containers: Wooden crates.

Anodes:

Brass (See below).
Cadmium (See this page).
Copper (See High Speed Copper Anodes, Page 131).
Copper Ball (See this page).
"Duozinc" Zinc-Mercury (See Page 131).
Du Pont Zinc Ball (See Page 131).
"Durobrite" Zinc (See Page 131).
High Grade Zinc (See Page 131).
High Speed Copper (See Page 131).
Lead (See Page 131).
Nickel (See Page 131).
"Pur-o-Tin" Tin (See Page 132).
"Purozinc" Zinc (See Page 132).
Tin (See "Pur-o-Tin" Anodes, Page 132).
"Zin-O-Lyte" Zinc (See Page 132).

Brass Anodes: Contain 80% Cu, 20% Zn; 70% Cu, 30% Zn. Use: To maintain metal content in electroplating solutions. Containers: Packed as required.

"Cadalyte" Anti-Pit Agent: Specially prepared mixture for use with "Cadalyte" Cadmium Plating Salts. Use: To prevent pitting in cadmium plated deposits. Containers: Packed as required.

"Cadalyte" Bright Dip: A concentrated, clear liquid which is diluted with fifteen parts water for use. Use: To produce brighter cadmium deposits by "bright dipping"; to add a tarnish-resisting film on the surface of cadmium plated products. Containers: Carboys; 5 lb. bottles.

"Cadalyte" Brightener: A special mixture added to cadmium or "Cadalyte" cadmium plating baths to produce bright deposits. Containers: Pails and drums (5-, 25- and 50-lbs., net).

"Cadalyte" Cadmium Plating Salts: Yellowish-brown to white, coarse powder consisting of a mixture of sodium cyanide, cadmium oxide and brighteners. Use: To prepare a very efficient cadmium plating bath, which deposits cadmium in a very bright, ductile and adherent form on all types of iron, steel and many other products to prevent rusting and corrosion. Containers: Drums (50 lbs., net).

"Cadalyte" Maintenance Compound: A prepared mixture for maintaining the correct ratio of cyanide and brightener content of cadmium or "Cadalyte" cadmium plating baths. Containers: Drums (100 lbs., net).

Cadmium Anodes: Bar or ball form. Use: As anodes for supplying cadmium metal to "Cadalyte" and other cadmium plating baths. Containers: Wooden boxes.

***Cadmium Oxide—CdO:** Brown, amorphous powder. Use: To increase cadmium content in cadmium plating baths. Containers: 50 lb. packages.

Cadmium Sponge: Contains approximately 84% Cd. Use: As purification agent for cadmium or "Cadalyte" cadmium plating baths. Containers: Drums and steel pails (10- and 50-lbs., net).

***Carbonate Remover:** A special mixture of chemicals including calcium sulfate. Use: To remove carbonates from cyanide plating solutions. Containers: 100 lb. bags.

Copper Anodes (See High Speed Copper Anodes, Page 131).

***Copper Ball Anodes:** Ball form. Use: As anodes for supplying copper metal to copper plating baths.

Copper Cyanide (Cuprous Cyanide)—CuCN: A creamy-white powder; insoluble in water; soluble in sodium and potassium cyanide; copper content min. 70%; insoluble max. 0.20%. Use: In electroplating processes; in insecticide compounds and as an anti-fouling agent in marine paints. Containers: Drums (100 lbs., net); wooden kegs (25- and 50-lbs., net).

"Cyanobrite" Mercury Salt: A red powdered mercury salt; soluble in acids and alkalies. Use: As the mercury-carrying ingredient for zinc plating solutions. Containers: 10-, 25-, 50- and 100-lb. kegs; 1 lb. cartons (5 to a case).

"Dacolyte" Addition Agent: Assists in producing smooth copper deposits free from nodules or trees. Use: In acid copper plating solutions for heavy deposits only. Containers: 5-, 10-, 25-, and 50-lb. drums.

"Darsil" Oxidizing Agent: A grayish powder; insoluble in water; soluble in concentrated hydrochloric acid solution. Use: For oxidizing (Black finish) on silver, gold and brass. Containers: 1-, 4- and 10-oz. bottles.

Note: Vertical lines drawn to set off Anode descriptions.

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"Duozinc" Zinc-Mercury Alloy Anodes: A zinc-mercury alloy containing zinc and small percentages of mercury; furnished in bar form only, in standard designs, with ordinary flat steel spines or barbed steel spines. Use: In zinc plating. Containers: Loose or in wooden boxes.

Du Pont Zinc Ball Anodes: Ball type anodes made of High Grade Zinc. Use: As anodes in electroplating baths to supply zinc metal for alkaline or acid zinc solutions. Containers: Boxes (100- and 200-lbs., net).

"Durobrite" Zinc Anodes: High Grade Zinc with small percentage of magnesium; furnished in bar and ball form. Use: In zinc plating. Containers: Loose or in wooden boxes.

Gold Hydrate—AuO(OH): A yellow powder; soluble in sodium or potassium cyanide solutions; insoluble in water; gold content 84.5%. Use: In gold plating. Containers: 1- and 10-oz. bottles.

***Halogen Tin Addition Agents:** Used in conjunction with the Halogen Tin plating process. Furnished in several types which are effective as brightening and basic deposit control agents. Use: In Halogen Tin plating. Containers: Miscellaneous.

Halogen Tin Plating Process: An acid tin plating process, using bivalent tin and tin anodes. Developed for continuous tin plating on steel strip or wire. Bath permits high current densities and rapid plating.

High Grade Zinc Anodes: High Grade Zinc without alloying metals. Standard bar forms. Use: In zinc plating. Containers: Loose or in wooden boxes.

***High Speed Copper Anode Hangers:** Standard sizes. Use: To support High Speed Copper anodes. Containers: Packed as required.

High Speed Copper Anodes: Furnished in standard flat designs. Use: With High Speed Copper Process and other types of copper plating processes. Containers: Wooden boxes; bbls.

High Speed Copper Anti-Pit Agent (See "RH" 556, Page 132).

High Speed Copper Plating Addition Agent (See "RH" 774, Page 132).

High Speed Copper Plating Process: A cyanide process for depositing smooth, bright, heavy coatings of copper. Two formulations are available, one based on sodium cyanide and the other on potassium cyanide. Advantages of the process: no pitting; no hydrogen and noxious fumes; simple control; can be installed in usual plating equipment. Use: On steel, die castings, wire, and other parts where smooth, adherent coatings of heavy, bright copper are required.

High Speed Copper Plating Salts—Potassium Formulation (See "RH" 661, Page 132).

High Speed Copper Plating Salts—Sodium Formulation (See "RH" 553, Page 132).

Lead Anodes: Bar form. Use: For lead plating. Containers: Loose or in wooden boxes.

Moly Black Plating Process: For plating black finishes of a molybdenum-nickel complex from an acid solution. The bath has abnormally high throwing power. Undercoats of cadmium or zinc are recommended.

Moly Black Salt A: A complete make-up salt for the Moly Black Plating Process. Use: To produce lustrous black finishes on some types of die castings and aluminum alloys. Containers: 10-, 25-, 50- and 100-lb. drums.

Moly Black Salt B: A mixture containing necessary ingredients to replenish the Moly Black Plating bath. Use: For maintenance of the Moly Black plating process. Containers: 10-, 25-, 50-, and 100-lb. drums.

***Nickel Anodes:** In elliptic cross section: rolled depolarized, rolled carbon, and cast carbon. Use: For nickel plating. Containers: Packed as required.

***Nickel Carbonate—Approximately $NiCO_3.4H_2O$:** Bluish-green crystals; soluble in dilute mineral acids; insoluble in water. Use: In the manufacture of soaps and nickel salts; in ceramic colors and glazes; in electroplating; for coloring metals; as a catalyzer for hardening fats. Containers: Bbls. (225 lbs., net).

***Nickel Chloride—$NiCl_2.6H_2O$:** Green, deliquescent crystals; soluble in water and ammonium hydroxide; Technical Grade. Use: As an addition agent in nickel plating solutions. It increases nickel density, is an excellent conducting agent, causes maximum anode corrosion and helps to control pitting. Containers: Kegs (100 lbs., net); bbls. (275 lbs., net).

***Nickel Salts, Double (Nickel Ammonium Sulfate)—$NiSO_4(NH_4)_2SO_4.6H_2O$:** Large, dark bluish-green crystals; soluble in water and ammonium sulfate solution; Technical Grade. Use: As metal and conducting salts for nickel plating solutions; in photo-engraving; in oil and tallow refining. Containers: Wooden bbls. (425 lbs., net).

***Nickel Salts, Single (Nickel Sulfate)—$NiSO_4.6H_2O + NiSO_4.7H_2O$:** Large, green crystals, efflorescent in air; soluble in alcohol and water; Technical Grade. Use: As metal and conducting salts for nickel plating solutions; in hardening oils (hydrogenation process); in the manufacture of nickel ammonium sulfate, paints, varnishes and ceramics. Containers: Wooden bbls. (425 lbs., net).

***Polysulfide:** A sodium sulfuret similar to Liver of Sulfur, having a sodium base instead of a potash base. Use: For coloration of copper, copper and zinc alloys, and similar silver metal-plated products. Containers: 10 lb. tins (six to a case).

Potassium Cyanide (See Page 134).

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Potassium Gold Cyanides, 41% Gold and 67% Gold—$KAu(CN)_2$: A white, crystalline powder; soluble in water. USE: For gold plating radar parts, jewelry, church ornaments, lamps and silverware. CONTAINERS: Bottles (1- and 10-ozs., net).

***"Pur-o-Tin" Tin Anodes:** Metallic tin; bar or ball form. USE: For tin plating. CONTAINERS: Boxed, or wire-strapped.

"Purozinc" Zinc Anodes: Intermediate Grade Zinc; supplied in bar form only. USE: For zinc plating. CONTAINERS: Loose or in wooden boxes.

"Rack-Lac" Dip Coating: An insulating material for the protection of plating racks. USE: On racks in all types of plating solutions, chromic acid, and acid and alkaline cleaners. CONTAINERS: 5½ gal. pails.

"Rack-Lac" Rack Tape: An insulating tape for the protection of plating racks. USE: In all types of plating solutions, cleaners, acid and alkaline type plating solutions, and in chromic acid. CONTAINERS: Paper Boxes (1 lb., net).

"RH" 309 Brightener: A brightener which is used in conjunction with the "Durobrite" Zinc Plating Process. USE: To improve covering power by extending the bright plating range to low current density areas. CONTAINERS: 1 gal. glass jugs; Bbls. (5-, 10-, 20- and 52-gals., net).

"RH" 556 High Speed Copper Anti-Pit Agent: USE: With High Speed Copper plating salts to prevent pitting. CONTAINERS: 115 lb. carboys; gal. bottles.

"RH" 553 High Speed Copper Plating Salts—Sodium Formulation: For the production of smooth, bright, heavy coatings of copper. Bath is based on sodium cyanide. USE: On steel, die castings, wire and other parts where smooth, adherent coatings of heavy bright copper are required. CONTAINERS: 100 lb. drums.

"RH" 661 High Speed Copper Plating Salts—Potassium Formulation: For the production of smooth, bright, heavy coatings of copper; bath is based on potassium cyanide. USE: On steel, die castings, wire and other parts where smooth, adherent coatings of heavy, bright copper are required. CONTAINERS: 100 lb. drums.

"RH" 774 Addition Agent: USE: As anti-pitting agent for High Speed Copper plating; as anti-fume agent for "Durobrite" zinc plating. CONTAINERS: 115 lb. carboys; 1 gal. bottles.

"RH" 1032 and "RH" 1085 Addition Agents: USE: As anti-pitting agents for High Speed Copper Plating. CONTAINERS: 115 lb. carboys; 1 gal. bottles.

Silver Cyanide—$AgCN$: White powder; soluble in sodium cyanide or potassium cyanide solutions; silver content min. 80%. USE: For aircraft, Diesel and other heavy-duty bearings; for electrical contacts; for silver plating silverware, jewelry, lamps and reflectors. CONTAINERS: 16 oz. mailing tubes; 80-, 100-, 500-, 1000- and 1400-oz. fiber containers.

Sodium Cyanide (See Page 135).

Sodium Gold Cyanide 46%—$NaAu(CN)_2$: A yellow powder; soluble in water; contains 46% gold min. USE: For gold plating radar and electrical parts, band instruments, razor holders, lamps, clocks, jewelry and tableware. CONTAINERS: 1- and 10-oz. bottles.

***Sodium Stannate—$Na_2SnO_3.3H_2O$:** A white or light brown, crystalline powder; soluble in water; tin content min. 40%. USE: For electrotinning ferrous and non-ferrous articles, such as refrigerating coils, food containers, radio and automotive parts; for preparing slats in mercerizing of cotton; for delustering rayon; and in cross-dyeing of rayon and cotton fabrics. CONTAINERS: Drums (100 and 300 lbs., net).

Sulfamate Lead Addition Agents: Compounds which facilitate the production of smooth, non-porous lead deposits, eliminate treeing, and in special applications increase the covering power. USE: In conjunction with Sulfamate Lead Salts for lead plating. CONTAINERS: 10-, 25-, 50- and 100-lb. fiber containers.

Sulfamate Lead Salts: Specially prepared salts for lead plating with the Sulfamate Lead Process. Lead is plated rapidly and economically with a relatively pore-free deposit. USE: To prepare and maintain Sulfamate Lead plating solutions. CONTAINERS: 10-, 30-, and 65-lb. drums.

Tin Anodes (See "Pur-o-Tin" Tin Anodes, this page).

Zinc Anodes:

- **"Duozinc" Zinc-Mercury Anodes** (See Page 131).
- **"Durobrite" Zinc Anodes** (See Page 131).
- **Du Pont Zinc Ball Anodes** (See Page 131).
- **High Grade Zinc Anodes** (See Page 131).
- **"Purozinc" Zinc Anodes** (See this page).
- **"Zin-O-Lyte" Zinc Anodes** (See this page).

Zinc Cyanide—$Zn(CN)_2$: A white powder; soluble in sodium and potassium cyanide solutions. USE: In zinc and brass plating solutions. CONTAINERS: 25- and 50-lb. kegs; 100 lb. drums.

Zinc Dust—Zn: Double A grade. USE: For the purification of zinc cyanide plating solutions. CONTAINERS: Pails (5-, 10-, 25-, 50- and 100-lbs., net).

"Zin-O-Lyte" Addition Agent "O": An adjunct to "Zin-O-Lyte" Brightener. USE: In "Zin-O-Lyte" zinc plating solutions.

"Zin-O-Lyte" Brightener: Crystalline powder. USE: For producing bright deposits in "Zin-O-Lyte" zinc plating baths. CONTAINERS: Drums (5-, 10-, 25-, 50-, and 100-lbs., net).

"Zin-O-Lyte" Zinc Anodes: High Grade Zinc with small percentage of magnesium. Bar and ball forms. USE: To supply metal in "Zin-O-Lyte" plating solutions. CONTAINERS: Loose or in wooden boxes.

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ores, and precipitating heavy metals; for coloring metal surfaces; in production of petroleum additives. CONTAINERS: 380- to 605-lb. drums; 400 lb. bbls.

***Sodium Sulfite — Anhydrous — Na_2SO_3:** Tan or slightly pink crystalline powder; soluble in water, slightly soluble in alcohol; aqueous solution possesses a reducing action. USE: As a bleach and general reducing agent; in the manufacture of dyestuffs and intermediates, photographic developing and fixing baths; as an antichlor in treating rubber latex and deoxygenating boiler feed water; as an antiseptic and preservative. CONTAINERS: Bbls. (400 lbs., net); drums (100 lbs., net); paper bags (100 lbs., net).

Sodium Sulfite—Crystal—$Na_2SO_3.7H_2O$: White efflorescent crystals; soluble in water; slightly soluble in alcohol; loses water at 150° C. and decomposes with further heating. USE: In the manufacture of dyestuffs and intermediates, explosives; as a reducing agent in dyeing of textiles and as a bleaching agent for straw, wool and silk; as an antichlor; in steel treatment; in deoxygenating boiler feed water; as a sterilizing agent and preservative; as a source of sulfur dioxide; in photographical developers. CONTAINERS: 100- and 200-lb. bags; 325 lb. bbls.

Sodium Thiosulfate (See Sodium Hyposulfite, Page 174).

Sodium-Zinc Alloy—98% Zn. and 2% Na: Homogeneous alloy of zinc and sodium. Made up in 11 lb. pigs, suitably notched so as to be easily broken. USE: As deoxidizer and homogenizer for non-ferrous metals in which zinc is the principal constituent. CONTAINERS: Wooden boxes.

Soil Compound NC (Chloronitrotoluene) — $C_7H_6NO_2Cl$: Crystalline solid; insoluble in water; soluble in alcohol, ether, carbon tetrachloride and petroleum oils. USE: As a soil poison in trench type termite barriers. CONTAINERS: 55 gal. drums (550 lbs., net); 110 gal. drums (1100 lbs., net); 5 gal. pails (50 lbs., net).

***Stannic Chloride (Tin Tetrachloride, Anhydrous) —$SnCl_4$:** Colorless, fuming liquid; F.P. approximately −30° C.; B.P. approximately 114° C.; soluble in cold water and alcohol; decomposed by hot water. USE: In the manufacture of color lakes, dyes, pharmaceuticals; as a mordant in dyeing and printing textiles; as a color brightener for wool; for weighting silk. CONTAINERS: 100 lb. drums; 140 lb. carboys.

Stannous Chloride—Crystal (Muriate of Tin, Tin Crystals, Tin Bichloride)—$SnCl_2.2H_2O$: White crystals; soluble in water, alkalies, tartaric acid and alcohol; M.P. approximately 38° C. USE: In the manufacture of color lakes, ceramic glazes, metallic coatings on cloth and paper; as a reducing agent and mordant in dyeing and printing textiles; in tin galvanizing and electroplating; in the production of dry colors and pigments; as an antichlor. CONTAINERS: 625 lb. bbls.; 100 lb. kegs.

***Stannous Sulfate (Tin Sulfate)—$SnSO_4$:** White to yellowish crystalline powder; soluble in water, alcohol, and acids; M.P. approximately 508° C.; decomposes upon heating to elevated temperatures. USE: As a mordant in dyeing textiles. CONTAINERS: 400 lb. bbls.

Strontium Nitrate—$Sr(NO_3)_2$: White, crystalline powder; soluble in water; slightly soluble in alcohol; Sp. Gr. 2.98; purity approximately 97%; flame tests carmine-red. USE: In the manufacture of railroad and highway flares, marine signals, fireworks and pyrotechnics. CONTAINERS: 650 lb. bbls.

Sulfamic Acid—HSO_3NH_2: White crystalline solid; soluble in water; slightly soluble in alcohol, acetone, and ether; aqueous solutions possess a strongly acid reaction; M.P. 205° C.; Sp. Gr. approximately 2.126; all common salts water-soluble. USE: In the manufacture of electroplating salts; in diazotizing processes for manufacture of dyestuffs; for leather tanning; for cleaning and pickling metals; in the manufacture of inorganic and organic sulfamates, intermediates, and dry colors; as an acidimetric standard in analytical work and for solution denitriting. CONTAINERS: 400 lb. bbls.; 50- and 100-lb. fiber drums.

***Sulfur—Commercial and Refined (Light and Heavy Flour, Flowers of Sulfur, Sublimed, Dusting, Roll and Rubbermakers, Smoke and Superfine Sulfur, Brimstone)—S:** All Grades. Pale yellow, solid, amorphous, crystalline sticks, or powder of varying degrees of fineness; insoluble in water; soluble in sodium sulfide, carbon disulfide and sulfur chloride. USE: In the manufacture of rubber, paper, sulfuric acid, cements, explosives, fertilizers, insecticides, fungicides, fumigants, pharmaceuticals, glass, paints, matches, leather, pyrotechnics, steel, soaps and for many other materials. CONTAINERS: FLOUR—240- to 300-lb. bbls.; 50- and 100-lb. bags. FLOWERS—155- and 200-lb. bbls.; 100 lb. bags. DUSTING—50- and 100-lb. bags. ROLL—400 lb. bbls.; 150 lb. bags. RUBBERMAKERS—220 lb. bbls.; 50 lb. bags. LUMP—500 lb. bbls.; 200 lb. bags. VIRGIN ROCK—400- and 600-lb. bbls.

***Sulfur Chloride, Mono—Technical (Sulfur Subchloride)—S_2Cl_2 or SCl:** Clear, yellow, oily, fuming liquid with penetrating odor; decomposed by water; soluble in numerous organic solvents; Sp. Gr. approximately 1.70; F.P. −80° C.; B.P. 138° C. USE: In the manufacture of rubber cement and dipped goods, intermediates, and organic chemicals, varnishes, cellulose esters and insecticides; as a sulfur solvent in vulcanizing rubber; in dyeing and finishing of textiles; for purifying sugar juices; in recovering gold from its ores. CONTAINERS: Drums (120-, 700- and 750-lbs., net).

Sulfuric Acid—C.P. Reagent—95.5 to 96% H_2SO_4 In Water Solution: Clear, colorless, heavy, oily liquid; miscible in water with evolution of heat; Sp. Gr. 1.84; F.P. −15° C. USE: As a reagent in chemical analysis or where sulfuric acid of an espe-

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cially high purity is required. Containers: 195 lb. glass carboys; 9 lb. (5 pint) bottles (ten in a case); 1 lb. bottles (thirty-two in a case).

Sulfuric Acid, Fuming (See Oleum, Page 171).

Sulfuric Acid, Inhibited (See "Duclean" No. 1 Inhibited Sulfuric Acid, Page 166).

Sulfuric Acid—Technical (Oil of Vitriol)—H_2SO_4: Clear, colorless to light pink, heavy, oily, corrosive liquid; soluble in water in all proportions with evolution of heat.

Strength	%H_2SO_4
60° Bé.	77.67
66° Bé.	93.20

Use: In the manufacture of superphosphate fertilizers, ammonium sulfate from by-product coke ovens, mineral colors, explosives, inorganic acids, phosphates, alum, intermediates, dyestuffs and other organic chemicals; in the refining of petroleum and manufacturing of sulfonated oils; for pickling iron and steel and bright dipping non-ferrous metals; in the pickling of hides and chrome tanning of leather; in sizing and parchmentizing paper; in the manufacture of synthetic rubber latex, rayon, synthetic detergents, sugar and starch; as a general dehydrating agent; assistant in dyeing, bleaching, carbonizing, mercerizing textiles; production of bleaching clays; animal and vegetable oil refining. Containers: Tank cars; 715- to 1750-lb. steel drums; 180- to 200-lb. carboys.

Tanning Agent G-942: A pale brown liquid containing high molecular weight carboxylic acids; weight, approximately 8.9 lbs. per gal.; F.P. 29° F. Use: In tanning light weight skins for the production of white, colored and specialty leathers. Possesses a high skin-plumping ability. Containers: Bbls. (425 lbs., net).

Tetrasodium Pyrophosphate (See Sodium Pyrophosphate, Page 175).

Tin Crystals (See Stannous Chloride, Page 176).

Trisodium Phosphate—T.S.P. (See Sodium Phosphate—Tribasic, Page 175).

Weed Killer (See "Ammate" Weed Killer, Page 178).

***Whiting (Calcium Carbonate)—$CaCO_3$:** A natural white, amorphous powder; insoluble in water; soluble in acids; Sp. Gr. approximately 2.71. Use: As an extender for pigments; in the manufacture of soaps, glass, detergents, metal polishes, oil cloth and linoleum; as a pigment and filler in rubber, paper, paints and varnishes. Containers: 50 lb. bags.

Wood Preservatives (See "CZC" Chromated Zinc Chloride, Page 166, and Zinc Chloride, this page. Also see Du Pont Industrial Fungicides, Page 167).

Zinc Ammonium Chloride—$ZnCl_2.3NH_4Cl$: White to yellowish granular crystals; soluble in water. Use: As a fluxing salt for hot dip galvanizing of pipe, tubes, tanks, malleable iron fittings, wire, etc.; as a flux in metal soldering and tinning; in electric batteries; in the manufacture of soldering compounds. Containers: 100 lb. paper bags; 400 lb. bbls.

***Zinc Carbonate, Basic—Technical (Zinc Subcarbonate)—$2ZnCO_3.3Zn(OH)_2$:** A white, impalpable powder; insoluble in water; soluble in acids and alkalis. Use: As a pigment and rubber-compounding ingredient; in the manufacture of ceramics and cosmetics; in electroplating. Containers: Bbls. (225 lbs., net).

Zinc Chloride—Fused and Granular (Butter of Zinc)—$ZnCl_2$: White, translucent, hygroscopic solid or white, granular powder; soluble in water and alcohol; M.P. 262° C.; B.P. 732° C. Solution: $ZnCl_2$ of various concentrations in water solution; clear, colorless solutions; miscible with water in all proportions, becoming slightly turbid at high dilutions. Use: As an ingredient in dry-cell batteries, tinning, galvanizing and soldering fluxes; for the preservation and fireproofing of wood; in the manufacture of vulcanized hard fiber, intermediates, dyestuffs, zinc soaps; as an antiseptic and disinfectant, preservative for sizes; in electroplating solutions, sizing and weighting textiles. Containers: Granular—630- to 750-lb. drums; 10- and 50-lb. pails. Fused—1100 lb. drums. Solution—Tank cars; 600- to 800-lb. drums; 160- to 200-lb. carboys.

Zinc Dust—Double A, Double B and Coarse—Zn: Fine, gray, metallic powder; soluble in acids and alkalis. Use: As a reducing agent in dye, intermediate, and other organic synthesis, and in manufacture of sodium and zinc hydrosulfite and other chemicals; in sherardizing iron and steel products; as an ingredient in soot removers, in pipe-joint lubricants, metallic zinc paints, fireworks; as a deoxidizer for bronzes; in the precipitation of heavy metals from solutions; in the precipitation of zinc solutions for the recovery of metallic cadmium; in the recovery of gold and silver in cyaniding processes; in purifying fats and oils; in bleaching mechanical paper pulp; in metallizing paper. Containers: 75- to 500-lb. steel drums or pails.

Zinc Sherardizing—Coarse Zinc Dust—Zn: Fine, gray, metallic powder. Use: In sherardizing iron and steel products. Containers: 75- to 500-lbs. steel drums or pails.

Zinc Slab—Intermediate, Brass Special, Prime Western—Zn: Large rectangular-shaped slabs of grey metallic color; weight from 30–60 lbs. each. Use: For hot dip galvanizing; for brass and zinc alloy manufacture. Containers: Bulk.

***Zinc Stearate—U.S.P.—$Zn(C_{18}H_{35}O_2)_2$:** Fine, white, soft, amorphous, bulky powder; insoluble in water, alcohol and ether; soluble in acids; M.P. 130° C. Use: In the manufacture of waterproofing and fire-

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FABRICS

FABRICS AND FINISHES DEPARTMENT

FABRICS DIVISION

GENERAL OFFICES:

Pyroxylin Coated and Synthetic Resin Coated Materials: Newburgh, New York
Rubber Coated, Synthetic Rubber Coated and Synthetic Resin Coated Materials; Non-Woven Cellulosic Fiber Products: Fairfield, Connecticut

BRANCH OFFICES:

Boston 15, Massachusetts, 1019 Commonwealth Avenue
Chicago 14, Illinois, 2100 Elston Avenue
Cincinnati 2, Ohio, 106 East Court Street
Detroit 2, Michigan, 5-238 General Motors Building
Los Angeles 3, California, 5801 South Broadway
New York 1, New York, Empire State Building, 350 Fifth Avenue
St. Louis 8, Missouri, 3643 Delmar Boulevard

PLANTS:

Newburgh, New York   Fairfield, Connecticut   Russell, Massachusetts

PRODUCTS

PYROXYLIN COATED AND IMPREGNATED MATERIALS

"Fabrikoid" Pyroxylin Coated and Impregnated Fabrics: The fabrics are processed with pyroxylin so as to produce a tough, durable, uniform film which is thoroughly water resistant and washable. Manufactured in a wide variety of colors, embossed effects and finishes, "Fabrikoid" is available in a range of grades or qualities, based on the service requirements of the ultimate end use. Grades are determined by the weight and construction of the fabric base and the amount of pyroxylin applied. The following list shows how "Fabrikoid" is used by other manufacturers:

Automotive: For upholstery and trim, bindings and welts and winter-fronts. Colored deck covering for station wagons.
Baby Carriages: For upholstery and tops.
Belts
Binding and Welts
Bookbinding
Brief Cases
Card Table Covers
Case Coverings
Draw Sheet: For newspaper printing presses.
Enrober Belting: For candy manufacturing.
Florist's Decorative Ribbon
Footwear: For upper stock in some types of shoes and slippers, for quarterlining and for sock lining. Non-tarnishing gold and silver metallic "Fabrikoid" for evening shoes and trim.
Furniture Upholstery
Handbags and Pocketbooks
Hassocks and Floor Pillows
Hat Sweats
Luggage: For coverings, linings and trim.
Motion Picture Screens
Novelties: For change purses, powder puff containers, card cases, comb cases.
Paper Machine Aprons: For paper making equipment.
Railroads: For upholstery, car curtains, and vestibule curtains.
School Bags
Slippers: For men and women's bedroom slippers.
Sporting Goods
Table Mats and Pads: For coverings.
Trimmings: For millinery and costumes.

"Fabkote" Pyroxylin Coated Non-Woven Cellulosic Base Material: The following list shows how "Fabkote" is used by other manufacturers:

Belts
Bookbinding: For catalogs, notebooks and loose-leaf binders.
Brief Cases
Case Coverings
Luggage
Novelties
School Bags

Pre-Doped Fabrics: Pyroxylin coated and impregnated fabrics and tapes, designed for covering control surfaces (rudders, ailerons, etc.) on aircraft.

PX Cloth: A special grade of pyroxylin impregnated, washable book cloth for bookbindings.

Tablecloths: A pyroxylin coated fabric for washable, waterproof tablecloths and shelf covering. This pyroxylin coated fabric is also used by other manufacturers for making shelf edging and chair pads.

"Tontine" Pyroxylin Coated and Impregnated Washable Window Shade Cloth.

SYNTHETIC RESIN COATED AND IMPREGNATED MATERIALS

P. C. "Fabrikoid" Synthetic Resin Coated Fabrics: Heavy weight grades of special purpose, plastic coated fabrics made by spreader process. The fabrics are processed with synthetic resin for end use applications which require greater resistance to flame, heat, cold, flexing and outdoor exposure than that found in regular standard "Fabrikoid". Available in special fire resistant grades. The following list shows how P. C. "Fabrikoid" is used by other manufacturers:

Automotive: For upholstery and trim, bindings and welts and winter fronts.

Baby Carriages: For upholstery and tops.
Belts
Bookbinding: For loose leaf binders.
Furniture Upholstery
Handbags and Pocketbooks
Luggage

"Fabrilite" Synthetic Resin Coated Fabrics: Light weight grades of special purpose, plastic coated fabrics. The fabrics are processed with synthetic resin. A line of special "Fabrilite" cements are available for fabricating the following list of items made from "Fabrilite" coated fabrics by other manufacturers:

Aprons
Bowl Covers
Card Table Covers
Food Bags
Garment Bags
Garment Linings
Heat Sealable Containers
Household Accessories
Ironing Board Pads
Raincoats
Shower Curtains

Tablecloths: A synthetic resin coated fabric for washable, waterproof tablecloths and shelf covering.

CEMENTS

"Fabrilite" Cements: Made from synthetic resin compositions for fabricating raincoats and other items of merchandise made from "Fabrilite" synthetic resin plastic coated fabrics.

"Fairprene" Industrial Cements: These cements are made from synthetic rubber compounds for adhering various combinations of cured and uncured "Fairprene" sheet stock (without fabric insert), cured and uncured "Fairprene" coated fabrics, cured and uncured rubber, leather, fabrics, paper, metal, wood, glass and porcelain.

CHEMICALLY TREATED FABRICS

Brattice Cloth: An air deflecting, fire resistant product developed to withstand varying atmospheric and service conditions encountered in mines.

CHEMICALLY TREATED RUBBER

"Isolac" Chemically Treated Rubber: A composition of chemically treated rubber for use in compounding rubber soles and heels for shoes.

RUBBER COATED, SYNTHETIC RUBBER COATED, AND SYNTHETIC RESIN COATED MATERIALS

"Cavalite" Rubber Coated Fabrics: A light weight, rubber coated fabric for raincoat and hospital sheeting use.

P. C. "Cavalon" Synthetic Resin Coated Fabrics: A line of heavy weight grades of plastic coated fabrics made by the calendered process. The fabric is processed with synthetic resin and designed for heavy duty upholstery on indoor or outdoor institutional furniture and public seating, and for automobiles, tractors, airplanes, railroads, busses and ships. Manufactured in a wide range of bright colors, embossed effects and finishes. Resistant to flexing, heat and cold. Available in special fire resistant grades.

S. R. "Cavalon" Neoprene Coated Fabrics: A line of coated fabrics designed for high grade, heavy duty upholstery use where maximum resistance to wear and abrasion is desired. Made with neoprene, du Pont's chloroprene. S. R. "Cavalon" has outstanding resistance to vegetable and mineral oils, oxidation in sunlight and perspiration. Manufactured in a wide range of colors, embossed effects and finishes. Recommended for all purpose heavy duty seating, in theatres, trucks, busses, automobiles, hotels, restaurants and institutions. Available in special fire resistant grades.

"Cavaltex" Rubber Coated Fabrics: A high grade line of rubber coated fabrics for raincoat and rough wear garment use. Manufactured in colors, finishes and embossed effects reproducing horse hide leather.

"Everbright Decking" Rubber Coated Fabrics: A line of rubber coated fabrics for deck coverings on station wagons, trucks and busses.

"Fabrilite" Synthetic Resin Coated Fabrics: A line of light weight grades of special purpose, synthetic resin plastic coated fabrics made by the calendered process for the raincoat and garment trade. A special line of "Fabrilite" cements are available for fabricating these items.

"Fairprene" Synthetic Rubber Coated Fabrics: A line of special purpose, synthetic rubber coated fabrics designed for industrial applications in the automotive, aviation, chemical, petroleum and marine construction fields. "Fairprene" coated fabrics have unique oil, chemical, heat, cold, flame, abrasion, flexing and sunlight resistance for dia-

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phragms, gaskets, washers, packings, shock and insulating pads, seam sealants, and curing bags and blankets for molded plywood. A special line of "Fairprene" cements are available for use with "Fairprene" coated fabrics.

"Fairprene" Hospital Sheetings: A line of synthetic rubber coated fabrics designed especially for hospital sheeting use. "Fairprene" hospital sheetings have outstanding resistance to alcohol, oils, stains, blood, urine and sterilization.

"Fairprene" P.A.W. Tape (Protective and Waterstop): A seam sealant engineered for shipbuilding and aircraft use in oil, air and water tight structural joints.

"Rug Anchor" Rug Underlay: Synthetic rubber sponge coated fabric which prevents rugs from slipping.

"Teal" Rubberized Automobile Curtain and Top Fabric: For convertible automobiles.

"Ventube" Rubberized Tubing: Flexible ventilating tubing for mines, tunnels and underground construction. Also for industrial ventilation in shiphold construction, in loading and unloading, shipholds, cleaning tanks, manholes and boilers. Available for both blower (collapsible) and exhaust (non-collapsible) types of motor driven fans.

Other rubberized fabrics are manufactured in many grades depending upon service requirements, the grades being determined by the weight and construction of the fabric base and the amount of compound applied. The following list shows how these rubberized fabrics are used by other manufacturers:

Bags and Trunks
Belts and Dress Accessories
Blankets
Camera Bellows
Cover Cloths for Typewriters and Business Machines.
Hospital Sheetings
Powder Bags for Transporting Explosives
Sporting Goods Materials for Footballs, Basketballs, Beach Balls, Tennis Racquet Covers, Golf Bags, Cushion Beach Mats and Hunting Garments.
Weather Stripping Gaskets and Welts for household uses and appliances.

SPONGE RUBBER PRODUCTS

Press Sponge: Rubber and synthetic rubber products for automotive use as anti-squeaks, vibration absorbers, weather stripping and carpet padding. Also for home use as a weather stripping; supplied in strips with adhesive coating on the back.

"Velvetex" Rug Cushion: Sponge rubber rug cushion which gives depth and softness to rugs and at the same time prevents slipping.

SYNTHETIC RUBBER SHEET STOCKS

"Fairprene" Synthetic Rubber Sheet Stocks: A line of sheet stocks (with or without fabric back) made from synthetic rubber compounds for special industrial applications in the automotive, aviation, chemical, petroleum and marine construction field. Has unique oil, chemical, heat, cold, flame, abrasion, flexing and sunlight resistance for gaskets, washers, packings, shock and insulating pads, seam sealants and curing bag and blankets for molded plywood. A special line of "Fairprene" cements are available for use with "Fairprene" sheet stocks.

SYNTHETIC RESIN SHEET STOCKS

"Fabrilite" Synthetic Resin Sheet Stocks: A line of heat-sealable sheet stocks (without fabric insert) made from synthetic resin compounds. The following list shows how this sheet stock is used by other manufacturers:

Aprons
Bowl Covers
Food Bags
Footwear: Upper Stock
Garment Bags
Hand Bags and Pocketbooks
Household Accessories
Raincoats
Shower Curtains

NON-WOVEN CELLULOSIC FIBER MATERIALS

"Texon" Impregnated Fiber Materials: A line of non-woven cellulosic fiber products impregnated with rubber, synthetic rubber and synthetic resin compositions.

The following list shows how these materials are used by other manufacturers:

Coating Industry:
  Coating Base
Molding Industry:
  Molding Medium
Shoe Industry:
  Counters
  Innersoles
  Midsoles
  Sock Lining
  Soft Box Toes

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SOLVENTS SOLD BY FINISHES DIVISION

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PRODUCTS

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NOTE: Underscoring added to set off Solvents sold by Finishes Division.

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FINISHES DIVISION: Automotive Finishes

Lacquers:

Dip: Air-dry, pigmented, colored or clear lacquers on a special modified pyroxylin base; applicable by dipping. Use: On instrument panels, molding, interior decoration, etc. Containers: 1- and 5-gal. cans; 50 gal. drums.

"Duco" Lacquers: Air-dry, pigmented, colored lacquers on a special modified pyroxylin base; applicable by spray only. Use: Finishing of steel automobile bodies, lamps and sheet metal parts. Containers: Pt., qt., ½-, 1- and 5-gal. cans; 50 gal. drums.

"Duco" Striping Lacquers: Air-dry, pigmented, colored lacquers; applicable by brushing. Use: For striping automobile bodies and touch-up work. Containers: ¼-pt., qt., ½-, 1- and 5-gal. cans.

Primers:

Black Dipping Primer (Baking, Pigmented, Oil Type): Unusual stability in large dip tanks. Use: Dipping fenders, hoods and miscellaneous small parts. Base coat for "Duco" or "Dulux" lacquers. Containers: 1- and 5-gal. cans; 50 gal. drums.

"Dux" Primer (One-Bake Type): Baking, pigmented, colored, liquid paints on a synthetic base; applied by spray. Use: Applied to steel automobile bodies and followed immediately by special "Dux" surfacer without drying period between coats. Containers: 1- and 5-gal. cans; 50 gal. drums.

Graining Compounds: Air-dry or baking oil base paste materials for use over Graining Ground Coats (Synthetic or Oil Type) for simulated wood grains. Use: On decorative hardware, garnish mouldings, instrument panels, escutcheons, etc. for car interiors. Containers: 1- and 5-gal. cans.

Graining Ground Coats (Synthetic or Oil Type): Baking type semi-gloss materials used as graining base for simulated wood grain effects. Use: On decorative hardware, garnish mouldings, instrument panels, escutcheons, etc., for car interiors. Containers: 1- and 5-gal. cans.

Metal (Oil Type): Air-dry and baking, pigmented, colored, liquid paints with oil base; applicable by spray. Use: On automobile bodies and sheet metal parts to give adhesion between the metal and succeeding coats. Containers: 1- and 5-gal. cans; 50 gal. drums.

Metal (Pyroxylin Type): Air-dry, pigmented, colored, liquid paints on a pyroxylin base; applicable by spray. Use: For touch-up work only on automobile bodies. Containers: 1- and 5-gal. cans; 50 gal. drums.

Metal (Synthetic Type): Air-dry and baking, pigmented, colored, liquid paints with synthetic base; applicable by spray or brush. Use: On automobile bodies and sheet metal parts to give adhesion between the metal and succeeding coats. Containers: 1- and 5-gal. cans; 50 gal. drums.

Wood: A special low-pigmented type primer applicable by brush or spray. Use: On wooden commercial automobile bodies. Containers: 1- and 5-gal. cans; 50 gal. drums.

Wood Sealer: Clear synthetic or oil type, air-dry, penetrating sealer with or without fungicide; applicable by dip, brush, spray, or flow. Use: On wood before other finish to seal pores and prevent failure by moisture absorption. Containers: 1- and 5-gal. cans; 50 gal. drums.

Primer-Surfacers:

"Preparakote": Air-dry, highly pigmented, liquid paints on a special synthetic base; applicable by spraying or brushing. Use: On steel automobile and commercial car bodies, preparatory to finishing with either "Duco" or "Dulux" finishes. Containers: 1- and 5-gal. cans; 50 gal. drums.

Primer-Surfacer (Baking Type): Highly pigmented, liquid paints of the baking type on an oil base; applicable by spraying. Use: On steel automobile and commercial car bodies, preparatory to finishing with either "Duco" or "Dulux" finishes. Containers: 1- and 5-gal. cans; 50 gal. drums.

Putties: Air-dry, highly pigmented, paste materials on oil base; applied by glazing to fill indentations in metal which are too deep for the surfacer to fill. Use: On automobile bodies over primer. Containers: ½-, 1- and 5-gal. cans.

Putties, "Duco": Air-dry, highly pigmented, paste materials; very fast drying; applied by glazing to fill metal imperfections. Use: On automobile bodies preparatory to finishing with either "Duco" or "Dulux" finishes. Containers: ½-, 1- and 5-gal. cans.

Putties, "Dulux": Air-dry; highly pigmented, paste materials; minimum shrinkage; applied by glazing to fill metal imperfections. Use: Preparatory to finishing with either "Duco" or "Dulux" finishes. Containers: ½-, 1- and 5-gal. cans.

Putties, "Dux": Air-dry and baking, highly pigmented, paste materials on a synthetic base; applied by glazing to fill indentations in metal which are too deep for the surfacer to fill. Use: On automobile bodies over primer. Containers: ½-, 1- and 5-gal. cans.

Remover, Paint and Varnish: Suspension of paraffin in clear liquid, applicable by brush. Use: For removal of automotive finishes from bodies. Containers: 1- and 5-gal. cans; 50 gal. drums.

Retarders: Slow-evaporating, high-boiling "Duco" solvents. Use: Added to "Duco" thinner to prevent blushing in humid weather. Containers: 1- and 5-gal. cans; 50 gal. drums.

Surfacers: Air-dry and baking, highly pigmented products on oil, pyroxylin and synthetic types of bases; applicable by spraying over primer to give a satisfactory smooth surface when sanded, preparatory

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Note : Vertical lines drawn to set off Solvent descriptions to "Duco" and "Dulux" finishes, or other final finish applications. USE: On automobile bodies and sheet metal parts. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Thinners: Clear, liquid solvents. USE: For the reduction of primers, surfacers and enamels to proper working consistency. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums; tank wagons; tank cars.

AUTOMOTIVE REFINISHING MATERIALS

GENERAL OFFICE: Du Pont Building, Wilmington 98, Delaware

REGIONAL OFFICES:

Atlanta 3, Georgia, 619–21 Peachtree Street, N. E.
Boston 15, Massachusetts, 1019 Commonwealth Avenue
Chicago 14, Illinois, 2100 Elston Avenue
Cleveland 14, Ohio, Union Commerce Building, 925 Euclid Avenue
Dallas 1, Texas, 2812 Gaston Avenue
Philadelphia 3, Pennsylvania, 1616 Walnut Street
San Francisco 6, California, 235 Second Street

WHOLESALE STORES:

Atlanta 3, Georgia, 619–21 Peachtree Street, N. E.
Baltimore 11, Maryland, 2930 Remington Avenue
Birmingham 3, Alabama, 1912 Second Avenue, S.
Boston 15, Massachusetts, 1019 Commonwealth Avenue
Charlotte 2, North Carolina, 500 North Tryon Street
Chicago 16, Illinois, 2530 South Michigan Avenue
Cincinnati 2, Ohio, 106 East Court Street
Cleveland 14, Ohio, 1608 East 24th Street
Columbus 15, Ohio, 172 East Long Street
Dallas 1, Texas, 2812 Gaston Avenue
Des Moines 9, Iowa, 1206 Grand Avenue
Detroit 2, Michigan, 510 Harper Avenue
Houston 1, Texas, 2219 McKinney Avenue
Jacksonville 1, Florida, 954 East Adams Street
Kansas City 8, Missouri, 1600 Grand Avenue
Miami 36, Florida, 50 Northeast Tenth Street
Milwaukee 5, Wisconsin, 1806 West North Avenue
Minneapolis 3, Minnesota, 1207 Harmon Place
New Orleans 12, Louisiana, 845 Carondelet Street
Philadelphia 40, Pennsylvania, 16th and Luzerne Streets
Pittsburgh 12, Pennsylvania, 601 East Robinson Street
Portland 3, Maine, 255 Forest Avenue
Providence 3, Rhode Island, 355 Weybosset Street
St. Louis 8, Missouri, 3643 Delmar Boulevard
Toledo 2, Ohio, 721 Adams Street
Washington 9, District of Columbia, 1821 14th Street, N. W.

WAREHOUSES:

Denver 1, Colorado, 34th and Fox Streets
Los Angeles 3, California, 5801 South Broadway
Phoenix 2, Arizona, 347 North First Avenue
Seattle 9, Washington, 525 Boren Avenue

PLANTS:

Flint, Michigan
Fort Madison, Iowa
Parlin, New Jersey
Philadelphia 46, Pennsylvania, 3500 Gray's Ferry Road
South San Francisco, California, Post Office Box 608
Toledo 12, Ohio, 1930 Tremainsville Road

FINISHES DIVISION: Automotive Refinishing Materials

PRODUCTS

Bleederseal: Can be used over and under both pyroxylin and alkyd resin finishes. Use: To prevent discoloration of the topcoat, if underneath color tends to bleed. Containers: Qt. jars.

"Blue Diamond" Waxless Remover for Wood: Use: For removing old finishes from wooden surfaces. Containers: 1- and 5-gal. cans.

Chassis Blacks: Varnish type products. Use: To refinish chassis. Containers: 1- and 5-gal. cans; 53 gal. drums.

Clear Gloss Lacquer: A pyroxylin type finish, either applied straight or mixed with "Duco" lacquers to increase the gloss. Use: To refinish automobiles. Containers: Pt., qt., 1- and 5-gal. cans.

Clear Wood Primer: For priming wood before applying "Preparakote" Primer. Containers: Qt. and gal. cans.

"Duco" Lacquers: Clear, pigmented and metallic lines of pyroxylin finishes applied by spray to metal surfaces of automobiles. Use: For refinishing. Containers: Pt., qt. and gal. cans.

"Duco" Sealer: Used on wooden furniture to hold out "Duco" topcoat finish; for interior use only. Containers: 1- and 5-gal. cans.

"Duco" Tinting Colors: For tinting and mixing. Use: With "Duco" colors. Containers: Qt., 1- and 5-gal. cans.

"Dulux" Enamels: Clear, pigmented and metallic synthetic products. Use: To refinish automobiles, trucks and all types of commercial vehicles. Containers: Qt. and gal. cans.

"Dulux" Enamels for Striping and Lettering: Colored, synthetic enamels for striping and lettering work. Use: On cars and trucks. Containers: ½ pt. cans.

"Dulux" Exterior Clear: For mixing with "Dulux" colors to increase gloss; as a slow size with large decalcomanias; as a protective coating over decalcomanias, lettering, etc. Containers: Qt. and gal. cans.

"Dulux" Make-Ready Undercoat: Applied under "Dulux" lacquers over old finishes. Use: To improve adhesion and to obtain uniform gloss. Containers: Qt., 1- and 5-gal. cans.

"Dulux" Tinting Colors: For tinting and mixing "Dulux" colors. Containers: Qt. and gal. cans.

Du Pont Flint Wax: For waxing automobiles. Containers: Qt. cans.

Glazing Putties: "Dulux" Glazing Putty, "Duco" Glazing Putty and oil type products. Use: For filling imperfections on the surfaces of automobile and truck bodies.

Gold Bronzes: Bronze powders to be mixed with clear and thinner. Use: For striping automobile and truck bodies. Containers: 1 oz. papers; 1 lb. cans.

Inside Body Gray Enamel: A varnish type enamel. Use: For the inside of truck bodies. Containers: Qt., 1- and 5-gal. cans.

Motor Enamel: A gray, varnish type enamel. Use: For refinishing automobile and truck engines. Containers: Qt., 1- and 5-gal. cans.

"Prep-Sol" Cleaner: A product used to clean surfaces which are to be refinished with "Dulux" or "Duco" finishes. Containers: Qt., 1- and 5-gal. cans.

Primers:

"Dulux" Metal Primer: Applied by brush or spray to metal surfaces under "Duco" and "Dulux" finishes. Containers: Qt., 1- and 5-gal. cans.

Oil Type: Used for priming wood and old paint in refinishing work. Containers: Qt., 1- and 5-gal. cans.

"Preparakote" Primer: A quick drying primer for use under "Duco" and "Dulux" finishes. Fills and can be sanded. Use: For refinishing automobile and truck bodies. Containers: Qt. and gal. cans.

Primer-Surfacers: Pyroxylin type products. Use: For refinish work on metal surfaces. Containers: Qt., 1- and 5-gal. cans; 15 gal. drums.

"Pyra-Prep" Sealer: For use under "Duco" lacquer to prevent sinking in; to obtain uniform gloss. Containers: Qt., 1- and 5-gal. cans.

Pyroxylin Primer: A pyroxylin type primer. Use: For touch-up work and over old finish in automobile refinishing; applied by spray. Containers: Qt., 1- and 5-gal. cans.

Quick Gold Size: Use: For laying gold leaf and decalcomanias on "Duco" and "Dulux" finishes. Containers: Qt. cans.

Refrigerator Refinishes: "Duco" and "Dulux" white finishes. Use: To completely refinish or touch up refrigerator exteriors. Containers: Qt., 1- and 5-gal. cans.

Retarder Thinner for "Duco" Lacquers: A slow drying thinner to be added to "Duco" lacquers to avoid blushing on damp days. Containers: Pt., 1- and 5-gal. cans.

Rubber Finish: For renewing appearance of rubber running-boards, mats, tires, etc. Containers: Qt. and gal. cans.

Rubbing Compounds: Mediums for producing gloss on "Duco" lacquers. Use: In automobile refinishing. Containers: Qt., 1- and 5-gal. cans.

Super "Removo" Paint and Varnish Remover: A remover having a wax content. Use: For removing old finishes from metal surfaces. Containers: Qt., 1- and 5-gal. cans.

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Shielding Compound: A masking compound. USE: To protect surfaces not intended to be painted while other surfaces are being painted; can be washed off with sponge after painted surface is dry. CONTAINERS: Qt. and gal. cans.

Surfacers, "Duco": Used under a "Duco" lacquer color coat in refinishing automobiles. CONTAINERS: 1- and 5-gal. cans.

Thinners for "Duco" Lacquers: Used for thinning pyroxylin products for spraying. CONTAINERS: 1 gal. cans; 5 gal. pails; 15-, 30- and 53-gal. drums.

Thinners for "Dulux" Surfacers: Used to reduce the viscosity of "Dulux" and other alkyd resin products. CONTAINERS: Qt. and gal. cans; 5 gal. pails; 15-, 30- and 53-gal. drums.

INDUSTRIAL FINISHES

GENERAL OFFICE: Du Pont Building, Wilmington 98, Delaware

REGIONAL OFFICES:

- Atlanta 3, Georgia, 619–21 Peachtree Street, N. E.
- Boston 15, Massachusetts, 1019 Commonwealth Avenue
- Chicago 14, Illinois, 2100 Elston Avenue
- Cleveland 14, Ohio, Union Commerce Building, 925 Euclid Avenue
- Philadelphia 3, Pennsylvania, 1616 Walnut Street
- San Francisco 6, California, 235 Second Street

PLANTS:

- Boston 49, Massachusetts, 59 Waters Avenue, Everett Station No. 49
- Chicago 14, Illinois, 2100 Elston Avenue
- Flint 2, Michigan, Hamilton Avenue and St. John Street
- Fort Madison, Iowa, Post Office Box 319
- Parlin, New Jersey
- Philadelphia 46, Pennsylvania, 3500 Gray's Ferry Road
- South San Francisco, California, Linden Avenue, Post Office Box 608
- Toledo 12, Ohio, 1930 Tremainsville Road

PRODUCTS

"A. C. E." Asphalt Chromate Emulsion: In plant maintenance it is used for roof coating, for protection of wood and metal materials which are used underground, and to waterproof iron and steel flues, ducts, etc. CONTAINERS: 5 gal. cans; 50 gal. drums.

Acetate:

Amyl (Pentacetate)—$CH_3COOC_5H_{11}$: A water-white liquid used as a solvent for nitrocellulose and lacquers. CONTAINERS: 5 gal. cans; 50 gal. drums.

Butyl—$CH_3COOC_4H_9$: A water-white liquid used as a solvent for pyroxylin lacquers. CONTAINERS: 5 gal. cans; 50 gal. drums; tank cars.

Ethyl—$CH_3COOC_2H_5$: Colorless liquid used as a solvent for nitrocellulose in the production of lacquers; furnished in several grades varying in ethyl acetate content. CONTAINERS: 5 gal. cans; 50 gal. drums; tank cars.

Mixtures: Used as solvents and thinners in finishes. CONTAINERS: 5 gal. cans; 50 gal. drums.

Acetic Ether: Synonymous term for ethyl acetate. Frequently used in referring to ethyl acetate of 99% strength. CONTAINERS: 5 gal. cans; 50 gal. drums.

Acid and Alkali Resisting Paints: A line of several grades and colors for maintenance use on wood and steel surfaces exposed to acid and alkali fumes. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Adhesives (See Cements, Page 151).

Airplane Dopes and Finishes: Airplane dopes are used for coating fabric wings. Airplane finishes, including undercoats and topcoat finishes, are used on wood and metal surfaces. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Alcohol:

Amyl—$C_5H_{11}OH$: A colorless liquid used in conjunction with nitrocellulose solvents in the production of lacquers. CONTAINERS: 5 gal. cans; 50 gal. drums; tank cars.

Normal Butyl—C_4H_9OH: A colorless liquid used in conjunction with nitrocellulose solvents in the production of lacquers. CONTAINERS: 5 gal. cans; 50 gal. drums; tank cars.

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Aluminum Mixing Varnishes: Varnishes to be mixed with aluminum powder or paste for use on wood or metal. CONTAINERS: 1- and 5-gal cans; drums.

Aluminum Paints: Ready mixed and ready-to-mix aluminum paints for use on exterior and interior metal and wood surfaces. CONTAINERS: 1- and 5-gal. cans.

Aluminum Powder and Paste: Various grades for use in varnishes and bronzing liquids. CONTAINERS: ½-, 1-, 2- and 10-lb. cans; 50- and 100-lb. drums.

"Antoxide" Paint: A high grade, metal-protective, rust-inhibitive line of paints. CONTAINERS: 1- and 5-gal. cans.

Asphaltums, Air Drying Types: Black enamels for application to metal. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Baking Japans, Black Gloss: A baking type finish generally used over a Rubber Black First Coat; applied by dipping or spraying. CONTAINERS: 5 gal. cans; drums.

Bronze Powders: In various color shades and various grades of particle size. Applied to surfaces for decorative purposes usually by means of a liquid vehicle. Made by reduction of alloys of copper and zinc to the form of flake-like powder. CONTAINERS: 1-, 5-, 10-, 25-, 50- and 100-lb. cans.

Bronzing Liquids: Of various types including pyroxylin base, oil base and synthetic resin base; used as vehicles for the application of aluminum powder, aluminum paste and bronze powder. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Cable Lacquers: A complete line of lacquers used on various types of fabric covered electric wires and cables in order to increase electrical insulation and to provide protection from effects of oil and grease. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Cements:

Belt Cements: Pyroxylin base cements used in the manufacture of leather belts requiring resistance to the effects of moisture. CONTAINERS: 5 gal. cans; 50 gal. drums.

"Duco" Household Cement (Waterproof Cement): A pyroxylin base cement having a wide utility in the repair of articles made of wood, glass, ivory, leather, pearl or cloth. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Pyralin" Pyroxylin Cements: Pyroxylin base cements for use in cementing "Pyraheel" and other plastic facings to wooden heels by manufacturers of women's shoes. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Thermoplastic Cements: Used for cementing or laminating various surfaces, such as metal foils, cloth, glass and sheets of metal that require the application of heat and pressure. These cements are applied to the surfaces and after thoroughly drying are ready for the necessary heat and pressure treatment required. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Thermosetting Cements: Used for cementing or laminating various surfaces, such as plywood, glass, sheets of metal, etc. These cements are applied to the bondable surfaces and after thorough drying are ready for the required heat and pressure which creates a bond not affected by subsequent application of heat. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Special Cements: A wide range of adhesives for an extended field of specialized uses pertaining to the problems of bonding various substances, and involving many modifications of various application and curing methods. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Clear Lacquers: Gloss and flat lacquers for natural wood finishing. USE: For furniture finishing. CONTAINERS: Pt., qt., 1- and 5-gal. cans.

Collodion: Pyroxylin solutions in ether-alcohol solvents. USE: For production of products such as liquid corn plaster, corn cures and waterproof bandages. Stripping types are supplied for use by photoengravers. CONTAINERS: 5 gal. cans; 50 gal. drums.

Colors in Oil: Paste products used to produce special tints in paints, enamels and undercoats; full line of colors. CONTAINERS: ½ pt., qt. and gal. cans.

Dibutyl Phthalate—$C_{16}H_{22}O_4$: Colorless liquid somewhat oily in character used as a plasticizer in nitrocellulose lacquers. CONTAINERS: 5 gal. cans; 50 gal. drums.

Dopes (See Airplane Dopes and Leather Solutions, Pages 150 and 152).

Drawer Coaters: Waxy gum solutions used as finishes for the inside of wooden furniture drawers. CONTAINERS: 5 gal. cans; 50 gal. drums.

Driers: Compounds used to accelerate the oxidation of a finish which contains drying oils. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Duco" Furniture Lacquer: Used for finishing wood furniture. CONTAINERS: 5 gal. cans; 50 gal. drums.

"Duco" Furniture Sealers: Similar in composition to clear and flat "Duco" lacquers for finishing of wood furniture. Used on wood furniture as a preliminary coat which is sanded and then followed by a clear or flat "Duco" lacquer topcoat.

"Duco" Pigmented Enamel Finishes: Pyroxylin base enamels furnished in a wide range of colors and types for satisfying the finishing requirements of numerous industries. Applied directly to a surface or over undercoats, depending on the finish needed. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Dulux" Clear Varnish: Synthetic resin base varnish made in various formulations for different types of requirements and characterized by unusual flexibility and durability. Applied either directly to a surface or as a topcoat over enamels for decorative and protective values. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Dulux" Pigmented Enamel and Paint Type Finishes: Synthetic resin base enamels and paints furnished in a wide range of colors of various specific types to meet the finishing requirements of numerous industries. Applied directly to a surface or over undercoats, depending on the finish needed. Furnished in both air-drying and baking types. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

"Dulux" Resins: Synthetic resins of the alkyd resin type sold under general sales designation of "Dulux" resins in grades suitable for the manufacture of varnishes, lacquers, resin base enamels and printing inks. CONTAINERS: 5 gal. cans; 50 gal. drums.

Enamels (Also See Asphaltums, "Duco", "Dulux", "Flintflex" and Engenamel): Pigmented finishes available in various colors and in various types, such as pyroxylin base enamels, oil base enamels and synthetic resin base enamels. Available in air-drying and baking types. Applied either directly to a surface or over undercoats, depending on the nature of the finish required. Applied by spraying, brushing, dipping or roller coating for protective and decorative purposes. CONTAINERS: 1- and 5-gal. cans: 50 gal. drums.

Enamels, Baking and Air-Drying: General types in various colors including pyroxylin base, oil base and synthetic resin base; used for protective or decorative purposes on many surfaces. Applied either directly to a surface or over primers or surfacers, depending on the finish requirements. CONTAINERS: 1- and 5-gal. cans; drums.

Engenamel: A red enamel (pyroxylin base) used as a sealing coat for crank-cases, transmission cases, gear cases, etc., of gasoline motors. CONTAINERS: 5 gal. cans; 50 gal. drums.

Fillers:

Iron and Steel: A heavy, paste type of filler used over undercoats to smooth out imperfections in the metal. CONTAINERS: 100 lb. kegs; bbls.

Wood: Available in paste or liquid form. Used for filling pores in wood as part of the preparation of surface for subsequent application of varnishes or lacquers. CONTAINERS: LIQUID—5 gal. cans; 50 gal. drums. PASTE—25 lb. cans; 100 lb. kegs; bbls.

Finger Nail Polishes: Ready to use and available in various colors for sale to a limited and selected number of large distributors.

Flame Retardant Paints: White and gray paints used principally by manufacturers of slow-burning and fire-proof electric wires and cables. CONTAINERS: 100- and 500-lb. kegs.

"Flintflex" Finishes: Enamel finishes of the synthetic resin type, employing "Dulux" resins. Similar to "Dulux" enamels, but designed for interior use only. Available in air-dry and baking types. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Furniture Varnish, Clear and Flat: Made from drying oils combined with natural resins or synthetic resins. For application by brushing, dipping and spraying to various surfaces for the deposition of films which serve to protect or enhance the appearance of surfaces. CONTAINERS: 5 gal. cans; 50 gal. drums.

Hand Wash: A solvent combination, prepared to permit quick removal of pyroxylin films from the hands. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Implement Varnish, Clear: For application by brushing, dipping and spraying to various surfaces for the deposition of films which serve to protect or enhance the appearance of surfaces. CONTAINERS: 5 gal. cans; 50 gal. drums.

Insulating Varnish, Clear: Used to waterproof and improve the dielectric properties of fabric covered electrical wires and cables. CONTAINERS: 5 gal. cans; 50 gal. drums.

Lacquers (See Airplane Dopes, Bronzing Liquids, Cable Lacquers, "Duco" Lacquers, Metal Lacquers, Paper Lacquers and "Pyralux" Lacquers).

Leather Solutions:

Clear Glazing Lacquer: Clear, pyroxylin base lacquer used as a waterproof, protective coat to be applied over the pigmented coat on leather. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Metal Lacquers: Clear, pyroxylin base lacquers used as finishes direct to metal, as primers on metal for enamel coats, and as topcoats over pyroxylin enamels. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Metal Lacquers, Gum Base:

Dry-Dip: Used on small, inexpensive, metal articles which are dry after the plating process. CONTAINERS: 1- and 5-gal. cans; 50 gal. drums.

Water-Dip: Used on small, inexpensive, metal articles which are still wet after the plating process.

"NFL" Wood Stains (See Stains, Wood, Page 153).

Nitrocellulose (Pyroxylin or Soluble Cotton): Furnished in several grades, depending on nitrogen contents and viscosities; used for the production of lacquers, enamels, bronzing liquids, leather dopes, photographic film, cements, collodion, etc. The low viscosity grade of Du Pont nitrocellulose is sold under the trade-mark of "PXP." Containers: 50 gal. drums.

Paints: Pigmented finishes available in various colors and in both oil base and synthetic resin base types. Applied by brushing or spraying either directly to surfaces or over suitable primers, depending on the nature of the finish required and surfaces to be coated. These products include metal protective paints, prepared paints for wood, flat wall paints and a wide variety of special paints for miscellaneous purposes. (See Paint and Varnish Trade Sales.)

Paper Lacquers: (Clear lacquers made on pyroxylin base).

High Gloss: Used principally on labels or other paper articles where high gloss finish is desired. Containers: 1- and 5-gal. cans; 50 gal. drums.

Moistureproof: (Heat sealing or non-heat sealing). Used on labels, paper liners and paper wraps requiring appearance imparted by clear lacquer, plus high degree of impermeability to moisture vapor. Containers: 1- and 5-gal. cans; 50 gal. drums.

Paste (See Colors in Oil, Fillers and Stencil Paste).

Plasticizers (See Dibutyl Phthalate, Page 151).

Primers: Various general types, including pyroxylin base, oil base and synthetic resin base; used as the first or priming coat in a finishing system. Containers: 1- and 5-gal. cans; drums.

Putties: Oil base, synthetic resin base and pyroxylin base putties, both of the hard type and glazing type. For use in finishing where the surface imperfections are too pronounced to permit obtaining a smooth surface by the use of primer and surfacer coats. Containers: 1-, 5-, 10- and 22-lb. cans.

"PXP" Nitrocellulose (See Nitrocellulose, Page 152).

"Pyralux" Lacquer: A pyroxylin base lacquer suitable for application direct to metal surfaces used under indoor conditions. Containers: 1- and 5-gal. cans; 50 gal. drums.

Pyroxylin (See Nitrocellulose, Page 152).

Pyroxylin Solutions: Mixtures of nitrocellulose and solvents made up in various combinations as lacquer bases; also made up in combinations according to customers' specifications.

Refrigerator Finishes: A complete line of undercoats and white pigmented finishing coats for use on metal refrigerators. Containers: 5 gal. cans; 50 gal. drums.

Retarders: Exceptionally slow drying thinners used with pyroxylin base lacquers or enamels to retard speed of drying.

Sign Finishes: A complete line of finishes, including undercoats, "Duco" and "Dulux" background topcoats, "Duco" and "Dulux" stencil pastes and clear "Dulux" topcoats for silk screen stencil; press-printed, gum printed and lithographed metal signs. Containers: 5 gal. cans; drums.

Soluble Cotton (See Nitrocellulose, Page 152).

Solvents (See Acetate, Acetic Ether and Alcohol, Page 150).

Stains, Wood: Used under lacquer and varnish to intensify and produce various grain effects on wood and to produce imitation wood-grain effects on primed metal. Available in ready-for-use form involving choice of pigmented, oil-soluble, water-soluble and spirit-soluble stains. Containers: 5 gal. cans; drums. Also water-soluble stains available in dry powder form in 5 lb. cans.

Stencil Paste (See Sign Finishes, above).

Surfacers: Various general types, including pyroxylin base, oil base and synthetic resin base; used as a second or intermediate coat in a finishing system. Containers: 1- and 5-gal. cans; 50 gal. drums.

Thinners: Appropriate combinations of solvents and diluents, including "Crown Spirits" turpentine substitute, used for the purpose of reducing the viscosity or consistency of finishes. Special grades available for various types of pyroxylin base, oil base and synthetic resin base finishes. Certain thinners used for pyroxylin base finishes may also be used to remove pyroxylin films and grease from surfaces which are to be refinished. (Also see Retarders, above). Containers: 1- and 5-gal. cans; 50 gal. drums.

Tin Decorating Finishes: Varnishes and enamels, both oil base and synthetic resin base, for application to tin plate which, after baking, is formed in dies to produce various types of metal containers. Containers: 5 gal. cans; 50 gal. drums.

Undercoaters (See Primers, Sealers and Surfacers).

Varnishes: Clear finishes for application by brushing, dipping or spraying; made from drying oils combined with natural resins or synthetic resins for application to various surfaces for the deposition of films which serve to protect or enhance the appearance of surfaces.

Waterproof Cement (See Cements, Page 151).

Wire Enamels: Base varnishes which on baking give enamel-like appearance; used for application to electrical wire for the purpose of providing insulation.

"No. 7" CHEMICAL SPECIALTIES

GENERAL OFFICE: Du Pont Building, Wilmington 98, Delaware

BRANCH OFFICE: San Francisco 6, California, 235 Second Street

PLANTS:

Flint, Michigan Parlin, New Jersey Toledo, Ohio

PRODUCTS

*Indicates Resale Products

"Dissolvo" Grease Solvent: A concentrated grease solvent. Mix with kerosene or light fuel oil for cleaning garage floors, grease pits, motors, tools, etc. Containers: 1- and 5-gal. drums.

***Dry-Clean Fabric Cleaner:** A non-flammable cleaning fluid, leaves no odor and does not shrink fabrics; recommended for all color-fast garments, gloves, draperies, upholstery and fine fabrics; removes grease, wax, fresh paint, gum, adhesive tape and road tar. Containers: 8-oz. and gal.

"Duco" Cleaner: A liquid cleaner-polish for all auto finishes. Removes dullness, traffic film and old wax from the finish. Especially recommended for use before applying wax. Containers: Pt. and gal. cans.

"Duco" Household Cement: A transparent, waterproof adhesive used in the manufacture or repair of articles made of wood, glass, china, metal, ivory, leather, paper or fabrics. Containers: 1¾ fl. oz. tubes (twelve to display carton).

"Duco" Wax: An easy polishing paste wax for autos and furniture. Produces a brilliant, durable luster and protects the finish from moisture and harmful ultraviolet rays of the sun. Containers: 7 oz.; 1 lb.

Du Pont Acid and Rust Inhibitor: For reconditioning old ethylene glycol anti-freeze. Neutralizes acid and prevents rust. Can also be used as a summer anti-rust in plain water. Containers: 5 oz.

Du Pont Anti-Rust: A powdered rust inhibitor which keeps auto cooling systems free from rust, helping to maintain engine efficiency. Containers: 2 oz.

Du Pont Bug Remover: An efficient cleaning powder for removing bug residue from fenders, windshields, frames, etc. Containers: 6 oz.

Du Pont Car Wash: A soapless chemical which, when dissolved in water, makes car washing easy. Removes dirt and grease quickly and safely. Makes drying unnecessary. Easy on the hands and car finish. Containers: 6 lbs.

Du Pont Cellulose Sponge: (See Page 211).

Du Pont Cooling System Cleanser: A powerful, acid type cleanser which cleans badly clogged radiators by actually dissolving rust, scale and grease without injury to hose packings or metal parts. Does not require reverse flushing. Containers: 1 lb.

Du Pont Cooling System Sealer: Stops leaks in automotive radiators and cooling systems quickly, without clogging the passages. Harmless to hose and metal parts. Containers: 10 oz. cans.

Du Pont Flint Wax: A soft paste wax that can be applied to the entire car and polished afterward at leisure. Does not "set-up" quickly and stick to the surface. Polishes easily to brilliant, durable luster. Protects car from dirt, moisture and sun. Containers: Qt.

Du Pont Motor-Mend: For repairing cracked cylinders, engine blocks and water jackets in cars, trucks, busses and tractors. Will not harm hose or metal parts or clog the system. Also recommended as a heavy-duty stop-leak. Containers: Pt. cans.

Du Pont Paste Cleaner: A paste cleaner for use on autos which are badly weathered and heavily coated with traffic film. Removes chalked pigment, stains, old wax and film without scratching or injuring the finish. Containers: 11 oz.

Du Pont Refrigerator Polish: Liquid, wax polish for enameled or lacquered refrigerators, ranges, kitchen cabinets, washing machines, mangles, etc. Suitable also for chromium fittings. Containers: 8 oz.

Du Pont Speedy Wax: A quick working liquid polish which cleans the finish and gives it a wax polish in one operation. Especially suited for new cars and finishes in good condition, but may be used on old finishes from which the chalked pigment has been cleaned. Containers: Pt. and gal.

Du Pont Tar Remover: A safe solvent for removing tar, road oil and gummy substances from automobile finishes. Containers: Pt. and gal.

Du Pont Tire Black: A black dressing for brightening automobile tires, rubber mats and running boards. Containers: Gal.

Du Pont Top and Windshield Sealer: A black, waterproof compound for sealing cracks at auto top mouldings, windshield frames, rear windows, trunk joints, etc. Also suitable for patching holes in the top fabric. Containers: 3 oz. tubes.

Paint and Varnish Remover: Highly efficient, slow-evaporating, liquid solvent; works quickly, cleans-up easily. USE: For removing all types of interior and exterior air-drying finishes.

Paste Wax: A smooth, light colored, easy polishing wax in paste form. Buffs easily, produces a hard, brilliant finish. USE: For all floor and furniture.

Paste Wood Filler: For filling the pores of open-grained wood; should be reduced to a thick cream with turpentine or benzine before applying. Offered in transparent or natural.

Penetrating Stains: Deep penetrating-type stains offered in several shades. They develop fully the natural markings of the wood without clouding or obscuring the surface. USE: On interior woodwork and furniture.

Penetrating Wood Finish: A clear, varnish type liquid, having unusual penetrating qualities; enters into the pores of the wood, leaving no film on the surface. USE: For new wood floors, interior woodwork, trim, etc., or for previously finished wood surfaces on which the old finish has been completely removed by sanding.

Pre-Wax Floor Cleaner: A concentrated cleaner to be reduced with water, for cleaning all types of floor surfaces before waxing or re-waxing.

Primer Sealer: A high quality product which contains a high-hiding titanium pigment with an alkali-resisting vehicle. USE: For priming and sealing interior porous wallboards, plaster and other masonry surfaces.

Q. D. Metal Primer: A quick drying primer, composed of red lead and iron oxide in a varnish vehicle. USE: On interior or exterior bare metal surfaces prior to applying finish coat.

Quick Drying Flopr Varnish: A durable, hard drying varnish. USE: Especially for floors.

Screen Enamel: A protective coating for wire screens which prevents corrosion yet does not "clog" the mesh; furnished in black. USE: On screen wire.

Self-Polishing Wax: A quick drying, slip-retardant wax in liquid form; requires no polishing. Easy to apply. USE: On floors, woodwork, furniture, luggage and similar surfaces.

Semi-Gloss White Enamel: Dries with a rich, semi-gloss finish; high hiding, exceedingly white. USE: Especially desirable for finishing kitchens, bathrooms, children's playrooms, etc.

Shingle Stains: High grade pigment stains well known for their durability. Can be applied either by brushing or dipping. Available in white and several shades. USE: For coloring shingled roofs or sidings.

"Shipoleum" Varnish: Made especially for fine interior trim, woodwork, doors and furniture. It is not intended for floor use although it is extremely durable and resistant to hard wear.

"Speed-Easy" Wall Finish: A paste product, to be thinned with water. Dries with a durable, washable, flat finish. Furnished in white and many pastel shades. USE: For interiors on wallpaper, plaster, brick, concrete and wallboard.

Stippling Flat Paint: A product which will properly take a range of stipples from low pebble effect to fairly high nibs. USE: On wood, plaster, and wallboard walls.

"Super Clear" Varnish: A durable, gloss varnish for general interior use, including floors; also for protected exterior surfaces.

"Supreme" Drier: A lead-manganese drier which never causes saponification or curdling, and does not burn delicate tints.

"Supremis" Floor Varnish: This varnish provides a hard and impervious finish which resists heel marks and tread of feet. Easily applied and holds its brilliance and luster over a long period.

Surface Smoother: An all-purpose patching and resurfacing compound. Furnished in powder form, to be mixed with water. USE: For filling in cracks, crevices in all types of interior surfaces.

Three Dimensional Seeing: The principle of identifying moving parts of machinery and equipment with light, contrasting colors. Speeds production, reduces "seconds," prevents accidents and greatly improves seeing conditions. Ask for descriptive booklet.

"Town and Country" Flat White Paint: A high-hiding, easy-working interior Flat White, made especially for the Master Painter. USE: On plaster, wallboard, concrete, cement, etc.

Traffic Paint: An exceptionally quick drying paint; offered in white and High Visibility Yellow. (See also "Dulux" Safety Color Code Finishes, Page 158). USE: On either interior or exterior surfaces.

"Trim and Trellis" Finishes: Durable, fade-resistant, quick drying finishes of "Dulux" quality; furnished in several attractive colors and a gray undercoat. USE: For exterior shutters and trim.

"Tufcote" Barn and Roof Paint: For barns and outlying buildings; furnished in semi-paste form.

"Tufcote" Light Buff Graining Ground: A ground coat for hiding the previous finish before application of "Tufcote" Varnish Stain.

"Tufcote" Varnish Stain: A stain and varnish combined, available in several shades. USE: On interior woodwork, furniture and floors.

White Lead in Oil: A pure carbonate of white lead ground in refined linseed oil. It is furnished in stiff and soft paste consistency. USE: For exterior painting.

Defendant's Exhibit (DP) No. 566

E. I. DU PONT DE NEMOURS AND COMPANY

Sales of Ethyl Alcohols (Including Ethyl Alcohol Type Antifreeze) to the General Motors Car Divisions

Years 1932 through 1941

Year	Buick	Cadillac	Chevrolet	Oldsmobile	Pontiac
1932	$ 0	$ 0	$ 0	$ 48	$ 0
1933	0	895	1,365	119	0
1934	0	1,601	15,767	1,589	153
1935	359	1,638	57,919	15,117	697
1936	1,095	2,353	51,203	24,577	4,090
1937	2,880	565	3,390	2,672	5,693
1938	838	257	1,901	482	3,044
1939	520	236	4,052	359	3,707
1940	1,284	10	4,588	670	8,957
1941	1,303	1,593	5,384	1,037	10,461

Note: No accounting records are available as to what, if any, sales were made prior to 1932. Available accounting records do not show separately the amount of alcohol which was sold for anti-freeze.

Prepared from Company records
Treasurer's Department

Defendant's Exhibit (DP) No. 567

E. I. DU PONT DE NEMOURS AND COMPANY

Sales of Ethyl Alcohols

(Including Ethyl Alcohol Type Antifreeze)

1932 through 1941

Year	Total Sales to All Customers	Sales to All General Motors Divisions	Sales to General Motors Divisions as Percentage of Total
1932	$ 368,841	$ 48	0.01
1933	1,390,250	3,366	0.24
1934	1,286,110	21,191	1.65
1935	1,160,155	84,764	7.31
1936	1,433,702	104,028	7.26
1937	2,022,787	42,867	2.12
1938	2,227,430	23,003	1.03
1939	2,426,761	19,874	0.82
1940	3,337,692	22,886	0.69
1941	5,139,569	40,268	0.78

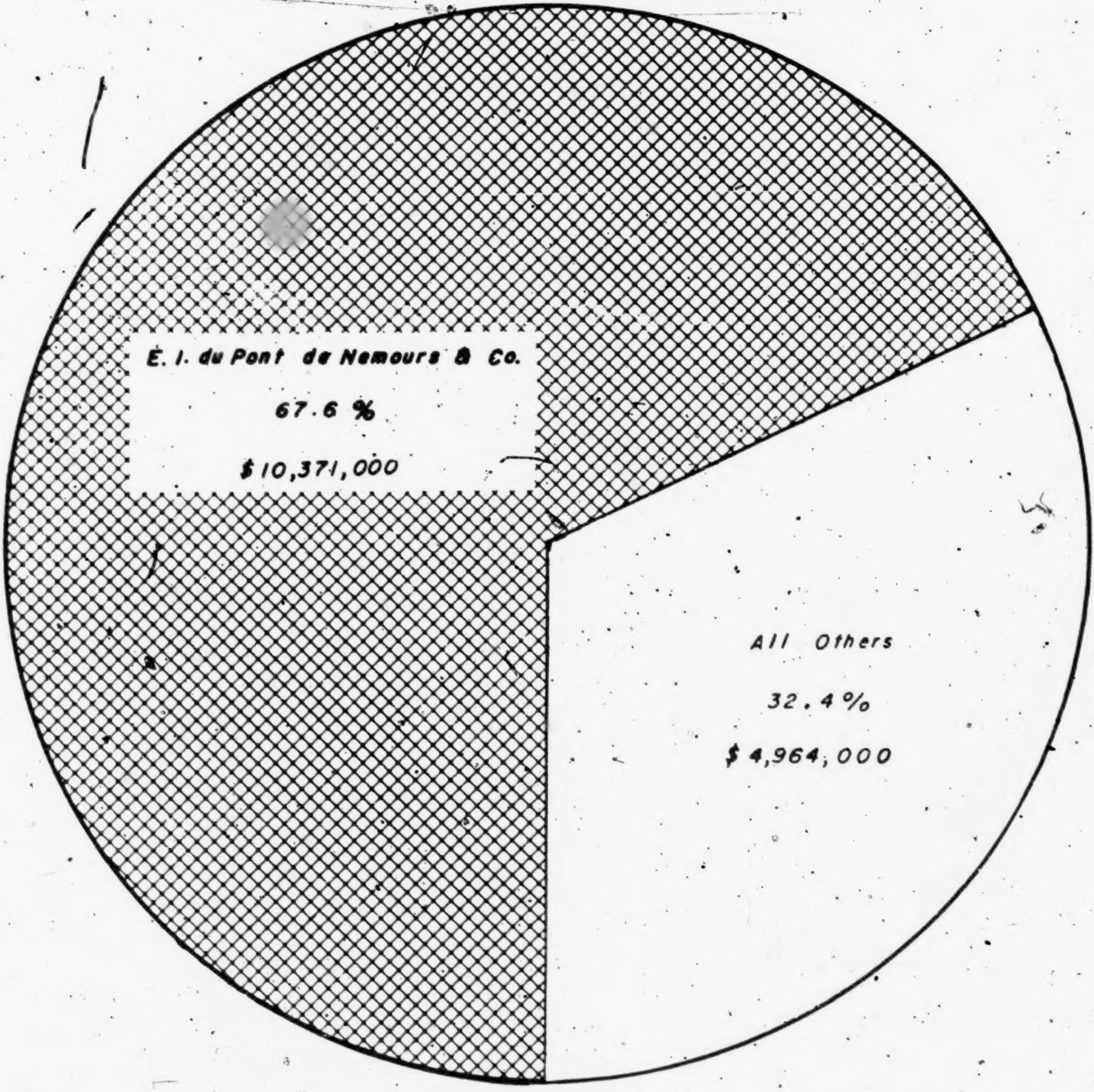
Note: No accounting records are available as to the sales made prior to 1932. Available accounting records do not show separately the amount of alcohol which was sold for antifreeze.

Prepared from Company records
Treasurer's Department

Defendant's Exhibit (DP) No. 568

GENERAL MOTORS CORPORATION PURCHASES OF FINISHES FROM DU PONT AND ITS COMPETITORS

1946 AND 1947



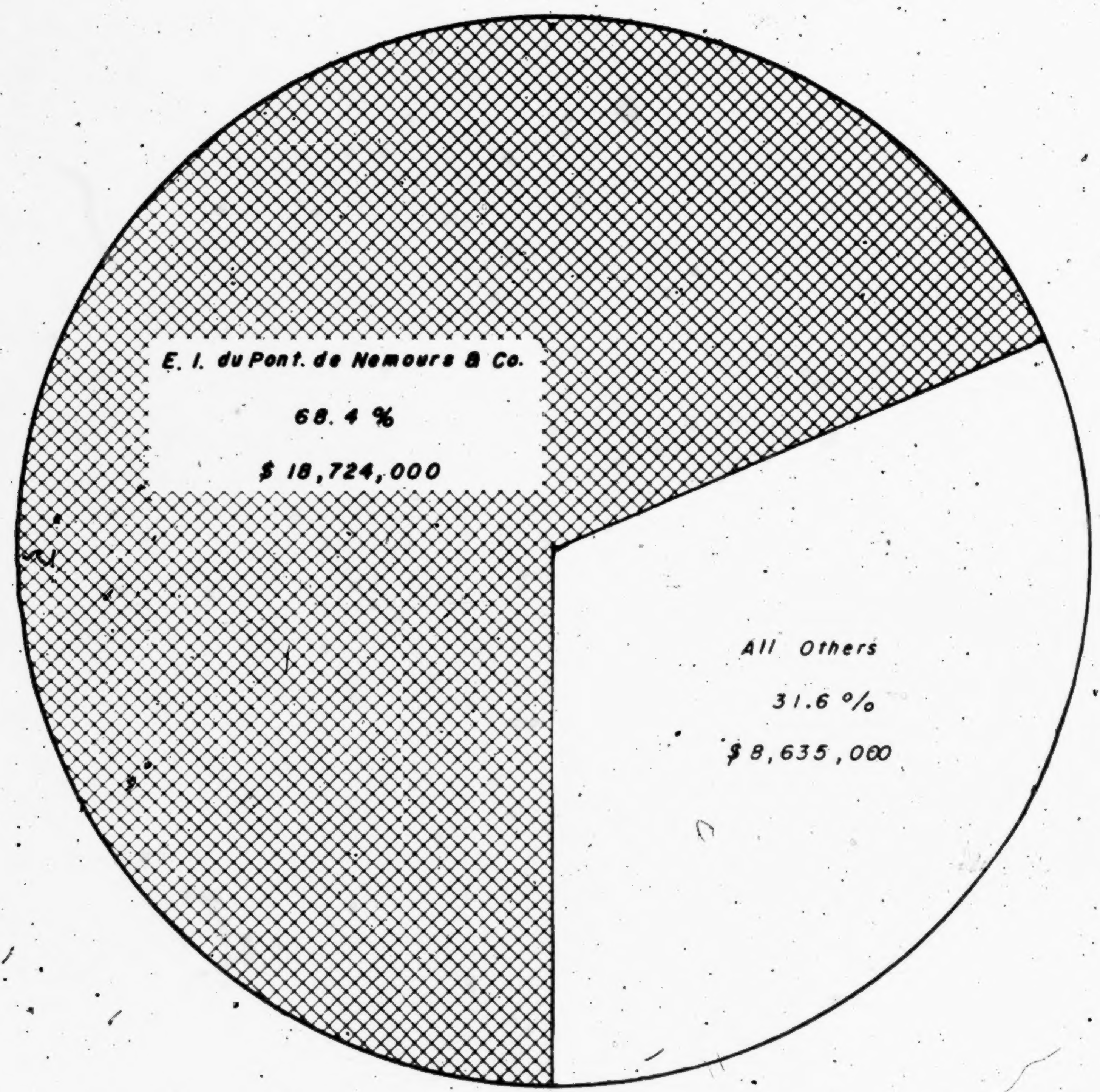
1946

Source

Government Trial Exhibit 1343A
Government Trial Exhibit 1344

Note

Sales by du Pont exclude Heavy Bodied Cements and Pyroxylin Solutions, Plastic Protective Coating, Wax and Rubbing and Polishing Compounds. Purchases from others include Paints, Enamels, Primers and Lacquers, Solvents, Thinners and Pyroxylin.

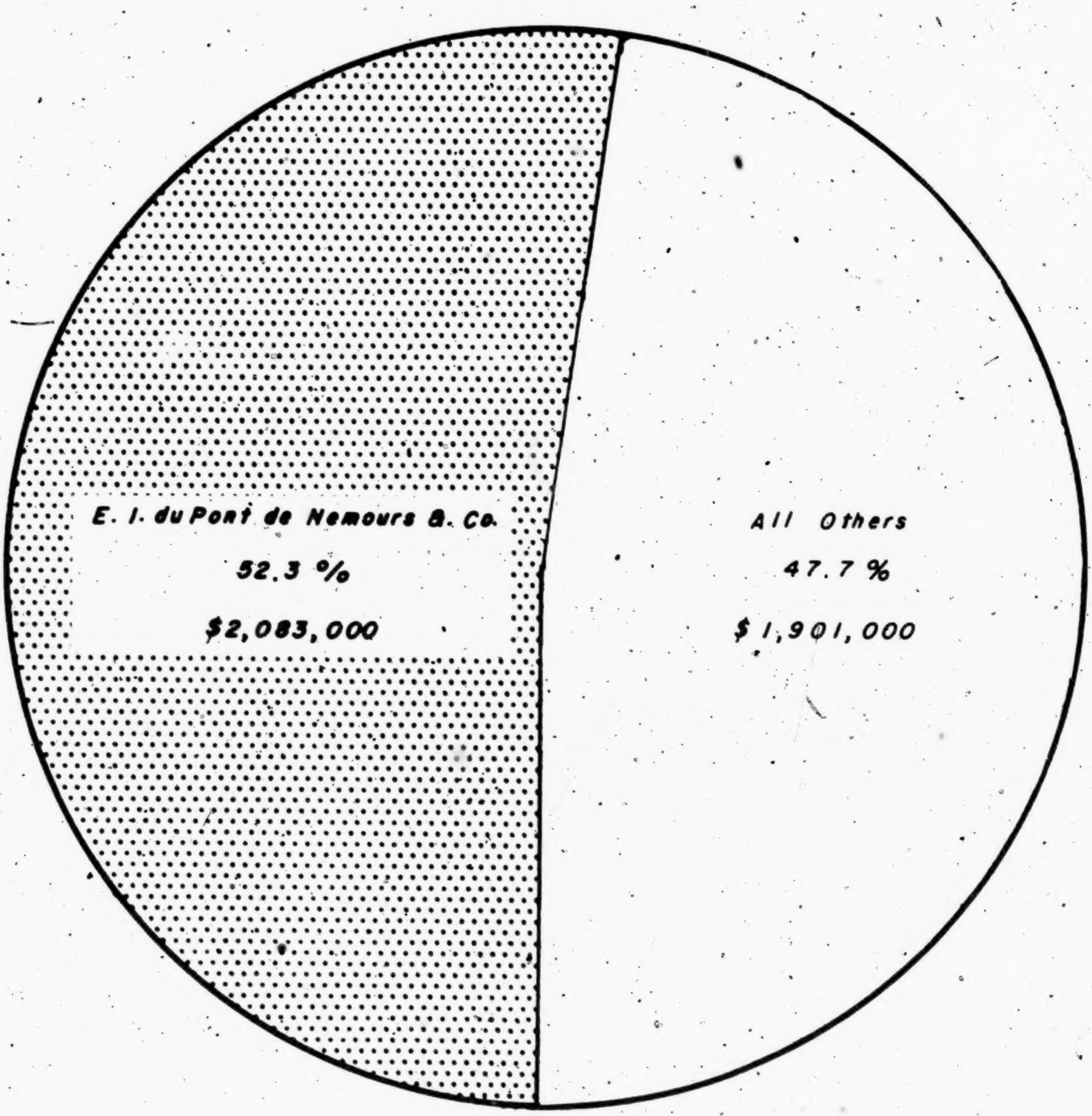


1947

Defendant's Exhibit (DP) No. 569

GENERAL MOTORS CORPORATION
PURCHASES OF FABRICS (IMITATION LEATHER AND COATED FABRICS) FROM DU PONT AND ITS COMPETITORS

1946 AND 1947

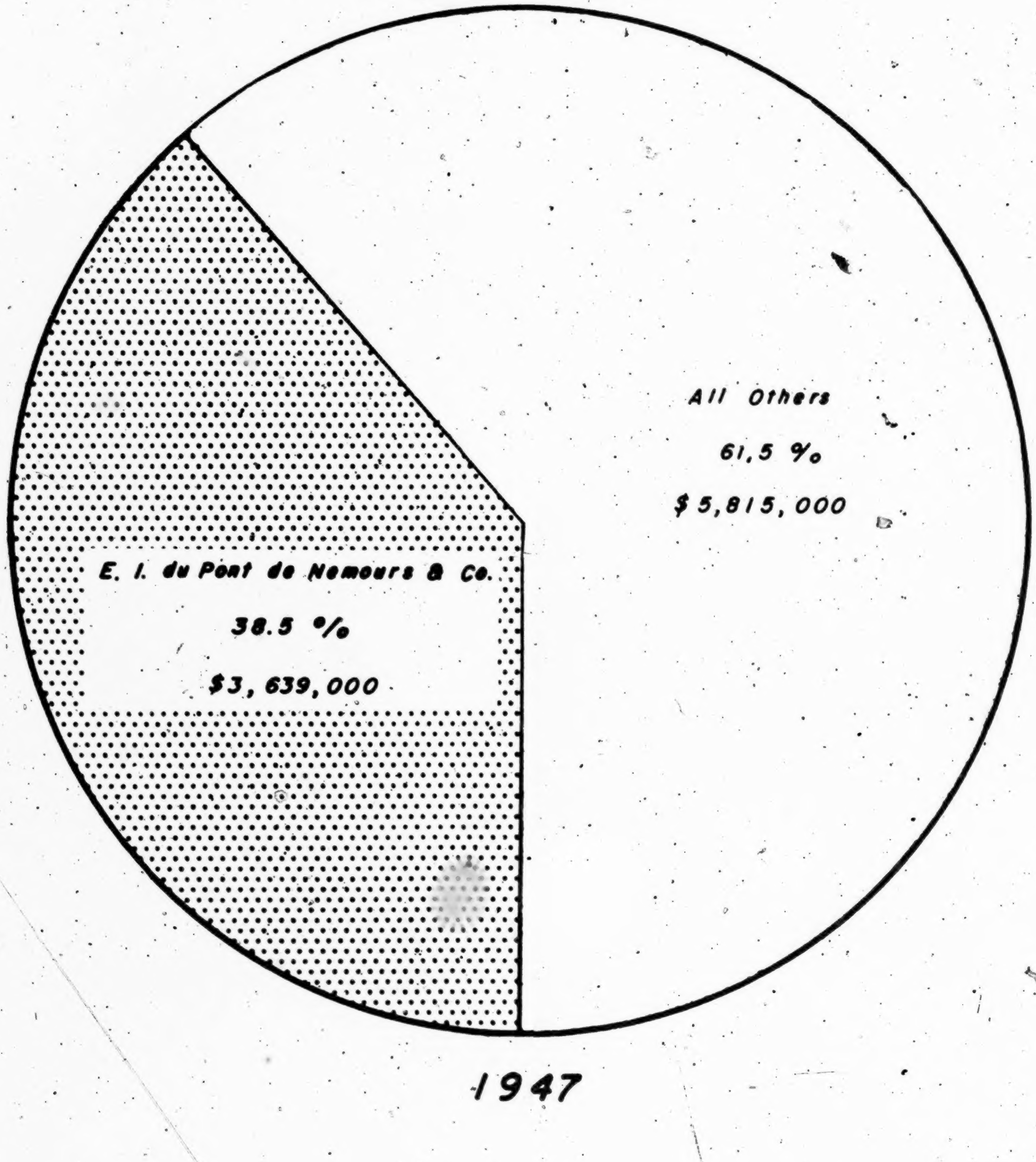


1946

SOURCES:

Government Trial Exhibit No. 1343A

Government Trial Exhibit No. 1344

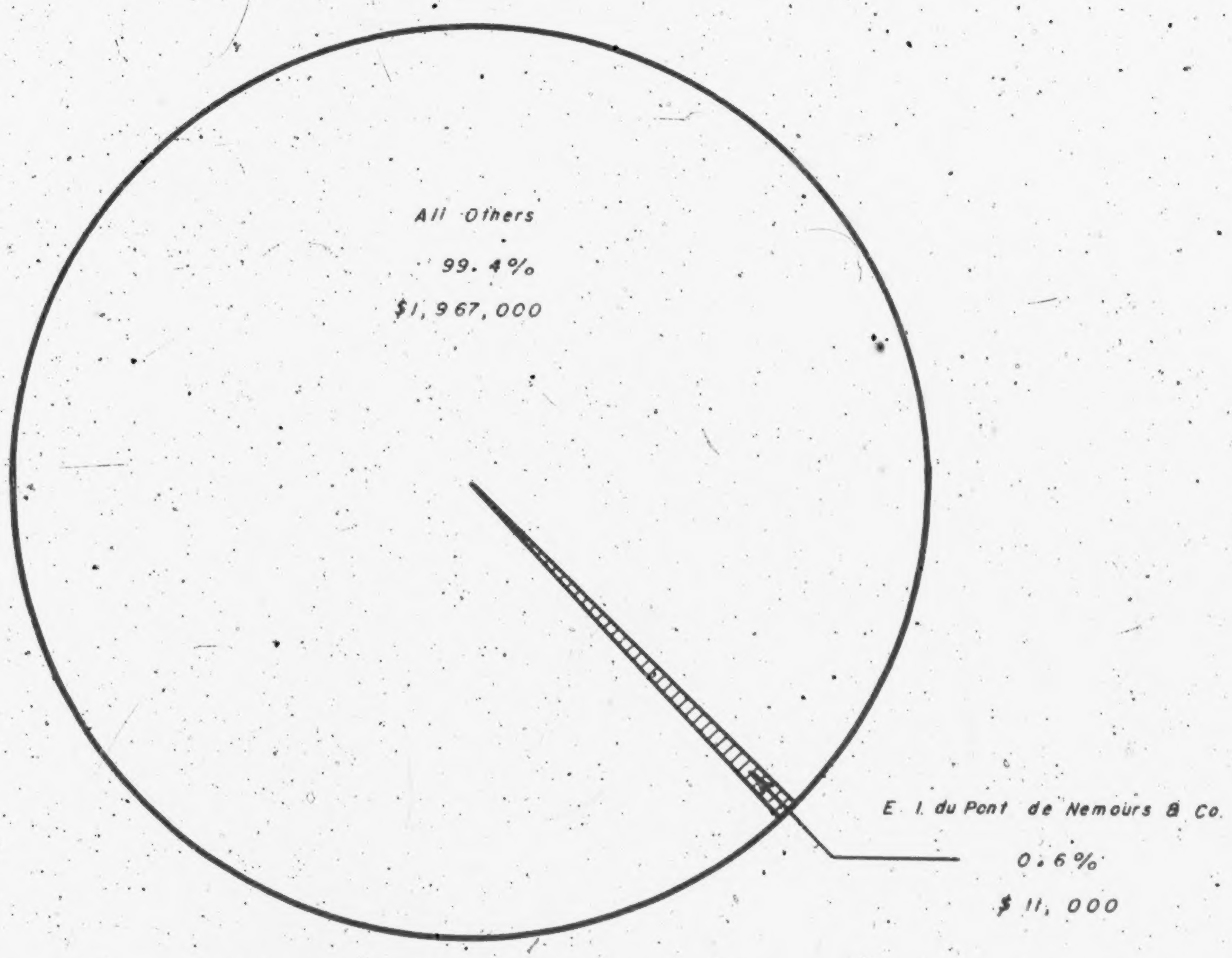


1947

Defendant's Exhibit (DP) No. 570

GENERAL MOTORS CORPORATION PURCHASES OF ADHESIVES FROM DU PONT AND ITS COMPETITORS

1946 AND 1947

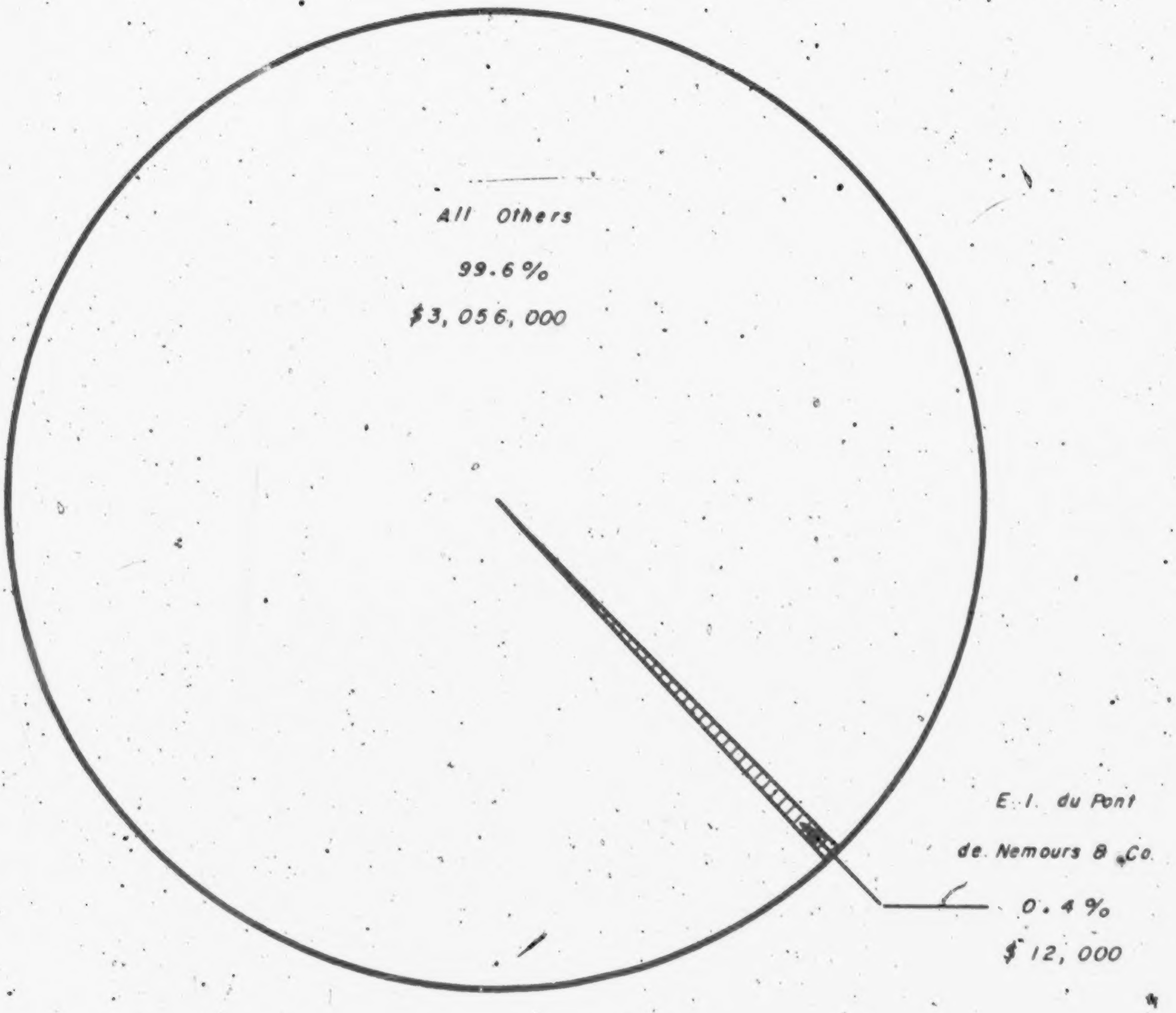


1946

SOURCES:

Government Trial Exhibit No. 1343A
Government Trial Exhibit No. 1344

Defendants' Tr. Ex. No. DP570

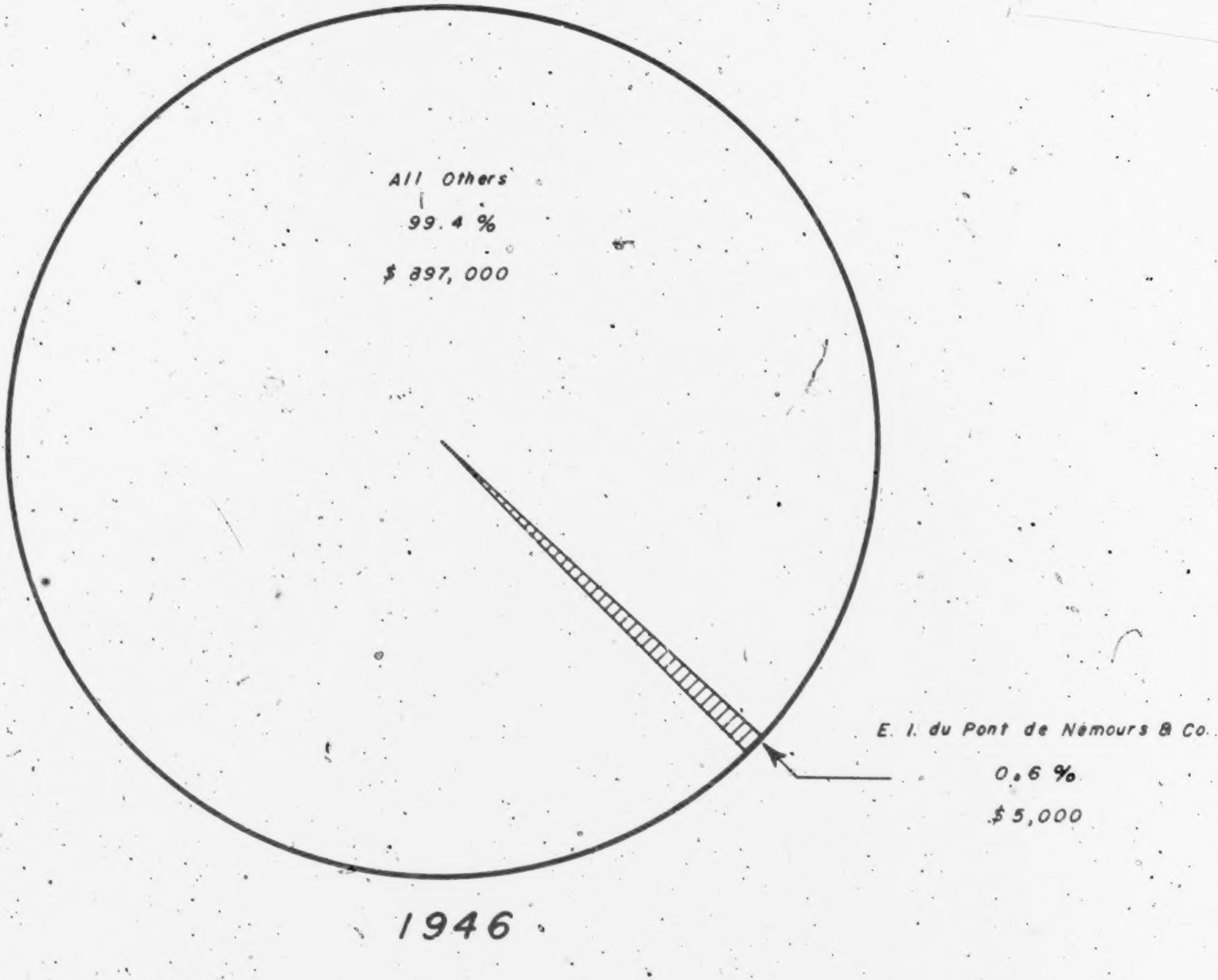


1947

Defendant's Exhibit (DP) No. 571

GENERAL MOTORS CORPORATION PURCHASES OF ANODES FROM DU PONT AND ITS COMPETITORS

1946 and 1947

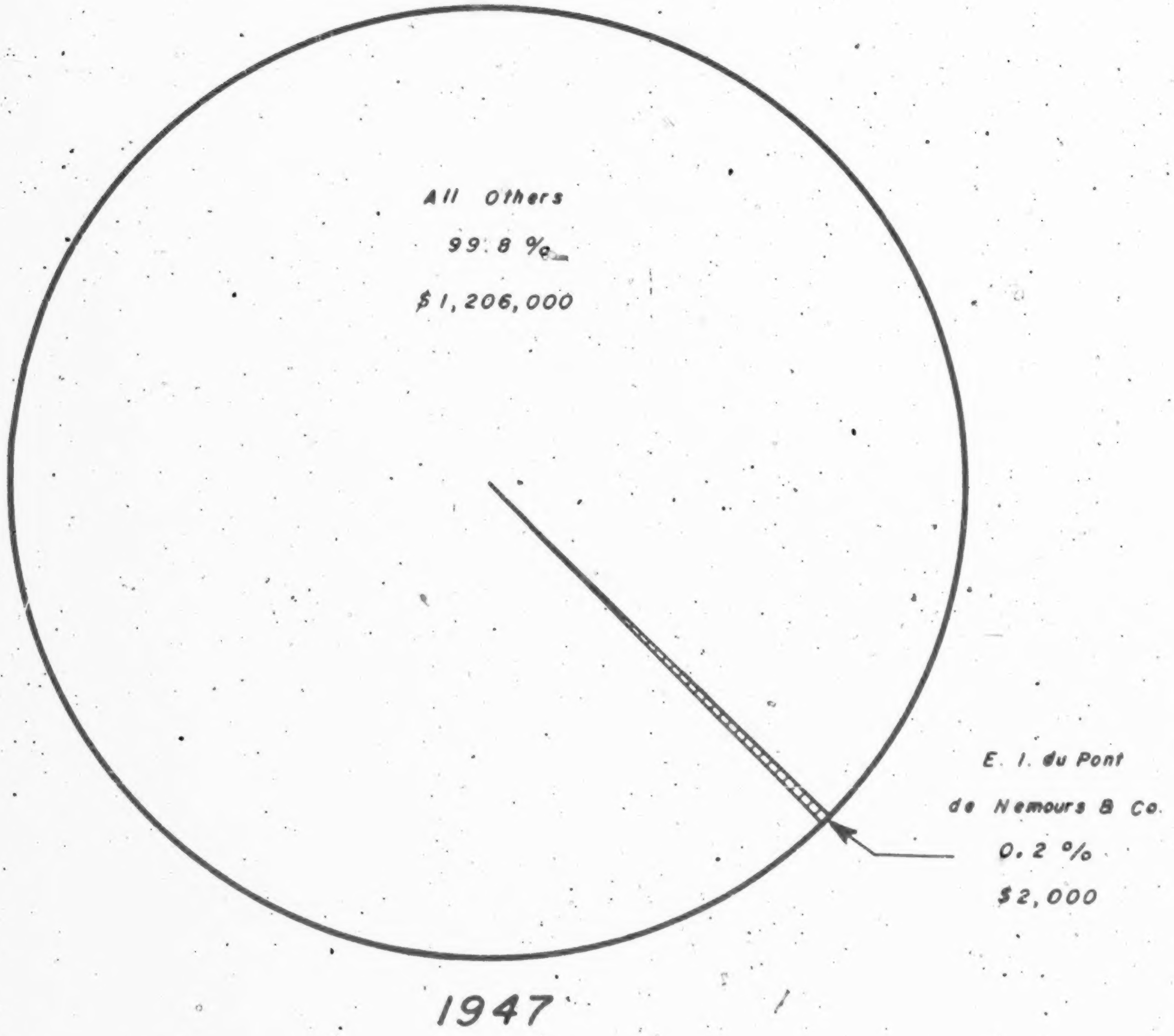


1946

SOURCES:

Government Trial Exhibit No. 1343A

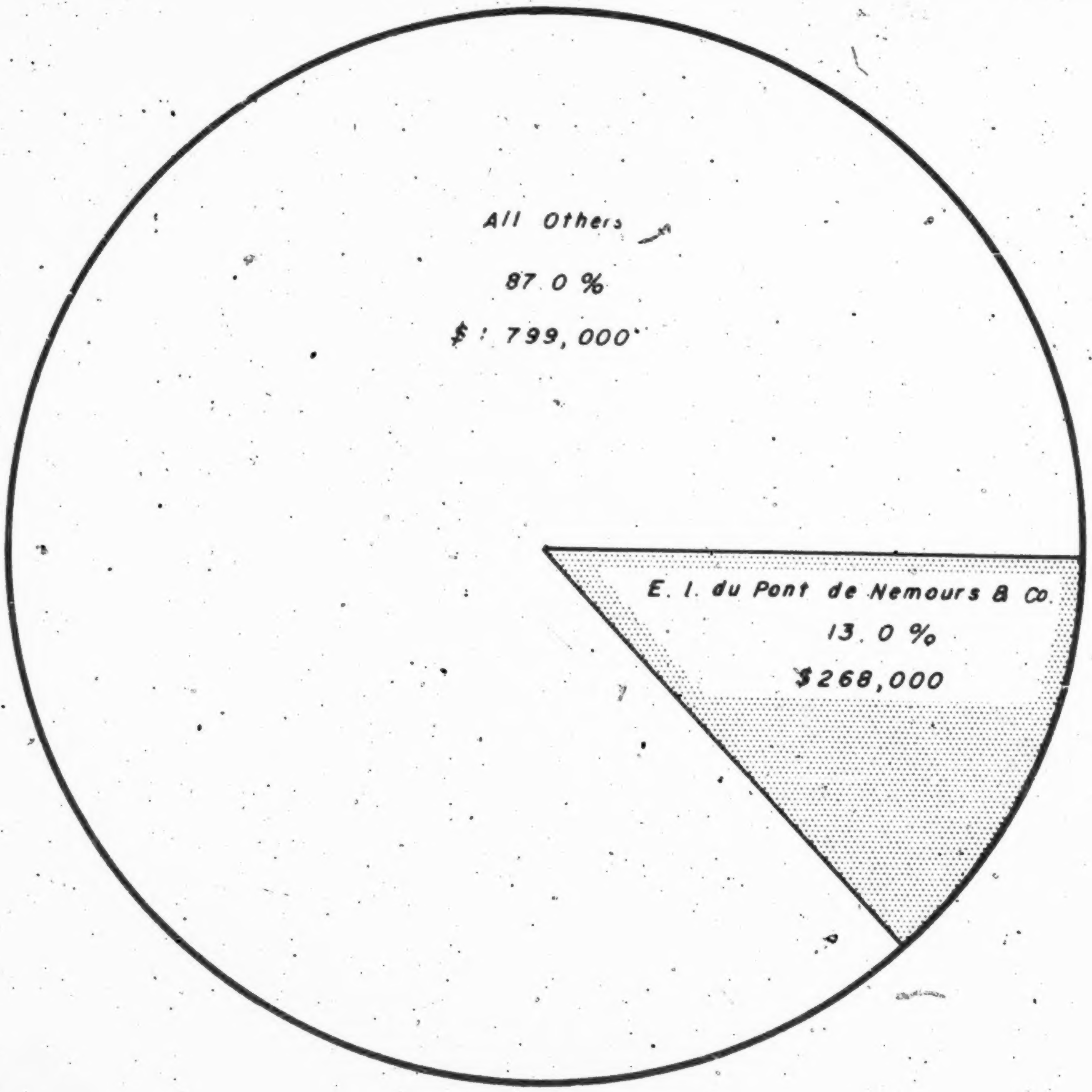
Government Trial Exhibit No. 1344


All Others
99.8 %
$1,206,000
E. I. du Pont
de Nemours & Co.
0.2 %
$2,000
1947

I Defendant's Exhibit (DP) No. 572

GENERAL MOTORS CORPORATION PURCHASES OF CHEMICALS (SOLVENTS) FROM DU PONT AND ITS COMPETITORS

1946 and 1947



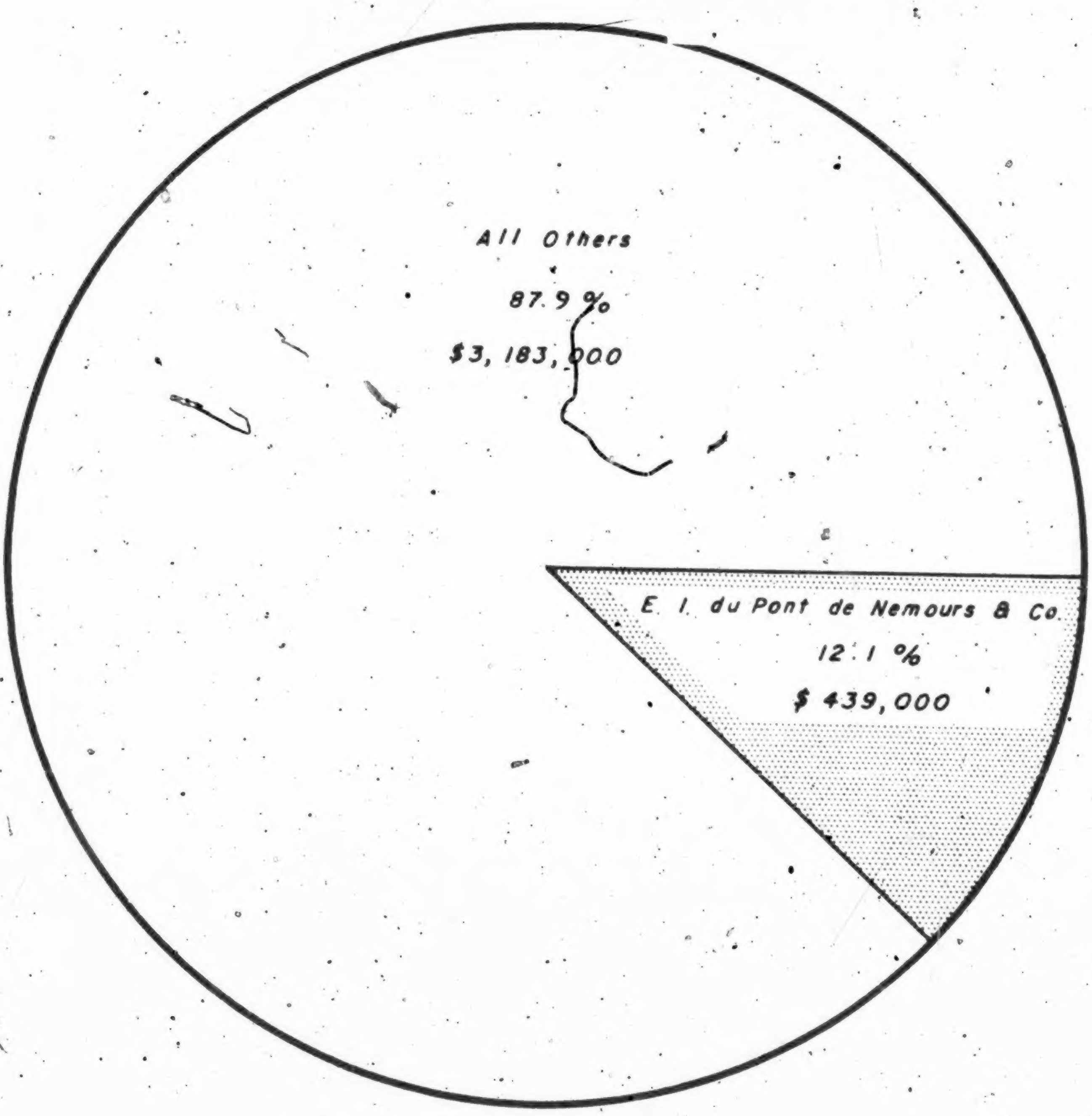
1946

Source

Government Trial Exhibit 1343A
Government Trial Exhibit 1344

Note

Du Pont sales are the 1946 and 1947 sales of those products listed under the Solvents category of Chemicals in Government Trial Exhibit 1343B (attachment B 1 to GM Comptroller's Circular Letter) together with all other solvent sales by du Pont reported in Government Trial Exhibit 1344.



1947

GOVERNMENT EXHIBIT 1388 CORRECTED TO INCLUDE ALL PRODUCTS REPORTED BY GENERAL MOTORS CORPORATION TO GRAND JURY AS PURCHASED FROM COMPETITORS OF DU PONT COMPANY

	YEAR 1946				YEAR 1947			
	FROM DU PONT	FROM COMPETITORS	TOTAL	% DU PONT	FROM DU PONT	FROM COMPETITORS	TOTAL	% DU PONT
CHEMICALS:								
ANODES	$ 5,000	$ 897,000	$ 902,000	.6%	$ 2,000	$ 1,206,000	$ 1,208,000	.2%
SOLVENTS	268,000	1,799,000	2,067,000	13.0	439,000	3,183,000	3,622,000	12.1
FINISHES	10,371,000	4,964,000	15,335,000	67.6	18,724,000	8,635,000	27,359,000	68.4
ADHESIVES	11,000	1,967,000	1,978,000	.6	12,000	3,056,000	3,068,000	.4
FABRICS (IMITATION LEATHER AND COATED FABRICS)	2,083,000	1,901,000	3,984,000	52.3	3,639,000	5,815,000	9,454,000	38.5
ANTIFREEZE	669,000	21,000	690,000	97.0	1,710,000	43,000	1,753,000	97.5
TOTAL	$13,407,000	$11,549,000	$24,956,000	53.7 %	$24,526,000	$21,938,000	$46,464,000	52.8 %

SOURCE

Defendants' Trial Exhibit	DP 568
Defendants' Trial Exhibit	DP 569
Defendants' Trial Exhibit	DP 570
Defendants' Trial Exhibit	DP 571
Defendants' Trial Exhibit	DP 572
Government Trial Exhibit	1389
Government Trial Exhibit	1390

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Supreme Court of the United States

[illegible]

No. [illegible]

UNITED STATES OF AMERICA, APPELLANT,

v.

E. I. du PONT de NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

[illegible]

PROBABLE [illegible]

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT,

vs.

E. I. du PONT de NEMOURS AND COMPANY, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

VOL. X

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No. 8—Chart showing General Motors Corporation organization, July, 1946	4368	6570
No. 9—Organization chart Chevrolet Motor Division of General Motors Corporation, 1946	4369	6571
No. 10—General Motors Corporation Board of Directors, May 10, 1923	4370	6572
No. 11—Letter dated April 8, 1943, from W.S.C., Jr. to Alfred P. Sloan, Jr.	4374	6576
No. 12—Letter dated September 22, 1943, initialled WSC to Alfred P. Sloan, Jr.	4384	6586

General Motors Exhibits:

	Original	Print
No. 13—Letter dated August 15, 1944, from Alfred P. Sloan, Jr. to Walter S. Carpenter, Jr.	4387	6589
No. 14—Letter dated November 20, 1947, initialled WSC to Alfred P. Sloan, Jr.	4389	6591
No. 15—Schedule of Meetings of the Board of Directors of the du Pont Company, May 1923 to December 20, 1948	4392	6594
No. 16—Table of Attendance by Alfred P. Sloan, Jr. at du Pont Board of Directors Meetings, 1923-1948	4399	6601
No. 17—Letter dated July 25, 1928, from Alfred P. Sloan, Jr. to Irenee du Pont	4400	6602
No. 18—Unsigned letter dated July 27, 1928, to Alfred P. Sloan, Jr.	4401	6603
No. 19—Letter dated August 15, 1928, from Coleman du Pont to Pierre du Pont	4402	6604
No. 20—Letter dated August 17, 1928, initialled JJR to Honorable Coleman du Pont	4404	6606
No. 21—General Motors Corporation Executive Committee	4406	6608
No. 22—General Motors Corporation Finance Committee	4407	6609
No. 23—General Motors Corporation Policy Committee	4408	6610
No. 24—General Motors Corporation Operations Policy Committee	4409	6611
No. 25—General Motors Corporation Financial Policy Committee	4410	6612
No. 26—Letter dated July 16, 1918, signature illegible, to Alfred P. Sloan, Jr.	4411	6613
No. 27—Letter dated July 16, 1918, initialled APSJr to J. A. Haskell	4412	6614
No. 28—Memorandum dated October 2, 1923, from "Chairman" to "Finance Committee" (GMC)	4413	6615
No. 29—Memorandum dated October 8, 1923, from Alfred P. Sloan, Jr. to J. J. Raskob	4424	6626
No. 30—Letter dated November 22, 1923, from P. S. du Pont, to Messrs. Seward Prosser and Henry G. Bishop	4427	6629
No. 31—Bonus Recommendations for 1924	4437	6639
No. 32—Letter dated October 21, 1924, from "Chairman" to Sir Harry McGowan	4455	6657
No. 33—Letter dated November 7, 1924, from H. McGowan to Pierre du Pont	4458	6660
No. 34—Memorandum dated February 13, 1926, from Alfred P. Sloan, Jr. to J. J. Raskob	4459	6661
No. 35—General Motors Corporation Comparison of Number and Proportion of Motor Vehicles (Passenger and Truck) sold by Ford, General Motors, and Other Manufacturers, 1921	4461	6663
No. 36—General Motors vs. Ford percent of Industry Vehicle Sales for the year 1921	4462	6664

General Motors Exhibits:	Original	Print
No. 37—General Motors Company Meeting of Purchasing Agents, May 7, 1913	4463	6665
No. 38—General Motors Company Meeting of Purchasing Agents, June 4, 1913	4466	6668
No. 39—General Motors Company Meeting of Purchasing Agents, July 30, 1913	4470	6672
No. 40—General Motors Company Meeting of Purchasing Agents, Nov. 5, 1913	4474	6676
No. 41—General Motors Company Meeting of Purchasing Agents, August 19, 1914	4479	6681
No. 42—General Motors Company Meeting of Purchasing Agents, August 20, 1915	4480	6682
No. 43—Memorandum from "Vice President" dated January 25, 1921, to all General Officers and General Managers of Divisions	4481	6683
No. 44—Memorandum of meeting held in Detroit June 23, 1921, unsigned	4483	6685
No. 45—Meeting of Car Division Managers with Executive Committee, November 3, 1921, unsigned	4485	6687
No. 46—Memorandum dated May 5, 1922, from P. S. Steenstrup to Alfred P. Sloan, Jr.	4487	6689
No. 47—Report to Mr. C. S. Mott, Vice President from J. H. Main re Proposed Central Purchasing Department, dated February 6, 1922	4488	6690
No. 48—Letter dated February 9, 1922, initialled APSJr to Mr. J. H. Main, Director, Purchase Section	4499	6701
No. 49—Memorandum dated May 8, 1922, from Alfred P. Sloan, Jr. to General Managers of Divisions	4501	6703
No. 50—Letter dated March 11, 1922, from H. H. Bassett to Alfred P. Sloan, Jr.	4510	6712
No. 51—Letter dated April 13, 1922, from Alfred P. Sloan, Jr. to J. H. Main, Director, Purchase Section	4513	6715
No. 52—Letter dated May 15, 1922, from The Dayton Engineering Laboratories Co. to Alfred P. Sloan, Jr.	4515	6717
No. 53—Letter dated May 15, 1922, from "General Manager", Cadillac Motor Car Company, to Alfred P. Sloan, Jr.	4516	6718
No. 54—Letter dated May 17, 1922, from General Motors Truck Company to Alfred P. Sloan, Jr.	4517	6719
No. 55—Letter dated May 22, 1922, from Samson Tractor Company to Alfred P. Sloan, Jr.	4518	6720
No. 56—Letter dated May 24, 1922, from Harrison Radiator Corporation to A. P. Sloan, Jr.	4520	6721
No. 57—Letter dated May 27, 1922, from Chevrolet Motor Company to A. P. Sloan, Jr.	4521	6723
No. 58—Letter dated June 12, 1922, from Delco Light Company to A. P. Sloan, Jr.	4523	6725
No. 59—Letter dated June 27, 1922, from Remy Electric Division to A. P. Sloan, Jr.	4526	6728

General Motors Exhibits:

	Original	Print
No. 60—Letter dated August 7, 1922, from Oakland Motor Car Company to Alfred P. Sloan, Jr.	4527	6729
No. 61—Memorandum dated November 28, 1922, from Alfred P. Sloan, Jr. to General Managers of Divisions, et al.	4530	6732
No. 62—Plan for Co-ordination of General Motors Purchases, corrected to Dec. 1, 1922	4532	6734
No. 63—Memorandum dated November 29, 1922, from Alfred P. Sloan, Jr. to General Managers of Divisions, et al.	4542	6744
No. 64—Memorandum dated March 10, 1924, from Alfred P. Sloan, Jr. to Executive Committee	4543	6745
No. 65—Memorandum dated December 1, 1924, from Alfred P. Sloan, Jr. to Members of General Purchasing Committee	4545	6747
No. 66—Letter dated December 10, 1937, from Alfred P. Sloan, Jr. to W. F. Ingals (Central Tube Company)	4547	6749
No. 67—Letter dated December 10, 1937, from Alfred P. Sloan, Jr. to Wm. S. Knudsen	4548	6750
No. 68—Excerpt from Minutes of Meeting No. 15 of General Purchasing Committee held July 2, 1924	4549	6751
No. 69—Letter dated January 7, 1922, from H. M. Craig, Acting General Sales Manager, to A. P. Sloan, Jr.	4550	6752
No. 70—Letter dated January 13, 1922, from "Vice President" to Irenee du Pont	4551	6753
No. 71—Memorandum dated August 2, 1922, from General Motors Research Corporation to Executive Committee, General Motor Corporation	4552	6754
No. 72—Letter dated September 12, 1922, from W. F. Harrington to C. F. Kettering	4554	6756
No. 73—Memorandum dated October 3, 1922, from General Motors Research Corporation to Executive Committee, General Motors Corporation	4555	6757
No. 74—Letter dated September 27, 1922, from James McEvoy to J. W. Morrison (Delco Light)	4557	6759
No. 75—Telegram dated March 29, 1923, from "Midgley" to W. F. Harrington	4558	6760
No. 76—Agreement dated September 29, 1923, between General Motors Chemical Company and Standard Oil Company (of Indiana)	4559	6761
No. 77—Agreement dated January 9, 1924, between General Motors Corporation and Standard Oil Company of New Jersey	4574	6776
No. 78—Agreement dated January 7, 1924, between General Motors Chemical Company and Standard Oil Company of Louisiana	4578	6779
No. 79—Agreement dated January 9, 1924, between General Motors Corporation and Standard Oil of Louisiana	4595	6797

General Motors Exhibits:

	Original	Print
No. 80—Agreement dated January 26, 1924, between General Motors Chemical Company and Gulf Refining Company	4598	6800
No. 81—Letter dated September 29, 1924, from Frank A. Howard to A. E. Mittnacht (Ethyl Gasoline Corp.)	4613	6815
No. 82—Letter dated June 23, 1924, from Alfred P. Sloan, Jr. to C. F. Kettering	4615	6817
No. 83—Letter dated June 30, 1924, from W. F. Harrington to Alfred P. Sloan, Jr.	4617	6819
No. 84—Letter dated June 24, 1924, from Standard Oil Company to F. A. Howard	4619	6821
No. 85—Letter dated May 6, 1924, from Alfred P. Sloan, Jr. to F. A. Howard	4620	6822
No. 86—Letter dated May 8, 1924, from Frank A. Howard to Alfred P. Sloan	4623	6825
No. 87—Status of Lead Tetraethyl Manufacture, June 26, 1924	4624	6826
No. 88—Letter dated April 10, 1925, from Irenee du Pont, to Alfred P. Sloan, Jr.	4629	6831
No. 89—Letter dated November 19, 1924, from Commissioner of Labor (State of New Jersey) to C. O. Johns (Research Division, Standard Oil Co.)	4630	6832
No. 90—Letter dated December 2, 1924, from Commissioner of Labor (State of New Jersey) to C. O. Johns (Research Division, Standard Oil Co.)	4631	6833
No. 91—Extracts from Minutes of Meeting of the Executive Committee of General Motors Corporation held June 23, 1925	4632	6834
No. 92—Extract from Minutes of Meeting of Executive Committee of General Motors Corporation held October 21, 1925	4634	6836
No. 93—Letter dated March 9, 1929, from E. A. Rudigier (Standard Oil) to Geo. W. McKnight	4636	6838
No. 94—Letter dated March 29, 1926, from Alfred P. Sloan, Jr. to Irenee du Pont	4637	6839
No. 95—Letter dated March 31, 1926, from Irenee du Pont to Alfred P. Sloan, Jr.	4639	6841
No. 96—Letter dated June 22, 1927, from Irenee du Pont, to Alfred P. Sloan, Jr.	4640	6842
No. 97—Letter dated June 25, 1927, from Alfred P. Sloan, Jr. to Irenee du Pont	4642	6844
No. 98—Letter dated July 1, 1927, from Irenee du Pont to Alfred P. Sloan, Jr.	4649	6851
No. 99—Letter dated July 5, 1927, from Alfred P. Sloan, Jr. to Irenee du Pont	4651	6853
No. 100—Letter dated July 15, 1927, from Alfred P. Sloan, Jr. to Irenee du Pont	4654	6856

General Motors Exhibits:

	Original	Print
No. 101—Letter August 23, 1927, from Irenee du Pont to Alfred P. Sloan, Jr.	4658	6860
No. 102—Letter dated August 29, 1927, from Alfred P. Sloan, Jr. to Irenee du Pont	4659	6861
No. 103—Letter dated January 19, 1928, from Alfred P. Sloan, Jr. to Lammot du Pont	4661	6863
No. 104—Meeting of Car Division Managers with Executive Committee December 1, 1921	4664	6866
No. 105—Letter dated December 29, 1921, from "Vice President" to C. F. Kettering	4667	6869
No. 106—Letter dated March 10, 1923 from "Director of Research" to L. R. Beardslee (GMC)	4668	6870
No. 107—Letter dated April 12, 1922, from P. S. du Pont, to C. F. Ketterling	4669	6871
No. 108—Letter dated June 15, 1923, from Alfred P. Sloan, Jr. to F. O. Clements (GMC)	4670	6872
No. 109—Letter dated June 20, 1923, from F. O. Clements to Alfred P. Sloan, Jr.	4671	6873
No. 110—Letter dated June 25, 1923, from Alfred P. Sloan, Jr. to F. O. Clements	4674	6876
No. 111—Letter dated July 3, 1923, from F. O. Clements to Alfred P. Sloan, Jr.	4675	6877
No. 112—Letter dated July 20, 1923, from Alfred P. Sloan, Jr. to F. O. Clements	4677	6879
No. 113—Report of Paint and Enamel Committee of General Motors Corporation, August 22, 1923	4678	6880
No. 114—Letter dated November 26, 1923, from H. C. Mougey to W. P. Allen (du Pont)	4689	6891
No. 115—Letter dated January 11, 1924, from W. P. Allen to F. O. Clements	4693	6895
No. 116—Minutes of meeting of Paint and Enamel Committee January 22, 1924	4697	6899
No. 117—Letter dated January 26, 1924, from F. O. Clements to Alfred P. Sloan, Jr.	4706	6908
No. 118—Letter dated January 31, 1924, from Wm. P. Allen to Alfred P. Sloan, Jr.	4709	6911
No. 118A—Letter dated March 5, 1924, from W. P. Allen to Alfred P. Sloan, Jr.	4710	6912
No. 118B—Letter dated March 20, 1924, from "Secretary to the President" to W. P. Allen (Du Pont)	4712	6914
No. 119—Letter dated March 21, 1924, from Wm. P. Allen to Alfred P. Sloan	4713	6915
No. 120—Letter dated April 18, 1924, from H. H. Bassett (Buick Motor Company) to C. S. Mott, General Motors	4715	6917
No. 120A—Memorandum dated May 2, 1924, from R. C. Williams (du Pont) to E. M. Flaherty	4717	6919
No. 121—Memorandum, dated August 31, 1923, from C. S. Mott (G.M.C.) to Messrs. H. H. Rice and A. B. C. Hardy	4726	6928

General Motors Exhibits:

	Original	Print
No. 122—Letter dated October 29, 1923, from F. O. Clements to A. P. Sloan, Jr.	4728	6930
No. 125—Excerpts from minutes General Purchasing Committee meeting April 18, 1924, re Production Schedule Forecasts	4731	6933
No. 128—Letter dated January 18, 1926, from Alfred P. Sloan, Jr. to C. F. Kettering	4734	6936
No. 129—Letter dated March 11, 1926, from G. A. Lovett (Patent Section) to Alfred P. Sloan, Jr.	4735	6937
No. 130—Letter dated March 15, 1926, from Alfred P. Sloan, Jr. to James McEvoy (GMC)	4742	6944
No. 131—Letter dated December 3, 1927, from James McEvoy to John L. Pratt	4743	6945
No. 132—Letter dated March 8, 1927, from Alfred P. Sloan, Jr. to Thomas Midgley, Jr.	4744	6946
No. 133—Monthly Average Cotton and Rubber Wholesale Prices, 1923 through 1932	4745	6947
No. 134—Letter dated April 27, 1928, from James McEvoy to Alfred P. Sloan, Jr.	4746	6948
No. 135—Letter dated April 5, 1928, from Thomas Midgley, Jr. to Alfred P. Sloan, Jr.	4749	6951
No. 136—Letter dated August 30, 1928, from James McEvoy to J. L. Pratt	4750	6952
No. 137—Letter dated September 5, 1928, from Thomas Midgley, Jr. to A. P. Sloan, Jr.	4752	6954
No. 139—Letter dated October 30, 1919, unsigned, to W. S. Carpenter	4753	6955
No. 140—Telegram dated December 31, 1919, from "Carpenter" to James Lynah	4754	6956
No. 141—Telegram dated December 31, from "Lynah" to W. S. Carpenter	4755	6957
No. 142—Letter dated January 6, 1919, from James Lynah to W. S. Carpenter, Jr.	4756	6958
No. 143—Letter dated January 7, 1920, from W. S. Carpenter to James Lynah	4757	6959
No. 144—Letter dated February 2, 1920, from James Lynah to W. S. Carpenter	4760	6962
No. 145—Letter dated February 4, 1920, from W. S. Carpenter to James Lynah	4762	6964
No. 146—Letter dated September 5, 1922, from Alfred P. Sloan, Jr. to H. H. Main (GMC)	4764	6966
No. 147—Letter dated September 8, 1922, from James Lynah to Alfred P. Sloan, Jr.	4765	6967
No. 148—Letter dated September 11, 1922, from Alfred P. Sloan, Jr. to James Lynah	4766	6968
No. 149—Coordination of Purchases, revised to September 1, 1923	4767	6969
No. 150—Excerpt from Minutes of General Purchasing Committee, August 2, 1923	4783	6985

General Motors Exhibits:

	Original	Print
No. 151—Letter dated February 6, 1923, from James Lynah to Alfred P. Sloan, Jr.	4784	6986
No. 152—Excerpts from General Purchasing Committee Memorandum re Importance of Standardization, Policies and Procedures	4786	6988
No. 153—Excerpts from General Purchasing Committee Memorandum re Illustrations of Standardization	4791	6993
No. 154—Summary of Contracts Approved by General Purchasing Committee (GMC)	4821	7023
No. 155—Summary of Products Rejected by General Purchasing Committee (GMC)	4875	7077
No. 156—Excerpts from General Purchasing Committee Memorandum re Illustrations of Contracts Producing Savings	4897	7099
No. 157—Excerpts from General Purchasing Committee Minutes of Meeting July 2, 1924	4901	7103
No. 158—Excerpts General Purchasing Committee Memorandum re Two-Source-of-Supply question	4904	7106
No. 159—Excerpts from General Purchasing Committee Minutes of Meeting January 4, 1923	4906	7108
No. 160—Excerpts from General Purchasing Committee Memorandum re The Problem of Secrecy, Keeping Prices Confidential	4910	7112
No. 161—Excerpts from General Purchasing Committee Minutes of Meeting October 29, 1924	4915	7117
No. 162—Excerpts from General Purchasing Committee Minutes of Meeting July 2, 1924	4918	7120
No. 163—Excerpts from General Purchasing Committee Minutes of Meeting November 9, 1925	4941	7143
No. 164—Excerpts from General Purchasing Committee Minutes of Meeting July 23, 1926	4945	7147
No. 165—Special Discounts on Purchases from du Pont showing Amount of Discount per Vehicle Sold	4953	7155
No. 166—Excerpts from Minutes of General Purchasing Committee October 25, 1923	4954	7156
No. 167—Agreement dated January 2, 1925, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	4957	7159
No. 168—Memorandum dated July 19, 1924, from James Lynah to H. G. Mougey (General Motors Research)	4960	7162
No. 169—Letter dated July 25, 1924, from H. C. Mougey to James Lynah	4961	7163
No. 170—Letter dated August 4, 1924, from James Lynah to Sherwin-Williams Company	4962	7164
No. 171—Letter dated August 4, 1924, from James Lynah to Valentine Varnish Company	4963	7165

General Motors Exhibits:

	Original	Print
No. 172—Memorandum dated January 22, 1925, from James Lynah to G. G. Allen, et al.	4964	7166
No. 173—Letter dated February 10, 1925, from James Lynah to F. J. Clements (GM. Research)	4966	7168
No. 174—Letter dated March 13, 1925, from H. C. Mougey to L. B. Valentine	4967	7169
No. 175—Memorandum dated May 20, 1925, from James Lynah to H. G. Mougey	4968	7170
No. 176—Letter dated May 23, 1925, from H. C. Mougey to James Lynah	4969	7171
No. 177—"Test Panels Submitted to Mr. Lynah"	4975	7177
No. 178—Letter dated May 26, 1925, from "Director of Research" to "Paint and Enamel Committee"	4978	7180
No. 179—Agreement dated July 1, 1925, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	4979	7181
No. 180—Letter dated August 27, 1925, from "Chairman Paint and Enamel Committee" to H. C. Weckler (Buick Motor Company)	4984	7186
No. 181—Letter dated August 27, 1925, from "Chairman, Paint and Enamel Committee" to John M. Scott (Olds Motor Works)	4985	7187
No. 182—Letter dated August 27, 1925, from "Chairman, Paint and Enamel Committee" to S. Houser (Fisher-Body Corporation)	4986	7188
No. 183—Letter dated August 27, 1925, from "Chairman, Paint and Enamel Committee" to John MacQuaid (Chevrolet Motor Car Co.)	4987	7189
No. 184—Letter dated January 5, 1926, from "Manager, Automotive Sales" to James Lynah	4988	7190
No. 185—Agreement dated January 1, 1926, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	4998	7200
No. 186—Agreement dated January 1, 1927, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	5005	7207
No. 187—Agreement dated January 1, 1928, between E. I. du Pont de Nemours & Company (Chemical Products Division) and General Motors Corporation	5010	7212
No. 188—Agreement dated January 1, 1929, between E. I. du Pont de Nemours & Company and General Motors Corporation	5015	7217
No. 189—Agreement dated January 1, 1930, between E. I. du Pont de Nemours & Company and General Motors Corporation	5018	7220

sections within the central organization is a matter of future study, which at this time has not been attempted in detail.

For the purpose of a more simple presentation of the proposed organization, the following chief divisions have been made, each of which will be considered individually.

1. Major Control
2. Executive Control

—3—

MAJOR CONTROL

The term "Major Control" for the purpose of this study is specified as all authority down to but not including the President of the Corporation. The purpose of this control is to properly legalize the Corporation's primary organization, its financial structure and the general authority upon which its various executives maintain their functions. Also for the purpose of formulating policies along broad lines such as are of importance to the Corporation as a whole. The "Major Control" in the line of authority is specified as follows:—

1. Stockholders
2. Directors
3. (a) Finance Committee
   (b) Executive Committee

The functions of the elements entering into the "Major Control" as above specified are in common with all corporate enterprises, but in order to make this study complete, they may be briefly specified as follows:—

organization with the Corporation as a whole to the end that it will perform its necessary and logical place.

—2—

3. To centralize the control of all the executive functions of the Corporation in the President as its chief executive officer.

4. To limit as far as practical the number of executives reporting directly to the President, the object being to enable the President to better guide the broad policies of the Corporation without coming in contact with problems that may safely be entrusted to executives of less importance.

5. To provide means within each executive branch whereby all other executive branches are represented in an advisory way to the end that the development of each branch will be along lines constructive to the Corporation as a whole.

Having stated the principles upon which this study has been based and the objects that it is hoped to attain thereby, the proposed organization itself will now be considered. It has not been attempted in this study to do more than formulate the basic principles involved. No attempt has been made to enter into the organization of any specific operation or group of operations. The study has ended with the specifying of the functions of each operation or group of operations with relation to one another, it being recognized that the necessary organization within each operation is a matter exclusively within the province of the chief executive of that operation. It is also recognized that the development of the

General Motors Corporation

Study of Organization.

The object of this study is to suggest an organization for the General Motors Corporation which will definitely place the line of authority throughout its extensive operations as well as to co-ordinate each branch of its service, at the same time destroying none of the effectiveness with which its work has heretofore been conducted.

The basis upon which this study has been made is founded upon two principles, which are stated as follows:—

1. The responsibility attached to the chief executive of each operation shall in no way be limited. Each such organization headed by its chief executive shall be complete in every necessary function and enable to exercise its full initiative and logical development.

2. Certain central organization functions are absolutely essential to the logical development and proper control of the Corporation's activities.

Having established the above principles as fundamental, and it is believed that all interests within the Corporation agree as to such principles, the definite objects which it is hoped to attain by this study, are enumerated as follows:—

1. To definitely determine the functioning of the various divisions constituting the Corporation's activities, not only in relation to one another, but in relation to the central organization.

2. To determine the status of the central organization and to co-ordinate the operation of that central

Defendants' Exhibit No. 300

GENERAL MOTORS CORPORATION

STUDY OF ORGANIZATION

Defendant's Exhibit (GM) No. 1

General Motors Corporation

Organization Study

General Motors Exhibits	Original	Print
No. 285—C. E. Wilson Employment History with General Motors Corporation	5277	7476
No. 286—Excerpt from Minutes of Joint Meeting of Operations and Executive Committees (GMC) July 17, 1930	5279	7478
No. 287—Memorandum dated August 25, 1930, from C. E. Wilson to J. L. Pratt	5281	7480
No. 288—Excerpt from Minutes of Finance Committee Meeting (GMC) September 8, 1930	5283	7482
No. 289—Excerpt from Minutes of Joint Meeting of Operations and Executive Committees (GMC) March 12, 1931	5285	7484
No. 290—Excerpt from minutes of Finance Committee Meeting (GMC) March 23, 1931	5289	7488
No. 291—Excerpt from Minutes of Executive Meeting (GMC) April 9, 1931	5291	7490
No. 292—Memorandum dated June 11, 1931, from C. E. Wilson to Operations Committee	5293	7492
No. 293—Excerpt from Minutes of Executive Committee Meeting (GMC) October 29, 1931	5296	7495
No. 294—Undated Memorandum from W. F. Armstrong to J. L. Pratt, et al	5299	7498
No. 295—Memorandum dated December 17, 1931, from C. E. Wilson to Operations Committee	5301	7500
No. 296—Excerpt from Minutes of Finance Committee Meeting (GMC) September 12, 1932	5303	7502
No. 299—Letter dated December 13, 1948, from Melville C. Williams (Department of Justice, Chicago) to Ferris E. Hurd	5305	7504
No. 300—Letter dated December 17, 1948, from Willis L. Hotchkiss (Department of Justice, Chicago) to Ferris E. Hurd	5309	7508
No. 301—Letter dated December 20, 1948, initialled FEH to Melville C. Williams (Department of Justice, Chicago)	5312	7511

General Motors Exhibits	Original	Print
No. 261—"Proceedings of a Conference to Determine Whether or Not There is a Public Health Question in the Manufacture, Distribution, or Use of Tetraethyl Lead Gasoline" by the Surgeon General, U. S. Public Health Service	5158	7360
No. 262—"The Use of Tetraethyl Lead Gasoline in its Relation to Public Health" by the Surgeon General, U. S. Public Health Service	5176	7376
No. 263—Diagram illustrating "Savings Equal to Gasoline Consumed by All Vehicles in 25 States"	5201	7400
No. 266—Diagram illustrating "Percent Increase or Decrease from 1925"—Trends in Passenger Car Engine Design	5202	7401
No. 267—Memorandum dated June 19, 1922, from H. C. Mougey to "Mr. Clements"	5203	7402
No. 267A—Extract from Minutes of Meeting of General Motors Board of Directors September 25, 1919	5206	7405
No. 268—Letter dated June 15, 1926, from E. W. Webb to J. N. Huff (American Research Laboratories, Inc.)	5210	7409
No. 269—Unsigned letter dated June 15, 1926 to Gilbert A. Currie (Dow Chemical Company)	5211	7410
No. 270—Unsigned letter dated June 30, 1926, to T. B. Huff (American Research Laboratories, Inc.)	5213	7412
No. 271—Letter dated July 9, 1926, from T. B. Huff to E. W. Webb	5216	7415
No. 272—Letter dated August 26, 1926, from "President" to T. B. Huff	5217	7416
No. 273—Letter dated October 7, 1926, from "President" to Harold H. Healy	5219	7418
No. 274—Letter dated April 21, 1927, from Frank A. Howard to William Benham (Department of Justice)	5222	7421
No. 277—Letter dated July 2, 1936, from Cesare Protto (du Pont) to E. W. Webb	5235	7434
No. 278—Letter dated February 8, 1938, from "Edward" to E. I. du Pont de Nemours & Company	5237	7436
No. 279—The Dow Chemical Company Research Report on Lead Tetraethyl Process	5238	7437
No. 280—The Dow Chemical Company Research Report on Tentative Process for Tetra Ethyl Lead	5256	7455
No. 281—United States Letters Patent No. 1,805,756	5265	7464
No. 282—Dow Chemical Company Report dated April 18, 1931	5271	7470
No. 283—Unsigned, undated "Memorandum"	5272	7471
No. 284—Memorandum re "Reasons why we should not manufacture lead tetra ethyl and reasons why we should manufacture tetraethyl lead" dated June 28, 1926	5274	7473

General Motors Exhibits	Original	Print
No. 237—Extract from minutes of the meeting of the Executive Committee (GMC) August 8, 1930	5098	7300
No. 238—Extract from minutes of meeting of the Finance Committee (GMC) September 8, 1930	5099	7301
No. 239—Letter dated August 25, 1931, from E. G. Robinson (Kinetic Chemicals, Inc.) to J. L. Pratt	5102	7304
No. 240—Letter dated August 28, 1931, initialled JLP to E. G. Robinson	5105	7307
No. 241—Excerpts from an address by C. F. Kettering	5106	7308
No. 242—Letter dated April 16, 1919, from Frank A. Howard to E. M. Clark	5111	7313
No. 243—Letter dated August 15, 1919, unsigned, to John Marshall (du Pont)	5115	7317
No. 244—Letter dated December 23, 1919, from E. H. Kelly (GMC) to W. C. Durant	5120	7322
No. 245—Letter dated April 8, 1920, from F. O. Clements to C. F. Kettering	5123	7325
No. 246—Letter dated November 19, 1921, from L. du Pont to C. F. Kettering	5126	7328
No. 246a—United States Letters Patent No. 1,787,419	5128	7330
No. 247—Telegram dated August 23, 1922, from "Midgley" to Doctor E. H. Bolton (du Pont)	5130	7332
No. 248—Telegram dated August 24, 1922, from W. S. Harrington to Midgley	5131	7333
No. 249—Telegram dated August 25, 1922, from W. F. Harrington to Midgley	5132	7334
No. 250—Letter dated November 13, 1922, from Norman Roberts to Thomas Midgley, Jr.	5133	7335
No. 251—Letter dated November 18, 1922, initialled TM to Dr. Norman Roberts	5136	7338
No. 252—Memorandum dated November 20, 1922, from Thomas Midgley to C. F. Kettering	5137	7339
No. 253—Letter dated December 18, 1922, from Walter G. Whitman (Massachusetts Institute of Technology) to Thos. Midgley, Jr.	5140	7342
No. 254—Letter dated Nov. 30, 1922, from E. Krause (Institute of Technology—Berlin) to "Esteemed Herr Professor"	5141	7343
No. 255—Memorandum dated February 2, 1923, from T. Midgley, Jr. to C. F. Kettering	5143	7345
No. 256—Memorandum dated April 9, 1923, by Thomas Midgley, Jr. re Atlantic Refining Company	5144	7346
No. 256A—United States Letters Patent No. 1,697,245	5149	7351
No. 257—Memorandum dated November 26, 1923, from J. H. Senior, et al. to E. M. Clark, et al	5151	7353
No. 258—Memoradum dated June 18, 1924, (unsigned)	5154	7356
No. 259—Memorandum dated June 18, 1924, initialled EMC	5157	7358

General Motors Exhibits	Original	Print
No. 213—Letter dated September 28, 1931, from Mason V. Hanger Company (signature illegible) to John L. Pratt	5064	7266
No. 214—Letter dated September 30, 1931, initialled JLP to Silas B. Mason	5065	7267
No. 215—Letter dated September 30, 1931, initialled JLP to Edward F. Fisher	5066	7268
No. 216—Letter dated October 16, 1931, from E. F. Fisher to J. L. Pratt	5067	7269
No. 217—Letter dated May 27, 1926, from Pierre S. du Pont to John L. Pratt	5068	7270
No. 218—Letter dated June 8, 1926, initialled JLP to P. S. du Pont	5069	7271
No. 219—Letter dated September 16, 1926, initialled LduP to Alfred P. Sloan, Jr.	5070	7272
No. 220—Letter dated September 20, 1926, from Alfred P. Sloan, Jr. to Lammot du Pont	5071	7273
No. 221—Letter dated September 28, 1926, from J. L. Pratt to Lammot du Pont	5072	7274
No. 222—Letter dated September 30, 1926, initialled LduP to John Pratt	5074	7276
No. 223—Letter dated October 1, 1926, from J. L. Pratt to Lammot du Pont	5075	7277
No. 224—Letter dated September 22, 1926, from Lammot du Pont to John Pratt	5077	7279
No. 225—Letter dated October 2, 1926, initialled JLP to Lammot du Pont	5079	7281
No. 226—Letter dated October 25, 1926, initialled JLP to Lammot du Pont	5081	7283
No. 227—Letter dated January 29, 1931, from "Chairman of the Board" initialled LduP to John Pratt	5082	7284
No. 228—Letter dated February 6, 1931, from J. L. Pratt to Lammot du Pont	5084	7286
No. 229—Extract from Minutes of Executive Committee Meeting (GMC) January 21, 1932	5087	7289
No. 230—Letter dated August 12, 1926, from W. F. Harrington to John L. Pratt	5089	7291
No. 231—Letter dated August 13, 1926, initialled JLP to W. F. Harrington	5091	7293
No. 232—Letter dated December 29, 1925, initialled JLP to W. B. Foster (du Pont)	5092	7294
No. 233—Letter dated July 31, 1929, from E. G. Biechler to J. L. Pratt	5093	7295
No. 234—Letter dated August 2, 1929, initialled JLP to E. G. Biechler	5094	7296
No. 235—Letter dated September 28, 1931, from E. G. Biechler to J. L. Pratt	5095	7297
No. 236—Letter dated October 6, 1931, from W. F. Harrington to John L. Pratt	5097	7299

General Motors Exhibits

	Original	Print
No. 190—Agreement dated January 1, 1931, between E. I. du Pont de Nemours & Company and General Motors Corporation	5022	7224
No. 191—Letter dated June 27, 1928, from James Lynah to William Richter (du Pont)	5026	7228
No. 192—"Performance of Quantity Discount Contracts" as of October 31, 1927	5027	7229
No. 193—Letter dated May 16, 1928, from O. H. Briggs to James Lynah	5029	7231
No. 194—Letter dated May 18, 1928, from James Lynah to O. H. Briggs	5030	7232
No. 195—Memorandum dated February 18, 1919, from R. R. M. Carpenter to P. S. du Pont	5031	7233
No. 195A—Excerpt from The New York Times, Sunday, March 21, 1920	5033	7235
No. 195B—Excerpt from The New York Times, Tuesday, March 23, 1920	5034	7236
No. 196—Excerpts from Memorandum re Meeting between President and Plant Managers, December 1, 1920 (GMC)	5035	7237
No. 199—Excerpt from Minutes of General Purchasing Committee meeting September 30, 1926	5042	7244
No. 200—Memorandum dated January 20, 1928, from Alfred P. Sloan to J. L. Pratt	5043	7245
No. 201—Memorandum dated January 21, 1928, from J. L. Pratt to Alfred P. Sloan, Jr.	5044	7246
No. 202—Letter dated October 23, 1922, from F. S. MacGregor to J. L. Pratt	5048	7250
No. 203—Letter dated November 1, 1922, from "General Manager, Accessory Divisions" to H. J. Forsythe (Hyatt Bearings Division)	5049	7251
No. 204—Letter dated January 9, 1926, from Jim Elms to J. L. Pratt	5050	7252
No. 205—Letter dated January 27, 1926, from E. G. Biechler (Delco Light) to J. L. Pratt	5053	7255
No. 206—Letter dated July 16, 1926, from "Vice President" to J. J. Moosman	5054	7256
No. 207—Letter dated Juy 23, 1926, from J. J. Moosman to John L. Pratt	5055	7257
No. 208—Letter dated July 29, 1926, from J. J. Moosman to John L. Pratt	5057	7259
No. 209—Letter dated August 17, 1926, from J. J. Moosmann to John L. Pratt	5058	7260
No. 210—Letter dated August 20, 1926, from "Vice President" to J. J. Moosmann	5060	7262
No. 211—Letter dated January 31, 1929, from "Vice President" to Ed J. Fisher	5061	7263
No. 212—Letter dated February 8, 1929, from E. F. Fisher to J. L. Pratt	5062	7264

Stockholders

Elect the Board of Directors—legalize the Articles of Incorporation and the By-laws of the Corporation—Authorize capital stock issues and perform all other functions incident to stockholders of any corporation.

Directors

Formulate in a broad way the policies of the Corporation —Approve the acts of the various committees and of the principal executive officers—Elect the Chairman of the Board and the President of the Corporation—Elect the Finance and Executive Committees—Recommend to the stockholders changes in organization necessitating alteration of the Articles of Incorporation and the By-laws—Provide for the issuance of securities—Make recommendations to the stockholders incident to same—Perform such other acts as are customarily within the duties of the Directors of Corporate enterprises, including the declaration of dividends.

Finance Committee

Formulates the entire financial policy of the Corporation, subject to the approval of the Board of Directors and where necessary, of the stockholders. Has general control over all the finances of the Corporation, together with the general accounting incident to same—Recommends to the Directors dividend policies of the Corporation for their approval—Passes on appropriations covering capital investments as may be recommended by the Executive Committee.

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EXECUTIVE COMMITTEE

Has entire supervision over the operations side of the Corporation's activities, constituting as a whole practically the entire operating staff. Each operation on the operating staff is represented in the Executive Committee. Major operations by a single representative, smaller operations being grouped together, one executive representing several such minor operations. The executive Committee passes on appropriations recommended by the Appropriations Committee and through its own deliberations or through Committees appointed for special study determines the broad policies of the Corporation so far as they affect one or more operations. Specific questions relating to one operation are not in general matters for the Executive Committee but are determined by the Chief executive of that particular operation through consultation with the President.

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EXECUTIVE CONTROL

All executive functions within the Corporation necessary to carry out the policies of the Major Control as represented by the Board of Directors together with the Finance and Executive Committees pass through the executive staff for execution.

The President of the Corporation has the entire responsibility of properly interpreting the policies formulated by the Major Control and distributing them through the organization in such a manner as he may elect. To assist the President in executing the policies formulated as above described, the following organization is provided.

1. Operation Staff
2. Finance and Accounting Staff
3. General Advisory Staff
4. President's Personnel Staff

These various staffs are independent in their relations one to another so far as actual authority is concerned. Such relations as may exist between the various staffs or parts thereof are subject to specification by the President of the Corporation. Each staff has its own functions to perform which are absolutely independent in character so far as these particular functions are concerned. The detailed powers and responsibilities of the executive staffs are described individually.

Each unit under the jurisdiction of the Corporation constitutes an operation and is a part of the operations staff. Such operations as are of major importance in character are represented by an executive officer who has no other duties to perform other than that particular operation. Other operations of less importance may be and should be grouped together. Such grouping has the advantage of limiting the number of executives reporting directly to the President of the Corporation to the end that the President may be better enabled to guide the broad policies of the Corporation without coming in contact with details that may be safely entrusted to executives of less importance. In the matter of grouping manifestly operations which have certain common characteristics should be placed together for the purpose of more effective handling. In the groupings recommended in this study consideration has been given to three factors.

1. Operations having both commercial and manufacturing problems and that distribute part of their products outside of the Corporation itself.
2. Operations which from the manufacturing standpoint present similar problems and have no outside commercial relations.

3. Operations which might be more effectively grouped geographically.

All policies pertaining to each individual major unit are within the jurisdiction of the General Manager of that unit who is next in authority to the President of the Corporation. The General Manager formulates all the policies of his particular unit subject only to the executive control of the President. The responsibility of the head of each unit is absolute and he is looked upon to exercise his full initiative and ability in developing his particular operation to the fullest possible extent and to assume the full responsibility of success or failure. All detailed policies no matter how complex or broad same may be within any division, are absolutely determined by the General Manager of that division. Where units are grouped in accordance with the above principles, each group is subject to executive control as a group, usually by a Vice President of the Corporation. All questions of policies which the General Manager of the individual operations desire advice concerning or support on, are taken up with the executive in charge of that particular group, thus further relieving the President of the Corporation.

Having specified in a general way the functions of the Operations Staff and outlined the principles upon which the grouping within that staff should be determined, the following groupings or sub-divisions are suggested.

1. Motor Car Group
2. Accessory Group
3. Parts Group
4. Miscellaneous Group

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MOTOR CAR GROUP

The first group to be considered in these divisions which manufacture and sell complete motor cars—purchasing part of the component parts from outside sources; part from other divisions of the Corporation and manufacturing part with their own facilities. These divisions in general sell none of their products except incidentally to other divisions of the Corporation. Their products pass entirely outside of the Corporation's control. Each of these divisions is absolutely independent in character and is presided over by a chief executive who is a Vice President of the Corporation. Each of the executives supervising these major units are responsible alone to the President of the Corporation who formulates in connection with the chief executive the policies of that particular division and matters affecting all phases of its work. The motor car units included in this group are listed as follows:—

1. Oakland Motor Division
2. Buick Motor Division

3. Cadillac Motor Division
4. Olds Motor Division
5. Chevrolet Motor Division
6. General Motors Corporation, Canada
7. General Motors Truck Division
8. Scripps-Booth Division

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ACCESSORY GROUP

The second group to be considered is the Accessory Group. Within this group is included all the operations of the Corporation which pertain to what might be called accessories. In suggesting the specific list of operations under this Group, consideration has been given not to the geographical location of such properties but rather to the fact that 60% of their production passes to interests outside of the Corporation's own divisions. This results in common problems such as sales and advertising policies, competitive conditions, proper placing of Corporation's capital to affect the best results to the Corporation as a whole and many other questions of a Commercial nature which do not enter into the other operations within the Corporation. The head of the Accessory Group is a Vice President of the Corporation and is absolutely responsible to the President for the operation of the specific properties included within this group. The relations of this executive to the heads of the individual units within the group is similar to the relation of the President of the Corporation to the executive in charge of a single major unit. The responsibility for each unit lies as before, absolutely in the General Manager or chief executive of that specific operation; the function of the Vice President in charge of this group being entirely advisory and for the purpose of reflecting to the various operations individually the policy of the President of the Corporation and of the Directors, Finance and Executive Committees or of the Major Control. The specific operations included in the Accessory Group are listed as follows:—

1. Hyatt Bearings Division
2. Remy Electric Division
3. Maxon Steel Products Division
4. Dayton Engineering Laboratories Co.
5. Harrison Radiator Division
6. Lancaster Steel Products Division
7. New Departure Mfg. Division
8. United Motor Service Inc.
9. Domestic Engineering Company
10. Klaxon Company
11. Champion Ignition Company
12. Novelty Incandescent Lamp Company.

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PARTS GROUP

The third group to be considered constitutes these operations which manufacture components parts. Largely to be consumed within the Corporation's own divisions, involving therefore no commercial relations with outside interests. There are manifestly no sales problems incident to such operations. The question of price and the passing of materials from such divisions to other divisions is a matter of general policy outlined by the Major Control and subject to the jurisdiction of the President. The divisions in this group are production or manufacturing operations, pure and simple, and are organized separately, rather than connected with a major division, for the purpose of economy or convenience in manufacture. In certain instances such operations produce almost exclusively for one division. In other instances they manufacture for one or more. The conditions so far as control are concerned, are similar in each.

It is recommended that there be constituted three groups of such properties, each group to be headed by a General Manager of the group. Each operation within the group being headed likewise by a General Manager of that particular operation. The responsibility of the group lying entirely with the General Manager of that group who is responsible directly to the President of the Corporation. The responsibility for the success or failure of each individual operation within the group lies entirely as with every other operation, be it great or small, with the General Manager of that particular operation who formulates all the detailed policies subject only to control in an advisory way by the General Manager of the group.

It is recommended that this class of operation be divided geographically, grouping those divisions within a limited area for the convenience and more effective control of the group. Following this plan, three sections are created, listed as follows:—

1. Saginaw Parts Section
2. Detroit Parts Section
3. Muncie Parts Section

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The specific operations constituting each group are listed as follows:—

1. Saginaw Parts Section
   - a. Saginaw Products Company
   - b. Central Foundry Company
   - c. Saginaw Malleable Company
   - d. J.C.M.Company #2
2. Detroit Parts Section
   - a. Central Gear Company
   - b. Central Axle Company
   - c. Northway Motor Company
   - d. Central Forge Company
   - e. Canadian Products Company

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3. Muncie Parts Section
   - a. Muncie Products Company
   - b. T.W.Warner Company

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Miscellaneous Group

The fourth group to be considered is the Miscellaneous Group. In addition to the three groups of operation described above, there are other units which, for various reasons, must necessarily be considered independently but which so far as general policies are concerned, are identical. The principles adopted in this grouping are as follows:—

1. Those operations in process of development.

2. Those not logically within the previously described group. The list of operations in this grouping are at present as follows:—

Frigidaire Corporation—This property is in process of development and has not yet entirely reached the operative stage. It is recommended that this be placed under the direct supervision of the President although the relations between the General Manager of this operation and the President are exactly the same as in other operations.

Samson Division. This division should include the tractor and agricultural properties and developments of the Corporation that are being formulated and in process of organization at the present time. While it undoubtedly will be desirable due to the enormous ultimate magnitude of this development to constitute it as one major group, presided over by a Vice President of the Corporation reporting to the President, during the formulative stage, this operation is placed under the direct supervision of the President and should be operated in such a manner as he may specifically determine.

General Motors Export Company. As its name signifies, this operation constitutes the expert agency for the sale of all the Corporation's products in foreign countries.

General Motors Acceptance Corporation. This operation is of a financial nature and provides for the financing of the sale of the Corporation's products where it is necessary to provide credits.

The above completes the functions and classification of the Corporation's staff.

General Financial & Accounting Staff

The General Financial and Accounting Staff constitutes the central organization of accounting and is under the direction of a Vice President of the Corporation who is also Chairman of the Finance Committee. This executive officer, through the necessary organization, performs all financial and accounting functions that pertain to the Corporation as a whole. It is recommended that the accounting within each individual unit be subject to the complete control of the Chief executive of that unit in line with all functions within a single operation. Where certain units have been grouped together under one executive there is no accounting common to such groups—all accounting being either within a specific operation and subject, as before stated, to the chief executive of such operation, or in the general financial and accounting organization.

The necessary co-ordination between the Vice President in charge of this executive branch or staff and the accounting within each unit is through the President, to the chief executive of such unit or group of units in case there are one or more units under a single executive. All finances and accounting pertaining to the Corporation as a whole, such as the designation of banks of deposit; handling of surplus funds, payment of dividends, matters pertaining to stock records and transfers;payment of taxes against the Corporation as a whole and all such general financial and accounting functions are within the province of the general financial and accounting staff. As stated in the beginning of this study, no attempt has been made to designate details, that being a matter to be determined as circumstances may best designate, all within the province of the chief executive of the particular work in question.

Recognizing the desirability of proper co-ordination between the various executive staffs, a General Accounting and Finance Advisory Committee is recommended. This Committee to consist of the Vice President in charge of the General Financial & Accounting Staff as Chairman, with the President of the Corporation ex-officio and with such other members, preferably two, as the President may designate, preferably two Vice Presidents of the Operation Staff best qualified to consider financial matters pertaining to operations as well as general financial control. The object of this Advisory Committee is to co-ordinate the needs of the central financial and accounting organization with the individual operations in order to develop a policy which will work to the best interest of the Corporation as a whole, also to interpret to the financial and accounting staff the needs and viewpoint of the operations staff.

GENERAL ADVISORY STAFF

It is stated at the beginning of this study that one of the principles upon which it has been developed has been that certain central organization functions were essential to the logical development of the Corporation's activities. This central organization has been termed the General Advisory Staff.

The General Advisory Staff is to constitute in reality a group of organizations or departments, large in some cases, small in others, depending upon the necessity of each individual line of work. The purpose of this staff is to advise the chief executives of the Operation Staff concerning problems of technical and commercial nature which are themselves so broad and require so much study as to be outside of the scope of a single operation and which will be, when developed, of importance in the guidance of all operations. The Advisory Staff is practically consultant to the Operation's Staff and while it may develop and disseminate information and data to the Operation's Staff and stands ready to be called upon for advice on such functions as it may be in a position to furnish to the Operation Staff, the Operation Staff, as has been previously stated, is independent and may accept or reject the advice of the Advisory Staff as its judgment may dictate, subject to the general supervision of the President. All functioning between the General Advisory Staff and the head of each operation or group of operations on the Operation's staff, takes place through the President of the Corporation, subject of course to such modifications as he may elect. All recommendations or advice on the part of the General Advisory Staff may be made obligatory on the Operation's Staff or any part thereof only when made so by the direct action of the President of the Corporation, either in an individual case or as a part of the general line of policy.

The control of the General Advisory Staff is under a chief executive who is a Vice President of the Corporation. He is supported by such assistants as he may designate who together with the Staff Secretary constitutes the executive side of the General Advisory Staff. Advisory to the Vice President if the General Advisory Staff Committee of which the Vice President is Chairman and of which the President of the Corporation is a member ex-officio. It is recommended that there should be at least two additional members of this committee, preferably two Vice Presidents of the Operations Staff best qualified to handle matters of this character. The object ~~of this~~ Advisory Committee is to coordinate the functions of the Advisory Staff with the Operations Staff so that the developments of the Advisory Staff may be along lines which will be considered constructive from the Operations Staff viewpoint to the end ~~that the~~ best results to the Corporation as a whole may be obtained.

Having determined the general organization of the General Advisory Staff, there will now be designated the individual departments or organization constituting that staff. As already stated, these divisions may be greater or less both in magnitude and scope of functions, depending upon the policy to be pursued. The particular departments or sections recommended as desirable with the functions of each are briefly described as follows: (Attention is called to the fact that as with other individual departments or operations, an organization within such division or operation has not been attempted, that being left to future study.)

1. Purchasing Section. This section is to study source of supply, tendencies in prices of materials in general use by the Corporation, especially those applicable for forming a basis for general contracts such as various kinds of steel, brass, and copper, lumber, ties, fuel and all other materials that can be treated in a general way whether in the raw state or finished. Also to co-ordinate the purchasing of the various individual purchasing departments with a view to getting the greatest benefit possible for the Corporation as a whole.

2. Engineering & Research Section. This section to act in an advisory way to the engineering departments of the individual units with a view to disseminating information

throughout such various departments as will be of interest to all: To undertake research work on broad fundamental questions that would, from the standpoint of expense, capability or from the standpoint of organization be beyond the province of any individual operation. To examine and report upon new inventions submitted to the Corporation for consideration. To undertake the development of new devices as would be required in a broad way by one or more of the operating divisions. To develop the necessary designs of new products which the Corporation may elect to undertake. In no sense shall the engineering and research section supersede the functions of the engineering departments of any individual operation.

3. Plant Engineering Section. This section to undertake the design of all building structures including factory and office buildings, power houses, foundries, including construction thereof; also the construction, together with the equipment thereof, of such power houses as may be essential to the Corporation's operations. In connection with the construction of power houses, to supervise in an advisory way the operations of same. In connection with the functioning of this section, while the staff should be under the supervision of the Vice President in charge of the General Advisory Staff, the personnel should be co-ordinated with that of the DuPont Engineering Company to the end that the maximum efficiency to both this section and the DuPont Engineering Company may be obtained.

4. Manufacturing & Plant Layout Section. This section to advise as to the proper layout of new manufacturing units and in the development of additions to existing units. To investigate the merits of new devices and methods for

manufacturing and to disseminate information pertaining to such developments through the various operations. To develop statistical data pertaining to methods and devices used in a general way by various operating divisions to the end that the most effective methods may be developed and used by all operations alike. To become acquainted with the manufacturing methods of all divisions to the end that the best method in use may be recommended to all divisions so that such methods may be standardized throughout all divisions with the resulting economy and efficiency possible. To design and develop special machinery resulting in economical production of parts in general use by the Corporation.

5. Patent Counsel. To handle in a general way the needs of the various operations so far as patent matters are concerned. To advise with the manufacturing and engineering section of the General Advisory Staff on matters pertaining to new developments and to take the necessary patent action in conjunction with such developments. To co-ordinate the methods, policies and work of the patent departments of the individual operations where it is found desirable. To study into patent matters effecting the interests of the Corporation as a whole on broad problems. To recommend personnel for the patent departments of individual operations where desired. To maintain a complete record of all patents owned by the Corporation. To have a record of all royalty contracts and to authorize the payments of same. The patent department should have as advisory, one or more patent counsel of international reputation for advice and counsel on important matters.

6. Legal Section. To advise with the sections of the General Advisory Staff or any other executive staff or operation within the Corporation on matters pertaining to legal questions that may arise.

7. Insurance Section. To advise all operations within the Corporation's control concerning matters pertaining to all kinds of insurance—fire, liability, boiler, theft, etc. To maintain a complete record as to the policies existing to cover such insurance. To study all matters pertaining to insurance to the end that the broadest protection is given to the Corporation's interests at the minimum expense. In the event that the Corporation undertakes to carry its own insurance of any nature, it should be within the province of this section or unit to work out and manage such operation.

8. Real Estate Section. To act as advisory to the Operations Staff or any section of the General Advisory Staff on all matters pertaining to real estate other than that controlled by each individual unit. The functions of this section would be to study the developments of real estate in all cities in which the Corporation is interested. To advise upon request, as to best location. To arrange for the erection of buildings or the purchase of real estate and to perform all other functions pertaining to real estate. To exercise supervision and direction of the following sub-divisions:—

a. Durant Building Section. To supervise the construction of the Durant Building including the power house incident to same. Upon the completion of this operation it will be turned over to the general office building section for operation.

b. General Office Supervision. To have the management from the operation standpoint of all general office buildings located in Detroit, New York or otherwise. To control the renting of such space within such buildings as may not be necessary for the use of the Corporation itself.

c. Housing Operations Section. To control all housing operations undertaken by the Corporation irrespective of location, including the preparation of plans for sale; design of houses and like questions.

9. Development Section. To study questions pertaining to the development of the Corporation's activities not at present represented on its Operations Staff with a view to increasing its profits by the manufacture of parts previously purchased or the supplementing of its present operations by entering entirely new lines of development. To undertake the investigation of properties that would be desirable for the Corporation to acquire, through purchase or otherwise.

10. Traffic & Tariff. To advise the Operations Staff regarding all matters pertaining to traffic. To study, and to represent the Corporation before transportation authorities with a view to concentrating the influence of the Corporation on any desirable project. To check freight bills of the individual operations, if desired. To prosecute cases before the Interstate Commerce Commission or as may be otherwise provided pertaining to inequality of rates or discrimination against any of the products or interests of the Corporation.

11. Inter-division Schedule. To develop with the co-operation of the individual operations information pertaining to the proposed production schedule to the end that all operations contributing to such schedule are properly advised as to their responsibilities and to properly distribute the production of the Parts and Accessories Groups to the end that proper provision may be made for all demands and the most effective results thereby obtained.

12. Cafeteria & Clubhouse Section. To supervise the operation of all cafeteria and clubhouses provided by the Corporation for the use of the individual operation to the end that the most economical management may be provided with the most effective results.

13. Organization Section. To make a study of and at all times to be thoroughly familiar with the Corporation's various organizations; have complete records on hand pertaining thereto including authority charts; to advise when called upon of any operation of the best form of organization for getting certain desired results and to do such other development work, referring to form of organization as may be desired.

14. Tax Section. To study the question of municipal taxes and assessments and all other taxes, either than Federal Taxes which are a part of the General Financial and Accounting Section. To advise with the operations when called upon as to methods of procedure to properly protect the Corporation against excess charges or unjust treatment.

15. Personnel Section. To advise with the Operations Staff as well as the Advisory Staff pertaining to executive and clerical supply of personnel. To investigate and supply a record of applicants desiring connections with the Corporation and to keep in touch with applicants that will tend to strengthen the various staffs of the Corporation in a personnel way.

16. Personal Section. To handle all questions pertaining to welfare work, have jurisdiction over the medical and sanitary service of the various operations in any advisory way and to advise with the various operations as to all matters of such character.

17. Sales & Advertising Section. To study in a general way all matters pertaining to sales policy, advertising, etc. To develop statistics that will guide the Operations Staff in their sales and advertising work on such matters as would be beyond the scope or the capacity of an individual operation. To advise the sales department of the Operations Staff as to proper advertising medium, best style of copy and do all other matters of similar character.

PRESIDENT'S PERSONAL STAFF

In view of the large number of matters that must necessarily come directly under the supervision of the President of the Corporation, through the interchange of matters from the different staffs, it becomes absolutely essential that an organization be provided to relieve the President of detail matters so far as it is possible to do so. The President's personal staff is divided into two general divisions:—

1. Personal Assistants to the President
2. Appropriations Committee

The functions of these divisions will be described separately.

Personal Assistants to the President—One or more assistants will be designated by the President for such duties as the President may elect to attach to such appointment.

Appropriations Committee—This Committee is to investigate, on behalf of the President,as to the propriety of extensions to the Corporation's units represented by betterments to existing properties or additions through the acquisition of new properties as may be recommended by the executive in charge of any operating division or group of operations or by the Vice President in charge of the General Advisory Staff. The Appropriations Committee has the privilege of drawing on the General Advisory Staff for such technical information and assistance as in its judgment may be desirable, with a view to obtaining the benefit of all the resources and expert information within the Corporation organization as a whole, in order that the President may best determine the proper method of procedure in each individual case.

ORGANIZATION CHART

In order to better illustrate the proper functioning and relative position of the various staffs and the sub-divisions of the staff, the above study has been developed in diagrammatic form and is shown on the chart indicated as "Exhibit A" which is a part of this report.

ADVANTAGES

Having outlined in a general way the functioning of the various staffs on the executive side and the relation of those staffs with the "Major Control", the benefits to be obtained by the proposed organization may be enumerated as follows:—

1. The broad policies of the Corporation are formulated by two principal Committees; that is, the Financial and Executive Committees. These Committees constitute experts in their individual line—the Executive Committee in the detailed management of the Corporation's operations—the Finance Committee along lines of finance and accounting.

2. The direct operation of the Corporation is centered in a single individual—the President of the Corporation. This must result in prompt and effective action on all important questions.

3. The direct operation of each individual unit is in the direct control of the executive in charge of that unit. This executive is responsible for the successful conduct of his specific operation in all its activities, resulting in the full exercise of that executive's initiative and ability together with that of his organization.

4. Operations of an allied nature are grouped together without lessening in any sense the initiative of the executive in charge of the individual operation. Through this plan the number of executives reporting to the President is very properly reduced.

5. Proper co-ordination between the Executive Staff, General Advisory Staff and General Finance and Accounting Staff is provided by Advisory Committees in which all these various staffs are represented. This must necessarily result in the develop-

ment of each staff along lines that will be profitable to the other staffs with a constant inter-change of viewpoints between the staffs to the end that illogical development incurring unnecessary expense with corresponding ineffectiveness will be eliminated. This should result in the development of cooperation throughout the Corporation as a whole increasing the morale and effectiveness.

ADDITIONAL RECOMMENDATIONS

Considerable study has been given to the advisability of placing among the other functions of the General Advisory Staff all operations grouped together as Parts Groups. These operations present no commercial problems and are essentially manufacturing units, pure and simple. Their production is entirely absorbed within the divisions of the Corporation. The advantage of such an organization is that the chief executives constituting the Operations Staff using material from such Parts Divisions, would function so far as their requirements go, through the chief of the Advisory Staff. It is believed this would enable a more logical and satisfactory distribution of the products of such divisions. In other words, it is recommended as better organization to have the necessary decisions effecting the distribution of these parts determined by an independent authority subject in all cases to the control of the President rather than to have a chief executive of each operating division requiring such parts determine the distribution among themselves. This is believed to be particularly desirable in cases where the demand for such parts is in excess of the supply resulting in a certain amount of confusion which by the above plan it is believed could be avoided.

Note:

Page 6560 is on card 147.
" 6561 " " " 138.
" 6562 " " " 148.
" 6563 " " " 147.
" 6564 " " " 147.
" 6565 " " " 148.

Defendant's Exhibit (GM) No. 7

GENERAL MOTORS CORPORATION

M. Donaldson Brown

A. P. Sloan, Jr.

Subject: GENERAL MOTORS ORGANIZATION—
RESPONSIBILITY OF GOVERNING COMMITTEES

Date: December 28,

As you have an opportunity to think over things, I would appreciate it if you would give some thought to the point that has recently come up with respect to the relationship of the Administration Committee to the Policy Committee to the Board of Directors. I think it is quite important.

While you say, very properly, that Lammot and Walter have never been very enthusiastic about our present set-up, I think their objection centers around the problem that I am now laying before you. Walter feels that the Policy Committee is asked to pass on too many details of administering the business, concerning which they cannot possibly be familiar. I don't know exactly what Lammot's objection is. But I think that we ought to give some thought to the problem with the hope that we might present some modification at the Organization Meeting next May, providing we can work out something that would not limit the present scheme of things, with which I am very enthusiastic, and at the same time meet the viewpoint of the others. That ought to be done, if it can be done.

As I said the other day when we were discussing the matter, it was my original concept that the Administration Committee would run the business. Everything pertaining to what we might call 'running the business' would be up to that Committee. And solely that Committee. Nothing would have to go beyond that Committee except matters of very broad policy. Of course, it is difficult to decide what is broad policy and what is not—it is a matter of interpretation—but I still think that we put too many things to the Policy Committee that involve administration and do not confine their work sufficiently to broad questions of policy. When I speak of broad questions of policy I don't necessarily mean financial policies. If the concept of the old Finance Committee was to deal with the problem as to whether the money was available or not—and I think it was to a large extent—then I don't think in our set-up the responsibility goes far enough. I think the top Committee should deal with broad questions of policy, financial and otherwise, but should not deal with the administration of policy. It is in that area that I think we should give some thought.

I might illustrate by referring to the coming question of whether we should operate in Germany or not. I don't think it is a question for the Policy Committee to decide as to how the operation shall be set up—that involves the running of the business. I do think, however, it is up to the Policy Committee to decide whether in its judgment it is desirable for General Motors to conduct a manufacturing operation in Germany.

Take another case: At the meeting the other day the question arose of compensating certain executives of GMC Truct & Coach Division. Considerable time was spent in discussing the details of the compensation scheme—whether there should be a ceiling or not. I don't think that's the business of the Policy Committee per se according to the organization set-up. It might well be within the scope of the Policy Committee to say that an operating executive

can or cannot be paid on a basis of direct performance measured in terms of sales, or something else, as against being on a direct salary basis. Frankly, I rather question that. I think that also is solely within the jurisdiction of the Administration Committee because it is a matter of 'running the business'. Of course, if it involves a conflict with the bonus system, that is a different thing.

What I am trying to say is:—that we start with the Policy Group on some question of policy. We spend hours discussing it. It then goes to the Administration Committee. Then it goes to the Policy Committee and sometimes it goes to the Board of Directors. All matters dealing with the operating phase of the business I think should stop with the Administrative Committee.

I am not making these remarks to get the idea across that I don't think the Policy Committee should be kept away from what is going on in the business. I don't care what they are told. I am glad to tell them everything and anything and to have everybody else tell them anything and everything that they are willing to take the time to listen to—that is not the point. I'm talking about the Administration set-up and I do think if we can confine the Policy Committee to matters of policy and keep them out of the business area, that we would save a lot of time; we would avoid confusion and uncertainty in the minds of the members of the Policy Committee and everybody could do a better job; and, importantly, I think the Wilmington people will be better satisfied with the set-up if they were not asked to pass on questions of administration concerning which they know nothing.

I might take another illustration in the small car: That, in a way, is 'running the business': There is a very great hazard here and I think when the Administration Committee has decided the question that we will have a small car, the problem should be put to the Policy Committee and perhaps the Board of Directors simply because of the peculiar circumstances involved.

I mention this to emphasize the difficulty in determining what is policy and what is 'running the business'. You can't make a definite rule and say one thing belongs to it and other things are outside of it. We have got to use a considerable amount of judgment and the only point I am trying to make is:—that in exercising that judgment today we have reached the point where practically everything of any importance involving 'running the business' goes to the Policy Committee.

ALFRED P. SLOAN, JR. /s/

APSJr./K
cc Mr. C. E. Wilson

Note:

Pages 6570 - 6571 are pn card 149.

Defendant's Exhibit (GM) No. 10

GENERAL MOTORS CORPORATION

BOARD OF DIRECTORS

May 10, 1923

•*Management*

Day
Mott
McLaughlin
Sloan
Bassett
Smith
Brown
Kettering
Swayne
Hannum
Hardy
Rice
Pratt
Page
Mooney
F. J. Fisher

•*du Pont*

P. S. du Pont
Haskell
Raskob
H. F. du Pont
I. du Pont
L. du Pont

Bishop
Kaufman
McGowan
McMaster
Baker
Prosser
Stettinius
Woodin
Woolley
Young

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

GENERAL MOTORS CORPORATION
BOARD OF DIRECTORS

December 31, 1942

Management	*du Pont*	*Others*
Mott	P. S. du Pont	Bishop
McLaughlin	Raskob	McGowan
Sloan	H. F. du Pont	•Whitney
Smith	L. du Pont	
Brown	•Carpenter	
Kettering	•H. B. du Pont	
Pratt		
•L. P. Fisher		
•Bradley		
•Grant		
•Hunt		
•Schumann		
•Wilson		
•Coyle		
•Curtice		
•Donner		
•E. F. Fisher		

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

GENERAL MOTORS CORPORATION

BOARD OF DIRECTORS

June 6, 1949

Management	*du Pont*	*Others*
Mott	*Brown	Whitney
McLaughlin	Carpenter	*Douglas
Sloan	H. B. du Pont	*Mellon
Kettering	*Echols	
Pratt	*Copeland	
L. P. Fisher		
Bradley		
Grant		
Hunt		
Schumann		
Wilson		
Coyle		
Curtice		
Donner		
E. F. Fisher		
*Archer		
*Johnson		
*Evans		
*Goad		
*Kunkle		
*Burke		
*Godfrey		

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

GENERAL MOTORS CORPORATION

BOARD OF DIRECTORS

February 1, 1953

Management	*du Pont*	*Others*
Mott	Brown	Whitney
McLaughlin	Carpenter	Douglas
Sloan	H. B. du Pont	Mellon
Kettering	Echols	*Alexander
Pratt	Copeland	*Clay
L. P. Fisher		*Compton
Bradley		
Grant		
Hunt		
Schumann		
Curtice		
Donner		
E. F. Fisher		
Johnson		
Evans		
Goad		
Kunkle		
Godfrey		
*Gordon		
*Kindl		
*Klingler		
*Osborn		
*Skinner		

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

Defendant's Exhibit (GM) No. 11

Copy to: Mr. Lammot du Pont
Building

Mr. Donaldson Brown
General Motors Corporation
1775 Broadway
New York, N. Y.

April 8, 1943.

Mr. Alfred P. Sloan, Jr.
General Motors Corporation
1775 Broadway
New York, N. Y.

Dear Alfred:

You will recall my previous letter on the subject of the Board of Directors of General Motors.

In giving this matter some more thought I asked one or two of the men around here if they would not help me in getting up a list of people from which we might consider the selection of several names of men who might be willing to serve as members of General Motors and who might contribute to the work.

I am enclosing a copy of such a list. Probably some of the names will shock you and may be some of them will appeal to you. I certainly would not at this time say that I know enough about any of them to pass final judgment myself. I do think, however, that they may indicate a general class or type of men that I have had in mind.

You will, no doubt, be surprised at the absence of certain names which might occur to you off-hand, but in getting together this list I have endeavored to get men either in their low fifties or preferably in their forties, though you will note some divergence from that qualification.

It seems to me that the events of recent months have indicated rather strongly the desirability of a larger representation outside of the management. There is much work for men today who are not members of the management, and on a number of questions the lawyers seem to advocate the disqualification of management members. Also, it seems to me inherently that the Board of Directors which represents the stockholders should be made up of at least a majority of members who are not a part of management. I am a little inclined to the feeling too that it might not be a bad idea to have representation from groups of different

—2—

political and economic philosophy and even from groups which we don't associate primarily with industry as such. For instance, from among the publishers.

I have gathered in discussing this with Lammot that perhaps both he and you are somewhat of the opinion that the selection of new members should await the retirement of old members for one reason or another. I personally feel quite differently about that. I think that the problem of the corporation is enormous and the responsibility correspondingly great. These will not grow less in magnitude, but perhaps greater; nor will they ever be solved but will be continuing burdens and responsibilities. I think, therefore, we cannot get new men in at too early a date in order that they may become somewhat familiar with the problems and will be able to carry on when those who have borne the principal burdens to date are ready to withdraw.

However the purpose of this letter is merely to convey this list. You, no doubt, will have other names to add to it and I will be glad to discuss it with you sometime.

Sincerely yours,

WSC:R

P. S. It seems to me that in connection with this question of obtaining the services of valuable men as Directors of General Motors we should consider the question of adequate compensation for services rendered. It seems to me that the payment of a purely nominal fee for Directors is wholly unrealistic and must result on the average in getting nominal services. It is my understanding that, both in England and on the Continent, the practice is quite different from this. If we are to expect the time and interest of some of the best men in the country we should expect to pay fully for it.

W. S. C., Jr.

NOTE: "File Copy" is printed across both pages of the letter and "33." is written at the top of the first page. The check marks on the attached list are by hand. "gmc-424" is written lower right corner of each page of the letter; "gmc-425" at lower right corner of each page of attached list.

Boston	Age	Other Connections
✓ T. Jefferson Coolidge	49-50	Former Under Secretary of the Treasury; Chairman, Old Colony Trust Co. " United Fruit Co. Dir., Boston Edison Company " New England Mutual Life Insurance Company " New York Central R. R.
Bridgeport		
✓ C. K. Davis, Pres. & General Mgr., Remington Arms Company	54	
Chester		
Thomas B. McCabe, Pres. & Dir. Scott Paper Company	50	Dir., Brunswick Pulp & Paper Co., Chairman & Dir., Federal Reserve Bank of Phila., Dir., Nova Scotia Wood Pulp & Paper Co., Ltd.
Chicago		
James S. Kemper, Pres. Lumbermen's Mutual Life Insurance Company	56	Pres., National Retailers Mutual Ins. Co. " Amer. Motorists Ins. " Federal Mutual Fire Ins. Company Dir., Ohio Underwriters Mutual Ins. Company " City National Bank & Trust Company " Lumber Mutual Fire Insurance Company Former Pres., Chamber of Commerce of the United States
Kansas City		
James M. Kemper, President and Chairman, Commerce Trust Company	48	Dir., Plaza Bank of Commerce " Kansas City Gas Company " Maryland Casualty Company " General American Life Insurance Company " Missouri Pacific Ry. " Fox Midwest Theatres

Minneapolis	Age	Other Connections
J. Cameron Thomson, Pres. Northwest Bancorporation.	52	Director, Northwestern National Bank and Trust Co.
New York		
✓ Winthrop Wm. Aldrich, Chrm. Chase National Bank of N. Y.	58	Pres. & Dir., Chase Safe Deposit Company Dir., American Telephone & Telegraph Company Dir., Westinghouse Electric & Mfg. Company " Westinghouse International Company Trustee, New York Community Trust Dir., Discount Corporation of New York Member Ex. Com., Chamber of Commerce of New York State Trustee, Rockefeller Foundation Dir., Metropolitan Life Insurance Company
✓ Henry Clay Alexander, Vice President J. P. Morgan & Co., Inc.	41	Dir., Johns Manville Corp. N.Y. " American Viscose Corporation.
✓ Arthur A. Ballantine 31 Nassau Street	59	Lawyer, Parther, Root, Clark, Buckner and Ballantine Former Under-Secretary of the Treasury, Trustee, Carnegie Endowment International Peace, Memorial Hospital, Teachers College, etc.
✓ Lewis H. Brown, President Johns-Manville Corp. 22 East 40th Street, N Y.	49	Director, American Telephone & Telegraph Company " Bankers Trust Company; " New York World's Fair 1939-40; Trustee, Mutual Life Ins. Co.; Chairman Bd. Trustees, Tax Foundation.

✓ W. Gibson Carey, Jr., Pres. Yale & Towne Mfg. Company Chrysler Building	47	Director, Irving Trust Company " Colgate, Palmolive Peet Company, Trustee, Mutual Life Ins. Co. Former President, Chamber of Commerce of the United States V. Chm. National Industrial Conference Board Member Bd. of Dir., Commerce & Industry Assn. New York Trustee, Consolidated Edison, N.Y.

New York	Age	Other connections
Harry P. Davison, Dir. J. P. Morgan & Co., Inc. New York, N. Y.		On active service in the armed forces.
✓ Lewis W. Douglas, President Mutual Life Insurance Company of New York 31 Nassau Street	49	Former Member of Congress from Arizona Former Director of the Budget Former V. P., American Cyanamid Company Former President, Magill University
✓ Frederick W. Ecker	46-47	Formerly Executive Vice President Metropolitan Life Insurance Company Now with Lease-Lend Administration in Washington
✓ Leon Fraser, President First National Bank of New York 2 Wall Street, N. Y.	53	Lawyer by profession Former President, Bank for International Settlements, Director, Federal Reserve Bank of New York Director, General Electric Co. " U. S. Steel Corp. Trustee, Mutual Life Ins. Co. " Columbia University
✓ Artemus L. Gates	48	Trustee, New York Trust Co. Member Finance Com. & Dir., American Smelting & Refining Company Director, North British & Mercantile Insurance Company

		Director, Mercantile Insurance Company Director, American Surety Co. " Greenwich Savings Bk. " Pan American Airways, Inc. " Time, Inc. " Safe Deposit Company of the New York Trust Company " Commonwealth Insurance Company
Walter S. Gifford, Pres. American Telephone & Telegraph Company 195 Broadway	58	Director, First National Bank of New York, Former Director, U. S. Steel Corp.

✓ New York	Age	Other connections
Wm. S. Gray, Jr., President and Trustee, Central Hanover Bank & Trust Company	46	Director, American Eagle Fire Insurance Company " American & Foreign Insurance Company " British & Foreign Marine Insurance Co., Ltd. " Discount Corp. of N. Y. " Eagle Indemnity Company " Federal Union Ins. Co. " Fidelity-Phenix Fire Insurance Company " Flintkote Company " General Foods Corp. " Globe Indemnity Company Pres. & Dir., Wm. S. Gray & Co. Trustee, Juilliard Musical Foundation Director, Hudson Insurance Company " Liverpool & London & Globe Insurance Co., Ltd. " National Surety Corp. " National Surety Marine Corporation " Newark Fire Ins. Co. " North British & Mercantile Insurance Company

Member of Ex. Committee & Director, Northern Insurance Company
Director, One Hundred Fifty William Street Corporation
Member of Ex. Committee & Director, Prudential Insurance Company of Great Britain
Director, Queen Insurance Co. of America
" Royal Indemnity Company
" Royal Insurance Co., Ltd.
" Star Insurance Company
Member of Ex. Committee & Director, Texas Company
Member of Ex. Committee & Director, Texas Corporation
Director, Thames & Mersey Marine Insurance Company, Ltd.
" Union Carbide & Carbon Corporation

New York	Age	Other connections
✓ John W. Hanes, Chairman Finance Committee United States Lines Co. 1 Broadway	51	Former Under-Secretary of the Treasury, and brokerage firms. Director, Bankers Trust Company " Johns-Manville Company " American Newspapers " Hearst Corporation. " Glenn L. Martin Company
✓ George L. Harrison, Pres. New York Life Insurance Company 51 Madison Avenue	56	Lawyer by training. Former President, Federal Reserve Bank of New York, and General Counsel, Federal Reserve Board
✓ Irving S. Olds, Chairman United States Steel Corp. 71 Broadway	56	Lawyer by profession. Former Partner, White & Case.
Thomas I Parkinson, Pres. Equitable Life Assurance Society 393 Seventh Avenue	61	Lawyer by profession. Director, Atlantic Mutual Ins. Company " Borden Company " Consolidation Coal Co. " Chase National Bank " Continental Insurance Company

		" Westinghouse Electric & Mfg. Company Trustee, Emigrant Industrial Savings Bank Rockefeller Foundation Columbia University University of Pa. Former Pres., N.Y. State C. of Com.
Arthur H. Sulzberger, Pres. New York Times Company	51	Director, Spruce Falls Power & Paper Company, Toronto " Times Telephoto Equipment, Inc. Trustee, Rockefeller Foundation Director, Welfare Council of N.Y. Incorporator, American National Red Cross
✓ **Pittsburgh**		
R. K. Mellon, President Mellon National Bank	44	Director, Union Trust Co. of Pittsburgh " Pullman, Inc. " Pa. Railroad Company " Westinghouse Airbrake Koppers Company " Gulf Oil Corp. " Pittsburgh Plate Glass Aluminum Co. of Amer. Carborundum Company

Pittsburgh	Age	Other connections
✓ Clarence Stanley, Pres. Union Trust Company of Pittsburgh	46	Director, General Electric Company " Union Title Gty. Company " Union Savings Bank " Fed. Res. Bank of Cleveland (Pitts. Branch) " National Union Fire Ins. " Superior Steel Corp.
Washington		
John C. Gall Investment Building	42	Former Counsel, National Association of Manufacturers.

Wilmington

✓ Lammot du Pont Copeland	38	Director, Wilmington Trust Company " E. I. du Pont de Nemours & Company " Union National Bank of Wilmington " U. S. Rubber Company
Angus B. Echols, Vice Pres. and Dir., E. I. du Pont de Nemours & Company	53	
✓ R. W. Woodruff, Chairman Coca-Cola Company	53	Former Pres., White Motor Company Director, National Foreign Trade Council

✓Winston-Salem

Robert M. Hanes, Pres. Wachovia Bank & Trust Co.	52	Director, Southern Railway Company " P. H. Hanes Knitting Co. " Hanes Dye & Finishing Co. " Security Life & Trust Co. " Atlantic Joint Stock Land Bank " Maryland Casualty Company Former President, American Bankers Association
S. Clay Williams, Chairman R. J. Reynolds Tobacco Co.	58	Lawyer by profession. Director, American Telephone & Telegraph Company " Chamber of Commerce of the U. S. Formerly Chairman National Industrial Recovery Board.

Defendant's Exhibit (GM) No. 12

Copy to: Mr. Lammot du Pont
Building
Mr. Donaldson Brown
General Motors Corp.
New York, N. Y.

September 22, 1943.

Mr. Alfred P. Sloan, Jr.
General Motors Corporation
1775 Broadway
New York, N. Y.

Dear Alfred:

In my letter of April 8th to you I enclosed a list of names of men that might be given some thought in connection with General Motors Directorship. I am attaching a list hereto containing the names of some of the men that were on that list and also several new names.

I might say that I have not given full consideration to these names and might even be opposed to the selection of these individuals, but I am merely tossing them into your pool so that they may be given some consideration in connection with the other names which you may have.

You will notice that I have endeavored to stick to an age around fifty, and there are no doubt many men of greater age than would be desirable except for the fact that I am very hopeful that in this move we will look well into the future.

I thoroughly agree with our discussion of a day or two ago that the sine qua non of the selection must be that in some way or other these men would be sincerely and persistently interested in the welfare of General Motors.

Sincerely yours,

WSC:R

	Age
T. Jefferson Coolidge, Chairman, Old Colony Trust Company	49-50
C. K. Davis, Pres. & General Mgr. Remington Arms Company	54
Winthrop Wm. Aldrich, Chairman Chase National Bank of N. Y.	58
Henry Clay Alexander, Vice President J. P. Morgan & Co., Inc.	41
Arthur A. Ballantine — (Lawyer - Partner) Root, Clark, Buckner & Ballantine	59
Lewis H. Brown, President Johns-Manville Corp. 22 East 40th Street, N. Y.	49
W. Gibson Carey, Jr., President Yale & Towne Mfg. Company Chrysler Building, N. Y.	47
Lewis W. Douglas, President Mutual Life Insurance Co. of N. Y. 31 Nassau Street	49
Frederick W. Ecker Formerly Ex. Vice President Metropolitan Life Insurance Co. (Now Lease-Lend)	46-47
Leon Fraser, President First National Bank of New York 2 Wall Street	53
Artemus L. Gates Trustee, New York Trust Co. Member Finance Com. & Dir. American Smelting & Refining Company	48

	Age
Wm. S. Gray, Jr. President & Trustee Central Hanover Bank & Trust Company	46
John W. Hanes, Chairman Finance Com. United States Lines Company 1 Broadway	51

—2—

George L. Harrison, Pres. New York Life Insurance Company 51 Madison Avenue, N. Y.	56
Irving S. Olds, Chairman United States Steel Corp. 71 Broadway, N. Y.	56
R. K. Mellon, President Mellon National Bank Pittsburgh, Pa.	44
Clarence Stanley, Pres. Union Trust Company of Pittsburgh	46
Lammot du Pont Copeland Dir. E. I. du Pont de Nemours & Company Wilmington, Del.	38
R. W. Woodruff, Chairman Coca-Cola Company Wilmington, Del.	53
Robert M. Hanes, Pres. Wachovia Bank & Trust Co.	52
S. Sloan Colt, President & Dir. Bankers Trust Company, N. Y.	51

NOTE: "File Copy" is printed across each page; "gmc 819" is handwritten in lower right of first page and "gmc-819a" is handwritten in lower right of both pages of list of names.

Defendant's Exhibit (GM) No. 13

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET.
NEW YORK 19, N. Y.

August 15, 1944
(Dictated) August 11, 1944

Mr. Walter S. Carpenter, Jr.
President
E. I. duPont deNemours & Company
Wilmington, Delaware

RE: GENERAL MOTORS ORGANIZATION—
BOARD OF DIRECTORS—MEMBERSHIP

My dear Walter:

You perhaps will think I have forgotten all about the desire of everybody, including yourself who was really the promoter of the movement, that we expand our Board by taking on additional members.

You recall that I suggested the names of three candidates and it was agreed that I would invite these men to join the Board. They were:—Dr. Karl T. Compton, President, M.I.T.; Lewis W. Douglas, President, Mutual Life Insurance Company of New York, and Calvin P. Bentley of Michigan. I have seen the first two but have not been able as yet to contact with the third but expect to do so shortly. It has taken considerable time to get the answer, but anyway here it is:—

Mr. Douglas has accepted and I am sure we will all be gratified that he has been willing to serve with us. Beside that, he seems very much pleased at the invitation. He told me that he knew it would be very interesting on account of the size and magnitude of our operations. Do to the fact that he is not very well at the moment and faces an operation within the next thirty days or so, he asked to have the matter delayed so far as his election is concerned until the end of October, which would mean the November meeting. I will arrange to have this done.

Dr. Compton has given the matter a great deal of consideration. I think he would like to join the Board, but after discussing it over quite a period of time with his people at M.I.T. he has come to the conclusion that he ought not to do it due to his relationship with M.I.T. I explained to him that I did not see that one in any sense interfered with the otherthat it was natural that he should be on our Board as two or more of our Board members are graduates of the Institute. However, he has decided not to accept the invitation.

I am inclined to think that the reason is partly what has been stated and more particularly the fact that he has received other invitations; one he mentioned to me from the General Electric Company, and he turned them down for the same reason and I think he felt that he could not consistently accept any such invitation, under existing circumstances.

—2—

He discussed with me certain changes in organization that he was going to recommend in due course for M.I.T. which might sufficiently change his relationships in order that the existing restrictions might not apply. That means, of course, it is a matter of the future.

So, we have not made very much progress but I think the progress that we have made is constructive and on the basis of quality even if it does not involve quantity.

Very truly yours,

/s/ Alfred P. Sloan, Jr.
Chairman

APSJr./K

Defendant's Exhibit (GM) No. 14

November 20, 1947.

CONFIDENTIAL

Mr. Alfred P. Sloan, Jr., Chairman
General Motors Corporation
New York, N. Y.

Dear Alfred:

Regarding our chat the other day, I am noting below three names. I am not urging strongly that any one of them be presented, but rather am I sending them along to add to your galaxy for consideration. —

The first one is Mr. Robert Woodruff. He is the head of the Coca-Cola Company. I presume that he is a man about my age. He certainly made an outstanding success of his business. He has a particular flare for questions of advertising and distribution and is no mean operator when it comes to general questions of national politics. I do not suggest this latter as being of any great service to us in political matters, but it is not without some merit to have advice on such matters in connection with questions of general national interest.

They had their office here in Wilmington for a number of years, at which time he used to be here off and on and we saw something of him. Their main location is Atlanta, Georgia, though I believe that his office is nowadays actually in New York.

We have talked about the merit of having someone from an area outside of New York and yet we have wondered whether such a person would be available for meetings. We might find in Woodruff a man who has the virtues of official and actual connections outside of New York and yet available in New York.

Woodruff is not wholly unacquainted with the automobile world as he was at one time President of the White Motor Company.

Another name that we might consider is that of John Hanes. He is a member of that important group down in the Carolinas. There are several brothers, I believe. One of them is Robert Hanes who is the banker.

—2—

I do not know how much, if any, background of industrial experience that John Hanes has had, but he has, as you know, been a man of considerable prominence of recent years. He was Assistant Secretary of the Treasury of the United States at one time and has, of recent years, been very active in the Tax Foundation. I presume that we do not need on the Board so much experience with actual operating matters and perhaps a man with a broad interest and knowledge of affairs might be of even more help.

Another name which occurs to me is that of Brehon B. Somervell.

You may recall that he was General Somervell during the war and at that time was in charge of army supplies and services and had under him the enormous activities of supplies and services for the army. It is my general impression that he did an extraordinarily good job in that connection. He is now, I believe, President of the Koppers

Company. A possible objection to his selection at this time might be the criticism which might be stirred up in connection with his association with as important a contractor for war supplies as General Motors was. I do not know how much active, intimate contact he ever had with the army purchases of materials from General Motors but it probably is true that an enormous volume of those purchases did come under his supervision.

As I said above, and wish to emphasize, I am merely tossing these names into the hat, thinking that you might wish to have them analyzed in connection with other names you may wish to consider.

Yours sincerely,

WSC/jvt

NOTE. "File Copy" stamped across each page of letter. An illegible set of initials appears at bottom of first page.

Defendant's Exhibit (GM) No. 15

SCHEDULE OF MEETINGS OF THE BOARD OF DIRECTORS OF THE DU PONT COMPANY
MAY, 1923 TO DECEMBER 20, 1948

(Mr. A. P. Sloan's attendance is indicated by an asterisk (*))

TYPE	DATE
Regular	May 21, 1923
Regular	June 18, 1923 *
Regular	July 16, 1923
Regular	August 20, 1923
Special	August 30, 1923
Regular	September 17, 1923 *
Regular	October 15, 1923
Regular	November 19, 1923
Regular	December 17, 1923
Regular	January 21, 1924
Regular	February 18, 1924
Regular	March 17, 1924 *
Regular	April 21, 1924
Regular	May 19, 1924
Regular	June 16, 1924
Regular	July 21, 1924
Regular	August 18, 1924
Regular	September 15, 1924
Regular	October 20, 1924
Regular	November 17, 1924
Regular	December 15, 1924 *
Regular	January 19, 1925
Regular	February 16, 1925
Regular	March 16, 1925
Regular	April 20, 1925
Regular	May 18, 1925
Regular	June 22, 1925 *
Regular	July 20, 1925
Regular	August 17, 1925
Regular	September 21, 1925
Regular	October 19, 1925
Regular	November 16, 1925
Regular	December 21, 1925
Regular	January 18, 1926
Regular	February 15, 1926
Regular	March 15, 1926
Regular	April 19, 1926
Regular	May 17, 1926
Regular	June 21, 1926 *

TYPE	DATE
Regular	July 19, 1926
Regular	August 16, 1926
Regular	September 20, 1926
Regular	October 18, 1926
Regular	November 15, 1926
Regular	December 20, 1926
Regular	January 17, 1927
Regular	February 14, 1927
Regular	March 21, 1927
Regular	April 18, 1927
Regular	May 16, 1927
Regular	June 20, 1927
Regular	July 18, 1927
Regular	August 15, 1927
Regular	September 19, 1927 *
Regular	October 17, 1927
Regular	November 21, 1927
Regular	December 19, 1927
Regular	January 16, 1928
Regular	February 20, 1928
Regular	March 19, 1928
Regular	April 16, 1928
Regular	May 21, 1928
Regular	June 18, 1928
Regular	July 16, 1928
Regular	August 20, 1928
Regular	September 17, 1928
Regular	October 15, 1928
Regular	November 19, 1928
Regular	December 17, 1928
Regular	January 21, 1929
Regular	February 18, 1929
Regular	March 18, 1929
Regular	April 15, 1929
Regular	May 20, 1929
Regular	June 17, 1929
Regular	July 15, 1929
Regular	August 19, 1929
Regular	September 16, 1929 *
Regular	October 21, 1929
Regular	November 18, 1929
Regular	December 16, 1929
Regular	January 20, 1930
Regular	February 17, 1930
Regular	March 17, 1930
Regular	April 21, 1930
Regular	May 19, 1930
Regular	June 16, 1930

TYPE	DATE
Regular	July 21, 1930
Regular	August 18, 1930
Regular	September 15, 1930
Regular	October 20, 1930
Regular	November 17, 1930
Regular	December 15, 1930
Regular	January 19, 1931
Regular	February 16, 1931
Regular	March 16, 1931
Regular	April 20, 1931
Regular	May 18, 1931
Regular	June 15, 1931 *
Regular	July 20, 1931
Regular	August 17, 1931
Regular	September 21, 1931
Regular	October 19, 1931
Regular	November 16, 1931
Regular	December 21, 1931
Regular	January 18, 1932
Regular	February 15, 1932 *
Regular	March 21, 1932
Regular	April 18, 1932
Regular	May 16, 1932
Regular	June 20, 1932
Regular	July 18, 1932
Regular	August 15, 1932
Regular	September 19, 1932
Regular	October 17, 1932
Regular	November 21, 1932
Regular	December 19, 1932
Regular	January 16, 1933
Regular	February 20, 1933
Regular	March 20, 1933 *
Regular	April 17, 1933
Regular	May 15, 1933
Regular	June 19, 1933
Regular	July 17, 1933
Regular	August 21, 1933
Regular	September 18, 1933 *
Regular	October 16, 1933
Regular	November 20, 1933
Regular	December 18, 1933
Regular	January 15, 1934 *
Regular	February 19, 1934
Regular	March 19, 1934
Regular	April 16, 1934 *
Regular	May 21, 1934
Regular	June 18, 1934

TYPE	DATE
Regular	July 16, 1934
Regular	August 20, 1934
Regular	September 17, 1934
Regular	October 15, 1934
Regular	November 19, 1934
Regular	December 17, 1934
Regular	January 21, 1935
Regular	February 18, 1935
Regular	March 18, 1935 *
Regular	April 15, 1935
Regular	May 20, 1935
Regular	June 17, 1935
Regular	July 15, 1935
Regular	August 19, 1935
Regular	September 16, 1935
Regular	October 21, 1935
Regular	November 18, 1935
Regular	December 16, 1935
Regular	January 20, 1936
Regular	February 17, 1936
Regular	March 16, 1936
Regular	April 20, 1936
Regular	May 18, 1936
Regular	June 15, 1936
Regular	July 20, 1936
Regular	August 17, 1936
Regular	September 21, 1936
Regular	October 19, 1936
Regular	November 16, 1936
Regular	December 21, 1936
Regular	January 18, 1937
Regular	February 15, 1937
Regular	March 15, 1937
Regular	April 19, 1937
Regular	May 17, 1937
Regular (postponed until June 28)	June 21, 1937
Special	June 28, 1937
Regular	June 28, 1937
Regular	July 19, 1937
Regular	August 16, 1937
Special	September 8, 1937
Regular	September 20, 1937
Regular	October 18, 1937
Regular	November 15, 1937
Regular	December 20, 1937

TYPE	DATE
Regular	January 17, 1938 *
Regular	February 21, 1938
Regular	March 21, 1938
Regular	April 18, 1938
Regular	May 16, 1938
Regular	June 20, 1938
Regular	July 18, 1938
Regular	August 15, 1938
Regular	September 19, 1938
Regular	October 17, 1938
Regular	November 21, 1938 *
Regular	December 19, 1938
Regular	January 16, 1939
Regular	February 20, 1939
Regular	March 20, 1939
Regular	April 17, 1939
Regular	May 15, 1939
Regular	June 19, 1939
Special	June 26, 1939
Regular	July 17, 1939
Regular	August 21, 1939
Regular	September 18, 1939
Special	October 9, 1939
Regular	October 16, 1939
Regular	November 20, 1939
Regular	December 18, 1939
Regular	January 15, 1940
Regular	February 19, 1940
Regular	March 18, 1940
Regular	April 15, 1940 *
Regular	May 20, 1940
Regular	June 17, 1940
Regular	July 15, 1940
Regular	August 19, 1940
Regular	September 16, 1940
Regular	October 21, 1940
Regular	November 18, 1940
Regular	December 16, 1940
Regular	January 20, 1941
Regular	February 17, 1941 *
Regular	March 17, 1941
Regular	April 21, 1941
Regular	May 19, 1941
Regular	June 16, 1941
Regular	July 21, 1941
Regular	August 18, 1941
Regular	September 17, 1941
Regular	October 20, 1941
Regular	November 17, 1941 *
Regular	December 15, 1941

TYPE	DATE
Regular	January 19, 1942
Regular	February 16, 1942
Regular	March 16, 1942
Regular	April 20, 1942 *
Regular	May 18, 1942
Regular	June 15, 1942
Regular	July 20, 1942
Regular	August 17, 1942
Regular	September 21, 1942
Regular	October 19, 1942
Regular	November 16, 1942 *
Regular	December 21, 1942 *
Regular	January 18, 1943
Regular	February 15, 1943
Regular	March 15, 1943
Regular	April 19, 1943
Regular	May 17, 1943 *
Regular	June 21, 1943
Regular	July 19, 1943
Regular	August 16, 1943
Regular	September 20, 1943 *
Regular	October 18, 1943 *
Regular	November 15, 1943
Regular	December 20, 1943
Regular	January 17, 1944
Regular	February 21, 1944 *
Regular	March 20, 1944
Regular	April 17, 1944 *
Regular	May 15, 1944
Regular	June 19, 1944 *
Regular	July 17, 1944
Regular	August 21, 1944
Regular	September 18, 1944 *
Regular	October 16, 1944
Regular	November 20, 1944
Regular	December 18, 1944 *
Regular	January 15, 1945
Regular	February 19, 1945
Regular	March 19, 1945
Regular	April 16, 1945 *
Regular	May 21, 1945
Regular	June 18, 1945
Regular	July 16, 1945
Regular	August 20, 1945
Regular	September 17, 1945 *
Regular	October 15, 1945
Regular	November 19, 1945 *
Regular	December 17, 1945

TYPE	DATE
Regular	January 21, 1946
Regular	February 18, 1946
Regular	March 18, 1946
Regular	April 15, 1946 *
Regular	May 20, 1946
Regular	June 17, 1946 *
Regular	July 15, 1946 *
Regular	August 19, 1946
Regular	September 16, 1946 *
Regular	October 21, 1946
Regular	November 18, 1946 *
Regular	December 16, 1946 *
Regular	January 20, 1947
Regular	February 17, 1947
Regular	March 17, 1947
Regular	April 21, 1947 *
Special	April 29, 1947
Regular	May 19, 1947 *
Regular	JUne 16, 1947
Regular	July 21, 1947 *
Regular	August 18, 1947
Regular	September 15, 1947 *
Regular	October 20, 1947
Regular	November 17, 1947 *
Regular	December 15, 1947 *
Regular	January 19, 1948
Regular	February 16, 1948
Regular	March 15, 1948
Regular	April 19, 1948
Regular	May 17, 1948 *
Regular	June 21, 1948 *
Regular	July 19, 1948 *
Regular	August 16, 1948
Regular	September 20, 1948
Regular	October 18, 1948 *
Regular	November 15, 1948
Regular	December 20, 1948

Defendant's Exhibit (GM) No. 16

TABLE OF ATTENDANCE BY ALFRED P. SLOAN, JR. AT DU PONT BOARD OF DIRECTORS MEETINGS, 1923-1948

Year	Number of Meetings Held	Number of Meetings Attended by Mr. Sloan
1923	9	2
1924	12	2
1925	12	1
1926	12	1
1927	12	1
1928	12	None
1929	12	1
1930	12	None
1931	12	1
1932	12	1
1933	12	2
1934	12	2
1935	12	1
1936	12	None
1937	15	None
1938	12	2
1939	14	None
1940	12	1
1941	12	2
1942	12	3
1943	12	3
1944	12	5
1945	12	3
1946	12	6
1947	13	6
1948	12	4

Defendant's Exhibit (GM) No. 17

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK N Y

Mr. Irenee duPont, President,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

July 25, 1928.

My dear Irenee:-

I have just written Mr. P. S. duPont stating that the New York papers have handled the incident of yesterday, so far as I can see, on the whole satisfactorily altho there have been certain things stated which, of course, I regret, as will always be the case.

I appreciate fully that you differ with us on the question involved. I respect your opinion as I presume you do ours. I am sure we are both working to the interest of the Corporation. As a matter of fact, the Corporation's interest is the only interest I have, as of course you know. I must say not in defense of our own opinion but simply reflecting the facts in the case, that many editorials reflect our viewpoint. The most striking one and the one that appeals to me the most is the editorial in the Boston News Bureau, copy of which I attach for your information. Other editorials have also appeared voicing, in a way, the general sentiment altho not put so forcibly as I see the picture.

I personally feel - perhaps I am right and perhaps I am wrong - that much injury has been done the Corporation. Naturally, much of it can be overcome, but I cannot help but feel that there will be a certain permanent loss of prestige for what has gone by. That, of course, can not be helped, but the only thing to do is for us to work that much harder to overcome it which, of course, we will try to do.

I feel very badly - not over the incident itself, but over many situations surrounding it. It has been most unfortunate and still more unfortunate I can not help but feeling that it could have been entirely avoided, at least to a large measure, if it had been handled differently.

Very truly yours,

Alfred P. Sloan Jr

APSJr./K

Enc.

NOTE: Illegible stamp appears in upper right.

Defendant's Exhibit (GM) No. 18

July 27, 1928

COPY TO: Mr. John J. Raskob,
General Motors Corp.,
New York City.

Mr. Alfred P. Sloan, Jr.
General Motors Corporation
224 W. 57th Street
New York City.

Dear Alfred:

This will acknowledge your letter of July 25.

You may rest assured that though my opinion was not that of a majority of the Board, as taken by your poll of them, I am still a believer in "majority rule" where the vote is by competent people. You doubtless know the effects of General Motors better than I, but I have a suspicion that a great deal of the trouble results from political "heat". This will all blow over after election when we should see a happy and reunited family.

It is of the utmost importance that the other resignation be not accepted, but on the contrary withdrawn. Not that anyone blames him for wishing to "let down", but the step is because of loyalty to a friend rather than necessity of the case. Perhaps no one could influence him more than John Raskob, himself, for he at least cannot be considered selfish by advocating a withdrawal of the communication.

Sincerely yours,

NOTE: FILE COPY is printed across page.

Defendant's Exhibit (GM) No. 19

Copy to Mr. John J. Raskob

Irvington-on-Hudson, N.Y:
August 15, 1928.

Mr. P. S. du Pont,
du Pont Building,
Wilmington, Del.

Dear Pierre:

I have wanted to write you and John for some time but the impediment in my speech makes it hard for me to be understood, and my handwriting, because of Rheumatism, has gone Democratic.

I think when you and John went in to help your country, the directors of the General Motors Corporation should have said, "For you gentlemen to take on additional patriotic work and responsibility, we have nothing but praise. Your salaries will be doubled until after election." I think some one should give you both medals for patriotism.

If more of our able, successful and unselfish men were to follow your example, we would have a much better Government. I think you did right and I congratulate you both.

Kind regards and best wishes.

Sincerely,

Coleman du Pont.

P. S. Since writing the above I have received your letter of August 13th and agree with you that it is just as hard to swallow some of the things the Democrats are doing as it is to swallow some of the things the Republicans are doing, but the Democrats are doing more of them.

Getting prohibition into politics is going to make it harder to do anything for prohibition. Of course, I am sorry you got in on the wrong side of the fence, but glad you are in. Prohibition is not a partisan matter. I think prohibition modification is a most important matter but it is not a political matter. The prohibitionists were very careful not to make it a political issue.

Defendant's Exhibit (GM) No. 20

Do

August 17th, 1928.

Honorable Coleman du Pont,
Irvington-on-Hudson,
New York.

Dear Coleman:

Many thanks for sending me copy of your letter of the fifteenth to Pierre.

I too think the General Motors position was thoroughly wrong and it is to be regretted. Pierre and I both contended that it ought to take the lead in asserting that it is not in politics, that it will in no way attempt to influence its employees, but that on the other hand if its employees will take an active interest in government, it will extend leave of absence to those employees during period of campaigns, in order to enable them to run for Councilman, State Senator, United States Senator or even President and hold their job open for them if they care to return after election. This position, however, was not adopted.

It is part of the duty of the President of the United States to enforce the law and it is also part of his duty "to recommend to the Congress such measures as he shall judge necessary and expedient". Many of us feel that there are few things more necessary or expedient to the future welfare and well-being of our country and its people than some modification of existing liquor laws that will restore temperate life. The Republican Administration have failed to do this and I think have deliberately, through the prohibition enforcement unit, kept the truth with respect to what is happening under our liquor laws, from the people.

The above are some reasons briefly stated, why I must disagree with you in your feeling that this is not a proper question to inject in politics.

No one who has been in Washington can successfully deny the fact that the Anti-Saloon League have exercised tremendous pressure and a controlling influence politically in Congress.

I find this work most interesting and I hope your peace of mind will not be utterly disturbed when I tell you that Governor Smith will be elected

the next President of the United States.

With my best regards and every well wish for your good self, I remain, as always

Sincerely,

JJR

4205

2
E

Defendant's Exhibit (GM) No. 21

GENERAL MOTORS CORPORATION
EXECUTIVE COMMITTEE

May 10, 1923

Haskell
Sloan
P. S. du Pont
Raskob
F. J. Fisher
Mott

1924

Haskell deceased September 9, 1923.

Bassett, Brown, C. T. Fisher, L. P. Fisher and Pratt added September 25, 1924.

1926

Bassett deceased October 17, 1926.

1928

Raskob resigned August 9, 1928.

1929

P. S. du Pont resigned February 7, 1929.

Knudsen and Smith added May 9, 1929.

1930

L. du Pont added February 6, 1930.

1934

F. J. Fisher and L. du Pont resigned February 5, 1934.

Bradley added August 6, 1934.

C. T. Fisher resigned November 5, 1934.

1935

Grant, Hunt, Mooney and Wilson added August 5, 1935.

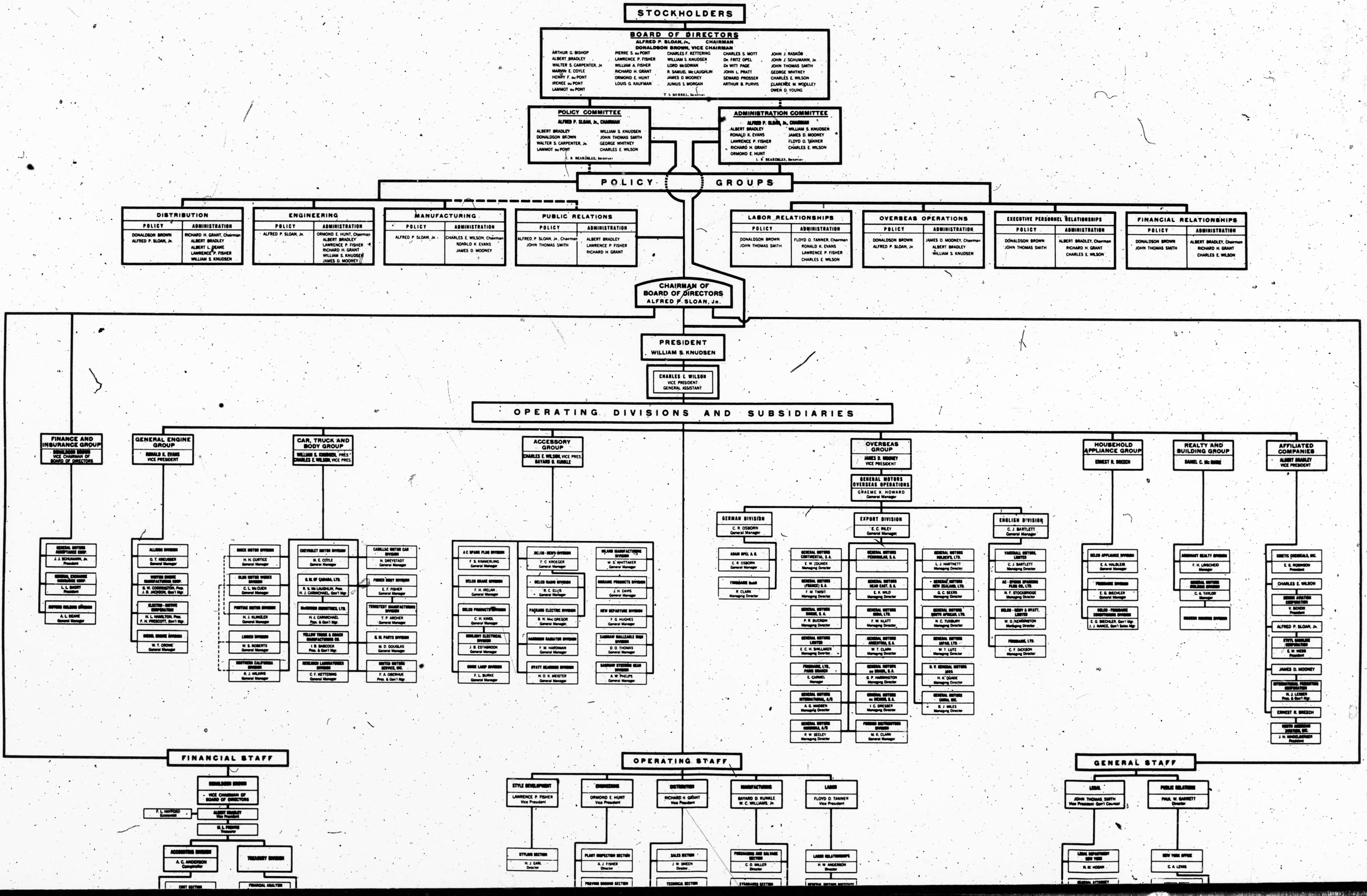
May 3, 1937

Sloan
Brown
L. P. Fisher
Pratt
Knudsen
Smith
Bradley
Grant
Hunt
Mooney
Wilson

GENERAL MOTORS CORPORATION.
ORGANIZATION CHART.
STOCKHOLDERS
DIRECTORS
P.S. DuPONT CHAIRMAN
T.S. MERRILL SECY.
A.G. BISHOP V.P.
H.H. BASSETT V.P.
R.H. COLLINS V.P.
W.L. DAY V.P.
H.F. DuPONT
LAMMOT DuPONT
W.C. DURANT Pres.
J.A. HASKELL V.P.
IRENEE DuPONT
L.G. KAUFMAN
R.S. McLAUGHLIN
C.S. MOTT V.P.
J.J. RASKOB V.P.
A.P. SLOAN JR V.P.
E. VER LINDEN V.P.
F.W. WARNER V.P.
FINANCE COMMITTEE
J.J. RASKOB CHAIR
CHAS HARTMAN JR. SECY
W.C. DURANT P.
J.A. HASKELL
P.S. DuPONT
IRENEE DuPONT
LAMMOT DuPONT
H.F. DuPONT
EXECUTIVE COMMITTEE
WM C DURANT CHAIR
STANDISH BACKUS SECY
H.H BASSETT V.P.
F.W. HOHENSEE
R.H COLLINS V.P.
R.S McLAUGHLIN
W.L DAY V.P.
A.P SLOAN JR V.P.
J.A HASKELL
F.W WARNER
E VER LINDEN
W.C. DURANT
PRESIDENT
GENERAL ADVISORY STAFF.
OPERATIONS STAFF.
STAFF SECRETARY
ASSISTANTS TO V.P. In Chg of Staff
V.P.
IN CHARGE OF STAFF
V.P. CHAIRMAN
IN CHARGE OF STAFF
W.C. DURANT EX OFFICIO
ADVISORY STAFF COMMITTEE
INSURANCE FIRE LIAB BOILER, THEFT
PERSONAL SER. WELFARE, MED. & SANITARY SER.
PLANT LAYOUT EQUIPMENT
PLANT ENGNG POWER HOUSE CONS & OPER.
C.F. KETTERING
DESIGN & RESEARCH ENGINEERING
ADVISARY PURCHASING DIRECTOR
L. BLACKMORE
PATENT COUNSEL
LEGAL ADVISOR
DEVELOPMENT DIRECTOR
PERSONAL EXECUTIVE & CLER. SUPPLY
TRAFFIC & TARIFFS
REAL ESTATE
ORGANIZATION LINE & STAFF
TAXES & ASSMTS OTHER THAN PROFITS
INTER DIVISION SCHEDULES.
CAFETERIA & CLUB HOUSES
DURANT BUILDING
HOUSING OPPERATIONS
GENERAL OFF. BLDG. OPERATION DETROIT & New York
J.J. RASKOB V.P.
GENERAL FINANCIAL ACCOUNTING ORGN
TREASURER
AUDITOR
COMPTROLLER
COSTS & INCOME TAXES
J.J RASKOB V.P. CHAIRMAN
W.C DURANT EX OFFICIO
GENERAL FINANCE & ACCOUNTING COMMITTE
A.P. SLOAN JR V.P.
ACCESSORY DIVISION
O.F. CONKLIN G.M.
REMY ELECTRIC DIVISION
C.M. DAY G.M.
JACKSON STEEL PRODUCTS CO.
C.F. KETTERING G.M.
DAYTON ENG. LAB. CO.
HARRISON RADIATOR DIV.
J.B. COCHRANE G.M.
LANCASTER PRODUCTS CO.
NEW DEPARTURE MFG. CO.
R.S. LANE G.M.
UNITED MOTORS SERVICE CORP.
DOMESTIC ENG. CO.
D.A. McCONNELL G.M.
KLAXON COMPANY
CHAMPION IGNITION CO.
B.G. ERSKINE G.M.
NOVELTY INC LAMP CO.
F.W. WARNER V.P.
OAKLAND DIVISION
J.A. HASKELL V.P.
GEN. MOTORS EXPORT CO.
GEN MOTORS ACCEPTANCE CORP.
H.H. BASSETT V.P.
BUICK DIVISION
R.H. COLLINS V.P.
CADILLAC DIVISION
E. VER LINDEN V.P.
OLDS MOTOR DIVISION
W.L. DAY V.P.
GEN MOTORS TRUCK DIVISION
R.S. McLAUGHLIN V.P.
G.M. CORP CANADA
F.W. HOHENSEE V.P.
CHEVROLET DIVISION
A.H. SARVER G.M.
SCRIPPS BOOTH CORPORATION
J.B. FISKE G.M.
THE FRIGIDAIRE CORPORATION
SAMSON TRACTOR DIVISION
SAGINAW PRODUCTS CO.
CENTRAL FOUNDRY CO.
SAGINAW MALL CO.
J.C.W. CO.
CENTRAL GEAR CO.
CENTRAL AXLE CO.
NORTHWAY MOTOR CO.
CENTRAL FORGE CO.
H.E. BLOOD G.M.
CANADIAN PRODUCTS CO.
MUNCIE PRODUCTS CO.
C.F. BARTH G.M.
CHEVROLET MOTOR AND AXLE DIV.
CHEVROLET MOTOR CO. ST LOUIS
K.E. HOHENSEE G.M.
CHEVROLET MOTOR CO. OF NEW YORK
ST LOUIS MFG CORPORATION
W.R. WILLETT G.M.
CHEVROLET MOTOR CO. BAY CITY
CHEVROLET MOTOR CO. CALIFORNIA
CHEVROLET MOTOR CO. TEXAS
CHEVROLET MOTOR CO. CANADA
T.W. WARNER G.M.
TOLEDO CHEVROLET CO.
PRESIDENTS PERSONAL STAFF.
ASSISTANT TO PRESIDENT
P.D. WAGONER
ASSISTANT TO PRESIDENT
ASSISTANT TO PRESIDENT
SECRETARY TO PRESIDENT
APPROPRIATIONS COMMITTEE.

NOTE: Writing in square of left hand corner of chart is illegible. Writing in several squares in center of chart is illegible.

ORGANIZATION CHART
GENERAL MOTORS CORPORATION


STOCKHOLDERS
BOARD OF DIRECTORS
ALFRED P. SLOAN, Jr., CHAIRMAN
DONALDSON BROWN, VICE CHAIRMAN
ARTHUR G. BISHOP
ALBERT BRADLEY
WALTER S. CARPENTER, Jr.
MARVIN E. COYLE
HENRY F. du PONT
IRENEE du PONT
LAMMOT du PONT
PIERRE S. du PONT
LAWRENCE P. FISHER
WILLIAM A. FISHER
RICHARD H. GRANT
ORMOND E. HUNT
LOUIS G. KAUFMAN
CHARLES F. KETTERING
WILLIAM S. KNUDSEN
LORD McGOWAN
R. SAMUEL McLAUGHLIN
JAMES D. MOONEY
JUNIUS S. MORGAN
CHARLES S. MOTT
Dr. FRITZ OPEL
Dr WITT PAGE
JOHN L. PRATT
SEWARD PROSSER
ARTHUR B. PURVIS
JOHN J. RASKOB
JOHN J. SCHUMANN, Jr.
JOHN THOMAS SMITH
GEORGE WHITNEY
CHARLES E. WILSON
CLARENCE M. WOOLLEY
OWEN D. YOUNG
T. S. MERRILL, Secretary
POLICY COMMITTEE
ALFRED P. SLOAN, Jr., CHAIRMAN
ALBERT BRADLEY
DONALDSON BROWN
WALTER S. CARPENTER, Jr.
LAMMOT du PONT
WILLIAM S. KNUDSEN
JOHN THOMAS SMITH
GEORGE WHITNEY
CHARLES E. WILSON
L. R. BEARDSLEE, Secretary
ADMINISTRATION COMMITTEE
ALFRED P. SLOAN, Jr., CHAIRMAN
ALBERT BRADLEY
RONALD K. EVANS
LAWRENCE P. FISHER
RICHARD H. GRANT
ORMOND E. HUNT
WILLIAM S. KNUDSEN
JAMES D. MOONEY
FLOYD O. TANNER
CHARLES E. WILSON
L. R. BEARDSLEE, Secretary
POLICY GROUPS
DISTRIBUTION
POLICY
DONALDSON BROWN
ALFRED P. SLOAN, Jr.
ADMINISTRATION
RICHARD H. GRANT, Chairman
ALBERT BRADLEY
ALBERT L. DEANE
LAWRENCE P. FISHER
WILLIAM S. KNUDSEN
ENGINEERING
POLICY
ALFRED P. SLOAN, Jr.
ADMINISTRATION
ORMOND E. HUNT, Chairman
ALBERT BRADLEY
LAWRENCE P. FISHER
RICHARD H. GRANT
WILLIAM S. KNUDSEN
JAMES D. MOONEY
MANUFACTURING
POLICY
ALFRED P. SLOAN, Jr.
ADMINISTRATION
CHARLES E. WILSON, Chairman
RONALD K. EVANS
JAMES D. MOONEY
PUBLIC RELATIONS
POLICY
ALFRED P. SLOAN, Jr., Chairman
JOHN THOMAS SMITH
ADMINISTRATION
ALBERT BRADLEY
LAWRENCE P. FISHER
RICHARD H. GRANT
LABOR RELATIONSHIPS
POLICY
DONALDSON BROWN
JOHN THOMAS SMITH
ADMINISTRATION
FLOYD O. TANNER, Chairman
RONALD K. EVANS
LAWRENCE P. FISHER
CHARLES E. WILSON
OVERSEAS OPERATIONS
POLICY
DONALDSON BROWN
ALFRED P. SLOAN, Jr.
ADMINISTRATION
JAMES D. MOONEY, Chairman
ALBERT BRADLEY
WILLIAM S. KNUDSEN
EXECUTIVE PERSONNEL RELATIONSHIPS
POLICY
DONALDSON BROWN
JOHN THOMAS SMITH
ADMINISTRATION
ALBERT BRADLEY, Chairman
RICHARD H. GRANT
CHARLES E. WILSON
FINANCIAL RELATIONSHIPS
POLICY
DONALDSON BROWN
JOHN THOMAS SMITH
ADMINISTRATION
ALBERT BRADLEY, Chairman
RICHARD H. GRANT
CHARLES E. WILSON
CHAIRMAN OF BOARD OF DIRECTORS
ALFRED P. SLOAN, Jr.
PRESIDENT
WILLIAM S. KNUDSEN
CHARLES E. WILSON
VICE PRESIDENT
GENERAL ASSISTANT
OPERATING DIVISIONS AND SUBSIDIARIES
FINANCE AND INSURANCE GROUP
DONALDSON BROWN
VICE CHAIRMAN OF BOARD OF DIRECTORS
GENERAL MOTORS ACCEPTANCE CORP.
J. J. SCHUMANN, Jr.
President
GENERAL EXCHANGE INSURANCE CORP.
L. L. SHORT
President
MOTORS HOLDING DIVISION
A. L. DEANE
General Manager
GENERAL ENGINE GROUP
RONALD K. EVANS
VICE PRESIDENT
ALLISON DIVISION
O. T. KREUSSER
General Manager
WINTON ENGINE MANUFACTURING CORP.
G. W. CODRINGTON, Pres.
J. B. JACKSON, Gen'l Mgr.
ELECTRO-MOTIVE CORPORATION
H. L. HAMILTON, Pres.
F. H. PRESCOTT, Gen'l Mgr.
DIESEL ENGINE DIVISION
W. T. CROWE
General Manager
CAR, TRUCK AND BODY GROUP
WILLIAM S. KNUDSEN, PRES.
CHARLES E. WILSON, VICE PRES.
BUICK MOTOR DIVISION
H. H. CURTICE
General Manager
OLDS MOTOR WORKS DIVISION
C. L. McCUEN
General Manager
PONTIAC MOTOR DIVISION
H. J. KLINGLER
General Manager
LINDEN DIVISION
W. S. ROBERTS
General Manager
SOUTHERN CALIFORNIA DIVISION
R. J. WILKINS
General Manager
CHEVROLET MOTOR DIVISION
M. E. COYLE
General Manager
G. M. OF CANADA, LTD.
R. S. McLAUGHLIN, Pres.
H. J. CARMICHAEL, Gen'l Mgr.
McKINNON INDUSTRIES, LTD.
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I. B. BABCOCK
Pres. & Gen'l Mgr.
RESEARCH LABORATORIES DIVISION
C. F. KETTERING
General Manager
CADILLAC MOTOR CAR DIVISION
N. DREYSTADT
General Manager
FISHER BODY DIVISION
E. F. FISHER
General Manager
TERNSTEDT MANUFACTURING DIVISION
T. P. ARCHER
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G. M. PARTS DIVISION
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General Manager
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Pres. & Gen'l Mgr.
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General Manager
DELCO BRAKE DIVISION
F. H. IRELAN
General Manager
DELCO PRODUCTS DIVISION
C. H. KINDL
General Manager
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J. B. ESTABROOK
General Manager
GUIDE LAMP DIVISION
F. L. BURKE
General Manager
DELCO-REMY DIVISION
F. C. KROEGER
General Manager
DELCO RADIO DIVISION
R. C. ELLIS
General Manager
PACKARD ELECTRIC DIVISION
B. N. MacGREGOR
General Manager
HARRISON RADIATOR DIVISION
F. M. HARDIMAN
General Manager
HYATT BEARINGS DIVISION
H. O. K. MEISTER
General Manager
INLAND MANUFACTURING DIVISION
W. S. WHITTAKER
General Manager
MORAINE PRODUCTS DIVISION
J. H. DAVIS
General Manager
NEW DEPARTURE DIVISION
F. G. HUGHES
General Manager
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General Manager
SAGINAW STEERING GEAR DIVISION
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General Manager
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VICE PRESIDENT
GENERAL MOTORS OVERSEAS OPERATIONS
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General Manager
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C. R. OSBORN
General Manager
ADAM OPEL A. G.
C. R. OSBORN
General Manager
FRIGIDAIRE GmbH
R. CLARK
Managing Director
EXPORT DIVISION
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General Manager
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Managing Director
GENERAL MOTORS (FRANCE) S. A.
F. M. TIMSIT
Managing Director
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P. R. BUERGIN
Managing Director
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Managing Director
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E. CARMEL
Manager
GENERAL MOTORS INTERNATIONAL, A/S
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Managing Director
GENERAL MOTORS NORDISKA, A/B
R. W. SEELEY
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DELCO APPLIANCE DIVISION
E. A. HALBLEIB
General Manager
FRIGIDAIRE DIVISION
E. G. BIECHLER
General Manager
DELCO-FRIGIDAIRE CONDITIONING DIVISION
E. G. BIECHLER, Gen'l Mgr.
J. J. NANCE, Gen'l Sales Mgr.
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ARGONAUT REALTY DIVISION
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GENERAL MOTORS BUILDING DIVISION
C. A. TAYLOR
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MODERN HOUSING DIVISION
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V. BENDIX
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GENERAL ATTORNEY
PUBLIC RELATIONS
PAUL W. GARRETT
Director
NEW YORK OFFICE
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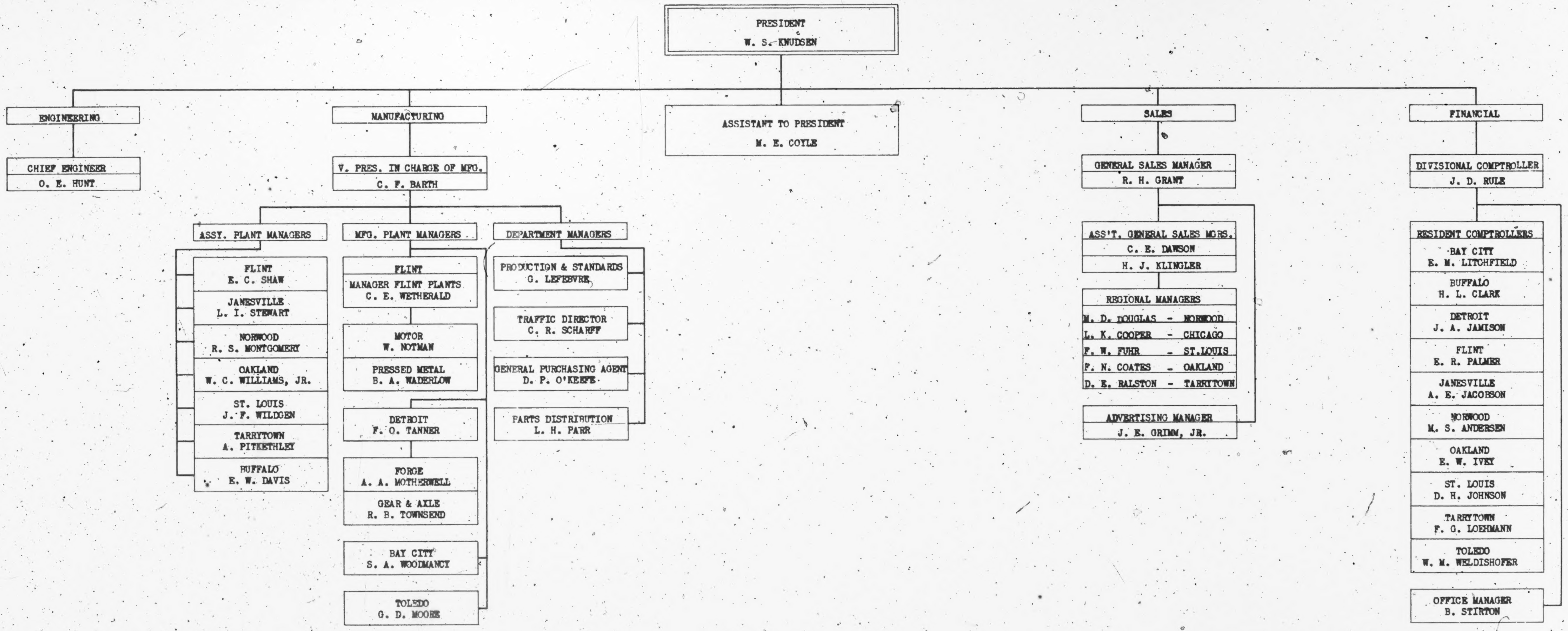
S3

Defendant's Exhibit (GM) No. 4

ORGANIZATION CHART
CHEVROLET MOTOR COMPANY *
1925



- PRESIDENT — W. S. KNUDSEN
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    - CHIEF ENGINEER — O. E. HUNT
  - MANUFACTURING
    - V. PRES. IN CHARGE OF MFG. — C. F. BARTH
      - ASSY. PLANT MANAGERS
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        - ST. LOUIS — J. F. WILDGEN
        - TARRYTOWN — A. PITKETHLEY
        - BUFFALO — E. W. DAVIS
      - MFG. PLANT MANAGERS
        - FLINT — MANAGER FLINT PLANTS — C. E. WETHERALD
          - MOTOR — W. NOTMAN
          - PRESSED METAL — B. A. WADERLOW
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        - PARTS DISTRIBUTION — L. H. PARR
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    - GENERAL SALES MANAGER — R. H. GRANT
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      - RESIDENT COMPTROLLERS
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        - FLINT — E. R. PALMER
        - JANESVILLE — A. E. JACOBSON
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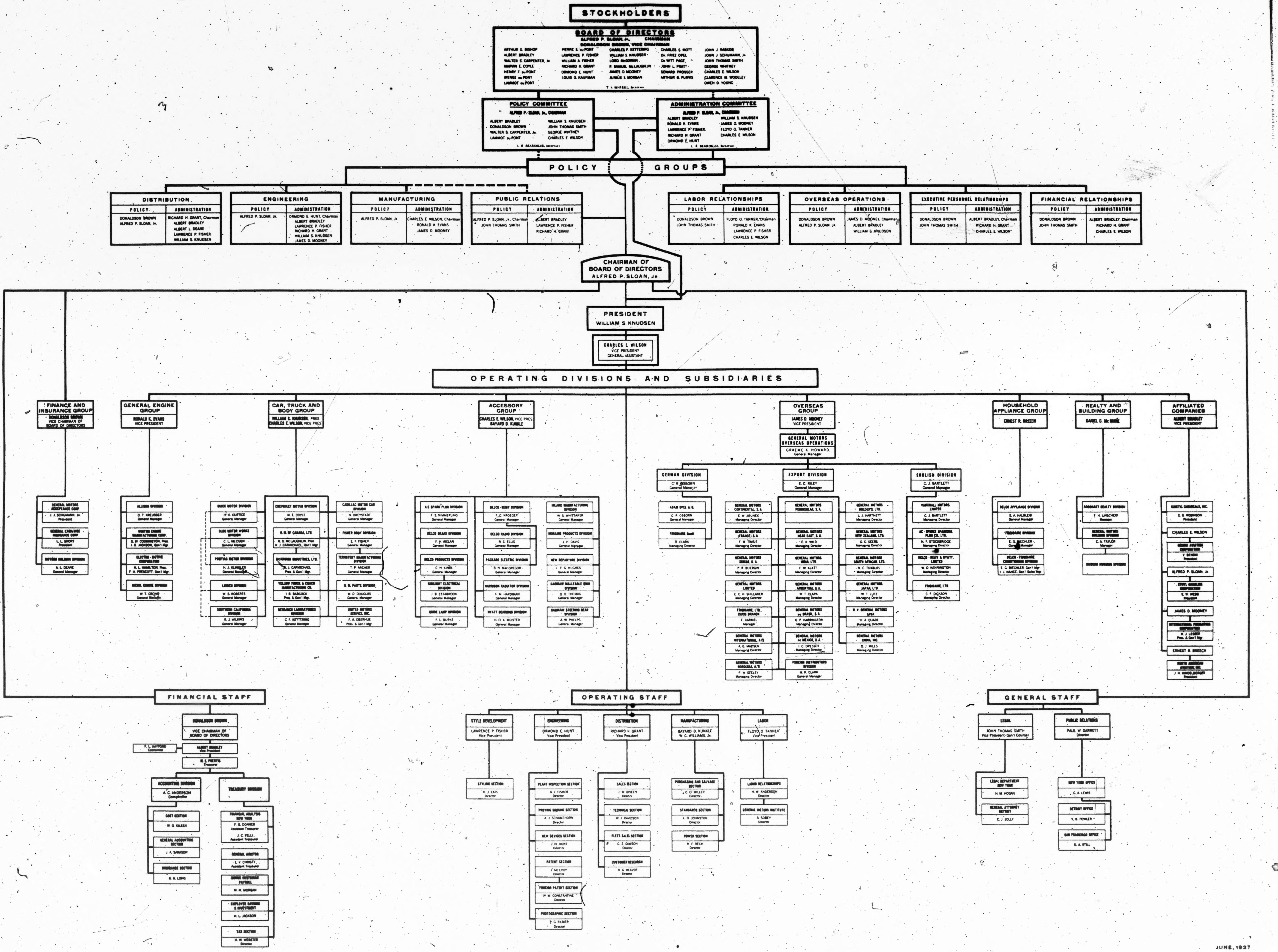
        - OAKLAND — E. W. IVEY
        - ST. LOUIS — D. H. JOHNSON
        - TARRYTOWN — F. G. LOEHMANN
        - TOLEDO — W. M. WELDISHOFER
      - OFFICE MANAGER — B. STIRTON

* SALES OPERATIONS ALSO UNDER:

CHEVROLET MOTOR COMPANY OF CALIFORNIA
CHEVROLET MOTOR COMPANY OF KANSAS CITY
CHEVROLET MOTOR COMPANY OF NEW JERSEY
CHEVROLET MOTOR COMPANY OF ST. LOUIS
CHEVROLET MOTOR COMPANY OF TEXAS
CHEVROLET MOTOR OHIO COMPANY

DECEMBER 31, 1925

GENERAL MOTORS CORPORATION



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ORMOND E. HUNT	

L. R. BEARDSLEE, Secretary

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MANUFACTURING	ALFRED P. SLOAN, Jr.	CHARLES E. WILSON, Chairman RONALD K. EVANS JAMES D. MOONEY
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OVERSEAS OPERATIONS	DONALDSON BROWN ALFRED P. SLOAN, Jr.	JAMES D. MOONEY, Chairman ALBERT BRADLEY WILLIAM S. KNUDSEN
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FINANCIAL RELATIONSHIPS	DONALDSON BROWN JOHN THOMAS SMITH	ALBERT BRADLEY, Chairman RICHARD H. GRANT CHARLES E. WILSON

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WILLIAM S. KNUDSEN

CHARLES E. WILSON
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GENERAL ASSISTANT

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- G. M. PARTS DIVISION — M. D. DOUGLAS, General Manager
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- DELCO PRODUCTS DIVISION — C. H. KINDL, General Manager
- SUNLIGHT ELECTRICAL DIVISION — J. B. ESTABROOK, General Manager
- GUIDE LAMP DIVISION — F. L. BURKE, General Manager
- DELCO-REMY DIVISION — F. C. KROEGER, General Manager
- DELCO RADIO DIVISION — R. C. ELLIS, General Manager
- PACKARD ELECTRIC DIVISION — B. N. MacGREGOR, General Manager
- HARRISON RADIATOR DIVISION — F. M. HARDIMAN, General Manager
- HYATT BEARINGS DIVISION — H. O. K. MEISTER, General Manager
- INLAND MANUFACTURING DIVISION — W. S. WHITTAKER, General Manager
- MORAINE PRODUCTS DIVISION — J. H. DAVIS, General Manager
- NEW DEPARTURE DIVISION — F. G. HUGHES, General Manager
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- SAGINAW STEERING GEAR DIVISION — A. W. PHELPS, General Manager

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    - ADAM OPEL A. G. — C. R. OSBORN, General Manager
    - FRIGIDAIRE GmbH — R. CLARK, Managing Director
  - EXPORT DIVISION — E. C. RILEY, General Manager
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    - GENERAL MOTORS (FRANCE) S. A. — F. M. TIMSIT, Managing Director
    - GENERAL MOTORS SUISSE, S. A. — P. R. BUERGIN, Managing Director
    - GENERAL MOTORS LIMITED — E. C. H. SHILLAKER, Managing Director
    - FRIGIDAIRE, LTD., PARIS BRANCH — E. CARMEL, Manager
    - GENERAL MOTORS INTERNATIONAL, A/S — A. G. MADSEN, Managing Director
    - GENERAL MOTORS NORDISKA, A/B — R. W. SEELEY, Managing Director
    - GENERAL MOTORS PENINSULAR, S. A.
    - GENERAL MOTORS NEAR EAST, S. A. — E. K. WILD, Managing Director
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    - GENERAL MOTORS de MEXICO, S. A. — I. C. DRESSER, Managing Director
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    - GENERAL MOTORS NEW ZEALAND, LTD. — G. G. SEERS, Managing Director
    - GENERAL MOTORS SOUTH AFRICAN, LTD. — N. C. TUXBURY, Managing Director
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    - N. V. GENERAL MOTORS JAVA — H. A. QUADE, Managing Director
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    - FRIGIDAIRE, LTD. — C. F. DICKSON, Managing Director

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- FRIGIDAIRE DIVISION — E. G. BIECHLER, General Manager
- DELCO-FRIGIDAIRE CONDITIONING DIVISION — E. G. BIECHLER, Gen'l Mgr.; J. J. NANCE, Gen'l Sales Mgr.

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- GENERAL MOTORS BUILDING DIVISION — C. A. TAYLOR, Manager
  - MODERN HOUSING DIVISION

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  - PROVING GROUND SECTION — A. J. SCHAMEHORN, Director
  - NEW DEVICES SECTION — J. H. HUNT, Director
  - PATENT SECTION — J. McEVOY, Director
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  - POWER SECTION — H. F. RECH, Director
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  - LABOR RELATIONSHIPS — H. W. ANDERSON, Director
  - GENERAL MOTORS INSTITUTE — A. SOBEY, Director

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  - LEGAL DEPARTMENT NEW YORK — H. M. HOGAN
  - GENERAL ATTORNEY DETROIT — C. J. JOLLY
- PUBLIC RELATIONS — PAUL W. GARRETT, Director
  - NEW YORK OFFICE — C. A. LEWIS
    - DETROIT OFFICE — V. B. FOWLER
    - SAN FRANCISCO OFFICE — D. A. STILL

JUNE, 1937

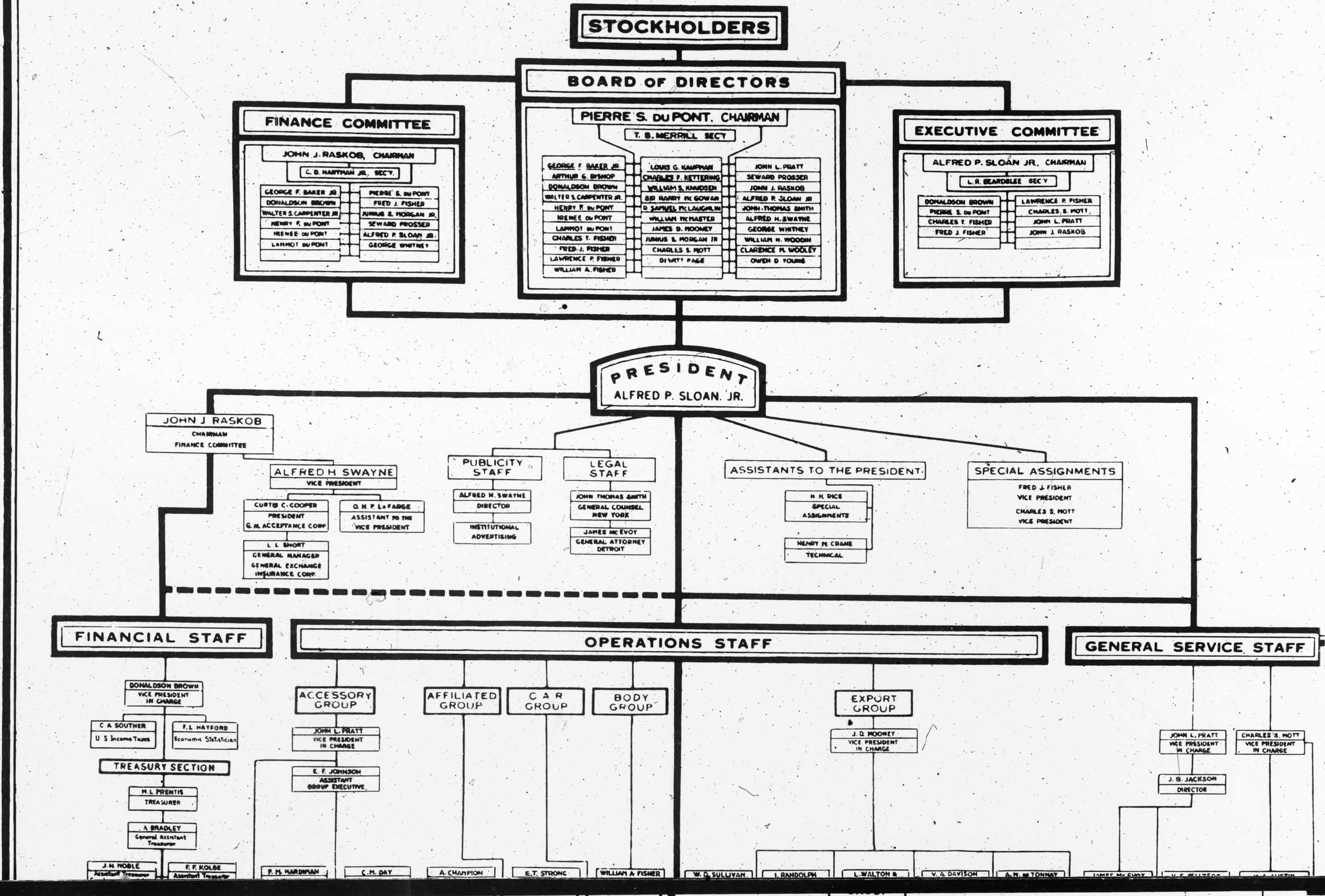
S3

Defendant's Exhibit (GM) No. 3

(6562) (6562)

GENERAL MOTORS CORPORATION

ORGANIZATION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ARTHUR G. BISHOP
DONALDSON BROWN
WALTER S. CARPENTER JR.
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CHARLES T. FISHER
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LAWRENCE P. FISHER
WILLIAM A. FISHER
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CHARLES F. KETTERING
WILLIAM S. KNUDSEN
SIR HARRY MC GOWAN
D. SAMUEL MC LAUGHLIN
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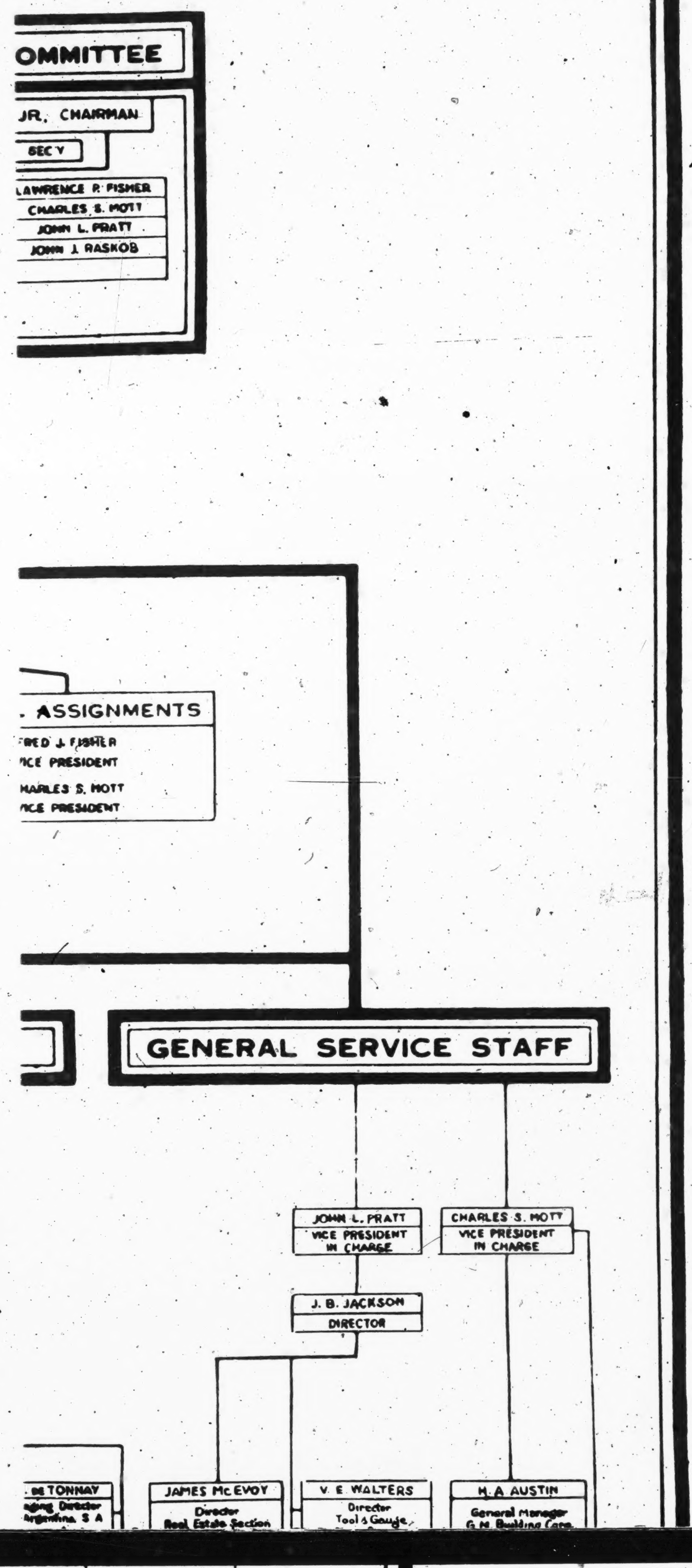
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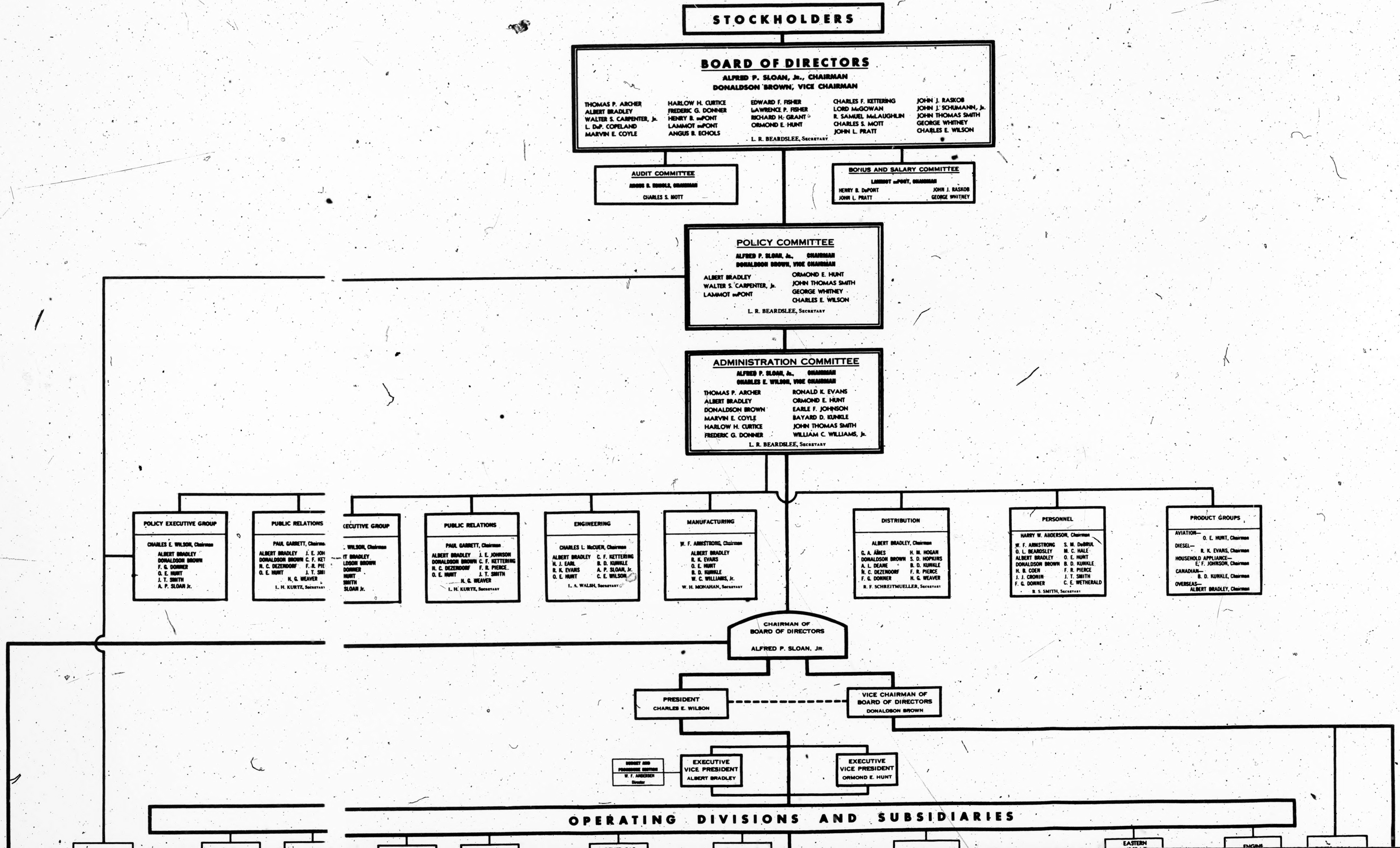
GENERAL MOTORS CORPORATION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GENERAL ACCOUNTING SECTION
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Asst. Comptroller
OPERATIONS ANALYSIS SECTION
R. E. HAMMOND
Asst. Comptroller
INSURANCE SECTION
R. N. LONG
Director
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FINANCIAL ANALYSIS NEW YORK
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G. RUSSELL, Asst. Treas.
AUDIT DEPARTMENT
E. H. CUNNINGHAM
General Auditor
BONUS DISBURSEMENT PAYROLL
M. M. MORGAN
TAX SECTION
J. S. WALLACE
Director

S4

OCTOBER 10, 1944

Defendant's Exhibit (GM) No. 8

6570 6570

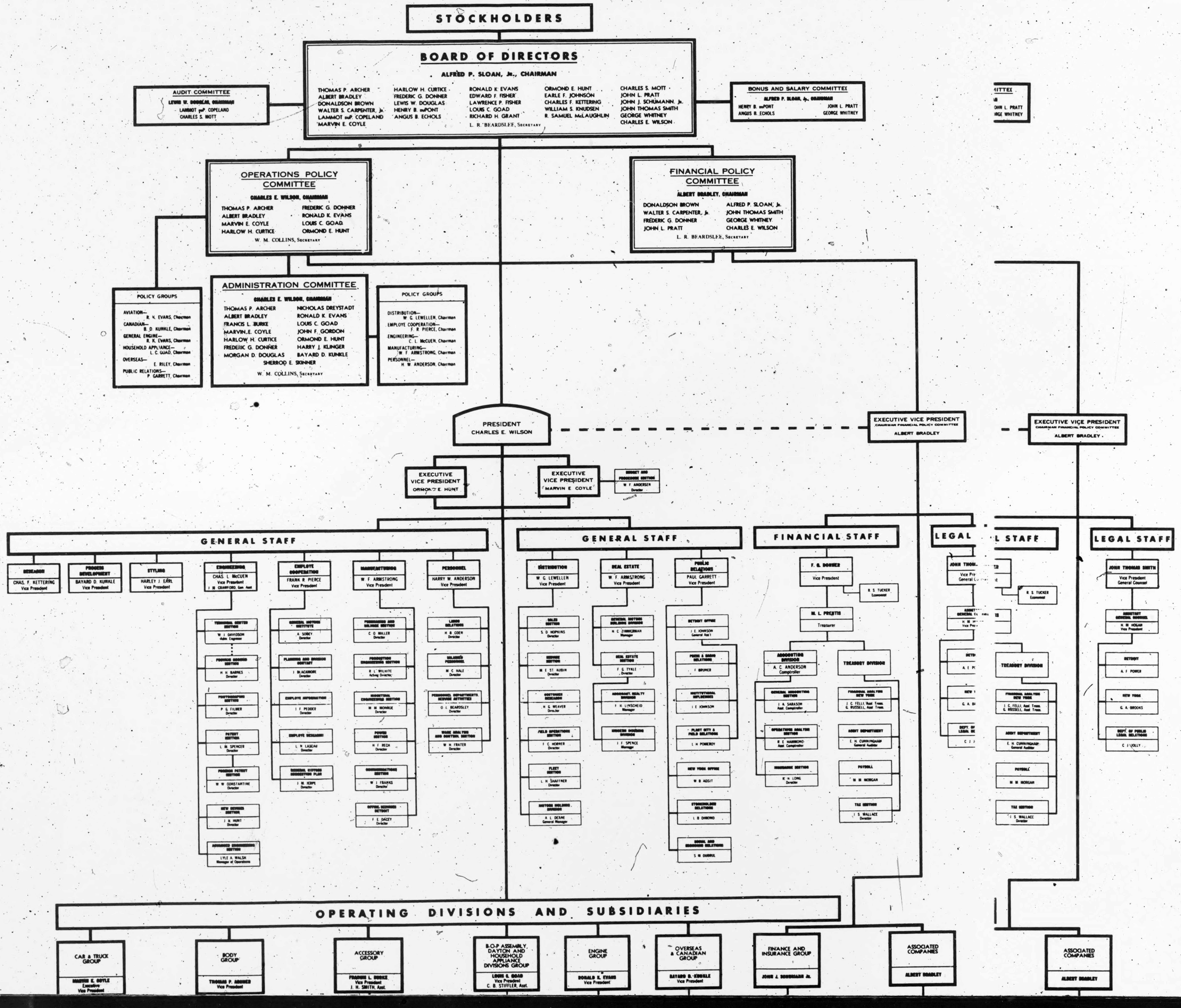
(6570)

Defendants' Tri

Defendants' Trial Ex. No.

ORGANIZATION CHART

GENERAL MOTORS CORPORATION



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DONALDSON BROWN
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- EMPLOYE RESEARCH — L. N. LASEAU, Director
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- FLEET SECTION — L. H. SHAFFNER, Director
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- GENERAL MOTORS BUILDING DIVISION — H. C. ZIMMERMAN, Manager
- REAL ESTATE SECTION — F. G. TYKLE, Director
- ARGONAUT REALTY DIVISION — F. H. LINSCHEID, Manager
- MODERN HOUSING DIVISION — J. F. SPENCE, Manager

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- INSTITUTIONAL ADVERTISING — J. E. JOHNSON
- PLANT CITY & FIELD RELATIONS — L. H. POMEROY
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- STOCKHOLDER RELATIONS — L. B. DIMOND
- SOCIAL AND ECONOMIC RELATIONS — S. M. DUBRUL

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R. S. TUCKER — Economist
M. L. PRENTIS — Treasurer

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- OPERATIONS ANALYSIS SECTION — R. E. HAMMOND, Asst. Comptroller
- INSURANCE SECTION — K. N. LONG, Director

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- PAYROLL — M. M. MORGAN
- TAX SECTION — J. S. WALLACE, Director

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ASSISTANT GENERAL COUNSEL — H. M. HOGAN, Vice President
- DETROIT — A. F. POWER
- NEW YORK — G. A. BROOKS
- DEPT. OF PUBLIC LEGAL RELATIONS — C. J. JOLLY

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L STAFF
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Vice Pre
General Co
ASSIST
GENERAL CO
H. M. H
Vice Pre
DETR
A. F. PO
NEW Y
G. A. BR
DEPT. OF
LEGAL RE
C. J. J
R. S. TUCKER Economist
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FINANCE AND INSURANCE GROUP — JOHN J. SCHUMANN Jr.
ASSOCIATED COMPANIES — ALBERT BRADLEY

ASSOCIATED COMPANIES — ALBERT BRADLEY

Defendant's Exhibit (GM) No. 9

(6571)

ORGANIZATION CHART
CHEVROLET MOTOR DIVISION
OF GENERAL MOTORS CORPORATION
1946

GENERAL MANAGER
M. E. COYLE
ENGINEERING
CHIEF ENGINEER
J. G. WOOD
ASSISTANT CHIEF ENGINEER
E. H. KELLEY
MANAGER ASSEMBLY PLANTS
E. S. WELLOCK
ASSEMBLY PLANT MANAGERS
ATLANTA
R. A. JOHNSON
BALTIMORE
W. B. BROWNLIE
BLOOMFIELD
P. S. PROCISSI
JANESVILLE
R. W. PODLESAK
KANSAS CITY
F. R. LYNESS
NORWOOD
D. S. ZIMMERMAN
OAKLAND
F. J. FITZPATRICK
ST. LOUIS
M. W. HOWE
TARRYTOWN
E. L. WRIGHT
MANUFACTURING
MANAGER GENERAL MANUFACTURING
H. DEAN
GENERAL DIRECTOR OF INDUSTRIAL RELATIONS
D. G. FRAZER
MANAGER PRODUCTION AND STANDARDS
H. R. BOYER
GENERAL PURCHASING AGENT
R. G. FORD
DIRECTOR OF TRAFFIC
W. R. LYNCH
MANAGER MANUFACTURING PLANTS
W. J. SCOTT
MANUFACTURING PLANT MANAGERS
BAY CITY
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BUFFALO
R. J. PETERSON
DETROIT-FORGE, SPRING AND BUMPER
B. D. MARSHALL
DETROIT-GEAR & AXLE
J. D. HARBAUGH
MUNCIE
E. J. BREDESON
SAGINAW GREY IRON
J. F. MILLER
TOLEDO
W. H. WELDISHOFER
TONAWANDA
A. G. GULLIVER
INDIANAPOLIS
E. W. PUGHE
FLINT-GENERAL PLANT MGR.
M. K. HOVEY
SALES
GENERAL SALES MANAGER
T. H. KEATING
ASSISTANT GENERAL SALES MANAGERS
W. E. FISH - EAST
G. I. SMITH - WEST
PARTS MDSG. AND WHSG.
T. F. BROWN
REGIONAL MANAGERS
EAST
FLINT - A. F. YOUNG
ATL.COAST - W.J.GRAVESON
EASTERN - R. F. HICKS
SOUTHWEST - P. SEVER
WEST
GR.LAKES - J.F.SIMMONS
MID-WEST - H.Z.WELLINGER
SOUTHWEST - I.X.SARVIS
PAC.COAST - J.L.CONNELL
DEPARTMENT MANAGERS
DISTRIBUTION
J. M. HENDRIE
ADVERTISING
C. J. FRENCH
FLEET SALES
R. C. MEDDAUGH
COMMERCIAL & TRUCK
J. W. BURKE
P. & A. MDSG.
I. W. THOMPSON
SERVICE & MECHANICAL
E. HEDNER
FINANCIAL
GENERAL AUDITOR
E. W. IVEY
DIVISIONAL COMPTROLLER
L. P. VAN ARMAN
DIVISIONAL AUDITOR
F. R. FRASER
RESIDENT COMPTROLLERS ASSEMBLY
ATLANTA
A. C. BAIRD
BALTIMORE
J. F. WARDLE
BLOOMFIELD
F. C. MOORE
JANESVILLE
T. A. McDERMOTT
KANSAS CITY
J. J. COLLINS
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K. H. KLESNER
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R. L. AHERN
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E. A. ROHLFING
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R. T. MURPHY
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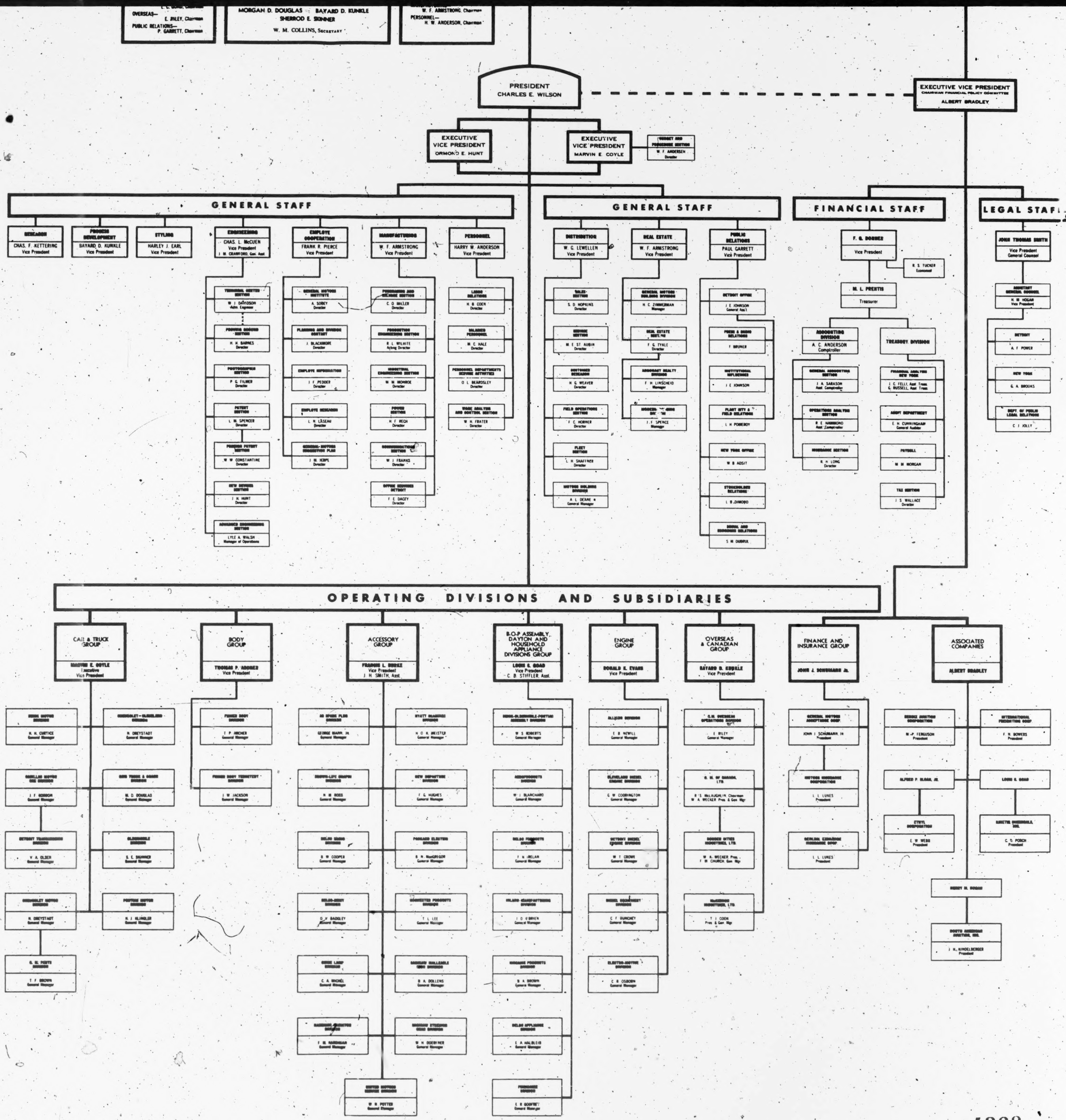
MUNCIE
S. R. McKAIG
SAGINAW-GREY IRON
R. F. LECKIE
SAGINAW-SERVICE MFG.
M. A. LIMBURG
SAGINAW-TRANSMISSION
R. A. WEIR
TOLEDO
A. PETERSON
TONAWANDA
J. G. GIBSON
INDIANAPOLIS


OVERSEAS—
E. RILEY, Chairman
PUBLIC RELATIONS—
P. GARRETT, Chairman
MORGAN D. DOUGLAS
BAYARD D. KUNKLE
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L. M. SPENCER
Director
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Director
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J. H. HUNT
Director
ADVANCED ENGINEERING SECTION
LYLE A. WALSH
Manager of Operations
EMPLOYE COOPERATION
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REAL ESTATE SECT.
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MODERN HOUSING DIV.
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R. E. HAMMOND
Asst. Comptroller
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G. RUSSELL, Asst. Treas.
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SAGINAW STEERING GEAR DIVISION
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DETROIT DIESEL ENGINE DIVISION
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DIESEL EQUIPMENT DIVISION
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W. A. WECKER, Pres. & Gen. Mgr.
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W. A. WECKER, Pres.
F. W. CHURCH, Gen. Mgr.
McKINNON INDUSTRIES, LTD.
T. J. COOK
Pres. & Gen. Mgr.
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GENERAL EXCHANGE INSURANCE CORP.
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C. D. POCH
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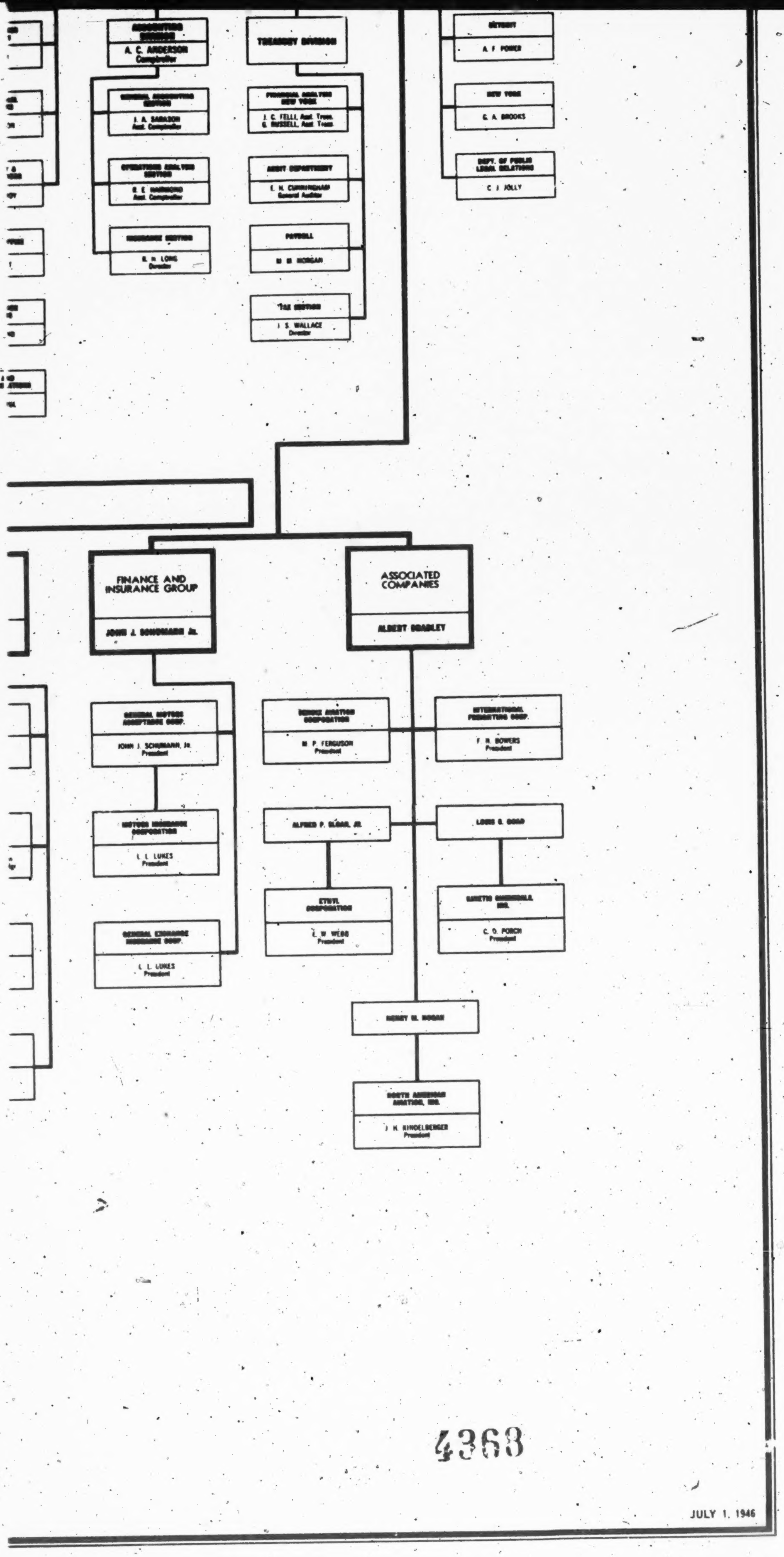
HENRY M. HOGAN
NORTH AMERICAN AVIATION, INC.
J. H. KINDELBERGER
President


ACCOUNTING DIVISION
A. C. ANDERSON
Comptroller
TREASURY DIVISION
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A. F. POWER
NEW YORK
G. A. BROOKS
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C. J. JOLLY
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JOHN J. SCHUMANN, JR.
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ALBERT BRADLEY
HENRY M. HOGAN
NORTH AMERICAN AVIATION, INC.
J. H. KINDELBERGER
President
JULY 1, 1946

4363

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S5

- ENGINEERING
  - CHIEF ENGINEER J. G. WOOD
    - ASSISTANT CHIEF ENGINEER B. H. KELLEY

MANUFAC
MANA
GENERAL MAN
H. I

- MANUFACTURING
  - MANAGER GENERAL MANUFACTURING H. DEAN
    - MANAGER ASSEMBLY PLANTS E. S. WELLOCK
      - ASSEMBLY PLANT MANAGERS
        - ATLANTA R. A. JOHNSON
        - BALTIMORE W. B. BROWNLIE
        - BLOOMFIELD P. S. PROCISSI
        - JANESVILLE R. W. PODLESAK
        - KANSAS CITY F. R. LYNESS
        - NORWOOD D. S. ZIMMERMAN
        - OAKLAND F. J. FITZPATRICK
        - ST. LOUIS M. W. HOWE
        - TARRYTOWN E. L. WRIGHT
    - GENERAL DIRECTOR OF INDUSTRIAL RELATIONS D. G. FRAZER
    - MANAGER PRODUCTION AND STANDARDS H. R. BOYER
    - GENERAL PURCHASING AGENT R. G. FORD
    - DIRECTOR OF TRAFFIC W. R. LYNCH
    - MANAGER MANUFACTURING PLANTS W. J. SCOTT
      - MANUFACTURING PLANT MANAGERS
        - BAY CITY A. F. BAMMEL
        - BUFFALO R. J. PETERSON
        - DETROIT-FORGE, SPRING AND BUMPER B. D. MARSHALL
        - DETROIT-GEAR & AXLE J. D. HARBAUGH
        - MUNCIE E. J. BREDESON
        - SAGINAW GREY IRON J. F. MILLER
        - TOLEDO W. H. WELDISHOFER
        - TONAWANDA A. G. GULLIVER
        - INDIANAPOLIS E. W. PUGHE
      - FLINT-GENERAL PLANT MGR. M. K. HOVEY
        - FLINT MOTOR F. C. HILLMAN
        - FLINT PRESSED METAL E. A. HALL

- SALES
  - GENERAL SALES MANAGER T. H. KEATING
    - ASSISTANT GENERAL SALES MANAGERS
      - W. E. FISH - EAST
      - G. I. SMITH - WEST
      - PARTS MDSG. AND WHSG. T. F. BROWN
    - REGIONAL MANAGERS
      - EAST
        - FLINT - A. F. YOUNG
        - ATL.COAST - W.J.GRAVESON
        - EASTERN - R. F. HICKS
        - SOUTHWEST - P. SEVER
      - WEST
        - GR.LAKES -J.F.SIMMONS
        - MID-WEST -H.Z.WELLINGER
        - SOUTHWEST-I.X.SARVIS
        - PAC.COAST-J.L.CONNELL
    - DEPARTMENT MANAGERS
      - DISTRIBUTION J. M. HENDRIE
      - ADVERTISING C. J. FRENCH
      - FLEET SALES R. C. MEDDAUGH
      - COMMERCIAL & TRUCK J. W. BURKE
      - P. & A. MDSG. I. W. THOMPSON
      - SERVICE & MECHANICAL E. HEDNER

- FINANCIAL
  - GENERAL AUDITOR E. W. IVEY
    - DIVISIONAL COMPTROLLER L. P. VAN ARMAN
      - RESIDENT COMPTROLLERS ASSEMBLY
        - ATLANTA A. C. BAIRD
        - BALTIMORE J. F. WARDLE
        - BLOOMFIELD F. C. MOORE
        - JANESVILLE T. A. McDERMOTT
        - KANSAS CITY J. J. COLLINS
        - NORWOOD K. H. KLESNER
        - OAKLAND R. L. AHERN
        - ST. LOUIS E. W. DALEY
        - TARRYTOWN S. O. PRATT
      - RESIDENT COMPTROLLERS MANUFACTURING
        - BAY CITY E. A. ROHLFING
        - BUFFALO R. T. MURPHY
        - DETROIT-GEAR & AXLE AND FORGE H. L. LEISTER
        - FLINT-MFG. PLANTS J. A. FINNIE
        - MUNCIE S. R. McKAIG
        - SAGINAW-GREY IRON R. F. LECKIE
        - SAGINAW-SERVICE MFG. M. A. LIMBURG
        - SAGINAW-TRANSMISSION R. A. WEIR
        - TOLEDO A. PETERSON
        - TONAWANDA J. G. GIBSON
        - INDIANAPOLIS W. J. LAMPERT
    - DIVISIONAL AUDITOR F. R. FRASER

June 1, 1946

Defendant's Exhibit (GM) No. 22

GENERAL MOTORS CORPORATION
FINANCE COMMITTEE

May 10, 1923

P. S. du Pont
Raskob
H. F. du Pont
I. du Pont
Haskell
L. du Pont
Baker
Prosser
Stettinius
Brown
Sloan

1924

Haskell deceased September 9, 1923.
F. J. Fisher and Whitney added September 25, 1924.

1925

Stettinius deceased September 3, 1925.
Morgan added September 30, 1925.

1927

Carpenter added February 10, 1927.

1928

Raskob resigned August 9, 1928.

1929

Raskob and Mott added May 9, 1929.

1933

Bradley added November 6, 1933.

1934

F. J. Fisher resigned November 5, 1934.

May 3, 1937

P. S. du Pont
Raskob
H. F. du Pont
I. du Pont
L. du Pont
Baker
Prosser
Brown
Sloan
Whitney
Morgan
Carpenter
Mott
Bradley

Defendant's Exhibit (GM) No. 23

GENERAL MOTORS CORPORATION
POLICY COMMITTEE

May 3, 1937

Bradley
Brown
Carpenter
L. du Pont
Knudsen
Sloan
Smith
Whitney
Wilson

1940

Hunt added August 5, 1940.
Knudsen resigned September 3, 1940.

June 3, 1946

Bradley
Brown
Carpenter
L. du Pont
Sloan
Smith
Whitney
Wilson
Hunt

Defendant's Exhibit (GM) No. 24

June 3, 1946

Archer
Bradley
Coyle
Curtice
Donner
Evans
Goad
Hunt
Wilson

1948

Kunkle added June 7, 1948.
Burke and Godfrey added August 2, 1948.

1949

Kunkle resigned March 1, 1949.
Archer off August 10, 1949.
Hunt resigned September 30, 1949.

1950

Burke resigned December 9, 1950.
Coyle resigned December 31, 1950.

1951

Gordon, Kindl, Klingler, Osborn added January 1, 1951.
Skinner added January 8, 1951.

January 1953

Wilson resigned.

February 1, 1953

Bradley
Curtice
Donner
Evans
Goad
Godfrey
Gordon
Kindl
Klingler
Osborn
Skinner

Defendant's Exhibit (GM) No. 25

GENERAL MOTORS CORPORATION
FINANCIAL POLICY COMMITTEE

June 3, 1946

Bradley
Brown
Carpenter
Donner
Pratt
Sloan
Smith
Whitney
Wilson

1947

Smith deceased September 28, 1947.
Echols added December 1, 1947.

1949

Carpenter resigned June 6, 1949.
Copeland added June 6, 1949.

1950

Alexander added December 4, 1950.

1951

Curtice added January 8, 1951.

1952

Pratt resigned January 7, 1952.
Clay added January 7, 1952.

January 19, 1953

Wilson resigned.

February 1, 1953

Bradley
Brown
Donner
Sloan
Whitney
Echols
Copeland
Alexander
Curtice
Clay

Defendant's Exhibit (GM) No. 26

File ~~166~~ 6613

GENERAL MOTORS CORPORATION

NEW YORK, N.Y.

1764 Broadway,
July 16, 1918

Mr. Alfred P. Sloane, Jr.,
President UNITED MOTORS CORPORATION
29 West 42d Street, New York.

My dear Mr. Sloane:

I am enclosing herewith for your perusal draft of proposed Bonus Plan of the General Motors Corporation.

I am going to ask you to read it over and then in the next two or three days give me a chance to talk with you about it. We are anxious to get it in shape for final submission to our Board of Directors next week.

You will notice that there are three documents:

1st - Letter transmitting the Plan to the Executive Committee;
2nd - Bonus Plan for publication;
3rd - Method of Administering Bonus Plan.

The last document is intended to be strictly confidential and to be put in the hands of members of the Committees and Heads of Divisions only.

I stopped at your office for a moment this morning as I was in the building in connection with a dentist's call, intending to talk with you about the matter.

I remain with regards

Yours very truly,

Vice President

Enclosure

BY MESSENGER

Defendant's Exhibit (GM) No. 27

Subject
1—166
(Bonus Plan)

Mr. J. A. Haskell, Vice President,
General Motors Company,
1764 Broadway,
New York, N. Y.

YOUR FILE 166

My dear Mr. Haskell:—

I have your letter of July 16th with enclosures as stated. I regret that I was not in the office this morning when you called.

You may be assured that I will look over this bonus plan with a great deal of interest. Frankly, there is nothing that we need more at the present time than something of this kind. It is getting more and more difficult to keep our organization lined up. There seems to be an astounding amount of unrest everywhere, even among those that you would hardly think it possible. I am meeting the situation the best I can as an emergency measure, but appreciate that there is nothing very constructive in what I am doing, but I have been working on several plans. I just mention these things to show you how thoroughly necessary a thing of this kind is and how helpful it will be to all of us.

Very truly yours,

A.P.S.Jr./K

E

October 2, 1923.

To: Finance Committee (General Motors Corporation)
From: Chairman
Subject: Managers Securities Company

On August 9, 1923, the Board of Directors of your Company considered the plan of the Managers Securities Company and adopted the following resolution:

> "RESOLVED, that the Board of Directors approves in principle the plan with regard to the proposed Managers Securities Company recommended by the Finance Committee in its report of August 7, 1923, and refers said plan back to the Finance Committee to be worked out in detail and submitted to the stockholders for ratification, provided the duPont Company is willing to enter into the arrangement outlined in said plan."

As the result of long negotiation between the officers of the two companies, the officers of the duPont Company are willing to recommend the plan to the duPont Board with the following modification:

First—That the amount of stock sold shall be the equivalent of 2,200,000 shares instead of 2,667,000 shares of General Motors Corporation common stock.

Second—That the contract between the General Motors Corporation and the Managers Securities Company be amended to provide that the General Motors Corporation shall pay to the Managers Securities Company on or before January 1st of each year, beginning January

1, 1924, and ending January 1, 1931, the sum of $2,000,000. on account of said contract and if at any time the cumulative amount due the Managers Securities Company under said contract from its beginning is less than the rate of $2,000,000. per annum from and including the year 1923, then and in that event the difference shall be nevertheless paid by the General Motors Corporation to the Managers Company and treated as a loan, which loan, with interest at the rate of 6% per annum, shall be repaid by the Managers Company to the General Motors Corporation when the amount due under the contract shall equal the accumulation of these $2,000,000. annual payments; otherwise the amount shall not be due until the maturity or payment of the bonds of the Managers Company. This modification providing a minimum annual payment to the Trustee makes it possible to declare bonds in default for non-payment of interest.

A plan revised to include these amendments, together with such other modifications as these make necessary has been prepared and is enclosed herewith.

This revised plan provides for two classes of stock for the Managers Securities Company and a change in the recapture conditions. This is done in order to enable the Company to buy an employe out of the whole or part of his investment.

In the opinion of the writer the plan as now drafted will be to the advantage of General Motors Corporation and it is recommended that the amended plan be adopted by the Finance Committee and submitted for appropriate action thereon to the stockholders at a special meeting to be held on November , 1923, and that a record of stockholders entitled to vote thereat be taken at the close of business on October , 1923.

J. J. RASKOB,
Chairman.

PLAN OF MANAGERS SECURITIES COMPANY
(Revised October 1, 1923)

1. The General Motors Corporation will cause a corporation (Managers Securities Company or other appropriate name) to be organized under the laws of Delaware with an authorized capital of $5,000,000., divided into

$4,000,000. of Class A stock, and
$1,000,000. of Class B stock.

In liquidation the Class A stock shall be preferred as to the par value thereof plus the total net amount after taxes accruing to the credit of the Company by reason of a certain contract between the Company and the General Motors Corporation, dated   ; and there shall be credited to a Class A surplus account for the benefit of the Class A stock on the books of the Corporation, when and as received, the net amount earned under the aforesaid contract after providing for taxes. This Class A surplus may be used for the payment of special dividends on Class A stock or for the purpose of retiring such Class A stock either in whole or in part at a price equal to the par value thereof plus its pro rata share of this Class A surplus account. All other net income of the Corporation shall be credited to a Class B surplus account.

Class B stock in liquidation shall receive all of the balance of the property.

All dividends paid, except special dividends on the Class A stock as herein provided, shall be paid from Class B surplus, and the amount of dividends paid to the Class A and Class B stocks, respectively, shall be in the proportion that the Class A capital and surplus and the Class B capital and surplus, respectively, bear to each other.

Upon the organization of the Managers Securities Company it will enter into a written contract with the General Motors Corporation wherein it will be covenanted and agreed

(a) Upon the part of the Managers Securities Company that it will sell and deliver to General Motors Corporation its entire authorized issue of capital stock for $5,000,000. cash.

(b) Upon the part of General Motors Corporation that in consideration of the premises the General Motors Corporation shall, on or before April 1st

—2—

in each year, commencing with April 1st, 1924, and ending April 1st, 1931, pay to the Managers Securities Company 5% of the net earnings of the General Motors Corporation for the preceding calendar year after deducting from said net earnings 7% on the capital employed during said year. This contract will further provide that on or before January 1st of each year beginning on or before January 1st, 1924, and including January 1st, 1931, the General Motors Corporation will pay $2,000,000. in cash to Managers Securities Company on account of amount due under this contract and the balance due shall be paid on or before April 1st following as aforesaid. Furthermore, in the event that the cumulative amounts due under this contract at any time equal an amount less than the cumulative payments of $2,000,000. per annum above mentioned, then and in that event the General Motors Corporation will continue to make the $2,000,000. annual payments as herein provided and the difference between the cumulative amounts of such payments and the cumulative amounts due hereunder shall be treated as an unsecured loan by General Motors Corporation to the Managers Securities Company, bearing 6% interest, which loan shall be repaid when the amounts due under said contract equal the total amounts paid by General Motors Corporation, plus interest as aforesaid; and not otherwise until after the payment of the bonds of the Managers Securities Company hereinafter mentioned.

2. The General Motors Corporation will thereupon sell to such managers (including directors who are occupying managerial positions) of the General Motors Corporation and subsidiary companies, as the Finance Committee of the General Motors Corporation, or a sub-committee thereof, shall from time to time determine, such amounts of the capital stock of the Managers Securities Company as said committee shall determine and in such amounts to individual managers as said committee shall fix, at not less than cost upon such terms as to time of payment as may be agreed upon between the purchaser and said committee or sub-committee. All sales of stock of the Managers Securities Company to managers as aforesaid shall be covered by a written contract between the seller and the purchaser wherein it shall be provided that in consideration of the sale upon the terms provided in said contract and the purposes for which said sale is made to the purchaser and of all the premises, the purchasers shall give and grant to General Motors Corporation an irrevocable option to repurchase all or any part of the shares of either or both classes of stock so sold at any time between January 1st

—3—

and May 15th in any year up to and including May 15th, 1930, as follows:

Class A stock purchased under this option on account of the death of an employe or from an employe leaving the Company through no fault of his own shall be paid for in cash and the price paid shall be equal to the par value of said stock plus its portion of the Class A surplus account as shown on the books as of April 30th in the year in which said purchase is made; in all other cases the price paid shall be the par value of the stock plus 80% of its portion of the Class A surplus as aforesaid.

Class B stock shall be purchased at the net asset value thereof as of April 30th in the year in which said option is exercised. For the purpose of determining said net asset value of Class B stock the General Motors Securities Company stock or General Motors Corporation common stock owned by the Managers Securities Company shall be appraised on the basis of the net asset value of General Motors Corporation common stock as shown by the published statement of assets and liabilities of General Motors Corporation as of December 31st of the year preceding the year in which said option is exercised. Payment for purchases so made under option herein granted shall be made by the General Motors Corporation in common stock of the General Motors Corporation at the same net asset value as used in determining the net asset value of the Managers Securities Company stock as hereinabove set forth. If any purchaser dies or ceases to be employed by the General Motors Corporation or a subsidiary corporation thereof during the life of said option the General Motors Corporation shall exercise said option at least with respect to the Class A stock and purchase his Class A stock on the terms and at the price aforesaid. Further, in view of the fact that this plan is designed to have substantially interested as stockholders in the Corporation only men who are actively contributing to the General Motors Corporation's success, it shall be the duty of the Finance Committee, on or before May 15th of each year, to review the list of the stockholders of the Managers Securities Company for the purpose of determining whether the stockholding of any manager is disproportionate to the service being currently rendered by him to the General Motors Corporation and, if so, to this extent to repurchase either or both classes of his Managers Securities Company stock. The discretion of the Finance Committee in all these matters shall be final and conclusive. In order to facilitate the repurchase of

said stock the certificates evidencing the stock, duly endorsed in blank, shall at the time of sale and delivery by the Seller to the purchaser be placed in escrow with an escrow holder appointed by the Finance Committee of General Motors Corporation, to be held by him under an escrow agreement in the usual form during the existence of said option. In case the option is not exercised on or before the 15th day of May, 1930, the right and obligation to repurchase shall end and the escrow holder shall deliver the stock certificates to the said purchaser or his order on April 15, 1931. At the time the said certificates are placed in escrow the escrow holder shall issue to the said purchaser negotiable certificates evidencing the number of shares so deposited. The purchaser shall have the right to vote and to receive all dividends paid on the Managers Securities Company stock.

3. The Managers Securities Company will purchase stock of the General Motors Securities Company (hereinafter described) representing approximately the equivalent of 2,200,000 shares of General Motors Corporation common

stock at $15. per share, aggregating a total of $33,000,000. Payment therefor shall be made $5,000,000. in cash and $28,000,000. in 7% Collateral Trust Gold Bonds of Managers Securities Company maturing April 15, 1931, which bonds shall be secured by a collateral trust indenture with the Wilmington Trust Company of Wilmington, Delaware, under which all the General Motors Securities Company stock so purchased and the said contract with the General Motors Corporation shall be pledged to secure the payment of the interest and principal of said bonds.

At present the common stock holdings of E. I. duPont deNemours & Company in the General Motors Corporation are in the name of DuPont American Industries, Inc. It is proposed that the name of this Corporation be changed to General Motors Securities Company, that its sole assets consist of General Motors Corporation common stock with no liabilities and that its capital stock be owned by E. I. duPont deNemours & Company and Managers Securities Company. The duPont Company will be in control of the General Motors Securities Company, owning about 70% of its stock outstanding. It is, therefore, provided that in the event the Directors of the General Motors Securities Company elect for any reason to sell all or any part of its holdings of General Motors Corporation

common stock, then and in that event the Managers Securities Company shall(before such sale is made, have the right to purchase its pro rata share of the total assets of the General Motors Securities Company and make full payment therefor by assuming or providing for the payment of its pro rata share of the debts, if any, of the corporation and surrendering to the corporation for retirement all of its stockholdings in the General Motors Securities Company.

4. The indenture securing the issue of $28,000,000. 7% gold bonds of the Managers Securities Company shall in addition to the usual provisions contained in such instruments provide as follows:

(a) That the Managers Securities Company shall pay to the Wilmington Trust Company, Trustee, on or before April 15th in each year, its entire net income for the preceding twelve months ending April 1st including an amount equal to the amount, less taxes, provided to be paid to it under its contract with the General Motors Corporation; as a sinking fund to be used first for the payment of interest and then for the retirement of said bonds. The Managers Securities Company, however, may withhold from amounts which would otherwise be paid each year to the Trustee under this paragraph an amount of money not to exceed 7% of its total paid in capital and earned surplus as of April 15th of said year, provided always that the total cumulative payments to the Trustee shall never equal an amount less than $2,000,000. per annum accumulated from the beginning to date of such withholding.

(b) That all amounts paid into the sinking fund shall be applied by the Trustee to the payment of interest and retirement of said bonds in the manner provided for in the trust indenture.

(c) Failure for six months after the same shall become due and payable to make any payment required to be made to the sinking fund (including the obligation to pay in each year as aforesaid the amounts provided in said contract between General Motors Corporation and the Managers

Securities Company) shall constitute a default on the part of the Managers Securities Company.

5. Should the seller prefer taking a form of senior security other than the 7% bonds herein contemplated, it is understood that such securities may be issued in whole or in part so long as the provisions surrounding the creation and issuance of same are in line with the provisions of this plan.

Defendant's Exhibit (GM) No. 29

MEMORANDUM

October 8, 1923.

To Mr. J. J. Raskob

Subject MANAGERS' SECURITIES COMPANY.

Regarding the above and with reference to my telephone conversation with Mr. duPont and yourself this morning, I think you know me well enough to know that I am apt to have rather a strong opinion on subjects that come up for discussion, but there is a class of subjects involving the big broad future that I feel that we all must necessarily have a certain amount of uncertainty about and on account of the great magnitude of our problems, a certain feeling of tremendous responsibility when those subjects come up for discussion and a realization of our limitation in being able to grasp the relation between our particular picture and the tremendous developments that are continually going on. That is my attitude toward this particular matter. I feel that it is a very big undertaking and that it should be approached with all kinds of caution and conservatism.

It is true that we have had a lot of time to consider it, but you appreciate that it is only when you really come to do a thing that you consider it most seriously. I firmly believe that any plan that puts any man in business for himself is a constructive one, but due to the magnitude of this thing and the number of men we are taking in, I think we ought to be more than certain that the work-out is going to be entirely satisfactory.

Without going into a lot of discussion about the various angles there are to it, I would suggest a procedure substantially as follows:—

1. I believe that the Finance Committee is the best body of men possible in our situation to judge as to the future outlook and to measure the hazard and to properly weigh the present situation of the industry and the future earnings of the Company; also the relation between the future market value and the book value and the many other uncertain elements connected with the situation which are all a matter of judgment and perspective. If they feel that from those standpoints the risk is a good business risk, then I think they should take the position that we should go ahead on some such plan, but we should not definitely determine at least as to the magnitude of the plan but solely that it is one which they can take the responsibility of at least offering to the organization.

—2—

2. The next step would be that the officers of the Corporation would discuss the plan in detail with either those men who are to participate or a representative group of those men. The attitude of these men, after a proper presentation of the facts, in my judgment should then guide the Finance Committee into the final details of the plan; i.e., how broad it should be and all that sort of thing. I do not think that under any circumstances we should sell the plan in any way, shape or manner or that our enthusiasm as to the future of the Corporation should be so expressed as to unduly influence the judgment of those who are coming in. I believe they should be told frankly that here is an opportunity to go in business; they take the profit and they take the risk; that we will be glad to explain the matter in detail

help them to understand it, but we can not go any further and their position is simply to be determined by their own individual judgment. Certainly I could not possibly afford to have the though get abroad that we were trying to get people into this plan because if it did not go along just as we all hope it will, even to a degree, my influence in the organization would be so handicapped that it is a question whether either myself or anyone else who would take a similar position would be worth much more so far as constructive work is concerned.

3. I believe if the first step is taken, followed by the second, then we could safely go ahead, feeling that we had done everything possible to do the right thing by this particular group of men in giving them the opportunity of profiting through the development of the Corporation and that we at least could feel morally satisfied that if it did not turn out as we honestly felt it would that we had done nothing that we could in any way regret.

4. While I do not think it has any bearing upon my position toward the plan as an officer of the Corporation, my position as an individual toward the future of the Corporation is fully evidenced by the fact that I have practically everything that I have in the world in General Motors; and not only that, as you know, I have recently made a very large commitment at the present market increasing my interest still further and have incurred a very heavy obligation, for me at least, for that purpose.

Alfred P. Sloan, Jr.

A.P.S.Jr./K

Note: Italics indicate handwriting.

Defendant's Exhibit (GM) No. 30

Letterhead of
GENERAL MOTORS CORPORATION
224 West 57th Street
New York, N. Y.

Cable Address
"Genmot"
New York

November 22, 1923.

Messrs. Seward Prosser
Henry G. Bishop

Dear Sirs:

Enclosed please find information and final recommendation of distribution of the $5,000,000 available for subscription under the Managers' plan.

I have given on the attached sheets a list of practically all men receiving a salary of $10,000 or more, their position and salary. Before consultation with Messrs. Sloan and Donaldson Brown, I made a rough allotment of the total $5,000,000 among the total number of men. This, all agree, is too wide a distribution, particularly as a great number have not been sufficiently tried to warrant offering them an allotment under the plan. Any reasonable reduction in the total would leave my first allotment about one-half the total $5,000,000, so that in comparing my figures with the final allotment, the former should be multiplied by two.

On going over the figures with Mr. Sloan, a compromise has been reached adopting, in the main, Mr. Sloan's recommendations.

You will notice that no bonus is set down in these lists for Messrs. Sloan, Mott and Raskob. I recommend

K

$300,000 for each of these gentlemen but would increase Mr. Sloan's allotment to $350,000, if you think it should be greater than the others.

Kindly examine the recommendations and let me know at an early date your criticisms, if you have any. It is somewhat important that this matter be closed speedily.

Very truly yours,

P. S. duPONT,
Chairman.

Enclosure.

CENTRAL OFFICE ADMINISTRATION AND HEADS DIVISIONS

	Position	Salary	P. S. duPont Allotment	Final Allotment	Reserve
Sloan, A.P.Jr.	President	$100,000			
Mott, C. S.	Vice-Pres.	$100,000			
Raskob, J.J.	Vice-Pres.	75,000			
Bassett, H.H.	Buick	100,000	$200,000	$300,000	
Brown, Don	Vice-Pres.	40,000	75,000	150,000	
Rice, H.H.	Cadillac	75,000	75,000	100,000	$ 50,000
Knudsen, W.S.	Chevrolet	50,000	75,000	150,000	
Kettering, C.F.	Laboratory	120,000	100,000	150,000	
Hannum, G.H.	Oakland	75,000	50,000	100,000	50,000
Hardy, A.B.C.	Olds	75,000	50,000	100,000	50,000
Grant, R.H.	Delco Light	25,000		50,000	
Pratt, J.L.	Access.Mgr.	40,000	75,000	150,000	
Page, DeW.	New Departure	50,000	50,000	100,000	
Mooney, J.D.	Export	25,000	50,000	50,000	50,000
McLaughlin, R.S.	Canada	62,000	50,000	75,000	
Day, W. L.	GM Truck	50,000	25,000	50,000	
			$875,000	1,525,000	$200,000

CENTRAL OFFICE ADMINISTRATION AND HEADS DIVISIONS (Contd.)

	Position	Salary	P. S. duPont Allotment	Final Allotment	Reserve
Cooper, C.C.	GMAC	$ 27,500	$ 40,000	$ 50,000	
Prensky, M.L.	Treasurer	25,000	40,000	50,000	
Smith, J.T.	Atty.	60,000	40,000	50,000	
Johnson, K. F.	Parts Div.		40,000	15,000	$ 15,000
Midgely, Thos.	Chemist	10,000	25,000	25,000	
Reuter, I.	Remy	15,000	40,000	50,000	25,000
Forsythe,H.J.	Hyatt	18,000	40,000	50,000	
Harrison,H.C.	Harrison Rad.	18,000	40,000	50,000	
Dwight, J.H.	Saginaw	24,000	25,000	35,000	15,000
Johnson, W.H.	London			40,000	10,000
Day, C. M.	Jaxon	15,000	20,000	25,000	
Sweet, W.M.	Klaxon	10,500	20,000	25,000	
Johnson, E.N.	Lancaster	10,800	20,000	15,000	
Skillen, D.O.	Muncie Prod.	12,000	20,000	0	
Austin, H.A.	GM Bldg.Detroit	12,000	10,000	0	
Lane, R. S.	United Motors	15,000	20,000	25,000	
Chapin,H.W.	Brown-Lipe-Chapin	36,000	20,000	50,000	
			$460,000	$555,000	$ 65,000

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ASSISTANT GENERAL MANAGERS

	Name	Salary	P. S. duPont Allotment	Final Allotment
Cadillac	Coffin, H. A.	$15,000	$ 30,000	$ 15,000
Olds	Dunning, H. C.	16,200	20,000	25,000
Oakland	Orr, E. M.	25,000	20,000	25,000
G. M. Canada	McLaughlin, G. W.	50,000	20,000	25,000
G. M. Truck	Hurst, H. L.	15,000	15,000	25,000
New Departure	Hughes, F. G.	11,000	15,000	0
Brown-Lipe-Chapin	Cook, S. H.	20,000	10,000	25,000
Laboratory	F. O. Clements	12,000	20,000	
Saginaw Prod.	Thomas, D. O.	12,000	10,000	0
United Motors	Elwood, J. L.	10,000	10,000	0
			$170,000	$140,000

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FACTORY MANAGERS

	Name	Salary	P. S. duPont Allotment	Final Allotment	Reserve
Buick	Durham, C. B.	$40,000	$ 40,000	$ 50,000	
Cadillac	Widman, A. U.	24,000	30,000	25,000	$ 25,000
Olds	Scott, J. M.	15,000	25,000	25,000	
Oakland	Lannon, J. D.	12,000	25,000	0	
G. M. Canada	Coad, W. A.	12,000	10,000	0	
Can. Prod.	Cash, A. L.	36,000	15,000	25,000	25,000
G. M. Truck					
New Departure	Simmons, C. B.	10,200	10,000	0	
Harrison					
Hyatt					
Klaxon					
Remy	Wilson, C. E.	10,200	10,000	25,000	
Delco Light	Fordham, T. B.	12,000	10,000	0	
Delco	Christopher, G. T.	10,020	10,000	0	
			$185,000	$150,000	$ 50,000

FACTORY ASSISTANTS AND MANAGERS SUB-FACTORIES

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment	Reserve
Buick	Rose, C. J.	Gen. Supt.	$12,500	$ 20,000	$ 15,000	
	Hughes, J.	Factory #12	11,000	15,000	0	
	Brown			15,000	15,000	
				10,000		
Cadillac	Swan, H. B.	Foundry	10,000	10,000	0	
				15,000		
Chevrolet	Barth, C. F.	Flint	30,000	25,000	25,000	
	Chaffe, W. H.	Plant Mgr.	14,000	10,000	25,000	
	Houghton, T. E.	Flint Works	10,800	10,000	0	
	Keller, K. T.	Mgr. of Mfg.	30,000	25,000	25,000	25,000
	Moore, G. D.	Toledo	18,000	10,000	15,000	
	Motherwell, A. A.	Forge	15,000	10,000	0	
	Wetherald, C. E.	Asst. Flint	10,000	10,000	0	
	Wildgen, J. F.	St. Louis	12,000	15,000	0	
	Williams, W. C.	Oakland	11,000	15,000	0	
		Tarrytown		10,000		
		Cincinnati		15,000		
		Buffalo		15,000		
		Janesville		10,000		
Olds				15,000		
Oakland	McGregor, P. H.	Supt. Motor	10,000	15,000	0	
G. M. Canada				10,000		
G. M. Truck				15,000		
Jaxon	Minch, W. B.			10,000	0	
				$330,000	$120,000	$ 25,000

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SALES MANAGERS.

	Name	Salary	P. S. duPont Allotment	Final Allotment	Reserve
Buick	Strong, E. T.	$40,000	$ 40,000	$100,000	
Cadillac	McNaughton, L.	25,000	30,000	50,000	
Chevrolet	Campbell, C.	36,000	40,000	100,000	
Olds	Peasley, G. H.	16,800	15,000	0	
Oakland	Nephler, C. J.	25,000	15,000	15,000	10,000
G. M. Canada					
G. M. Truck					
Hyatt	Brown, W. A.	14,000	10,000	15,000	
Remy	Stone, G. B.	10,200	10,000	0	
Delco Light	Biechler, E. G.	11,700	10,000	0	
Delco	Harrison, O. L.	15,000	10,000	25,000	
Export	Haskell, H. G.	15,000	25,000	25,000	25,000

ASSTS. SALES

	Name	Salary	P. S. duPont Allotment	Final Allotment	Reserve
Buick	Churchill, C. W.	30,000	20,000	25,000	
Cadillac					
Chevrolet	Dawson, C. K.	20,000	20,000	25,000	
Export	D. Laing	10,080	15,000	0	
Oakland	Tracy, W. R.	20,000	10,000	0	
Olds	Gross, F. A.	12,000	10,000	0	
			$280,000	$380,000	$ 35,000

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SALES, BRANCH MANAGERS AND DISTRICT MANAGERS

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Buick	Bennett, A. C.	Dist. Sales Mgr.	$12,000	$15,000	0
	Carter, H. P.	Chicago	15,000	15,000	
	Coss, John D.	Phila.	12,000	15,000	
	Martin, J. F.	Kansas City	10,000	15,000	
	Steenstrup, P. S.	Pacific Coast	12,000	15,000	
	Laudick, L. W.	Washington Br.	10,000	10,000	
	Lunt, Ed. S.	Flint Br.	10,000	10,000	
	Southworth, A.	N. Y. Br.	36,000	15,000	
Cadillac	Harfst, R.	Detroit Br.	12,000	10,000	
	Southerland, L. B.	Chicago Br.	12,000	15,000	
Chevrolet	Clay, C. C.	Atlanta Br.	13,500	10,000	
	Coats, F. N.	Pacific Coast Br.	18,000	10,000	
	Cooper, L. K.	Chicago Br.	15,000	10,000	
	Douglas, M. D.	Flint Br.	14,000	10,000	
	Fuhr, E. W. S.	St. Louis Br.	15,000	10,000	
	Ralston, D. E.	Kansas City Br.	10,000	10,000	
	Semmons, B. G.	Buffalo Br.	10,000	10,000	
	Van Der Zee, A.	Cincinnati Br.	10,000	10,000	
	Young, A. F.	Janesville Br.	18,500	10,000	
		Minneapolis Br.		10,000	
	Eddins, D. S.	Reg. Atlantic Coast	15,000	15,000	
				$250,000	$240,000

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SALES, BRANCH AND DISTRICT (Continued)

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Olds				$10,000	0
Oakland	Brown, C. M.	N. Y. Branch	$14,000	10,000	
G. M. Canada				10,000	
G. M. Truck	Kilborn, E. J.	Chicago Branch	10,000	10,000	
	Neill, H. A.	San Francisco Br.	10,000	10,000	
	Stoll, Otto E.	N. Y. Branch	18,000	10,000	
G. M. Export	DeTonnay, A.	Buenos Aires Br.	13,050	10,000	
	Lie, C.	Paris Br.	10,000	10,000	
	Miles, B. J.	Melbourne Br.	10,000	10,000	
	Randolph, I.	Calcutta Br.	10,800	10,000	
	Rumely, L. M.	Sydney Br.	12,000	10,000	
	Tuxbury, N. C.	Foreign Field	12,150	15,000	
	Lawrence, A. N.	London	14,400	10,000	
				10,000	
				10,000	
				10,000	
				$165,000	115,000

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ENGINEERS

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Buick	DeWaters, E. A.	Chief Engineer	$15,000	$ 20,000	$ 25,000
Cadillac	Seaholm, E. W.	"	12,000	20,000	25,000
Chevrolet	Hunt, O. E.	"	25,000	20,000	25,000
Olds	Jack, R. K.		15,000	15,000	0
Hyatt	Wells, R. E.		10,000	10,000	0
Delco	Chryst, W. A.		15,000	10,000	25,000
Dayton Wright	Clark, V. E.		12,000	10,000	0
Laboratory	Short, C. R.		12,000	15,000	0
	Davis, J. H.		10,000	10,000	0
	ASSISTANT ENGINEERS				
Buick	Bower, F. A.		15,000	15,000	25,000
	Schenck, R. B.	Ch. Metallurg. Eng.	10,000	10,000	0
	Weckler, H. L.	Works Eng.	12,000	10,000	0
Cadillac	Strickland, W. R.		10,000	15,000	15,000
Central Office	Crane, H. M.	Consulting Eng.	12,000	15,000	0
	Dailey, J. B.	Metallurgist	15,000	10,000	0
	Bergland, E. L.	Power	12,000	10,000	15,000
	Wemmerlund, E. K.	Efficiency	12,000	10,000	0
	Kennington, W. O.	Foreign	13,500	15,000	0
				$240,000	$155,000

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PURCHASING

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Buick	Allen, G. C.	Gen. Purch. Agent	$15,000	$ 15,000	$ 25,000
Cadillac				15,000	
Chevrolet	O'Keefe, D. P.	Purch. Agent	12,000	15,000	15,000
Olds				10,000	
Oakland				10,000	
G. M. Canada				10,000	
G. M. Truck				10,000	
New Departure				10,000	
Delco	Cromer, W. E.	Purch. Agent	10,000	10,000	0
Central Off.	Main, J. H.	Director Purch. Sect.	15,000	20,000	0
	Lynah, Jas.	Asst. Dir. " "	10,000	15,000	0
				10,000	
				$150,000	$ 40,000

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TRAFFIC

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Buick	Conn, G. C.	Director	$12,500	$15,000	0
	Merrick, A. R.	Gen. Mgr.	12,000	10,000	0
Cadillac					
Chevrolet				10,000	
Olds				10,000	
Oakland					
Central Off.					
				$ 45,000	$ 25,000

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FINANCIAL AND ACCOUNTING

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Buick	Longway, R. T.	Asst. Treas.	$10,000	$ 10,000	$ 15,000
	Mallery, N. J.	V.P. & Comp.	20,000	10,000	30,000
Cadillac				10,000	
Chevrolet	Coyle, M. E.	Compt.	15,000	10,000	25,000
Olds				10,000	
Oakland	Mair, Thos.	Compt.	12,000	10,000	
G. M. Truck				10,000	
New Departure				10,000	
Harrison					
Hyatt	Angevine, H. W.	Asst. Treas.	12,000	10,000	
Klaxon					
Remy					
Delco Light	Funkhouser, R. D.	Treas.	11,700	10,000	0
Delco	McCann, G. B.	Treas.	15,000	10,000	0
Export	Murray, A. S.	Treas. & V.P.	15,000	10,000	0
	Swayne, A. H.		25,000		
Central Off.	Souther, C. A.	Taxes	20,000	10,000	
	Turner, Frank	Compt.	20,000	20,000	25,000
	Proctor, E. W.	Asst. Compt.	12,500	10,000	25,000
G. M. Accept.	Martin, R.	Treas.	12,000	10,000	0
	Schumann, J. J., Jr.	V.P.	20,000	20,000	25,000
	Doane, A. L.	V.P.	15,000	10,000	25,000
	Spaidal, D. M.	V.P.	15,000	10,000	25,000
	McMahon, J.	V.P.	13,000	10,000	0
	McCreery, I. G.	San Francisco	10,800	10,000	0
	Myers, J. L.	Mgr. Fin. Sales	10,800	10,000	0
				$240,000	$215,000

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LEGAL AND PATENTS

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Central Off.	Church, M.	Washington	$10,000	$10,000	0
	Webb, E.	Atty. Detroit	18,000	10,000	$25,000
	Brower, B. E.	Atty. Jackson	10,000	10,000	0
	McEvoy, J.	Patents	18,000	20,000	25,000
	Moore, G. P.	"	12,000	10,000	0
	Spencer, L. M.	"	15,000	10,000	0
	Blackmore, L.	"	10,000	10,000	0
				$80,000	$50,000

MISCELLANEOUS

	Name	Position	Salary	P. S. duPont Allotment	Final Allotment
Buick	Sarvis, A. H.	Service Dir.	$12,000	$ 15,000	0
Cadillac	Carson, C. M.	Industrial "	14,400	10,000	0
Chevrolet	Baldwin, C. B.	Service	10,500	15,000	0
	Lord, G. F.	Advertising	15,000	10,000	0
Central Off.	Barr, Lockwood	Publicity	12,000	10,000	0
	Beardslee, L. R.	Secy. Exec. Com.	10,000	10,000	0
	Merrill, T. S.	Secy.	12,000	10,000	15,000
	Hull, A. B.	Stock Transfer	10,000	10,000	0
Olds		Service		15,000	0
Central Off.	Eason, C. M.	Asst. to Pres.	10,000	10,000	0
	Hebner, A. K.	"	12,000	10,000	0
	Horner, F. C.	"	12,000	10,000	0
	Jackson, J. B.	" to V.P.	10,000	10,000	0
	Hickey, H. T.	Service Ad. Staff	15,000	15,000	0
	Koether, B. G.	Sales Adv. Staff	18,000	15,000	25,000
	Abbott, H. W.	By-Products		15,000	
	Barton, H. L.	Fac. Sec. Adv. Staff	24,000	15,000	40,000
	Robie, F. C.	Dept. Mgr. Adv. Staff	12,000	15,000	25,000
	LaFarge, O. H. P.	Asst. to V.P.	12,500	10,000	0
	Lawrence, A. N.			25,000	25,000
				$ 255,000	$130,000

	Final Allotment	Reserve
GRAND TOTAL	$3,840,000	$375,000

Defendant's Exhibit (GM) No. 31

BONUS RECOMMENDATIONS FOR 1924.

Special report from the President (Secy's. No. 1582), held over from the last meeting, was discussed and ordered filed.

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This Report No. 1562 is to be treated as a special report to be considered at the meeting in Detroit October 28th

GENERAL MOTORS CORPORATION

TO **Executive Committee**

FROM **Alfred P. Sloan, Jr.**

SUBJECT **Matter of Bonus Recommendations for the Year 1924.**

DATE **October 23, 1924.**

COPIES FOR

October 23, 1924.

To: Executive Committee

From: Alfred P. Sloan, Jr.

Subject: MATTER OF BONUS RECOMMENDATIONS FOR THE YEAR 1924.

Based on earnings for a normal year, the amount available for the Corporation's bonus fund amounts to several million dollars. The Bonus Plan provides among other things that the distribution of this fund be based entirely on the recommendations of the President. I therefore feel that the responsibility in this respect is very great. I say "very great", because it must be recognized that if the distribution is equitable and constructive, and if it is accepted as such by the organization, a great deal of good-will is bound to flow from same. If, however, there should be a contrary re-action, certain ill-will would be created, a liability set up, and a condition might even result indicating it would have been better to have made no distribution at all. The authority lodged with the President is, as before stated, not only very broad, but provides further that any recommendation whatsoever made by the President to the Finance Committee, if approved by that Committee, becomes binding upon the Corporation. The Finance Committee can, naturally, be only concerned in the matter in a general way, and this tends to increase the President's responsibility.

According to the plan, it is not essential that the Executive Committee deal with this matter at all, but I am taking the liberty of submitting this entire picture to the Executive Committee, irrespective of the rules governing, in order that this Committee may make suggestions, recommendations, or criticisms, and still further, in order that all may be fully informed.

Previous to Mr. duPont's administration, so far as I was acquainted with the operation of the Bonus Plan, there was no scheme worked out under which the available amount was distributed. (The first year we dealt with the matter, the Plan was reinstated so late in that year we had to do the best we could in the time available. Last year Mr. Donaldson Brown and myself gave a great deal of thought to the matter, particularly because in 1923 the situation was additionally complicated by the injection of the Managers Securities Company into the picture. As a result of this study I developed a procedure which was distributed to all members of the organization being in position, through necessity, of making recommendations, which procedure made certain rulings on questions covering which there was uncertainty and also outlined, in general, the principles we were following in the distribution. This procedure has been brought up to date and I purpose to distribute it to the organization this year in the same manner I did last.) Exhibit "1" attached is the form which this procedure now takes.

I shall not attempt to lay before you all the calculations we will have to go through to get the desired result. I will simply confine myself to outlining the principles we are following. It must be understood, however, that the figures developed from these principles can only be used as a general guide - there must be more or less departure from same.

I will deal with the subject under the following headings:

I - DISTRIBUTION OF ALLOTMENTS

Having determined the amount available which is, according to the Plan, a matter with which the Finance Committee must deal, it is first necessary to divide this amount between the Corporation itself and its Operating Divisions and Subsidiaries. As yet we have been able to determine bit one way to do this, that being on the basis of eligible salaries. We therefore take the total amount of eligible salaries within the entire Corporation and allot to the Operations a proportion of the total fund based on the percentage their eligible salaries bears to the total salaries.

The next step is to divide the amount allotted to the Operations among them. In developing this we have taken the position as one factor that those Divisions contributing more generously to the stockholders in the way of earnings in proportion to capital employed should be entitled to a larger proportionate allotment. On this basis, and dealing with the 1923 distribution, the Buick Division distributed 3.57 times as much per dollar of eligible salaries, as the most poorly rated Operation and 1.36 times as much per dollar of eligible salaries as the average. While I fully recognize that it may take more ability, hard work, etc., to reduce what must necessarily be a loss than it may take to make an additional profit, in the final analysis, except under extraordinary circumstances, the measure must be that of profits. Expressed more concretely, distribution among the Operating Divisions is developed first by determining the capital employed at standard volume; next, by developing the relation of that capital to the total capital employed in all the Operations; then determining the percent earned on the capital employed for the year. The relation between the percent of the total capital and the amount each Operation has earned percentagewise, above or below the average return of all Operations, determines the percentage of the total allotment of all Operating Divisions to which each Operation so developed is entitled. Following this Plan, an Operation's allotment is in a way penalized as the amount of capital employed in it increases and the allotment is increased as the return on that capital increases, all in equal proportion.

Having divided the allotment to the Operations among them, the next step is to divide the several allotments for such Operations among their respective eligible members. To effect this, a letter is written to the General Manager of each Operation which letter states the total amount of allotment to which his Operation is entitled, as developed above. This letter also states the relation percentagewise between his total allotment and the eligible salaries, which means, in other words, that if all members of his organization were treated on the basis of that established percent, applied to each eligible salary it would require the total allotment for that Operation. We assume, however, that those members of each organization who have contributed the most or in other words, the most important members are entitled to twice the average. Therefore, we advise each General Manager that he is permitted to give those members of his organization whom he considers have done the most constructive service twice the average and on the basis of that man or men being 100% allot correspondingly to the other eligibles. In no case, however, is the total allotment to be exceeded and in the event that following this procedure the total amount is exceeded all eligibles are to be reduced in the same proportion so that the total amount of the recommendations are within the alloted amount.

ALLOTMENTS WITHIN GENERAL MOTORS CORPORATION

As before stated, there being no profit or loss that can be used as a measure for the Corporation itself, such distribution is effected on the basis of an average distribution in direct proportion to the eligible salaries within any Staff or Activity so far as allotments to such Staffs or Activities are concerned, with the proviso that within each Staff or Activity, or whatever it may be, the most important men should receive twice the average allotment - the balance of the organization being measured on the basis of that man or men being 100% in the same manner as the Operating Divisions.

II - THE WORKOUT OF THE 1924 DISTRIBUTION FOLLOWING THE ABOVE PRINCIPLES

To give the Committee some idea of how this works out, I submit a few figures as follows:

(a) The eligible list in the Buick Division is entitled to a distribution on the average of approximately 31%; the Cadillac Division, 20%; Chevrolet Division, 13%; Oakland Division, 7½%; Olds Division, 13%. The average for the Car Group is approximately 18%. The corresponding figure for the Dayton Engineering Laboratories is 37%; for the Remy Electric Company 56%. These figures are higher than the Car and Truck Group on account, as before stated, of the increased earning capacity. The average for the Accessory Group is 23%, the average for the Inter-Company Parts Group is about 10%; for the Export Group, 13%; the average of all eligibles for all Operating Divisions is 18%.

(b) Giving weight to the participants in the Managers Securities Company who are ranked as 100%, Buick has the privilege of distributing to its eligibles an average of approximately 25% and to its key men approximately 50%. Other Divisions are in proportion - the average for all Divisions being 15% for the general list and approximately 30% for 100% men.

The average distribution to eligibles within the Corporation itself is naturally the same as to eligibles in the Operating Divisions, namely, about 15% and twice that amount, or approximately 30%, to 100% men.

RELATIONS BETWEEN THE MANAGERS SECURITIES AND BONUS DISTRIBUTION

✓ Mr. Brown and I established the principle last year that an eligible should be rated, from the standpoint of bonus allotment, following the principles herein outlined, independently of any equities that might flow to him as a stockholder in the Managers Securities Company. A comparison would then be made between the bonus allotment so established and his pro rata share of the amount General Motors pays to the Managers Securities Company. In the event that the former amount is larger than the latter he would, as to principle, be entitled to additional compensation in the form of a bonus allowance. I purpose to take up all such cases individually with the Manager of each Operation, and it may be possible that we will make some adjustments in order that all equities may be preserved. As a matter of fact it is only fair that we should do so because a participation in the Managers Securities was optional. Some took their full allotments, others took much less, still others took none at all and it does seem as if some adjustment, all within reasonable bounds, is necessary to be fair to all. On the other hand, it is a fact that in a number of cases the amount received as a stockholder of Managers Securities Company, being a pro rata proportion of the Class A surplus created during the current year flowing from the payment from General Motors, will exceed the amount that these particular persons would receive, assuming that the Managers Securities Company did not exist and following the principles herein outlined. Under such circumstances, manifestly, we cannot expect in such cases payments from the individuals to the Corporation. The balance between the amounts stockholders in the Managers Securities Company will receive as compared with what they would have received in the development of the Bonus Plan will result in a difference in favor of the participants in the Managers Securities Company. This means, expressed otherwise, that the allotments are too large or the corresponding salaries are too small. I will deal with these cases, as before stated, individually and will do the best I can to preserve all the equities in the premises. ✓

Respectfully submitted,

APSJr/k

Alfred P. Sloan, Jr.

GENERAL MOTORS CORPORATION

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Program Dealing With

Bonus Allotment For

The Year 1924

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October 22, 1924.

EXHIBIT "I"

PROGRAM DEALING WITH BONUS ALLOTMENT FOR THE YEAR 1924.

In view of the fact that the Corporation's bonus plan provides, on the basis of a normal year, for the distribution of what is a very large sum of money necessitated, of course, by the magnitude of the Corporation's activities, it is important that we all exert every effort toward having this distribution on as equitable a basis as possible to the end that in administrating the plan the spirit and the fundamentals of same be complied with and particularly that a common understanding be developed among all those handling the matter. For that reason I have prepared this plan hoping it will be of some assistance to those charged with responsibility in the matter.

PRESENT PLAN

The original plan after being held in abeyance during 1921, a year of general adjustment, was reinstated and made effective, with certain changes adopted at that time, for the year 1922. There having been no amendments over the 1922 plan that stands as our guide in distributing the 1924 allotment. In view of the fact that considerable time has elapsed since this matter was last dealt with, it is recommended that the plan as officially adopted be again carefully read over at this time. A copy of same is attached for ready reference as Exhibit "A".

TWO CLASSES OF BONUSES

As will be noted from the plan itself, we are dealing with two classes of bonuses as follows:

(a) Special Service Bonuses: Such bonuses are awarded to employes for inventions, suggestions, ideas or improvements of special value to the Corporation entirely irrespective of the earnings of the Corporation or of the earnings or length of service of an employe. Each case is to be determined solely on its merits and in accordance with the judgment and decision of the Finance Committee. This class of bonus may also be awarded for extraordinary service.

(b) Conspicuous Service Bonuses: These bonuses cover awards for conspicuous contributions to the general success of the Corporation.

Dealing with awards under class "(a)", attention is called to the fact that very few, if any, awards have been made under this particular type of bonus, either during the last two years or the previous years during which the same class of bonus was included in the plan but under a somewhat different title. I personally believe that this special service bonus can be employed in a very broad way to the interest of both our employes and the Corporation but I feel, in the absence of any development of the plan, that it will be somewhat difficult to deal with it in the way we should and I believe ultimately will. However, any recommendations made in this regard will, of course, be given proper consideration.

In recommending awards under class "(b)", success attained, initiative, hard and conscientious work, willingness to serve and to co-operate and interest in the Corporation's affairs are all important factors that must be properly judged and weighed. As a matter of fact, this class of bonus calls for consideration of the merit of each individual and it follows that awards will differ in amount and will not necessarily be proportioned to salaries. It will also be noted that under no circumstances are bonuses to be considered or awarded in place of salary increases. It is the policy of the Corporation to pay salaries in proportion to each individual's services, judging same at the market value, so to speak - the amounts to be entirely divorced from any bonus that may or may not be awarded. Furthermore, the plan is not in any sense intended as a profit sharing one although the allotment is predicated upon earnings.

WHAT EMPLOYES ARE ELIGIBLE

The plan provides that the eligible candidates for participation in the bonus shall be prepared from a list of employes qualifying as follows:

(a) Those having an annual salary of $5,000.00 or more as of December 31st, 1924, provided they were in the employ of the Corporation on January 1st, 1924, and have remained in such employ for the full twelve months of 1924.

(b) Exceptions to "(a)", as to length of service, if authorized by the President.

(c) Exceptions to "(a)", as to salary, when recommended by the President and approved by the Finance Committee.

Dealing with the above, your attention is called to the fact that the salary limitation must be interpreted in a liberal manner. I will, therefore, in making my recommendations to the Finance Committee, consider that any employe receiving a salry of $400.00 a month is on a parity with one receiving $5,000.00 a year for the purpose of this consideration and all without prejudice. This is necessary because some Divisions have the practice of considering $4,800.00 as essentially a salary of $5,000.00. In addition to the above point it has been found that the cost of living in different places in which the Corporation's activities are being conducted, very properly influences the rates of salaries. Therefore, it might even come about that an employe receiving as low as $4,000.00 in certain places would rank in the service of that particular Division as high as an employe in another Division in some other locality who is receiving the stipulated amount. It is somewhat difficult to clearly define just what should govern in this regard, but it should be recognized that the spirit of the plan is to include in the bonus distribution the most important employes of the Corporation and it is considered that the only practical way to define that was through a salary limitation. Stating the situation more specifically, the following principles will govern:

(1) A monthly salary of $400.00 will be considered as equivalent to $5,000.00 a year.

(2) An employe receiving a salary from $4,000.00 to $4,800.00 per year will be considered but only in the event -

> That the rate of salaries of the Division by which he is employed is such that the amount of his salary can be properly considered as the equivalent in that particular place of the stipulated salary.

(3) No consideration whatsoever can possibly be given to any employe receiving a yearly salary of less than $4,000.00.

(4) Thru necessity in developing allotments, salaries in effect as of November 1st, 1924, will be used for the purpose of computation.

(5) Under no circumstances will consideration be given to employes who were not in the service of the Corporation on January 1, 1924.

(6) If recommendations are made for employes, otherwise eligible, who do not remain in the service of the Corporation for the full 12 months of 1924, it will be incumbent upon the General Managers, in the case of Divisions and Subsidiaries, and upon the heads of Staffs, in the case of the Corporation itself, to withdraw such recommendations.

HOW RECOMMENDATIONS ARE TO BE SUBMITTED

In order that careful treatment may be accorded the subject and comprehensive records established for the use of the Finance Committee, relevent data will be assembled on forms, a specimen copy of which is attached as a part of this Procedure, and marked Exhibit "B". Such forms will be delivered in conjunction with this program to the General Manager of each Division and Subsidiary, and to the head of each Staff or Department within the General Motors organization itself, covering respectively the employes under the jurisdiction of such individuals. On these forms when so delivered, there will appear the names of eligible participants so far as the records of the Salary Committee permit, and this interpretation of the plan provides. These forms will also show among other things, the official bonus allotments awarded by the Corporation during prior years.

It will be the duty of those individuals receiving these forms as above indicated, to complete all other data required on them before they are returned to the office of the President of the Corporation. Item 12 of the form must be endorsed by the individual having direct supervision. Item 13 is to be signed by the General Manager of the Division or of the Subsidiary in the case of Operating Units, and respectively by the heads of Staffs in the case of the Corporation itself. This means, in the latter case, that the heads of Departments within the Financial Staff, or the heads of Sections or of Departments within the cooperative Staff or the General Service Staff, should confer with the head of each respective Staff in connection with recommendations.

These forms are intended merely as a guide in assisting the development of recommendations. It is probable that employes are eligible whose names do not appear on the delivered forms. On the contrary, forms may be provided specifying employes who may not be recommended. The reason for this is that certain Divisions or Subsidiaries, and certain Departments of the Corporation itself, may not have kept an accurate and complete record of the previous years' awards, or have furnished the Salary Committee, under its arrangement with the organization, the latest up-to-date salary information. All this, however, is within the jurisdiction of each Member of the Organization charged with responsibility in the making of recommendations.

Blank forms will also be included with the partially filled-in ones, for the purpose of submitting additional recommendations or for any other purpose that necessity may require.

DIVISIONAL AND GENERAL ALLOTMENTS

The Corporation's Bonus Plan provides that the total amount to be distributed shall be determined by the Finance Committee but shall not exceed ten per cent (10%) of the net earnings of the Corporation after seven per cent (7%) of the employed capital is deducted therefrom. It naturally follows from the above that the amount distributed is altered as the earnings of the Corporation increase or decrease. Due to the fact that earnings thus applicable for bonus purposes, for the year 1924, according to the latest forecast, will be but Forty per cent(40 %) of those for the year 1923, allotments must be adjusted in accordance with such reduction. Your attention is called to this fact in order that there may be no misunderstanding. Assuming that the total amount to be distributed has been established the next problem is an equitable distribution - first, between the Divisions and the General Staff of the Corporation itself; second, between the Operating Units, and third, within each Operating Unit. It is most important that these distributions be made equitably and in view of the fact that the responsibility of the undersigned in this regard is very great I am most anxious to have a clear understanding in order that all the equities may be preserved.

Approaching the matter from the above standpoint, I FEEL THAT THE ALLOTMENT OF EACH OPERATING ORGANIZATION SHOULD BE INFLUENCED IN AMOUNT BY ANY EXCEPTIONALLY GOOD RESULT THAT OPERATION HAS BEEN ABLE TO OBTAIN ECONOMICALLY MEASURED IN THE LIGHT OF LARGE COMPARATIVE EARNINGS, OF ACCOMPLISHMENT IN PROTECTING AGAINST LARGE POTENTIAL LOSSES OR OF ANY OUTSTANDING ACHIEVEMENT. In view of the fact that the return on the capital employed is the established method within the Corporation, all other things being equal, of determining the relative effectiveness of our different Operations, considerable weight has been given to this factor. It is further recognized that no arbitrary rules can be laid down in this regard. There must be exceptions because it sometimes happens that an organization has been assigned a task handicapped by conditions absolutely beyond its control. In such cases, therefore, an excellent record may have been established, yet a satisfactory return not accomplished.

In addition to the relative return on the capital employed and the eligible salary list, the capital itself must be given some consideration. I have given a great deal of thought to all these factors and have finally reduced them to a definite and carefully developed basis which seems to afford an excellent way of distributing the total allotment into the Operating Divisions. Although modifications in certain places have been necessary, in general I am absolutely following a definite method of allotment. As a result it will follow that the allotment to each Division or Subsidiary in relation to the eligible salary within that Division or Subsidiary will differ materially but will, in the main, be most largely influenced by the varying return on the capital employed. Expressing the above in definite figures the relation which the total bonus allotment bears to the total eligible salaries within Divisions and Subsidiaries varies from 7% to 56%, depending upon the standing of each Division or Subsidiary. The relation between the allotments of the Operating Units as a total and the total bonus allotment or, in other words, the specific allotment for the General Staff of the Corporation itself can only be made on one basis; i.e., upon the exact relation of the eligible payroll.

Those charged respectively with the responsibility of recommendations will receive with this procedure a letter in which the total allotment for that particular jurisdiction is specified, this allotment having been developed in accordance with the above.

ON WHAT BASIS ARE INDIVIDUAL RECOMMENDATIONS TO BE DEVELOPED

I have likewise given considerable thought to the manner in which recommendations should be made within each Division and although such recommendations are entirely within the province of each General Manager, it is important that we should have a few general rules in order that an equitable distribution may be obtained. As a matter of fact, from our experience during previous years we naturally found that some Divisions were more liberal in their distribution than others and while we wish to be as liberal as the limit of the total bonus fund makes possible, nevertheless it is exceedingly important that a proper relationship be established within each Division and that this relationship be suitably co-related among the several Divisions, otherwise dissatisfaction results and what is believed to be a constructive and helpful plan may, to a certain degree, develop into an actual liability.

In view of the above and after a careful analysis of all the statistics available, I recommend that having developed a list of eligible candidates, eliminating those who should be eliminated according to the policy of the plan, that the next step should be to determine among all those candidates the one who has performed the most conspicuous service. It is possible there might be more than one such candidate in which event that factor should be recognized. In the latter accompanying this Procedure will be stated a percentage of salary that may be awarded in the discretion of the General Manager as a maximum to those eligibles standing, so to speak, at the head of the list. This should be adopted as a standard and the total allotment distributed to the balance of the eligible list on the basis of this particular standard as 100%. In the event it should develop that the total allotment is in excess of the amount required, then the balance should not be used. If the total allotment is exceeded the entire list should be carefully reviewed and the allotments reduced pro rata. This is necessary because the total allotment can not be exceeded except under extraordinary circumstances of an extreme nature for the reason it is made on a comparative basis with all factors carefully weighed and it would not be fair to the other Divisions and Subsidiaries to increase the allotment of any particular Division.

DEALING WITH CERTAIN SPECIFIC RECOMMENDATIONS

The allotments referred to in this program and definitely specified for each Operation or Activity in the letter accompanying same all as specified on the Corporation's Organization Chart effective as of November 1st, 1934, do not include allowances for the following:

(a) Chief Executive Officers of Operating Divisions and Subsidiaries including General Motors Building, Acceptance and Exchange Corporations;

(b) Heads of Cooperative, General Service, Operating, Financial and Legal Staffs, also Officers designated as Group Executives.

(c) Heads of Departments within Financial Staff and Heads of Sections of Cooperative and of General Service Staffs.

(d) Employes who are participating in the Managers Securities Corporation whether included or not in "(a)", "(b)" and "(c)" above.

Awards covering those designated above will be made directly by the Finance Committee.

NOTICE OF ALLOTMENT

In dealing with the 1923 distribution, the undersigned as President of the Corporation, issued a letter to each individual receiving an allotment stating that according to the provisions of the bonus plan an award had been made of a certain number of shares of the Common stock of the Corporation and further stating that a certificate for one-fourth of the award would be delivered early in the following year but that certificates for the balance would be held for his individual account as provided for by the bonus plan. The mailing of this notice of award was timed and it is planned will also be so timed this year that it will be received at the home address of each individual on Christmas Eve. A sample copy of the notice of allotment letter as sent by the General Motors Corporation to participants in the 1923 bonus class is attached as Exhibit "C".

Careful consideration has been given to the particular form of these notices of allotment and it has been considered preferable that same be made in the name of General Motors Corporation. Those having jurisdiction, however, will state in returning bonus recommendations, the following:

(a) Is it preferred that the allotment notice be mailed directly to the residence of each recipient to arrive on Christman Eve.

or

(b) Should the notices be sent to the head of each Operation or Staff or other Activity, whatever it may be called for personal distribution on December 24th?

MODIFICATION OF TOTAL ALLOTMENTS

The total allotments for each jurisdiction referred to in this procedure are the best estimates available, all things considered, at the present time and are predicated upon recommendations which will be made to the Finance Committee in accordance with the provisions of the bonus plan. The total amount can only be determined by the Finance Committee. Therefore, any adjustments either way will be made on a pro-rata basis which means that the principles herein outlined so far as inter-divisional distribution and distribution within each Division, will be maintained.

CONFERENCE REGARDING BONUS RECOMMENDATIONS

In view of the fact that the responsibility of bonus recommendations is lodged with the President of the General Motors Corporation and in order to be sure that a common understanding is reached inter-divisionally and proper equities preserved, I will meet the General Manager of each Division or Subsidiary and the head of each Staff having jurisdiction, at a date to be later determined, at which time the bonus recommendations may be presented and analyzed preparatory to submitting definite recommendations to the Finance Committee for approval or modification as its judgment may dictate.

Alfred P. Sloan, Jr.
President
General Motors Corporation.

G. M. 400 1500 3-24
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GENERAL MOTORS CORPORATION

BONUS RECOMMENDATION FOR YEAR 1924

1. NAME OF EMPLOYE (IN FULL)

2. BUSINESS ADDRESS

3. HOME ADDRESS

4. NAME OF DIVISION, SUBSIDIARY OR CENTRAL OFFICE

5. EMPLOYE'S CURRENT POSITION

6. PRESENT MONTHLY SALARY $

7. STATE CONCISELY EMPLOYE'S DUTIES IN PRESENT POSITION

8. STATE TOTAL LENGTH OF EMPLOYMENT WITH CORPORATION

9. FURNISH AS BELOW INDICATED RECORD OF SERVICE WITH CORPORATION WITHIN LAST THREE YEARS

(Unit filling in form will give complete data including employe's History with other units, if any)

POSITIONS	INCLUSIVE DATES OF SERVICE IN POSITIONS	EMPLOYER (DIVISION SUBSIDIARY OR CENTRAL OFFICE)	SALARY CHANGES (MONTHLY BASIS)		
			DATES	FROM	TO
				$	$

10. BONUS HISTORY WITH CORPORATION:

YEAR	NUMBER OF SHARES AWARDED	SALARY ON DATE OF AWARD
1918		
1919		
1920		
1922		
1923		

11. BONUS RECOMMENDED FOR 1924 $ FOR
(Repeat employe's name here for ready reference)

EXHIBIT "B"

6655

12. STATE REASONS FOR RECOMMENDATION IN DETAIL:

(In so doing give greatest consideration to key point that exceptional ability and meritorious service, irrespective of importance of position, should provide basis for recommendation. Outline particularly responsibility of duties, nature of exceptional ability and type of service rendered).

I CERTIFY THAT THE ABOVE IS CORRECT, ACCORDING TO MY BEST JUDGMENT AND BASED ON MY PERSONAL KNOWLEDGE OF AND ACQUAINTANCE WITH THE DUTIES PERFORMED FOR THE CORPORATION BY THE EMPLOYE HEREIN NAMED.

SIGNED BY (TITLE)

(The above statement is to be made by the individual directly supervising the employe.)

13. COMMENTS OF GENERAL MANAGER OF UNIT OR HEAD OF CENTRAL OFFICE STAFF:

WE CERTIFY THAT AFTER CAREFUL CONSIDERATION OF THIS RECOMMENDATION, WE HEREWITH GIVE OUR APPROVAL.

APPROVED BY: PRESIDENT

SIGNED BY: GENERAL MANAGER OF UNIT OR STAFF HEAD

14. BONUS AWARDED

NO. OF SHARES

SIGNED BY: SECRETARY OF FINANCE COMMITTEE

6656

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK, N.Y.

CABLE ADDRESS
GENMOT
NEW YORK

The General Motors Corporation Bonus Plan provides for a yearly distribution of common stock to those members of the organization who have contributed to its success in a conspicuous manner.

Individual awards vary with three factors: first, the contribution of each individual as judged by his ability, initiative and willingness to cooperate to the good of the general cause; second, the success of the particular Operation to which each individual is assigned as measured by the contribution of that Operation to the earnings of [illegible] Corporation, this factor being tempered where special circumstances exist and third, the success of the Corporation as a whole.

I am pleased to inform that upon the recommendation of the management of your Division which recommendation has been duly approved by the Finance Committee of the Corporation, you have been awarded a conspicuous service bonus for the year 1923 consisting of

shares Common stock General Motors Corporation.

A certificate for one-quarter of this award will be delivered to you as soon as possible after the first of February and the remainder will be held for your account.

I am glad to have this opportunity of thanking you as a member of our organization for the splendid result of the year's work to which your contribution has been an important one. I am sure that this is going to be continued in even a more effective way throughout next year and for many years thereafter.

With the Compliments of the Season, I remain,

Very truly yours,

President.
GENERAL MOTORS CORPORATION

4454

Defendant's Exhibit (GM) No. 32

October 21, 1924.

Sir Harry McGowan,
Nobel House,
Buckingham Gate,
London, S.W.1, England.

Dear Sir Harry:

As you doubtless remember, we have been negotiating with the Messrs. Fisher for a number of months for the purpose of arriving at a plan, satisfactory to both sides, by which the Fisher brothers would continue with General Motors interests. The contract which expired October 1 provided that they should receive a percentage of Fisher Body earnings, distributed among the brothers in a specific manner. This contract which had run five years netted the Fisher brothers about $7,500,000. The first offer made to them was that we should give them a contract based on ownership of shares in the Managers Securities Company, which as you remember was formed to interest the principal men of General Motors Corporation, and make the number of these shares sufficient to net the Fisher brothers approximately $7,000,000 during the seven years that the Managers Securities contract runs. On examination this showed that the Fisher brothers would not be allotted as much stock in the Managers Securities Company as men in similar positions with General Motors Corporation. We therefore changed the basis of figuring and offered them a number of shares in Managers Securities Company as nearly as possible equivalent to those allotted men of similar positions in General Motors Corporation, but as two-sevenths of the Managers Securities contract period has already expired, we reduced the Fisher allotments by two-sevenths, i.e. allotted them five-sevenths of the first determined amount. This proved satisfactory to them and an agreement was made. In turn, Messrs. Fred and Lawrence Fisher agreed to sever their connection with the Fisher Body Corporation and become members of the General Motors executive committee, for the purpose of acquainting themselves thoroughly with General Motors operations and difficulties, without any allotment of specific duties. This I believe is a step forward. As it has not been possible for Alfred Sloan to give personal attention to all of the ramifications of the Corporation, I think the Messrs. Fisher are especially well adapted to assist him in ferreting out troubles promptly and applying remedies. I think heretofore we have been slow in the former particular and a bit lax in the latter. Interesting two members of the Fisher family directly in General Motors will have a very beneficial effect in breaking up a line of separation of the two companies' interests that has not been altogether wholesome. From lack of knowledge, the two sides have tended to criticise each other, without good result. Hereafter the Fishers will better understand General Motors problems and difficulties and, I think, General Motors men will better appreciate the Fisher problems.

Mr. William A. Fisher will become President of Fisher Body Corporation. Mr. Charles Fisher, who also joins General Motors executive committee, will spend most of his time in guiding the Fisher interests. Messrs. Edward and Alfred Fisher will remain in their important executive positions in the Fisher Body Corporation.

We all feel that the settlement of this business will prove very beneficial. Messrs. Fisher are very happy over the solution of the problem, as for some time they have been fearful lest failure to get together would necessitate the breaking up of relations, perhaps a break in the Fisher family, concerning which they naturally have great pride, as they have been phenomenally successful in the cleanest kind of a business enterprise.

I hope that you will be interested in and approve all of the steps. Negotiation was long but its conclusion worked out very quickly. Even on October 1 when the old contract ran out it looked as though we would not be able to get together.

Sincerely yours,

Chairman.

Enclosure.

E

Defendant's Exhibit (GM) No. 33

Telegrams: Nobelind Soavest London
Telephone: Victoria 9650

Nobel House
Buckingham Gate
London S.W.1

7th November 1924

6660

My dear Pierre,

I have your letter of 21st ultimo, which I have read with very great interest indeed, and I congratulate you and your associates on being able to arrange such a contract as to bring the Fisher boys into more active participation in the activities of the General Motors Corporation. I am sure this is all to the good, as it has been obvious to me on my recent visits that Alfred Sloan is somewhat over-burdened: in addition, it cements the relationship for all time with the Fisher Corporation, to which we all attach great importance.

I have had the pleasure of seeing Kettering and McEvoy here, and I think we have been able to help in their mission.

With kindest regards,

Yours very truly,

Pierre duPont, Esq.
NEW YORK.

G.M. 47 E

Defendant's Exhibit (GM) No. 34

GENERAL MOTORS CORPORATION

INTER-ORGANIZATION LETTERS ONLY

6661

SUBJECT

February 13, 1926.

FROM

FOR ATTENTION OF Mr. J. J. Raskob

Strictly Confidential

I do not know whether I am butting in or not, but the time has come when the future developments of our plan and the protection of our competitive position requires that we make the most determined effort possible to work out Fisher Body situation along more constructive lines to the end that proper co-ordination can be effected. This is not only the development of the lumber situation which perhaps could be handled in some other way, but relates more intimately to general operating phases of our activities. In my judgment we will very soon reach the point where we are absolutely blocked on certain important things; in fact, we are in that position in one instance today, as I think you recognize.

I appreciate just how you feel about the matter and how Don feels about the matter; viz., the market being as it is, nothing can be done. However, perhaps by stirring the matter up something can yet be done even if it is a compromise, as most things in this world are anyway.

For all the above reasons I have discussed it with you, with Don, with Fred and with Mr. P.S. in the hopes of setting the minds of all of us more actively at work on the question. Fred's whole attitude is so enthusiastically for General Motors, its present position and its future, that of course it makes it very much easier to deal with the problem than ever before. He has, in every sense of the word, become one of us. I do not mean to infer that he is going to take any position other than a thoroughly constructive one from the other standpoint, but the approach of his mind to the problem has a great deal to do with working out something that will be satisfactory.

I had a long talk with Fred about it in Detroit this week and spent quite a good deal of time analyzing it myself so that I would know something about it. I agree with your contentions and Don's contentions absolutely - that the present basis is something like one-half to one and I recognize, as you do, that that is so entirely out of harmony with the market situation as to make it unpresentable. I have approached it, however, from the standpoint - - is some sort of a compromise not possible and if there is, even if it is out of harmony with the market situation are we sure enough to go through with it, recognizing that any consolidation under the New York laws which control this picture, may be challenged through an appraisal being asked by a dissenting stockholder? I believe that we have every reason to feel that an appraisal would give little regard to the market position but would give very complete regard to the equities, therefore, if we are proper on the equities there should be no difficulty.

I urged upon Fred a definite expression of opinion on one point and that is - assuming that the book value harmonized and the earnings of the two respective corporations harmonized in the exchange, would he insist that the market be harmonized to the fullest extent? His attitude on this one way or the other might indicate something. He telephoned me that he has given the matter some thought and that Mr. Bitting would come on and discuss the matter with Mr. P.S. and yourself, of course. I have reported this to Mr. P.S. and this will be the means of advising you as a conference on the subject will take place this coming week.

I want to say to you, as I have said to Mr. P.S. -- I am absolutely against making a deal other than on the basis of looking forward rather than backward. I feel as we go on our position becomes strengthened, but irrespective of our shortcomings in the past, which of course affects our present market situation to some extent, it has nothing to do with the future and this perhaps deals with the future to a very material degree. Irrespective of all this, of course I recognize the market position in a thing of this kind necessitates some sort of a compromise.

Whatever Fred may have in mind, of course I do not know, but I fear that he will feel that the market should be equalized to its full present relation. If that is insisted upon, I do not think we should go ahead and that is the reason why I feel that that is the vital point on which his position should be determined.

There is another thing that I do not agree with and that is - I do not think it is fair to set up the savings accruing to us on the 40% that we will get without taking into consideration the cost of those savings on the basis of 100% of Fisher Body. Fred has in mind taking 40%. I think that General Motors as a stockholder is entitled to as much consideration as any other stockholder and that we can not ignore our proportion of the total.

I hope in the discussion that you will see fit to ask John Pratt to enter same. He has some information and a viewpoint in the matter which I am sure will be helpful. Mr. John Thomas Smith has some ideas which I think should be brought into the picture, and in view of the fact that I am going away, I am reporting the status of the above to you. Understand, I have approached this with the rather forlorn hope that something might be accomplished. We should make a desperate effort to do this, all with regard, of course, to the cost of accomplishing same.

Alfred P. Sloan Jr

APSJr./K

Defendant's Exhibit (GM) No. 35

~~GENERAL~~ MOTORS CORPORATION
COMPARISON OF ~~NUMBER~~ AND PROPORTION OF MOTOR VEHICLES (PASSENGER AND TRUCK) SOLD BY FORD, GENERAL MOTORS, AND OTHER MANUFACTURERS, 1921

	Total Number of Motor Vehicles Sold by All Manufacturers (1)		Percent to Total
Ford Motor Co.	933,720		55.45
Buick	80,122		4.77
Cadillac	11,130		.66
Chevrolet	68,080		4.04
Oakland	11,852		.70
Oldsmobile	18,978		1.13
General Motors - Miscellaneous	8,359 (2)		.49
GMC Truck	2,760)		
Samson Trucks	747)		
Scripps-Booth	3,056)	-----------	.49
Sheridan	1,796)		
General Motors Total	198,487 (3)		11.79
All Other	551,709		32.76
Total - All	1,683,916		100.00

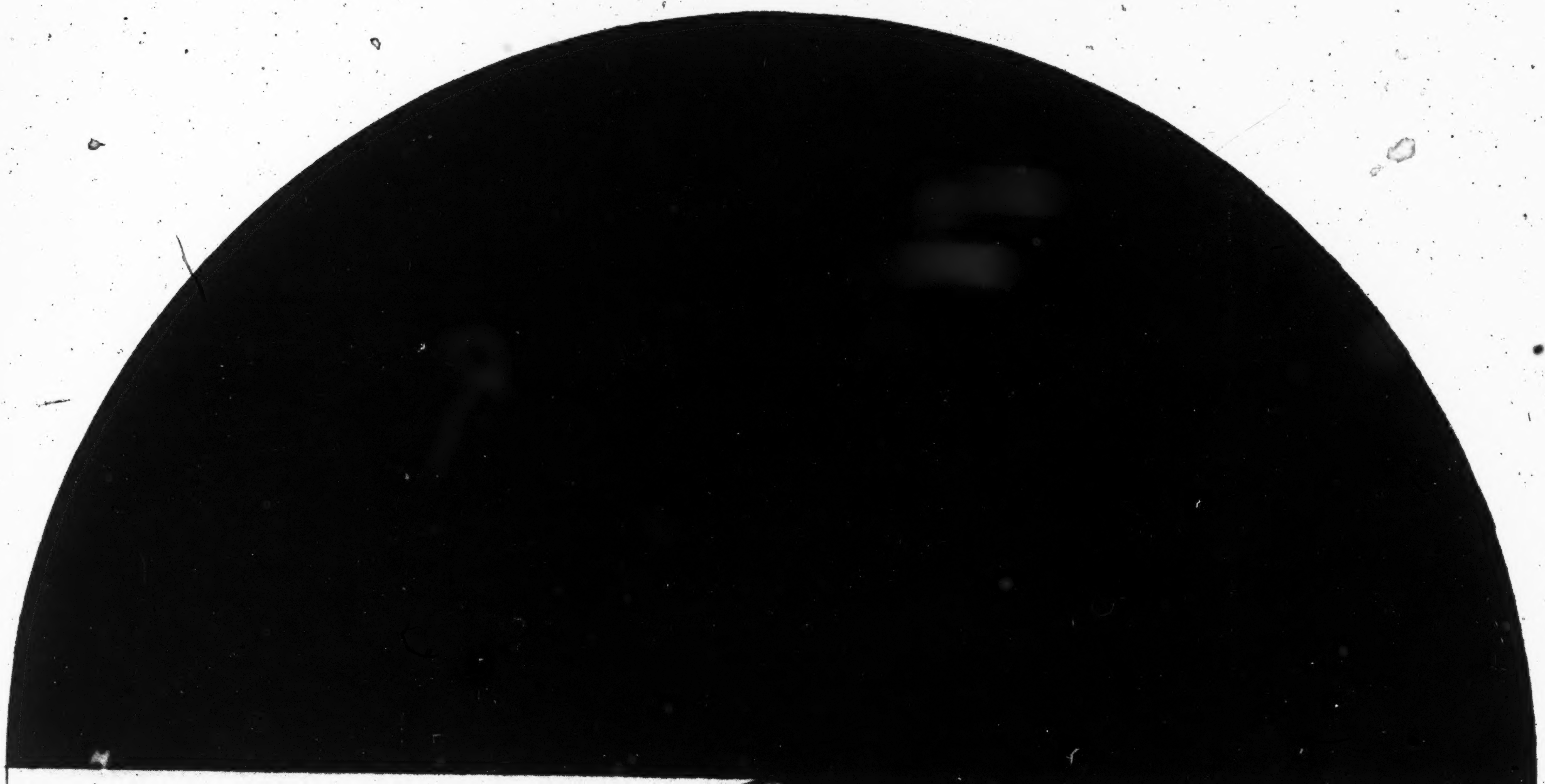
(1) Source: Federal Trade Commission "Report on Motor Vehicle Industry" pursuant to Joint Resolution No. 87 (H.J.Res. 594) Seventy-fifth Congress Third Session - Page 27, Table 7.

(2) Includes 34 units not included in Federal Trade Commission's Total for General Motors.

(3) Source: General Motors Corporation's "Historical Record - Vehicles Sold"

Defendant's Exhibit (GM) No. 36

GENERAL MOTORS VS. FORD
PER CENT OF INDUSTRY VEHICLE SALES
FOR THE YEAR 1921



Defendant's Exhibit (GM) No. 37 .

1 M 1

GENERAL MOTORS COMPANY
MEETING OF PURCHASING AGENTS

May 7, 1913

• • •

A meeting of the Purchasing Agents of the companies subsidiary to General Motors Company was held at the office of said Company in Detroit on May 7th, 1913.

Present:

C. W. Nash		
H. L. Barton		
H. C. Chandler		
E. J. Copeland	representing	Buick Motor Company
J. H. Main	"	Cadillac Motor Car Company
A. A. Lehr	"	Cartercar Company
J. A. Murray	"	General Motors Truck Company
J. S. O'Rourke	"	Jackson-Church-Wilcox Co.
F. A. Cowen	"	Michigan Motor Cstgs. Co.
L. M. Payne	"	Northway Motor & Mfg. Co.
H. R. Viot	"	Oakland Motor Car Company
C. O. Miller	"	Olds Motor Works
W. N. Edson	"	Weston-Mott Company.

Mr. Nash presided; Mr. Merrill recorded.

Mr. Nash stated that he had called the meeting with a view to giving the Purchasing Agents an opportunity to become better acquainted and to discuss topics of common interest relating to their branch of the work.

In the course of his remarks Mr. Nash summarized the financial situation, calling particular attention to the imperative necessity for keeping the payments to be made prior to July 31st at a minimum in order that the Company might show a clean sheet at the close of its fiscal year. In furtherance of this plan as many orders as possible for delivery during June and July are to be dated so as to make the payments fall due after August 1st. Further than this, such orders are to be kept at a minimum so as to make the payments falling due in August as small as possible. It is realized that it will be especially difficult for the parts companies, such as the Northway, Weston-Mott, and Jackson-Church-Wilcox, to conform to this plan and still be in position to make deliveries to the constituent companies in July, but it is of the utmost importance that the plan should be rigidly adhered to in order that the Company may have its indebtedness paid off by the end of the year. The accomplishment of this purpose being dependent, almost entirely, upon the efforts and co-operation of the Purchasing Agents, Mr. Nash requested each and every one of them to do his utmost to make the plan a success.

1 M 2

In response to an inquiry regarding the form of Buick contracts, Mr. Copeland stated that as a rule said contracts are drawn to cover the requirements of the Company not to exceed a stated amount, in other words, the contracts specify a maximum but not a minimum amount so that the Company is obligated only for orders actually placed. The contracts are drawn so as to give the Company the benefit of any general reduction of prices or more favorable quotations from others. In certain of the contracts a provision is inserted making them available for any subsidiary company of General Motors Company. It is the intention to use such a provision in practically all of the 1914 contracts and the other companies will be duly advised regarding all such contracts.

As a result of the discussion which followed it was decided that much good could be accomplished by an exchange of contract forms between the various companies. In pursuance of this plan each Purchasing Agent is to send the others a copy of the contract form which he is now using.

Mr. Zimmerschied appeared before the meeting and made a statement regarding the Low Chrome Steel situation as developed by investigation of the matter recently made by Mr. Bassett and himself at the direction of the Board of Managers.

A question was raised as to whether transportation charges upon purchases made from the surplus stock lists furnished by the various companies should be paid by the selling or the buying company. It was decided that all such purchases should be f.o.b. the selling company inasmuch as practically all sales are made in that way and any departure from the usual procedure would tend to complicate the accounting and confuse matters.

The remainder of the session was devoted to informal discussion and conversation regarding various phases of the work.

The meeting thereupon adjourned.

T. S. MERRILL,
Secretary.

Defendant's Exhibit (GM) No. 38

2 M 1

GENERAL MOTORS COMPANY
MEETING OF PURCHASING AGENTS

June 4, 1913

• • • •

Meeting held at offices of General Motors Company in Detroit at 1:30 P M.

Present:

Messrs. H. C. Chandler
E. J. Copeland
J. A. Murray
J. S. O'Rourke
F. A. Cowen
L. M. Payne
H. R. Viot
C. O. Miller
W. N. Edson

Mr. Copeland presided; Mr. Merrill recorded.

STANDARDIZATION OF CONTRACT AND INQUIRY FORMS—Consideration of this matter was deferred to the next meeting because of the absence of Mr. Main, one of the committee having it in charge.

PRODUCTION MATERIAL AND SUPPLIES—Various items were considered and notes regarding same compared and discussed, including the following, viz: keys, malleables, sheet steel, electric lamps, castellated nuts, plain nuts, cap screws, set screws, carriage bolts, machine bolts, taper pins, lock washers, rubber tires, cutting compounds, hair, wood screws and top material.

NOVELTY LAMPS—Mr. Copeland advised that the Buick Company had decided to use in their automobile lamps, bulbs manufactured by the Novelty Incandescent Lamp Company of Emporium, Penna., a subsidiary of General Motors, provided an understanding is reached regarding prices. The Buick's estimated requirements are 150,000 and the price 60% off list. The Buick Company is also testing Novelty lamps for industrial purposes.

MYSTIC CUTTING COMPOUND—It was decided that a general contract, available for all of the companies, should be made covering this compound. Each member of the Board is to ascertain the amount of said compound used by his Company and report the same at the next meeting in order that the aggregate requirements may be determined to serve as a basis for such a contract.

SEALING IRON—Mr. Murray inquired as to the make and type of the sealing iron used at the Oakland plant in stamping numbers upon its cars. According to his understanding, the iron

2 M 2

used at said plant is particularly efficient and he desired to know more about it. Mr. Viot will obtain full information regarding the matter and advise the other purchasing agents.

PREST-O-LITE TANKS—It developed that the Truck Company and the Olds and Cartercar companies have a surplus stock of these tanks. Mr. Copeland stated that the Buick is now negotiating for its 1914 requirements and is therefore in a position to make satisfactory arrangements for the return of unused tanks. Any company having tanks on hand which it desires to dispose of should furnish Mr. Copeland with full particulars regarding same at once.

LISTS OF SURPLUS STOCK—Attention was called to the fact that all of the companies are not sending their lists of surplus stocks to the other companies regularly each month as planned. Each member of the Board is to exert every effort to see that these lists are sent out regularly and promptly and also to see that a copy of each list is sent to Mr. Nash, c/o General Motors Company, Detroit.

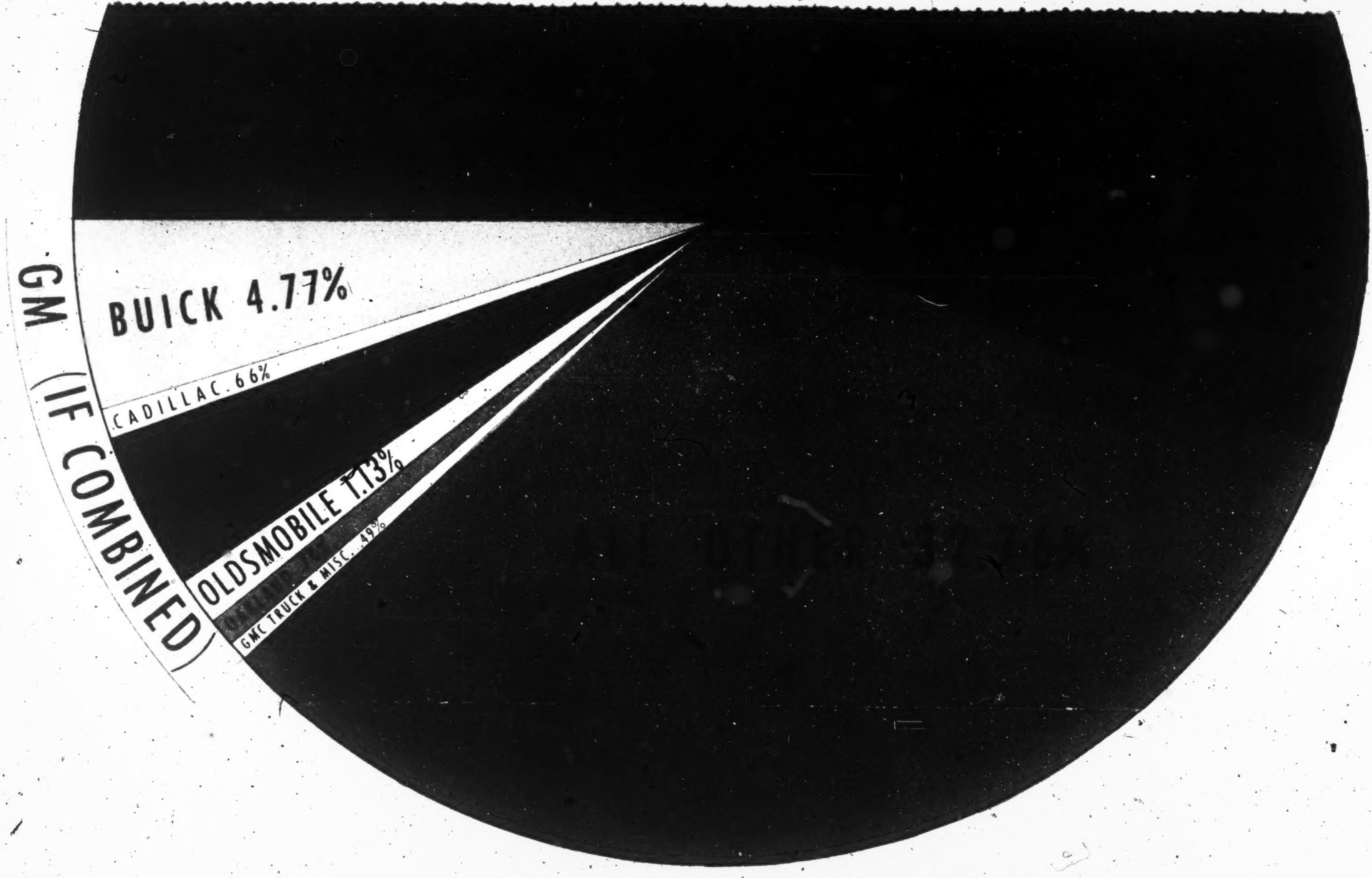
DISBURSEMENTS—Attention was again called to the necessity for keeping the disbursements during the remainder of the fiscal year and for the month of August as small as possible. It appeared that each member of the Board is doing his utmost along those lines.

CHANGES IN DESIGN—Reference was made to the expense to which the companies are sometimes put by reason of changes in design. It was agreed that the purchasing agents could render their respective companies valuable service and effect a large saving by closely scrutinizing all contemplated changes of this nature and seeing that the Engineering Department or the Manager is fully advised as to the aggregate cost of same in dollars and cents, also that all specifications for materials should likewise be given careful study with a view to possible modifications by which money might be saved.

COMPILATION OF DATA—In order that the data regarding prices, etc., obtained by the various members of the Board might be brought together and combined in comparative statements so as to be of maximum usefulness to each member it was decided that any member desiring information concerning any item should so advise the Chairman of the Board (Mr. Copeland) who will thereupon have this data gathered and compiled, furnishing a copy of the statement to each member of the Board.

No further business being presented, the meeting adjourned.

T. S. Merrill
Secretary


GM (IF COMBINED)
BUICK 4.77%
CADILLAC .66%
OLDSMOBILE 1.13%
GMC TRUCK & MISC. .49%

4662

Defendant's Exhibit (GM) No. 39

4 M 1

GENERAL MOTORS COMPANY

MEETING OF PURCHASING AGENTS

July 30, 1913

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Meeting held at offices of General Motors Company in Detroit at 1:30 P.M.

Present:

Messrs. H. L. Barton
E. J. Copeland
J. S. O'Rourke
L. M. Payne
A. A. Lehr
C. O. Miller
H. R. Viot

Mr. Copeland presided; Mr. Merrill recorded.

STANDARDIZATION OF CONTRACT AND INQUIRY FORMS—In view of the absence of Mr. Main, consideration of this matter was deferred until the next meeting.

CUTTING COMPOUNDS—Mr. Copeland stated that the 'Cadillac Special' compound had not as yet been tried out by the Buick Company. A trial will be made, however, in the near future and the result reported. A discussion was had as to the relative merits of the cutting compounds now being used at the various factories, viz, as follows:

Mystic (Cataract Refining & Mfg. Company, Buffalo)	Price 6¾¢
Cadillac Special (Cataract Refining & Mfg. Co.)	" 4½¢
White Star (White Star Refining Company, Buffalo)	" 4½¢

Mr. Payne stated that the 'Cadillac Special' compound had been tried at the Northway plant some time ago and had not proven satisfactory. The concensus of opinion was that the White Star compound does not give as satisfactory results as either of the other two, the objectionable features being pointed our specifically by Messrs. Copeland and Lehr. Mr. Barton stated that a chemical analysis of these compounds had been made in General Motors laboratory some time back. He submitted said analysis and pointed out the pertinent features of same. Judging from the analysis alone, the White Star compound would be the most desirable of the three, the other two being about equally efficient.

STANDARDIZATION IN STEEL AND SPECIFICATIONS FOR SAME—Mr. Copeland stated that, in line with the action taken by the Board of Purchasing Agents at its last meeting with a view to the adoption of a uniform system for numbering steel specifications and for numbering and painting steel stock, the matter had been referred to the Board of Managers for approval; that said Board had given its approval to the proposition and had directed Mr. Barton to have a plan prepared, said plan to be submitted to the Board at a subsequent meeting after obtaining the approval thereto of the various managers interested. Mr. Barton stated that Mr. Zimmerschied had some time ago formulated a plan which he considered a very meritorious one. Mr. Zimmerschied appeared before the meeting and explained his plan in detail, submitting blue prints by way of illustration. It was decided that a copy of these blue prints should be sent to each of the Purchasing agents, who would then take the matter up with the

4 M 2

parties in their respective plants interested in the proposition. The results are to be reported at the next meeting.

GILMER TIRE REPAIR PLIERS—Mr. Copeland stated that the Buick Company had taken this matter up with the Goodyear people with a view to having them furnish one of these tools as a part of the repair kit with each set of tires. No reply has as yet been received.

SHELF HARDWARE—Mr. Copeland stated that he had had a list prepared of standard shelf hardware, bolts, screws, nuts, etc. showing Buick's quotations on same and that a copy of the list would be sent to each of the Purchasing Agents within the next day or so. He also stated that, in line with the promise made at the last meeting, he had sent each of the Purchasing Agents a list showing Buick's arrangements with the people it buys from regarding terms and deliveries.

POLISHING MANIFOLDS — The last meeting developed the fact that the outside surfaces of intake manifolds are buffed and polished at the Buick, Oakland and Northway plants, but not at the Cadillac, the latter not regarding it as necessary, and it was decided that the matter should be looked into by the various Purchasing Agents with a view to having the practice discontinued if possible. Mr. Copeland stated that he had investigated the matter at the Buick plant and that it had been decided to discontinue polishing the manifolds on the trucks, but that it had not been definitely decided to discontinue polishing those on the pleasure cars. Mr. Payne stated that the Northway considered it advisable to continue the practice as it contributed to the good appearance of the motor and had certain other advantages. Mr. Miller stated that the Olds intends to enamel its manifolds. In view of these differences of opinion and practice, it was decided that the matter should be submitted to the Board of Managers for decision.

COLD ROLLED STEEL—Mr. Barton stated that he had received from the various Purchasing Agents lists showing the decimal sizes of C R steel stock used in their plants respectively.

DEFECTIVE ALUMINUM CASTINGS — The reports made relative to this matter showed that the necessary steps have been taken to insure a uniform practice in billing defective aluminum castings, that is to say, such castings returned are to be billed at their original weight instead of at their weight when returned.

4 M 3

BURROUGHS ADDING MACHINES—Mr. Copeland stated that a letter had been received from Burroughs Adding Machine Company offering to renew their arrangement with General Motors Company for a term of two years, that is, to July 11, 1915. It was decided to accept the proposition provided the arrangement is so worded as to cover only the requirements for *Burroughs* adding machines.

SUPPLIES—It was decided that at the next meeting each Purchasing Agent should be prepared to discuss the matter of miscellaneous supplies and should bring with him as full and complete data relative to this subject as possible.

No further business being presented, the meeting adjourned.

T. S. MERRILL,
Secretary.

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Defendant's Exhibit (GM) No. 40.

Harry A. Harnde

10-M-1

GENERAL MOTORS COMPANY

MEETING OF PURCHASING AGENTS

Nov. 5th, 1913

Meeting held at offices of General Motors Company in Detroit at 1:30 P.M.

Present:

Messrs. H. L. Barton
F. A. Cowen
W. N. Edson
V. E. Libby
J. H. Main
C. O. Miller
L. M. Payne
H. R. Viot
James Wilson

Mr. Main presided; Mr. Merrill recorded.

STANDARDIZATION OF CONTRACT FORMS — No action as yet by Board of Managers relative to this matter. Certain amendments to the form were suggested. As a result of the discussion which followed it was decided that said form should be amended in the following particulars:

1 - The second sentence of Paragraph 2 amended to read as follows:

> "The Seller agrees to increase or decrease deliveries as the Buyer may direct, upon receiving notice from the Buyer so to do."

2 - Paragraph 7 amended by adding at the end thereof the following:

> "No material rejected by the Buyer can be returned to Buyer without an order covering same."

3 - Present Paragraph 13 renumbered 14. 4 - New Paragraph numbered 13 as follows:

> "It is further agreed and understood that the constituent companies of General Motors Company are privileged to buy under this contract their requirements of the articles referred to therein upon the same terms and conditions and at the same price."

STANDARDIZATION OF STEEL AND NOMENCLATURE—No action as yet by Board of Managers relative to this matter.

10 M 2

GENERAL CONTRACTS—A discussion was had relative to the procedure to be followed in making general contracts to cover the requirements of all or a number of the companies on various items. As a result, it was decided that all contracts entered into by the companies respectively should, whenever possible, contain a provision giving any other constituent company the privilege of buying under said contract.

If at any time a Purchasing Agent finds that he can obtain a better price by contracting for a larger quantity than his own company's requirements he is to bring the matter up at a meeting of the Purchasing Agents in order to combine, if possible, his requirements with those of one or more of the other Companies to obtain the better price due to larger quantity.

MISCELLANEOUS SUPPLIES AND EXPENSE MATERIALS—Mr. Main stated that all of the lists had been received and that he expected to have a tabulated statement showing prices ready in time for the next meeting.

DRAWBACKS OF CUSTOMS DUTIES—Nothing further reported.

CUTTING COMPOUND—Mr. Wilson stated that he had nothing further to report at this time.

PATENT INFRINGEMENTS—Mr. Viot called attention to a circular letter received from the Automobile Chamber of Commerce under date of October 24th, 1913 suggesting the advisability of inserting certain phraseology in purchase contracts and orders for goods with a view to protecting members of the Association from charges of patent infringement or patent infringement suits where the alleged infringing device is not manufactured by the member. It appeared from the discussion which followed that all of the companies, with the possible exception of the Weston-Mott Company, already have a provision in their contracts and purchase orders covering this point and therefore that no further attention need be paid the communication referred to. Mr. Edson stated he would see that the forms used by the Weston-Mott Company are amended in this particular.

SURPLUS STOCKS—Reference was made to the fact that the lists of surplus stocks of materials and supplies vary so widely in the manner of their preparation, style of paper used, etc., that it is difficult to file them properly for ready reference. It was suggested that it would be well to have all of said lists prepared upon uniform blanks or style of paper and the information presented thereon according to some systematic method. Mr. Barton was appointed a committee of one to prepare such a plan and to have it put into operation.

SURPLUS STOCKS (SMALL TOOLS, TOOL STEELS, ETC.)—It was suggested that all surplus stocks of small tools, tool steels and items of that character be transferred from the various factories to the warehouse at Pontiac where they should be listed and copies of the list sent to each of the companies. It was the consensus of opinion that the plan suggested would greatly facilitate the movement of such surplus stocks and therefore should be put into operation. Mr. Barton was requested to take the matter up with Mr. Nash with a view to obtaining his approval to the plan and determining what surplus stocks should be so transferred, and to take any further steps that might be necessary to carry the plan into effect.

10 M 3

SURPLUS STOCKS (SCREW STOCK)—Mr. Edson stated that owing to certain changes in design the Weston-Mott Company has on its hands several tons of 7/16 screw stock, round, regular analysis which it would like to dispose of. He asked that the various Purchasing Agents look into the matter and utilize this stock if possible.

REDUCTION OF DUTY ON MATERIALS PURCHASED—Mr. Payne called attention to the fact that the new tariff law reduces the duty on a number of articles purchased by the constituent companies. He suggested that each purchasing agent obtain a copy of the law and make a careful study of same with a view to determining its effect upon articles in which they are interested.

GENERAL BUSINESS CONDITIONS—Colonel Metcalf made a brief analysis of general business conditions, based largely upon observations made on a recent trip through the south and other sections. He stated that the indications point to a slackening up of business during the coming months and recommended that a most conservative policy relative to purchasing be pursued. He dwelt at length and with considerable emphasis upon the large saving to the Company which can be effected by obtaining advance dating on goods purchased. Mr. Nash and Mr. M. J. Murphy spoke briefly along similar lines.

No further business being presented, the meeting thereupon adjourned.

T. S. MERRILL,
Secretary

Defendant's Exhibit (GM) No. 41

23 M 1

GENERAL MOTORS COMPANY
MEETING OF PURCHASING AGENTS
AUGUST 19, 1914

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Meeting held at Office of General Motors Company in Detroit, at 1:30 P. M.

Present:

H. L. Barton
W. N. Edson
J. H. Main
C. O. Miller
J. S. O'Rourke
L. M. Payne A
J. T. Wilson

Mr. Main presided; Mr. Merrill recorded.

ELECTRIC LAMPS - Mr. Main stated that the Cadillac Company had contracted with Bryan & Marsh of Chicago for tungsten and Mazda lamps. He stated further that the contract is available for all of the companies and that he would send a copy of same to each of the purchasing agents.

EUROPEAN WAR - The possible effects of the European war upon the automobile industry from the standpoint of the purchasing agents was referred to and discussed and the consensus of opinion was that the General Motors companies would not be handicapped or injuriously effected in any way by said war.

STOCK AT PONTIAC WAREHOUSE - It was suggested that the movement of the stock at the Pontiac warehouse would be greatly facilitated if each of the companies would send a man there every week or so to look it over. The Cadillac and Northway companies have adopted that practice with very gratifying results. It was agreed that each company should periodically send a man to look over said stock in order that it might be utilized to the greatest possible extent.

INQUIRIES - Several of the purchasing agents desired information relative to various items and the balance of the meeting was devoted to furnishing said information.

NEXT MEETING - It was decided that only one meeting would be necessary in September; same to be held on Wednesday, September 16th, at the usual place and hour.

Merrill
Secretary

Defendant's Exhibit (GM) No. 42

GENERAL MOTORS COMPANY
MEETING OF PURCHASING AGENTS
August 20, 1915

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Meeting held at the Office of General Motors Company, Detroit, Michigan, at 1:30 P. M.

Present:

J. H. Main
C. O. Miller
L. M. Payne
J. T. Wilson
Mr. Zimmerscheid

Mr. Main presided; Mr. Merrill recorded.

CASE HARDENING COMPOUNDS - The matter of a general contract on case hardening compounds was discussed. Mr. Main stated that a price had been quoted of $76.00 per ton, with a refund of $2.00 a ton on orders for more than five tons and that a better price could probably be obtained provided the Brown-Lipe-Chapin Company agreed to be a party to the arrangement; the above named price being based on an estimated annual consumption of 350 tons. It was decided to leave the matter open for the present. Mr. Main is to write Mr. Chapin regarding the matter and the party submitting the above prices is to again take it up with his people with a view to obtaining a further reduction.

TOOL STEEL - The matter of a general contract on tool steel was discussed and carried over to the next meeting for further consideration. The purchasing Agents were requested to advise Mr. Wilson promptly as to the amount of tool steel used by their respective companies during the course of the year.

Various other matters were discussed but no formal action was taken with relation to any of them.

NEXT MEETING - It was decided to hold the next meeting of the Board at the Office of General Motors Company on Friday, September 17, 1915, at 1:30 P. M.

There being no further business the meeting adjourned.

Merrill

Secretary

E.

Defendant's Exhibit (GM) No. 43

GENERAL MOTORS CORPORATION
1764 BROADWAY
NEW YORK, N.Y.

January 25, 1921.

To all General Officers and
General Managers of Divisions.

In connection with the tentative form of organisation recently adopted, the following appointment, with the duties designated, has been made.

Mr. A.B.C. Hardy - Director Purchasing Section -
Advisory Staff - Headquarters, Detroit, Mich.

Duties are specified as follows:-

1. To consider and make such general contracts pertaining to the purchase of materials, supplies and equipment, as in his judgment may be desirable and to the interest of two or more Operating Divisions. The use of such general contracts to be entirely at the option of the Operating Divisions and, when used, all dealings to be directly between the Seller and the Purchasing Division.

2. To have supervision over inter-divisional prices in an advisory way and empowered to take up and adjust all differences of every character whatsoever between Purchasing and Selling Divisions. To have the general responsibility of carrying out any or all policies adopted by either the Executive or Operations Committee in connection with inter-divisional dealings.

3. To represent the Corporation on any or all questions that may arise, of any kind or character, pertaining to purchase contracts where two or more Divisions are involved.

4. To develop co-operation between the Purchasing Departments of all Operating Divisions.

5. To investigate and submit recommendations to either the Executive or Operations Committees covering all purchase contracts which obligate the Corporation or any Division or Divisions to make part or all of its purchases against such contracts. All such con-

tracts must be approved by either the Executive or Operations Committee.

To assist Mr. Hardy it is suggested that you be good enough to forward to him any and all correspondence which you may now have in your possession or which may later come to your attention, pertaining to matters now coming under his jurisdiction. It would also be appreciated if you would refer to him anything that might be of interest to other Divisions in the above connection.

Kindly advise all Officers under your jurisdicdiction interested in the above.

Very truly yours,

VICE PRESIDENT.

A.P.S. Jr/K.

Defendant's Exhibit (GM) No. 44

MEMORANDUM OF MEETING HELD IN DETROIT, JUNE 23rd, 1921.

Present: C. S. Mott, Chairman,
P. S. du Pont,
J. A. Haskell,
G. H. Hannum,
H. H. Bassett,
K. W. Zimmerschied,
A. H. Sarver,
A. B. C. Hardy,
H. H. Rice,
W. L. Day,
N. A. Hawkins,
T. S. Merrill.

J. T. Ardis acted as secretary of the meeting.

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CONTRACTS:

Mr. Mott brought out the fact that General Motors Corporation has entered into various contracts with concerns, but the Divisions apparently do not know anything about these contracts and are therefore not availing themselves of possible opportunities to purchase more advantageously, etc. Particular attention was called to the Armstrong

Springs Company, which company has a contract to furnish 60% of General Motors springs and which company has borrowed $1,000,000. from General Motors.

It was agreed that Mr. Main should furnish the General Managers of the Divisions with two copies of all contracts affecting them, which General Motors Corporation has entered into.

Mr. Bassett recommended that the Division Managers recommend to their Purchasing Agents that they get together with Mr. Main, in Detroit, and discuss the matter of furnishing records, data, etc.

Defendant's Exhibit (GM) No. 45

MEETING OF CAR DIVISION MANAGERS WITH EXECUTIVE COMMITTEE.

A meeting of the Car Division Managers and Executive Committee was held in Detroit, Michigan, on Thursday, November 3rd, 1921, at 10:00 A. M.

Present:

Mr. C. S. Mott	Mr. W. L. Day
Mr. K. W. Zimmerschied	Mr. H. H. Rice
Mr. A. B. C. Hardy	Mr. P. S. du Pont
Mr. H. H. Bassett	Mr. J. A. Haskell
Mr. G. H. Hannum	Mr. A. P. Sloan, Jr.
Mr. C. F. Kettering	

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—4—

STANDARDIZING GENERAL SUPPLIES.

Mr. Sloan called attention to the economies that might be effected by the use of standard materials in various Divisions wherever profitable and, as an illustration, stated that the Steel Corporation had gone a long way in this matter by adopting, for example, a certain make of typewriter as standard and, by purchasing in quantities, their various Divisions and Subsidiaries secured the benefit of very low quotations. Mr. Main, who was called into the meeting, stated he is at work on this question and is making contracts for materials and general supplies at the lowest possible prices, so that the Divisions may avail themselves of quotations thereby secured. In some cases the contracts are for our requirements, while in others there is an obligation to give the suppliers a certain percentage of our business.

Mr. Sloan raised the point that it might be possible to secure lower prices if we obligated ourselves to give the suppliers a definite percentage of our business. Mr. Main advised that every effort will be used to secure the lowest possible quotation, with such obligation on the part of the Company as may be reasonable and necessary.

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Defendant's Exhibit (GM) No. 46

Memorandum

May 5, 1923

To Mr. Alfred P. Sloan, Jr.   Subject

I ran into an old friend, who is in the parts business, in Detroit on Thursday. As I have not seen him for many years, I do not think he even knew I was with the General Motors Corporation. We discussed the gradual reduction in parts prices and he stated that the parts men had a good chance to judge the ability of the purchasing agents of the various companies. He stated that in some cases where they are buying the same parts they have been buying for years, they keep ordering these parts at the same prices which ruled at the peak, while others who may be purchasing the same identical pieces, by being keener buyers, are able to buy same much cheaper.

He then stated that it was a strange thing to him but a large corporation like the General Motors apparently had not properly coordinated their purchasing departments, as he knew of cases where one division would be buying certain articles considerably cheaper than another division within the corporation.

I do not know, of course, whether these are the facts in the case. I understand that the corporation is gradually centralizing their purchases but as this will probably take considerable time, it occurred to me that such discrepancies as mentioned above, if they do exist, could be corrected if the purchasing agents would get together frequently and compare prices at which they purchase various classes of merchandise. Possibly they may be doing it now and this may have happened some time ago. I merely write you this for your information, in case it should not have been corrected.

P. S. Steenstrup

Defendant's Exhibit (GM) No. 47

REPORT TO: MR. C.S. MOTT, VICE PRESIDENT

FROM: J.H. MAIN

SUBJECT: PROPOSED CENTRAL PURCHASING DEPARTMENT.

By J.H. Main,
Director—Purchase Section.

Copy for Mr. A.P. Sloan, Jr.

February 6, 1922

NOTE: Illegible stamp appears in center of first page with two checks in lower right hand corner. In left hand corner appears the words "Copy for Mr. A. P. Sloan, Jr."

February
6th
1922.

Mr. C.S. Mott, Vice President,

SUBJECT: PROPOSED CENTRAL PURCHASING DEPARTMENT

A week ago Friday, Mr. Sloan was talking to the writer regarding the centralization of purchasing and requested him to submit to you proposals for establishing such a division.

There are two distinct plans that could be adopted for centralized purchasing, and are set forth on the attached sheets.

Respectfully submitted,

J. H. Main
Director — Purchase Section.

Italics indicate handwriting.

PROPOSAL #1

ELIMINATION OF ALL DIVISIONAL PURCHASING DEPARTMENTS BY CENTRALIZATION

This plan would be the centralization of everything purchased for all divisions under one head, or division, and would necessitate the elimination of all the divisional purchasing departments, and also of the formation of a central Accounts Payable Division to work in conjunction with the centralized purchasing division.

The personnel of the Central Purchasing Division would be made up of the speciality buyers in the several divisions and would reduce the number now engaged in carrying on the work by at least 50 per cent.

It would also give the Corporation the largest buying power possible and would insure more liberal savings on all its purchases.

Method of Procedure

Requisitions:

Requisitions are issued by the Plant or Department in triplicate on Form A. Triplicate copy is kept by the Plant or Department issuing requisition; original and duplicate copy are sent to the Central Purchasing Division for approval. This office retains the duplicate copy and sends the original to the Chief Clerk who causes same to be stamped for date and time of arrival, and then distributes the requisitions to the several purchasing agents. After the material is purchased, and the purchasing agents have noted on the requisition from whom purchased, prices and terms, the original requisition is sent to the order clerks for drawing order. When the order has been drawn, the order number is noted on the original requisition which is then sent to the Department Requisition Clerk and filed in a binder according to the requisition symbol, (designating plant or department issuing), and in sequence of requisition numbers, (for which each plant and department has a series).

Orders:

Orders are drawn in original and six copies; the original is sent to the vendor; order duplicate is kept by the Purchasing Department for checking and record billings, also as a permanent record; order triplicate is sent to the Accounts Payable Division and used by them in checking billing for material and freight charges. The fourth copy is sent to the Urger Section of the Purchasing Department for following up orders and urging shipments. Various colored signals may be used on the numbered margins of these copies to designate the urgency of each order. The fifth copy is for the records of the Central Office that approves the requisitions on which the order is based and serves as a notice to them that the order has been drawn. The sixth order copy is sent to the plant or department issuing the requisition, serving as a notice that order has been placed against their requisition. The seventh order copy is for the Traffic Department's records and is used by them in specifying to vendor routing to be given shipment.

Requisition and Order Alterations:

Should it be found necessary, after the requisition is issued, to alter or cancel it, an Alteration is issued in triplicate on Form B by the Plant or Department and distributed in the same manner as mentioned above for Requisitions. A Requisition Alteration, after proper notation by the interested Purchasing Agent has been received, he then issues Alteration Order in original and six copies and distributes these the same as a regular order.

—2—

Quotation Form:

When quotation is desired from a firm, a Request for Quotation, Form C, is issued in triplicate. The triplicate copy is permanently filed by the Purchasing Department and the original and duplicate are sent to the firm from which quotation is desired. They frequently quote by returning the duplicate with their quotation shown thereon.

Status of Order:

The plant or department issuing requisition is kept advised of the status of each corresponding order by the use of Form E by the Purchasing Department Urger Division.

Handling of Invoices in Purchasing Department:

It is specified on the reverse side of our order original that the vendor is to send invoice to our Purchasing Department. When received, all copies are back stamped with date and hour of arrival and sent to Purchasing Department Order File Clerk where the quadruplicate copy is detached and sent direct to the plant or department for which the material was ordered. Order duplicate is then attached to the original, duplicate and triplicate copies of invoice, and these papers are all passed on to the price checkers, contract clerk or price record clerk. Orders attached to invoices for shipments against contracts are recognized from the fact that each order against a contract has typed on the order duplicate "account contract." These order duplicates, with invoice copies attached, are passed on to the Purchasing Department contract clerk who checks the billing rendered for quantity, price and terms, record these on the contract sheets and on the back of the order duplicate, which is then detached for filing by order file clerk. Invoice is then approved and sent to the Accounts Payable Division. Invoices for shipments that do not apply under contracts are sent to Purchasing Department price checkers or price record clerk with corresponding order original attached, the price record clerk receiving directly from the order file clerk all invoices whose attached order duplicate bears a Purchasing Agent request that billing be permanently recorded on the price card for future reference and indirectly from the order file clerk, via price checkers, such invoices as the latter recognize as desirable for recording on the price cards. Invoices handled by the price record clerk are checked for quantity, price and terms, and these are recorded on price cards as well as on order duplicate, the latter being detached for filing, invoice approved and sent to the Accounting Department payable division. Invoices handled by price checkers are also checked for quantity, price and terms, recorded on order duplicate, which is detached for filing, invoice approved and sent to Accounts Payable Division.

The Accounting Department serially numbers the original, duplicate and triplicate invoice copies, using only one series of numbers for all invoices, check quantity billed against order triplicate they have on file, check extensions and note on all copies the proper account which the Cost Department should debit; retain duplicate copy as a permanent record. Triplicate copy is sent to the Cost Account Division where entry is made on the cost records, as per charge shown on this copy, and it is then destroyed. If the invoice is one from which cash discount is allowed for prepayment, or bears spot cash or ten days term, it is paid promptly and the original is sent to the plant or department for which material was ordered, checked and approved by them and returned to Accounts Payable Division which notes whether any exceptions have been made to the billing for quantity or quality. If it is found that the invoice original has been favorable approved, it is then sent to the Accounting Department for permanent filing. Should the plant or department take exceptions to the quantity or quality of material delivered, a claim is prepared by them in accordance with the facts and sent to the Central Office for adjustment. The original of an invoice from which discount is not allowed and on which we are allowed thirty days or longer for payment is sent directly to the originating plant or department for checking and approval as to receipt of material and to give them opportunity to take necessary exceptions to quantity or quality. After approval, it is returned to the Accounts Payable Division which makes payment in accordance with the terms noted thereon, after any claim that may have been made by the plant or department is adjusted. After payment, it is sent to the Accounting Department as permanent record.

Omission of Necessary Information from Invoices:

When an invoice is received with any of the information requested on the reverse side of the order original missing, Form E is used in returning invoice to the vendor for addition of the details omitted.

Advice to Accounting Department of Retention of Invoice:

Should an invoice be retained in the Purchasing Department beyond its due date, while awaiting additional information from the vendor, the Accounting Department is notified of this and the reason therefor.

Delinquent Billing:

Delinquent invoices are urged by the Purchasing Department using Form F. The general rule on urging billings is to list on this form each item remaining unbilled on any order prior to the current calendar month.

Return Orders:

When material is received by a plant or department otherwise than as ordered and cannot be used as received, permission is secured from the vendor to return the shipment and shipping instructions for its return are given to the plant or department on Form G. This form is issued in original and

seven copies and distributed according to notation on each copy. Upon return of one copy of this form to the Purchasing Department with B/L attached, credit invoice is secured from the vendor and upon receipt of this, credit invoice by the Purchasing Department it is recorded on the order duplicate and sent to the Accounts Payable Division, where it is handled as in the case of a debit invoice.

The forms mentioned in the above plan are the same as are now used by our several divisions. The only change necessary would be the standardization of these several forms when the present stock is used up.

This plan is now in operation by the following companies with certain detail modifications to dovetail in with their other departments but the general outline is identical:

Western Electric Company
U.S. Rubber Company
Standard Oil Company of New Jersey
New Jersey Zinc Company
The Barrett Company
Grasselli Powder Company
Armour & Company
du Pont de Nemours & Co.
Swift & Company
Standard Oil Company of New York
American Tobacco Company
Municipality of New York
The Proctor & Gamble Company.

In the event it is not desirable to have a central Accounts Payable Division, the above can be changed as far as the Accounting Department is concerned by allowing the Divisions to retain the invoices which are sent to them for the checking of quantities and specifications, and handling in the same manner as they are now doing at the present time.

In cases of discrepancies,—in quality or quantity, in the invoices, a notification form could be drawn up and mailed to the central organization for the correction of their records. This would in no way interefere with the general plan as outlined.

PROPOSAL #2

ENLARGEMENT OF PRESENT PURCHASE SECTION:

This plan would be an enlargement of our present Purchase Section with the necessary authority to carry on the work.

Method of Procedure

Standardization of Materials:

In order to make this plan workable, it would be necessary to establish a list of all standard materials to be contracted for. This could be accomplished by having each division make a list of all materials purchased during a period of 12 months. These lists from the several divisions would be sent to the Purchase Section to be analyzed and recompiled. All materials that are common in two or more plants, or materials of sufficient quantity, to warrant making a general contract, would be listed by the Purchase Section. The several Divisions then would be notified that on all future purchasing on such items would be handled by the Purchase Section.

Contracts:

Contracts on the listed materials would be made when favorable market conditions warranted or upon receipt of requisitions from the divisional purchasing departments. All contracts would cover the requirements of all divisions. Copies of such contracts made would be sent to the several divisions to specify against on their regular purchase orders.

Maintaining Divisional Departments with Reduced Forces:

Plan #2 would not eliminate the divisional purchasing departments but would merely reduce the number employed in these departments thereby effecting a saving in the personnel.

Personnel:

The personnel of the Purchase Section would be selected in the same

manner as outlined in plan #1.

The writer believes that either plan would accomplish the same purchasing power and savings to the Corporation.

Defendant's Exhibit (GM) No. 48

February 9, 1922.

Mr. J. H. Main, Director,
Purchase Section,
General Motors Corporation,
Detroit, Michigan.

My dear Mr. Main:-

Many thanks for your very kind study of February 6th with reference to purchasing activities, Advisory Staff. I have looked this thing over in a general way and fear as is often the case, that we did not start from a common understanding although I thought I made myself clear. However, no harm is done except that I want to correct a misapprehension which might lead to a lot of misunderstandings.

It was not my idea that we would in any sense centralise purchasing. As a matter of fact, it is ~~my~~ not idea that we centralise anything and I would hate to have anything that I said misconstrued into the thought that my mind is running that way for I say, frankly, it is not. I am not saying what my mind might do "x" years hence because we are all creatures of necessity and must change our viewpoint as the problem changes, but as things stand today I am not for that sort of thing. What I am for, however, most absolutely - and it was from that direction that I intended to approach the matter - is that everything should be done to capitalise to the benefit of the stockholders every advantage that lies to General Motors on account of the magnitude of its operations. A big institution as big as General Motors, in my judgment, is handicapped in some ways on account of its great size and the conflicting things which must be harmonised, all of which take time. There must, however, if we are going to exist, be assets to offset these liabilities, such as a better opinion when it is crystalized on account of the various viewpoints which are injected into the final decision and the advantage of mere size of which purchasing advantages is one. Therefore, what I intended to ask you was, how, in view of your experience in the post you are now holding, do you think we should capitalise the enormous purchasing power of General Motors to the end that we gain an advantage by a lower price consistent with all other things. Perhaps I should understand your study to indicate that there was only one way to do that and that was by centrally purchasing everything. If I am to understand that that is your viewpoint then if you will set me straight I will understand it and can proceed accordingly. On the other hand, if we started from the wrong base line then this

6702

will correct you and I will then ask you to submit, through Mr. Nott, another study setting forth what your idea would now be in view of this letter.

Thanking you in advance, I remain,

Very truly yours,

A.P.S.Jr./K VICE PRESIDENT.

c/c Mr. C.S.Nott

4500

Note: Illegible stamp appears in upper right.

Defendant's Exhibit (GM) No. 49

GENERAL MOTORS CORPORATION

DATE May 8, 1922.

No. 99.

SUBJECT PROPOSED PLAN FOR CO-ORDINATION OF GENERAL MOTORS PURCHASES.

To General Managers of Divisions.

COPIES FOR

General Operating Officers,
Financial Officers,
Directors Advisory Staff Section.

I am attaching the following:-

1. Copy of a statement which I have prepared covering what I believe is a practical plan to cover the above subject. I have gone into considerable detail because I thought it was best to put before the Corporation the reasons leading up to the particular program suggested.

My thought covering the steps in adopting this plan, will be substantially as follows:-

1. Would appreciate it if you would read this, making such criticisms and suggestions as you of course can make, turning these over to your Purchasing Department and asking that Department to amplify your criticisms and suggestions by others that they might make.

2. I will ask the Director of the Purchase Section, Advisory Staff, to contact with your Purchasing Department for the purpose of getting all the various viewpoints together in order to develop the best plan that we can at the moment, recognizing that even such plan will be subject to improvement from time to time.

3. In above manner the viewpoints of the whole Corporation can be collected in one place. We will then go over the matter in detail and submit a more definite and complete plan for final approval or further criticism.

Very truly yours,

A.P.S.Jr./K

VICE PRESIDENT.

NOTE: Handwritten signature Alfred P. Sloan.

PROPOSED PLAN FOR CO-ORDINATION
OF
GENERAL MOTORS PURCHASES.

I think that it will be generally recognized that the purchasing power of the General Motors Corporation as an institution has never been capitalized to the extent that it might have been or must necessarily be in the final analysis. This comes about through various reasons which need not be discussed here.

I believe it will be equally recognized that it is of substantial advantage to the Corporation to adopt some such plan. I am not in a position to state what saving would thus accrue to the Corporation. This would require quite a study and I do not know as there would be any particular advantage in having such a study made because it is so very obvious that the saving would be very large and well worth any expense incidental to same. My own viewpoint, based upon such rough figures as I have gone over, indicates a saving in a normal year's operation of not less than $5,000,000 and I would not be surprised if this even reached as much as $10,000,000. The Director of the Purchase Section, Advisory Staff, advises me that he feels that proper co-ordination of purchases on a suitable plan would result in savings all the way from 10% to 20%. I feel that this is entirely impossible. In any event, we all agree I am sure, that the savings are sufficient to justify us in testing out such a plan. It must be recognized that at the present time considerable quantities of our purchases, such as tires and to some extent our steel requirements and closed bodies, are co-ordinated so far as practical purposes are concerned and that these items would undoubtedly not be affected by any plan that could be developed.

Better prices would come about, as I see it, in perfectly logical and economic ways. The concentration of our purchasing power naturally means quantity and quantity means better prices. There are also other advantages that I can see. It may be possible to take such a large percentage of the output as an institution through concentration, that marked economies could be effected in the operation of that institution in which economies we would properly participate. The Ford Motor Company has very successfully capitalized its enormous purchasing power in this direction. A large volume of assured business to any manufacturer justifies the lowest possible price - even approaching cost - for the reason that the maintenance of the organization is assured and the balance of the business being smaller in volume, can easily be made to pay a return on the whole investment without an excessive sales price for the overhead is taken care of by a substantial volume of business such as one institution, like General Motors, can offer. This is particularly true, I believe, in times like these where the necessity of keeping the organization intact and the absorption of the overhead is the big problem that the manufacturer must face. Still again, a large volume means that a supplier properly identified with us can do many things to reduce cost of production which he can not afford to do if the business comes in small volume and the duration of it is uncertain. The proper co-ordination of purchasing and standardisation should result in a smaller number of sizes. It also means ability of one Division to help out another in an emergency and ability to use materials of both raw and expense character in other Divisions if one Division, through changes or otherwise, is no longer able to use same. It should also enable inventories to be kept at a minimum on account of quicker service on the part of suppliers who are furnishing the same thing to many Divisions and even the still further reduction of inventories by forcing suppliers to whom we are giving valuable business, to keep storehouses or points of contact with our Divisions available with supplies on hand to be taken as needed. In still other instances it should result in a better product. We all know how difficult it is in certain steels to obtain the right specifications, particularly when we are dealing with heat treatments. Co-ordination of such purchases should result in the high heats being taken by the Division requiring them; the lower heats likewise to the end that both Divisions profit and a better product results. In one instance in my experience I was able for years at a time to maintain carbons within five points by an arrangement like this. All the above are reasons outside of the principal one of a greater volume that will surely result in a more effective handling of the Corporation's business by a proper co-ordination of its purchasing power.

I feel further that the placing of specifications at certain times of the year and the most propitious time will result in our being able to take advantage of a better market and a greater appreciation of General Motors purchasing power on the part of large suppliers of raw material. I do not think it will be necessary to elaborate further on the tremendous advantages accruing to the Corporation by all these and many other factors.

THE PROBLEM PRESENTED.

The question of co-ordinating purchases may seem to be comparatively simple, but when one considers the extremely technical character of practically all the Corporation's product and recognises that we are dealing with many personalities and viewpoints developed through years of contact with certain products as compared with others, the problem naturally becomes one of greater complication. There are articles that the Corporation uses which are more or less of a technical character, and in order to get proper co-ordination a general agreement is essential that a specific article will be satisfactory for all and perform its functions as good as all the various products for which it is to be substituted. The problem, therefore, is two fold - to co-ordinate these different viewpoints into an agreement as to what is required and then to develop a contract predicated upon that agreement. As a matter of fact, the co-ordination and agreement as to the specifications is, in my judgment, the hardest part of the problem and must be taken up and can only be taken up one item at a time and each thrashed out individually. Naturally, some items require more consideration than others - some hardly any at all. Each one must be considered on its merits and specifications agreed upon before it becomes really a matter on which a contract can be based.

ONE PLAN THAT APPEARS PRACTICAL

Having reached the conclusion that the co-ordination or purchases will result in benefit to the Corporation and having some appreciation of the problem presented, I have attempted to fit a plan into the present Corporation's organisation, making as few changes and involving as little extra expense as may be necessary to obtain the desired result. I believe that the simplest way to present the subject is to define the duties of those parts of the organisation as they may be affected by the application of this particular proposition.

Duties of Director of Purchase Section, Advisory Staff. It would be the duty of the Purchase Section of the Advisory Staff to develop a list of articles in which co-ordination would be possible and profitable. The responsibility of this would be lodged definitely in this place. After any plan that might be adopted was in use for a sufficient length of time the Executive Officers of the Corporation would have a right to place the responsibility on the Purchase Section of the Advisory Staff for any shortcomings that might have developed on articles which were not co-ordinated and whichshould be co-ordinated. It would be the duty of the Purchase Section to develop the necessary contact, both personally and otherwise, with the Purchasing Departments of each Division in order to develop the necessary data upon which its recommendations would be based. It would further be the full responsibility of the Purchase Section to secure the necessary co-ordination from other Staff Sections.

Duties of other Advisory Staff Sections. It would be the duty of other Sections of the Advisory Staff to co-operate with the Purchase Section in the development of the necessary specifications to the end that the viewpoints of the different Divisions were properly co-ordinated into one set of specifications that would be common for all. It would be the duty, for instance, of the Manufacturing Section to contact with the Divisions to the end that an agreement was effected as to what constituted a proper specification for the particular article in question to the end that the Purchase Section would have a definite concrete proposition upon which a contract could be properly based. The same would apply to other Sections of the Advisory Staff.

One of the most important duties of other Advisory Staff Sections and of the Financial Staff also would be to determine that the source of supply was properly equipped both from the standpoint of finance facilities and personnel to properly assume any obligation that the Purchase Section might feel warranted in placing with such supplier. This would particularly apply where a considerable proportion of the Corporation's needs were, for the sake of reasons set forth in this program, concentrated with one source of supply.

Duties of General Executive Officers. While the responsibility for the whole program is lodged with the Purchase Section of the Advisory Staff, manifestly there may be instances where it would be impossible for that Section, through other Sections like the Manufacturing Section, to secure the necessary approval of a common specification or on a proper contract based on such specifications. Take the case, for instance, of leather belting. The Purchase Section is responsible for proper co-ordination leading to the development of a contract which means the most for the Corporation. In co-ordination with the Manufacturing Section it develops a set of specifications and perhaps other information incident to the subject. The Manufacturing Section takes up with the different Operations the development of a specification, if one is necessary, that will be satisfactory to all. In the event that one Operation disagrees and requires something special and the Manufacturing Section feels that their position is unreasonable, in that event that Section reports the matter to the next in line in authority to the end that a final agreement is effected which all can reasonably support. In the final analysis the Operating Vice President has the ultimate decision as to what is or is not to be used. Instances of this kind will hardly ever occur, but the contingency must be provided for.

I think that the above will outline the application of the plan to the organization as it now stands.

METHOD OF PROCEDURE.

The procedure in an individual case would be substantially as follows:-

1. The Purchase Section, Advisory Staff being charged with the full responsibility recognises an article such as leather belting as a desirable one to contract for in quantity, believing that a better price and other advantages will accrue from same. Recognising that there would be a difference of opinion among the Operating Divisions as to what leather belting should consist of, they ask the Manufacturing Section to develop a specification. The Manufacturing Section takes the matter up with the corresponding departments in each Operation and in the course of time works out a specification which, we will say, all but one Operation will support. That Operation perhaps feels, rightly or wrongly, that they need something special which prevents the full co-ordination of the Corporation on the particular article in question. It would be the duty of the Manufacturing Section in such event, to do everything it could to properly sell that Operation that they could and should use the standard specification. Failing to do so the Manufacturing Section would take it up with the next in line who would be the Vice President in charge of the Staff. That officer would take it up with the Operating Vice President who, after looking into the matter,

would make a decision which would be binding on all parties and would either modify the specification to conform with the objecting Divisions objections or require them to accept same or make an exception, all as his judgment dictated.

2. Having in that way come to a common agreement as to what constitutes leather belting, it would be the duty of the Purchase Section to effect a contract, developing into same all the advantages that their experience dictates that should accrue to the Corporation. They then would submit that contract to the Purchasing Departments of each Division in the hopes that it would be satisfactory. In the event that it was not satisfactory to one or more Divisions and in case the Purchase Section felt it was a proper contract as evidenced by the fact that it is satisfactory to the great majority of the Divisions, in such an event the procedure would be the same as outlined above to the end that ultimate co-ordination would be obtained and all would subscribe to the particular contract or that contract would be modified as the proper authority felt was desirable. Having arrived at that point then the Purchasing Departments of each Operation would, to all essential purposes, cease to contract for that particular commodity and that commodity would be taken up by the Purchase Section of the Advisory Staff and until further change was affected that Section would handle the contracting of that commodity exclusively for the benefit of and on account of the various Operating Divisions.

3. The Operating Divisions would use the contract as a general contract; would place orders against same; would liquidate the indebtedness caused by these purchases on their own account in the usual manner. It would make practically no difference in the functioning of the Purchasing Department of each Operation except that the initial placing of the contract through the necessity of co-ordination was removed from their province and became the duty and responsibility of the Purchase Section of the Advisory Staff.

4. In the case of contracts calling for rebates at the end of the month for the purpose of protecting prices or for any other purpose, such rebates should be handled by the Purchase Section, Advisory Staff, as might be worked out in each individual case and all such rebates would be credited through the General Office to the Division at the end of every month, not specifically but as a general sum. This would be desirable because to get the benefit of the lowest possible price objections are some times made on the part of the suppliers in disclosing that price. In this way the Divisions would get the full benefit of the reduced price by taking the adjustments as other income. While that method would, to a certain extent develop an incorrect cost of sales, the errors would be very small and such a method would be better probably than to deal with each individual item separately. In the event that the price made to the Corporation on any special contracts was an open one, the Purchase

Section of the Advisory Staff would have no duties to perform after having effected the contract in question.

5. In the event that it was necessary in order to insure the lowest possible price, to obligate the Corporation to take a specific amount of material from any supplier, such contract could only be entered into on the approval of the Operating Vice President. In the event, however, that such contracts call for an obligation, limited by a certain percentage of the Corporation's purchases without involving quantity, an agreement on the part of all Operations based on recommendation of the Purchase Section would be all that would be necessary to authorize the Director of the Purchase Section to effect such contract.

6. One of the most important considerations that not only the Purchase Section but other Staff Sections co-operating with same must determine is the ability of a source of supply to assume an obligation that might be placed with such source, having in mind the ability of that source to comply with delivery requirements. Manifestly, it is essential in order to capitalize to the fullest possible extent the Corporation's purchasing power, all as outlined in this program, that such power should be centralized in a limited number of places and as big units as possible and conversely, it must be recognized that in capitalizing the purchasing power in that manner, a liability is created to the degree that the supplier assuming the obligation may not be able to comply with same. In such a contingency the Corporation would be placed in a position where it would have to go on the market and purchase large quantities of material at a time perhaps when the market had considerably advanced, being penalized to that degree, but more important yet it might have difficulty in obtaining the necessary supplies at short notice and when suppliers were well filled up with specifications from other manufacturers and in that way its entire manufacturing program might be jeopardized with a loss many times greater than would be saved. It is manifestly impossible to lay down any fixed rule for the liability thus created could only be determined in each individual case and would be a summation of many factors such as nature of the material, number of sources of supply available, and innumerable others that would be unnecessary to mention. This phase of the program should be most carefully considered by the Purchase Section as it is from some standpoints more important than contract price and not only the greatest care should be exercised but the complete co-operation of other Staff Sections should be enlisted as well as the Purchasing Departments of the various Divisions and Subsidiaries having experience perhaps extending over years with one supplier and another to the end that the Corporation's interest is protected to the fullest possible extent.

I have not attempted in the above to go into any particular details as my intention is to submit the above to the various Operations for criticism and suggestions, believing that a result of the viewpoints thus gained a more definite form of treatment can be developed.

Alfred P. Sloan, Jr.,
Vice President.

BUICK MOTOR COMPANY 6712

INTER-ORGANIZATION LETTERS ONLY

Subject

Date 3-11-22

For attention of Mr. Alfred P. Sloan, Jr.,
Vice President,
General Motors Corporation,
New York, N.Y.

Dear Alfred:-

I enclose herewith suggestions of Mr. George Allen, our General Purchasing Agent, in relation to the proposed plan for co-ordination of General Motors purchases.

In addition to what Mr. Allen has written I feel, after having read your plan, that the principle of it is correct and will undoubtedly result in the saving of a great deal of money to the Corporation. I believe, however, care should be exercised in the development of the plan along the lines suggested by Mr. Allen, namely, that we should start on articles of more or less standard classification, such as he has recommended, and be careful about getting into manufactured production parts bought from outsiders until such time, anyway, as the plan is in good working order; then, and only at that time would we be in a position to determine just how many different things could be in a common sense sort of way gradually worked into the plan to the benefit of the Division and the Corporation as a whole.

In summing up the matter, I want you to know that I subscribe to the plan in general, if handled in a sensible, frank and co-operative manner with the personal contact of the Division Purchasing Agents and General Managers, which it is possible to get without any difficulty, and the whole result, I feel, will be most beneficial to the Corporation in every way.

Very truly yours,

President & General Manager.

HHB-m
ENCL.

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6713

BUICK MOTOR COMPANY

INTER-ORGANIZATION LETTERS ONLY

Subject Co-ordination of General Motors Purchases Date March 11, 1922.

For attention of Mr. H. H. Bassett:

I have read the proposed plan for co-ordinating of General Motors purchases, by Mr. Alfred P. Sloan, Jr., several times, have given it a great deal of thought, and have discussed it freely with the Buick Purchasing Staff.

There is very little that I can say regarding the advantages of such a plan without repeating what has been said by Mr. Sloan, as it is obvious that large savings are possible by such co-ordination. It is my thought that this will be accomplished to quite an extent by enabling the smaller Divisions of the Corporation to purchase their materials at prices which are obtainable by the larger Divisions, and undoubtedly there are many instances wherein the larger Divisions will also benefit by reason of the greater volume.

The only question in my mind is regarding the extent to which this plan may with safety be carried. I believe we need not fear a repetition of conditions which existed during 1919 and the first half of 1920, but the fact that the present situations will change and shortages of material again obtain, should not in my opinion be entirely lost sight of in this connection.

I assume that if this proposed plan is adopted, the tendency would be to make one Contract for each article selected where possible, in order to get full advantage of volume, as obviously any division of Contract and consequent reduction in quantity would, to the extent that such divisions are made, defeat the purpose of the plan. Therefore, the materials to be included in such general Contracts should be selected with great care, having in mind the possibility of obtaining such materials elsewhere on short notice should anything happen to prevent the contracting source from fulfilling its obligation in the way of supplying the materials in the required time. In my opinion it would be dangerous to make general Contracts for articles that are special to one Division, although articles of a similar nature but of different design are used by several Divisions. I refer particularly to manufactured materials for production.

4511

Subject Co-ordination of General Motors Purchases Date

Page 2 -

For attention of

If trouble developes with any article of this nature, (and with the great variety of materials used, trouble does develop frequently) and only one source of supply, it often would be impossible to correct the condition in time to avoid interruptions to our production; but in the meantime a second source can usually increase quickly and save delays and shut-downs. Experience has taught us that trouble may be expected at times from the most reliable of sources and this is especially true regarding manufactured articles, such as valves, springs, malleable castings, various stampings, etc. There are many other instances which might be mentioned, but I think these will serve to illustrate my point.

Sources of supply must also be thoroly investigated with reference to their ability to serve the Corporation's needs at all times.

Raw materials and standard parts are, in my opinion, much more suited to this plan. A number of such items are already covered by General Motors Contracts.

I am listing below a few items which I believe could be so covered with safety, and undoubtedly with large savings to the Corporation.

Pig Iron
Steel - All kinds
All Non-Ferrous Metals
Oils - All Kinds
Lumber
Coal
Coke

Leather Belting
Top & Trim materials
Hair
Glue
Pipe & Fittings
Various Tools
Sand

and many others of more or less standard nature.

Up to the present time such progress as has been made has been by the Director of Purchase Section Advisory Staff taking up with Purchasing Agents of the various Divisions, who in turn must sell their manufacturing departments. The proposed plan of having the Manufacturing Section take up with manufacturing departments of Divisions appeals to me as an improvement and one that will bring quicker results.

Yours very truly,

Geo. S. Allen

General Purchasing Agent

4512

Defendant's Exhibit (GM) No. 51

GENERAL PURCHASE PLAN

April 13, 1922.

Mr. J. H. Main, Director,
Purchase Section,
General Motors Corporation,
Detroit, Michigan.

My dear Mr Main:-

When I was in Detroit last week you recollect I had a little talk with you relative to a more definite program for capitalizing General Motors purchases and I told you that some weeks ago I had worked out something that I propose sending out to all the Division Managers in order perhaps to have the thing in little more definite shape which I think you believe is desirable.

I submitted this program to Mr. Bassett and received his comments, through Mr. Allen, Buick Purchasing Agent. Mr. Allen seemed to be in accord with the whole program and simply pointed out, very properly so, the importance of dealing with sources of supply that were reliable and that would not go back on us in times of stress. This, of course, is just as important a phase of the situation as the question of getting the right price.

For your information I am enclosing herewith the following:-

1. Copy of the program which I laid down.
2. Copy of letter which I propose sending to General Managers of Divisions.

You see I have approached this matter in rather a conversational way because I thought that it would be well in setting the plan up to have the reasons pretty well laid down for I believe that the reasons are so apparent that no reasonable man could possibly fail to see the absolute necessity of doing just exactly what we propose doing even if the particular way of doing it should be modified.

My thought would be to send copy of this to the General Manager of each Division and ask him to look it over and take it up with his Purchasing Agent and any comments that the General Manager might want to make would be made through his Purchasing Agent. You would then contact with the Purchasing Agent and either adopt this plan or modify it, as you might elect. What I want to do is to feel assured that you as the Director of Purchase Section have the necessary authority to capitalize General Motors purchasing power to the fullest possible extent. It is a very important thing and something we have not fully appreciated or made effective and rather than have it drag along and perhaps take five years to work out, I would like to hasten the ultimate end, if I possibly could. Therefore, if this plan goes through, I should feel that you were responsible for putting this thing across and if anything comes about that will prevent you from doing so, it will be up to you to take it up with me.

Will you please, therefore, as the next step, after having gone over these papers, advise me that they are satisfactory or submit such modifications as you think should be essential, either as to the way I presented the matter, the facts in the case as developed or the method of having it adopted by the Corporation.

Very truly yours,

A.P.S.Jr./K

VICE PRESIDENT.

Encs.

Defendant's Exhibit (GM) No. 52

The Dayton Engineering Laboratories Co.
Dayton, Ohio

May 16, 1922.

Mr. Alfred P. Sloan, Jr., Vice President,
General Motors Corporation,
New York City.

My dear Mr. Sloan:

Your General Letter No.25, May 8th, presenting plan for coordination of General Motors purchases, is received.

I have gone over this carefully with our Supervisor of Purchases, Mr. Cromer, and there does not seem to be anything in it that conflicts with our present plan of operation.

Yours very truly,

THE DAYTON ENGINEERING LABORATORIES CO.

G. B. McCain
Treasurer.

gbm-b

Defendant's Exhibit (GM) No. 53

CADILLAC MOTOR CAR COMPANY

DETROIT, MICHIGAN

May 15, 1922

Mr. Alfred P. Sloan, Jr.,
General Motors Corporation,
224 West 57th Street,
New York City.

Dear Mr. Sloan:

Acknowledging your circular letter No. 25 on the proposed plan for co-ordination of General Motors purchases, would you please send me another copy.

I am very glad you are approaching the subject by offering the matter for discussion before adoption.

I have always been very keen for a co-ordination of purchases but I have seen the evils of carrying it too far when the American Bicycle Company attempted it, and the experience of the General Motors itself was disastrous. Neither of these was attempted in the right way but I believe can be done by the General Motors now.

But the fact that others have failed indicate, I think, that we should go slowly and only as fast as the way is quite clear.

Yours very truly,

H H Rice

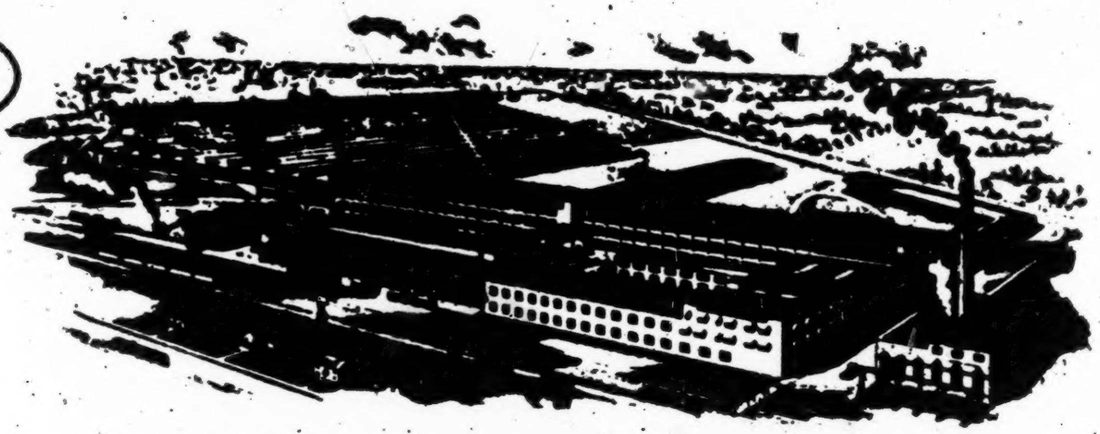
General Manager.

HHR:J

Defendant's Exhibit (GM) No. 54

GMC
TRUCKS

CABLE ADDRESS
GENTRUCK
PONTIAC, MICH.



GENERAL MOTORS TRUCK COMPANY
DIVISION OF
GENERAL MOTORS CORPORATION

PONTIAC, MICHIGAN

ADDRESS ALL CORRESPONDENCE
TO THE COMPANY

May 17th, 1922

Mr. Alfred P. Sloan, Vice President,
General Motors Corporation,
New York City.

Dear Mr. Sloan:-

We have gone over your proposed plan for co-ordination of General Motors purchases, and not only agree with it and see nothing wrong in the plan outlined, but we feel like complimenting you on the painstaking care you have used and on the diplomatic manner in which you have put together the first comprehensive plan for co-ordination of purchases that we have ever seen.

You will have in this as in all things for the betterment of the Company's interests our best co-operation.

Very truly yours,

General Manager

WLD

Defendant's Exhibit (GM) No. 55

SAMSON TRACTOR COMPANY
DIVISION OF GENERAL MOTORS CORPORATION
JANESVILLE, WISCONSIN

May 22, 1922.

Mr. Alfred P. Sloan, Jr.,
General Motors Corporation,
New York, N. Y.

Dear Mr. Sloan:

Replying to your general letter #25, dated May 8, 1922, in reference to the Proposed Plan for Co-Ordination of General Motors Purchases.

After passing this plan over to our Purchasing Department to read over carefully, they have no suggestions to offer and believe it will work out very satisfactorily with us and we would be more than pleased to cooperate to the best of our ability if it is put into effect.

If Mr. Main should ask us for any detailed information on this subject, we will be pleased to collect it and send it on. Up to the present time we have not heard from him.

Yours very truly,

J. A. Craig
General Manager.

JAC-F

I can assure you that with the exception of these two items, which I suggest are not included for consideration, we will be glad to cooperate and take advantage of the scheme.

Yours very truly,

HARRISON RADIATOR CORPORATION

President.

HCH:M

Defendant's Exhibit (GM) No. 56

HARRISON RADIATOR CORPORATION.
LOCKPORT, NEW YORK.

Herbert C. Harrison

6721

May 24th, 1922

Mr. A. P. Sloan, Jr.,
General Motors Corporation,
New York City.

Re Proposed Plan for Co-ordination of General Motors Purchases: General Letter No. 25.

Dear Mr. Sloan:

I have carefully read over the statement which you mailed me under date of May 8th, relative to General Motors purchases. I have also had our purchasing department go over this, and have talked it over with them.

The plan outlined would be entirely satisfactory to this Division, and I have no doubt in many cases some saving could be affected, where material which is very widely used is comprised. I would personally doubt whether the actual net saving to the Corporation will ever be nearly as large as the figures indicate, since, in order for the scheme to function, in the case of all small transactions a very considerable overhead will be involved, which will never be charged against the purchase of the particular article; and for this reason we will not know actually the cost of small purchases.

There is, of course, no doubt whatever in my mind that in particular cases, such as steel, coal, and possibly such supplies as belting, considerable saving can be effected.

In so far as the plan affects this division, I would not wish the purchase of our principal raw material, brass and solder, to be included, unless it were shown that these items were largely used by other divisions, which I think is not the case. I do not believe any saving could be effected by centrally purchasing either of these materials, in view of our experience and the fact that we have been large buyers of both for a number of years. The only other division which uses these materials in quantity is probably the Buick, and I am hoping that some day we will take over the Buick core business and concentrate the manufacture of radiaters here, inasmuch as we can doubtless save the Buick money over their cost, and produce at a considerable profit to this division.

Defendant's Exhibit (GM) No. 57

CHEVROLET MOTOR COMPANY
DIVISION OF GENERAL MOTORS CORPORATION
GENERAL MOTORS BUILDING
DETROIT, MICH.

May 27th, 1922.

Mr. A. P. Sloan, Jr.,
General Motors Corporation,
New York, N. Y.

Dear Mr. Sloan:

With reference to your letter of May 5th, Number 23, I attach hereto our Purchasing Department's comments on the subject of Co-ordination of Purchases.

It is my opinion that the plan, for the present, should be confined to articles standardised for use by all groups, and that the subject of car parts should be approached carefully, it being a fact that past general contracts for automobile material have proved a drawback rather than an advantage during this past year.

Very truly yours,

WSK/c

6724

COPY.

May 24th, 1922.

MEMORANDUM Mr. W. S. Knudsen.

I am returning to you Mr. Sloan's proposed plan for the co-ordination of General Motors purchases. I wish to make the following comments:

I believe it would be wrong for the Purchase Section of the Advisory Staff to purchase car parts for any Division for the reason that different grades of material enter into cars which are manufactured and sold by the General Motors Corporation, from $525.00 to $3500.00 or more. I feel that some Divisions use different grades of Carriage Bolts, Machine Bolts and other small parts, and I know that the Chevrolet Motor Company could not afford to use Cadillac or Buick specifications on these parts as it would work a hardship on them as far as price is concerned.

Non-productive material such as Taps, Dies, Drills, Reamers, Sand-Paper, Masda Lamps, Coal, Pig Iron, etc. could be handled by the Advisory Staff as all Divisions of the General Motors use practically the same item in their plants.

If it is decided that all purchases of certain items should be made by the Purchase Section of the Advisory Staff, I believe the Purchasing Agents of the Cadillac Motor Co., Buick Motor Company, Olds Motor Works, Oakland Motor Car Company, and the Chevrolet Motor Company should meet with Mr. Main and discuss the concerns with whom he is thinking of doing business, regarding quality of material and whether or not they can take care of the combined General Motors on deliveries. There are certain companies who have been doing business with the Chevrolet Motor Company for years and we know they will take care of us to the detriment of others outside of the Corporation, for the reason that they prize our business very highly on account of the volume. I know that certain specifications that we have on certain products at the present time are entirely satisfactory to the Management, and we could not afford to go to a better specification if such were required by other Divisions in the General Motors, as we cannot increase the price of products entering into Chevrolet cars at the price for which we are now selling same, viz. $525.00.

If it is decided that we are to operate through the Purchase Section of the Advisory Staff, I want you to know that I will co-operate to the fullest extent. The above comments are only made with the idea of placing the Chevrolet Motor Company in the right light before the Advisory Staff as our position, producing a low priced car at the rate of one thousand per day, is very different from the conditions which exist in other General Motors companies with manufacture higher-priced cars.

D. P. O'KEEFE,
General Purchasing Agent.

4522

Defendant's Exhibit (GM) No. 58

CABLE ADDRESS "DELCOLIGHT" TELEGRAPHIC CODES WESTERN UNION A B C 5TH EDITION, LIEBERS STANDARD

DELCO-LIGHT COMPANY
DAYTON, OHIO U.S.A.
Subsidiary
General Motors Corporation

DELCO-LIGHT COMPANY
ELECTRIC LIGHT AND POWER PLANTS, WATER SYSTEMS
FRIGIDAIRE AND OTHER ELECTRIC DEVICES
DAYTON, OHIO, U.S.A.

June 12, 1922.

General Motors Corporation,
Detroit, Michigan.

Attention - Mr. Alfred P. Sloan, Jr.

Dear Mr. Sloan:-

Your "Proposed Plan for Co-ordination of General Motors Purchases" has been studied by those members of our organization who would be affected or interested by it. Their remarks and criticisms have been used in writing the paragraphs which follow.

The unanimous opinion of this organization is that properly co-ordinated buying under the direction of one central head should result in considerable savings on purchase prices, securing uniformly high grade materials and also preference on deliveries.

From previous contact we have had with the General Motors and S.A.E. standards committees, we believe that you will find the Delco-Light Company one of the easiest of the subsidiaries to standardize in the way of material specifications. We owe this to the excellent assistance and cooperation we have had from the General Motors Laboratories at Moraine City in the development of our specifications.

You have asked us for criticisms and suggestions on the proposed co-ordination plan but, as we are not offering any solution for many of the questions which have occurred to us and as no doubt these same problems will be cleared up in the plan as revised by you, we are simply putting these questions down here as they occurred to us.

1. "Where a considerable proportion of the Corporations needs were . . . . concentrated with one source of supply."

After a contract has been placed with one central source of supply for one particular material, how would the question of future orders to separate users be handled? With all chance of further competition eliminated, the possible tendency of the source of supply would be to favor the big user and pay little attention to the needs of the small user. What recourse would this latter consumer have to get attention if he cannot go to another source for better attention?
such as Delco — user such as Buick

Another possibility under this heading is that this source of supply has allotted almost their entire normal output to a group of consumers. With an unexpected increase in orders to this source, their possible output will be exceeded so that one or maybe all of their customers will be slighted without the recourse to another source.
in the balance of Gen. Motors companies

To prevent such a condition, will it not be necessary for the General Motors central office to be continually checking the volume of orders going to a source and determining that this source can still supply the entire amount as at the time the contract was let? With increased schedule requirements, who will have the authority as to where to place additional orders?

2. "Then the Purchasing Departments of each operation would, to all essential purposes, cease to contract for that particular commodity".

The question arises as to the possibilities of buying this material where it might occur that, owing to peculiar local conditions, a lower price than the contract price could be secured.

Then too, what could be done in an emergency where this same commodity could be purchased from a local or more available source of supply as a temporary or emergency measure? This, then, brings up the question as to what constitutes an emergency.

"Many of the salesmen with whom we deal have become so much a part of our organization that they take a very personal interest in helping us out of the difficulties which are bound to show up. While we realize the value of large contracts from a money saving standpoint, we would regret losing the favoritism which is quite often shown us and which is very necessary in an organization which is trying to keep as low an inventory as we are.

3. "To obligate the Corporation to take a specific amount of material from any supplier".

Does this mean that the separate operating Divisions can be obligated to take a certain quantity of material as contracted for by the central Purchase Section?

The Delco-Light Company operates under a budget system of buying where we anticipate our needs for a four months period, and we believe that this is the longest time ahead for which we can correctly estimate. Will the placing of general contracts from a central office, and particularly those obligating a certain consumption, necessitate anticipating farther ahead than this four months period?

In order to adhere very closely to a "two months inventory", we have tried to select our various sources near to our factory for the purpose of securing quick deliveries. Would centralized buying require that we carry a larger stock of raw materials?

4. During the few years of developing Delco-Light products to their present high standard, the local foundries and manufacturers have been a great help to us in obtaining and maintaining first class castings, forgings and the like.

Representatives from these concerns are constantly in touch with us and at our service within several hours notice. This enables us to control this incoming material so closely that the producers are never unaware of our troubles. With products developing as rapidly as ours are and where so many Engineering changes are being made, this is very necessary to maintain a steady production.

We can readily see the advisability of obtaining standard parts from a central foundry or forge shop but we question losing the personal touch where special work is required.

The above paragraphs show briefly, without any attempt at a solution, the questions which have occurred to us. We will be interested in hearing further from you on this subject and we wish to assure you that you will have the whole hearted support of this organization in developing and sustaining such a system.

Yours very truly,

DELCO-LIGHT COMPANY,

R H Grant

General Manager.

RHG:MS

Defendant's Exhibit (GM) No. 59

6728

REMY
ELECTRIC DIVISION
GENERAL MOTORS CORPORATION
STARTING - LIGHTING - IGNITION

ADDRESS
MCO

FACTORIES & GENERAL OFFICES
ANDERSON, INDIANA
U S A

June 27, 1922

Mr. A. P. Sloan, Jr.,
Vice President,
General Motors Corporation
New York City.

My dear Mr. Sloan:

While in Detroit recently I had a talk with Mr. Main in regard to the proposed co-ordination of General Motors purchases as outlined in your General Letter No. 25.

As outlined by Mr. Main, this covers the contracting of materials which are used by the majority of the General Motors Divisions, thus securing the best price due to the increased volume of material which can be contracted for.

I understand that Mr. Main does not contemplate making any contracts for materials which are special in nature to the various Divisions.

I believe that much good can be accomplished by such co-ordination of purchases and will be very glad to give the plan our thorough support.

✓

Very truly yours,

I J Reuter 4526 ✓
General Manager.

IJR..DRP

E

Defendant's Exhibit (GM) No. 60

6729

OAKLAND MOTOR CAR COMPANY
DIVISION OF GENERAL MOTORS CORPORATION
AUTOMOBILE MANUFACTURERS
PONTIAC, MICHIGAN

Aug. 7th,
1922.

Mr. A. P. Sloan, Jr., Vice President,
General Motors Corporation,
224 W. 57th St., N. Y.

Dear Mr. Sloan:

In answer to your General Letter #25 - Subject: "Proposed Plan for Co-ordination of General Motors Purchases"

After giving this considerable thought, I want to say that I am for the plan 100% - for the making of blanket contracts to be specified against by the various Divisions, for such standard materials as steel, iron, coal, coke, oils and greases, in other words, all material and supplies that are of a standard nature and used by all Divisions.

The products of the various General Motors Divisions are so varied, from the Cadillac to the Chevrolet, that in trying to centralize the purchases for such materials going into these products, I can see nothing but confusion.

It would seem to me that we could lay out a schedule covering a number of items which would show a good saving to the Corporation to contract for them from one source.

I am also enclosing herewith letter from our Purchasing Agent together with letter from our Comptroller on the same subject, which may be of interest to you.

Very truly yours,

Geo H. Hannum

General Manager,
OAKLAND MOTOR CAR COMPANY,
Div. General Motors Corporation.

GHH
LMJ
CC - Mr. J. H. Main.

OAKLAND MOTOR CAR COMPANY.
Div. General Motors Corporation.

6730.

For the attention of Mr. G. H. Hannum. June 1st, 1922.

Relative to the plan for centralizing General Motors purchases.

The question of price is not the only one that enters into successful buying. From experience which the General Motors had with a similar arrangement some years ago it was found that the advantage derived were offset by troubles encountered.

The ability to produce at the time the product can be marketed is of vital importance. If any plan can be worked out that does not endanger this and does not remove the responsibility for production from the shoulders of the Manufacturing Division and place it on that of an organization outside of the factory it will merit careful consideration; it is found that any short comings in any particular unit can be charged and not successfully disputed to delays in securing material due to the fact that the centralized organization has control of the supplier and does not rest with the factory. This will happen whether it is the true reason or not due to the fact that delays in securing material are frequent. There are so many elements entering into such a plan that about the only way to successfully argue against it is to urge its adoption as the troubles encountered in actual practice are more convincing than any written objections could possibly be.

The Ford Motor Company as organized cannot be used as a comparison their layout is much different than that of the General Motors.

The following contingencies, among others, should be considered.

Geographical location.

Changes in specifications. Changes frequently must be made and made quickly. This involves changes in price, disposition of fabricated material, new tools, speed in new production, etc.

Defective materials. Difference in opinion frequently arise when material is returned to supplier to be reworked. In case of dispute who will act as referee? How much will production suffer in the meantime?

Changes in schedule.

Materials satisfactory to one factory impossible for another due to difference in standards.

Sheet 42.

The whole problem hinges on loss of control by the factory over conditions which vitally effect it; it leaves the responsibility for the production with the factory and the authority covering the most important element entering into production under the control of others.

Signed - C. O. Miller.

PURCHASING AGENT
Oakland Motor Car Company
Div. General Motors Corporation.

COPY

Defendant's Exhibit (GM) No. 61

GENERAL MOTORS CORPORATION

Date November 28, 1922.

No. 72.

Subject Purchase Plan.

To General Managers of Divisions.
General Operating Officers.
Financial Officers.
Directors Advisory Staff Sections.

Copies for

Referring to my General Letter No. 25, dated May 8, 1922, at which time I submitted a Purchase Plan and asked for consideration to same, would advise that the matter has been gone over carefully by all Divisions and the Purchase Section of the Advisory Staff has contacted with all Divisions, and I believe there is a general feeling that the time has arrived when we should proceed more energetically in the direction outlined.

A number of suggestions have been developed and one fundamental change has been worked into the plan as a result of these suggestions, same being the placing of the responsibility of the work in the hands of a Purchase Committee representing all phases of the Corporation's activities, which will function for the purpose of coordinating and capitalizing the large amount of experience, knowledge and ability among the various Divisions. A revised plan is submitted herewith embodying the above additional feature. In view of the fact that this change while somewhat fundamental will, I am sure, be subscribed to by all, it has been decided to go ahead without further delay. The President will appoint, in due course, the Committee referred to.

The plan as outlined, will necessarily be modified from time to time as experience is gained. In order that the time of the members of the Committee may be conserved, all communications, including suggestions or criticisms, should be directed to the Secretary.

Very truly yours,

Alfred P. Sloan, Jr.
Vice President.

A.P.S.Jr./K

Note: Signature of Alfred P. Sloan Jr. appears after "Very truly yours,".

Defendant's Exhibit (GM) No. 62

PLAN FOR CO-ORDINATION
OF
GENERAL MOTORS PURCHASES.

Corrected to Dec. 1, 1922

GENERAL MOTORS CORPORATION
PLAN OF CO-ORDINATION
OF PURCHASES

I think that it will be generally recognized that the purchasing power of the General Motors Corporation as an institution has never been capitalized to the extent that it might have been or must necessarily be in the final analysis. This comes about through various reasons which need not be discussed here.

I believe it will be equally recognized that it is of substantial advantage to the Corporation to adopt some such plan. I am not in a position to state what saving would thus accrue to the Corporation. This would require quite a study and I do not know as there would be any particular advantage in having such a study made because it is so very obvious that the saving would be very large and well worth any expense incidental to same. My own viewpoint, based upon such rough figures as I have gone over, indicates a saving in a normal year's operation of not less than $5,000,000 and I would not be surprised if this even reached as much as $10,000,000. The Director of the Purchase Section, Advisory Staff, advises me that he feels that proper co-ordination of purchases on a suitable plan would result in savings all the way from 10% to 20%. I feel that this is entirely possible. In any event, we all agree I am sure, that the savings are sufficient to justify us in testing out such a plan. It must be recognized that at the present time considerable quantities of our purchases, such as tires and to some extent our steel requirements and closed bodies, are co-ordinated so far as practical purposes are concerned and that these items would undoubtedly not be affected by any plan that could be developed.

Better prices would come about, as I see it, in perfectly logical and economic ways. The concentration of our purchasing power naturally means quantity and quantity means better prices. There are also other advantages that I can see. It may be possible to take such a large percentage of the output of an institution through concentration, that marked economies could be effected in the operation of that institution in which economies we would properly participate. The Ford Motor Company has very successfully capitalized its enormous purchasing power in this direction. A large volume of assured business to any manufacturer justifies the lowest possible price - even approaching cost - for the reason that the maintenance of the organization is assured and the balance of the business being smaller in volume, can easily be made to pay a return on the whole investment without an excessive sales price for the overhead is taken care of by a substantial volume of business such as one institution, like General Motors, can offer. This is particularly true, I believe, in times like these where the necessity of keeping the organization intact and the absorption of the overhead is the big problem that the manufacturer must face. Still again, a large volume means that a supplier properly identified with us can do many things to reduce cost of production which he can not afford to do if the business comes in small volume and the duration of it is uncertain. The proper co-ordination of purchasing and standardization should result in a smaller number of sizes. It also means ability of one Division to help out another in an emergency and ability to use materials of both raw and expense character in other Divisions if one Division, through changes or otherwise, is no longer able to use same. It should also enable inventories to be kept at a minimum on account of quicker service on the part of suppliers who are furnishing the same thing to many Divisions and even the still further reduction of inventories by forcing suppliers to whom we are giving valuable business, to keep storehouses or points of contact with our Divisions available with supplies on hand to be taken as needed. In still other instances it should result in a better product. We all know how difficult it is in certain steels to obtain the right specifications, particularly when we are dealing with heat treatments. Co-ordination of such purchases should result in the high heats being taken by the Division requiring them; the lower heats likewise to the end that both Divisions profit and a better product results. In one instance in my experience I was able for years at a time to maintain carbons within five points by an arrangement like this. All the above are reasons outside of the principal one of a greater volume that will surely result in a more effective handling of the Corporation's business by a proper co-ordination of its purchasing power.

I feel further that the placing of specifications at certain times of the year and the most propitious time will result in our being able to take advantage of a better market and a greater appreciation of General Motors purchasing power on the part of large suppliers of raw material. I do not think it will be necessary to elaborate further on the tremendous advantages accruing to the Corporation by all these and many other factors.

THE PROBLEM PRESENTED.

The question of co-ordinating purchases may seem to be comparatively simple, but when one considers the extremely technical character of practically all the Corporation's products and recognizes that we are dealing with many personalities and viewpoints developed through years of contact with certain products as compared with others, the problem naturally becomes one of greater complication. There are articles that the Corporation uses that are of such a technical character that in order to get proper co-ordination a general agreement is essential that any specific article will be satisfactory for all and perform its functions as well, if not better than any of the various products for which it is to be substituted. The problem, therefore, might be divided into two steps:-

(a) To co-ordinate the different viewpoints into an agreement or specification as to what will satisfactorily answer the purposes of all,

and

(b) To develop a contract, all the conditions of which, price, terms, deliveries, etc. will be the best that can possibly be obtained.

Dealing with "a" it is believed that the co-ordination and agreement as to the specification will present the hardest part of the problem and must be taken up and can only be taken up one item at a time and each thrashed out individually. Naturally, some items will require more consideration than others; some hardly any at all.

Aside from the necessary consideration from the technical standpoint of each of these items, there comes the very important consideration of what might be called the psychology of the situation. I mean by this, the determination of the actual facts in each case as distinguished from the perfectly natural hesitancy of making any change which always exists in dealing with any product and organization which has given successful service for a long term of years. It is difficult, dealing with many different personalities in a large organization, to recognize that a different article may give equally good, if not better, satisfaction. There is no question, however, but what all these and many other points that need not be mentioned, can and will be readily overcome if there is underlying the whole plan a recognition of the fundamental advantages accruing to the Corporation by standardization and the co-ordinated purchase of such materials as can properly be co-ordinated.

Dealing with "b" it is not believed that any great difficulty arises. It is simply a question of obtaining the best price possible and developing a plan that accomplishes that result in the most feasible manner. With "a" taken care of "b" becomes more or less a matter of routine.

ONE PLAN THAT APPEARS PRACTICAL.

Having reached the conclusion that the co-ordination of purchases will result in benefit to the Corporation, and having set forth some of the factors involved in the problem presented, I have attempted to fit a plan into the present Corporation's organization, making as few changes and involving as little additional expense as is necessary to obtain the required result. I have also attempted, in the development of this plan, to recognize the fundamental principle that there is a tremendous amount of ability and experience in the Purchasing Departments of the different Divisions and Subsidiaries which should and must be capitalized to the good of the Corporation as a whole and if the best efforts of each and every individual Purchasing Agent can be co-ordinated, great benefit to the Corporation must necessarily result therefrom. I believe that the simplest way to present the subject is to define the duties of those parts of the organization as may be affected by the application of this particular proposition.

Before doing so, it must be fully recognized that in outlining any plan such as this, only the first steps should be taken and these should be subject to revision and perhaps entirely changed as experience develops. The main object of presenting the following ideas is to effect a starting point, feeling confident that with a proper start those best qualified can work out the procedure in detail.

GENERAL PURCHASING COMMITTEE

After very mature deliberation and having in mind the basis of the General Motors Plan of Organization, I am thoroughly convinced that the responsibility for the co-ordination of General Motors purchases should lie in what I will term a General Purchasing Committee and that this Committee should be charged with the responsibility of initiating the necessary procedure and developing all advantages to the Corporation that naturally flow from this particular proposition. The General Purchasing Committee should be appointed by the President and be representative of all phases of the Corporation's activities. In addition to this, consideration should be given to geographical location and the necessity of contacting with all the different types of purchases in order that the findings of the Committee should be truly representative and carry weight with the Corporation at large. It is my idea that any position taken by the General Purchasing Committee should be largely final so far as dealing with individual items and procedure are concerned, the Committee being founded on the broad principle set forth in this program. In the event that action becomes desirable but is within the province of some other authority, any recommendation of the Committee should and would carry great weight and would usually be approved as representing the best sentiment of the Corporation as a whole. The Committee should have regular meetings at predetermined intervals. All questions of policy and procedure should be brought before and determined by the Committee. The relations between the Committee and the Purchase Section of the Advisory Staff would be those of principal and agent. The Purchase Section would carry out the procedure and policies established by the Committee and would only enter into such contracts as were formally approved by the Committee. The members of the Committee are charged with a real Corporation responsibility and should do everything possible to discharge that responsibility as members of the General Motors Corporation. Purchasing Agents of Divisions and Subsidiaries, not represented on the Committee, should at all times be welcome at the meetings and while they would necessarily have no vote in determining policies, their viewpoints, suggestions and criticisms should always be considered. It would be the duty of everyone in the entire organization having any viewpoints to express, to submit same preferably by appearing at any meeting of the Committee or by writing to same. Communications relative to any action of the Committee, be it in the shape of criticism, suggestion or anything else, should be addressed to the Secretary and should be given prompt consideration.

To sum up the whole plan, so far as the General Purchasing Committee is concerned, it is recognized that no Committee can function in an administrative way. Nevertheless a Committee of this character in a large organization, is essential for the purpose of co-ordination and capitalizing all the ability and experience that lies within the organization. It is therefore believed that such a plan will bring to the support of the program the best thought in this particular line that exists throughout the entire Corporation.

Duties of Director of Purchase Section, Advisory Staff. The relations of the Director of the Purchase Section, Advisory Staff, to the General Purchasing Committee are, as before stated, that of principal and agent. The Director of the Purchase Section is the administrative agent of the General Purchasing Committee. It is one of the duties of the Purchase Section to develop a list of articles in which co-ordination would be possible and profitable. The responsibility of initiative is lodged definitely with the Purchase Section, but nevertheless it does not relieve the members of the General Purchasing Committee from bringing up any matters which would result in increasing the effectiveness of the plan as a whole. The General Purchasing Committee has no power of administration. It looks to the Purchase Section for that function. It would be also the duty of the Purchase Section to maintain the necessary contact both personally and otherwise with the Purchasing Departments of each Division and Subsidiary in order to develop the necessary data upon which recommendations to the General Purchasing Committee would be based. It would further be the responsibility of the Purchase Section to secure the necessary co-ordination from other Staff Sections. In other words, the Purchase Section through its Director and organization would act as an administrative agent carrying out the policies and rulings of the General Purchasing Committee which could not effectively, as before stated, function in an administrative way.

Duties of Other Advisory Staff Sections. It would be the duty of other Sections of the Advisory Staff to co-operate with the Purchase Section in the development of the necessary specifications, as before outlined, to the end that the viewpoints of the different Divisions were properly co-ordinated into one set of specifications that would be acceptable for all. All such specifications would be passed upon by the General Purchasing Committee. It would, for instance, be the duty of the Manufacturing Section when called upon by the General Purchasing Committee or through its agents, the Director of the Purchase Section, to contact with the Divisions to the end that an agreement is effected as to what constitutes proper specifications for the particular article in question to the end that a definite, concrete proposition upon which a contract could be properly based and submitted to the General Purchasing Committee for action, can be developed.

One of the most important duties of other Advisory Staff Sections and of the Financial Staff would be to determine that the proposed source of supply was a proper one, both from the standpoint of financial facilities and personnel, to properly assume any obligation that the General Purchasing Committee might feel warranted in recommending be placed with such supplier. This would particularly apply where a considerable proportion of the Corporation's needs were, for the sake of reasons set forth in this program, concentrated with one source of supply or a limited number of such sources.

Duties of General Executive Officers. With the responsibility for the whole program lodged with the General Purchasing Committee representing all phases of the Corporation's operations as well as its general administrative side, it is thoroughly believed that all Operations recognizing as they must the tremendous advantages accruing to the Corporation, will in all cases accept the decisions of such Committee.

I think the above outlines the application of the proposed plan to the organization as it now stands. I believe further that it is in accordance with the broad foundation of the General Motors type of organization. It might be noted that it is not believed that the duties of theGeneral Purchasing Committee would constitute a sufficient draft on the members time to in any way handicap their routine work with their particular Division.

METHOD OF PROCEDURE.

To illustrate further the application of the above, the procedure in any individual case would be substantially as follows:

1. Either the Director of the Purchase Section and that Section would be charged with that responsibility, or any member of the General Purchasing Committee or any member of the organization attending any meetings of the Committee could suggest any article, such as leather belting, as a desirable one to be co-ordinated and contracted for in quantity, believing that a better price and other advantages would flow from such co-ordination. If any action was taken it must be by the General Purchasing Committee. That Committee might decide that the moment was not opportune to deal with that particular article. It might, on the other hand, feel that a general contract could be negotiated without further formality. On the other hand, it might direct that on account of a possible difference of opinion among the Operating Divisons as to what constitutes leather belting, that some other Section of the Advisory Staff should develop a proper specification.

2. If a detailed specification was essential some Section of the Advisory Staff, say the Manufacturing Staff, would take the matter up and would contact with the proper department in each Division or Subsidiary and work out a specification which would be reported to the General Purchasing Committee through the Purchase Section.

3. Having agreed that the purchase of this particular article should be co-ordinated, the General Purchasing Committee would direct that the Purchase Section, through its Director, should develop a contract. This should preferably be done through the Director of the Purchase Section asking every Purchasing Agent throughout the Corporation to submit to him the best proposition that he could obtain on the standard specifications, such proposition predicated upon his particular requirements, not on the requirements of the Corporation as a whole. The Director of the Purchase Section would obtain corresponding data on the basis of the Corporation's requirements as a whole. A complete report covering the entire data so developed would be submitted to the General Purchasing Committee for action. It would be within the province of that Committee to instruct the Purchase Section to enter into such contract as its judgment seemed advisable or to make such recommendations to such other authority as was necessary. This procedure insures all sources of supply contacting an opportunity to present the best proposition possible and it should be recognised by all Operations that a result so obtained should be the best possible.

4. The General Purchasing Committee might find it advisable to delegate one of its members or a sub-committee of same or the Purchasing Agent of some other Division or Subsidiary, not a member, as the best source of dealing for the Corporation as a whole when in its judgment any particular individual is best qualified to handle any particular matter. Any individual or group so designated would for that purpose function as a part of the Purchase Section.

5. Contracts entered into by the Purchase Section through authority of the General Purchasing Committee would become items exclusively contracted for by the Corporation itself and the Purchasing Agents of the various Subsidiaries would no longer contract for those particular items. It would be their duty to adopt the general contract so authorised with all the terms and conditions specified therein.

6. All Operations would use such contracts as a general contract; would place orders against same; would liquidate the indebtedness caused by these purchases on their own account in the usual manner. It would make

absolutely no difference in the functioning of the Purchasing Departments of any Operation except that the initial placing of the contract through the necessity of co-ordination was removed from their province and became the sole duty and responsibility of the General Purchasing Committee.

7. In the case of contracts calling for rebates for the purpose of protecting prices or for any other purpose, such rebates should be handled by the Purchase Section, Advisory Staff, so far as records are concerned. All such rebates should be credited through the General Office to the Operations entitled to same at the end of each month, not specifically but as a general sum. This would mean that each Operation would get the benefit of the Corporation price and further, that the initial billing would be the lowest possible price that any Operation individually was able to obtain. This procedure is considered desirable because to get the benefit of the lowest possible price objections are some times made on the part of suppliers in disclosing that price. While this method would, to a certain extent, develop an incorrect cost of sales, the errors would be very small and it is believed preferable to deal in this manner than with each individual item separately. In the event that the price made to the Corporation on any special contract was no lower than the best price accorded any Operation, the Purchase Section, Advisory Staff, would have no duty to perform after having effected the contract in question.

8. In the event that it was necessary in order to secure the lowest possible price or any other favorable terms, to obligate the Corporation to take a specific amount of material from any supplier, contracts could only be entered into on the recommendation of the General Purchasing Committee and with the approval of the Finance Committee due to regulations adopted by that Committee. In the event, however, that such contracts call for an obligation, limited by a certain percentage of the Corporation's purchases without involving quantity, action on the part of the General Purchasing Committee will be all that would be necessary to authorize the Director of the Purchase Section to effect such contract.

9. One of the most important considerations that not only the General Purchasing Committee and the Purchase Section, Advisory Staff, but other Staff Sections co-operating with same must determine is the ability of a

source of supply to assume an obligation that might be placed with such source, having in mind the ability of that source to comply with delivered requirements. Manifestly, it is essential in order to capitalize to the fullest possible extent the Corporation's purchasing power, all as outlined in this program, that same should be centralized in a limited number of places and in as big units as possible and conversely, it must be recognized that in capitalising the purchasing power in that manner, a liability is created to the degree that the supplier assuming the obligation may not be able to comply with same. In such a contingency the Corporation would be placed in a position where it would have to go on the market and purchase large quantities of material at a time perhaps when the market had considerably advances, being penalized to that degree, but more important yet it might have difficulty in obtaining the necessary supplies at short notice and when suppliers were well filled up with specifications from other manufacturers and in that way its entire manufacturing program might be jeopardized with a loss many times greater than would be saved. It is manifestly impossible to lay down any fixed rule for the liability thus created could only be determined in each individual case and would be a summation of many factors such as nature of the material, number of sources of supply available, and innumerable others that would be unnecessary to mention. This phase of the program should be carefully considered by the General Purchasing Committee as well as the Purchase Section and other Sections as it is from standpoints more important than the contract price and the greatest care should be exercised. The General Purchasing Committee should recognize the experience of each and every Division having experience perhaps extending over years with one supplier and another to the end that the Corporation's interest is protected to the fullest possible extent.

I again repeat, for emphasis, that the procedure outlined above is purely tentative and is simply to effect a starting point. The ultimate program may be entirely different. There may not be a single suggestion above that will ultimately be found to be the best. I feel confident however, that the above presents a start in the right direction and that the Corporation can safely leave it to the combined experience and ability of the members of the Committee to work out such a procedure that will most effectively capitalize the Corporation's position in the purchasing of its materials.

Alfred P. Sloan, Jr.,
Vice President.

Defendant's Exhibit (GM) No. 63

GENERAL MOTORS CORPORATION 6744

DATE November 29, 1922.

NO. 73.

SUBJECT PURCHASE PROCEDURE - GENERAL PURCHASING COMMITTEE.

TO
General Managers of Divisions.
General Operating Officers.
Financial Officers.
Directors Advisory Staff Sections.

COPIES FOR

In accordance with the General Purchase Plan, the following Committee has been designated by the President to act as the General Purchasing Committee:-

G. G. Allen, Purchasing Agent, Buick Motor Co., Flint, Mich.
H. L. Barton, Director Manufacturing Section, Advisory Staff, Detroit, Mich.
W. S. Cromer, Purchasing Agent, Dayton Eng. Lab. Co., Dayton, Ohio.
D. F. Hulgrave, Purchasing Agent, Cadillac Motor Car Co., Detroit, Mich.
W. A. Kimball, Purchasing Agent, New Departure Mfg. Co., Bristol, Conn.
J. H. Main, Director Purchase Section, Advisory Staff, Detroit, Mich.
C. S. Mott, Vice President, Detroit, Mich.
D. P. O'Keefe, Purchasing Agent, Chevrolet Motor Co., Detroit, Michigan.
J. L. Pratt, Vice President, New York.
Alfred P. Sloan, Jr., Vice President, New York - Chairman.
James Lynah, Asst. Director Purchase Section, Advisory Staff, Detroit, Mich.- Secretary.

Very truly yours,

A.P.S.Jr./K

VICE PRESIDENT.

Defendant's Exhibit (GM) No. 64

March 10, 1924.

To: Executive Committee.

From: Alfred P. Sloan, Jr.

Subject:— Matter of General Purchasing Committee.

I stated in my report to the Executive Committee dealing with the budget, that when another year came around I hoped to be able to present, concurrent with the budget, a full report covering the activities of the organization with particular reference to submitting a definite measure of what had been accomplished. As we get into the matter we find it is going to be quite difficult to definitely establish, either from a profit or from any other standpoint except in more or less generalities, the justification of each item of expense, but we will be able to show in a limited number of instances that we have been able to save enough to cover the whole expense which ought, of course, to be satisfactory.

At the Purchasing Committee meeting a few days ago two very interesting exhibits came up as to what that particular Committee has accomplished and I thought as a matter of general information it might be well to submit them at this time. They are as follows:—

1. *Contract with V. O. Smith Company.* This contract had something like one and a half to two years to run at the time we started to discuss the matter. It appeared from an analysis of the contract that the equities on both sides were well preserved, but still we thought that in view of the large increase in our business we perhaps ought to see if something better could not be obtained through a modification of the contract at this time. The result of this is shown in the letter, copy of which is attached hereto, from which you will note that there is a total saving of something

like $500,000.00. Understand, this is simply from September 1, 1923 to July 1, 1924. It is unquestionably a fact that if it had not been for the activities of this Committee this matter would not have been taken up in this way with the resultant saving.

—2—

2. *Contract between the Corporation and the Electric Storage Battery Company of Philadelphia.* This was taken up in a similar manner to the above and it being, of course, a cost plus contract, we were able to make a reduction in the amount of profit which mean, against our purchases for 1924, an estimated saving of $125,000.00.

The above two instances represent an estimated saving of $625,000.00.

Respectfully submitted,

A.P.S.Jr./K
att.

Defendant's Exhibit (GM) No. 65

(GM)

December 1, 1924.

Members of
General Purchasing Committee.

The activities of the General Purchasing Committee have now extended over a period of two years. I do not know what the feeling is individually on the part of the members of the Committee as to the results that have been obtained and can be obtained as we go along and learn to do things better, but so far as I am concerned I feel that a great deal has been accomplished and a great deal more can be accomplished and will be accomplished as we progress.

From the Corporation standpoint, however, I feel that I should say to the members of the Committee that its activities have, as I see the picture, resulted far more fundamentally than would be apparent from the surface. What I mean by this is, that it has shown the way or what I believe to be the way of co-ordinating to the stockholder's benefit the functional activities of our different Operating Divisions without in any sense taking away from those Divisions the responsibility of their individual activities. In other words, expressed otherwise, I feel that in all our functional activities like purchasing, manufacturing, engineering and sales, a great deal can be accomplished by proper co-ordination and, in my judgment, it is only a question of time when the development of the automotive industry will force us, due to the economics of the future picture, into just such things. The General Purchasing Committee has, I believe, shown the way and has demonstrated that those responsible for each functional activity can work together to their own profit and to the profit of the stockholders at the same time and such a plan of co-ordination is far better from every standpoint than trying to inject it into the operations from some central activity.

The above is so much in my mind that I thought I would like to tell you about it and also to say that due to the necessities of developing other activities of this kind I am going to ask Mr. John L. Pratt, in whom all of you I know have tremendous confidence, to act as Chairman of the General Purchasing Committee in place of myself. I have enjoyed the meetings and particularly enjoyed the closer contact with the members of the Committee. I do not purpose in any way to separate myself from its activities but must be

relieved of the necessity of attending every meeting for reasons above noted although I will be there whenever I possibly can.

Mr. Pratt, as you know, is a member of our Executive Committee, thoroughly in touch with everything that goes on and he can speak with just as much authority as I can and I am sure can be more helpful.

Very truly yours,

APSJr./K

NOTE. The handwritten initials "A N" appear at the top of the first page.

Defendant's Exhibit (GM) No. 66

COPY

SUB.

December 10, 1937.

Mr. W. F. Ingals, President,
Central Tube Company,
First National Bank Bldg.,
Pittsburgh, Pa.

RE: STOCKHOLDER RELATIONSHIPS - COMMENTS

My dear Mr. Ingals:-

I acknowledge receipt of your letter of November 30th, and have carefully noted contents of same.

The point you make I take it is, that you feel, in view of the fact that you are interested in us, that we should be interested with you to the extent of giving you an opportunity of quoting on such products as you manufacture, that we use.

Perhaps I am right, and perhaps I am wrong - I do not know, but would go farther and say that you ought to have every right and every opportunity, as an established and reputable manufacturer, to quote on such products that you make and we use - whether a stockholder or not.

I will take the matter up immediately with Mr. Knudsen; lay the facts before him, and am sure you will hear from him directly or indirectly to that effect, in due course.

I make the distinction between the two situations because I feel that if your Company and its officers, have sufficient confidence in General Motors Corporation to become stockholders, that you should do so solely on the merits because you believe in the institution, its management and its opportunity and that, on the other hand, our responsibility is to give every responsible manufacturer a chance to figure on such of their products as we use, all of course within reason, and giving consideration to the various factors involved. In other words, frankly, I think that each instance should stand on its own foundation, and it is better for them both to keep them separate. I hope you will agree with this.

Very truly yours,

Chairman.

Defendant's Exhibit (GM) No. 67

Mr. Wm. S. Knudsen,
President
Detroit, Michigan.

A. P. Sloan, Jr.
New York.

STOCKHOLDER RELATIONS—SUGGESTIONS
CENTRAL TUBE COMPANY

December 10, 1937.

My dear Bill:—

I attach copy of letter from W. F. Ingals, President of the above Company, together with copy of my reply.

I think you will agree with me that these people ought to have an opportunity to bid on such of our goods as they manufacture, all things of course, being equal.

I do not know as I recall what your position is on this question of reciprocity, but I think it is much safer and better to have each transaction stand on its own foundation, because if we go into reciprocity, sooner or later the business is not done on a firm foundation of fact and equity, but more on the foundation of influence, which is not an efficient or scientific approach to the problem, as we say.

Very truly yours,

APSJr./K
att.

NOTE. Just above word "letter" in first line appears a checkmark and date 11-30-37. A checkmark also appears above word "reply" at end of first sentence.

Defendant's Exhibit (GM) No. 68

GENERAL MOTORS CORPORATION

Excerpt from Minutes of Meeting No. 15 of General Purchasing Committee held July 2, 1924.

Meeting called to order by Mr. Sloan.

. . .

(b) Reciprocity.

Letter of April 30 from Mr. G. H. Kerr of the DuPont Company to Mr. Sloan suggesting advantages to be gained through tabulating the suppliers to and the quantities of purchases made by General Motors Divisions for use in securing sales on a reciprocity basis was read. A discussion of this matter emphasized the fact that the products of our business go largely to individuals. While it is recognized that there are cases which might be profitably dealt with on the reciprocity basis, there are so many complications and difficulties involved in attempting to treat the situation as a whole, it was agreed best to stand on our own equities and require our suppliers to do so. Divisions of course are at liberty to treat individually such cases as any situation might require.

Defendant's Exhibit (GM) No. 69

(GM)

Letterhead of
SAMSON TRACTOR COMPANY
Janesville, Wisconsin

January 7—1922

Mr. A. P. Sloan Jr., Vice Pres.,
General Motors Corporation,
224 West 57th Street,
New York City

Dear Mr. Sloan:

Our Branch Manager at Minneapolis has sold to the E. I. duPont deNemours & Co., Hartley Building, Duluth, Minnesota five (5) Three-quarter ton Samson Trucks for immediate delivery subject to the O. K. of the home office at Wilmington.

As I understand it, the du Pont office at Duluth may suggest a preference for a certain truck but the home office at Wilmington can buy or ship them any truck that they deem advisable.

It seems that Mr. Orr, the Manager of the du Ponts at Duluth, is very anxious to get the Samson Trucks and, as you know, we need the business. Therefore I was just wondering it you knew any way to influence the home office at Wilmington to O. K. the preference of their branch manager at Duluth. If you can do anything on this I certainly will appreciate it.

Very truly yours,

/s/ H. M. Craig
Acting General Sales Manager

HMC—D

Note. At top is stamp "Received Jan—9 1922 A. P. Sloan, Jr.

Defendant's Exhibit (GM) No. 70

January 13, 1922.

Mr. Irenee duPont,
Wilmington, Delaware.

My dear Mr. duPont:—

I am enclosing herewith copy of a letter received from our Samson Tractor Division, which is self-explanatory. Anything you can properly do in connection with the matter will be greatly appreciated.

Very truly yours,

b/k VICE PRESIDENT
Enc.

Defendant's Exhibit (GM) No. 71

August 2, 1922

To: Executive Committee, General Motors Corporation, Mr. L. R. Beardslee, Secretary

From: General Motors Research Corporation

Subject: REPORT OF THE RESEARCH LABORATORIES FOR THE MONTH OF JULY

* * *

FUEL RESEARCH SECTION:

The month's efforts have been confined to semi-works production of lead tetra-ethyl. The entire process has been studied intensively, to eliminate cost. The duPont organization has been brought into the work and they have duplicated our semi-works production very readily. Just now, we are counting upon the duPont organization to collaborate with us on this new compound. This is the logical procedure, due to the fact that they have equipment and floor space suitable for this kind of work. The question of stability has been satisfactorily solved. Some of the other difficulties encountered, such as corrosion of spark plugs, are being very carefully considered. The results obtained during the month show reasonable progress.

* * *

Respectfully yours,

F. O. CLEMENTS
Director of Research

I hereby certify that the foregoing is a true excerpt from a report entitled "Report of the Research Laboratories for the Month of July" from General Motors Research Corporation to the Executive Committee, General Motors Corporation, dated August 2, 1922.

J C Davidson

J. C. Davidson
Assistant Secretary
General Motors Corporation

May 18, 1951

NOTE: Italics indicate handwriting.

Defendant's Exhibit (GM) No. 72

DUPONT

E.I. Du Pont De Nemours & Co.

Dyestuffs Department,
Wilmington, Delaware.

September 12, 1922.

Mr. C. F. Kettering,
General Motors Corporation,
Dayton, Ohio.

Dear Mr. Kettering:-

COPY

Certain little kinks in the manufacture of Tetra Ethyl Lead have enabled us to secure a yield in the laboratory of over 85% with the Ethyl Bromide Method. The kink, I think, is a clever one, and one which I want to explain to you at the very first opportunity following the complete proof in our laboratory and semi-works.

It is our feeling that the whole Tetra Ethyl Lead manufacturing process should, insofar as possible, be protected by patent, but before doing anything of this character I felt it was entirely necessary that the subject be discussed with you, - therefore my telephone conversation with you this morning.

I feel that we are getting along very well with the manufacture of Tetra Ethyl Lead. We have now the process sufficiently in hand so that we are studying very dilligently the subject of material cost and apparatus suitable for the manufacture, upon call from you, of substantial quantities of this product.

Very truly yours,

(Signed) W. F. Harrington

WFH-M

Assistant General Manager.

Defendant's Exhibit (GM) No. 73

6757

October 3, 1922

To: Executive Committee, General Motors Corporation, L. R. Beardslee, Sec'y.

From: General Motors Research Corporation

Subject: REPORT OF RESEARCH LABORATORIES FOR MONTH OF SEPTEMBER

* * *

FUEL RESEARCH SECTION:

In a number of our previous reports, we have called attention to some difficulties that have arisen in connection with the antiknock program. These difficulties have had to do with corrosion of spark plug electrodes and a certain separation of lead in the combustion that causes valves to stick up or improperly seat. Most of the work of the Department here in Dayton, during the past few weeks, has been devoted to the correction of these difficulties.

No new thing was ever developed that did not present complications; especially, from the standpoint of interpreting it into production or utilization.

We are putting forth every effort to correct these difficulties and do not anticipate any particularly long drawn out trouble in so doing.

The Semi-Works preparation of tetraethyl, has been left to the duPont Company, who are operating at their Dye Works plant. They have succeeded with their part of the problem in a very admirable manner. The yields obtained are within 85 to 90% of theory, which is exceptionally good. The duPont Laboratory is to be congratulated upon this result.

* * *

Respectfully yours,

F. O. CLEMENTS

Director of Research.

I hereby certify that the foregoing is a true excerpt from a report entitled "Report of Research Laboratories for Month of September" from General Motors Research Corporation to the Executive Committee, General Motors Corporation, dated October 3, 1922.

J. C. Davidson
Assistant Secretary
General Motors Corporation

May 18, 1951

Defendant's Exhibit (GM) No. 74

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

Sept. 27, 1922.

Mr. J. W. Morrison,
Delco Light Company,
Dayton, Ohio.

My dear Mr. Morrison:

I did not hear anything from Mr. Sloan about the proposed trip to Wilmington until today when he called me up to say that he desired us to be in Wilmington on next Wednesday morning, October 4th; that he thought it would be necessary to spend about two days there and then close the matter at New York in his office on Friday, at which interview he expected Mr. Kettering would be present.

I am therefore going to ask you to meet me at the office of Irenee duPont, duPont Building, Wilmington, Wednesday morning as near 9 o'clock as possible. Of course bring with you everything you feel will be of service.

I trust by this time you have received such satisfactory reports as to Mrs. Morrison's condition as to relieve your anxiety. If however for any reason you feel it might be inadvisable for you to be away next week, do not hesitate to say so.

Yours very truly,

James McEvoy

JMcE:G

E

Defendant's Exhibit (GM) No. 75

WESTERN UNION TELEGRAM

March 29, 1923.

Mr. W. F. Harrington,
Assistant General Manager,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

It was officially decided this morning to go ahead with the antiknock program as rapidly as possible. (Stop) Consequently this constitutes official notification that you are to get out one hundred gallons of tetraethyl lead per day as soon as possible. (Stop) Expect to see you Monday afternoon next week.

Midgley

NOTE: "COPY" overscored and underscored is typed across telegram; a check mark appears in left margin beside first line of message.

Defendant's Exhibit (GM) No. 76

GREEMENT BETWEEN
GENERAL MOTORS CHEMICAL COMPANY
AND
STANDARD OIL COMPANY (OF INDIANA).

THIS AGREEMENT made this 29th day of September 1923, between General Motors Chemical Company, a corporation organized and existing under the laws of the State of Delaware, having its principal offices at the City of Dayton, State of Ohio, hereinafter termed "Seller", and STANDARD OIL COMPANY, a corporation organized and existing under the laws of the State of Indiana, having its principal offices at the City of Whiting, State of Indiana, hereinafter termed "Buyer".

WHEREAS, the Seller has been and is now engaged in devising and developing certain materials to be mixed with the fuel (gasoline, kerosene or other motor fuel) for internal combustion engines, the object of such admixture being to render such fuel non-knocking, and thereby make it possible to use higher compression pressures in such engines without producing the detonation commonly known as "knocking", and with the further advantage of increasing the power output of said engines with attendant economy in fuel consumption, and

WHEREAS, the Seller represents that the preferred material thus far developed for such admixture is an organic compound known as "tetra-ethyl lead", and

WHEREAS, the Seller represents that when tetra-ethyl lead is mixed in certain proportions of less than one-tenth of one per cent (1/10 of 1%) by volume with a straight run distillate consisting of only paraffin hydrocarbons and just conforming to the

"New Navy" Specifications for gasoline now in force, there is produced a motor fuel suitable for use in motors of sufficiently higher compression to warrant their general adoption, and which may be described as a non-knocking fuel equal in this property to a mixture of sixty per cent (60%) of the original fuel plus forty per cent (40%) Benzene (Benzol) and

WHEREAS, the Seller represents that it has discovered the necessary additions in the way of other materials or compounds necessary to prevent certain harmful secondary effects attendant upon the use of tetra-ethyl lead, the mixture of said materials or compounds with said tetra-ethyl lead constituting the mixture hereinafter referred to as "anti-knock mixture", and

WHEREAS, the Buyer represents that it is engaged in the business of selling gasoline to the public, and is now selling and intends to sell during the continuance of this agreement a gasoline which is a sufficient improvement in non-knocking characteristics over the straight run distillate hereinbefore described so that it requires a lesser quantity of tetra-ethyl lead to produce a satisfactory non-knocking fuel for use in the aforementioned higher compression motors. The Buyer further represents that it is desirous of selling to the public a gasoline of its own manufacture which will in non-knocking characteristics be equivalent to 60% of the hereinbefore described straight run distillate plus 40% benzene (benzol) and that if the said anti-knock mixture will enable the buyer to accomplish such purpose it is willing to purchase the same from the Seller in accordance with and subject to the hereinafter expressed terms and conditions.

NOW THEREFORE, this agreement witnesseth that in consideration of the premises and of the covenants and agreements hereinafter set forth the said parties hereby agree as follows:

1.

The Seller agrees to furnish the Buyer exclusively, except as hereinafter provided, during the period of eighteen months from the 1st day of October, 1923, with such quantity of anti-knock mixture as may be reasonably required by it in the territory in which Buyer operates and which territory shall be considered as comprising the following states and no others: Illinois, Indiana, Kansas, Iowa, Michigan, Minnesota, Missouri, North Dakota, South Dakota, Oklahoma and Wisconsin.

It is also understood and agreed that the Buyer shall have the right to use the anti-knock material herein contemplated for blending it with gasoline not only at the Buyer's refineries, but also with gasoline obtained from refineries other than those of the Buyer; and that the Buyer shall be at liberty, upon giving reasonable notice to the Seller, to have the supplies of the anti-knock mixture shipped to such Buyer's and other refineries for mixture there with the gasoline supplied therefrom.

2.

The quantity of anti-knock mixture which will be furnished to the Buyer by the Seller, however, shall be controlled by the following:

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a. The Buyer shall upon demand of the Seller designate a portion of the aforesaid territory containing not more than five hundred (500) nor less than one hundred (100) stations or locations where the Buyer's gasoline is sold or dispensed, and where the Buyer desires that such equipment be installed. A map or plat showing these locations together with the relative sales value of each thereof shall be furnished the Seller. The Seller then as soon as possible and without reasonably avoidable delay, shall equip a gasoline metering pump installed at each of said locations, with a mixing meter and attachments therefor, in the order that the Buyer believes the same to be most desirable. When such "portion" of the aforesaid territory has been thus equipped for the vending of said mixture to the public, another "portion" of said territory shall be similarly selected and mapped by the Buyer and equipped by the Seller, and this procedure shall continue until the entire aforesaid territory is in the judgment of the Buyer adequately equipped for the purpose of vending said mixture to the public. It is understood and agreed, however, that the Seller shall, as demanded by the Buyer, at all times supply the latter's reasonable needs for said meters for new stations, or otherwise as demanded by the Buyer.

b. A sample of the mixing meters and attachments therefor shall be submitted by the Seller to the Buyer for the Buyer's approval before installation of the same but such approval shall not be unreasonably delayed. The Seller shall keep all mixing meters and attachments therefor in good operative order and repair at its own expense during the continuance of this agreement, and shall, upon being notified by the Buyer that any thereof need attention, repair the same promptly. The Buyer shall afford to the Seller every reasonable facility and opportunity to enable it to properly inspect any of said meters and attachments therefor whenever it may so desire.

c. All of said mixing meters and attachments therefor shall be the exclusive property of the Seller and be surrendered

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to the Seller by the Buyer upon the abandonment of any of the pumps to which they may be attached, or if the Buyer abandons vending the said mixture, in the same condition as when they were installed, reasonable wear and tear excepted. The Buyer shall exercise reasonable diligence for the care and protection of all said mixing meters and attachments and shall be liable or responsible therefor only for want of the exercise of such reasonable care and caution, and shall not be liable if, although having exercised all such care and caution, the same are lost, stolen or injured.

d. The Seller further agrees, without expense to the Buyer and promptl[illegible]on the Buyer's request, to equip any or all of the latter's bulk stations with apparatus suitable for mixing said anti-knock mixture with gasoline in bulk, to enable the said mixture to be dispensed from bulk supplies. All such apparatus shall be kept in good order and repair by the Buyer and surrendered to the Seller in good order less ordinary wear and tear, upon the Buyer wholly ceasing so to vend said mixture. The Seller agrees to furnish and deliver without cost to the Buyer, at such place or places as may be designated by the latter, all such extra parts as may be reasonably required to keep the said apparatus in good order and repair.

e. The Buyer agrees to order from the Seller such quantity of anti-knock mixture as may be reasonably necessary to supply the demands of the public in all such portions of the aforesaid territory as have been equipped with mixing meters and the Seller will fill all such orders barring unavoidable delay.

f. Upon compliance by the Seller with the provisions of the foregoing paragraph, the Buyer agrees to keep on hand at all times at each place where any pumps equipped with said meters and attachments are installed such quantity of said anti-knock mixture as may be reasonably necessary in the opinion of the Buyer to supply the demand of the public.

g. The Seller will ship to the Buyer and to such points as the Buyer may designate, freight prepaid, the anti-knock mixture ordered by it in suitable containers which shall be the property of the Seller and returned to it by the Buyer at such place or places as the Seller may from time to time designate and at the Seller's cost.

h. The Buyer agrees that during the continuance of this agreement it will, in adding such anti-knock mixture to its gasoline, use such proportion of anti-knock material as may be necessary for the normal quality of the Buyer's gasoline to maintain the standard of anti-knock value set forth in the preamble of this agreement.

i. None of the mixing meters, attachments therefor, or apparatus mentioned in this paragraph shall be removed by the Seller without the consent of the Buyer so long as the same continues to be used by the Buyer for the purpose of vending said mixture.

3.

The price to be paid by the Buyer to the Seller for said anti-knock mixture shall be based upon the quantity of tetra-ethyl lead contained in the anti-knock mixture furnished to the

Buyer and shall be ten dollars ($10.00) for each liter thereof contained in said mixture. The proportion of tetra-ethyl lead in said mixture shall, however, at no time during the continuance of this agreement, be less than one and three quarters liters in each five liters of said mixture, unless some agreement as to the cost thereof be arrived at between the Buyer and Seller.

Should the Seller reduce the price of said tetra-ethyl lead or sell the same at a less price to other consumers during the continuance of this agreement, it will give a similar reduction to the Buyer.

4.

The Seller elects to call the gasoline when mixed with the said anti-knock mixture "Ethyl Gas", unless adverse trade- mark rights should thereby be infringed, and the Buyer agrees that all advertisements of the same shall embody the word "Ethyl" or "Ethylized", though not if such trade-mark right be thereby infringed, in which event the Buyer agrees that said advertisement may embody some other suitable word or words free to be used and which the Seller may elect to be employed therein.

It is understood and agreed, however, that any and all responsibility for trade-mark, label, or analogous infringement, including rights relating to unfair competition, with which the Buyer may be charged for employing in such advertisements, any word or words which Seller shall so elect to employ, shall be assumed by the Seller and the Buyer shall be held harmless therefrom; and the Seller shall, at its own expense, defend any or all litigation based on such employment and pay any judgment or judgments that may be awarded to the plaintiff in the premises, or the

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amount of any settlement therein if settlement be made. In the event of any such litigation or threats thereof, the SELLER shall be promptly notified thereof by the BUYER and be entitled to representation by its own counsel in all negotiations or proceedings relative thereto and may assume charge thereof if it shall so desire; but no such settlement shall be made unless by mutual agreement of the parties hereto.

5.

The Seller shall advertise in its own name and at its own expense the said anti-knock mixture in and for the Buyer's territory, the character of such advertising and the mediums thereof to be solely in the Seller's discretion. All such advertising, however, that contains the Buyer's name or refers in any way to the Buyer's products shall be submitted to the Buyer and its approval obtained before being published. The cost of all such advertising shall be as determined by the Seller but shall not be less, in the aggregate amount during any six months period of this agreement or any extension thereof, than two per cent of the cost to the buyer of the anti-knock mixture purchased from the Seller during the corresponding period. Where any such advertising, however, partakes of a general character and is not solely confined to the aforesaid territory but may be of benefit to the Buyer a fairly proportionate amount of the cost thereof shall be allocated to and included in said two per cent.

6.

The price charged by the Buyer to the public or consumer for all gasoline sold by it and treated with said anti-knock mixture shall be the prevailing price of its untreated gasoline plus an amount not greater than three cents for each gallon of such gasoline so treated.

7.

The Buyer agrees, during the continuance of this agreement, not to purchase or sell for use in internal combustion engines any anti-knock mixture or material other than that herein provided to be purchased by it from the Seller, anti-knock material meaning any substance which when added in very small amount to gasoline or other motor fuel tends to suppress detonation.

8.

During the continuance of this agreement the Seller will not sell any of the said anti-knock mixture within the aforesaid territory nor will it knowingly sell any thereof to any person to be sold therein with the exception, however, that it shall have the right to sell said mixture direct to consumers in said territory where and while the Buyer may from any reason be unable so to do, provided that the price charged by the Seller for any and all of said mixture so sold by it shall not be less than the sum charged by the Buyer therefor plus an amount equal to one cent (1¢) for each gallon of gasoline that the quantity of said mixture sold by the Seller will properly treat.

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The Seller shall prepare and submit for the Buyer's approval two forms of information and instruction, one for the guidance of service station and garage employees and any other employees who may handle the anti-knock mixture or dispense the gasoline, and a second form of directions and information for the consumer. After approval by the Buyer these forms shall be printed in convenient form by the Seller and delivered to the Buyer in sufficient quantities for distribution and the Buyer shall distribute these forms to its employees and purchasers respectively; and should any suit or suits be brought against the Buyer for injury to person or property arising from the handling or use of any of said mixture that may have been purchased from the Seller by the Buyer, and it be conclusively shown in the prosecution of such suit or suits that although all of the provisions of said directions were fully complied with, such injury nevertheless occurred, the Seller will defray the entire expense of settling the same, or if not settled out of Court the Seller shall pay all of the costs of, any such litigation together with the full amount of any judgment that may be rendered against the Buyer. The Seller shall be promptly notified by the Buyer of any such suit and it shall be represented by its own counsel in all negotiations or proceedings relative thereto and may assume exclusive charge thereof if it so desires. In case of any other liability for injury to person or property arising from the handling or use of any of said mixture other than that covered by the aforegoing portion of this paragraph, such liability and any and all expense incident thereto shall be borne equally by the Seller and Buyer, it being understood that no settlement of any claim for liability shall be made except by mutual agreement of the parties hereto.

If the Seller finds and brings to the attention of the Buyer that any employee of the Buyer is disregarding the aforesaid printed instructions, the Buyer will take such steps as may be necessary to see that the instructions are properly obeyed by him thereafter.

10.

The Seller has not as yet obtained Letters Patent of the United States for or relating to any of the anti-knock materials or compounds named in this agreement, but has applications therefor pending in the United States Patent Office and will procure the issuance as soon as practicable of Letters Patent upon at least one of such applications to broadly protect the manufacture, use and sale of the aforesaid anti-knock material. And it is expressly understood and agreed that the obligations and provisions hereof with regard to exclusive use and price to others shall be in effect only in so far as the seller shall have lawful right to assume and make the same because of protection under such Letters Patent or applications therefor.

11.

The Seller agrees at its own expense to defend the Buyer in any action or actions that may be brought against the Buyer alleging that its use and sale of anti-knock mixture so supplied by the Seller, and whether or not containing any admixtures, infringes any Letters Patent of the United States; and the Seller agrees to pay any and all judgments for damages and profits arising out of such litigation that may be assessed against the Buyer, thereby saving the Buyer harmless therefrom. It being understood that the Seller shall be entitled to representation by its own counsel in any such litigation.

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12.

The Seller hereby agrees that it will, at its own expense, bring and prosecute diligently through the Court or Courts of last resort, and to final adjudication, infringers of any United States Letters Patent which may be granted to the Seller for anti-knock materials or/and mixtures, in the aforesaid territory, to the end of establishing its rights under such Letters Patent and protecting the Buyer in its rights hereunder, it being understood that the Buyer shall be entitled to representation by its own counsel in any such litigation.

13.

It is intended that the rights of the Buyer under this contract shall apply under any and/all Seller's Letters Patent and Patent applications for or relating to anti-knock materials and/or mixtures, so that if the Seller should dispose of any of its patents or applications therefor, to another or others, such rights of the Buyer shall nevertheless continue under the terms of this agreement.

14.

While tetra-ethyl lead has herein been specified as the anti-knock material more particularly considered, it is understood and agreed that this Agreement shall equally apply to and cover any or all other anti-knock materials and/or mixtures (meaning any material which, when added in very small amount to gasoline or other motor fuel, tends to suppress detonation) which the Seller may have devised or developed or may hereafter acquire, devise or develop, and be covered by U.S. Patents, or pending applications therefor

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owned or controlled by the Seller, and with which the Buyer may desire or prefer to be supplied. The price of such material shall be based on cost plus an operating charge.

15.

This agreement will be continued for a further period of wo and one half years by the Seller upon request of the Buyer, such request, however, to be in writing and delivered to the eller not later than three months prior to the termination of this greement) and if so continued it shall be modified or altered in he following respects, or if the Buyer so desires, a new agree-ent will be entered into with it by the Seller embodying said odifications and alterations together with such provisions of his agreement as do not conflict therewith.

a. The price of said tetra-ethyl lead to the Buyer will e reduced by the Seller if it can possibly do so, and while it annot at this time definitely agree that such reduction will e made, it confidently expects that such will be the case. Should aid price be reduced the Buyer shall agree to reduce the premium harged by it to the consumer so that the Buyer's net profit from he premium shall not exceed one (1¢) cent per gallon of treated asoline. The Seller agrees to allow the Buyer a fair discount on aid price based upon the quantity of said anti-knock mixture urchased by it. All details as to price, quantities, premiums, etc. re to be adjusted between the Buyer and Seller at the time of the ontinuance or extension of this agreement if the same be so continued r extended.

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b. The sale by the Seller of said mixture shall be exclusive to the Buyer in its territory except that the Seller may reserve the right to sell to others in said territory the following amount of said mixture based upon the quantity thereof purchased from it by the Buyer.

During the first six months of said continuance of this agreement an amount of said mixture equal to five per cent (5%) of the quantity sold to the Buyer.

During the succeeding year the Seller may sell to others an amount of said mixture equal to seven and one-half per cent (7½%) of the quantity thereof purchased from it by the Buyer.

During the next succeeding year, the Seller may sell to others an amount of said mixture equal to ten per cent (10%) of the quantity thereof purchased from it by the Buyer.

16.

It is understood and agreed that whether or not this agreement shall be extended as heretofore provided for, the Buyer shall have full right to procure its supplies of said anti-knock materials and/or mixtures from the Seller and to sell and dispense the same as provided for in this agreement throughout the full terms of any and all letters patent of the United States, on or relating to said materials and/or mixtures which the Seller may acquire, and, in fact, for all time thereafter during which the Seller shall manufacture or sell the same; and it is further understood and agreed that the aforesaid mixing meters to be provided by the Seller shall remain in the Buyers use so long as the Buyer shall

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continue to employ same for the aforesaid vending and dispensing purposes of said materials and mixtures supplied by the Seller. All of said mixture that may be sold by the Seller to all persons other than the Buyer shall be practically the same in effect to the mixture sold to the Buyer hereunder, and the Seller shall surround all sales of said mixture made by it to such persons with the same restrictions as are herein imposed upon the Buyer.

17.

All of the terms and provisions of this agreement as well as any extension or continuation thereof shall inure to the benefit of and be binding upon the successors and assigns of each of the parties hereto.

In Testimony Whereof the parties hereto have, each by due authority to the subscribing officers, executed these presents the day and year first above written.

GENERAL MOTORS CHEMICAL COMPANY
BY C F Kettering
President

Attest R. O. Clements
~~Robert E Wilson~~
~~Secretary~~
Ass't Secretary

STANDARD OIL COMPANY (of Indiana)
BY Allan Jackson
Vice President

Attest
Robert E Wilson
Secretary

Defendant's Exhibit (GM) No. 77

THIS AGREEMENT made this 9th day of January, 1924, between GENERAL MOTORS CORPORATION, a corporation of Delaware, having a principal place of business at New York City, hereinafter called "General Motors", and STANDARD OIL COMPANY OF NEW JERSEY, a corporation of New Jersey, having its principal office at No. 26 Broadway, New York, New York, hereinafter called the "New Jersey Company".

WHEREAS General Motors is the sole stockholder of "General Motors Chemical Company", a Delaware company, engaged in the manufacture and sale of a certain compound or compounds designed to be mixed with gasoline or other similar fuel to reduce the effect of combustion known as "knock" and to increase the efficiency of internal combustion engines, and

WHEREAS the New Jersey Company has entered into a certain contract dated the 7th day of January, 1924, with said General Motors Chemical Company relating to the purchase, mixing and sale of such compound or compounds, upon the condition that General Motors would guarantee the performance thereof by said General Motors Chemical Company,

NOW, THEREFORE, in consideration of the premises, and of the due performance on the part of the New Jersey Company of the obligations imposed by said contract upon it, and of the sum of one dollar by it paid to General Motors, the receipt of which is hereby acknowledged, General Motors does hereby guarantee the due performance on the part of said General Motors Chemical Company of its obligations under said contract at the times and in the manner therein stipulated, and further agrees to hold the New Jersey Company harmless from any default or failure on the part of said General Motors Chemical Company to carry out said contract according to its terms.

IN WITNESS WHEREOF the parties hereto have each by due authority to the subscribing officers, executed these presents the day and year first above written.

GENERAL MOTORS CORPORATION

By
President.

Attest:
L. R. Bradley
Asst Secretary.

STANDARD OIL COMPANY OF NEW JERSEY

By
Vice President.

Attest:
C T White
Secretary.

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

On this 12th day of January, in the year one thousand nine hundred and twenty-four, before me personally came Alfred P. Sloan, Jr to me personally known, who, being by me duly sworn, did depose and say that he resides in New York City, N.Y.; that he is the President of the GENERAL MOTORS CORPORATION, the corporation described in and which executed the foregoing instrument; that he knows the corporate seal of the corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

Lucy D. Martin

N[illegible] COUNTY
C[illegible] COUNTY
C[illegible] 27
COMMISSION EXPIRES MARCH 30TH 1925

STATE OF New York }
COUNTY OF New York } ss.:

On this 15th day of January, in the year one thousand nine hundred and twenty-four, before me personally came F. D. Asche, to me personally known, who, being by me duly sworn, did depose and say that he resides in [illegible] L. I., N. Y.; that he is the Vice-President of the STANDARD OIL COMPANY OF NEW JERSEY, the corporation described in and which executed the foregoing instrument; that he knows the corporate seal of the corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

NOTARY PUBLIC, BRONX COUNTY
[illegible] FILED IN NEW YORK COUNTY No. 259

Defendant's Exhibit (GM) No. 78

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GENERAL MOTORS CORPORATION
OFFICE OF THE SECRETARY

FILE NO 1672

BETWEEN General Motors Chemical Co., OF Dayton, Ohio

AND Standard Oil Co. of Louisiana, Baton Rouge, La.

SUBJECT Marketing "Anti knock mixture" (Tetra-ethyl lead).

DATE January 7, 1924.

TERM Three years.

TIME FOR PERFORMANCE January 7, 1924 to January 7, 1927

AMOUNT

METHOD OF PAYMENT

OPINIONS, NOTICES AND REMARKS

RECEIVED FROM J. T. Smith

SECRETARY BY LWC

RECORDED AND NUMBERED

COMPTROLLER BY H. Haney

INDEXED February 28, 1924

SECRETARY BY LWC

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AGREEMENT

between

GENERAL MOTORS CHEMICAL COMPANY

and

STANDARD OIL COMPANY OF LOUISIANA.

THIS AGREEMENT, made this 7th day of January 192~~3~~4, between GENERAL MOTORS CHEMICAL COMPANY, a corporation organized and existing under the laws of the State of Delaware having its principal offices at the City of Dayton, State of Ohio, hereinafter termed "Seller".

- and -

STANDARD OIL COMPANY OF LOUISIANA, a corporation organized and existing under the laws of the State of Louisiana, having its principal offices at the City of Baton Rouge, Louisiana, hereinafter termed "Buyer".

WHEREAS, the Seller has been and is now engaged in devising and developing certain materials to be mixed with the fuel (gasoline, kerosene or other motor fuel) for internal combustion engines, the object of such admixture being to render such fuel non-knocking, and thereby make it possible to use higher compression pressures in such engines without producing the detonation commonly known as "knock", and with the further advantage of increasing the power output of said engines with attendant economy in fuel consumption; and

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WHEREAS, the Seller represents that the preferred material thus far developed for such admixture is an organic compound known as "tetra-ethyl lead"; and

WHEREAS, the Seller represents that when tetra-ethyl lead is mixed in the proportion of about three cubic centimeters per U.S. standard gallon with a straight run petroleum distillate consisting mainly of paraffin hydrocarbons (for example, straight run distillate from Penn. crude), and just conforming to the "New Navy" Specifications for gasoline now in force, there is produced a motor fuel suitable for use in motors of sufficiently higher compression to warrant their general adoption, and which may be described as a non-knocking fuel equal in this property to a mixture of sixty per cent (60%) of the original fuel plus forty per cent (40%) Benzene (commercial 90% Benzol): and

WHEREAS, the Seller represents that it has discovered the necessary additions in the way of other materials or compounds necessary to prevent certain harmful secondary effects attendant upon the use of tetra-ethyl lead, the mixture of said materials or compounds with said tetra-ethyl lead constituting the mixture hereinafter referred to as "anti-knock Mixture": and

WHEREAS, the Buyer represents that it is engaged in the business of selling gasoline to the public, and is now selling and intends to sell during the continuance of this agreement a gasoline which is a sufficient improvement in non-knocking characteristics over the straight run distillate hereinbefore described so that it requires a lesser quantity of tetra-ethyl lead to produce a satisfactory non-knocking fuel for use in the aforementioned higher compression motors. The Buyer further represents that it is desirous of distributing a gasoline which will in non-knocking characteristics be equivalent to 60% of the hereinbefore described straight run distillate plus 40% benzene (benzol) and that if the said anti-knock mixture will enable the Buyer to accomplish such purpose it is willing to purchase the same from the Seller in accordance with and subject to the hereinafter expressed terms and conditions:

NOW THEREFORE, THIS AGREEMENT WITNESSETH:

That in consideration of the premises and of the covenants and agreements hereinafter set forth, the said parties hereby agree as follows:

1.

(a) The period of this contract shall be for no longer than three (3) years from date and shall sooner terminate eighteen months after there shall have been delivered, under this agreement, the first eight thousand (8,000) of the Seller's mixing meters and the attachments therefor at a like number of locations.

(b) The Seller hereby grants to the Buyer, for the period of this contract and for the territory hereinafter defined, the exclusive right to sell and/or use the Seller's anti-knock mixture, subject ~~only~~ to conditions hereinafter mentioned:

The territory comprises the States of Louisiana, Tennessee, Arkansas, Mississippi, Alabama, Georgia, Florida and Kentucky.

(c) The Buyer may license, subject to the terms hereof, others to sell and/or use and to license the sale and/or use of the Seller's anti-knock mixture within the defined territory, and the expression "Buyer's Licensees" shall be deemed to mean all such parties as may from time to time be licensed hereunder.

(d) Buyer agrees that it will not knowingly sell the Seller's anti-knock mixture or any gasoline treated therewith for resale at any point which at the time is covered by any exclusive license contract made by the Seller with any third party, and the Seller agrees that in all future license contracts it will embody substantially this same clause for the protection of the Buyer's exclusive right.

2.

(a) The Seller shall, at its own expense, deliver to the Buyer, or its licensees, on Buyer's orders from time to time given within twelve months from date, eight thousand

(8,000) mixing meters and attachments therefor above mentioned. The Buyer shall cause these to be installed as promptly as practicable, after demonstration and instruction to be furnished at the Seller's cost. The Seller shall furthermore, reimburse the Buyer for the expense of such installation which should be assumed to be One Dollar ($1.00) for each installation until actually determined.

The Seller shall have the right to install any ethylizer thirty days after shipment if the Buyer has for any reason failed to do so.

There shall also be delivered by the Seller, and installed under the same conditions as specified in paragraph (a) such further mixing meters and attachments therefor as the Buyer shall from time to time order for use at other locations not previously equipped with anti-knock apparatus.

(b) A sample of the mixing meters and attachments therefor shall be submitted by the Seller to the Buyer for the Buyer's approval before installation of the same, but such approval shall not be unreasonably withheld. The Seller shall keep all mixing meters and attachments therefor in good operative order and repair at its own expense during the continuance of this agreement, and shall, upon being notified by the Buyer that any thereof need attention, repair or replace the same promptly. The Seller shall be afforded every reasonable facility and opportunity to enable it properly to inspect any of said meters and attachments therefor whenever it may so desire.

(c) All of said mixing meters and attachments therefor shall be and remain the exclusive property of the Seller. Any of them at any time may be surrendered to the Seller or removed by the Buyer to any new location not previously equipped with anti-knock apparatus. The Buyer shall exercise reasonable diligence for the care and protection of all said mixing meters and attachments and shall be liable or responsible therefor, only for want of the exercise of such reasonable care and caution, and shall not be liable if, although having exercised all such care and caution, the same are lost, stolen or injured.

(d) The Seller further agrees, without expense to the Buyer and promptly upon the Buyer's request, to equip any or all bulk stations with apparatus suitable for mixing said anti-knock mixture with gasoline in bulk, to enable the said mixture to be dispensed from bulk supplies. All such apparatus shall be kept in good order and repair by the Buyer and surrendered to the Seller in good order, less ordinary wear and tear, upon the Buyer wholly ceasing to vend said mixture. The Seller agrees to furnish and deliver without cost to the Buyer, at such place or places as may be designated by the latter, all such extra parts as may be reasonably required to keep the said apparatus in good order and repair.

(e) The Seller agrees to sell to the Buyer at cost, plus a handling charge, additional mixing meters for use by the Buyer at locations where the Buyer desires more than the one mixing meter furnished by the Seller. The Seller agrees to repurchase these from the Buyer at any time the Buyer wishes to discontinue their use, provided they are in good condition at a price that shall equal their cost less twenty percent (20%) for each year or proportionate part thereof they have been in service.

(f) The Buyer agrees to order from the Seller such quantity of anti-knock mixture as may be reasonably necessary to supply the demands of the public in all such portions of the aforesaid territory as have been equipped with mixing meters, and the Seller will fill all such orders barring unavoidable delay.

(g) The Seller will ship for account of the Buyer and on Buyer's orders and instructions, freight prepaid, anti-knock mixture in suitable containers, which containers shall be the property of the Seller and shall be returned to it at such place or places as the Seller may from time to time designate and at the Seller's cost.

(h) The Buyer agrees that during the continuance of this agreement it will, in adding such anti-knock mixture to gasoline, use such proportion of anti-knock material as may be necessary to maintain the standard of anti-knock value set forth in the preamble of this agreement.

(1) None of the mixing meters, attachments therefor, or apparatus mentioned in this paragraph shall be removed by the Seller without the consent of the Buyer so long as the same continue to be used for the purpose of vending said mixture.

3.

The price to be paid by the Buyer to the Seller for said anti-knock mixture shall be based upon the quantity of tetraethyl lead contained in the anti-knock mixture furnished to the Buyer and shall be ten dollars ($10.00) for each liter thereof contained in said mixture. The proportion of tetra-ethyl lead in said mixture shall, however, at no time during the continuance of this agreement, be less than one and three quarters liters in each five liters of said mixture, unless some agreement as to the cost thereof be arrived at between the Buyer and Seller.

Should the Seller reduce the price of said tetra-ethyl lead or sell the same at a less price to any other purchaser during the continuance of this agreement, it will give a similar reduction to the Buyer.

4.

The Seller elects to call the gasoline when mixed with the said anti-knock mixture "Ethyl Gas", unless adverse trade mark rights should develop, and the Buyer agrees that all its advertisements of the same and those of its licensees shall embody the word "Ethyl" or "Ethylized", though not if such averse trade mark right develop.

in which event the Buyer agrees that said advertisement may embody some other suitable word or words free to be used and which the Seller may elect to be employed therein.

It is understood and agreed, however, that any and all responsibility for trade-mark, label, or analogous infringement, including rights relating to unfair competition, with which the Buyer and/or its licensees, may be charged for employing in such advertisements any word or words which Seller shall so elect to employ, shall be assumed by the Seller, and the Buyer and/or its licensees, shall be held harmless therefrom; and the Seller shall, at its own expense, defend any or all litigation based on such employment and pay any judgment or judgments that may be awarded to the plaintiff in the premises, or the amount of any settlement therein, if settlement be made. In the event of any such litigation or threats thereof, the Seller shall be promptly notified thereof by the Buyer and be entitled to representation by its own counsel in all negotiations or proceedings relative thereto and may assume charge thereof if it shall so desire; but no such settlement shall be made unless by mutual agreement of the parties hereto.

5.

The Seller shall advertise in its own name and at its own expense the said anti-knock mixture, in and for the territory covered by this contract, the character of such advertising and the medium thereof to be solely in the Seller's discretion. All such advertising, however, that contains the Buyer's name or refers in any way to the Buyer's products shall be submitted to the Buyer and its approval obtained before being published. The cost of all such advertising shall be as determined by the Seller, but shall not be less, in the aggregate amount during any six months period of this agreement than two per cent (2%) of the cost to the Buyer of the anti-knock mixture purchased from the Seller during the corresponding period. Where any such advertising, however, partakes of a general character and is not solely confined to the aforesaid territory, but may be of benefit to the Buyer, a fairly proportionate amount of the cost thereof shall be allocated to and included in said two percent.

6.

No sale of gasoline treated with anti-knock mixture under this contract shall be made at a price in excess of three cents (3¢) per gallon of treated gasoline above the then current price of untreated gasoline.

7.

For the purposes of this agreement, anti-knock mixture or material is defined to mean any substance which, when added in a very small amount to gasoline or other motor fuel, tends to suppress detonation.

During the period of this contract the Buyer agrees:

a. Not to use commercially or sell any anti-knock mixture or material which infringes upon Seller's patent rights.
b. Not to use other than Seller's anti-knock mixture in Seller's mixers.

8.

During the continuance of this agreement, the Seller will not sell any of the said anti-knock mixture within the aforesaid territory, nor will it knowingly sell any thereof to any person to be sold therein with the exception, however, that it shall have the right to sell said mixture direct to consumers in said territory where and while there shall not be operating apparatus installed under this contract adequate to take care of such business.

9.

The Seller shall prepare and submit for the Buyer's approval two forms of information and instruction, one for the guidance of service station and garage employees and any others who may handle the anti-knock mixture or dispense the gasoline, and a second form of directions and information for the consumer. After approval by the Buyer, these forms shall be printed in convenient form by the Seller and delivered to the Buyer in sufficient quantities for distribution, and the Buyer shall cause them to be distributed in its territory; and should any suit or suits be brought against the Buyer, and/or its licensees, for injury to person or property arising from the handling or use of any of said mixture that may have been furnished by the Seller and it be established in the prosecution of such suit or suits that, although all of the provisions of said directions were fully complied with by the claimant, such injury nevertheless occurred, the Seller will defray the entire expense of settling the same, or, if not settled out of court, the Seller shall pay all of the costs of any such litigation, together with the full amount of any judgment that may be rendered against the Buyer, and/or its licensees. The Seller shall be promptly notified by the Buyer of any such suit and it shall be represented by its own Counsel in all negotiations or proceedings relative thereto and may assume exclusive charge thereof if it so desires. In case of any other liability for injury to person or property arising from the handling or use of any of said mixture other than that covered by the foregoing portion of this paragraph, such liability and any and all expense incident thereto, shall be borne equally by the Seller and Buyer, it being understood that no settlement of any claim for liability shall be made except by mutual agreement of the parties hereto.

If the Seller finds and brings to the attention of the Buyer that any employee of the Buyer, and/or its licensees, is disregarding the aforesaid printed instructions, the Buyer will take such steps as may be necessary to see that the instructions are properly obeyed by him thereafter.

-10-

The Seller has not as yet obtained Letters Patent of the United States for or relating to any of the anti-knock materials or compounds named in this agreement, but has applications therefor pending in the United States Patent Office and willprocure the issuance as soon as practicable of Letters Patent upon at least one of such applications to broadly protect the use and sale of the aforesaid anti-knock material.

11.

The Seller agrees at its own expense, to defend the Buyer, and/or its licensees, in any action or actions that may be brought alleging that the use and/or sale of anti-knock mixture so supplied by the Seller, and whether or not containing any admixtures added by the Seller, infringes any Letters Patent of the United States; and the Seller agrees to pay any and all judgments for damages or profits arising out of such litigation that may be assessed against the Buyer, and/or its Licensees, thereby saving them harmless therefrom, it being understood that the Seller shall be entitled to representation by its own council in any such litigation.

12.

The Seller hereby agrees that it will, at its own expense, bring and prosecute diligently through the Court or Courts of last resort, or otherwise to final adjudication, proceedings against infringers of any United States Letters Patent which may be granted to the Seller for anti-knock materials and/or mixtures, in the aforesaid territory, to the end of establishing its rights under such letters Patent and protecting the Buyer, and/or its licensees, in their rights hereunder, it being understood that the Buyer shall be entitled to representation by its own counsel in any such litigation.

Any money recovery which may be had in any such proceeding shall be first applied toward defraying the expenses of the Seller therein; any balance for defraying the expenses of the Buyer therein; and, of any further balance, one-half shall be paid to the Buyer to the extent that such recovery shall have been based on acts of infringement committed within the territory covered by this agreement.

13.

It is intended that the rights of the Buyer in respect to anti-knock mixture furnished by the Seller under this contract shall apply under any and all Seller's Letters Patent and Patent applications for or relating to anti-knock materials and/or mixtures, so that if the Seller should dispose of any of its patents or applications therefor, to another or others, such rights of the Buyer shall nevertheless continue under the terms of this agreement.

14.

While tetra-ethyl lead has herein been specified as the anti-knock material particularly considered, it is understood and agreed that this agreement shall equally apply to and cover any or all other anti-knock materials and/or mixtures (meaning any material which, when added in very small amount to gasoline or other motor fuel tends to suppress detonation) which the Seller may have devised or developed or may hereafter acquire, devise or develop, and covered by U. S. Patents, or pending applications therefor, and with which the Buyer may desire or prefer to be supplied. The price of such material shall be the cost to the Seller of the material plus an additional charge for the quantity thereof required to treat each gallon of gasoline equal to the existing difference between the cost and the selling price, of the equivalent quantity of tetra-ethyl lead.

15.

All of said mixture that may be sold by the Seller to all persons other than the Buyer shall be practically the same in effect as the mixture sold to the Buyer hereunder and, if the Seller at any time sells or licenses said mixture to anyone on more favorable terms than those hereof, the Buyer shall be so advised by the Seller and be entitled to the Benefit thereof.

16.

Within twelve months after the termination of this agreement, the Seller will offer to Buyer a further license to purchase and to use and sell Seller's anti-knock mixture within the territory covered by this agreement, upon terms as favorable as those offered by Seller to any other distributor of gasoline, and will agree, in the event of Buyer's acceptance of said offer, to give Buyer the benefit of any more favorable contract which Seller may make during the term of such further license.

During the time intervening between the termination of this present agreement and Buyer's acceptance of Seller's offer, or the expiration of the twelve months, whichever shall first occur, the Buyer shall be deemed to be operating under a non-exclusive license on the same basis as the present contract.

- 17 -

The Buyer agrees for and during the term of this contract to acknowledge the validity of all Letters Patent issuing upon the aforesaid applications or upon applications hereafter filed by the Seller that are subject to this agreement, and agrees not to contest the validity of the said Letters Patent or to directly or indirectly aid or abet others in doing so.

18.

All of the terms and provisions of this agreement as well as any extension or continuation thereof shall insure to the benefit of and be binding upon the successors of each of the parties hereto.

IN TESTIMONY WHEREOF, the parties hereto have, each by due authority to the subscribing officers, executed these presents the day and year first above written.

GENERAL MOTORS CHEMICAL COMPANY

By C F Kettering

President.

Attest: Merrill

Secretary.

STANDARD OIL COMPANY OF LOUISIANA

By D R Weller

President

Attest: J A Bechtold

Secretary.

THIS AGREEMENT made this 9th day of January, 1924, between GENERAL MOTORS CORPORATION, a corporation of Delaware, having a principal place of business at New York City, hereinafter called "General Motors", and STANDARD OIL COMPANY OF LOUISIANA, a corporation of Louisiana, having its principal office in the City of Baton Rouge, Louisiana, hereinafter called the "Louisiana Company",

WHEREAS General Motors is the sole stockholder of "General Motors Chemical Company", a Delaware company, engaged in the manufacture and sale of a certain compound or compounds designed to be mixed with gasoline or other similar fuel to reduce the effect of combustion known as "knock" and to increase the efficiency of internal combustion engines, and

WHEREAS the Louisiana Company has entered into a certain contract dated the 7th day of January, 1924, with said General Motors Chemical Company relating to the purchase mixing and sale of such compound or compounds, upon the condition that General Motors would guarantee the performance thereof by said General Motors Chemical Company,

NOW, THEREFORE, in consideration of the premises, and of the due performance on the part of the Louisiana Company of the obligations imposed by said contract upon it, and of the sum of one dollar by it paid to General Motors, the receipt of which is hereby acknowledged, General Motors does hereby guarantee the due performance on the part of said General Motors Chemical Company of its obligations under said contract at the times and in the manner therein stipulated, and further agrees to hold the Louisiana Company harmless from any default or failure on the part of said

General Motors Chemical Company to carry out said contract according to its terms.

IN WITNESS WHEREOF the parties hereto have each by due authority to the subscribing officers, executed these presents the day and year first above written.

FORM APPROVED
JOHN T. SMITH
GENERAL COUNSEL

GENERAL MOTORS CORPORATION

By A P Sloan Jr
President

Attest:

L. R. Bradley
Asst Secretary

STANDARD OIL COMPANY OF LOUISIANA

By D. R. Weller President

Attest:

J.A. Bechtold
Secretary

4596

STATE OF NEW YORK)
: ss.:
COUNTY OF NEW YORK)

On this 12d day of January, in the year one thousand nine hundred and twenty-four, before me personally came Alfred P. Sloan Jr to me personally known, who, being by me duly sworn, did depose and say that he resides in New York City N.Y ; that he is the President of the GENERAL MOTORS CORPORATION, the corporation described in and which executed the foregoing instrument; that he knows the corporate seal of the corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

Lucy B Martin

STATE OF New York)
: ss.:
COUNTY OF New York)

On this 1st day of February ~~January~~, in the year one thousand nine hundred and twenty-four, before me personally came John A. Bechtold to me personally known, who, being by me duly sworn, did depose and say that he resides in Baton Rouge La ; that he is the Secretary of the STANDARD OIL COMPANY OF LOUISIANA, the corporation described in and which executed the foregoing instrument; that he knows the corporate seal of the corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

Wm. A. Rader

Defendant's Exhibit (GM) No. 80

6580

AGREEMENT

between

GENERAL MOTORS CHEMICAL COMPANY

and

GULF REFINING COMPANY

- - - - - - -

THIS AGREEMENT, made this 26th day of January, 1924, between GENERAL MOTORS CHEMICAL COMPANY, a corporation organized and existing under the laws of the State of Delaware, having its principal offices at the City of Dayton, State of Ohio, hereinafter termed "Seller",

-and-

GULF REFINING COMPANY, a corporation organized and existing under the laws of the State of ~~Texas~~, ~~having its corporate domicile~~ offices at the City of ~~Port Arthur~~, State of ~~Texas~~. hereinafter termed "Buyer".

G. R. Co.
T. U. J.

WHEREAS, the Seller has been and is now engaged in devising and developing certain materials to be mixed with the fuel (gasoline, kerosene or other motor fuel) for internal combustion engines, the object of such admixture being to render such fuel non-knocking, and thereby make it possible to use higher compression pressures in such engines without producing the detonation commonly known as "knock", and with the further advantage of increasing the power output of said engines with attendant economy in fuel consumption; and

WHEREAS, the Seller represents that the preferred material thus far developed for such admixture is an organic compound known as "tetra-ethyl lead"; and

WHEREAS, the Seller represents that when tetra-ethyl lead is mixed in the proportion of about three cubic centimeters per U.S. standard gallon with a straight run petroleum distillate consisting mainly of paraffin hydrocarbons (for example, straight run distillate from Penn. crude), and just conforming to the "New Navy" Specifications for gasoline now in force, there is produced a motor fuel suitable for use in motors of sufficiently higher compression to warrant their general adoption, and which may be described as a non-knocking fuel equal in this property to a mixture of sixty per cent. (60%) of the original fuel plus forty per cent. (40%) Benzene (commercial 90% Benzol), and

WHEREAS, the Seller represents that it has discovered the necessary additions in the way of other materials or compounds necessary to prevent certain harmful secondary effects attendant upon the use of tetra-ethyl lead, the mixture of said materials or compounds with said tetra-ethyl lead constituting the mixture hereinafter referred to as "anti-knock mixture"; and

WHEREAS, the Buyer represents that it is engaged in the business of selling gasoline to the public, and is now selling and intends to sell during the continuance of this agreement a gasoline which is a sufficient improvement in non-knocking characteristics over the straight run distillate hereinbefore described so that it requires a lesser quantity of tetra-ethyl lead to produce a satisfactory non-knocking fuel for use in the aforementioned higher compression motors. The Buyer further represents that it is desirous of distributing a gasoline which will in non-knocking characteristics be equivalent to 60% of the hereinbefore described straight run distillate plus 40% benzene (benzol) and that if the said anti-knock mixture will enable the Buyer to accomplish such purpose, it is willing to purchase the same from the Seller in accordance with and subject to the hereinafter expressed terms and conditions:

NOW THEREFORE, THIS AGREEMENT WITNESSETH:

That in consideration of the premises and of the covenants and agreements hereinafter set forth, the said parties hereby agree as follows:

1.

(a) The period of this contract shall be for no longer than three (3) years from date and shall sooner terminate eighteen months after there shall have been delivered, under this agreement, the first three ~~eighteen~~ thousand (3,000 ~~18,000~~) of the Seller's mixing meters and the attachments therefor at a like number of locations.

G. R. S.
T.M. Jr.

(b) The Seller hereby grants to the Buyer, for the period of this contract and for the territory hereinafter defined, the exclusive right to sell and/or use the Seller's anti-knock mixture, subject only to conditions hereinafter mentioned.

The territory comprises the States of Texas, Pennsylvania and Delaware.

The Buyer may license, subject to the terms hereof, others to sell and/or use and to license the sale and/or use of the Seller's anti-knock mixture within the defined territory, and the expression "Buyer's Licensees" shall be deemed to mean all such parties as may from time to time be licensed hereunder.

(d) Buyer agrees that it will not knowingly sell the Seller's anti-knock mixture or any gasoline treated therewith for resale at any point which at the time is covered by any exclusive license contract made by the Seller with any third party, and the Seller agrees that in all future license contracts it will embody substantially this same clause for the protection of the Buyer's exclusive right.

2.

(a) The Seller shall, at its own expense, deliver to the Buyer, or its licensees, on Buyer's orders from time to time given within twelve months from date, ~~[illegible]~~ three thousand (~~[illegible]~~ 3,000) mixing meters and attachments therefor above mentioned. The Buyer shall cause these to be installed as promptly as practicable, after demonstration and instruction to be furnished at the Seller's cost. The Seller shall furthermore, reimburse the Buyer for the expense of such installation, which should be assumed to be One Dollar ($1.00) for each installation until actually determined.

G.R.V.
T.u.J.

The Seller shall have the right to install any ethylizer thirty days after shipment if the Buyer has for any reason failed to do so.

There shall also be delivered by the Seller, and installed under the same conditions as specified in paragraph (a), such further mixing meters and attachments therefor as the Buyer shall from time to time order for use at other locations not previously equipped with anti-knock apparatus.

(b) A sample of the mixing meters and attachments therefor shall be submitted by the Seller to the Buyer for the Buyer's approval before installation of the same, but such approval shall not be unreasonably withheld. The Seller shall keep all mixing meters and attachments therefor in good operative order and repair at its own expense during the continuance of this agreement, and shall, upon being notified by the Buyer that any thereof need attention, repair or replace the same promptly. The Seller shall be afforded every reasonable facility and opportunity to enable it properly to inspect any of said meters and attachments therefor, whenever it may so desire.

(c) All of said mixing meters and attachments therefor shall be and remain the exclusive property of the Seller. Any of them at any time may be surrendered to the Seller or removed by the Buyer to any new location not previously equipped with anti-knock apparatus. The Buyer shall exercise reasonable diligence for the care and protection of all said mixing meters and attachments and shall be liable or responsible therefor, only for want of the exercise of such reasonable care and caution, and shall not be liable if, although having exercised all such care and caution, the same are lost, stolen or injured.

(d) The Seller further agrees, without expense to the Buyer and promptly upon the Buyer's request, to equip any or all bulk stations with apparatus suitable for mixing said anti-knock mixture with gasoline in bulk, to enable the said mixture to be dispensed from bulk supplies. All such apparatus shall be kept in good order and repair by the Buyer and surrendered to the Seller in good order, less ordinary wear and tear, upon the Buyer wholly ceasing to vend said mixture. The Seller agrees to furnish and deliver without cost to the Buyer, at such place or places as may be designated by the latter, all such extra parts as may be reasonably required to keep the said apparatus in good order and repair.

(e) The Seller agrees to sell to the Buyer at cost, plus a handling charge, additional mixing meters for use by the Buyer at locations where the Buyer desires more than the one mixing meter furnished by the Seller. The Seller agrees to repurchase these from the Buyer at any time the Buyer wishes to discontinue their use, provided they are in good condition, at a price that shall equal their cost less twenty per cent. (20%) for each year or proportionate part thereof they have been in service.

(f) The Buyer agrees to order from the Seller such quantity of anti-knock mixture as may be reasonably necessary to supply the demands of the public in all such portions of the aforesaid territory as have been equipped with mixing meters, and the Seller will fill all such orders barring unavoidable delay.

(g) The Seller will ship for account of the Buyer and on Buyer's orders and instructions, freight prepaid, anti-knock mixture in suitable containers, which containers shall be the property of the Seller and shall be returned to it at such place or places as the Seller may from time to time designate and at the Seller's cost.

(h) The Buyer agrees that during the continuance of this agreement it will, in adding such anti-knock mixture to gasoline, use such proportion of anti-knock material as may be necessary to maintain the standard of anti-knock value set forth in the preamble of this agreement.

(i) None of the mixing meters, attachments therefor, or apparatus mentioned in this paragraph shall be removed by the Seller without the consent of the Buyer so long as the same continue to be used for the purpose of vending said mixture.

3.

The price to be paid by the Buyer to the Seller for said anti-knock mixture shall be based upon the quantity of tetra-ethyl lead contained in the anti-knock mixture furnished to the Buyer and shall be Ten Dollars ($10.00) for each liter thereof contained in said mixture. The proportion of tetra-ethyl lead in said mixture shall, however, at no time during the continuance of this agreement, be less than one and three-quarters liters in each five liters of said mixture, unless some agreement as to the cost thereof be arrived at between the Buyer and Seller.

Should the Seller reduce the price of said tetra-ethyl lead or sell the same at a less price to any other purchaser during the continuance of this agreement, it will give a similar reduction to the Buyer.

4.

The Seller elects to call the gasoline when mixed with the said anti-knock mixture "Ethyl Gas", unless adverse trade-mark rights should develop, and the Buyer agrees that all its advertisements of the same and those of its licensees shall embody the word "Ethyl" or "Ethylized", though not if such adverse trade-mark right develop, in which event the Buyer agrees that said advertisement may embody some other suitable word or words free to be used and which the Seller may elect to be employed therein.

It is understood and agreed, however, that any and all responsibility for trade-mark, label, or analogous infringement, including rights relating to unfair competition, with which the Buyer, and/or its licensees, may be charged for employing in such advertisements any word or words which Seller shall so elect to employ, shall be assumed by the Seller, and the Buyer, and/or its licensees, shall be held harmless therefrom; and the Seller shall, at its own expense, defend any or all litigation based on such employment and pay any judgment or judgments that may be awarded to the plaintiff in the premises, or the amount of any settlement therein, if settlement be made. In the event of any such litigation or threats thereof, the Seller shall be promptly notified thereof by the Buyer and be entitled to representation by its own counsel in all negotiations or proceedings relative thereto and may assume charge thereof if it shall so desire; but no such settlement shall be made unless by mutual agreement of the parties hereto.

5.

The Seller shall advertise in its own name and at its own expense the said anti-knock mixture, in and for the territory covered by this contract, the character of such advertising and the medium thereof to be solely in the Seller's discretion. All such advertising, however, that contains the Buyer's name or refers in any way to the Buyer's products shall be submitted to the Buyer and its approval obtained before being published. The cost of all such advertising shall be as determined by the Seller but shall not be less, in the aggregate amount during any six months period of this agreement than two per cent. (2%) of the cost to the Buyer of the anti-knock mixture purchased from the Seller during the corresponding period. Where any such advertising, however, partakes of a general character and is not solely confined to the aforesaid territory, but may be of benefit to the Buyer a fairly proportionate amount of the cost thereof shall be allocated to and included in said two per cent.

6.

No sale of gasoline treated with anti-knock mixture under this contract shall be made at a price in excess of three cents (3¢) per gallon of treated gasoline above the then current price of untreated gasoline.

7.

For the purposes of this agreement, anti-knock mixture or material is defined to mean any substance which, when added in a very small amount to gasoline or other motor fuel, tends to suppress detonation.

During the period of this contract, the Buyer agrees:

a. Not to use commercially or sell any anti-knock mixture or material which infringes upon Seller's patent rights;

b. Not to use other than Seller's anti-knock mixture in Seller's mixers.

8.

During the continuance of this agreement, the Seller will not sell any of the said anti-knock mixture within the aforesaid territory, nor will it knowingly sell any thereof to any person to be sold therein with the exception, however, that it shall have the right to sell said mixture direct to consumers in said territory where and while there shall not be operating apparatus installed under this contract adequate to take care of such business.

9.

The Seller shall prepare and submit for the Buyer's approval two forms of information and instruction, one for the guidance of service station and garage employees and any others who may handle the anti-knock mixture or dispense the gasoline, and a second form of directions and information for the consumer. After approval by the Buyer, these forms shall be printed in convenient form by the Seller and delivered to the Buyer in sufficient quantities for distribution, and the Buyer shall cause them to be distributed in its territory; and should any suit or suits be brought against the Buyer, and/or its licensees, for injury to person or property arising from the handling or use of any of said mixture that may have been furnished by the Seller and it be established in the prosecution of such suit or suits that, although all of the provisions of said directions were fully complied with by the claimant, such injury nevertheless occurred, the Seller will defray the entire expense of settling the same, or, if not settled out of Court, the Seller shall pay all of the costs of any such litigation, together with the full amount of any judgment that may be rendered against the Buyer, and/or its licensees. The Seller shall be promptly notified by the Buyer of any such suit and it shall be represented by its own counsel in all negotiations or proceedings relative thereto and may assume exclusive charge thereof if it so desires. In case of any other liability for injury to person or property arising from the handling or use of any of said mixture other than that covered by the foregoing portion of this paragraph, such liability and any and all expense incident thereto shall be borne equally by the Seller and Buyer, it being understood that no settlement of any claim for liability shall be made except by mutual agreement of the parties hereto.

If the Seller finds and brings to the attention of the Buyer that any employee of the Buyer, and/or its licensees, is disregarding the aforesaid printed instructions, the Buyer will take such steps as may be necessary to see that the instructions are properly obeyed by him thereafter.

10.

The Seller has not as yet obtained Letters Patent of the United States for or relating to any of the anti-knock materials or compounds named in this agreement, but has applications therefor pending in the United States Patent Office and will procure the issuance as soon as practicable of Letters Patent upon at least one of such applications to broadly protect the use and sale of the aforesaid anti-knock materials and it is expressly stated that the present contract is made by the parties in contemplation of and relying upon said Letters Patent being issued Seller.

11.

The Seller agrees at its own expense to defend the Buyer, and/or its licensees, in any action or actions that may be brought alleging that the use and/or sale of anti-knock mixture so supplied by the Seller, and whether or not containing any admixtures added by the Seller, infringes any Letters Patent of the United States; and the Seller agrees to pay any and all judgments for damages or profits arising out of such litigation that may be assessed against the Buyer, and/or its licensees, thereby saving them harmless therefrom, it being understood that the Seller shall be entitled to representation by its own counsel in any such litigation.

12.

The Seller hereby agrees that it will, at its own expense, bring and prosecute diligently through the Court or Courts of last resort, or otherwise to final adjudication, proceedings against infringers of any United States Letters Patent which may be granted to the Seller for anti-knock materials and/or mixtures, in the aforesaid territory, to the end of establishing its rights under such Letters Patent and protecting the Buyer, and/or its licensees, in their rights hereunder, it being understood that the Buyer shall be entitled to representation by its own counsel in any such litigation.

Any money recovery which may be had in any such proceeding shall be first applied toward defraying the expenses of the Seller therein; any balance for defraying the expenses of the Buyer therein; and, of any further balance, one-half shall be paid to the Buyer to the extent that such recovery shall have been based on acts of infringement committed within the territory covered by this agreement.

13.

It is intended that the rights of the Buyer in respect to anti-knock mixture furnished by the Seller under this contract shall apply under any and all Seller's Letters Patent and Patent applications for or relating to anti-knock materials and/or mixtures, so that if the Seller should dispose of any of its patents or applications therefor, to another or others, such rights of the Buyer shall nevertheless continue under the terms of this agreement.

14.

While tetra-ethyl lead has herein been specified as the anti-knock material particularly considered, it is understood and agreed that this agreement shall equally apply to and cover any or all other anti-knock materials and/or mixtures (meaning any material which, when added in very small amount to gasoline or other motor fuel tends to suppress detonation) which the Seller may have devised or developed or may hereafter acquire, devise or develop, and covered by U.S. Patents, or pending applications therefor, and with which the Buyer may desire or prefer to be supplied. The price of such material shall be the cost to the Seller of the material plus an additional charge for the quantity thereof required to treat each gallon of gasoline equal to the existing difference between the cost and the selling price of the equivalent quantity of tetra-ethyl lead.

15.

All of said mixture that may be sold by the Seller to all persons other than the Buyer shall be practically the same in effect as the mixture sold to the Buyer hereunder, and, if the Seller at any time sells or licenses said mixture to anyone on more favorable terms than those hereof, the Buyer shall be so advised by the Seller and be entitled to the benefit thereof.

16.

Within twelve months after the termination of this agreement, the Seller will offer to Buyer a further license to purchase and to use and sell Seller's anti-knock mixture within the territory covered by this agreement, upon terms as favorable as those offered by Seller to any other distributor of gasoline, and will agree, in the event of Buyer's acceptance of said offer, to give Buyer the benefit of any more favorable contract which Seller may make during the term of such further license.

During the time intervening between the termination of this present agreement and Buyer's acceptance of Seller's offer, or the expiration of the twelve months, whichever shall first occur, the Buyer shall be deemed to be operating under a non-exclusive license on the same basis as the present contract.

17.

The Buyer agrees for and during the term of this contract to acknowledge the validity of all Letters Patent issuing upon the aforesaid applications or upon applications hereafter filed by the Seller that are subject to this agreement, and agrees not to contest the validity of the said Letters Patent or to directly or indirectly aid or abet others in doing so.

18.

All of the terms and provisions of this agreement as well as any extension or continuation thereof shall inure to the benefit of and be binding upon the successors of each of the parties hereto.

IN TESTIMONY WHEREOF, the parties hereto have, each by due authority to the subscribing officers, executed these presents the day and year first above written.

GENERAL MOTORS CHEMICAL COMPANY

By C F Kettering
President.

Attest:
Thomas Midgley Jr
acting Secretary.

GULF REFINING COMPANY

By Geo. S. Davison
President.

Attest:
asst. Secretary.

(SEAL)

Defendant's Exhibit (GM) No. 81

Sept. 29, 1924.

Tetraethyl Lead Plant, Bayway.

Mr. A. E. Mittnacht,
Ethyl Gasoline Corp.,
25 Broadway, N. Y. C.

Dear Mr. Mittnacht:

This manufacturing plant is operated by the Standard Oil Co. (N. J.) for the account of the Ethyl Gasoline Corp. The approximate cost of construction of the plant when completed will be about $50,000.00. The plant has an estimated capacity of 100 gallons of tetraethyl lead per day. Purchase contracts for materials have been made on the basis of six months' operation, beginning Sept. 15th, 1924. In view of necessity for using the space for other purposes, this should be regarded as the limit of life of the plant.

It is proposed that the business of this plant and its relations with the Ethyl Corporation should be as follows:

1. Shipment of lead tetraethyl will be made in minimum carload lots of 1500 gallons. First carload to go forward about Oct. 4th, after which deliveries should be maintained at the approximate rate of 100 gallons per day.

2. All lead shipped to be invoiced by Standard Oil Company to Ethyl Gasoline Corporation at $2.00 per pound until such time as the construction cost of the plant and all manufacturing charges up to that date have been covered.

3. Beginning at this time, lead to be billed at approximate cost, as determined by experience, until the plant is shut down. It is now estimated that cost will be approximately $1.00 per pound.

4. When the plant is shut down, on or about March 15th, complete statement will be made up and an adjustment reached of the accounts between the Standard Oil Company and the Ethyl Gasoline Corporation.

The above proposals have been taken up separately with Mr. Maxwell, Mr. Kettering, and Mr. Midgley, all of whom approve of this method of handling the operation of

—2—

this plant.

Unless I hear from you to the contrary, I shall assume that the foregoing is also agreeable to you.

Yours very truly,

Frank A. Howard.

hv

NOTE: "Copy to F. R. Parker" is handwritten under hv on page 2.

2
E

Defendant's Exhibit (GM) No. 82

COPY

STANDARD OIL OF N. J.

New York

June 23, 1924

Mr.C.F.Kettering,President,
General Motors Research Corporation,
Dayton, Ohio.

6817

My dear Ket:

I have been thinking over at considerable length certain of the points which were raised at the last conference we had with the Standard Oil Company of N.J. group in connection with the proposed partnership arrangement and I have been particularly concerned with the point that they brought up relative to the hazard that is being brought into the premises by proceeding along the proposed lines.

You recollect that at the time Midgley came on here when a difficulty developed in Dayton some week ago,I felt that we should not drastically alter our program but that we should carefully analyse the facts which had been presented, in a calm and judicial sort of a way and then decide if any change was desirable or not. I feel exactly the same way about the situation as it exists today. I have great difficulty in all these matters to form my judgment because it very frequently happens that I do not get all the facts - not that they are purposely withheld, but simply because time does not always permit the development of the full picture and important things that would contribute to the picture are not always thought of at the time the discussion is taking place.

Therefore,in connection with this particular matter; i.e. the hazard involved in this development,it would appear to me that it would be most constructive to do perhaps to some extent what we have already done but in a little different way; viz., that our new partners the Standard Oil of N.J. should appoint their medical man; the duPont Company should appoint their medical man and you should appoint whoever you wish, and that those three men should be a board of experts who would deal with the question and should submit a report to both the Standard Oil Company of N.J. and ourselves, dealing with the matter as they saw it after contributing to the picture what knowledge they themselves had and what judgment they could formulate after listening to the evidence and consulting such experts as they might care to consult in the premises.

6818

While, as I said before, such a program might be repeating what you have already done, nevertheless it would be putting it up in a formal way and should we be so unfortunate as to develop circumstances in the future which if known now would make us change our course, we would have at least been able to establish our full intention of getting all the facts that we could from the best people that we could consult in the premises. In other words, our legal and moral position would be tremendously improved.

I think also that it would be well for these experts to determine what has been done and what has not been done, if anything, and what should be done in the latter case to develop further facts concerning the reactions which are liable to develop through the use of this material in all the different ways that they can conceive of it being used or, I should say, misused. Such a procedure would develop a definite program for further experimentation and protection against the difficulties that we are sure to run into as incidents happen and they are bound to happen, of a negative character.

There is another side to the situation which is tremendously important and which I hope you and Midgeley have recognised and that is, that we must develop, without delay, a staff of experts prepared to deal with such questions that arise, in a comprehensive and authoritative manner. We should have on this staff the leading experts - those best qualified to discuss the matter and whose word will carry weight - that are in existence. Not in any way to develop propaganda in favor of the thing that is not constructive but rather to develop the truth about the thing that is constructive.

Will you kindly consider this very carefully and if you agree that I am thinking along sound lines be prepared to advise who you would like to have act for us in connection with the matter."

Very truly yours,

APSJr./K

Defendant's Exhibit (GM) No. 83

Letterhead of
E. I. du PONT de NEMOURS & COMPANY
(Incorporated)
Dyestuffs Department
Sales Division

Copy to Mr. Irenee du Pont, President.

June 30th, 1924.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
224 W. 57th Street,
New York, N. Y.

Dear Mr. Sloan:—

Proposed experts' committee to develop additional information relative to Tetra Ethyl Lead.
Reference: Your letter to Mr. Irenee du Pont, under date of June 25th, with enclosure.

In accordance with your request, we nominate Dr. A. K. Smith to represent the du Pont Company on this Committee, and will arrange for him to be available for consideration of this subject at any time.

In addition to the schedule of facts to be determined, as outlined in your proposed memorandum, it is my understanding that the members of this Committee will decide what other work should be done and the methods to be followed.

It seems to me that a plan outlined to me by Mr. Midgley at one time is one worthy of very serious consideration. That is, to arrange for research work to be conducted by Doctors at various institutions throughout the country. In this way we could hope to get a very accurate determination of facts from a number of sources, as well as derive the benefit of work done by people not strictly in the employ of the companies interested. The word of men of local prominence in connection with work done on this lead poisoning subject should be of great value.

Very truly yours,

W. F. Harrington,
Ass't. Gen'l Mgr.

WFH-M

Note: A check mark is placed by hand after the word "President" at upper right.

Defendant's Exhibit (GM) No. 84

STANDARD OIL COMPANY
(INCORPORATED IN NEW JERSEY)
MANUFACTURING DEPARTMENT
26 BROADWAY

INTER-OFFICE CORRESPONDENCE

NEW YORK June 24th, 1924.

Lead Tetraethyl Plant

Mr. F. A. Howard,
Building.

Dear Sir:-

This will confirm conversation with Mr. McLaren yesterday in which we advised that the Board approved, in principle, the installation of equipment for producing 100 gallons of Lead Tetraethyl per day in the Engineering Department Testing Laboratory, referred to in your letter of June 23rd.

Very truly yours,

GMW:JFG

E-3

E

Defendant's Exhibit (GM) No. 85

G. M. Chemical Contracts—Standard Oil Co. of New Jersey
—Foreign Countries New File UU.

May 6, 1924.

Mr. F. A. Howard,
Standard Oil Company of N. J.,
26 Broadway,
New York, N. Y.

My dear Mr. Howard:—

Agreeable to my conversation the other day regarding negotiations between us, attached hereto is copy of a letter to Mr. Moffett which I dictated previous to your calling me on the phone, and as our telephone conversation explained our position still more fully, I am sure you thoroughly understand that we are very well satisfied with the progress that has been made, but feel in order to be sure that everything is properly provided for, that we would like to go a little more slowly than would be possible by closing up anything this week. On this you also agree so we will assume that that point is covered.

With regard to your suggestion relative to a conference of your technical people, the duPont technical people and Mr. Midgley relative to a better understanding as to the possibilities of the chlorine method, would advise that I feel a little anxious in the premises because the patent situation is so thoroughly undetermined. I have been informed that we have application for quite a number of processes which may or may not interfere with your applications. I do not know enough about the details to say whether they do or whether they do not and the last thing I would want to have happen would be to have some conflict or interference arise which would lead you to believe that we had taken advantage of anything you had disclosed to us. Therefore, in agreeing to your suggestion which I think will be helpful, I do so on the basis of your assurance, given over the telephone, that your patent situation is absolutely established to your entire satisfaction and that you are satisfied that there is nothing that your people can disclose to our people that would in any sense cause any confusion or inject any misunderstanding or unpleasantness into a picture that is getting along so nicely.

You appreciate, of course, that we would not in any sense take advantage of or permit anybody in our organization to take advantage of anything. It is not that—but what I want to avoid is the possibility of what might be an honest conflict of

Page #2,

claims being interpreted as a lack of good faith on our part.

In view of the fact that you say that you are satisfied I have written Mr. Midgley asking if he will take the matter up with you and advise you when an arrangement can be made, or in the event that he sees some reason why it is not advisable at this time that he communicate with you promptly.

This will probably be the last letter I will write you until after my return from my forthcoming Western trip, at which time I assure you we will get at the matter promptly and effectively and will endeavor to have both Mr. Kettering and Mr. Midgley present so that we can make progress more rapidly and definitely. I appreciate very much my limitations in dealing with a matter which is so involved and with which I have very little specific information as to its exact status.

Very truly yours,

APSJr./K

c.c Mr. Midgley

3
E

Defendant's Exhibit (GM) No. 86

May 8, 1924.

General Motors.

Mr. Alfred P. Sloan,
General Motors Corp.,
224 W. 57th St.,
New York City.

Dear Mr. Sloan:

Confirming our conversation of today, Mr. Teagle, Mr. Moffett, and Mr. Clark returned this morning and it was agreed by all of us that your suggestion of postponing any further negotiations until after your return, with the thought that at that time all of the interested parties could sit down and stay consecutively at it until we have completed the deal, is the only feasible way out of our difficulties.

In this connection, as you know, my goings and comings have been fixed by the Court in Kansas City, and not by my own wishes. The Court has announced that it will adjourn on May 29th over to June 9th, which means that I shall be in New York from the 31st of May until the 7th of June, inclusive. Since this is fortunately exactly the time which you mentioned as being agreeable to you, our people here are therefore counting on resuming the discussions with you and your associates on or about Monday, the 2nd of June, with the hope that we may conclude the matter during the ensuing week.

In the meantime, I hope that Mr. Harrington, of the Du Pont Company, will be able to make a full investigation of our chloride method of manufacture; and I have given instructions to our Research Laboratory to see that he gets complete information on this, in the event that he is unable to begin on the matter until after my departure on Saturday.

Yours very truly,

FRANK A. HOWARD.

hv
Copies to: Mr. Teagle
Mr. Moffett
Mr. Clark

Defendant's Exhibit (GM) No. 87

COPY

June 26, 1924.

STATUS OF LEAD TETRAETHYL MANUFACTURE

The Du Pont plant at Penns Grove, N.J., across from Wilmington, represents an investment of $800,000.00. It operates on the so-called "bromine process." It has a present capacity of 300 to 400 gals. per day, which capacity will increase steadily week by week up to the maximum of the plant, 900 gals. per day, which should be attained about Sept. 15th.

The Du Pont Company are now operating under a purchase contract calling for the purchase of 1,100,000 pounds of lead tetraethyl at $2.00 per pound, which figure was intended to cover development expense and amortization of the plant in the term of the contract. Mr. Irenee Du Pont states that it will fall somewhat short of doing this, but does not make a point of this, and I take it the discrepancy will not be a serious matter.

Bare costs of manufacture on the bromine process — material, labor, repairs, and allocated portion of general plant expenses—will amount to about 75¢ per pound when this plant is operating at its full capacity and under normal conditions, which may be expected to be in September or October. The "goal" figure for bare manufacturing costs on the above basis is estimated to be about 63¢ per pound, if and when the plant is able to attain at every stage maximum efficiencies obtainable in the laboratory. The difficulties mainly involved here are the recovery operations on the bromine.

There is a possibility that a so-called "direct" bromine process, which Dr. Kraus and the Standard Oil Co. have been working with, might be substituted with some advantage for the "Indirect" bromine process which the plant is now operating, and that a substantial saving might possibly be effected here. Our data is too incomplete on this to permit the making of figures, however. It is agreed that Dr. Kraus and Dr. Callis, for the Standard Oil Co., will visit Wilmington within a few days, to lend whatever help they can on initiating experimental work on this "direct" bromine process.

There are serious limitations on the bromine supply; and since bromine is the best corrective yet found for deposition troubles from lead tetraethyl in the engine, it is important that the available supply be conserved for this use. We have not a complete picture on bromine production as yet, to permit us to determine where we are going to land on this for the year 1925. It is possible that unless a better corrective agent is found an investment will have to be made by, or guaranteed by, the Foundation Company for increased bromine production for this use alone. Mr. Midgeley should give his attention to this matter at once and present a report on this situation.

The chlorine process of manufacture of lead tetraethyl is figured to give a direct production cost, on the same basis as above referred to, of 45¢ per pound initially, and ultimately perhaps 37¢ to 38¢, depending upon the price of ethyl chloride. The plant investment will be from one-half to two-thirds the plant investment required by the bromine process, i. e., of the order of $450,000.00 to $750,000.00 for a 1000-gallon plant.

Estimates for the market for next year are 10,000,000 to 30,000,000 bbls. of treated gasoline. It is suggested, therefore, that the following manufacturing program be agreed upon:

1. Present 900-gallon per day plant to be continued at full capacity for the present.

2. 100-gallon plant, chlorine process, to be installed at the Bayway Refinery, for the account of the Foundation Company—estimated cost, $25,000. to $50,000., exclusive of building, which is now available. Equipment is to be of a type which can be salvaged substantially completely for removal to other plants. This 100-gallon per day plant to be scheduled for full operation Sept. 1st. Estimated manufacturing costs of this plant to be under $1.00 per pound. Labor item uncertain as yet.

This 100-gallon chlorine process plant has a double purpose: first, to afford the experience basis for future construction on this process; and, second, to provide an additional 100-gallons of tetraethyl per day for the end of the peak season, September and October, and for as much additional time as may be required in view of the market.

3. Two additional large-scale chlorine process plants should be laid down as soon as possible, to be ready to begin operations before the gasoline season opens in 1925. It is suggested that one of these plants, of 1000-gallons daily capacity, be located at Penns Grove, to be operated by the Du Pont Company, and that the second plant, of 500 gallons daily capacity, be located at some other point determined by a study of freight relationships, to be erected and operated by the Foundation Company.

Plans should be begun on both of these plants at once, with the expectation that the details of the process and equipment will be determined by the middle of September. On the above basis, there need be no substantial hold-up in the progress of the plant, since the buildings will require planning and initiating construction involving at least this amount of time, before the equipment orders need be placed.

The above program will give a production of 1000 gallons per day by Sept. 15th, which production can be maintained indefinitely, and an increased production of 1500 gals. per day, or a total of 2400 gals. per day, available by or before March, 1925.

If our estimates of possible business are sound, of which we shall be better able to judge by next fall, it may be that still further increases of manufacturing facilities should be then authorized, on the general principle that, so far as it is economic to do so, the basis should be 75% of manufacturing capacity to Du Pont and 25% to the Foundation Company.

With regard to the relations between the Foundation Company and the Du Pont Company, the present $2.00 per pound contract should be worked out about Oct. 1st. It is suggested that for any future contract with regard to this plant, or all contracts for the additional capacity installed by the Du Pont Company, the understanding will be that there will be a 20% per annum return on the capital employed. The Foundation Company will necessarily obligate itself to the Du Pont Company in some such manner as to guarantee Du Pont's investments in manufacturing facilities. It is suggested that of the 20% return, one-half,

4

or 10%, be applied toward writing off the capital investment. If for example the Foundation Company should place no orders with Du Pont after two years, then the Foundation Company would remain obligated to the Du Ponts to the extent of 80% of the original capital investment. The above guarantees to the Du Pont Company a minimum of 10% on its capital employed in manufacturing; and if the business continues successfully, this return will be 20%.

fah/ve

Copies to: Mr. J. A. Moffett, Jr.
Mr. E. W. Clark.

5

Defendant's Exhibit (GM) No. 88

April 10, 1925.

Mr. Alfred P. Sloan, Jr.
General Motors Corp.
224 W. 57th Street,
New York City.

Dear Mr. Sloan:-

I have delayed replying to your letter of the 28th until I should learn how to answer it.

Yesterday Mr. Webb was in Wilmington and went to inspect the tetraethyl lead plant. I had an opportunity of talking with him. It was short but decidedly reassuring. Frankly, I had some misgivings as to whether a lawyer who has been engaged in selling superfluous real estate was just the "timber" I hoped for. I am not sure that he is but at least he has made a good impression on me. The job needs somebody with reasonably forward vision and plenty of courage, coupled up with enough commercial instinct to obtain the profit which the traffic will bear.

Understand that he is going to make a report of his investigation of tetraethyl lead and based on that you and Mr. Teagle will decide whether he appears to be qualified to head the organization. I am in accord with such a trial.

Sincerely yours,

Irénée du Pont

NOTE: The words "File Copy" appear diagonally across the page.

E

Defendant's Exhibit (GM) No. 89

STATE OF NEW JERSEY

6832

DEPARTMENT OF LABOR

ANDREW F. McBRIDE
[redacted]
COMMISSIONER OF LABOR

Trenton, N. J., Nov. 19, 1924.

C. O. Johns, Ph. D. Director,
Research Division,
Standard Oil Co.,
P.O. Box 276, Elizabeth, N. J.

My dear Dr. Johns:-

Having received a satisfactory reportin which I am informed that it is perfectly safe for your engineering force to use your experimental equipment, I am, therefore, permitting you to use this equipment in your labratory as per your request of Nov. 12th, with the understanding that you are not to use any of the apparatus used for the manufacturing of tetraethyl lead, or to again engage in its manufacture without first notifying this Department so that we can use whatever means we have to prevent a re-occurrence of the catastrophy that occurred in your Bayway plant recently.

Yours very truly,

Commissioner of Labor.

Defendant's Exhibit (GM) No. 90

STATE OF NEW JERSEY 6833

DEPARTMENT OF LABOR

ANDREW F. McBRIDE
[redacted]
COMMISSIONER OF LABOR

Trenton, N. J., December 2, 1924.

Dr. C. O. Johns,
Research Development Dept.,
Standard Oil Co.,
Bayway, Linden, N. J.

My dear Dr. Johns:-

In order that your Tetraethyl Lead Department may be thoroughly dismantled and the work permanently discontinued, also that you may have sufficient time in which to dispose of the material you have on hand, I am assigning our inspector, Mr. George J. Speidel, to report at your plant tomorrow morning with the instructions to stay with you until your Tetraethyl Lead is entirely disposed of.

It will be Mr. Speidel's duty to see that it is properly handled and that there are no leaky pipes or valves. Mr. Speidel will be provided with the necessary instructions from this office.

Yours very truly,

Andw F. McBride
Commissioner of Labor. M.

Defendant's Exhibit (GM) No. 91

Extract from Minutes of Meeting of the Executive Committee of General Motors Corporation duly held on the 23rd day of June, 1925.

* * * * * * * * *

Present:

Mr. Alfred P. Sloan, Jr., in the Chair,
Mr. H. H. Bassett,
Mr. Donaldson Brown,
Mr. Charles T. Fisher,
Mr. Fred J. Fisher,
Mr. Lawrence P. Fisher,
Mr. C. S. Mott,
Mr. John L. Pratt,
Mr. John J. Raskob.

* * * * * * * * *

ETHYLIZED GASOLINE

The President told the Committee of the action of the Ethyl Gasoline Corporation in withdrawing ethylized gasoline from the market as a result of the publicity campaign conducted by the New York World regarding the question of possible injury to the public health from the use of this compound.

As is already known to the Committee, arrangements have been made with the Surgeon General of the United States to conduct an investigation as to the effect of this compound on the health of the public. The President expressed himself as being very hopeful that as a result of this investigation we shall very soon be permitted to resume the sale of ethylized gasoline and that its use will rapidly increase.

As an illustration of the value of this compound the Committee was informed that the Royal Air Service of Great Britain is now negotiating with the Ethyl Gasoline Corporation for $150,000. worth of ethylized gasoline and has expressed the opinion that this compound is absolutely essential to the proper operation of the Air Service.

* * * * * * * * *

A true copy.

/s/ GEORGE A. BROOKS
Secretary

Defendant's Exhibit (GM) No. 92

Extract from Minutes of Meeting of the Executive Committee of General Motors Corporation duly held on the 21st day of October, 1925.

* * * * * * * * *

Present:

Mr. Alfred P. Sloan, Jr., in the Chair,
Mr. H. H. Bassett,
Mr. Donaldson Brown,
Mr. P. S. du Pont,
Mr. Fred J. Fisher,
Mr. C. S. Mott,
Mr. J. L. Pratt,
Mr. J. J. Raskob.

* * * * * * * * *

TETRAETHYLLEAD — ETHYLIZED GASOLINE

The President reported that progress is being made by the U. S. Surgeon General's Committee appointed to investigate the question of injurious effects of ethylized gasoline. This Committee has visited the duPont Company's Plant at Deepwater, New Jersey, and apparently was very favorably impressed by the precautions taken in the manufacture of this compound and so far as we know the Committee has seen nothing which would justify its taking the position that the sale of tetraethyllead involves a hazard any greater than many other manufacturing operations. The President said that he feels quite confident that the Committee's report will not be unfavorable to our continuing production of this compound; further, that since tetraethyllead has been taken off the market some of the Gasoline

Companies have been marketing a so-called "Anti-Knock" Gasoline, which is really a highly refined gasoline, the amount of which is very limited and which could never be produced in sufficient quantities to satisfy the demand for a material of this kind.

The President also advised the Executive Committee that we have prepared for test purposes a Chevrolet and a Chrysler car with increased compression in order to demonstrate the saving that might be made in the consumption of gasoline if engines were specially designed to use ethlylized gasoline. This experiment has been demonstrated to Secretaries Hoover and Work who were much impressed with the potential conservation of the country's natural resources indicated by its practical application on a commercial basis. The President further stated that he intends to have these two test cars sent to our Proving Grounds where we can have thorough tests made for our own information.

* * * * * * * * *

A true copy.

/s/ GEORGE A. BROOKS
Secretary

Defendant's Exhibit (GM) No. 93

COPY

File No. 720.6—ESSO

STANDARD OIL COMPANY OF NEW JERSEY
Canton Refinery

Inter-Office
Correspondence

3822
Baltimore, Md., March 9th, 1929

In Reply Please Refer to
ESSO

Mr. Geo. W. McKnight,
New York City, N. Y.

Dear Sir:

Replying to your telegram of today, we wish to advise as a matter of record that beginning this afternoon our shipments of ESSO from Baltimore to our entire territory will contain lead.

Yours respectfully

(s) E. A. Rudigier

E

Defendant's Exhibit (GM) No. 94

GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK

March 29, 1926.

Mr. Ireneé duPont,
Wilmington, Delaware.

My dear Ireneé:—

I do not want to prolong an argument, but I think I have got an idea and I would like to see what you have to say about it.

In your letter of March 27th you say that it is not your idea to permit people to sell Ethyl Gas without having a sufficient amount of tetra ethyl lead in it to make it an anti-knock.

Now, it is exactly for that reason, in which I thoroughly agree with you, that I have been thinking, rightly or wrongly, that we should establish a standard gas as sure as anything possibly can be, considering all the bootleggers and gyps and everything else there is in the oil business; if you sold the material to Tom, Dick and Harry without adopting a standard, you would get just the result that you say you would not permit and it was solely for that reason that I think we have got to protect the trade name. We might just as well say that we would not permit a Buick car to leave the factory without it was up to a certain degree of standard and then take the position that we would not permit the factory to use any means of establishing that standard, such as inspection tools, etc.

Will you kindly advise me just how you would cover that point.

With regard to the question of the trade name, I do not agree with you. I think that there is a great deal in the

Ethyl Gas trade name even as it stands now. I do not think the black eye that it has received is going to influence it a bit. I think that the thing is too fundamentally sound for that sort of thing. Of course, if it did receive a black eye from the standpoint that it did not have quality behind it, it would be another thing, but it did receive an immense amount of advertising all over the world and it was very constructive advertising from the standpoint of its quality ond performance. It was only destructive from the standpoint of its health hazard which has been largely neutralized by the report of the Surgeon General. Is not this true?

Very truly yours,

Alfred P. Sloan Jr.

APSJr./K

NOTE: At upper right appears "VC25,"; at upper left is stamped "Answered Mar 39, 1926 (sic) Irenee du Pont"; at lower right is written "GMC-1388a"; underlining and question mark in left margin are handwritten. Italics indicate handwriting.

Defendant's Exhibit (GM) No. 95

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

Mr. Alfred Sloan, Jr., March 31, 1926.
224 W. 57th Street,
New York City.

Dear Alfred:—

Thanks for yours of the 29th. In my letter of the 27th in the second line where I put "Ethyl Gas" in quotation marks, it might have better been underscored also. Under my plan people who would buy ethyl fluid and put it in without supervision would be doing it under their own trade mark, such as "Esso" or any other they chose and we could rely on them to maintain quality or their product would get a "black eye." In other words, I would not want to be a party to permitting irresponsible people to put a small amount of ethyl lead in gasoline and sell it as "Ethyl Gas."

If you are right and we can control the quality of the product and sell it as ethyl gas, it of course would be good merchandising but I am fearful that the load we are undertaking is too great; that it will delay an expansion of the business and make for friction with those who are our real customers; i.e. the gasoline blender. Doubtless in time it can be worked out but it will be costly.

Sincerely yours,

Irénée du Pont

Irénée du Pont

NOTE: Across the top is written "Ethyl Gas—Contract-Sales"; at upper right appears an illegible initial; above the date is stamped "Received Apr. 1, 1925, A. P. Sloan, Jr."; to right of address appears an illegible initial; the figures "29th" and "27th" in the first line have check marks above them; to right of signature appears a routing stamp bearing initials "A.P.S.", "J.L.P.", "H.M.C.", "F.C.H.", "A.K.H.", "L.R.B.", "A.T.B.", "W.F.A."; check marks appear opposite the initials "A.P.S." and "A.T.B.".

Defendant's Exhibit (GM) No. 96

Irénée du Pont
Wilmington
Delaware

6842

June 22, 1927.

Mr. Alfred P. Sloan,
224 W. 57th Street,
New York City.

Dear Alfred:—

In case I didn't make myself clear to you in the Directors meeting of the Ethyl Gas Corporation, am writing you this in an endeavor to give you my line of reasoning:

The Ethyl Gas Corporation has at its sole disposal a material which can improve the anti-knock qualities of gasoline; it has no natural or artificial ability that large oil companies have not, which will enable it to standardize the quality of gasoline from a vaporization point of view. In our endeavors to maintain the quality of gasoline to make valuable the trade mark "Ethyl" we have undoubtedly succeeded in restricting the use of ethyl lead to a considerable extent. Surely our forecasts of a few years ago have not been met in volume of business. We must be restricting our customers for otherwise why would the Standard Oil of New Jersey refuse to adopt the trade mark "Ethyl" at all? In other words, if we have made it so onerous for gasoline companies to sell our product, and in addition have fixed it so that the man at the pump makes no additional profit by serving ethyl gas, then we have done everything we can to discourage the expansion of the use of ethyl gas.

—2—

I think it is time to "about face", insist to the Surgeon General that large and reputable gasoline companies are just as competent as we are to safe-guard the man that does

Government Exhibit No. 696

the mixing, and they are just as responsible as we are for any criminal negligence. In view of the history in the past year it seems to me sure that the Surgeon General will agree with such a point of view. We should then sell Ethyl fluid to any large reputable seller of gasoline to be used as he sees fit. We could contract with him that he could not use the word "Ethyl" in connection with his trademark unless he puts sufficient of the Ethyl fluid in the gas so that the product would measure up in anti-knock qualities to our standard, whatever that may be. This should at once largely increase the sale of Ethyl fluid and enable the Ethyl Gas Corporation to begin making money in volume.

Very truly yours,

Irénée du Pont

NOTE: In upper right of both pages appear illegible initials; to right of address is stamped "Received Jun 23, 1927, A. P. Sloan, Jr."; Marginal lines are handwritten; italics indicate handwriting.

Defendant's Exhibit (GM) No. 97

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

June 25, 1927.

Mr. Ireneé duPont,
Wilmington, Delaware.

My dear Ireneé:—

Thanks for your letter of June 22nd. I have been dissatisfied at the thought that you were apparently at odds with the rest of us on this most important question, but in view of the fact that everybody else seemed to feel so strongly on the other side, it seemed as if nothing could be done. I am glad to have your letter, however, and will try to answer your questions the best that I can because, notwithstanding a careful reading of your arguments and going back to the discussion we had at the meeting on Monday, I still feel just as I did before and you know that Mr. Brown, Mr. Teagle and the others feel likewise.

First. You make the following statement:—"In our endeavors to maintain the quality of gasoline to make valuable the trademark 'Ethyl' we have undoubtedly succeeded in restricting the use of ethyl lead to a considerable extent. Surely our forecasts of a few years ago have not been met in volume of business."

Answer. Now, in the first place, forecasts frequently differ from performance due to conditions which can not be forecast. During the past two years the whole oil industry has radically changed. You will remember that Mr. Teagle said that if conditions today in the oil industry paralleled those of two years ago when we were sitting around the table talking about organizing the Ethyl Gasoline Company, that we would be selling five times as much lead today. This is absolutely true. In the first place, California crude of natural anti-knock qualities is available in larger quantities than could possibly have been forecast or would have been considered even in the realm of possibility. Then again, more benzole has become available. Still again, improvements in cracking processes, due to the activities of Ethyl gasoline in developing an anti-knock material, have resulted in a bigger percentage of ordinary crude available for anti-knock qualities. All this has resulted in competition to Ethyl at a lower price or an equal price and has absolutely nothing to do with the point you are raising. Manufacturers naturally prefer—we would and you would—to supply anti-knock materials either by using tetra-ethyl lead or some other anti-knock process because they do not want to be tied up to one thing and then again, we are handicapped to some extent by our partnership with the Standard Oil Company of New Jersey. In other words, oil people do not want to support an industry having exclusive rights in which their strongest competitor has a partnership interest. Of course, we considered that at the time and it seemed,

irrespective of the point, to be the best thing to do. I therefore come to the conclusion that the comparison between our present position and where we thought we would be, is not exclusively due to the point you make.

Second. I quote as follows:—"We have made it so onerous for gasoline companies to sell our product, and in addition have fixed it so that the man at the pump makes no additional profit by serving Ethyl gas, then we have done everything we can to discourage the expansion of the use of Ethyl gas" and then you say further—"We must be restricting our customers for otherwise why would the

Standard Oil of New Jersey refuse to adopt the trademark 'Ethyl' at all?"

Answer. Now, the Standard Oil Company of New Jersey have not refused to adopt the 'Ethyl' trade-mark except on their 'Esso' and the reason they did that was for various reasons, principally on account of their export activities and also because at the time that this was decided 'Esso' had a higher anti-knock and starting value than Ethyl gasoline and at that time we did not want to raise the standard of Ethyl gas because it would have increased the premium that we would have to pay. There were other reasons also that they had in mind. As a matter of fact, altho Mr. Teagle did not say so, nevertheless it is a fact that New Jersey at this time is proceeding in a very big way to use tetra-ethyl lead and at that time will not only use the material but will use the name also.

On this point I want to make it clear to you that we are treading in an entirely unexplored country. Until Ethyl gas came out and the possibilities of a higher compression were before us, anti-knock materials had never been heard of. It was our activities that started this. The whole picture has changed on account of this activity on our part as well as through the fact, as I pointed out before and as you well know, the oil industry has changed. Mr. Clark told me not over nine months ago, that it was our duty to develop automobiles that used as little fuel as possible as we were certainly facing a shortage. Within six months after the whole oil market is shot to pieces due to an over-production and Mr. Teagle now says—I have not discussed it with Mr. Clark—that he thinks there will be an over-production as long as he lives. Probably both are more or less wrong, but it just shows how the picture has changed and I do not think all these changed conditions and their influence on

Ethyl gasoline can be charged to the fact that we are trying to maintain a standard.

Third. As to the Surgeon General. I regret to have to differ with you and also with Mr. P.S.duPont, who I know thinks the same way, as to our relations with the Surgeon General. Personally, I know you feel that it was a mistake not to go ahead and sell tetra-ethyl lead in the face of the protest which was raised, notwithstanding that you know we had no facts to substantiate our position. Of course, the other people had no facts otherwise, but in a health situation you can't rely on a defensive

position—you must be in a position to prove your case with facts, but the other fellow doesn't have to have any facts—he can simply have a theory which you must disapprove You must realize that this is true in dealing with the matter of public health and public sentiment behind it all and Standard Oil, to some extent, is in quite a different position than a concern like the duPont Company. Every man, woman and child in the United States is either a user of our product or a potential user. The biggest asset the Corporation has at the present time is the perfectly wonderful good-will that exists toward it and its product. It is absolutely a priceless asset and in my opinion should be maintained at any hazard and at any cost. To my mind it is more valuable than cash in the bank or in our plants or even our organization. I can't see the picture any other way. Therefore, if all this is right it would simply be suicidal to take a position such as we would have taken two years ago if we had gone ahead and sold the material against the system of protest that was developing. Furthermore than that, in a practical way it would have been foolish because we would immediately have had restrictions placed on us all over the country which would have stopped us anyway and then we would have had a terrific uphill road to overcome and get back—if we ever could get back. Frankly, I do not think we would ever have gotten back in the City of New York due to a restriction against us which we would have been unable to move simply on account of prejudice and perhaps, to a certain extent, politics. Therefore, to a certain extent I would rather work along with the Surgeon General in a cooperative way and feel that we have the support of an eminent body of experts who have given us the privilege to go ahead and sell in England and it is a question whether we would have been able to do so had we not had the support of this investigation. Personally, I am absolutely against doing anything but cooperating with the Surgeon General. I would much rather divorce ourselves entirely from Ethyl gas and close the thing up. We could easily afford to take a lossof a couple of millions but we canot afford to take a chance with the good-will of General Motors.

Fourth. I quote as follows:— "We could contract with him (the dealer) that he could not use the word 'Ethyl' in connection with his trade-mark unless he puts sufficient of the Ethyl fluid in the gas so that the product would measure up in anti-knock qualities to our standard."

Answer— You are now coming back to exactly the position that we take. We feel that if the word 'Ethyl' is used we must maintain the reputation of the word 'Ethyl'. You say that the dealer would protect his own position. Now, as a matter of fact, that is where you are wrong. In my opinion the dealer would not. You must appreciate that in buying tens of millions of dollars of products for our various cars, notwithstanding the specifications which we develop, we have to protect ourselves and have to inspect the material coming in to be sure that the supplier lives up to the standard set. If our suppliers, reputable as they are and as anxious as they are to please us and keep our business, thought—or their organization thought—that our inspection system had been eliminated, the standard of our products would drop instantly, simply because they could not be maintained under such a method of operation. It is exactly the same thing in selling tetra-ethyl lead to dealers who are far less reputable and who understand these matters far less thoroughly than the suppliers of components that we are buying for cars. It simply could not be done and we would soon be in a position where we would have to check the standards and protect our customers. Then again, you say that we would not let them use the word 'Ethyl' unless they agreed to use it. You could not prevent them using Ethyl gas because there is value in the name and even if they did not advertise they would sell it as Ethyl and you would be up against exactly the same thing and all this, of course, would be contrary to the position of the Surgeon General where we are compelled to display the fact that it is Ethyl.

Fifth In General. I would agree with you absolutely in all you say and would endorse your scheme as a method of operating and as a practical proposition if every one in the United States was so sold on Ethyl that when they bought something with Ethyl in it and it did not work satisfactorily that they would be blaming the dealer or the raw material rather than Ethyl. If we ever reach that point—the chances are we never will—then I think you could well afford to sell the Ethyl fluid without restriction and without the maintenance of a standard, but we have got to develop that in the minds of the public first and we can not develop it in the minds of the public by letting every Tom, Dick and Harry sell tetra-ethyl lead and set his own standard by agreeing to maintain a standard. You could not do that in any business, as I see it, and you certainly cannot do it in the oil business where there are more disreputable dealers, more bootlegging and more everything else than there is in the average industry.

As I said before, I regret very much that you do not agree with us on this point, but I know you want us to state exactly how we feel because that is the only way we can get anywhere, and I would appreciate it very much if you would carefully analyze this letter and give me your ideas why and where I am wrong.

Thanking you in advance, and with best regards, I remain,

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

NOTE: At lower right of all four pages is written "A 6140"; beneath letterhead on first page is stamped "Answered Jun 30, 1927, Irenee du Pont"; italics indicate handwriting.

Defendant's Exhibit (GM) No. 98

6531

IRÉNÉE DU PONT
WILMINGTON
DELAWARE

MR. ALFRED P. SLOAN, JR.
c/o General Motors Corp.
Broadway at 57th Street,
New York City.

Dear Alfred:—

I am not convinced by your letter.

First, the fact that other anti-knock materials are being sold in quantity indicates that there is a real demand for such materials and that Ethyl lead has not succeeded in pre-empting that field.

Second, I take it you don't deny that we have made it onerous for the gasoline companies to sell our product. Also, we don't allow the final purveyor to make any money by selling Ethyl gas in lieu of other gas. That certainly is not encouraging; it ought to be remedied.

Third, I have no quarrel with the Surgeon General; quite the contrary. I think he could be easily brought to see the fact that great corporations like the Standard Oil of N. J., Gulf Refining, etc. would be just as reliable in supervising the blending of Ethyl fluid with gasoline as could an employe of the Ethyl Gas Corporation working on their plant.

Fourth, the large sellers of gasoline cannot afford to jeopardize their trade mark products. This is demonstrated by your saying that the Esso gas is even higher quality than our specification. The other big gasoline companies would be just as careful.

—2—

The facts are we are still dribbling along at the rate 100,000 or 150,000 pounds a month. Two years ago we thought we would be making ten times that amount by now. I am not kicking on the way the men have pushed it, only on a policy which is such a hindrance to progress.

Sincerely yours,

Irénée du Pont

Note: Beneath date line is stamped "Received Jul 5, 1927, A. P. Sloan, Jr."; underlining at bottom of first page is by hand; italics indicate handwriting.

Defendant's Exhibit (GM) No. 99

July 5, 1927.

Mr. Irenee du Pont,
Wilmington, Delaware.

My dear Irenee:—

Noting yours of July 1st and continuing the discussion just in the hopes that we can get something out of it, let me say as follows:—

First. There is no question but what there is a real demand for anti-knock material. There is no question but what in the development of the high compression engine it will be a necessity and that in due course of time all fuels must have anti-knock quality or a very large percentage if they can be sold at all. Naturally, we can't pre-empt the field because there are, as you know, large quantities of fuel having anti-knock qualities that are perfectly satisfactory and in existence, therefore, they must be sold. Then again, there may be a very large quantity of benzole which, as you know, has very high anti-knock qualities, that in turn must be sold, so you see we can't possibly expect at any time to be anything but in a competitive position.

Second. I am not taking any position at all that our policies have been as constructive as they ought to be in connection with the marketing of the product. I mean by that, the sales price, the method of distribution and all factors of that character. Personally, I know nothing about the distribution of motor fuels. It is an enormous business in itself and like most all businesses, it takes a great amount of detailed knowledge and experience to be able to handle the matter intelligently. That was one of the reasons why I felt that the Standard Oil of New Jersey partnership would be of interest, simply because they had that experience and we had none and are in a better position to solve these problems than we ever could be. As Mr. Teagle said the other day, the whole thing is brand new and we have got to proceed through evolution. I am, therefore, not in any sense defending the constructiveness of our merchandising program. On the other hand, I am defending the fact that we will never get anywhere unless we maintain a standard. That, as I see it, is the only difference between us so far as this discussion is concerned.

Third. Personally, I do not agree with you that we could go ahead and sell tetra-ethyl without supervising the blending. No one is concerned with Ethyl except Ethyl Gasoline Corporation. It may be that with the advent of the high compression engine and the necessity

—2—

Mr. Ireneé du Pont,
July 5, 1927.

of such a large percentage of fuels being of anti-knock quality, we could get to the point where tetra-ethyl lead was in such demand and was so absolutely essential to selling fuel at all, that we could 'write our own ticket', so to speak. If that time ever comes, which I very much doubt, then I probably would agree with you on everything you say and all we need to do would be to take the material away if there was any complaint in what our customer did and the penalty would be so great that they would be mighty careful to do everything we said. As I said before, that is not the situation today and probably won't ever be, and that is the reason why we all feel we have got to maintain the standard and see that precautions are properly taken to protect the reputation of our product and to protect the continuation of its sales.

Very truly yours,

APSJr./K

Note: Routing stamp appears on page 1 with checks after A.P.S. and A.T.B.

3
E

Defendant's Exhibit (GM) No. 100

6856

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

July 15, 1927.

Mr. Ireneé duPont,
Wilmington, Delaware.

*Apparently
not in file.

My dear Ireneé:—

Noting yours of July 1st* and continuing the discussion just inthe hopes that we can get something out of it, let me say the following:—

Do not think for a minute that I believe the merchandising program is what it ought to be. I am sure it isn't and it may be very far from what it ought to be. I think that this is being recognized at the moment and studies are being made to make such changes as our present experience may indicate are desirable. As a matter of fact, it must be recognized that General Motors is not familiar with the complicated picture of merchandising gasoline. The Standard Oil people of New Jersey ought to know about that and ought to advise us. Naturally, they are more concerned with their own problems than they are with ours, but I am sure that through evolution the matter will work out all right, and as long as we have the Standard Oil people of New Jersey as partners, we ought to give them an opportunity to show their good faith in everything and if the time is reached—I do not think it will be —when they do not want to be a real partner, the same remarks apply to General Motors, in that event I think we ought to consider ways and means of changing the ownership of the Ethyl Gasoline Corporation and put it in the hands of those that are not limited to other interests, or something of that kind, and can do better by the development than the present owners can. I am sure you will agree with me that that is sound.

I think we do not always stop to think that it is only a matter of six or seven months since we really got the 'go ahead' and much has been accomplished in that time.—a great deal I think when you look back and consider it all. Undoubtedy, more could and should have been accomplished. That is always the way, nevertheless I think we have made reasonable progress. I know Mr. Teagle feels so and, as a matter of fact, I think so, and in saying this I want to say at the same time that I do not think either partner in the business has been very helpful in promoting the business itself. The Standard Oil people have had their difficulties and we have had our difficulties in advocating

the high compression engine. We have had several things to do to get our house in order and it has taken time to sell our own organization on what has seemed to me to be a very self-evident proposition. We now, however, have our house in order and with one or two exceptions our organizations are becoming alive to the advantage of a higher compression and one or two of them are enthusiastic about it. I feel sure it will not be very long now before we can become a real partner. Mr. Teagle has assured me that they are going to be the biggest distributors of Ethyl gasoline as soon as their present program can be worked out. They are entitled, of course, to be taken on their statement. but if they do not make good I feel we ought to raise the question and I shall raise the question very vigorously as soon as a reasonable time has elapsed to enable them to carry out their program. So much for that side of it.

Now, when it comes to the matter of standard, I think we have a real difference here. None of us agree with your position. I do not wish to annoy you with a lot of correspondence and realize it will be some little time before you return and can see same, but I just today received a letter from Mr. Webb and I will enclose copy of it and will also enclose copy of letter he has written to Mr. Chew which, after you have noted, you can return to me—there is no hurry about it. This shows exactly what we would be up against if we did not maintain a standard. Probably from your point of

of

view it will demonstrate something which you will in turn advise me so that we can profit thereby.

Another phase of this standard business that is important with us right now is this:— We are raising the compression of our engines and to do so intelligently we must have a standard of fuel to go by. If we are limited by the standard that some of the present sellers of anti-knock fuels are using, it will not pay us to bother with the thing at all. Mr. Chrysler in his announcement has told his organization that they are to work to Ethyl gasoline standard. My position is that our position can not be very much different because it is the only standard. If we simply send out high compression heads or pistons and let it work out through evolution, we are going to have a great many dissatisfied users. I do not see how we can do anything different than maintain the standard of Ethyl gasoline and see that it is maintained to protect the reputation of the product. My mind would begin to approach your side of the argument did we have exclusive contracts. In other words, take the Standard Oil Company of Indiana, for instance. With their exculsive contract over a term of years I believe they could be counted upon to protect the reputation of the product because, in a way, it is their reputation. Where there is competition, however, or where there is no exclusive privilege, I feel sure the situation would be quite different.

I would appreciate any further thoughts you might have in the premises.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

Enc.

NOTE: At upper right is written "VC25"; beneath date is stamped "Answered Aug 23, 1927, Irenee du Pont"; at lower right on both pages is written "GMC-1391 b"; check marks and marginal lines are by hand; italics indicate handwriting.

4
E

Defendant's Exhibit (GM) No. 101

IRÉNÉE DU PONT
Wilmington
Delaware

August 23, 1927.

Mr. Alfred P. Sloan, Jr.
224 W. 57th Street,
New York City.

Dear Alfred:—

This is a belated letter to thank you for yours of the 15th and enclosures which are returned herewith.

I shall stop complaining of the situation because I feel that Chrysler's move on the high compression head is going to force the sale of anti-knock fuel to a point where we will be bound to merchandise in larger quantities, which after all is all that I am interested in and if we find the route we are now using too cumbersome, Webb will sooner or later have to switch.

Thank you for your interest.

Sincerely yours,

Irenee du Pont.

NOTE: Above the figure "15th" in the first sentence is a penciled check mark; at upper right is stamped "Received Aug 24, 1927, A. P. Sloan, Jr."; italics indicate handwriting.

E

Defendant's Exhibit (GM) No. 102

6501

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N.Y.

August 29, 1927.

Mr. Ireneé duPont,
Wilmington, Delaware.

My dear Irené:—

I have your letter of August 23rd dealing with mine of the 15th.

I felt very much worried about this situation, as I probably told you before, because I know how strong you feel about it and I hate to have anyone differ with the others so radically on such an important point. I have the matter continually in mind, knowing your viewpoint, but frankly, I can't for the life of me see how we can follow out your suggestion of entirely discarding all reference to basic standard where tetra-ethyl lead is used.

As a matter of fact, during the past two or three months there has come before us an insistent demand from many different quarters, that we not only maintain the standard but raise it, as the only way of properly exploiting the Ethyl gas idea. Mr. Chrysler is particularly emphatic that we should have a definite standard.

As you probably recollect, it was our idea at the time we started to exploit Ethyl gasoline, that we would make it a standard that was desirable from the user's viewpoint. We have been working in that direction, but progress has been slow due to many difficulties and uncertainties that have arisen. As a matter of fact, there were many factors in the picture that we did not know enough about.

I understand we all agree that if the time comes when tetra-ethyl lead is an absolute necessity and is recognized as such by the important oil interests—assuming, of course, that that point is ever reached, which I do not think it ever will be—in such event the maintenance of a standard would be inconsequential because we would not be in a competitive situation.

Let me assure you that we will follow the matter up very closely, and in my contacts with the picture, both from the General Motors side, as a user, and from the Ethyl gasoline standpoint, I will continually keep in mind the question as to whether we are right on the question at issue.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

NOTE: At upper right is written "VC25"; at lower right is written "GMC-1391"; italics indicate handwriting.

Defendant's Exhibit (GM) No. 103

GENERAL MOTORS CORPORATION
BROADWAY AT 57TH STREET
NEW YORK, N. Y.

January 19, 1928.

Mr. Lammot duPont,
Wilmington, Delaware.

My dear Lammot:—

I have your letter of January 14th which brings up two entirely different questions which I am taking the liberty of dealing with in the following:—

First. I appreciate the tremendous influence on the cost of lead per pound that the depreciation or amortization may have. This question of course, as you well appreciate, in turn is definitely linked up with the stability of the business. As I attempted to point out to you in my previous letter, irrespective of the answer that any individual may make to the question, nevertheless the question arises as to the hazard on account of the development which is going on in fuels which, through various methods of cracking, have anti-knock qualities within themselves. Naturally, this is a hazard which we must measure and deal with as intelligently as we can. I mention this because I do not want you to think but what there is a hazard here which must be measured. I have asked Mr. Kettering to give the best consideration he can to that phase of the matter because I realize that we must deal with additional capacity in the near future and we have got to have all the facts on the table that we can develop to enable us to measure the hazard and determine the period in which we should retire the investment in order to be on the safe side.

Second. You state in your letter that Ireneé makes the point that Ethyl Gasoline Corporation is run for the benefit of the oil industry and not with the idea of selling Ethyl gas. I think you have misunderstood Ireneé. I do not really believe he feels exactly that way. I know he disagrees entirely with the policy we are following and perhaps he thinks that that policy is advocated solely by our partners, the Standard Oil Company of New Jersey but the facts are that this is not so. Irrespective of whether Ireneé is right or wrong or irrespective of whether Mr. Brown or myself are right or wrong or whether the Standard Oil Company are right or wrong, we feel; i.e., the Standard Oil Company, Mr. Brown and myself, that we cannot accomplish anything in the distribution of Ethyl gas and consequently cannot sell tetra-ethyl lead unless we have a definite standard on which to establish a trademark and to build a reputation. Ireneé, on the other hand, thinks there should be no standard and that we should sell tetra-ethyl lead irrespective of anything and everything, relying on the distributor to maintain his own standard. On this principle we are absolutely divided and I feel very badly about it. It has caused me much concern because I do not like to have any differences anywhere and now that you have brought up the same point I am going to try to get together with you and Ireneé and see if we cannot argue it out and at least have a better understanding of how we differ. I mention this in detail because I do not want you to think that the Standard Oil people are dictating the policy selfishly—they are not. They believe just as fully and are just as conscientious about the soundness of doing it the way I mentioned above, as we do and I know that Ireneé is just as confident of the soundness of doing it the other way. I hope that this will show you our relative positions.

To sum up the situation, I think you have given me a general idea of the possibilities of the future and that is about as far as we can go for the present.

Very truly yours,

Alfred P. Sloan, Jr.

APSJr./K

Note: At upper right of first page is written "C-26" beneath which is written, in brackets, "In GM-9"; beneath the date is stamped "Received Jan 19, 1928, Lammot du Pont"; at lower right on both pages is written "GMC-588": italics indicate handwriting.

3

E

Defendant's Exhibit (GM) No. 104

MEETING OF CAR DIVISION MANAGERS WITH EXECUTIVE COMM.,

Meeting held at 2 P.M., at the office of the Corporation in Detroit, Michigan, on Thursday, December 1, 1921.

Present:
- Mr. H. H. Bassett
- Mr. K. W. Zimmerschied
- Mr. R. L. Day
- Mr. G. H. Hannum
- Mr. A. B. C. Hardy
- Mr. H. H. Rice
- Mr. J. A. Haskell
- Mr. A. P. Sloan, Jr.
- Mr. P. S. du Pont
- Mr. J. J. Raskob
- Mr. N. A. Hawkins

BRANCHES HANDLING ACCESSORIES OTHER THAN THOSE MANUFACTURED BY GENERAL MOTORS CORPORATION.

Discussion ensued as to the advisability of our Branches selling accessories other than those manufactured by General Motors Divisions, such as bumpers, spot lights, etc. It was understood that the Car Division Managers will give this matter consideration and be prepared to discuss it further at the next meeting.

USED CAR SALES.

The Car Division Managers were advised that in connection with the report of the sub-committee of Sales Managers on the subject of the method of handling used cars, which was received by the Executive Committee at its meeting on November 29th, a resolution was passed requesting Vice President C. S. Mott to advise the Executive Committee what further progress has been made in the matter of the sale of used cars.

This subject was discussed at length and a suggestion made that a careful study be made to determine if a plan can be devised which can be tried out at some important center, say, Philadelphia, for purchasing, overhauling and selling used

General Motors cars, all with the view of assisting Divisions in the sale of new cars.

Finally, it was moved and unanimously carried that Messrs. Mott, Bassett and Hawkins be appointed a Committee of three to study the Used Car Situation in an aggressive manner with the request that a report covering their investigation and suggestions be submitted to the Car Division Managers as soon as possible.

STUDY OF ENAMEL AND VARNISH DRYING.

There was presented to the meeting a letter from Dr. F. O. Clements of the Research Division, as to the advisability of the Research Corporation undertaking a study of enamel and varnish drying. After discussion, it was unanimously

RESOLVED, That this report be received, and the Advisory Staff requested to have a study of this kind made, limiting it to dope finishes, improved enamels, and methods of heating the ovens, the work to be carried on under the direction of an organization to be determined by Mr. Mott, as Head of the Advisory Staff, in conjunction with Mr. Kettering, and progress reports to be rendered to the Car Division Managers bi-monthly.

DISCOUNTS TO EMPLOYES.

The Secretary reported, as a matter of information, that the Executive Committee has approved the recommendation of the Car Division Managers that no plan be adopted for allowing discounts to employes on the purchase of automobiles.

LIGHT DELIVERY WAGON.

Mr. Bassett asked if there is any objection on the part of the other Divisions to the Buick Division taking up the matter of production of a light delivery wagon with a capacity of, say, 1000 lbs. No objections were raised.

LETTER FROM MR. R. S. McLAUGHLIN REGARDING HIS TRIP TO EUROPE.

Vice-President A. P. Sloan, Jr., read extracts from a letter just received from Mr. R. S. McLaughlin in regard to conditions in the automotive industry in Europe, as observed by him on his recent trip. One point brought out was the development of brakes on front wheels in France, which is regarded as an important item on automobiles in that section. It was also suggested that some of our engineers visit the European Automobile Shows in the future, and the Secretary was requested to make a note of this for consideration next year. It was understood that Mr. Sloan would send a copy of this letter to the Division Managers for their information.

WAGE RATES.

Report was received from the Industrial Relations Section, giving a tabulation of wages paid various trades. Upon motion, same was ordered filed.

SAMSON SCHOOL.

The question of using the Samson School for education of salesmen was discussed and the following motion offered and unanimously carried:

RESOLVED, That a Committee of Four, consisting of Mr. Hawkins and three of the Car Division Managers or their appointees, be appointed to study this matter and submit a written report as soon as possible. The Chairman appointed Messrs. Hawkins, Zimmerschied, Rice and Bassett.

Upon motion, the meeting adjourned.

Secretary.

Defendant's Exhibit (GM) No. 105

COPY FOR— 6869

Mr. C. S. Mott

December 29th, 1921

Mr. C. F. Kettering,
General Motors Research Corporation,
Dayton, Ohio

Dear Ket:

Regarding the Committee that was to be appointed by Mr. Mott for the study of Enamels, Varnishes, Paints, etc.:

It has been decided after conferring with you to appoint the following Committee,—

F. O. Clements, Chairman,
E. L. Bergland
Mr. Rogers, Oakland
Mr. MacQuaid, Chevrolet
Mr. Weckler, Buick

It was understood that Mr. Clements, of course, would have charge of the work for the General Motors Research Corporation and would call on the other members of the Committee as he requires them.

The resolution as passed by the Car Division Managers at meeting held in Detroit on Dec. 1st calls for progress reports to be rendered to the Car Division Managers bi-monthly.

Very truly yours,

....
Vice President

HHB—EG

Defendant's Exhibit (GM) No. 106

March 10, 1923

Mr. L. R. Beardslee,
General Motors Corporation,
224 West 57th St.,
New York, N. Y.

My dear Mr. Beardslee:

We have your letter, acknowledging our report on the Duco Enamels.

This report was prepared simply to stir up increased activity in the experimental work that still lies ahead. We surely believe to the uttermost in this material and believe that it will work out to our benefit from the standpoint of durability. You understand that our sole reason for paying so much attention to this material is that we are anxious to get greater durability of finishes. Thus far, we have not been able to quite equal the costs of the paint materials, this is quite a detriment in the eyes of our various car units. However, great durability is worth something.

I am glad that our report has awakened your interest.

Very truly yours,

....

Director of Research

FOC--G

Defendant's Exhibit (GM) No. 107

GENERAL MOTORS CORPORATION

New York, April 12, 1922.

Mr. C. F. Kettering,
General Motors Corporation,
Dayton, Ohio.

My dear Kettering:

Has the Laboratory done any work on the finishing of sheet metal without the use of paint? For instance, could we secure a coating of lower oxide of iron on sheet metal, this coating to be used as a permanent finish? This lower oxide is, I believe, not easily oxidized, is of good color and may be used for an acceptable finish. Might it not be possible to accomplish something in this way. Also would it be worth while experimenting on various qualities of iron and steel in an effort to find a grade that would not rust (such as Steelite)? For the moment, this method of procedure would appear almost as promising as the development of a satisfactory paint, varnish or enamel finish.

Very truly yours,

(signed)
P.S.DuPont
President

Defendant's Exhibit (GM) No. 108

MATTER OF "DUCO" PAINT

June 15, 1923.

Mr. F. O. Clements,
Director of Research,
General Motors Research Corp.,
Dayton, Ohio.

My Dear Mr. Clements:—

Be good enough to advise me if there is anything new in this situation relative to the use of this material by any of our Divisions, or haveany further developments taken place since the meeting I attended in Detroit.

Thanking you in advance,

I remain,

Very truly yours,

A.P.S.Jr./K

NOTE. In lower right hand corner is pencial notation "7/1" with check-mark and stamped box with initials A. P. S., J. L. P., P. F., W. J.. A. T. B., W. F. check-marks after A. P. S. & A. T. B.

Defendant's Exhibit (GM) No. 109

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO

June 20, 1923

Mr. A. P. Sloan, Jr., President,
General Motors Corporation
224 West 57th St.,
New York, N. Y.

Dear Mr. Sloan:

Replying to your letter of June 15, relative to Duco Enamel: 'Duco' is coming along very rapidly; in fact, it is proving so successful and interesting that it worries us a little bit. We are not having the proper quota of troubles.

Oakland is remodeling the entire Finishing Department, this remodeling based upon 'Duco' enamels; they are finishing with wax instead of varnish. They have put out quite a number of experimental jobs that have seemed to please the entire organization. The light colors look very good. Both Mr. Mougey and I have gone over the Oakland program very carefully and cannot see any flaws in it that might represent trouble, later on. We are surely desirous that nothing happen with this first job in 'General Motors'; for we do not want any interference with the later programs. Cadillac has been finishing a number of additional cars and they are all much pleased with the product. Finally we have succeeded in getting them to cut materially their schedule of drying and finishing which, a little later, I am sure, will include the use of 'Duco'. Our boys are at the Cadillac, at the present time, supervising this change in program, which, unquestionably, will save money for Cadillac and give them a more durable finish than has been customary in the past.

Fisher Body has finished 100 Chevrolet jobs in black and are quite interested in the proposition. A number of cars have been finished, also, at Oshawa; however, we are not particularly pleased with the workmanship on the Canadian cars.

Olds and Chevrolet are not greatly interested in the duPont product in black, due to the fact that there is nothing that

has any more durability than japans put on and baked at high temperatures.

'Duco' is particularly advantageous in colors, especially in the lighter shades.

Buick has been so busy with their production that their work has been largely experimental, to date. They have put out a number of cars and I imagine that, a little later, their interest will be increased considerably. They have done very little work with the more recent materials, which represent a great improvement in toughness and durability.

DuPonts are going ahead and preparing for an output, by October 15, of 25,000 gallons per month, which will be ample to take care of our requirements. We have asked them to try to lower costs on the 'Duco' materials: for we believe that this is possible. In this connection, Oakland expects to make a saving of one dollar per car.

Their wax finish looks quite good. It is somewhat of a question with us as to whether they will not receive some slight sales resistance with the wax finish."

I have noticed an announcement in the current literature by the duPont organization, mentioning this new type of automobile finish.

Our committee still has quite an ambitious program ahead, which I am absolutely positive will bear fruit that will be worth while to 'General Motors'.

We are appreciative of your interest in the project.

Respectfully yours,

/s/ F. O. CLEMENTS
Director of Research

FOC-G

NOTE. Stamp at top of page 1 "Received June 22 1923 A. P. Sloan Jr." Initials, probably Mr. Sloan's, at upper right.

Defendant's Exhibit (GM) No. 110

MATTER OF 'DUCO' FINISH

June 25, 1923.

Mr. F. O. Clements,
Director of Research,
General Motors Research Corp.,
Dayton, Ohio.

My dear Mr. Clements:—

I thank you very much for your letter of June 20th which is very encouraging. I am just wondering whether anything has been developed along the lines of a better vanish. As I understand it, the real question before us now is, a better varnish or outside finish.

Very truly yours,

A.P.S.Jr./K
c/c Mr. P.S. duPont

Defendant's Exhibit (GM) No. 111

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

July 3, 1923

Mr. A. P. Sloan, Jr., President,
General Motors Corporation,
224 West 57th St.,
New York, N. Y.

Dear Mr. Sloan:

I am glad that you have made reply to my letter, concerning the status of 'Duco' as a motor-car finish; for there was one place in my previous letter where the context might be a little misleading. I mentioned that Cadillac were materially changing some of their schedules, due to this enameling and paint investigation, which would result in a better product with less time required for finishing a car. I perhaps should have made it a little clearer that this is as yet an experimental program, not yet in production. There is no question, however, but that Cadillac will profit greatly by the work which they are undertaking, at the present time. This work involves both 'Duco' and also the effect of drying paint coats at higher temperatures for shorter times.

You make inquiry about better varnishes. We do have materially better varnishes than those now used, to apply over 'Duco', that will add to the durability of the finish; but these more durable finishing varnishes require a longer time for drying and, up to date, the men at the plants have considered this extra time as prohibitive. Another objection to the use of finishing varnish over 'Duco' is the fact that no varnish will last as long as 'Duco', itself, and the time comes when the varnish begins to crack and fail and the appearance of the car is very poor.

On account of the fact that 'Duco' is more durable than any finishing varnish now known, 'Duco' does not require a top coat of finishing varnish or of any other known finishing material to protect it; but it is desirable to do something to the 'Duco' to improve the luster of the top coat. The Oakland Company, as mentioned in my last letter, believe that they have solved this problem by rubbing and plishing the 'Duco'. This is what they call the 'wax finish'. The was finish does not have quite the luster of the finishing varnish but, as the wax gradually disappears from the surface, it does not have a poor appearance at any stage; and, as the wax disappears, the luster of the 'Duco' increases, due to the rubbing of the finish by the owner in the process of washing, etc. As a result, the finish should stay in good condition much longer than any finish depending upon finishing varnish.

The Sales Department of the Oakland has recognized these difficulties and has accepted them as being perfectly satisfactory. They think that the wax finish is very fine and will meet no sales opposition.

We wish to continue our search for better and more durable finishes.

Very truly yours,

/s/ F. O. Clements
Director of Research

FOC-G

Note. Stamp at top of page 1. "Received Jul 5 1923 A. P. Sloan Jr."

Defendant's Exhibit (GM) No. 112

MATTER OF 'DUCO' FINISH

July 20, 1923.

Mr. F. O. Clements, Director of Research,
General Motors Research Corporation,
Dayton, Ohio.

My dear Mr. Clements:—

I thank you very much for your letter of July 3rd which is indeed very interesting. By all means keep me advised as to how this thing develops. It is very important, more so I think than perhaps any of us realize.

Very truly yours,

A.P.S.Jr./K

NOTE. In lower right is notation 8/15, check-mark and stamped box with stamped initials A.P.S., J.L.P., P.F., W.J., A.T.B. and W.F.A. Check-marks A.P.S. and A.T.B.

Defendant's Exhibit (GM) No. 113

REPORT
OF
PAINT AND ENAMEL
COMMITTEE
OF
GENERAL MOTORS CORPORATION

August 22, 1923.

F. O. Clements - Chairman.
General Motors Research Corp.

E. L. Bergland.
General Motors Corporation

J. MacQuaid.
Chevrolet Motor Company.

R. S. Rogers.
Oakland Motor Car Company.

H. L. Weckler
Buick Motor Company.

R. D. Kavanaugh - Production and Equipment.
General Motors Corporation.

H. C. Mougey - Materials and Methods.
General Motors Research Corporation.

F. L. Chase - Asst. Materials and Methods.
General Motors Research Corporation

CONCLUSIONS

1. Black enamels of the proper grades, including both the enamels baking for a short time at a high temperature, and those baking for a much longer time at a lower temperature, give a very durable finish.

2. The finishes obtained with the use of paint materials, as distinguished from enamels, are low in durability.

3. From the standpoint of durability, the color and rubbing varnishes now used are the weakest links in the chain of finishing materials.

4. From the same standpoint, finishing varnishes now used are the next weakest links in the chain.

5. The primer and surfacing materials are relatively durable.

6. Duco, a cellulose nitrate product, may be substituted for the color and rubbing varnishes, or more durable color and rubbing varnishes may be used with a considerable gain in durability in either case,

7. More durable finishing varnishes may be used.

8. The need for finishing varnishes may be eliminated by the use of more durable color and rubbing varnishes or by the use of Duco; in either case securing the necessary luster by rubbing and polishing.

9. With any finishing material, thorough drying is necessary in order to secure durability.

10. By the use of schedules suggested in this report, more durable finishes may be obtained. In some cases this increase in durability is accompanied by a decrease in time required for finishing and in other cases by an increase in time.

Report of Paint and Enamel Committee

In the Fall of 1921, Mr. Mott appointed a committee to study the subject of paints, varnishes and enamels as applied to the finishing of automobiles. One of the first things done by this committee was to have prepared at each of the General Motors car building plants, test panels representing the standard open car finishes used by them at that time.

These panels were prepared in "lap coats", that is, the first coat covered the entire panel, the second coat covered all but a small strip at the top, the third coat covered all but a small strip of the second coat, etc., so that a portion of each coat was exposed without any coats over it. These panels were hung on test racks at St. Louis, Flint, Tarrytown and Dayton. These exposure test panels and test panels supporting the statements made in this report are submitted with this report.

The exposure tests of the panels prepared at the General Motors Plants showed that the finish used on Chevrolet bodies, that is, low bake enamel, and the finishes used on the fenders at all the plants, that is, high bake enamel, are very durable.

None of these black enameled panels have shown cracks visible to the naked eye after fifteen months exposure on our test racks, although all of them lost their luster in a comparatively short time. The luster, however, can be restored by polishing or washing with a very mild abrasive, such as Bon Ami.

In the cases of the test panels representing open bodies finished with paint materials, which includes all General Motors cars excepting the Chevrolet, the durability of the finish is very low, although no lower than the standard paint finishes of competitive cars.

On all cars using paint materials, the schedules are:

1. 1 Coat primer.
2. 1 to 7 coats surfacing materials.
3. 1 to 4 coats color varnish.
4. 2 to 4 coats rubbing varnish.
5. 1 coat finishing varnish.

The cheaper cars use the smaller number of coats and the more expensive the car the more coats used.

The finishing varnish of the panels on the roof test illustrating present General Motors paint finishes started to crack on the poorest panel in two months and after three months on the rack, cracks had started in the finishing varnishes on all panels. It was found that the primers and the surfacing coats on all panels were very durable.

These coats have not failed after fifteen months on the test racks. The color varnishes and rubbing varnishes were found to be very low in durability, failing where unprotected with finishing varnish in from one week to six weeks. These tests showed that in order to have durable finishes, it would be necessary to use more durable materials directly beneath the finishing varnish, for since the finishing film is very thin--on an average .0007 inch thick--it cannot offer very much protection against sun, rain or mechanical injury.

A durable material, quick and hard drying, was needed to replace the color varnishes and rubbing varnishes. Duco, a cellulose nitrate material made by the duPont Company, was the first material we found to supply this need.

Our tests have shown that panels prepared in the proper manner using Duco, have hung on our test racks without cracking for seventeen months up to date and these panels are still on exposure. There is, however, one objection to Duco. It does not have a high luster and our first attempts to secure a durable finish consisted in substituting Duco for the color and rubbing varnishes, and then putting the regular finishing varnishes over the Duco to obtain the desired luster. When it is intended to use finishing varnish over Duco, the grade of Duco designed for this purpose must be used, since there are some formulas of Duco over which finishing varnish will not dry.

While this method is a big improvement over present day practice, the gain in durability is limited by the fact that the finishing varnishes now used in production are very low in durability when compared with Duco or with the best finishing varnishes that can be produced. For example, Murphy's Over-Night Finishing varnish, which is used in production at the Buick Plant, failed over Duco in three and a half months on our test rack, while certain more durable finishing varnishes, such as Valentine's V.A.V. Finishing varnish, when used over Duco gave a finish that has been exposed seven months up to date and is still in perfect condition, and Duco, unprotected with finishing varnish, is now on our test racks in good condition after seventeen months exposure.

It was noted that when a finishing varnish was used over Duco, failure started first where the film of finishing varnish was thinnest. By applying a second coat of finishing varnish over the first coat of finishing varnish after the first coat had been thoroughly dried by force drying, a much greater durability was obtained. This gain in durability is true of the use of two coats of finishing varnish over either Duco or paint materials. Panels prepared in this manner using two coats of finishing varnish over Duco are still in perfect condition after eight and a half months exposure on our test racks.

The Buick found that since Duco did not require a finishing varnish for protection, the finishing varnish could be eliminated and the luster obtained by rubbing and polishing the Duco.

This is the so-called "wax finish" which has been adopted by the Oakland Company. This is a very durable finish and none of the panels properly prepared with this finish have failed in sixteen months up to date.

Another method of obtaining more durable coats beneath the finishing varnish is to use more durable color and rubbing varnishes of paint materials. These more durable color and rubbing varnishes are slow druing and in order to use them, it is necessary for reasons of both production and durability, to force dry them, since any paint material, unless thoroughly dried, is low in durability. Such color and rubbing varnishes are commercially obtainable and we have on our test roof, red, green, blue, black, gray, and clear color and rubbing varnishes which are much more durable than the finishing varnishes now used in production. Some of these have been on our test racks, unprotected with finishing varnish, for nine months up to date without failure, and we have all of these colors exposed for seven months up to date without failure, excepting the red, which failed in seven months when unprotected with finishing varnish. It is our understanding that Studebaker is putting into experimental production, cars finished with thoroughly baked, durable color varnishes without a top coat of finishing varnish. When durable finishing varnishes are used over these materials, very durable finishes are obtained.

Durable finishing varnishes are slow in drying, and in order to meet production requirements, force drying of the finishing varnish is desirable. This is especially desirable since force drying the finishing varnish greatly improves its durability, and if properly done, does not injure the luster of the finish. Best results have been obtained by air drying the finishing varnish over night and then slowly raising the temperature. In this way it is possible to dry the most durable finishing varnish within twenty-four hours from the time it is applied.

If a "wax finish" is found to be more desirable than the finish obtained when using finishing varnish, it is possible to obtain a very durable "wax finish" using paint materials. By using durable color and rubbing varnish in place of the present materials of low durability and thoroughly force drying these coats and then applying a durable finishing varnish instead of the present finishing varnishes of low durability and thoroughly force drying this finishing varnish, the finish so obtained may be rubbed and polished to a very satisfactory "wax finish".

Illustrations of Different Finishing Schedules.

In order to illustrate how the above ideas could be applied toward obtaining more durable finishes on General Motors cars, the following systems are suggested.

Chevrolet

We have no suggestions for improvement of the finish of the Chevrolet open cars, as the low bake black enamel used by them is cheap, easily applied, durable, and gives a good appearance. The cost of finishing by this method has recently been reduced by the substitution of fuel oil for electricity in baking the enamel. It might be desirable to do some work on Chevrolet closed cars using black enamel or some of the schedules suggested below for the other General Motors cars.

Oldsmobile

It is our understanding that the Oldsmobile Company is planning to use low bake black enamel on its new open cars. We feel that this will give them a very durable finish and the above suggestions on the Chevrolet apply here also. For colors some of the schedules suggested hereafter are applicable.

Oakland

The Oakland Company has adopted for its new open car models, the following finish:

Day	Coat	Material or Operation	Drying Time	Temperature.
1	--	Clean metal with Deoxidine	--	--
1	1	Spray primer	1½ Hrs.	300°F.
1	--	Spot glaze)	* 1½ Hrs.	300°F.
1	2	Sanding Surfacer)		
1	--	Sandpaper with wet paper	--	--
1	3	Spray Duco	½ Hour	125°F.
1	4	Spray Duco	Air dry over night.	
2	--	Rub and polish and stripe	--	--

* Note that the sanding surfacer is applied over the spot glaze and both the glaze and the sanding surfacer baked in one operation.

In order to be able to polish the Duco, and in order to insure thorough drying, force drying the second coat of Duco can be substituted with advantage in this schedule for air drying.

The exact drying time for Duco varies with the kind of Duco used. It has been found that some colors of Duco, on account of differences in formula made necessary by the differences in color, require longer drying time.

We believe that Duco as applied by the Oakland will give a very durable finish.

Buick

There are several methods which might be applicable to Buick cars.

The four cylinder cars might be black enameled, as is proposed for the Olds and is now standard practice on the Chevrolet, Overland, Dodge, and the Studebaker Light Six.

For both models a "wax finish" similar in appearance to the Oakland, produced by the use of Duco over Buick primer and surfacing coats might be desirable for black or colors.

If a finishing varnish luster is desired it may be obtained by using Duco over the Buick primer and surfacing coats, properly baked, followed by one coat of durable finishing varnish for a moderate durability. In order to obtain a much greater durability the first coat of finishing varnish over the Duco may be thoroughly force dried and then rubbed and a second coat of durable finishing varnish applied. In this case the finishing varnish used directly over the Duco may not need to be much more durable than the finishing varnish now used in production at Buick, but the top coat of finishing varnish should be of maximum durability.

As an alternative, this finishing varnish after thorough force drying may be rubbed and polished to a "wax finish".

In the case of the Buick red and blue jobs, the drying time can be decreased and the durability increased by the use of durable force dried color and rubbing varnishes instead of the present air dried materials of low durability. The red and blue bodies are now air dried at the rate of one coat per day and the use of force drying durable materials would permit the application of two coats per day, each coat drying about four and a half hours at 180°F . This method would require the installation of ovens for the red and blue jobs.

However, durable black color varnish requires more drying than one and one-third hours at 250oF. as now used on the Buick black rubbing varnish. Our tests indicate that durable blacks require at least double this time at this temperature. If a durable finishing varnish is used instead of the present finishing varnish of low durability, a drying time of eighteen to twenty four hours is required, even with the use of force drying. Force drying the finishing varnish would require aditional oven capacity.

Cadillac

In the case of the Cadillac, the remarks on the use of Duco, durable color and rubbing varnishes and durable finishing varnishes made under the Buick heading will apply. The Cadillac Company can also greatly reduce the time required for finishing by force drying their undercoats at a higher temperature and for a shorter time than is now their practice.

The Cadillac has been working along this line with apparently good results, the tests being made with a drying time for each of the primer and surfacing coats of about three hours, at from 180°F. to 200°F. instead of the standard time for the primer of twelve hours at 120°F. followed by thirty-six hours air dry, and, for the surfacing coats, twelve hours at 130°F. followed by twelve hours air dry. If Duco or baked durable paint materials be used over such undercoats, the job can be completed in from one-third to one-half the time now required, and we believe a much more durable finish will be obtained.

As an illustration of how such modified schedules would compare with the present schedule, the following schedules are tabulated.

Present Cadillac Schedule

Day	Coats	Material	Bake Hrs.	At.Temp.	Air Dry Hrs.
1	Sandblast	-	-	-	-
1	1	Primer	12	120	36
3	2	Lead Coat	12	130	12
4	3	Putty	12	130	12
5	4	Half and Half	12	130	12
6	5	1st Rough Stuff	12	130	12
7	6	2nd Rough Stuff	12	130	12
8	7	3rd Rough Stuff	12	130	12
9	8	4th Rough Stuff	12	130	12
10	-	Rub Rough Stuff	-	-	-
10	9	Transparent Sealer Coat	12	120	12
11	10	Color Sealer Coat	12	120	12
12	11	1st Color Varnish	12	130	36
14	12	2nd Color Varnish	12	130	36
16	-	Water Rub	-	-	-
16	13	3rd Coat Tinted Rubbing Varnish	12	130	*108
21	-	Water Rub	-	-	-
21	14	Finishing Varnish	12	90	84
25	-	Polish			48
27	-	Deliver to Assembly	-	-	-

*Note: The 108 hours between the 16th and 21st days includes the time for trimming the car, applying the upholstering, etc.

Suggested Schedules Nos. 1, 2, and 3.

Standard Cadillac materials are specified for undercoats, these undercoats being the same for all three schedules Nos. 1, 2, and 3. It will be noted that ten coats are specified up to the first color varnish. This large number of coats is not necessary or desirable for durability, but is specified to be in accord with present practice in obtaining Cadillac quality as it pertains to surface finish. We would recommend that the Cadillac start work to determine how many of these surfacing coats can be eliminated without sacrificing quality of surface. This will require an investigation of the relation between surface defects in the steel and the number of coats required.

Undercoats for Schedules Nos. 1, 2, and 3.

Day	Coats	Material	Hours	Temperature
1	Sandblast	---	--	---
1	1	Primer	[illegible]	185
1	2	Lead Coat	3	185
2	3	Putty	3	190
2	4	Half and Half	3	200
3	5	1st Rough Stuff	3	200
3	6	2nd Rough Stuff	3	200
4	7	3rd Rough Stuff	3	200
4	8	4th Rough Stuff	3	200
5	-	Rub Rough Stuff	--	---
5	9	Transparent Sealer	3	200
5	10	Color Sealer	1-1/2	200

Schedules 1, 2, and 3 are used over these undercoats as follows:

Schedule #1 (over undercoats given above).

Day	Coats	Material	Hours	Temperature
6	11	Duco	1	150
6	12	Duco	1	150
6	—	Rub and polish Duco and Trim. Deliver to Assembly after trimming on the 7th or 8th day.		

Schedule #2 (over undercoats given above).

Day	Coats	Material	Hours	Temperature
6	11	Duco	1	150
6	12	Duco	1	150
6	—	Rub Duco	-	---
6	13	Durable Rubbing Varnish	12	150
7	—	Rub Durable Rubbing and Trim		
9	14	Finishing Varnish	Air Dry Over Night.	

Force dry the finishing varnish at 120° from the morning of the 10th day to the morning of the 11th day or 12th day, delivering to the Assembly the 11th or 12th day, or air dry the finishing varnish six days as is now standard practice, delivering to the Assembly the 15th day.

Schedule #3. (Over undercoats given above.)

Day	Coats	Material	Hours	Temperature
6	11	Durable Color Varnish	4-1/2	180
6	12	Durable Color Varnish	4-1/2	180
7	--	Rub Color Varnish	-	-
7	13	Tinted Durable Rubbing	4-1/2	180
7	--	Rub and Trim	-	-
9	14	Finishing Varnish	Air Dry Over Night.	

Force dry the finishing varnish starting at 120°F. on the morning of the 10th day, and gradually increase the temperature to give the quickest drying time without loss of luster. Deliver to Assembly on the 11th or 12th day, or air dry the finishing varnish six days as is now standard practice, delivering to Assembly the 15th day.

On schedules 1 and 2, we believe that only two coats of Duco are necessary, but since Cadillac has not been able to obtain a satisfactory finish with less than four coats of Duco, further work should be done to establish the best practice.

It will be noted that, in Schedule 3, the top coat of finishing varnish is applied over a "Durable Rubbing Varnish" This "Durable Rubbing Varnish" is a varnish having the durability of an "Overnight Finishing Varnish".

It is our understanding that Packard has adopted the method of using a top coat of durable finishing varnish over a durable varnish of this type, and we believe that the Packard Company has very greatly improved the durability of its job by this method.

Closed Cars of all Makes.

We see no reason why the ideas expressed above in regard to open cars should not apply in many cases to closed cars, if the application of the upholstering and top materials is done at the proper time in relation to the finishing operations. As an illustration of how the method of finishing depends on the time of upholstering and trimming and other details, a car that is completely upholstered cannot be subjected to as high temperatures in finishing as one that is upholstered after painting.

Sources of Supply for Color, Rubbing & Finishing Varnishes.

We have satisfactory exposure tests on durable color and rubbing varnishes from the following makes:

[6890]

Acme
Ditsler
Flint
Lowe Bros.
Pratt & Lambert
Sherwin-Williams
Valentine

Since all of these Companies make materials of both high and low durability, we would suggest that in case any of the General Motors units plan to make tests on more durable finishes than those they are now using, the co-operation of the Committee be obtained in securing these finishes.

We have made a number of tests on finishing varnishes and we can recommend certain finishing varnishes of high durability, but, since our tests on finishing varnishes are not complete, we are not in a position to report on the relative durabilities of the different finishing varnishes now on the market.

Acknowledgement for Aid in this Work.

During the progress of the work covered by this report, the executives and finishing departments of Fisher Body Corporation and of all the General Motors Corporation Divisions have co-operated with us in every way possible. In addition to the preparation of test panels, a large number of cars have been finished in experimental production by all of the above units, using methods and materials as suggested in this report.

The Committee also wishes to acknowledge the aid received from the duPont Company and from their engineer, Mr. R. C. Williams, in the development of Duco.

Defendant's Exhibit (GM) No. 114.

GENERAL MOTORS RESEARCH CORPORATION.

DAYTON, OHIO.

November 26, 1923

Mr. W. P. Allen,
E. I. duPont deNemours & Co.,
Wilmington, Del.

Dear Mr. Allen:—

I have just made a trip around the different automobile plants, discussing the paint and varnish situation. Mr. Clements has asked me to write to you, letting you know how the situation stands at present.

At Cadillac, they are very much interested in Duco and recognize that, by means of Duco, they can get a more durable finish than with any other known finishing material; but they are not satisfied that they can sell Cadillac cars without as high a finish as they now obtain with finishing varnish. Under these conditions, they are putting out a large number of tests, using the most durable paint and varnish materials that can be obtained. It appears that these new varnish materials with which they are experimenting will give them a durability of at least double that of their present finish. Under these conditions, their interest in Duco depends to a large extent upon the possibility of obtaining a high-lustre finish over Duco. It is possible to obtain this finish by using finishing varnish over Duco; but, since the durability of the job is no greater than that of the finishing varnish, the most durable paint materials will be equally satisfactory if finishing varnish is used as the top coat.

You, of course, are familiar with the developments at Oakland and you know to what extent "Fisher Body" is working on getting Oakland closed cars finished with Duco.

The Oldsmobile Company use black enamel, but they are planning to put out a comparatively small number of jobs in colors. They are experimenting with Duco and are also experimenting with high-bake color enamels. These high-bake color enamels are simply very durable color and rubbing varnishes. They can be handled in their regular ovens with their regular system and will give them high-lustre finish. They are planning to let their dealers decide whether they prefer the color enamel or the Duco jobs.

At the Buick I had a very long talk with Mr. Weckler and Mr. Brown, Superintendent of their Body Department. Both Mr. Weckler and Mr. Brown stated that, since Duco was so very much more durable than any other finishing material, they did not believe that it was desirable for Buick to experiment with anything between their present finish and Duco. They feel that it is possible to obtain a satisfactory lustre on Duco by the wax finish. This opinion is based largely upon the performance of a car which Mr. Brown has driven, personally, for the last year. It was finished with the old, original, bright black Viscolac enamel and, as you know, this enamel polished to a high lustre. The Buick Company is experimenting with Duco; but, when I visited them last week, they expressed their disappointment, due to their inability to obtain Duco for experimental work. On October 5, they ordered several different colors of Duco for experimental purposes, so that they could finish cars and interest their organization in these cars. Up to Wednesday, Nov. 21, none of this material had been received, except the black Duco and Duco thinners. They were especially disappointed about not receiving the rest of the material as they had planned to use part of it in finishing a closed car for Mr. Durham, Asst. Gen. Mgr. They had planned to have this car finished as a surprise for him when he returned Thanksgiving.

They had finished the cars with the black Duco and had the bodies ready for the final polish. They stated that this black Duco worked better, flowed out better, gave a smoother surface, required a smaller amount of rubbing and rubbed much more easily than the old Duco; the only question is as to their ability to obtain a satisfactory polish on this material.

Mr. Weckler and Mr. Brown both stated that, if Duco were to be adopted by Buick either entirely or for part of their production for the 1925 model, it would be necessary for them to immediately start through a small production of at least twenty cars a day, so that the method of handling the material could be worked out, operators trained, and then a new line-up made for handling the Duco in the factory. They feel that if it requires as long a time to obtain material as has been spent in trying to obtain this Duco ordered on October 5th, the source of supply is too unreliable to warrant their interest in Duco for the 1925 model; but, if Duco can be obtained upon short notice and if the situation in regard to the raw materials and manufacture of Duco is in such shape that they can be guaranteed prompt delivery of the desired amounts, both now and in 1925 production, they feel that it is very desirable to seriously consider Duco for at least a part of their 1925 production.

The other factor in their interest in Duco hinges on how high a lustre they can obtain on the Duco, since they feel that a high lustre-job is absolutely necessary.

Will you please let Mr. Clements know whether you believe that the situation in regard to Duco is such that it is desirable for us to continue our efforts to interest Buick for the 1925 production. In fact, we would like to have definite word from you in regard to the following points, so that we may know just what promises we can make to our folks and the amount of pressure that we can put behind the work:

1. What can we tell them about the ability to obtain Duco, both as to samples and as to material for regular production? and what amount of time is necessary between placing an order and receiving the Duco?

2. Will the sources of supply and manufacturing processes be in such a state that we can promise our folks that they can obtain all the Duco that they desire for 1925 production? and how soon could they start to obtain sufficient amounts for experimental production?

3. What can we tell them about the present situation in regard to matching colors?

4. What can we tell them in regard to the possibilities of obtaining a high-lustre finish without sacrificing the present desirable qualities of toughness, ease of rubbing, good looking properties, etc?

5. Is there any possibility of obtaining a high-lustre finish without rubbing and polishing?

These are questions that are constantly being put to us by our car units and we are compelled to depend upon you for the answers. This information will help us materially in planning our work for the immediate future.

Yours very truly,

(S) H. C. Mougey

M:B
KOH

Defendant's Exhibit (GM) No. 115

6895

Copy to: A. P. Sloan; President,
General Motors Corp., N. Y. C.
Irenee duPont
J. W. Elms (Parlin)

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

CELLULOSE PRODUCTS DEPARTMENT

January 11, 1924.

Dr. F. O. Clements,
Director of Research,
General Motors Research Corp.,
Dayton, Ohio.

Dear Dr. Clements:

Referring to your letter of November 26th, which letter would have been answered more promptly but for the fact that it has been necessary for us to clear up a number of problems before giving definite answers to your specific questions, I am pleased to advise you as follows:

(1)—We are now able to furnish both samples and material for regular production in all established colors in the amounts shown under Question 2. Both samples and orders for regular production in established colors can be shipped within ten days from receipt of order.

(2)—Our present capacity for the manufacture of Duco is 35,000 gallons per month, of which approximately 10,000 gallons is now being used. This capacity can be increased to 50,000 gallons per month on four months' notice and to 100,000 gallons per month on six months' notice. These figures are based on the assumption that the greater part of our production will be confined to comparatively few colors, which has been our experience in the automobile industry to date. The complexity of color formulas necessary to obtain desired shades is also an important factor affecting productive capacity, and it should be to the interest of both the General Motors Corporation and ourselves to standardize wherever possible on colors which do not require the use of a large number of pigments. Our experience to date leads us to believe that many varnish or paint colors which we have been asked to match contain only one or two pigments, whereas in our case, in addition to using the same basic pigments, we are obliged to use several other colors in very small amounts to offset the difference in effect, resulting from the difference between our vehicle and that used in paint and varnish. It would, therefore, be mutually advantageous if we could be consulted before any of the General Motors units reach a definite decision as to the exact shade desired for any particular job.

—2—

As you know, our chief difficulty, in so far as quantity production is concerned, has been due to a shortage in the production of butyl alcohol which in turn was due to manufacturing difficulties and also lack of capacity on the part of the one manufacturer of this chemical. I am glad to be able to advise you that the Commercial Solvents Corporation have discovered the cause of their manufacturing difficulties and their plant at Terre Haute is now producing to capacity. In addition to this a new plant at Peoria has been completed and will in all probability be operating at capacity by the first of February. These two factories will provide for all of the expected consumption in the immediate future and can be expanded in a short time if the demands of the business require it. In addition to this we have purchased butyl alcohol of foreign manufacture and crude fusel oil of foreign production in an amount which is equivalent to 450,000 gallons of Duco and Thinner. This material constitutes an insurance fund which will take care of any shortage in solvents from any cause for a considerable period of time.

(3)—If the color can be obtained with pigments that are readily available we can match samples within three weeks; otherwise, it may require as long as eight weeks, but we can tell at the end of one week after receiving the sample which one of these two periods will be required. In this connection it will be of considerable assistance to us if when the sample is submitted we could be advised whether an exact match is absolutely necessary or whether an approximate match would be acceptable.

(4)—To date we have been unable to obtain a high lusture finish comparable to the varnish finish without sacrificing some of the present desirable qualities of Duco. We have, however, under study at the present time modifications of our formulas which should improve to marked degree the lustre now being obtained. Some additional research, however, is necessary before these modifications can be offered to the Motors units. We have seen recently at the Oakland Plant jobs prepared for the New York Automobile Show which have a very high degree of lustre obtained without rubbing by polishing and waxing.

(5)—We know of no such possibility at this time, if the high lustre varnish finish is used as the standard. As mentioned under Question 4, the Oakland Company is succeeding in obtaining a lustre which is much higher than has been obtained in the past without rubbing but not without polishing. We might add that there is a marked effect on the lustre of the finish due to methods of spraying used and to the proper preparation and rubbing of the under coats.

I trust that the above information will give you the assurance which you require as to our ability to meet all of the conditions involved in the use of Duco by any or all of the units of the General Motors Corporation.

Very truly yours,

W. P. Allen (Stamp)
General Manager.

WPA:M

Defendant's Exhibit (GM) No. 116

January 25, 1924

MINUTES OF THE MEETING OF THE PAINT AND ENAMEL COMMITTEE HELD AT THE GENERAL MOTORS BUILDING, DETROIT, JANUARY 22nd.

The following men were present at the meeting:

F. O. Clements, Chairman, General Motors Research Corp., Dayton.

E. L. Bergland, General Motors Corp., Detroit.

H. L. Weckler, Buick Motor Company, Detroit.

W. M. Phillips, General Motors Corp., Detroit.

A. U. Widman, Cadillac Motor Car Co., Detroit.

H. C. Mougey, General Motors Research Corp., Dayton.

F. L. Chase, General Motors Research Corp., Dayton.

E. H. Priebe, Cadillac Motor Car Co., Detroit.

R. S. Rogers, Oakland Motor Car Co., Pontiac, Mich.

Robert Hydmen General Motors of Canada, Ltd. Oshawa.

Joseph Liberty, Cadillac Motor Car Co., Detroit.

DUCO SITUATION

The reply of Mr. W. P. Allen, of the DuPont Company to a list of questions submitted by us was read. The questions and Mr. Allen's replies are given below.

Question—What can we tell them about the ability to obtain Duco, both as to samples and as to material for regular production? And what amount of time is necessary between placing an order and receiving the Duco?

Answer—We are now able to furnish both samples and material for regular production in all established colors in the amounts shown under Question 2. Both samples and orders for regular production in established colors can be shipped within ten days from receipt of order.

Question—Will the sources of supply and manufacturing processes be in such a state that we can promise our folks that they can obtain all the Duco that they desire for 1925 production? And how soon could they start to obtain sufficient amounts for experimental production?

Answer—Our present capacity for the manufacture of Duco is 35,000 gallons per month, by which approximately 10,000 gallons is now being used. This capacity can be increased to 50,000 gallons per month on four months' notice and to 100,000 gallons per month on six months' notice. These figures are based on the assumption that the greater part of our production will be confined to comparatively few colors, which has been our experience in the automobile industry to date. The complexity of color formulas necessary to obtain desired shades is also an important factor affecting productive capacity, and it should be to the interest of both the General Motors Corporation and ourselves to standardize wherever possible on colors which do not require the use of a large number of pigments. Our experience to date leads us to believe that many varnish or paint colors which we have been asked to match contain only one or two pigments, whereas in our case, in addition to using the same basic pigments, we are obliged to use several other colors in very small amounts to offset the difference in effect, resulting from the difference between our vehicle and that used in paint and varnish. It would, therefore, be mutually advantageous if we could be consulted before any of the General Motors units reach a definite decision as to the exact shade desired for any particular job.

As you know, our chief difficulty, in so far as quantity production is concerned, has been due to a shortage in the production of butyl alcohol, which in turn was due to manufacturing difficulties and also lack of capacity on the part of the one manufacturer of this chemical. I am glad to be able to advise you that the Commercial Solvents Corporation have discovered the cause of their manufacturing difficulties and their plant at Terre Haute is now producing to capacity. In addition to this, a new plant at Peoria has been completed and will in all probability be operating at capacity by the first of February. These two factories will provide for all of the expected consumption in the immediate future and can be expanded in a short time if the demands of the business require it. In addition to this, we have purchased butyl alcohol of foreign manufacture and crude fusel oil of foreign production in an amount which is equivalent to 450,000 gallons of Duco and Thinner. This material constitutes an insurance fund which will take care of any shortage in solvents from any cause for a considerable period of time.

Question—What can we tell them about the present situation in regard to matching colors?

Answer—If the color can be obtained with pigments that are readily available, we can match samples within three weeks; otherwise, it may require as long as eight weeks, but we can tell at the end of one week after receiving the sample which one of these two periods will be required. In this connection it will be of considerable assistance to us if when the sample is submitted we could be advised whether an exact match is absolutely necessary or whether an approximate match would be acceptable.

Question—What can we tell them in regard to the possibilities of obtaining a high-lustre finish without sacrificing the present desirable qualities of toughness, ease of rubbing, good looking properties, etc?

Answer—To date we have been unable to obtain a high-lustre finish comparable to the varnish finish without sacrificing some of the present desirable qualities of Duco. We have, however, under study at the present time modifications of our formulas which should improve to a marked degree the lustre now being obtained. Some additional research, however, is necessary before these modifications can be offered to the Motors units. We have seen recently at the Oakland Plant jobs prepared for the New York Automobile Show which have a very high degree of lustre obtained without rubbing by polishing and waxing.

—3—

Question—Is there any possibility of obtaining a high-lustre finish without rubbing and polishing?

Answer—We know of no such possibility at this time, if the high lustre varnish finish is used as the standard. As mentioned under Question 4, the Oakland Company is succeeding in obtaining a lustre which is much higher than has been obtained in the past without rubbing but not without polishing. We might add that there is a marked effect on the lustre of the finish due to methods of spraying used and to the proper preparation and rubbing of the under coats.

THE OXVAR PROCESS

Mr. Phillips discussed the Oxvar process and gave copies of his reports to each of the men present at the meeting. Briefly, the Oxvar process consists in dipping the wood parts in a heavy black enamel before the parts are assembled. This eliminates the use of glue and replaces it with black enamel in the joints. The joints are all secured by screws, bolts, or other mechanical fastenings.

The black enamel is then baked 4 hours at 200° F., by which time the black enamel is set up hard enough so that the wood frames may be subjected to much higher temperatures. The Oxford Varnish Company claim that by this process the moisture is sealed in the wood and the wood does not dry out on subsequent baking at temperatures sufficiently high to bake regular high heat black enamel on the bodies. To substantiate their claim, the Oxford Varnish Company submitted a report made by the Detroit Testing Laboratory in which moisture determinations were made before and after samples of wood were treated by the Oxvar process and baked 3 hours at 300° F. Unfortunately, the moisture determinations were made by the Detroit Testing Laboratory after samples had been transferred from the plant at Toledo, where the heating tests were run, to the Detroit Testing Laboratory, where the moisture tests were made, and during this interval of time it may be that the moisture content in the wood changed so greatly as to make the results reported by the Detroit Testing Laboratory of no value.

Tests made at the General Motors Research Laboratory indicate that wood, either untreated, treated with sodium silicate solution or treated by the Oxvar process loses practically all of its moisture when subjected to baking conditions similar to those used in production in baking high heat black enamel. In presenting the subject of the Oxvar process, Mr. Phillips made the following statement:

> "In the use of this material, it is necessary to put the frame together in such a way that screws and metal stays will hold the body together, as but little dependence can be put on the cemented joints. In the opinion of some of our body builders this is also true of glued joints. It seems reasonable to believe that the cemented wood should be less liable to warp than untreated wood and it is appeared that there was less warping of frames in baking than is ordinarily the case."

EFFECT OF HEAT ON GLUE JOINTS

MR. WECKLER'S EXPERIENCE: Mr. Weckler discussed his experience with the effect of high temperature baking on wood and glue joints at the Buick. According to Mr. Weckler's experiences, the present Buick practice seems to be the practical limit in baking severity. When Mr. Weckler tried baking at temperatures necessary for high bake enamel, he found that the glue joints were injured. Mr. Weckler stated that several years ago the Buick put out a large number of cars using low bake black enamel, similar to the present Chevrolet practice and had no difficulty with the effect of heats on glue joints when baked according to the requirements of low bake black enamel. For purposes of record, the heats given at the Buick at present are tabulated below:

1 hour 20 mins. at 275°F.
1 hour 20 mins. at 220°F.
1 hour 20 mins. at 220°F.
1 hour 20 mins. at 200°F.
1 hour 15 mins. at 300°F.
1 hour 15 mins. at 300°F.

MR. ROGERS' EXPERIENCE: Mr. Rogers of the Oakland reported that the Oakland had had some complaints on glue joints on some of the first cars that were put out this year and that this trouble had been blamed on too high baking temperatures. However, the cars on which the complaints were made had been air dried on a straight air dry schedule as they were finished at the Oakland plant before any ovens were installed.

MR. MOUGEY'S EXPERIENCE: Mr. Mougey reported that his investigations on glue joints have led him to draw the following conclusions:

1. In production plants glue joints are frequently made with such poor workmanship that the strength

of the joint is very low. Unless much greater care is taken than is the case in ordinary production, glue joints should be reinforced with bolts or metal fittings so that no dependence is made on the strength of the glue joints.

2. Even in cases where workmanship is of the highest grade, it is desirable to reinforce glue joints by mechanical fittings, since even under the best conditions some poor glue joints will be made.

3. Properly made glue joints are not appreciably injured even when heated under such conditions as 48 hours at 250, 6 hours at 350, or 2 hours at 400, provided the wood has previously been slowly dried so that it is almost bone dry.

4. Regular glue joints using wood with a normal amount of water may be injured to such an extent that the joint separates if the wood is heated to temperatures as low as one hour at 300, if the heating is done without first drying the wood to a greater or lesser extent. In other words, the bad effects of heat on glue joints are due to the warping of the wood and not to any injurious effect of the heat on the glue itself. A copy of Mr. Mougey's report will be mailed to the members at the meeting.

OAKLAND'S EXPERIENCE WITH DUCO

Mr. Rogers discussed the experiences of the Oakland after 6 months production on duco. He stated that the Oakland had had no complaints on the duco finish up-to-date and the Oakland is very rapidly getting the closed cars finished in duco as well as the open cars. The reaction of the dealers to the duco finish has been that they very greatly prefer the duco finish to the regular finishing varnish finish and report that they have trouble in disposing of closed cars finished with finishing varnish, stating that the customers desire duco. Mr. Rogers stated that although the appearances of the duco finish on the Oakland cars is very much better now than it was when production on duco was started, he hopes to continually improve this appearance.

HIGH DURABILITY PAINT MATERIALS

CADILLAC: Mr. Priebe discussed his experience with a system recommended by the Valentine Varnish Company using the most durable paint and varnish materials that can be obtained. Mr. Priebe just finished 12 cars using this system, but stated that these more durable materials required so much greater drying time that the use of duco appeared to him to be a much better proposition. Cadillac is now finishing with duco, all roadsters except the blue ones. The blue duco has not yet been received from the duPont Company. All of the Cadillac roadsters finished in production with duco are given a top coat of finishing varnish. Mr. Widman stated that the dealers believe that a rubbed and polished finish on Cadillacs was not as satisfactory as a finishing varnish finish, as the customers require perfection in the appearance of the finish while it is on the salesroom floor.

BUICK: Mr. Weckler reported that the Flint Varnish Company claimed they have just developed a durable color and rubbing varnish which can be substituted in place of the present Buick color and rubbing varnish and that this varnish can then be coated with finishing varnish giving the same durability as if finishing varnish were applied over duco. Mr. Mougey stated that the tests on the Flint material made him believe that their claim might be correct. Mr. Weckler is making arrangements to put through a few cars in production using these new materials. In discussing the duco finish, attention was called to the fact that when finishing varnish is used over duco, the life of the finish is limited by the life of the finishing varnish since no finishing varnish that has yet been developed begins to approach the durability of duco, and in order to secure the most durable results, duco should be used without a finishing varnish over it.

—6—

ADVERTISING CAMPAIGN

Owing to the fact that the appearance of a rubbed and polished duco job without finishing varnish is not equal to the appearance of a job with finishing varnish as a top coat, although the durability of the duco job is much greater, the Committee believed that it was desirable for a campaign of advertising to be started, calling attention to the durability of a rubbed and polished duco finish.

FUTURE POSSIBILITIES IN NEW MATERIALS

In discussing future possibilities, Mr. Mougey stated that the laboratory is working on a possibility of substituting rubber for the present primer and rough stuff coats. The advantages of the rubber are that rubber can be dried or "cured" in any desired thickness at one time, while paint or varnish, which depends on oxidation from the air for drying must be dried or "cured" in thin coats, and that it may be possible to dry or "cure" the rubber in an atmosphere with such a high humidity that no drying out or warping of the wood could take place. If this can be done, it may be possible to subject glue joints to high temperatures without any injury.

Defendant's Exhibit (GM) No. 117

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

January 26, 1924

Mr. A. P. Sloan, President,
General Motors Corporation,
224 West 57th St.,
New York, N. Y.

Dear Mr. Sloan:

The Paint & Enameling Committee met in Detroit, Tuesday, January 22. We are attaching copies of our minutes.

You will note that we have been promised adequate quantities of Duco, sufficient to meet any 1925 production demands; also, that the du Pont Company have corrected their solvent situation. This should make it possible to undertake the advertising campaign which was discussed several months ago but which was held up on account of du Pont's shortage of materials.

Commenting briefly upon some of the problems staring us in the face:

Oakland's experience has been quite satisfactory. Although a few of the early cars were poorly finished, due to the fact that Oakland did not have the equipment entirely installed to handle the job to the best advantage at the start, and some trouble may develop in the field from this cau[illegible] there have been no complaints up to date. Mr. Rogers, paint superintendent of the Oakland, states that, although the appearances of the Duco finish on the Oakland cars is very much better now that when production on Duco was started, he hopes to improve continually this appearance. Their customers appear to be perfectly satisfied with the lustre obtained without varnish; in fact, many customers held off purchasing Oaklands until they could be assured that they would receive the Duco finish.

The Buick Company believe in Duco finish but cannot see how they can apply it to their production without increasing the cost of finishing per car.

We have a new color varnish, made by the Flint plant of the du Pont organization, that looks very promising. Tests on this material are being started at Buick.

Cadillac is turning out some very wonderful jobs in Duco; all roadsters are so finished, with the exception of the 'blues', which are still finished with paint materials. The du Pont Company, to date, has not been able to satisfy

them with a blue shade. They apply varnish over the Duco, claiming that their dealers and customers will not accept the low lustre. Cadillac in making progress with this finish very rapidly. However, the varnish over the Duco is still a bone of contention; it will fail long before the Duco and there will be a period in the car's life when the finish will look very disreputable. If we had a varnish that would live as long as the Duco, our troubles would be over. To date, we have not been able to find such a material.

It is our wish that Cadillac leave off the finishing varnish over the Duco. They insist that this cannot be done, unless the public be educated by an advertising campaign to the low-lustre finish. However, if a joint program of advertising be instituted by du Pont's and ourselves, it might force some of the 'General Motors' units to make a change before they are ready. It might be that such advertising should be confined to the Oakland Company, to start with. It is our understanding that both the du Pont Company and the Oakland are planning to advertise Duco in the immediate future.

Buick has asked that all the various finishes in 'General Motors' be again 'cost accounted', so that we can determine the progress that has been made in reducing costs;

for we are trying to secure a much more durable finish at less cost, if such be at all possible. Unquestionably, it has proven possible in the case of the Oakland.

I noticed at the Detroit Show that Marmon had a number of cars finished in Duco and there was another car on exhibit, finished by the Egyptian Lacquer Company, using a material of the same general nature as Duco.

As to vision, we are working very faithfully on all of the problems pertaining to better finishes. Our latest dream is to apply quite a considerable coating of rubber, vulcanizing it at a fairly high temperature with high humidity. This would give very wonderful adherence, put all the undercoats on at one operation, provide a material that would rub very easily, thereby establishing a fine surface. Duco would be applied over the undercoats thus obtained. Understand, this is a new development without much experimental data back of it yet, to verify its possibilities. It should shorten materially the time required to finish a car.

We want to assure you that this program is being pushed with all celerity.

Respectfully yours,

F. O. Clements

FOC—G

Note: Stamp on page 1 reads "Received Feb. 4, 1924—A. P. Sloan, Jr."

Defendant's Exhibit (GM) No. 118

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
Wilmington, Delaware
CELLULOSE PRODUCTS DEPARTMENT

January 31, 1924.
File 4-2c.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
224 West 57th Street,
New York City.

DUCO FINISH

My dear Mr. Sloan:

I have just received yours of January 28th and thank you very much indeed for your very frank discussion of this matter. I am leaving this morning for Chicago and expect to be in Detroit and vicinity all of next week for the purpose of discussing the situation with respect to the use of Duco Finish with your various divisions. I shall follow your suggestions and hope that we can get this matter straightened out with each of the divisions in so far as there are any obstacles, real or imaginary, which need to be removed.

I shall avail myself of your invitation to discuss the whole proposition with you on my return.

Very truly yours,

/s/ WM. P. ALLEN
GENERAL MANAGER.

WPA:M

NOTE. "Received Feb. 1, 1924 A. P. Sloan, Jr." stamped at top of letter.

Defendant's Exhibit (GM) No. 118A

Letterhead of
E. I. Du PONT DE NEMOURS & COMPANY
Incorporated
WILMINGTON, DELAWARE
CELLULOSE PRODUCTS DEPARTMENT

March 5, 1924.

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
224 W. 57th Street,
New York City.

My dear Mr. Sloan:—

DUCO FINISH

I hoped by this time to have been able to have a thorough discussion with Mr. Bassett and also with Mr. Rice in an effort to bring the matter of the adoption of Duco by the Buick and Cadillac companies to a head, as I have advised you in previous correspondence. Unfortunately I have been laid up most of the time since I wrote you and am just getting about again, so that I have been unable to go to Detroit for this purpose. However, I wrote Mr. Bassett last week and have received a letter from his Secretary stating that he was in the south and would advise me on his return when it would be convenient for me to come to Flint to see him. I am writing you this for the reason that it has occurred to me you may be wondering whether further progress has been made on this matter.

I wish to thank you very much for your sympathetic interest in this whole problem because it is very easy for those of us who are most directly concerned to become over-enthusiastic about a product which we make ourselves, and it is very re-assuring to have our own enthusiasms confirmed by the dispassionate judgment of others who have no direct interest in the matter.

Yours very truly,

W. P. Allen
GENERAL MANAGER.

WPA:R

NOTE: Handwritten signature.

Defendant's Exhibit (GM) No. 118B

March 20, 1926.

Mr. W. P. Allen, General Manager,
Cellulose Products Department,
E. I. DuPont deNemours & Company,
Wilmington, Delaware.

Dear Sir:-

Mr. Sloan received your letter of March 5th on the subject of 'Duco' finish. This should have been acknowledged more promptly but for the pressure he has been working under trying to get out our annual report.

He is very much interested in the subject and especially in Buick's attitude toward 'Duco' which he considers a very important matter. Will you be good enough to keep him advised of your negotiations with Mr. Bassett. He will appreciate very much your doing so.

Very truly yours,

AEB/K

Secretary to the President.

Defendant's Exhibit (GM) No. 119

6915

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE.
CELLULOSE PRODUCTS DEPARTMENT

March 21, 1924.

Mr. Alfred P. Sloan, President,
General Motors Corporation,
224 West 57th Street,
New York City.

Dear Mr. Sloan:

DUCO FINISH

Acknowledging Mr. Brandt's letter of March 20th regarding our negotiations with Mr. Bassett on Duco Finish, I advise you that I was in Detroit last week and went into this matter very thoroughly with Mr. Bassett at Flint. Several days later, Mr. Bassett, Mr. Durham, Mr. Weckler, Mr. Brown and Mr. Strong met me at the Oakland factory where a very thorough examination of Oakland's methods was made. I believe that the whole Buick organization are convinced that the public will demand a more durable finish before long and it is Mr. Bassett's intention to begin the use of Duco Finish on the new Light Six. His feeling is that it would be very unwise in the case of Buick to take hold of this matter in the way that Mr. Hannum took hold of it, as he still feels that some sales resistance may be encountered on account of the absence of a high varnish lustre.

I believe, however, that he is convinced that durable finishes of the type of Duco will be used very generally in the future. If the new model finished with Duco is accepted well by the public, I have no doubt that he will follow it as quickly as

possible by changing over to this finish in his other models.

I also found that although Mr. Rice was away on an extensive trip while I was in Detroit, Mr. Widman and the other members of the organization seem now to be convinced that the satin finish will be acceptable to the public on Cadillacs, and to test this conclusion they are placing in the hands of ~~all~~ of their principal dealers cars finished in this manner.

Very truly yours,

/S/ Wm. P. Allen
General Manager.

WPA:M

Note. Stamp at top of letter "Received Mar 22 1924 A. P. Sloan, Jr."

Defendant's Exhibit (GM) No. 120

LETTERHEAD OF
BUICK MOTOR COMPANY
Flint, Michigan

April 18. 1924.

Mr. C. S. Mott, Vice Pres.,
General Motors Corporation,
Detroit, Michigan.

Re: Duco Paint

Dear C. S.—

Mr. Allen, General Manager of this department from Wilmington, came to Flint a couple of weeks ago and we requested samples of paint from him in colors nearer to what we would like to use for 1925. We again asked Mr. Allen to come up here and be here today if possible, but he could not come and sent his assistant, Mr. Moosman.

We had eight or nine sample jobs to go over which we did and at a conference held afterward at which were present Messrs. Strong, Churchill, Durham, Browne, Mullin and Mr. Williams of the DuPont Company, we were advised by Mr. Moosman not to atempt to go to all models on Duco at one time. He suggested that we take one or two models of the line and let them develop a color which would be satisfactory and then paint those jobs and send them out into the territory. We would thereby get our factory experience in handling the new type of paint as well as the reflection from the territory as to whether or not there would be any sales resistance.

We have accordingly selected the 54 and 55 open cars and are suggesting to Fisher that they take the 54-C and 51 closed models and do the same thing with them for us. This will give us a little more time to develop better colors for the blue jobs. Our next plan was to take the roadsters on 114" and 120" wheel base and try those in Duco, gradually working into the entire production when we feel sure of our paint, our own success in handling it and our own success in selling it.

Personally I feel that Duco is a good thing and has come to stay, but I think we have all got to learn a little something about the proper method of handling it on cars that run into more expensive list prices.

All present at the meeting concluded that this program was the safest and best to follow and I thought it best to advise you what progress we are making with the Duco proposition.

Very truly yours,

H. H. Bassett
President and General Manager.

HHB-o.

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
DIME SAVINGS BANK BUILDING
DETROIT, MICH.

SALES DEPARTMENT

Defendant's Exhibit (GM) No. 120A

May 2, 1924

E. M. Flaherty, Director of Sales

Report ending April 30, 1924

Buick Motor Co. - Fisher corresponding Production

The developments at Buick drawn out over a lengthy period have come to a head rapidly the past month.

Early in April Mr. Allen and the writer visited Buick and Mr. Bassett, General Manager asked us to prepare bodies in Dark and light blue that he may show the Sales Dept., what we were capable of producing. You are familiar with the attitude Buick's Paint Supt., has always taken toward Duco and in order to use his experience as a painter we had to attempt to do this work in an entirely separate division of the company. This move riled the Superintendent and he completed some jobs for spite and did exactly as we had planned the results being very good Duco jobs. The proposition was then turned over to him and approximately eight or ten jobs were put through among them a 384 blue, 537 Sage Brush green and the remainder 367 Blue. The 384 Blue was left dull and the sage brush green likewise; the 367 were all polished. An attempt was made to put through a 533 and 401 Blue without the use of ground coats and these lacked hiding power, so were not assembled.

Messrs. Bassett, Moosmann, Strong, Churchill (of Buick Sales) Durham, Brown, Mullin, Weckler, Prahl and self examined these jobs on April 15th, At this conference we learned Bassett had in mind turning the entire Buick production into Duco. Mr. Moosmann discouraged this and stated he felt it wise to feel our way with one or two models at a time. It was then agreed that provided we could finish up a few satisfactory jobs in Sage Brush Green to start the use of same on 1925 models 54 and 55 and the Fisher corresponding closed models 51 and 54C. Mr. Bassett was agitate that we had not matched their blues, but we had no such understanding, so he then requested us to match their light blue for models 49 and Dark blue for closed models 48. Mr. Moosmann took with him a ventilator from a 48 and a chip representing 49. The Sales Dept., would not consider a straight Duco job, thinking this was a future development.

In the meantime we are bringing through other sage brush green work and these will be ready for inspection on May 5th two of these four bodies are oven ground coats and two without at Parlin's request. In all of this work the V.E.P. products from St. Louis have been used as surfacing coats and they have proven very satisfactory to date.

Mr. Bassett has put it up to us to sell Fisher and while I have seen Hurley, I will try to get to see Mr. Fisher with Mr. Moosmann on his next visit here. Hurley has put through two or three jobs the past week and although I have not seen them Mr. Hurley says they are far superior to any work he has done to date. In this work he has used Rinshed Mason under-coats, the same as used by Lynch on Oakland closed work and used almost elxlusively on all Fisher work. He has formulated a polishing compound that he stated looks like the answer to the polishing proposition Here I would add that we have apparently been content to let the Duco user do all the work on this important problem. I note from the letters of information written at Parlin to prospective refinishers that oil, rotten stone and sand paper are still recommended and as this is the one stumbling block - I think some effort could be put on this proposition to good advantage by our laboratories.

Summarising the work at Buick over the past month the present out look is some Buick business for 1925. This prospect will require close attention and we are planning to do all that is possible to cooperate accordingly.

CADILLAC MOTOR CAR COMPANY

This month has brought no new developments at Cadillac other than they are requesting Fisher put through a few closed jobs occasionally. As near as can determine Fisher is cooperating in this request. We have yet offered Cadillac no solution of the Blue material for their roadster production and would like your comments on this subject. It seems that our color card had a long list of blues and we should certainly be able to give them a satisfactory shade.

FRANKLIN MANUFACTURING COMPANY

Have put in two or three days a week here for the past three weeks and before the kinks are worked out for 100% Duco production two or more visits will probably be necessary. A study of operations found here made it a hopeless job to attempt to remedy by any other methods than to forget the past and start over.

Found the materials used for undercoating, so inferior in quality it necessitated the use of Duco for surfacing material and instead of getting the surface with under-coats, Excessive coats of Duco were applied and rubbed between coats. This not only made very expensive rubbing operations but the use of Duco in excessive coats is detrimental, as we have experienced in the past.

Following are operations as I found them with comments, and a tentative set of specifications offered.

"Present Operations on Duco"

1 - Body received in bare metal.
2 - Cleaned with gas.
3 - Prime valentine long oil (Dry 6 hours 160 degrees F)
4 - Spot glaze - Lead Putty (Dry 1-1/4 hours 160 degrees F)
5 - 1st Coat Surfacers " " "
6 - 2nd " " " " "

7 - 3rd Coat Surfacer (Dry 1-1/4 hours 160 degrees F)
8 - Rub Dry Sand
9 - 2nd coat Primer Dry 8 hours
10 - Spot Putty 1-1/4 hours Dry
11 - 1st Coat Duco 1/2 hour Air Dry
12 - 2nd " " 3 " " "
13 - Rub with 240 paper and pumice (FF)
14 - 3rd Coat Duco 1/2 hour air dry
15 - 4th " " 3 " " "
16 - Rub Top Coat or Varnish V.A.V. Finishing

"Comments on Present Operations"

Operation No. 1 O.K.
" " 2 O.K. if high test Gas is used
" " 3 Primer too long in oil
" " 4 Glaze is lead coat should be oxide
" " 5 Excess surface coats and material used very poor - carries no binder and can be easily removed with sand paper - offers practically no resistance. This means that same is ready attached by Duco solvents.
Operation No. 9 2nd coat prime unnecessary
" " 10 Spot putty too short drying time and nature of same is lead. Duco effects every spot of putty on job, leaving sinking effect.
Operation No.11 Duco coats should have 1 hour air dry or 1/2 hour at 120 between coats.
Operation No.12 Where body is to be dull no rubbing between coats necessary - unless top coat is to carry clear viscolac. In this case last coat Duco should be scuffed or rubbed lightly.
Operation No.13 Three coats Duco sufficient where varnish is used - a 4th very light coat may be applied where finish is left in satin finish. In any event avoid excess coats.
Operation No.14 Note you are useing Duco to obtain surface by rubbing between coats and parts of body are getting six and eight coats. This is expensive and unnec-ssary and detrimental. Besides Duco magnigies defects, hence more care is necessary in preparing under coats and surface for Duco finishes than Varnish.

"Proposed Duco Schedule"

1 - Alumimum Body - Clean with high test gas.
Steel Body - Clean with No. Deoxidine
In this op-ration, wipe off entire body with gas. Brush on No. 5 Deoxidine. Go over entire surface with steel wool. Wash off with hot water. No water break indicates clear surface.

2 - Prime with ready prepared Acme. Dry six hours @ 160 deg. F.

3 - Glaze body solid. Oxide Glaze.

- Apply surfacer immediately by spray. Drying glaze and surfacer together. 6 hours @ 160 deg.F.

5 - Additional surfacer coat if necessary. Air dry over night or 8 hours @ 160 deg.F. Found 2 additional coats necessary 6 hours 160 deg. between coats.

6 - Water sand using 220-240 paper. Do not allow steel body to stand over night after this rubbing operation, unless same can be re-scuffed. This is a precaution to prevent rust.

7 - Tack rag.

8 - First coat Duco air dry one hour.

9 - Second coat Duco air dry one hour.

10 - Third coat Duco - 3 hours @ 120 deg. F., if to be rubbed and polished or varnished.

11 - If finish is to be dull, operation 10 should be a very light coat Duco.

12 - Rubbing for Varnish use FF. pumice and H2O.

13 - Rub and polish, use special preparation.

14 - Thin Duco approximately 50/50.

15 - Use DeVilbiss apparatus, type "K" gun "F" nozzle "F" needle.

16 - Have material brought to spray gun through gravity feed, same should have approximately 10 ft. fall.

17 - Air pressure should be 65 to 70 lbs with gun open.

1 - Do not use excessive number coats Duco. This is detrimental.
2 - Do not attempt to get surface by use of Duco, this is, applying coats and rubbing between same, get your surface first.
3 - Do not attempt use pressure tank for Duco. This brings water and oil from line in contact with Duco. Will prove detrimental.
4 - Do not attempt to patch panels more than 36 hours after originally sprayed. Where patching is necessary spray in the entire panel.

5 - Do not attempt to mix material by opening through top of can. Invert same, cut out the bottom. In this way all settled materials are put back in solution.

After a few experimental bodies were put through following the proposed schedule the Acme material was adopted as standard. In addition to the troubles mentioned off color has caused a lot of grief. It seems each succeeding shipment of Biege has gotten darker until now the color is slate and it is impossible to do any patch work or match hoods. A sample of color varnish was recently sent the factory showing the shade desired, and on receipt of this shipment it will probably be necessary to re-work the material on hand.

Found organization here in a very hectic and impatient mood and yet they do not feel that the proposition is shaping up rapdily enough. I wrote Mr. Dunk the following memorandum on my last visit.

"Conditions at present in the Paint Shop are considerably improved over those found two weeks ago. The change in the surfacing materials used was necessary to bring results. We found that the old system of surfacing was so poor, and such inferior materials were used that it was necessary to use Duco as a surfacing material. This is against our recommendations, as Duco is a finish - not a surfacer, and by continually applying Duco and rubbing to surfaces to fill file marks, an unussualy heavy film is deposited in spots that will cause trouble; and incidently it is an expensive method.

The old method necessitated two rubs on Duco where varnish was applied, and one rub where left dull. We now eliminate one Duco rub for varnish finish job. This is a decided saving in rubbing along, not taking into consideration the expense involved in applying excessive Duco coats. The proposed method will require a little more time and expense to surface the job, probably four days, but when they leave the surface deck, no further surfacing is required. The materials recommended have proven entirely satisfactory for use under Duco, and after the Shop Superintendent has had time to work out details and break his men in the use of these new undercoatings, specifications can be drawn accordingly.

The proposed schedule I drew up on my first trip was tentative and, of course, will require revisions to fit in with the grade and quality of work Franklin specify. This was simply offered to give us a start; and similar methods are in use at other automobile factories.

As far as drying times between coats, I would suggest Mr. Holcomb carry out his present schedule until such time as he can cut down same without sacrificing durability.

It is my understanding that the remaining jobs in color varnish will be handled as follows:

Rub down, spot putty, and apply coat of surfacer over same, rub and finish in Duco. This method meets with our approval until these jobs are worked off.

I note a few chipped wheels, around the hubs, and on investigation I find a lead putty directly under the Duco and this is the reason for the poor adhesion. I would suggest where putty is necessary on wheels the oxide material be used.

It is unfortunate that we experience the off color trouble at this time, and as soon as the new matched material now in process of manufacture at the factory is received, I believe the best policy to pursue will be to return the present material and have brought to the proper shade.

As yet we have not accomplished our aim on polished work, and suggest our next attempt be made on a body rubbed with triple "F" pumice and rotten stone. We find in using "FF" pumice, it carries sufficient coarse material to scratch. These would be filled by a coat of varnish, but polish simply magnifies them.

The whole proposition is shaping up nicely, and I feel it only requires a little time and patience to have the shop running along the proposed methods in harmony.

I would suggest watching the following and have carried out as recommended:

6924

1. Use minimum number Duco coats.
2. Thoroughly oxidize under coats. Present drying times O.K.
3. Keep glaze under surfacer.
4. Agitate Duco thoroughly before using.
5. When jobs leave surface deck, no further surfacing should be necessary.
6. In patching, spray in entire panel.
7. On wheels where Duco is used, use oxide glaze instead of lead putty."

In addition to the above conditions they have on hand approximately 200 closed jobs received in color varnish that they now want to switch to Duco. I suggested these be rubbed down to surfacer coats and a coat of acme surfacer to applied and rubbed. The Duco schedule can then be applied. I seriously doubt if we can produce a polish job here of sufficient luster to please the Sales Dept. In this event they will have a dull and varnish finish as standards. The drying times offered may seem a trifle long but it is better to be able to cut them down where necessary rather than to have to increase them. Lewis has not been in on the revision and it is doubtful if he will return to Franklin he is now on a months leave of absence and putting in his time at the Syracuse Duco Co., a refinish outfit started by Miller, Lewis and a third Franklin man. Lewis' sincerity and intergity has been questioned and understand he is under investigation at this time. Maas & Waldstim are putting in experimental jobs here and Miller will keep you posted on progress they make.

OAKLAND MOTOR CAR COMPANY

Production in April did not exceed 100 open jobs per day at any time. The past week the plant has been closed entirely for inventory. May production calls for 85 open and 17 closed jobs per day.

FISHER BODY (Oakland Closed)

No new work had been done here doing the month. Considerable time and necessary expense has been involved in hospital work, due to the rust epidemic found in closed car storage. A large percentage of jobs have been refinished completely. Blame for this trouble has been placed on the cleaner used or the water. No insinuations have been made recently that Duco could cause the condition mentioned. The past week Fisher delivered Oakland 15 jobs per day, but there are no indications of any renewed activities at this plant before July 1st.

HUPP MOTOR CAR CORP.

The fact that beginning May 1st, touring car production was put in Duco is a good indication that we are gradually gaining confidence of the Hupp officials. After the trouble in March, at which time the paint superintendent resigned we were skeptical about our immediate future. Since that time we have had several conferences with Mr. Nickerson and he states emphatically that he is more pleased with his Duco work since Mr. Carroll has taken charge than during Pettibone's stay. He further stated that his costs had decreased to some extent which is gratifying to him. The past month Hupp has put several cars in colors, with an idea of a change in color some time in the future. To date there is nothing definite on this but we will give you all the advance information possible, should any change be contemplated. Present production 180 per day has remained so through the winter and spring.

CHEVROLET MOTOR COMPANY

Approximately 600 deluxe touring duco jobs were done in April at the Flint and St. Louis plants. These were done in a way not entirely satisfactory to us principally because the Chevrolet paint shops are layed out for high bake enamel and any departure from this method causes confusion, due to lack of floor space and inexperienced men. The Chevrolet metal is universally of such quality that extensive surfacing is not required, so in doing the 600 jobs some were primed with a rubber coat and some with Flint flex. Flint flex gave better results, but for some reason it is unobtainable at this time so rubber coats are being used. At present varnish is used as a finish and while the rubber under-coat is apparently entirely satisfactory where the job is varnished there is some question as to its desirability for polished work. It seems that rubber lays so close to the metal that waves in the metal not visible to the naked eye are not filled and are magnifyied when the Duco is polished leaving a very undesirable, pitted surface, so much so that the type work turned out todate as polished work could not be considered for production. In order to prove that the rubber coat does not answer the requirements, we are planning experimental jobs with primer and surfacers. Then there [illegible] a possibility that the 596 Grey Duco is too high in softener. I reported this last week in April and requested investigation, but to date have had no reply. Certainly this material acts different from other Duco materials in use at the various units as it drags and instead of leaving a clear polished surface; appears At any rate no blame has been placed on Duco to date, but our investigations may lead us to conclude that an error has been made in this formulation. You will be advised of our results.

It is our plan to unsell Knudsen on varnish as a finish, but in order to do this we must make a great deal better showing than to date and this must be done under conditions in conformity with Chevrolet paint shop lay outs.

May's schedule calls for 800 jobs in Duco of this same model at Oakland California and St. Louis, each and 700 each at the Tarrytown, N.Y. and Flint plants. We are working the troubles out at Flint with MacQuaid and as soon as this is done we will visit Tarrytown and St. Louis to start them off and we are training a man to handle the coast work.

This account will require a great deal of attention for a few weeks and I feel colors will come to stay on Chevrolets. It is necessary we follow this account closely as their plants are all layed out for high temperature flow coat work and should we fail it will be an easy matter to substitute Flint flex or a similar product.

GENERAL MOTORS TRUCK

This concern is awaiting our time to do a few jobs for them. Lynch of Fisher body recently finished a car in Duco for Mr. Day, Pres., of General Motors Truck and I understand he is highly pleased with it.

13

FISHER BODY - CLEVELAND and ST. LOUIS

We continue to get the Chevrolet moulding and instrument board business at the above plants. On my last visit to Cleveland. Mr. Hawley, Supt., was preparing to run some experimental jobs using Duco, do not know the cut-come of this proposed work, but will check up at St. Louis I understand they are making their own thinner, supposedly a 50/50 mixture of acetone and alcohol. I have not had an opportunity to see it used, but on my next trip will make a point to do so and fear they will encounter trouble with such a mixture. The Detroit Fisher plants 9 and 18 are using small quantities of 412 for instruments board work.

AMERICAN AUTO TRIMMING COMPANY
Make Paiges and Jewetts

These people purchased sufficient material 401 Blue in April to do approximately 100 jobs. To date twenty have been put in Duco and one polished. All jobs done to date are Jewetts. Owing to my other work I have given this very little personal attention, but plan to get in on it very soon. It seems the Jewett officials are quite interested, but in talking to the foreman around the shops I feel sure American Auto Trimming are not sold on the idea and they will bear close following that they do not slip in such a way that will be detrimental to us.

AMERICAN MOTOR BODY COMPANY

The American Motor Body of Detroit is the main plant of the American Motor Body of Philadelphia with whom you have had some dealings. They do contract work and are princapally interested in the Gray at present We finished up 8 or 10 jobs there recently and find our coats are too high to compare with their present work, which is very poor mechanically. I do feel there is a possibility of using some Duco at their Philadelphia plant on a new Bus line and will stick close to Mr. Champion, Manager here. I would suggest some [illegible] of our officals see Chas. Schwab of American Motor Body as he is the big gun in this outfit.

CHRYSLER - MAXWELL

No work was attempted in April at either of the above units. Recently following Mr. Flaherty's letter to Mr. Chrysler however, we have been requested to assist them to do 13 jobs at the Chrysler plant. We have mailed Parlin a sample of the blue they desire and on receipt of the material we will give them all the attention necessary. Recently the Purchasing Agent at Maxwell called me and asked if we were in a position to furnish Duco in quantities and asked me to call on him to date however I have not found an opportunity to do this.

BRIGGS MANUFACTURING COMPANY

Plan further Hudson and Essex work as soon as we can find time to assist them.

C. R. WILSON BODY COMPANY

Experimental work only have one Reo on road test and plan to do an additional car in the next two weeks. This particular job will be for the President of the Company.

STUDEBAKER CORP.

Cannot seem to further interest them, although it is rumored that they are much interest in Pyroxylin coatings and understand Gliden has made great studies here.

RICKENBACKER MOTOR CAR COMPANY

Uninterested to date.

GENERAL

In addition to the car and body builders the office has referred many refinish prospects to us, but to date have been unable to give them any attention.

During the month of April business has continued very dull in fact the motor units have decreased in production to a marked extent. There are no present indications of increased production in the near future.

R. C. Williams

RCW:JPP

NOTE: 1568 in upper right corner. "h" inserted in word month in third paragraph on page two. Circular stamp reads Du Pont Fabrikoid at top of pages 2 to 8. The word "along" corrected to "alone" in second paragraph on page five. The word "clipped" corrected to "chipped" in seventh paragraph of page five. The word "whope" corrected to "whole" on page five. The word "Ulass" corrected to "Mass" on page six. The word "Carroll" inserted in blank space in last paragraph of page six. On page eight second and third paragraphs are checked at right margin. 13 is stamped along right margins of all pages.

Defendant's Exhibit (GM) No. 121

GENERAL MOTORS CORPORATION
Detroit, Mich.

August 31st, 1923.

Messrs. H. H. Rice,
A. B. C. Hardy.

I am enclosing herewith copy of report of Paint and Enamel Committee, which I presume will be self-explanatory.

The Oakland is going to 100% Duco for open cars, and I think that the idea has been sold to Mr. Fred Fisher and it is likely that Oakland will go to 100% Duco on closed jobs. The matter is very important to each Car Division that they post themselves thoroughly regarding the advantages to be derived. It was suggested that this report be gone over very carefully. A representative of this Committee will undoubtedly attend the next Car Division Managers' meeting here in Detroit, to be held in a couple of weeks, at which time the subject can be further discussed.

In the meantime, Mr. Hannum has expressed his willingness and desire to cooperate with other Divisions desiring information and without doubt he would be very glad to have you and any of your experts visit his plant so that you may be satisfied as to the quality of work that he is producing and of any advantages that he can show you

Yours very truly,

/s/ C. S. Mott
Vice President.

Defendants' Trial Ex. No. GM 121

cc to Mr. Sloan

cc to Mr. Hannum: This is a copy of what I am sending to other Car Divisions and I hope it meets with your approval.

cc to Messrs. H. H. Bassett & A.P. Sloan: The above is copy of letter I am sending out. I have already delivered to you a copy of the report.

NOTE. At top are stamp "Received Sep 4 1923" and illegible initials, possibly Mr. Sloan's. Lower right is stamped box with stamped initials A. P. S., J. L. P., P. F., W. J., A. T. B. and W. F. A. Pencil check-marks follow A P S. and A T B. There is checkmark after "A. P. Sloan" lower right.

Defendant's Exhibit (GM) No. 122

GENERAL MOTORS RESEARCH CORPORATION
DAYTON, OHIO.

October 29, 1923

Mr. A. P. Sloan, Jr., President,
General Motors Corporation,
224 West 57th St.,
New York, N. Y.

Dear Mr. Sloan:

We are running into a great many interesting things in connection with the application of 'Duco' as a motor-car finish.

Our local agent here in Dayton has seven orders for closed cars, all based upon his ability to obtain 'Duco'-finished cars; in other words, these prospective buyers will cancel their orders if they can not secure jobs with this new finish.

Seemingly, there has been no criticism whatsoever from the public with reference to the lower-gloss finish; in fact, the public seem eager for it and the Dayton agency considers it one of the best talking points. I presume that Mr. Hannum has heard of a lot of similar experiences from the agencies in other parts of the country. I am sorry that we cannot begin to make some applications elsewhere in the organization.

Doctor Booge of the Wilmington Laboratories of the du Pont Company, dealing with paint and varnish problems, was here the other day. Indirectly he paid us a very high tribute by saying that we have fully awakened the paint and varnish folks and that they are doing untold quantities of work in trying to improve their own products. We are seeing the results of this right along and are able to get very much better paint and varnish finishes. One of the 'paint' magazines bitterly complained of the work that was being done to undermine paints and varnishes; they wonder what our motive is and consider it unfair.

We have a new development that we are following up. The U. S. Rubber Company has learned how to put hard rubber into solution. This bakes out at fairly high temperatures and seems to give a pretty good finish. We know nothing about its durability and, of course, as in the case of everything else, we find some faults that seem rather insurmountable. At the present minute, for instance, the finish is injured by gasoline. It dries quickly and is extremely cheap; it gives a high polish and is a very fine looking finish.

I think we have scarcely scratched the surface as yet and that the work of the Committee will bear fruit for quite a period of time.

The du Pont Company is thoroughly awake to our solvent situation; we are working jointly to find means of overcoming this difficulty in securing butyl alcohol.

Quite a while ago, Mr. du Pont suggested that cars ought to be able to sit out of doors day and night throughout the entire year without housing facilities and without detriment to the integrity of the car; this seemed like a very wild dream at the time. However, with some of these more durable finishes, it seems that this proposition will become an accomplished fact. I have had one car out of doors for the last three years seemingly without any ill effects so far as deterioration is concerned. I believe that this vision of Mr. du Pont's can be realized now with 'Duco'.

This is rather a rambling letter; but I have thought that you would be interested in some of these later developments.

Very truly yours,

/s/ F. O. CLEMENTS
Director of Research

FOC-G

NOTE: Stamp top of page 1 "Received Oct 31 1923 A. P. Sloan, Jr."

Defendant's Exhibit (GM) No. 125

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
PRODUCTION SCHEDULE FORECASTS

General Purchasing Committee Minutes, April 18, 1924, page 2.

> (d) Statistical Position of General Motors. Mr. Sloan advised that his office was in position to supply each month to the Purchasing Agents a report of the statistical position of General Motors in the field of production, sales to customers, etc., and that this information is available to Purchasing Agents for consideration in the conduct of their buying and negotiations with suppliers. This information will be regularly secured and distributed through the Secretary to all Purchasing Agents.

General Purchasing Committee Minutes, July 2, 1924, page 1.

> Before taking up the program Mr. Sloan gave the members of the Committee his impressions gained on visits to 90 branches and distributors, and over 100 dealers located in 15 of the principal cities in the West including St. Louis, Kansas City, Los Angeles, San Francisco, Denver, Portland, Seattle, Spokane, Minneapolis, and St. Paul . . . . He stated that machinery is being set up to have production schedules properly controlled and control insisted upon. He dealt with the set-up of figures that should show the statistical position of General Motors and advised that beginning July 1 "Sales to Consumers" would be the index of General Motors business; that the divisions would set

up their own indices and the General Motors' index would be a composite of divisional indices. These indices would be used as a guide in setting production schedules from which the Purchasing Agents could reliably deal with suppliers as to quantities required.

General Purchasing Committee Minutes, September 5, 1924, page 1.

(a) Discussion of Statistical Position of General Motors as of July 31st, 1924. Reports of our statistical position as of June 30th and July 31st dealt with General Motors as a whole rather than by individual divisions. It is the opinion of the committee that monthly reports showing by division for the Car & Truck Group, Forecast of—

1 — Inventory (Total and raw material given separately.)
2 — Turn-over
3 — Production
4 — Sales to Consumers
5 — Finished stock on hand
6 — Commitments

which really constitute the divisional indices from which the General Motors' index is compiled, would be most helpful to the Committee in its work, and to the Purchasing Agents individually in their work. Mr. Sloan will furnish, through the Secretary such sheets dealing with the situation as of August 25th. Mr. Sloan will also supply us with sheets showing inventory turnover figures for calendar years of 1922 and 1923 which may serve somewhat as guides. He will also supply copies of the plan governing Sales to Consumers which has been worked out and submitted to the divisions. It was agreed that a letter from Mr. Sloan dealing with the plan for controlling production which manifestly would control the demand upon suppliers for their products and materials, which our Purchasing Agents could refer to in conversation or negotiations with suppliers, might strengthen our buying position by conveying to suppliers our efforts toward scientifically preventing wide fluctuations in demand resulting from drastic adjustments of Schedules. Such a letter will be written . . .

General Purchasing Committee Minutes, February 6, 1925, page 1.

(a) Discussion of Statistical Position of General Motors as of December 25, 1924. The items of particular interest to the committee are productive inventory and inventory turn-over. Ways and means of reducing inventory to the minimum consistent with uninterrupted production schedules were discussed. The existing practice of forecasting production schedules which are based on sales to consumers should result in a more even curve of production than ever heretofore obtained. If these forecasts are followed in releasing material the uniformity of current and anticipated demands should be reflected in lower inventories and commitments. It was suggested that particular attention be paid to the balancing of inventories and co-ordinating schedules for material and parts so as to keep this balance. A study of the systems for scheduling of purchases of parts and materials in effect in the several divisions will be made with a view to recommending for general adoption the system found to be the most efficient and economical . . .

Defendant's Exhibit (GM) No. 128

January 18, 1926.

Mr. C. F. Kettering, Vice President,
General Motors Corporation,
Detroit, Michigan.

My dear Ket:-

Mr. Midgley came in to see me on Saturday and stated that he had gone over rubber research proposition with you and that he knew you had talked to me about it.

Briefly stated, Mr. Midgley wants to conduct the operation in Dayton and in view of the fact that the entire cost of the activity for the year will not exceed $60,000, and in view of the fact that he appears to have good reasons, both psychological and practical why it should be done in Dayton, I am convinced that we ought to let him have his way and do it in such way surrounded by such atmosphere as the most effective workout will make possible. I assume that this is satisfactory to you.

Therefore, I am authorizing Midgley to go ahead and have given him a budget of $60,000 for the first year which I have also authorized with the Treasurer at Detroit.

If there is any reason why this does not appear to be constructive from your standpoint, will you be good enough to let me know. While the activity will, in a way, be separate from the research, at the same time I think it would be very necessary for you to look after it and I would suggest, if it is agreeable to you, that we delegate you as the Corporation's contact with Mr. Midgley in the premises.

Very truly yours,

PSJr./K

NOTE: Routing stamp has checks after A. P. S. and A. T. B.

Defendant's Exhibit (GM) No. 129

Letterhead of
GENERAL MOTORS CORPORATION
Detroit, Michigan

March 11, 1926

Mr. Alfred P. Sloan, Jr., President,
General Motors Corporation,
New York, New York.

My dear Mr. Sloan:

I am much worried about the rubber work undertaken by Mr. Midgley and think that I should tell you just how the situation appears to me and how I feel about it.

At the time I first talked to Mr. Midgley, which was on the train returning to Dayton from the New York Show, he told me of his talk with you and what he hoped to accomplish, saying that he knew positively that he could make commercially satisfactory rubber at a cost not exceeding $1.00 a pound and that the only problem confronting him was to bring this cost down and he expected to reduce it to about 35¢ a pound. I told him that I knew nothing whatever of the subject, but that I was under the impression from what I had heard that many of the leading chemists of Germany and other countries had spent many years of their best efforts in trying to do the same thing and had failed and that I, therefore, felt that, unless he possessed some secret unknown to them, he was up against an almost hopeless proposition. He told me that he had made a most exhaustive study of the subject and that he knew exactly what should be done and why everyone else had failed. He further told me that he was perfectly sure it would not take him more than three months to demonstrate his ideas. I told him that the Patent Department would render him all of the assistance in its power and that I would assign

Mr. George Lovett, who for many years was in charge of the chemical division of the Patent Office, to this work and that I would see that Mr. Lovett kept in close contact with him

Upon my return to Detroit a day or two later, I instructed Mr. Lovett to devote all of his time for the next few weeks in collecting material on the subject and to make this as exhaustive as was possible. Mr. Lovett did this and has collected, I believe, practically everything including patents that have ever been published on the question both in this country and abroad. Everything that he has so collected indicates the extreme difficulty of the subject and the fact that every substance or compound that might be employed for the purpose has been tried. Further, practically every one of these efforts including processes, etc. are covered by patents largely German.

About a week after Mr. Midgley started his laboratory in Dayton, I called upon him and also called upon him each Saturday until week before last when I moved my family to Detroit. Upon each of my visits, he told me that he was not ready to see Mr. Lovett and it was not until last week that he did so, and I am enclosing you copy of Mr. Lovett's report to me of his visit and which may not, I am afraid, be very illuminating to you, but the situation is about as follows:

Mr. Midgley has so far devoted his efforts entirely to trying to make Isoprene out of cracked petroleum as he feels that this is cheaper than any other method heretofore used. The idea, however, is not new as it seems to be covered by a British patent. Further, even if he gets Isoprene by his method, it will mean nothing as the real difficulty is to turn Isoprene into rubber. He has not told us how he expects to do this or if he is going to use any different process or introduce any different substances than those heretofore employed and unless he does do something of the kind, it will be utterly hopeless in my opinion for him to accomplish the result desired.

He has spent now two months of the three which he allotted as being necessary to complete the work and has, up to date, really accomplished nothing. This, I realize, is a harsh statement, but it is absolutely true. I do not believe that he has made any real effort to study the subject as he was totally ignorant of most of the patents and articles mentioned by Mr. Lovett to him and I cannot help but feel that he really has slight understanding of the problems involved and which are certainly very great.

I dislike writing you in this way very much, but I honestly feel that my duty to both you and the corporation requires me to do so.

I do not mean to say that the solving of the problem is an impossibility, but I do feel that, unless Midgley knows of some absolutely revolutionary and unknown method of turning Isoprene into rubber, his work should be stopped and I feel that he should be told to discontinue his present efforts, and should be instructed to procure or make some Isoprene by present, well known methods and then take this Isoprene and make commercial rubber from it. If he cannot do this, then, as I have before said, I think the entire undertaking should be discontinued because certainly the mere making of Isoprene from cracked petroleum will mean nothing whatever.

I will be very glad indeed to talk to you about this matter when you next come to Detroit and if you have time to talk to Mr. Lovett, he can give you, I am sure, a much clearer explanation of the situation than I have done.

Yours very truly,

James McEvoy
Director Patent Section
General Technical Committee

JMcEs

NOTE: Stamp on page 1 reads "Received MAR 12 1926 A. P. Sloan, Jr."

COPY

Memo for file

March 6, 1926

On March 5 I visited The Hochwalp & Thomas Laboratories at 127 North Ludlow St., Dayton, where Mr. Midgely and his assistants are engaged in their chemical investigations. Mr. Midgely and both of his assistants were present and we had an interview in regard to the progress of the work to date.

Mr. Midgely outlined briefly the line of work on which they were now engaged as follows:

Starting with propylene dibromide of which they have a considerable amount obtained from the Ethyl Gas Laboratory, they have proceeded thus: Take 6000 c.c. of the propylene dibromide, the same amount of water and the same amount of 93% alcohol (denatured), also 2400 grams of sodium hydroxin. Mix these ingredients and distill in a fractionating apparatus. This process yields 4515 c.c. of brom propylenes or about 92% yield. Over 80% of the alcohol can be recovered.

The product includes about ⅓ alpha and ⅔ beta brom propylene. These can be separated by fractional distillation if the pure materials are wanted. However, the two can be used in ad mixture in the treatments which follow:

A. Use of Grignard Re-action.

Either the alpha or the beta brom propylene or the two mixed together can be treated by the Grignard reaction with magnesium from which is obtained a small yield of dimethyl penta diene, methyl penta diene, and hexa diene, also some polymers which, when separated with benzol, give a viscous oil, which is probably a high terpene. The solid residue remaining after the extraction with benzol when burned gives off the odor of burned rubber.

B. Using the Wurtz Re-action.

The brom propylenes are treated with sodium amalgam (approximately 5 grams of mercury to 1 of sodium). Upon setting the mixture aside evolution of heat and gas takes place. If decanted at this time and distilled a small yield

—2—

is obtained of a polymerized body, which does not readily distill with steam.

The product is lighter than water, thus indicating the elimination of halides. Samples of this product have been set aside to permit polymerization and there are now some indications of slight polymerization shown by small quantities of a white solid in the test tubes which have been exposed to the light.

Second Variation of the Wurtz Process

If the sodium amalgam is merely permitted to remain in contact with the brom propylenes, polymerization takes place, as shown by a sample which had become completely solid, although it appeared, from inspection, that there was more amalgam in the tube than polymerized product.

THIRD VARIATION OF THE WURTZ PROCESS

They are now experimenting with the carrying out of the Wurtz reaction under pressure, using some of the old Tetra Ethyl lead containers, which are steel flasks of about 1 liter capacity. When the mixture is placed in the flasks and subjected to 50 pounds pressure under an atmosphere of nitrogen, no evidence is found of the evolution of gas unless the amalgam is too active or the reaction is hastened by the presence of a catalyst.

They have analyzed one sample of the product thus obtained and find that it yields a light polymerized oil. Mr. Midgely stated that the procedure according to the Grignard reaction would be commercially impracticable at present because of the high cost of the magnesium, but that the Wurtz re-action appeared to be commercially feasible. In this latter process, however, they were not yet able to obtain satisfactory yields.

The methods of keeping records were explained to me, which consisted in daily reports signed by the investigators and made out by the lady in charge of records, who has had

long experience in this class of work in the Ethyl Gas Laboratories. Up to the present time only one set of these reports has been kept but it was recommended that a second set be copied and sent to me, and that in the future carbon copies be made of these daily reports and also of the monthly reports, which are being made to Mr. Sloan, which carbon copies shall also be signed and shall be sent to me in order to provide an additional record in case of some accident resulting in loss of the originals, as well as to keep Mr. McEvoy and myself advised as to the work being carried out.

Mr. Midgely stated that there was no necessity in the present stage of development for any further patent search in lieu of the fact that their line of work might change on a days notice. However, I left with him, for Mr. Hochwalt to study, the collection of patents which I have made covering the manufacture of dienes and the preparation of synthetic rubber.

I also left with them the copy of Gottlob's article published in the India Rubber Journal, and a copy of the bibliography of synthetic rubber prepared in the Research Laboratory.

G. A. Lovett
Patent Section,
General Technical Committee

GAL:EK

Defendant's Exhibit (GM) No. 130

March 15, 1926.

Mr. James McEvoy,
General Motors Corporation,
Detroit, Michigan.

My dear McEvoy:-

I have your letter of March 11th dealing with the matter of Midgley and the work that he is doing. Naturally, I agree with you 100% and do not see how anybody could disagree that the first thing we should do is to get some picture of the prior art and it would appear to me that Midgley ought to have had enough experience to tackle that phase of it. On the other hand, of course, he is a research man first and foremost and probably is not giving that phase of it the consideration that he ought to.

I think, considering Midgley's past performances and the confidence that we all hold in his research ability, that we ought not to dictate too closely because it is important to keep up his morale and all that sort of thing. I realized at the time we went into this thing that he was wildly enthusiastic about the possibilities so far as accomplishing the result within a specific time was concerned. In other words, I just put that down as enthusiasm which is so necessary to get a thing of this kind accomplished at all. I went into it fully recognising that it was a problem that if it was solved at all certainly would not be solved within six months.

I think it is well worth letting it run along as we are. It is not costing us a great deal relatively and sometimes the most surprising things come out of developments of this character.

I expect to see Midgley within a few days and I will try to guide him along the lines that you indicate. I appreciate your keeping me posted and hope you will keep me in further contact with the patent end so that the most constructive result can be developed.

Very truly yours,

APSJr./K

NOTE: Routing stamp has checks after A. P. S. and A. T. B.

E

Defendant's Exhibit (GM) No. 131

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

6945

December 3, 1927

Mr. John L. Pratt, Vice President,
General Motors Corporation,
New York, New York.

My dear Mr. Pratt:

I am enclosing you copy of letter received by Mr. Lovett this morning from Mr. Midgley regarding certain new ideas he has respecting his rubber development. If you will get a copy of the November, 1926 issue of "Industrial and Engineering Chemistry" you will find several very interesting articles on the Guayule rubber situation.

Whether or not these articles have ever been read by Mr. Midgley I do not know, but as they disclose, and particularly the one by Mr. David Spence beginning on Page 1126, substantially everything so far as the production of a good quality of rubber is concerned, I am inclined to believe that he is familiar with them. The only single thing done by him that I have not as yet found is his statement that the quality of rubber can be improved by means of amino acid.

You will notice on Page 1128 under "Experiments on Shrub Preservation and Stabilization", that Mr. Spence refers to the work done by the Bureau of Standards and experiments made comparing the tensile strength, etc. of the Guayule rubber with Plantation rubber and which, so far as we can determine, are identically the same as those stressed by Midgley.

I am sorry that I have not a copy of the article in the Industrial and Engineering Chemistry, but the only one we have in the Research Library is bound up, but I am sure you can at least borrow it from the New York Public Library. The bulletin from the Bureau of Standards has not arrived, but I am hoping to get it later in the day and as soon as it does come, I will send it to you.

I feel exactly about this development of Mr. Midgley's as I have felt about his experiments in connection with synthetic rubber, namely, that he knows nothing whatever about the subject except what has been disclosed by other people and I would strongly urge, as I did over a year ago in connection with the synthetic rubber activities, that the whole operation be terminated.

Yours very truly,

James McEvoy

James McEvoy

NOTE: Stamp reads "J. L. Pratt Answered—Noted—"
12/10 is written in the stamp.

Defendant's Exhibit (GM) No. 132

6946

March 8, 1927.

Mr. Thomas Midgley, Jr.,
Thomas & Hochwalt Laboratories,
127 No. Ludlow,
Dayton, Ohio.

My dear Midgley:-

I have your letter of March 1st enclosing report for the month of February. Now, frankly, I do not like your idea of placing this before a good rubber chemist and unless you wish me to do so I would much rather not do so for the following reasons:-

A thing of this kind requires a certain amount of enthusiasm and vision which does not usually exist in an ordinary chemist no matter how experienced he may be. I mean a chemist whose activities are confined to ordinary commercial activities or even consulting work. I think it should be judged by those who are familiar with research work and who recognise that there is nothing sure in these kind of developments but that it must be and will be solved sooner or later, if not one way then another. I would much rather rely upon your judgment and Mr. Kettering's judgment than I would on anyone elses.

I am sure that if I referred the matter to the duPont Company they would say we were on more or less of a hopeless track and would recommend that we discontinue the activity. That would be a perfectly natural reaction - just as when new things in automotive practice come up our engineers are very apt to take a negative, or at the best, not a very enthusiastic attitude toward same.

The amount of money that we are spending in this endeavor is not great considering our resources and the operations of our business. I feel that we are bound to learn something anyway even if we do not solve the problem and as long as you and Mr. Kettering feel that we are making progress, I am perfectly willing to continue the activity for a reasonable time anyway in order that we may exhaust those ideas which you have in mind.

For all the above reasons, therefore, I would rather ride along exactly as is and have no desire to raise the question unless you wish me to do so.

Very truly yours,

APSJr./K

c/c Mr. C.F.Kettering

NOTE: Routing stamp has checks after A. P. S. and A. T. B.

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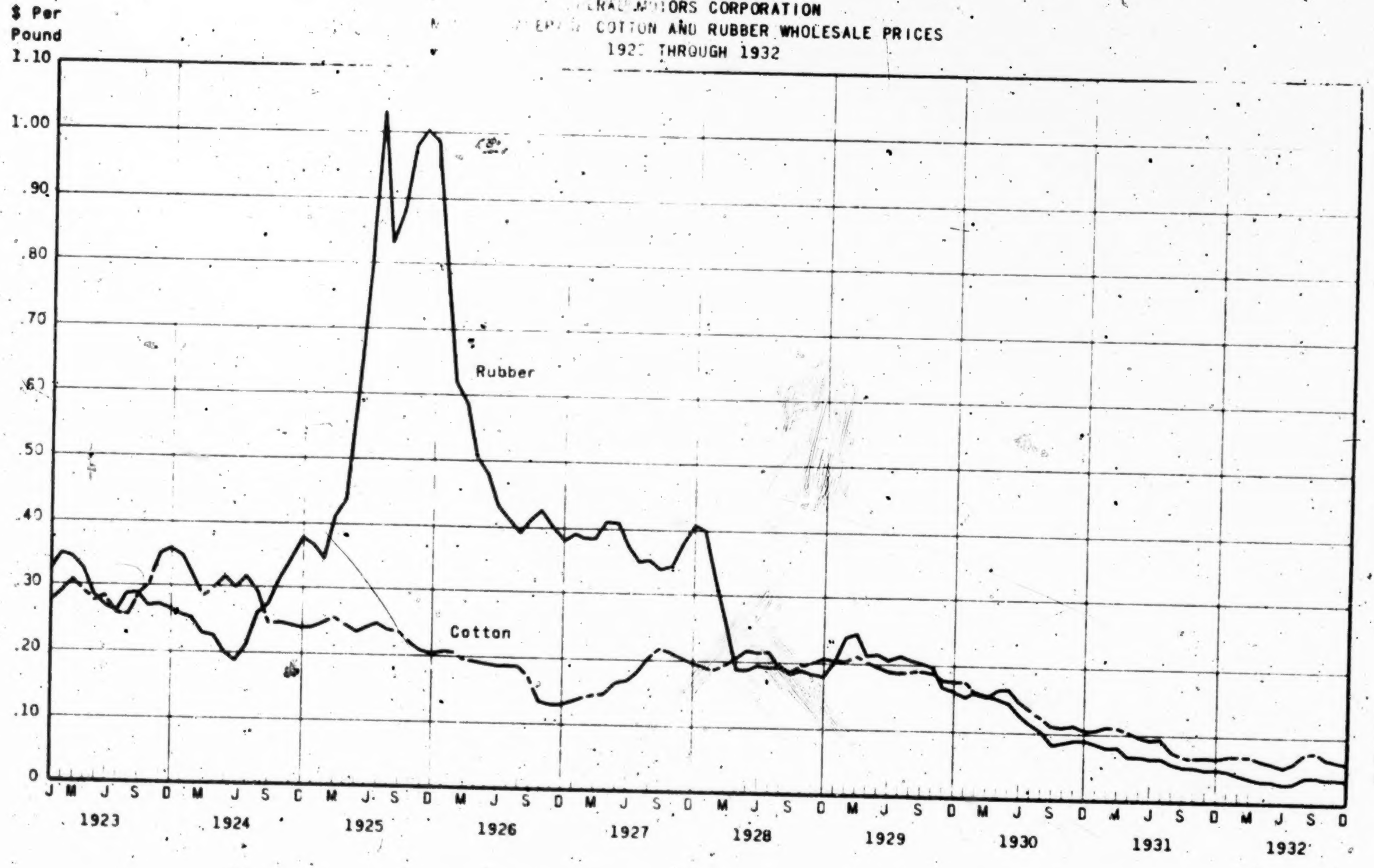
Defendant's Exhibit (GM) No. 133

RAL MOTORS CORPORATION
EP COTTON AND RUBBER WHOLESALE PRICES
1923 THROUGH 1932



SOURCE: U. S. Dept. of Commerce, Annual Supplement 1932 Survey of Current Business

Defendant's Exhibit (GM) No. 134

I

Letterhead of

GENERAL MOTORS CORPORATION
Detroit, Michigan

April 27, 1928.

Mr. Alfred P. Sloan Jr.,
General Motors Corporation,
New York.

My dear Mr. Sloan:

I am enclosing you copy of a letter which I wrote to Mr. Midgley today, respecting the further operations of the Thomas and Hockwalt Laboratories, which I trust will meet with your approval.

Very truly yours,

James McEvoy, Director,
PATENT SECTION,
General Technical Committee.

JMcE-McD.

NOTE: Stamp in upper right corner read "Received APR 30 1928 A. P. Sloan, Jr."

April 27, 1928.

Mr. Thomas Midgley Jr.,
Thomas and Hochwalt Laboratories,
127 North Ludlow
Dayton, Ohio.

Dear Sir:

Referring to the experimental work relating to synthetic and natural rubber carried on by you for General Motors

Corporation at Dayton since January 1926 under the name of Thomas and Hochwalt Laboratories, I would say that I understand that all such work, so far as the Corporation is concerned, will terminate as of April 30, 1928, and after that date it will not be liable for any further expense of any kind in connection therewith.

It will be agreeable to the Corporation, however, that the said Laboratories be continued by you, Mr. Thomas and Mr. Hochwalt in such manner as you and they may determine, and that all of the equipment thereof, and for which the Corporation has paid, shall revert to you without any cost, provided you and the above mentioned gentlemen continue certain experiments or studies, relating to natural rubber which have not as yet been finished are completed, and when such experiments are completed, said equipment shall then become your absolute property.

During the whole period that the aforesaid experiments relating to natural rubber are being carried on the Patent Section of the Corporation is to be kept fully advised thereof and should it deem that any application or applications for patent should be filed for any matter or thing connected therewith, you or the inventor thereof shall promptly sign such application or applications, together with an assignment thereof, to the Corporation, and at all times render such assistance and sign all such papers as may be required by the Patent Section in connection with the prosecution of said application or applications and it is, of course, to be understood that all such inventions are to be the sole and absolute property of the Corporation without any payment therefor being made by it to either you or any other person.

After the aforesaid application or applications are filed you shall be permitted to publish the results of any such experiments provided the Patent Section of the Corporation does not feel that it would jeopardize or prejudice the patent situation relating thereto.

If the above is in accordance with your understanding, kindly so signify at the bottom of this page, by signing the acceptance appended thereto and such acceptance, together with this communication shall be taken and considered by yourself, and Messrs. Thomas and Hochwalt, whom I would also ask to sign said acceptance, as constituting an agreement between you, them and the Corporation to the same effect as if the matters and facts herein set forth had been embodied in the form of a formal agreement under the hands and seals of yourself, Messrs. Thomas and Hochwalt and the Corporation.

Yours very truly,

General Motors Corporation

By ....

We hereby accept the above and agree to abide by and be bound by all of the terms and provisions thereof.

........................(SEAL)

........................(SEAL)

........................(SEAL)

3
E

Defendant's Exhibit (GM) No. 135

THOMAS AND HOCHWALT LABORATORIES
CHEMICAL RESEARCH
127 NORTH LUDLOW
DAYTON, OHIO

6951

April 5, 1928.

Mr. A. P. Sloan, Jr.,
General Motors Corporation,
Broadway at 57th,
New York City, New York.

Dear Mr. Sloan:

With your permission I will forego a progress report on last months activities as the only thing resulting from the work was some data on tensile strength with age in relation to amino acids. This data is not yet complete and when completed will terminate the budget expenditures. I shall give you the complete report of all this data at that time.

I want to thank you very much for your decisions of last week with regard to permiting me to continue the theoretical investigation, and I furthermore want to assure you of my whole hearted desire to stay with the bunch and am entirely at the disposal of General Motors Corporation whenever you need me. I might say that I am anxiously awaiting directions.

Very truly yours,

Thomas Midgley Jr

Thomas Midgley, Jr.

TM-Jr-D

NOTE: Stamp reads "Received Apr. 7, 1928 A. P. Sloan, Jr."

Defendant's Exhibit (GM) No. 136

6952

GENERAL MOTORS CORPORATION

INTER-ORGANIZATION LETTERS ONLY

August 30, 1928

O Mr. J. L. Pratt ADDRESS
Vice President - General Motors Corporation New York

ROM James McEvoy ADDRESS

UBJECT

My dear Mr. Pratt:

The attached is a quotation from the Science News-Letter of August 18th being a report of the proceedings of the Institute of Chemistry of the American Chemistry Society at a meeting held at Evanston, Illinois and which I thought might be of interest to you.

Very truly yours
J McEvoy
James McEvoy
Director Patent Section
General Technical Committee

"The quest for synthetic rubber may be compared to the quest for the Golden Fleece, the Fountain of Youth or the Philosopher's Stone, in so far as the objective appears exceedingly unlikely of attainment, but the quest has been very fruitful in secondary results for the general improvement of rubber technology and scientific knowledge."

This was the theme of Thomas Midgley, Jr., of Dayton, Ohio, noted as the inventor of ethyl gas.

Rubber is, chemically speaking, a multiplication of an organic compound known as isoprene, and many attempts, some of them successful on a laboratory scale, have been made to make rubber out of this substance. But none of these isoprene rubbers has the stretch and bounce and other physical qualities needed for full-fledged commercially successful rubber. In the investigation of the differences between the artificial and the natural products, however, chemical discoveries have been made that now have wide application in rubber manufacture and in certain other industries as well.

NOTE: Stamp in upper right corner on page 1 reads "J. L. Pratt Answered—Noted—" This stamp has been checked. Stamp below it reads "Received Sep. 6, 1928 A. P. Sloan, Jr.".

Defendant's Exhibit (GM) No. 137

THOMAS AND HOCHWALT LABORATORIES
CHEMICAL RESEARCH
127 NORTH LUDLOW
DAYTON, OHIO

September 5, 1928.

Mr. A. P. Sloan, Jr.,
General Motors Corporation,
Broadway at 57th,
New York City, New York.

Dear Mr. Sloan:

I thought I would write you and more or less informally report on what we have been doing since May 1st. We have prepared five papers for presentation at the Swampscott meeting of the American Chemical Society. The first paper is on the products of the destructive distillation of rubber and cleans up this rather vague subject, once and for all. The second is on a spiral fractionating column which we have developed during the past four months into a very useful piece of laboratory equipment. I have transferred this information to Mr. Boyd at the Research Laboratories where he is making use of it. The other three papers are laboratory notes and of no significance regarding any development.

In addition to the above we have pursued a research for the Frigidaire Company and believe we have a very constructive development to turn over to them. We also have been of some help to the Inland Manufacturing Company in connection with their battery box development, although as a matter of fact, we did very little else than keep them from getting excited about some minor difficulties and placing them in touch with sources of raw materials.

The theoretical investigation of rubber which I elected to pursue, is continually broadening in its aspects and it may be some little time before we have obtained any commercial results, if ever. However, it is work that needs to be done and we are having a good time doing it.

With best personal regards, I am

Very truly yours,

Thomas Midgley Jr

Thomas Midgley, Jr.

Tm-Jr-d

NOTE: Stamp reads "Received Sep. 7, 1928 A. P. Sloan, Jr."

Defendant's Exhibit (GM) No. 139

Wilmington, Dela., October 30, 1919

Mr. W. S. Carpenter, Jr., V.P.,
Development Department,
Building.

Dear Sir:

In view of my knowing of no suitable permanent position at this time available in the Company wherein my services can be advantageously utilized, and in view of my having an attractive offer to engage in a financial business in an executive position, this business in no wise being competitive with any of the interests of the DuPont Company or any of its subsidiaries, and in view of my being able to complete or put in shape for ready completion the Costs Accounting Studies in which I am now engaged, I respectfully apply for leave of absence for one year beginning January 1, 1920.

If granted this leave it is my intention to take up my new employment February 1, 1920.

Very truly yours,

JL/D

Defendant's Exhibit (GM) No. 140

CLASS OF SERVICE	SYMBOL
Telegram	
Day Letter	Blue
Night Message	Nite
Night Letter	N L

If none of these three symbols appears after the check (number of words) this is a telegram. Otherwise its character is indicated by the symbol appearing after the check.

WESTERN UNION TELEGRAM

NEWCOMB CARLTON, PRESIDENT GEORGE W. E. ATKINS, FIRST VICE-PRESIDENT

CLASS OF SERVICE	SYMBOL
Telegram	
Day Letter	Blue
Night Message	Nite
Night Letter	N L

If none of these three symbols appears after the check (number of words) this is a telegram. Otherwise its character is indicated by the symbol appearing after the check.

RECEIVED AT 202 WEST THIRD ST., ALTON, ILL.

5 A OC 13

DU WILMINGTON DEL 955A DEC 31 1919

JAMES. LYNAP.

CARE BROKAW EDEN CO ALTONILLS.

ARTIFICIAL SILK SUBJECT PRACTICALLY SETTLED CAN YOU LEAVE FOR WILMINGTON TODAY FOR CONSULTATION

CARPENTER

852AM

E

Defendant's Exhibit (GM) No. 141

6957

Charge to the account of ______________________ $______

CLASS OF SERVICE DESIRED	
Telegram	
Day Letter	
Night Message	
Night Letter	

Patrons should mark an X opposite the class of service desired; OTHERWISE THE MESSAGE WILL BE TRANSMITTED AS A FULL-RATE TELEGRAM

WESTERN UNION TELEGRAM

NEWCOMB CARLTON, PRESIDENT GEORGE W. E. ATKINS, FIRST VICE-PRESIDENT

Receiver's No.

Check

Time Filed

Send the following message, subject to the terms on back hereof, which are hereby agreed to

- Copy -

Alton, Ill.
Dec. 31st, 11:25 A. M.

W. S. Carpenter, Jr.,
Du Pont Building,
Wilmington, Delaware.

Unable be in Wilmington until Monday wire if satisfactory.

Lynah

E

4755

Defendant's Exhibit (GM) No. 142

New York City,
January 6, 1919.

Confidential.

Mr. W. S. Carpenter, Jr., Vice President,
E. I. du Pont de Nemours & Company,
Wilmington, Delaware.

Dear Sir:

Referring to the conversation in Mr. Yerkes' office on the 5th inst., with Mr. R.R.M.Carpenter, Mr. Yerkes and yourself, relative to my returning to the DuPont Company, to engage in the manufacture of Artificial Silk.

I was much interested to learn of the decision to conduct the silk business as a separate entity under a self-contained management, as I have strongly advocated this policy for the special businesses of the duPont Company, such as Fabrikoid, Pyralin, etc. There is no doubt in my mind that freedom from the burdensome overhead and cumbersome machinery of the parent organization will be immediately reflected in the profits of the business.

In several talks which I had at odd times with Mr. C. A. Patterson and Mr. A. Felix duPont, individually, and with Mr. Spruance and yourself, it was explained to me that the reason why I had not been appointed to any position during the reorganization of the Company last May and June, was because I had been previously selected to handle the Artificial Silk enterprise, regarded as a most important undertaking, for which I was peculiarly qualified. You may recall that in a conference in Mr. Lammot duPont's office, on October 30th, at which you and Mr. Spruance were present, arranged for the purpose of learning Mr. duPont's views upon my application for a two years' leave of absence, Mr. DuPont said he believed that I should have felt complimented in having been selected to handle the Artificial Silk enterprise.

The Executive Committee's resolution appointing Mr. Yerkes "Executive Head" of the silk company, clearly designated him as the one to handle the enterprise. My appointment as "Production Manager" does not sufficiently define my status. When the proposed company is completely organized I may find myself in a distinctly subordinate position. Naturally, I do not understand the reasons why.- I have been in the employ of the company fourteen and one-half years, Mr. Yerkes about two years. What conclusions should one draw?

Having in mind my experiences in the Newburgh enterprise, and considering events of the past six months, I could not at this time return to the employ of the duPont Company and work with that energy and initiative which only the hope and expectation of fair and considerate treatment can stimulate. I have, therefore decided to remain with the Brokaw-Eden Company.

I take occasion to again thank you for the courtesy and consideration with which you have treated me during the time I have been nominally attached to your department.

With kind regards, I am

Yours very truly,
Signed (James Rynak)

Defendant's Exhibit (GM) No. 143

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

Mr. James Lynah,
Haskell,
New Jersey.

Dear Sir:

I have today received your letter of January 6th and have noted your decision regarding returning to us to take charge of the artificial silk operations.

I have felt consistently that if you could get back into important and constructive work with the Company you would soon return to your old self and that we would mutually profit. It was for this reason that I was very much in hopes you would consent to give it a trial.

I feel I should not close this letter without clearing up a misunderstanding which I feel you have unfortunately fallen into and which I hope did not weigh too heavily in your decision not to return to the Company. I mean your reference to the fact that you were not now given an opportunity to take up this silk work in as important a capacity as you had been lead to believe you would be offered.

In the first place the fact that you were unwilling to remain with the Company and take your chances upon the development of this opportunity seems to me to change considerably the aspect of all arrangements which may have been contemplated prior to that date and would furnish a very excellent opportunity for the Company with fairness to all concerned to withdraw from any such previous plans it may have made in this respect should it so desire.

I wish to point out, however, that the Company did not take that action. While under no obligations to offer you this opportunity when you left the Company, the Company nevertheless did offer you an opportunity and in a more important capacity than it ever before had contemplated or intimated.

It had always been expected up until a week or so ago that the silk operations would be placed under one of our present manufacturing departments and that you would be in control of those silk operations, but just as in the case of Arlington and Fabrikoid you would be under the vice president and director of that department. In the new arrangement you would be under the executive head or president of that company who in turn would be under the board of directors of that company. It is the intention as explained to you that Mr. Yerkes as executive head of that new company will have responsible to him not only the production department but the sales and treasury as well. I think you will agree with me fully that no thought was entertained of your having direction of sales and treasury as well as production.

I hope this letter will convey to you the impression that in spite of the fact that no obligation of any nature existed on the part of the du Pont Company that it has, however, gone beyond what might have been expected of it and has offered you a position though you were not with the Company, of even greater responsibility than had been contemplated before you left the Company.

Yours very truly,

VICE PRESIDENT.

WSC:MCM.

Defendant's Exhibit (GM) No. 144

2nd February 1920.

W. S. CARPENTER, JR., VICE PRESIDENT,
E. I. DuPont De Nemours & Company,
Wilmington, Delaware.

Dear sir,

I acknowledge receipt of your letter of January 7th, regarding my decision not to return to the DuPont Company to take charge of the silk operations.

In view of what had previously transpired, and in view of my finding that Mr. Yerkes had been appointed to be the executive head of the Silk Company, when I had been led to believe that I were to have charge of this enterprise, I could not consistently return to the employ of the company. I understand that so long as it was expected that the silk business would be placed under one of the regular operating departments, it could not have been contemplated that I should be given charge of treasury and sales, as well as production; however, when the decision was reached to incorporate a separate company, I do not understand what disqualified me from being selected as the executive head of the business, and I am impelled to ask the following questions, -

Why, if I were favorably considered for the Presidency of the South American enterprise, where, thousands of miles from headquarters, I were to have charge of construction, as well as sales, treasury and production, I could not be made the executive head of a small company, operating near headquarters, engaged in a business for

Defendants' Trial Ex. No.
6063

W. S. CARPENTER, JR., NO. 2.

which I had been previously selected to be in charge of production because of special qualifications? In the former case I would have been far removed from sources of advice, counsel and information; in the latter case, all these would be near at hand.

Am I not justified in feeling that, if after the character of service I have rendered to the DuPont Company for the past fourteen and one-half years, especially at Newburgh, Haskell, and Tullytown, I am not as eligible to be the executive head of the Silk Company, as a man who has been in the employ of the DuPont Company only about two years, and who has no record of achievement with them, I had better seek employment elsewhere? Could you go before a group of employes and convince them that, so far as the company's interests were concerned, the fair thing had been done in making this selection?

Yours very truly,

James Lynah

Defendant's Exhibit (GM) No. 145

DU PONT
E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

EXECUTIVE OFFICES

Mr. James Lynah
Haskell, New Jersey

Dear Sir:

I wish to acknowledge your letter of February second in response to mine of January seventh.

I have no desire to continue a discussion of the subject matter of your letter but I have no hesitency in giving you replies to the questions which you have brought up, which replies seem to me self-evident.

Your first inquiry as to why if you were considered as a possibility to take charge of our South American enterprise you were not selected as executive head of the Viscose Company in this country; it is our opinion that the two positions are of quite a different character and can better be filled by men of quite different qualifications.

You next ask if you had not better seek employment elsewhere if after fourteen and a half years service of the character rendered by you with the du Pont Company you should not be selected for such a position as the one under consideration in preference to a man whom you describe as one having no record of achievement with the du Pont Company and a service of but two years. While not questioning the character of your service with the du Pont Company in the positions held

Defendants' Trial Ex. No. ____

nor your term of service, it must be clear to you that a satisfactory record of services in one position does not necessarily qualify one for any other position which might present itself.

Trusting that I have responded in a satisfactory manner to your inquiries, I remain,

Yours very truly,

VICE PRESIDENT

WSC:M

E

Defendant's Exhibit (GM) No. 146

September 5, 1922.

Mr. J. H. Main, Director Purchase Section,
General Motors Corporation,
Detroit, Michigan.

My dear Mr. Main:-

This will introduce to you Mr. James Lynah, the gentleman whom I mentioned to you last week when we were talking about our Purchase Plan.

Very truly yours,

A.P.S.Jr./K VICE PRESIDENT.

Defendant's Exhibit (GM) No. 147

TELEPHONE CIRCLE 8330

L. & M. DISTRIBUTING CORPORATION
INCORPORATED IN NEW YORK STATE
FISK BLDG. 57TH STREET & BROADWAY
NEW YORK CITY

September 8, 1922.

Alfred P. Sloan, Jr., Vice President,
General Motors Corporation,
224 West 57th Street,
New York City.

My dear Mr. Sloan:

As requested by you I called on Mr. Main in Detroit on the 7th instant. I talked over with Mr. Main the various phases of the work of the Purchase Section of the Advisory Staff for which the employment of my services is being considered.

I feel confident that I can prosecute this work successfully and to your entire satisfaction. I will be much obliged if you will advise me of a decision as soon as possible.

Thanking you for the consideration, I am

Very truly yours,

James Lynah

JL/T

Defendant's Exhibit (GM) No. 148

September 11, 1922.

Mr. James Lynah,
L & M Distributing Corporation,
Fisk Bldg.,
New York, N. Y.

Dear Sir:—

Replying to your letter of September 8th, I thank you for going to Detroit and talking the matter over with Mr. Main. I will take the matter up with him in due course and get his viewpoint.

Very truly yours,

Vice President.

A.P.S.Jr./K

E

Defendant's Exhibit (GM) No. 149

GENERAL MOTORS CORPORATION

Co-ordination

of

Purchases

Revised to September 1, 1923.

Defendants' Trial Ex. No.

[illegible]

GENERAL MOTORS CORPORATION

CO-ORDINATION OF PURCHASES

THE OBJECT

The object of the administration is to so co-ordinate the total purchasing power of the Corporation that the most logical and economic condition will result and the benefits of concentrated purchasing be realized without destroying in any real sense the effectiveness or merit of any individual purchasing unit.

Although no complete figures have yet been developed showing concretely what savings can actually be effected through such a co-ordination, it seems very reasonable to believe that in the course of a normal year's operation, an appreciable number of millions of dollars can be realized.

THE BENEFITS

It appears obvious that the benefits of such a plan of co-ordination should be many fold and only a few of the major ones are here enumerated to indicate the tremendous advantages which should accrue to the Corporation through the suitable application of these and many other factors:

1. The bringing together of the Corporation's purchasing talent cannot help but further a greater maturity of judgment and more breadth of intelligent action than could be expected should the several purchasing units act entirely independent of one another.

2. Quantity purchasing results in lower buying prices.

3. By arranging to take a large percentage of the output of a supplier, that supplier can manifestly effect marked economies in his operations, in which economies the Corporation can logically participate. A large volume of assured business to any manufacturer justifies his making the lowest possible selling prices, prices even approaching costs, for the reason that the maintenance of his organisation is certain; and the balance of his business, even though smaller in volume, can readily be made to pay a return on his whole investment without being marketed at excessive prices, for his overhead will be well cared for by such a substantial volume of business as an institution like General Motors is in a position to offer him.

4. The proper co-ordination of purchasing with standardisation will result in a smaller number of items to be purchased and thus in addition to handling benefits economies will automatically accrue through the commercial law of quantities affecting prices.

5. Through standardisation one Division will be able to assist another in an emergency and the Corporation at large will profit through an ability to utilise in other Divisions materials both of a raw and expense character purchased for certain Operations, which Operations, because of changes or contingencies, get into a condition where they are no longer able to utilise their anticipated requirements.

6. Inventories can be kept at a minimum because suppliers furnishing the same things to several Divisions will be able to render prompt service, and this inventory reduction can, in addition, be furthered by the forcing of suppliers, to which a volume of business is being given, to keep store-houses or points of contact adjacent to our Operations with supplies on hand to be taken as needed.

7. In certain instances it will result in better products. For example, it is well known how difficult it is to obtain the proper specifications in certain steels, particularly when dealing with heat treatments. The coordination of purchases should result, for instance, in the high heats being taken by the Divisions requiring them, the lower ones likewise, to the end that the Operations severally profit and a better product ensues.

8. Specifications placed at the most opportune times will result in an ability to take advantage of a better market and a greater appreciation of General Motors purchasing power on the part of large suppliers of raw materials.

THE PROBLEM

This matter of co-ordinating purchases which may seem comparatively simple becomes one of greater complication when the extreme technical character of practically all the Corporation's products is considered and when it is recognized that many personalities and viewpoints developed through years of contact with certain products, as compared with others, must be dealt with. The Corporation uses articles of such a technical character that in order to get suitable co-ordination a general agreement must be reached that any specific article will be essentially satisfactory for all operations and perform its functions as well, if not better, than any of the various products for which it is to be substituted. The problem, therefore, resolves itself into two steps, as follows:

1. Specifications -

   To co-ordinate the various viewpoints into an agreement or specification as to what will satisfactorily serve the purposes of all.

2. Contracts -

   To develop contracts, all the conditions of which prices, terms, deliveries, etc. will be the best that can possibly be obtained.

Specifications - Dealing with "1", it is believed that the co-ordination and agreement as to specifications will present the most difficult part of the problem and that a single item must be taken up for consideration at a time. Aside from the necessary study from the technical standpoint relating to each single item, the psychology of the situation must be dealt with, and this is very important. By this is meant the determination of the actual facts in each case as distinguished from the perfectly natural hesitancy in making any change. This psychology is apt always to exist in dealing with any product or any organization which has given successful service for a long term of years. It will be difficult for the many different personalities in a large organization to recognize in concert that a different article may give equally good, if not better, satisfaction. All such questions, however, can and naturally will be readily overcome if there is underlying the whole plan a suitable recognition of the fundamental advantages accruing to the Corporation by standardization and through the co-ordinated purchase of such materials as can logically be so procured.

Contracts - No great difficulty should arise in this regard. It becomes simply a question of obtaining the best price possible and of developing a plan which accomplishes that result in the most feasible manner. With "1" taken care of, "2" should become more or less a point of routine.

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THE PLAN

The plan contemplates making as few changes in the existing organization and the introduction of as small an expense as possible in obtaining the desired results. The development of this plan must continue to recognize the fundamental principle that there is a tremendous amount of ability and experience in the Purchasing Departments of the several Divisions and Subsidiaries and that this talent should and must be capitalized to the good of the Corporation as a whole. It follows that if the best efforts of each and every individual purchasing agent can be co-ordinated, great profit will result to the Corporation. The duties of those parts of the organization affected by the application of this plan are defined as follows:

1. General Purchasing Committee

The responsibility for the co-ordination of General Motors purchases shall lie with a Committee appointed by the President and termed a General Purchasing Committee. The personnel of this Committee will be representative of all the phases of the Corporation's activities concerned in any way with its purchasing situation. In addition to such executive officers and Corporation employes as it will logically include, it will be representative of the Purchase Section of the Advisory Staff and sufficiently of the Purchase Departments of the several Operations. In the selection of this personnel consideration will be given to geographic location and the necessity of contacting with all the different types of purchases in order that the findings of the Committee may be truly representative and carry weight with the Corporation at large. This Committee shall have a Chairman and a Secretary. It shall hold regular meetings at pre-determined monthly intervals.

Relations between this Committee and the Purchase Section of the Advisory Staff shall be those of principal and agent. The Purchase Section will carry out the procedures and policies established by the Committee and will enter into only such contracts as have been formally approved by the Committee. Any position taken by the General Purchasing Committee should be largely final so far as dealing with individual items and procedures are concerned, considering that this Committee is founded on the broad principle set forth in this program. In the event action becomes desirable but is within the province of some other authority, any recommendation of the Committee should and would carry great weight and usually be approved as setting forth the best opinion of the Corporation as a whole. All questions of purchase policy and procedure should be brought before and be determined by the Committee, the members of which are charged with a real Corporation responsibility and should do everything possible to discharge that responsibility as members of the General Motors Corporation. Purchasing Agents of Divisions and Subsidiaries not represented on the Committee should at all times be welcomed at the meetings, and while they would necessarily have

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no vote in determining policies, their viewpoints, suggestions and criticisms should always be considered. It is the duty of everyone in the entire organisation having any purchase viewpoints to express to submit them preferably by appearing at any meeting of the Committee or by writing to it. Communications relative to any action of the Committee, be they in the form of criticisms, suggestions or what-not, should be addressed to the Secretary, who will give them prompt attention.

To sum up the whole plan so far as the General Purchasing Committee is concerned, it is recognised that no Committee can function in an administrative way. Nevertheless, a Committee of this character in a large organisation is essential for the purpose of co-ordination and of capitalising all the ability and experience that lies within that organisation. It is, therefore, believed that this arrangement in the plan will bring to the support of the program the best thought in this particular line that exists throughout the entire Corporation.

It is not intended that the duties of members of this Committee will be so heavy as to constitute a sufficient draft on their time and energies to handicap in any way their routine work in their regular positions with the Corporation.

2. Standing Sub-Committee

In order to expedite the duties of the General Purchasing Committee to the extent of its being better able to cover all of the work appearing on programs of its meetings and to enable it to devote more time for general considerations, a Standing Sub-Committee shall be maintained, whose Secretary shall be the Secretary of the General Purchasing Committee. This Sub-Committee will normally meet prior to the meetings of the General Purchasing Committee. This Sub-Committee shall have power to act to the extent of authority of the General Purchasing Committee and the transactions of its meetings will be regularly reported in minute form for the approval of the General Purchasing Committee.

3. Purchase Section, Advisory Staff

The relations of the Purchase Section, Advisory Staff, to the General Purchasing Committee are, as before stated, that of principal and agent. The Purchase Section is the administrative agent of the General Purchasing Committee. It is one of the duties of the Purchase Section to develop a list of articles in which coordination would seem possible and profitable. The responsibility for this initiative is lodged definitely with the Purchase Section, but this does not relieve the members of the General Purchasing Committee from bringing up any matters which would seem to result in the increased effectiveness of the plan as a whole. The General Purchasing Committee has no power of administration. It must look

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to the Purchase Section for that function. It will also be the duty of the Purchase Section to maintain the necessary contact, both personally and otherwise, with the Purchasing Departments of each Division and Subsidiary in order to develop the necessary data upon which recommendations to the General Purchasing Committee will be based. It will be the further responsibility of the Purchase Section to secure the necessary co-ordination from other Staff Sections and bodies. In other words, the Purchase Section, through its Director and organization, will act as an administrative agent carrying out the policies and rulings of the General Purchasing Committee which cannot, as before outlined, function in an administrative way.

4. Other Advisory Staff Sections

It will be the duty of other Sections of the Advisory Staff to cooperate with the Purchase Section in the development of the necessary specifications as before outlined to the end that the viewpoints of the different Operations will be properly co-ordinated into one set of specifications that will be acceptable for all. All such specifications will be passed upon by the General Purchasing Committee. It will, for instance, be the duty of the Factory Section when called upon by the General Purchasing Committee, or through its agent the Director of the Purchase Section, to contact with the Divisions to the end that an agreement is effected as to what constitutes proper specifications for a given article so that a definite concrete proposition upon which a contract can be properly based and submitted to the General Purchasing Committee for action can be developed.

One of the most important duties of other Advisory Staff Sections and of the Financial Staff will be to determine that the proposed source of supply is a proper one, both from the standpoint of financial facilities as well as the personnel, to properly assume any obligation that the General Purchasing Committee may feel warranted in recommending being placed with such a supplier. This will particularly apply where a considerable proportion of the Corporation's needs may be, for the sake of reasons set forth in this Procedure, concentrated with one source of supply or with a limited number of such sources.

5. General Executive Officers

With the responsibility for the whole program lodged with the General Purchasing Committee, a body representing all phases of the Corporation's Operations, as well as its general administrative side, it is thoroughly believed that all Operations recognizing as they must the tremendous advantages accruing to the Corporation will, in all cases, accept the decisions of this Committee.

METHOD OF PROCEDURE

The method of procedure in carrying out this program will be substantially as follows:

1. Suggesting Items for Co-ordination

The Director of the Purchase Section or any member of the General Purchasing Committee or any member of the organization attending any meetings of this Committee can suggest any article such, for example, as leather belting, as a desirable one to be co-ordinated and contracted for in quantity in the belief that a better price and other advantages would flow from such a co-ordination. If any action in the matter is taken it must be by the General Purchasing Committee, which Committee will decide as to the proportion of the total requirements of the Corporation which shall be covered by contract, together with the duration of the contract. The Committee may decide perhaps that the moment is not opportune to deal with a given article. It may, on the other hand, feel that a general contract can be negotiated without further formality. Again, it may direct that, on account of a possible difference of opinion among the Operations as to what constitutes leather belting, some other Section of the Advisory Staff or some body should develop a proper specification.

2. Establishment of Standards and Development of Specifications

If detailed specifications are essential, some Section of the Advisory Staff, or perhaps the Works Engineers Committee, or a Sub-Committee, to which this study will be referred by the Committee, will take the matter up and will contact sith the proper Department in each Operation in order to develop specifications or standards which they in turn will submit to the General Purchasing Committee for action and approval. If approved by the Committee, its Secretary will send copies of the specifications to the Purchasing Agent of each Division interested, with the request that he approve, constructively criticise, or suggestion modifications to suit his requirements. A final report on this referendum will be submitted to the Committee so that approved standards may be authorised for insertion in the Corporation's book of Engineering Standards and for use in developing general contract proposals.

3. Questionnaires

Covering items which have been approved by the Committee, its Secretary will send out questionnaires to all Purchasing Agents of the Corporation on the approved form. Information on returned questionnaires will be tabulated by the Secretary and turned over to the Director of the Purchase Section.

See "Exhibit A" for form of Questionnaire.

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4. Advance Notice of Commitments

The Secretary of the General Purchasing Committee will send letters out to the Operations covering items on which the summarized questionnaires warrant development of general contract proposals and on which bids are about to be requested. These letters will severally advise the Divisions and Subsidiaries -

a. the quantities for which they will be committed,

b. the period of commitment,

c. the sources which are being requested to bid, and

d. the specifications under which bids are being requested,

and they will inquire of the Operations -

a. what preference, if any, they have for any of the sources named, and

b. the names of additional sources.

See "Exhibit B" for typical letter on Advance Notice of Commitments.

5. General Contract Proposals

From the information on the returned questionnaires the Director of the Purchase Section will develop general contract proposals submitting them on the standard form to the General Purchasing Committee for final decision. Each member of the Committee will be furnished with a copy of summarized proposals.

6. Disapproval of Contract Proposals

In the event the Committee disapproves of contract proposals, the Secretary of the Committee will notify all Purchasing Agents of the Corporation interested that a general contract will not be made and will submit with this notice the quotations received from the various sources, as a matter of information.

7. Participation in Contracts

When a general contract has been concluded, the Purchase Section will notify all Purchasing Agents of the Corporation to that effect and give each one a brief showing full information as to terms, etc. and the extent that his Operation is expected to participate in same. Any requested number of copies of these briefs - which will be serially numbered - will be furnished. Should it be considered of advantage for any of the various branches of an

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Operation to receive copies of these briefs, this distribution will be made through the Operation's Purchasing Agent and it will be his function to see that they are suitably distributed.

See "Exhibit C" for brief of General Contract form.

In this regard the following points are to be carefully observed:

a. No Operation is permitted to disclose prices on which general contracts are based, nor any special terms or conditions incident to said contracts, to any source whatsoever outside said Operation.

b. No Operation is permitted to negotiate with any supplier or place any orders whatsoever with any other suppliers than mentioned in the general contract, nor on any different terms than those stipulated. The contract conditions must be absolutely adhered to by those Operations mentioned as participating in said general contract.

c. In the event it comes to the attention of any Operations that better prices or more advantageous conditions of any kind or character are obtainable, it is the duty of that Operation to notify the Secretary of the Committee accordingly.

8. Re-development of Contracts

In the absence of any specific instructions to the contrary, the Director of the Purchase Section will, approximately sixty days prior to the expiration of any general contract, resubmit the items on such expiring contract to the Committee for approval, regarding the re-development of it.

9. Contracts Covering Part Requirements of Corporation

The General Purchasing Committee, having decided in favor of a contract, may find it advisable at times to delegate a Sub-Committee or a Divisional Purchasing Agent to enter into such contract covering such part of the requirements of the Corporation, or of such Divisions or Subsidiaries, as the Committee may elect. Upon completion of the contract, however, if handled by others than the Director of the Purchase Section, full information concerning it shall be turned over to the Purchase Section for distribution to the interested parties.

10. Operations' Use of General Contracts

All Operations will use such contracts to the extent of their respective commitments, will place orders against same and will liquidate the indebtedness caused by these purchases on their 4777 own account in the usual manner. This will make absolutely no difference in the functioning of the Purchasing Departments of any Operation except that the initial placing of the contract, through the necessity of co-ordination, is removed from their province and becomes the sole duty and responsibility of the General Purchasing Committee.

11. Contract Rebates

In the case of contracts calling for rebates for the purpose of protecting prices, or for any other purpose, such rebates will be handled by the Purchase Section, Advisory Staff, so far as records are concerned. All such rebates will be credited through the General Office of the Corporation to the Operations entitled to them, at the end of each month - not specifically, but as a general sum. This means that each Operation will get the benefit of the Corporation's price and further that the initial billing will be the lowest possible price that any Operation individually is able to obtain. This procedure is considered desirable because to get the benefit of the lowest possible price, objections are sometimes made on part of suppliers in disclosing that price. While this method will to a certain extent develop an incorrect cost of sales, the errors will be very small and it is preferable to deal in this manner than with each individual item separately. In the event the price made to the Corporation on any special contract is no lower than the price accorded any Operation, then the Purchase Section, Advisory Staff, will have no duty to perform after having effected the contract.

12. Obligating the Corporation

Provided it is necessary, in order to secure the lowest possible price, or any other favorable terms, to obligate the Corporation to take a specific amount of material from any supplier, such contract can only be entered into upon the recommendation of the General Purchasing Committee and with the approval of the Finance Committee consistent with regulations adopted by that Committee. In the event, however, such contracts call for an obligation limited by a certain percentage of the Corporation's purchases, without involving quantity, action on the part of the General Purchasing Committee will be all that is required to authorise the Director of the Purchase Section to effect such a contract.

13. Ability of Sources of Supply to Assume Obligations

One of the most important considerations that not only the General Purchasing Committee and the Purchase Section, Advisory Staff, but other Staff Sections cooperating with same, must determine, is the ability of a source of supply to assume an obligation that may be placed with it, having in mind the ability of that source to comply with delivery requirements. It is manifestly essential, in order to capitalise to the fullest possible extent the Corporation's purchasing power as outlined in this Procedure, that buying should be centralised in a limited number of places and in as large units as possible. Conversely, it must be recognised that in capitalising the purchasing power in this manner a liability is created to the degree that the supplier assuming the obligation may not be able to comply with it. In such a contingency, the Corporation might be placed in a position where it would be obliged to go on the open market and purchase large quantities of material, perhaps at a time when the market had considerably advanced, and be penalised to that degree. Yet, even more important, it might have difficulty in obtaining the necessary supplies on short notice because suppliers might be well filled up with specifications with other manufacturers, and in this manner the Corporation's entire manufacturing program might be jeopardised with a loss many times greater than the savings the co-ordination might possibly effect. It is manifestly impossible to lay down any fixed rule, for the liability thus created could only be determined in each individual case and would constitute a summation of many factors such, for example, as the nature of the material, the number of sources of supply available, etc.

This constitutes a phase of the program which should be very carefully considered by the General Purchasing Committee, as well as by the Purchase Section and by other Advisory Staff Sections, since it is from standpoints more important than the contract price that the greatest care should be exercised. The General Purchasing Committee should recognise the experience of each and every Operation, for many of them have had contact extending over a term of years with certain suppliers, to the end that the Corporation's interest is protected to the fullest possible extent.

14. Circular Letters

In order to keep the Operations informed in summarised fashion of the work of the Committee, its Secretary, subsequent to each regular meeting, will address to them circular letters noting under suitable captions the disposition of all items presented for consideration at the meeting. It is naturally to be appreciated that the information contained in these circular letters is of a decidedly confidential nature.

15. Correspondence

All correspondence between the General Purchasing Committee, the Purchase Section, Advisory Staff, and the Divisions and Subsidiaries shall be conducted with the Purchasing Agents of such Divisions and Subsidiaries.

EXHIBIT A

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
QUESTIONNAIRE

EXHIBIT [illegible]

TO PURCHASING AGENTS:

DATE ______________________

PLEASE FORWARD PROMPTLY THE INFORMATION REQUESTED BELOW.
RETAIN DUPLICATE COPY OF QUESTIONNAIRE FOR YOUR FILES.

JAMES LYNAH, SECRETARY

ITEM ______________________

REQUIREMENTS FOR PERIOD ______________ 192__ TO ______________ 192__

QUANTITY ______________________

TOTAL ANNUAL COST OF PURCHASES ______________________

DETAIL SPECIFICATIONS (SPECIFICATIONS WHICH YOU USE WHEN SENDING OUT INQUIRIES)

PRESENT PRICES ______________ TERMS ______________

F. O. B. ______________

ARE YOU UNDER CONTRACT AT PRESENT? IF YES, GIVE:

SOURCE ______________________

PERIOD ______________ QUANTITY ______________

DATE OF EXPIRATION ______________

IS THERE ANY REASON WHY YOU SHOULD NOT PARTICIPATE IN A GENERAL CONTRACT? IF SO, WHY?

IS THERE ANYTHING SPECIAL ABOUT YOUR REQUIREMENTS? IF SO, GIVE FULL PARTICULARS

RECOMMENDED SOURCES OF SUPPLY ______________________

____

______________________ DIVISION

DATE ______________

____
PURCHASING AGENT

USE REVERSE SIDE FOR ADDITIONAL SPECIFICATIONS.

EXHIBIT B

EXHIBIT B

(Date)

Subject (As is)

Attention of (Purchasing Agents Concerned)

The Committee has authorized development of general contract proposals on (as is), and has ordered the sending out of requests for proposals covering your requirements for period (month, date, year to and from) inclusive which are estimated as follows:

Names of Divisions	Estimated Requirements
- - - - - - - - - -	- - - - - - - - - -
- - - - - - - - - -	- - - - - - - - - -
- - - - - - - - - -	- - - - - - - - - -

Requests for bids are being sent to:

Names of Sourses

- - - - - - - - - - - - - -

- - - - - - - - - - - - - -

Please suggest any additional sources you desire and give preference, if any, for sources listed.

Sources are being requested to bid on the following specifications

- - - - - - - - - - - - - - - - -

Please advise if these specifications are satisfactory and fully cover the matter and if not give any additional specifications.

Very truly yours,

Secretary.

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EXHIBIT C

GENERAL MOTORS CORPORATION

GENERAL PURCHASING COMMITTEE

DETROIT MICHIGAN

CONTRACT WITH

CONTRACT BRIEF NO

DATE

TO PURCHASING AGENTS:

HEREIN ARE SET FORTH BRIEFLY THE CONDITIONS AND TERMS ON WHICH YOUR COMMITTEE HAS COVERED YOUR REQUIREMENTS OF THE ITEM LISTED BELOW

FROM 192 TO 192

YOUR PARTICIPATION IN THIS CONTRACT IS REQUIRED UNLESS SPECIFICALLY EXCEPTED BY THE GENERAL PURCHASING COMMITTEE

JAMES LYNAH SECRETARY

ITEM

DETACH AND RETURN

GENERAL MOTORS CORPORATION
DETROIT MICHIGAN

DATE

ATTENTION—JAMES LYNAH SECRETARY

DEPARTMENT—GENERAL PURCHASING COMMITTEE

ACKNOWLEDGING CONTRACT BRIEF

NUMBER DATE

ITEM

DIVISION

DEPARTMENT

BY

Defendant's Exhibit (GM) No. 150

EXCERPT FROM MINUTES OF

GENERAL PURCHASING COMMITTEE

August 2, 1923

"2. Policies and Procedure.

(a) Standing sub-committee.
In order to expedite the work of the committee to the extent of covering all of the work appearing on the program and devote time for more consideration of many items, a standing sub-committee consisting of Messrs: Allen, chairman, Hulgrave, Main, O'Keefe, Lynah, secretary, was appointed with power to act. The transaction of this sub-committee which will normally meet prior to the regular monthly meeting of the committee will be reported in minute form at the meeting of the committee, for approval.

(b) Additions in personnel to committee.
In the best interests of the work of the committee the chairman was authorized to appoint as permanent members Messrs: Lejuste of Olds and Miller of Oakland. Mr. Pratt expressed the desire of Mr. Kimball to withdraw as a permanent member and agreed to appoint in his place a rotating member from the Accessory group so that each of the purchasing agents in this group will in turn have an opportunity to attend meetings. It was further agreed that it is desirable to have a rotating member from the Inter-Parts Company group."

Defendant's Exhibit (GM) No. 151

GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN
GENERAL PURCHASING COMMITTEE.

February
Sixth
1923.

Alfred P. Sloan, Jr., Esq.,
Chairman-General Purchasing Committee,
New York City.

Dear Mr. Sloan,

In analysing General Motors annual expenditures for purchases, there have been taken from a list of important items, 32 on which complete information from car and truck divisions has been developed.

This indicates that in 1922, there was spent for purchases outside the Corporation, $138,967,317.00 for these 32 items. Copy of this list is attached.

Some of these items are covered by general contract. Others may at once be considered as general contract possibilities. Consideration might reasonably be given to manufacturing some of them within the Corporation.

In order to expedite the disposal of this list, as well as other important items which will be presented for consideration at the meeting tomorrow, I have, with Mr. Main's approval, invited the purchasing agents of Oakland, Olds and General Motors Truck to attend the meeting to participate in discussion. I trust this is agreeable to you.

Items for presentation to the Committee are now being rapidly developed. Knowing your desire to press this work, it appears that more frequent meetings will be necessary.

Full program for some time is assured.

Very truly yours,

James Lynah

Secretary.

SOME IMPORTANT ITEMS PURCHASED "OUTSIDE" IN 1922 BY CAR AND TRUCK DIVISIONS.

MEMORANDUM FOR GENERAL PURCHASING COMMITTEE - FEBRUARY 7, 1923.

	OAKLAND	CADILLAC	CHEVROLET	G.M.TRUCK	BUICK	OLDS	G.M.CANADA	TOTAL
Batteries	169,785	315,743	1,625,994	62,799	862,828	270,000	332,145	3,639,294
Bodies-Closed	2,518,425	13,547,547	14,157,957	24,447	20,752,530	900,000	2,080,434	53,981,340
" Open	None	mf.	4,380,196	None	2,684,640	950,000	391,870	8,406,706
Bow Sockets	37,750	152,783	358,469	None	229,493	51,554	88,212	918,261
Bows-Wood	21,888	13,836	125,453	None	144,437	17,066		322,680
Carburetors	164,750	mf.	501,223	75,585	712,812	20,985	116,955	1,592,310
Casting-Al.	84,451	121,517	None	None	None	181,228	20,588	407,784
Castings-Die	10,163	82,195	200,000	9,592	115,921	8,600	337	426,808
Casting-Grey Ir.	122,530	mf.	2,553,988	14,000	385,000	no fig.	no fig.	3,075,518
Castings-Mal.	94,043	365,400	1,842,500	202,500	1,990,000	no fig.	no fig	4,494,443
Fenders	397,617	342,844	1,633,453	71,049	None	Make own	156,866	2,601,829
Forgings	95,000	1,255,789	1,765,146	3,062	None	28,548	89,171	3,236,716
Frames	330,000	336,048	810,456	159,874	1,597,805	475,000	356,914	4,066,097
Gas. Tanks	28,450	mfg.	421,583	23,447		Make own	108,826	582,306
Jacks	8,820	45,412	97,644	8,972	104,250	15,287	28,100	308,485
Lamps	80,375	343,463	512,607	29,764	619,654	91,867	137,216	1,814,946
Leather	137,222	289,620	118,033	None	1,437,724	340,000	150,532	2,473,131
Leather-In.	80,000	72,657	696,250	None	361,150	33,180	no fig	1,243,237
Speedometers	103,950	391,687	1,246,772	150	954,181	112,000	282,938	3,091,678
Springs-Chassis	97,906	415,247	1,025,039	65,957	1,389,175	146,916	337,750	3,477,990
Springs-Cushion	39,293	59,471	345,257	2,798	654,734	80,618	78,106	1,260,277
Springs-Back	25,469	47,312	174,979	None		38,650	58,035	344,445
Steering Wheels	61,530	108,107	309,851	7,061	268,258	75,600	42,000	872,407
Tires	1,008,000	1,860,298	5,949,686	590,382	7,250,970	1,259,000	1,794,166	19,712,502
Tool Kits	18,060	14,923	127,182	14,154	169,339	67,322	37,572	448,552
Top Fabrics	200,000	94,960	800,000	None	995,000	176,968	no fig.	2,266,928
Univ.Joints	159,900	410,906	411,473	106,435	None	own makes	inside	1,088,714
Valves-Motor	68,000	359,517	229,190	None	597,195	38,843	None	1,292,745
Vacuum System	63,000	None	343,289	2,770	478,090	88,680	150,753	1,126,582
Wheels	391,850	763,585	3,060,833	251,810	847,438	533,843	759,230	6,607,989
Windshield	141,470	191,247	1,060,568	None	612,288	219,819	242,119	2,467,511
Paints-Color	87,640	31,134	308,727	17,394	565,101	157,800	155,200	1,317,086
TOTAL	6,847,337	28,033,268	47,187,798	1,744,002	46,780,013	6,378,884	7,996,035	138,967,317

6987

4785

Defendant's Exhibit (GM) No. 152

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
IMPORTANCE OF STANDARDIZATION, POLICIES AND PROCEDURES

Plan for Co-ordination of General Motors Purchases, Corrected to December 1, 1922, page 2.

The Problem Presented.

The question of co-ordinating purchases may seem to be comparatively simple, but when one considers the extremely technical character of practically all the Corporation's products and recognizes that we are dealing with many personalities and viewpoints developed through years of contact with certain products as compared with others, the problem naturally becomes one of greater complication. There are articles that the Corporation uses that are of such a technical character that in order to get proper co-ordination a general agreement is essential that any specific article will be satisfactory for all and perform its functions as well, if not better than any of the various products for which it is to be substituted. The problem, therefore, might be divided into two steps:-

(a) To co-ordinate the different viewpoints into an agreement or specification as to what will satisfactorily answer the purposes of all,

and

(b) To develop a contract, all the conditions of which, price, terms, deliveries, etc. will be the best that can possibly be obtained.

Dealing with "a" it is believed that the co-ordination and agreement as to the specification will present the hardest part of the problem and must be taken up and can only be taken up one item at a time and each thrashed out individually. Naturally, some items will require more consideration than others; some hardly any at all.

Aside from the necessary consideration from the technical standpoint of each of these items, there comes the very important consideration of what might be called the psychology of the situation. I mean by this, the determination of the actual facts in each case as distinguished from the perfectly natural hesitancy of making any change which always exists in dealing with any product and organization which has given successful service for a long term of years. It is difficult, dealing with many different personalities in a large organization, to recognize that a different article may give equally good, if not better, satisfaction. There is no question, however, but what all these and many other points that need not be mentioned, can and will be readily overcome if there is underlying the whole plan a recognition of the fundamental advantages accruing to ~~the~~ Corporation by standardization and the co-ordinated purchase of such materials as can properly be co-ordinated.

Memoranda for General Purchasing Committee Meeting, August 2, 1923, page 1.

Policy and Procedure.

1. The Establishment of Standards and Development of Specifications.

If, in order to purchase to the best advantage it is necessary to have set up definite and comprehensive specifications which contemplate limiting any line of supplies or equipment to a minimum so as to reduce the variety carried in inventory, it seems desirable to adopt a procedure to guide the Factory Section, Subcommittees of the Committee, and any other agency to whom investigations for the Committee might be assigned, in their studies of the various items so that they might have clearly in mind what is wanted.

The best way to establish standards and develop specifications would appear to be by the co-ordination of the viewpoints of those who specify what is to be bought and whose duties include the use, operation, maintenance, and repair of same. This procedure is not always desirable, however, on account of the time and expense involved and because many items are susceptible of being covered by definite specifications and comprehensive description so that both suppliers and purchasers know just what is wanted. This refers especially to items of supplies.

In the matter of equipment items a co-ordination of viewpoints in the development of standards and specifications is desirable and necessary. It should be borne in mind that wherever possible at least three competitive sources of supply on all equipment items should be available. In other words, in establishing a standard there should be at least two other choices. It is recognized that in the case of equipment and special supplies this may not always be possible.

In setting up specifications the following procedure is suggested: That the agency to whom the study of development of specifications is assigned submit the proposed standard specifications to the Committee who, upon its approval, will order that the Secretary send copies of the Specifications to the Purchasing Agent of each Division interested, with the request that he approve, constructively criticise, or suggest modifications to suit their requirements. A final report on the referendum to Divisions to be submitted to the Committee so that approved standards may be authorized for use in developing General Contract Proposals.

General Purchasing Committee Minutes, August 2, 1923, page 1.

Policies and Procedure

(c) The establishment of standards and development of specifications. In connection with studies of items referred by the committee to sub-committees or other agencies for study the following procedure was adopted: That the agency to whom the study of development of standards or specifications is assigned submit the proposed standard and specifications to the Committee who, upon its approval, will order that the secretary send copies of the specifications to the purchasing agent of each division interested, with the request that he approve, constructively criticise, or suggest modifications to suit his requirements. A final report on the referendum to divisions to be submitted to the committee so that approved standards may be authorized for use in developing general contract proposals.

General Purchasing Committee Minutes, August 2, 1923, page 2.

Policies and Procedure.

(i) Works Engineers Committee.
Mr. Sloan outlined the functions of a proposed Works Engineers Committee as related to work of General Purchasing Committee in the establishment of specifications and standards on many items. The committee gave its full endorsement to the appointment of such a committee.

General Purchasing Committee Minutes, April 18, 1924, page 4.

Miscellaneous Matters.

Time was taken here to discuss existing methods of conducting certain studies. It was brought out that in studies leading to the development of specifications such as in the case of thread, carbonizing boxes and pots, abrasive papers and cloth, loading blocks and decks, etc., and the selection of types of apparatus and equipment such as oxy-acetylene equipment, paint spraying equipment, etc. it was considered more economical to select from the groups of suppliers in the several lines, experienced men who could visit the Divisions with a representative of the Factory Section, observe the use to which materials and equipment were being put; make whatever demonstrations might be desired, to the end that suitable specifications or standards of equipment which would give the results sought in the most economical way might be recommended. Upon the setting up of these tentative specifications or standards the procedure is to supply copies of same to all suppliers in the respective fields for constructive criticism and approval as to commercial adaptation to the end that the field of competitive supply might be as broad as possible.

The procedure dealing with the approval of specifications has been carefully laid down by the Committee. The introduction of suppliers' representatives into the plants with the constant danger of the effort on the part of such representatives to capitalize the product of their principals; the convincing the department heads of the suitability of material different from that which they have been using (should the source of supply be different); the satisfying of other suppliers that their competitor is not being unduly favored, etc., have objections which are understood and appreciated. However we can not justify the expense of maintaining on our staffs experts in the many different lines for the conduct of such studies which would generally last for a short period. There is no doubt of the value of new suggestions and points of view brought to our Divisions by such experienced men. It is more economical generally to have not more than one such man in any particular field visit the works. However there is no objection to as many as the situation may require.

There being no more practical and economical way for the conduct of these studies suggested, it was agreed that the Purchasing Agents would in all cases be the point of contact in the conduct of such studies, and that the Purchasing Agents would co-operate fully in having the Factory Section representatives and the suppliers' representatives introduced to the proper department of the Division where the study is to be conducted, and assist in every way in the efficient conduct of the study. It was agreed that hereafter whe studies are to be undertaken the method of conduct of the study will be first submitted to the Committee for approval before the study is begun, so that the Purchasing Agents may be fully informed.

Standing Sub-Committee Minutes, April 1, 1925, page 2.

General Matters.

(a) Distribution of Standards Books.

Procedure covering the distribution of standards books and sections of standards books was approved. This will be covered in a special letter to Purchasing Agents.

Standing Sub-Committee Minutes, June 11, 1929, page 2.

General Matters.

(g) Change in Procedure Relating to Specifications Approved by Divisions for Insertion in Standards Book.

The procedure has been to record with Standing Sub-Committee vote of divisions on Specifications submitted for approval, and to request authority for insertion in Standards Book. In the future, specifications after approval by majority of divisions will automatically be published, and it will only be necessary to record in the minutes that such action has taken place. In the case of disapproval it is understood an attempt will always be made to reconcile any specification to meet this condition if possible.

Defendant's Exhibit (GM) No. 153

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
ILLUSTRATIONS OF STANDARDIZATION

General Purchasing Committee Minutes, April 17, 1923, page 1.
Unfinished Business.
(d) Report on Thread.
Secretary reported that comprehensive report, suggesting sizes for standardization, submitted by Factory Section, had been distributed to Purchasing Agents of Car and Truck Divisions on April 12th for comments and recommendations.

General Purchasing Committee Minutes, April 17, 1923, page 2
Report on General Contract Proposals, ordered developed at meeting of March 14, 1923.
(c) Insulating Materials
No contract to be concluded until subject of Insulating Materials is thoroughly covered and standards established.

General Purchasing Committee Minutes, April 17, 1923, page 3
Report on General Contract Proposals, ordered developed at meeting of March 14, 1923.
(g) Carbon Paper)
(h) Typewriter Ribbons) Contract Proposals have been developed on these two items and samples submitted therewith are to be investigated with a view to standardization. Secretary advises that services of Mr. Nobes, of Buick Purchasing Department has been loaned to Purchase Section to work on the matter of standardization of Stationery Supplies etc. Mr. Nobes works with the Divisions to constitute the collection of information leading to recommendations of standards for adoption by General Purchase Committee.

General Purchasing Committee Minutes, June 6, 1923, page 1
Unfinished Business:-Reports on:
(b) Study of Thread.
Purchase Section reported that in response to letter sent out April 12th to Purchasing Agents of Car & Truck Divisions and Fisher:
Oakland replied that their specifications are practically the same in every case as recommended standards.
General Motors of Canada reported oneor two variations from their specifications but see no reason why they cannot fall in line if reccomended standards are adopted.

General Motors Truck report small use of Thread but willingness to co-operate in efforts to standardize.
Fisher have forwarded copy of their standard Thread specifications which we will endeavor to work in with standards we are trying to set up.
As soon as replies have been received from Buick, Cadillac, Chevrolet and Olds the matter will be referred back to the Factory Section for reconciling reported Divisions' variations from suggested standards.
Progress report.

General Purchasing Committee Minutes, June 6, 1923, page 1
Unfinished Business:-Reports on:
(c) Study of Insulated Cable.
Factory Section reports that Chevrolet and Oakland have adopted as standard, G.M.C. tentative specifications.
G.M.Truck have adopted as standard, G.M.C. tentative specifications with exception of three starter cable leads with which they are making experiments.
Olds are very favorable to tentative specifications and have agreed to leave the wiring on the new models to Standards Division of Factory Section.
Work with Buick and Cadillac who have not yet been approached will be begun promptly.
Progress report.

General Purchasing Committee Minutes, June 6, 1923, page 2
Unfinished Business:-Reports on:
(h) Study of Cotton Wadding, Cotton Batts, Cotton and Jute Batts.
Comprehensive report of Sub-Committee from Mr. Abbott of Factory Section commenting upon the "Imperi" Batt adopted by Chevrolet. Demonstrations of the use of this Batt have been made at Buick, Cadillac, Oakland and Olds all of whom are now giving this Batt which is supplied in 300 yard lengths with a patented pleat stuffing device, a time and material cost study. The report forecasts the adoption of the use of this Batt as standard.
Progress report.

General Purchasing Committee Minutes, June 6, 1923, page 2
Unfinished Business:-Reports on:
(i) Carbon Paper)
(j) Typewriter Ribbons)
Report from Mr. Nobes of Buick Motor Company who has been conducting study of these two items for General Purchasing Committee recommending that General Motors standardize on a 7 lb. no-smutting Carbon Paper at a price of approxi-

mately $4.00 per thousand and recommending the adoption of a 290 count ribbon for general use at approximately $45.00 per gross, and a 304 count ribbon for billing purposes at $54.00 per gross received.

Decided that Secretary would send to Divisions, or have them order direct, a box of M. B. Cook Company's Beaver Brand M750, for trial with statement that this paper was being used throughout the Buick Motor Company and that upwards of $20,000.00 could be saved to General Motors through this standardisation.

It is desired to be able to offer one or more competitive makes of equal quality and price, and to also offer a higher grade of paper where same is considered to be necessary for special work.

Progress report.

General Purchasing Committee Minutes, June 6, 1923, page 3

Unfinished Business:-Reports on:

(n) Flexible Metallic Conduit

Purchase Section reported that it has been determined that no two Divisions used the same sizes, with similar specifications and dimensions and that suppliers had stated that in view of these facts there would be no advantage in a contract as lower prices would depend upon quantity under one specification.

Referred to Factory Section for study leading to standardizing of sizes and specificiations.

General Purchasing Committee Minutes, June 6, 1923, page 3

Report on Contract Proposals ordered developed at Meeting of April 17, 1923.

(a) Gloves - Cloth, Leather, Acid, Electrician.

Purchase and Factory Sections.

It has been determined that these items require study for standardisation before developing Contract proposals.

Study now in progress, Progress report.

General Purchasing Committee Minutes, June 6, 1923, page 3

Report on Contract Proposals ordered developed at Meeting of April 17, 1923.

(b) Brooms, all kinds.

Purchase and Factory Sections.

It has been determined that these items require study for standardisation before developing Contract proposals.

Study now in progress.

Progress report.

General Purchasing Committee Minutes, June 6, 1923, page 3

Report on Contract Proposals ordered developed at Meeting of April 17, 1923

(c) Goggles - Grinders and Welders.

Purchase and Factory Sections.

It has been determined that these items require study for standardization before developing Contract Proposals. Study now in progress. Mr. Abbott of Factory Section held meeting with Safety Engineers of several of the Divisions May 25th. A number of makes of Goggles were inspected. All Divisions have been asked to order a small number of each kind of Goggles used, from Julius King Optical Company whose make was considered the best of all those exhibited. These are to be compared with Goggles now used under actual working conditions and further report made after which a standard will be recommended on which General Contract Proposals may be developed.

Brought out that representative of only one manufacturer was present at meeting. Agreed that in cases where representatives of concerns supplying any items are admitted for purpose of making demonstrations same opportunity should be afforded all.

General Purchasing Committee Minutes, August 30, 1923, page 1.

Miscellaneous Matters.

(b) Productive steel.

Secretary read notes taken at Chevrolet-Forge plant indicating that while ordinary forging stock is used for Chevrolet cranks it is the belief that money would be saved through the use of special forging stock. The Forge plant uses special forging stock for all cranks except Chevrolet. Buick uses ordinary forging stock throughout. It is the belief that there must be greater economy in the use of one stock as against the other and that such matters as total scrap loss, including flash, shorts, ends, etc., the necessary machine work in order to eliminate seams where ordinary stock is used, etc., demand an exhaustive study of the matter to determine the economy of the use of ordinary forging stock as compared with special forging stock, particularly in the production of vital parts. Referred to Factory Section for study.

General Purchasing Committee Minutes, August 30, 1923, page 2.

Reports on Studies by Factory Sections:

(a) Insulated Cable.

As previously reported GMC standard specifications have been accepted by Chevrolet, General Motors Truck, Oakland, and Olds. Factory Section reports that careful study of the Buick requirements has been completed and recommendations placed before their Engineering and Purchasing Departments. That on starter cable, standard spark plug terminals, and high tension ignition cable savings in prices through the adoption of the standards are indicated amounting to about 27¢ per car. Mr. DeWaters has taken the suggested changes under advisement and sample cables for wiring of experimental cars have been delivered to him.

No further report on Cadillac.

General Purchasing Committee Minutes, August 30, 1923, page 3

Reports on Studies by Factory Sections:

(b) Cotton Wadding, Cotton Batts, Cotton & Jute Batts.

A specification for Cotton Batts has been written and submitted to batt manufacturers. This specification is now the subject of much debate among these manufacturers as how properly to describe batts and what should be the percentages of the various mixtures to produce the desired results. Definite specifications appear to be welcomed by manufacturers. Indications are that it will take some time to work out this matter.

General Purchasing Committee Minutes, August 30, 1923, page 3

Reports on Studies by Factory Sections:

(f) Gloves - Cloth, Leather, Acid, Electrician.

Specifications for leather and cloth gloves have been written and are about ready for submission.

Specifications for acid and electrician gloves are still undeveloped.

General Purchasing Committee Minutes, August 30, 1923, page 3

Reports on Studies by Factory Sections:

(g) Brooms, all kinds.

Specifications for complete line of brooms and factory brushes have been written up and are about ready for submission.

General Purchasing Committee Minutes, August 30, 1923, page 3
Reports on Studies by Factory Sections:
(h) Goggles - Welders, Grinders
Goggle recommendations are in the hands of the plants. No definite action can be taken on specifications until tests have been completed and decision reached at October meeting of the Safety Engineers.

General Purchasing Committee Minutes, August 30, 1923, page 3
Reports on Studies by Factory Sections:
(i) Acetylene & Oxygen Regulators - Line & Tank.
This subject has been well studied in all plants that are big users. Equipment of this kind found to be in an unsatisfactory state in most plants.
Work is still being carried on at the plants and it is hoped that harmony of opinion will be secured so that recommended standards may be submitted.

General Purchasing Committee Minutes, August 30, 1923, page 4
Reports on Studies by Factory Sections:
(j) Annealing and Carbonizing Boxes and Pots
Work is being done on this subject but it will be some time before definite recommendations as to standardization can be made.

General Purchasing Committee Minutes, August 30, 1923, page 4
Reports on Studies by Factory Sections:
(k) Hack Saws.
Specifications are pretty well prepared and should be ready for submission at an early date.

General Purchasing Committee Minutes, August 30, 1923, page 4
Reports on Studies by Factory Sections:
(m) Wiping Rags.
Specifications have been written up for wiping rags and cloths and have been submitted to the Secretary for submission to the standing Sub-committee.

General Purchasing Committee Minutes, September 27, 1923, page 1

Miscellaneous Matters.

(d) Motor Oils.

The question of feasibility of standardizing Motor Oil for block test and drive-aways raised by the Standing Sub-committee was brought up and the Secretary was requested to develop figures showing any savings that might accrue through such standardization.

General Purchasing Committee Minutes, September 27, 1923, page 3

Reports on Studies by Factory Section.

(a) Insulated Cable.

Tentative specifications have been printed in Book of Standards, G.M.C. Specifications Nos. 114,000 and 114,050. These specifications have been approved by Chevrolet, General Motors Truck, Oakland, Olds, and General Motors of Canada. The matter is under discussion with Buick and Cadillac. Buick's approval shortly expected.

General Purchasing Committee Minutes, September 27, 1923, page 3

Reports on Studies by Factory Section.

(b) Cotton Wadding, Cotton Batts, Cotton & Jute Batts.

Standardization of practice being required before standardization of materials can proceed, it was recommended that a committee of body trimming engineers, having a representative from each of the Car & Truck Divisions be called together for the purpose of studying and developing the matter. The factory Section was authorized to select the committee's membership through contact with Division executives and to guide the work of the committee.

General Purchasing Committee Minutes, October 25, 1923, page 3

Miscellaneous Matters.

(q) Paints - Color, Varnish.

Secretary instructed to write to Paint Committee to find out if anything towards standardization can be accomplished.

General Purchasing Committee Minutes, October 25, 1923, page 4.
Reports on Studies: by Factory Section.
(a) Insulated Cable.

Progress reported.

There have been printed and inserted in Book of Standards General Motors tentative specifications 114,000 - 114,050 which have been approved by Chevrolet, Oakland, Olds, General Motors of Canada, and General Motors Truck. Matter being developed with Buick and Cadillac. It was concluded that the matter had gone far enough to warrant development of general contract proposals for requirements of Divisions which have approved these specifications. As to the matter of further standardization the Secretary was instructed to refer the matter to General Technical Committee through the Assistant Secretary, Mr. Davidson.

General Purchasing Committee Minutes, October 25, 1923, page 4.
Reports on Studies: by Factory Section.
(b) Cotton Wadding, Cotton Batts, Cotton & Jute Batts.

Progress report.

A committee of body trimming engineers authorized at ninth meeting of General Purchasing Committee has been appointed and held its first meeting October 22. Representatives of Fisher Body attended the meeting. Active interest was displayed. A permanent chairman Mr. Kingston Forbes of Buick was elected. It is anticipated that this committee will deal advantageously with all items having to do with body trimming. Regular meetings are planned.

General Purchasing Committee Minutes, October 25, 1923, page 4.
Reports on Studies: by Factory Section.
(c) Loading or Shipping Blocks - Loading Decks.

Progress report.

A comparison and study of the estimated costs of three types of automobile loading blocks for Buick Motor Company, which included treatment of Evans or Card type wooden blocks, Forest Products Company type of wooden blocks, and Gier steel loading blocks, submitted. Indications are that very large savings can be made through the use of steel blocks. Copies of report requested for all Car and Truck Divisions. Similar study to be pursued in connection with other Divisions. Mr. Miller who had in hand order for large number of steel blocks was referred to Factory Section.

Standing Sub-Committee Minutes, October 24, 1923, page 4 of minutes of General Purchasing Committee of October 25, 1923.

Miscellaneous Matters

(b) Motor Oils.

This item brought up due to asking of question why motor oils for block tests and drive-aways could not be standardized. Exhibit prepared by Purchase Section in conjunction with Mr. Dawson showed the following condition:

	SUMMER		WINTER	
Division.	Drive Away.	Block Test.	Drive Away.	Block Test.
Buick	A-030	A-030	A-030	A-030
Cadillac	S-40	S-40	A-020	S-40
Oakland & Olds	A-30	A-30	A-030	A-30
G.M. Truck	A-50	M-26	A-50	M-26
		Northway		Northway
Chevrolet-Flint	A-30	A-30	A-30	A-30
Chevrolet-Buffalo	A-30		A-030	
Chevrolet-Tarrytown	A-30		A-030	
Chevrolet-Janesville	A-30		A-030	
Chevrolet-St. Louis	A-30		A-030	
Chevrolet-Cincinnati	Mr. Dawson has no record.			

Buick on drive-aways have been using lately a 60 viscosity oil account of mechanical trouble. Mr. Dawson is of the opinion that they will discontinue this and use the same oil for drive-aways as they do for block tests.

Investigation to determine if further standardization and securing of lower priced oil for this purpose is feasible.

Standing Sub-Committee Minutes, October 24, 1923, page 9 of minutes of General Purchasing Committee of October 25, 1923.

General Contract Developments Under Way.

(k) Pyrometers.

Referred to Metallurgical Committee for report on standardization possibilities.

Standing Sub-Committee Minutes, October 24, 1923, page 9 of minutes of General Purchasing Committee of October 25, 1923.

General Contract Developments Under Way.

(m) Flux.

Summary of general contract proposals submitted. This item is susceptible of standard specification and the Purchase Section will work in connection with Mr. Harrison and Laboratory in developing such specifications.

General Purchasing Committee Minutes, December 6, 1923, page 4.

Reports on Studies: By Factory Section.

(g) Annealing and Carbonizing Boxes and Pots.

Factory Section reports that the metallurgists agree that it will be necessary to standardize on analyses, shapes and sizes and that the matter will be gone in to further at the next meeting of metallurgists which will be held December 19.

Standing Sub-Committee Minutes, December 5, 1923, at page 8 of minutes of General Purchasing Committee of December 6, 1923.

General Contract Proposals to be Submitted.

(s) Oil Cans.

Summary of contract proposals together with complete exhibit of cans and holders submitted. In view of lack of standardization it was agreed that the constructive thing to do is to submit the summaries of proposals to the Divisions for their information and to send the exhibit of cans and holders to Divisions by representative of Purchase Section to see if No. 13 Can may not be standardized. If standardization is effected the matter will come up again as a general contract possibility.

General Purchasing Committee Minutes, March 7, 1924, page 3.

Reports on Studies: By Factory Section.

(p) Hack Saw Blades.

Arrangements have been made to have General Motors Laboratory conduct certain tests on blades for the purpose of determining the quality of blades required. The results will then be referred to the Metallurgical Committee for discussion as to whether written specifications are desirable and feasible.

General Purchasing Committee Minutes, March 7, 1924, page 3.

Reports on Studies: By Factory Section.

(r) Soldering Flux.

Tentative specifications have been approved by nearly all interested Divisions. Harrison Radiator giving the matter special attention.

General Purchasing Committee Minutes, March 7, 1924, page 3.

Reports on Studies: By Factory Section.

(s) Emery.

This study producing excellent results. A number of Divisions visited are having demonstrations of various grades made some of which have given results so worthwhile that orders have been placed for them. In some cases time of doing operations has been reduced and substitutions of paper-back instead of cloth-back emery paper has been made with economy.

General Purchasing Committee Minutes, March 7, 1924, page 3.

Reports on Studies: By Factory Section.

(u) Export Paper.

Tentative Specification has been approved by Technical Director of General Motors Export and is now in the hands of our Divisions for approval.

General Purchasing Committee Minutes, April 18, 1924, page 1.

Miscellaneous Matters.

(b) Approval of National Screw Thread Commission Standards.

Communication from Assistant Secretary of General Technical Committee informing our Committee of the approval of these standards and submitting same to us for approval was read. Letters from Standards Department of the Factory Section transmitting copies of NSTC standards for distribution to members of the Committee were read. The Committee approved the NSTC standards and endorsed the efforts of promoting same as most constructive work. The Standards Department will promptly distribute copies of these standards to all Divisions.

General Purchasing Committee Minutes, April 18, 1924, page 5.

Miscellaneous Matters.

(o) Babbitt.

Report a new tentative specification as follows:

Tin	83.25	Minimum	82.00
Copper	7.50	"	.50
Antimony	7.50	"	.50
Lead	1.75	"	.25
Zinc & Aluminum			None
Other Impurities		Maximum	.15

It is noted that the change is raising the lead content to 1.75% with corresponding reduction in the tin content. Cadillac has adopted this specification. This specification therefore will come into general use for connecting rod and main bearing babbitting throughout all Divisions

General Purchasing Committee Minutes, April 18, 1924, page 6.

Reports on Studies: By Factory Section.

(q) Emery.

Use of abrasive papers and cloth has been studied in the Car & Truck Divisions by an experienced man from the Carborundum Company in company with a representative from the Factory Section. Reports embodying recommendations as applied to each Division have been submitted to the Purchasing Agent of the Division concerned for transmission to the proper departments. There is on file with the Secretary a composite indexed report dealing with the results of the studies at all Divisions, copies of which may be specially prepared for those desiring same. There are evidences that some of the Divisions have effected material savings through this study. The grains, grits, etc. being already standardized, the object of the study is to determine proper selection of sizes for the purposes for which employed. When the recommended selections have been approved, the various items can be bought in the competitive market. Prices are practically uniform among the various suppliers.

General Purchasing Committee Minutes, July 2, 1924, page 5.

Report on Studies: By Special Sub-Committee.

(g) Upholstery Material.

No meetings of the Committee have been held for several months due to the members being extremely busy on changes and developments which ordinarily take place at this period of the year. However work is being carried on by individual members and some sound developments in spring construction and upholstery padding are under way. Fisher Body has now standardized on Imperi batts. Cadillac proposes to specify these on the next purchase.

General Purchasing Committee Minutes, July 2, 1924, page 6

Report on Studies: By Special Sub-Committee.

(h) Stationery Supplies.

Report of sub-committee dealing with contract developments of the adopted standards referred to the Standing Sub-committee. Secretary advised that the standard letterheads have been adopted by Cadillac, Chevrolet, Oakland, General Motors Truck, General Motors Acceptance, General Motors Export, General Motors Exchange, General Motors Overseas, General Motors Research, General Motors New York and Detroit, Hyatt, and Klaxon. Olds have approved it. Typical letterheads are being prepared for Dayton Engineering Laboratories and New Departure. The matter is being taken up with other divisions as rapidly as possible.

Standing Sub-Committee Minutes, September 4, 1924, page 8 of minutes of General Purchasing Committee of September 5, 1924.

Reports on Studies: By Special Sub-Committee.

(e) Stationery Supplies.

Standard type of letterhead being adopted at increasing rate throughout divisions.

Samples of printed forms, tags, and envelopes, etc. from all divisions being collected for use in study leading to simplification and standardization.

Standing Sub-Committee Minutes, December 12, 1924, page 4.

Reports on Studies: By General Technical Committee.

(a) Insulated Cable.

No report from General Technical Committee.

Secretary reported that Remy were making arrangements to have a machine built for coating copper strips with lead compound. As soon as this machine is installed the copper strip battery ground connections for all car divisions as approved will be put in production.

The Standards Department is working with a committee of the S.A.E. on the standardization of high tension ignition cable.

Standing Sub-Committee Minutes, December 12, 1924, page 5.

Reports on Studies: By General Technical Committee.

A representative of the Standards Department will attend the meeting of the Division of Simplified Practice of the Department of Commerce in Washington on December 18th to consider limiting the number of brake lining sizes. This same meeting will deal with limiting the number of spark plug sizes and cylinder oversizes.

Standing Sub-Committee Minutes, February 19, 1925, page 2.

Specifications Submitted for Approval for Inserting in the Book of Standards, the same having been approved by the Majority of the Divisions.

(a) Cleaners. Specification GMC 2401-M.
(b) Caustic Soda. Specification GMC 1806-M.
(c) Galvanized Flexible Steel Conduit. Specification GMC 4001-M.
(d) Car Spring Plates. Specifications GMC 51-M, 52-M, 53-M, 54-M, 55-M.

Standing Sub-Committee Minutes, February 19, 1925, page 3.

General Matters.

(c) Battery Terminal Standardization.

Ground connections made of laminated copper strip have been adopted by all divisions except Buick at an indicated saving of $15,000.00 per annum. Buick have found certain reasonable objections to the use of this connection. It is hoped that their objections may be overcome as there is an indicated saving to Buick of $12,000.00 per year.

Standing Sub-Committee Minutes, April 1, 1925, page 2.

Specifications for Approval for Insertion in Standards Books: In each of the following the designations with suffix -M will be used.

(a) Aluminum Sheet & Strip. WA99-000.
(b) Aluminum Alloy Rod and Wire. WA95-040.
(c) Alloy Tubing. WA95-041.
(d) Phosphor Bronze Sheet & Strip. WB92-080.
(e) Babbitt. 83-080-I.

Standing Sub-Committee Minutes, April 1, 1925, page 2.

Reports on Studies: By Special Sub-Committees.

(a) Cleaners.

Tentative Specification 2401-M which covers the cleaner which would be more used than any other is being put in line for manufacture. Some study has been made for cleaner for use in dishwashing. Cadillac have been running some experiments on oil soap for car washing under the specification. Work with glue manufacturers is progressing. Specification for paint for building and factory maintenance is being considered.

Standing Sub-Committee Minutes, April 30, 1925, page 4.

Reports on Studies: By Special Sub-Committees.

(a) Cleaners:

Specifications 2401-M Metal Cleaner, 2403-M Rosin Metal Cleaner, 2406-M Detergent, have been approved and are printed for insertion in the Standards Book and general contracts covering same have been made.

Specification 2405-M Cleaner for Wiping Rag Washing is in final preparation.
Specification 2402-M Cleaner and Cleanser for Dishwashing and Janitor's use is approved for submission to divisions for approval.
Specification 2404-M Painted Surface Cleaner, is approved for submission to divisions for approval.

Specification 2252-M Oil Soap for Car Washing is approved for submission to divisions for approval.

Specification for enamel remover is under study.

Standing Sub-Committee Minutes, April 30, 1925, page 3.

Reports on Studies: By Special Sub-Committees.

(b) Stationery Supplies:

Tags, All Kinds.
Standardization study actively under way.
Envelopes.
Standardization study progressing satisfactorily.
Checks.
Summary of special questionnaire to divisions just completed. Reports from several divisions lacking. This summary shows to date 20 different grades of paper used in checks and 43 different sizes of checks. Total annual expenditure exceeds $15,000.00. This matter will be referred to the Vice President in Charge of Finances for suggestion as to desirability of standardization.
Papers.
Standardization studies on hectograph, multigraph, and mimeograph papers are under way.
Form printing.
Detail report of survey of form printing has been completed and co-incident with the contracts contemplated for form printing the Printing Department will undertake to standardize forms insofar as possible.

Carbon Paper and Inked Ribbons.
Description and suggestions for the use of the several standards of carbon paper and inked ribbons adopted after criticism by the manufacturers, were recommended for printing and insertion in the Stationery Catalogue.
This was authorised done.
Six additional items for listing in Stationery catalogue were approved.

Ring Book Sheets & Indices -- GMC 3031-M and 3032-M.
Memo Book Sheets & Indices -- GMC 3033-M.
Sectional Post Binder Sheets & Indices -- GMC 3035-M
Automatic Pencils -- GMC 3134-M.
Line-A-Time -- GMC 3135-M.
Large Size Ruled Pads -- GMC 3136-M.

Revised write-ups on Checking Crayons GMC 3118-M and Metal Waste Basket GMC 3002-M authorized.

Standing Sub-Committee Minutes, April 30, 1925, page 3.
Reports on Studies: By General Motors Traffic Association.
(c) Loading & Shipping Blocks:
Oakland is testing the Lane block and Francis-Abbey block. Results to date indicate substantial savings through use of steel blocks. Buick is testing the Gier type steel block and reports satisfactory results to date and indicates substantial savings. It is agreed that the activity in testing steel blocks has been reflected in lower prices of wooden blocks. Our committee understands that whichever block is found to be the most economical will be acceptable to all divisions using steel blocks, whether they have tested same or not. It is further suggested that some consideration be given to the composite Gier-Lane block which is a combination of the two, having the Gier ends and Lane saddle.
Photographs of this block have been sent to the Traffic Association.

Standing Sub-Committee Minutes, April 30, 1925, page 4.

General Matters.

(c) Standardization of Net Ton.

Committee agreed that the use of net ton of 2,000 pounds in some branches of industry and of gross ton of 2,240 pounds in other branches was the result of time worn usage and that consideration might well be given to efforts to have industry standardize on the net ton of 2,000 pounds. It was agreed that this matter would be put up to the Division of Simplified Practice of the Department of Commerce with a statement that General Motors endorsed the use of the net ton.

Standing Sub-Committee Minutes, June 23, 1925, page 3.

Specifications Approved for Insertion in Standards Book.

(a) Cleaner and Cleanser for Dishwashing and Janitors' use. Spec. 2402-M.
(b) Cleaner for Painted Surfaces. Spec. 2404-M.
(c) Oil Soap for Car Washing. Spec. 2252-M.
(d) Cleaner for Removing Enamel. Spec. 2407-M.
(e) Blueprint Paper. Spec. 3151-M.
(f) Brownprint Paper. Spec. 3152-M.

In all of the above cases these specifications have been approved by a large majority of the using divisions.

Standing Sub-Committee Minutes, June 23, 1925, page 3.

Specifications Approved for Submission to Divisions.

(a) Vellum Tracing Paper.
(b) Tracing Paper.
(c) Drawing Paper.
(d) Mounted Drawing Paper.
(e) Pencil Tracing Cloth.
(f) Tracing Cloth.

Standing Sub-Committee Minutes, June 23, 1925, page 4.

Reports on Studies: By Special Committees.

(a) Cleaners:

Specifications 2401-M, 2402-M, 2403-M, 2404-M, 2406-M, 2407-M, 2252-M have all been approved for insertion in the Book of Standards, having been approved by the majority of using divisions.

These, the Cleaners Committee feel cover the entire range of cleaners required for use in all divisions insofar as information in their hands lead them to

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believe, with the exception of Spec. 2405-M which is a cleaner for wiping rag washing. This specification is in process of development.

The Cleaners Committee has prepared for distribution to divisions a chart showing the purposes for which each cleaner is to be used, and indicating the quantities to be used to accomplish results. Copies of this chart will be distributed to all divisions. The Cleaners Committee will promptly make a survey of the use of cleaners in all divisions, to find out where the use of cleaners is greatest and to what extent trade-name cleaners are used, for the purpose of assisting in the substitution of specification cleaners. There is a substantial difference in the prices of specification cleaners and from prices of trade-name cleaners used to accomplish the same results.

The specifications for wiping rags, brooms and gloves now in the Book of Standards are being little used. These items are referred to the Cleaners Committee for specification revision or elimination.

Standing Sub-Committee Minutes, June 23, 1925, page 4.

Reports on Studies: By Special Committees.

(b) Stationery Supplies:

The Sub-committee on Stationery Supplies has been very active in simplifying and unifying specifications for all items coming under this classification. The extensive written report submitted to our committee for consideration at this meeting could not be dealt with on account of lack of time and will be considered at the next meeting.

Standing Sub-Committee Minutes, September 23, 1925, page 3.

Specifications Approved for Insertion in Standards Books.

(a) Use Chart of General Motors Cleaners Specification.
(b) Vellum Tracing Paper. Specification 3153-M.
(c) Tracing Paper. Specification 3154-M.
(d) Drawing Paper. Specification 3155-M.
(e) Mounted Drawing Paper. Specification 3156-M
(f) Pencil Tracing Cloth. Specification 3157-M.
(g) Tracing Cloth. Specification 3158-M.
(h) Copper Ingot. Specification 4083-M and 4084-M.
(i) Tags. Specifications 3141-M, 3142-M, 3143-M, 3144-M.

Standing Sub-Committee Minutes, September 23, 1925, page 3.

Specifications for Submission to Divisions.

(a) Broaching and Tapping Oils. Tentative Specification GMC C-25.

Standing Sub-Committee Minutes, September 23, 1925, page 4.

Reports on Studies by Special Sub-Committees.

(b) Stationery Supplies:

This sub-committee having completed the work on tag standardization are endeavoring to bring to conclusion the standardization of envelopes, paper for letterheads, and printed forms. They are also studying, with a view to making recommendations for standards, filing equipment, desks, chairs, tables, and miscellaneous office furniture.

Standing Sub-Committee Minutes, November 9, 1925, page 4.

Reports on Studies: By Special Sub-Committees.

(a) Stationery Supplies:

Papers.

This committee submitted detail specifications on proposed standard papers. Correspondence and Record, as follows:

Rag Bond -	Spec.	GMC. 3141-M
Sulphite Bond	"	GMC 3142-M
Ledger -	"	GMC 3143-M
Index Bristols	"	GMC 3144-M
Onion Skin	"	GMC 3145-M
Manilla Tag	"	GMC 3146-M
Railroad Manillas or Flat Writing	Spec.	GMC. 3147-M
Envelope Papers -		
Manillas -	Spec.	GMC. 3161-M
Kraft -	"	GMC. 3162-M
Jutes -	"	GMC. 3163-M
Bonds -	"	GMC. 3164-M
White Wove and Colored Laids	"	GMC. 3165-M

These specifications provide for gumming, packing, etc. and describe the types of envelopes and the uses for which the various grades are most suitable.

In view of the fact that the Printing Department and the Stationery Sub-committee have co-operated in a most exhaustive study of these items, the above specifications were approved and it was agreed that it would be acceptable to all divisions to depart from the usual method of submitting specifications to them for approval for authorization for printing in the Book of Standards. Printed specifications will be distributed to divisions as promptly as possible. General contract proposals on paper and envelope paper, in accordance with the above specifications, will be promptly developed.

Tags

This committee submitted specifications for tags as follows:
GMC.-3166-M, GMC.-3167-M, GMC.-3168-M,
GMC.-3169-M, GMC.-3170-M.
These were approved for insertion in the Book of Standards and general contract proposals ordered developed.
The specifications describe the uses for the various sizes, of which there are 26, and the specification number which could be most suitably and economically employed.
As a matter of information - the standardization efforts have reduced the number of sizes of tags from the present range of 113 to the proposed 26 standard sizes.

Standing Sub-Committee Minutes, December 9, 1925, page 3.
Specifications Approved for Submission to Divisions.
(a) Soda Ash Fluffy.
(b) Steel Balls.
(c) Plated Steel or Iron Automobile Parts.
(Approved by letter 10-8-25.)

Standing Sub-Committee Minutes, December 9, 1925, page 3.
Specifications Approved for Insertion in Standards Book.
(a) Broaching & Tapping Oils. G.M.C. C-25.
(b) Plated Steel or Iron Automobile Parts.

Standing Sub-Committee Minutes, January 28, 1926, page 2.
Specifications Approved for Submission to Divisions.
(a) Revised Steel Specifications.
(b) Flexible Steel Conduit & Tubing.
(c) Oil Hardening Steel.
(d) Revised Specifications of all Lubricating and Cutting Oils.

Standing Sub-Committee Minutes, January 28, 1926, page 2.
Specifications for Insertion in Standards Book.
(a) Tank Car Outages.
(b) Soda Ash Fluffy. 1803-M.
(c) Steel Balls.

Standing Sub-Committee Minutes, March 26, 1926, page 3.
Specifications Approved for Submission to Divisions.
(a) Gloves and Mittens, Revised. Deferred.
(b) Brooms & Brushes, Revised. Deferred.
(c) Trisodium Phosphate.

Standing Sub-Committee Minutes, March 26, 1926, page 3.
Specifications Approved for Insertion in Standards Book.
(a) Bar Steel Specifications.
(b) Tool Steel Specifications.
(c) Flexible Steel Conduit and Tubing.
(d) Changes in Oil Specifications.

Standing Sub-Committee Minutes, June 8, 1926, page 3.
Specifications Approved for Insertion in Standards Book.
(a) Trisodium Phosphate.

Standing Sub-Committee Minutes, August 12, 1926, page 2.
General Matters.
(e) Standardization of Drill Jig Bushings.

The committee approved the suggestion of the Standards Section that efforts be made to standardize Drill Jig Bushings, the range of which includes plain, slip, press fit, and liner bushings, and authorized submission to Sub-committee on Taps and Gages, with the request that they conduct a preliminary study to determine the desirability of such a standard and if so found, conduct a complete study leading to development of standards.

Standing Sub-Committee Minutes, November 9, 1926, page 2.
General Matters.
(d) Tags.

Resume of reports of application of recommended tag standardization from a number of divisions was read. It was indicated that those divisions who have attempted to apply tag standardization have effected substantial savings. On account of the varied requirements and the differential in prices applying to specific quantities of one specification it was not considered that a general contract is feasible until divisions have worked out and applied standardization much more extensively.

Standing Sub-Committee Minutes, December 14, 1926, page 4.
Specification Approved for Submission to Divisions.
(a) Transmission and Rear Axle Lubricants.
Specification A-200.

Standing Sub-Committee Minutes, December 14, 1926, page 4.
Items Approved for Insertion in Standards Book.
(a) Distributor Nipple. GMC 120095.

Standing Sub-Committee Minutes, January 18, 1927, page 3.
Specifications Approved for Submission to Divisions.
(a) Petroleum. Specification 4544M.
(b) Asbestos Mittens.

Standing Sub-Committee Minutes, January 18, 1927, page 3.
Specifications Approved for Insertion in Standards Book.
(a) GMC. 1601-M to 1605-M Inc. Buffing Wheels.
(b) GMC. 2262-M. New Mill Wiping Cloth.
(c) GMC. 2271-M. Polishing Cloth.
(d) GMC. 2272-M. Cheese Cloth.

Standing Sub-Committee Minutes, March 15, 1927, page 2.
General Matters.
(j) Tags.

Item (a) page 1 of minutes of meeting of January 28, 1926. Copies of contract proposals together with typical exhibit of tag sizes and stocks were forwarded to divisions and attention called to economy of standardization. Recent check-up discloses that Chevrolet has saved in 1926, $6,169.80 by standardization of tags, and indicated that if A.C.Spark, Armstrong, Brown-Lipe-Chapin, Cadillac, Delco-Light, Harrison, Inland, Muncie, Oakland, Olds, Remy, Saginaw, United Motors and General Motors Detroit standardized so that general contract could be made, an additional $6,108.00 could be saved. Committee believes that a general contract will not produce these savings unless standardization is first effected.

Standing Sub-Committee Minutes, March 15, 1927, page 6.
Specifications Approved for Submission to Divisions.
(a) Brooms and Brushes.
(b) Friction Tape.

Standing Sub-Committee Minutes, April 12, 1927, page 4.

Specifications Approved for Submission to Divisions.

(a) Tap Standards.
(b) Distributor Grease. GMC. 4539-M.
(c) Universal Joint Fibre Grease #7. GMC. 4540-M.

Standing Sub-Committee Minutes, May 10, 1927, page 3.

Specifications Approved for Insertion in Standards Book.

(a) Distributor Grease. GMC. 4539-M.
(b) Universal Joint Fibre Grease. #7. GMC. 4540-M.
(c) Friction Tape.

Standing Sub-Committee Minutes, October 11, 1927, page 5.

Specifications Approved for Insertion in Standards Book.

(a) Standardization of Minor Diameters for Threaded Holes.
(b) Minor Changes in Gage Construction.

Standing Sub-Committee Minutes, November 8, 1927, page 3.

Specifications Approved for Submission to Divisions.

(a) New Ply Double Leather Belting. GM.1102-MX.
(b) Tripoli. GM.1606-MX.
(c) Copper Buffing Compound - Greasy. GM.1607-MX.
(d) Copper Buffing Compound - Dry. GM.1608-MX.
(e) Emery Cake. GM.1609-MX.
(f) Grease Stick. GM.1610-MX.
(g) Polishing Cloth. GM.2271-MX.
(h) Cheesecloth. GM.2272-MX.
(i) Corn and Rattan Factory Brooms. GM.2285-MX.
(j) All Corn Office Brooms. GM.2286-MX.
(k) Office Floor Brushes. GM.2288-MX.
(l) Heavy Duty Floor Brush. GM.2294-MX.
(m) Machinist Whisk Brooms. GM.2287-MX.
(n) Bench or Counter Brushes. GM.2297-MX.
(o) Sanitary Brushes. GM.2298-MX.
(p) Round Sash Tool Brushes, GM.2300-MX.
(q) Medium Weight Hand Leathers - With Thumb. GM.2305-MX.
(r) Factory Gloves - Rough. GM.2314-MX.
(s) Lightweight Tan Reinforced Acid Gloves. GM.2392-MX.
(t) Flat Trimmer or Sash Brushes 2". GM.2501-MX.
(u) Varnish Brushes - Triple Thick. GM.2502-MX.
(v) Wall Brushes 4". GM.2503-MX.
(w) Round Marking or Artist Brushes-Dome Point. GM-2504-MX.
(x) Platers Brushes, GM.2505-MX.
(y) Scrub Brushes. GM.2506-MX.
(z) Moulders Brushes. - Soft, GM.2507-MX.

(aa) Wire Scratch Brushes. GM.2508-MX.
(bb) Shoe Handle Wire Scratch Brushes. GM.2509-MX.
(cc) Special Cylinder Bore Brushes. GM.2510-MX.
(dd) Rubber Aprons. GM.2601-MX.
(ee) Belting Standards & Application.
(ff) Standard Grades & Specifications for Upholstery Leather.

Standing Sub-Committee Minutes, November 8, 1927, page 3.
Specifications Approved for Insertion in Standards Book.
(a) Wood Screw Holes. (At request of Yellow Truck & Coach Mfg. Co.)
(b) Paste Cutting Compound.
(c) Rolled Brass Split Bushings.
(d) Metal Cleaner - Chemical Composition.

Standing Sub-Committee Minutes, December 8, 1927, page 4.
Specifications Approved for Insertion in Standards Book.
(a) Steel No. 1070.
(b) Transmission Oil. A-150.
(c) Welding Rod. GM.3509-M.
(d) Boss Ideal Unit Lock Nut.

Standing Sub-Committee Minutes, January 17, 1928, page 4.
Specifications Approved for Submission to Divisions.
(a) Plain Ring Gage Standards.
(b) Master Ring and Ring Gages for Checking Holes, etc.
(c) Deck Brushes. GM.2299-M.
(d) Plain White Acid Rubber Mittens. GM.2391-M.
(e) Canvas Gloves. GM.2331-M.
(f) Oil Soap.

Standing Sub-Committee Minutes, January 17, 1928, page 6.
Specifications for Submission to Divisions
(a) New Ply Double Leather Belting. GM.1102-MX.
(b) Tripoli. GM.1606-MX.
(c) Copper Buffing Compound - Greasy. GM.1607-MX.
(d) Copper Buffing Compound - Dry. GM.1608-MX.
(e) Emery Cake. GM.1609-MX.
(f) Grease Stick. GM.1610-MX.
(g) Polishing Cloth. GM.2271-MX.
(h) Cheesecloth. GM.2272-MX.
(i) Corn and Rattan Factory Brooms. GM.2285-MX.

(j) All Corn Office Brooms. GM.2286-MX.
(k) Office Floor Brushes. GM.2288-MX.
(l) Heavy Duty Floor Brush. GM.2294-MX.
(m) Machinist Whisk Brooms. GM.2287-MX.
(n) Bench or Counter Brushes. GM.2297-MX.
(o) Sanitary Brushes. GM.2298-MX.
(p) Round Sash Tool Brushes. GM.2300-MX.
(q) Medium Weight Hand Leathers - With Thumb. GM.2305-MX.
(r) Factory Gloves - Rough. GM.2314-MX.
(s) Lightweight Tan Reinforced Acid Gloves. GM.2392-MX.
(t) Flat Trimmer or Sash Brushes 2". GM.2501-MX.
(u) Varnish Brushes - Triple Thick. GM.2502-MX.
(v) Wall Brushes 4". GM.2503-MX.
(w) Round Marking or Artist Brushes-Dome Point. GM-2504-MX.
(x) Platers Brushes. GM.2505-MX.
(y) Scrub Brushes. GM.2506-MX.
(z) Moulders Brushes. - Soft. GM.2507-MX.
(aa) Wire Scratch Brushes. GM.2508-MX.
(bb) Shoe Handle Wire Scratch Brushes. GM.2509-MX.
(cc) Special Cylinder Bore Brushes. GM.2510-MX.
(dd) Rubber Aprons. GM.2601-MX.
(ee) Belting Standards & Application.
(ff) Standard Grades & Specifications for Upholstery Leather.
(gg) Foundry Coke.
(hh) Refrigeration Oil. S-075.
(ii) Center Drill Standards.
(jj) Revision C-60. Soluble Oil.
(kk) Blueprint & Brownprint Paper.
(ll) Plain Ring Gage Standards.
(mm) Master Ring and Ring Gages for Checking Holes, etc.
(nn) Deck Brushes. GM.2299-M.
(oo) Plain White Acid Rubber Mittens. GM.2391-M.
(pp) Canvas Gloves. GM.2331-M.
(qq) Oil Soap.

Standing Sub-Committee Minutes, March 13, 1928, page 4.

Specifications Approved for Insertion in Standards Book.

(a) Deck Brushes. GM.2299-M.
(b) Plain White Acid Rubber Mittens. GM.2391-M.
(c) Canvas Gloves. GM.2331-M.
(d) Oil Soap for Car Washing.

Standing Sub-Committee Minutes, April 17, 1928, page 2.

General Matters.

(f) Standardization of Twist Drills.

The Sub-committee on Taps and Gages recommends, as a result of their standardization studies, that drill contracts and orders include the following specifications -

1 - Barrels of all taper shank drills must not show more than .0025 indicator reading out of truth with shank.

2 - Welded taper shanks must adhere to the barrel throughout the entire life of drill. Should separation occur at or near the weld, while in use in the shop, the shanks only may be returned for full credit.
It is assumed that defective weld prevails when 1/4 to 1/2" of the barrel projects below the separated shank.

3 - Until such time as General Motors Standards, on twist drill construction, come into being, Manufacturers' standard practice in the matter of rockwell hardness, degree of twist, web thickness, length of flute, width of margin, general workmanship, etc., will be acceptable.

Standing Sub-Committee Minutes, May 8, 1928, page 3.
Items Approved for Insertion in Standards Book.
(a) Light Factory Towels.
(b) Medium Factory Wiping Towels.
(c) Carburizing Compound.

Standing Sub-Committee Minutes, September 13, 1928, page 2.
Specifications Approved for Insertion in Standards Book.
(a) Cylindrical Plug Gages - Range .059 to .240.
(b) Woodruff Keyseat Gages.
(c) Shell End Mills.
(d) Twisted Wire Brushes - GMC.2511-M.
(e) Machine Bolts.
(f) Nuts.

Standing Sub-Committee Minutes, November 13, 1928, page 2.
Specifications Approved for Insertion in Standards Book.
(a) Refrigeration Oil S-075.
(b) Fibre Brooms, GM.2394-M.
(c) Cylindrical Hole Tolerances.
(d) Tap Drivers.
(e) Woodruff Keyslot Cutters.
(f) Thread Ring Gages.
(g) Setting Plugs for Threading Gages.
(h) Plug & Ring Gages for Checking Taper Shanks and Handles 0 to .240.

Standing Sub-Committee Minutes, November 13, 1928, page 2.

Specifications Approved for Submission to Divisions.

(a) Slotted Head Screws and Common Nuts.
(b) Blind Nuts.
(c) Nickel Buffing Compound, GMC.1613-M.
(d) Muslin Buffs. GMC.1603-M, 1604-M, 1611-M, 1612-M, 1615-M, 1616-M, 1617-M, 1618-M.
(e) Asbestos Aprons. GMC.2602-M.
(f) Flat Varnish Brushes. GMC.2513-M.
(g) Twisted Bristle Brushes. GMC.2512-M.
(h) Plain & Slab Milling Cutters.
(i) Plain Ring Gage Standards.
(j) Side Milling Cutters.
(k) Bent Shank Tapper Tap Standards.

Standing Sub-Committee Minutes, December 11, 1928, page 5.

Specifications Approved for Insertion in Standards Books.

(a) Plain and Slab Milling Cutters.
(b) Plain Gage Standards.
(c) Side Milling Cutters.
(d) Bent Shank Tapper Tap Standards.

Standing Sub-Committee Minutes, January 15, 1929, page 3.

Specifications Approved for Submission to Divisions.

(a) GM.1205-M. - Wrapped Air Hose.
(b) GM.1206-M. - Braided Air Hose.
(c) GM.1207-M. - Steam Hose.
(d) GM.1208-M. - Sand Blast Hose.

Standing Sub-Committee Minutes, January 15, 1929, page 3.

Specifications Approved for Insertion in Standards Books.

(a) Slotted Head Screws and Common Nuts.
(b) Blind Nuts.
(c) Nickel Buffing Compound. - GM.1613-M.
(d) Muslin Buffs - GM.1603-M, 1604-M, 1611-M, 1612-M, 1615-M, 1616-M, 1617-M, 1618-M.
(e) Asbestos Aprons. - GM.2602-M.
(f) Flat Varnish Brushes - GM.2513-M.
(g) Twisted Bristle Brushes - GM.2512-M.
(h) Woodruff Keyslot and Keyways.

Standing Sub-Committee Minutes, February 12, 1929, page 4.

Specifications Approved for Submission to Divisions.

(a) Foundry Coke.
(b) Wrapped Air Hose. (GM.1205-M)

(c) Braided Air Hose. (GM.1206-M)
(d) Steam Hose. (GM.1207-M)
(e) Sand Blast Hose. (GM.1208-M)
(f) Revised Section S - Standards Book.
(g) Chromium Buffing Compound - Green. (GM.1614-M)
(h) Goggles. (Mr. Dunnebacke's recommendation)

Standing Sub-Committee Minutes, May 7, 1929, page 3.
Specifications Approved for Submission to Divisions.
(a) Plain Cylindrical & Thread Plug Gages. 1.510 to 4.510.
(b) Woodruff Keyslot Cutter Drivers.
(c) Woodruff Keyslots and Keyways.
(d) Extension Sockets.
(e) Drill Drivers.

Standing Sub-Committee Minutes, May 7, 1929, page 3.
Specifications Approved for Insertion in Standards Books.
(a) Air, Gas and Oxygen Hose. - GMC 1205-M.
(b) Steam Hose. - GMC 1607-M.
(c) Sand Blast Hose. - GMC 1608-M.
(d) Chromium Buffing Compound - Green. - GMC 1614-M.

Standing Sub-Committee Minutes, June 11, 1929, page 3.
Specifications Approved for Submission to Divisions.
(a) Single Nickel Salts - GMC 1817M.
(b) Double Nickel Salts - " 1818M.
(c) Gas Welding Rod - " 3510-1-2-3M.
(d) Arc Welding Rod - " 3514-5M.
(e) Cold Water Hose - GMC 1209M.
(f) Tubular and Split Rivets.
(g) Incandescent Lamps.
(h) Straight Shank End Mills.
(i) Straight Shank End Mill Drivers.
(j) Bending Allowances for Cold Rolled Sheet Steel.
(k) Tensile and Shearing Strengths of Bolts, Screws and Rivets.

Standing Sub-Committee Minutes, July 23, 1929, page 2.

Specifications Approved for Submission to Divisions.

(a) Straight Shank Drills.
(b) Tap Driver Holders - Floating Design.
(c) Counterbore and Spot Facer Std's.
(d) Straight Shank Machine Reamers.
(e) Spot Facer and Counterbore Drivers.
(f) Unit Chord Tables - GM Standards.
(g) Starter Gear Center Dimension Tables - GM Standards.

Standing Sub-Committee Minutes, November 13, 1929, page 3.

Specifications Approved for Submission to Divisions.

(a) Foundry Coke.
(b) Goggles. (Mr. Dunnebacke's recommendation)
(c) Bending Allowances for Cold Rolled Sheet Steel.
(d) Incandescent Lamps.
(e) Tensile and Shearing Strengths of Bolts, Screws and Rivets.
(f) Unit Chord Tables.
(g) Starter Gear Center Dimension Tables.
(h) Center Drill Drivers.
(i) Hack Saw Blades.
(j) Taper Shank End Mills,
(k) Fuel Pump Mountings.
(l) Recommended Practice Chart for Standard Cleaners.
(m) Medium Weight Reinforced Acid Gloves.
(n) Transmission Nomenclature.
(o) Plating Specifications.

Standing Sub-Committee Minutes, January 14, 1930, page 3.

Specifications Approved for Submission to Divisions.

(a) Foundry Coke.
(b) Goggles. (Mr. Dunnebacke's recommendation).
(c) Bending Allowances for Cold Rolled Sheet Steel.
(d) Incandescent Lamps.
(e) Tensile and Shearing Strengths of Bolts, Screws and Rivets.
(f) Unit Chord Tables.
(g) Starter Gear Center Dimension Tables.
(h) Center Drill Drivers.
(i) Hack Saw Blades.
(j) Taper Shank End Mills.
(k) Fuel Pump Mountings.
(l) Recommended Practice Chart for Standard Cleaners.
(m) Medium Weight Reinforced Acid Gloves.
(n) Transmission Nomenclature.
(o) Plating Specification.

Standing Sub-Committee Minutes, March 13, 1930, page 3.

Specifications Inserted in Standards Books.

(a) Bending Allowances for Cold Rolled Sheet Steel.
(b) Starter Gear Center Dimension Tables.
(c) Center Drill Drivers.
(d) Hack Saw Blades.
(e) Taper Shank End Mills.
(f) Recommended Practice Chart for Standard Cleaners.
(g) Medium Weight Reinforced Acid Gloves.
(h) Tensile & Shearing Strengths of Bolts, Screws & Rivets.
(i) Transmission Nomenclature.
(j) Plating Specifications.
(k) Half Side Milling Cutters.

Standing Sub-Committee Minutes, May 13, 1930, page 3.

Specifications Approved for Submission to Divisions.

(a) Kraft Wrapping Paper.
(b) Hand Bottoming Taps.
(c) Straight Shank Drills - Long Series.
(d) Metal & Wood Cutting Band Saws.
(e) Sheet Metal & Wire Sizes.
(f) Keys & Keyways for Cutters & Arbors.
(g) Drill Sizes for Taper Pins.
(h) Screw Threads - Large Diameter - 16 Pitch Series.
(i) Standard Sections for Brake Levers.

Standing Sub-Committee Minutes, September 16, 1930, page 4.

Specifications Approved for Submission to Divisions.

(a) Incandescent Lamps.
(b) Fuel Pump Mountings.
(c) Straight Shank Drills - Long Series.
(d) Arbors for Checking Drill & Reamer Drivers.

Standing Sub-Committee Minutes, May 12, 1931, page 3.

Specifications Approved for Insertion in Standards Book.

(a) Leather Belting - GM.1104 to 1109M.
(b) Factory Towels - GM.2264M.
(c) Transmission Oil - GM.4592M.
(d) Soldering Flux - GM.1863-1M.
(e) Aluminum Welding Flux - GM.1865M.
(f) Brass & Bronze Welding & Brazing Flux - GM.1866M.
(g) Cast Iron Welding Flux - GM.1867M.
(h) Brazing Flux - GM.1868M.
(i) Electrical Nomenclature.

E

Defendant's Exhibit (GM) No. 154

GENERAL MOTORS CORPORATION
SUMMARY OF
CONTRACTS APPROVED
BY GENERAL PURCHASING COMMITTEE

Item No.	Mtg. No.	Com-mit-tee (1)	Date of Action	Product Contracted	Supplier	Portion Of Require (2)	Kind Of Discount (3)	Participation	Term of Contract
1	2	GPC	1/4/23	Carbon Steel Bars	Carnegie Steel Co.	70%			
	"	"	"	"	Cambria Steel Co.	15%			
	"	"	"	"	Open to Divisions	15%			
2	"	"	"	Alloy Steels	Carnegie & Illinois Steel Co.	26 2/3%			
	"	"	"	"	United Alloy Steel Corp.	40%			
	"	"	"	"	Central Steel Co.	20%			
	"	"	"	"	Open to Divisions	13 1/3%			
3	"	"	"	Sheet Steel	Amer.Sheet & Tin Plate Co.	30%			
	"	"	"	"	Amer. Rolling Mills Co.	20%			
	"	"	"	"	Open to Divisions	50%			
4	3	"	2/7/23	Adding Machines	Burroughs Adding Mach.Co.	ROSM			Renewed
5	"	"	"	Motors	General Electric Co.	ROSM			Renewed
6	"	"	"	Lineatimes	Lineatime Co.	ROSM			Renewed
7	4	"	3/14/23	Stove & Carriage Bolts	Ireland & Matthews Mfg. Co.				
8	"	"	"	Miniature Incandescent Lamps	Miniature Incandescent Lamp Corp.				
9	"	"	"	Cleaning Materials	J. B. Ford Co.				
10	"	"	"	Carboniser	Case Hardening Co.				Renewed to 12/31/23
	"	"	"	"	Alfred O. Blaich Co.				Extended from 7/1/23 to 12/31/23
11	"	"	"	Solder					
12	"	"	"	Carbon Paper					
13	"	"	"	Typewriter Ribbons					

Page 1

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of Require (2)	Kind Of Discount (3)	Participation	Term of Contract
14	4	GPC	3/14/23	Babbitt					
15	"	"	"	Coal	Bertha Coal Co.	60%			
16	5	"	4/17/23	Cup Grease	American Oil Corp.			Chev. Optional (except Flint)	6 Mos. 4/12/23 to 10/12/23
17	"	"	"	Brass & Copper - Sheets & Rods - Heavy Tubing	American Brass Co.	75%			To 12/31/23
					Mich. Brass & Copper Co.	25%			"
18	6	"	6/6/23	Cyanide - Copper - Sodium - Zinc	Charles Hardy & Ruperti Co.				From 5/16/23 to 11/16/23
19	"	"	"	Furniture	Globe Wernicke Co.	ROSM			
20	"	"	"	Cap Screws - Milled from bar	Automatic Products Co.	All			6 Mos. Ending 12/31/23
21	"	"	"	Cap Screws - Cold Upset	Michigan Lock Co.	4,000,000 to 5,000,000		Chevrolet Excepted	3rd quarter
22	"	"	"	Carriage Bolts 3/8 x 6 and Smaller	Kirk Latty Mfg. Co.	1/3			3rd quarter
					Russell Birdsall & Ward Bolt & Nut Co.	1/3			"
					Ireland & Matthews Mfg. Co.	1/3			6 Mos. from 7/1/23
23	"	"	"	Stove Bolts	Kirk Latty Mfg. Co.				3rd quarter
					Russell Birdsall & Ward Bolt & Nut Co.				"
					Ireland & Matthews Mfg. Co.				"
24	"	"	"	Brass & Copper Tubing	United Wire & Supply Co.	60%			6 Mos. Ending 12/31/23
					Wolverine Tube Co.	20%			"
					Rome Hollow Wire & Tube Co.	20%		Chevrolet Only	"

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of Require (2)	Kind Of Discount (3)	Participation	Term of Contract
25	6	GPC	6/6/23	Special Cutting Steel	Haynes Stellite Co.	Req.			
26	7	"	8/2/23	Miniature Mazda Lamps	Bryan-Marsh Div. of General Electric				Renewed
27	"	"	"	Transformers	General Electric Co.	ROSM			Renewed
28	"	"	"	Enclosed Fuses & Renewals	Chicago Fuse Mfg. Co.	ROSM			6 Mos.
29	"	"	"	Lock Washers	Amer. Nut Bolt & Fastener Co.	25%			From 7/24/23 to 6/30/24
					Reliance Mfg. Co.	25%			"
					Mansfield Lock Washer Co.	50%			"
30	"	"	"	Leather Belting	Detroit Oak Belting Co.	1/3		Except-Chev. Flint	6 Mos. from 8/2/23
					Schwartz Belting Co.	1/3		"	"
					Smythe Despard Co.	1/3		"	"
					S. R. Sike Co.	All		Chev.Flint Only	"
31	"	"	"	Oil Tanks & Pumps	S. F. Bowser & Co. Inc.				1 year from 8/2/23
32	"	"	"	Electric Drills, Grinders, & Accessories	Black & Decker Mfg. Co.	ROSM			7/13/23 to 6/20/24
33	1	SSC	8/13/23	Carbon Paper 7 lb. and Pencil grades	M. B. Cook & Co.	Req.			6 Mos.
34	"	"	"	Typewriter Ribbons	Caxton Laboratories, Inc.	Req.			6 Mos.
35	"	"	"	Fire Extinguishers (Pyrene)	Buhl & Sons	Req.			6 Mos. from 8/13/23
36	"	"	"	Lockers	Lyon Metallic Co.	ROSM			
37	"	"	"	Scales	Toledo Scale Co.	ROSM			

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of (2) Require.	Kind Of (3) Discount	Participation	Term of Contract
38	3	SSC	9/21/23	Cutting Oil C-65	Detroit Soluble Oil Co.			All	
39	"	"	"	Soluble Oil C-60	Detroit Soluble Oil Co.			All-Buick Opt.	
				C-70	"			"	
40	"	"	"	Machine Oils for Shop	Standard Oil Co.			Midwest Locations	
				Lubrication M-16	Atlantic Refining Co.			Eastern Locations	
				M-26 - M-50	Standard Oil Co.			Midwest Locations	
					Sun Oil Co			Eastern Locations	
				S-9	Atlantic Refining Co.			"	
					Standard Oil Co.			Midwest Locations	
				S-7	Atlantic Refining Co.			Eastern Locations	
					Standard Oil Co.			Midwest Locations	
				S-012	Atlantic Refining Co.			Eastern Locations	
					Standard Oil Co.			Janesville-StLouis	
					Cities Service Co			Midwest Locations	
				S-13	Standard Oil Co.			"	
					Sinclair Refining Co.			Eastern Locations	
				S-14	Atlantic Refining Co.			"	
					Standard Oil Co.			Midwest Locations	
				S-18	Sun Oil Co.			All	
41	"	"	"	Oils for Power Plant	White Star Refining Co.			Midwest Locations	
				Lubrication P-10				(Buick Optional)	
					Atlantic Refining Co.			Eastern Locations	
				P-9	Texas Co.			All	
								(Buick Optional)	
				P-12 - P-13 - P-15	Cities Service Co.			Midwest Locations	
								(Buick Optional)	
					Atlantic Refining Co.			Eastern Locations	
				P-26	White Star Refining Co.			All	
								(Buick Optional)	
				P-16	Cities Service Co.			All	
								(Buick Optional)	

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion of Require. (2)	Kind of Discount (3)	Participation	Term of Contract
42	3	SSC	9/21/23	Transmission & Differential	Standard Oil Co.			Midwest Locations	
				Lubricants				(Buick Optional)	
				A9-A15	Sun Oil Co.			Eastern Locations	
43	"	"	"	Motor Oils . A-020	Sinclair Oil Co.			Cadillac	
								(Branches Optional)	
				S-40	Standard Oil Co.			Cadillac	
								(Branches Optional)	
				A-80	Cities Service Co.			G.M.C. Truck	
				A-30	Standard Oil Co.			Midwest Locations	
					Sinclair Oil Co.			Buffalo-Tarrytown	
				A-030	Sinclair Oil Co.			All	
								(Buick Optional)	
				A-50	Standard Oil Co.			Oakland -	
								Oldsmobile	
				A-050	Sinclair Oil Co.			Oakland -	
								Oldsmobile	
44	"	"	"	Carriage Bolts	Kirk-Latty	28%			
					Russell, Burdsall, & Ward	28%			
					Berry Brothers	10 2/3%			
45	"	"	"	Stove Bolts	Kirk-Latty	28%			
					Russell, Burdsall, & Ward	28%			
					Berry Brothers	10 2/3%			
46	"	"	"	Dissolved Acetylene	Prest-O-Lite Co.	ROSM			Renewed
47	"	"	"	Adding Machine	Burroughs Adding Mach. Co.	ROSM			12 Mos.
					Dalton Adding Mach Co.	ROSM			12 Mos.
48	"	"	"	Machine Bolts	Columbus Bolt	40%			
					Russell, Burdsall, & Ward	10%			
					Berry Brothers	10%			
					Kirk-Latty	40%			

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Item No.	Mtg. No.	Committee(1)	Date of Action	Product Contracted	Supplier	Portion of(2) Require	Kind of(2) Discount	Participation	Term of Contract
49	3	SSC	9/21/23	Step Bolts	Kirk-Latty	75%			
					Berry Brothers	10%			
					Columbus Bolt	15%			
50	"	"	"	Machine Screws	Keystone Screw	22½%			
					Pheoll Mfg. Co.	22½%			
					Carbin Screw	27½%			
					Reed & Prince	15%			
					National Screw	12½%			
51	"	"	"	Wood & Drive Screws	Fred B. Holmes	8½%			
					Carbin Screw	35%			
					National Screw	22½%			
					Keeler Brass	22½%			
					Reed & Prince	6½%			
					Sampson & Rowland	5%			
52	"	"	"	Lag Screws	Columbus Bolt	20%			
					Kirk-Latty	40%			
					Russell, Burdsall, & Ward	40%			
53	"	"	"	Nuts-Cold Pressed	Russell, Burdsall & Ward	40%			
				Milled	Foster	40%			
					American Nut	10%			
					Detroit Nut	10%			
				Castle	Russell, Burdsall, & Ward	100%			
54	"	"	"	Plain Washers	Wrought Washer Co.	100%			
55	"	"	"	Cotter Pins	American Steel	100%			
56	"	"	"	Rivets - Plain Steel	Russell, Burdsall & Ward	50%			
					Ireland & Matthews	30%			
					Brainard Steel	20%			

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Item No.	Mtg. No.	Com-mittee (1)	Date of Action	Product Contracted	Supplier	Portion Of (2) Require	Kind Of (3) Discount	Participation	Term of Contract
57	3	SSC	9/21/23	Standard Taper Pins	Belvidere Screw	100%			
58	"	"	"	Steel	Central Steel Co				For 4th quarter volume
					Amer. Sheet & Tin Plate				"
					United Alloy & Steel Corp.				"
59	"	"	"	Cap Screws	Victor-Peninsular Co.				
60	"	"	"	Coal	Bertha - Consumers Co.	60%			9/1/23 to 4/1/24
61	"	"	"	Liquid Soap	West Disinfecting Co.			Eastern Locations	
					C. H. Baldwin			Western Locations	
62	9	GPC	9/27/23	Machines (accounting)	Elliott Fisher Co.	ROSM			
63	10	"	10/25/23	Oakite	Oakley Chem. Co.	ROSM			1 year from 10/25/23
64	5A	SSC	10/24/23	Drills, Cutters, Reamers	Nat'l Twist Drill Co.	ROSM			Renewed
65	"	"	"	Cleaning Materials	J. B. Ford Co.				Renewed
66	"	"	"	Packings	Garlock Packing Co.				Renewed
67	"	"	"	Motors & Control Equipment	General Electric Co.	ROSM			
68	"	"	"	Dry Cells					
69	"	"	"	Thread	Dean & Sherk			Cadillac Opt.	6 Mos.
70	5B	SSC	12/5/23	Flake & Granulated Caustic	Dow Chemical Co.				
71	"	"	"	Soda Ash	Clement F. Kross			Michigan	
					Sunshine Soda Co.			Other Points	

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of (2) Require.	Kind Of (2) Discount	Participation	Term of Contract
72	5B	SSC	12/5/23	Sal Soda	Detroit Soda Prod. Co.				
73	5B	SSC	12/5/23	Cyanide - Sodium, Copper	Charles Hardy & Ruperti				
74	"	"	"	Drills, Cutters, Reamers	Nat'l. Twist Drill Co.				1 year
75	"	"	"	Brass & Copper Tubes	Wolverine Tube Co.	1/3			1st 6 Mos. of 1924
					United Wire & Supply Co.	1/3			"
					Rome Hollow Wire & Tube Co.	1/3			"
76	"	"	"	Cap Screws (Milled)	Automatic Products Co.	75%			1st 6 Mos. of 1924
					Federal Screw Works	25%			"
77	"	"	"	Cap Screws (Cold Upset)	Victor Peninsular Co.	50%			1st quarter of 1924
					Foster Bolt & Nut Co.	50%			"
78	"	"	12/6/23	Cup Grease	Standard Oil Co			Midwest Locations	To 6/1/24
					Swan & Finch			Eastern Locations	"
79	12	GPC	1/2/24	Carbon Steel	Carnegie Steel Co.	80%			
80	6	SSC	12/20/23	Leather	General Leather Co.	75%			2 years from 1/1/24
81	7A	SSC	1/3/24	Carbonizing Compound	E. F. Houghton & Co.			(B-L-C Optional)	
82	8	SSC	3/7/24	Machine Oils for Shop Lubrication	Standard Oil Co.	ROSM			
					Texas Co.	ROSM			
					Cities Service Oil Co.	ROSM			
					American Oil Corp.	ROSM			

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of (2) Require.	Kind Of (3) Discount	Participation	Term of Contract
83	8	SSC	3/7/24	Oils for Spindle, Blending & Refrigeration	Standard Oil Co.	ROSM			
					Sun Oil Co.	ROSM			
					Texas Co.	ROSM			
					Sinclair Refining Co.	ROSM			
					Cities Service Oil Co.	ROSM			
					Franklin Oil & Gas Co.	ROSM			
84	"	"	"	Transmission & Differential Lubricants	Sun Oil Co	ROSM			
					Standard Oil Co.	ROSM			
85	"	"	"	Motor Oil	Standard Oil Co.	ROSM			
					Texas Co.	ROSM			
					Sinclair Refining Co.	ROSM			
86	"	"	"	Cutting & Soluble Oils	American Oil Corp.	ROSM			
					Franklin Oil & Gas Co.	ROSM			
					Standard Oil Co.	ROSM			
					Texas Co,	ROSM			
87	"	"	"	Dry Cells	National Carbon Co.	Req.			1 year
88	7B	SSC	2/21/24	Car Frames	A. O. Smith Co.			Except Chevrolet	
89	"	"	"	Renewable Fuses	Chicago Fuse Mfg. Co.	Req.	Quantity		To 7/31/24
90	"	"	"	Carbon Paper	M. B. Cook & Co.	Req.			To 8/31/24
91	"	"	"	Typewriter Ribbons	Caxton Laboratories	Req.			To 8/31/24
92	"	"	"	Leather Belting	Smyth Despard Co.	50%		Chev. Optional	To 7/31/24
					I. B. Williams	30%		"	"
					Open to Divisions	20%		"	"
93	"	"	"	Line-A-Time	Line-A-Time Mfg. Co.	ROSM			To 1/20/25

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion of (2) Require.	Kind of (3) Discount	Participation	Term of Contract
94	7B	SSC	2/21/24	Miniature Incandescent Lamps	Bryan-Marsh Div. General Electric Co.	Req.			To 2/1/25
95	7B	SSC	2/21/24	Large Incandescent Lamps	Bryan-Marsh Div. General Electric Co.	Req.			To 2/1/25
96	"	"	"	Acetylene & Oxygen	Air Reduction Sales Co.	Req.			To 4/1/25
97	"	"	"	Motors & Control Equipment	Howell Electric Co.	ROSM			To 12/31/24
					Crocker-Wheeler Co.	"			"
					Westinghouse Elec. & Mfg. Co.	"			To 6/4/25
98		GPC	4/18/24	Aluminum	Alum. Co. of America	100%			For 3rd quarter
99	9	SSC	4/18/24	Cutting Machines	Universal Machine Co.	ROSM			1 year
					Eastman Machine Co.	ROSM			"
100	"	"	"	Stellite	Haynes Stellite Co.	ROSM			1 year from 6/1/24
101	"	"	"	Oil Cans	W. B. Marvin Co.	Req.		Oakland-Cadillac- excepted	From 7/1/24 to 12/31/24
102	"	"	"	Oil Can Holders		Req.			From 7/1/24 to 12/31/24
103	"	"	"	Misc. Electrical Supplies	Westinghouse Elec. & Mfg. Co.	ROSM			From 7/1/24 to 12/31/24
104	"	"	"	Fire Extinguishers	Foamite-Childs Corp.	ROSM			To 9/19/24
105	"	"	"	Corrugated Pressed Steel Platforms for Elevating Trucks	Youngstown Pressed Steel Co.	ROSM			1 year from 4/18/24
106	"	"	"	Detergent #6	Bruce Products Co.	Req.			To 12/31/24
107	"	"	"	Acetylene & Oxygen	Prest-O-Light Co.				Extended to 4/15/25

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108	9	SSC	4/18/24	Gasoline	Standard Oil Co.				Extended to 2/28/25
109	"	"	"	Solder	National Lead Co.			Midwest Locations	To 4/1/25
110	10	SSC	7/1-2/24	Electric Tools	Black & Decker Mfg. Co.	ROSM			1 year from 6/20/24
111	"	"	"	Brass & Copper Tubing	Dallas Brass & Copper Co.	40%			6 Mos. from 7/1/24
					Wolverine Tube Co.	40%			"
					Open to Divisions	20%			"
112	"	"	"	Cup Grease G-2 2½-3	Standard Oil Co.	Req.			6 Mos. from 7/1/24
113	"	"	"	Cap Screws (milled from bar)	Automatic Products Co.	80%			6 Mos. from 7/1/24
					Open to Divisions	20%			"
114	"	"	"	Cyanide - Copper	Charles Hardy Inc.				6 Mos from 7/1/24
				Sodium	Roessler Hasslacher				"
115	"	"	"	Stationery Supplies	Tower Bros.				1 year from 7/1/24
116	"	"	"	Toilet Paper	Sanitary Products Co.	Req.			1 year from 7/1/24
117	"	"	"	Paper Towels	Sanitary Products Co.	Req.			1 year from 7/1/24
118	"	"	"	Scales	Howe Scale Co.	ROSM			1 year from 7/1/24
119	"	"	"	Oil Tanks & Pumps	Wayne Tank Co.	ROSM			1 year from 7/1/24
120	"	"	"	Oil Tanks & Pumps	S. F. Bowser & Co.	ROSM			1 year from 8/9/24
121	"	"	"	Automatic Scales	Toledo Scale Co.	ROSM			1 year from 8/31/24
122	"	"	"	Typewriter Ribbons		Req.			6 Mos. from 8/31/24

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123	10	SSC	7/1-2/24	Carbon Paper		Req.			6 Mos. from 8/31/24
124	"	"	"	Steel Lockers	Lyon Metallic Co.	ROSM			1 year from 8/31/24
125	"	"	"	Transformers	General Electric Co.	ROSM			1 year from 8/16/24
126	"	"	"	Adding Machines	Burroughs Adding Machine Co.	ROSM			1 year from 9/6/24
127	"	"	"	Motors	Allis Chalmers Mfg. Co.	ROSM			1 year from 8/31/24
128	16	GPC	9/5/24	Storage Batteries	U.S. Light & Heat Corp.	25%			5 years from 1/1/26
129	11	SSC	9/4/24	Leather Belting	Smyth-Despard Co.	40%			From 9/1/24 to 3/1/25
					Schwartz Belting Co.	40%			"
					Open to Divisions	20%			"
130	"	"	"	Fuses & Renewals	Chicago Fuse Mfg. Co.	Req.	Quantity		From 8/1/24 to 1/31/25
131	"	"	"	Soluble Cutting Oil C-60 - C-70	Franklin Oil & Gas Co.	100%		All (Jaxon-Hyatt Optional)	6 Mos 9/1/24 to 2/28/25
132	"	"	"	Cutting Oil "B" C-63	Franklin Oil & Gas Co.			Ohio & Eastern Locations- (Hyatt Optional)	6 Mos. 9/1/24 to 2/28/25
133	"	"	"	Toilet Paper & Paper Towels - Rolls Only	Beecher-Pick-Lewis	Req.			To 6/30/25
134	"	"	"	Rosin Cleaner #3	Bruce Products Corp	Req.			To 12/31/24
135	"	"	"	Liquid Soap 15%-20%	Sanitary Supplies Co.	Req.			1 year to 9/30/25
				35%	Rochester Germicide Co.	Req.			"

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136	12	SSC	11/6/24	Goggles & Face Masks	American Optical Co.	ROSM		Chev. Flint Excepted	1 year from 10/29/24
137	"	"	"	Goggles & Face Masks	Willson Goggles, Inc.	ROSM			1 year from 11/15/24
138	12	SSC	11/6/24	Fire Extinguishers	Pyrene Mfg. Co.	ROSM			To 9/30/25
139	"	"	"	Scales	Fairbanks, Morse Co.	ROSM			1 year from 11/15/24
140	"	"	"	Oakite	Oakley Chemical Co.	ROSM			1 year from 11/1/24
141	"	"	"	Packings	Garlock Packing Co.	ROSM			1 year from 1/1/25
142	"	"	"	Motors	General Electric Co.	ROSM			1 year from 1/1/25
					Howell Elec. Motor Co.	ROSM			"
					Crocker Wheeler Co.	ROSM			"
					Westinghouse Elec. & Mfg. Co.	ROSM			"
143	13	SSC	12/12/24	Aluminum	Alum. Co. of America	Req.			1st 6 mos. of 1925
144	"	"	"	Cap Screws - Milled	Automatic Products Co.	Req.			6 mos.
145	"	"	"	Cleaning Materials	J. B. Ford Co.	ROSM			Calendar year 1925
146	"	"	"	Rosin Cleaner - GM - 2403M	Industrial Chem. Co.	Req.			Calendar Year 1925
147	"	"	"	Detergent #6- GM- 2406-M	Bruce Products Co.	Req.			Calendar year 1925
148	"	"	"	Pyroxylin Finishes	E. I. du Pont de Nemours Co.	Req.			1st 6 mos. 1925
149	"	"	"	Motors	Ideal Elec. & Mfg. Co.	ROSM			Year 1925
				Motors and Transformers	Wagner Electric Corp.	ROSM			"

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150	13	SSC	12/12/24	Cup Grease - G-2 - 2½ - 3	Standard Oil of Ind.	Req.		Chev.-Buffalo-Toledo-Tarrytown-Norwood Excepted	Calendar year 1925
151	"	"	"	Cyanide - Copper - Sodium	Charles Hardy, Inc.	Req.			1st 6 mos. of 1925
152	"	"	"	Drills, Cutters, Reamers	Nat'l. Twist Drill Co.	ROSM			From 12/12/24 to 12/31/25
153	"	"	"	High Speed Steel Hobs	Barber-Colman Co.	ROSM			Calendar year 1925
154	"	"	"	Oil Cans	W. B. Marvin Mfg. Co.	Req.			1st 6 mos. of 1925
155	"	"	"	Oil Can Holders	Harter Rolled Metals Co.	Req.		Buick, Excepted	1st 6 mos. of 1925
156	"	"	"	Sal Soda GM - 1802-M	Eaton Clark Co.	Req.		Mich. & Eastern Points	12/11/24 to 6/30/25
					Buckeye Products Co.	Req.		Ohio & Western Points	12/11/24 to 6/30/25
157	"	"	"	Soda ash GM- 1801-M	C. F. Kross			LCL- Mich. Points CL- All Points	12/11/24 to 6/30/25
					Wing & Evans			LCL- All other Points	12/11/24 to 6/30/25
158	"	"	"	Caustic Soda	Dow Chemical Co.	Req.		All	12/11/24 to 6/30/25

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159	13	SSC	12/12/24	Cold Drawn Tubing	Dallas Brass & Copper Co.	25%			1st 6 mos. of 1925
					Rome Hollow Wire Co.	40%			"
					A. H. Wells & Co., Inc.	15%			"
					Open to Divisions	20%			
160	"	"	"	Lamps - Miniature	Bryan-Marsh Div.	ROSM			1 year from 2/1/25
					Miniature Incandescent Lamp Co.	ROSM			"
161	"	"	"	Line-A-Time	Line-A-Time Mfg. Co.	ROSM			1 year from 1/20/25
162	"	"	"	Fuses & Renewals	Chicago Fuse Co.				1 year from 2/1/25
163	"	"	"	Motor Lists	R. L. Polk & Co.				1 year from 1/1/25
164	"	"	"	Carbonizers	E. F. Houghton & Co.				Extended to 3/31/25
165	14	"	2/19/25	Carbon Paper	M. B. Cook Co.	Req.			1 year from 3/1/25
166	"	"	"	Typewriter Ribbons	M. B. Cook Co.	Req.			1 year from 3/1/25
167	"	"	"	Leather Belting	Smyth-Despard Co.	40%			6 mos. from 3/1/25
					Schwartz Belting Co.	40%			"
					Open to Divisions	20%			"
168	15	SSC	3/6/25	Dry Cells	National Carbon Co.	Req.			1 year from 3/1/25
169	"	"	"	Flashlight Batteries & Cases	Burgess Battery Co.	ROSM			1 year from 3/1/25
170	"	"	"	Stellite	Haynes Stellite Co.	ROSM			1 year from 3/1/25
171	"	"	"	Large Incandescent Lamps	Bryan-Marsh Div. of General Electric Co.	ROSM			1 year from 5/1/25

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172	15	SSC	3/6/25	Cutting Machines	Eastman Machine Co.	ROSM			1 year from 5/1/25
					Universal Cutter Co.	ROSM			"
173	16	SSC	4/1/25	Acetylene & Oxygen	Air Reduction Sales Co.	Req.		Delco Lgt.- Dayton Eng.-Inland G.M. Research- Excepted Cadillac Optional	1 year from 5/16/25
174	"	"	"	Carbonizing Compound	E. F. Houghton & Co.				Extended to 6/30/25
175	17	SSC	4/30/25	Car Frames	A. O. Smith Corp.				3 years from 7/1/25
176	"	"	"	Bushings	Cleveland Graphite Bronze Co.	ROSM	Quantity		Year 1925
177	"	"	"	Metal Cleaner- GM-2401-M	H. A. Montgomery	Req.			5/1/25 to 12/31/25
178	"	"	"	Carbonizing Compound	E. F. Houghton & Co.	Req.			Renewed to 12/31/25
179	"	"	"	Stationery Supplies	Tower Bros. Stat. Co.	Req.			Renewed to 12/31/25
180	"	"	"	Fire Extinguishers	Foamite-Childe Corp.	ROSM			Renewed to 6/30/26
181	"	"	"	Misc. Elec. Supplies	Westinghouse Elec. & Mfg. Co.	ROSM			Renewed
182	18	SSC	5/22/25	Cold Drawn Brass & Copper Tubing	Roberts Tube Works	30,000 lbs. per mo.			6 mos. from 7/1/25
183	"	"	"	Oil Tanks & Pumps	Wayne Tank & Pump Co.	ROSM			1 year from 7/1/25

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184	19	SSC	6/23/25	Caustic Soda	Dow Chemical Co.	Req.		Chevrolet - Optional	6 mos. to 12/31/25
185	"	"	"	Sal Soda	Detroit Soda Products Co. Eaton Clark Co.			C.L. Lots L.C.L. Lots Chevrolet - Optional	6 mos. to 12/31/25 "
186	"	"	"	Cyanide - Copper - Sodium	Charles Hardy, Inc.	Req.		Jaxon - Optional	6 mos. to 12/31/25
187	"	"	"	58% Soda Ash - Standard & Fluffy	Detroit Soda Products Co.	Req.			6 mos. to 12/31/25
188	"	"	"	Oil Cans	W. B. Marvin Co.	Req.			6 mos. to 12/31/25
189	"	"	"	Oil Can Holders	Globe Stamping & Mach. Co.	Req.			6 mos. to 12/31/25
190	"	"	"	Toilet Paper in Packages	Sanitary Products Corp.	Req.			6 mos. to 12/31/25
191	"	"	"	Toilet Paper in Rolls	A.P.W. Company	Req.			12 mos. to 6/30/26
192	"	"	"	Tool Steel Specs. 41-M 42-M	D. W. & H. A. Kuhn	50% plus			1 year to 6/30/26
193	19	SSC	6/23/25	Union Fuses & Renewals	Chicago Fuse Mfg. Co.	ROSM			1 year to 7/31/26
194	"	"	"	Motors & Control Equipment	Allis Chalmers Mfg. Co.	ROSM			1 year to 8/13/26
195	"	"	"	Oil Tanks & Pumps	S. F. Bowser & Co.	ROSM			1 year to 8/9/26
196	"	"	"	Transformers	General Electric Co.	ROSM			1 year to 8/16/26
197	20	GPC	6/24/25	Vacuum Tanks	Stewart-Warner Speedometer Corp.	Req.			Renewed for 1926

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198	20	GPC	6/24/25	Pyroxylin Finishes	E. I. du Pont de Nemours Co.	100%	Quantity		Last 6 mos. 1925
199	"	SSC	9/23/25	Carbon Tool Steel	Ludlum Steel Co.	50%-plus			1 year from 10/1/25
200	"	"	"	Abrasives - Cloth - Paper	Carborundum Co.	ROSM			7/1/25 to 12/31/25
					Baeder Adamson Co.	ROSM			"
					H. H. Barton & Son Co.	ROSM			"
					American Glue Co.	ROSM			"
					Hermann Behr & Co., Inc.	ROSM			"
					Manning Abrasive Co.	ROSM			"
					Minn. Mining & Mfg. Co.	ROSM			"
201	"	"	"	Steel Lockers	Lyon Metallic Mfg. Co.	ROSM			1 year 9/1/25 to 8/31/2
202	"	"	"	Scales	Toledo Scale Co.	ROSM			1 year 9/1/25 to 8/31/26
203	"	"	"	Adding Machines	Burroughs Adding Mach. Co.	ROSM			1 year 9/6/25 to 9/6/26
204	"	"	"	Flow Meters	Republic Flow Meter Co.	ROSM			1 year 9/15/25 to 9/15/26
205	"	"	"	Fire Extinguishers	Pyrene Mfg. Co.	ROSM			1 year from 10/1/25
206	"	"	"	Adding Machines	Dalton Adding Mach. Co.	ROSM			1 year from 9/26/25
207	21	GPC	9/24/25	Car Lubricating Systems	Alemite-Zerk Corp.	75%-plus	Quantity		
208	"	SSC	11/9/25	Liquid & Oil Soap for car washing	Sanitary Supplies Co.				1 year from 11/11/25

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209	21	SSC	11/9/25	Abrasive Paper & Cloth-Coated	American Glue Co.	ROSM			1 year from 12/31/25
					Baeder Adamson Co.	"			"
					H. H. Barton & Son	"			"
					Hermann Behr & Co.	"			"
					Carborundum Co.	"			"
					Manning Abrasive Co.	"			"
					Minn. Mining & Mfg. Co.	"			"
					U.S. Sand Paper Co.	"			"
210	"	"	"	Scales	Fairbanks Morse & Co.	ROSM			1 year from 11/15/25
211	"	"	"	Aluminum	Alum. Co. of America	Req.			6 mos. 1/1/26 to 6/30/26
212	"	"	"	Oil Cans	W. B. Marvin Mfg. Co.	Req.			6 mos. from 12/31/25
213	"	"	"	Carbonizer	E. F. Houghton & Co.	ROSM			6 mos. from 12/31/25
214	"	"	"	Hobs, H.S. Steel	Barber Colman Co.	ROSM			1 year from 12/31/25
215	"	"	"	Motors, Elec. Control Equipment & Repair Parts	Crocker-Wheeler Co.	ROSM			1 year from 12/31/25
216	"	"	"	Motors	General Electric Co.	ROSM			1 year from 12/31/25
					Howell Electric Co.	"			"
217	"	"	"	Motors, Elec. Apparatus	Ideal Electric Co.	ROSM			1 year from 12/31/25
218	"	"	"	Motors	Westinghouse Elec. & Mfg. Co.	ROSM			1 year from 12/31/25
219	"	"	"	Packings	Anchor Packing Co.	ROSM			1 year from 12/31/25
					Garlock Packing Co.	"			"
220	"	"	"	Tools, Elec. Drills, Grinders & Accessories	Black & Decker Mfg. Co.	ROSM			1 year from 12/31/25

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221	22	SSC	12/9/25	Oil Can Holders	Vassar Steel Products Co.	Req.			6 mos. from 1/1/26
222	"	"	"	58% Soda Ash GM-1801-M	Detroit Soda Products Co.	Req.			6 mos. from 1/1/26
223	"	"	"	Soda Ash Fluffy GM-1803-M	Detroit Soda Products Co.	Req.			6 mos. from 1/1/26
224	"	"	"	Caustic Soda GM-1806-M	Dow Chemical Co.	Req.			1 year from 1/1/26
225	"	"	"	Sal Soda GM-1802-M	Eaton Clark Co.	Req.			6 mos. from 1/1/26
226	"	"	"	Metal Cleaners GM-2401-M	H. A. Montgomery & Co.	Req.			6 mos. from 1/1/26
227	"	"	"	Cleaner & Cleanser GM-2402-M	J. B. Ford Co.	Req.			6 mos. from 1/1/26
228	"	"	"	Rosin Cleaner GM-2403-M	Industrial Chem. Prod. Co.	Req.			6 mos. from 1/1/26
229	"	"	"	Painted Surface					
				Cleaner GM-2404-M	H. A. Montgomery & Co.	Req.			6 mos. from 1/1/26
230	"	"	"	Detergent GM-2406-M	Lavo Co. of America	Req.			6 mos. from 1/1/26
231	"	"	"	Cyanide - Sodium	Charles Hardy, Inc.	Req.		Jaxon.	6 mos. from 1/1/26
				Copper	"	Req.		Optional	"
232	"	"	"	Cup Grease G2- 2½- 3	Standard Oil Co. of Ind.	Req.		Chev. Buffalo	1 year from 1/1/26
								Bloomfield-	
								Norwood	
								Tarrytown &	
								Toledo-	
								Optional	
233	"	"	"	Drills, Cutters, Reamers	Nat'l. Twist Drill Co.	Req.		Cadillac-	1 year from 1/1/26
								Optional	

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234	22	SSC	12/9/25	Fibre	Spaulding Fibre Co.	75%-plus			1 year from 12/15/25
235	"	"	"	Milling Cutters	Goddard & Goddard Co., Inc.	ROSM	Quantity		1 year from 1/1/26
236	"	"	"	Anti-Freeze	Carbide & Carbon Chem. Corp.	Req.			1 year from 12/1/25
237	"	"	"	Line-A-Time	Line-A-Time Mfg. Co.	ROSM			1 year from 1/20/26
238	"	"	"	Miniature Incandescent Lamps	Tung-Sol Lamp Works				1 year from 1/31/26
239	23	SSC	1/28/26	Stationery Supplies	Tower Bros. Stat. Co.	Req.			1 year from 1/1/26
240	"	"	"	White Lead in Oil - Dry White Lead	National Lead Co.	Req.			6 mos. from 1/1/26
241	"	"	"	Paint & Varnish Type Materials	E. I. du Pont de Nemours	ROSM			1 year from 1/1/26
242	"	"	"	Pyroxylin Finishes, Duco & Duco Thinner	E. I. du Pont de Nemours	100% G.M. 50%-plus of F.B.C.	Quantity		1/1/26 to 12/31/26
243	"	"	"	Drill Jig Bushings	Ex-Cell-O Tool & Mfg. Co.	ROSM			1 year from 2/1/26
244	"	"	"	Stellite	Haynes Stellite Co.	ROSM			1 year from 3/1/26
245	"	"	"	Miniature Mazda Lamp	Mich. Lamp Div. of G.E.	Req.			1 year from 3/1/26
246	"	"	"	Diamonds					
247	24	SSC	3/26/26	Carbon Paper & Typewriter Ribbons	Kee-Lox Mfg. Co.	Req.			6 mos. from 4/1/26

Green

Red

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Item No.	Mtg. No.	Commit-tee(1)	Date of Action	Product Contracted	Supplier	Portion Of Require(2)	Kind Of Discount(3)	Participation	Term of Contract
248	24	SSC	3/26/26	Elliott-Fisher Rolls Pencil Carbon Papers	F. S. Webster Co.	ROSM		Buick Deferred	6 mos. from 4/1/26
249	"	"	"	Flashlight Batteries, Cases & Dry Cells	Burgess Battery Co.	ROSM			1 year from 3/1/26
250	"	"	"	Columbia Dry Cells	National Carbon Co.	Req.			1 year from 3/1/26
251	"	"	"	Files	Continental File Co.	ROSM			6 mos. from 4/1/26
252	"	"	"	Motors & Transformers	Wagner Electric Corp.	ROSM			1 year from 1/2/26
253	"	"	"	Taps, Dies, Gauges	Greenfield Tap & Die Corp.	ROSM	Quan-tity		1 year from 4/1/26
254	"	"	"	Postage Meters	Pitney-Bowes Co.	ROSM			1 year from 11/1/25
255	"	"	"	Blue Print Paper	The Huey Co.	ROSM			4/1/26 to 12/31/26
256	"	"	"	Misc. Electrical Supplies	Westinghouse Elec. & Mfg. Co.	ROSM			Renewed to 6/30/27
257	"	"	"	Cutting Machines	Eastman Machine Co.	ROSM			Renewed from 5/1/26 to 6/30/27
					Universal Cutter Co.	"			"
258	"	"	"	Oil Tanks & Pumps	Wayne Tank & Pump Co.	ROSM			Renewed from 6/1/26 to 12/31/26
259	"	"	"	Large Mazda Lamps	Mich. Lamp Div. of G.E.	Req.			Renewed 1 year from 6/1/26
260	"	"	"	Aluminum	Alum. Co. of America	Req.			Renewed 6 mos. from 7/1/26

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261	24	SSC	3/26/26	Fibre	Spaulding Fibre Co.	Req.			Extended to 4/1/27
262	25	SSC	6/8/26	Vacuum Tanks	Stewart-Warner Corp.	Req.		Buick- Oakland- Olds- (Cadillac Optional)	1 year from 7/1/26
263	"	"	"	Cyanide- Sodium- Copper	Charles Hardy, Inc.	Req.			6 mos. from 7/1/26
264	"	"	"	Carbonizing Compounds	E. F. Houghton Co.	80%			6 mos. from 7/1/26
265	"	"	"	Metal Cleaner - GM-2401-M) Painted Surface Cleaner-) GM-2404-M)	H. A. Montgomery Co., Inc.	Req.			1 year from 7/1/26
266	"	"	"	Rosin Cleaner - GM-2403-M	Industrial Chem. Prod. Co.	Req.			1 year from 7/1/26
267	"	"	"	Cleaner & Cleanser - GM-2402-M	Detroit Soda Products Co.	Req.			1 year from 7/1/26
268	"	"	"	Files	Cleveland File Co.	ROSM			6 mos. from 7/1/26
269	"	"	"	Oil Gages & Ammeters	Sterling Mfg. Co.	ROSM			1 year from 7/1/26
270	"	"	"	Oxygen & Acetylene	Air Reduction Sales Co.	Req.			To 6/30/27
271	"	"	"	Hospital Supplies	Parke Davis & Co.	ROSM			1 year from 7/1/26
272	"	"	"	White Lead in Oil - Dry White Lead	Carter White Lead Co.				Renewed for 6 mos. from 7/1/26
273	"	"	"	Sal Soda GM-1802-M	Eaton Clark Co.				Renewed for 5 mos. from expiration

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274	25	SSC	6/8/26	58% Soda Ash & Fluffy	Detroit Soda Products Co.				Renewed for 1 year from expiration
275	"	"	"	Union Fuses & Renewals	Chicago Fuse Mfg. Co.				Renewed for 1 year from expiration
276	"	"	"	Oil Tanks & Pumps	S. F. Bowser & Co.	ROSM			Renewed for 1 year from expiration
277	"	"	"	Transformers	General Electric Co.	ROSM			Renewed for 1 year from expiration
278	"	"	"	Motors & Control Equipment	Allis-Chalmers Mfg. Co.	ROSM			Renewed for 1 year from expiration
279	"	"	"	Scales	Toledo Scale Co.	ROSM			Renewed for 1 year from expiration
280	"	"	"	Lockers, Steel	Lyon Metallic Mfg. Co.				Renewed for 1 year from expiration
281	"	"	"	Flow Meters	Republic Flow Meter Co.				Renewed for 1 year from expiration
282	"	"	"	Fire Extinguishers	Pyrene Mfg. Co.	ROSM			Renewed for 1 year from expiration
283	26	SSC	6/17/26	Tools	Bullard Machine Tool Co.	ROSM	Quantity		1 year from 7/1/26
284	27	SSC	7/13/26	Error - No Machines	Error - No Machine Co.	ROSM			1 year from 7/1/26
285	"	"	"	Piston Rings & Piston Pins	McQuay-Norris Mfg. Co.	ROSM			1 year from 7/1/26
286	"	"	"	Fuses & Renewals	Bussmann Mfg. Co.	ROSM			1 year from 8/1/26

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287	27	SSC	7/13/26	Carbon Steel	Carnegie Steel Co.				Accepted for 3rd quarter
288	28	SSC	7/23/26	Detergent GM- 2406-M	Bruce Products Co.	Req.			1 year from 7/1/26
289	"	"	"	Motor Controllers	Cutler-Hammer Mfg. Co.	ROSM			1 year from 7/1/26
290	29	"	8/12/26	Office Furniture	Shaw-Walker Co.	ROSM	M.P.		1 year from 9/1/26
291	"	"	"	Trisodium Phosphate	Industrial Chemical Co.	Req.			1 year from 9/1/26
292	"	"	"	Any C.G.B. Co. products	Cleveland Graphite Bronze Co.		M.P.		Extended 1 year from 1/1/27
293	"	"	"	Goggles & Head Masks	American Optical Co.	ROSM			Renewed for 1 year from Expiration
294	"	"	"	Mailing Machines	Postage Meter Co.	ROSM			Renewed for 1 year from Expiration
295	"	"	"	Files	Continental File Co.	ROSM			Renewed for 1 year from Expiration
296	"	"	"	Any du Pont products	E. I. du Pont de Nemours Co.		M.P.		10/1/26 to 9/30/27
297	30	SSC	9/29/26	Goggles & Head Masks	Willson Goggles Inc.	ROSM			Renewed 1 year from Expiration
298	"	"	"	Scales	Fairbanks, Morse & Co.	ROSM			Renewed 1 year from Expiration
299	31	SSC	10/12/26	Internal Grinding Spindles	Ex-Cell-O Tool & Mfg. Co.	ROSM	Quantity		Retroactive to 3/1/26
300	"	"	"	Files	Heller Brothers Co.	ROSM			1 year from 11/1/26

Red

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301	31	SSC	10/12/26	Chucks	E.Horton & Son Co.	ROSM	Quantity		1 year from 11/1/26
302	32	SSC	11/9/26	Oil Soap for Car Washing	Sanitary Supplies, Inc.	Req.			1 year from 11/11/26
303	"	"	"	Lubricating Fittings	Bassick Mfg. Co.	Req.			10/1/26 to 6/30/28
304	"	"	"	Steel Lockers, Racks, Shelving	Durand Co.	ROSM			1 year from 10/1/26
305	"	"	"	Calculating Machines	Monroe Calculating Mach. Co.	ROSM	Quantity		Retroactive to 1/1/26 Extended 1 year from 1/1/27
306	"	"	"	Machinery & Equipment	Potter & Johnson Mach. Co.	ROSM	Quantity		1 year from 10/10/26
307	"	"	"	Cutters, Reamers, Holes, etc.	Illinois Tool Works	ROSM	Quantity		1 year from 1/1/27
308	"	"	"	Tools, Electric Drills, Grinders & Accessories	Black & Decker Mfg. Co.	ROSM			1 year from 1/1/27
309	"	"	"	Packings	Anchor Packing Co.	ROSM			1 year from 1/1/27
					Garlock Packing Co.	"			"
310	"	"	"	Hobs, High Steel	Barber-Colman Co.	ROSM	Quantity		1 year from 1/1/27
311	"	"	"	Motors	Howell Electric Motors Co.	ROSM	Quantity		1 year from 1/1/27
					Westinghouse Elec. & Mfg. Co.	"	Quantity		"
					General Electric Co.	"	Quantity		"
					Crocker-Wheeler Co.	"	Quantity		"
					Wagner Electric Corp.	"	Quantity		"
312	"	"	"	Pyroxylin Finishes & Thinner	E.I. du Pont de Nemours Co.	ROSM	Quantity		1 year from 1/1/27
313	"	"	"	Paint & Varnish Type Materials	E.I. du Pont de Nemours Co.	ROSM	Quantity		1 year from 1/1/27

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314	32	SSC	11/9/26	Abrasive Papers & Clothcoated	American Glue Co.	ROSM	Quantity		1 year from 1/1/27
					Armour Sand Paper Works	"	Quantity		"
					Baeder Adamson Co.	"	Quantity		"
					Herman Behr & Co.Inc.	"	Quantity		"
					H.H. Barton & Son Co.	"	Quantity		"
					Carborundum Co.	"	Quantity		"
					Manning Abrasive Co.	"	Quantity		"
					Minn. Mining & Mfg. Co.	"	Quantity		"
					U.S. Sand Paper Co.	"	Quantity		"
315	"	"	"	Milling Cutters	Goddard & Goddard Co.	ROSM	Quantity		1 year from 1/1/27
316	"	"	"	Stationery Supplies	Tower Bros. Stat. Co.	Req.			1 year from 1/1/27
317	"	"	"	Blueprint & Brownprint Paper	The Huey Co.	ROSM			6 Mos. from 1/1/27
318	"	"	"	Transformers	Wagner Electric Corp.	ROSM	Quantity		1 year from 1/1/27
319	"	"	"	Aluminum	Aluminum Co. of America	Req.			6 Mos. from 1/1/27
320	"	"	"	White Lead in Oil - Dry White Lead	National Lead Co.	ROSM			1 year from 1/1/27
321	"	"	"	Files	Cleveland File Co.	ROSM	Quantity		1 year from 1/1/27
322	"	"	"	Miniature Incandescent Lamps	Tung-Sol Lamp Works	ROSM	Quantity		1 year from 1/1/27
323	33	SSC	12/14/26	Blueprint & Brownprint Paper	The Huey Co.	ROSM			Extended to 12/31/27
324	"	"	"	Carbonizing Compounds	E.F. Houghton & Co.	Portion			1 year from 1/1/27
325	"	"	"	Sal Soda GM 1802-M	Eaton Clark & Co.	Req.			1 year from 1/1/27
326	33	SSC	12/14/26	Caustic Soda GM 1806-M	Detroit Soda Products Co.	Req.			1 year from 1/1/27

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Item No.	Mtg. No.	Committee(1)	Date of Action	Product Contracted	Supplier	Portion Of(2) Require	Kind Of(3) Discoun	Participation	Term of Contract
327	33	SSC	12/14/26	Cyanide - Sodium	Charles Hardy Inc.	Req.		Jaxon Optional	1 year from 1/1/27
				Copper	" " "	"			"
328	"	"	"	Cup Grease G-2-2-1/2-3	American Oil Corp.	Req.		Bloomfield-	
								Janesville	1 year from 1/1/27
								Tarrytown Optional	
329	"	"	"	Drills, Cutters, Reamers, etc.	Nat'l. Twist Drill Co.	75%			1 year from 1/1/27
					Gorham Tool Co.	25%			"
					Amer. Twist Drill Co.	25%			"
330	"	"	"	Fire Extinguishers, Engines					
				& Recharges	Foamite-Childs Corp.	ROSM			1 year from 1/28/27
331	"	"	"	Calculating Machines	Monroe Calculating Machine Co.	ROSM			1 year from 1/1/27
332	"	"	"	Line-A-Time Devices	Line-A-Time Mfg. Co.	ROSM			1 year from 1/20/27
333	34	SSC	1/18/27	Duco Thinner	U. S. Industrial	100% GM			
					Alcohol Sales Co.	75% Fisher			6 Mos. from 1/1/27
334	"	"	"	Any Items supplied	Russell Burdall & Ward Co.	ROSM	MP		1 year from 1/1/27
					Lamson & Sessions Co.	ROSM	MP		"
					The Kirk Latty Co.	"	MP		"
					Lake Erie Bolt & Nut Co.	"	MP		"
					Buffalo Bolt Co.	"	MP		"
335	"	"	"	Self Opening Die Heads, etc.	Eastern Machine Screw Co.		Quantity		1 year from 1/1/27
336	"	"	"	Special Reamers	Schellenbach Hunt Tool Co.		Quantity		1 year from 1/1/27
337	"	"	"	Drill Jig Bushings	Ex-Cell-O Tool & Mfg. Co.				Renewed 1 year from 3/1/27

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338	34	SSC	1/18/27	Dry Cells	National Carbon Co.				Renewed 1 year from 3/1/27
339	"	"	"	Flashlight Batteries & Cases	Burgess Battery Co.				Renewed 1 year from 3/1/27
340	"	"	"	Stellite	Haynes Stellite Co.				Renewed 1 year from 3/1/27
341	35	SSC	1/26/27	Trico Products	Trico Products Co.		Quantity		1 year from 1/11/27
342	36	SSC	2/8/27	Mimeograph Supplies	A.B. Dick Co.	ROSM			1 year from 2/15/27
343	"	"	"	Miniature Mazda Lamps	Mich. Lamp Div. of G.E.				Renewed 1 year from 4/1/27
344	37	SSC	3/15/27	Factory Trucks, Tractors, Trailers & Power Units	2 or more suppliers left to discretion of Master Mechanics Group	ROSM	Quantity		1 year
345	"	"	"	Motors	Reliance Elec. & Eng. Co.	ROSM			1 year from 3/15/27
346	"	"	"	Hobs, Gear Cutters, Reamers	Michigan Tool Co.	ROSM	Quantity		1 year from 3/15/27
347	"	"	"	Visible Card Recording Systems	Rand-Kardex Co.	ROSM	Quantity		1 year from 3/15/27
348	"	"	"	Calculating Machines	Marchant Calculating Machine Co.	ROSM	Quantity		1 year from 1/1/27
349	28	GPC	4/12/27	Aluminum	Alum. Co. of America	Req.	Quantity		1 year from 5/1/27
350	38	SSC	4/12/27	Gasoline Tank Caps	Easy-On Co.	ROSM			To 12/31/27

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of Require (2)	Kind Of Discount (3)	Participation	Term of Contract
351	38	SSC	4/12/27	Machine Tools & Equipment	Bullard Machine Tool Co.	ROSM			Renewed 1 year from 6/1/27
352	39	SSC	5/10/27	Fibre, Sheets, Tubes, Rods	Spaulding Fibre Co.			50% of ~~Delco Light~~ A.C. Spark	
								25% of Delco Remy	
								Others Optional	1 year from 6/1/27
					Continental Fibre Co.			50% of Delco Remy Rods & Tubes	
								100% Ternstedt	
								25% Delco Remy Sheets 1/16" and plus	
								Others Optional	1 year from 6/1/27
					National Vulcanized Fibre Co.			50% of A.C.Spark	
								50% of Delco Remy sheets 1/16" & less	
								25% of Delco Remy sheets 1/16" & plus	
								Others Optional	1 year from 6/1/27
353	"	"	"	Precision Gages	Pratt & Whitney Co.	ROSM	Quantity		1 year from 5/1/27
354	"	"	"	Ground Thread Taps	John Bath & Co.	ROSM			1 year from 5/15/27
355	40	SSC	6/28/27	Thinner	E.I. du Pont de Nemours	60%			
356	"	"	"	Adjustable Thread Snap Gages	John-Sons Gage Works	ROSM	Quantity		1 year from 7/1/27
357	"	"	"	Acetylene & Oxygen	Air Reduction Sales Co.	75%			1 year from 7/1/27
					Wall Brothers	25%			"
358	"	"	"	Metal Cleaner GM 2403-M	Industrial Chemical Co.	Req.			1 year from 7/1/27

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Item No.	Mtg. No.	Committee [1]	Date of Action	Product Contracted	Supplier	Portion Of Require [2]	Kind Of Discount [3]	Participation	Term of Contract
359	40	SSC	6/28/27	Metal & Painted Surface Cleaner - GM 2401-M 2404-M	H. A. Montgomery Co.	Req.			1 year from 7/1/27
360	"	"	"	Detergent GM 3406-M	Detroit Soda Products Co.	Req.			1 year from 7/1/27
361	"	"	"	Soda Ash	Detroit Soda Products Co.	Req.			1 year from 7/1/27
362	"	"	"	Quenching Machines	Gogan Mach. & Fdry. Co.	ROSM	Quantity		1 year from 7/1/27
363	41	SSC	8/9/27	Counterbores	Eclipse Interchangeable Counterbore Co.	ROSM	Quantity		1 year from 9/1/27
364	"	"	"	Cut Thread Taps	Threadwell Tool Co.	ROSM	Quantity		1 year from 9/1/27
365	"	"	"	Punch Presses	Hamilton Press Machinery Co. & V. & O. Press Co.	ROSM			1 year from 9/1/27
366	"	"	"	H.D. Shop, Road, and Inter-plant Trailers	Whitehead & Kales Co.	ROSM	Quantity		1 year from 9/1/27
367	"	"	"	Metal Cleaners	J. B. Ford Co.	ROSM			1 year from 9/1/27
368	"	"	"	Biscuits	National Biscuit Co.	ROSM			1 year from 9/1/27
369	"	"	"	Chairs	Du-More Chair Co.	ROSM			1 year from 9/1/27
370	"	"	"	Rear View Mirrors	Trico Products Co.	Req.	Quantity		7/1/27 to 6/30/28
371	"	"	"	Oil Tanks & Pumps	S. F. Bowser Co.	ROSM			Renewed
372	"	"	"	Motors & Control Equipment	Allis Chalmers Mfg. Co.	ROSM			Renewed
373	"	"	"	Transformers	General Electric Co.	ROSM			Renewed

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374	41	SSC	8/9/27	Scales	Toledo Scale Co.	ROSM.			Renewed
375	"	"	"	Lockers, Steel	Lyon Metallic Mfg. Co.	ROSM			Renewed
376	"	"	"	Furniture, Safes, Files	Shaw-Walker Co.	ROSM			Renewed
377	"	"	"	Flow Meters	Republic Flow Meter Co.				Renewed
378	"	"	"	Fire Extinguishers	Pyrene Mfg. Co.	ROSM			Renewed
379	41	SSC	8/9/27	Machines & Tools	Potter & Johnson Machine Co.				Renewed
380	"	"	"	Chucks	E. Horton & Son Co.	ROSM			Renewed
381	"	"	"	Goggles & Head Masks	American Optical Co.	ROSM			Renewed
332	"	"	"	Steel Lockers,Racks,Shelving	Durand Steel Locker Co.	ROSM			Renewed
383	"	"	"	Mailing Machines & Supplies	Postage Meter Co.	ROSM			Renewed
384	42	SSC	9/30/27	Acetylene & Oxygen	Air Reduction Sales Co.				1 year from 9/1/27
385	"	"	"	Typewriters	Remington Rand Inc.	ROSM	M.P.		
				Accounting Machines	" " "	"	"		
				Line-A-Time	" " "	"	"		
				Adding Machines	" " "	"	"		
				Accounting Machine Cards	" " "	"	"		
				Binders	" " "	"	"		
				Sheets	" " "	"	"		
				Cabinets & Equipment	" " "	"	"		
				Fasteners	" " "	"	"		
				Wire	" " "	"	"		
386	43	SSC	10/11/27	Washers, Niagara	G. S. Blakeslee & Co.	ROSM	Quantity		1 year from 11/1/27

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Item No.	Mtg. No.	Com-mit-tee (1)	Date of Action	Product Contracted	Supplier	Portion Of(2) Require.	Kind Of(3) Discount	Participation	Term of Contract
387	43	SSC	10/11/27	Trisodium Phosphate	Industrial Chemical Co.	Req.			1 year from 11/1/27
388	"	"	"	Wire Wheels	Wire Wheel Corp. of America	ROSM	Quantity		10 Mos. to 6/30/28
389	"	"	"	Any of 26 makes of Woodworking Machinery	J. Lee Hackett	ROSM	M.P.		1 year from 11/1/27
390	"	"	"	Car Locks	Briggs & Stratton Corp.	Req.	Quantity		9 Mos. to 6/30/28
391	"	"	"	Any of Sellers Products	Witherow Steel Corp.	ROSM	M.P.		9 Mos. to 6/30/28
392	43	SSC	10/11/27	Oil Soap GM-2252-M	Sanitary Supplies Inc.				1 year from 1/1/28
393	"	"	"	Motors	Wagner Electric Corp. Howell Elec. Motor Corp.	ROSM ROSM			1 year from 1/1/28 "
394	"	"	"	Motors & Control Equipment	Westinghouse Elec. & Mfg. Co.	ROSM			1 year from 1/1/28
395	"	"	"	Cutters, Hobs, Reamers, etc.	Illinois Tool Works Michigan Tool Co.	ROSM "	Quantity		1 year from 1/1/28 "
396	"	"	"	H. S. Steel Hobs	Barber-Colman Co.	ROSM			1 year from 1/1/28
397	"	"	"	Milling Cutters	Goddard & Goddard Co.	ROSM			1 year from 1/1/28
398	"	"	"	Motors, Control Equipment & Repair Parts	Crocker-Wheeler Co.	ROSM			1 year from 1/1/28
399	"	"	"	Calculating Machines	Monroe Calculating Machine Co.	ROSM			1 year from 1/1/28
400	"	"	"	Packings	Garlock Packing Co. Anchor Packing Co.	ROSM "			1 year from 1/1/28 "
401	"	"	"	Self Opening Die Heads, etc.	Eastern Machine Screw Co.	ROSM			1 year from 1/1/28

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of (2) Require.	Kind Of (3) Discount	Participation	Term of Contract
402	43	SSC	10/11/27	All Seller's products	Easy-On Cap Company		M.P.		1 year from 1/1/28
403	"	"	"	White Lead in Oil - Dry White Lead	National Lead Co.				1 year from 1/1/28
404	44	SSC	11/8/27	Cable, Kerite	Kerite Ins. Wire & Cable Co.	ROSM			1 year from 1/1/28
405	"	"	"	Ball Bearings	Nice Ball Bearing Co.	ROSM	Quantity		1 year from 1/1/28
406	"	"	"	Cap & Set Screws - Milled	Automatic Products Co.		Quantity		1 year from 1/1/28
407	44	SSC	11/8/27	Friction Tape	Dryden Rubber Co.	80%	Quantity		1 year from 1/1/28
408	"	"	"	Any Products	Reliance Mfg. Co.		M.P.		6 Mos. from 1/1/28
409	"	"	"	Carburizing Compound	Steel Treating Equipment Co.				1 year from 1/1/28
410	"	"	"	Cyanide - Copper, Sodium	Charles Hardy, Inc.	Req.			1 year from 1/1/28
411	"	"	"	Caustic Soda GM-1806-M	Detroit Soda Products Co.	Req.			1 year from 1/1/28
412	"	"	"	Motor Valves	Thompson Products, Inc.	60%		Chevrolet Excluded	1 year from 1/1/28
413	45	SSC	12/8/27	Abrasive Paper & Cloth-coated	American Glue Co.	ROSM			1 year from 1/1/28
					Armour Sand Paper Works	"			"
					Baeder Adamson Co.	"			"
					Herman Behr & Co., Inc.	"			"
					H. H. Barton & Son Co.	"			"
					Carborundum Co.	"			"
					Manning Abrasive Co.	"			"
					Minn. Mining & Mfg. Co.	"			"
					U. S. Sand Paper Co.	"			"

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414	45	SSC	12/8/27	Sal Soda	Detroit Soda Products Co.	Req.			1 year from 1/1/28
415	"	"	"	Fire Extinguishers	Foamite-Childs Corp.	ROSM			1 year from 1/28/28
416	"	"	"	Miniature Incandescent Lamps	Tung-Sol Lamp Works	Req.		Car & Truck	1 year from 1/31/28
417	46	SSC	1/17/28	Pyroxylin Finishes, Duco & Duco Thinner	E. I. du Pont de Nemours	ROSM	Quantity		1 year from 1/1/28
418	"	"	"	Primers & Surfacers	E. I. du Pont de Nemours	ROSM	Quantity		1 year from 1/1/28
419	"	"	"	Cup Grease 0-2-2-1/2-3	Fiske Bros. Refining Co.	Req.			1 year from 1/1/28
420	46	SSC	1/17/28	Dry Cells-Flashlight Batt.	Bright Star Battery Co.	Req.			1 year from 1/1/28
421	"	"	"	Electric Drills, Tools, Grinders and Accessories	Black & Decker Mfg. Co. Chicago Pneumatic Tool Co.	ROSM "	 Quantity		1 year from 1/1/28 "
422	47	SSC	2/14/28	Dial Indicators	Federal Products Corp.	ROSM	Quantity		1 year from 3/1/28
423	"	"	"	Mimeograph Supplies	A. B. Dick Co.	ROSM			1 year from 2/15/28
424	"	"	"	Hose Clamps	Federal Tin Co.	ROSM	Quantity		1 year from 1/1/28
425	"	"	"	Drill Jig Bushings	Ex-Cell-O Tool & Mfg. Co.	ROSM	Quantity		1 year from 3/1/28
426	"	"	"	Stellite	Haynes Stellite Co.				1 year from 3/1/28
427	"	"	"	Drills	Nat'l. Twist Drill Co. Union Twist Drill Co.	ROSM ROSM			1 year from 1/1/28 "
428	48	SSC	3/13/28	Floor & Running Board Molding	Joseph N. Smith Co.	ROSM	Quantity		1 year from 1/1/28

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429	48	SSC	3/13/28	Electric Industrial Trucks & Tractors	Automatic Transportation Inc.	ROSM	Quantity		1 year from 3/15/28
					Elwell-Parker Elec. Co.	"	Quantity		"
430	"	"	"	Gas Electric - Industrial Truck Power Plants	Ready Power Co.	ROSM	Quantity		1 year from 3/15/28
431	"	"	"	Electrolytic Manufacturing Sets	Chandeysson Electric Co.	ROSM			1 year from 4/2/28
432	"	"	"	Motors	Reliance Elec. & Eng. Co.	ROSM	Quantity		1 year from 3/15/28
433	"	"	"	Aluminum	Alum. Co. of America	Req.			1 year from 4/30/28
434	48	SSC	3/13/28	Gage Blocks	Pratt & Whitney.	ROSM			1 year from 5/1/28
435	"	"	"	Machine Tools & Equipment	Bullard Machine Tool Co.	ROSM			1 year from 6/1/28
436	29	GPC	3/28/28	Lubricating Fittings	Bassick Manufacturing Co.	Req.	Quantity		1 year from 6/30/28
437	49	SSC	4/11/28	Storage Batteries	Electric Storage Battery Co. & Willard Storage Battery Co.	75%			7/1/28 to 12/31/28
					"	17-1/2%			Years 1929-1930
438	"	"	"	Miniature Mazda Lamps	Westinghouse Elec. & Mfg. Co.	Req.			1 year from 5/1/28
439	"	"	"	Transcribers	Error-No. Inc.	ROSM			1 year from 6/30/28
440	"	"	"	Cutting Machines	Universal Cutter Co.	ROSM			1 year from 6/30/28
					Eastman Machine Co.	"			"
441	"	"	"	Adjustable Snap Gages Etc.	John-Sons Gage Works	ROSM	Quantity		1 year from 6/30/28
442	"	"	"	Locks & Parts	Briggs & Stratton Corp.	ROSM	Quantity		1 year from 6/30/28

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443	49	SSC	4/11/28	Lockwashers	Reliance Mfg. Co. & Mansfield Lockwasher Co.	ROSM	Quantity		1 year from 6/30/28
444	"	"	"	White Lead in Oil - Dry White Lead	National Lead Co.	Req.			6 Mos. from 6/30/28
445	"	"	"	Electric Controlling Devices	Cutler Hammer Mfg. Co.	ROSM			1 year from 6/30/28
446	50	SSC	4/17/28	Heat Treating Machines	Gogan Machine Co.	ROSM	Quantity		1 year from 6/1/28
447	"	"	"	Blueprint & Brownprint Paper	The Huey Co.	ROSM			1 year from 5/1/28
448	"	"	"	Ground Thread Taps	Pratt & Whitney Co.	50%	Quantity		1 year from 5/1/28
449	51	SSC	5/8/28	Frames	A. O. Smith Corp.				
450	"	"	"	Pig Iron	Hanna Furnace Co.	80% plus			
451	52	SSC	6/12/28	Acetylene & Oxygen					1 year from 5/1/28
452	"	"	"	Carbon Paper, Typewriter Ribbons	M. B. Cook Co.	ROSM	Quantity		1 year from 6/1/28
453	"	"	"	Printing	Ainger Printing Co.	Portion			1 year from 6/1/28
454	"	"	"	Copper Buffing Compound					
455	"	"	"	Emery Cake					
456	"	"	"	Grease Stick GM-1610-M	Lustre Co.				1 year from 7/1/28
457	"	"	"	Industrial Trailers	Mercury Mfg. Co.	ROSM	Quantity		1 year from 3/16/28
458	"	"	"	Shelving, Steel	General Fire Proofing Co.	ROSM			1 year from 7/1/28

Green

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459	52	SSC	6/12/28	Auto. Locks & Parts	Briggs & Stratton Corp.	ROSM	Quantity		1 year from 7/1/28
460	"	"	"	Wire Wheels	Wire Wheel Corp. of America	ROSM	Quantity		1 year from 7/1/28
461	"	"	"	58% Soda Ash & Fluffy	Solvay Sales Corp.	80%			1 year from 7/1/28
462	"	"	"	Transformers	General Electric Co.	ROSM			Renewed
463	"	"	"	Metal Cleaner	J. B. Ford Co.				Renewed
464	"	"	"	Trailers	Whitehead & Kales	ROSM			Renewed
465	"	"	"	Cut Thread Taps	Threadwell Tool Co.	ROSM			Renewed
466	52	SSC	6/12/28	Scales	Toledo Scale Co.	ROSM			Renewed
467	"	"	"	Flow Meters	Republic Flow Meter Co.				Renewed
468	53	SSC	7/10/28	Aluminum File Guides	Alum. Co. of America	ROSM			1 year from 7/1/28
469	"	"	"	Tripoli	H. A. Montgomery Co.	Req.			1 year from 7/1/28
470	"	"	"	Motors	General Electric Co.	ROSM			1 year from 7/1/28
471	"	"	"	Oil Tanks & Pumps	S. F. Bowser & Co.	ROSM			1 year from 8/10/28
472	"	"	"	Large Incandescent Lamps	Mich. Lamp Division	Req.			1 year from 9/1/28
473	"	"	"	Cleaners	H. A. Montgomery Co.	Req.			1 year from 7/1/28
474	"	"	"	Metal & Painted Surface Cleaner, etc.	Bruce Products Co.	Req.			1 year from 7/1/28
475	"	"	"	Shafts, Levers, "I" Beams, etc.	Witherow Steel Corp.	ROSM	Quantity		1 year from 7/1/28

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476	54	SSC	8/15/28	Plating Generators & Meter Generater Sets	Chandeysson Electric Co.	ROSM	Quantity		1 year from 8/1/28
477	"	"	"	Biscuits	National Biscuit Co.	ROSM			1 year from 9/1/28
478	"	"	"	Salvaging Old Leather Belts	F Raniville Co.				6 Mos. from 9/1/28
479	"	"	"	Punch Press Machinery & Equipment	Hamilton Press & Machinery Co. & V. & O. Press	ROSM	Quantity		1 year from 9/1/28
480	"	"	"	Oil Soap GM-2252-M	Phoenix Oil Co.	Req.			1 year from 9/1/28
481	54	SSC	8/15/28	Mailing Machines	Postage Meter Co.				Renewed
482	"	"	"	Washing Machines, etc.	G. S. Blakeslee & Co.				Renewed
483	"	"	"	Machine Tools	Potter & Johnston Mach. Co.				Renewed
484	"	"	"	Goggles & Head Masks	American Optical Co.				Renewed
485	55	SSC	9/13/28	Office Furniture - Filing Equipment - Supplies - Systems	Shaw-Walker Co.	ROSM	MP		1 year from 10/1/28
486	"	"	"	Health Chairs	Do/More Chair Co.	ROSM			1 year from 9/1/28
487	"	"	"	Safes	Meilink Steel Safe Co.	ROSM			1 year from 10/1/28
488	56	SSC	10/9/28	"Sabeco" Bearing Metal	Frederickson Co.	Req.	Quantity		1 year from 11/1/28
489	"	"	"	Trisodium Phosphate	Industrial Chemical Co.	Req.			1 year from 11/1/28
490	"	"	"	Counterbores	Eclipse Interchangeable Counterbore Co.	ROSM	Quantity		1 year from 11/1/28

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491	56	SSC	10/9/28	Cap & Set Screws	Automatic Products Co.				Renew from 1/1/29 for 1 year
492	"	"	"	Abrasive Paper, Etc.	American Glue Co.	ROSM			Renew 1 year from 1/1/29
					Armour & Co.	"			"
					Baeder Adamson Co.	"			"
					H. H. Barton & Son Co.	"			"
					Behr-Manning Corp.	"			"
					Carborundum Co.	"			"
					Minn. Mining & Mfg. Co.	"			"
					U. S. Sand Paper Co.	"			"
493	"	"	"	Ball Bearings	Nice Ball Bearing Co.				Renew 1 year from 1/1/29
494	58	SSC	10/9/28	Hobs, Cutters, Reamers, etc.	Michigan Tool Co.	ROSM			Renew 1 year from 1/1/29
					Illinois Tool Co.	"			"
495	"	"	"	Milling Cutters	Goddard & Goddard Co.	ROSM			Renew 1 year from 1/1/29
496	"	"	"	Die Heads, etc.	Eastern Mach. Screw Corp.	ROSM			Renew 1 year from 1/1/29
497	"	"	"	Ignition Cable	Kerite Insulated Wire Co.	ROSM			Renew 1 year from 1/1/29
498	"	"	"	Calculators	Monroe Calculating Machine Co.	ROSM			Renew 1 year from 1/1/29
499	"	"	"	Packings	Anchor Packing Co.	ROSM			Renew 1 year from 1/1/29
					Garlock Packing Co.	"			"
500	"	"	"	H. S. Steel Hobs	Barber-Colman Co.	ROSM			Renew 1 year from 1/1/29
501	"	"	"	Heavy Duty Grinders	Maschke Mfg. Co.	ROSM			Renew 1 year from 1/1/29
502	"	"	"	Molding-Running Board & Floor Board	Joseph N. Smith Co.				Renew 1 year from 1/1/29

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503	56	SSC	10/9/28	White Lead in Oil - Dry White Lead	National Lead Co.				Renew 1 year from 1/1/2
504	"	"	"	Everything manufactured by Suppliers	Reliance Mfg. Co. and Mansfield Lockwasher Co.	ROSM	MP MP		Renew 1 year from 1/1/29
505	57	SSC	11/13/28	Furniture, Steel	Shaw-Walker Co.	ROSM			1 year
506	"	"	"	Outdoor Lithographed Posters & Offset Lithography	Edwards & Deutsch Lithography Co.	Req.			From 1/1/29
507	"	"	"	Fire Extinguishers	Amer.-LaFrance & Foamite Co.	ROSM			Renew for 1 year from Expiration
508	57	SSC	11/13/28	Mimeograph Supplies	A. B. Dick Co.	ROSM			Renew for 1 yr. from Expiration
509	"	"	11/13/28	Drill Jig Bushings	Ex-Cell-O Tool & Mfg. Co.	ROSM			Renew for 1 yr. from Expiration
510	"	"	"	Stellite	Haynes Stellite Co.				Renew for 1 yr. from Expiration
511	"	"	"	Portable Electric Tools	Chicago Pneumatic Tool Co.				Renew for 1 yr. from Expiration
512	58	SSC	12/11/28	Caustic Soda	Detroit Soda Products Co.				Renewed
513	"	"	"	Cup Grease 0-2-2-1/2-3	American Oil Co.				1 year from 1/13/29
514	"	"	"	Hose Clamps	Federal Tin Co.	ROSM	Quantity		1 year
515	"	"	"	Carburizing Compounds	Steel Treating Equipment Co.				1 year from 1/1/29

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516	58	SSC	12/11/28	Cyanide-Sodium-Copper	Charles Hardy, Inc.	Req.			1 year from 1/1/29
517	"	"	"	Transmission Lubricants	Henry H. Cross Co.	ROSM			1 year
518	"	"	"	Pyroxylin Finishes	E. I. du Pont de Nemours	ROSM	Quantity		1 year from 1/1/29
519	"	"	"	Gas, Electric Industrial Truck Power Plants	Ready Power Co.	ROSM			1 year from Expiration
520	"	"	"	Trucks & Tractors	Elwell Parker Electric Co.	ROSM			1 year from Expiration
521	"	"	"	Elec. Ind. Trucks & Tractors	Automatic Transportation Co.	ROSM			1 year from Expiration
522	"	"	"	Trucks, Tractors & Trailers	Mercury Mfg. Co.	ROSM			1 year from Expiration
523	59	SSC	1/15/29	Drills & Reamers	Amer. Twist Drill Co. Natl. Twist Drill Co.	ROSM "			1 year "
524	"	"		Miniature Mazda Lamps	Westinghouse Lamp Co.				1 year from Expiration
525	"	"	"	Blueprint & Brownprint Paper	The Huey Co.	ROSM			1 year from Expiration
526	"	"	"	Ground Thread Taps	Pratt & Whitney Co.	ROSM			1 year from Expiration
527	"	"	"	Oxygen & Acetylene	Air Reduction Sales Co.				1 year from Expiration
528	"	"	"	Aluminum	Alum. Co. of America				1 year from Expiration
529	60	SSC	2/12/29	Tanks	Youngstown Boiler & Tank Co.	ROSM			1 year
530	"	"	"	Pencils & Erasers	Joseph Dixon Crucible Co.	ROSM			1 year
531	"	"	"	Pens & Penholders	Eagle Pencil Co.	ROSM			1 year

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532	61	SSC	3/21/29	Pencils, Leads, Erasers & Crayons	Gregory Mayer & Thom	ROSM			1 year
533	"	"	"	Lubricating Fittings	Bassick Mfg. Co.				Renewed for 1 year
534	"	"	"	Cutting Machines	Universal Cutter Co. Eastman Machine Co.	ROSM "			Renewed for 1 year " " " "
535	"	"	"	Oil Tanks & Pumps	S. F. Bowser Co.	ROSM			Renewed for 1 year
536	"	"	"	Locks & Parts	Briggs & Stratton	ROSM			Renewed for 1 year
537	"	"	"	Axle Shafts, etc.	Witherow Steel Corp.	ROSM			Renewed for 1 year
538	"	"	"	White Lead in Oil	National Lead Co.				Renewed for 1 year
539	"	"	"	Metal Cleaner	J. B. Ford Co.				Renewed for 1 year
540	62	SSC	4/11/29	Heating & Ventilating Equipment	York Heating & Ventilating Co.	ROSM			1 year
541	62	"	"	Woodworking Machinery	Baxter D. Whitney & Son	ROSM			1 year
542	"	"	"	Parkerizing Compound	Parker Rust Proof Co.	ROSM			1 year
543	63	SSC	5/7/29	Chromic Acid GM-1816M	H. A. Montgomery Co.				1 year
544	"	"	"	Trailers	Mercury Mfg. Co.	ROSM			Renewed for 1 year
545	"	"	"	Aluminum	Aluminum Co. of America	ROSM			Renewed for 1 year
546	64	SSC	6/11/29	Copper Buffing Compound	F. B. Stevens Co.	Req.			1 year from 7/1/29
547	"	"	"	Emery Cake #180	Bruce Products Co.	Req.			1 year from 7/1/29

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548	64	SSC	6/11/29	Grease Stick GM-1610-M	E. A. Montgomery Co.	Req.			1 year from 7/1/29
549	"	"	"	Nickel Buffing Compound	Bruce Products Co.	Req.			1 year from 7/1/29
550	"	"	"	Shelving, Steel	General Fireproofing Co. Lyon Metal Products Co.	ROSM ROSM			1 year from 7/1/29 " " " "
551	"	"	"	Misc. Stationery Supplies	Beecher Peck & Lewis-Zone 1 Gregory Mayer & Thom-Zone 2-3 Tower Bros. Stat. Co.-Zone 4	Req. " "			6 mos. from 7/1/29 " " " " " " " "
552	"	"	"	Aluminum Bronze Powder	Alum. Co of America	ROSM			1 year.
553	"	"	"	Aluminum Spar Mixing Liquid	Sherwin-Williams Co.	ROSM			1 year
554	"	"	"	Electrolytic Cleaner	J. B. Ford Sales Co.	Req.			1 year from 7/1/29
555	"	"	"	Nichrome Carburizing Containers & Parts in Sheet or cast Forms	Driver-Harris Co.	ROSM			7 mos. from 6/1/29
556	"	"	"	Transcribers	Error-No Co.	ROSM			1 year from 7/1/29
557	"	"	"	Dry White Lead-White Lead in Oil	National Lead Co.	Req.			6 mos. from 7/1/29
558	"	"	"	Soda Ash	Detroit Soda Products Co.	Req.			1 year from 7/1/29
559	"	"	"	Machinery & Equipment	Hooven Owens Co. Toledo Machine & Tool Co.	ROSM "			Renewed "
560	"	"	"	Taps & Dies	Threadwell Tool Co.	ROSM			Renewed
561	"	"	"	Trailors	Whitehead & Kales Co.	ROSM			Renewed

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Item No.	Mtg. No.	Com-mit-tee (1)	Date of Action	Product Contracted	Supplier	Portion Of (2) Require.	Kind Of (3) Discount	Participation	Term of Contract
562	64	SSC	6/11/29	Scales	Toledo Scale Co.	ROSM			Renewed
563	"	"	"	Biscuits	National Biscuit Co.				Renewed
564	"	"	"	Health Chairs	Do/More Chair Co.	ROSM			Renewed
565	"	"	"	Counterbores	Eclipse Interchangeable Counterbore Co.	ROSM			Renewed
566	65	SSC	7/23/29	Locks & Parts	Briggs & Stratton	ROSM	Quantity		1 year from 7/1/29
567	"	"	"	Shafts, Beams, Levers, etc.	Witherow Steel Corp.	ROSM	MP		1 year from 7/1/29
568	"	"	"	Any Products of Gilmer Co.	L. H. Gilmer Co.	ROSM	MP		1 year
569	"	"	"	Cleaners-GM 2401-M-2404M 2408-M	Blackson Chem. Co.	Req.			1 year
570	"	"	"	Cleaner & Cleanser	Bruce Products Co.	Req.			1 year
571	"	"	"	Chrome Buffing Compound Tripoli, Copper Buffing Compound	E. Reed Burns & Sons	Req.			1 year
572	"	"	"	Plating Generators, etc.	Chandeysson Electric Co.				Renewed for 1 year
573	"	"	"	Large Mazda Lamps	Michigan Lamp Div.				Renewed for 1 year
574	66	"	8/13/29	Oil Soap GM 2252-M	Phoenix Oil Co.	Req.			1 year from 9/1/29
575	"	"	"	Soda Ash-GM-1801-M-1803-M	Detroit Soda Products Co.	Req.			To 12/31/29
576	"	"	"	Tubing	Bundy Tubing Co.	ROSM			1 year

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Item No.	Mtg. No.	Com-mit-tee (1)	Date of Action	Product Contracted	Supplier	Portion Of (2) Require	Kind Of (3) Discount	Participation	Term of Contract
577	66	SSC	8/13/29	Transformers	General Electric Co.	ROSM			Renewed for 1 year
578	"	"	"	Bearing Metal-Production Parts	Frederickson Co.	ROSM			Renewed for 1 year
579	67	"	9/10/29	Electrotypes	Mich. Electrotype & Stereotype Co.				Renewed for 1 year
580	"	"	"	Photo Engraving	Wayne Color Plate Co.				Renewed for 1 year
581	"	"	"	Ignition Cable	Kerite Ins. Wire & Cable Co.				Renewed for 1 year
582	"	"	"	Moldings	Jos. N. Smith Co.				Renewed for 1 year
583	"	"	"	Cap Screws	Automatic Products Co.	ROSM			Renewed for 1 year
584	"	"	"	Calculators & Defiance Machines	Monroe Calculating Machine Co.	ROSM			Renewed for 1 year
585	"	"	"	Die Heads, etc.	Eastern Mach. Screw Corp.	ROSM			Renewed for 1 year
586	"	"	"	Abrasives	American Glue Co.	ROSM			Renewed for 1 year
					Armour & Co.	"			" " " "
					Baeder-Adamson Co.	"			" " " "
					Behr-Manning Corp.	"			" " " "
					H. H. Barton & Son Co.	"			" " " "
					Minn. Mining & Mfg. Co.	"			" " " "
					Carborundum Co.	"			" " " "
					U. S. Sand Paper Co.	"			" " " "
587	"	"	"	Heavy Duty Grinders	Marschke Mfg. Co.	"			" " " "

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Item No.	Mtg. No.	Com-mit-tee (1)	Date of Action	Product Contracted	Supplier	Portion Of Require (2)	Kind Of Discount (3)	Participation	Term of Contract
588	67	SSC	9/10/29	Milling Cutters	Goddard & Goddard Co.	ROSM			Renewed for 1 year
589	"	"	"	Pyroxylin Finishes	E. I. du Pont de Nemours	ROSM			" " " "
590	"	"	"	Ball Bearings	Nice Ball Bearing Co.				" " " "
591	"	"	"	Hobs, etc.	Barber-Colman Co.	ROSM			" " " "
					Michigan Tool Co.	"			" " " "
592	"	"	"	Reamers, Cutters, etc.	Illinois Tool Works	ROSM			" " " "
593	"	[illegible]	"	Packings	Garlock Packing Co.	ROSM			" " " "
					Anchor Packing Co.	"			" " " "
594	"	"	"	Drill Jig Bushings	Ex-Cell-O Tool & Mfg. Co.	ROSM			" " " "
595	"	"	"	Parco Powder	Parker Rust Proof Co.				" " " "
596	"	"	"	White Lead	National Lead Co.				" " " "
597	"	"	"	Sundstrand Machines	General Office Equip. Co.				" " " "
598	68	"	10/15/29	Trisodium Phosphate	Detroit Soda Products Co.				1 year from 11/1/29
599	"	"	"	Electrical Tools	U. S. Electrical Tool Co.	ROSM			1 year
600	"	"	"	Shop & Road Trailers	Whitehead & Kales Co.	ROSM			1 year from 10/1/29
601	"	"	"	Electric Controlling Devices	Cutler Hammer Co.	ROSM			Renewed for 1 year
602	"	"	"	Fire Extinguishers	Amer. La France & Foamite Ind.	ROSM			" " " "
603	69	"	11/13/29	Transmission Lubricants	Henry H. Cross Co.	Req.			1 year from 12/1/29

Red

Green

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Item No.	Mtg. No.	Committee(1)	Date of Action	Product Contracted	Supplier	Portion Of Require(2)	Kind Of Discount(3)	Participation	Term of Contract
604	69	SSC	11/13/29	Parts Washing Machines	Blakeslee & Co.	ROSM			1 year from 11/1/29
605	"	"	"	Renewable Fuses	Jefferson Electric Co.	ROSM			1 year from 12/1/29
606	"	"	"		Joha-Sons Gage Works	ROSM			
607	"	"	"	Stellite	Haynes Stellite Co.				Renewed for 1 year
608	"	"	"	Pens & Penholders	Eagle Pencil Co.	ROSM			Renewed for 1 year
609	"	"	"	Mimeograph Supplies	A . B.Dick Co.	ROSM			Renewed for 1 year
610	70	"	12/12/29	Cup Grease G-1-2-2½-5	Swan-Finish Oil Corp.	Req.			1 year from 1/1/30
611	"	"	"	Socket Wrenches	Snap-On Wrench Co.	ROSM			1 year from 1/1/30
612	"	"	"	Cyanide-Sodium	Charles Hardy, Inc.	Req.			1 year from 1/1/30
613	"	"	"	Milling Cutters	Goddard & Goddard Co.	ROSM			1 year from 1/1/30
614	"	"	"	Gas. Electric Truck Power Plants	Ready Power Co.	ROSM			Renewed
615	"	"	"	Electric Truck & Tractors	Automatic Transportation Co. Elwell-Parker Co.	ROSM "			Renewed "
616	71	"	1/14/30	Files	Heller Bros.	ROSM			1 year
617	"	"	"	H. S. Twist Drills & Reamers	Amer. Twist Drill Co. Nat'l. Twist Drill Co.	ROSM "			1 year " "
618	"	"	"	Caustic Soda GM-1806M	Dow Chemical Co.	Req.			1 year

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Item No.	Mtg. No.	Committee(1)	Date of Action	Product Contracted	Supplier	Portion Of Require.(2)	Kind Of Discount(3)	Participation	Term of Contract
619	71	SSC	1/14/30	Abrasive Paper & Cloth	Carborundum Co.	ROSM			1 year
					Behr Manning Corp.	ROSM			" "
					Minn. Mining & Mfg. Co.	"			" "
620	"	"	"	Carburizing Compounds	Steel Treating Equip. Co.	Req.			1 year
621	"	"	"	Factory Towels	Oakleaf Mills	ROSM			1 year
622	"	"	"	Pencils, Erasers, Crayons,etc	Gregory-Mayer-Thom Co.				Renewed for 1 year
623	"	"	"	Remington-Rand Products	Remington-Rand Business Service Inc.	ROSM	MP		Renewed for 1 year
624	"	"	"	Woodworking Machinery	Baxter D. Whitney & Son	ROSM			Renewed for 1 year
625	72	SSC	2/4/30	58% Soda Ash & Fluffy	Detroit Soda Products Co.	Req.			1 year
626	"	"	"	Trailers & Hand Trucks	Mercury Mfg. Co.	ROSM			Renewed for 1 year
627	"	"	"	Miniature Lamps	Westinghouse Lamp Co.				Renewed for 1 year
628	"	"	"	Acetylene & Oxygen	Air Reduction Sales Co.				Renewed for 1 year
629	"	"	"	Heaters	York Heating & Ventilating Co.	ROSM			Renewed for 1 year
630	"	"	"	Aluminum	Alum. Co. of America				Renewed for 1 year
631	73	SSC	3/13/30	Abrasive Paper & Cloth	Armour & Co.	ROSM			1 year
632	"	"	"	Milling Cutters, Hobs,Tools	Nat'l. Twist Drill Co.	ROSM	Quantity		1 year
633	"	"	"	Trucks	Elwell-Parker Co.	ROSM			1 year
634	74	"	4/8/30	Blueprint & Brownprint Papers	The Huey Co.	ROSM			1 year from 5/30

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Item No.	Mtg. No.	Committee (1)	Date of Action	Product Contracted	Supplier	Portion Of Require (2)	Kind Of Discount (3)	Participation	Term of Contract
635	74	SSC	4/8/30	Truck Power Plants	Ready Power Co.	ROSM			1 year
636	"	"	"	Cutting Machines	Eastman Machine Co. J. B. Gury Mfg. Co.	ROSM "			Renewed for 1 year "
637	"	"	"	Oil Tank & Pumps	S. F. Bowser & Co.	ROSM			Renewed for 1 year
638	"	"	"	White Lead	National Lead Co.	Req.			Renewed for 1 year
639	"	"	"	Heating & Ventilating Equipment	York Heating and Ventilating Co.	ROSM			1 year from 5/30
640	75	SSC	5/13/30	Chromic Acid - GM-1816-M	Mutual Chemical Co.	Req.			1 year from 5/15/30
641	"	"	"	Tying Wire	Gurard Co.	ROSM			1 year
642	"	"	"	Striping & Blackoff Brushes	Gem Striper Co.	ROSM			1 year
643	"	"	"	Health Chairs	Do/More Chair Co.	ROSM			Renewed for 1 year
644	"	"	"	Scales	Toledo Scale Co.	ROSM			Renewed for 1 year
645	"	"	"	Biscuits, Crackers, etc.	National Biscuit Co.				Renewed for 1 year
646	"	"	"	Tubing	Bundy Tubing Co.	ROSM			Renewed for 1 year
647	75	SSC	5/13/30	Sales Managers Picture Service	Jam Handy Picture Service				Renewed for 1 year
648	76	SSC	6/18/30	Anti-Freeze Methanol	Western Rosin & Turpentine Co.	ROSM			9/1/30 to 4/1/31
649	"	"	"	Locks & Parts	Briggs & Stratton	ROSM	Quantity		1 year from 7/1/30
650	"	"	"	Pig Iron	Hanna Furnace Corp. Pickands - Mather Co.	65% 35%			1 year from 1/1/31 "

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651	76	SSC	6/18/30	Metal Cleaner GM-2401-M	Blackson Chemical Co.	Req.			1 year from 7/1/30
652	"	"	"	Rosin Metal Cleaner GM-2403-M	Detroit Soda Products Co.	Req.			1 year from 7/1/30
653	"	"	"	Platers Cleaner for Electrolytic Cleaning GM-2410M	J. B. Ford Co.	Req.			1 year from 7/1/30
654	"	"	"	Fittings	Alemite Co.		Quantity		1 year from 7/1/30
655	"	"	"	Rolls	Ditto Co.	Req.			1 year
656	77	SSC	8/12/30	Transformers	General Electric Co.	ROSM			1 year
657	"	"	"	Oil Soap-40% GM-2252-M	Swan-Finch Corp.				1 year from 9/1/30
658	"	"	"	Large Lamps	Westinghouse Lamp Co.				Renewed for 1 year
659	"	"	"	Washing Machines	G. S. Blakeslee Co.				Renewed for 1 year
660	78	SSC	9/16/30	Office Furniture - Wood & Steel	Shaw Walker Co.	ROSM			1 year from 10/1/30
661	"	"	"	Batteries	Delco-Remy	Req.		Chev. Buffalo Tarrytown-Bloomfield & Oakland Excluded	1 year from 1/1/31
662	79	SSC	10/21/30	Trisodium Phosphate	Industrial Chemical Co.	Req.			1 year
663	"	"	"	Oxygen & Acetylene Welding Equipment	Air Reduction Sales Co.	ROSM			1 year

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664	79	SSC	10/21/30	Ball Bearings	Nice Ball Bearing Co.				Renewed for 1 year
665	"	"	"	Calculators	Monroe Calculator Co.	ROSM			Renewed for 1 year
666	"	"	"	Die Heads	Eastern Mach. Screw Corp.	ROSM			Renewed for 1 year
667	"	"	"	Packings	Anchor Packing Co.	ROSM			Renewed for 1 year
					Garlock Packing Co.	"			"
668	"	"	"	Pyroxylin Finishes	E.I. duPont de Nemours	ROSM			Renewed for 1 year
669	"	"	"	Plating Generators	Chandeysson Elec. Co.	ROSM			Renewed for 1 year
670	"	"	"	Milling Cutters	Goddard & Goddard Co.	ROSM			Renewed for 1 year
671	"	"	"	Drill Jig Bushings	Ex-Cell-O Tool & Mfg. Co.	ROSM			Renewed for 1 year
672	"	"	"	Abrasive Paper & Cloth	Armour & Co.	ROSM			Renewed for 1 year
					Minn. Ming. & Mfg. Co.	"			"
					Carborundum Co.	"			"
					Behr-Manning Corp.	"			"
673	"	"	"	Adding Machines	General Office Equip. Co.	ROSM			Renewed for 1 year
674	"	"	"	Tools & Equipment	Michigan Tool Co.	ROSM			Renewed for 1 year
675	"	"	"	White Lead	National Lead Co.				Renewed for 1 year
676.	80	SSC	12/10/30	Cup Grease G-1-2-2½-5	Swan-Finch Oil Corp.	Req.			1 year from 1/1/31
677	80	SSC	12/10/30	Carburizing Boxes	Swedish Crucible Steel Co.	ROSM			1 year from 12/1/30
678	"	"	"	Cyanide-Sodium, Copper	Charles Hardy, Inc.	Req.			1 year from 1/1/31

Red

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679	80	SSC	12/10/30	Files	Heller Bros. Co.	ROSM			1 year from 1/1/31
680	"	"	"	Milling Cutters, etc.	Goddard & Goddard Co.	ROSM			1 year from 1/1/31
681	"	"	"	Renewable Fuses	Great Western Fuse Co.	ROSM			1 year from 1/1/31
682	"	"	"	Transmission Lubricants	White Star Refining Co.	Req.			1 year from 11/1/30
683	"	"	"	Fire Extinguishers	Amer. LaFrance & Foamite Co.	ROSM			Renewed
684	"	"	"	Tools & Equipment	Nat'l. Twist Drill & Tool Co.	ROSM			Renewed
685	"	"	"	Mimeograph Supplies	A. B. Dick Co.	ROSM			Renewed
686	"	"	"	Electric Controlling Devices	Cutler-Hammer Co.	ROSM			Renewed
687	81	SSC	2/10/31	Stellite	Haynes Stellite Co.				12 mos. from 3/1/31
688	82	SSC	3/17/31	Drills	Nat'l. Twist Drill & Tool Co. Amer. Twist Drill & Tool Co.	ROSM "			1 year "
689	"	"	"	Caustic Soda GM 1806-M	Dow Chemical Co.				
690	"	"	"	Soda Ash-GM-1801-M-1803M	Detroit Soda Prod. Co.				
691	"	"	"	Parco Powder & Bonderite	Parker Rust Proof Co.				
692	"	"	"	Factory Towels	Callaway Mills Inc.				
693	83	SSC	4/14/31	Blueprint & Brownprint Paper	Frederick Post Co.	ROSM			1 year from 5/1/31
694	83	SSC	4/14/31	Pencils, Erasers, etc.	Gregory-Mayer-Thom Co.				1 year
695	"	"	"	Die Sets	Gullberg Sales & Eng. Co.	ROSM			1 year

Green

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4873

7075

Item No.	Mtg. No.	Committee(1)	Date of Action	Product Contracted	Supplier	Portion of(2) Require	Kind of(3) Discount	Participation	Term of Contract
696	83	SSC	4/14/31	White Lead in Oil & Dry	National Lead Co.				Renewed
697	84	SSC	5/12/31	Chromic Acid GM 1816-M	Mutual Chemical Co.				1 year from 5/15/31
698	"	"	"	Miniature Lamps	Tung-Sol Lamp Co.	Req.			1 year from 6/1/31
699	"	"	"	Mazda Lamps	Mich.Div. G.E.Co.	Req.			1 year from 6/1/31
700	"	"	"	Oxygen & Acetylene	Air Reduction Sales Co.				1 year from 5/1/31
701	85	SSC	6/16/31	Rolls	Ditto, Inc.	ROSM			1 year from 7/1/31
702	"	"	"	Fittings	Alemite Corp.		Quantity		1 year from 7/1/31
703	"	"	"	Aluminum	Alum. Co. of America	"			Extended to 12/31/31
704	"	"	"	Scales	Toledo Scale Co.	ROSM			Renewed
705	"	"	"	Biscuits	Nat'l. Biscuit Co.				Renewed
706	"	"	"	Tubing	Bundy Tubing Co.	ROSM			Renewed
707	86	SSC	7/14/31	Locks & Parts	Briggs & Stratton	ROSM	Quantity		1 year from 7/1/31
708	"	"	"	Office Furniture	Shaw-Walker Co.	ROSM			Renewed
709	87	SSC	8/11/31	Gas Welding & Cutting Apparatus	Air Reduction Sales Co.				Renewed

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Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
1	4	GPC	3/14/23	Burlap		
2	5	GPC	4/17/23	Linoleum		
3	"	"	"	Insulating Materials		
4	"	"	"	Pyralin		
5	"	"	"	Name Plates		
6	"	"	"	Automobile Trunks		
7	"	"	"	Grease Cups		
8	"	"	"	Band Saws		
9	"	"	"	Battery Acid		
10	"	"	"	Welding Wire		
11	"	"	"	Fire Hose		
12	"	"	"	Lamp Bases		
13	"	"	"	Respirators		
14	"	"	"	Metal Pails & Buckets		
15	"	"	"	Brake Lining		Too special
16	"	"	"	Steering Wheels		Too special
17	"	"	"	Abrasive Wheels		
18	"	"	"	Neutral Transmission Locks		Too special

Red line signifies contract rejected of material available from du Pont.

Rd

Item No.	Mtg. No.	Committee	Date of Action	Product Rejected	Supplier	Remarks
19	5	GPC	4/17/23	Copper		
20	"	"	"	Brass		
21	6	GPC	6/6/23	Anodes - Copper, Nickel		
22	"	"	"	Flexible Metallic Conduit		Too many different sizes being used
23	"	"	"	Die Heads		No saving
24	"	"	"	Portland Cement		
25	"	"	"	Foundry Sand		
26	1	SSC	8/13/23	Bow Sockets		No saving
27	"	"	"	Wood Bows		
28	"	"	"	Forgings		No saving
29	"	"	"	Garage Supplies		
30	"	"	"	Power Plant Supplies		
31	"	"	"	Pumice		
32	"	"	"	Fans (Automobiles)		Too special
33	"	"	"	Pig Iron		Special requirements
34	"	"	"	Tripoli		
35	2	SSC	8/21/23	Loading Decks		
36	3	SSC	9/21/23	Machine Oil S-016		Small consumption

Red line signifies contract rejected of material available from du Pont.

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
37	3	SSC	9/21/23	Nails (Other than upholstry)		
38	"	"	"	Fluted Neck Bolts		
39	"	"	"	Hub Bolts		
40	"	"	"	Studs		
41	"	"	"	Dowel Pins - Chamfered Ends		
42	"	"	"	Dowel Pins - Square Ends		
43	"	"	"	Plain Escutcheon Pins		
44	"	"	"	N.P. Escutcheon Pins		
45	"	"	"	Straight Pins-Chamfered Ends		
46	"	"	"	Straight Pins - Square Ends		
47	"	"	"	Soft Steel Pins		
48	"	"	"	N.P. Cotter Pins		
49	9	GPC	9/27/23	Sheet Steel		
50	"	"	"	Copper Wire		No saving
51	10	GPC	10/25/23	Leather Substitute and Rubber Coated Fabrics		Cost plus unsatisfactory
52	"	"	"	Jacks		Various requirements
53	"	"	"	Springs - Chassis		

Red line signifies contract rejected of material available from du Pont.

Item No.	Mtg. No.	Committee	Date of Action	Product Rejected	Supplier	Remarks
54	10	GPC	10/25/23	Tanks - Gasoline		
55	"	"	"	Tool Kits		
56	"	"	"	Universal Joints		Too special
57	"	"	"	Valves - Motor		Too special
58	"	"	"	Wheels		
59	5	SSC	10/24/23	Sheets - Steel		No saving
60	"	"	"	Denatured Alcohol		
61	"	"	"	Carbide		
62	11	GPC	12/6/23	Fuel Oil		
63	5	SSC	12/5/23	Steering Wheels		
64	"	"	12/6/23	Seamless Steel Tubing		
65	"	"	"	Power Plant Oils		
66	"	"	"	Typewriters		
67	12	GPC	1/2/24	Steel - Alloy		
68	6	SSC	12/20/23	Loading or Shipping Blocks - Loading Decks		
69	7	SSC	1/3/24	Bolts - Step		No saving
70	"	"	"	Washers - Plain		No saving

Red line signifies contract rejected of material available from du Pont.

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
71	7	SSC	1/3/24	Pins - Taper		No saving
72	"	"	"	Screws - Lag		"
73	"	"	"	Bolts - Stove & Carriage		"
74	"	"	"	Bolts - Machine		"
75	"	"	"	Rivets - Plain Steel		"
76	"	"	"	Nuts		"
77	"	"	"	Screws - Machine		"
78	"	"	"	Screws - Wood & Drive		"
79	"	"	"	Pins - Cotter		"
80	8	SSC	3/7/24	Hospital Supplies		
81	"	"	"	Photographic Supplies		
82	"	"	"	Service Station and Dealers Signs		Too seasonal and special
83	7	SSC	2/21/24	Thread		
84		GPC	4/18/24	Chassis Springs		
85		"	"	Emery Paste		Too small
86		SSC	3/18/24	Sand Paper		
87	15	GPC	7/2/24	Paint Spraying Equipment and Supplies		

Red line signifies contract rejected of material available from du Pont.

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Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
88	10	SSC	7/1-2/24	Lock Washers		
89	"	"	"	Export Paper		No saving
90	"	"	"	Timing Gears		
91	"	"	"	Cutlery Tools		
92	11	SSC	9/4/24	Machine Oils - M-15 - M-26		
93	"	"	"	Transmission & Differential Lubricants A-9 - A-15		
94	"	"	"	Blending Oils S-9		
95	"	"	"	Motor Oils A-30 - A-030		
96	1	PA-EL.G.	10/29/24	Brass & Copper - Bars, Rods, etc.		
97	"	"	"	Terminal Leads		
98	"	"	"	All Other Wire		
99	"	"	"	Sheets for Armature & Field Core Laminations		
100	12	SSC	11/6/24	Tubular Rivets		
101	"	"	"	Tote Pans		
102	1	PA-E.G.	11/14/24	Coal		
103	"	"	"	Oils- All Kinds		

Red line signifies contract rejected of material available from du Pont.

[4880]

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
104	1	PA-E.G.	11/14/24	Acid - Sulphuric 66°		
105	"	"	"	Gages - Limit		
106	"	"	"	Boxes & Lumber		
107	"	"	"	Steels - All Kinds		
108	13	SSC	12/12/24	Acid		
109	"	"	"	Steel		
110	"	"	"	Bale Ties - Wire		
111	15	SSC	3/6/25	Westinghouse Products		
112	"	"	"	Oils, All Kinds		
113	16	SSC	4/1/25	Heat Insulating Materials		
114	"	"	"	Solder		
115	"	"	"	Addressograph, Stamp, & Multigraph Ribbons		
116	"	"	"	Cold Drawn Seamless Tubing		
117	"	"	"	Tire Carriers		
118	18	SSC	5/22/25	Cold Drawn Brass & Copper Tubing		
119	"	"	"	Ink		

Red

Red line signifies contract rejected of material available from du Pont.

Item No.	Mtg. No.	Committee	Date of Action	Product Rejected	Supplier	Remarks
120	19	SSC	6/23/25	Paper Towels in Packages		
121	"	"	"	Paper Towels in Rolls		Too small
122	20	SSC	9/23/25	Leather Belting		
123	"	"	"	Fire Extinguishers	Amer. LaFrance Fire Engine Co.	
124	"	"	"	Oakite	Oakley Chemical Co.	
125	21	SSC	11/9/25	Cleaning Materials	J. B. Ford Co.	
126	"	"	"	Toilet Paper in Packages	Sanitary Products Corp.	
127	"	"	"		Wagner Electric Co.	
128	22	SSC	12/9/25	Brass & Copper Tubing		Market conditions
129	23	SSC	1/28/26	Tags		
130	22	GPC	1/29/26	Ammeters - Anti-Squeak Ball Joints - Brake Drums Brake Lining - Bumpers-Metal Carburetors - Carpets & Mats Clutch Facings - Cotton Batts Curtain Fasteners -Cushion Springs Die Castings - Fans - Fan Belts Forgings - Gaskets Gasoline Gages - Gas Strainers Gas. Tanks - Grey Iron Castings Heaters - Head Lamps - Hub Caps Insulated Cable - Lubricating Fittings Main-Conn. Rod & Thrust Bearings Motormeters Oil Gages - Oil & Grease Guns		

Red line signifies contract rejected of material available from du Pont.

Item No.	Mtg. No.	Committee	Date of Action	Product Rejected	Supplier	Remarks
131	22	GPC	1/29/26	Oil Strainers - Radiator Filler Caps - Silent Chains - Snubbers - Stampings - Stop Lamps - Tires - Tire Pumps - Tool Kit Tools - Tubing Fittings - Valves - Washers - Windshields - Yoke Ends		
132	25	SSC	6/8/26	Cold Drawn Steel		
133	"	"	"	High Speed Tool Steel	Kuhn Company	
134	"	"	"	Oil Cans & Oil Can Holiers		
135	"	"	"	Toilet Paper in Rolls		Not sufficient requirements
136	27	SSC	7/13/26	Paints for Non-Productive & Maintenance Use		
137	"	"	"	Floor Paints		
138	"	"	"	Drawing Paper - Pencil Tracing Cloth - Tracing Cloth, Imperial - Vellum Paper		
139	28	SSC	7/23/26	Motor & Control Equipment	Fairbanks Morse & Co.	
140	"	"	"	Ross Dressers		
141	31	SSC	10/12/26	Carbon Paper		
142	"	"	"	Typewriter Ribbons		

Red

Red line signifies contract rejected of material available from du Pont.

[4883]

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
143	31	SSC	10/12/26	Elliott Fisher Rolls		
144	32	SSC	11/9/26	Goggles & Head Masks	Willson Goggles, Inc.	Small volume
145	"	"	"	Liquid Soap - 15, 20, 35%		
146	"	"	"	Sylphons		Various requirements
147	"	"	"	Lithographed & Engraved Name Plates		
148	"	"	"	Bundy Tubing		
149	33	SSC	12/14/26	Mimeograph Machines & Supplies	A. B. Dick Co.	
150	"	"	"	Hospital Supplies		
151	"	"	"	Carbon Tool Steel		Various requirements
152	"	"	"	Lockwashers	Shakeproof Lockwasher Co.	
153	34	SSC	1/18/27	Striping Materials & Thinners		Scattered requirements
154	"	"	"		Truscon Steel Co.	
155	"	"	"	Scales	American Kron Scale Co.	Too small
156	"	"	"	Steel Bins & Shelving		
157	35	SSC	1/26/27	Stationery Supplies		
158	36	SSC	2/8/27	Time Clock Cards		Varied requirements
159	"	"	"	Autographic Register Machines		Too small

Red

Red line signifies contract rejected of material available from du Pont.

Item No.	Mtg. No.	Committee	Date of Action	Product Rejected	Supplier	Remarks
160	38	SSC	4/12/27	Asbestos Products - Insulating Materials	Banrock Products Co.-Phillip Carey Co.-Johns-Manville, Inc.	Unfavorable proposals
161	40	SSC	6/28/27	Duco Thinner	U. S. Industrial Alcohol Co.	Prices too high
162	"	"	"	Drive, Machine & Wood Screws		
163	41	SSC	8/9/27	Westinghouse Products	Westinghouse Electric & Mfg.Co	No price advantage
164	"	"	"	Laundry Equipment	American Laundry Machinery Co.	
165	"	"	"	Carbon Paper & Typewriter Ribbons		Varied requirements
166	"	"	"	Denatured Alcohol		Too seasonal
167	42	SSC	9/30/27	Renewable Fuses		
168	"	"	"	Copper Asbestos Gaskets		No economy
169	"	"	"	Loading Decks		
170	"	"	"	Mailing Lists	R. L. Polk Co.	
171	43	SSC	10/11/27	Printed Forms		Varied requirements
172	"	"	"	Scales	Fairbanks Morse & Co.	Too small
173	"	"	"	Reamers, Standard & Special	Schellenback Hunt Tool Co.	Too small
174	"	"	"	Calculating Machines	Marchant Calculating Machine Co.	Too small
175	"	"	"	Strip, Sheets & Sheet Mill Products.	Columbia Steel Co.	Too small

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7088

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
176	43	SSC	10/11/27	Machines for Handling Gummed Tape		Too small
177	"	"	"	Alloy Steel - Hot & Cold Drawn Bars		Market conditions
178	45	SSC	12/8/27	Muslin Mailing Bags		
179	46	SSC	1/17/28	Tubular Rivets		
180	"	"	"	Bronze Bushings & Bearings		
181	"	"	"	Tung-Sol Miniature Lamps	Tung-Sol Lamp Works	Supplier unable to meet requirements
182	"	"	"	Gummed Tape in Rolls - Gummed Paper		Varied requirements
183	47	SSC	2/14/28	Self Tapping Screws	Parker-Kalon Co.	
184	"	"	"	Packing	Crandall Packing Co.	
185	"	"	"		McBee Binder Co.	
186	"	"	"	Cork Covering, Cork Lagging, etc.	Armstrong Cork Co.	Too small
187	"	"	"	Typewriters	Underwood Typewriter Co.	Unnecessary
188	"	"	"	Timing Chains		Too special
189	"	"	"	Automobile Jacks		
190	"	"	"	Sand Blast Hose		Too small

Red line signifies contract rejected of material available from du Pont.

[4886]

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
191	47	SSC	2/14/28	Machinery Enamels		
192	"	"	"	Chromic Acid		
193	"	"	"	Sponges		
194	"	"	"	Chamois Skins		
195	"	"	"	Tool Kits		
196	48	SSC	3/13/28	Transformers	Wagner Electric Corp.	
197	"	"	"	Gasoline Trucks & Tractors	Clark Trucktractor Co.	Too small
198	"	"	"	Shim Steel Stock		Too special
199	49	SSC	4/11/28	Pig Iron	Picands Mather & Co.	
200	"	"	"	Oil Tanks & Pumps	Wayne Co.	Too small
201	"	"	"	Piston Rings & Piston Pins	McQuay-Norris Mfg. Co.	Too small
202	"	"	"	Vacuum Tanks	Stewart-Warner Speedometer Corp.	
203	"	"	"	Anti-Freeze Material		Too special
204	"	"	"	Marking Devices		Insufficient volume
205	50	SSC	4/17/28	Nickel Anodes		
206	"	"	"	Fibre & Corrugated Paper Products, Including Boxes		

Red

Red

Red line signifies contract rejected of material available from du Pont.

[4882]

Item No.	Mtg. No.	Committee	Date of Action	Product Rejected	Supplier	Remarks
207	50	SSC	4/17/28	Machine Tools	Bullard Machine Tool Co.	
208	"	"	"	Ground Thread Taps	John Bath & Co.	
209	"	"	"	Motors	General Electric Co.	
210	"	"	"	Misc. Contractor's Equipment	Contractors Equipment Co.	
211	"	"	"	Adding Machine Paper	Burroughs Adding Machine Co.	
212	51	SSC	5/8/28	Fibre		
213	"	"	"	Carburetor Choke Assy.		
214	"	"	"	Oil Can for Shop Use		Too small
215	52	SSC	6/12/28	Vacuum Cleaners	Eureka Vacuum Cleaner Co.	
216	"	"	"	Automatic Pencils	Wahl Co.	No economy
217	"	"	"	High Speed Tool Steel		Varied requirements
218	"	"	"	Oil Soap GM 2252-M		
219	"	"	"	Tripoli GM 1606-M		
220	"	"	"	Rodine		
221	"	"	"	Tires for Maintenance Purposes		
222	"	"	"	Do/More Chairs	Do/More Chair Co.	
223	"	"	"	Motors, etc.	Allis Chalmers Co.	

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[4888]

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
224	52	SSC	6/12/28	Fire Extinguishers	Pyrene Mfg. Co.	
225	54	SSC	8/15/28	Renewable Fuses & Links		Varied preferences
226	56	SSC	10/9/28	Expansion Plugs		
227	"	"	"	Hub Caps		
228	"	"	"	Brake Lining		
229	"	"	"	Thermostats		
230	"	"	"	Yoke Ends		
231	"	"	"	Insulated Cable		
232	"	"	"	Packings for Water Pump Shafts		Varied requirements
233	"	"	"	Motors & Control	Westinghouse Electric & Mfg. Co.	
234	"	"	"	Friction Tape	Dryden Rubber Co.	
235	"	"	"	Motors & Control Equipment	Crocker-Wheeler Elec. Mfg.Co.	
236	"	"	"	Electric Motors	Howell Electric Motors Co.	
237	"	"	"	Sal Soda	Detroit Soda Products Co.	
238	"	"	"	Motors	Wagner Electric Corp.	
239	"	"	"	Dry Cells & Flashlight Batteries	Bright Star Battery Co.	

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70692

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
240	57	SSC	11/13/28	Motor Valves		
241	"	"	"	Dial Indicators, etc.	Federal Products Corp.	Too small
242	58	SSC	12/11/28	Welding Rod		
243	"	"	"	Steel Lockers		
244	"	"	"	Rem-Rand Products	Remington-Rand	
245	"	"	"	Shovels	Ames Shovel & Tool Co.	Insufficient volume
246	"	"	"	Woodworking Machines	J. Lee Hackett Co.	
247	"	"	"	Varnish & Oil Type Materials	E.I. du Pont de Nemours Co.	No savings
248	"	"	"	Gasoline Tank Caps		
249	60	SSC	2/12/29		Remington-Rand, Inc.	
250	61	SSC	3/21/29	Motor Oils		No savings
251	"	"	"	New Belting	Cleveland Oak Belting Co.	
252	"	"	"	Trailers	Lakewood Engineering Co.	
253	"	"	"	Detergent	Stuart Industrial Service	Not sufficient volume
254	"	"	"	File Guides	Alum. Co. of America	Not sufficient volume
255	62	SSC	4/11/29	Tubular & Split Rivets		

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[4890]

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
256	62	SSC	4/11/29	Misc. Maintenance Supplies, Platers & Polishing Supplies, Janitors & Safety Supplies, Furnace & Foundry Supplies, Misc. Non-Productive Materials		
257	"	"	"	Steel Shot		Too small
258	63	SSC	5/7/29	Nickel Salts-Single & Double		
259	"	"	"	Grease Fittings	Gresser Mfg. Co.	
260	"	"	"	New Ply Belting	F. J. Raniville Co.	Small participation
261	65	SSC	7/23/29	Steel Safes	Meilink Safe Co.	Not sufficient volume
262	66	SSC	8/13/29		Dumore Tap & Tool Co.	Insufficient participation
263	"	"	"		Gogan Machine Co.	Insufficient participation
264	"	"	"		John-Sons Gage Works	
265	"	"	"	Rosin Cleaner		
266	"	"	"	Mailing Machines	Postage Meter Co.	Insufficient participation
267	67	SSC	9/10/29	Gasoline Gages	King-Seeley Corp.	
268	"	"	"	Hose Clamps	Federal Tin Co.	
269	68	SSC	10/15/29	Corrugated Boxes		No advantage
270	"	"	"		American Optical Co.	Minimum prices obtainable regardless

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Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
271	69	SSC	11/13/29	Electric Suction Cleaners	National Super Service Co.	
272	"	"	"	Nickel Anodes	Hanson-Van Winkle-Munning Co.	
273	70	SSC	12/12/29	Lock Washers		
274	"	"	"	Cutters & Hobs	Illinois Tool Co.	
275	"	"	"	Rustless Iron or Stainless Steel		
276	"	"	"	Grinding Equipment	Hutto Engineering Co.	Too small
277	71	SSC	1/14/30	Hobs	Barber-Colman Co.	
278	"	"	"		Automatic Products Co.	
279	"	"	"		Youngstown Boiler & Tank Co.	Too small
280	"	"	"		Driver-Harris Co.	Too small
281	"	"	"	Stationery Supplies	Beecher-Peck & Lewis Gregory-Mayer-Thom Tower Bros.	
282	72	SSC	2/11/30	Standard Screw Parts		
283	"	"	"	Aluminum Spar Mixing Liquid		Too small
284	73	SSC	3/13/30	Texrope Drives	Allis Chalmers	
285	"	"	"	Files	Cleveland File Co.	
286	"	"	"	Bearing Metal	Frederickson Co.	

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Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
287	73	SSC	3/13/30	Liquid Soap GM-2253-4-5M		No advantage
288	74	SSC	4/8/30	Masking Tape		No general use
289	"	"	"	Waterproof Paper for Export Case Lining		No advantage
290	"	"	"	Abrasive Grits	Carborundum Co.	
291	"	"	"		Leeds & Northrup	
292	"	"	"	Standard Varnish Albron	Alum. Co. of America	Insufficient volume
293	"	"	"	Copy Holders	Error-No, Inc.	Insufficient participation
294	"	"	"	Adj. Thread Snap Gages, etc	Johnson Gage Works	Insufficient participation
295	75	SSC	5/13/30	Taps	Hanson-Whitney	
296	"	"	"	Wood Chock Blocks	Foshee Lumber Co.	
297	"	"	"		Cleveland File Co.	
298	"	"	"	Transformers	General Electric Co.	
299	76	SSC	6/18/30	Tires		Not advisable
300	"	"	"	Painted Surface Cleaner-GM-2404M		Requirements too small
				Metal Cleaner - GM-2408M		" " "
301	"	"	"	Anti-Squeak Material	L. H. Gilmer Co.	
302	"	"	"	Shelving-Steel		

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9602

Item No.	Mtg. No.	Committee	Date of Action	Product Rejected	Supplier	Remarks
303	76	SSC	6/18/30		Threadwell Tool Co.	Insufficient volume
304	"	"	"		Whitehead & Kales	Insufficient volume
305	77	SSC	8/12/30	Advertising Printing Contracts	Barnes Michigan Corp. Evans-Winter-Hebb, Inc. Thompson Printing Co. Ainger Printing Co. Wayne Colorplate Co. Michigan Electrotype and Stereotype Co. Northern Electrotype Co. Edwards & Deutsch Lithographing Co. Thos. P. Henry Co. Dick Short Co.	
306	78	SSC	9/16/30	Dole Compression Fittings		
307	"	"	"	Accessories such as: Cigar Lighters, Clocks, Outside Mirrors, Wind Deflectors, Spot Lights, etc.		
308	79	SSC	10/21/30	Punch Press Machinery and Equipment	Toledo Machine & Tool Co. Hooven-Owens-Rentschler Co.	
309	"	"	"	High Tension Cable		
310	"	"	"	Socket Wrenches		
311	"	"	"	Mouldings		
312	80	SSC	12/10/30	Chassis Frames	A. O. Smith	

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Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
313	80	SSC	12/10/30	Portable Electric Tools		
314	"	"	"	Leather Products - Gloves & Aprons		
315	"	"	"	Asbetos Products - Mittens & Aprons		
316	"	"	"	Rubber Products - Hose of Various Specifications		
317	"	"	"	Electric Trucks & Tractors		
318	"	"	"	Ready Power Units		
319	"	"	"	Steel Pens & Penholders		
320	"	"	"	Woodworking Machinery		
321	81	SSC	2/10/31		Jam Handy Picture Service	
322	"	"	"	Socket Wrenches	Snap-On Wrench Co.	
323	"	"	"	Ventilating & Heating Units	York Heating Co.	
324	"	"	"	Striping Brushes	Gem Striper Co.	
325	"	"	"	Trailers & Hand Trucks	Mercury Mfg. Co.	
326	82	SSC	3/17/31	Window-Glass-Maintenance		Varied requirements
327	"	"	"	Wire Rope-Maintenance		

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20398

Item No.	Mtg. No.	Com-mit-tee	Date of Action	Product Rejected	Supplier	Remarks
328	83	SSC	4/14/31	Cutting Machines	Eastman Machine Co. J. B. Gury Co.	
329	"	"	"	Rosin Metal Cleaner GM 2403M	Detroit Soda Products Co.	
330	"	"	"	Platers' Cleaner GM 2410M	J. B. Ford Sales Co.	
331	"	"	"	Metal Cleaner GM-2401-M	Blockson Chemical Co.	
332	"	"	"	Tanks & Pumps	S. F. Bowser Co.	
333	85	SSC	6/16/31	Tying Wire	Gerrard Co.	
334	"	"	"		Lincoln Electric Co.	
335	86	SSC	7/14/31	Tire Chains	Pyrene Mfg. Co.	
336	"	"	"	Fuel Oil		
337	"	"	"	Friction Tape GM-658M		
338	"	"	"	Fibre Rod - Sheet - Tube		
339	"	"	"	First Aid Supplies and Pharmaceuticals		
340	"	"	"	Transformers	General Electric Co.	
341	87	SSC	8/11/31	Anti-Freeze Methanol	E. I. du Pont	No price advantage
342	"	"	"	Washing Machines	G. S. Blakeslee & Co.	

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[4896]

Defendant's Exhibit (GM) No. 156

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
ILLUSTRATIONS OF CONTRACTS PRODUCING SAVINGS

General Purchasing Committee Minutes, June 6, 1923, page 2.
Unfinished business:-Reports on:-
(i) Carbon Paper)
(j) Typewriter Ribbons)

Report from Mr. Nobes of Buick Motor Company who has been conducting study of these two items for General Purchasing Committee recommending that General Motors standardize on a 7 lb. no-smutting Carbon Paper at a price of approximately $4.00 per thousand and recommending the adoption of a 290 count ribbon for general use at approximately $45.00 per gross, and a 304 count ribbon for billing purposes at $54.00 per gross received.

Decided that Secretary would send to Divisions, or have them order direct, a box of M. B. Cook Company's Beaver Brand H750, for trial with statement that this paper was being used throughout the Buick Motor Company and that upwards of $20,000.00 could be saved to General Motors through this standardization.

It is desired to be able to offer one or more competitive makes of equal quality and price, and to also offer a higher grade of paper where same is considered to be necessary for special work.

Progress report.

General Purchasing Committee Minutes, August 30, 1923, page 2.
Reports on Studies by Factory Section:
(a) Insulated Cable.

As previously reported GMC standard specifications have been accepted by Chevrolet, General Motors Truck, Oakland, and Olds. Factory Section reports that careful study of the Buick requirements has been completed and recommendations placed before their Engineering and Purchasing Departments. That on starter cable, standard spark plug terminals, and high tension ignition cable savings in prices through the adoption of the standards are indicated amounting to about 27¢ per car. Mr. DeWaters has taken the suggested changes under advisement and sample cables for wiring of experimental cars have been delivered to him. No further report on Cadillac.

General Purchasing Committee Minutes, March 7, 1924, page 2.

Reports on Studies.

(d) Car Frames.

Modification of contract with A. O. Smith Corporation has been approved and signed. Mr. Allen submitted a report showing that credit memorandum from A. O. Smith covering the additional discount of 18% for period from September 1, 1923 to January 31, 1924 amounting to $212,821.92 had been received. He estimates that additional savings to accrue from February 1 to July 1, 1924, based on present production schedules would amount to $269,072.97. On the same schedule basis a refund of $22,000.00 being the excess above tool costs allowed will issue, making the total saving for the ten months period of $503,894.89.

General Purchasing Committee Minutes, March 7, 1924, page 5.

The Committee is convinced that the use of GMC specifications and the making of general contracts for oils are effecting worth while savings for Divisions. In cases where only one Division uses a specified oil no general contract is made but the contract proposal prices will be forwarded to that Division for use in making its own purchases.

General Purchasing Committee Minutes, February 19, 1925, page 3.

General Matters.

(c) Battery Terminal Standardization.

Ground connections made of laminated copper strip have been adopted by all divisions except Buick at an indicated saving of $15,000.00 per annum. Buick have found certain reasonable objections to the use of this connection. It is hoped that their objections may be overcome as there is an indicated saving to Buick of $12,000.00 per year.

General Purchasing Committee Minutes, June 24, 1925, page 1.

General Matters.

(b) General Contracts for Advertising Printing.

Secretary announced that general contracts with Evans-Winter-Hebb, Inc. of Detroit for a minimum of one million dollars, and The Flint Printing Company for a minimum of three hundred fifty thousand dollars of advertising printing per year, for period of five years from date of June 1st, 1925, subject to cancellation on June 1st of any year upon one year's written notice, had been concluded and divisions in the Michigan District were now participating in these contracts. The Flint Printing Company will accept orders for form printing under its contract, at the contract rates.

The Printing Department of the Executive Secretary's Staff has been established to co-operate with the divisions in utilizing these contracts to the fullest extent. It is indicated that the savings under these contracts will aggregate $250,000.00 per year.

Standing Sub-Committee Minutes, January 28, 1926, page 2.
General Matters.
(a) Diamonds.
Purchase Contract Investigation Section suggested that if they be authorized to purchase from 1000 to 1500 karats at a time a saving of approximately $3.00 per karat could be effected. With two exceptions, all divisions are securing their diamond requirements through this Section. 1925 purchases aggregated over $100,000.00. Authority granted to purchase from 1,000 to 1,500 karats at a time where above savings can be effected.

Standing Sub-Committee Minutes, March 15, 1927, page 2..
General Matters.
(j) Tags.
Item (a) page 1 of minutes of meeting of January 28, 1926. Copies of contract proposals together with typical exhibit of tag sizes and stocks were forwarded to divisions and attention called to economy of standardization. Recent check-up discloses that Chevrolet has saved in 1926, $6,169.80 by standardization of tags, and indicated that if A. C. Spark, Armstrong, Brown-Lipe-Chapin, Cadillac, Delco-Light, Harrison, Inland, Muncie, Oakland, Olds, Remy, Saginaw, United Motors and General Motors Detroit standardized so that general contract could be made, an additional $6,108.00 could be saved. Committee believes that a general contract will not produce these savings unless standardization is first effected.

Standing Sub-Committee Minutes, December 11, 1928, page 3.
General Matters.

(w) Automatic Products Co. Contract - Brief 524.
Letter calling attention to participation under above contract noted. Purchases to date are at the annual rate of $1,250,000., which will earn us a rebate of about $25,000. Had an additional $550,000 been placed, the additional rebate would have been $65,000. - equivalent to about 12% reduction on this amount of business.

Standing Sub-Committee Minutes, August 15, 1928, page 1.
General Matters.

(d) Air Reduction Sales Co.
Purchase Contract Section reported that for 11 months ending July 31, 1928, average monthly oxygen consumption 664,812 cu. ft. The old contract would have expired August 31st and were the average monthly consumption during the 12 months ending that date 700,000 cu. ft., we would have received a rebate of about $1,500 on acetylene consumed during the 8 months of the old contract cancelled April 30th. Secretary was instructed to advise Chevrolet - Flint, and Fisher Body of the savings to be effected through average monthly consumption of 700,000 cu. ft., requesting their cooperation in effecting this saving.

E

Defendant's Exhibit (GM) No. 157

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
EFFORTS TO DETERMINE SAVINGS
THROUGH WORK OF PURCHASING COMMITTEE

General Purchasing Committee Minutes, July 2, 1924, page 3.

Miscellaneous Matters.

(d) Savings on General Contracts.

In order to justify the existence of the committee the determination of savings effected through the making of general contracts authorized by the committee is required. The following classified methods of computing savings were approved for use by the Purchase Section.

1 - Savings resulting from general contracts on sliding scale of discount basis.
(These would include contracts such as our present fuse contract where the discount increases with each thousand dollars of purchases made and where obviously the lumping of our purchases increases the amount expended.)

The quantity bought by divisions being known the savings can be easily computed.

2 - Savings resulting from quantity buying.
(Where prices vary inversely with quantities or tonnages.)

General contract prices compared with prices being paid by divisions at time general contracts were made, determine the savings.

3 - Savings resulting from the making of general contracts for items which have been substituted in kind or by specification as a result of study, for those previously used by divisions.
(Prices being paid by divisions at time of beginning of study or development compared with general contract prices determine the savings.)

4 - Savings resulting from the effect of agitation in the field of competitive supply through studies, development of general contract proposals, or other activities of the Committee though general contracts are not made.

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5 - Losses resulting from the making of general contracts.
(It is possible, although unlikely, that after general contracts are made, the terms of which might be unalterable, market conditions might change so that lower prices in the open market might be available.)

Downward revision of prices on general contracts already existing are to be included in the same class in which the saving was originally recorded.

The computed savings are to be approved by the Standing Sub-committee before being officially recorded.

Standing Sub-Committee Minutes, June 23, 1925, page 3.
General Matters.
(b) Savings Under General Contracts - Calendar Year 1924.
Tabulated savings effected through making of general contracts for calendar year of 1924, approved by divisions as having been made, aggregate $758,286.01. There are some items of indicated savings which were not approved by divisions which the Sub-committee intended to deal with at this meeting but which, for lack of time, are carried over to the next meeting.

The above amount represents ACTUAL savings and no indirect or intangible savings, effected through the operations of the committee, are included.

General Purchasing Committee Minutes, June 17, 1926, page 3.
General Matters.
(7) Savings Under General Contracts for 1925.
Secretary reported that actual savings under general contracts through participation by divisions, netted tangible savings as approved by divisions as having made for them during 1925 in amount of $1,359.310.24. It is the belief of the committee that the indirect and intangible savings aggregate a very large sum.

Standing Sub-Committee Minutes, March 15, 1927, page 3.
General Matters.
(1) Participation in Quantity Discount Contracts.

To keep Purchasing Agents informed of participation in quantity discount contracts so as to insure our getting the maximum possible discounts, committee ordered that there be published in the minutes of the Standing Sub-committee the participation in such contracts by quarters of the calendar year.

Standing Sub-Committee Minutes, March 15, 1927, page 3.
General Matters.
(n) Distribution of Credits and Refunds - Account of Participation in General Contracts.
It was ordered that in distributing credits and refunds to divisions who participated in general and quantity discount contracts carrying refund provisions, that those divisions receiving no credits should be notified by Committee Letter that they are receiving no credits account of non-participation.

General Purchasing Committee Minutes, April 12, 1927, page 4.
General Matters.
(j) 1926 Savings.
Secretary submitted report showing that participation in general contracts authorized by the committee resulting from the support given by the Purchasing Agents of divisions, had effected savings to the Corporation for the year 1926 in excess of $3,000.000.00. These savings were calculated in the manner approved by the Purchasing Agents during the past three years and are believed to be very conservative.

Standing Sub-Committee Minutes, October 9, 1928, page 2.
General Matters.
(n) Performance of Quantity Discount Contracts.
Agreed that 90 days prior to the expiration of quantity discount contracts Purchase Contract Investigation Section will, by letter, advise all divisions of the discount earned to that time, drawing attention to additional volume of business required to earn further discounts, all with a view to gaining the maximum possible quantity discount under the contract.

Defendant's Exhibit (GM) No. 158

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
TWO-SOURCES-OF-SUPPLY QUESTION

Plan for Co-ordination of General Motors Purchases, Corrected to December 1, 1922, page 8.

9. One of the most important considerations that not only the General Purchasing Committee and the Purchase Section, Advisory Staff, but other Staff Sections co-operating with same must determine is the ability of a source of supply to assume an obligation that might be placed with such source, having in mind the ability of that source to comply with delivered requirements. Manifestly, it is essential in order to capitalize to the fullest possible extent the Corporation's purchasing power, all as outlined in this program, that same should be centralized in a limited number of places and in as big units as possible and conversely, it must be recognized that in capitalizing the purchasing power in that manner, a liability is created to the degree that the supplier assuming the obligation may not be able to comply with same.

General Purchasing Committee Minutes, January 2, 1924, page 1.

Miscellaneous Matters.

(c) For the purpose of enabling Divisions to keep in touch with sources of supply and to be in a position to feel out the market at any time and to encourage best possible service on part of contractor it was agreed that as regular procedure general contracts would read to cover not more than 80% of General Motors requirements of any item. Divisions will be required to take the percentage for which they are committed regardless of whether or not more favorable terms are offered on the open amount as it is believed that it is chiefly through the existence of general contracts that better prices on open amounts are frequently offered to Divisions.

Standing Sub-Committee Minutes, November 9, 1926, page 1.

General Matters.

(a) Revision of Pig Iron Contract.
Existing contract with M.A. Hanna Company which expires January 1, 1931 provides for a minimum quarterly tonnage of 15,000 tons and a maximum quarterly tonnage of 22,500 tons. Contractors

have informed us that they are prepared to take care of our entire requirements for 1927 estimated at from 150,000 to 200,000 tons and that they would undoubtedly favor revising the contract to a requirements contract.

After discussing the matter it was agreed that although the terms of the Hanna contract had, during the past two years, proved very favorable, we should seriously consider having two sources of supply for this important item.

Secretary was instructed to develop with other pig iron suppliers proposals for supplying our requirements in excess of the minimum specified under the Hanna contract.

Standing Sub-Committee Minutes, April 12, 1927, page 2.
General Matters.
(h) Machinery and Equipment.
The manner of our purchasing machinery and equipment was thoroughly discussed. It was the concensus of opinion that the Purchasing Departments were permitted practically no leeway in making such purchases and that usually the specifications from the Master Mechanics and Works Engineers' Department excluded competition. The Sub-committee records emphatically it's belief that competitive prices should be secured on all machinery and equipment, and recommends to the Works Managers that in the selection of such items the Purchasing Departments be given at least a second choice in developing prices and conducting negotiations for purchases.

Standing Sub-Committee Minutes, February 11, 1930, page 1.
General Matters.
(b) Milling Cutters and Hobs.
Records indicate total requirements of over million dollars annually. At present time we have a volume discount agreement with Goddard and Goddard Company, and a similar arrangement has been authorized with Michigan Tool Company. The former specializes on Milling Cutters and the latter on Form Cutters and Hobs. It was deemed advisable to develop a second source on milling cutters. With this line-up divisions will have two quantity discount sources on Milling Cutters and one specializing on Form Cutters and Hobs. Divisions are urged, however, to develop the competitive situation thoroughly on all requirements.

Defendant's Exhibit (GM) No. 159

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
ILLUSTRATIONS OF TWO SOURCES OF SUPPLY

General Purchasing Committee Minutes, January 4, 1923, page 2.

Unfinished Business Considered.

(f) Revised Program for Purchase of Steel Requirements.

Action: Approval of allotments as follows:

Carbon Steel Bars in Commercial and Special Forging Steels:

70%	total requirements	105,000	Tons	Carnegie Steel Company
15%	" "	22,500	"	Cambria Steel Company
15%	" "	22,500	"	Open to Divisions

General Purchasing Committee Minutes, April 17, 1923, page 2.

Report on General Contract Proposals, ordered developed at Meeting of March 14, 1923.

(d) Brass and Copper - Sheets and Rods - Heavy Tubing.
(Summary of Contract Proposals submitted.)
Decided to award contract for 75% of requirements to Dec. 31, 1923 to American Brass Company, and 25% to Michigan Brass and Copper Company.

Standing Sub-Committee Minutes, September 21, 1923, page 4.

General contract proposals with the suppliers listed together with the percentages of General Motors requirements noted, were accepted.

(j) Step Bolts.

Kirk-Latty 75% of G.M. requirements.
Berry Brothers 10% of G.M. requirements.
Columbus Bolt 15% of G.M. requirements.

Standing Sub-Committee Minutes, December 20, 1923, page 5 of Minutes of General Purchasing Committee of January 2, 1924.

Miscellaneous Matters.

(b) Leather

The contract concluded with General Leather Company for a two year period commencing January 1, 1924 was discussed.

Referring to the second paragraph, page 2, the agreement to purchase at least 75% of leather requirements from General Leather Company was approved.

Referring to the third paragraph, page 2, the question was raised as to what was meant by "reasonably in advance". The Secretary was requested to have General Leather Company inform the Committee concerning this.

Referring to fourth paragraph, page 2, it was agreed that our interest would be best served if quotations on 100% of the proposed orders were secured by the Divisions instead of on 25% of such proposed orders. It was further agreed that competitive prices might reasonably be furnished to General Leather Company but that the names of the bidders should be withheld until after the business were placed, subsequent to which information in full may be given concerning the competitive bidders.

Standing Sub-Committee Minutes, September 21, 1923, page 7.

Miscellaneous Business.

(g) Coal.

Prices from Bertha-Consumers Company for period of from September 1, 1923 to April 1, 1924 for 60% of General Motors requirements as follows were authorized.

Slack	2.50
Run of Mine	2.75
Egg, 3/4", & Lump	3.25

General Purchasing Committee Minutes, January 2, 1924, page 1.
Miscellaneous Matters.
(a) Steel.
Action of Standing Sub-committee in awarding contract to Carnegie Steel Company for 80% General Motors requirements of carbon steel was approved. No other contracts for carbon steel were awarded. No contract for alloy steels were awarded. Divisions to purchase independently.

Prices offered on general contract proposals on alloy steels by Crucible Steel, Bethlehem, and Donner were more favorable than those offered by either United Alloy or Central.

Copies of summaries of general contract proposals are being forwarded to Divisions.

Standing Sub-Committee Minutes, July 1 & 2, 1924, page 9 of Minutes of General Purchasing Committee of July 2, 1924.
General Contracts Authorized.
(e) Cap Screws.
Contract for milled from bar cap screws only authorized for six months from July 1, 1924 as follows:
80% of General Motors requirements to Automatic Products Company
20% of General Motors requirements open to divisions.

Standing Sub-Committee Minutes, June 8, 1926, page 1.
General Contracts Authorized.
(d) Carbonizing Compounds. GM-2001-M - 2002-M - 2003-M Special - Hyatt L4.
Contract with E. F. Houghton Company for 80% of General Motors requirements of these items authorized for six months from July 1, 1926. Divisions will try out carbonizing compound made by Char Products Company, Indianapolis, Indiana.

General Purchasing Committee Minutes, April 12, 1927, page 2.
General Matters.
(d) Pig Iron.
The maximum quarterly tonnage available under existing contract with M. A. Hanna Company is 22,500 tons. In view of our annual requirement in excess of 90,000 tons per year, it was agreed that a second source of supply is desirable although the contractor has established his facilities for supplying in excess of

150,000 tons. It was also agreed that contract with a second source for our requirements in excess of 90,000 tons per year but not to exceed 50,000 tons per year should be awarded and that the second source be Picands Mather & Company, Cleveland, Ohio.

Standing Sub-Committee Minutes, June 28, 1927, page 3.
General Contracts Authorized.
(c) Acetylene & Oxygen.
General contract for 75% of General Motors requirements for period of one year from July 1, 1927, with Air Reduction Sales Company.
General contract for 25% of General Motors requirements for period of one year from July 1, 1927 with Wall Brothers (Flint, Mich.).
Requirements of divisions who will participate in Wall Brothers contract to be ascertained by Secretary.

Standing Sub-Committee Minutes, November 8, 1927, page 1.
General Contracts Authorized.
(d) Friction Tape.
General contract for 80% of General Motors requirements of General Motors Specification G.M. 658-M with the Dryden Rubber Company for one year from January 1, 1928. This contract also includes sliding scale of quantity discount provision.

Standing Sub-Committee Minutes, June 12, 1928, page 3.
General Contracts Authorized.
(k) Soda Ash, 58%, GM 1801-M.
Soda Ash, Fluffy, GM 1803-M.
General contract for 80% of General Motors requirements for one year from July 1, 1928 with The Solvay Sales Corporation, if they equalize prices in carload lots.

Defendant's Exhibit (GM) No. 160

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
THE PROBLEM OF SECRECY, KEEPING PRICES CONFIDENTIAL

Proposed Plan for Co-ordination of General Motors Purchases, May 8, 1922, by A. P. Sloan, Jr., page 5.

Method of Procedure.

4. In the case of contracts calling for rebates at the end of the month for the purpose of protecting prices or for any other purpose, such rebates should be handled by the Purchase Section, Advisory Staff, as might be worked out in each individual case and all such rebates would be credited through the General Office to the Division at the end of every month, not specifically but as a general sum. This would be desirable because to get the benefit of the lowest possible price objections are some times made on the part of the suppliers in disclosing that price. In this way the Divisions would get the full benefit of the reduced price by taking the adjustments as other income. While that method would, to a certain extent develop an incorrect cost of sales, the errors would be very small and such a method would be better probably than to deal with each individual item separately. In the event that the price made to the Corporation on any special contracts was an open one, the Purchase Section of the Advisory Staff would have no duties to perform after having effected the contract in question.

Plan for Co-ordination of General Motors Purchases, Corrected to December 1, 1922, by A. P. Sloan, Jr., page 8.

Method of Procedure.

7. In the case of contracts calling for rebates for the purpose of pretecting prices or for any other purpose, such rebates should be handled by the Purchase Section, Advisory Staff, so far as records are concerned. All such rebates should be credited through the General Office to the Operations entitled to same at the end of each month, not specifically but as a general sum. This would mean that each Operation would get the benefit of the Corporation price and further, that the initial billing would be the lowest possible price that any Operation individually was able to obtain. This procedure is considered desirable because to get the benefit of the lowest possible price objections are some times made on the part of suppliers in disclosing that price. While this method would, to a certain extent, develop an incorrect cost of sales, the errors would be very small and it is believed preferable to deal in this manner than with each individual item separately. In the event that the price made to the Corporation on any special contract was no lower than the best price accorded any Operation, the Purchase Section, Advisory Staff, would have no duty to perform after having effected the contract in question.

General Purchasing Committee Minutes, January 4, 1923, page 1.
Unfinished Business Considered.
(a) Question of Confidential Rebates.

Action: Deferred until specific case is presented.

General Purchasing Committee Draft of Proposed Circular Letter to Purchasing Agents, June 12, 1923, page 4.
12. Confidential Nature of Information.

In the distribution of Contract Briefs, and particularly regarding the information to be contained in the Monthly Circular Letters from the Committee, care must be taken to insure that the information contained therein is held confidential.

General Purchasing Committee Minutes, August 2, 1923, page 1.
Policies and Procedure.
(d) The matter of allowing competitive bidders to meet each others prices.

This subject was brought up for discussion with the view to setting up a policy for General Motors that would receive executive approval and contemplates assurance to bidders that prices would not be disclosed to competitors. The committee agreed that this policy is desirable and that they would support it but that it would be unwise to announce such a policy and not fully carry it out, this being doubtful of accomplishment.

(e) Disclosing of prices covered by General Motors contract.

Attention of the committee was called to indications that prices and terms contained in contract briefs distributed to divisions have in some cases been disclosed to competitors for the purpose of independently securing lower prices. It was agreed that such practices would hamper the work of the committee and the chairman was authorised to write a letter to purchasing agents insisting upon participation in General Motors contracts and dealing with the disclosing of prices on contract briefs and negotiating for purchase of items covered by contract briefs.

Co-ordination of Purchases (revised to September 1, 1923, page 12.
Method of Procedure.

11. Contract Rebates

In the case of contracts calling for rebates for the purpose of protecting prices, or for any other purpose, such rebates will be handled by the Purchase Section, Advisory Staff, so far as records are concerned. All such rebates will be credited through the General Office of the Corporation to the Operations entitled to them, at the end of each month - not specifically, but as a general sum. This means that each Operation will get the benefit of the Corporation's price and further that the initial billing will be the lowest possible price that any Operation individually is able to obtain. This procedure is considered desirable because to get the benefit of the lowest possible price, objections are sometimes made on part of suppliers in disclosing that price. While this method will to a certain extent develop an incorrect cost of sales, the errors will be very small and it is preferable to deal in this manner than with each individual item separately. In the event the price made to the Corporation on any special contract is no lower than the price accorded any Operation, then the Purchase Section, Advisory Staff, will have no duty to perform after having effected the contract.

General Purchasing Committee Minutes, October 25, 1923, page 2.
Miscellaneous Matters.
(d) Confidential Nature of Matters Treated at Meetings.

There are indications that decisions regarding matters discussed at meetings of the Committee and set forth in the minutes have been communicated to suppliers. It was agreed that the Chairman would write a letter to all Purchasing Agents instructing them to use every safeguard in the use and distribution of the minutes to insure the contents being treated as confidential.

General Purchasing Committee Minutes, July 2, 1924, page 2.
Miscellaneous Matters.
(c) Participation in General Contracts.

* * *

Attention was drawn to Mr. Sloan's letter of August 8, 1923, dealing with the subject which read as follows -

* * *

FIRST: No Division is permitted to disclose prices on which general contracts are based, nor any special terms or conditions incident to said contracts, to any source whatsoever outside said Division.

General Purchasing Committee Procedure (revised October 1, 1924), page 7.
Method of Procedure.

Contract Rebates

In the case of contracts calling for rebates for the purpose of protecting prices, or for any other purpose, such rebates will be handled by the Committee's Executive Secretary, so far as records are concerned. All such rebates will be credited through the General Office of the Corporation to the Operations entitled to them, at the end of each month - not specifically, but as a general sum. This means that each Operation will get the benefit of the Corporation's price and further that the initial billing will be the lowest possible price that any Operation individually is able to obtain. This procedure is considered desirable because to get the benefit of the lowest possible price, objections are sometimes made on the part of suppliers to disclosing that price. While this method will to a certain extent develop an incorrect cost of sales, the errors will be very small and it is preferable to deal in this manner than separately with each individual item.

General Purchasing Committee Minutes, November 30, 1927, page 2.
General Matters.

(e) Participation in Quantity Discount Contracts.

Secretary pointed out that quantity discount contracts were serving to level the prices of items covered by such contracts to the prevailing prices less the anticipated discounts because competitive suppliers either knew or suspected the percentage of quantity discount applying and figured their bids accordingly, or were permitted to meet the contractors price less the anticipated discount and the results are that some contractors formerly holding quantity discount contracts, have stated their inability to renew such contracts because of the lower level of prices established as a result of quantity discount contracts. The matter of our ability to keep quantity discounts confidential (within the Committee) and expect the divisions to support and participate in contracts carrying such confidential discounts, was discussed. Some large suppliers have agreed to offer confidential discounts on the above basis, the discounts to be distributed to divisions at given periods without disclosure of the sources. This procedure is not endorsed by the Committee but the question of gaining any advantage which our volume buying makes available to us is of such importance that it was agreed that the matter be carried over to the next meeting for further consideration.

General Purchasing Committee Minutes, March 28, 1928, pages 1, 2 and 3.
General Matters.
(b) Can We Undertake to Keep General Contract Prices Confidential?
Item e, Page 2 Minutes Meeting November 30, 1927.

It was agreed that prices and terms of all general contracts should be available to the Chief Purchasing Officer of each division. It is established that in his discretion, for the proper functioning of his department, he may disclose such prices to assistants or buyers. Therefore, in view of the number of individuals to whom general contract prices may be disclosed, it is not consistent that suppliers be given to understand that their general contract prices may not be disclosed to outsiders.

It is established that divisions individually can give assurance to suppliers that prices can be held confidential. Through this undoubtedly some divisions, particularly large consumers, secure certain price concessions which may not be available to the smaller divisions. Notwithstanding the above decision, the necessity for respecting the confidential nature of general contract prices is emphasized, and even where such prices apply to non-exclusive contracts they should not be disclosed in any negotiations for purchases from competitive sources.

Standing Sub-Committee Minutes, December 12, 1929, page 1.
General Matters.
(b) Confidential Prices.

The suggested plan offered as a partial solution of the above much discussed subject considered, but again Committee feels any plan prohibiting our Purchasing Departments from having the full details of a contract is not feasible.

Defendant's Exhibit (GM) No. 161

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
DEVELOPMENT OF QUANTITY DISCOUNT IDEA

Minutes of meeting of Purchasing Agents, Electrical Group, General Purchasing Committee, October 29, 1924, page 1.

The Secretary of the General Purchasing Committee outlined the policies and procedure of the Committee, explaining that on account of the diversity of effort it were necessary to form group meetings in order to properly consider the coordination of purchases of items, particularly concerning such groups; that on account of the large quantities of several items appearing on the program purchased individually by members of the group, better prices may not be expected as a result of a coordination of such purchases, but that efforts would be made to arrange with certain suppliers to apply cumulative quantity discounts, i.e. that regardless of the prices paid for the commodities supplied on any orders over a given period, a sliding scale of quantity discounts would be applied at the end of the period and refunds given. This problem confronts the General Purchasing Committee with regards to many of the commodities to be dealt with, and persistent efforts to capitalize our quantity buying along these lines will be made.

Minutes of meeting of Purchasing Agents, Electrical Group, General Purchasing Committee, October 29, 1924, page 4.

The following item was taken up for discussion:

4. Magnet Wire.

Inasmuch as the sources patronized by the three divisions had at least three in common, Belden Manufacturing Company, Duldo Manufacturing Company, and Rome Wire Company, it was believed that this item could be profitably studied to determine, first, whether differentials from base price of copper could be set up applying to same, and, second, whether arrangements could be made with any of the suppliers to have them apply a cumulative quantity discount. Mr. Armstrong was appointed a sub-committee of the General Purchasing Committee to conduct this study and report at the next group meeting as to the possibilities of coordination of purchases.

Minutes of meeting of Purchasing Agents, Electrical Group, General Purchasing Committee, October 29, 1924, page 4.

The following item was taken up for discussion:

5. Terminal Leads.
All three divisions purchase their requirements from Beldon Manufacturing Company. Due to variable requirements the coordination of purchases was not considered practicable. Delco and Remy will check prices with each other. Matter of establishing cumulative quantity discounts will be taken up.

Minutes of Purchasing Agents - Eastern Group, General Purchasing Committee, November 14, 1924, page 2.

The following item was taken up for discussion:

9. Miscellaneous Electrical Supplies.
Secretary pointed out that with the coming development of large lamp contract it might be possible to interest Western Electric Company to offer us attractive discounts on all items classed under this heading; that this company was well equipped for service on account of large number of branches and warehouses suitably located with respect to divisions; that the possibility of also having cumulative quantity discount applying on such purchases was likely. It was agreed that this development would be constructive and susceptible of co-ordination.

General Purchasing Committee Minutes, November 20, 1924, page 2.

General Matters.

(f) Group Meetings.
Secretary reported that meeting of the Electrical Group was held in Dayton on October 29 and of the Eastern Group in New York on November 14th. Copies of the minutes of all group meetings will be sent to members of the general committee.
A point of general interest elaborated upon at the meeting in Dayton was the possibility of having suppliers agree to some cumulative quantity discount to be applied particularly in cases where there would be no price advantage alone in the co-ordination of purchases. This effort has already borne fruit in some cases and other cases are under negotiation. Wherever possible this provision will be included in general contracts.

General Purchasing Committee Minutes, June 17, 1926, page 2.

General Matters.

(2) Application of Sliding Scale of Quantity Discounts to Purchases of Equipment.

It was agreed that effort could be profitably exerted along this line and members of the committee will submit to the Secretary list of sources of supply of machinery and equipment whose aggregate sales to divisions during the past year were in sufficient volume to warrant attempting to secure quantity discount proposals from them.

Defendant's Exhibit ~~(GM)~~ No. 162

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
ILLUSTRATIONS OF QUANTITY DISCOUNT CONTRACTS

General Purchasing Committee Minutes, July 2, 1924, page 3.

Miscellaneous Matters.

(d) 1.- Savings resulting from general contracts on sliding scale of discount basis. (These would include contracts such as our present fuse contract where the discount increases with each thousand dollars of purchases made and where obviously the lumping of our purchases increases the amount expended.) The quantity bought by divisions being known the savings can be easily computed.

General Purchasing Committee Minutes, November 20, 1924, page 4.

General Matters.

(n) Aluminum.

It was considered desirable to continue our policy of dealing with the Aluminum Company of America. The matter of cumulative quantity discounts will be discussed with this company.

Standing Sub-Committee Minutes, December 12, 1924, page 2.

General Contract Proposals Considered.

(h) Motors.

While there are in existence several requirements contracts for special makes of motors it is believed that until a preferential list is set up by the Works Engineers Committee for the guidance of divisions in purchasing motors

a small percentage, on account of cumulative quantity features, can be saved by having requirements' contracts for those makes now being purchased by divisions.
General contract for General Motors' requirements of The Ideal Electric and Manufacturing Company's makes of motors authorized for the year of 1925. General contract for General Motors' requirements of the Wagner Electric Corporation's makes of motors and transformers authorized for the year 1925.

General Purchasing Committee Minutes, June 24, 1925, page 3.
General Matters.
(g) Pyroxylin Finishes.
Secretary advised that the duPont Company had offered for a period of one year beginning July 1st, 1925, prices based on a sliding scale of quantity discounts, the maximum being a discount of 12% on business over $700,000.00 placed in one quarter of a calendar year. On the net amount of the invoice 1% cash discount is allowed. Prices include deliveries to all points of Duco in 5 gallon cans, and Thinner in drums. In order to secure the maximum discounts it will be necessary to combine our purchases with those of Fisher Body Corporation. Fisher Body will be requested to participate in a contract.

Standing Sub-Committee Minutes, September 23, 1925, page 2.
General Matters.
(e) Steel Tools.
In considering Illinois Tool Works sliding scale of quantity discounts offered on purchases of cutters, hobs, reamers, etc., it was agreed that unless the scale of quantities was lowered the proposition is not worthy of consideration.

General Purchasing Committee Minutes, September 24, 1925, page 2.
General Matters.
(e) Consideration of Alemite-Zerk General Contract Proposal.
This proposal which offers to General Motors on a contract for General Motors' requirements of car lubricating systems a quantity discount of 5% on purchases up to $500,000.00 per year, and 7½% on purchases in excess of $500,000.00 per year, with a 1% additional cash discount,

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was considered. It was agreed that if Alemite-Zerk would offer these same terms for 75% or more of General Motors requirements of lubricating fittings, exclusive of centralized chassis lubricating equipment, that a contract would be authorized.

Standing Sub-Committee Minutes, June 17, 1926, page 1.
General Matters.
(b) General Contract for Development.
Secretary was authorized to negotiate sliding scale of quantity discount contract with Bullard Machine Tool Company for General Motors requirements of their makes of tools.

Standing Sub-Committee Minutes, July 23, 1926, page 1.
General Contracts Considered.
(c) Motor and Control Equipment. - Fairbanks Morse & Co.
It was agreed that it were inadvisable to increase the number of requirements contracts for motor and control equipment as the contracts in existence with Cutler-Hammer Mfg. Co., General Electric Company, Westinghouse Electric & Mfg. Co. offer quantity discounts and further contracts might tend to split participation to an extent that would materially reduce quantity discount savings.

Standing Sub-Committee Minutes, August 12, 1926, page 1.
General Matters.
(b) Summary of Lists of Sources of Machinery and Equipment.
Secretary submitted lists supplied by Car Divisions showing sources of machinery and equipment from whom purchases, by individual divisions, for the year 1925 exceeded $5,000.00, for the purpose of selecting several companies with whom negotiations for supplying equipment on contracts with sliding scale of quantity discounts on total volume of business placed might be carried out.
The committee will determine from the results of these negotiations whether to extend the development of such proposals. The companies designated to be dealt with are -

The Fellows Gear Shaper Company
Cincinnati Milling Machine Company
Landis Tool Company
Norton Company
Potter and Johnson Machine Company

Standing Sub-Committee Minutes, August 12, 1926, page 3.
General Contracts Extended.

(a) Cleveland Graphite Bronze Company. Brief No. 281. Extension of contract for period of one year from January 1, 1927 authorized because this company agreed to increase the sliding scale of quantity discounts beyond the present minimum of 10% for $1,000,000.00 to include 11% for $11,000,000.00, 12% for $12,000,000.00 etc., and to make this new scale retro-active to January 1, 1926. On account of the volume of business done so far this year there will be a substantial cash refund.

Standing Sub-Committee Minutes, September 29, 1926, page 1.
General Matters.

(d) Items for Consideration for Quantity Discount Contracts. After consideration of volume of business done with certain companies it was agreed that development of sliding scale of quantity discount contract proposals would be undertaken with the following concerns.

Eastern Machine Screw Corporation
Trico Products Corporation.

Standing Sub-Committee Minutes, September 29, 1926, page 2.
General Contracts Approved for Re-development.

(b) Burroughs Adding Machines.
Re-develop for Sliding Scale of Quantity Discount for General Motors requirements.

Standing Sub-Committee Minutes, October 12, 1926, page 2.
General Matters.

(h) Cold Drawn Steel.
Representatives of Union Drawn Steel Company were interviewed with a view to establishing a basis for quantity discount contract. Questionnaire on cold steel, requesting names of present sources from whom divisions are buying, lowest base price per pound being paid, the aggregate tonnage, and dollars of purchases, for first nine months of 1926 was authorized.

Standing Sub-Committee Minutes, October 12, 1926, page 3.
General Matters.
(h) Bolts, Nuts, Lag Screws, etc.
For the purpose of approaching suppliers of such items for proposals for quantity discount contract, Secretary was authorized to ascertain from concerns supplying divisions with such items, the aggregate amount of purchases by divisions from them during the nine months ending September 30, 1926.

Standing Sub-Committee Minutes, October 12, 1926, page 3.
General Contracts Authorized.
(a) Files
Quantity discount contract for General Motors requirements of Seller's make of files for one year from November 1, 1926, with Heller Brothers Company of Newark, N.J.

Standing Sub-Committee Minutes, October 12, 1926, page 3.
General Contracts Authorized.
(b) Horton Chucks.
Quantity discount contract for General Motors requirements of Horton Chucks for one year from November 1, 1926 with The E. Horton & Son Company, Windsor Locks, Conn.

Standing Sub-Committee Minutes, October 12, 1926, page 3.
General Contract Proposals Authorized for Development.
(a) Lubricating Systems.
General contract proposals for General Motors requirements of Alemite-Zerk Lubricating fittings as at present used with The Bassick Manufacturing Company for period ending June 30, 1927, with quantity discount provision.

Standing Sub-Committee Minutes, October 12, 1926, page 3.
General Contract Proposals Authorized for Development.
(e) Carbon Tool Steel.
General contract proposals for General Motors requirements of carbon tool steel for one year from November 1, 1926, with quantity discount provision.

Standing Sub-Committee Minutes, November 9, 1926, page 1.
General Matters.
(c) Hospital Supplies.
It was agreed that because of the varied and miscellaneous purchases of drugs and hospital supplies, for the purpose of establishing base prices, quantity discount contract proposals should be developed.

Standing Sub-Committee Minutes, November 9, 1926, page 2.
General Matters.
(h) Shakeproof Lock Washer Company.
This company, a division of the Illinois Tool Works with whom we have a General contract, Brief #311 is supplying their product in increasing volume to General Motors divisions. Development of a quantity discount contract with this company was authorized.

Standing Sub-Committee Minutes, November 9, 1926, page 3.
General Contracts Authorized.
(b) Lubricating Fittings.
Quantity discount contract with Bassick Manufacturing Company for General Motors requirements of Alemite-Zerk Fittings such as we now use, for period from October 1, 1926 to June 30, 1928 provided Executive Committee's approval is obtained.

Standing Sub-Committee Minutes, November 9, 1926, page 3.
General Contracts Authorized.
(c) Durand Steel Lockers, Racks and Shelving.
Quantity discount contract for General Motors requirements of Durand Steel Lockers, Racks and Shelving for period of one year from October 1, 1926.

Standing Sub-Committee Minutes, November 9, 1926, page 3.
General Contracts Authorized.
(d) Monroe Calculating Machines.
Quantity discount contract for General Motors requirements of Monroe Calculating Machines for period of one year retroactive to January 1, 1926, and as of January 1, 1927 the contract will be authorized for extension for one year.

Standing Sub-Committee Minutes, November 9, 1926, page 3.
General Contracts Authorized for Renewal.
(b) Cutters, Reamers, Hobs, Etc. Illinois Tool Works. Brief #311.
Quantity discount contract for General Motors requirements of seller's make for period of one year from January 1, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 4.
General Contracts Authorized for Renewal.
(e) High Steel Hobs. Barber-Colman Company. Brief #325.
Quantity discount contract for General Motors requirements of seller's make for one year from January 1, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 4.
General Contracts Authorized for Renewal.
(f) Motors.
Quantity discount contracts for General Motors requirements of sellers' make for one year from January 1, 1927 with the following:
Howell Electric Motors Company - Brief #326.
Westinghouse Electric & Mfg. Co. - Brief #327.
General Electric Company - Brief #328.
Crocker-Wheeler Company - Brief #341
Wagner Electric Corporation - Brief #368.

Standing Sub-Committee Minutes, November 9, 1926, page 4.
General Contracts Authorized for Renewal.
(g) Pyroxylin Finishes and Thinner. E.I. duPont de Nemours & Co. Brief #343.
Quantity discount contract for General Motors requirements of seller's manufacture of pyroxylin finishes and thinner for one year from January 1, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 4.
General Contracts Authorized for Renewal.
(h) Paint & Varnish Type Materials for Car Painting. E. I. duPont de Nemours & Co. Brief #344.
Quantity discount contract for General Motors requirements of seller's manufacture of Primer, Fender Enamel, Rubbing Compound, Glazing Putty, Chassis Black, Surfacer, Motor Enamel, Rubber First Coat, Gas Tank Enamel for one year from January 1, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 4.
General Contracts Authorized for Renewal.
(i) Abrasive Papers and Cloth - Coated. Brief #349. Quantity discount contracts for General Motors requirements of sellers' make for one year from January 1, 1927 with the following:

American Glue Company
Armour Sand Paper Works of Armour & Co.
Baeder Adamson Company
Herman Behr & Co., Inc.
H. H. Barton & Son Co.
The Carborundum Company
Manning Abrasive Co.
Minnesota Mining & Mfg. Co.
U. S. Sand Paper Company

Standing Sub-Committee Minutes, November 9, 1926, page 4.
General Contracts Authorized for Renewal.
(j) Milling Cutters. Goddard & Goddard Company. Brief #350. Quantity discount contract for General Motors requirements of sellers' make for one year from January 1, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 5.
General Contracts Authorized for Renewal.
(m) Transformers. Wagner Electric Corporation. Brief #369. Quantity discount contract for General Motors requirements of seller's make for one year from January 1, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 5.
General Contracts Authorized for Renewal.
(p) Files. Cleveland File Company. Brief #390. Quantity discount contract for General Motors requirements of seller's make for one year from January 1, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 5.
General Contracts Authorized for Renewal.
(q) Miniature Incandescent Lamps. Tung-Sol Lamp Works. Brief #352. Quantity discount contract for General Motors requirements of seller's make for one year from January 31, 1927.

Standing Sub-Committee Minutes, November 9, 1926, page 6.
Disposition of Items Covered by Questionnaire.
(d) Cold Drawn Steel.
Annual expenditures for first nine months of 1926 in excess of three and one-half million dollars reported. Quantity discount proposals for one year from January 1, 1927 ordered developed.

Standing Sub-Committee Minutes, December 14, 1926, page 2.
General Matters.
(g) Lubricating Fittings.
Secretary advised that Executive Committee had approved making of quantity discount contract with Bassick-Alemite Company for General Motors requirements of Alemite-Zerk fittings such as we now use, from October 1, 1926 to June 30, 1928.

Standing Sub-Committee Minutes, January 18, 1927, page 2.
General Contracts Authorized.
(c) Self Opening Die Heads, Screw Machine Products, Socket Wrenches, Threading Machines.
Quantity discount contract with the Eastern Machine Screw Corporation for period of one year from January 1, 1927.

Standing Sub-Committee Minutes, January 18, 1927, page 2.
General Contracts Authorized.
(d) Special Reamers.
Quantity discount contract with the Schellenbach Hunt Tool Company for period of one year from January 1, 1927.

Standing Sub-Committee Minutes, January 18, 1927, page 3.
General Contract Proposals Ordered Developed.
(a) Quantity discount for Asbestos Products, Magnesia Pipe Covering, and other materials in the line supplied by such manufacturers.

Standing Sub-Committee Minutes, January 18, 1927, page 3.
General Contract Proposals Ordered Developed.
(b) Inasmuch as Special Questionnaire on Petroleum Products shows that 55% of requirements of such products in territory covered by Standard Oil of Indiana is supplied by this concern, quantity discount proposal ordered secured from them.

Standing Sub-Committee Minutes, February 8, 1927, page 3.
Disposition of Items Reported by Questionnaire.
(a) Hose Clamps. Annual Purchases reported, $132,062.00. Quantity discount contract proposals for General Motors requirements of seller's make with All Steel Company to be developed for one year.

Standing Sub-Committee Minutes, March 15, 1927, page 2.
General Matters.
(d) Factory Trucks, Tractors, Trailers, and Power Units for same. Authority to make two or more quantity discount contracts, for period of one year, subject to source selections by the Sub-committee of Master Mechanics, was granted. Contracts to cover seller's make.

Standing Sub-Committee Minutes, March 15, 1927, page 2.
General Matters.
(f) Precision Gages.
Quantity discount contract proposal from Pratt & Whitney Company covering Hoke design and Swedish design precision blocks was submitted. Before taking action, Secretary was instructed to develop from Johanson Company and Pratt and Whitney Company, the volume of business on precision gages placed with them by General Motors' units in calendar year 1926.

Standing Sub-Committee Minutes, March 15, 1927, page 4.
General Contract Proposals Considered.
(b). Hobs, Gear Cutters, Reamers, Etc.
Quantity discount contract with Michigan Tool Company for seller's make of above items, authorized for period of one year from March 15, 1927.

Standing Sub-Committee Minutes, March 15, 1927, page 4.
General Contract Proposals Considered.
(e) Aluminum.
Quantity discount contract proposal from Aluminum Company of America carried over pending adjustment of volume scale from 10,000,000 pounds up at 1/2% and 20,000,000 pounds up at additional 1/2% to 7,500,000 pounds up at 1/2% and 15,000,000 pounds up at additional 1/2% and institution of clause providing for decline in prices and making closing date for calculating annual volume that of agreed upon date on which last order may be placed.

Standing Sub-Committee Minutes, March 15, 1927, page 5.
General Contract Proposals Considered.
(g) Marchant Calculating Machines.
Quantity discount contract for General Motors requirements of seller's make for period of one year from January 1, 1927 authorized with Marchant Calculating Machine Company.

Standing Sub-Committee Minutes, April 12, 1927, page 2.
General Matters.
(f) Factory Trucks, Tractors, Trailers, and Power Units for same.
Referring to item (d) page two of minutes of meeting of March 15th, there is here noted for record purposes, quantity discount contracts approved by Sub-committee of Master Mechanics, for seller's make as follows:

Brief 458 - The Ready-Power Company - 1 year from March 15, 1927 for Gas Electric Industrial Truck Power Plants.
Brief 461 - Mercury Manufacturing Company - 1 year from March 15, 1927 for Industrial Trailers.
Brief 463 - Elwell-Parker Electric Company - 1 year from March 15, 1927 for Electric Industrial Trucks and Tractors.

Standing Sub-Committee Minutes, April 12, 1927, page 3.
General Contract Proposals Ordered Developed.
(a) Pratt and Whitney Precision Gage Blocks including both Hoke and Swedish Design, Standard and Special Gages, Block, Thread, Spline, Taper, etc.
Quantity discount contract for seller's make of General Motors requirements for one year from May 1, 1927 with Pratt & Whitney Company.

Standing Sub-Committee Minutes, April 12, 1927, page 3.
General Contract Proposals Ordered Developed.
(b) Screw Thread Gages.
Quantity discount contract with John-sons Gage Works for General Motors requirements of sellers make for period of one year from May 1, 1927.

Standing Sub-Committee Minutes, April 12, 1927, page 3.
General Contract Proposals Ordered Developed.
(c) Taps and Gages.
Quantity discount contract with John Bath Company for General Motors requirements of seller's make for period of one year from May 1, 1927, as Greenfield Tap and Die Corporation have declined to renew contract. Brief 362 which expired April 1st.

General Purchasing Committee Minutes, April 12, 1927, page 4.
General Matters.
(i) Aluminum.
General contract proposal from Aluminum Company of America offering in consideration of our large requirements of aluminum, preferential base prices on sheet, molding, ingot, file guides, etc. that we may purchase from them; and in addition a quantity discount of 1/2¢ per pound on purchases between 10,000,000 and 20,000,000 pounds, was considered, and a further quantity discount of 1/2¢ per pound on purchases in excess of 20,000,000 pounds, was considered. Proposal was accepted for period of one year to become effective May 1, 1927. It was further suggested that the Aluminum Company of America be requested to include for participation in this contract the aluminum purchased by suppliers for use in production of General Motors parts.

Standing Sub-Committee Minutes, June 28, 1927, page 3.
General Contracts Authorized.
(b) Adjustable Thread Snap Gages, Setting Plugs and Gage Fixtures.
Quantity discount contract for General Motors requirements of seller's make for period of one year from July 1, 1927 with John-sons Gage Works.

Standing Sub-Committee Minutes, June 28, 1927, page 4.
General Contracts Authorized.
(h) Quenching Machines.
Quantity discount contract for General Motors requirements of sellers make for one year from June 1, 1927 at prices current at time of purchase, with Gogan Machine & Foundry Company, Inc.

Standing Sub-Committee Minutes, August 9, 1927, page 2.
General Contracts Authorized.
(a) Counterbores.
Quantity discount contract with Eclipse Interchangeable Counterbore Company for General Motors requirements of sellers make for period of one year from September 1, 1927.

Standing Sub-Committee Minutes, August 9, 1927, page 2.
General Contracts Authorized.
(b) Cut Thread Taps.
Quantity discount contract with Threadwell Tool Company for General Motors requirements of sellers make for period of one year from September 1, 1927.

Standing Sub-Committee Minutes, August 9, 1927, page 2.
General Contracts Authorized.
(d) Heavy Duty Shop, Road and Interplant Trailers.
Quantity discount contract with The Whitehead & Kales Company for General Motors requirements of sellers make for period of one year from September 1, 1927.

Standing Sub-Committee Minutes, August 9, 1927, page 3.
General Contracts Authorized.

(h) Rear View Mirrors.
Quantity discount contract with Trico Products Company for General Motors requirements of this item for period July 1, 1927 to June 30, 1928.

Standing Sub-Committee Minutes, August 9, 1927, page 3.
General Contract Proposals Ordered Developed.

(c) Carburizing Boxes and Pots. (Quantity discount proposals)
(d) Semi-Finished Cap and Set Screws. (Quantity discount proposals)
(e) Friction Tape.
(f) Lock Washers. (Quantity discount proposals with Reliance Mfg. Co.)
(g) Locks Used on Cars. (Negotiate with Briggs & Stratton for quantity discount contract on all locks sold direct to divisions or through their suppliers for our products.)
(h) Armstrong Cork & Insulation Company. (This company having offered Cadillac quantity discount schedule on cork covering, cork lagging, etc. Secretary was instructed to negotiate with this company to determine whether they would apply quantity discount schedule to volume of all purchases made by General Motors divisions.)

General Purchasing Committee Minutes, August 16, 1927, page 3.
General Matters.

(h) Cold Drawn Steel.
This item was again considered with a view to determining the desirability of making a quantity discount contract for 50% or more of our requirements; and the effect of such a contract on the cold drawn steel market.
Secretary was instructed to canvass divisions to ascertain what portion of their requirements they would be willing to divert to Jones and Laughlin from their present sources. Production Departments to be consulted when necessary in regard to quality of product of this of this supplier, and any special requirements.
Mr. Pratt called attention to substitution of hot rolled for cold drawn steel at Hyatt, pointing out that the removal of greater thicknesses with consequent higher grinding costs would be more than offset by the lower costs of hot rolled, and suggested that Secretary refer this question to the Works Managers Committee.

Standing Sub-Committee Minutes, October 11, 1927, page 1.
General Contracts Authorized.
(a) Niagara Washers.
Quantity discount contract with G.S. Blakeslee & Co. for General Motors requirements of Niagara Washers for period of one year from November 1, 1927.

Standing Sub-Committee Minutes, October 11, 1927, page 1.
General Contracts Authorized.
(c) Wire Wheels.
Quantity discount contract with [illegible] Wire Wheel Corporation of America for General Motors requirements of sellers make, for period of ten months ending June 30, 1928, contract [illegible] retroactive to September 1, 1927.

Standing Sub-Committee Minutes, October 11, 1927, page 2.
General Contracts Authorized.
(e) Locks Used on Cars.
Quantity discount contract with Briggs & Stratton Corporation for General Motors requirements of locks used on cars, volume to include sales to the Oakes Company, The Hershey Company, and any other suppliers of General Motors, for period of nine months ending June 30, 1928. (Discount scale to be prorated to nine months basis.)

Standing Sub-Committee Minutes, October 11, 1927, page 4.
General Contracts Ordered Redeveloped.
(c) Brief 427. Tools, Electric Drills, Grinders & Accessories. Develop quantity discount contract proposals with Black & Decker Company, Ingersoll Rand, and Chicago Pneumatic Tool Company.

Standing Sub-Committee Munutes, November 8, 1927, page 1.
General Contracts Authorized.
(b) Nice Ball Bearings.
Quantity discount contract with Nice Ball Bearing Company for General Motors requirements of seller's make for one year from January 1, 1928.

Standing Sub-Committee Minutes, November 8, 1927, page 1.
General Contracts Authorized.
(c) Cap and Set Screws - Milled from Bar.
Quantity discount contract with Automatic Products Company for a portion of General Motors requirements for one year from January 1, 1928.

Standing Sub-Committee Minutes, November 8, 1927, page 1.
General Contracts Authorized.
(d) Friction Tape.
General contract for 80% of General Motors requirements of General Motors Specification G.M. 658-M with the Dryden Rubber Company for one year from January 1, 1928. This contract also includes sliding scale of quantity discount provision.

Standing Sub-Committee Minutes, January 17, 1928, page 3.
General Contracts Authorized.
(b) Pyroxylin Finishes Including Duco and Duco Thinner.
(Item 4-c, page 3, Minutes Meeting December 8, 1927.)
Quantity discount contract for General Motors requirements of Seller's make for one year from January 1, 1928 with E.I.duPont deNemours and Company.

Standing Sub-Committee Minutes, January 17, 1928, page 3.
General Contracts Authorized.
(c) Primers and Surfacers.
(Item 4-d, page 3 Minutes Meeting December 8, 1927.)
Quantity discount contract for General Motors requirements of seller's make for one year from January 1, 1928 with E.I.duPont deNemours and Company.

Standing Sub-Committee Minutes, January 17, 1928, page 3.
General Contracts Authorized.
(f) Electric Drills, Tools, Grinders and Accessories.
General contract for General Motors requirements of Seller's make of such tools and accessories and repair parts used in connection with repair and maintenance thereof for one year from January 1, 1928 with Black & Decker Manufacturing Company.
Quantity discount contract for General Motors requirements of seller's make of the above items for one year from January 1, 1928 with Chicago Pneumatic Tool Company.

Standing Sub-Committee Minutes, February 14, 1928, page 3.
General Contracts Authorized.
(a) Dial Indicators.
Quantity discount contract for General Motors requirements of sellers make for one year from March 1, 1928 with the Federal Products Corporation.

Standing Sub-Committee Minutes, February 14, 1928, page 3.
General Contracts Authorized.
(c) Hose Clamps.
Quantity discount contract for General Motors requirements of sellers make for one year from January 1, 1928 with Federal Tin Company.

Standing Sub-Committee Minutes, February 14, 1928, page 3.
General Contracts Authorized.
(d) Drill Jig Bushings.
Quantity discount contract for General Motors requirements of sellers make for one year from March 1, 1928 with Ex-Cell-O Tool and Manufacturing Company.

Standing Sub-Committee Minutes, March 13, 1928, page 3.
General Contracts Authorized.
(b) Electric Industrial Trucks and Tractors.
(Brief 469 - Renewal)
Quantity discount contract with Automatic Transportation Inc. for General Motors requirements of sellers make for one year from March 15, 1928.

Standing Sub-Committee Minutes, March 13, 1928, page 3.
General Contracts Authorized.
(b) Electric Industrial Trucks and Tractors.
(Brief 463 - Renewal)
Quantity discount contract with Elwell-Parker Electric Company for General Motors requirements of sellers make for one year from March 15, 1928.

Standing Sub-Committee Minutes, March 13, 1928, page 3.
General Contracts Authorized.
(c) Gas Electric Industrial Truck Power Plants.
(Brief 458 - Renewal)
Quantity discount contract with Ready Power Company for General Motors requirements of sellers make for one year from March 15, 1928.

Standing Sub-Committee Minutes, March 13, 1928, page 3.
General Contracts Authorized.
(d) Electrolytic Manufacturing Sets.
Special discount contract for General Motors requirements of sellers make with Chandeysson Electric Company, St. Louis, for one year from April 2, 1928.

Standing Sub-Committee Minutes, March 13, 1928, page 3.
General Contracts Authorized.
(e) Motors.
Quantity General contract for General Motors requirements of Sellers make with Reliance Electric & Engineering Company for one year from March 15, 1928.

General Purchasing Committee Minutes, March 28, 1928, page 3.
General Matters.
(1) Alemite-Zerk Lubricating Fittings, Brief No. 414.
It was agreed that the quantity discount contract covering the above items should be renewed with The Bassick Manufacturing Company for the period of one year from June 30, 1928.

Standing Sub-Committee Minutes, April 11, 1928, page 2.
General Contracts Authorized.
(f) Quantity discount contract for General Motors requirements of Sellers make of Adjustable Thread Snap Gages, Setting Plugs and Gage Fixtures for one year from June 30, 1928 with John-sons Gage Works.

Standing Sub-Committee Minutes, April 11, 1928, page 2.
General Contracts Authorized.
(g) Quantity discount contract for General Motors requirements of Sellers make of Locks and Parts for one year from June 30, 1928 with Briggs & Stratton Corporation.

Standing Sub-Committee Minutes, April 11, 1928, page 2.
General Contracts Authorized.
(h) Quantity discount contract for a portion of General Motors requirements of Sellers manufacture of Lockwashers in accordance with certain General Motors specifications to be listed in contract with Reliance Manufacturing Co. and The Mansfield Lockwasher Co. for period of one year from June 30, 1928.

Standing Sub-Committee Minutes, June 12, 1928, page 3.
General Contracts Authorized.
(g) Industrial Trailers.
Quantity discount contract with Mercury Mfg. Company for General Motors requirements of Seller's make for one year from March 16, 1928.

Standing Sub-Committee Minutes, June 12, 1928, page 3.
General Contracts Authorized.
(i) Automobile Locks and Parts.
Quantity discount contract with Briggs and Stratton Corporation for General Motors requirements of seller's make for one year from July 1, 1928.

Standing Sub-Committee Minutes, June 12, 1928, page 3.
General Contracts Authorized.
(j) Wire Wheels.
Renew quantity discount contract with Wire Wheel Corporation of America for General Motors requirements of Seller's make for one year from July 1, 1928.

Standing Sub-Committee Minutes, July 10, 1928, page 2.
Quantity Discount Contracts Authorized.

Axle Shafts, "I" Beams, Propeller Shafts, Gear Shift Levers, etc.
Witherow Steel Corporation for Seller's make for one year from July 1, 1928.
(Renewal of Brief #516)

Standing Sub-Committee Minutes, August 15, 1928, page 2.
(General Contracts Authorized.
(a) Plating Generators and Motor Generator Sets.
Chandeysson Electric Co., Brief #567 ordered cancelled. Quantity discount contract for General Motors requirements of Seller's make, effective August 1st, 1928, but dated October 1st, 1928, for one year from that date, authorized with same company.

Standing Sub-Committee Minutes, October 9, 1928, page 3.
General Contracts Authorized.
(a) "SABECO" Bearing Metal.
Quantity discount contract with Fredericksen Company for General Motors requirements of this material for one year from November 1, 1928.

Standing Sub-Committee Minutes, October 9, 1928, page 3.
General Contracts Authorized.
(c) Interchangeable Counterbores.
Quantity discount contract with Eclipse Interchangeable Counterbore Co. for General Motors' requirements of sellers make for one year from November 1, 1928.

Standing Sub-Committee Minutes, December 11, 1928, page 1.
General Matters.
(f) John-Sons Gage Contract - Brief 584.
Supplier has interpreted contract to mean 10% on Setting Plugs, 15% on Adj. Thread Snap Gages, and 20% on Gage Vises with an additional 5% when volume reached $10,500 or 10% if volume reached $20,000 whereas contract reads 15% on face of all invoices with additional discounts for volume noted above. Recommended we insist on contract items even though it becomes necessary to adjust invoices rendered to date.

Standing Sub-Committee Minutes, December 11, 1928, page 4.
General Contracts Authorized.
(b) Hose Clamps.
Quantity discount with Federal Tin Company for General Motors' requirements of Seller's make for one year.

Standing Sub-Committee Minutes, December 11, 1928, page 4.
General Contracts Authorized by Letter.
(b) Pyroxylin Finishes.
Quantity discount contract with the E. I. du Pont de Nemours & Company for General Motors' requirements of Seller's make for one year from Jan. 1, 1929.

Standing Sub-Committee Minutes, February 12, 1929, page 2.
General Matters.
(h) Ex-Cell-O Tool & Mfg. Co.
Contract renewal authorized at November meeting; this supplier willing to renew agreement on the same price basis and the same sliding scale of discounts but only for ten months from March 1st, 1929 and excluding from the volume rebate the grinding spindle business. Proposal accepted.

Standing Sub-Committee Minutes, July 23, 1929, page 1.
General Contracts Authorized.
(a) Automobile Locks and Parts.
Quantity discount contract with Briggs & Stratton for General Motors' requirements of Seller's make for one year from July 1, 1929; effort to be made to lower each step in volume schedule submitted $100,000.00 with no change in scale of discounts.

Standing Sub-Committee Minutes, July 23, 1929, page 1.
General Contracts Authorized.
(b) Axle Shafts, I Beams, Propeller Shafts, Gear Shift Levers, etc.
Quantity discount contract with Witherow Steel Corporation for General Motors' requirements of Seller's make for one year from July 1, 1929.

Standing Sub-Committee Minutes, July 23, 1929, page 2.
General Contracts Authorized.
(c) Products of L. H. Gilmer Co. - Anti-squeak, Top Webbing, Fan Belts, etc.
Quantity discount contract with L. H. Gilmer Company for General Motors' requirements of Seller's make for one year providing a more favorable volume discount schedule is allowed.

Standing Sub-Committee Minutes, March 13, 1930, page 2.
General Contracts Authorized.
(b) Milling Cutters, Hobs and Tools.
Quantity discount contract with National Twist Drill & Tool Co. for one year for General Motors requirements of Seller's makes.

Standing Sub-Committee Minutes, March 13, 1930, page 2.
General Contracts Authorized.
(d) Elwell-Parker Trucks.
General Motors' requirements of Seller's make with Elwell-Parker Electric Co. for one year with the recommendation Seller give as preferential discount on invoices equivalent to that earned on the past year's quantity discount arrangement.

Standing Sub-Committee Minutes, June 18, 1930, page
General Contracts Authorized.
(b) Locks & Parts - Briggs & Stratton.
Quantity Discount Contract authorized with Briggs & Stratton for one year from July 1st, 1930, providing volume discount is allowed on purchases made by Fox Gun Co.

Standing Sub-Committee Minutes, June 18, 1930, page 2.
General Contracts Authorized.
(g) Alemite Fittings.
Quantity discount contract authorized with the Alemite Co. for one year from July 1st, 1930.

Standing Sub-Committee Minutes, October 21, 1930, page 2.
General Contracts Authorized Renewed for One Year.
(h) " " 739 - Milling Cutters - Goddard & Goddard - providing volume discount starts at $75,000.00

Standing Sub-Committee Minutes, October 21, 1930, page 2.
General Contracts Authorized Renewed for One Year.
(i) " " 749 - Drill Jig Bushings - Ex-Cell-O Tool - effort to be made to lower volume discount brackets.

Standing Sub-Committee Minutes, October 21, 1930, page 3.
General Contracts Authorized Renewed for One Year.
(l) " " 754 - Tools & Equipment - Michigan Tool Co. - effort to be made to lower volume discount brackets.

Standing Sub-Committee Minutes, May 12, 1931, page 2.
General Contracts Authorized.
(c) Leeds & Northrup.
Volume discount plan offered by this company accepted. Full details of this plan will be the subject of general letter to all purchasing agents at a later date.

Standing Sub-Committee Minutes, June 16, 1931, page 2.
General Contracts Authorized.
(b) Alemite Fittings.
Volume discount Contract for one year from July 1st authorized with Alemite Corp'n.

Standing Sub-Committee Minutes, June 16, 1931, page 2.
General Contract Proposals Considered.
(a) Locks & Parts.
Volume discount proposals from Briggs & Stratton and Yale & Towne Companies considered. Recommended that prices on locks quoted divisions direct be reviewed before making a decision on Volume Discount offer.

E

Defendant's Exhibit (GM) No. 163

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
ENCOURAGING PARTICIPATION IN QUANTITY DISCOUNT CONTRACTS

Standing Sub-Committee Minutes, November 9, 1925, page 1.

General Matters.

(b) Resume of Survey of General Contract Participation by Some of the Divisions.

Secretary reported that representatives from Purchase Contract Investigation Section had called upon - A. C. Spark, Armstrong Spring, Cadillac Motor Car, Chevrolet-Bay City, Chevrolet-Cincinnati, Chevrolet-Gear and Axle, Chevrolet-Toledo, Dayton Engineering Laboratories, Delco-Light, General Motors Truck, Inland Manufacturing Co., Jaxon Steel Products, Muncie Products, Oakland Motor Car Company, Olds Motor Works, Remy Electric Co., Saginaw Products divisions, to check up the extent of participation in general contracts, and to receive suggestions and criticisms for use in renewing these contracts, and in the development of further general contracts. The results of the survey indicated that in general participation was satisfactory, and co-operation whole-hearted. A few misunderstandings were cleared up. These visits will be made at regular intervals as we find the contact most helpful.

Standing Sub-Committee Minutes, August 12, 1926, page 1.

General Matters.

(a) Report of Sub-committee on Office Furniture.

After analysis and comparison of general contract proposals on office furniture submitted by the leading distributors of such items, the Sub-committee recommended that a general contract for General Motors requirements of such office furniture and equipment as supplied by Shaw-Walker Company be awarded to that company for period of one year from Sept. 1, 1926. Contract authorized. The committee records the fact that participation in this contract by all divisions, branches, and other units of the Corporation will lead to substantial economies not only because the net prices are very low, but because there is a cumulative quantity discount provision in the contract.

Secretary was instructed to address a letter to the Purchasing Agents of all divisions urging their support and participation in this contract.

Standing Sub-Committee Minutes, March 15, 1927, page 3.
General Matters.

(1) Participation in Quantity Discount Contracts.
To keep Purchasing Agents informed of participation in quantity discount contracts so as to insure our getting the maximum possible discounts, committee ordered that there be published in the minutes of the Standing Sub-committee the participation in such contracts by quarters of the calendar year.

Standing Sub-Committee Minutes, August 9, 1927, page 1.
General Matters.

(c) Form for Periodically Reporting Performance of Quantity Discount Contracts.
Such a form was considered, approved and ordered printed for use in reporting by divisions, participation in quantity discount contracts.

Standing Sub-Committee Minutes, March 13, 1928, page 1.
General Matters.

(d) Participation in Air Reduction Sales Contract. Brief 512.
Average monthly volume for five months from September 1, 1927 was below 600,000 cubic feet required to obtain Schedule B prices. Schedule C prices mean a further reduction beyond Schedule B prices of 5¢ per 100 cubic feet, and if average monthly purchase of 700,000 cubic feet a month of Oxygen is made there will be a reduction of 5¢ per 100 cubic feet on all Acetylene purchased during the period of the contract.
It is noted that Fisher Body is not participating at all; A.C. Spark Plug Company not since October 7, 1927; Chevrolet-Flint for only a portion of its requirements.

Standing Sub-Committee Minutes, March 13, 1928, page 2.
General Matters.

(g) Contract Shaw-Walker. Brief 509.
In original proposal contractors set up three grades of office furniture, and it appears that proposals to inquiring Divisions have consisted generally of Grade 3 prices. Frequently units desire to purchase a cheaper grade of furniture than Grade 3, and it is expected that they will advise contractor of this fact so that he will

be permitted to name prices on grades of furniture that will compete with those grades quoted on by competitors. Divisions are urged to cooperate with contractor as any furniture business placed outside the contract reduces the amount of the quantity discount, and it is understood that contractor is in position to compete with any suppliers on any grades of furniture and office equipment.

Standing Sub-Committee Minutes, March 13, 1928, page 4.
General Contracts Ordered Renewed.

(d) Brief 472. Machine Tools and Equipment. Bullard Machine Tool Company for one year from June 1, 1928. (Chevrolet participation necessary in order to insure discount which was lost to the other General Motors units on existing contract account of Chevrolet non-participation.)

Standing Sub-Committee Minutes, August 15, 1928, page 1.
General Matters.

(d) Air Reduction Sales Co.
Purchase Contract Section reported that for 11 months ending July 31, 1928, average monthly oxygen consumption 664,812 cu.ft. The old contract would have expired August 31st and were the average monthly consumption during the 12 months ending that date 700,000 cu.ft., we would have received a rebate of about $1,500 on acetylene consumed during the 8 months of the old contract cancelled April 30th. Secretary was instructed to advise Chevrolet - Flint, and Fisher Body of the savings to be effected through average monthly consumption of 700,000 cu.ft., requesting their cooperation in effecting this saving.

Standing Sub-Committee Minutes, October 9, 1928, page 2.
General Matters.

(n) Performance of Quantity Discount Contracts.
Agreed that 90 days prior to the expiration of quantity discount contracts Purchase Contract Investigation Section will, by letter, advise all divisions of the discount earned to that time, drawing attention to additional volume of business required to earn further discounts, all with a view to gaining the maximum possible quantity discount under the contract.

Standing Sub-Committee Minutes, December 11, 1928, page 3.

General Matters.

(w) Automatic Products Co. Contract - Brief 324.
Letter calling attention to participation under above contract noted. Purchases to date are at the annual rate of $1,250,000., which will earn us a rebate of about $25,000. Had an additional $550,000 been placed, the additional rebate would have been $65,000. - equivalent to about 12% reduction on this amount of business.

E

Exhibit (GM) No. 164

EXCERPTS
GENERAL PURCHASING COMMITTEE
RE
MULTIPLE PRODUCT QUANTITY DISCOUNT CONTRACTS
(COMBINING SEVERAL OR ALL OF SUPPLIER'S PRODUCTS)

Standing Sub-Committee Minutes, July 23, 1926, page 2.
General Matters.

(d) Paints for Maintenance Uses.
This item rejected for questionnaire at 27th meeting on July 13th was again presented to Sub-committee because of certain savings to be afforded by making general contract. It was agreed that a plan may be worked out with the du Pont Company under which they would offer a sliding scale of quantity discounts applying to all items purchased by General Motors divisions from the du Pont Company. Secretary was instructed to invite Mr. W. P. Allen of the du Pont Company to meet with the Standing Sub-committee at its meeting to be held during the week of August 9th.

Standing Sub-Committee Minutes, July 23, 1926, page 2.
General Matters.

(f) Standard Oil Company.
It was suggested that representative of Standard Oil Company be requested to appear before the Sub-committee at its meeting to be held during the week of August 9th, to consider the volume of purchases by General Motors divisions with a view to working up a sliding scale of quantity discount proposal.

Standing Sub-Committee Minutes, August 12, 1926, page 1.
General Matters.

(a) Report of Sub-committee on Office Furniture.
After analysis and comparison of general contract proposals on office furniture submitted by the leading distributors of such items, the Sub-committee recommended that a general contract for General Motors requirements of such office furniture and equipment as supplied by Shaw-Walker Company be awarded to that company for period of one year from Sept. 1, 1926. Contract

authorized. The committee records the fact that participation in this contract by all divisions, branches, and other units of the Corporation will lead to substantial economies not only because the net prices are very low, but because there is a cumulative quantity discount provision in the contract.
Secretary was instructed to address a letter to the Purchasing Agents of all divisions urging their support and participation in this contract.

Standing Sub-Committee Meeting, August 12, 1926, page 2.
General Matters.

(d) Application of Quantity Discount Schedule to Combined Purchases of Duco, Thinner, and Other Items Purchased from du Pont Company.
Secretary presented statement showing volume of business done with the du Pont Company and additional volume of business which they could supply, compiled from statements submitted by divisions.
Mr. W. P. Allen of the du Pont Company was invited to discuss with the committee the feasibility of an arrangement whereby a sliding scale of quantity Belts discounts could be applied to the aggregate purchases made from the du Pont Company. This would include Duco, Thinner, Fabrikoid, Rubber Covered Fabrics, Pyralin, Paints for Maintenance Purposes, etc.
After thorough discussion of all phases of the matter, Mr. Allen agreed that such an arrangement is feasible, and that he would work out a tentative proposal for submission to the committee.

Standing Sub-Committee Minutes, September 29, 1926, page 1.
General Matters.

(c) Application of Quantity Discount Schedule to Combined Purchases of Items from Standard Oil Company of Indiana.
Representatives of Standard Oil Company were received by the Subcommittee, and after thorough discussion of the merits of the matter, and an expressed interest on the part of the Standard Oil representatives, it was agreed to issue a questionnaire to those divisions that might be served by Standard Oil Company of Indiana, for the purpose of developing the consumption in gallons and pounds by classifications of Petroleum Products for the first six months of 1926. Upon receipt and compilation of this data a further joint meeting will be held.

Standing Sub-Committee Minutes, October 12, 1926, page 3.
General Contract Proposals Authorized for Development.

(d) Truscon Products.
General contract proposals for General Motors requirements of Products supplied by Truscon Steel Company, with quantity discount provision, for one year from November 1, 1926.

Standing Sub-Committee Minutes, November 9, 1926, page 1.
General Matters.

(b) Cleveland Graphite Bronze Company.
It has been arranged with the Cleveland Graphite Bronze Company, in addition to the 12% quantity discount from face of invoices effective October 15, 1926 and retroactive to include all business done with them since January 1, 1926, to apply additional discounts as follows during year 1927.

> Applying the base discount of 12% to any amount of purchases there will be a further discount of 1% for each additional $100,000.00 of business over and above $1,200,000 e.g. on $1,300,000 worth of business there would be a quantity discount of $156,000 plus $1,000.

Note: Original contract to which above revision applies referred to in August 12, 1926, minutes, page 3, as follows:

"(a) Cleveland Graphite Bronze Company. Brief No. 281. Extension of contract for period of one year from January 1, 1927 authorized because this company agreed to increase the sliding scale of quantity discounts beyond the present minimum of 10% for $1,000,000.00 to include 11% for $11,000,000.00, 12% for $12,000,000.00 etc., and to make this new scale retroactive to January 1, 1926. On account of the volume of business done so far this year there will be a substantial cash refund."

Standing Sub-Committee Minutes, November 9, 1926, page 3.
General Contract Authorized by Letter, Confirmation for Minutes.
(a) Machinery and Equipment.
Quantity discount with Potter & Johnson Machine Company for General Motors requirements of seller's manufacture of machines and tools for period of one year from October 10, 1926. Brief No. 405.

V

Standing Sub-Committee Minutes, January 18, 1927, page 2.
General Contracts Authorized.
(b) Carriage Bolts, Clevis Pins, Hexagon Head Bolts, Hub Bolts, Lag Screws, Machine Bolts, Rivets, Semi-finished Nuts, Shackle Bolts, Step Bolts, Stove Bolts.
Quantity discount contracts with the following concerns for such of the above line of items and any others that they supply, for one year from January 1, 1927.

Russell Burdsall & Ward Company.
Lamson & Sessions Company - The Kirk Latty Co.
Lake Erie Bolt & Nut Company.
Buffalo Bolt Company.

Reports showing participation in these contracts are to be secured monthly from suppliers as guides to future participation, so that the maximum advantages of the contracts may be secured.

Standing Sub-Committee Minutes, February 8, 1927, page 2.
General Contracts Authorized.
(b) Rand Kardex Service Corporation Products.
Quantity discount contract for General Motors requirements of seller's products for period of one year from February 15, 1927.

Standing Sub-Committee Minutes, March 15, 1927, page 4.
General Contract Proposals Considered.
(f) Petroleum Products.
Action deferred on quantity discount contract proposal from Standard Oil Company of Indiana for requirements of petroleum products of those divisions reached by them, pending analysis and study. In event contract is made, terms are retroactive to March 15, 1927. The Standard Oil Company agrees to extend existing Divisional contracts with them pending making of QD contract, in which event, terms of QD contract are retroactive to March 15th.

Secretary instructed to write divisions eligible to participation requesting that they make no contract for petroleum products with any other suppliers pending final action by Committee.

Standing Sub-Committee Minutes, September 30, 1927, page 3.
General Contracts Authorized.
(b) Remington Rand, Inc. Products.
General contract for General Motors requirements of the following items such as we may purchase from them on which a scale of quantity discounts also apply.

- Remington Typewriters
- Noiseless Typewriters
- Portable Typewriters
- Remington Accounting Machines
- Electric Typewriters
- Supplies for Remington Typewriters and Accounting Machines
- Line-A-Time
- Products of Dalton Adding Machine Company
- Powers Accounting Machines
- Powers Accounting Machine Cards
- Stock Baker-Vawter and Kalamazoo Binders
- Stock Baker-Vawter and Kalamazoo Sheets and Forms
- Kardex Cabinets and Equipment
- Kardex Cards
- Spool-O-Wire Fastener and Extra Spools of Wire

Standing Sub-Committee Minutes, October 11, 1927, page 1.
General Contracts Authorized.
(d) Woodworking Machinery.
Quantity discount contract with J. Lee Hackett, 3-123 General Motors Building, Detroit, Michigan for General Motors requirements of combined purchases of woodworking machinery as manufactured by the principals represented by him as listed on following page, for period of one year from November 1, 1927.

Adjustable Clamp Co.	Chicago, Ill.
American Swiss Magneto Co. (Toledo Glue App. Div.)	Toledo, Ohio
Beach Mfg. Co.	Montrose, Pa.
Bell Machine Co.	Oshkosh, Wis.
Nels J. Billstrom	Rockford, Ill.
Cincinnati Electrical Tool Co.	Cincinnati, Ohio
Crescent Machine Co.	Leetonia, Ohio
Alexander Dodds Co. Inc.	Grand Rapids, Mich.
Frank Diehl	Wabash, Ind.
Gallmeyer & Livingston Co.	Grand Rapids, Mich.
Greenlee Bros. & Co.	Rockford, Ill.
Jackson-Church Co.	Saginaw, Mich.
Jones-Superior Machine Co.	Chicago, Ill.
Mattison Machine Works	Rockford, Ill.
Machinery Co. of America	Big Rapids, Mich.
New Britain Machine Co.	New Britain, Conn.
Northfield Machine & Mfg. Co.	Northfield, Minn.
Onsrud Machine Works	Chicago, Ill.
Pettingell Machine Co.	Amesbury, Mass.
C. O. Porter Machinery Co.	Grand Rapids, Mich.
Pringle & Brodie Machinery Co.	Chicago, Ill.
Redin-Eckstrom Co.	Rockford, Ill.
Salstrom Carving Machine Co.	Chicago, Ill.
Sheboygan Machine Co.	Sheboygan, Wis.
Tucker & Dorsey Mfg. Co. (Factory trucks)	Indianapolis, Ind.
Wardwell Mfg. Co.	Cleveland, Ohio

Standing Sub-Committee Minutes, October 11, 1927, page 2.

General Contracts Authorized.

(f) Witherow Steel Corporation.
Quantity discount contract for General Motors requirements of such products including rolled rear axle shafts, gear shift levers, front axle I beams, and any other products of their make as are purchased from them, for period of nine months ending June 30, 1928. (Discount scale to be prorated to nine months basis.)

Standing Sub-Committee Minutes, October 11, 1927, page 3.

General Contracts Ordered Renewed for one year from Expiration Date.

(o) Brief 467. Gasoline Tank Caps. Easy-On-Cap-Company. (New contract to include all of seller's products.)

Standing Sub-Committee Minutes, November 8, 1927, page 2.
General Contracts Authorized.
(e) Lock Washers.
Quantity discount contract with Reliance Manufacturing Company for a portion of General Motors requirements for six months from January 1, 1928. The volume to include all business done with the Reliance Manufacturing Company and the Mansfield Lock Washer Company.

Standing Sub-Committee Minutes, January 17, 1928, page 3.
General Contracts Authorized.
(a) Cutters, Hobs, Reamers, etc.
Quantity discount contract for General Motors requirements of seller's manufacture of such items for one year from January 1, 1928 with Illinois Tool Works.

Standing Sub-Committee Minutes, August 15, 1928, page 2.
General Contracts Authorized.
(d) Punch Press Machinery and Equipment.
Quantity discount contract for machinery and equipment as manufactured by the Hamilton Press and Machinery Co., and the V. & O. Press Co., renewed for one year from September 1st, 1928.

Standing Sub-Committee Minutes, September 13, 1928, page 1.
General Contracts Authorized.
(a) Office Furniture (Wood), Filing Equipment (Steel and Wood), Filing Supplies, Systems, etc.
After very thorough discussion of the proposals submitted by the Shaw-Walker Company and Remington-Rand Company, and interviewing representatives from these two concerns, a general contract for General Motors requirements of the above items as handled and merchandised by the Seller was awarded to the Shaw-Walker Company for one year from October 1, 1928, with option of renewal for one year to be exercised by July 1, 1929.

Standing Sub-Committee Minutes, October 9, 1928, page 4.

General Contracts Ordered Renewed for one year from Expiration Date.

(p) Brief #580. Lockwashers. Reliance Mfg. Co. and Mansfield Lockwasher Company. Effort to be made to include in contract everything manufactured by these companies.

E

Defendant's Exhibit (GM) No. 165

SPECIAL DISCOUNTS ON PURCHASES FROM DU PONT
SHOWING
AMOUNT OF DISCOUNT PER VEHICLE SOLD

Period of Time for Which Discount Applicable	Dollar Amount of Discount	Number of Vehicles Sold by General Motors (in U. S.)	Amount per Vehicle
10/1/26 - 6/30/27 (9 months)	$ 77,206.75	1,056,092	$.0731
7/1/27 - 6/30/28 (1 year)	200,136.79	1,662,567	.1204
7/1/28 - 6/30/29 (1 year)	379,245.60	1,789,356	.2120
7/1/29 - 12/31/30 (1½ years)	None	1,808,462	0
1/1/31 - 12/31/31 (1 year)	1,020.81	997,742	.0010
1/1/32 - 12/31/32 (1 year)	411.72	507,030	.0008
Total for Entire Period of Time Discount in Effect 10/1/26 - 12/31/32	$658,021.67	7,821,249	

Average amount of discount from du Pont
per vehicle sold by General Motors
during entire period discount in effect $.0841

Cost Analysis Section
2/10/53

Defendant's Exhibit (GM) No. 166

EXCERPTS FROM MINUTES OF GENERAL PURCHASING COMMITTEE

General Purchasing Committee Minutes, October 25, 1923, page 3.
Items for which Annual Expenditures Aggregate a Very Large Sum Reviewed with the Idea that the Discussion would Develop Possibilities of Further Co-ordination of Buying or General Contract Possibilities.

(q) Paints - Color, Varnish.
Secretary instructed to write to Paint Committee to find out if anything towards standardization can be accomplished.

Standing Sub-Committee Minutes, December 5, 1923, page 6 of General Purchasing Committee Minutes of December 6, 1923.
Miscellaneous Matters.

(e) Paints - Color, Varnish.
Mr. Mougey of the Research Corporation is to appear before the next meeting of the Sub-committee to discuss the subject in detail.

Standing Sub-committee Minutes, July 1 & 2, 1924, page 12 of General Purchasing Committee Minutes of July 2, 1924.
Items presented for Questionnaire.

(f) Mill White Paint.
Develop.

(h) Duco Paint and Reducer.
Develop.

Standing Sub-Committee Minutes, September 4, 1924, page 7 of General Purchasing Committee Minutes of September 5, 1924.
Reports on Questionnaires Authorized at July 2nd Meetings.

Aggregate annual expenditures reported as follows: as of date -

(a) Duco Paint & Reducer. $1,394,039.00.
Determine reasons for different prices on colors.

(b) Mill White Paint $16,683.00.
Contract proposals to be developed.

Standing Sub-Committee Minutes, November 6, 1924, page 1.
General Contract Proposals Considered.
(d) Mill White Paint.
The summaries of contract proposals submitted indicate a wide variation in prices. There is not sufficient information regarding quality of products quoted on to warrant placing of general contract at this time. Action is deferred awaiting results of tests being conducted at Buick.

General Purchasing Committee Minutes, November 20, 1924, page 2.
General Matters.
(g) Duco.
Letter from Chemical Products Division of the duPont Company offering General Motors the opportunity to pool their purchases of Duco and Thinner so that each unit might enjoy the maximum discount earned by the pool during any three months period, and enclosing copy of letter to Purchasing Agents of Car Divisions dealing with the offer was read. It was believed that the General Motors purchases of Duco together with those of Fisher Body Corporation would in any period aggregate the amount required for maximum discount, but that even though this amount is not regularly met the maximum discount should be insisted upon, and further, if agreeable, that this discount be deducted from the invoice price on each invoice so as to avoid cumulative credit which would not be properly reflected in current car costs.
Forecasts of divisions' requirements for six months from December 1, 1924 will be promptly secured. It was brought out that no effort had yet been made to develop competitive price situation as regards pyroxylin paints and that this fact should be given consideration by the duPont Company.

Standing Sub-committee Minutes, December 12, 1924, page 1.
General Contract Proposals Considered.
(g) Duco.
Secretary advised that agreement had been reached with Chemical Products Division of du Pont to charge on a general contract for

General Motors' requirements of Pyroxylin finishes for the first six months of 1925 net prices equivalent to the list prices less 6% f.o.b. Parlin, N.J., the 6% being the maximum cumulative quantity discount. General contract authorized.

Defendant's Exhibit (GM) No. 167

Agreement, dated the 2nd day of January 1925, between

E. I. du Pont de Nemours & Company, Chemical Products Div., Flint Plant.

hereinafter called the "Seller," and GENERAL MOTORS CORPORATION

Detroit, Michigan a corporation of

Delaware hereinafter referred to as the "Buyer," WITNESSETH:

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. DESCRIPTION AND QUANTITIES: PRICE PER

Buyer's requirements of Pyroxylin finishes, including Duco and Duco Thinner, at the following prices:

Duco in all colors, including black	$4.40 per gallon in 5-gallon cans.
Duco Thinner #3601	$2.00 per gallon in 50-gallon drums.

It is agreed that the above prices are subject to a discount of 6%, and the prices charged on invoices will be NET prices, which will include this 6%.

2. TERMS OF PAYMENT: 1% cash discount, ~~[illegible]~~ 10th proximo; net cash, end of month following date of invoice.

3. F. O. B. Parlin, N.J.

4. DELIVERIES: Delivery shall be made(~~[illegible]~~) as may be specified from time to time on buyer's regular purchase orders, on or before June 30, 1925 without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost, and in accordance with the requirements of Common Carriers.

5. **Special Equipment**: Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications**: Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties**: The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections**: All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period not to exceed 60 days.

9. **Patent Protection**: The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or the Dominion of Canada. The Seller covenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

   If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused**: The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation**: In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warranties of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc.**: The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedent or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment**: This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION	E. I. du PONT de NEMOURS & COMPANY
By:	By:
GENERAL PURCHASING COMMITTEE	Mgr. Automotive

Defendant's Exhibit (GM) No. 168

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
DETROIT, MICHIGAN

SUBJECT DUCO.

July 19, 1924.

ATTENTION OF

Mr. H. G. Mougey,
General Motors Research,
Dayton, Ohio.

Dear Sir:

I regret that my absence from Detroit prevented my attending the meeting of the Paint Committee at Flint on July 8th.

At the meeting of our Committee on July 2nd it was decided to develop the competitive field for pyroxlin paints.

I appreciate the need for caution in considering suppliers of this product. Have you approved as suitable for our purposes pyroxlin paint made by any other sources than the DuPont Company, if so I shall be glad to have a list of the approved suppliers.

Can you give me a list of the manufacturers who are making, or attempting to make pyroxlin paint?

Very truly yours,

James Lynah

James Lynah:EB.

Secretary.

Defendant's Exhibit (GM) No. 169

July 25, 1924.

Mr. James Lynah,
General Motors Corp.,
Detroit, Mich.

7163

Dear Mr. Lynah:-

In reply to your letter in regard to developing the competitive field for pyroxlin paints, the Paint Committee has considered this matter and have requested that our laboratory test materials to find as many possible sources of supply for pyroxlin paints as possible. We are already in touch with the Zapon people and the Beckwith-Chandler Company. We have received samples from the Glidden Company for use on steering wheels but we have not received any of the latest materials similar to duco from any Companies except the Zapon Company and Beckwith-Chandler Company.

In order to secure better results we would appreciate it very much if you would take up with the different Companies the matter of submitting samples for test at our laboratory.

We would suggest the following Companies:
Sherwin-Williams Company.
Valentine Varnish Company.
Murphy Varnish Company.
Egyptian Lacquer Company.
Glidden Varnish Company.

We have not as yet had sufficient tests on either the Zapon or Beckwith-Chandler materials to be willing to approve them. However, both the Zapon Company and the Beckwith-Chandler Company appear to understand the problem and the samples that they submitted look very good and we hope that within a short time our tests will have progressed sufficiently far to enable us to approve these materials.

Yours very truly,

H. C. Mougey.
Control Chemist.

MsB

E

Defendant's Exhibit (GM) No. 170

August 4, 1924.

Sherwin-Williams Company,
539 Woodward Ave.,
Detroit, Michigan.

Gentlemen:

If your developments of Pyroxylin Paints have proceeded sufficiently far so that you are in position to quote prices and supply the products in any quantity we should like to have you send to -

General Motors Research Corporation,
Dayton, Ohio.
Atten: Mr. H.C.Mougey

samples for inspection and determination.

Please send us quotations covering any samples which you send to Mr. Mougey.

Very truly yours,
GENERAL PURCHASING COMMITTEE.

James Lynah:HB. Secretary.

E

Defendant's Exhibit (GM) No. 171

GENERAL MOTORS CORPORATION

Detroit, Michigan

7165

August 4, 1924

Valentine Varnish Company
456 Fourth Avenue
New York City

Gentlemen:-

If your developments of Pyroxylin Paints have proceeded sufficiently far so that you are in position to quote prices and supply the products in any quantity we should like to have you send to -

General Motors Research Corporation,
Dayton, Ohio
Attention: Mr. H. C. Mougey

samples for inspection and determination.

Please send us quotations covering any samples which you send to Mr. Mougey.

Very truly yours,
GENERAL PURCHASING COMMITTEE

James Lynah (Signed)

Secretary

Defendant's Exhibit (GM) No. 172

Defendants' Trial Ex. No. GM-172

Letterhead of
GENERAL MOTORS CORPORATION
General Purchasing Committee
Detroit, Michigan

January 22, 1925.

Subject DUCO.

Attention of

Messrs:	G. G. Allen	Messrs:	C. S. Mott
	H. L. Burton		D. P. O'Keefe
	D. F. Hulgrave		J. L. Pratt
	C. M. Lejuste		A. P. Sloan, Jr.
	C. O. Miller		

It comes to our attention that Fisher Body are using, on certain work, pyroxylin finishes of a manufacture other than Duco. Pyroxylin finishes as adapted for automobile painting are very complex in character and their fitness and durability can be determined only after long time tests.

No agency of General Motors has made any durability test of the Forbes product which is now being used by Fisher Body, in fact we understand that this make of pyroxylin finish is rather new in the market.

It is appreciated that a field of competition for Duco should be developed. Certainly because of the proven qualities of Duco it has no competition at the present time.

It is suggested that we request General Motors Research to begin certain characteristic and durability tests of competitive pyroxylin finishes, and you are requested to suggest any makes which have been brought to your attention by reliable concerns.

It is the impression that General Motors have advertised the use of Duco on their cars, and the use of other unproven products may lead to embarrassment.

Very truly yours,

JAMES LYNAH
Executive Secretary.

James Lynah :EB.

Defendant's Exhibit (GM) No. 173

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
DETROIT MICHIGAN

SUBJECT PYROXYLIN FINISHES. February 10, 1925.

ATTENTION OF

Mr. F.J. Clements,
General Motors Research,
Dayton, Ohio.

Dear Sir:

This matter has been discussed by our committee and you are requested to secure samples and make continuous durability tests of the following pyroxylin finishes including Duco.

"Valenite" manufactured by the Valentine Varnish Co.
"Murkel" " " " Murphy Varnish Co.
"Mimax" " " " Patton Pitcairn Div. of the Pittsburgh Plate Glass Co.

In addition to the above there is the Forbes product which Fisher Body have been using to some extent, and a product manufactured by the Acme White Lead and Color Works, the trade-name of which we do not have.

The product manufactured by the Zapon Company of Stamford, Conn. and the Beckwith Chandler Company of Newark, N.J. might also be properly tested.

Very truly yours,

James Lynah

James Lynah:EB. Executive Secretary.

NOTE: In the upper left hand corner "Mr. Mougey" appears in handwriting.

Defendant's Exhibit (GM) No. 174

March 13, 1925.

Mr. L. B. Valentine,
Valentine & Company,
456 Fourth Ave.,
New York, N.Y.

Dear Mr. Valentine:—

In reply to your letter in regard to samples of pyroxylin finishes, the General Motors Purchasing Committee is anxious to keep in touch with the new developments in pyroxylin finishes. There are now about 25 or 30 brands of pyroxylin finishes for automobiles on the market. Some of these finishes may be good while some are very bad, as we have found from actual experience.

In all probability the General Motors Purchasing Committee will have preliminary tests made on the samples submitted and in the case of materials which look interesting, further tests will probably be made. The information obtained by the General Motors Purchasing Committee would be sent to the different General Motors Units through their connection with the Purchasing Committee.

In regard to the inquiry from the Buick, it appears that the Buick Company individually is interested in your material. Tests made by the Buick will be largely for Buick information only.

Yours very truly,

H. C. Mougey,
Control Chemist.

M:B

CC to Mr. James Lynah.

Defendant's Exhibit (GM) No. 175

GENERAL MOTORS CORPORATION
GENERAL PURCHASING COMMITTEE
DETROIT, MICHIGAN

7170

SUBJECT PYROXYLIN FINISHES.

May 20, 1925.

ATTENTION OF

Mr.H.G.Mougey,
General Motors Research,
Dayton, Ohio.

We are negotiating new contract with the duPont Company for Duco requirements for the second half of this year.

It is highly desirable to have come competitive figures. There is no use in our getting them from suppliers whose pyroxylin finishes are not approved.

I understand that Paige-Jewett, Flint, and Packard are using Zapon. Have your tests gone far enough for you to permit of putting Zapon on the approved list?

Are there any others that you are inposition to approve? Please advise promptly.

Very truly yours,

James Lynah

Executive Secretary.

James Lynah:EB.

E

Defendant's Exhibit (GM) No. 176

May 23, 1925.

Mr. James Lynah,
General Motors Corp.,
General Motors Bldg.,
Detroit, Mich.

Dear Mr. Lynah:—

In reply to your letter dated May 20th, the matter of tests on cellulose nitrate finishes is a very difficult one. When one is dealing with material as durable as Duco, it is very difficult to estimate its total life and also estimate the life of other materials as compared with Duco. We are enclosing a report on the comparison of the durability of Duco with black enamel, which illustrates the durability of Duco. Our roof exposure tests are at an angle of 45° facing the South, and as a result the exposure is very much more severe than that of the average automobile, although it is possible in the case of automobiles which are parked out doors continuously to get just as severe exposure on the hoods, cowls and decks.

One reason why it is so difficult to estimate the life of a cellulose nitrate finish is the fact that all cellulose nitrate finishes, like black enamels, lose their lustre on exposure and in order to be kept looking good the occasional use of polish is required. This loss of lustre is due to microscopic surface cracks as shown in the report on the comparison of durability of Duco with other finishes. If these micro cracks are so small that they cannot be seen even with a very high powdered microscope and are so shallow that a very mild polishing operation restores the original finish, then by occasional polishing it is possible to keep the finish with a perfect appearance for a very long time.

If the cracks are deeper a much more severe polishing is required to remove the cracks and in some cases the cracks may be so deep that they cannot be removed by polishing at all.

Under separate cover we are sending you a number of exposure test panels taken from our roof, together with full details as to the method of preparation of the panel, length of exposure, etc. 448-7A (Duco) and 448-6A (Zapon) are two materials representing the type of material which does not show cracks which can be seen even with a high powered microscope. The bottom halves of these panels are polished to show the effect of polishing. The top halves of the panels have never been touched since they were exposed on the roof July 25, 1924.

448-1A (Beckwith Chandler) illustrates a material which fails in microscopic cracks but these cracks can be removed entirely by polishing. 448-5A (Zapon) represents a material which fails in larger cracks which can be removed almost entirely by polishing. In this case the entire panel was polished by mistake. 519-3B (Miroloid Maroon) represents a material which fails in large and deep enough cracks so that polishing will neither restore the lustre nor remove the appearance of the cracks under the microscope. 523-2 (Beckwith Chandler Maroon) represents one of the most severe types of cracking ever encountered in cellulose nitrate materials.

In these illustrations we have used maroon for the bad failures, since there is a great difference in the durability of different cellulose nitrate colors. We have never yet found a satisfactory maroon made by any Company. One of the reasons why it is so difficult to approve finishes made by different Companies is because each color is a problem in itself. A Company may make a very good black and yet certain shades of grays, blues, etc., may be very bad. Even the duPont Company with all of their experience are not able to make a satisfactory maroon, and although on account of very elaborate testing, both by the duPont Company and our laboratory, we have kept out of serious trouble on any of the different colors, even such colors as blue, were not always made by the duPont Company with as high a durability as they now possess.

Panel 385-7 illustrates one of the earliest Ducos developed before we went into production on Duco. This particular panel was exposed along with some of the later Ducos to show the improvement in the present material on 4-12-24.

Another factor which makes it very difficult to judge these finishes is the fact that all of the Companies who are trying to duplicate Duco are constantly improving their materials. We feel that none of the exposure tests which we made last Summer and last Winter represent the same material as was submitted by you this Spring. In most cases we feel that the Companies have improved their materials in the meantime, but in some cases, due to inability to actually determine whether a change is an improvement or not, we feel that changes have been made for the worse. This matter of changing the composition of the material is one on which we have insisted very strongly with the duPont Company. No changes are made in the material until after very extensive tests. These tests are made with the co-operation of our laboratory and the duPont laboratory.

The ultra-violet light test is the best quick test which we have for cellulose nitrate materials but it must be used with a very great amount of caution and discretion. This point is discussed in the reprint which I am enclosing.

Although it is possible to get materials which have a long life under the ultra-violet light and which fail in a very short time on exposure as illustrated by test panel 494-1B (Bodylac made by Robert Ingram Clark) which was exposed 9-26-24 and cracked badly 1-5-25, with an ultra-violet light test of 10 days, we have not as yet found a material with a very short life under the ultra-violet light which gives a long life on exposure.

We feel that in the case of material which is advertised by our Companies as strongly as Duco, no production should be under-taken on material which has not had at least a full year exposure test on test racks. As pointed out previously, the test rack exposure is much more severe than that of the average car and we do not feel that the use of any material on cars, in production since last Fall is a sufficiently long and severe test to warrant the General Motors going into production on such material. The ordinary finishing varnish finish such as was replaced by Duco should give excellent results and show no signs of failure inside of 7 months on a car which was delivered to the owner in the Fall.

Some of the Companies trying to develop materials like Duco are advocating cellulose nitrate primers and surfacers. We feel that the use of any primers and surfacers other than force dried paint and varnish materials are unwise at the present time. Test panel 356-2A shows the results we obtained with Egyptian lacquer using cellulose nitrate materials for primer, surfacer and top materials. The materials from most other Companies give similar results, however, the Valentine Company are pushing cel-

4

lulose nitrate primers and surfacers and we believe their material may develop into something very interesting.

Test panels 540-1 and 540-2 are Valentine's materials using cellulose nitrate primer, surfacer and top coats. By cutting these 3 panels with a pen knife you can see the difference in Valentine's primers and surfacers and in Egyptian primers and surfacers, which the Egyptian Company was making at the time these tests were made. We believe that both the Egyptian Company and the Valentine Company have changed their materials since these exposure tests were made.

In conclusion we believe that the other Companies who are competing with duPont have already developed individual colors in many cases which are the equal of Duco. We also believe that most, if not all, of the other Companies have not as yet developed a full line of colors of high durability. It is an open question whether it is possible at the present time to choose any individual color made by a competing Company and guarantee that its durability is as great as that of Duco. In addition, there are many other properties such as quality of the color, ease of spraying, covering power, polishing properties, and other working properties which must be determined by actual tests on cars under production conditions.

Under these conditions we believe it would be desirable for the General Motors Corporation to put out at once a limited number of cars finished with the particular colors from competing Companies in which we are most interested. The working properties of these materials should be checked by the Foreman of the Production Plant and records made so that the individual cars can be traced after they have been delivered to the owner. In this way we feel that the General Motors Corporation will be in a position by next Spring to definitely put into production materials made by some of the Companies competing with Duco.

We are enclosing tests records on the competing cellulose nitrate finishes which we exposed last Summer, together with the tests which we have made on the samples which you submitted to us this Spring.

These test panels are sent to you for your information but if they are still in good condition after you have finished with them, please return them to us and we will again expose them on our test racks.

Yours very truly,

H. C. Mougey,
Control Chemist.

M:B

Defendant's Exhibit (GM) No. 177

TEST PANELS SUBMITTED TO MR. LYNAH

(See Mr. Mougey's Letter, May 23, 1925).

These panels were exposed on our Test Rack, forty-five degrees facing south on the dates given below. All panels were taken in May 22, 1925.

Unless otherwise noted, all materials are over General Motors forced dry primers and surfacers known to be satisfactory.

The following materials DO NOT SHOW cracks even under the high power microscope. The surface may be restored by polishing. In some cases, the Ultra-Violet Life Test is very short, but these panels have not been exposed long enough to determine their life on exposure.

Panel Number	Material	Date Exposed	Ultra-Violet Life Test
385-1	Miamax Black	4-12-24	Over 3 Weeks.
437-11	Duco 244531 Blue	7- 9-24	30 Days.
*448-6a	Zapon Blue b	7-25-24	4 Days.
448-7a	Duco 244433 Gray	7-25-24	Over 30 Days.
479-1	Murphy's Fawn Gray	9-13-24	3 Days.
479-7	Murphy's Light Blue	9-13-24	6 Days.
479-8	Murphy's Dark Blue	9-13-24	9 Days.
480-1	Beckwith-Chandler Neolite Ebony Black	9-13-24	2 Days.
480-2	Beckwith-Chandler Thistle Green	9-13-24	5 Days.
481-2	Duco 244573 Battleship Gray	9-13-24	19 Days.
481-1	Duco 244626 Bloomfield Gray	9-13-24	19 Days.
516-3	Duco	11-22-24	———
519-1b	Miroloid Dull Black	11-22-24	9 Days.
519-4b	Miroloid Blue	11-22-24	7 Days.
519-5b	Miroloid Sagebrush Green	11-22-24	———
**540-1	Valentine Black	1-30-25	16 Days.
**540-2	Valentine Blue	1-30-25	16 Days.
553	Forbes Black	3- 6-25	30 Days.
554	Valentine Black	3- 6-25	16 Days.
555	Valentine Blue	3- 6-25	16 Days.

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*448-6a Zapon Blue b developed microscopic cracks on the exposure test panel 9-9-24, but these cracks were very small, and on longer weathering of the panel they disappeared.

**540-1 and 540-2 are Valentine's primer, surfacer and topcoat of Pyroxylin materials.

TEST PANELS SUBMITTED TO MR. LYNAH

(See Mr. Mougey's Letter, May 23, 1925).

These panels were exposed on our Test Rack, forty-five degrees facing south on the dates given below. All panels were taken in May 22, 1925.

Unless otherwise noted, all materials are over General Motors forced dry primers and surfacers known to be satisfactory.

The following materials SHOW CRACKS. Those in which the cracks are very small may be polished to a high luster, but the surface cannot be restored by polishing on those with larger cracks. Some of these panels represent experimental finishes made by the different companies, and should not be taken as representative of their regular materials.

Panel Number	Material	Date Exposed	Ultra-Violet Life Test	Date First Cracks Noticed
*356-2a	Egyptian Lacquer Green #666	2-14-24	———	6-25-24
356-3	Egyptian Lacquer Green #666	2-14-24	———	6-25-24
385-7	Duco 244340 Blue	4-12-24	10 Days	10-15-24
437-7	Beckwith-Chandler Neolite	7- 9-24	———	2-20-25
448-1a	Beckwith-Chandler Sagebrush Green	7-25-24	5 Days.	2-20-25
448-2a	Beckwith Chandler Ebony Black	7-25-24	2 Days.	2-20-25
448-5a	Zapon Blue Enamel C.	7-25-24	2 Days.	9- 9-24
479-2	Murphy Murcote Buckingham Gray	9-13-24	3 Days.	2-20-25
479-3	Murphy Murcote Light Red	9-13-24	4 Days.	2-20-25
479-4	Murphy Murcote Brewster Green	9-13-24	6 Days.	5-22-25
479-5	Murphy Murcote Sagebrush Green	9-13-24	3 Days.	5-22-25
479-6	Murphy Murcote Citrus Yellow	9-13-24	4 Days.	1- 8-25
494-1b	Robert Ingram Clark's Bodilac	9-26-24	10 Days.	1- 5-25
519-2b	Miroloid Gloss Black	11-22-24	2 Days.	4- 6-25
519-3b	Miroloid Maroon	11-22-24	2 Days.	2- 3-25
523-3	Beckwith-Chandler Ebony Black	12-12-24	———	———

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*Egyptian Lacquer, primer, surfacer and topcoat.

Note: On page 1 in the margin panel number 448-6a is checked; panel numbers 479-1, 479-7 and 479-8 are checked and the name Scott is written alongside them; panel number 480-1 is checked and the name McQuaid is written alongside it; panel number 553 is checked and the name Fisher is written alongside it; panel numbers 554 and 555 are checked and the name Scott is written alongside them.

Defendant's Exhibit (GM) No. 178

GENERAL MOTORS RESEARCH CORPORATION
Inter Organization Letters Only

May 26, 1925

Paint and Enamel Committee
Meeting, June 1st, 1925,
10:00 o'clock.

Messrs: Houser, MacQuaid, Widman, Bergland, Kinney,
Weckler, Scott, Mougey.

Gentlemen:—

There are a number of questions up for consideration by the Paint and Enamel Committee. Consequently, a meeting seems to be quite desirable and has been set for Monday, June 1st. at 10:00 o'clock. We will assemble at Mr. Bergland's office, or at such conference room as he may provide.

Subjects for discussion are as follows:

Work assigned to Mr. Mougey by Committee

a. Striping b. Ground Coats c. Polishes d. Finishes for Wood	All appertaining to Duco.

In addition, Mr. Lynah, Executive Secretary, General Purchasing Committee, has asked the laboratory to pass upon various finishes intended to substitute for Duco. Mr. Mougey has been very active upon this work. We believe that this whole question of substitutes should be discussed by the entire committee and have invited Mr. Lynah to meet with us. One or more reports will go out prior to the meeting. These will serve to stimulate discussion.

Yours very truly,

Director of Research.

FOC:de

Defendant's Exhibit (GM) No. 179

C. P. 15 5M 12-24
PRINTED IN U.S.A.

Agreement, dated the 1st day of July, 1925, between

E.I. duPONT deNEMOURS & COMPANY, CHEMICAL PRODUCTS DIV., FLINT PLANT

hereinafter called the "Seller," and GENERAL MOTORS CORPORATION

DETROIT, MICHIGAN a corporation of

DELAWARE hereinafter referred to as the "Buyer," WITNESSETH:

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. DESCRIPTION AND QUANTITIES: PRICE PER

100% of Buyer's requirements and 50% or more of Fisher Body Corporation's requirements of Pyroxylin Finishes, including Duco and Duco Thinner, at the following prices:

Duco in all colors including Black	$4.40	per gallon in 5-gallon cans
Duco	4.65	" " " 1- gallon cans
Duco Thinner 3601	2.00	" " " 50-gallon drums

It is agreed that from the above prices the following schedule of quantity discounts from invoices rendered in any quarter of the calendar year will apply:

$25,000	1%	$250,000	7%
50,000	2%	300.000	8%
75,000	3%	400,000	9%
100,000	4%	500,000	10%
150,000	5%	600,000	11%
200,000	6%.	700,000	12%

It is further agreed that purchases of any products classed as Duco will be included in the quantity subject to discount.

Prices include deliveries to factory branches upon orders received from the purchasing department of the factory owning the branches to which deliveries are specified to be made.

It is further agreed that 6% based on quarterly purchases of $200,000 will be deducted on the face of each invoice rendered during the period of the contract. The DuPont Company will refund to General Motors at the end of each quarter, for proper distribution to divisions, any quantity discounts earned in excess of 6%.

2. TERMS OF PAYMENT: From the net amount of the invoice 1% cash discount for payment on or before 25th prox. will be allowed.

3. F. O. B. Destination.

4. DELIVERIES: Delivery shall be made between the date hereof and as may be specified from time to time on buyer's regular purchase orders, on or before December 31, 1925 without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost, and in accordance with the requirements of Common Carriers.

It is further agreed that Containers are to be returned to the Seller ~~at the Destination, freight collect, either Berlin or Flint~~. f.o.b. Buyer's Plants.

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5. **Special Equipment:** Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications:** Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties:** The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections:** All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection:** The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller covenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused:** The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation:** In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warranties of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc:** The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedent or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment:** This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION..........

By:..........

GENERAL PURCHASING COMMITTEE

E. I. duPONT deNEMOURS & COMPANY..........

By:..........

4981

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GENERAL MOTORS CORPORATION
DETROIT MICHIGAN

7185

August 6, 1925

E.I. duPont deNemours & Company,
5-140 General Motors Building,
Detroit, Michigan

Gentlemen: **Attention Mr. W. J. Sohlinger**

The following additional provisions to our contract dated July 1, 1925 covering our requirements of Pyroxylin Finishes including Duco and Duco Thinner are to be made a part of said contract:

1. It is further agreed that the Seller will refund the Buyer at the end of each quarter, any quantity discounts earned in excess of 6%, but in case the purchases are less than $200,000 for any quarter, the discount will be refunded by Buyer as outlined in the contract. For example, should the purchases total $150,000 during the quarter, the discount would be on a basis of 5%, etc.

2. On all shipments by rail to Oakland, Cal., it is further agreed that Seller will allow freight to St. Louis, Mo. On the return of empty containers Seller will allow freight from St. Louis, Mo., to Seller's Plants. But in case shipments are made by boat from Seller's Plants to Oakland, Cal., full freight will be allowed, as well as on the return shipments of empty containers.

Very truly yours,

GENERAL PURCHASING COMMITTEE
James Lynah, Executive Secretary

By:
Purchase Contract Investigations

Charles Blake:EK

Mr. H. C. Weckler, August 27, 1925.
Buick Motor Company,
Flint, Michigan.

Dear Mr. Weckler:

At the Paint & Enamel Committee Meeting, held in Detroit, June 9, we discussed the matter of practical tests on a few cars using cellulose nitrate finishes which are offered by the different varnish companies as substitutes for Duco.

The General Motors Purchasing Committee is desirous of obtaining reliable service data which would make it possible to purchase other cellulose nitrate finishes as substitutes for Duco if the price and other commercial factors made such a proceedure desirable.

At the Committee meeting it was decided that each of the car units would finish a few cars with the experimental cellulose nitrate finish in which they are most interested, and complete records of working properties, such as spraying, covering, rubbing, polishing, etc., were to be recorded. After these cars are finished they were to be put in service under such conditions as to make it possible to obtain service data on the durability of the finishes. We feel that it is very important that these tests be made, both from the standpoint of the General Motors Purchasing Committee and the different units.

Each member of the committee was supposed to notify the Chairman as to the make of the material with which they wished to use to finish a few experimental cars.

Since time is rapidly passing and none of the units have notified me of their choice, I am wondering whether you would be willing to go ahead with this work using Valentine finish, made by the Valentine Varnish Company, 456 Fourth Avenue, New York City, N.Y.

Yours very truly,

Chairman,
Paint & Enamel Committee.

FOC:de

7187

Mr. John M. Scott, August 27, 1925.
Olds Motor Works,
Lansing, Michigan.

Dear Mr. Scott:

At the Paint & Enamel Committee Meeting, held in Detroit, June 9, we discussed the matter of practical tests on a few cars using cellulose nitrate finishes which are offered by the different varnish companies as substitutes for Duco.

The General Motors Purchasing Committee is desirous of obtaining reliable service data which would make it possible to purchase other cellulose nitrate finishes as substitutes for Duco if the price and other commercial factors made such a proceedure desirable.

At the Committee Meeting it was decided that each of the car units would finish a few cars with the experimental cellulose nitrate finish in which they are most interested, and complete records of working properties, such as spraying, covering, rubbing, polishing, etc., were to be recorded. After these cars are finished they were to be put in service under such conditions as to make it possible to obtain service data on the durability of the finishes. We feel that it is very important that these tests be made, both from the standpoint of the General Motors Purchasing Committee and the different units.

Each member of the committee was supposed to notify the Chairman as to the make of the material with which they wished to use to finish a few experimental cars.

Since time is rapidly passing and none of the units have notified me of their choice, I am wondering whether you would be willing to go ahead with this work using Murphy finish, made by the Murphy Varnish Company, 224 McWhorter St., Newark, N.J.

Yours very truly,

Chairman,
FOC:de *Paint & Enamel Committee.*

7188

V

Mr. S. Houser,
Fisher-Body Corporation,
Detroit, Michigan.

August 27, 1925.

Dear Mr. Houser:

At the Paint & Enamel Committee Meeting, held in Detroit, June 9, we discussed the matter of practical tests on a few cars using cellulose nitrate finishes which are offered by the different varnish companies as substitutes for Duco.

The General Motors Purchasing Committee is desirous of obtaining reliable service data which would make it possible to purchase other cellulose nitrate finishes as substitutes for Duco if the price and other commercial factors made such a proceedure desirable.

At the Committee meeting it was decided that each of the car units would finish a few cars with the experimental cellulose nitrate finish in which they are most interested, and complete records of working properties, such as spraying, covering, rubbing, polishing, etc., were to be recorded. After these cars are finished they were to be put in service under such conditions as to make it possible to obtain service data on the durability of the finishes. We feel that it is very important that these tests be made, both from the standpoint of the General Motors Purchasing Committee and the different units.

Each member of the committee was supposed to notify the Chairman as to the make of the material with which they wished to use to finish a few experimental cars.

Since time is rapidly passing and none of the units have notified me of their choice, I am wondering whether you would be willing to go ahead with this work using Forbes finish, made by the Forbes Varnish Company, 3800 West 143rd St., Cleveland, Ohio.

Yours very truly,

Chairman,
Paint & Enamel Committee.

FOC:de

Defendant's Exhibit (GM) No. 183

August 27, 1925.

Mr. John MacQuaid,
Chevrolet Motor Car Co.,
Flint, Michigan.

Dear Mr. MacQuaid:

At the Paint & Enamel Committee Meeting, held in Detroit, June 9, we discussed the matter of practical tests on a few cars using cellulose nitrate finishes which are offered by the different varnish companies as substitutes for Duco.

The General Motors Purchasing Committee is desirous of obtaining reliable service data which would make it possible to purchase other cellulose nitrate finishes as substitutes for Duco if the price and other commercial factors made such a proceedure desirable.

At the Committee meeting it was decided that each of the car units would finish a few cars with the experimental cellulose nitrate finish in which they are most interested, and complete records of working properties, such as spraying, covering, rubbing, polishing, etc., were to be recorded. After these cars are finished they were to be put in service under such conditions as to make it possible to obtain service data on the durability of the finishes. We feel that it is very important that these tests be made, both from the standpoint of the General Motors Purchasing Committee and the different units.

Each member of the committee was supposed to notify the Chairman as to the make of the material with which they wished to use to finish a few experimental cars.

Since time is rapidly passing and none of the units have notified me of their choice, I am wondering whether you would be willing to go ahead with this work using Beckwith-Chandler finish, made by the Beckwith-Chandler Company, 193-211 Emmett St., Newark, N.J.

Yours very truly,

Chairman,
Paint and Enamel Committee.

FOC:de

Defendant's Exhibit (GM) No. 184

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
CHEMICAL PRODUCTS DIVISION
DETROIT, MICH.

January 5th, 1926.

James Lynch,
General Motors Corp.,
Detroit, Michigan.

Dear Sir:

Referring to the attached contract covering your requirements of Pyroxylin Finishes during 1926, we wish to call attention to the wording which excludes the foreign plants of the Export Company by the use of the phrase "domestic plants."

It is our understanding that this contract is to include 100% of the requirements of foreign plants with the exception of such purchases as the Export Company may desire to make from foreign Duco manufacturing companies affiliated with our interests.

If this is correct, please signify your agreement by approving and making this letter a part of the contract.

Yours very truly,

E. I. du Pont de Nemours & Co.

MANAGER AUTOMOTIVE SALES

C. P. 15 5M 6-29 7191

Agreement, dated the 1st day of January, 1926, between

E.I. duPONT deNEMOURS & COMPANY, CHEMICAL PRODUCTS DIV., FLINT PLANT

hereinafter called the "Seller," and GENERAL MOTORS CORPORATION

DETROIT, MICHIGAN a corporation of

DELAWARE hereinafter referred to as the "Buyer," WITNESSETH:

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. DESCRIPTION AND QUANTITIES: PRICE PER

100% of Buyer's requirements for domestic plants and 50% or more of Fisher Body Corporation's requirements of Pyroxylin Finishes including Duco and Duco Thinner, at the following prices:

Duco in all standard colors including Black	$4.40 per gal. in 5-gal. cans
Duco " " " " " "	4.55 " " " 1-gal. "
Duco Thinner 2601	2.00 " " "50-gal. drums
Any additional suitable thinners at prices to be agreed upon.	
Brushing Black or Standard Colors	5.00 per gal. in 5-gal. cans
" " " " "	5.15 " " " 1-gal. "
Maroon Duco	6.50 " " " 5-gal. "
" "	6.65 " " " 1-gal. "

The above prices include deliveries to factory branches upon orders received from the Purchasing Department of the Buyer's factory owning or controlling the branches to which deliveries are specified to be made.

It is agreed that for General Motors Export Company's requirements of Duco in all standard colors including Blacks an additional charge of fifteen (15) cents per gallon will be made. This also applies to Maroon Duco and Brushing Black or standard colors.

It is further agreed that from the above prices the following schedule of quantity discounts from invoices rendered in any quarter of the calendar year will apply:

(OVER)

2. TERMS OF PAYMENT: As noted hereinafter.

3. F. O. B. Cars, city in which Buyer's Division is located, with exceptions as noted hereinafter.

4. DELIVERIES: Delivery shall be made between the date hereof and as may be specified from time to time on buyer's regular purchase orders, on or before December 31, 1926. without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost, and in accordance with the requirements of Common Carriers.

$25,000 - 1%
50,000 - 2%
75,000 - 3%
100,000 - 4%
150,000 - 5%
200,000 - 6%
250,000 - 7%
300,000 - 8%

$400,000 - 9%
500,000 - 10%
600,000 - 11%
700,000 - 12%
725,000 - 12-1/4%
750,000 - 12-1/2%
775,000 - 12-3/4%
800,000 - 13%

$825,000 - 13-1/4%
850,000 - 13-1/2%
875,000 - 13-3/4%
900,000 - 14%
925,000 - 14-1/4%
950,000 - 14-1/2%
975,000 - 14-3/4%
1,000,000 - 15%

It is further agreed that purchases of any products classed as Duco will be included in the quantity subject to the foregoing discount schedule.

It is further agreed that Seller will make adjustments monthly on a 10% basis, final adjustment to be made at end of each quarter. The monthly credit memorandums will be issued to Buyer's Divisions not later than the 10th prox., which will be deducted by Buyer. From this net amount Buyer is entitled to an additional discount of 1% for cash, if payment is made on or before the 25th prox.

If the 10%, which is based on purchases of $500,000 quarterly is not earned, Buyer agrees to refund Seller accordingly. If more than 10% is earned, Seller will then issue additional credit to Buyer.

Seller further agrees to apply purchases in excess of $1,000,000 in any quarter to any other quarter during the year's period which may fall short of $1,000,000.

It is understood that the word "Buyer" used herein shall include all Divisions and affiliated companies of the Buyer in accordance with the list attached hereto and made a part of this agreement.

It is further agreed that containers are to be returned to Seller f.o.b. Buyer's Plants.

On all shipments by rail to Oakland, Cal., or other points west of St. Louis, Mo., it is further agreed that Seller will allow freight to St. Louis, Mo.

On the return of empty containers, Seller will allow freight from St. Louis, Mo., to Seller's Plants.

But in case shipments are made via boat from Seller's Plant to Oakland, Cal., or other points west of St. Louis, Mo., full freight will be allowed; as well as on the return shipments via boat of empty containers.

It is further agreed that on shipments to General Motors Export Company, the delivery terms are f.o.b. Docks, New York City.

5. **Special Equipment:** Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications:** Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties:** The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections:** All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection:** The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller covenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused:** The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation:** In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warranties of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc:** The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedent or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment:** This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION

By: ....
GENERAL PURCHASING COMMITTEE

E. I. duPONT deNEMOURS & COMPANY

By ....

OK [illegible]
[illegible]

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4992

GENERAL MOTORS CORPORATION

October 1925

PURCHASING AGENTS - ALL DIVISIONS

DIVISION	LOCATION	PURCHASING AGENT
A.C. Spark Plug Co.	Flint, Michigan	H.R. Wells
Armstrong Spring Division	Flint, Michigan	T.E. Lang
Brown-Lipe-Chapin	Syracuse, N.Y.	C.A. Lawton
Buick Motor Company	Flint, Michigan	G.G. Allen
Cadillac Motor Company	Detroit, Michigan	D.F. Hulgrave
Chevrolet Motor Company	Flint, Michigan	E.L. Sly

D.P. O'Keefe, Detroit, Mich. has supervision over the following Chev. Pur. Depts:

DIVISION	LOCATION	PURCHASING AGENT
Chevrolet Motor Company	Bay City, Michigan	C.E. Keeler
"	Bloomfield, N.J.	~~J.A. Foley~~ R. H. Chalmers.
"	Buffalo, N.Y.	G.H. Domedion
"	Norwood, Ohio	G.E. McPartlin
"	Janesville, Wis.	R.M. Clithero
"	Oakland, Cal.	E.S. Martin
"	St. Louis, Mo.	H.B. Boyer
"	Tarrytown, N.Y.	J.H. Poole
"	Toledo, Ohio	W.E. Beard
" (Gear & Axle)	Detroit, Michigan	F.J. McLaughlin
" (Forge Plant)	Detroit, Michigan	C.E.Randolph
Dayton Engineering Laboratories	Dayton, Ohio	C.H. Kramer
Delco-Light Company	Dayton, Ohio	~~C.G. Callicon~~W.E. Kreitzer
General Motors Building Corp.	Detroit, Michigan	H.A. Austin
General Motors Corporation	New York, N.Y.	C.D. Shrady*
~~General Motors of Canada~~	~~Oshawa, Ontario~~	~~[illegible] Drew~~
General Motors Corporation	Detroit, Michigan	H.F. Bacall
General Motors Truck Corp.	Pontiac, Michigan	H.J. Crichton
~~Glancy Malleable Corporation~~	~~Waukesha, Wis.~~	~~L.D. Harbrider~~
Harrison Radiator Corporation	Lockport, N.Y.	L.P. Coates
Hyatt Roller Bearings Div	Newark, N.J.	F.A. Weiss
Inland Manufacturing Co.	Dayton, Ohio	J.D. O'Brien
Jaxon Steel Products Co.	Jackson, Michigan	G.W. Clemons
Lancaster Steel Products	Lancaster, Pa.	H.L. McClure
Muncie Products Company	Muncie, Indiana	Earl Wedleke
New Departure Mfg. Co.	Bristol, Conn.	W.A. Kimball
Oakland Motor Car Company	Pontiac, Michigan	C.O. Miller
Olds Motor Works	Lansing, Michigan	W.F. Armstrong
Remy Electric Company	Anderson, Indiana	E.J. O'Donnell
Saginaw Products Company	Saginaw, Michigan	V.E. Libby
~~Samson Tractor Company~~	~~Janesville, Wis.~~	~~S.M. Donnelly (Miss)~~
United Motors Service Co.	Detroit, Michigan	R. C. Campbell
Fisher Body Corp. (Allied)	Detroit, Michigan	J.T. Stratman
Yellow Truck & Coach Mfg. Co.	Chicago, Illinois	W. E. Maun

*C.D. Shrady purchases for:
General Motors Corporation, New York
General Motors Building Corp., New York
General Motors Acceptance Corp., New York
General Motors Export Co., New York- G. Nelson
General Exchange Corporation, New York

Yellow Sleeve-Valve Engine Works	E. Moline, Ill.	H. Dahlquist

LIST OF BRANCHES

CAR	CITY	STATE	
Buick	Atlanta	Georgia	
	Buffalo	New York	
	Chicago	Illinois	
	Dallas	Texas	
	Denver	Colorado	
	Detroit	Michigan	
	El Paso	Texas	
	Flint	Michigan	
	Grand Rapids	Michigan	
	Indianapolis	Indiana	
	Jacksonville	Florida	
	Kansas City	Missouri	
	Memphis	Tennessee	
	Milwaukee	Wisconsin	
	New York City	New York	
	Oklahoma City	Oklahoma	
	Philadelphia	Pennsylvania	
	Pittsburgh	Pennsylvania	
	San Antonio	Texas	
	Washington	District of Columbia	
Cadillac	Chicago	Illinois	
	Detroit	Michigan	
	Philadelphia	Pennsylvania	
Oakland	Atlanta	Georgia)	
	Oklahoma City	Oklahoma)	Retail
	Omaha	Nebraska)	Stores
	Spokane	Washington)	
Oldsmobile	Atlanta	Georgia	
	Chicago	Illinois	
	Cincinnati	Ohio	
	Dallas	Texas	
	Denver	Colorado	
	Detroit	Michigan	
	Memphis	Tennessee	
	Minneapolis	Minnesota	
	New York City	New York	

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LIST OF BRANCHES

CAR	CITY	STATE
General Motors	**Branches:**	
Truck	Atlanta	Georgia
	Chicago	Illinois
	Cleveland	Ohio
	Dallas	Texas
	Denver	Colorado
	Idianapolis	Indiana
	Los Angeles	California
	Memphis	Tennessee
	Minneapolis	Minnesota
	New York City	New York
	Philadelphia	Pennsylvania
	Pontiac	Michigan
	St. Louis	Missouri
	San Francisco	California
	Seattle	Washington
	Sub-branches and retail stores:	
	Albany	New York
	Birmingham	Alabama
	Brooklyn	New York
	Bronx	New York
	Charlotte	North Carolina
	Columbus	Ohio
	Dayton	Ohio
	Fort Wayne	Indiana
	Fort Worth	Texas
	Fresno	California
	Jacksonville	Florida
	Louisville	Kentucky
	Milwaukee	Wisconsin
	Newark	New Jersey
	Oakland	California
	Sacramento	California
	St. Paul	Minnesota
	Spokane	Washington
	Tacoma	Washington

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CHEVROLET

Zone Offices and Retail Stores

Retail Stores

Broadway,
New York City.

General Motors Building,
Detroit, Michigan.

Zone Offices

Atlanta, Georgia
Baltimore, Maryland
Buffalo, New York
Charlotte, North Carolina
Chicago, Illinois
Dallas, Texas
Denver, Colorado
Des Moines, Iowa
Flint, Michigan
Indianapolis, Indiana
Jacksonville, Florida
Janesville, Wisconsin
Kansas City, Missouri
Los Angeles, California
Louisville, Kentucky
Memphis, Tennessee
Minneapolis, Minnesota
New Orleans, Louisiana
Norwood, Ohio
Oakland, California
Oklahoma City, Oklahoma
Philadelphia, Pennsylvania
Pittsburg, Pennsylvania
Portland, Oregon
St. Louis, Missouri
Tarrytown, New York

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LIST OF BRANCHES

	CITY	STATE
General Motors Acceptance	Atlanta	Georgia
	Boston	Massachusetts
	Buffalo	New York
	Charlotte	North Carolina
	Chicago	Illinois
	Cincinnati	Ohio
	Cleveland	Ohio
	Dallas	Texas
	Dayton	Ohio
	Denver	Colorado
	Detroit	Michigan
	Detroit (Truck)	Michigan
	Indianapolis	Indiana
	Jacksonville	Florida
	Kansas City	Missouri
	Los Angeles	California
	Memphis	Tennessee
	Minneapolis	Minnesota
	New York City	New York
	Oklahoma City	Oklahoma
	Omaha	Nebraska
	Philadelphia	Pennsylvania
	Pittsburgh	Pennsylvania
	Portland	Oregon
	St. Louis	Missouri
	San Francisco	California
	Washington	District of Columbia
	Toronto	Ontario, Canada
	Montreal	Quebec, Canada
	Winnipeg	Manitoba, Canada
	London	England
United Motors Service	Atlanta	Georgia
	Boston	Massachusetts
	Buffalo	New York
	Chicago	Illinois
	Cleveland	Ohio
	Dallas	Texas
	Denver	Colorado
	Detroit	Michigan
	Indianapolis	Indiana
	Kansas City	Missouri
	Los Angeles	California
	Minneapolis	Minnesota
	New Orleans	Louisiana
	New York City	New York
	Omaha	Nebraska
	Philadelphia	Pennsylvania
	St. Louis	Missouri
	San Francisco	California
	Seattle	Washington
	Toronto	Ontario, Canada

C. P. 15
PRINTED IN U S A

Defendant's Exhibit (GM) No. 185

Agreement, dated the 1st day of January 1926, between

E.I. duPONT deNEMOURS & COMPANY, CHEMICAL PRODUCTS DIV., FLINT PLANT

hereinafter called the "Seller," and GENERAL MOTORS CORPORATION

DETROIT, MICHIGAN a corporation of

DELAWARE hereinafter referred to as the "Buyer," WITNESSETH:

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. DESCRIPTION AND QUANTITIES: PRICE PER

Buyer's requirements of Seller's manufacture of the following paint and varnish type materials, at current prices:

Primer
Fender Enamel
Rubbing Compound
Glazing Putty
Chassis Black
Surfacer
Motor Enamel
Rubber First Coat
Gas Tank Enamel

In addition to the current prices, it is further agreed that the total purchases of the above materials are subject to the sliding scale of discounts for quarterly purchases, as follows:

$50,000 - 5%
100,000 - 6%
$150,000 - 7%
200,000 - 8%

If the quantity discount is earned it is understood that Seller will refund to Buyer at the end of each quarterly period.

It is further agreed that ~~[illegible]~~ delivery terms applying under this contract will be identically the same as those applying under Seller's contract covering Buyer's requirements of Pyroxylin Finishes including Duco and Duco Thinner.

It is understood that the word "Buyer" used herein shall include all Divisions and affiliated companies of the Buyer in accordance with the list attached hereto and made a part of this agreement.

2. TERMS OF PAYMENT: ~~[illegible]~~ 1% Cash Discount 25th Prox.

3. F. O. B. As stated above.

4. DELIVERIES: Delivery shall be made between the date hereof and as may be specified from time to time on buyer's regular purchase orders, on or before December 31, 1926. without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost, and in accordance with the requirements of Common Carriers.

5. **Special Equipment:** Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications:** Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties:** The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections:** All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection:** The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller covenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

   If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused:** The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation:** In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warranties of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc:** The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedent or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment:** This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION..........

By: James Lynah..........

GENERAL PURCHASING COMMITTEE

E. I. duPONT deNEMOURS & COMPANY.....

By:..........

Manager, Automotive Sales

GENERAL MOTORS CORPORATION

December
~~October~~ 1925

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PURCHASING AGENTS - ALL DIVISIONS

DIVISION	LOCATION	PURCHASING AGENT
A.C. Spark Plug Co.	Flint, Michigan	H.R. Wells
Armstrong Spring Division	Flint, Michigan	T.E. Lang
Brown-Lipe-Chapin	Syracuse, N.Y.	C.A. Lawton
Buick Motor Company	Flint, Michigan	G.G. Allen
Cadillac Motor Company	Detroit, Michigan	D.F. Hulgrave
Chevrolet Motor Company	Flint, Michigan	E.L. Sly
D.P. O'Keefe, Detroit, Mich. has supervision over the following Chev. Pur. Depts:		
Chevrolet Motor Company	Bay City, Michigan	C.E. Keeler
"	Bloomfield, N.J.	~~J.A. Foley~~ R. H. Chalmers
"	Buffalo, N.Y.	G.H. Domedion
"	Norwood, Ohio	G.E. McPartlin
"	Janesville, Wis.	R.M. Clithero
"	Oakland, Cal.	E.S. Martin
"	St. Louis, Mo.	H.B. Boyer
"	Tarrytown, N.Y.	J.H. Poole
"	Toledo, Ohio	W.E. Beard
" (Gear & Axle)	Detroit, Michigan	F.J. McLaughlin
" (Forge Plant)	Detroit, Michigan	C.E. Randolph
Dayton Engineering Laboratories	Dayton, Ohio	C.H. Kramer
Delco-Light Company	Dayton, Ohio	~~O.C. Callison~~ W.E. Kreitzer
General Motors Building Corp.	Detroit, Michigan	H.A. Austin
General Motors Corporation	New York, N.Y.	C.D. Shrady*
~~General Motors of Canada~~	~~Oshawa, Ontario~~	~~R.W. Drew~~
General Motors Corporation	Detroit, Michigan	H.F. Bacall
General Motors Truck Corp.	Pontiac, Michigan	H.J. Crichton
~~Glancy Malleable Corporation~~	~~Waukesha, Wis.~~	~~L.D. Herbrider~~
Harrison Radiator Corporation	Lockport, N.Y.	L.P. Coates
Hyatt Roller Bearings Div	Newark, N.J.	F.A. Weiss
Inland Manufacturing Co.	Dayton, Ohio	J.D. O'Brien
Jaxon Steel Products Co.	Jackson, Michigan	G.W. Clemons
Lancaster Steel Products	Lancaster, Pa.	H.L. McClure
Muncie Products Company	Muncie, Indiana	Earl Wedleke
New Departure Mfg. Co.	Bristol, Conn.	W.A. Kimball
Oakland Motor Car Company	Pontiac, Michigan	C.O. Miller
Olds Motor Works	Lansing, Michigan	W.F. Armstrong
Remy Electric Company	Anderson, Indiana	F.J. O'Donnell
Saginaw Products Company	Saginaw, Michigan	V.E. Libby
~~Samson Tractor Company~~	~~Janesville, Wis.~~	~~S.M. Donnelly (Miss)~~
United Motors Service Co.	Detroit, Michigan	R. C. Campbell
Fisher Body Corp. (Allied)	Detroit, Michigan	J.T. Stratman
Yellow Truck & Coach Mfg. Co.	Chicago, Illinois	[illegible]. E. Laun

*C.D. Shrady purchases for:
General Motors Corporation, New York
General Motors Building Corp., New York
General Motors Acceptance Corp., New York
General Motors Export Co., New York
General Exchange Corporation, New York

Yellow Sleeve-Valve Engine Works	East Moline, Ill.	H. Dahlquist

5000

LIST OF BRANCHES

CAR	CITY	STATE
Buick	Atlanta	Georgia
	Buffalo	New York
	Chicago	Illinois
	Dallas	Texas
	Denver	Colorado
	Detroit	Michigan
	El Paso	Texas
	Flint	Michigan
	Grand Rapids	Michigan
	Indianapolis	Indiana
	Jacksonville	Florida
	Kansas City	Missouri
	Memphis	Tennessee
	Milwaukee	Wisconsin
	New York City	New York
	Oklahoma City	Oklahoma
	Philadelphia	Pennsylvania
	Pittsburgh	Pennsylvania
	San Antonio	Texas
	Washington	District of Columbia
Cadillac	Chicago	Illinois
	Detroit	Michigan
	Philadelphia	Pennsylvania
Oakland	Atlanta	Georgia) Retail Stores
	Oklahoma City	Oklahoma
	Omaha	Nebraska
	Spokane	Washington
Oldsmobile	Atlanta	Georgia
	Chicago	Illinois
	Cincinnati	Ohio
	Dallas	Texas
	Denver	Colorado
	Detroit	Michigan
	Memphis	Tennessee
	Minneapolis	Minnesota
	New York City	New York

LIST OF BRANCHES

CAR	CITY	STATE
General Motors	**Branches:**	
Truck	Atlanta	Georgia
	Chicago	Illinois
	Cleveland	Ohio
	Dallas	Texas
	Denver	Colorado
	Idianapolis	Indiana
	Los Angeles	California
	Memphis	Tennessee
	Minneapolis	Minnesota
	New York City	New York
	Philadelphia	Pennsylvania
	Pontiac	Michigan
	St. Louis	Missouri
	San Francisco	California
	Seattle	Washington
	Sub-branches and retail stores:	
	Albany	New York
	Birmingham	Alabama
	Brooklyn	New York
	Bronx	New York
	Charlotte	North Carolina
	Columbus	Ohio
	Dayton	Ohio
	Fort Wayne	Indiana
	Fort Worth	Texas
	Fresno	California
	Jacksonville	Florida
	Louisville	Kentucky
	Milwaukee	Wisconsin
	Newark	New Jersey
	Oakland	California
	Sacramento	California
	St. Paul	Minnesota
	Spokane	Washington
	Tacoma	Washington

CHEVROLET

Zone Offices and Retail Stores

Retail Stores

Broadway,
New York City.

General Motors Building,
Detroit, Michigan.

Zone Offices

- Atlanta, Georgia
- Baltimore, Maryland
- Buffalo, New York
- Charlotte, North Carolina
- Chicago, Illinois
- Dallas, Texas
- Denver, Colorado
- Des Moines, Iowa
- Flint, Michigan
- Indianapolis, Indiana
- Jacksonville, Florida
- Janesville, Wisconsin
- Kansas City, Missouri
- Los Angeles, California
- Louisville, Kentucky
- Memphis, Tennessee
- Minneapolis, Minnesota
- New Orleans, Louisiana
- Norwood, Ohio
- Oakland, California
- Oklahoma City, Oklahoma
- Philadelphia, Pennsylvania
- Pittsburg, Pennsylvania
- Portland, Oregon
- St. Louis, Missouri
- Tarrytown, New York

	CITY	STATE
General Motors Acceptance	Atlanta	Georgia
	Boston	Massachusetts
	Buffalo	New York
	Charlotte	North Carolina
	Chicago	Illinois
	Cincinnati	Ohio
	Cleveland	Ohio
	Dallas	Texas
	Dayton	Ohio
	Denver	Colorado
	Detroit	Michigan
	Detroit (Truck)	Michigan
	Indianapolis	Indiana
	Jacksonville	Florida
	Kansas City	Missouri
	Los Angeles	California
	Memphis	Tennessee
	Minneapolis	Minnesota
	New York City	New York
	Oklahoma City	Oklahoma
	Omaha	Nebraska
	Philadelphia	Pennsylvania
	Pittsburgh	Pennsylvania
	Portland	Oregon
	St. Louis	Missouri
	San Francisco	California
	Washington	District of Columbia
	Toronto	Ontario, Canada
	Montreal	Quebec, Canada
	Winnipeg	Manitoba, Canada
	London	England
United Motors Service	Atlanta	Georgia
	Boston	Massachusetts
	Buffalo	New York
	Chicago	Illinois
	Cleveland	Ohio
	Dallas	Texas
	Denver	Colorado
	Detroit	Michigan
	Indianapolis	Indiana
	Kansas City	Missouri
	Los Angeles	California
	Minneapolis	Minnesota
	New Orleans	Louisiana
	New York City	New York
	Omaha	Nebraska
	Philadelphia	Pennsylvania
	St. Louis	Missouri
	San Francisco	California
	Seattle	Washington
	Toronto	Ontario, Canada

Defendant's Exhibit (GM) No. 186

C. P. 15 [illegible] [illegible]
[illegible] U. S. A.

Agreement, dated the ..... 1st .... day of ..... January ...., 192.7.., between

.... E.I. DUPONT DENEMOURS & COMPANY, ..CHEMICAL PRODUCTS DIV., FLINT, MICH.

hereinafter called the "Seller," and .... GENERAL MOTORS CORPORATION ....

.... DETROIT, MICHIGAN ....a corporation of

..DELAWARE.................................hereinafter referred to as the "Buyer," WITNESSETH;

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. DESCRIPTION AND QUANTITIES: PRICE PER

Buyer's requirements of Seller's make of Pyroxylin Finishes, including Duco and Duco Thinner, at the following prices:

Duco - All standard shades	5-Gal, Cans	$4.00	per	Gal.
" - Maroon	" "	6.00	"	"
Striping Duco - all standard shades	" "	4.60	"	"
" " - Maroon	" "	6.50	"	"
Duco Thinner - 3614	Drums	1.20	"	"
" " 3601	"	1.50	"	"
Striping Duco Thinner - 3610	"	1.50	"	"

Duco Thinner in Tank Cars - six cents per gallon less than in Drums.
✓ For General Motors Export Company's requirements, an additional charge of 15¢ per gallon will be made.

The above prices subject to the usual differential for smaller packages and are also subject to change providing Seller gives Buyer 30 days' notice before change goes into effect.

The above prices include deliveries to factory branches upon orders received from the Purchasing Department of the Buyer's factory owning or controlling the branches to which deliveries are specified to be made.

The above prices are also subject to the following schedule of quantity discounts from invoices rendered in any quarter of the calendar year:

(OVER)

2. TERMS OF PAYMENT:... 1% Cash - 25th Prox. ....

....

3. F. O. B.... Cars, city in which Buyer's Division is located, with exceptions as .... noted hereinafter...

4. DELIVERIES: Delivery shall be made between the date hereof and .. December 31, 1927 .... as may be specified from time to time on buyer's regular purchase orders, on or before December 31, 1927. without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost and in accordance with the requirements of Common Carriers.

$ 25,000 - 1%
50,000 - 2%
75,000 - 3%
100,000 - 4%
125,000 - 4-1/2%
150,000 - 5%
175,000 - 5-1/2%
200,000 - 6%

$225,000 - 6-1/4%
250,000 - 6-1/2%
275,000 - 6-3/4%
300,000 - 7%
325,000 - 7-1/4%
350,000 - 7-1/2%
375,000 - 7-3/4%
400,000 - 8%

450,000 - 8-1/4%
500,000 - 8-1/2%
550,000 - 8-3/4%
600,000 - 9%
650,000 - 9-1/4%
700,000 - 9-1/2%
750,000 - 9-3/4%
800,000 - 10%

The Seller agrees to apply purchases in excess of $800,000 in any quarter to any quarter during the year's period which may fall short of $800,000.

Assuming that the aggregate purchases of any one quarter will total $200,000, it is agreed that 6% will show on the face of all invoices. In the event the volume of purchases is greater than $200,000 in any quarter, the difference between the percentage of discount earned and the 6% will be refunded by Seller in the form of a credit memorandum at the end of the quarter.

If the 6% is not earned, Buyer will then refund to Seller accordingly, the refund to be based on the foregoing quantity discount schedule.

It is understood that the word "Buyer" used herein shall include all Divisions and affiliated companies of the Buyer in accordance with the list attached hereto and made a part of this agreement.

It is further agreed that containers are to be returned to Seller F.O.B. Buyer's Plants.

On shipments by rail to Oakland, Cal., or other points west of St. Louis, Mo., Seller will allow freight to St. Louis. On the return of empty containers from these points Seller will allow freight from St. Louis to Seller's Plant.

In case shipments are made via boat from Seller's Plant to Oakland, Cal., and other points west of St. Louis, Mo., full freight will be allowed, as well as on the return shipments via boat of empty containers.

On shipments to General Motors Export Company, F.O.B. Docks, New York City.

It is further agreed that No. 3942 Retarder or any other product classed as Duco will be included in the quantity subject to the foregoing discount schedule.

5. **Special Equipment:** Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications:** Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties:** The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections:** All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection:** The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller covenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused:** The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation:** In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warrants of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc.:** The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedents or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment:** This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION

By: James
GENERAL PURCHASING COMMITTEE

E. I. du PONT de NEMOURS & COMPANY

By:
Mgr. Automotive Sales

7210

November 1926.

GENERAL MOTORS CORPORATION

DIVISION	LOCATION	PURCHASING AGENT
A.C. Spark Plug Co.	Flint, Michigan	H. R. Wells
Armstrong Spring Division	Flint, Michigan	T. E. Lang
Brown-Lipe-Chapin Division	Syracuse, N.Y.	C. A. Lawton
Buick Motor Company	Flint, Michigan	G. G. Allen
Cadillac Motor Company	Detroit, Michigan	D. F. Hulgrave
Chevrolet Motor Company	Detroit, Michigan	D. P. O'Keefe
"	Bay City, Mich.	C. E. Keeler
"	Flint, Michigan	E. L. Sly
"	Toledo, Ohio	A. A. Bronson
" (Gear & Axle)	Detroit, Michigan	F. J. McLaughlin
" (Forge Plant)	Detroit, Michigan	C. E. Randolph

Mr. O'Keefe, Chevrolet Central Office, has supervision over the following:

DIVISION	LOCATION	PURCHASING AGENT
Chevrolet Motor Company	Bloomfield, N.J.	J. A. Foley
"	Buffalo, N.Y.	G. H. Domedion
"	Norwood, Ohio	G. E. McPartlin
"	Janesville, Wis.	R. E. Clithero
"	Oakland, Cal.	E. S. Martin
"	St. Louis, Mo.	H. B. Boyer
"	Tarrytown, N. Y.	R. E. Lewis
Dayton Engineering Laboratories	Dayton, Ohio	C. H. Kramer
Delco-Light Company	Dayton, Ohio	W. E. Kreitzer
Fisher Body Corporation	Detroit, Michigan	J. T. Stratman, Central Office.
"	Flint, Mich. Plant #1	
"	Lansing, Michigan	
"	Pontiac, Michigan	
"	Buffalo, N.Y.	C. A. Crusoe, Central Office
"	Cleveland, Ohio	
"	Flint, Mich. Plant #2	
"	Janesville, Wis.	
"	Memphis, Tenn.	
"	Oakland, Cal.	
"	St. Louis, Mo.	
"	Tarrytown, N.Y.	
"	Norwood, Ohio	
National Plate Glass Co.	Blairsville, Pa.	Paul Nesbit, Detroit, Mich.
"	Detroit, Mich.	
"	Saginaw, Mich.	
"	Ottawa, Ill.	
Ternstedt Mfg. Company	Detroit, Mich.	H. O. Buelteman
Broadbrook Mfg. Company	Broadbrook, Conn.	H. C. Brook
Fleetwood Metal Body Company	Fleetwood, Pa.	A. J. Schlagel.
General Motors Building Corp.	Detroit, Michigan	H. F. Bacall
General Motors Corporation	Detroit, Michigan	H. F. Bacall

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General Motors Corporation	New York, N.Y.	C. D. Shrady, New York Office
General Motors Building Corp.	New York, N.Y.	
General Motors Acceptance Corp.	New York, N.Y.	
General Motors Export Co.	New York, N.Y.	
General Exchange Corp.	New York, N.Y.	
General Motors of Canada	Oshawa, Ontario	E. W. Drew
General Motors Truck Corp.	Pontiac, Mich.	H. J. Crichton
Harrison Radiator Corp.	Lockport, N.Y.	L. P. Coates
Hyatt Roller Bearings Div.	Harrison, N.J.	F. A. Weiss
Inland Manufacturing Co.	Dayton, Ohio	J. D. O'Brien
Jaxon Steel Products Co.	Jackson, Mich.	G. W. Clemons
Muncie Products Co.	Muncie, Indiana	Earl Wedlake
New Departure Mfg. Co.	Bristol, Conn.	W. A. Kimball
Oakland Motor Car Company	Pontiac, Mich.	C. O. Miller
Olds Motor Works	Lansing, Mich.	W. F. Armstrong
Remy Electric Company	Anderson, Indiana	F. J. O'Donnell
Saginaw Products Co.	Saginaw, Mich.	V. E. Libby
United Motors Service	Detroit, Mich.	R. C. Campbell
Yellow Truck & Coach Mfg. Co. (Allied)	Chicago, Illinois	W. B. Livingston
Yellow Sleeve-Valve Engine Works "	East Moline, Ill.	H. Dahlquist

Defendant's Exhibit (GM) No. 187

Agreement, dated the ....first........day of...January............, 1928.., between

E. I. duPONT deNEMOURS & COMPANY, CHEMICAL PRODUCTS DIVISION, DETROIT, MICHIGAN,

hereinafter called the "Seller," and ....GENERAL MOTORS CORPORATION..................

....................................DETROIT, MICHIGAN................a corporation of

DELAWARE,..............................hereinafter referred to as the "Buyer," Witnesseth;

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. Description and Quantities: Price Per

Buyer's requirements of Seller's make of Pyroxylin Finishes, including Duco, at the following prices:

Duco - All Standard Shades	-	5-gallon cans	-	$3.00 per gallon.
" - Maroons	-	" "	-	$5.00 " "
" - Whites	-	" "	-	$3.25 " "
" - Black	-	" "	-	$2.85 " "
Striping Duco -				
All Standard Shades	-	5-gallon cans	-	$6.00 " "
Black	-	" "	-	$5.00 " "
Maroon	-	" "	-	$8.00 " "

The above prices are subject to the following schedule of quantity discounts from invoices rendered during any quarter of the calendar year:

$100,000.	- 4%
125,000.	- 5%
150,000.	- 6%
175,000.	- 7%
200,000.	- 8%

Assuming that the aggregate purchases made during any quarter will reach $150,000., Seller agrees to allow 6% on the face of all invoices rendered. It is further agreed that if the 6% is not earned, Buyer will then refund to Seller accordingly the refund to be based on the foregoing quantity discount schedule. The Seller further agrees to apply purchases in excess of the above amounts subject to the discount in any quarter to any quarter during the period of the contract which may fall short of the above amounts subject to the discount. If Buyer's purchases reach $200,000.00 during any quarter, Seller agrees to extend the discount on the above items to 8%. Assuming that the aggregate purchases made during any quarter will be of sufficient volume to earn the maximum discount, Seller agrees to issue monthly credits extending discounts to 8%.

(O-V-E-R)

2. Terms of Payment: 1% Cash - 25th Prox.

3. F. O. B. Cars, city in which Buyer's Division is located, with exceptions as noted hereinafter.

4. Deliveries: Delivery shall be made between the date hereof and December 31, 1928 as may be specified from time to time on buyer's regular purchase orders, on or before December 31 1928 without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost and in accordance with the requirements of Common Carriers.

is further agreed that Seller's make of Chassis Black Lacquer, "Engenamel", and Motor Lacquers are not included in the above discount arrangement.

It is further agreed that Seller will furnish Buyer the following Thinners at the net prices shown:

	Billing Prices		- Net Prices	
#3614 - in drums	$1.00	per gal.	$ .845	per gal.
#3627 - in drums	1.20	" "	.82	" "
#3634 - in drums	1.20	" "	.915	" "
#3637 - in drums	1.00	" "	.695	" "

(The above thinners in tank cars - 2¢ per gallon less than in drums.)

It is further agreed that Seller will render invoices at the above billing prices, but will reduce these prices to the above net basis by special adjustment at the end of each month. It is further agreed that for Buyer's Export Company's requirements an additional charge of 15¢ per gallon on all Pyroxylin Finishes and Thinners will be made. It is further agreed that all the above prices are subject to the usual differential for smaller packages and are also subject to change, providing Seller gives Buyer thirty days' notice before change goes into effect.

The above prices include deliveries to factory branches upon orders received from the Purchasing Department of the Buyer's factory owning or controlling the branches to which deliveries are specified to be made.

is understood that the word "Buyer" used herein shall include all Divisions and affiliated companies of the Buyer in accordance with the list attached hereto and made a part of this agreement.

It is further agreed that containers are to be returned to Seller F.O.B. Buyer's Plants.

On shipments by rail to Oakland, Cal., or other points west of St.Louis, Mo., Seller will allow freight to St.Louis. On the return of empty containers from these points, Seller will allow freight from St.Louis to Seller's Plant.

In case shipments are made via boat from Seller's Plant to Oakland, Cal., and other points west of St.Louis, Mo., full freight will be allowed, as well as on the return shipments via boat of empty containers.

On shipments to General Motors Export Company: F.O.B. Docks, New York City.

It is further agreed that No. 3942 Retarder or any other product classed as Duco will be included in the quantity subject to the foregoing discount schedule.

May 1927.

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GENERAL MOTORS CORPORATION

DIVISION	LOCATION	PURCHASING AGENT
A.C. Spark Plug Co.	Flint, Michigan	H. R. Wells
Armstrong Spring Division	Flint, Michigan	T. E. Lang
Brown-Lipe-Chapin Division	Syracruse, N.Y.	C. A. Lawton
Buick Motor Company	Flint, Michigan	G. G. Allen
Cadillac Motor Company	Detroit, Michigan	D. F. Hulgrave
Chevrolet Motor Company	Detroit, Michigan	D. P. O'Keefe
"	Bay City, Mich.	C. E. Keeler
"	Flint, Michigan	E. L. Sly
"	Toledo, Ohio	A. A. Bronson
" (Gear & Axle)	Detroit, Michigan	F. J. McLaughlin
" (Forge Plant)	Detroit, Michigan	C. E. Randolph

Mr. O'Keefe, Chevrolet Central Office, has supervision over the following:

Chevrolet Motor Company	Bloomfield, N.J.	J. A. Foley
"	Buffalo, N.Y.	G. H. Domedion
"	Norwood, Ohio	G. E. McPartlin
"	Janesville, Wis.	R. E. Clithero
"	Oakland, Cal.	E. S. Martin
"	St. Louis, Mo.	H. B. Boyer
"	Tarrytown, N. Y.	R. E. Lewis
lco-Light Company	Dayton, Ohio	~~W. E. Kreitser~~ M.L.Fischer
Delco-Remy Corporation	Anderson, Indiana	F. J. O'Donnell
Fisher Body Corporation	Detroit, Michigan	J. T. Stratman Central Office
"	Flint, Mich. Plant #1	
"	Lansing, Michigan	
"	Pontiac, Michigan	
"	Buffalo, N.Y.	C. A. Crusoe, Central Office
"	Cleveland, Ohio	
"	Flint, Mich. Plant #2	
"	Janesville, Wis.	
"	Memphis, Tenn.	
"	Oakland, Cal.	
"	St. Louis, Mo.	
"	Tarrytown, N.Y.	
"	Norwood, Ohio	
National Plate Glass Co.	Blairsville, Pa.	Paul Nesbit, Detroit, Mich.
"	Detroit, Mich.	
"	Saginaw, Mich.	
"	Ottawa, Ill.	
Ternstedt Mfg. Company	Detroit, Mich.	E. W. Sturgeon
Broadbrook Mfg. Company	Broadbrook, Conn.	H. C. Brook
Fleetwood Metal Body Company	Fleetwood, Pa.	A. J. Schlagel
General Motors Building Corp.	Detroit, Michigan	H. F. Bacall
General Motors Corporation	Detroit, Michigan	H. F. Bacall

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General Motors Corporation	New York, N.Y.	C. D. Shrady, New York Office
General Motors Building Corp.	New York, N.Y.	
General Motors Acceptance Corp.	New York, N.Y.	
General Motors Export Co.	New York, N.Y.	
General Exchange Corp.	New York, N.Y.	
~~General Motors of Canada~~	~~Oshawa, Ontario~~	~~E. W. Drew,~~
General Motors Truck Corp.	Pontiac, Mich.	H. J. Crichton
Harrison Radiator Corp.	Lockport, N.Y.	G. H. Hetley
Hyatt Roller Bearings Div.	Harrison, N.J.	F. A. Weiss
Inland Manufacturing Co.	Dayton, Ohio	J. D. O'Brien
Jaxon Steel Products Co.	Jackson, Mich.	G. W. Clemons
Muncie Products Co.	Muncie, Indiana	Earl Wedlake
New Departure Mfg. Co.	Bristol, Conn.	W. A. Kimball
Oakland Motor Car Company	Pontiac, Mich.	C. O. Miller
Olds Motor Works	Lansing, Mich.	W. F. Armstrong
Saginaw Products Co.	Saginaw, Mich.	V. E. Libby
United Motors Service	Detroit, Mich.	R. C. Campbell
Yellow Truck & Coach Mfg. Co. (Allied)	Chicago, Illinois	W. B. Livingston
Yellow Sleeve-Valve Engine Works "	East Moline, Ill.	H. Dahlquist
Frigidaire Corporation	Dayton, Ohio	J. E. Kreitzer

5. **Special Equipment:** Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications:** Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties:** The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections:** All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection:** The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller covenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

   If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused:** The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation:** In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warrants of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc.:** The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedents or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment:** This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION

BY: James Lynah

GENERAL PURCHASING COMMITTEE

E. I. duPONT deNEMOURS & COMPANY

BY: [illegible] Kluge

Mgr. Automotive Sales

Defendant's Exhibit (GM) No. 188

Agreement, dated the first day of January 1929 between

E. I. duPont deNemours & Company, Wilmington, Delaware

hereinafter called the "Seller," and

General Motors Corporation, Detroit, Michigan a corporation of

Delaware hereinafter referred to as the "Buyer," WITNESSETH;

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. DESCRIPTION AND QUANTITIES: PRICE PER

General Motors' requirements of Seller's make of DUX materials as noted below, and Pyroxylin Finishes including Duco at the following prices:

All 244 Line Black Duco in 5 gal. cans @ $2.60 per gal. less 10%.
All 244 Line Maroon Duco in 5 gal. cans @ 4.75 per gal. less 10%.
All 244 Line White Duco in 5 gal. cans @ 3.10 per gal. less 10%.
All 244 Line Standard Duco Colors (excepting Black, Maroon, White) in 5 gal. cans - @ 2.75 per gal. less 10%.
All 246 Line Standard Duco Colors (Heavy Solids) with the exception of Black, Maroon and White in 5 gal. cans @ 3.05 per gal. less 10%.

Above subject to a further reduction of $.15 per gal. if shipped in bbls. Duco or Striping Colors in packages smaller than 5 gal. cans are subject to the usual differential now in force.

All 210 Standard Striping Colors - 1 gal. cans $6.15 - quarts $1.75 - each less 10%.
All 210 Black Striping Colors - 1 gal. cans 5.15 - quarts 1.50 - each less 10%.
All 210 Maroon Striping Colors - 1 gal. cans 8.15 - quarts 2.25 - each less 10%.

#3601 Duco Thinner in drums - $1.00 per gal. net.
#3634 Duco Thinner in drums - .86 per gal. net.
#3614 Duco Thinner in drums - .815 per gal. net.
#3637 Duco Thinner in drums - .65 per gal. net.

Tank car shipments of any of above Thinners take a reduction of $.02 per gal.

Thinner prices subject to change upon thirty days' notice.

2. TERMS OF PAYMENT: 1% cash 25th prox.

3. F. O. B. Cars - city in which Buyer's Division is located with exceptions as noted hereinafter.

4. DELIVERIES: Delivery shall be made between the date hereof and February 28th, 1930 as may be specified from time to time on Buyer's regular purchase orders, on or before December 31st, 1929 without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost and in accordance with the requirements of Common Carriers.

(over)

Pyroxylin Surfacer in drums	- 2.25 per gal. less 10%.
#3942 Retarder in drums	- 2.00 per gal. less 10%.

Any other product classed as Duco will be subject to a trade discount of 10%.

DUX Oxide Primer #1600, drums	- $1.25 per gal. less 8%.
DUX Oxide or Gray Surfacer #1800 in drums	- 1.40 per gal. less 8%.
DUX Glazing Putty #1900, pails	- .17 per lb. less 8%.

It is understood High Solid Duco, in all colors excepting Black, shall contain approximately 33% more solids than Duco of normal solid content furnished in the past. The percentage of solids is as follows:

Color	Normal Solid	High Solid
Blues	28%	38.8%
Dark Grays	30.5%	41%
Light Grays	35.1%	43.1%
Reds	27%	37%
Greens	30.5%	41%
Dark Browns	30.5%	41%
Beige - Light Browns	30.5%	41%
Yellow	30.5%	41%

For General Motors Export Company's requirements, an additional charge of $.15 per gal. on all Pyroxylin finishes and Thinners will be made, however, these prices are subject to the usual differential for smaller packages and are also subject to change upon thirty days' notice.

Above prices include deliveries to factory branches upon orders received from Buyer's division owning or controlling branches to which deliveries are specified to be made.

Containers are to be returned to Seller F.O.B. Buyer's plants with the exceptions noted below.

On shipments by rail to Oakland, California, Seller will allow freight to St.Louis,Mo. On return of empty containers from this point Seller will allow freight from St.Louis to Seller's plant.

In case shipments are made via boat from Seller's plant to Oakland, California, and other points west of St. Louis (excepting Kansas City, Missouri), full freight will be allowed as well as return shipments via boat of empty containers.

On all shipments from Seller's plant to Kansas City, Missouri, full freight will be allowed as well as on return shipments of empty containers.

On shipments to General Motors Export Company: F.O.B. docks, New York City.

Prices on all material, as noted above, are effective as of December 1st, 1928, also, on any unfilled orders shipped on and after this date.

5. **Special Equipment**: Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications**: Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties**: The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections**: All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection**: The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller covenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused**: The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation**: In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warrants of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc.**: The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedents or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment**; This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

....GENERAL MOTORS CORPORATION..........

BY: ....
DIRECTOR - STAFF
GENERAL PURCHASING COMMITTEE

E. I. du Pont de Nemours & Co., Inc.

....
Director Automotive Sales

C.P. 15 [illegible]
PRINTED IN U.S.A.

Defendant's Exhibit (GM) No. 189

Agreement, dated the first day of January, 1930, between

E. I. duPont de Nemours & Company, Wilmington, Delaware

hereinafter called the "Seller," and

General Motors Corporation, Detroit, Michigan a corporation of

Delaware hereinafter referred to as the "Buyer," WITNESSETH;

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. DESCRIPTION AND QUANTITIES: PRICE PER

General Motors' requirements of Seller's make of DUX materials as noted below, and Pyroxylin Finishes including Duco at the following prices:

244 Line Black Duco in 5 gal. cans	@ $2.45 per gal. less 10%
244 Line Maroon Duco in 5 gal. cans	@ 4.60 per gal. less 10%
244 & 235 Line White Duco in 5 gal. cans	@ 2.95 per gal. less 10%
244 Line Standard Duco Colors (excepting Black, Maroon, White) in 5 gal. cans	@ 2.60 per gal. less 10%
246 Line Standard Duco Colors (Heavy Solids) with the exception of Black, Maroon & White in 5 gal. cans	@ 2.80 per gal. less 10%
248 Line Color Coats in 5 gal. cans	@ 2.75 per gal. less 10%
248 & 235 Line Ground Coat (White) in 5 gal. cans	@ 3.25 per gal. less 10%
284 Line Wheel Duco, standard colors in 5 gal.cans	@ 2.60 per gal. less 10%
242 Line Non chalking, standard colors in 5gal.can	@ 2.90 per gal. less 10%

Above subject to a further reduction of $.10 per gal. if shipped in bbls. Duco or Striping Colors in packages smaller than 5 gal. cans are subject to the usual differential now in force.

288 Line Standard Striping Colors	-1 gal. cans $6.15	- qts. $1.75	- each less 10%
288 Line Black Striping Colors	- 1 gal. cans 5.15	- qts. 1.50	- each less 10%
288 Line Maroon Striping Colors	- 1 gal. cans 8.15	- qts. 2.25	- each less 10%

#3601 Duco Thinner in drums	$1.04 per gal. net
#3634 Duco Thinner in drums	.88 per gal. net
#3614 Duco Thinner in drums	.85 per gal. net
#3637 Duco Thinner in drums	.71 per gal. net

(Over)

2. TERMS OF PAYMENT: 1% cash 25th Prox.

3. F. O. B. Cars - city in which Buyer's Division is located with exceptions as noted hereinafter

4. DELIVERIES: Delivery shall be made between the date hereof and February 28th, 1931 as may be specified from time to time on Buyer's regular purchase orders, on or before December 31st, 1930 without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost and in accordance with the requirements of Common Carriers.

(Over)

7221

Pyroxylin Surfacer in drums	2.25 per gal. less 10%
#3942 Retarder in drums	2.00 per gal. less 10%
DUX Oxide Primer #1600, Drums	1.23 per gal. less 8%
DUX Oxide or Gray Surfacer #1800 in drums	1.38 per gal. less 8 %
DUX Glazing Putty #1900 gal. pails	.19 per lb. less 8%

Special Products for Frigidaire Corp.

287 Line Colored Duco in 5 gal. cans	@	$3.15 per gal. less 10%
Formula 2873443 Gray Duco in 5 gal. cans	@	2.90 per gal. less 10%
" 2447459 Red " " " " "	@	4.65 per gal. less 10%
" 2447151 Mahogany" " " " "	@	4.65 per gal. less 10%
" 2447151 " " "48 gal. barrels	@	4.55 per gal. less 10%
" 28731 White " " " " "	@	2.85 per gal. less 10%
" 2354652 " " " 1 gal. cans	@	3.65 per gal. less 10%
" RM-33860 Black Rubber First Coater in 50 gal. Drums	@	.81½ per gal. less 8%
" V-10963 Black Finishing Enamel in 50 gal. Drums	@	.71¼ per gal. less 8%
Formula 1110 Clear Lacquer in 50 gal. drums	@	2.50 per gal. net
" 1144 " " " " " "	@	2.50 per gal. net
" 1211 Top Coat Lacquer in 50 gal. drums	@	3.00 per gal. net
" 22831 White PX Touch-Up Putty in tubes	@	.25 per tube net
Formula 3614 Thinner in 50 gal. drums	@	.85 per gal. net
" 3638 " " " " "	@	.69 per gal. net
" 3637 " " " " "	@	.71 per gal. net
" 3653 " " " " "	@	.65 per gal. net
" 3682 " " " " "	@	.74½ per gal. net
Formula F-7135 Gray Spraying Baking Primer in 50 gal. drums	@	2.25 per gal. net
" F-7145 Gray Dipping " " in 50 gal. drums	@	2.25 per gal. net
" F-7221 White Sanding Surfacer in 50 gal. drums	@	2.50 per gal. net
" FV-2082 Reducer in 50 gal. drums	@	.55 per gal. net
" FV-3068 Black Touch-Up Enamel in 5 gal. cans	@	1.75 per gal. net
" FV-2006 Rubbing Compound in ½ lb. cans	@	.15 per can net
" FP-20088 Glazing Putty in 1 gal. pails	@	.22 per lb. net
#7 Duco Polish in 1 pint cans	@	1.00 per can less 50-10%

Special Products for Fokker Aircraft Corp.

Aircraft Duco Finishes:		
White, Ivory and Cream in 5 gal. cans	@	3.50 per gal. less 10%
Colors " " " "	@	3.25 per gal. less 10%
Black " " " "	@	3.10 per gal. less 10%
6402 Gray Oil Primer in 5 gal. cans	@	2.00 per gal. less 8%
41050 Oil Surfacer " " " "	@	2.85 per gal. less 8%
6199 Dark Oxide Oil Primer in 5 gal. cans	@	2.00 per gal. less 8%
5360 DuPont Special Clear Slackproof Dope in 5 gal. cans	@	2.50 per gal. less 8%
403 Special Dope Thinner in 5 gal. cans	@	1.73 per gal. net
" " " " " 50 gal. drums	@	1.48 per gal. net
3601 Thinner " 5 gal. cans	@	1.29 per gal. net
" " " 50 gal. drums	@	1.04 per gal. net

Contract dated January 1, 1930 between E. I. duPont de Nemours & Co., Wilmington, Delaware, and General Motors Corp., Detroit Michigan.

(Continuation of Page 2)

Tank car shipments of any Thinners take a reduction of $.02 per gal.
Thinner prices subject to change upon thirty day's notice.

It is understood High Solid Duco, in all colors excepting Black, shall contain approximately 33% more solids than Duco of normal solid content.

For General Motors Export Company's requirements, an additional charge of $.15 per gal. on all Pyroxylin finishes and Thinners will be made, however, these prices are subject to the usual differential for smaller packages and are also subject to change upon thirty day's notice.

On shipments to General Motors Export Company: F.O.B. docks, New York City.

Above prices include deliveries to factory branches upon orders received from Buyer's division owning or controlling branches to which deliveries are specified to be made.

Containers are to be returned to Seller F.O.B. Buyer's plants with the exceptions noted below.

On shipments by rail to Oakland, California, Seller will allow freight to St. Louis, Mo. On return of empty containers from this point Seller will allow freight from St. Louis to Seller's plant.

In case shipments are made via boat from Seller's plant to Oakland, California, and other points west of St. Louis (excepting Kansas City, Missouri), full freight will be allowed as well as return shipments via boat of empty containers.

223 ~~Defendants' Trial Ex.~~ No. ________

5. **Special Equipment:** Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications:** Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties:** The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections:** All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection:** The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller convenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused:** The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation:** In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the [illegible]ointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of [illegible] party, or in the event of the breach of any of the terms hereof, including the warrants of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc.:** The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedents or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment:** This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION

BY James Lynah

Director - Staff
GENERAL PURCHASING COMMITTEE

E I du Pont de Nemours

per [illegible]

C. P. 18 5M-4-29-32626-BMP
Printed in U. S. A.

Defendant's Exhibit (GM) No. 190

7224

Agreement, dated the First day of January, 1931, between E. I. duPont de Nemours & Company, Wilmington, Delaware

hereinafter called the "Seller," and General Motors Corporation, Detroit, Michigan, a corporation of Delaware hereinafter referred to as the "Buyer," Witnesseth:

The Seller agrees to sell and the Buyer agrees to purchase, at the price and upon and subject to the following terms and conditions, the following articles, hereinafter referred to as the "articles."

1. Description and Quantities:

Buyer's requirements of Seller's make of DUX materials, Pyroxylin Finishes including Duco as noted below at the following prices:

	Price Per
#244 Line Black Duco in 5 gal. cans (excepting #244-5113)	$2.35 per gal. less 10%
#244-5113 Black Duco in 5 gal. cans	2.45 per gal. less 10%
#244 Line Maroon Duco in 5 gal. cans	4.00 per gal. less 10%
#244 Line White Duco in 5 gal. cans	2.75 per gal. less 10%
#235 Line White Duco in 5 gal. cans	2.85 per gal. less 10%
#244 Line Standard Duco Colors (excepting Black, Maroon, White) in 5 gal. cans	2.50 per gal. less 10%
#246 Line Standard Duco Colors (Heavy Solids) with the exception of Black, Maroon and White in 5 gal. cans	2.70 per gal. less 10%
# 246 Line Color Coats in 5 gal. cans	2.65 per gal. less 10%
#248 Line Ground Coat White in 5 gal. cans	3.00 per gal. less 10%
[illegible]5 Line Ground Coat White in 5 gal. cans	3.00 per gal. less 10%
[illegible]4 Line Wheel Duco, standard colors in 5 gal. cans	2.50 per gal. less 10%

Above subject to a further reduction of $.10 per gallon if shipped in Bbls.

DUCO OR STRIPING COLORS

#288 Line Standard Striping Colors 1 gal. cans	$5.20 per gal. less 10%
288 Line Black Striping Colors - 1 gal. cans	3.76 per gal. less 10%
288 Line Maroon Striping Colors - 1 gal. cans	7.43 per gal. less 10%

Duco or Striping Colors in packages smaller than 5 gal. cans are subject to the usual differential now in force.

DUCO THINNERS

#3601 Duco Thinner in drums	$ .96 per gal. net
3634 Duco Thinner in drums	.80 per gal. net
3614 Duco Thinner in drums	.76 per gal. net
3637 Duco Thinner in drums	.59 per gal. net

2. Terms of Payment: 1% - 25th prox.

(OVER)

3. F. O. B. Cars - city in which Buyer's Division is located with the exceptions as noted hereinafter.

4. Deliveries: Delivery shall be made between the date hereof and February 29th, 1932 as may be specified from time to time on Buyer's regular purchase orders, on or before December 31st, 1931 without charge for boxing, crating, cartage or storage, suitably packed to secure lowest transportation cost and in accordance with the requirements of Common Carriers.

DUCO THINNERS - Cont'd.

#3639 Duco Thinner in drums	@ $ .61 per gal. net
3640 Duco Thinner in drums	@ .78 per gal. net
3656 Duco Thinner in drums	@ .71 per gal. net
3691 Duco Thinner in drums	@ .74 per gal. net
3691 C Duco Thinner in drums	@ .73 per gal. net
3753 Duco Thinner in drums	@ .63 per gal. net
3758 Duco Thinner in drums	@ .57 per gal. net
3760 Duco Thinner in drums	@ .52 per gal. net
Pyroxylin Primers in drums	@ 2.15 per gal. less 10%
Pyroxylin Surfacer in drums	@ 2.25 per gal. less 10%
#3942 Retarder in drums	@ 2.00 per gal. less 10%
DUX Oxide #1600 in drums	@ 1.10 per gal. less 8%
DUX Oxide or Gray Surfacer #1800 in drums	@ 1.20 per gal. less 8%
DUX Glazing Putty #1900 - 1 gal. pails	@ .19 per lb. less 8%

SPECIAL PRODUCTS FOR FRIGIDAIRE CORPORATION

287 Line Colored Duco in 5 gal. cans	@ $3.15 per gal. less 10%
Formula 2873443 Gray Duco in 5 gal. cans	@ 2.90 per gal. less 10%
" 2447459 Red " " " " "	@ 4.65 per gal. less 10%
" 2447151 Mahogany Duco in 5 gal. cans	@ 4.65 per gal. less 10%
" 2447151 " " " 48 " bbls.	@ 4.55 per gal. less 10%
" 28731 White " " " " "	@ 2.78 per gal. less 10%
" 2354652 " " " 1 gal. cans	@ 3.15 per gal. less 10%
" RL-33860 Black Rubber First Coater in 50 gal. drums	@ .815 per gal. less 8%
" V-10963 Black Finishing Enamel in 50 gal. drums	@ .57 net
Formula 1110 Clear Lacquer in 50 gal. drums	@ 2.50 per gal. net
" 1144 " " " " " "	@ 2.50 per gal. net
" 1211 Top Coat Lacquer in 50 gal. drums	@ 3.00 per gal. net
" 22831 White PX Touch-Up Putty in tubes	@ .25 per tube net
Formula 3614 Thinner in 50 gal. drums	@ .76 per gal. net
" 3638 " " " " "	@ .69 per gal. net
" 3637 " " " " "	@ .59 per gal. net
" 3653 " " " " "	@ .64 per gal. net
" 3682 " " " " "	@ .705 per gal. net
" F-7135 Gray Spraying Baking Primer in 50 gal.drs.	@ 2.25 less 8% per gal.
" F-7145 Gray Dipping Baking Primer in 50 gal. drs.	@ 2.25 less 8% per gal.
" F-7221 White Sanding Surfacer in 50 gal. drums	@ 2.50 less 8% per gal.
" FV-2082 Reducer in 50 gal. drums	@ .55 less 8% per gal.
" FV-3068 Black Touch-up Enamel in 5 gal. cans	@ 1.75 less 8% per gal.
" FV-2006 Rubbing Compound in 1/4 lb. cans	@ .15 per can net
" FP-20088 Glazing Putty in 1 gal. pails	@ .22 per lb. net
#7 Duco Polish in 1 pint cans	@ 1.00 per can less 50-10%
Formula F-7552 Gray Spraying Baking Primer	@ 2.15 less 8% in drums

SPECIAL PRODUCTS FOR FOKKER AIRCRAFT CORPORATION

Aircraft Duco Finishes:	
White, Ivory and Cream in 5 gal. cans	@ $3.50 per gal. less 10%
Colors " " " "	@ 3.25 per gal. less 10%
Black " " " "	@ 3.10 per gal. less 10%
6402 Gray Oil Primer in 5 gal. cans	@ 2.00 per gal. less 8%
41050 Oil Surfacer " " " "	@ 2.85 per gal. less 8%
6199 Dark Oxide Oil Primer in 5 gal. cans	@ 2.00 per gal. less 8%
3601 Thinner in 5 gal. cans	@ 1.21 per gal. net
" " " 50 gal. drums	@ .96 per gal. net

Defendant's Exhibit (GM) No. 194

May 18, 1928.

O. H. Briggs, Sales Manager,
Du Pont - Pathe Film Mfg. Corp.
35 West 45th St.,
New York, N. Y.

Dear Mr. Briggs:

With reference to your letter of May 16th, informing us that the Rothacker Film Company of Chicago is making pictures from time to time for General Motors, and raising the question whether in some way or other you can get us to specify the use of Du Pont films. I advise that such pictures as the Rothacker Company may be making are for our individual units and if you ascertain the names of these units you might properly take the matter up with them.

It is my belief that the present time Chevrolet, and possibly Olds, are the only units having motion pictures made, and I believe that the concern making the pictures handles its purchase of films independently.

In the making of our purchases, we believe that each transaction should stand on its merits and we presume that the company buying films for our use is guided by this same principle and that if the quality of your product and service, consistent with prices quoted, are the best he can obtain, he will buy from you.

Very truly yours,

GENERAL PURCHASING COMMITTEE
/s/ JAMES LYNAH
Director-Staff.

James Lynah:CGC
CC: Mr. J. L. Pratt

NOTE. At top right is stamp "J. L. Pratt Answered—Noted" with illegible initials therein.

V

Defendant's Exhibit (GM) No. 195

E. I. du PONT de NEMOURS & COMPANY
Wilmington, Delaware

VICE PRESIDENT

February 18, 1919.

Mr. P. S. Du Pont:

Since we have been carrying on some work for the General Motors Company, there has been a tendency on their part to ask for the transfer from this company to the General Motors, of some of the men which we have sent to confer with them, or make investigations for them.

Two more or less prominent cases occur to me at the moment. One, Mr. J. L. Pratt, and the other Dr. Squires.

Mr. Pratt made an investigation for them of the general housing question, and I understand Mr. Durant was so pleased with his work that he made the suggestion that he would like to see Mr. Pratt transferred to his company.

It occurs to me that they are missing the more important point; namely, that it is not the individual, necessarily, who is able to go to the General Motors Company and make an investigation and carry through a piece of work satisfactory to them. What makes it possible for him to make this fine impression on the General Motors Company is the organization in which he works. For example, aside from being a good man himself, Mr. Pratt had access to all of the information in the Engineering Department, and knew exactly where to get this information quickly, and could also consult with such men as Pierce, Foster, etc.

1

A very analogous case might be that of a man who heard an extremely good orchestra and immediately sent for the leader of this orchestra to come to his house and play for him individually, believing that he was going to get the same music.

I am not bringing this up because I think that any action/is necessary or advisable, but that you might have an opportunity some time to impress this upon Mr. Durant.

R R M Carpenter
VICE PRESIDENT.

RRMC/R.

NOTE: "No. RECEIVED FEB 19 1919 P.S. DU PONT." is stamped in upper right corner; check mark appears in upper left. Italics indicate handwriting.

Defendant's Exhibit (GM) No. 195A

THE NEW YORK TIMES, SUNDAY, MARCH 21, 1920.

Page 10 Section E

FINANCIAL MARKETS

Motor Stocks in Spectacular Rise, General Motors Leading—Reserve Ratio Up.

Speculative operations were centred chiefly in the automobile stocks yesterday, violent advances being recorded by several. The spectacle of General Motors rising more than 45 points on a Saturday morning was so unusual as to stir up comment about a severely manhandled short interest. There was considerable activity of specialties, but most of the seasoned shares, steel, oil, tobacco, rail and other groups were inclined to a quiet tone, with profit taking sales making fractional inroads into the gains recorded on Friday. The copper department displayed a fair degree of strength in the second hour of business, being stimulated by reports that comprehensive plans were being worked out for financing sales of the metal to French and possibly other foreign buyers. Concerted banking assistance would be more than welcome to copper producers who have seen their stocks of metal accumulate since the armistice was signed without an adequate outlet abroad.

TOPICS IN WALL STREET.

⁂

General Motors Buoyant.

The forward movement in General Motors attracted a high degree of interest. The advance of 37½ points was reminiscent of the shares when they were riding on the crest of the bull market of last year. As a matter of fact, General Motors at the high yesterday was only a little removed from the record price, made in 1919. Apparently the shorts in this issue have had a bad beating. Considering that yesterday's trading session was of only two hours' duration, the advance in the shares was probably as great as any ever recorded. Some degree of the rapidity of the movement may be gained from the fact that at 11:40 A. M. General Motors was selling at 372, climbed from there to 389 and reacted to 380. Stutz Motors was a strong second to General Motors, recording an advance of 16 points on a comparatively small turnover.

⁂

Defendant's Exhibit (GM) No. 195B

THE NEW YORK TIMES, TUESDAY, MARCH 23, 1920.

Page 18

'CHANGE FIAT HALTS SHORTS' DISASTER

Quick Ruling Allowing Delivery of Temporary Certificates Averts Disaster.

MOTORS GOES TO $409

Drops to Normal as Danger of Bulge Like Northern Pacific in 1901 Passes.

A corner in General Motors stock that had all of the earmarks of developing just as sensationally as the famous Northern Pacific corner of 1901, was broken at the outset early yesterday by the quick action of the Committee on Securities of the New York Stock Exchange. For the first ten minutes traders on the short side faced tremendous losses, as it was realized that General Motors stock was not to be had, except by the most spirited bidding, and this was small consolation to those who were obliged to cover heavy commitments. Just how large was the short interest probably never will be accurately known, but it is believed to have extended into thousands of shares and the prospect of having to cover the scale of rising prices that was evident was appalling. A few days ago one house was reported to be short 30,000 shares of stock, and in brokerage houses throughout the country the shorts were eager followers of the tape at the opening yesterday.

The situation in General Motors was apparent Saturday when there was an advance of 37½ points to 380. It was short covering that ran the issue up in this wise and traders were in fear of what the opening would bring forth. The demand for the stock was such that on 1,500 shares there was a split opening at $395-$400 or an advance of $15 to $20 over the week-end. The next 500 shares a few seconds later went at $404 and from then there was a steady climb to 408 on 3,000 shares. The price eased for a moment and then shot forward again to $409. There was consternation on the faces of traders. The General Motors post was surrounded with the most excited group of persons in all of the financial district of the city. They crowded over each other in their eagerness to place orders and there were the raucous calls peculiar to the Exchange in its most excited minutes.

Committee Acts Quickly.

Upstairs, however, the solution of the situation was being mapped out. The Committee on Securities, realizing that a tense situation existed with regard to General Motors, went into session just before the gong announced the beginning of trading on the floor of the Exchange, and within ten minutes an announcement came forth that entirely changed the complexion of things. The committee had made a quick ruling that General Motors, new stock, was a good delivery against General Motors, old stock, on a basis of ten shares of the new for one of the old. This opened up a supply of stock such as relieved the tension, and the price of the old and scarce shares dropped with almost the same abruptness that it had risen. Before twenty-five minutes had passed they had slipped back to 392, and the threatened corner was broken.

The ruling of the Committee on Securities was announced in the following form:

"The Committee on Securities rules that on and after March 22, 1920, ten shares of General Motors temporary certificates (no par value) shall be delivery for one share of General Motors common stock, $100 par value."

This announcement slipped quietly out on the ticker some ten minutes after the opening and when the market was at its height. It carried the word of relief to the harried traders on the floor and in the commission houses throughout the country, for it provided the opening up of the entire General Motors issue of new and old common stock wherewith to provide the means for covering.

Conversion Reduces Old Stock.

Conditions making for a corner in General Motors came about through the subdivision of the old shares, the ones which yesterday sold at $409. These were divided into new stock of no par value on the basis of ten new shares for each old share. The conversion has been taking place for some time and with each of the old shares so converted, the floating supply of old shares was reduced on the Exchange. Even before conversion of any of the old shares into new the floating supply of old stock was not more than 50 per cent. of the outstanding issue, since 30 per cent. was held by the du Pont interests and about 20 per cent. was held by other interests closely identified with the company. The conversion, therefore, brought the supply of old stock outstanding down to a relatively small amount.

As this conversion progressed there was a smaller and smaller opportunity for the shorts to cover. The General Motors issue has been a favorite medium for short selling by big traders and they found themselves trapped some days ago. It was their endeavor to cover that advanced the old stock from 225½, its low for this year, to above 300. From then on the pace became rapid. Its speed is shown by the fact that the opening price on Saturday was 343.

Up to yesterday the new, or subdivided old shares, could not be delivered against sales of the old stock. There had never been any ruling that the new shares were not good delivery, but the very fact that there had been no ruling made it impossible to trade in this way. The ruling that the new shares on a basis of ten new for one of old were good delivery against a short sale of the old stock prevented a real catastrophe for the General Motors shorts.

[illegible]

Defendant's Exhibit (GM) No. 196

GENERAL MOTORS CORPORATION
Meeting between President and Plant Managers
New York, New York

December 1, 1920

PRESENT:
P. S. du Pont, in the Chair
J. A. Haskell
A. P. Sloan
De Witt Page
H. H. Bassett
F. W. Hohensee
R. H. Collins
W. L. Day
F. W. Warner
T. W. Warner

Also H. L. Barton
J. L. Pratt,
E. F. Johnson
M. L. Prensky
F. Turner
J. J. Raskob
G. H. Hannum
J. A. Craig
A. L. Cash
K. W. Zimmerschied
A. B. C. Hardy
J. T. Smith
H. H. Rice

INVENTORIES COMMITTEE

It was suggested and finally unanimously agreed that the present Inventories Committee consisting of three should be enlarged to include the Treasurer and the Comptroller, and that these five shall be considered an Executive Committee of a still larger "Inventories Committee;" the other members being a representative from every plant, said representatives to be selected by the Managers; this committee being appointed for the purpose of re-valuing our inventories.

It was agreed that Mr. Prensky should be Vice Chairman of this Committee and as such shall be in charge of the re-valuation of our physical inventories.

The President pointed out that the object sought by this action is only to make sure that our inventories are written down to their true values.

It was understood that the Managers would appoint their representatives at once and advise the Chairman of the Inventories Committee (Mr. John L. Pratt) the names of the persons selected.

FUTURE SALES

Mr. du Pont inquired about what was being done in the way of estimating future sales, and was advised that the Managers have supplied the Inventories Committee with an estimate of possible sales for the first four months of next year. It was requested that the various Divisions revise these estimates each month and send such revised estimates to Mr. Pratt, Chairman of the Inventories Committee, who will submit a report to the Executive Committee monthly, in order that the Executive Committee may have before it each month a revised estimate of sales for the succeeding four months.

FUTURE COMMITMENTS FOR MATERIALS

It was the sense of the meeting that all the Divisions should be very careful about making future commitments for materials, only doing so where it is absolutely necessary. It was understood that for the present our policy shall be to make contracts for our requirements only so far as possible, and that future commitments shall be kept at a minimum.

INVENTORIES SCHEDULE

The President inquired whether the Inventory allotments now existing are considered satisfactory to the Divisions. It was unanimously agreed that the Inventories Committee should study this matter and submit to the Executive Committee its recommendations as to a revision of the allotments for inventories for the several Divisions.

The question was raised as to whether the Inventories Committee has power to authorize the purchase of material for

Defendant's Exhibit (GM) No. 193

COPY

DU PONT - PATHE
FILM MFG. CORPORATION
35 West 45th Street,
New York, N. Y.

May 16, 1928.

General Motors Corporation
General Motors Building,
Detroit, Michigan.

Attention: Mr. J. Lynah,
Director of Purchases.

Dear Mr. Lynah:

I understand that the Rothacker Film Company of Chicago is making pictures from time to time for General Motors. We are wondering if there is not some way that we can get you to specify the use of DuPont film. Both our negative and positive film is being used in large quantities by practically all of the large producing companies, the product to you as being equal to the best on the market.

We have taken this matter up with the General Motors Office here in New York and they have advised us that your office handles all matters of this kind. We will be glad to give you any further information that may be desired in case you can see your way to cooperate with us.

We will appreciate any assistance you may give us in this matter.

Yours very truly,

O. H. Briggs,
Sales Manager.

7230

PERFORMANCE OF QUANTITY DISCOUNT CONTRACTS

AS OF OCTOBER 31, 1927

BRIEF NO. 1	NAME OF SELLER 2	DATE OF CONT. 3	PURCHASES IN DOLLARS			DISCOUNT IN %			SAVINGS IN DOLLARS		
			TO DATE 4	ANNUAL AT PRESENT RATE 5	ANNUAL TO OBTAIN MAX. DISC'T 6	TO DATE 7	ANNUAL AT PRESENT RATE 8	ANNUAL POSSIBLE MAX. 9	TO DATE 10	ANNUAL AT PRESENT RATE 11	AT VOLUME COLUMN 6 12
281	Cleveland Graphite Bronze Co.	1-1-27	1,208,028.	1,449,634.	1,500,000.	0	1	1	0	3,496.	6,000.
415	Wagner Elec.Corp.(Transformers)	1-1-27	8,953.	10,744.	10,000.	4	5	5	358.	537.	500.
416	Wagner Elec.Corp.(Motors)	1-1-27	4,349.	5,219.	50,000.	0	2	6	0	104.	3,000.
470	Pratt & Whitney Co.	5-1-27	14,813.	29,626.	60,000.	12	12	17	1,778.	3,555.	10,200.
488	Trico Products Co.(Mirrors)	7-1-27	50,477.	151,431.	250,000.	2	6	10	1,010.	9,086.	25,000.
483	McQuay-Norris Mfg. Co.	7-1-27	38,513.	115,539.	350,000.	0	1	6	0	280.	9,750.
435	E.I.duPont deNemours & Co.	1-1-27	976,014.	1,171,217.	800,000.	8	8	8	78,081.	93,697.	64,000.

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Defendant's Exhibit (GM) No. 192

PERFORMANCE OF QUANTITY DISCOUNT CONTRACTS

AS OF OCTOBER 31, 1927

BRIEF NO.	NAME OF SELLER	DATE OF CONT.	PURCHASES IN DOLLARS			DISCOUNT IN %			SAVINGS IN DOLLARS		
			TO DATE	ANNUAL AT PRESENT RATE	ANNUAL TO OBTAIN MAX. DISC'T	TO DATE	ANNUAL AT PRESENT RATE	ANNUAL POSSIBLE MAX.	TO DATE	ANNUAL AT PRESENT RATE	AT VOLUME COLUMN 6
1	2	3	4	5	6	7	8	9	10	11	12
449	Lake Erie Bolt & Nut Co.	1-1-27	201,269.	241,523.	500,000.	0	0	5	0	0	25,000.
446	Russell, Burdsall & Ward	1-1-27	893,445.	1,072,134.	1,500,000.	2	4	7½	17,869.	42,885.	112,000.
448	Buffalo Bolt Company	1-1-27	177,131.	212,558.	450,000.	2½	3	7½	4,428.	6,377.	33,750.
447	Lamson & Sessions Company	1-1-27	779,220.	935,064.	1,500,000.	1½	3	7½	11,688.	28,052.	112,000.
489	John-Sons Gage Works	7-1-27	1,520.	4,560.	20,000.	15	15	25	228.	684.	5,000.
499	Hamilton Press & Mach. Co.	9-1-27	49,775.	298,650.	600,000.	0	4	7½	0	11,946.	45,000.
461	Mercury Manufacturing Co.	3-15-27	12,271.	19,634.	100,000.	5	6	8	614.	1,178.	8,000.
466	Michigan Tool Company	1-1-27	254,229.	305,075.	300,000.	2	3	3	5,085.	9,152.	9,000.
458	Ready-Power Company	3-15-27	12,978.	20,765.	70,000.	4	5	10	519.	831.	8,000.
456	Ex-Cell-O Tool & Mfg. Co.	3-1-27	28,770.	43,155.	100,000.	2	4	10	575.	1,726.	10,000.
468	Aluminum Company of America	5-1-27	6,133,633¢	12,267,266¢	- - -	0	½¢	1¢	0	11,336.	- - -
455	Alsteel Manufacturing Co.	2-15-27	15,236.	21,510.	100,000.	1	2	11	152.	430.	11,000.
422	Illinois Tool Works	1-1-27	113,891.	136,668.	250,000.	4	4	10	4,556.	5,467.	25,000.
450	Eastern Machine Screw Corp.	1-1-27	86,053.	103,264.	300,000.	1	2	4	860.	2,065.	12,000.
463	Elwell Parker Elec. Co.	3-15-27	58,880.	96,208.	80,000.	5	8	8	2,944.	7,697.	6,400.
515	Wire Wheel Corporation	9-1-27	501,641.	2,508,205.	2,750,000	3	3	3½	13,798.	75,246.	96,250.
473	John Bath & Company	5-1-27	68,965.	137,930.	250,000	0	2½	15	0	3,448.	37,500.
425	Crocker-Wheeler Mfg. Co.	1-1-27	94,730.	113,676.	100,000	4	5	5	3,789.	5,684.	5,000.

Defendant's Exhibit (GM) No. 191

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GENERAL MOTORS CORPORATION
Detroit, Michigan.

June 27, 1928.

PERSONAL AND CONFIDENTIAL

Mr. William Richter,
E. I. du Pont de Nemours & Co.,
Wilmington, Del.

Dear Bill:

Your personal letter of June 21st, informing me of the amount of the super-discount is good news.

I have been much interested in the functioning of this arrangement as I have felt that the super-discount is a distinct saving to us, and I am very much in hopes that the volume of participation will increase during the next year.

X George Staples has made a most pleasing impression out here and the co-ordination of the activities of your several divisions here is bound to result in better service and satisfaction to our various units.

With kind regards, I am

Very sincerely yours,

James Lynah:CGC
(S) James Lynah

NOTE: "JLP I told him it looked like $197,000 for year ending 6/30/28. X is especially pleasing WR" is written in upper left corner. "G.M.C.—Products-Supplies & Materials—du Pont de Nemours, E. I." is written across top, followed by illegible initial; "J. L. PRATT ANSWERED NOTED" is stamped at top of page with a check mark after J. L. PRATT; "W. R." is stamped at top of page with illegible writing between the initials. "X" and line in left margin are by hand.

5. **Special Equipment:** Unless otherwise herein agreed, special dies, tools and patterns used in the manufacture of said articles shall be furnished by and at the expense of the Seller. Said dies, tools and patterns shall be kept in good condition and from time to time, when necessary, shall be replaced by Seller without expense to Buyer. However, the Buyer has the option at any time to reimburse the Seller for the whole or any part of said dies, tools or patterns and replacements and become the owner and entitled to the possession of same. All changes in said dies, tools and patterns, due to the Buyer's change of design or specifications shall be paid for by the Buyer.

6. **Specifications:** Said articles shall be according to specifications, drawings, samples, or other description furnished or adopted by the Buyer.

7. **Warranties:** The Seller warrants articles supplied under this contract to conform to specifications herein, to be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect.

8. **Inspection and Rejections:** All articles shall be subject to the Buyer's inspection within a reasonable time after delivery, irrespective of date of payment thereof, but the Buyer shall promptly notify the Seller of any defects detected and hold any articles so claimed to be defective for the Seller's instructions and at his risk, for a reasonable period, not to exceed 60 days.

9. **Patent Protection:** The Seller warrants that the articles purchased hereunder do not and will not infringe any Letters Patent granted by the United States of America or by any country foreign thereto. The Seller convenants and agrees to save harmless and protect the Buyer, its successors, assigns, customers and users of its product, against any claim or demand based upon such infringement, and after notice, to appear and defend at its own expense any suits at law or in equity arising therefrom.

If said articles are protected by one or more patents, and a decree or judgment be entered in a court of competent jurisdiction holding any such patent or its claim invalid, or so limited in scope as to impair its protection commercially, this contract may forthwith be cancelled.

10. **Non-Performance Excused:** The Seller shall not be responsible for delays or defaults in deliveries, nor the Buyer for failure to receive, if occasioned by wars, strikes, fires, the act of God or the public enemy, labor or transportation difficulties or other causes beyond their control.

11. **Insolvency and Cancellation:** In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, of the property of either party, or in the event of the breach of any of the terms hereof, including the warrants of the Seller, the other party shall be entitled to cancel this contract forthwith.

12. **Remedies, Etc.:** The remedies herein reserved shall be cumulative, and additional to any other or further remedies provided in law or equity. No waiver of a breach of any provision of this contract shall constitute a waiver of any other breach or of such provision. Except as expressed herein, there are no antecedents or other agreements respecting the subject matter hereof; any modifications or variations of this contract, to be binding, shall be in writing, executed in behalf of the parties by like authority as this contract.

13. **The Seller** shall not, without first obtaining the written consent of the Buyer, in any manner advertise or publish the fact that the Seller has contracted to furnish Buyer the articles herein mentioned, and for failure to observe this provision Buyer shall have the right to cancel this contract without any further liability thereon.

14. **Michigan Contract and Non-Assignment:** This contract is to be construed according to the laws of the State of Michigan and is non-assignable by the Seller.

15. **In Witness Whereof** the parties hereto have caused these presents to be executed in duplicate the year and date first above written.

GENERAL MOTORS CORPORATION

BY: J. Jackson

DIRECTOR - STAFF
GENERAL PURCHASING COMMITTEE

E. I duPONT de NEMOURS & COMPANY

BY:

Contract dated January 1, 1931 between E. I. duPont de Nemours & Company, Wilmington, Delaware, and General Motors Corporation, Detroit, Michigan.

(Continuation of Page 2)

Tank car shipments of any Thinners take a reduction of $.03 per gal.
Thinner prices subject to change upon thirty days' notice.

It is understood High Solid Duco, in all colors excepting Black, shall contain approximately 33% more solids than Duco of normal solid content.

For General Motors Export Company's requirements, an additional charge of $.15 per gal. on all Pyroxylin finishes and Thinners will be made, however, these prices are subject to the usual differential for smaller packages and are also subject to change upon thirty days' notice.

On shipments to General Motors Export Company: F.O.B. docks, New York City.

Above prices include deliveries to factory branches upon orders received from Buyer's Division owning or controlling branches to which deliveries are specified to be made.

Containers are to be returned to Seller F.O.B. Buyer's Plants with the exceptions noted below.

On shipments by rail to Oakland, California, Seller will allow freight to St. Louis, Mo. On return of empty containers from this point Seller will allow freight from St. Louis to Seller's plant.

In case shipments are made via boat from Seller's plant at Oakland, California, and other points west of St. Louis (excepting Kansas City, Missouri), full freight will be allowed as well as return shipments via boat of empty containers.

any project not approved by the Executive Committee and Finance Committee. It was agreed that the Inventories Committee may assume that any project listed on the schedule of inventories has been properly authorized, and in case a question arises of purchasing materials for a project not on this list, the same should be submitted to the Executive and Finance Committees before authorization is given.

QUESTION OF HAVING NEW PRODUCTS CHECKED BY MR. KETTERING

The question was raised as to whether the Sheridan car has been passed upon by Mr. Kettering's Department and been adopted as a regular part of our line. In the discussion there was brought out the question of having any new product or major change in our lines approved by our Research Organization under Mr. Kettering.

Finally it was unanimously adopted as the sense of the Meeting that adequate steps should be taken to safeguard the Company's interest in the matter of checking its present products and future new products, to which end it is requested that the President appoint a committee to report to the Executive Committee at an early date as to a method of putting an effectual check on the Company's products, and that for the present the President be requested to issue such instructions as in his judgment may be deemed best as to the products of the Company which should be inspected and reported upon by Mr. Kettering's organization.

PRODUCTION OF SHERIDAN CARS

The Committee was advised that the program at present calls for the production of 250 Sheridan cars during the balance of this year. It was the unanimous opinion of the meeting that this program should be carried out, and that a committee be appointed consisting of Messrs. P. S. du Pont, J. A. Haskell and A. P. Sloan, Jr., to investigate the question of the Sheridan Car with a view to deciding whether this car is a proper one to put in the line for future production, and that a report should be submitted to the Executive Committee showing the investment required both in plant and working capital.

AGREEMENTS WITH DISTRIBUTORS, ETC.

Each Manager was requested to make a report to the Executive Committee of the number of Distributors, and Branches, and the dates of the expiration of the Distributors' contracts.

PRICE GUARANTEES

Each of the Divisions was requested to submit to the Executive Committee a report advising to what extent it has guaranteed prices for future delivery, giving the dates covered thereby, and names of Distributors to whom guarantees have been made.

GENERAL INFORMATION REGARDING AUTOMOBILE BUSINESS AND THAT OF COMPETITORS

It was the unanimous opinion of the meeting that the Statistical Division should be requested to study the question of collecting and correlating information regarding Competitors' business and the general condition of the Automobile industry, with a view to mapping out a system of reports that will keep the Managers fully informed on the subject.

MEMBERSHIP IN THE NATIONAL AUTOMOBILE CHAMBER OF COMMERCE

It was unanimously requested that Messrs. Rice and Sills, who represent this Company upon the National Automobile Chamber of Commerce, be asked to submit a report to the Executive Committee, informing the Committee as to our obligations, both moral and legal, in connection with our membership in the National Automobile Chamber of Commerce -- what the expense of this membership is and the benefits derived therefrom; and also what obligations are attached to our membership.

FRIGIDAIRE DIVISION

It was unanimously requested that a report be submitted to the next meeting of the Executive Committee on the status of the Frigidaire Division showing the amount expended to date on this development, the profits or losses sustained, and the expectation for the future.

SAMSON TRACTOR

Mr. Craig informed the meeting as to developments at Janesville and was very enthusiastic as to the future possibilities of the Tractor Division.

* * *

Defendant's Exhibit (GM) No. 199

EXCERPT FROM MINUTES OF GENERAL PURCHASING COMMITTEE

September 30, 1926

(e) Consideration of Policy Covering Distribution of Lists of Divisions' Suppliers for Sales Promotion Purposes.
Recently such a list was secured from a number of the divisions by General Motors Truck division of the Yellow Truck & Coach Manufacturing Company for the purpose of dealing with the matter of reciprocity. Mr. Pratt requested that a list of suppliers, showing annual amounts of purchases be compiled, for his information, but that such information is not to be distributed until a General Motors Policy is approved by the Executive Committee.

August 16, 1927

(f) Reciprocity.
Mr. Pratt having submitted to the Committee a copy of Mr. E. N. Johnson's report on a survey made in an endeavor to determine to what extent our purchases had influenced our suppliers to buy General Motors products, and while the survey indicated that in the past our suppliers have not used our products in any greater ratio to their total motor equipment than the average public, it was agreed that the whole subject of reciprocity was so fraught with complications that it should be our established policy that all purchase transactions be consummated on their merits; that is, on prices consistent with quality of product and service demanded, facilities and reliability and responsibility of suppliers.

Defendant's Exhibit (GM) No. 200

January 20, 1928.

A. P. Sloan, Jr.

Mr. J. L. Pratt

Attached is original letter from Lammot duPont with copy of my reply.

On general principles, I am not very keen—as I do not believe you will be—in developing things of this kind but this is the first time it has happened and it really is not very important for the reason that I do not believe we are buying to any great extent from any of these people unless it is the Inland Company.

APSJr./K

att.

Defendant's Exhibit (GM) No. 201

Letterhead of
GENERAL MOTORS CORPORATION
Inter-Organization Letters Only

To Mr. A. P. Sloan, Jr., Address
President

From J. L. Pratt Address

January 21, 1928.

Subject

I am in receipt of your memorandum of January 20th, enclosing letter from and copy of your reply to Mr. Lammot duPont in regard to our supplying him with the amount of our purchases from the Jones & Laughlin Steel Company and the Inland Steel Company.

I think we buy very little from the Inland Steel Company direct. We do buy considerable cold drawn steel from the LaSalle Steel Company, who in turn buy their base product from Inland.

We buy a great deal from Jones & Laughlin Steel Company. In fact we have had under consideration a general requirement contract for them to supply a considerable portion of our cold drawn and cold rolled steel.

This instance may be the first that Mr. Lammot duPont has requested information of this kind from you, but we have had a great many similar requests from the duPont organization in the last three or four years. The position I have taken as Chairman of the Purchasing Committee has been invariably to refuse to give the duPont Company any information which they might use in any way to influence their customers to think that the duPont Company in any way could influence General Motors Corporation in buying their materials and supplies because the particular customer bought from the duPont Company. Personally, I think it is very necessary that we have a very definite policy in this respect, especially in connection with our dealings with the duPont Company (who are working on the principle of reciprocity while General Motors is not), as I am afraid there are instances where duPont salesmen have implied that they could influence General Motors' purchases. Nothing could be more detrimental to the morale of our Purchasing Agents, and to the general interests of our Corporation, than for any supplier to believe that anything can influence General Motors in choosing its sources of supply other than the three fundamentals of purchasing, namely—quality, service and price. I know you realize that as soon as any supplier feels that he can use collateral influence he is not as apt to give the utmost he can in quality, service and price to the one that deserves same, namely—the purhaser.

In refusing to give the duPont Company such information as requested by Mr. duPont, I have been guided by the following considerations:

—2—

(a)—The duPont Company in fact has no more right to such information than any of the other 60,000 stockholders in General Motors. We would not consider giving Mr. Cohen, the druggist— who might own five shares of General Motors stock—the amount of purchases General Motors made from Jones, McLaughlin Steel Company in order that he might sell Mrs. Jones face powder. (This is far-fetched but it is the same principle.)

(b)—If we supply the duPont Company with the amount of our purchases from any company they wish to sell, and their salesmen are allowed to display this information to their prospective customers, it necessarily follows that the impression would be made upon the customer that General Motors wishes that particular supplier to consider in dealing with General Motors its relationship with the duPont Company, or otherwise General Motors would not supply the duPont Company with the information.

(c)—The principle of reciprocity must imply that you are giving something in order to get something. If the duPont Company, in getting business, implies reciprocity on the part of General Motors' purchases, what does General Motors get? It would seem that in such reciprocity we are doing the "giving" and the duPont Company the "getting." If there is anything to be gotten our position should be to see that it is gotten for General Motors Corporation, rather than the duPont Company.

(d)—If our Purchasing Agents know that we are willing to allow the duPont Company to use our purchases to influence duPont sales, can we expect them to always resist giving weight to other considerations than the best interest of General Motors in placing their orders?

(e)—I think that we are all pretty well agreed that we could not afford to use the principle of reciprocity in General Motors' purchases. If that is true we certainly cannot allow anyone else to imply that they can use General Motors' purchases for the purpose of reciprocity.

In the particular case under consideration I see no difference in Mr. duPont using the information he has requested in order to retain business than for him to use same to get business. In my judgment, if the duPont organization are not able to retain the business they have through the quality of their goods and the service they render, then they should not be allowed to retain it because General Motors purchases goods from that particular customer of the duPont Company. The steel companies must know the amount of business they are doing with General Motors Corporation, and if being reminded of this volume of business by the duPont Company results in the steel companies being willing to do something for the duPont Company that they would not have done without such reminder, then we in General Motors are not getting all we should from the steel companies.

I am perfectly willing in this instance that this information be gotten together and given to Mr. duPont, as you have promised, but I do think that it is a very bad precedent to establish—unless I am wrong in the position I have been taking with the duPont Company for the past three or four years, in regard to not allowing them to display to their customers any figures of General Motors as to the volume of our purchases from suppliers who are now or prospective customers of the duPont Company.

If you think I am leaning backward in matters of this kind and trying to maintain an impractical ideal in our purchasing relations, please frankly say so as this is a very important matter and one in which I would like to be guided by your better judgment.

J. L. PRATT.

JLP:V

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Defendant's Exhibit (GM) No. 202

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

PAINT DEPARTMENT

October 23, 1922.

Mr. J. L. Pratt,
General Motors Corporation,
New York City.

Dear Pratt:—

I was talking with Mr. Coyne the other day relative to our Paint and Varnish Division getting a share of the up-keep paint for the Hyatt Roller Bearing Company and he advised me that you were the man with whom I should take up the matter. Our New York representative, Mr. Clause, has called on Mr. F. Weis and while we have been pleasantly received we do not seem to get any business. Would be glad to hear from you as to whether there is anything further we can do.

Your very truly

/S/ F. S. MACGREGOR.

fsm m

NOTE. In lower right hand corner is a stamped box in which appear the following stamped initials: A. P. S., J. A. H., J. L. P., L. R. B., W. M S., C. L. H., A. T. B., G. J. T. Next to J. L. P. appears the date 11/1/22 in pencil.

Defendant's Exhibit (GM) No. 203

November 1, 1922.

Mr. H. J. Forsythe, General Manager,
Hyatt Bearings Division,
Harrison, New Jersey.

Dear Mr. Forsythe:

I am enclosing herewith copies of correspondence with Mr. F. S. MacGregor in regard to paint requirements of Hyatt Bearings Company.

Will you please inquire into this subject and see just what the situation is.

Very truly yours,

General Manager
Accessory Divisions

JLP:V
enclosures

Letterhead of
E. I. DU PONT DE NEMOURS & COMPANY
Incorporated
Philadelphia, Pa.

January 9, 1926

Paint and Varnish Division

J. L. Pratt,
General Motors Corp.,
224 W. 57th St.,
New York, N. Y.

Dear John:

I have always promised myself that I would not add my name to the long list of people who are constantly asking favors from you for one thing or another. Just at this time, however, we have this lame duck of the duPont family well on its way to recovery and I am not going to miss any bets in securing every dollar's worth of business that I can get by honest means. This is the reason then for my asking you for a little help if it is consistent with your judgment.

The Delco Light Company have been purchasing for some time Rubber and Finishing Varnish from Lowe Brothers. Some little time ago these suppliers were asked to modify their product to meet the specifications of the Delco Light Company, but were unsuccessful in producing the desired results. About this time we walked into the picture with samples, which were reported as giving very satisfactory results. My information is that this satisfactory report was further backed up by the Delco people placing an order for one carload each of our Rubber and Finishing Varnish. After this order was placed we received a wire from the Delco people requesting that we withhold production, for which they gave as a reason that Lowe Brothers were to be given another opportunity to adjust their trouble. We are confident that we will eventually secure a release for this order, but I could not resist the temptation to make doubly sure of this by asking your assistance. It is perfectly possible that I am making a mistake in doing this and that pressure from the outside might make them decide all the more to continue with Lowe Brothers. We are all human, you know. It is perfectly possible also that the reverse might be true and that a word from you would turn the trick. At any rate, I am going to leave it to your own good judgment as to whether or not you can advisedly assist us in this particular case. If you can, we shall be pleased. If you cannot, we will be just as appreciative of your frankly telling us so.

We have finished development and are preparing to manufacture our new brush member of the Duco family. It is one of the most wonderful products that the duPont

Company has ever attempted to manufacture. There is absolutely nothing on the market at this time that is any match for it. It is absolutely fool-proof and brushes so easily and flows out so smoothly that the crudest amateur can get a good job with it. We felt that there would be a natural prejudice on the part of master painters and contractors due to its quick drying properties, and also that it was such a radical change from the regular paint and enamel products. Consequently, we went out and picked up a lot of these painters and allowed them to try out this product. They are so loud in their praise and so enthusiastic regarding its possibilities that I am positive the duPont Company will be obliged to take its hat off to the Paint and Varnish Division before the year is out.

With very best regards, I am,

Sincerely yours

/s/ Jim Elms

jwe/eem

NOTE. At the top of the first page there is a stamped box containing the following stamped initials: A. P. S., J. L. P., L. R. B. Next to "J. L. P." is the handwritten date "1/11/25".

DELCO-LIGHT COMPANY
ELECTRIC LIGHT AND POWER PLANTS WATER SYSTEMS
FRIGIDAIRE AND OTHER ELECTRIC DEVICES
DAYTON, OHIO, U.S.A.

January 27, 1926.

OFFICE OF
PRESIDENT AND GENERAL MANAGER

Mr. J. L. Pratt, Vice President,
General Motors Corporation,
New York City.

Dear Mr. Pratt;—

Thanks for your letter regarding the paint situation.

We are going ahead with the duPont paint and the order will be released in due time through our regular channels.

I think you will be glad to know that the duPont paint can be secured at a better price than we can secure paint locally, so aside from helping the general situation, we are also lowering our costs.

Thank you very much for giving me the complete information about the duPont past history as connected with General Motors Corporation.

Yours very truly,

DELCO-LIGHT COMPANY

/s/ E. G. BIECHLER
General Manager

EGB/CL

NOTE. In lower right corner appears a stamped box containing the following stamped initials: A. P. S., J. L. P., L. R. B. There are some illegible initials next to "J. L. P."

E

Defendant's Exhibit (GM) No. 206

(GM)

July 16, 1926.

PERSONAL & CONFIDENTIAL

Mr. J. J. Moosman, Division Mgr.,
Chemical Products Division,
E.I.duPont deNemours & Co.,
Parlin, New Jersey.

Dear Joe:

In April we had some correspondence in regard to the service your Company was rendering our A. C. Spark Plug Company. In connection with this I am handing you copy of memorandum that has come to my desk today.

I don't know whether or not the suggestion of direct contact with the Parlin plant on experimental work, on the part of the A. C. Spark Plug Company, is practical. I know that certain things have to be done in a certain way for proper organization, and I do not wish to disorganize you to do what our A. C. Spark Plug Company thinks they must have.

Won't you please write me frankly how far you think you can go in meeting the wishes of the A. C. Spark Plug Company for somewhat more direct and prompt action than they are getting under present conditions?

Very truly yours,

Vice President.

JLP:V
enclosure

Defendant's Exhibit (GM) No. 207

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated

CHEMICAL PRODUCTS DIVISION.
PRALIN, NEW JERSEY

July 23, 1926.

PERSONAL

Mr. John L. Pratt, V. B.
General Motors Corporation
224 W. 57th St.
New York City.

Dear John:

I have delayed reply to your kind letter of the 16th in the hope of being able to give you the complete story, but I have not been able to get to Detroit this week and think it would be best to delay final answer until I can discuss the matter with Mr. Sohlinger. I expect to see him in Wilmington next Wednesday (July 28) and hope to find some way of getting the matter straightened out to everybody's satisfaction immediately thereafter.

Perhaps it would be best to comply with Mr. Knight's suggestion that he be permitted to deal directly with Parlin, if only to satisfy him; but I am afraid if we make a special exception in his case and try to handle his business outside of the regular channels, he may find himself "out of the frying pan into the fire". As you know, we are maintaining an expensive sales organization in Detroit for the express purpose of giving more satisfactory service to our customers, and I hesitate to do anything that may result in giving Mr. Sohlinger's organization the impression that they are relieved of any further responsibility in connection with the A. C. account.

I presume it is hardly necessary for me to add that this new development is a keen disappointment to me, as I kept in touch with the situation myself since the receipt of your previous letter up to the time that I was assured by a personal visit to the A. C. Plant five or six weeks ago that everything was being handled to their entire satisfaction. I was unable to see Mr. Knight at that time, but talked with Mr. Wells, the Purchasing Agent, and one of his assistants.

Yours very truly,

/s/ J. J. Moosman
Division Manager.

JJM:HL

Note. To right of date is a stamped box containing the following stamped initials: A. P. S., J. L. P., L. R. B. A set of illegible handwritten initials appears opposite "J. L. P."

Defendant's Exhibit (GM) No. 208

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
CHEMICAL PRODUCTS DIVISION
PARLIN, NEW JERSEY

July 29, 1926.

PERSONAL

Mr. John L. Pratt,
Vice President,
General Motors Corp.,
224 West 57th St.,
New York City.

Dear John:

In accordance with my letter of the 23rd, I discussed the A. C. Spark Plug situation with Mr. Sohlinger in Wilmington yesterday.

We decided that the best thing to do is to have Mr. Sohlinger see Mr. Knight, and he will do this early next week, probably Monday or Tuesday. I will advise you in due course of the results.

Very truly yours,

/s/ J. J. MOOSMAN
Division Manager

JJM:ML

NOTE. To right of date, there is a stamped box containing the following sets of stamped initials: A. P. S., J. L. P., L. R. B. There are some illegible handwritten initials next ot "J. L. P."

Defendant's Exhibit (GM) No. 209

Letterhead of

E. I. DU PONT DE NEMOURS & COMPANY
CHEMICAL PRODUCTS DIVISION
Parlin, New Jersey

August 17, 1926.

Mr. John L. Pratt,
Vice President,
General Motors Corp.,
224 West 57th St.,
New York, N. Y.

Dear Mr. Pratt:

Supplementing my letter of July 29th, I quote the following report dated August 5th received from Mr. Sohlinger during my absence from the office:

"Relative to the correspondence which you have had with Mr. Pratt regarding complaints by the A. C. Spark Plug Company, on Tuesday of this week I discussed the situation with Mr. Champion and also with Mr. Knight.

Mr. Knight is going to work closely with Ed. Conde on any new developments, which the A. C. Spark Plug Company will need, and in case there is any further complaint, Albert Champion will take the subject up with me."

Conde is the Chief Chemist of our Flint Plant, which as you know is located just around the corner from the A. C. Factory. He has had a great deal of experience in pyroxylin solutions, particularly with reference to adapting these products to the requirements of individual consumers;

I therefore feel sure this arrangement will result in giving entire satisfaction to Mr. Knight.

Yours very truly,

/s/ J. J. Moosmann
J. J. Moosmann, Division Manager

Note. To right of date appears a stamped box containing the following set of stamped initials: A. P. S., J. L. P., L. R. B. The handwritten date "8/20" appears opposite "J. L. P."

Defendant's Exhibit (GM) No. 210

(GM)

7262

August 20, 1926.

Mr. J. J. Moosmann, Division Mgr.,
Chemical Products Division,
E. I. duPont deNemours & Co.,
Parlin, New Jersey.

Dear Joe:

Please accept my thanks for your letter of August 17th about arrangements which have been made to give Mr. Albert Champion the kind of service he thinks he should have. I trust that the new arrangement will be satisfactory.

Thanking you for your attention to same,

Very truly yours,

Vice President

JLP:V

E

Defendant's Exhibit (GM) No. 211

January 31, 1929

Mr. Ed F. Fisher
J. L. Pratt

Dear Ed,

I am enclosing herewith a letter from Mr. W. F. Harrington of the E. I. duPont de Nemours & Co., which I think is self-explanatory.

If you think anything constructive can be done along the lines of what Mr. Harrington is thinking, I would be very glad to put him in contact with anyone in your organization that you might suggest.

Very truly yours,

Vice-President.

JLP:CLM

E

Defendant's Exhibit (GM) No. 212

Letterhead of
FISHER BODY CORPORATION
DETROIT, MICH.

February 8, 1929.

Mr. J. L. Pratt,
General Motors Corporation,
New York City.

Dear John:

I have your note of January 31st with letter from the Dupont Company attached. After reading this letter over and giving it quite a little thought I cannot see where their suggestion would be of very much help to us. Our trouble with fabrics is mostly the variation in color and I personally don't think that this is due to the dyes that are used as much as it is the process of dyeing. We have this same trouble with all of the manufacturers of fabrics we are dealing with and have dealt with, so I am sure that it is just one of those things that the manufacturer is up against and can't eliminate. We are after them continually and they try to hold it down to a minimum as much as possible. If we attempted to dictate in any way to the manufacturers of fabrics as to the kind or quality of dyes they use, I think that every time something came up that was wrong they would pass it on to us and say that we specified this or that and that we should be held responsible. I am sure that I or anyone else in our organization would not care to accept this responsibility. If we had this trouble with only certain manufacturers and it could be traced back that they all used the one make of dye, then there might be something worthwhile looking into regarding the quality of dyes used; but I am sure that they are all using different makes of dyes and it cannot be attributed to that.

We are very thankful for Dupont's offer and appreciate it very much. I am leaving for Seattle tomorrow night and upon my return the first time any of the officials of Collins & Aikman or of any of our other sources of supply for fabrics are here, I am going to have a talk with them.

Very truly yours,

/S/ E. F. Fisher

EFF.S

2
E

Defendant's Exhibit (GM) No. 213

7266.

Mason & Hanger Company, Inc.
ESTABLISHED 1827

[redacted]

EXECUTIVE OFFICES
NEW ADDRESS
500 FIFTH AVENUE
NEW YORK

September 28, 1931.

Mr. John L. Pratt, Vice Pres.,
General Motors Corp.,
1775 Broadway,
New York City

Dear John:

Attached hereto is a letter from Guy Van Sant which is self-explanatory.

I believe from what he has told me that he has on hand some Appalachian Oak of good quality, and if you or any of your subsidiary companies are in the market for this material, he is prepared to sell at satisfactory prices.

If you think it worth while, I will very much appreciate it if you will put him in touch with the proper men.

A

Yours sincerely,

SBM:T

encl.

E

Cen

Defendant's Exhibit (GM) No. 214

September 30, 1931

Mr. Silas B. Mason,
Mason & Hanger Co.,
500 Fifth Avenue,
New York, N. Y.

Dear Silas:

I have your letter of September 28th, enclosing one from Mr. Van Sant, and I am enclosing herewith copy of letter today written to Mr. E. F. Fisher, who is responsible in the Fisher Body organization for their lumber requirements.

I am under the impression that there is a good deal of distress lumber on the market at present and that we have been able to buy our recent requirements at very attractive prices.

I had hoped to get together with you this week but was unable to locate you Monday or Tuesday, and as I am leaving town tomorrow I will have to postpone the pleasure of seeing you until I return.

With kind regards,

Very truly yours,

JLP:V

E

Defendant's Exhibit (GM) No. 215 7268

September 30, 1931

Mr. Edward F. Fisher, Vice President,
Fisher Body Corporation,
Detroit, Michigan.

Dear Ed:

I am enclosing herewith letter from the Appalachian Lumber Company, of Lexington, Kentucky, which was passed on to me by a friend, Mr. Silas Mason, in regard to dry white oak lumber which the above company has for sale.

If you are going to be in the market in the near future for any additional white oak lumber I would appreciate if you would give the Appalachian Lumber Company an opportunity to bid on same.

Very truly yours,

Vice President

JLP:V
Enc.

E

Defendant's Exhibit (GM) No. 216

FISHER BODY CORPORATION
DIVISION OF GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

OCTOBER 16, 1931.

MR. J. L. PRATT,
GENERAL MOTORS CORPORATION,
DETROIT, MICHIGAN.

DEAR JOHN:

YOUR LETTER AT HAND WITH LETTER ATTACHED FROM THE APPALACHIAN LUMBER COMPANY OF LEXINGTON, KENTUCKY. I AM AFRAID THAT THE LOCATION OF THIS COMPANY WILL BE TO THEIR DISADVANTAGE, OWING TO SHIPPING TO THE PLANTS WHERE WE ARE USING OAK GENERALLY.

HOWEVER, I HAVE TURNED YOUR LETTER OVER TO MR. CLAUDE CRUSOE AND HAVE ASKED HIM TO SHOW THEM THE COURTESY OF LETTING THEM FIGURE ON SOME OF OUR RELEASES.

VERY TRULY YOURS,

E. F. Fisher

EFF:S

P. S. du Pont
Wilmington, Del.

May 27th, 1926.

Mr. John L. Pratt, Vice-President,
General Motors Corporation,
Detroit, Michigan.

Dear Mr. Pratt:

Some days ago I had a visit from Mr. Charles N. Hickok of the M. A. Hanna Co., of Cleveland, Ohio. While Mr. Hickok devotes his time to the ore end of the business, he inquired as to how he and Mr. Hanna might get in touch with those of the General Motors Corporation who are interested in pig iron. Mr. Sloan refers me to you in this matter. Therefore, if Mr. Hickok or Mr. Hanna should call upon you, I hope that you may be able to give them the information that they desire. As a matter of fact, I believe that their chief interest is to become personally acquainted with the General Motors crowd.

Very truly yours,

Pierre S. du Pont.

17

Note: Routing stamp in upper right hand corner has 6/8 written after J.L.P.

E

Defendants' ~~Trial~~ Ex. No. GM-218

June 8, 1926.

Mr. P. S. duPont,
Wilmington,
Delaware.

Dear Mr. duPont:

I have your letter of May 27th in regard to the visit you had with Mr. Charles N. Hickok of the M. A. Hanna Company of Cleveland, Ohio.

I do not know whether Mr. Hickok advised you that the M. A. Hanna Company are now receiving practically all of our business in pig iron except high silicon iron. This is under contract made during Mr. Durant's regime in 1920, for a ten year period, and is a contract which I think we will be very glad to cancel as it has worked very much to our disadvantage.

I will be very glad to see Mr. Hickok or Mr. Hanna at any time.

Very truly yours,

Vice President.

JLP:V

E

Defendant's Exhibit (GM) No. 219

September 16, 1926.

Mr. Alfred Slone, Pres.,
General Motors Corp.,
224 West 57th St.,
New York, N. Y.

Dear Alfred:—

In one of the reports considered at the last meeting of the Finance Committee, there was mentioned an investigation now being made into the manufacture of copper tubing—it being stated that it was found impossible to secure satisfactory assurance of our supplies.

Mr. Grubb has recently been negotiating with the American Brass Company, for the sale to them of our Everdur business. He reports that in conversation with Mr. Weaver, Vice President of the American Brass Company, in charge of sales, Mr. Weaver states that he understood General Motors Corporation was concerned over their supply of tubing, and that General Motors Corporation could rest assured that the American Brass Company would take care of their requirements at any time desired, indicating that they were perfectly willing to build whatever additional capacity might be required.

Yours very truly,

LduP:M

NOTE. "File Copy" printed diagonally across face of page.

5 7 3

Letterhead of
GENERAL MOTORS CORPORATION
224 WEST 57TH STREET
NEW YORK

September 20, 1926.

Mr. Lammot duPont,
E. I. duPont deNemours & Company,
Wilmington, Delaware.

My dear Lammot:—

Thanks for yours of the 16th. Mr. Pratt knows more about this than I do and I have referred the matter to him and he will take it up with you on account of the fact that I am going to be away for a month, abroad, leaving on Wednesday.

I think perhaps that there is more to it than the question of supply. In view of the fact that our requirements are large and getting larger, it undoubtedly is more convenient and profitable for us to have the matter under our own control. Probably the return on the capital employed is large enough to justify us doing so. However, Mr. Pratt will write you fully on the matter.

Very truly yours,

/s/ ALFRED P. SLOAN, JR.

APSJr./K

NOTE. "Received Sep 22 1926 Lammot Du Pont" stamped at top.

Defendant's Exhibit (GM) No. 221

Letterhead of

GENERAL MOTORS CORPORATION
224 West 57th Street
New York

September 28, 1926.

Mr. Lammot duPont,
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

Referring to your letter of September 17th, in regard to General Motors' interest in the manufacture of copper tubing.

We have no doubt but that the American Brass Company are in position to take care of our requirements, but at a price satisfactory to the American Brass Company.

In our Delco-Light Company alone we will have orders for about $7,000,000 worth of copper tubing this next year. With the base price of copper at 14¢ a pound, we are paying approximately 31¢ a pound for copper tubing.

The manufacture of copper tubing of the size we use is in the hands of a number of small manufacturers. All of these small manufacturers purchase their raw material from the American Brass Company, who seem to control the machinery in America for producing large size copper tubing, three-quarter standard iron pipe size. As far as we know the American Brass Company do not solicit business smaller than the three-quarter standard iron pipe size. They sell this size pipe to our suppliers at what seems to us to be an exorbitant price, of approximately 21¢ a pound. We are of the impression that there is an arrangement whereby the American Brass Company refrains from going into the manufacture of small sizes of tubing, while the manufacturers of small size tubing purchase their raw material for this size tubing from the American Brass Company.

Our investigation is not directed towards increasing capacity but towards getting a more satisfactory tubing at a lower price.

Very truly yours,

/s/ J. L. PRATT
Vice President.

JLP:V

NOTE. "Received Sep 29 1926 Lammot Du Pont" stamped at top.

Defendant's Exhibit (GM) No. 222

September 30, 1926.

Mr. John Pratt, V. P.,
General Motors Corporation,
224 West 57th Street,
New York City, N. Y.

Dear Mr. Pratt:

Thanks for yours of September 28th in regard to copper tubing and the American Brass Company.

I have no interest in the company, nor has anyone approached me who has an interest. I have been impressed with the very satisfactory relations we have had with these people in the Everdur matter and believe that if you or someone else in authority went direct to the head of the American Brass Company and got right down to "brass tacks" the General Motors Corporation would get fair dealing and good results without the necessity of making an investment.

Yours very truly,

PRESIDENT.

LduP/MD

5[illegible]

7277

Defendant's Exhibit (GM) No. 223

Letterhead of
GENERAL MOTORS COMPORATION
224 West 57th Street
New York

October 1, 1926.

Mr. Lamott duPont, President,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

Please accept my thanks for your letter of September 30th in regard to the American Brass Company.

For your information we have practically completed our investigation of copper tubing and it looks as if it would not be advisable at this time for us to make an investment in order to enter into the copper tubing business.

In regard to the American Brass Company, they are in production of small size tubing in a small way and I understand would like some guarantee from us before they would be willing to put in equipment to take care of part of our requirements. It now looks as though our present suppliers will be able to take care of our requirements for the next couple years, and we do not feel we should make any overtures to the American Brass Company in order to get them actively engaged in copper tubing, which would seem to be naturally a branch of their business.

Very truly yours,

/s/ J. L. Pratt
Vice President.

JLP:V

Note. The handwritten name "John Pratt" appears at top. "Received Oct 2 1926 Lammot Du Pont" stamped at top.

Defendant's Exhibit (GM) No. 224

7279

LAMMOT DU PONT
Wilmington, Delaware
P .O. Box 303

September 22, 1926.

Mr. John Pratt, Vice Pres.,
General Motors Corp.
224 West 57th St.,
New York, N. Y.

Dear John:—

I am enclosing letter from Jack Sproul of the General Refractories Company, dated September 20th, also letter dated September 11th by A. A. Wedderspoon, both in regard to the possibility of the General Refractories Company receiving some orders for firebrick from the Remy Company, Anderson, Ind. These letters were sent me through Mr. T. C. DuPont.

Jack Sproul is the son of Governor Sproul of Pennsylvania, who is a good friend of ours, and we would greatly appreciate it if some business could be turned his way. We, of course, do not ask that he be given any orders for firebrick, or anything else, without justification, and feel that we are justified in asking that the General Refractories Company, which is a well known concern, of good reputation, be given an opportunity to bid, and receive some consideration if prices, quality and service are at least on a part with their competitors.

We will greatly appreciate anything that can be done.

Yoursd sincerely,

/s/ LAMMOT DU PONT

LduP:M

NOTE. To right of date there is a stamped box in which appear the following stamped initials: A. P. S., J. L. P., L. R. B. The handwritten date "10/2" appears opposite "J. L. P."

Defendant's Exhibit (GM) No. 225 7281

October 2, 1926.

Mr. Lammot duPont, President,
E. I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

I have your letter of September 22nd, enclosing correspondence from Mr. Jack Sproul, of the General Refractories Company.

I am having this matter investigated but I do not believe the intimation given in his letter—that they do not have a look-in on General Motors' business—is true. Mr. Sproul's approach of trying to bring influence to bear in order to get business from General Motors Corporation will not work. If this Company can satisfy our Divisions that they have a product competitive from the standpoint of quality, price and service, I know our Divisions well enough that if the General Refractories Company's representatives go after the business they will have an opportunity to quote, and while I do not claim that our Purchasing Departments are 100% pure, I do believe we have a spirit in our Purchasing Departments of always attempting to get the best as they see it for General Motors Corporation. For this reason we have always hesitated to suggest any firm for special consideration.

We believe it is the duty of the supplier to establish the merits of his product to our Corporation, and not our duty to ask our Purchasing Departments to give special consideration to any firm. We have reviewed a number of cases of suppliers who complain they have not had fair treatment, but I have not yet found a case where it had not been due largely to the supplier's own negligence in getting on the job himself in time for proper consideration in order to sell the Corporation.

On account of your interest in the matter I am having this particular case looked into and will advise your further.

Very truly yours,

Vice President.

JLP:V

Defendant's Exhibit (GM) No. 226

October 25, 1926

Mr. Lammot duPont, President,
E.I. duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. duPont:

Referring to your letter of September 22nd and my reply of October 2nd, concerning the General Refractories Company, wherein I promised to investigate this situation and advise you further.

I find that General Motors' purchases of fire brick have averaged about $150,000 per year. A canvass of our Purchasing Agents shows that there are no instances where the General Refractories Company have not been given an opportunity to bid on our refractory business. In the case complained of—the Remy Electric Company at Anderson, Indiana—competitive companies have been most helpful in determining the type of fire brick that gave the lowest maintenance cost in the boilers and type of fuel used at Anderson, and on account of this help they were given prime consideration in the placing of business.

From my check-up I do not believe that the General Refractories Company has any right to complain of their treatment by General Motors' divisions, and I think the greatest assistance you can give the General Refractories Company will be to impress on Mr. Sproul the necessity of his organization working closely with our organizations to help them determine what fire brick will give General Motors Corporation the best results for the money expended.

Thanking you for your interest in this matter,

Very truly yours,

Vice President.

JLP:V

Defendant's Exhibit (GM) No. 227

Wilmington, Del., January 29, 1931.

Mr. John Pratt, Vice-President,
General Motors Corporation,
New York City, N. Y.

Dear John:

I have just had a talk with Mr. G. D'A. Belin, President of E. I. du Pont de Nemours & Company of Penna., supplying the anthracite district with explosives, and with Mr. J. W. McCoy, General Manager of our Explosives Department, regarding the attitude of the anthracite coal companies toward General Motors' prospective move into the manufacture and sale of domestic oil burners.

From what I now learn, the anthracite coal companies are very much wrought up on this subject. It is beyond my understanding how they can consider the matter so seriously in view of the number of oil burners already in the market, but nevertheless I am assured and am satisfied that they are so wrought up.

I am convinced that the outlook for du Pont business in the anthracite field is jeopardized seriously and am equally convinced that du Pont cannot dictate to General Motors with respect to their going into the oil burner business, nor can the advantage or disadvantage to du Pont be considered at all as a factor by General Motors in reaching a decision.

As a General Motors man, I would like to point out the following factors which seem to me to have a bearing on the case.

1. The anthracite coal companies have shown an aggressive attitude and a vindictive spirit in threats to the du Pont Explosives Department, and are therefore likely to put an embargo on the use of General Motors' products throughout the anthracite industry.

2. It is not a long step from oil burners replacing anthracite coal to oil burners replacing soft coal. It would not be at all surprising if the anthracite coal companies suggested to the soft coal companies that they too put an embargo on General Motors' products.

3. The anthracite coal companies certainly yield some influence, if they do not have a direct connection with the Eastern railroads.

4. It is a matter of general belief, and can be readily checked by inquiry, that the manufacture and sale of oil burners are not generally profitable in spite of the fact that there are apparently entirely satisfactory oil burners already on the market. If General Motors activities in experimenting with oil burners were transferred to experiments with anthracite coal burners, the friendship of the coal companies would certainly be acquired.

If I have an opportunity on next Tuesday or Wednesday, would like to hear your reaction to the above.

Yours very truly,

LduP/MD CHAIRMAN OF THE BOARD.

Defendant's Exhibit (GM) No. 228

GENERAL MOTORS CORPORATION
Broadway at 57th Street
New York, N. Y.

February 6, 1931

Mr. Lammot duPont,
Chairman of the Board,
General Motors Corporation,
Wilmington, Delaware.

Dear Mr. duPont:

This will acknowledge receipt of your letter of January 29th, as well as letter dated February 2nd to you from Mr. G. d'A. Belin, in regard to the attitude of the anthracite coal companies towards General Motors manufacture and sale of oil burners.

General Motors for a great many years, as you know, has been manufacturing Delco light plants which are used largely on farms, isolated road houses and oil stations. There are something over 100,000, as near as we can estimate, of these plants in use. On account of the extension of high powered lines to rural districts this business has not expanded in recent years. We have a loyal dealer organization that are very anxious to keep in business, and to give them something to sell in that part of their territory that has been taken over by high tension lines it was necessary for us to consider additional products, and in line with this a number of years ago we brought out a line of pumps, both for deep wells and shallow wells. This part of our business has been growing. Our boys have been working on a fur-

7287

ther line of motor equipped household appliances which could be supplemented with the business of our Delco-Light dealers, and among the things considered have been washing machines, oil burners, vacuum cleaners, and a kitchen aid - all designed with the idea of making country life easier and more attractive.

It is in connection with this development that we have taken over the Rickard Oil Burner Company, which consisted of one man - Mr. Rickard, an engineer. We have paid him $20,000. for his drawings, designs and development expense. We have spent $6,000. in tools for the purpose of making a limited number of oil burners which will be tried out in the territory of one Delco-Light distributor, who is located at Rochester, N. Y.

It will probably require two years to make this demonstration as to whether or not the burner we are undertaking to develop will require excessive service. No effort will be made to market this oil burner nationally or in other territories except around Rochester, until it is known whether the burner is successful and can be made and sold at a profit.

In the past we have had sufficient courage to recognize mistakes and abandon developments which it seemed impossible to make profitably, and I hope the management of General Motors Corporation can be counted on to follow the same policy in regard to the oil burner. On the other hand, if the oil burner can be manufactured and marketed at a profit, and it will supplement those utilities the Corporation is undertaking to market, that will make life more comfortable, I think we would be cowardly in abandoning same at this time because a poorly led association of coal producers did not recognize that the world progresses, and that any company that hopes to succeed has to take a part in progress.

The agitation among the anthracite coal producers in regard to oil burners is nothing compared with the agitation we had a few years ago from ice manufacturers associations against Frigidaire, and a great many threats were made that ice manufacturers would not buy General Motors products if we continued with the development of Frigidaire. At that time we took the position that if household refrigeration was an improvement over ice boxes General Motors would not reap any permanent ill-will by proceeding on sound business lines to promote iceless refrigeration. We believe the same line of reasoning holds in the case of oil burners, and while we do not believe in doing anything to stir up antagonism of any portion of any industry, we do believe that if any industry takes an unsound position in regard to any activity of the Corporation that is no reason for us to discontinue that activity.

Personally I would like you to agree that General Motors should proceed with its experimental work on oil burners, but on account of the position that the anthracite coal producers have taken that we suppress as much as possible any publicity in regard to this experimental work, which unfortunately has already obtained more publicity than the importance of the activity justifies.

Very truly yours,
/S/ J. L. Pratt
Vice President

JLP:V

NOTE. At top of page 1 are Lammot du Pont stamps Received Feb 9 1931 and answered Feb 23 1931.

Defendant's Exhibit (GM) No. 229

EXECUTIVE COMMITTEE
GENERAL MOTORS CORPORATION

Minutes of meeting No. 328 held at the office of the Corporation in the General Motors Building, Detroit, Michigan on Thursday, January 21, 1932 at 9:30 A. M. in accordance with notice duly given by the Secretary.

PRESENT: Messrs. A. P. Sloan, Jr.
Donaldson Brown
Lammot duPont
C. T. Fisher
L. P. Fisher
J. L. Pratt
J. T. Smith

This was a Joint Meeting with the Operations Committee

ABSENT: Messrs. F. J. Fisher
W. S. Knudsen

The Chairman, Mr. Alfred P. Sloan, Jr., presided, and the Secretary, L. R. Beardslee, recorded.

• • •

—2—

Executive No. 328
January 21, 1932
—9—

GENERAL MOTORS POSITION IN
THE HOUSEHOLD APPLIANCE FIELD

Report was received from Vice-President J. L. Pratt dated January 18, 1932 (OC-1161) dealing with the question of General Motors position in the Household Appliance Field and particularly recommending that the Delco Appliance Division be permitted to go ahead with the manufacture and sale of oil burners in a small way, with the understanding that no substantial investment will be required.

Upon motion, this report was accepted and the recommendations contained therein, approved.

• • •

—3—

Upon motion, the meeting adjourned.

L. R. Beardslee,
Secretary

—4—

I, George A. Brooks, Secretary of General Motors Corporation, do hereby certify that the attached photostat is a true and correct copy of minutes of meeting of the Executive Committee of General Motors Corporation, held January 21, 1932.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Corporation this 15th day of December, 1952.

George A. Brooks
George A. Brooks, Secretary

SEAL

2
E

Defendant's Exhibit (GM) No. 230

7291

Letterhead of

E. I. du PONT de NEMOURS & COMPANY
Dyestuffs Department
Wilmington, Delaware

August 12, 1926.

Mr. John L. Pratt, Vice-President,
General Motors Corporation,
New York City.

Dear Jack:

With reference to your letter of August 10th, regarding Methyl Chloride, our Dr. Frei, who is a former Badische man, is now with us here and tells us that he is quite familiar with the process used by the Badische Company for making Methyl Chloride. We have also carried out some laboratory work on this process and believe that we are in a good position to go ahead with the manufacture of this product. We would therefore appreciate it very much if you would give us an opportunity to bid on your first year's business rather than have to wait for a year before we can expect to obtain any share of it.

With kind regards,

Sincerely yours,

/s/ W. F. Harrington
W. F. Harrington
General Manager.

Note. To the right of date appears a stamped box containing the following stamped initials: A.P.S., J.L.P., L.R.B. The handwritten date 8/13 is superimposed on the box.

December 29, 1925.

Mr. W. B. Foster,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. Foster:

Referring to our telephone conversation this morning, we will be very glad if you will arrange that Mr. Minor or Mr. DeBlois, of your department, go to Dayton, Ohio, and inspect the installation recently made at our Delco-Light plant, from a risk standpoint, for charging Frigidaire machines with SO_2 gas.

Also while there we would like them to inspect the installation made in our Moraine plant of the Delco-Light Company for spraying Frigidaire cabinets with Duco.

We are anxious to assure ourselves that everything practical has been done to remove hazards of fire and health in the use of Duco and SO_2 gas. We would appreciate very much any suggestions by whoever you send as to ways or means that might make these installations more satisfactory.

Whoever you send should get in touch, upon arrival in Dayton, with Mr. E. G. Biechler, General Manager of the Delco-Light Company. If Mr. Biechler does not happen to be in Dayton at the time, Mr. T. L. Fordham, Factory Superintendent, will see that your representative has an opportunity to examine the installations.

Thanking you, and wishing you a very Happy New Year, I am

Very truly yours,

Vice President.

JLP:V

copy to Mr. E.G.Biechler

Defendant's Exhibit (GM) No. 231

August 13th, 1926.

Mr. W.F.Harrington,
General Manager, Dyestuffs Depart.,
E.I. Du Pont De Nemours & Co.,
Wilmington, Delaware

7293

Dear Buck:

I have your letter of August 12th on Methyl Chloride, and if you have definitely decided to manufacture Methyl Chloride, and you are sure that there will be no hold up in deliveries to us due to lack of experience, I have no objection to your organization contacting with our Delco-Light Company at once, and quoting on supplying them with a part of their Methyl Chloride.

Thanking you for your interest in this matter, I am,

Yours very truly,

JLP.F

Vice President

Defendant's Exhibit (GM) No. 232

December 29, 1925.

Mr. W. B. Foster,
E.I.duPont deNemours & Co.,
Wilmington, Delaware.

Dear Mr. Foster:

Referring to our telephone conversation this morning, we will be very glad if you will arrange that Mr. Minor or Mr. DeBlois, of your department, go to Dayton, Ohio, and inspect the installation recently made at our Delco-Light plant, from a risk standpoint, for charging Frigidaire machines with SO_2 gas.

Also while there we would like them to inspect the installation made in our Moraine plant of the Delco-Light Company for spraying Frigidaire cabinets with Duco.

We are anxious to assure ourselves that everything practical has been done to remove hazards of fire and health in the use of Duco and SO_2 gas. We would appreciate very much any suggestions by whoever you send as to ways or means that might make these installations more satisfactory.

Whoever you send should get in touch, upon arrival in Dayton, with Mr. E. G. Biechler, General Manager of the Delco-Light Company. If Mr. Biechler does not happen to be in Dayton at the time, Mr. T. L. Fordham, Factory Superintendent, will see that your representative has an opportunity to examine the installations.

Thanking you, and wishing you a very Happy New Year, I am

Very truly yours,

Vice President.

JLP:V

copy to Mr. E.G.Biechler

E

Defendant's Exhibit (GM) No. 233

FRIGIDAIRE CORPORATION
SUBSIDIARY OF GENERAL MOTORS CORPORATION
DAYTON, OHIO., U.S.A.

7295

OFFICE OF
PRESIDENT AND GENERAL MANAGER

July 31, 1929

Mr. J. L. Pratt, Vice President,
General Motors Corporation,
New York City.

Dear Mr. Pratt;-

Thanks for your letter of July 30 relative to Mr. Midgley and the new refrigerant.

I had a long talk with Mr. Midgley and Mr. Keilholtz today, and I believe we are up to a point where we should be receiving sufficient refrigerant per month so that we can put it into at least 1,000 Frigidaires every thirty days, which will give us some real practical experience as to its value, reliability, etc.

You know much more about chemical manufacturing than I do, but I have been thinking about this for some little time, and we are of the opinion here that what we should do is put up a shack on some of our property at Moraine and put a few chemical men there, along with enough equipment, so that we can make this new refrigerant ourselves for the practical experience. At the present time, we are making about three pounds a day, but this of course is too small an amount. We feel since the matter is in the experimental stage, that it would be foolish for us to let the manufacturing get out of our hands, particularly when we believe we could get ready to do this for a reasonable amount of money. Mr. Midgley, in connection with Mr. Williams, Dr. Kehoe and others will work out a project, and I hope the entire subject would stay within a scope of $50,000; at least this is the way we are proceeding, and I thought I would write you this tentative note now, so you could be thinking about it.

Please bear in mind we are open minded on the subject, and want to proceed in the most practical, sensible and economical manner. If everything works out as to what would be done in the future as to its manufacture, it of course would be a subject of conferences and discussions as to how, where and the manner in which we could do it. One thing is certain, if the problem is as near solved as it looks like it is, the quicker we can determine we have the right thing, the better off we will be. Nothing would please me more than to spring a thing like this on our most radical competitor, and I wish we had it today rather than waiting six months or a year, which we no doubt will have to do until it is definitely worked out.

Yours very truly,

General Manager

EGB/CL

NOTE: Stamp in upper right hand corner reads: "J. L. Pratt answered—noted" with 8/2 written therein.

Defendant's Exhibit (GM) No. 234

August 2, 1929

Mr. E. G. Biechler, General Mgr.,
Frigidaire Corporation,
Dayton, Ohio.

Dear Mr. Biechler:

I am in receipt of your letter of July 31st, in regard to the new refrigerant being developed by Mr. Midgley.

By all means I think we should make a set-up to produce sufficient of this chemical to prove its cost and availability for use in refrigeration machines. As to whether or not we should eventually manufacture same, in my judgment should depend a great deal on the sources of the ingredients from which it is manufactured. Without knowing anything about the constituents of this material, it might be possible that some of the constituents are by-products of other chemical manufacture, which might make it desirable and economical for us to have same manufactured rather than make it ourselves.

We would certainly look with favor on the expenditure of sufficient money to prove out what we have so far developed—as a refrigerant that would accomplish what I understand we hope to be accomplished by this particular refrigerant—would be very valuable for Frigidaire.

Very truly yours,

Vice President.

JLP:V

E

Defendant's Exhibit (GM) No. 235

Letterhead of
FRIGIDAIRE CORPORATION
Subsidiary of General Motors Corporation
DAYTON, OHIO, U.S.A.

OFFICE OF
PRESIDENT AND GENERAL MANAGER

September 28, 1931.
(Dict. Sept. 26)

Mr. J. L. Pratt, Vice-President
General Motors Corporation,
New York, N. Y.

Dear Mr. Pratt:

I am enclosing herewith certain information on lithium minerals about which you and I have talked several times.

If Dr. Bichowsky's report is correct, it would seem that, relatively speaking, there is rather a limited supply of lithia mined at the present time and, accordingly, if our lithia system proves to be successful, based upon the fact that there are 50 pounds of lithia required for each "radiator", facilities would have to be provided for someone to make more lithia available at reasonable prices. Based on an average of twelve "radiators" per home, there would be required 600 pounds. It is anyone's guess as to how many systems could be sold, but it certainly wouldn't be an interesting business unless we could sell, say, 5,000 systems a year, so this in itself would require a minimum of 3,000,000 pounds.

We feel that, in quite a way, an additional investigation of the situation should be made, and we would be pleased to know whether you will assign this investigation directly to some person, or whether we should go ahead in our own way.

Dr. Bichowsky, of course, would be glad to assist in any manner whatsoever, should you want additional information.

Very truly yours,

/S/ E. G. BIECHLER
General Manager

EGB:MLW
Att.

NOTE. "J. L. Pratt, Answered—Noted" is stamped at top of document. A pencil check mark appears within the stamp.

Defendant's Exhibit (GM) No. 236

E. I. DU PONT DE NEMOURS & COMPANY
Wilmington, Delaware

VICE-PRESIDENT'S OFFICE

October 6, 1931.

Mr. John Lee Pratt,
Vice-President,
General Motors Corporation,
57th Street & Broadway,
New York City.

Dear John:

Robbie passed on to me the other day your suggestion as to our possible interest in the manufacture of Lithium Chloride. I have passed this along to Grasselli as I believe that Grasselli would be the one best suited to manufacture a product of this character.

With very best regards, I am,

Yours very truly,

/S/ W. F. HARRINGTON
Vice-President.

WFH/G

NOTE. "J. L. Pratt answered—Noted" is stamped at top of document. A pencil check mark appears therein.

Defendant's Exhibit (GM) No. 237

Extract from minutes of meeting of the Executive Committee of General Motors Corporation duly held on the eighth day of August, 1930.

* * * * * *

Present:

Mr. Alfred P. Sloan, Jr., Chairman
Mr. Donaldson Brown,
Mr. Fred J. Fisher,
Mr. Wm. S. Knudsen,
Mr. John L. Pratt,

* * * * * *

MANUFACTURING OF FLORINE GAS

Mr. Pratt brought up the question of making a contract with the DuPont Company whereby we become joint owners with them of a company to be organized for the manufacture of certain compounds of fluorine which have been developed by our Research Laboratories. These compounds are particularly desirable for use in electric refrigeration.

On motion the Committee unanimously authorized Mr. Pratt to make the proposed contract with the DuPont Company.

* * * * * *

A true copy.

/S/ George A. Brooks
Secretary

Defendant's Exhibit (GM) No. 238

Extract from minutes of meeting of the Finance Committee of General Motors Corporation duly held on the 8th day of September, 1930.

* * * * * *

PRESENT: Messrs. Donaldson Brown
G. F. Baker, Jr.
W. S. Carpenter, Jr.
H. F. duPont
Irenee duPont
F. J. Fisher
J. S. Morgan, Jr.
C. S. Mott
Seward Prosser
J. J. Raskob
A. P. Sloan, Jr.
George Whitney

Messrs. A. Bradley and J. L. Pratt were also present.

* * * * * *

KINETIC COMPANY - MANUFACTURE OF CHEMICALS

A report was received from the Executive Committee dated September 5, 1930 (#2971) enclosing a copy of a contract that has been executed between General Motors Corporation and E. I. duPont deNemours & Company of Wilmington, Delaware, covering the organization of a new company known as Kinetic Chemicals, Inc., with a total capitalization of 20,000 shares of stock of a par value of $100. per share.

Under the terms of this contract the duPont Company agrees to subscribe to 51% of the total capitalization of Kinetic Chemicals, Inc., and the General Motors Corporation agrees to subscribe to 49% of such capitalization, payments to be made by the subscribers against their subscriptions as and when called to meet the requirements of the business.

The purpose of the organization of Kinetic Chemicals, Inc. is primarily to engage in the manufacture and sale of certain chemicals developed in the laboratories of General Motors and subsidiaries to be used as a refrigerant in Frigidaires.

It was felt that because of the experience of the du Pont Company in the chemical field that it is to the interest of General Motors Corporation to arrange with the duPont Company for the commercial development and production of these chemicals rather than for us to undertake the organization of the necessary personnel, technical staff, etc. for their production; and in order to give the duPont Company an incentive for the most efficient development of these chemicals it was considered mutually advantageous that the duPont Company should have the right to subscribe to 51% of the stock of the Kinetic Chemicals, Inc. Under this agreement a royalty will be paid to General Motors for the right to use the inventions transferred to Kinetic Chemicals, Inc., as covered more fully in the agreement.

Upon motion, duly made, seconded and unanimously adopted, the report from the Executive Committee was accepted, the plan for the organization of Kinetic Chemicals, Inc. approved, and the proper officers of this Corporation duly authorized to subscribe to 49% of the total capitalization of said Company.

* * * * * *

A true copy.

/S/ George A. Brooks
Secretary

August 25, 1931

Mr. J. L. Pratt, Vice-President,
General Motors Corporation,
Broadway at 57th Street,
New York, N. Y.

My dear John:

I wish to acknowledge your letters of August 18th respecting the research work being carried on for us by the Underwriters' Laboratory and your suggestions regarding sales activities.

It is planned that Messrs. C. D. Porch and H. L. Miner will meet Messrs. Smithson and Williams of the Frigidaire Corporation and together with Dr. Kehoe will hold a conference with the enginners and chemists of the Underwriters' Laboratories in Chicago as soon as a date can be arranged convenient to all parties concerned. At this conference it is expected that that one of the Vice-Presidents of the Underwriters will be present.

The conference has not been held previously because Dr. Kehoe has been abroad and Mr. Nuckolls, Chief Chemist of the Underwriters' Laboratories has been on his vacation. At this meeting there will be discussed results obtained by the Underwriters' Laboratories and the people representing us will endeavor to have the report written in language which will not reflect discredit on Kinetic No. 12 when subjected to high temperatures. We will be very glad to send you the account of this meeting and the report of the Underwriters' Laboratories as soon as issued.

Regarding our sales activities, would say that Mr. Rhodes and Mr. R. J. Thompson, Service Engineer of the Frigidaire Corporation, who is being transferred to us this week, called on Mr. Louis Ruthenburg of Copeland Products Inc. on July 28, 1931 and Mr. G. W. Mason of the Kelvinator Corporation on July 29, 1931 and discussed with these gentlemen and their engineers both technical and sales matters. Both Messrs. Ruthenburg and Mason advise that they will adopt Kinetic No. 12 for use in their equipment. However, neither of them are definite as to the time when they will purchase the refrigerant. Copeland Products Inc. have purchased this week an amount of 1450 pounds of Kinetic No. 12 to be used in several hundred machines which will be put out under the observation of company owned distributors. Kelvinator Corporation have a number of machines in service and seem perfectly satisfied with the refrigerant in all respects. We believe that the one matter which deters both of these concerns from making an immediate decision is the disturbance in New York City, which is being created by the Code Committee (Edwards Committee) of the American Standards Association. This disturbance is probably aided and abetted by Colonel Frank Smith of Servel Inc. who apparently has determined to continue to use methyl chloride if possible but if Kinetic No. 12 is given a clean bill of health will switch over and use it.

Messrs. Rhodes and Thompson also called on the Norge Corporation on July 29, 1931 and this concern is mildly interested at the present time in Kinetic No. 12. Rhodes has called on Colonel Smith twice, the last visit being on August 13, 1931. All three Presidents of these corporations are over-friendly to Kinetic Chemicals, Inc., Du Pont and General Motors. They treat our representatives in a most cordial way and impress on them that they are very friendly to us and would like to see one refrigerant adopted as standard throughout the industry. We think that Smith is behind this high temperature disturbance and that Ruthenburg and Mason are in the position of standing on the side lines awaiting the outcome. Of the three men Ruthenburg is the most sincere in his attitude toward us.

It is in our mind that the General Electric Company will be the last of the larger concerns to adopt Kinetic No. 12. We have not quoted prices to them because they have not asked for a quotation. Mr. Rhodes has received a communication from Mr. Dantsizen, the Works Chemist at Schenectady asking us if we are now prepared to sell Kinetic No. 12 for less than 25¢ per pound. Our reply has of course been in the negative. However, we know that quite a good deal of discussion was given to Kinetic No. 12 during a meeting of the Refrigerator Department men at the Island last week. Mr. Chester Lichtenburg who heads up the program at Fort Wayne left this meeting and asked Mr. Dorwirth of the Philadelphia office to immediately get in touch with Mr. Rhodes respecting a rumor that Kinetic No. 12 had been withdrawn from the market. This rumor came to him from their distributor in Indianapolis, Indiana and is the result of the stories being spread by two men in the Middle West at the present time. One of these men, Bright, is said to represent the Chicago District Ice Association and the other, Fremont Wilson's connection is kept a secret.

We therefore believe it advisable to get this high temperature matter out of the way before the middle of September and then we will resume active sales solicitation by visit to the concerns which have been agreed upon as our logical customers. At the present time we do not think that pressure should be put on any of them including the General Electric Company to make an immediate decision. We are fearful that if pressure is brought, one or another of these companies will commit themselves not to use Kinetic No. 12 and we hope to keep them from making such a decision and then sticking to it as a matter of principle.

In the field of commercial refrigeration, would advise that the Carrier Engineering Corporation sent last week two of their engineers to Dayton to discuss technical matters with Mr. Newell and others of the Frigidaire Corporation. Last week we submitted Mr. Lyle a contract proposal. We are endeavoring to have the Treasury architects specify Kinetic No. 12 as a refrigerant to be used with air conditioning equipment which they are planning for a number of Government office buildings in Washington. The general interest in the product is great. Samples have been secured by fifteen or twenty of the smaller concerns who are submitting it to test. The General Electric Company are ordering samples for Schenectady or Fort Wayne every week or two. I think when the matter develops a little further they will doubtlessly inquire of us for a price. In the meantime, all price information they may have is gotten in a round-about manner.

We will keep you posted as to developments.

Very truly yours,

KINETIC CHEMICALS, INC.,

EG Robinson

E. G. ROBINSON
PRESIDENT

EGR:M

Note: Stamp in upper right hand corner of page 1 reads "J. L. Pratt answered—noted" with 8/27 written therein.

Defendant's Exhibit (GM) No. 240

7307

August 28, 1931

Mr. E. G. Robinson, President,
Kinetic Chemicals, Inc.,
Wilmington, Delaware.

Dear Robbie:

Please accept my thanks for your letter of August 27th, bringing me up to date on Kinetic Chemicals.

I shall await with interest the result of the conference which it is proposed to hold with the Underwriters' Laboratories in Chicago.

I think your philosophy of not offending any of your prospective customers is no doubt the best method of working with the parties concerned. However, when and if we get a clean bill of health from the Underwriters' Laboratories in Chicago I would be inclined to put a little pressure on G.E., as it has been my experience that fair treatment to these people is interpreted as a rule by them as a degree of weakness, and I don't think we should get ourselves in that position in their mind.

Very truly yours,

Vice President

JLP:V

Defendant's Exhibit (GM) No. 241

EXCERPTS FROM AN ADDRESS BY C. F. KETTERING,

"Consumption—the Automotive Industry," the
complete transcript of which is printed in
Bulletin No. 132, American Petroleum
Institute, December 10, 1920

The Problem from the Automotive Side.

We have it on good authority that if we took 10 per cent. of the heavier ends out of our fuel today we could run even more economically than we do now, but we have got to reverse this very interesting fact, that as we lower the compression of an engine we lower the efficiency of it.

In order to get to you this problem as we see it, here is what happens: If we try to burn the present-day fuel which is sold at the average filling station in a high compression engine, we will say, like an airplane engine, we cannot do it. We cannot fly. It is almost impossible to get off the ground if you have to fill your machine with ordinary automobile gas. The reason is that we get that awful knocking in the motor. Most people call it a carbon knock. I will tell you what it is a little later on. We find that with a high-compression engine, like an airplane engine, where the compression is 125 pounds to the square inch at about three-quarters or two-thirds of the maximum power, if you open the throttle to get two-thirds or three-quarters of the maximum power those explosions get so intense that they just cave the piston heads in.

That, gentlemen, is the real fuel problem. We cannot raise the compression of our engines because of the fact that if we do, when you throw the throttle wide open, when the motor gets a little bit dirty, the motor pounds so hard that it will fracture the porcelains in the spark plugs, break down the bearings, and do all sorts of things. It will wreck the engine.

When we lower it to the point where we can throw the throttle wide open and still not subject the engine to undue strains, we work but very little of the time at that demand. In other words, the per cent. of total time that an automobile engine is asked for full power is very small, but you have got to drive that engine doing twenty or thirty miles an hour when the throttle is very nearly closed, when the compression is dropped down to maybe a third or a quarter of what its maximum is, and we burn 90 per cent. of all of our fuel down there at that very inefficient point.

If we can put the maximum compression up to a point of, say 120 or 130 or even 140 pounds and not have it knock, not have it break the engine up, then we can practically double the efficiency of our engines around twenty to thirty miles an hour. If we came to you today and said, "Here is a proposition whereby we can increase the petroleum production from one-third to one-half of what it is now so far as the automobile industry is concerned," I am sure that we could find some fellows who would invest in oil stock right away. Yet it is possible, by co-operation between this organization and the automotive industry to increase the efficiency of our machines from 33 1/3 to 50 per cent.

Why do we not do that? Why can we not do it?

How to Keep Down Detonation.

I guess I can illustrate this without a blackboard: Let us imagine that the edge of this book is a vertical line. We will suppose that we call the top of the book here 76 gravity fuel—it has got a line running across here—and then, succeeding parallel lines down here representing lower gravity fuel. This is 76, and I will condense the curve, because what we are using now is down here. I will put it up here. Let us imagine that this black line here is what we are now using.

When we take a full charge into a cylinder, or when we try to charge that cylinder at the present time, we have two things which are working against each other. In the first place, we are required to add more heat to vaporize that fuel; and from the very fact that we have to raise the temperature of the mixture in order to get volatilization for distribution purposes only, we reach another circumstance which I will now explain.

Each one of these parallel lines across here, representing a gravity, carries with it another perfectly positive constant which is a function of two things, the compression to which that charge is subjected and the temperature to which it is subjected upon burning. In other words, each fuel line across here carries with it another distinct, perfectly definite thing which is a product of compression and temperature.

If we ignite the fuel charge which we have in this cylinder, in burning it burns up here both in compression and temperature, does its work, goes down, and is exhausted out. If in that operation we do not pass the critical point for that given fuel, the engine runs very nicely. If we do pass it for just a little bit, the engine does not perform normally at all. The minute we go above this black line we do not get a nice come-over and back down, but we get a detonation here which goes away up like that back down, just a very sharp point up and back and then on down; and it is not infrequent to have this point of detonation above that line equal to the total explosion pressure of the engine, or sometimes very much greater.

That is the basic fuel problem which we are facing in the automotive industry—how to keep down that detonation which happens when we go up past the critical point for any given fuel.

Varying Characteristics of Fuel.

Each particular fuel has its characteristics. The paraffines have theirs. The citrate compounds, like you get out in California, have theirs. You know, there is a wonderful illustration. Out in California there have been more kerosene carbureters invented than in any other place in the world, because they take that 27-plus fuel oil, as they call it out there, that black oil, and put it in a carbureter, and it runs wonderfully out there. Then they bring it down here, and we put some of our paraffine kerosene in it, and the engine just hammers its head off. The fellow things his carbureter is out of adjustment, but I want to explain to you how little this is understood.

A motor car builder in Detroit built a new motor car last year, an experimental car, and sent his boys across the continent with it, and in going across the continent the engine just pounded its head off. When they got out to Denver they wired back that the machine was in terrible shape, that it would never do; it had just pounded, pounded, pounded. So he hopped on a train and met them in California, and they could not get it to pound out there at all, so he said: "You fellows have been drinking. That is all there is to it." So he got on the train and came back, and the boys drove the car back across the country, and after they got it past the Rocky Mountains, coming back, the engine just pounded its head off again. They burned out bearings, and they had a devil of a time getting home. I am telling you that because I want you to appreciate that the automotive engineer today does not understand the fact that there are different characteristics in different kinds of fuel.

If you can raise the compression of your motors, you can do a lot of things. You can increase the economy; you can do things to keep out crank-case dilution; you can do things for distribution; you can do a lot of things that we cannot do now. But it is such a big task because of the fact that we cannot do the things that we want to do in the automobile engine until we get the proper fuel work done, and we have difficulty in getting the fuel work done until we get the engine to do it. So we have to carry this movement on together as a co-ordination between the American Petroleum Institute, the automotive industry and the chemical societies, because it is possible, and we know enough today in a good many ways to help this situation out.

Defendant's Exhibit (GM) No. 242

7313

Chicago, April 16, 1919.

Mr. E. M. Clark,
26 Broadway,
New York, N. Y.

Dear Mr. Clark:

For some time automobile engineers have been discussing the investigations which are being carried on in the laboratory of the Delco Company, at Dayton, Ohio, on the performance of various motor fuels. As Mr. Wiles and I told you some time ago, it was reported that the Delco Company had discovered that the so-called "pre-ignition knock" in gas engines was in reality a detonation, which might occur some time after the piston had actually passed top dead center; in other words, that it was not pre-ignition at all.

In the April number of the Journal of the Society of Automotive Engineers which just reached me yesterday, I find a paper by Kettering, President of the Delco Company, giving the high spots of this work which are briefly as follows:

(1) The combustion of gasoline in the engine cylinder is, in general, not a straight reaction with oxygen giving carbon dioxide and water, but is a very complicated reaction. Probably part of the fuel burns in this way as soon as a spark occurs. The rise in temperature and pressure resulting from this partial combustion, causes the remainder of the fuel to decompose or crack with the formation of a wide variety of hydrocarbons. Spectroscope analysis shows that, at least, some acetylene is formed by this decomposition which precedes the actual combustion of the bulk of the fuel.

(2) The character of the decomposition or cracked prod-

ucts formed in the engine cylinder depends upon the maximum temperature reached. The primary effect of carbon in the cylinder is not to cause pre-ignition but to merely insulate the cylinder walls, thus cutting down the heat loss from the charge through these walls and causing the higher temperature with the resultant formation of preliminary decomposition products which are capable of detonating. It is, of course, well known that acetylene will detonate in the absence of oxygen; in other words, without burning at all, and it may be that many other products of the decomposition of higher hydrocarbons are capable of detonating.

(3) The formation of these unstable preliminary decomposition products may be prevented by adding to the fuel some constituent which will dissociate endo-thermically, that is, with the absorption of heat, during combustion, and thereby limit the rise of temperature. Kettering states that the Delco Company has found that 2 to 5% of ethyl iodide will absolutely stop pre-ignition or knocking with kerosene, it being shown the ethyl iodide dissociates with the absorption of a quantity of heat sufficient to hold the temperature of the mixture below the point at which the detonating compounds are generated.

(4) Cyclo-hexane (C_6H_{12}) seems to be one hydrocarbon fuel which can be burned with compression pressures up to 200 pounds without the formation of detonating decomposition products. Benzol also appears to work in this way, but is objectionable in that it fouls spark plugs badly.

(5) A mixture of cyclo-hexane and benzol (80 parts of the former and 20 parts of the latter) permits compression pressures up to 200 pounds without knocking and it does not foul the plugs and has the further advantage that it

remains liquid down to —40°F. This is a most remarkable example of a eutectic phenomenon, since both of the constituents of this mixture in their pure state will solidify at approximately +40°F.

—2—

I am bringing this to your attention at the earliest moment because I think that unless the fuel producers themselves get into this work of investigating the properties of their fuels, there is a good chance that they may have to pay tribute to others. I believe that a gasoline which, by the addition of a few per cent of some agent, such as the ethyliodide found by Kettering would not knock in a dirty motor, would easily bring five cents per gallon above the market and that there would be such an insistent demand for it that any oil producer who had exclusive rights could absolutely dominate the entire motor-fuel market.

I think you should immediately consider the advisability of getting in touch with the Delco Company with a view to determining whether they have any broad patent protection on their discoveries, or can obtain such protection.

I also believe that these developments indicate the supreme importance of proceeding with the establishment of an experimental engineering dpartment capable of attaching this problem.

It is quite likely that this matter has already come to the attention of your Company for I do not see how any work which apparently has such an important bearing upon your fuel production and marketing should have escaped attention so long. On the chance that you might not be familiar with these latest developments, however, I am giving you a resume of them. I am particularly anxious that you appreciate the possibility that the Delco Company might obtain patents for its work on these lines which might be very embarrassing in the future, and the desirability of finding what the patent situation is as soon as possible.

Very truly yours,

(Signed) Frank A. Howard

Defendant's Exhibit (GM) No. 243 - 243

August
Fifteenth
1919

Mr. John Marshall, Manager,
Miscellaneous Division,
Eastern Laboratory, Du Pont Co.,
Chester, Pa.

Dear Mr. Marshall:

I am inclosing herewith a list of the materials which have been tried in this laboratory for their effects in suppression or elimination of the kerosene knock.

It seems best for us at this laboratory to make a thorough study of the effects of the homologues of aniline on knocking fuels. The materials that we want to study immediately are as follows:

Aniline	Aniline	Aniline
Toluidine	Toluidine	Methyl aniline
Xylidine	Ethyl phenyl amine	Ethyl aniline
Amino-trimethlybenzene	Propyl phenyl amine	Propyl aniline
Amino-tetramethylbenzene	Butyl phenyl amine	Butyl aniline
Amino-pentamethylbenzene	Amyl phenyl amine	Amyl aniline

We shall appreciate it if you will send us as many of these materials as you may find it convenient to obtain. Any information you may be able to supply about the best methods of preparing such of the compounds as you do not have available, or intermediates for the preparation of such compounds, will be of very great assistance to us.

We are anxious to cooperate with you in every possible way.

Yours very truly,

LIST OF MATERIALS TRIED FOR EFFECT ON KEROSENE KNOCK

(UNLESS OTHERWISE SPECIFIED, THE COMPRESSION WAS 50#.)

MATERIAL	EFFECT ON FUEL KNOCK
Iodine (free)	Stopped
Ethyl Iodide	Stopped
Methyl Iodide	Stopped
Hydrogen	Stopped
Copper (plating on head)	None
Nickel (plating on head)	None
Iodoform (very slightly sol.ker.)	Suppressed
Eucalyptol	None
Camphor	Suppressed slightly
Beechwood Creosote	Suppressed
Halowax (10%)	Reduced one-half
Halowax (25%)	Stopped
Merck's Cresol	Suppressed
Isoprene	Suppressed slightly
Chloroform	No effect
Terebene	Suppressed
Acetone (60%)	Preignition
Colloidal nickel	Decreased
Kerosene tested with $AlCl_3$	Slight Knock
Kerosene chlorinated	Severe Knock
Residue from Cracked Turpentine	Stopped Motor
Colloidal Mg	Stopped Motor
Ethylene Bromide	Power Reduced
Rosin	None

—2—

MATERIAL	EFFECT ON KNOCK
Oleic Acid	None
Carbon Tetrachloride	Increased
Copper resinate	Increased
Potassium Iodide (solid)	Stopped
Sulphur (solid)	None
NaCl (solid)	None
$CuCO_3$ (solid)	None
Calomel (solid)	None
Mercuric Chloride	None
Mercurous Acetate (solid)	None
Ammonium Arsenite (solid)	None
Boric Acid (solid)	None
Copper Carbonate (solid)	None
Antimony (metal)	Slight Suppression
Arsenious Acid	None
Potassium Bichromate (solid)	None
Potassium Chromate (solid)	None
Potassium Ferrocyanide (solid)	None
Potassium Nitrate (solid)	None
Potassium Carbonate (solid)	None
Potassium Bromide (solid)	None
Potassium Iodide (solid)	Lessened
Sodium Benzoate (solid)	None
Liver of Antimony	Suppressed
Water	Stopped
Antimony Methyl	None

—3—

MATERIAL	EFFECT ON KNOCK
Zinc Ethyl	None
Bromine (5%)	None
Tartaric Acid	None
Copper Acetate	None

MATERIAL	EFFECT ON KNOCK
Silver Nitrate	None
Aniline	Stopped
Ammonia (very slightly soluble)	No Appreciable effect
Toluidine	Stopped
Phosphorus	!
Benzidine	None
Orthonitrotoluene	Increase
Orthonitrophenol	Increase
Sulphanilic Acid	None
Diphenylamine	10% O. K.
Alpha Naphthylamine	Low solubility
Pyridine	N. G.
Ortho and Para Toluidine	O. K.
Methyl Cyanide	None
Benzonitrile	N. G.
Alpha and Beta Naphthol	None

Reagent	Concentration Solution	Result of Test (1) 75# Comp.	(2) 50# Comp.
Methyl aniline	5cc in 90cc	Good	Good
Dimethyl aniline	11%	Slight imp.	!
" "	5.5	No. eff.	Slight sup.
" "	2.75	No. eff.	" "
Paratoluidine	2g. — 90cc	Improved	Good
Orthotoluidine	5cc — 90cc	Good	—
Diphenylamine	2g — 90cc	!	Improved
Acetanilide	2g — 90cc	No. eff.	Very slight sup.
Benzanilide	2g — 90cc	"	" " "
Alpha naphthylamine	2g — 90cc	"	" " "
Beta naphthylamine	2g — 90cc	"	" " "
Phenylene diamine	Saturated	"	" " "
Benzidine	2g — 90cc	"	No. imp.
HYDROXYLATED COMPOUNDS			
Ethyl alcohol	5cc — 95cc	"	No. eff.
Butyl alcohol	5cc — 85cc	"	" "
Amyl alcohol	5cc — 85cc	"	Slight
Phenol	1g —90cc	"	Some

Reagent	Concentration Solution	Result of Test (1) 75# Comp.	Result of Test 50# Comp.
Meta Cresol	5g — 90cc	"	Slight
Xylenol 1:3:4	5g — 90cc	"	"
Veratrol	5g — 90cc	No. eff.	Slight
Hydroquinone	2g — 90cc	"	No. eff.
Beta Naphthol	2g — 90cc	"	" "
Glycerol	5cc — 90cc	"	" "
Benzyl alcohol	10cc — 85cc	"	Slight
Diethyl methyl-carbinol	5cc — 85cc	"	"
CHLORO BROMO AND SODO BENZENE DERIVATIVES			
Monochlor benzene	10cc — 85cc	No. eff.	No. eff.
Mono brom benzene	10cc — 85cc	"	" "
Benzyl dichloride	5cc — 90cc	"	Sl. imp.
Ortho dichlor benzene	10g. — 87cc	"	No. eff.
Para dibrom benzene	2g. — 90cc	"	" "
Dimethyl dibrom benzene	5g. — 90cc	"	" "
Para-dichlor-benzene	2g. — 90cc	"	" "
BENZENE AND HOMOLOGNES			
Toluene	10cc — 85cc	"	Some imp.
Dimethyl benzene (ortho)	10cc — 85cc	"	" "
Dimethyl benzene (para)	10cc — 85cc	"	" "
Naphthalene	2g. — 90cc	"	No. eff.
Phenanthrene	2g. — 90cc	"	" "
Diphenyl	2g. — 90cc	"	" "
Phenyl toluene	2g. — 90cc	"	" "
Cyclohexane	10cc — 85cc	"	Some imp.
Ethyl benzene	10cc — 85cc	"	No. eff.
UNSATURATED PETROLEUM AND DERIVATIVES			
(1) Unsaturated (Cosden)	b.p. 60° — 206°	O. K.	O. K.
(2) Unsaturated (Cosden)	b.p. 206° — 246°	No eff.	No. eff.
Kerosene	20cc — (2) 20cc	" "	" "
Kerosene	70cc — (2) 20cc	" "	" "
Kerosene	20cc — (1) 20cc	" "	Some imp.
Kerosene	70cc — (1) 20cc	" "	" "
ESTERS			
Methyl acetate	10cc — 85cc	" "	No. eff.
Amyl acetate	10cc — 85cc	Marked imp.	—
$CH_3COCH_2COOC_2H_5$	10cc — 85cc	No eff.	Increase

Note: "Fuel 1919 Kettering file" is handwritten in upper left hand corner of page 1. "121" is handwritten on last page under $CH_3COCH_2COOC_2H_5$.

Defendant's Exhibit (GM) No. 244

December 23rd, 1919

Mr. W. C. Durant,
1764 Broadway,
New York City.

Attention Mr. Murphy.

Re: Dayton Metal Products Company
Dayton Wright Airplane Company.

Dear Sir:—

The transaction for the purchase of 60,000 shares of the Dayton Metal Products Company was consummated at Dayton on December 19th, 1919. At that time there were delivered to Harry E. Talbott, representing himself and associates, common and debenture shares of General Motors Corporation stock as per list attached.

There was received certificates of stock of Dayton Metal Products Company in the number of 60,000 shares, issued to General Motors Corporation. This transaction was closed in connection with the closing of the purchase of the real estate and personal property of the Dayton Wright Airplane Company, for which there was issued 10,960 shares of the six per cent. debenture stock of General Motors Corporation. As a part of the consideration of the acquisition of the stock of Dayton Metal Products Company there was turned back to Talbott and associates 10,000 shares of the common stock of the Dayton Securities Company, which was in the treasury of the Dayton Metal Products Company.

In connection with the closing of this transaction a careful examination was made of the real estate titles of the Dayton Wright Airplane Company and also of the Dayton

Metal Products Company. Complete abstracts of all these real estate titles have been taken or are in the process of completion and will be in hand in a few days. In this connection there has been found various minor defects and a defect of considerable importance in connection with the Morraine plant. In order to meet this situation and protect General Motors Corporation against any loss which may arise by reason of these defects, we have taken an indemnity bond from Messrs. H. E. Talbott, Sr., H. E. Talbott, Jr., and C. F. Kettering, the principal stockholders of Dayton Metal Products Company.

We have had drafted deeds of the real property and also proposed bill of sale, including assignment of patents of the property of Dayton Metal Products Company for use in transferring its assets to General Motors Corporation in order to effect its merger with the latter Company.

The 60,000 shares of Dayton Metal Products Company with the exception of five shares required to qualify the directors in Ohio, have been sent to Mr. Prensky. The five qualifying shares are enclosed herewith, as is also a proxy of 5,995 shares, both of which are to be executed by General Motors Corporation for the purpose of electing a new board of directors who will effect the dissolution of Dayton Metal Products Company.

I shall later enclose to Mr. Prensky the abstracts of title, quit claim deeds, affidavits, indemnity and other agreements taken in connection with the closing of these transactions, some of these papers not being completed at the present time.

In this connection we have also taken a lease of the Administration Building and Experimental Plant at Ludlow and First Streets, Dayton, Ohio, at a rental of $3,484.56 per year, plus taxes and assessments, premiums on fire insurance policies, etc. This is for one year with an option for a further period of one or two years, as we may elect.

Will you please see to it that the stock and proxy enclosed are executed as soon as possible by General Motors Corporation, and returned to us, taking care that the corporate seal is affixed.

Very truly yours,

Encl.
EHK/GB

NOTE: "Copy" runs across both pages. "E. H. KELLY, G. M. Legal Dept." is handwritten beneath initials EHK/GB on page 2.

3
E

Defendant's Exhibit (GM) No. 245

GENERAL MOTORS CORPORATION
Dayton-Wright Division
Dayton, Ohio

April 8, 1920

Mr. C. F. Kettering,
Dayton, Ohio.

Dear Mr. Kettering:

MARCH REPORT FOR THE RESEARCH DIVISION

PERSONNEL

Plant Three:	Engineering Division	11
	Dynamics Division	22
	Experimental Production Division	43
	Overhead	5
	Patent Department	4
	Special Engineering	4
	Stores & Accounting	10
	Employees at Plant Three, based upon week ending April 3	99
Research:	Special Research Division (Fuel)	8
	Chemistry & Metallurgy Control Div.	11
	Overhead	9
	Employees at Research, based upon week ending April 3	28

SPECIAL RESEARCH DIVISION

SHEET STEEL COMMITTEE INVESTIGATION

The sheet steel committee work is about completed. One additional suggestion has been made, not referred to in previous reports: namely, that the amount of scale left after annealing by a deoxidizing process be removed by devising a suitable sand-blasting machine that will operate on both sides of the sheet at the same time; this machine to be automatic and include water-washing and drying operations to remove particles of sand imbedded in the steel itself. This treatment would be followed by the customary cold-rolling to give the finish. There would be no pickling operations involved in this process. The pickling operation, with its disagreeable odors and danger inherent in acids, seems to be one of the principal reasons why the production of the sheet metals is curtailed considerably. This suggested procedure would not give immediate results but is a fairly practical process for future development.

In the meantime, we will probably augment the supply by using single-pickle sheets and deoxidized sheets. Mr. Williams and Mr. Mougey are in Detroit this week, following through the final lot of cars, with the finishes indicated above, at the Chevrolet Plant.

FUEL WORK

The rise in price of gasoline has made some of our fuel work look considerably better from the commercial standpoint. Our proposed procedure now is to keep motors of different varieties and types operating on a refinery product that will increase the available fuel supply at least 100 per cent. We are counting upon taking a crude and distilling off 50 per cent. of its volume and calling this a motor fuel of the immediate future. This fuel will include the light materials, gasoline, kerosene and the early portions of the fuel-oil cuts. By adding the anti-knock material to this distillate, we count upon being able to increase the compression of the motors some twenty or thirty pounds. This increased compression will help us burn fairly clean and, at the same time, will help the vaporization. Carburetion and distribution problems will have to be solved, also.

This is such an enormous program that it seems advisable to permit the duPont organization to handle the production problems that pertain to the anti-knock material. Furthermore, it would be desirable to have a three-cornered connection, whereby we could have one of the national independent fuel companies also affiliated on the problem at hand.

The new layout at Plant One will give us a large-sized motor room and we expect to have both single and multi-cylinder motors operating on a great many varieties of fuel.

—7—

Respectfully submitted,

F. O. CLEMENTS,
Director of Research

FOC-G

Defendant's Exhibit (GM) No. 246

No. 244

7328

Letterhead of
E. I. du Pont de Nemours & Company
INCORPORATED
Wilmington, Delaware

EXECUTIVE OFFICES

November 19, 1921.

Mr. C. F. Kettering, President,
General Motors Research Corp.,
Dayton, Ohio.

My dear Mr. Kettering:

I have yours November 5th in regard to agreement between du Pont and General Motors. It appears to me that we are talking about different things. My principal interest is in seeing a general agreement whereby any kind of experimental chemical work can be undertaken by du Pont Company for General Motors without having to make up a special agreement on each subject. That was the object of the drafted agreement sent you a year ago and of which I sent a copy to Mr. P. S. du Pont. I hope that something will come of this, but recently have not seen any strong indication of anything definite being done.

You, I believe, are talking about the agreement with respect to work on motor fuel, and I agree that good progress is being made on this, but even if that agreement is drawn up and executed, it leaves the general agreement just where it was before.

Yours very truly,

L du Pont
VICE-PRESIDENT.

LduP/MD

NOTE: "C. F. K." and "21 C. F. K." are stamped at top of page. Italics indicate handwriting.

Defendant's Exhibit (GM) No. 246A

Patented Dec. 30, 1930

1,787,419

UNITED STATES PATENT OFFICE

THOMAS MIDGLEY, JR., OF DAYTON, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO GENERAL MOTORS CORPORATION, OF DETROIT, MICHIGAN, A CORPORATION OF DELAWARE

METHOD FOR USING MOTOR FUELS

No Drawing. Original application filed April 15, 1922, Serial No. 553,270. Patent No. 1,573,846, dated February 23, 1926. Divided and this application filed January 23, 1926. Serial No. 83,133.

This invention relates to fuels, such, for example, as kerosene and gasoline, employed in the operation of internal-combustion engines and to the art of burning the fuels in an engine. The present tendency is to produce lower grades of gasoline in order to obtain a sufficient output for the increasing demand for motor fuels and to reduce the compressions of the engines so that these lower grades of fuel may be used without knocking. As the lowering of engine compression reduces the efficiency of the engine, a still greater output of fuel is required to meet the increase in fuel required to operate larger and less efficient engines. The principal objects of the present invention are to overcome these difficulties and to provide a means for using either low or high grades of motor fuel more efficiently and so reduce the quantity of fuel used.

The present application is a division of my co-pending application Serial No. 553,270, filed April 15, 1922; now Patent No. 1,573,846, Feb. 23, 1926.

75 pounds are used generally, and internal-combustion engines for house lighting systems, trucks, tractors, and automobiles are designed to operate on these kinds of fuel.

I have found that the critical compression pressure of a fuel of the type mentioned above is increased by incorporating therewith any one of a large number of compounds containing metallic elements i. e., compounded metallic elements.

By way of example, I may use a fuel consisting by volume of ¼ of one percent of tetra ethyl lead and 99¾ per cent of gasoline having a normal "critical compression pressure" of about 75 pounds. The tetra ethyl lead dissolves in the gasoline forming a fuel having a "critical compression pressure" of about 160 pounds. The presence of the lead compound changes the gasoline from a low compression fuel to a higher compression fuel i. e. increases its "critical compression pressure". This gasoline may be used in an engine having a compression pressure of about 160 pounds with a smaller fuel con-

or major constituent of the high compression fuel and using other compounded metallic elements to increase critical compression pressure. The fuels used include gasoline and other hydrocarbon fuels containing hydrocarbons which may be obtained from an asphalt, naphthene, paraffine base crude or mixtures thereof.

Other lead compounds which have been used successfully are the phenyl compounds and other alkyl compounds besides tetra ethyl lead. These include the ethyl, isopropyl and method compounds. Methods of manufacturing lead compounds are described on page 134 et. seq., Vol. 111 of Watts' Dictionary of Chemistry as revised by Morley and Muir and published by Longmans, Green and Co., London, England.

Other metallic compounds may be used to suppress a knock in a motor. These include compounds of selenium, tellurium, tin, arsenic and antimony. The phenyl and alkyl compounds of these metals have been successfully used where the stable compounds are obtainable. The alkyl metal compounds usually have a greater knock suppressing value than the corresponding phenyl compounds.

Dissolving a knock suppressing substance in a hydrocarbon fuel has been found the most satisfactory method of changing the critical compression pressure of the fuel, and for this reason the organic compounds have been employed to a greater extent than other compounds in suppressing knocks, however, I do not limit my invention to organic compounds nor to the oil soluble compounds.

The value of metallic compounds in changing the critical compression pressure depends upon the metal used, the composition of the

volatile and less soluble in the fuel than the tetra ethyl lead. The tri-ethyl lead hydroxide is almost as powerful a knock suppresser as the tetra ethyl lead.

The value of a compounded metallic element as a knock suppresser appears also to be a period function of the atomic number and, in general, with similar elements increases with increasing atomic weight. To illustrate this function, I take the ethyl compounds of the metals in the right hand column of the 4th, 5th, and 6th groups, wherever stable ethyl compounds are obtainable. As the ethyl compound of antimony is unstable in the air at room temperature, I employ the phenyl compound of antimony. These compounds increase in knock suppressing value in group 4 in the order tin, lead; in group 5 in the order arsenic, antimony; and in group 6 in the order selenium, tellurium. Taking group 4 as an example, 1% by volume of the ethyl compounds of the metals in gasoline or kerosene give the following increases in critical compression pressure: tin, 15 pounds; lead at the rate of 340 pounds when employed in relatively small quantities.

While I have mentioned more particularly the use of phenyl and alkyl compounds of certain metals for increasing the critical compression pressure of kerosene and gasoline, my invention is not limited wholly to the use of these compounds, nor to compounds of these metals, and the compounded metallic elements may be employed with the heavier hydrocarbon or other fuels.

Further, while the specific examples herein given constitute preferred forms of embodiment of the invention, it is to be understood that other forms might be adopted,

Defendant's Exhibit (GM) No. 247

POSTAL TELEGRAPH - COMMERCIAL CABLES

CLASS OF SERVICE DESIRED

FAST DAY TELEGRAM	
NIGHT TELEGRAM	
NIGHT LETTERGRAM	

THE SENDER MUST MARK AN X OPPOSITE THE CLASS OF SERVICE DESIRED; OTHERWISE THE TELEGRAM WILL BE TRANSMITTED AS A FAST DAY TELEGRAM.

TELEGRAM

SENDER'S NUMBER

CHECK

TIME FILED

SEND the following Telegram, subject to the terms on back hereof, which are hereby agreed to.

Form 3

1923

Telegram

Aug. 23

Doctor E. K. Bolton
Chemical Section
E. I. Du Pont de Nemours and Co.
Wilmington, Delaware

When may we expect shipment of antiknock material stop need it for races stop please wire at once

Midgley

E I du Pont

(5130)

Defendant's Exhibit (GM) No. 248

Form 128 G.M.R.Corp.-2000-5-3-22

RECEIVED

General Motors Research Corporation

PRIVATE WIRE TELEGRAM

DUPLICATE

WUF 10

PENNSGROVE NJ 1015A AUG 24 1922

MIDGLEY

G M RES CORPN

SHIPPING YOU SEVENTY POUNDS ANTIKNOCK FIVE HUNDRED BY EXPRESS TODAY

W S HARRINGTON

1046A

Defendant's Exhibit (GM) No. 249

7334

Form 120 G.M.R.Corp.

RECEIVED

General Motors Research Corporation
PRIVATE WIRE TELEGRAM

ORIGINAL

16WU F 10

PENNSGROVE NJ 217P AUG 25 1922

MIDGLEY

G M RS CORPN

SHIPPED FORTY SIX POUNDS ANTIKNOCK FIVE HUNDRED TODAY BY EXPRESS

W F HARRINGTON

254P

Quarantine, S.I., N. Y.
November 13, 1922.

Mr. Thomas Midgley, Jr.,
General Motors Corporation,
Dayton, Ohio.

My dear Mr. Midgley: -

The enclosed is my attempt at carrying out my orders from Washington. I am enclosing it to you in case you have time to look it over and correct errors, etc., and, particularly, in case you can think of anything to add that might be of interest to an amateur like myself. I should be very glad if the Bureau would detail me to look into the toxicology of the subject, but am hoping for no such luck -- someone else will get any such detail.

I hope that nothing will prevent your continued success in the solution of this problem, and thank you for your courtesy and assistance in carrying out my orders.

Very truly yours,

Norman Roberts.

lower grades of fuel may be used without knocking. As the lowering of engine compression reduces the efficiency of the engine, a still greater output of fuel is required to meet the increase in fuel required to operate larger and less efficient engines. The principal objects of the present invention are to overcome these difficulties and to provide a means for using either low or high grades of motor fuel more efficiently and so reduce the quantity of fuel used.

The present application is a division of my co-pending application Serial No. 553,270, filed April 15, 1922; now Patent No. 1,573,846, Feb. 23, 1926.

Kerosene, gasoline and the heavier hydrocarbons have the characteristic that, when a combustible gaseous mixture containing one of these fuels and air is burned in an internal combustion engine while subjected to a relatively high pressure, a fuel knock is produced, the engine heats rapidly, the efficiency of the engine is reduced, and, if the initial pressure is very high, engine parts may be injured. The highest pressure at which a mixture may be burned in a cylinder without producing a fuel knock varies with the different fuels and, to some extent, with the temperature, position of spark plugs and other conditions within the engine. This pressure I term the "critical compression pressure" of the fuel.

The average critical compression pressure of kerosene is about 50 pounds, of the poorer grades of gasoline about 75 pounds and of the better grades of gasoline about 125 pounds. The latter grade of gasoline is produced in limited quantities and is not available universally to the consumer. The commoner grades of fuel, such as kerosene and gasoline, having critical compression pressures below

metallic elements.

By way of example, I may use a fuel consisting by volume of ¼ of one percent of tetra ethyl lead and 99¾ per cent of gasoline having a normal "critical compression pressure" of about 75 pounds. The tetra ethyl lead dissolves in the gasoline forming a fuel having a "critical compression pressure" of about 160 pounds. The presence of the lead compound changes the gasoline from a low compression fuel to a higher compression fuel i. e. increases its "critical compression pressure". This gasoline may be used in an engine having a compression pressure of about 160 pounds with a smaller fuel consumption for obtaining a given amount of work than is required to operate an engine having a compression pressure of 75 pounds on the untreated gasoline. Experiments with automobiles have shown that if the engine compression is increased to 160 pounds, a treated fuel being used to run the engine and the gear ratio between the engine and the rear axle is reduced, the mileage obtained from a gallon of gasoline is substantially twice that obtained when running the engine at 75 pounds compression on the untreated or low compression fuel.

For some commercial purposes it will probably be sufficient to use but one part of tetra ethyl lead in 2000 parts of gasoline. This mixture may be used in a truck motor to avoid the knock generally produced when climbing hills at low speed with open throttle. Relatively small proportional quantities of the lead compound are required to increase the critical compression pressure of "aviation" gasoline from 125 pounds to 160 pounds or more.

The fuel mixture or combination may also be varied by using other fuels as the fuel base ally have a greater knock suppressing value than the corresponding phenyl compounds.

Dissolving a knock suppressing substance in a hydrocarbon fuel has been found the most satisfactory method of changing the critical compression pressure of the fuel, and for this reason the organic compounds have been employed to a greater extent than other compounds in suppressing knocks, however, I do not limit my invention to organic compounds nor to the oil soluble compounds.

The value of metallic compounds in changing the critical compression pressure depends upon the metal used, the composition of the compounds, its stability and volatility. Up to the point of complete vaporization the anti-knock value depends in part on the percentage of the compound vaporized under engine conditions. Where the nature of the compound changes before ignition of the fuel, combustion of the fuel takes place in the presence of the new compound and the anti-knock value depends on the nature of the new compound instead of the compound added to the fuel.

If a radical is attached to the metal in the compound in such a manner that the resulting compound is oil soluble and volatile, a high anti-knock value for that metal is obtained. As the compound departs from these conditions either in the kind of radical employed or the number of radicals of a certain kind in the compound, the anti-knock value will generally be reduced. Examples of compounds in which the anti-knock value, as based on these conditions, becomes negligible are lead oleate and lead acetate. If, in the formula for tetra-ethyl lead, an OH radical is substituted for an ethyl radical, the resulting compound (tri-ethyl lead hydroxide) is less in relatively small quantities.

While I have mentioned more particularly the use of phenyl and alkyl compounds of certain metals for increasing the critical compression pressure of kerosene and gasoline, my invention is not limited wholly to the use of these compounds, nor to compounds of these metals, and the compounded metallic elements may be employed with the heavier hydrocarbon or other fuels.

Further, while the specific examples herein given constitute preferred forms of embodiment of the invention, it is to be understood that other forms might be adopted, without departing from the scope of the claims which follow.

I claim:

1. A method of utilizing a low compression motor fuel which comprises forming a combustible mixture of the fuel and air, and burning the mixture under a relatively high compression in the presence of vapors of a compounded metallic element.

2. A method as defined in claim 1, in which the gaseous low compression fuel is burned in the presence of a vaporized alkyl compound of a metal.

3. A method as defined in claim 1, in which the gaseous low compression fuel is burned in the presence of a gaseous ethyl compound of a metal.

In testimony whereof I hereto affix my signature.

THOMAS MIDGLEY, Jr.

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5129

7336 November 13, 1922.

Surgeon General, U.S. Public Health Service,
Washington, D.C.

Sir: (Through Chief Medical Officer, Ellis Island, N.Y.)

I have the honor to report that I have accomplished the purpose of the following Bureau telegram to the Chief Medical Officer:

> DIRECT SURGEON NORMAN ROBERTS ATTEND MEETING AMERICAN CHEMICAL SOCIETY RUMFORD HALL FIFTY TWO EAST FORTY FIRST STREET NEW YORK CITY NOVEMBER TEN EIGHT PM REPORT ON ADDRESS BY THOMAS MIDGLEY GASEOUS DETONATION AND ITS CONTROL PERIOD SERVICES INTEREST IS IN POSSIBLE POISONOUS EFFECTS OF LEAD COMPOUND IN GASOLINE

Midgley has sought to increase the efficiency of gasoline as a fuel for internal-combustion engines. To this end he has sought to compress the air-vapor mixture (before the combustion stage in the cycle) beyond the present practicable limits. To this end he has sought a chemical substance which, when added in small amounts to the gasoline, would prevent the combustion of the highly-compressed explosive mixture from assuming a violent or detonating character, this tending to destroy the motor. In chauffeur's language, he has tried to increase the mileage of gasoline by adding to it an "antiknock" substance.

Midgley found that the best and indeed practically the only worth-while antiknock substance was tetraethyl lead, $Pb(C_2H_5)_4$, a hitherto little-known metallo-organic liquid freely soluble in and volatile with gasoline. Tetraethyl lead in concentrated form is described as a heavy, mobile liquid, smelling like witch hazel. As a vapor, it irritates the eyes and nose. As a liquid it irritates the skin of the hands. If improperly manipulated, it can produce lead poisoning. But as an antiknock, it is required in the proportion of only 3 cubic centimeters to the gallon of gasoline; and such a mixture can be handled in any reasonable way without toxic effects.

When this lead-containing gasoline is burned in a motor cylinder, the lead is converted into a solid inorganic form. It would naturally be supposed that the exhaust would contain finely divided particles of some lead compound; and this free evacuation of the lead is a necessity for the practical continuous use of the fuel in a motor. But Midgley states that thus far in his experiments no lead has been demonstrable in his exhaust gas. On the contrary, it all seems to cling to the walls of the combustion chamber, imparting to the "carbon" a grayish appearance, attacking the nickel of the spark-plug points, and necessitating unduly frequent cleanings and replacements inside the cylinders. Midgley is experimenting with other compounds which, added to the gasoline will obviate this drawback, and will cause the lead to scavenge out with the other waste products.

The presence of lead in the exhaust will (when the process had advanced to this stage of development) add another poisonous constituent to the carbon monoside already present in the exhaust gases. Moreover, lead as a poison is cumulative. Hence the public-health question arises: Will the use of lead for this purpose cause lead poisoning in those breathing the exhaust gases? The probable answer, according to Midgley, is No; and for the following reason:- Owing to the carbon monoxide present in all automobile and similar exhaust gases, there must be free ventilation in all spaces into which these gases escape, if the air of these spaces is to be breathed. Experiments preliminary to the construction of the Lower-Manhattan-Jersey-City vehicular tunnel show that the highest reasonably-safe concentration of carbon monoxide is about 0.01 of 1 percent, this proportion being breathable, without demonstrable harm, for as much as four hours every day indefinitely. Even if all automobiles using the vehicular tunnel used this lead-containing gasoline, and even if all the lead in the gasoline were discharged into the air of the tunnel, the concentration of lead in the air of the tunnel would still be too low to produce any toxic effect whatever. In other words, the more toxic substance, carbon monoxide, would probably prevent the absorption of the less toxic substance, lead, even under the most unfavorable conditions known to exist, in spite of the ~~more~~ cumulative character of the lead. This, however, is theory only; and Midgley says that he would welcome co-operation and extend facilities for toxicologic investigation if desired.

COMMENTS BY ROBERTS

There are available, here and now, no figures showing the actual total amount of accumulated lead necessary to cause chronic human plumbism, nor the amount of lead which, after being ingested in small quantities, the human body is able to get rid of day after day, without causing undue strain on the organs of elimination. As an estimate, the human body would probably require a rather large amount of lead, over one gramme at the least, to saturate it to a harmful degree; and it could get rid of only a small amount not over about 5 milligrammes, each day. A fair-sized car, working properly on Midgley's lead-containing gasoline would consume say 3 or 4 gallons daily and discharge into the air about 7 gramme of lead. If as much as one-one-thousandth of the total exhaust were absorbed by any one man, day after day, he would probably accumulate lead and ultimately be poisoned. But as no such proportion of the total exhaust is ever breathed by anyone day after day, the possibility of lead poisoning from this source is to be regarded as remote.

It would nevertheless seem advisable if practicable to detail a competent Service representative to study the effects of this lead-containing exhaust, suitably diluted with air, on animals. If Midgley's work is commercially successful, as seems likely considering its nature and the financial standing of the parties interested, large quantities of lead-containing gasoline will soon begin to be used as motor fuel; and even if such turns out not to be the case, the toxicologic facts obtainable would be of permanent value.

I desire to acknowledge Mr. Midgley's courtesy to me personally and as a Service representative, in explaining and amplifying the points of his address in which the Service is most interested.

Surgeon.

Defendant's Exhibit (GM) No. 251

November 18, 1922.

Doctor Norman Roberts,
Quarantine Station,
Staten Island, N. Y.

My dear Doctor Roberts: -

I have yours of November 13th with enclosure. I think you have gotten the situation remarkably well and I have no comments or corrections to make. However, since talking with you we have been making some rough calculations and find that in the vehicular tunnel with the ventilation as proposed by Fieldner, which is considered absolutely essential to avoid the dangers of carbon monoxide, a man will take into his lungs approximately 1/2 milogram of lead in the four hours that Fieldner calculates as a maximum length of tine he should spend in the tunnel. How much of this 1/2 milogram will be absorbed is, of course, an impossible question to answer at the present time, but it does not seem like a very large amount at the most. People must be getting this much lead regularly already in a great many other lines of work.

I sincerely wish that you might be detailed on this problem as I am sure that we could work together with mutual satisfaction.

Always with the kindest personal regards,

I am

Very truly yours,

Chief Engineer,
Fuel Section.

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Defendant's Exhibit (GM) No. 252

FACTORY CORRESPONDENCE

November 20, 1922.

Mr. C. F. Kettering:

SUBJECT: SUMMARY OF PRESENT SITUATION ON ANTIKNOCK MATERIAL.

The result of our research work for the past six years places us in a position to pretty thoroughly predict antiknock compounds of any element. A large number of such compounds are purely imaginary and could not be made. Of those compounds that can be made only the tetra valent compounds of lead appear to have real commercial value, of which tetraethyl lead seems to be the best. However, several problems are encountered in reducing tetraethyl lead to commercial practice.

1. Production. This phase of the tetraethyl lead problem ~~seems to be~~ pretty well solved and we have the assurance of the du Pont Company in the form of a contract that they will produce tetraethyl lead at a price that renders it quite commercial.

2. Utilization. This problem has not been solved and is at present delaying the putting of tetraethyl lead into commercial use. The problem exists due to the fact that litharge is formed by burning tetraethyl lead. While the litharge does no particular harm to the cylinder walls or cylinder head yet when litharge melts it acts as a very powerful flux, and such deposit as occurs on spark plug electrodes where the temperatures become hot enough to melt the litharge causes the spark plug electrodes to oxidise and in the course of a few thousand miles it becomes necessary to replace the spark plugs. The exhaust valve stems and seats suffer in a slightly different way when they become hot enough to melt the litharge. The litharge then forming a hard lump and holding the valve open with consequent burning of the seats thereof. Many substances may be added in small quantities to the gasoline and greatly improve the above conditions. These must contain an acid atom or radical , the lead salt of which forms a double salt with litharge. These substances are various compounds of chlorine, bromine, sulfur, cyanogen groups, carbonate groups, and selenium. However, so far no satisfactory solution has resulted

as in all cases except selenium where a sufficient quantity of the addition agent is used, serious reduction in the antiknock value of the tetraethyl lead results. The objection to selenium is of a different nature, the selenium producing very obnoxious odors in the exhaust. It is not felt that the reduction of the antiknock value is at all necessary in order to eliminate the troubles from litharge and experiments are going forward so that we may hope at almost any time to find a sufficiently satisfactory solution to the problem so that initial marketing at least may be started.

3. Poisoning. The suggestion that lead salts will occur in the exhaust gas from motors always gives rise to the question of the possibility of general lead poisoning, particularly in crowded districts due to the inhaling of these lead salts. We have been in touch with Mr. Fieldner of the Bureau of Mines, whose duty it is to look after the ventilation of the proposed vehicular tunnel under the Hudson River, where the concentration of exhaust gases will be the greatest of any place in the world. Based upon Mr. Fieldner's figures for the ventilation of this tunnel required to remove the dangers of carbon monoxide poisoning, we find the possibility of the absorption of 1/2 milogram of lead per day. Doctor Yandell Henderson of Yale, with whom we have been in touch, states that authorities have discovered cases where 1 milogram per day has caused lead poisoning from which it would appear that we are well within safe limits in the use of tetraethyl lead as proposed. We have also been in touch with the United States Bureau of Public Health and find them very willing to cooperate with us in making a final investigation, the results of which should satisfy the most exacting person as to the safety of the use of tetraethyl lead provided the figures by Mr. Fieldner and ourselves are correct.

4. Marketing Problems. The oil companies in general and individual motorists who have been given samples of tetraethyl lead are extremely anxious to see tetraethyl lead commercialised. The possibilities seem so great and

Mr. C. F. Kettering:

the methods of marketing are so numerous that a considerable amount of study must be spent thereon in order to avoid the possibility that the initial policy adopted may not be a serious handicap to later developments. No work aong this line has as yet been done.

Thomas Midgley, Jr.,
Fuel Section.

Defendant's Exhibit (GM) No. 253

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY
RESEARCH LABORATORY OF APPLIED CHEMISTRY
CAMBRIDGE, MASS.

December 18, 1922.

Thos. Midgley, Jr.,
General Motors Research Corp.,
Dayton, O.

My dear Midge:

Your letter of the 1st and supplementary letter of Dr. Clements of the 4th, sum up the situation with regard to a continuation of our contract with you for work on lubrication. The conditions outlined therein are entirely satisfactory from our point of view and we believe that the contract which Dr. Clements states will be revived, will be O.K.

Dr. Clements mentions an option of purchasing the bearing testing machine at cost at the termination of our contract. I see no reason why this option should not be granted if you desire to purchase at that time.

I am enclosing copy of a letter which Calingaert received from Krause over in Germany, which has to do with the poisonous effect of lead compounds. We all feel here that too many precautions cannot be taken to guard against injury in this work, and have felt it advisable to have Calingaert and Mead take a little time off periodically so that they can be out doors and maintain good physical condition. I merely wanted to point this out because I believe it is a necessary feature of the work, even though it means a somewhat greater expense per working hour.

I should be glad to have any comments you may offer on this letter.

Yours

Whit.

WALTER G. WHITMAN
Assistant Director

WGW/deC

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Defendants' Trial Ex. No. GM-254

(Copy Translated from the German)

Institute of Technology—Berlin

Potsdam, Nov. 30, 1922.

Esteemed Herr Professor:

I accede willingly to your request. There is no doubt in my mind but that the organic lead compounds are very exceedingly dangerous to the organisms of the body.

The compounds seem to possess, even in very reduced doses, the malicious and creeping poisonous effects which are possessed by the inorganic lead compounds and which were criminally used in the middle ages for the slow removal by an apparently natural death of persons, by their heirs-to-be. They do not produce the typical symptoms of lead poisoning such as swelling of the gums and the production of a black line to the gums, and so on, but a slow weakening and enfeebling of the whole body, which ultimately results in death. Frequently the effects of poisoning appears only after a long "latent" period.

I have used every possible means of precaution—permanently working under the hood (in Summer with open windows); rubber gloves; wiping off surfaces in the rooms with bromine water and ammonium sulfide; washing th hands with soap containing sulfide; nevertheless, I think that I have severely damaged my health so that I have been forced to take many vacations from the work already. Furthermore, as I briefly mentioned in an article in the Ber, one of my co-workers, in spite of taking all precautions, was ill several times with acute lead poisoning.

Defendant's Exhibit (GM) No. 256A.

Patented Jan. 1, 1929. 7351 **1,697,245**

UNITED STATES PATENT OFFICE.

CHARLES A. KRAUS AND CONRAL C. CALLIS, OF WORCESTER, MASSACHUSETTS, ASSIGNORS TO STANDARD OIL DEVELOPMENT COMPANY, A CORPORATION OF DELAWARE.

ART OF PREPARING METALLO-ORGANIC COMPOUNDS.

No Drawing. **Application filed April 5, 1923. Serial No. 630,089.**

The present invention relates to the art of preparing organic compounds containing lead, and will be fully understood from the following description.

In proceeding in accordance with this invention, lead is prelminarily put in favorable condition for reaction. as for example, by being alloyed with a highly electropositive metal, as an alkali metal or alkaline earth metal. Using sodium for instance, an alloy is made up in the proportions desired. These may vary; for example the sodium may run up to around 20%; but an advantageous formula is lead 90% and sodium 10%.

The alloy is suitably subdivided to go through, say for example a 10-mesh screen, and it is advisable that care be taken to avoid exposure to air or moisture. The subdividing may be done in an atmosphere of inert or non-oxidizing character, as nitrogen for instance. If desired, instead of using a separate mill, the alloy may be disintegrated in the final reaction vessel itself, in which case the vessel may also contain a suitable milling or crushing means, or the vessel may be mounted to rotate and be equipped with balls or the like in the manner of a ball-mill, this being particularly advantageous as subse-

the ethyl chlorid, the reaction proceeds favorably in the closed vessel under pressure and is ordinarily complete in 2–6 hours. On completion, any excess ethyl chlorid may be distilled off and condensed, or the reaction vessel may be cooled down and the excess ethyl chlorid be pumped off and compressed so as to be saved for subsequent reactions.

Water may then be introduced, and steam may be bubbled in through suitable pipes. The lead tetraethyl, $Pb(C_2H_5)_4$, produced by the reaction is distilled off with the steam and is condensed and collected in a suitable receiver, and being heavier, it may be drawn off separately from the water of condensation. Generally this manner of removing the lead tetraethyl from the reaction vessel is preferable. but if desired it may instead be extracted by suitable solvents, as ether or acetone, and then separated from the solvent by distillation.

While the use of a catalyst is not essential, where desired such may be employed. In such case there may be added to the reaction mass, for example a metallic chlorid, as ferric chlorid, anhydrous aluminum chlorid or zinc chlorid in amount of 0.25 to 3%; or a metallic catalyst, for instance zinc may be initially

Privaldozent Dr. Grüttner, under whose direction I worked for many years for my doctor's degree, on lead compounds, died from inflammation of the lungs (together with these symptoms) after the bursting of a large flask containing leak alkyls. Whether or not his death is to be ascribed directly to the lead compounds is, of course, not certain, but it was a dismal coincidence; in any case this view is strengthened by the fact that Tafels, who worked with unsaturated lead compounds, died prematurely after repeated illnesses. Of course, "post loc" is not "propter loc," nevertheless, the exceedingly painstaking precautions named above must be recommended.

In my opinion, in addition to the inhaling of the vapors, touching the solutions of the compounds in organic solvents with the hands is exceedingly dangerous as they dissolve in the fat from the hands and so penetrate more deeply. These things can, of course, not be avoided if one works for a long time with the lead compounds.

With the highest esteem,

Your very devoted—E. Krause.

FACTORY CORRESPONDENCE

February 2, 1923.

Mr. C. F. Kettering:

Subject: Sale of Antiknock Gasoline

On February 1st we opened a tank at a filling station of the Refiners Oil Company, 6th and Main Streets, Dayton, Ohio. Prices—New Navy Gasoline $.21 per gallon; Aviation Gasoline, known as High Test, $.25 per gallon; Benzol Blend 40%, 90% benzol and 60% New Navy Gasoline, $.27 per gallon; our product which we call "Ethyl Gas," $.25 per gallon.

Three hundred and ten gallons were sold on the first day to a variety of motor cars. Records are being kept of the license number and make of car and date of sale.

It was note worthy that merely having a sign out at the filling station did not produce the sale of a single gallon of this material. About 10 o'clock people driving up to have their tanks filled were approached by one of our boys who attempted to sell them the material, not exaggerating the benefits they would derive. The next three hours 70 gallons were disposed of by this method. Shortly after this the local evening newspaper appeared with a notice of the sale of this material as a news item, immediately after which a very steady business developed of customers driving up and asking for the product.

These first sales of course are only out of curiosity, the resale of this material will be the criterion as to how it is received by the public.

T. MIDGLEY, Jr.,
Fuel Section.

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Copies to Mr. Sloan
" Mott

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Defendant's Exhibit (GM) No. 256

FACTORY CORRESPONDENCE

April 9, 1923.

Atlantic Refining Company

The Atlantic Refining Company was visited at their refinery in Philadelphia Tuesday, April 3rd. Doctor Delbridge and several other members were present.

Our plan of marketing Ethyl Gas was explained in detail and it brought forth the following reaction: The Atlantic Refining Company when convinced of the advantages of high compression motors would like to obtain the exclusive territory of Pennsylvania and Delaware for a period of five years. I expressed the doubt that this was not feasible as it was too long a period of time. I agreed to wait two weeks for them to come to some definite decision and to extend this period two more weeks upon request from them at that time before offering any of this territory to other jobbers. Doctor Delbridge confidentially told me he considered the liklihood of the Atlantic taking this up at the present time to be less than one chance in ten.

For the general information of the Atlantic Refining Company it was decided to put high compression pistons in a number of their trucks so that they might study first hand the advantages to be derived therefrom.

Tide Water Oil Company

On April 4th I had lunch with Mr. Byron Benson of the Tide Water Oil Company and discussed with him our general plan of marketing Ethyl Gasoline. This brought from Mr. Benson the following reaction: The Tide Water Oil Company would like to obtain the exclusive territory of New York City for one year, marketing Ethyl Gas through their filling stations and dealers in the regular way that we propose. They must however, be assured that the mixing meter is as nearly crook proof as possible and also that a very intensive and spectacular advertising compaign be carried on. The matter was left open for two weeks at which time I propose to see Mr. Benson again and take with me if possible a mixing meter to meet his requirements and also the definite advertising policy which we would establish in New York City.

Standard Oil Company of New Jersey

On April 3rd and 4th I was in conference with Mr. Frank Howard in the Standard Oil Building.

Mr. Howard informed me that they were applying for a patent for making tetraethyl lead from the sodium lead alloy and ethyl chloride under pressure and that they were sure they could make tetraethyl lead for $6.00 per gallon. Mr. Howard also expressed the reaction of Mr. Teagle and Mr. Myers voiced towards our general proposition as follows: They would like to antiknock their entire production of gasoline at a premium of 1 cent per gallon without advertising or telling the public anything about it. Likewise they would like to bring this about without paying us any profits whatsoever for the use of tetraethyl lead.

I asked Mr. Howard why they did not go into the production of tetraethyl lead if they could make it so cheaply, we would buy it from them and I thought if they gave us the proper guarantees that we might permit them to use it in their own gasoline without paying any royalties to us. Mr. Howard stated that they were not chemical manufacturers, I then suggested to him that they consider the following proposition subject of course, to ratification by my principals. They would establish a source of production of tetraethyl lead amounting to at least 100 gallons per day and we would then sign with them a similar contract to the one now in force with the duPont Company. I felt that this was such a good proposition from

Mr. Howard's standpoint that if he was not bluffing about the process they are patenting, that he could not fail to accept it. It did not awake any enthusiasm on his part.

Mr. Howard suggested that the General Motors and Standard Oil Company of New Jersey pool interests in regard to antiknock gasoline and Mr. Howard felt that his patent for making tetraethyl lead opened the doors to such negotiations. It cannot be denied that from our standpoint it would be a very desirable thing to have the New Jersey Company lined up with us. I suggested this to Mr. Howard as something entirely aside from the patent situation which I do not believe is of any extreme importance and asked Mr. Howard what his ideas were regarding an arrangement between our respective companies. Mr. Howard had no suggestions to make other than that he thought it would be highly desirable if Mr. duPont or some of our chief executives would arrange to see Mr. Teagle in which case all parties concerned could put their cards on the table and arrive at an understanding. I personally should heartily endorse such a procedure and feel that could some working arrangement be arrived at with the Standard on the general proposition of antiknocking gasoline it would advance our program probably more than any one thing could do.

Note: The domestic sale by Standard Oil Company of New Jersey is about 10% of the total of he country.

T. Midgley, Jr.,
Chief Engineer - Fuel Section.

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The alloy is suitably subdivided to go through, say for example a 10-mesh screen, and it is advisable that care be taken to avoid exposure to air or moisture. The subdividing may be done in an atmosphere of inert or non-oxidizing character, as nitrogen for instance. If desired, instead of using a separate mill, the alloy may be disintegrated in the final reaction vessel itself, in which case the vessel may also contain a suitable milling or crushing means, or the vessel may be mounted to rotate and be equipped with balls or the like in the manner of a ball-mill, this being particularly advantageous, as subsequently in the reaction the balls can also serve as agitating and heat transfer means. Ethyl chlorid is introduced in molecular proportion to the lead, or in excess, and if desired the sub-dividing step may be carried out in an atmosphere of ethyl chlorid as the oxygen-excluder. With the alloy subdivided and the proper amount of ethyl chlorid provided, the reaction is ready to proceed. It is desirable that the ethyl chlorid, or the like, be free from traces of water, having preliminarily been dried for instance by calcium chlorid or other suitable means. The reaction vessel should be pressure resistant and equipped with heating and cooling jackets or coils and suitable agitating or stirring means, so that adequate temperature control can be maintained.

Although reaction will occur slowly at ordinary temperatures, practically the reaction is started by warming up to about 35° C.; and cooling is subsequently used as may be necessary, the temperature, for good results being maintained at about 40–70° C., for example. Toward the end the temperature may be allowed to go higher, e. g. 100° C. Although this is above the boiling point of

off separately from the water of condensation. Generally this manner of removing the lead tetraethyl from the reaction vessel is preferable, but if desired it may instead be extracted by suitable solvents, as ether or acetone, and then separated from the solvent by distillation.

While the use of a catalyst is not essential, where desired such may be employed. In such case there may be added to the reaction mass, for example a metallic chlorid, as ferric chlorid, anhydrous aluminum chlorid or zinc chlorid in amount of 0.25 to 3%; or a metallic catalyst, for instance zinc may be initially added in the alloy, in amount of 0.5 to 3%.

A catalyst is more particularly of value where the alloy departs from the 90:10 proportion, and with a catalyst the alloy may vary in composition from about 81% to 94% for the lead and from about 6% to 19% for the sodium.

In place of ethyl chlorid, ethyl bromid may be used if desired. In this event it will generally be desirable to maintain the temperature 10–15° C. higher. Instead of the ethyl halids also methyl or other hydrocarbon halids may be employed to obtain correspondingly lead tetramethyl or other hydrocarbon compounds.

We claim:

1. The improvement in the art of preparing lead tetraethyl, which comprises alloying lead with about 10% of sodium, subdividing the alloy while substantially avoiding oxidation, and reacting upon the alloy with ethyl chlorid at a temperature of 35–70° C.

2. The improvement in the art of preparing lead tetraethyl, which comprises alloying lead with sodium, subdividing the alloy while substantially avoiding oxidation, and react-

Defendants' Trial Ex. No. ________

7352

ing upon the alloy with ethyl chlorid at a temperature above the normal boiling point of the ethyl chlorid.

3. The improvement in the art of preparing hydrocarbon compounds of lead, which comprises alloying lead with a highly electropositive metal, subdividing the alloy while substantially avoiding oxidation, and reacting upon the alloy with an alkyl chlorid at a temperature above the normal boiling point of the chlorid.

4. The improvement in the art of preparing hydrocarbon compounds of lead, which comprises alloying lead with a highly electropositive metal, and reacting upon the alloy with an alkyl chlorid at a temperature between about 70° C. and atmospheric temperature.

5. The improvement in the art of preparing lead tetraethyl, which comprises alloying lead with sodium, and reacting upon the alloy with ethyl chlorid at a temperature between about 70° C. and atmospheric temperature.

6. The improvement in the art of preparing lead tetraethyl, which includes subdividing an alloy of lead and a highly electropositive metal while substantially avoiding oxidation, and reacting upon the alloy with ethyl chlorid at a temperature above the normal boiling point of the ethyl chlorid.

7. The improvement in the art of preparing organic compounds containing lead, which includes subdividing an alloy of lead and a highly electropositive metal while substantially avoiding oxidation, and reacting upon the alloy with an alkyl chlorid at a temperature above the normal boiling point of the chlorid.

8. The improvement in the art of preparing lead tetraethyl, which includes reacting upon an alloy of lead and a highly electropositive metal with ethyl chlorid in the presence of ferric chlorid as a catalyst.

9. The improvement in the art of preparing organic compounds containing lead, which includes reacting upon an alloy of lead and a highly electropositive metal with an alkyl chlorid substantially freed from traces of water.

10. The improvement in the art of preparing organic compounds containing lead, which includes reacting upon an alloy of lead and a highly electropositive metal with ethyl chlorid at a temperature above the normal boiling point of the ethyl chlorid.

11. The improvement in the art of preparing organic compounds containing lead, which includes reacting upon an alloy of lead and a highly electropositive metal with ethyl chlorid.

12. The improvement in the art of preparing organic compounds containing lead, which includes reacting upon an alloy of lead and a highly electropositive metal with an alkyl chlorid while agitating the mass.

13. The improvement in the art of preparing organic compounds containing lead, which includes reacting upon an alloy of lead and a highly electropositive metal with an alkyl chlorid.

14. The improvement in the art of preparing organic compounds containing lead, which includes reacting upon lead with an ethyl halid at a temperature above the normal boiling point of the ethyl halid.

15. The improvement in the art of preparing organic compounds of lead, which comprises reacting upon an alloy of lead and a highly electropositive metal with an alkyl chlorid in the presence of a metallic chlorid selected from the group consisting of ferric chlorid, anhydrous aluminum chlorid or zinc chlorid.

16. The improvement in the art of preparing organic compounds containing lead, which includes reacting upon an alloy of lead and a highly electropositive metal with an ethyl halid at a temperature above the normal boiling point of the ethyl halid.

CHARLES A. KRAUS.
CONRAL C. CALLIS.

[5150]

COPY Defendant's Exhibit (GM) No. 257

26 Broadway
Joseph H. Senior New York November 26, 1923

Mr. E. M. Clark
Mr. J. A. Moffett
BUILDING

Dear Sir:

As per your request the undersigned left New York on November 18th and visited Dayton, Hamilton and Cincinnati with a view of making an intensive study of the results being secured in the marketing of the General Motor Product known as Ethyl Gas and beg to report their findings as follows:

On our arrival at Dayton we were met by a Mr. Sieverthaler, one of the General Motors engineers who has been identified not only with the marketing of this product but as an investigator of complaints regarding same. We were taken by Mr. Sieverthaler to the office of the Refiners Oil Company who have been given the marketing privilege of Ethyl Gas in the State of Ohio. We were received by Mr. Talbot, Vice President and General Manager, who very kindly put at our disposal not only his experience but his books and figures for study. Mr. Talbot is thoroughly sold on the product and made a general statement to the effect that it had resulted in greatly increased business; that users were satisfied with the product and that they remained users and offered to give us names of some of the users so that we could interview them for ourselves. We however only accepted his offer in one case, with the result that we got a very satisfactory report, but felt naturally that such buyers as might be recommended by Mr. Talbot might be more or less "hand-picked." We decided to interview buyers as they called at some of his service stations so as to get a direct independent reaction to our queries. We therefore interviewed buyers at their 6th and Main St. Service Station and their 2nd and St. Claire St. service station, both in Dayton, and the 8th and Central St. Station in Cincinnati, all three of these service stations being large sellers of motor fuel, and in every case where the buyer was at all intelligent, the answers were to the effect that they secured more flexibility in the operation of their car, the elimination of the "knock" and more mileage. In some instances statements were made that they were getting as much as 40% increased mileage. To sum up, every individual buyer interviewed expressed satisfaction and we could not find a single buyer who had used Ethyl Gas who had gone back to the Motor. We did find however some buyers who were using Ethylized Navy Specification Gasoline, which is the regular motor fuel being sold in this section of the country, had changed to what is known as "High Test Gasoline" (68-70 straight run), their arguments being that with cold weather coming on they could get a much quicker start with the High Test than with the Navy treated with Ethyl. It also developed that some buyers were not only using the High Test but had also purchased that grade Ethylized at a total premium of 7¢ per gallon above the regular Motor.

We also talked with the representatives at the Service Stations of he Refiners Oil Company and with two representatives at the Standard Oil ompany of Ohio service stations. The former representatives were in every case very enthusiastic over the merits of the new fuel. One of the Standard service station representatives stated that he did not know much about the Ethyl Gas but that he undoubtedly was losing business due to the fact that he did not sell Benzol or High Test Gasoline. This station was doing a business of approximately 800 gallons per day, most of which was sold to trucks between 6 and 8 in the morning.

The second Standard service station we visited was at Oakwood, a suburb of Dayton where the sales averaged but 250 gallons per day. The attendant at this station proved very energetic and polite and undoubtedly would be a business getter on equal competitive conditions with any other we have seen. He stated however that due to the fact that he had only the one brand to sell, buyers demanding either High Test, Benzol or Ethyl compound went to his competitor on the opposite corner. This competitor's business averaged between 1100 and 1200 gallons a day divided as follows: 30% Ethyl, 10% High Test, 10% Benzol and 50% Motor. The great difference in sales between these two stations however is not accounted for solely by the fact that the Standard Oil carried only one brand, but due to their poor location as compared with the competitor.

The Refiners Oil Company in Cincinnati show that from June to October, during which period only was Ethyl marketed, their sales of this product amounted to 28%, High Test 17%, ordinary Motor 55%, their manager stating that undoubtedly the sales of Motor would decrease and the sales of High Test increase when the colder weather came on.

PRICES: We found the prices to be the same all through the district of Ohio that we visited:

Navy Specifications	18¢
Ethylized Navy	21¢
High Test (68-70 straight run)	22¢
Ethylized High Test	25¢
Benzol	24¢

From the above figures it will be seen that approximately even in such a short time as the Ethyl has been marketed, it has an average of better than 25% of the total at these stations and that the prices of the premium products bring the total up to 50% for which the consumer pays from 3 to 7 cents per gallon more than for the straight Motor.

On our return East we stopped off at Newark with a view of interviewing the drivers of the ten motor trucks who have been using this product for about seven weeks and while we only had an opportunity of talking with four drivers out of the ten, their reports of the use of this material were almost identically the same as those received from the consumers in the West. The man in charge of these trucks told us that the drivers were practically unanimous regarding the difference of the fuel which they had been served out of the special pump. We have also found by actual records that the ten trucks using Ethyl Gas show a net increase in mileage of approximately 10% which substantiates the claims made by the drivers in many instances that they were getting not only more power and eliminated "knock" but better mileage.

Mr. John Skens, owning a Buick car in Newark, loaned it to one of the salesmen for two or three days using regular gasoline. A couple of days after this use as above mentioned, he again loaned the car to the salesman with Ethyl in the tank without advising the salesman however of this fact. Mr. Skens reports that the salesman called him up and asked what had happened to the car, that he was getting so much 'pep' that it was getting away from him. This would prove to our minds that those who have no knowledge of the change in fuel have found the difference in favor of the Ethyl Gas from the ordinary user's standpoint.

Yours very truly,

(signed) J. H. Senior
A. Clarke Bedford
Dr. C. O. Johns

JHS:M

COPY

MEMORANDUM

June 18, 1924.

Pursuant to the instructions of the conference of yesterday, Mr. Midgley and Mr. Howard discussed this morning the question of what compounds should be royalty-bearing, in the sense that General Motors would be entitled to a preferential proportion of the profits.

Jersey's position has been that lead tetraethyl and such other compounds as General Motors had heretofore definitely shown to be of substantial value for this purpose should be listed and that royalty should be paid upon these, regardless of the outcome of the patent situation but rather on the principle that these compounds represented the essential contribution of General Motors to the situation and were the foundation of the present business.

General Motors' position is that they feel themselves equitably entitled to all antiknock compounds, since they were the first to show the possibility of improving gasoline by addition of such compounds to it.

An agreement was reached as follows: Mr. Midgley and Mr. Howard will recommend that the question of royalties to be paid will depend upon what patents are issued, and the adjudication of such patents. The Foundation Company will pay a specified proportion of its profits as royalty on any compounds (lead tetraethyl or any other) only so long as there shall be valid patent claims covering same.

In recognition of the fact that the effort of Jersey should be to aid in getting and sustaining patent claims, rather than to prevent obtaining them or to aid in breaking them, as its selfish interest would on the face of the thing require, General Motors will agree to a division of excess profits on a basis of 62½ - 37½, rather than on a basis of 70 - 30 proposed yesterday.

Mr. Midgley and Mr. Howard will make this suggestion that this solution of the difficulty be accepted by both sides.

hv
copies to Mr. Clark and Mr. Moffett.

Defendant's Exhibit (GM) No. 259

MEMORANDUM

June 18, 1924.

Referring to conference had yesterday with the General Motors on tetra-ethyl lead; those present being: Representing General Motors, Messrs. Sloan, Brown and Midgley; representing Jersey, Messrs. Moffett, Howard, Swain and Clark.

The matter was taken up by reviewing Mr. Howard's letter covering the results of his last conference with Mr. Sloan, at which time General Motors proposed the formation of a joint company for the purpose of distributing anti-knock agents and specifically tetra-ethyl lead or other compounds that might come within the scope of the General Motors' patents. The joint company to have a 15% return on its invested capital and General Motors then to receive one half of the profits above this 15% as royalty, the balance to go to the joint company. This, in effect, meant division of the net profits on the basis of 75% to the General Motors and 25% to Jersey. This information had been transmitted to Mr. Teagle by telegraph and to which we had replied by suggesting a 30% return on the invested capital of the joint company, a graduated royalty on volume of business to General Motors until a fixed maximum sum had been paid, then discontinuance of royalty and division of profits on a 50-50 basis.

The conference yesterday took the matter up at this point and after lengthy discussion Jersey made a counter proposition of 22-1/2% return on the invested capital, the excess profits then to be divided, 25% to General Motors as royalty and even division of the remainder. This, in effect was splitting the excess profits, over the 22-1/2% capital return, 62-1/2% to General Motors and 37-1/2% to Jersey. After lengthy discussion General Motors countered with a proposal of division of the excess profits on the basis of 70-30. This we definitely refused and suggested that we could not recede from our position of division on 62-1/2-37-1/2 basis and suggested that, unless they conceded, the conference might as well end. Messrs. Sloan and Brown then retired for a conference, came back and continued the discussion by taking up other points of more or less technical nature. These points were discussed until quite late, at which time they were left to Messrs. Midgley and Howard to attempt to reconcile the differences. The particular point was specifically defining the anti-knock compounds to be brought within the scope of the General Motors' patents on which royalty should be paid.

We believe that the proposal for a split of the excess profits on a 62-1/2-37-1/2 basis is a liberal concession to General Motors as royalty and that we should not agree to any

—2—

material change from this basis. We believe the General Motors will concede this and we are inclined to stand firm, even should it result in breaking off negotiations. The fact is that our counter proposal of graduated royalty with a fixed maximum was traded down to the 25% fixed royalty basis without any concession on the part of General Motors.

Another conference is to be had tomorrow afternoon.

EMC/ML

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Defendant's Exhibit (GM) No. 261

TREASURY DEPARTMENT
UNITED STATES PUBLIC HEALTH SERVICE

PUBLIC HEALTH BULLETIN No. 158

AUGUST, 1925

PROCEEDINGS OF A CONFERENCE TO DETERMINE WHETHER OR NOT THERE IS A PUBLIC HEALTH QUESTION IN THE MANUFACTURE, DISTRIBUTION, OR USE OF TETRAETHYL LEAD GASOLINE

PREPARED BY DIRECTION OF THE SURGEON GENERAL

WASHINGTON
GOVERNMENT PRINTING OFFICE
1925

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LIST OF ORGANIZATIONS, INDUSTRIAL AGENCIES, AND GOVERNMENT BUREAUS REPRESENTED AT THE CONFERENCE, WITH THE NAMES OF THEIR REPRESENTATIVES

- American Federation of Labor:
  - A. L. Berres.
  - Mrs. Grace M. Burnham, *Director Workers' Health Bureau.*
  - Miss Harriet Silverman.
- American Institute of Chemical Engineers:
  - Dr. D. E. Howe.
- American Oil Co.:
  - John M. Klein.
  - Lee Sonneborn.
- American Petroleum Institute:
  - Robert Welch.
  - F. B. Dow.
- American Public Health Association:
  - Dr. Henry F. Vaughan.
  - J. A. Tobey.
- Anglo-American Oil Co.:
  - H. S. Tegner.
- Baltimore City Department of Health:
  - Dr. J. H. Shrader.
- Barrett Co.:
  - S. R. Church.
- Brown University:
  - Prof. C. A. Kraus.
- Bureau of Chemistry:
  - Dr. C. A. Browne, *Chief.*
  - Dr. W. W. Skinner, *Assistant Chief.*
  - E. W. Schwartze.
- Bureau of Labor Statistics:
  - Miss Whitney.
- Bureau of Mines:
  - Dr. H. Foster Bain, *Director.*
  - Surg. R. R. Sayers (*detailed from the U. S. Public Health Service*).
  - C. A. Taylor.
  - Dr. W. J. McConnell.
  - William Yant.
- Bureau of Standards:
  - Dr. H. C. Dickinson.
  - Doctor Thompson.
- Carnegie Steel Co.:
  - B. M. Livesey.

- Chemical Warfare Service:
  - Lieut. Col. Edward B. Vedder, M. C.
- Cincinnati College of Medicine:
  - Dr. Robert A. Kehoe.
- Columbia University:
  - Dr. Haven Emerson.
  - Dr. Frederick B. Flinn.
- Department of the Interior:
  - Hon. Hubert Work, Secretary.
- Deppé Motors Co.:
  - N. P. Deppé.
- E. I. du Pont de Nemours & Co.:
  - Irenee du Pont.
  - W. F. Harrington.
  - Charles K. Weston.
  - Charles L. Reese (*President American Institute of Chemical Engineering*.
  - Dr. A. K. Smith.
- Ethyl Gasoline Corporation:
  - W. Gilman Thompson (*Medical Consultant Standard Oil Co. of New Jersey*).
  - C. F. Kettering.
  - Thomas Midgley, jr.
  - Dr. Graham Edgar.
  - E. W. Webb.
  - A. W. Maxwell.
- Federal Oil Board:
  - C. W. Waterman, *Manager*.
- General Motors Corporation:
  - C. F. Kettering (*also with Ethyl Gasoline Corporation*).
- Geological Survey:
  - Dr. George Otis Smith, *Director*.
- Gulf Refining Co.:
  - Dr. W. A. Gruse (*of Mellon Institute*).
- Harvard University:
  - Dr. Joseph C. Aub.
  - Dr. Cecil Drinker.
  - Dr. David Edsall.
  - Dr. Alice Hamilton.
  - Prof. Reid Hunt.
- Johns Hopkins University:
  - Dr. W. H. Howell.
  - Dr. E. K. Marshall.
- National Research Council:
  - Dr. Ludwig Hektoen.
  - Dr. E. W. Washburn.
- National Safety Council:
  - Paul Frederick Stricker.
- Navy Department, Bureau of Aeronautics:
  - Lieut. S. B. McMurrain.
- New York Academy of Medicine:
  - Dr. E. H. L. Corwin.

- New York City Department of Health:
    - Dr. J. A. Shears.
- New York State Department of Health:
    - Dr. M. Nicoll, jr., *Commissioner of Health.*
    - Dr. Augustus Wadsworth.
- New York, Reconstruction Hospital:
    - M. DeM. Touart, *Medical Director.*
- Ohio State Department of Health:
    - Dr. E. R. Hayhurst.
- Pennsylvania State Department of Labor and Industry:
    - Dr. Francis D. Patterson, *Chief of the Division of Hygiene and Engineering.*
- Philadelphia City Department of Health:
    - Dr. William C. Robinson.
- Standard Oil Co. of Indiana:
    - Dr. F. R. Morton, *Medical Director.*
- Standard Oil Co. of New Jersey:
    - Dr. C. C. Johns.
    - E. M. Clark.
    - R. A. Van Eaton.
    - F. A. Howard.
- State and Provincial Health Authorities:
    - Abel Wolman, of the Maryland State Health Department (*representing Dr. Johns S. Fulton, State Health Officer.*)
- Steel Products Co., Cleveland, Ohio:
    - C. E. Thompson.
- Studebaker Corporation:
    - A. J. Chanter.
    - E. J. Miles.
- University of Pennsylvania:
    - Dr. H. F. Smith.
- United States Tariff Commission:
    - Frank Talbot, of the Chemical Staff.
- The Texas Co.:
    - Sherman Ford.
- Yale University:
    - Dr. W. H. Haggard.
    - Dr. Yandell Henderson.
- United States Public Health Service:
    - Surg. Gen. H. S. Cumming, *Chairman of Conference.*
    - Asst. Surg. Gen. A. M. Stimson.
    - Asst. Surg. Gen. J. D. Long.
    - Surg. L. R. Thompson.
    - Surg. G. W. McCoy.
    - Prof. William Mansfield Clark.
    - Prof. Carl Voegtlin.
    - Dr. H. D. Gibbs, Senior Chemist.

PROCEEDINGS OF A CONFERENCE TO DETERMINE WHETHER OR NOT THERE IS A PUBLIC HEALTH QUESTION IN THE MANUFACTURE, DISTRIBUTION, OR USE OF TETRAETHYL LEAD GASOLINE

The meeting was called to order at 10 a. m., May 20, 1925, at the Bureau of the United States Public Health Service (Butler Building, Third and B Streets SE.), Washington, D. C., by Surg. Gen. H. S. Cumming, presiding.

The CHAIRMAN. I will ask the meeting to come to order. I wish to introduce to you Assistant Secretary of the Treasury McKenzie Moss, who will open the conference.

Mr. MOSS. Ladies and gentlemen, I think I was born with too much sense to endeavor to discuss the questions which will be before you for determination, or even to endeavor to state the issues. I do not know that I would be able even to pronounce some of the words contained in the title. I am merely here to extend, on behalf of the secretary, a welcome to you and to express the confident belief that around this council table you gentlemen will be able to bring to a fair settlement and solution the problems which have brought you together. That is my mission and it has been performed.

The CHAIRMAN. Ladies and gentlemen, I take pleasure in introducing to you Secretary Work, former president of the American Medical Association.

Secretary WORK. Surg. Gen. Cumming and gentlemen of the conference: the applause that followed Secretary Moss's address was paid [illegible] perhaps, to the brevity of it, so I will take notice and be [illegible] brief. This conference has very much to consider from different angles. I became interested in it first from the viewpoint of public health. If this new agent, which it is proposed shall go into general use in every car, is prejudicial to health we should know it and the public should know it. I am interested in it also because of my present position in association with the Bureau of Mines, which is a scientific bureau, as you know. The Bureau of Mines has been making a careful experimental study in this line for several months. A few months ago they put out a statement which was accepted as final. It was not intended to be final. It was really a progress report. Since that time the bureau has been pursuing these studies in the same general direction, and they will lay before you the results of these studies. This matter that you are called together to discuss, is, I think, a very important one—one of the most important questions up before the public to-day. It has an economic bearing, possibly has a health bearing, and its commercial relations may be very extensive, indeed.

This is largely conjecture. None of us knows much about it as yet, so the purpose of this conference is very important, and your deliberations will take, I assume, some days. I can spend only a moment with you, but I am pleased to have had the opportunity to express my appreciation of your assembling here to discuss this question.

The CHAIRMAN. First, I want to express my appreciation to those gentlemen who have accepted an invitation to come to this conference. It is unnecessary for me to enter into any detailed explanation as to the purpose for which you have been asked to come together or the importance of the outcome of the conference. It is, however, perhaps advisable to say a word in the beginning as to the reason for inviting you to a conference and the object which we hope to gain as a result of your advice and counsel.

The Public Health Service, particularly through its division which has to do with the study of problems relating to industrial medicine, has long been interested in lead poisoning in the industries and has made some investigations along this line. We were therefore interested two years ago when we learned that one of the large corporations in this country in its endeavor to increase the efficiency of fuel used in internal combustion engines was experimenting with certain lead compounds to be used in commercial gasoline.

A little later on the question of an investigation as to the effect of these compounds came up, and after a conference with representatives of the Bureau of Mines it was determined, in view of the fact that the Public Health Service had no funds available for the purpose, that the investigation should be made by the Bureau of Mines.

Early in the winter I received letters from several gentlemen who had been interested in the matter, inviting attention to the potential dangers in the general use of tetraethyl lead and suggesting that a conference be called to consider the matter. After correspondence with everyone engaged in such investigations, so far as we could ascertain, it was determined that a conference at that time would be somewhat premature in view of the fact that none of the investigations had been completed.

Upon completion of the preliminary report of the Bureau of Mines, and after a conference with Doctor Sayers and the staff of the Hygienic Laboratory, I decided that it would be advisable to hold a conference as soon as practicable, and found that the report of the medical committee working at Columbia University, together with other reports, would be available about the middle of May. I therefore took the liberty of requesting you to be present at this time.

It seems unnecessary to inform you that this is in no sense a legal hearing: in fact, there are no Federal laws which authorize the Public Health Service to take jurisdiction regarding the interstate shipment of substances such as tetraethyl lead, even should it be determined that they are injurious to public health. On the other hand, it is the duty of the Public Health Service to investigate such questions and to inform the public as to the result of its investigations, restrictive measures being part of the police power of the several States and municipalities. However, I am quite certain, from assurances given both to me and to the public, that no police measures will be necessary in the premises should the use of tetraethyl lead be determined to be detrimental to the public health.

It is earnestly desired that we shall confine our conference as nearly as possible to the determination of such facts and to the reporting of such investigations and experiences as may lead to a definite determination as to the hazards, if any, which follow the manufacture, distribution, and use of tetraethyl lead and similar substances, not only to those who are engaged in the manufacture and distribution of the compound, but, more particularly, perhaps from my standpoint, to the public at large. The Public Health Service asks your cooperation in arriving at the proper solution of the problems.

I fully realize the responsibility imposed and the confidence that has been given to me, and I am quite sure you are all going to help me and help each other arrive at a solution of this problem.

I am sorry that we are not all around a small table. In our first study we had the advantage of the psychology of sitting around a conference table—we have grown a little larger than any available table—but I hope you will feel you are around a common council board.

I have thought it would be interesting, at least to some of us, if we begin this conference by asking someone to give us the history of the development of this tetraethyl lead in its relations to gas engines, and Mr. Kettering, the president of the Ethyl Gasoline Corporation, will give us the historical account.

Before he does so, may I say that I thought we would all be interested in seeing the working of one of the engines at a proper time. That will be demonstrated to you later.

MR. C. F. KETTERING

President, Ethyl Gasoline Corporation

Mr. Chairman, ladies and gentlemen, about 1914 we undertook to determine what were the essential factors in an internal-combustion engine which prevented us from getting more economy. As you perhaps know, it is possible to build internal-combustion engines which, when at full load, show very good percentage of efficiency. That has been pushed up to as high as 30 per cent, but inasmuch as in the automobile we very seldom drive at anything but a very small portion of the load, the efficiency falls off quite markedly with a decrease in the load. We undertook to study why it was, or what could be done that would assist in giving us more efficiency at the point where the public drive their cars.

We are getting to-day about 5 per cent of the energy out of gasoline; 95 per cent of it is thrown away. As I said before, it is possible, however, to push up on full load so that with the airplane engine or the motor-boat engine, we obtain up to a maximum of 30 per cent, and you can get fairly normal operation at around 20 per cent.

In that study there were a great many problems brought out because the instrumentation that was necessary to make these determinations had not been thoroughly developed, so we were confronted as we went along with continually having to stop our work on the actual study in order to develop instruments whereby we could make determinations that would have an actual quantitative value. There was as a rule abundant qualitative information about this, but none of it had been reduced to a quantitative basis.

After a preliminary study we discovered that with the fuels, as they now exist, one of the things necessary was to increase the compression of the motor. To explain what that is, I will say this: In the ordinary automobile motor as we have it to-day, and we will consider just a single-cylinder engine, here is the way the thing works. There is a cylinder in which is fitted a piston and there are two valves in that cylinder. We will say that our engine is standing still. The piston moves down, and as it moves down a valve opens which allows a mixture of gasoline and air to flow into that cylinder. That valve then closes, the piston goes up and compresses that mixture until it reaches nearly top center, then a spark is introduced into it and the mixture burns and an explosion of the gas is obtained; near the bottom of the stroke the other valve is opened and when the piston goes up those exhaust gases are ejected, save what was in the space above the piston. That thing is repeated. In other words, a cylinder in the ordinary gas engine, as it is known in the automobile to-day, gives you one explosion for every two revolutions, the sequence being, first, a drawing in of the mixture; second, a compression of it; third, a firing and expansion of it; and fourth, an exhalation, and that is the way they got the term, "a 4-cycle motor," a cycle being the passing of the piston once over the cylinder.

Now the amount of the exhaust gas which is retained in the cylinder is the function entirely of that space which is above the piston, so that when you have a full load or a full charge in this engine, the per cent of the mixture which is retained in the engine is relatively small compared with the total amount taken in, but when you are taking only a little bit of mixture in, as for a quarter or half load of the engine, that dilution factor becomes relatively large. So it is desirable to cut the space down above the piston, and that is what, in engineering technology, we call raising the compression. In other words, it is simply reducing the space into which that mixture is compressed just previous to firing.

There are two or three factors which obtain when you raise the compression—two or three things which happen. First of all, you get a better burning efficiency; second, the dilution factor is reduced because the amount of exhaust gas which is retained there is smaller; and third, there is a smaller amount of surface exposed to the very hot gases at the time of combustion; so you gain in three different factors by raising the compression.

In the Diesel engine—this is simply by way of explanation—its result is accomplished not by taking the mixture into the cylinder in the way we do in the ordinary gas engine but by taking in the air and then compressing it; and then, after it has reached compression, the fuel is put into the engine at the definite rate at which it is to be burned. That is a differentiation from the ordinary automobile engine in that we take into the cylinder both the gasoline and the air, and they are compressed together, so that the Diesel engine has accomplished the raising of compression by keeping the fuel out of the mixture before you want it to burn.

Any attempt we were able to make to raise the compression was always accompanied by a corresponding gain in efficiency, but it was not accepted by the public because of the fact that when you tried to use the engine at full load you got what we call a "knock." That is the familiar sound known to everybody who drives an automobile when he tries to climb a hill. He gets a little carbon in the motor. In other words, we could not supply to the public the gain possible by engine alterations because of that very undesirable knock, and it was undesirable from two standpoints, first, because it might cause injury to the motor, and second, because the driver thinks there is something wrong with his motor. Therefore it was noncommercial from that standpoint.

So, after we had developed the possibilities of what might be done by the use of increase in engine efficiency, we then attacked the problem of whether we could introduce anything into the fuel which would stop this knocking. At that time none of us had any very definite knowledge of what was happening to such an engine. I do not know that to-day we know definitely what happens. In other words, we have found that those things like combustion, things we have known about the longest, the simple burning of a fuel and air, explained so simply, still have a lot of very technical things related to them, and are not as simple as the words might indicate.

At this point we developed quite a number of instruments which helped us to determine to a certain extent what was happening physically inside the engine cylinder. We found out that with ordinary natural gas we could produce certain results and with the higher-gravity gasolines, the aromatic series of compounds, alcohols, etc., we could get the high compression without the knock, but in the great volume of fuel of the paraffin series we could not do that. But we did prove that if we could use the motor at those compressions our efficiencies could be very greatly increased. So we started to try different materials which might, if put into the fuel, produce the desired results.

One of the first things that we used, and which has always been regarded as a sort of bench mark from which we reckon, is ordinary iodine, which when added to the fuel will completely stop the knocking. By way of explaining what the knock is, it has been proved by experiments in this country and abroad that the normal rate of burning of gasoline and air can proceed at quite different rates and that if the ordinarily efficient work be represented by 1 these rates are some place between sixty and seventy times as high, so that the change of rate is very much greater; in other words, sixty or seventy times greater; that the rate of burning is so rapid that the temperature goes very high, the radiation is very high. I might explain at this point that when we got to those very high pressures and to those very high temperatures the radiation rate from the flame is exceedingly great, and inasmuch as radiation can pass entirely through those gases without doing any heating it does not do a bit of work. It is just like having the mixture full of holes; and the radiation does no work until it strikes the cylinder wall and heats it.

After introducing the iodine we were first of the impression that perhaps it was the color added to the fuel that did something, because we felt that perhaps the color of the fuel did something in the way of absorption of radiant energy, very much as the early plants paint themselves red on the underside to absorb radiation and help their growth, but we disproved that supposition by using some forms of iodine which are colorless. We found it was purely a molecular proposition and had nothing to do with the color, and we also demonstrated it by the use of some other colored materials that supplied the color but did not produce the other results. So finally we had this one material which we could introduce, which was a starting point from which we could make comparisons.

It took about 3 per cent iodine to be equivalent to 40 per cent benzol, and our methods of rating gasoline have been based on this line. We were taking a certain standard gasoline and adding 40 per cent benzol to it. That permits a certain raising of compression and a certain operation of the motor. We accepted that as a standard of compressions. Of course, iodine was out of the question from a commercial standpoint because of its not being obtainable.

Another very interesting thing in the use of benzol, or of iodine, was that it helped to produce carbon. So your cylinder would fill up very quickly with a very flaky type of carbon. I mention the word carbon. In the ordinary garage they will say, "Get the carbon cleaned out of your motor." The reason for that is that the carbon is one of the best heat insulators we have.

A small cake of carbon on the inside of the motor takes up space, it raises compression, and it slows the conduction of heat from the residual gases to the cylinder wall, and the difference between a satisfactory burn and an abnormal burn is very delicate when it comes to the point of temperature. A few degrees plus or minus will throw the thing from a satisfactory operation to an impossible operation.

I have seen that tried out on airplane motors, and it is rather interesting. Take a motor and a fuel condition which you can make normal; get up in the air and level off, fly along definitely, and finally open your throttle to a point where you ought to get an abnormal rate of burn. You go along and you get one detonation. I use the word detonation because that expresses the idea; whether it carries along the scientific factors of detonation we do not know, because it is purely a question of degree. You might get one detonation, in 15 seconds another, and in a very short period of time your motor will be detonating completely, and you will have to come down. Once you get one detonation in the cylinder you immediately throw a large quantity of the heat of the explosion, by radiation of energy, into the cylinder walls and heat them. With the next compression it gets hotter, and you get more heat into your cooling waters; it gradually rises in temperature and you pass from a normal to an abnormal operation on an apparently slight change in the thermal condition of the motor.

We then made a search of various other chemical compounds, and found aniline had a similar effect. We did a great deal of work on aniline and its kindred compounds. It took about 2 per cent of aniline to obtain the same results that 3 per cent of iodine gave.

There were many objections to aniline; the principal one was that it can not be obtained in quantities. We had been investigating a great many compounds and making a study of the physical chemistry of these problems, so that we might know what the factors were that we were dealing with. We tried one of the selenium metallo-organic compounds. We found that was an antiknock. We tried various other selenium compounds and tellurium compounds, and we finally took the atomic weights of the elements and went over the thing systematically. We found that while there are compounds which you can add to gasoline to stop its detonation, there are other compounds you can add that make it worse. If some surface above the top of this table be represented as zero, and if you put a pin to represent each element showing its value as an antiknock, the heads of the pins will lie on a warped surface, representing the antiknock potentialities of each element in its various valences.

These results tended to show that elements of high atomic weight were most effective as antiknocks, and almost as a last resort we started to study the properties of lead.

We tried for a long time to produce various organic lead compounds which would be soluble in gasoline. We did that without very much success, and finally, after a long period of time, we are able to get the tetraethyl lead compounds which are soluble in gasoline. When we tried those out we naturally had the factor of around 2 or 3 per cent in our minds, so when we got a small quantity of these we put it in a gasoline in the same proportion we had been dealing with. There was no indication of a knock. We kept diluting it and found that we were dealing with a material requiring only about one-thirteenth of 1 per cent. In other words, it was about forty or fifty times more effective than anything we had ever dealt with.

We then started a long series of road tests, after we had learned to mix small quantities of this material, and converted a few motors into the type of motor that could be operated with this fuel. We had a great many practical difficulties, due to the fact that the lead burns to lead oxide, and that, deposited on the spark plug, fuses; lead oxide being a good flux for the porcelain and electrodes of the spark plug, which are of nickel. We tried various ingredients with the lead compound and finally used the bromine compounds, ethyl dibromide. The lead burns to lead bromine, and it does not stick on the valve but passes out of the motor.

That is really the high-spot history of this study. Up to this time we have not done anything on the motor for the reason that we were repeating tests to determine whether we could take out of the fuel the characteristics which prevented us from decreasing the space above the piston. We have gone back and checked and rechecked many times the mechanics of this thing.

Briefly stated, here is where the economic phase of the thing comes in. As you increase the compression you get a higher gain in efficiency at the partial loads or driving speeds of the motor, and it is possible for us to-day to build motors that will give us at least 50 per cent increase in efficiency, and I do not think it is at all out of the range of good engineering to double the economy of gasoline.

That is the problem which we are working at entirely from the economics of the situation, recognizing that to-day with the enormous increase in automobiles, we will use 12,000,000,000 gallons of gasoline this year and 15,000,000,000 next year, and at the increasing rate we have *got* to do one of two things: We must build motors which are more efficient—we must build motors of very much smaller size and sacrifice a great many factors which we now enjoy in the motor industry, or we must do something which will allow us to get more work out of the fuel unit. Now, in regard to the building of such motors, there is nothing of a patentable or unknown thing in the building of higher efficiency motors. Our neighbors on the other side a few years ago built high compression, relatively high efficiency motors, because we shipped to them a better grade of gasoline than we use in this country. They did not have tank wagons and, therefore, we shipped the gasoline over there in tins, and, with the increased cost, it made very little difference whether they bought gasoline of 2 or 3 or 4 cents lower grade or higher. Consequently, they use a higher grade of gasoline in our export machines, and a great many times we have had letters saying, "Why don't you go to Europe and buy European machines and bring them over here and try them out?" We have done that very consistently, and have never been able to drive them under American conditions with American gasoline.

Looking at it entirely from the economy standpoint, so far as our research goes in 10 to 12 years, we know of no way of getting increased efficiency other than changing the compression or redesigning motors from many standpoints. The automotive art to-day knows enough to design motors to take a better fuel, but it is handicapped because it has not been able to do it.

In the introduction of so-called ethyl gasoline on the market we recognize that there were many factors in its marketing that we did not know. We recognized that we would have to get a distribution method for fuel before changes in motor design would be effective.

That briefly states the history and purely economic phases of the situation. We have been interested in it from the motor industry standpoint very largely, because we recognized that with the enormous demand for internal combustion-engine power some day we would have to answer this question, and we started a good many years ago with the idea purely of an elementary scientific problem to direct the general laboratory research to the problem of what we could do to modify our engines.

We found out that we could do nothing to modify engines unless we could do something to remove from the fuel a very important property, and that is why our research organization undertook the study of fuel relationships, to find out what that had to be, first, recognizing that the changing of parts of the motor could easily be made after that problem was solved. I thank you very much.

The **Chairman**: I may relieve the minds of some of you by saying that we are having a verbatim report of the conference, which will be available as soon as practicable.

Before going into a general discussion I would like to ask if anyone else here has any facts to bring before the conference with reference to the manufacture of the tetraethyl lead compound. Mr. Edgar, are any of your people who are interested in the manufacture present? I have not picked out anyone in particular. We do not want general discussion just yet, but anything else you would like to explain with reference to it at this time.

MR. W. F. HARRINGTON

General manager, representing the E. I. du Pont de Nemours & Co.

Mr. Chairman, ladies, and gentlemen, I understand that what you want first is the question of information as to whether in our opinion tetraethyl lead can be manufactured safely.

The **Chairman**. We would like to have that.

Mr. **Harrington**. I imagine this is the most important factor of discussion, and it is the manufacturing factor which I am prepared to discuss right now. The tetraethyl lead desired by the Ethyl Gasoline Corporation has been manufactured by the du Pont Co. We were called upon to manufacture, and we proceeded with the effort to determine a method of manufacture because at the time that this work was started no method of manufacture was well-known; the product was almost a laboratory curiosity. The research work had to be conducted in the laboratory and carried into the semiworks for further experience, and finally manufacture was started in the newly constructed plant. I am prepared to say now, after the experience that we have had in the last two years in the manufacture of tetraethyl lead by the ethyl chloride and the ethyl bromide processes, that tetraethyl lead can be safely and properly manufactured. I believe that I can also give sufficient evidence to prove the correctness of such an assertion. We started out originally to manufacture tetraethyl lead by the ethyl-bromide process. We got into trouble. We did not have a background necessary to prevent some of the difficulties which are always incumbent upon manufacturing operations when going from the laboratory scale into plant scale of manufacture. We had fatalities. The last we had in the manufacture of tetraethyl lead by the ethyl-bromide process was in July, 1924.

Up to that time we had manufactured approximately 400,000 pounds of tetraethyl lead. Since that time in the plant we have manufactured something like one and three quarters million pounds of tetraethyl lead without any serious mishaps. The fact is that in this plant we have not even had any man very seriously sick, and yet we have had, as is always to be expected, certain mechanical mishaps, so-called messes, which are the result of mechanical failures and which have had to be house-cleaned. About a year ago it was realized that bromine had to be used with tetraethyl lead in making ethyl gas. There was not a sufficient supply of bromine in sight at that time to treat the ethyl gas. At about this time a process for the manufacture of tetraethyl lead via the ethyl chloride route was developed. This process seemed to be simpler than the ethyl-bromide process and attended with no more hazards of manufacture. Here again a long laboratory experimentation was carried out followed by long experimentation in the semiworks. A plant was then designed and constructed according to the most modern ideas as to industrial safety and ventilation. No expense was spared to insure safety of operations. However, we did err in our calculations in the design of this plant, with the result that difficulties were encountered when the plant was started and fatalities occurred. The plant was closed down, the difficulties in ventilation and operation were corrected and manufacture was resumed on March 25 of this year. Until the closing down on the first part of this month, when at the request of the Ethyl Gasoline Corporation the manufacture was discontinued, we have manufactured successfully some 50,000 pounds. No men at all in this plant, since we rectified errors and resumed operation in March, have shown any physiological symptoms of poison, so that I can say, and I think I can say with correctness and conviction, that tetraethyl lead can be safely manufactured. I say that for the du Pont Co., and I think that the du Pont Co. has a right to a conviction as to what can be done in the way of manufacture of dangerous chemicals. That has been the experience of the du Pont Co. almost through its whole period of existence—first, the manufacture of black powder, then the manufacture of dynamite, smokeless powders, detonators—all these products have been manufactured successfully. If there is any question of doubt I refer you to the statistics. More recently we have manufactured organic chemicals also of a dangerous nature. Truly we have had a background in the manufacture of various chemicals which has been of inestimable assistance in assuring safe performance. We have, moreover, manufactured successfully such products as aniline, nitrobenzol, dinitrobenzol, nitrochlorbenzol, etc.

One seldom nowadays hears of an aniline poisoning case coming from a plant where aniline is manufactured. Nitrobenzol falls in the same class as a poisonous article. Dinitrobenzol is even worse, and nitrochlorobenzols, in my opinion, are still worse. We are successful manufacturers of every one of these products. We have no doubt at all from a manufacturing point of view that tetraethyl lead in proper hands, in the proper plant design, and under a proper discipline can be manufactured successfully.

The CHAIRMAN. Are there any further remarks on the manufacture of the compound? Before starting the discussion of any phase, I think it is better to develop the facts which we know. We have not a cut and dried program, but wish suggestions from anybody here who has any facts to present first to the conference as to the industrial hazard in the manufacture of the compound. If anybody has any suggestions as to change of program, we shall be glad to hear them.

The next thing logically is about the facts as to the mixing, distribution, and transportation of the substance from the wholesaler to the distributer of the compound. Has anybody anything to give to the conference with reference to that?

NOTE: The remaining 103 pages of the report have been omitted.

Defendant's Exhibit (GM) No. 262

TREASURY DEPARTMENT
UNITED STATES PUBLIC HEALTH SERVICE

PUBLIC HEALTH BULLETIN No. 163
JUNE, 1926

THE USE OF TETRAETHYL LEAD GASOLINE IN ITS RELATION TO PUBLIC HEALTH

PREPARED BY DIRECTION OF THE SURGEON GENERAL

WASHINGTON
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5177

INTRODUCTION

Early in 1923 lead tetraethyl began to be used in gasoline in an endeavor to increase the efficiency of the gasoline as a motor fuel. The possible danger from such wide distribution of a lead compound aroused fear on the part of those concerned with the public health, and these fears were intensified when fatal poisoning occurred in the manufacture and mixing of the concentrated tetraethyl lead itself in Deepwater, N. J., Dayton, Ohio, and Bayway, N. J. As a consequence of such apprehensions, the distribution of tetraethyl lead was stopped on May 5, 1925, and the sale of gasoline containing tetraethyl lead was thereby generally discontinued.

On May 20, 1925, a conference called by the Surgeon General of the Public Health Service met to consider the possible health hazards from the manufacture, distribution, and use of this lead compound as a substance to be added to gasoline. The proceedings of this conference have been published as Public Health Bulletin No. 158. Those in attendance generally recognized that the production and handling of the concentrated tetraethyl lead involved a distinct industrial hazard, and attention was principally focused on the question which remained open, as to the dangers to the public, automobile drivers, and garage workers, from the general use of lead-containing gasoline. Reports were made to the conference, of studies which had been conducted at three different places to elucidate this question—at the Bureau of Mines laboratory at Pittsburgh, reported by Dr. R. R. Sayers; at the department of industrial hygiene of Columbia University, New York City, by Dr. F. B. Flinn; and at the laboratory of the Ethyl Gasoline Corporation, Dayton, Ohio, by Dr. R. A. Kehoe. The studies at the first two of these institutions were experimental investigations on animals; the series at the Bureau of Mines showed no effect from the exhaust gases from an engine using gasoline containing tetraethyl lead in commercial proportions when the carbon monoxide was kept below 0.02 per cent, but prolonged exposure to unburned vapor containing 0.3 per cent of ethyl gasoline caused lead storage. The New York studies indicated storage of lead from skin application of 1:1,000 tetraethyl lead in gasoline, also from the inhalation of the fumes from such a dilution; but it was agreed by both sets of workers that no definite idea of the reality of the hazard could be obtained without human experience under practical working conditions. The studies at Dayton included human observations, but were not sufficient for conclusions to be drawn therefrom. After considerable discussion of the various phases of the problem the conference adjourned, having agreed upon the following resolution:

> It is the sense of this conference that the Surgeon General of the United States Public Health Service appoint a committee of seven recognized authorities in clinical medicine, physiology, and industrial hygiene to present to him, if possible by January 1 next, a statement as to the health hazard involved in the retail distribution and general use of tetraethyl lead gasoline motor fluid; and that this conference indorses as wise the decision of the Ethyl Gasoline Corporation to discontinue temporarily the sale of ethyl gasoline; that the investigation shall be paid for exclusively out of public funds; and that the results of this investigation shall be reported back to a public conference called for the purpose by the United States Public Health Service, at which labor shall be represented.

The Surgeon General appointed, as members of this committee, the following:

A. J. Chesley, M. D., St. Paul, Minn.
  Executive health officer, Minnesota State Board of Health.
David L. Edsall, M. D., Boston, Mass.
  Dean of the Medical School and of the School of Public Health, Harvard University. Formerly professor of clinical medicine at the University of Pennsylvania and at Harvard University.
William H. Howell, Ph. D., M. D., Baltimore, Md.
  Professor of physiology, School of Hygiene and Public Health, Johns Hopkins University. Formerly professor of physiology at the University of Michigan and at Johns Hopkins Medical School.
Reid Hunt, M. D., Boston, Mass.
  Professor of pharmacology, Medical School, Harvard University. Formerly professor of pharmacology, Hygienic Laboratory, United States Public Health Service.
Walter S. Leathers, M. D., Nashville, Tenn.
  Professor of preventive medicine, Vanderbilt University. Formerly executive health officer, Mississippi State Board of Health.
Julius Stieglitz, Ph. D., Chicago, Ill.
  Professor of chemistry, University of Chicago.
Charles-Edward Amory Winslow, M. S., New Haven, Conn.
  Professor of public health, Medical School, Yale University. President, American Public Health Association.

This committee met on June 15 and organized, with Doctor Howell as chairman. L. R. Thompson, surgeon in charge of the office of industrial hygiene and sanitation of the United States Public Health Service, acted as the secretary to the committee. The general scope of the investigation was agreed upon, and at the second meeting of the committee, on June 29, 1925, J. P. Leake, surgeon, United States Public Health Service, was intrusted with direct charge of the investigation. On October 16, 1925, Doctor Leake reported to a meeting of the committee the results of the investigation up to that time; and on December 22, 1925, the committee met to consider the full report of the investigation by Doctor Leake. The last meeting of the committee was on January 17, 1926, when the final report of its findings were drafted and signed. This report (pp. 103-115 following the detailed report) summarizes the investigation and draws conclusions.

INTRODUCTION

On January 19, 1926, a second public conference met at the call of the Surgeon General to hear the report of the committee. The following were in attendance:

- American Federation of Labor:
  - A. J. Berres.
- American Institute of Chemical Engineers:
  - H. E. Howe.
- American Oil Co.:
  - John M. Klein.
- Anglo American Oil Co.:
  - H. S. Tegnor.
- Baltimore City Department of Health:
  - Dr. C. Hampson Jones, *Commissioner.*
  - F. A. Korff.
- Bureau of Aeronautics, Navy Department:
  - Comdr. E. E. Wilson.
- Bureau of Chemistry, Department of Agriculture:
  - Dr. Erich Schwartze.
- Bureau of Mines, United States Department of Commerce:
  - Scott Turner, *Director.*
  - Dr. R. R. Sayers.
  - W. P. Yant.
  - A. T. Coumbe, jr.
- Bureau of Standards, Department of Commerce:
  - H. K. Cummings.
- Calco Chemical Co.:
  - A. R. Norton.
- Chemical Warfare Service, United States War Department:
  - C. R. Alley.
- Columbia University:
  - Frederick B. Flinn.
- Detroit City Department of Health:
  - Henry F. Vaughn, *Commissioner.*
- E. I. du Pont de Nemours & Co.:
  - W. F. Harrington.
  - Charles K. Weston.
- Ethyl Gasoline Corporation:
  - E. W. Webb, *President.*
  - A. M. Maxwell.
  - Dr. Robert A. Kehoe.
- Geological Survey, Department of Interior:
  - George Otis Smith, *Director.*
- Harvard University:
  - Dr. Alice Hamilton.
- Institute of Government Research:
  - J. A. Tobey.
- Mellon Institute:
  - W. A. Gruse.
- National Research Council:
  - Dr. Victor Vaughan.
- Nation's Health:
  - Dr. F. L. Rector.
- New York State Department of Health:
  - Dr. Augustus Wadsworth.

New Zealand Department of Health:
  Doctor Watt, *Deputy Director General.*
Ohio State Department of Health:
  Dr. John E. Monger.
Ohio State University:
  Dr. E. R. Hayhurst.
Philadelphia City Department of Health:
  Dr. William C. Robinson.
Society of Automotive Engineers:
  Harry Horning, *President.*
Standard Oil Co. of Indiana:
  Dr. Frank R. Morton.
  R. J. Fellingham.
Standard Oil Co. of New Jersey:
  F. A. Howard.
United States Public Health Service, Treasury Department:
  Surg. Gen. H. S. Cumming, chairman of conference.
  Asst. Surg. Gen. A. M. Stimson.
  Surg. G. W. McCoy, director, Hygienic Laboratory.
  Surg. J. P. Leake.
  Surg. L. R. Thompson.
Workers' Health Bureau:
  Mrs. Grace Burnham.

Doctors Howell, Chesley, Hunt, and Leathers of the committee were also in attendance. The report was read by the chairman of the committee and adopted unanimously by the conference. A resolution was also adopted expressing the sense of the conference that the investigation of industrial hazards in the United States should be concentrated in the United States Public Health Service, and the necessary funds be given that organization with which thoroughly to prosecute these investigations. A question was also raised as to whether the possible effect of tetraethyl lead gasoline on the sterility of the race was taken into consideration in the investigation. This was answered by Doctor Leake in a statement that questions in regard to sterility were asked of each individual in the investigation and there was no indication of any sterilizing effect caused by the exposure.

In accordance with the recommendations of the committee, suggested regulations were drawn up by the Public Health Service in regard to the manufacture, distribution, and use of tetraethyl lead and mixtures containing tetraethyl lead for adoption and enforcement by the several States. These proposed regulations form the final section of this bulletin. After having been submitted in draft to the departments of health of the several States they were presented at the Conference of State and Territorial Health Officers with the Surgeon General on May 25, 1926. It was there explained that the last set of regulations, concerning garages and inclosed filling stations, is directed chiefly toward protection against carbon monoxide poisoning. Helpful suggestions regarding this set of proposed regulations have been received from Prof. A. C. Willard, of the department of mechanical engineering, University of Illinois, but they are mainly based on observations made during this investigation.

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INVESTIGATION OF HEALTH HAZARD FROM TETRAETHYL LEAD GASOLINE

By James P. Leake, Lawrence Kolb, Louis Schwartz, Gleason C. Lake, Charles Armstrong, and W. T. Harrison, *Surgeons*, Claude W. Mitchell, *Passed Assistant Surgeon*, William Mansfield Clark, *Professor of Chemistry*, Elias Elvove, *Chemist*, C. G. Remsburg, *Assistant Chemist*, Conrad Kinyoun, *Assistant Bacteriologist*, J. J. Bloomfield, *Assistant Physical Chemist*, Wallace Hall, *Assistant Chemist*, and William A. Simkins, *Junior Chemist*, *United States Public Health Service*

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REPORT OF COMMITTEE OF SEVEN RECOGNIZED AUTHORITIES APPOINTED BY THE SURGEON GENERAL OF THE UNITED STATES PUBLIC HEALTH SERVICE TO PRESENT A STATEMENT AS TO THE HEALTH HAZARD INVOLVED IN THE RETAIL DISTRIBUTION AND GENERAL USE OF TETRAETHYL LEAD GASOLINE MOTOR FUEL

By W. H. Howell, A. J. Chesley, David L. Edsall, Reid Hunt, W. S. Leathers, Julius Stieglitz, C.-E. A. Winslow

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January 17, 1926.

Surg. Gen. H. S. Cumming,
United States Public Health Service,
Washington, D. C.

Dear Sir: The committee appointed by you at the request of the conference held in Washington May 20, 1925, was directed to present to you, "if possible by January 1 next, a statement as to the health hazards involved in the retail distribution and general use of tetraethyl lead gasoline motor fuel." As soon as practicable after its appointment the committee met in your office for organization and for discussion of the procedure to be followed in carrying out its instructions.

The members of the committee familiarized themselves, as far as possible, by conferences and by reading, with the existing data bearing upon the subject and upon lead poisoning in general. They had access to the stenographic report (see Public Health Bulletin No. 158) of the addresses and discussions which took place at the conference of May 20, and subsequently they made a personal examination of the plant at Deepwater, N. J., for the manufacture of tetraethyl lead, and of one of the stations at which the ethyl fluid is mixed with gasoline.

Ethyl gasoline was first placed on sale February 1, 1923, and its sale was voluntarily discontinued May 5, 1925, about 300,000,000 gallons of ethyl gasoline being distributed during this period. Serious cases of poisoning occurred among men handling lead tetraethyl and ethyl fluid in the States of New Jersey and Ohio. As far as the committee is aware these accidents had all occurred in connection with the manufacture and blending of concentrated tetraethyl lead, and threw no direct light upon the problem specifically laid before us—that of the retail distribution and general use of ethyl gasoline. The valuable experiments reported by the United States Bureau of Mines and by investigators at Columbia University and others yielded important results, but we felt that the crucial test of the situation must be derived from actual experience in the use of ethyl gasoline under practical conditions of operation.

It was therefore decided that the committee should make a direct investigation of the question submitted to them, planning the work on as extensive a scale as was possible in the time allowed. Fortunately, this mode of approach was made feasible by the fact that ethyl gasoline has been in constant use as a motor fuel in certain parts of Ohio for several years; and although the production and distribution of tetraethyl lead and ethyl fluid had been suspended by the voluntary action of the manufacturers, pending the present investigation, it was known that in the region indicated a supply of ethyl fluid was still in the hands of certain consumers and would be continued in use. We were thus presented with an opportunity of studying a fairly large group of individuals who had been using and handling ethyl gasoline and of comparing the findings upon them with the examination of a similar group employing gasoline free from lead.

In several conferences the committee, with the assistance of Surgeon General Cumming and Surg. L. R. Thompson, United States Public Health Service, in charge of the section of industrial hygiene and sanitation, formulated a general plan of investigation. The actual conduct of the work was intrusted to Dr. J. P. Leake, surgeon, United States Public Health Service, who at once organized a corps of workers and began observations upon certain groups of individuals in Dayton and Cincinnati. The committee desires to express its appreciation of the cordial cooperation extended to this group of observers by both the employers and workers in the garages selected for the investigations. After all the preliminary arrangements had been completed the work was pushed with great vigor during the autumn months, and on December 19 Doctor Leake presented to the committee a full report of the results of his study. The committee wishes to express its great satisfaction with the promptness, energy, and ability with which these investigations were carried out. The general character and scope of the work may be summarized briefly as follows:

Two hundred and fifty-two individuals were studied. They were all adult males and fall into five groups.

1. Group A, a control group, consisted of 36 men who were employees of the city of Dayton. Their duty was to drive cars during the working-day. In these cars the gasoline used contained no lead. The cars were housed in the municipal garage, which in the report is designated as the Dayton control garage.

2. Group B, a test group, consisted of 77 men who were employees of a public-service corporation in Dayton and whose duties were similar to those of Group A. The cars that they drove, however, used ethyl gasoline, and this fuel had been in constant use in this service since July, 1923. The garage in which these cars were housed is designated as the Dayton test garage.

3. Group C, a control group, consisted of 21 men. These were employed as garage workers in the Dayton control garage or in a similar control garage in Cincinnati, or as gasoline fillers at service stations or on trucks delivering gasoline in Dayton and the adjoining region. In none of these garages, service stations, or trucks was gasoline containing lead used or handled.

4. Group D, a test group, consisted of 57 men. These were employed as garage workers in the Dayton test garage or in a similar test garage in Cincinnati, or as gasoline fillers at service stations, wholesale gasoline plants, or on trucks delivering gasoline in Dayton, Cincinnati, and vicinity. The duties of these men were similar to those of Group C except that ethyl gasoline was handled in the garages, stations, and trucks.

5. Group E, a control group, consisted of 61 men employed in two industrial plants of entirely different character from the foregoing, in which there was known to be a serious exposure to lead dust. Numerous cases of lead poisoning had occurred in these plants. This group was selected to serve for what might be called a positive control or check in regard to the validity of the clinical and analytical methods used in the study of the individuals of Groups A, B, C, and D.

Methods used.—Each individual was subjected to a careful clinical examination, and in addition smears were made from his blood and a specimen of his feces was collected. The blood smears and the fecal specimens were sent to Washington to be examined by trained experts for stippling of the red cells and for content in lead. The examination of the feces for lead was made by chemists who had been especially trained in the technique of the method. The blood examinations were made by a group of skilled observers and were arranged so that the counts in each case were checked by several workers.

The clinical examination was conducted by four physicians. The first of these took a careful industrial history of each subject and assigned to him a certain number. These numbers were taken at random. Thereafter this individual was recorded by his number, and none of those making the subsequent examinations or the laboratory tests knew whether or not the individual had been exposed to ethyl gasoline; nor, in fact, did any examiner, except the one who took the industrial history, know to which group the individual belonged.

After taking the industrial history other examiners made a thorough medical examination, including a medical history, hemoglobin estimation, red-cell count, blood-pressure records, visual acuity tests, urine examinations, etc., and finally a determination, by a special method devised for the occasion, of the muscular strength of the extensor and flexor muscles of the forearm.

While all of the examinations were made with as much care as possible, special attention was given to three methods which, it was hoped, would yield quantitative data of an objective character. These were, first, the determination of the amount of lead in the feces, as an index of lead ingestion or absorption; second, the estimation of the number of stippled red cells, which, in the absence of other causes, might also be considered as an index of lead absorption; third, measurements of the strength of the extensor muscles of the forearm, as an index of lead poisoning. The first two methods yielded results of positive value, but the last was practically negative so far as the present investigation is concerned.

When all the data had been collected, they were submitted to study and statistical analysis by Doctor Leake and his collaborators, and the results were presented to the committee in the form of a detailed report containing a description of the methods used, tabular summaries of results, and protocols of the findings for each individual studied. This report will be published in full by the Public Health Service.[1] So far as the clinical examinations are concerned, it may be said that they failed to give any decisive indication of lead posioning among the chauffeurs or workers in garages in which ethyl gasoline was used as a motor fuel. (Groups B and D.)[2]

The median time of potential exposure among these men approximated two years, and this negative result, therefore, holds good only for a period of this duration. It should be added that in Group E, comprising workers in industrial plants in which there was a known and serious exposure to lead dust, definite clinical symptoms of lead poisoning were revealed, although these workers had been exposed for shorter periods of time.

More significant results were obtained from the analysis of the feces and from the microscopic examination of the blood smears. These results are presented in condensed form in the accompanying graphs and tables. (Graphs 1 to 4 and Tables A, B, C, and D, pp. 112 to 115.)

Graph 1 and Table A represent the amount of lead found in the feces of the individuals of Groups A, B, C, D, and E. The figures along the abscissa of the graph give the amount of lead in milligrams per gram of ash of the feces, from 0.1 milligram to 3 milligrams. The ordinates represent percentages of the workers in each group. It will be seen that in Groups A and B, representing drivers of cars, one using gasoline without lead and the other the ethyl gasoline, the amount of lead in the feces was practically identical. The exposure of these men was mainly to the exhaust gas from the motors, and it would appear that in Group B, using the ethyl gasoline, there was no positive indication of increased absorption of lead. The fact that in Group A some lead was also found in the feces shows that these men were exposed to lead from some other undetermined source. In this connection it is to be noted that 20 examinations were made in Washington by the same methods of the feces of 10 of the workers in the Hygienic Laboratory of the United States Public Health Service. These workers had had no known exposures to lead, but their feces showed at each examination small amounts of lead ranging from 0.047 to 0.290 milligram per gram of ash of the feces. In what might be called normal feces, therefore, lead may be present, from accidental exposures of one kind or another, in concentrations not differing materially from those found in Groups A and B.

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[1] Pp. 1-101 of this bulletin.

[2] The only injury observed was acute irritation of the eyes in a few cases, due to getting gasoline into the eyes. This occurred both with ordinary gasoline and with ethyl gasoline but was perhaps more severe in one case due to the latter. This case is mentioned specifically in the full report (pp. 15-16).

In Group C, representing the garage workers and gasoline handlers not exposed to ethyl gasoline, there is an indication of a slightly greater excretion of lead. In the control garages and repair shops, as will be shown later, there was a perceptible amount of lead in the dust upon the floors and benches.

In Group D, representing the garage workers and gasoline handlers using ethyl gasoline, there is a still further increase in the amount of lead excreted, although the number who showed excretion of as much as 0.3 milligram per gram of ash is small (15 per cent). It seems probable that this increase was due to the use of ethyl gasoline, since subdivision of this group into two classes—those with a lesser exposure to ethyl gasoline as regards time and intensity, D1 and 2, and those with a greater exposure, D3 and 4—indicates that in the latter there was greater excretion, as is shown in Graph 2 and Table B.

In Group E, as would be expected, there is evidence of much greater ingestion or absorption. Over 80 per cent showed more than 0.3 milligram of lead for each gram of ash of the feces, and in some cases the lead was present in concentrations as great as 3 milligrams per gram of ash.

Graph 3 (see Table C) gives curves indicating the number of stippled cells found in the blood of the workers in Groups A, B, C, D, and E. The abscissa in this case represents the number of definitely stippled cells per 100,000; the curves are plotted for the values 1 to 2 per 100,000, 3 to 6, 7 to 20, 21 to 100.

Here again the results for Groups A and B are practically identical. In each group a small number, 12 per cent, showed definite stippling.

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No examinations of persons who are neither drivers of cars nor garage workers are available, carried out by the same observers using the same method. It is not possible to say whether the slight degree of stippling observed with Groups A and B possesses any significance, but it seems to be clear that the members of Group B, exposed to the exhaust gases from engines using ethyl gasoline, showed no noticeable increase in stippling as compared with Group A.

In Group C there is a distinct increase in the percentage of workers showing stippling, and this increase is more marked in the workers of Group D. These results, therefore, corroborate the findings from the analysis of the feces in suggesting a beginning storage of lead in these two groups. That the greater indicated storage in Group D is connected with the use of ethyl gasoline seems to be borne out by the curves shown in Graph 4 (Table D), in which the curves are plotted for the two classes of D referred to above, the workers with the greater exposure showing a very slight increase in the percentage of those exhibiting definite stippling. The curve for the workers in Group E is of an entirely different character. Over 90 per cent showed distinct stippling, and in most of these cases the stippling was relatively very abundant.

Inquiry into reported cases of injury resulting from the use of ethyl gasoline.—So far as the committee could ascertain, all the reported cases of fatalities and serious injuries in connection with the use of tetraethyl lead have occurred either in the process of manufacture of this substance or in the procedures of blending and ethylizing. It seemed desirable to institute an inquiry in the region where this investigation was made, and where ethyl gasoline had been employed as a motor fuel for the longest time, as to possible cases of injury resulting from its use. All the workers examined were questioned, therefore, in regard to their knowledge of cases of possible injury, and inquiries were made in the Dayton and Cincinnati districts among local health officers, physicians, public-health workers, and labor leaders. The few clues obtained from this inquiry were investigated in detail, but the results were negative. No positive evidence could be obtained of harmful effects attributable to the use of ethyl gasoline.

Observations upon the lead in the dust and air of the garages investigated and upon the amount of carbon monoxide.—In addition to the examinations made upon the workers themselves, some data were collected in regard to the amount of lead in the air and dust of the garages and workrooms, and also in regard to the concentration of carbon monoxide. These observations were made during October, 1925, and owing to the unusually cool weather prevailing during that month, the doors and windows were closed during most of the day. The conditions regarding ventilation were those to be expected for

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winter rather than summer weather. The several methods employed in this part of the investigation are given in detail in the full report.[3] The findings obtained are summarized in the accompanying tabular statements[4] for the several garages investigated as well as for an industrial plant in which there was a serious exposure to lead dusts. This part of the investigation was not so extensive as was desired, owing to the shortness of the time allowed, but it is evident from the results obtained that some lead was present in the air of the garages and workrooms whether the gasoline used contained lead or not; and in the sweepings of dust from the floors and benches there was a distinct amount of lead present, the figures running from 0.82 to 22.31 milligrams per gram of dust, according to the time and place of the gathering of the sample. It would seem probable, therefore, that in all garages in which automobiles are being handled and repaired the workers are constantly exposed to certain amounts of lead dust, and this fact would tend to emphasize the importance of providing such rooms with adequate ventilation and of keeping both the floors and the benches as free as possible from the accumulation of dust. Owing to the incompleteness of the data, it is not possible to say definitely whether the exposure to lead dust was greater in those garages in which ethyl gasoline was used. It is very desirable that these investigations should be continued.

On the basis of this investigation, the committee feels that the following general conclusions are justified:

1. Drivers of cars using ethyl gasoline as a fuel and in which the concentration of tetraethyl lead was not greater than 1 part to 1,300 parts by volume of gasoline showed no definite signs of lead absorption after exposures approximating two years.

2. Employees of garages engaged in the handling and repairing of automobiles and employees of automobile service stations may show evidence of lead absorption and storage, as indicated by the lead content of the feces and the appearance of stippled cells in the blood. In garages and stations in which ethyl gasoline was used the amount of apparent absorption and storage was somewhat increased, but the effect was slight in comparison with that shown by workers in other industries where there was a severe lead hazard (Group E) and for the periods of exposures studied was not sufficient to produce detectable symptoms of lead poisoning.

3. In the regions in which ethyl gasoline has been used to the greatest extent as a motor fuel for a period of between two and three years no definite cases have been discovered of recognizable lead poisoning or other disease resulting from the use of ethyl gasoline.

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[3] Pp. 81-83.

[4] Tables 81-85, pp. 97-102.

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In view of these conclusions your committee begs to report that in their opinion there are at present no good grounds for prohibiting the use of ethyl gasoline of the composition specified as a motor fuel, provided that its distribution and use are controlled by proper regulations. The committee feels that the formulation of specific regulations in regard to the manufacture, distribution, and use of tetraethyl lead, ethyl fluid, and ethyl gasoline for adoption and enforcement by the several States belongs properly to the office of the Surgeon General of the Public Health Service. In an appendix to this report attention is called to certain suggestions which have been made in the course of the discussions of this committee and which it is believed should be taken into consideration in making such regulations.

In conclusion we beg to say that we are conscious of the fact that the conclusions to which we have come in this report, although based upon most careful and conscientious investigations, are subject to the criticism that they have been derived from the study of a relatively small number of individuals who were exposed to the effects of ethyl gasoline for a period of time comparatively brief when we consider the possibilities in connection with lead poisoning. A more extensive study was not possible on account of the limited time. It remains possible that, if the use of leaded gasolines becomes widespread, conditions may arise very different from those studied by us which would render its use more of a hazard than would appear to be the case from this investigation. Longer experience may show that even such slight storage of lead as was observed in these studies may lead eventually in susceptible individuals to recognizable lead poisoning or to chronic degenerative diseases of a less obvious character. In view of such possibilities the committee feels that the investigation begun under their direction must not be allowed to lapse. The respective States would be dependent upon the findings of such investigations for changes in their regulations. With the experience obtained and the exact methods now available, it should be possible to follow closely the outcome of a more extended use of this fuel and to determine whether or not it may constitute a menace to the health of the general public after prolonged use or under conditions not now foreseen.

Outside the question of ethyl gasoline it would seem from this investigation that wherever automobiles are housed together there is an accumulation of lead dust which may prove to be a source of danger to the workers involved, in addition to the hazards arising from the production of carbon monoxide gas. The vast increase in the number of automobiles throughout the country makes the study of all such questions a matter of real importance from the stand-

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point of public health, and the committee urges strongly that a suitable appropriation be requested from Congress for the continuance of these investigations under the supervision of the Surgeon General of the Public Health Service, and for a study of related problems connected with the use of motor fuels.

W. H. HOWELL, *Chairman.*
A. J. CHESLEY.
DAVID L. EDSALL.
REID HUNT.
W. S. LEATHERS.
JULIUS STIEGLITZ.
C.-E. A. WINSLOW.

NOTE: The charts appended to the preceding report are omitted.

REGULATIONS PROPOSED FOLLOWING THE TETRAETHYL LEAD INVESTIGATION

These regulations have been formulated in accordance with the recommendations of the Surgeon General's committee, under whose direction the investigation into the hazards from tetraethyl lead gasoline was conducted. They are proposed for adoption by the several States in order to secure uniformity of control and were the subject of consideration at the meeting of the State and Territorial health authorities with the Surgeon General on May 25, 1926. These regulations are based upon present conditions and knowledge and it is appreciated that changes may be advisable from time to time.

By the term "tetraethyl lead" is meant the chemical substance $Pb(C_2H_5)_4$ of a commercial grade of purity or higher. Ethyl fluid is the concentrated commercial fluid containing tetraethyl lead and other ingredients, which is to be mixed with gasoline to make ethyl gasoline. The manufacture of ethyl fluid consists in adding these other ingredients to tetraethyl lead and is called "blending." The process of adding the ethyl fluid to gasoline to form ethyl gasoline is called "mixing." In the term "ethyl gasoline" as herein used are included all other motor fluids containing tetraethyl lead.

I. Proposed regulations for the manufacture of tetraethyl lead and the blending of the latter to make ethyl fluid.

II. Proposed regulations for mixing.

III. Proposed regulations for distribution of ethyl gasoline.

IV. Proposed regulations for automobile garages, repair shops, service stations, and filling stations.

Proposed Regulations for the Manufacture of Tetraethyl Lead and the Blending of the Latter to Make Ethyl Fluid

1. No person shall be employed without adequate instructions as to the nature of the hazard and the precautions to be taken.

2. Each worker shall have a periodical physical examination, which shall consist of such physical and other tests as are indicative of the absorption of tetraethyl lead and shall include, as a minimum, the following items:

- (*a*) Examination of blood for stippling by carefully trained workers, using positive and negative controls, without knowledge of the source of the slides; this examination shall be once a week for the first three weeks and bimonthly thereafter.
- (*b*) Semimonthly contact with plant physician for informal statement as to general health.
- (*c*) Bimonthly weight, stripped.
- (*d*) Bimonthly systolic and diastolic blood pressure estimation while sitting.
- (*e*) Bimonthly hemoglobin estimation by Dare's hemoglobinometer.

Exact records of these examinations shall be kept, and persons showing gradually increasing amounts of stippling, sudden development of stippling, or other marked deviation from normal shall be promptly excluded from tetraethyl lead work, irrespective of whether or not such finding may be indicative of lead poisoning. All parts of the plants where lead in any form is used shall be subject to sanitary measures to prevent collection and dissemination of lead dust.

4. Separate ventilation systems shall be provided for the manufacturing apparatus and for the air of the rooms, the outlets of the latter being located near the floor of each room and all external inlets and outlets being so situated as to avoid dustiness and appreciable contamination of the air around the plant.

5. Daily inspection shall cover efficiency of ventilating systems, all joints, valves, and gaskets of manufacturing apparatus, and adequacy of pressure-hose respirators.

6. All containers of ethyl fluid or tetraethyl lead shall be labeled as to exact content and danger and shall conform to the regulations of the Interstate Commerce Commission. These containers shall be carefully tested for leaks and shall bear a plainly legible label stating that they are to be closed tight immediately when emptied, without cleansing, and sent back to the plant.

7. Kerosene or other material used for cleansing the used containers of ethyl fluid or tetraethyl lead shall be placed in the containers

by means of a closed system with air vents to outside air and with adequate ventilation.

8. The filling shall be performed by means of a closed system with air vent from the container to the outside air, and with adequate ventilation.

9. A dye shall be added to ethyl fluid in sufficient amount to give staining qualities to the ethyl gasoline to deter individuals from using it for cleansing or other similar purposes.

10. Reports shall be made monthly to the appropriate officer of the State concerned covering the following points:

Number of workers employed at beginning of month.
Number of workers employed at close of month.
Number of new workers.
Number of workers separated from tetraethyl lead work on account of results of examinations.
Number of definite cases of poisoning.
Condition of cases of poisoning previously reported so far as known.

HAZARD FROM TETRAETHYL LEAD GASOLINE

Proposed Regulations for Mixing

1. The maximum content of tetraethyl lead in commercial ethyl gasoline shall be in the proportion of 1:1,260 by volume for commercial tetraethyl lead, or 1:1,300 for $Pb(C_2H_5)_4$ C. P.

2. Mixing ethyl fluid with gasoline except for certain specific requirements such as research, military and naval use, and air-mail service shall be done only at the main distribution centers and in not less than tank-car lots. Adequate provision shall be made at each such center for thorough mechanical distribution of the ethyl fluid throughout the gasoline, and the efficiency of such distribution shall be controlled by the analysis of samples.

3. The locations of these centers and the names of persons engaged in mixing shall be reported to the State department of health of the State of employment.

4. As few persons at each center as practicable shall be employed for this work.

5. No person shall be engaged for mixing until adequately instructed as to the mechanics of mixing, the dangers, and the precautions to be taken.

6. The distributor of ethyl fluid shall provide a special corps of adequately trained instructors and service men.

7. All mixing shall be done with the maximum ventilation practicable under weather conditions existing at the time.

8. Operation of the pumps shall be instantly stopped at the appearance of a leak or other defect, and no attempt shall be made to repair or disconnect the system until a qualified man takes personal charge of it.

9. Floors of all places where any possibility of spilling is present are to be provided with drains and proper facilities for making possible a complete flushing out of all spilled fluid, or in their absence provision shall be made for chemically neutralizing any spillage as it occurs.

10. No bulk mixing station shall be dismantled or disconnected for repairs except by a qualified man.

11. Kerosene or other efficient means of preventing skin absorption of tetraethyl lead and washing facilities shall always be conveniently available.

12. The rules and instructions affecting the employees shall be posted in a conspicuous place where the ethyl fluid is being handled.

13. The distributor of ethyl fluid shall, with the advice of the United States Public Health Service, select a representative group of at least 40 men exposed to the hazard of mixing, representing the entire area of distribution. This group shall serve as an index of the hazard of mixing. Monthly for the first three months and every

four months thereafter this group of employees shall have an examination, which shall consist of:

(a) Examination of blood for stippling, by carefully trained workers, using positive and negative controls, without knowledge of the source of the slides.

(b) Examination of fecal samples of lead.

(c) Report as to general state of health.

(d) Weight, stripped.

(e) Blood-pressure estimation, diastolic and systolic, when sitting.

(f) Hemoglobin estimation by Dare instrument.

Exact records of these examinations shall be kept.

14. The results of the examinations shall be reported promptly to the Surgeon General of the Public Health Service.

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Proposed Regulations for Distribution of Ethyl Gasoline

1. Each filling station shall have prominently displayed at the pump, or in other conspicuous place, the following warning or one of similar effectiveness: "Ethyl gasoline containing tetraethyl lead, to be used as motor fuel only, and not for cleaning or any other purpose."

2. Suitable leaflets shall be available at all filling stations where ethyl gasoline is sold, for distribution on request. These leaflets shall describe the possible dangers and precautions to be taken in the use of ethyl gasoline.

3. Containers of ethyl gasoline sold to the general public shall be labeled: "Ethyl gasoline containing tetraethyl lead. To be used for motor fuel only, and not for cleaning or any other purpose."

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REGULATIONS—GARAGES AND FILLING STATIONS

Proposed Regulations for Automobile Garages, Repair Shops, Service Stations and Filling Stations

1. Automobile garages or repair shops holding more than five cars and all inclosed public-service stations and inclosed filling stations for automobiles should be registered with the local health department.

2. In addition to doors and to window ventilation in summer, automobile garages, repair shops, inclosed service stations, and inclosed filling stations should have permanently operative ventilation at least equivalent to that given by an opening or openings at ceiling level free to the outside air, but protected from down drafts, with cross-section of 0.2 per cent of the floor space available for cars, together with an opening or openings for inlet near floor level of corresponding effectiveness, both arranged to give positive dilution of exhaust gases as generated. This is to be taken as a minimum, special conditions requiring greater permanent ventilation.

3. Automobile garages, repair shops, inclosed service stations, and inclosed filling stations should be kept reasonably clean and free from dust by means of flushing out and moist sweeping or vacuum cleaning.

4. Automobile garages, repair shops, service stations, and filling stations should keep conspicuously posted a copy of these regulations with the following statements in large type:

AUTOMOBILE EXHAUST GAS IS DANGEROUS. MOTORS SHOULD NOT RUN LONGER THAN 30 SECONDS UNLESS THE CAR IS IN MOTION OR THE EXHAUST IS DIRECTLY CONNECTED TO THE OUTSIDE AIR. LIQUIDS SOLD AS MOTOR FUEL, EXCEPT ORDINARY GASOLINE, SHOULD BE USED ONLY AS MOTOR FUEL, AND NOT FOR CLEANING OR OTHER PURPOSES. THE FUMES FROM THE EVAPORATION OF EVEN ORDINARY GASOLINE MAY BE INJURIOUS.

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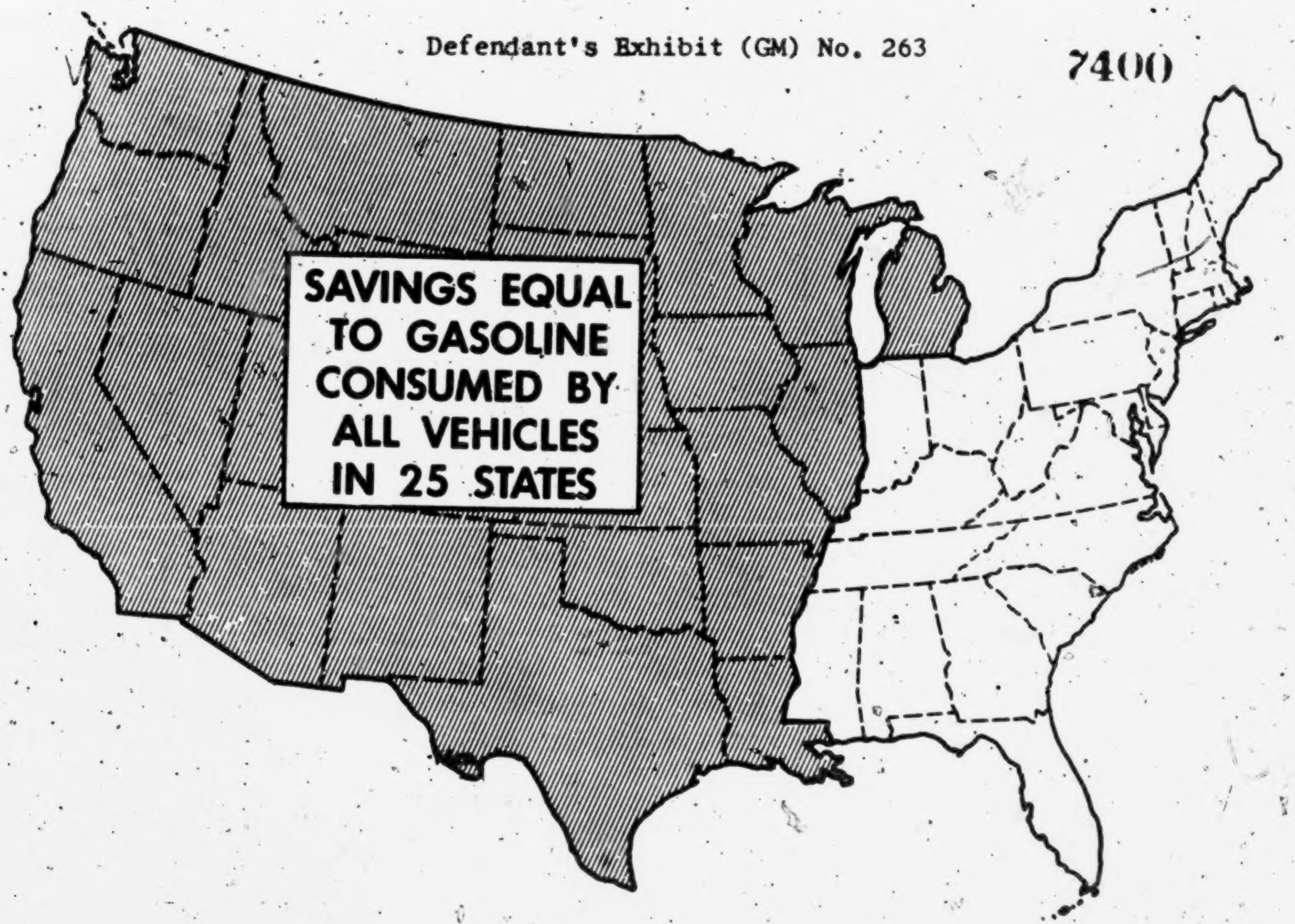
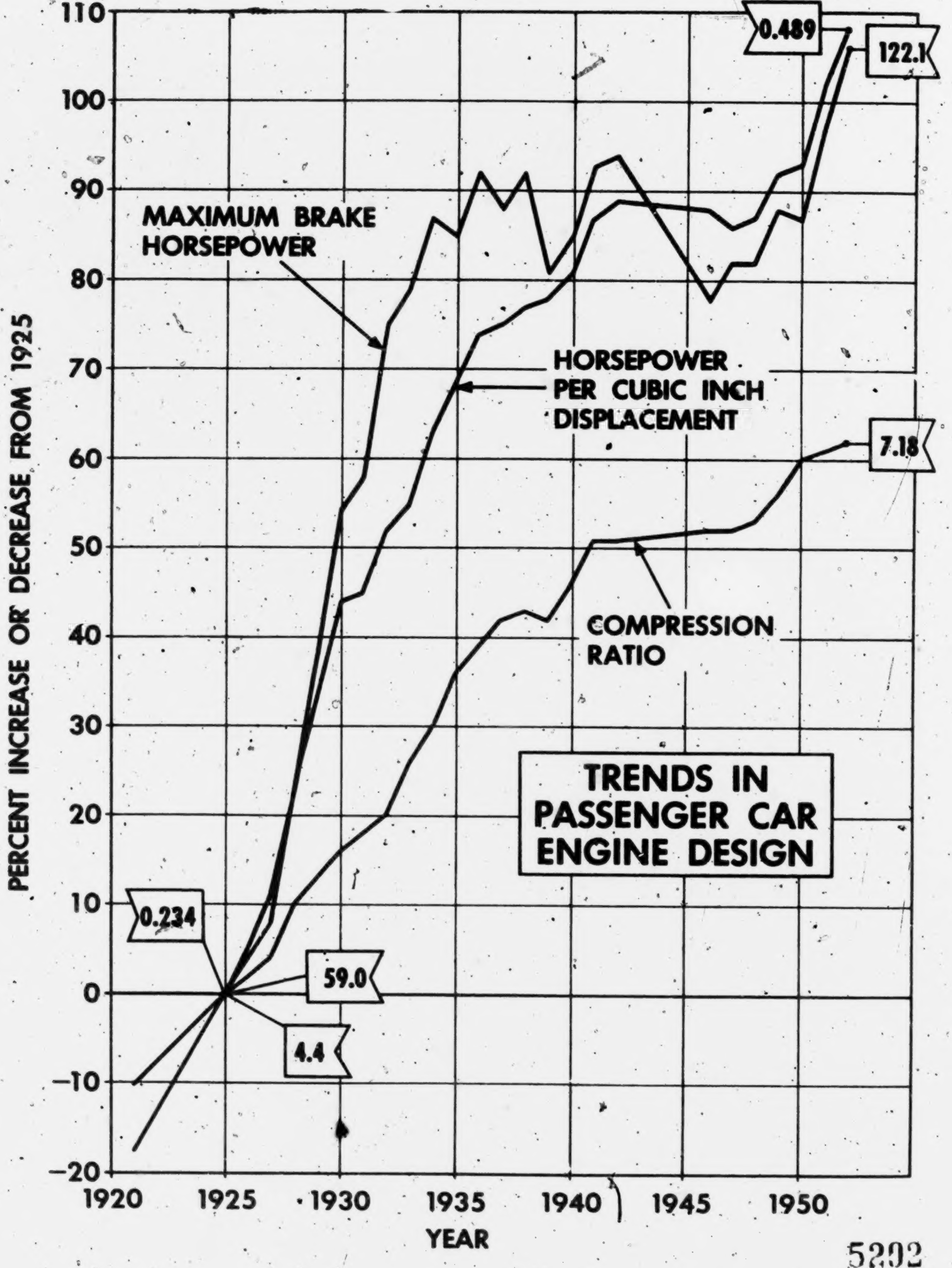

SAVINGS EQUAL TO GASOLINE CONSUMED BY ALL VEHICLES IN 25 STATES

25 BILLION LESS GALLONS OF GASOLINE WILL BE USED IN 1952 THAN WOULD HAVE BEEN USED IN 1925 TO DO THE SAME WORK. AT 20 CENTS PER GALLON THIS REPRESENTS A SAVINGS OF 5 BILLION DOLLARS. THE COST OF TETRAETHYLLEAD USED IN 1952 IS ONLY ABOUT 250 MILLION DOLLARS.

Defendant's Exhibit (GM) No. 266



Defendant's Exhibit (GM) No. 267

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FACTORY CORRESPONDENCE

VERBAL ORDERS DON'T GO

June 19, 1922.

Mr. Clements:

Re: DuPont enamels.

Our exposure tests on the roof seem to indicate that the weakest links in the system of painting automobiles at present, are the color varnish and rubbing varnish. The rubbing varnish such as ordinarily used in finishing automobiles will crack in from one week to three weeks on our exposure test racks. The finishing varnish is supposed to protect the color varnish and rubbing varnish, but the cars which are in actual use show that this protection is not as much as it should be.

The DuPont enamels take the place of the color varnish and rubbing varnish. Their durability is very much greater than that of color varnish and rubbing varnish. We do not know what their durability will be, but the panels of DuPont enamel without protection of finishing varnish have been on the roof since March 27 and are still in excellent condition. We believe that by the use of DuPont enamels, we can increase the life of the finishing on painted automobiles so that will approximately the life of enameled jobs such as the Dodge.

We are also interested in DuPont enamels since it appears that by their use, we will be able to handle colors of all kinds with great speed. If the regular color varnishes are used with delicate colors it is necessary to either air dry the colors or dry them at such a low temperature that the drying schedule is very long, since the varnish darkens when exposed to high temperature.

The use of Du Pont enamels however, is still in the experimental stage and there are a number of factors which need developing.

1. Varnish materials must service the following purposes.

   a. Primer coat.
   b. Surfacing coats.
   c. Coloring coats.
   d. Rubbing coats.
   e. Finishing coats.

a-1 At present the DuPont materials are not satisfactory for priming coats with the possible exception of priming coats on sand-blasted metal.

b-1 DuPont materials are not satisfactory for surfacing coats.

c-1 DuPont materials such as we have been testing are not satisfactory for color coats except in certain colors. In the case of the more transparent colors. DuPont enamels carrying larger amounts of pigment are required.

d-1 DuPont enamel seems to meet the requirements for the rubbing coats with the exception that it is very difficult to apply. The Buick Company have tried to finish several cars with DuPont enamels, but have failed in all of their attempts. The only cars finished with DuPont material that we are able to put on test at the Buick Plant, were those finished by Mr. Williams, a DuPont representative. The working properties of DuPont enamel should be improved.

e-1 Finishing coats. The DuPont material seems to have some properties such as durability and speed of drying which would make it very desirable for finishing coats, but up to the present time, a satisfactory appearance has not been obtained with DuPont material as the top coat.

The DuPont Company are showing considerable interest in this work, but since it is so new to them, it requires a great deal of work on their part. None of the DuPont men who are actually engaged in this development work witnessed finishing of automobiles in production until this spring.

If it is possible to speed the development work of DuPont materials without reflecting upon the DuPont men who have been working hard on this problem, we believe it would be to the advantage of the General Motors.

H. C. Mougey

Defendant's Exhibit (GM) No. 267A

GENERAL MOTORS CORPORATION

Meeting of Board of Directors

* * *

On motion duly made and unanimously carried it was

RESOLVED, that the merger of The Domestic Engineering Company and General Motors Corporation, involving the acquisition by General Motors Corporation of thirty-three thousand seventy (33,070) shares, being all the outstanding capital stock of The Domestic Engineering Company, a corporation of Ohio, with offices at Dayton in said State, in consideration of thirty-five thousand four hundred fifty-one (35,451) shares of the fully paid common capital stock of General Motors Corporation, be and the same hereby is ratified, approved and confirmed; and it is further

RESOLVED, that the said properties in the judgment of this Board are of the fair and reasonable value in excess of nine million dollars ($9,000,000), and are necessary for the purposes of General Motors Corporation; and it is further

RESOLVED, that the proper officers of the Corporation be and they hereby are authorized and empowered to issue and deliver thirty-five thousand four hundred fifty-one (35,451) shares of the fully paid common capital stock of General Motors Corporation with dividends thereon payable after September 30, 1919, in exchange for thirty-three thousand seventy (33,070) shares of the capital stock of The Domestic Engineering Company, and to that end to do any and all things necessary or proper therefor.

On motion duly made and unanimously carried it was

RESOLVED, that the merger of The Dayton Metal Products Company, an Ohio corporation with offices at Dayton in said State, and General Motors Corporation involving the acquisition by General Motors Corporation of sixty thousand (60,000) shares, being all the outstanding capital stock of The Dayton Metal Products Company, in consideration of twenty-five thousand three hundred thirty-eight (25,338) shares of the 6% Debenture Stock of General Motors Corporation, Twenty-one thousand four hundred fifty-seven (21,457) shares of the Common Capital Stock of General Motors Corporation, and Ten Thousand (10,000) shares of the Capital Stock of The Dayton Securities Company, now owned by said Dayton Metal Products Company, be and the same hereby is ratified, approved and confirmed; and it is further

RESOLVED, that the said properties in the judgment of this Board are of the fair and reasonable value in excess of eight million five undred thousand dollars ($8,500,000), and are necessary for the purposes of General Motors Corporation; and it is further

RESOLVED, that the proper officers of the Corporation be and they hereby are authorized and empowered to issue and deliver twenty-five thousand three hundred thirty-eight (23,338) fully paid shares of the 6% Debenture Stock of General Motors Corporation, twenty-one thousand four hundred fifty-seven (21,457) fully paid shares of the common capital stock of General Motors Corporation, and ten thousand (10,000) shares of the capital stock of The Dayton Securities Company, now owned by said Dayton Metal Products Company together with dividends on said General Motors stock payable after September 19, 1919, in exchange for sixty thousand (60,000) shares of the capital stock of The Dayton Metal Products Company, and to that end to do any and all things necessary or proper therefor.

On motion duly made and unanimously carried it was

RESOLVED, that the acquisition of the assets of The Dayton Wright Airplane Company, an Ohio corporation with offices at Dayton in said State, in consideration of ten thousand nine hundred sixty (10,960) shares of the fully paid six per cent (6%) debenture capital stock of General Motors Corporation, with dividends thereon after the 19th day of September, 1919, be and the same hereby is ratified, approved and confirmed; and it is further

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RESOLVED, that the said assets in the judgment of this Board are of the fair and reasonable value in excess of one million two hundred thousand dollars ($1,200,000) and are necessary for the purposes of General Motors Corporation; and it is further

RESOLVED, that the proper officers of the Corporation be and they hereby are authorized and empowered to issue and deliver ten thousand nine hundred sixty (10,960) shares of the fully paid six per cent (6%) debenture capital stock of General Motors Corporation, with dividends thereon payable after the 19th day of September, 1919, in exchange for the assets of The Dayton Wright Airplane Company, and to that end to do any and all things necessary or proper therefor.

E

Defendant's Exhibit (GM) No. 268

June 15, 1926.

E. W. Webb.

Mr. J. N. Huff,
American Research Laboratories, Inc.,
Denver, Colorado.

Dear Mr. Huff:

Very glad to get your report on laboratory yield.

As I understood it you were not to make any definite commitment for equipment until after there had been the opinion by Mr. Morrison on the question of novelty, and therefore, I have not expected to receive the plans referred to in your letter of the 9th until after Morrison's opinion.

In other words, it was not intended that you should undergo any expense by way of preparation until there was to be performance of contract.

Mr. Morrison has not given me the slightest intimation as to what his decision will be. However, the forty days period is gradually drawing to a close and as soon as his decision is announced to us we will immediately communicate with you.

With best wishes,

Very truly yours,

EWW:GM

Defendant's Exhibit (GM) No. 269

Mr. Gilbert A. Currie,
Dow Chemical Company,
Midland, Mich.

June 15, 1926

Dear Mr. Currie:

You will recall my wiring you from Denver a few weeks ago asking you if you had any objection to my disclosing your tetraethyl lead process and my being advised it was entirely all right.

I showed a copy of your process to the people with whom I was negotiating in Denver, who apparently believed they had something new insofar as the Grignard process of manufacture is concerned, that is, they stated they knew of no literature on the subject and wanted to be sure that your patent did not conflict with their application.

I have made an arrangement with these people which might develop to the point of someone manufacturing tetraethyl lead by their process. A copy of their application is enclosed herewith, which you are at liberty to show to anyone in your organization whom you might think interested.

I would like to see you and your associates some time during the coming week, preferably Wednesday or Thursday, at Midland for the purpose of discussing this entire situation. Kindly wire me on receipt of this letter if either of these two days will be convenient for you. I mention both days because it is difficult for me to state just now which I can most conveniently make it. I have to be here on Tuesday and the work for that day might extend over into the next day.

Yours very truly,

Note: Stamp reading "Read by E. W. W. —, A. M. M. —, A. E. M. —" appears at top of page with handwritten "A" after A. E. M.

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E

June 30, 1926.

E. W. Webb

Mr. T. B. Huff, Secretary,
American Research Laboratories, Inc.,
Denver, Colorado.

Dear Mr. Huff:

Confirming our verbal understanding reached at Midland, Mich. last Friday, relative to the contract between us dated April 30th last, it is understood and agreed that the American Research Laboratories. Inc. and this corporation mutually consent to the cancellation of said agreement.

However, the American Research Laboratories, Inc. will permit our Dr. Calingaert to witness a demonstration of the production of tetraethyl lead under a process for which you have made application for letters patent, at such time as can be conveniently arranged, in your laboratory at Denver. It is also agreed that Dr. Calingaert will be fully advised as to the process of manufacture and given such figures or estimates on cost in connection with fairly substantial production as will enable him to make a report to us thereon.

It is further understood that Dr. Calingaert shall be given a like opportunity at the plant of the Dow Chemical Company at Midland, Mich. relative to that company's process for the manufacture of tetraethyl lead on a laboratory scale, it being strictly understood that Dr. Calingaert will not make any disclosures to the Dow Chemical Company or its representatives of information which you may disclose to him in connection with your process.

After Dr. Calingaert has observed these methods of manufacture on a laboratory scale, the understanding is he will report to us his findings and then we will conclude which, if either of them, shall be utilized by us for the manufacture of tetraethyl lead. If we should decide to adopt your method, then an agreeable royalty basis is to be worked out between us, which would permit us or our nominee to manufacture under said process. Needless to say, it is of prime importance to first ascertain whether your process has any advantages over those already known to us and we believe, as expressed by you in our last interview, this can best be done by following out the plan above outlined.

Will you kindly acknowledge this letter with the statement that it is in accord with your understanding, or, if it does not exactly state your recollection of our verbal agreement on the subject, please indicate accordingly so that there may be no misunderstanding between us.

I wish to again express to you my most hearty appreciation of the courtesy extended by you in coming on to Chicago to meet me to discuss this matter, and for the time and trouble which you devoted to it, and last but not least, the broad-minded way in which you treated it, which, in the long run, was unquestionably the only feasible way to handle it for reasons which were thoroughly discussed at our last meeting.

If you feel that a formal agreement should be entered into, executed by our respective companies under the corporate seals as was the contract itself, agreeing to its cancellation, we would appreciate it if you would have such agreement prepared and executed and sent on here for execution by us.

With kindest regards,

Yours very truly,

NOTE: Stamp reading "Read by E. W. W. —, A. M. M. —, A. E. M. —" appears at top of page 1 with handwritten "A" after A. E. M.

3
E

Defendant's Exhibit (GM) No. 271

American
Serum Company

CLEAR ANTI HOG CHOLERA SERUM
ANTI HOG CHOLERA SERUM
HOG CHOLERA VIRUS
SWINE MIXED INFECTION BACTERIN
BLACKLEG AGGRESSIN
HEMORRHAGIC SEPTICEMIA BACTERIN
[illegible]
[illegible]
VACCINATING INSTRUMENTS

Sioux City, Iowa

July 9th, 1926

Mr. E. W. Webb, Pres.,
Ethyl Gasoline Corp.,
25 Broadway,
New York, N. Y.

Dear Mr. Webb:

This to confirm the verbal understanding reached at Midland, Michigan, Friday June 25th, and which is set forth in your letter to us, June 30th.

We still feel the plan adopted in Michigan is the only feasible one, and we will be ready for Dr. Calingaert, August first. We trust it will be possible for him to be in Denver on that date.

We do not believe it is necessary to enter into a formal agreement covering this matter. The verbal understanding confirmed by your letter to us and our letter to you, should be sufficient until our process is adopted.

With kindest personal regards, we are

Yours very truly,

AMERICAN RESEARCH LABORATORIES

ToH:GM BY I. B. Huff

This answer was delayed
getting Confirmation from Denver

E

Defendant's Exhibit (GM)·No. 272

August 26, 1926.

E. W. Webb.

Mr. T. B. Huff, Secretary,
American Research Laboratories,
Denver, Colo.

Dear Mr. Huff:

I would have earlier replied to your letter of the 17th in regard to Dr. Calingaert's report, but for the fact that I have been away from the office all excepting one day since its receipt.

Dr. Calingaert sent a sample of the yield obtained under your process while in Denver to our Laboratory for analysis. Our Laboratory ran a very careful analysis with re-checking and found it to be 40% tetraethyl lead ($PbEt_4$) and 60% dye-lead hexaethyl (Pb_2Et_6) with the further report that such a mixture would not be usable at all for anti-knock purposes unless the latter compound could be converted into tetraethyl. This, he says, might be done but he is not prepared to make any definite statement in regard to it other than the fact that if it should be accomplished, it would most likely result in at least a 10% loss of yield: that is say, instead of a 90% there would most likely be an 80% yield.

From our present knowledge of the process for the manufacture of tetraethyl lead, we have every reason to believe that the ethyl chloride process is one with which your present process could not compete commercially on the basis of an 80% yield. Also, Dr. Calingaert has some doubt as to the possibility of the Grignard process being operated at the small labor charge which your associates think it can be done. He says he feels quite sure that they have not taken into account the skilled labor and medical supervision which would be absolutely essential in the operation.

Under the circumstances, I feel that it would be quite premature for us to have a further meeting relative to a future contract, as it is quite obvious that we would not be interested in making an agreement for the purchase of a material of the character analyzed.

—2—

I wish to express on behalf of this company and myself our hearty appreciation for the manner in which this matter has been handled from your standpoint in regard to any negotiations with us.

With kind personal regards, I am

Very truly yours,

President.

ES

Address envelope to American Research Laboratories,
c/o American Serum Company,
Sioux City, Iowa.
Attention—Mr. T. B. Huff.

Defendant's Exhibit (GM) No. 273

October 7, 1926.

E. W. Webb.

Harold H. Healy, Req.,
Lee, Loughbridge & Healy,
Foster Building,
Denver, Colorado.

Dear Mr. Healy:

My telegram of a few days ago to the American Research Laboratories indicated the reason for my apparent neglect in replying to your letter of September 1st. I assure you it was not intentional.

Our Laboratory has been exceedingly busy in matters which required immediate attention for the conduct of our business and there has been no opportunity on our part to do any laboratory work with the process which your clients worked for the benefit of our Dr. Calingaert, and we are therefore not in a position to state whether we agree with the yield of 80.4 as given in your letter, but Dr. Calingaert has expressed to me his best guess is that the conversion of the hexa-ethyl tetraethyl lead would probably reduce the yield to about 80%. However, he was unwilling to make a positive statement as to what would occur on distillation or conversion into tetraethyl lead from actual yield standpoint, but no matter what the yield, he says this further distillation involves additional expense and makes the process that much less attractive from a competitive standpoint to the Ethyl Chloride Process which is now being used quite successfully.

I believe that your client's process should be developed in the laboratory to the point of being able to state with certainty as to what the absolute tetraethyl yield is in such laboratory test. Of course, such a yield has no indication of what a commercial operation on a fairly large scale would produce. I understand that there is quite some variation in many lines of chemical work between the yield as indicated in the laboratory and that which is finally produced in the plant. Nevertheless, it is quite enlightening as to what might be reasonably expected to be produced.

We would be very glad to analyze any samples of yield which might be developed in your laboratory and be apprised of what was done to get the result so that Dr. Calingaert could check it in connection with the other information which you gave him as to your process so as to arrive at some fair estimate of cost.

—2—

In this connection, I hope it is entirely proper for me to mention a matter which was called to my attention by Dr. Calingaert. He brought it up in such a way that I feel sure your laboratory men will not feel offended, but it is of real importance. He says that under no circumstances would our laboratory or the laboratories associated with us in the development of tetraethyl lead, handle tetraethyl lead in the manner in which it was being handled in the American Research Laboratories when he was out in Denver recently. He is quite surprised someone there hasn't become poisoned and says that in his opinion, if it is followed for any length of time your people will unquestionably have real trouble. He says that the handling of the tetraethyl lead in the open containers with very little regard for the noxious character of the fumes, will sooner or later cause trouble, and he earnestly requested me to admonish your people to exercise extraordinary care in the handling of this material, that you cannot be too careful. We have had some unhappy experiences, and if your people should unfortunately have even a fraction of it, they will appreciate these suggestions of ours relative to care. I wish to assure you also that we had these experiences despite the fact that the material was handled

2

in a more careful manner than that in which it was being handled when Dr. Calingaert was there. The difference was that ours was handled for a longer period of time and in larger quantities and it is still possible to get sufficient absorption in the small quantities that were being handled at the Denver Laboratory to cause lead poisoning. Therefore, please permit me to respectfully ask that you impress this phase of any further laboratory work upon your client.

With kindest regards,

Very truly yours,

President.

ES

Defendant's Exhibit (GM) No. 274

April 21, 1927

History of the Ethyl
Gasoline Corporation

Mr. William Benham
Dept. of Justice,
Washington, D. C.

Dear Sir:

In accordance with your request, I am giving you herewith statement of the history of the Ethyl Gasoline Corporation. I think this will be clearest if reduced to narrative form.

The foundation of this business was the research work conducted by Mr. Charles F. Kettering of Dayton, O., a director and officer of the General Motors Corp. and of several of its subsidiary companies. Mr. Kettering has been in general charge of the research work of the General Motors Corp. since a period antedating this development.

At some time prior to 1918, Mr. Kettering had made an analysis of the underlying principles governing the efficiency of internal-combustion engines, and arrived at the conclusion that the most hopeful method to work for increased efficiency was by increasing the compression of the engine.

It will be understood that in a standard type of engine, such as is used in automobiles, the mixture of gasoline vapor and air is drawn into the cylinder on the downward stroke of the piston. At or near the bottom of the piston stroke, the intake valve is closed, and the piston then proceeds on its upward stroke and compresses the explosive mixture of gasoline vapor and air. The highest pressure is reached when the piston is at the top of the stroke, at or about which time the spark occurs. In an ordinary engine the pressure generated by the piston itself before the spark occurs is in the neighborhood of 50 to 75 lbs. The smaller the "clearance volume" or space in the cylinder above the top of the piston when the latter is at the top of its stroke, the higher this pressure is. The pressure may, therefore, be increased simply by designing the cylinder to have a smaller clearance volume above the top of the piston, which entails no extra cost nor the addition of any extra parts.

Having determined that this increase of compression was the simplest and the best method of increasing the efficiency of the engine, Mr. Kettering next sought to find out exactly why higher pressures than were in common use could not be successfully employed, and this brought him to a study of the phenomenon known as "knocking". It had long been known that, when an automobile engine was operated with exceptionally high compression pressure, it would fail to run smoothly and quietly, and would suffer from violent, audible explosions, having a metallic sound. This sound is called a "knock" because it sounds just like some one was knocking on the piston with a hammer. When an engine begins to knock, the power falls off, and, if the knocking is permitted to continue, it becomes more and more aggravated and finally results in breaking the piston in extreme cases.

Altho this phenomenon was commonly known, there was no accurate information as to its cause and methods of controlling it. Mr. Kettering, after some years of study, found that the knock was due to irregular, or abnormal, combustion of the explosive mixture and that it was susceptible of being controlled, both to make it better or to make it worse, by changing the chemical nature of the fuel used. He was able to demonstrate that the minutest traces of ethyl iodide, for example, introduced into the air on its way to the carbureter by holding a handkerchief slightly moistened with the liquid ethyl iodide in front of the intake, would prevent this knock.

At this stage of his work Mr. Kettering caused the results to be published in certain scientific publications, and in that way they came to my attention. I immediately called on Mr. Kettering at his laboratories in Dayton, O., and became acquainted with him and his principal assistant Mr. Thomas Midgley, Jr., and from this visit received the impression that this research work constituted one of the most important lines of future progress in the petroleum field. This was in the latter part of 1918 or the early part of 1919.

In the fall of 1919, I entered the service of the Standard Oil Co. of New Jersey as Manager of Development for them, and was assigned the task of building up the research laboratories of the Company. One of my first steps in this work was to again get in touch with Mr. Kettering and Mr. Midgley and ask their advice on how best to proceed along the line of research in the field in which Mr. Kettering had pioneered. These gentleman very generously gave me the benefit of much of their experience in this connection and actually supplied for the Standard Oil Co. of New Jersey, at cost to them, three experimental engines especially adapted for this work and some additional scientific equipment which they had devised. From this time on, the personnel of our laboratory, which was located at Bayway, N.J., kept in general touch with the personnel of Mr. Kettering's laboratory and exchanged views and information which it was thought would be mutually helpful. There was not on our part, and, so far as I know, not on the part of the General Motors Co., at that time any thought of any eventual business combination. We were simply following the practice, which is becoming increasingly common, of endeavoring to help one another in research work, as far as possible up to the point where a divergence of business interests intervenes, So far as I know, the Standard Oil Co. of New Jersey was the only oil company in the world which was at that time taking any interest in this line of research work or attempting to prosecute it, and we were able to, and did, give Mr. Kettering's laboratory a great deal of information of value to them in connection with the characteristics of gasoline and other petroleum products and the methods used in refining them; and in turn they helped us continuously on mechanical problems in arriving at a better understanding of engine operations.

The work was prosecuted independently in this manner until the spring of 1922. During this time both the General Motors and ourselves had discovered various substances which had more or less effect in the direction wanted, that is, preventing the knock, General Motors' discoveries being much more important than ours, but nothing of any apparent commercial value had been developed.

In 1922 I was advised by Mr. Midgley that they had discovered tetraethyl lead was marvelously effective for the purpose of preventing the knock. Less than 1/10th of 1% by volume of tetraethyl lead, added to gasoline, permitted the gasoline to be run successfully without knocking in an engine of substantially higher compression and higher efficiency than existing engines. Tetraethyl lead had been known, as a chemical curiosity, for some fifty years, at least, but had never been produced commercially or put to any practical use before. Mr. Midgley supplied me with a small sample of this product and we confirmed all of the marvelous results which were claimed for the product in our own laboratories.

My immediate responsibility to my own Company was to endeavor to determine what the commercial effect of this discovery would be on our business. This led to an inquiry by our chemical research staff into the possibilities of commercially producing tetraethyl lead and the cost of its production. In the meantime, further experimental work in the engines with tetraethyl lead showed that after using gasoline containing the lead for any great length of time, mechanical difficulties were experienced with the engine, particularly with the spark-plug and the exhaust-valve. It was determined that this was due to the deposit of lead oxide at these points. Mr. Midgley confirmed the fact that the General Motors Co. had met with similar difficulties but stated that he had found a way of remedying the difficulties, the remedy being the addition of a small quantity of carbon tetrachloride to the gasoline. This was supposed to prevent the deposit of lead oxide.

At or about this time the General Motors Co., thru a subsidiary which was handling this business, actually began to sell the tetraethyl lead and the carbon tetrachloride mixture commercially, in a small way, in Dayton, Ohio, and the immediately contiguous territory. The lead mixture was packed in 1-qt. metal containers, which were arranged in a special fitting on the gasoline pump so that the required small percentage of the antiknock agent could be, at will, added to the gasoline dispended from the pump. The practice was to charge 3¢ per gallon extra for the gasoline treated with this antiknock agent. The sales were being made thru the Refiners Oil Co., an oil-jobbing concern which operated a number of service stations in Dayton and adjacent points. The product was very favorably received by the public from the very beginning. The General Motors Co. applied the arbitrary name ETHYL to the antiknock mixture, and the Refiners Oil Co. advertised the gasoline as ETHYL GASOLINE.

In the meantime, we had been prosecuting our chemical studies on the question of the possibility of commercially producing tetraethyl lead in large quantities and at a reasonable cost. We were advised that Dr. C. A. Kraus, then of Clark University, was the foremost chemical expert in this field of chemistry and we therefore retained him to assist us in that matter under a contract by which he agreed to assign to us any inventions which he might make in this field.

Dr. Kraus reported that the only known methods of producing tetraethyl lead involved the use of bromine compounds, that bromine was high in price and limited in quantity, and that it was doubtful whether a great commercial production could ever be obtained at any reasonable cost by these known processes. This advice confirming our own studies of the matter, we asked Dr. Kraus to seek to devise some new manufacturing process free from these objections. Within a short time Dr. Kraus advised us that he had devised a new method of manufacturing tetraethyl lead in which no bromine was used, but only the relatively cheap and abundant chlorine. Dr. Kraus immediately began to produce small quantities of t.e.l. for us by his new process, working in his laboratory at Clark University, with assistants provided by us. The quantities of lead so produced were sufficient for us to carry out very large scale commercial tests on the product in our own automotive equipment. These tests convinced us that, while the product had very great merit, the original difficulty had not been completely corrected by the addition of carbon tetrachloride, and for that reason it was not felt safe for us to adopt the product and attach our trade-mark to it for general sale. Altho the matter was discussed with the General Motors Co., we therefore decided that at the time we did not feel free to attempt to sell the product commercially under contract with them, the way the Refiners Oil Co. was proceeding, our feeling being that we would have complaints in such large numbers that the business would in the long run not be profitable. This was the status of the business in the spring of the year 1923. At that time the Standard Oil Co. of Indiana, which had become much interested in the product, thru the apparently successful sales thereof in territory immediately adjoining its own retail distributing territory, made a long term exclusive license contract with the General Motors Co. for the sale of the ETHYL GASOLINE in the group of middle-western states in which the Standard Oil Co. of Indiana operated service stations.

At the outset the General Motors Co. had produced their entire output of t.e.l. in a small laboratory of their own at Dayton. When the requirements for the product began to be substantial, manufacture was taken up for them under a contract by the du Pont Co., at Wilmington, Del. The method of manufacture used was a modification of the process using bromine of which Dr. Kraus had first advised us, and the cost of production of the tetraethyl lead was very high.

The Standard Oil Co. of Indiana met with great success from the outset in the marketing of the ETHYL GASOLINE, but in their earliest sales efforts experienced the same difficulties which we had developed in our large-scale tests. Mr. Midgley again came to the rescue, however, with the discovery that bromine was much superior to chlorine as an agent to use for correcting the difficulties due to the lead. While this was a satisfactory technical solution of the problem, however, it seemed to us that it was not a permanent commercial solution, since this would inevitably result in a double drain on the limited bromine resources of the world, that is, bromine in unprecedented quantities was to be required for the manufacture of the tetraethyl lead itself and further quantities of bromine for addition to the gasoline along with the lead in order to overcome the troubles which the straight lead developed. We therefore felt that our process for producing tetraethyl lead without the use of bromine was more valuable and more desirable than ever.

Altho the Sales Dept. of the Standard Oil Co. of New Jersey had not yet determined that it wished to attempt to sell the ETHYL GASOLINE, they were continuing to watch the commercial development of this poduct with care. In the early part of 1924 they made a careful investigation of the sales situation in the State of Ohio and reached the conclusion that the Standard Oil Co. of New Jersey should make a contract with the General Motors Co. for the sale of ETHYL GASOLINE. The Gulf Oil Co. had already closed such a contract, and one or two smaller concerns had likewise taken contracts. Negotiations were thereupon started with the General Motors Co., at first solely on the basis of taking a contract similar to the contracts that the Standard of Indiana, Gulf, and other companies had taken. Each of these contracts was an exclusive contract for a certain territory. The Standard of Indiana contract, which was the first large contract made had the longest term.

In connection with these negotiations, we took the occasion to remind the General Motors Co. that, in our opinion, they would not be able to meet the demand for the ETHYL product at any reasonable price, because of the shortage of bromine. We further assured them that we were in a position to manufacture t.e.l. for them by our chloride process cheaper than the du Pont Co. could make it by the bromine process, and that we would like to make some arrangement by which we could show an earning on our contribution to this whole development, which was the process of manufacturing t.e.l. by chlorine. At this time they were not inclined to admit that any greatweight could be attached to our prognostications of a shortage of bromine, but were willing to discuss with us the question of manufacturing costs for t.e.l. by their process and our process. After some negotiations on this point, the suggestion developed, from which side I cannot now recall but my impression is that it was from the General Motors side, that the business was inherently of such a nature that it ought to have for its proper management the advantage of a very much better knowledge of the oil business than the General Motors possessed. The demand for the product seemed to have no limit, but all sorts of practical difficulties were arising in connection with the distribution, the form of contracts to be drawn, prices, relative merits of exclusive and non-exclusive agencies, and other business problems which were primarily problems of the oil industry. The discussions then turned to a still broader ground of common interest, which was the declaration by each side of its real basic interest in the proposition. This interest was the conservation of petroleum, with the end in view of assuring a continued supply of gasoline at a reasonable price in amounts adequate to meet any probable expansion of consumption. No single step could do so much toward producing this result as a thing which would permit one gallon of gasoline to do the work of a gallon and a half. This result it was demonstrated by Mr. Kettering could be very definitely and positively accomplished by the building of high-compression motors capable of operation only on ETHYL GASOLINE or product of the equivalent character. Such motors could not be built and distributed commercially until the gasoline which would run them properly was on sale and available practically every place in the U.S., and eventually everywhere in the world. To secure such world-wide distribution at retail of a new fuel in any reasonable time was a most serious problem. Until this result was obtained, the General Motors Co. would be in no position to realize its ultimate aim, and likewise the ultimate aim of the Standard Oil Co. of New Jersey in undertaking and prosecuting the research in question would be incapable of realization.

By the above course, therefore, the parties in the summer of 1924 arrived at the conclusion that the best interests of both would be served by joining forces to promote the universal sale and use of the new motor fuel as a step preparatory to an ultimate radical change in the type of automobile engine which would permit of an efficient and economical use of gasoline not now realizable.

It appeared that the best way of accomplishing this desired union of effort was to have the two parties join in the organization of a corporation to conduct the new business. Accordingly, the Ethyl Gasoline Corporation was duly organized and succeeded to the existing business and became the exclusive licensee under the patents of the General Motors Co. and the Standard Oil Co. relating to these anti-knock compounds, their manufacture and use.

The original officers of the Corporation were:

Mr. C. F. Kettering (General Motors), President
Mr. F. A. Howard (Standard Oil Co.), 1st. V.P.
Mr. Thomas Midgley, Jr. (G.M.), 2nd V.P. and Gen'l.Mgr.
Mr. C. O. Swain (Standard), General Counsel
Mr. Donaldson Brown (G.M.), Treasurer
Mr. A. M. Maxwell (Standard), Sales Manager
Mr. A. E. Mittnacht (not previously affiliated with either company), Secretary

The directorate of the Ethyl Corp. included the gentlemen named, with the exception of Mr. Mittnacht, and also included Mr. A. P. Sloan, Jr., President of the General Motors Corp., and Mr. W. C. Teagle, President of the Standard Oil Co., of New Jersey, and other officers and directors of the General Motors Corp. and Standard Oil Co. in equal proportion.

The above narrative covers in considerable detail the origin of the Ethyl Gasoline Corp., first as a purely scientific research problem which had been carried out cooperatively to a considerable extent but without business relationship, or thought of business relationship, between the parties, and the subsequent commercial developments which led to the merger of the interests of the two in this matter in the Ethyl Gasoline Corp.

The subsequent history of the Ethyl Gasoline Corp. is, briefly, as follows:

The peculiar toxic properties of t.e.l. and the method of handling the business to avoid difficulties from this source constituted the principal problem to be met and have always been a controlling influence over all business policies. A thoro study of these toxic properties, made immediately upon the organization of the Ethyl Gasoline Corp., indicated the desirability of abandoning the existing method of distributing the ETHYL FLUID in small containers and the limitation of its sale and handling to barrel lots, which would be mixed with the gasoline when filling the tank wagons. This step cut down the hazard from commercial handling of the product enormously, by reducing the number of men who came in contact with it in the ratio of approximately 100 to 1.

One of the first steps undertaken upon the organization of the Ethyl Gasoline Corp. was an effort to determine immediately how best to commercially apply the Kraus process of manufacturing the material. The decision was made to erect an experimental, or pilot, plant at the Bayway Refinery of the Standard Oil Co. of New Jersey, which would serve as a means of determining the proper design and details of procedure to be used for large-scale commercial operations. This plant resulted in the tragical loss of the lives of five men and the illness of some thirty men who were employed there. This catastrophy received widespread notoriety, much of which was of a misleading nature, indicating that the poisoning had come from the gasoline itself rather than from the process of manufacturing the t.e.l. Certain newspapers undertook campaigns against the product and were supported by persons claiming to have particular scientific knowledge of the dangers attendant on its use. There was brought to light the fact that there had been previous fatalities at Dayton, O., in connection with the handling of the product by the General Motors Co., and in connection with its manufacture by the du Pont Co. at Wilmington, Del.. All of this agitation resulted in the passage by the N.Y.C. Board of Health of a resolution banning the sale of ETHYL GASOLINE in New York City, and in various other jurisdictions orders were issued by local authorities discriminating against the product. As a result of this agitation, which centered on the statement that its sale was a menace to the public health, the Surgeon General of the U.S. called a conference of health officials and other interested persons in Washington for discussion of the problem. This conference passed a resolution requesting the Surgeon General to appoint a committee of scientists to investigate and report upon any possible danger to public health which might arise from the general sale of the ETHYL GASOLINE. Shortly before this conference, the Ethyl Gasoline Corp. announced that it had voluntarily suspended all commercial business, that is, ceased distribution of ETHYL FLUID. This suspension of business took effect in May of 1925 and was effective thruout the U.S. except in the State of Ohio, where arrangements were worked out, with the cooperation of all health authorities involved, for continuing limited distribution, to permit an adequate investigation to be carried out covering an actual commercial condition. Deliveries were also continued to the

U.S.Navy and to certain foreign governments, with the full approval of the authorities.

The report of the Surgeon General's Committee was presented in the early part of the year 1926, and was to the effect that there was no evidence of any danger to public health, and no reason to fear that any such danger would arise provided certain recommendations contained in the report were carried out. The principal recommendations made provided for elimination of the tank-wagon mixing method for ETHYL FLUID and the limitation of mixing to tank-car lots or greater, to be conducted under controlled conditions at refineries and other large bulk points, where a type of supervision similar to that employed in other chemical industries of a like nature could be maintained.

The Ethyl Corp. resumed business in the spring of 1926, adopting all recommendations made by the Investigation Committee, which in turn required the revision of existing contracts.

The business of the Corporation has been actively continued since that date and at the present time embraces practically the whole of the territory of the U.S. The manufacture of t.e.l. is being conducted by the du Pont Co. at Wilmington, Del., under contract with the Ethyl Corp. The du Pont Co. is utilizing in its manufacture the patented Kraus process.

Some few months after the organization of the Ethyl Corp., the temporary staff of officers was replaced by the present permanent staff.

The business of the Company is managed by its officers, under the supervision of the Board of Directors, acting thru an executive committee, consisting of Mr. A. P. Sloan, of the General Motors Co., Mr. F. A.Howard, of the Standard Oil Co. and Mr. E. W. Webb.

Unless some factor should appear not now foreseen, the expiration of the present Indiana exclusive contract will represent the end of all exclusive agencies for the sale of ETHYL GASOLINE, and the situation will be the same in all parts of the country, that is, the product will be available to as many different sales agents as can profitably sell the same to the advantage of the Ethyl Corp.

Distribution of ETHYL GASOLINE at the present time is so widespread that it is hoped that the ultimate aim of the parties may be accomplished, thru the sale of high-compression motor cars, within the near future.

The following governmental agencies have had contact with the Ethyl Gasoline Corp. on various aspects of the matters referred to above, and are respectively in possession of the facts and/or have records which will be available for confirmation of many of the matters referred to:

1. U.S.Oil Conservation Board;
2. U.S.Bureau of Mines;
3. U.S.Bureau of Standards;
4. Office of the Surgeon General, Public Health Service.
5. U.S.Patent Office.

Whether it be pertinent to any inquiry as to the policies or conduct of the Ethyl Gasoline Corp. or not, it is a fact that the bona fide nature of the fundamental scientific contributions which have been made by those responsible for its history has been not only recognized by the grant of the patents referred to, but also by the award of prizes by the American Chemical Society to Mr. Midgley and to Dr. Kraus, the two inventors most intimately concerned with the origin of this business, for their respective contributions to science, upon which contributions the business is founded. The award to Mr. Midgley was made in 1923, and to Dr. Kraus in 1924.

To those of us who have had a part in this unique business development, the story has been such an interesting one that the temptation is to retail it at undue length. Even so, it is possible that I have omitted some essential facts which you will require for your report. If that is the case, please do not hesitate to call for any additional information, records, or documents which you require.

There is appended hereto, a list of the U.S.Patents which have already issued relating to this business and which the Ethyl Gasoline Corp. controls. A large number of additional applications for patents are on file and in due course will result in further patent protection for the business.

Yours very truly,

FRANK A.HOWARD

HV

enc.

Appendix to letter to Mr. William Benham, April 21, 1927.

7432

GENERAL MOTORS U. S. PATENTS

Patent No.	Title	Date	Inventor
1,296,832	Fuel for Internal Combustion Engines	Mar. 11,1919	Thomas Midgley, Jr.
1,467,905	Hydrogenation Furnace	Sep. 11,1923	" "
1,446,984	Method of Revivifying Spent Catalysts & Apparatus Therefor	Feb. 27,1923	" "
1,578,201	Fuel	Mar. 23,1926	" "
1,605,663	Method and Means for Increasing Efficiency of Internal Combustion Engines.	Nov. 2,1926	Charles F. Kettering & Thom. Midgley, Jr.
1,573,846	Method and Means for Using Motor Fuels	Feb. 23,1926	Thomas Midgley, Jr.
1,575,436	Method and Means for Using Low Compression Fuels	Mar. 2,1926	" "
1,575,437	" " "	Mar. 2,1926	" "
1,575,439	" " "	Mar. 2,1926	" "
1,575,440	" " "	Mar. 2,1926	" "
1,575,441	" " "	Mar. 2,1926	" "
1,575,442	" " "	Mar. 2,1926	" "
1,575,443	" " "	Mar. 2,1926	" "
1,575,444	" " "	Mar. 2,1926	" "
1,567,159	Method for Producing Lead Compounds	Dec. 29,1925	Brian Mead

Appendix to letter to Mr. William Benham, April 21,1927.

7433

STANDARD OIL CO.(N.J.) U.S.PATENTS

Patent No.	Title	Date	Inventor
1,589,885	Motor Fuel & Internal Combustion Operation	June 22,1926	F.A.Howard
1,612,131	Making Metallo-Organic Compounds	Dec. 28,1926	Kraus & Callis
1,606,966	Vaporizer Control Devices	Nov. 9, 1926	McKenzie Martyn
1,623,053	Art of Controlling Combustion in Internal Combustion Engines	Apr. 5,1927	Howard & Wright

E

cc—Mr. T. M. Nichols
Mr. J. E. Kupperian

E. I. du Pont de Nemours & Company
INCORPORATED
WILMINGTON, DELAWARE
ORGANIC CHEMICALS DEPARTMENT

July 2, 1936

Mr. E. W. Webb
Ethyl Gasoline Corporation
Chrysler Building
New York, N. Y.

Dear Mr. Webb:

We are now charging you 19¢ a 100 pounds, with an additional drumming charge of 50¢ a drum, for blending tetraethyl lead for your account under our agreement of May 29, 1930 and the supplement thereto of December 22, 1933.

We are happy to say that we find, on the basis of present operations in the blending plant and the handling of more than six million pounds of fluid per month, that we are able to operate more economically and, therefore, believe that we are justified in making a reduction in this charge from 19¢ as above mentioned to 11¢ a 100 pounds for bulk material, the drum charge of 50¢ being unchanged. All other conditions of our agreement will, of course, remain in effect.

As pointed out above, the new rate is based on present operating conditions and costs and will continue only so long as there is no change making a higher charge necessary.

If this is satisfactory to you, we will make the new rate of 11¢ effective beginning with our bill for July 1936.

Probably this letter will be sufficient for your records without rewriting the present agreement, but if you have any other thought, we shall be glad to draw a new agreement incorporating the change in rate.

Yours very truly,

Cesare Protto
Asst. General Manager

Note: At lower right is written "GMC-1014e"; an arrow is drawn diagonally upward from the address to the name of Mr. J. E. Kupperian; superimposed on the text of the letter is an illegible stamp; in the left margin an arrow is drawn from the first paragraph to the fourth; underlining is by hand; in lower left is written "Mr. Protto signed" followed by an illegible word or words.

Defendant's Exhibit (GM) No. 278

ETHYL GASOLINE CORPORATION

CHRYSLER BUILDING
405 LEXINGTON AVENUE

7436

NEW YORK February [illegible], 1938.

E. I. du Pont de Nemours & Company,
Wilmington,
Delaware.

Dear Sirs: Attention: Mr. [illegible] G. Robinson
Dr. [illegible] Rikenboer

In line with the conversation of yesterday with Mr. Robinson, we hereby request you to erect, for our account, on our property at Baton Rouge, Louisiana, two (2) additional tetraethyl lead plants of the same size and capacity as those previously erected. The erection and operation of these plants is, of course, fully provided for under the terms of the agreement between our respective companies as of January 1st, 1938.

We also request you to construct, for our account, a plant for the production of metallic sodium at Baton Rouge, this plant to have a normal operating capacity of twenty million pounds of sodium per year. The increased capacity of this plant from the figure of ten million pounds per year mentioned in the agreement between our companies, will necessitate some supplemental agreement on the matter of guaranteed price and we will appreciate hearing from you on this point. There would appear to be no particular reason why the provision made in the existing contract for the guaranteed price should not apply to the twenty million pound plant as well as to a ten million pound plant, but the matter should be definitely covered.

We are desirous of having you construct, for our account, a plant at Baton Rouge for the manufacture of ethyl chloride. There is, of course, no provision in the present contract covering either the construction or operation of such a plant, but we feel that it is to the best interest of both companies that such a plant be built. Apparently the type of plant to be built would be one in which hydrochloric acid is produced by burning hydrogen and chlorine and the ethyl chloride made by your process. The capacity of this plant is perhaps still open to discussion. To be in balance with the lead and sodium plants, it would appear that a unit should be built adequate to consume all of the chlorine produced at the above-mentioned sodium plant. On the other hand, it may not be necessary to invest the entire amount of capital for this project at this time if the capacity is available at existing plants. Certainly, enough ethyl chloride on the most favorable economic basis should be in sight to operate all tetraethyl lead plants by the time they are completed.

We will appreciate hearing from you on this point both as to the question of the supplemental contract covering the erection and operation of ethyl chloride plants and also as to the available capacity of ethyl chloride, time necessary to erect ethyl chloride units of this type, and any other pertinent information.

As we feel that this expansion program cannot afford any unnecessary delay, we will very much appreciate your giving same prompt consideration.

Very truly yours,

EWWebb

AtH

Defendant's Exhibit (GM) No. 279

7437

THE DOW CHEMICAL COMPANY
RESEARCH REPORT

Lead Tetraethyl Process

By

E. C. Britton

UNLESS SPECIAL PERMISSION IS
OBTAINED, THIS REPORT MAY NOT
BE REMOVED FROM THE ORGANIC
LABORATORY OFFICE AT ANY TIME

ORGANIC RESEARCH LABORATORY

7438

Issued to E. C. Britton

THE DOW CHEMICAL COMPANY

RESEARCH REPORT

Report No. 316 November 18, 1924

Lead Tetraethyl Process

by

Dr. E. C. Britton

Copies issued to
- H. H. Dow
- E. O. Barstow
- I. F. Harlow
- E. C. Britton

Lead Tetraethyl Process

I.

A. Ethyl bromide, one mole, is added to magnesium shavings, one mole, and ether, forming ethyl magnesium halide.

(1) $C_2H_5Br + Mg = C_2H_5MgBr$

B. Lead chloride, one mole, dry and powdered, is then added to the ether solution of ethyl magnesium bromide, forming lead diethyl.

(2) $2\,C_2H_5MgBr + PbCl_2 = Pb(C_2H_5)_2 + MgCl_2 + MgBr_2$

C. By adding toluene to the reaction mixture and heating to distill off ether, thereby raising the temperature to 90°-100° C., the lead diethyl is decomposed to lead tetraethyl.

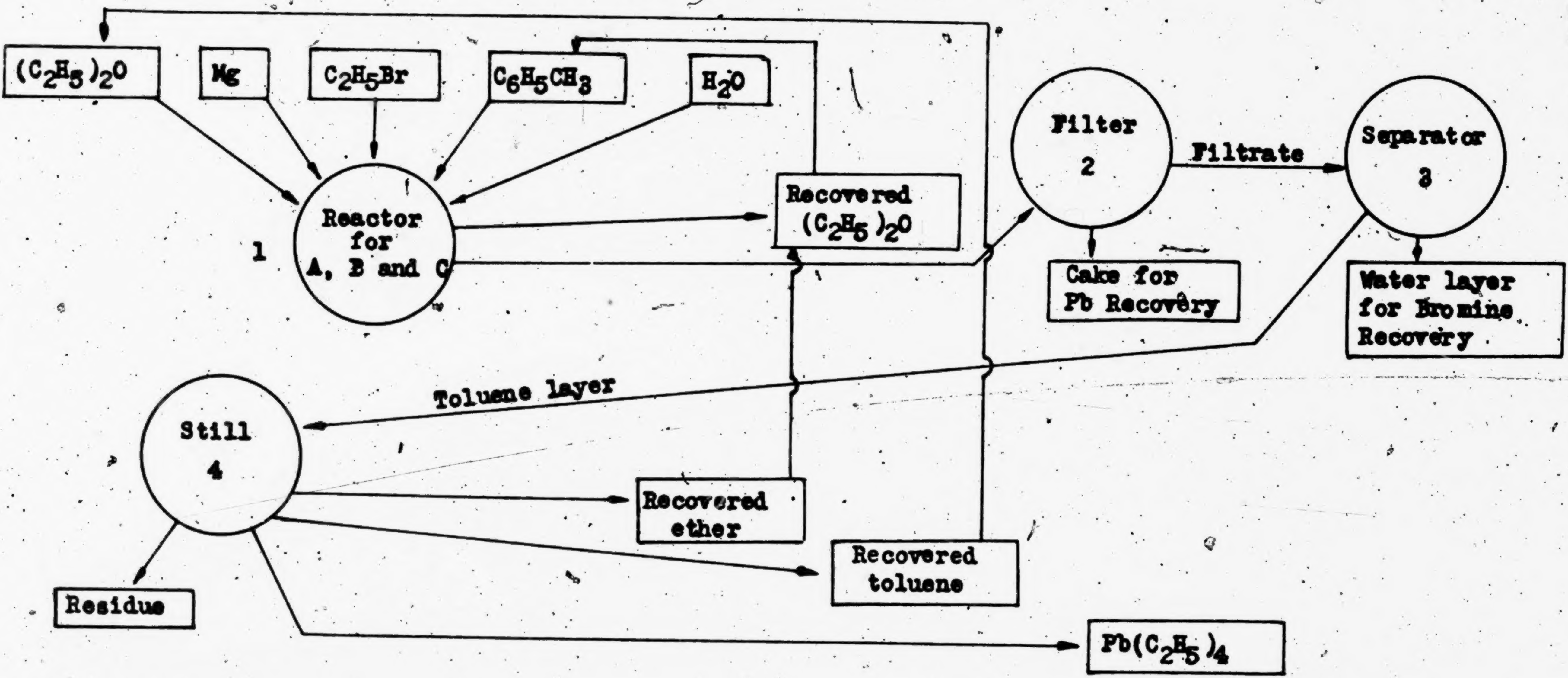
(3) $2(C_2H_5)_2\,Pb = Pb(C_2H_5)_4 + Pb$

This reaction takes place at as low temperature as 35° C. but for completion of reaction a higher temperature, as indicated, is necessary.

D. The reaction mixture is now treated with water and acidified. After acidification, it is filtered and then the toluene, ether layer of lead tetraethyl is separated and fractionated by distillation, thereby obtaining pure lead tetraethyl.

II.

Flow Sheet


$(C_2H_5)_2O$
Mg
C_2H_5Br
$C_6H_5CH_3$
H_2O
Reactor for A, B and C
1
Recovered $(C_2H_5)_2O$
Filter 2
Filtrate
Separator 3
Cake for Pb Recovery
Water layer for Bromine Recovery
Toluene layer
Still 4
Recovered ether
Recovered toluene
Residue
$Pb(C_2H_5)_4$

Reactor 1 is for the portion of the reaction represented in I by A, B, and C portions.

Filter 2, separator 3, and still 4, are used for working up the reaction product as outlined in portion D of I.

III.

Raw Materials	By Products	Products	Waste Product	Packages
Ether Toluene Magnesium Ethyl Bromide Lead Chloride	Metallic Lead Magnesium Bromide	Lead tetra-ethyl 65-70 % Yield	Still Residue	Drums

IV.

A, B, & C.

Our equipment for this reaction and the subsequent reactions, B & C, was a ten gallon Dopp provided with a stirrer that scraped the sides of the jacket and running at about 40 R.P.M. There was a 1 1/2 inch pipe rising to the iron condenser and returning through a U to the still. The lead chloride was added through a funnel on the bottom of which was a 1-1/4 inch butterfly valve.

In this reaction the procedure was as follows:—One pound of magnesium shavings were placed in the still along with five pounds of ether and a crystal of iodine. To this, cooled and stirred as much as possible, was added one-half pound of ethyl bromide. The reaction of the ethyl bromide and magnesium proceeded at once and generally caused the ether to boil. After this initial reaction was over, a mixture of 3 pounds 12 ounces of ethyl bromide and 4 pounds of ether was added in about twenty to thirty minutes, this amount of ethyl bromide completing the formation of the theoretical amount of ethyl magnesium bromide. (Temperature of 40° C.) Ten pounds of toluene was then rapidly added to the reaction mixture and then five pounds of dry, powdered, technical lead chloride was added in fifteen minutes. (Temperature of 40° C.) The reaction mixture was then refluxed (temperature 67°-70° C.) for twenty minutes, following which the ether was distilled off or rather temperature was raised to 90°-95° C. still temperature. The mass was then refluxed during three hours heating. This procedure furnishes reactions A, B, & C.

D

The reaction product, a grayish black spongy mass, after cooling to 50° C., was treated with ice and stirred. The whole then became liquid and was drawn off into a crock. One then acidified to *Congo* red reaction, about one and one-half pounds of 30% HCl being required, and the mass was filtered. The filtrate was then put in a separator and allowed to settle thoroughly. After complete separation, the upper toluol layer was removed and subjected to fractional distillation under vacuum. The ether remaining passes over first at low temperature, the toluene at 40° C. (28 1/4 inch vacuum) and the lead tetraethyl at 100° ±. (28 1/4 inch vacuum), leaving a yellow residue (25 g.) in the flask. The amount of distilled lead tetraethyl obtained was about 870 grams.

6

The operation of this Grignard reaction is dependent on the observance of several precautions as in all Grignard reactions. The magnesium should be in the form of thin shavings, and should be clean. The ether used should be of high purity, free as possible from aldehyde and acid and entirely free from alcohol and water. The reflux condenser must supply ample cooling in order not to lose ether. As a general rule in running Grignard reactions, the shorter the time of forming the magnesium compounds, the better yield one can obtain.

Much can be said in regard to agitation. Our agitator did not run fast enough to beat up the mixture and it is certain that this is necessary, for one mixes insoluble lead chloride with the soluble ethyl magnesium bromide and the reaction is entirely a surface reaction, which necessitates violent stirring. A turbine agitator is of no value for the lead chloride is too heavy, but a good propeller agitator with some mechanism for scraping the sides of the reactor would be ideal. Naturally no coils can be placed inside the reactor since material will lodge on these coils and stay there without mixing.

For the highest yields by this method of synthesis, purity of reacting materials in forming the magnesium compound is most important. Our experiments in this line have confirmed this,—impure ether will absolutely stop the Grignard reaction as will impure ethyl-bromide, presence of alcohol, water, and a trace of acid, giving the most trouble.

We carried out two experiments using ethyl chloride, but experienced great trouble in getting the Grignard reaction to start, due to a mere trace of alcohol and acid in the ethyl

chloride. It was found, however, that by using ethyl bromide to start the reaction, ethyl chloride reacts rapidly enough to be used without trouble.

V.

Physical Properties

Substance	State	Weight per Unit	B.P. or M.P.	Combustibility	Poisonous	Specific Heat	Latent Heat	Solubility in H_2O	Mol. Wt.
Mg	Solid			Yes	No	.50		Reacts slowly with hot water	24.32
Ether	Liquid	6 # per gal.	35°C.	Yes	Anaesthetic	.504	Kg.Cal/Kg. 88.39		74.08
Ethyl Bromide	Liquid	1.498 sp. gr.	B.P. 38.4°C.	Yes, but not great	Yes and Anaesthetic	0.2164	61.65		109.00
Ethyl Chloride	Liquid	.0214 sp. gr.	B.P. 13.1_2C.	Yes, but not great	Yes, and Anaesthetic	.4276	83.07		64.49
Toluene	Liquid	0.8659 sp. gr.	110.31	Yes	Yes	0.4400	Kg.Cal/mol. 7.90		92.06
Lead Tetraethyl	Liquid	1.62 sp. gr.	1	yes	Yes, very	?	?		323

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Chemical Properties

Substance	Acidity	Stability	Reaction with Construction Materials	Reaction with Chemicals Peculiarity
Magnesium	No	Stable	None	Reacts with water and oxygen at slightly elevated temperatures.
Ether	No	Not extremely stable to light and air.	None	In presence of light and air, ether undergoes changes to form aldehydes, acetic acid and peroxide.
Ethyl Bromide	No	Yes	None	Hydrolyzed by NaOH solution.
Ethyl Chloride	Very slight, if any.	Yes	None	Acts as ethyl bromide but not so rapdily in any case.
Toluene	No	Stable	None	
Lead Chloride	No	Stable	None	

VI.

This plant is peculiarly fitted to attempt the Grignard synthesis of lead tetraethyl.

In the first place this plant produces magnesium and does it fairly cheaply.

Second:—By a simple modification of temperature the ethylene plant can produce ether very readily and in good yield.

Third:—This plant can manufacture ethyl bromide or ethyl chloride.

Fourth:—The chlorine for lead chloride is produced here and lead chloride can be produced cheaply.

Fifth:—If a process involving bromine recovery were used, the Dow Chemical Company could do it better than anyone.

These points can still further be strengthened by the fact that our organization knows how to run the Grignard reaction.

VII.

Naturally the capacity of the plant for making lead tetraethyl is problematic at present.

VIII.

Ether:—Freshly distilled without alcohol or water being present. U.S.P. ether minus the alcohol, when fresh is very good.

Toluene—Chemically pure.
Packages—Tin lined drums.

—10—

IX.

The literature on the manufacture or rather preparation of lead tetraethyl and related compounds starts in the early history of organic chemistry.

X The three methods used for its preparation are, (1) the action of an ethyl halide and sodium lead alloy, (2) the action of zinc ethyl and lead chloride, and (3) the action of ethyl magnesium bromide or iodide on lead chloride.

The first of these methods is reported by Ghira (G. 24 I, 44 (1894)) and by Cahours (Ann. 122, 65 (1862). The only comment of these authors is that the process does not work very well and the product obtained is not very pure.

The second of these methods is reported by Buckton (Ann. 109, 222 (1859); 112,226 (1859)) and Frankland & Lawrence (J.C.S. 35,244 (1879)). They report a very good product and a reaction easily carried out. Frankland and Lawrence purified by steam distillation.

The Grignard method of procedure was first used by Pfeiffer and Truskier (B. 37, 1127 (1904)), who reacted magnesium, ethyl iodide, and lead chloride in ether solution to form lead tetraethyl which decomposed on distillation, producing metallic lead. In order to prevent this decomposition, the triethyl lead chloride was prepared.

Grüttner and Krause, B. 49, 1415 (1916) prepared lead tetraethyl as a distilled product by this reaction and could obtain but 85 gms. of pure lead tetraethyl from 300 gms.

of ethyl magnesium bromide and 300 gms. of lead chloride; a yield of 38 per cent on lead chloride.

—11—

Laboratory and Small Scale Results

There was very little laboratory work carried out on this reaction, practically all being conducted in the ten-gallon Dopp as mentioned above. We used the larger apparatus because we needed good cooling in the reflux condenser and better stirring than in the laboratory and also wanted to test the use of iron as material for construction.

Run No.	Initial Charge					Mixture				Addition			Addition		
	Mg	EtBr	Et_2O	Time	Temp.	EtBr	Et_2O	Time	Temp.	Wt.	Time	Temp.	Wt.	Time	Temp.
1	3 lb. 13 oz.	10 lb.	2lb.	—	—	15 lb.	15 lb.	—	—	None	—	—	20 lb.	—	—
2	1 lb.	1	4	—	—	3-¼	4	—	—	"	—	—	5	—	—
3	1 lb.	1	7	9:45	—	3-¼	3-¼	10:55– 11:1[illegible]	—	"	—	—	5	—	—
4	1	1	7	9:00– 9:10	—	3-¼	3-¼	9:45– 10:10	—	10 lb.	3:00– 3:15	80°C.	5	10:25 10:50	—
5	1	1	4	9:20– 9:35	—	3-¼	3-¼	9:55 10:20	—	10#	3:00– 3:55	82°C.	6-¼# $PbBr_2$	10:45– 10:55	—
6	1	1	4	10:30– 10:45	—	3-¼	5	11:00– 11:15	—	10 Recov.	3:00– 3:30	97°C.	6-¼# $PbBr_2$	11:35– 11:50	38°C
7	1	1	5	10:15 10:40	38°C.	3-¼	4	10:45– 11:00	39°C.	10 Recov.	2:00– 2:25	67°C.	5 #	11:10– 11:30	34.5° C.
8	1	1	5	10:30– 10:50	38°C.	3-¼	4	11:05– 11:25	40°	10 Pure	11:45– 11:55	68°C.	5 #	12:20– 12:30	61°C
9	1	1	5	10:10– 10:25	36°C.	3-¼	4	10:30– 10:50	41°	10 Pure	11:00– 11:15	42°C.	5 #	11:15– 11:25	47°C
10	1	8 oz.	5	8:30– 8:45	—	3-¾	4	8:55– 9:20	41°	10 Pure	9:25– 9:45	43°C.	5 #	9:50– 10:00	49°C
11	1	8 oz	5	9:30– 9:50	35°C.	3-¾	4	10:00 10:20	35°	10 Pure	10:30– 10:45	43– 45°C.	5 #	10:50– 11:00	45– 48°C
13	1	6 oz. Et Cl	5 #	8:30– 8:45	32°C.	2 lb. 5 oz.	4 #	10:00 10:25	32°	12 Pure	10:40– 10:50	36°C.	5 #	10:50– 11:00	37°C
14	1	6 oz. Et Cl	5 #	8:30– 8:45	31°C.	2 lb.	4 #	10:25– 10:45	31°	12 Pure	10:45 10:55	32– 38	5 # 5 #	11:00 11:10	38°– 40°C.

Run No.	Distillation of Ether			Reflux		Draw-Off	Acid	$Pb(C_2H_5)_4$		Per Cent Yield		
	Rec. Et_2O	Time C.	Temp. C.	Time	Temp. C.	Time	Weight	Crude	Distilled	On Mag	On EtBr	On $PbCl_2$
1	0	—	—	—	—	—	—	4 lb. 3 oz.				
2	0	—	—	—	—	—	—	545 gm.				
3	0	—	—	—	—	—	—	—	545 gm.			
4	0	—	—	11:10 AM- 3:00 PM	40°	4:45 PM	—	818 gm.	612 gm.			
5	0	—	—	11:05 AM 3:00 PM	46°	4:30- 4:55	—	672 gm.	654 gm.	43.4	45.6	52.3
6	7 lb. 4 oz.	—	—	12:00 3:00 PM	—	—	—	925 gm.	864 gm.	57.4	60.55	65.6
7	5 lb.	2:25- 2:45	95°C.	11:40- 2:00 PM & 2:45 8:00 PM	40° 95°	8:00- 9:00	—	965 gm.	852 gm.	56.5	59.60	64.6
8	—	3:20- 3:40	91°C.	12:30 3:20 P.M.	67°	4:20- 4:40	1.75# 27 % HCl	835 gm	Decom- position	?	?	?
9	5 lb. 8 oz.	11:55- 12:20	93°C.	11:35- 11:55 AM & 12:20- 1:20 PM	70-74° 99°	1:20- 2:45	"	983 gm.	"	?	?	?
10	5 lb.	10:50- 11:10	90°C.	11:15-10:50 & 11:10- 3:50	94°	— &	—	953 gm.	873 gm.	58.0	61.2	66.4
11	—	11:20	74°C.	11:45- 1:15	95° 97°	Steam distilled		—	713 gm.	47.4	50.0	54.2
13	6 lb. 10 oz.	11:25 10:10	58° 86°	12:10 3:00 PM	91° 95°	3:00- 4:30		—	713 gm.	47.4	46.8	54.2
14	7 lb. 6 oz.	11:25 11:55	62° 91°	11:55 3:00	91° 97°	— —	— —	— —	750 gm.	49.8	49.2	57.0

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Run 15—Using 7.5 lbs. $PbCl_2$ instead of 5 lbs. gave 925 gms. of distilled lead tetraethyl, giving thus a yield of 65 per cent on ethyl bromide.

From a resume' of these experiments it can be readily seen that ethyl bromide works better than ethyl chloride, but the latter substance certainly contains some impurities detrimental to a Grignard reaction or it would start better. The time intervening between the time the initial charge is placed and the mixture started indicates this quite clearly.

It apparently makes little difference whether the lead chloride is added before the addition of the toluene or after, but it is paramount to keep the temperature down when adding the lead chloride, and later raising the temperature by distilling off ether and adding toluene.

In some of the reactions, the reaction mixture after refluxing for a long time was a spongy mass.

The course of this reaction is similar to every other Grignard reaction. First, the ethyl halide forms the ethyl magnesium halide in solution in ether, and lead chloride adds molecularly to this, and on heating lead tetraethyl is formed.

X.

The cost of lead tetraethyl is rather difficult to estimate owing to the lack of data on cost of lead chloride and ether.

Figuring, however, on ether at thirteen cents per pound and lead chloride at nine cents, we have the following chemical cost; loss of ether being figured as one-fourth pound per pound of lead tetraethyl and toluene the same.

1	pound of Magnesium at .65	=	$ 0.65
½	pound of Ether at .13	=	0.065
4–¼	pounds of EtBr at .30	=	1.275
½	pound of toluene at .04	=	.020
5	pounds of lead chloride at .09	=	.45
2	pounds lead tetraethyl	=	2.460
	Credit for Bromine at .22— 90 % recovery	=	.61
2	pounds lead tetraethyl	=	$1.85
1	“ “ “	=	.925

On basis of ethyl chloride:—

1	pound of magnesium at .65	=	0.65
½	pound of ether	=	.065
2.68	pounds ethyl chloride at .18	=	.48
½	pound toluene at .04	=	.02
5	pounds lead chloride at .09	=	.45
1.75	pounds lead tetraethyl	=	1.665
1	“ “ “	=	.945

These figures do not include the saving by recovering the lead not going to lead tetraethyl, which in each case would substract nine cents per pound from this price as listed.

I feel, however, that these costs can be improved upon. The loss of ether is based on phenyl ethyl alcohol figures as well as the toluene loss, but both are high, since the reaction can be run in a closed system except for one breather opening at the end of the condenser. Likewise the lead chloride is a factor, since it must react by surface contact; the more finely divided the lead chloride, the more surface is exposed to reaction.

The capacity of the plant naturally determines the labor cost to add to the chemical cost.

The process as outlined here is patentable from several standpoints.

1. The use of ethyl chloride to form the Grignard reagent is not mentioned for lead tetraethyl in literature.

2. The use of toluene or other solvents to raise the temperature at the end of reaction is of course the real point of the process.

In conversation with two chemists at Cleveland, November 6, 1924, both stated that the Grignard reaction gave very poor yields of lead tetraethyl, which shows at once that the trick of the thing is not known.

Respectfully submitted,

ECB:E
11-17-24

Note: "This Report is the Property of The Dow Chemical Company" is stamped on cover, title page, and last page of the Report. Italics indicate handwriting.

7455

THE DOW CHEMICAL COMPANY
RESEARCH REPORT

TENTATIVE PROCESS FOR TETRA ETHYL LEAD

By

E.C. Britton

UNLESS SPECIAL PERMISSION IS OBTAINED, THIS REPORT MAY NOT BE REMOVED FROM THE ORGANIC LABORATORY OFFICE AT ANY TIME

ORGANIC RESEARCH LABORATORY

7456

Issued to E. C. Britton

THE DOW CHEMICAL COMPANY

RESEARCH REPORT

No. 406 June 22, 1926

Tentative Process for Tetra Ethyl Lead

by

Edgar C. Britton

Copies issued to
- File A.
- E. C. Britton
- I. F. Harlow

Tentative Process for Tetra Ethyl Lead

The tetra ethyl lead report, No. 316, gives experimental details for the process which have since been changed to include several new features. We are considering the production of leadtetraethyl and, in going over the details of plant construction, it would seem advisable to use the following procedure.

The Grignard reaction between magnesium, ether, and ethyl chloride should be carried out in a reactor separate from the subsequent reaction with lead chloride. The ether solution of ethyl magnesium chloride would then be run into lead chloride mixed with toluene, stirring all the while. The reaction mixture would then be distilled, the ether coming off first—refluxing then at a higher temperature as indicated in the former report. After this refluxing as much toluene should be distilled off as is possible before adding water to the reaction mixture. This procedure will give a maximum of dry solvent to use over again in the process. After treatment with water, the still contents are steamed to remove the lead tetra ethyl and after it is all removed the residue in the still is filtered. The filter cake would have in it unchanged lead chloride and metallic lead finely divided. This cake would be used for the lead recovery. The solution from the lead would contain the magnesium chloride. This solution might be evaporated down and used over again to make metallic magnesium or could be thrown away as desired.

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As indicated, this process is extremely simple and easy of operation. The main difficulties of the reaction are involved in the preparation of the ethyl magnesium chloride because all the materials going into this must be very pure or else the yield of ethyl magnesium chloride is low, but, by running the process in a still separate from the reaction with lead chloride, it can be controlled very well.

Figuring on the basis of the laboratory process, and it must be remembered that these figures can only be interpreted on that basis, we have for the production of 200 gallons of lead tetra ethyl per day the following figures.

Table I

1,316	lbs.	Magnesium	at 65	cents	=	$ 855.40
3,500	"	Ethyl Chloride	" 12	"	=	420.00
675	"	Ether	" 13	"	=	87.50
540	"	Toluene	" 4	"	=	21.60
2,000	"	Lead Oxide	" 11.15	"	=	233.00
1,300	"	Hydrochloric acid ..	" 1.25	"	=	16.35
						$1,623.85

Yield of 2.03 lbs. of lead tetraethyl per pound of magnesium.
2,700 lbs. of lead tetraethyl or 61,8 %.

$$\text{Chemicals} = \frac{1623.85}{2700} = 60.2 \text{ cents per lb.}$$

Labor	=	3.0	" " "
Factory Expense	=	2.2	" " "
Deprec. 100% per yr. of 50,000 or 90,000 per year	=	6.18	" " "
Maintenance		1.00	" " "
Est. cost per pound.....	=	72.58	" " "

There are several changes which may be made in the process, tending toward simplifying and cheapening the process. The cost of the ether as listed above is occasioned because of its volatility and the fact that we are using in the process something like 9,000 pounds. This amount of ether is not necessary to use and may be replaced by toluene to some extent which will naturally cut down that loss. The amount of lead listed above is only that amount required for the lead tetra ethyl and loss in aqueous solution. The actual amount of lead chloride initially used is much greater. The amount of toluene listed in the above is the estimated loss occasioned by handling and distilling. The initial amount used is much greater. The following figures give the amount of materials which enter into the process.

Table II

1,316	lbs.	of	metallic magnesium ..	=	95	gallons
3,500	"	"	ethyl chloride		475	"
9,320	"	"	ether		1,550	"
13,330	"	"	toluene		1,772	"
10,000	"	"	lead chloride		300	"
					4,192	"

Amounts necessary to recovery:

1,750	lbs.	of	metallic lead		
6,300	"	"	lead chloride		
9,320	"	"	ether	1,550	gallons
13,330	"	"	toluene	1,772	"
1,316	"	"	metallic magnesium as $MgCl_2$		

Table II gives the materials which must be recovered. The total volume of materials at any time which will enter into the reaction is 4,192 gallons or 560 cubic feet. If we ran the plant 24 hours a day, it is presumed that we should run six batches, using three reactors, two batches per day in each. This is the maximum figure. In this way we would have to have 94 cubic feet capacity per batch. A reactor 6 ft. diameter and 6 ft. high, 170 cu. ft. capacity, certainly would be ample for all needs. These reactors would be used for the action of the Grignard solution and the lead chloride. A single reactor or possibly one for each of the 6 ft. by 6 ft. reactors would be used for making the Grignard solution and a 40 cu. ft. still would be all that is necessary. Owing to the corrosive action of the lead chloride which would be in solution after treatment of the reaction mass with water, it would be necessary to use lead reactors for the steaming out of the lead tetra ethyl. The Grignard reactor could be made of iron. Indeed, that would be very much preferable. We have no data as yet on the recovery of the lead, although it appears that treatment of the press cake with hydrochloric acid will form lead chloride of the finely divided metallic lead, especially if the solution is hot. The lead chloride initially required would be made from lead oxide and hydrochloric acid. All materials entering into the Grignard reaction must be perfectly dry and the lead chloride must be perfectly dry. Consequently, all lead chloride used and recovered lead chloride would have to be dryed before entering into the process. The ether which is recovered, except that which might come from the steam distillation can be used directly into the process, but any ether or toluene obtained from the steaming out would have to be dry before it could be used. The lead tetra ethyl obtained in the steaming out of the reaction mass would have to be purified by distillation under vacuum. The lead tetra ethyl distills under vacuum at about 100° C. and a vacuum still of almost any design would be all that is necessary.

There are several lines of research which would be necessary to prove out this process completely. In the first place, our laboratory results were practically all run with ethyl bromide, but the cost of this is too high if lead tetra ethyl must be sold at around a dollar a pound. Consequently, more experiments must be carried out, using ethyl chloride. Furthermore, experiments should be conducted tending to minimize the amount of ether used in the process. It may be possible to cut down the amount of ether to the theoretical quantity to form the Grignard complex.

$$C_2H_5MgBr \qquad (C_2H_5)_2O$$

This amount of ether would be about one-eighth of that which we have indicated as used in the process. This would mean quite a saving because the loss of ether, then, would not be in proportion to what we have listed.

In any event, our experiments should be repeated on a large enough scale to enable us to translate all data to large scale production, and I deem it advisable to run

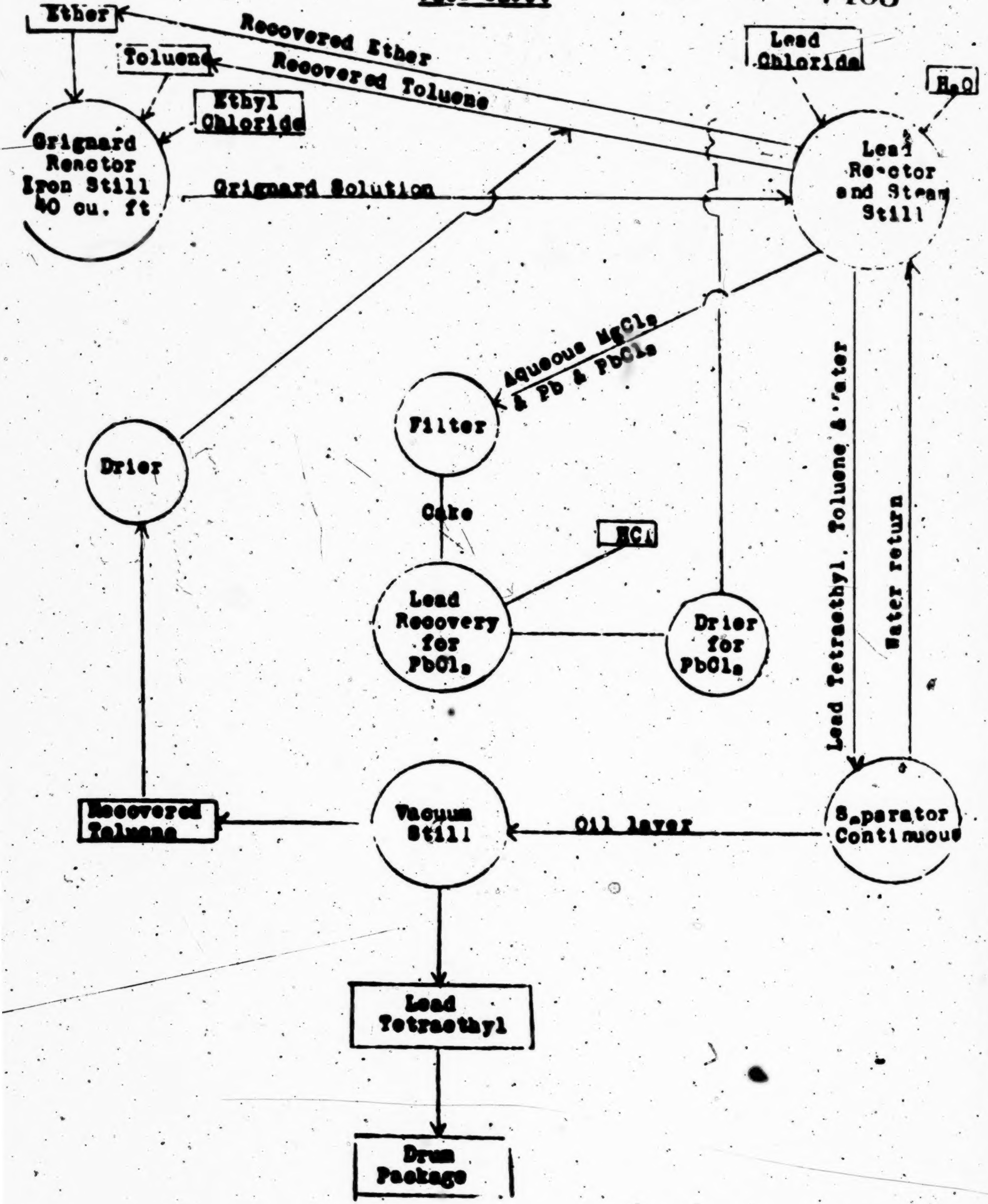
such a plant for one or two months before a larger plant is built. The Grignard process is an entirely new commercial process and its possibilities of trouble are great. Consequently, we should exercise great caution in going into the commercial use of this reaction. Furthermore, lead tetra ethyl is poisonous and all data on handling and processing should be carefully studied.

Respectfully submitted,

ECB:E
6-21-26

Note: "This Report is the Property of The Dow Chemical Company" is stamped on cover, title page and page 6 of the Report.

Flow Sheet


Ether
Toluene
Ethyl Chloride
Grignard Reactor Iron Still 40 cu. ft
Recovered Ether
Recovered Toluene
Grignard Solution
Lead Chloride
H_2O
Lead Reactor and Steam Still
Aqueous $MgCl_2$ & Pb & $PbCl_2$
Filter
Drier
Cake
HCl
Lead Recovery for $PbCl_2$
Drier for $PbCl_2$
Lead Tetraethyl, Toluene & Water
Water return
Recovered Toluene
Vacuum Still
Oil layer
Separator Continuous
Lead Tetraethyl
Drum Package

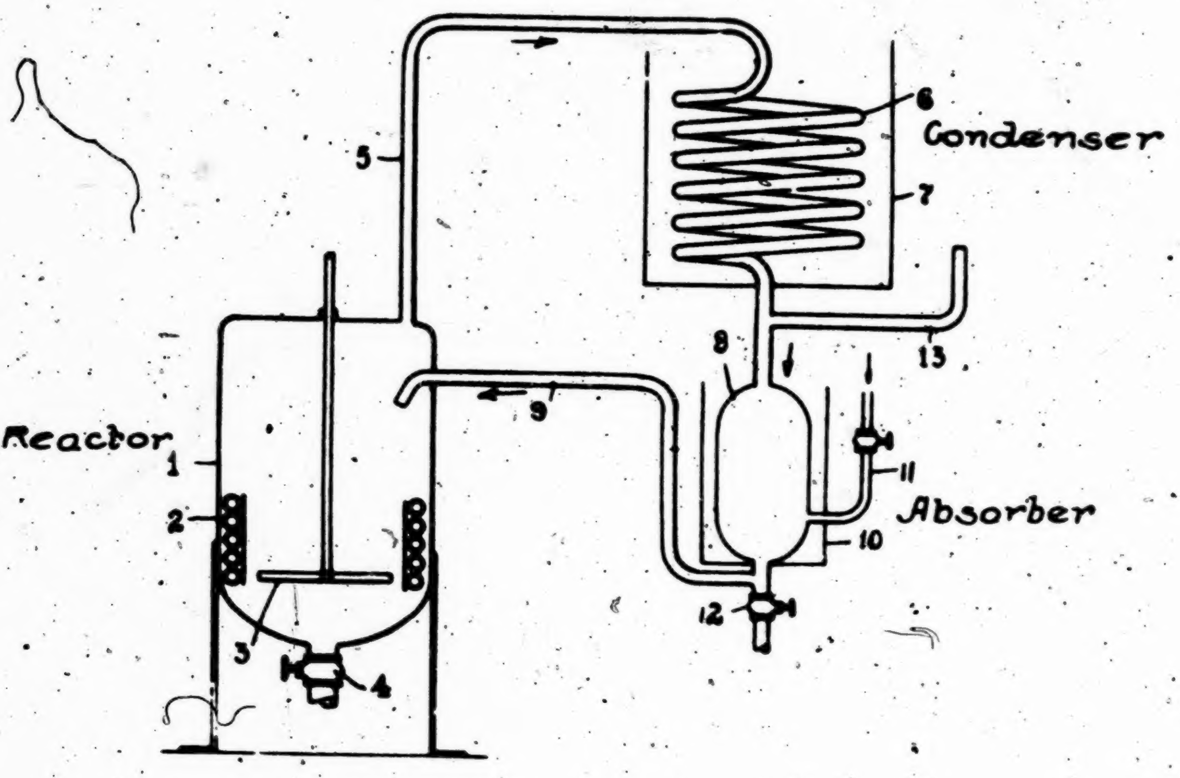
Defendant's Exhibit (GM) No. 281

May 19, 1931. **E. C. BRITTON** 1,805,756

METHOD OF MAKING METAL ALKYL COMPOUNDS

Filed Nov. 16, 1926 2 Sheets-Sheet 1

Fig. 1.


5
6
Condenser
7
13
8
9
Reactor
1
2
11
Absorber
10
3
12
4

INVENTOR
Edgar C Britton
BY
Gay, Oberlin & Gay

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May 19, 1931. E. C. BRITTON 1,805,756

METHOD OF MAKING METAL ALKYL COMPOUNDS

Filed Nov. 16, 1926 2 Sheets-Sheet 2

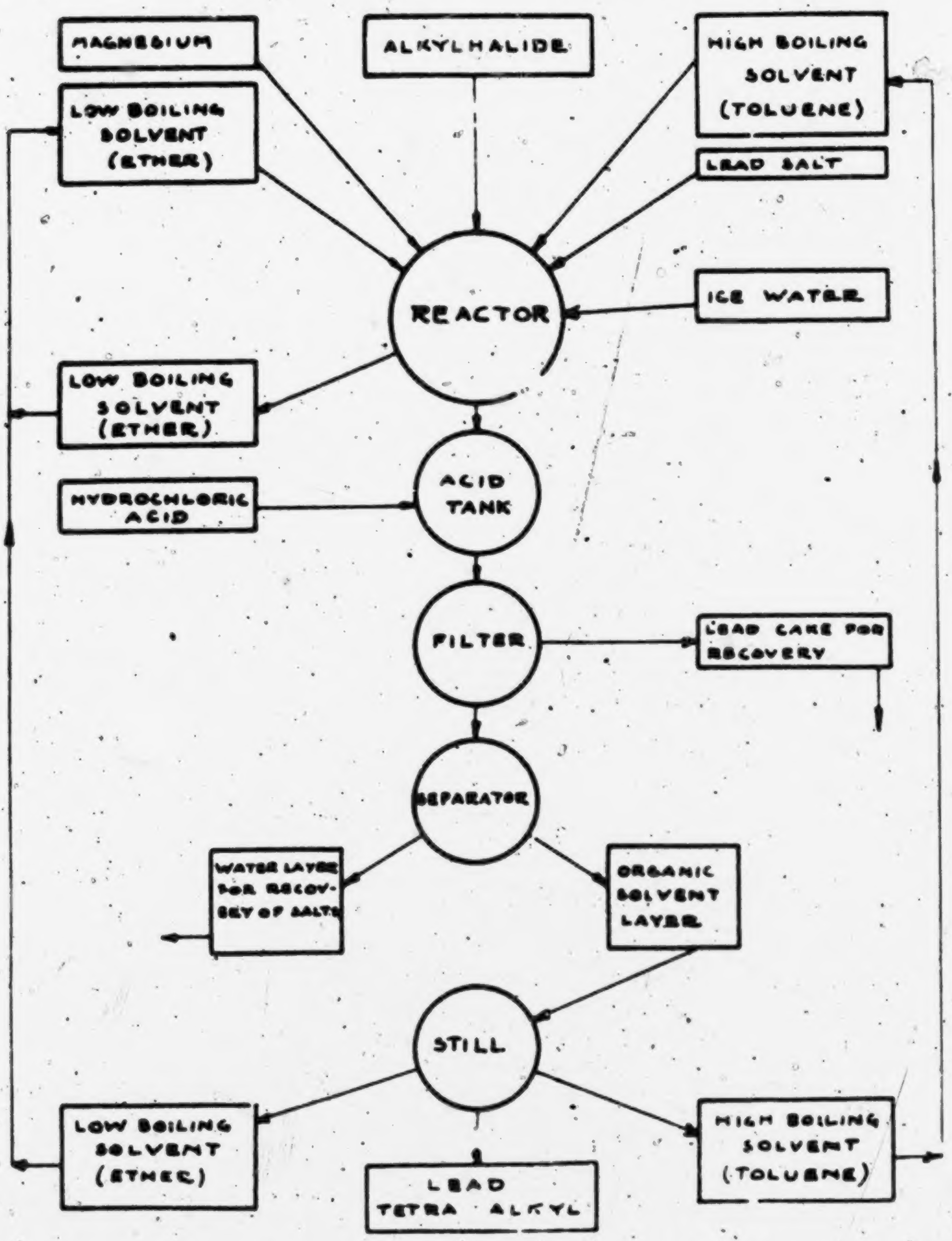
MAGNESIUM
ALKYLHALIDE
HIGH BOILING SOLVENT (TOLUENE)
LOW BOILING SOLVENT (ETHER)
LEAD SALT
REACTOR
ICE WATER
LOW BOILING SOLVENT (ETHER)
ACID TANK
HYDROCHLORIC ACID
FILTER
LEAD CAKE FOR RECOVERY
SEPARATOR
WATER LAYER FOR RECOVERY OF SALTS
ORGANIC SOLVENT LAYER
STILL
LOW BOILING SOLVENT (ETHER)
LEAD TETRA ALKYL
HIGH BOILING SOLVENT (TOLUENE)

Fig. 2

INVENTOR.
Edgar C. Britton
BY
Fay, Oberlin & Fay
ATTORNEYS.

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Patented May 19, 1931 **1,805,756**

UNITED STATES PATENT OFFICE

EDGAR C. BRITTON, OF MIDLAND, MICHIGAN, ASSIGNOR TO THE DOW CHEMICAL COMPANY, OF MIDLAND, MICHIGAN, A CORPORATION OF MICHIGAN

METHOD OF MAKING METAL ALKYL COMPOUNDS

Application filed November 16, 1926. Serial No. 148,714.

The present invention relates to methods for preparing metal alkyl compounds, more especially lead alkyl compounds, e. g. tetraethyl lead.

There are three reported methods for the preparation of tetraethyl lead, $Pb(C_2H_5)_4$, viz., (1) by the action of an ethyl halide and sodium lead alloy, (2) by the action of zinc ethyl and lead chloride, and (3) by the action of ethyl magnesium bromide or iodide on lead chloride. The first to attempt use of this last mentioned method involving the use of organic magnesium compounds, RMgX, or of the so-called Grignard reagents, were, so far as I am aware, Pfeiffer & Truskier, Ber. 37, 1127 (1904) who reacted magnesium, ethyl iodide and lead chloride in ether solution to form lead tetraethyl. The latter, however, decomposed on distillation producing metallic lead, and in order to prevent such decomposition, the tri-ethyl lead chloride was prepared. Gruttner & Krause, Ber. 49, 1415 (1916), subsequently reported the preparation of lead tetraethyl as a distilled product by this reaction, but they were able to obtain only 85 grams of pure lead tetraethyl from 300 grams of ethyl magnesium bromide and 300 grams of lead chloride; a yield of only 38 per cent. on the lead chloride used.

I have discovered that, in any method for making organic compounds by the Grignard reaction, the action of heat on the addition product of any compound which adds to the organo-magnesium haloid complex increases the yield of the desired end product. That is, while the first stage of reaction can be conducted at lower temperatures, the temperature should be higher for the last stage. Where a low-boiling solvent, such for instance as ether, is used initially, this action of heat is best accomplished by adding a higher-boiling solvent as for example toluene, xylene, etc., to the reaction mixture and then distilling off the ether or low-boiling solvent, whereby the temperature may be elevated to any point determined as the best for the reaction in hand. The foregoing discovery is of applicability not merely to the making of lead tetraethyl but other like organic compounds by the Grignard reaction.

This application is a continuation in part of my application Serial No. 389 filed January 3, 1924.

To the accomplishment of the foregoing and related ends, the invention, then, consists of the steps hereinafter fully described and particularly pointed out in the claims, the annexed drawings and the following description setting forth in detail one approved method of carrying out the invention, such disclosed mode, however, constituting but one of the various ways in which the principle of the invention may be used.

In said annexed drawings:—

Figure 1 is a diagrammatic representation of a special apparatus for carrying out such improved method or process. Fig. 2 is a flow sheet illustrating the sequence of steps and movement of materials in the process as applied to the manufacture of a tetra-alkyl lead compound.

The apparatus thus shown may for convenience be first described. Such apparatus will be seen to consist of a reactor 1 on the order of a still that is provided with a steam coil 2 and a suitable externally driven stirrer 3. An opening (not shown) which may be properly sealed will also be provided for the convenient introduction of certain of the ingredients, as well as a valve controlled outlet opening 4 at the bottom of the reactor. Connected with the latter by means of a duct 5 is a condenser coil 6 located in a cooling chamber 7, the lower end of such coil being connected with an absorber 8 from which a duct 9 leads back to the reactor. Said absorber, like the condenser, is located in a cooling chamber whereby the temperature of the returning condensate may be controlled, and connected with said absorber, preferably near its lower end, is a valve controlled duct 11 through which additional ingredients may be supplied to the condensate at this stage. For the purpose of withdrawing the condensate from the system, instead of returning the same through duct 9 to reactor 1, a valve controlled outlet 12 is provided at the lower end of the absorber. A vent 13 is also shown as leading from the extension of the

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Defendants' Trial Ex. No. GM-281

condenser coil 6 which connects the latter with the absorber.

The procedure as applied for instance for preparing lead tetraethyl by the present improved method and using the apparatus just described may be illustrated by the following example:—1 pound of magnesium shavings is placed in the still or reactor 1 along with any usual or preferred solvent, as for example 5 pounds of ether, and a crystal of iodine. To this, cooled and stirred as much as possible, is then added an ethyl halide, as for instance ½ pound of ethyl bromide. The reaction of the latter and magnesium will proceed at once and generally cause the ether to boil. After this initial reaction is over, a mixture of ethyl halide and solvent, e. g. 3¾ pounds of ethyl bromide and 4 pounds of ether is added gradually over a period of from 20 to 30 minutes, such additional amount of ethyl bromide completing the formation of the theoretical amount of ethyl magnesium bromide which constitutes the specific organo-magnesium haloid complex involved. The temperature during this stage should be approximately 40 degrees C. or in any case below 50 degrees C. An organic solvent capable of providing a higher temperature, for instance 10 pounds of toluene, is added to the reaction mixture and then a salt of lead, e. g. 5 pounds of dry, powdered, technical chloride, the addition of the latter being spread over approximately 15 minutes and the temperature remaining at that last given. Next, the reaction mixture is refluxed at a temperature of from 67 to 70 degrees C. for 20 minutes, following which the ether, if such be used, is distilled off by raising the temperature in the reactor 1 to from 90 to 95 degrees C. and the mass refluxed at this temperature for approximately three hours.

The reactions occurring during the procedure just described may be represented by the following equations:—

(1) $C_2H_5Br + Mg = C_2H_5MgBr$

(2) $2C_2H_5MgBr + PbCl_2 = Pb(C_2H_5)_2 + MgCl_2 + MgBr_2$

(3) $2(C_2H_5)_2Pb = Pb(C_2H_5)_4 + Pb.$

The reaction product resulting from the foregoing steps consists of a grayish black spongy mass which after cooling to 50 degrees C. is treated with ice and stirred, whereupon the whole becomes liquid and is drawn off into a suitable container. After acidifying to Congo red reaction, approximately 1½ pounds of 30 per cent. hydrochloric acid, HCl, being required, the mass is filtered and the filtrate put in a separator and allowed to settle thoroughly. After complete separation the upper toluene layer is removed and subjected to fractional distillation under vacuum. The remaining ether passes over first at low temperature, the toluene at 40 degrees C. and the lead tetraethyl at approximately 100 degrees C., under a 28¼ inch vacuum.

As indicated, regardless of any solvents and whether or not pressure be used, the matter of especial advantage which I wish to make clear is the desirability of the application of considerable heat to the magnesium haloid addition complex reaction product of the desired metal, as it is thereby that the yield-increase of the desired end product is obtained.

As a general rule, the shorter the time of forming the magnesium compounds, the better yield one can obtain. While as at present advised ethyl bromide works better than ethyl chloride in the formation of the organo-magnesium complex, this may be due to the presence of some impurity in such chloride which is detrimental to a Grignard reaction.

In using ethyl chloride as the organ halide, such chloride may be added as a liquid in solution with ether, or since it has a boiling point of 13 degrees C., it may be introduced as a gas through pipe 11 into the return condensate, or pressure can be used with either halide if preferred.

By initiating the Grignard reaction with ethyl bromide as the organic halide and then finishing with ethyl chloride, a much more rapid formation of Grignard compound can be realized than by using ethyl chloride alone. If ethyl bromide is used instead of ethyl chloride, it may be entered into the reaction by being introduced into the returning distillate, or since it is a liquid at normal temperatures, it may be introduced directly into the reaction chamber.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the method herein disclosed, provided the step or steps stated by any of the following claims or the equivalent of such stated step or steps be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In a method of making a metal alkyl compound, the step which consists in heating the initial reaction product of an alkyl magnesium halide and a halide of the metal at a temperature above 50° C.

2. In a method of making a metal alkyl compound, the steps which consist in reacting between an alkyl-magnesium halide and a halide of the metal at a temperature not much exceeding room temperature and subjecting the product so formed to a materially higher temperature.

3. In a method of making a metal alkyl compound, the steps which consist in reacting between an alkyl-magnesium halide and a halide of the metal at a temperature below 50° C., and heating the product so formed to a temperature materially above 50° C.

4. In a method of making a metal alkyl

compound, the step which consists in reacting between an alkyl-magnesium halide and a halide of the metal in the presence of a non-reactive carrier liquid at a temperature below 50° C., and finishing the reaction at a higher temperature.

5. In a method of making a metal alkyl compound, the steps which consist in reacting between an alkyl-magnesium-halide and a halide of the metal in the presence of a non-reactive carrier liquid, at a temperature below 50° C., and finishing the reaction at a higher temperature, under pressure.

6. In a method of making a metal alkyl compound, the steps which consist in treating magnesium with an alkyl halide in a non-reactive solvent medium, adding to the resulting product a halide of the metal at a temperature below 50° C., and finishing the reaction by heating at a temperature materially above 50° C.

7. In a method of making a metal alkyl compound, the steps which consist in treating magnesium with an alkyl halide in a non-reactive solvent medium, adding to the resulting product a halide of the metal at a temperature below 50° C., and finishing the reaction by heating at a temperature materially above 50° C., under pressure.

8. In a method of making a metal alkyl compound, the steps which consist in treating magnesium with an ethyl halide in a non-reactive solvent medium, adding to the resulting product a halide of the metal at a temperature below 50° C., and finishing the reaction by heating at a temperature materially above 50° C.

9. In a method of making a metal alkyl compound, the steps which consist in reacting between an alkyl-magnesium halide and a halide of the metal at a temperature below 50° C. in the presence of ether and an organic solvent having a higher boiling point than the ether, removing the ether, and then heating at a temperature materially higher than that of the initial reaction.

10. In a method of making a metal alkyl compound, the steps which consist in reacting between an alkyl-magnesium halide and a halide of the metal at a temperature below 50° C. in the presence of ether and a solvent of higher boiling point than the ether, distilling off the ether, and heating the initial product at a temperature materially above 50° C.

11. In a method of making a metal alkyl compound, the steps which consist in reacting between an alkyl-magnesium halide and a halide of the metal at a temperature below 50° C. in the presence of ether and an aromatic hydrocarbon solvent, distilling off the ether, and then heating the initial reaction product temperature materially above 50° C.

12. In a method of making a metal alkyl compound, the steps which consist in adding to an ethereal solution of an alkyl-magnesium halide an aromatic hydrocarbon solvent and a halide of the metal, heating the initial reaction product to distill off the ether, and then refluxing such product at a temperature materially above 50° C.

13. In a method of making a lead alkyl compound, the step which consists in heating the initial reaction product of an alkyl magnesium halide and a lead halide at a temperature above 50° C.

14. In a method of making a lead alkyl compound, the steps which consist in reacting between an alkyl-magnesium halide and a halide of lead at a temperature not much exceeding room temperature, and heating the product so formed to a materially higher temperature.

15. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium halide and a halide of lead at a temperature not much exceeding room temperature, and heating the product so formed to a temperature above 50° C.

16. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium halide and lead chloride at a temperature below 50° C., and heating the product so formed to a temperature materially above 50° C.

17. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium-halide and a lead halide in the presence of a non-reactive carrier liquid, at a temperature not much in excess of room temperature, and finishing the reaction at a temperature materially higher.

18. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium-halide and a lead halide in the presence of a non-reactive carrier liquid, at a temperature below 50° C., and finishing the reaction at a higher temperature.

19. In a method of making a lead alkyl compound, the steps which consist in treating magnesium with an alkyl halide in a non-reactive solvent medium, adding to the resulting product a lead halide at a temperature below 50° C., and finishing the reaction by heating at a temperature materially above 50° C.

20. In a method of making a lead alkyl compound, the steps which consist in treating magnesium with an ethyl halide in a non-reactive solvent medium, adding to the resulting product a lead halide at a temperature below 50° C., and finishing the reaction by heating at a temperature materially above 50° C.

21. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium halide and a lead halide at a temperature below 50° C. in the presence

of ether and a solvent having a higher boiling point than ether, distilling off the ether, and then heating the initial reaction product at a temperature materially above 50° C.

22. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium halide and a lead halide at a temperature below 50° C. in the presence of ether and an aromatic hydrocarbon solvent, distilling off the ether, and then heating the initial reaction product at a temperature materially above 50° C.

23. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium halide and a lead halide in the presence of ether and toluene, distilling off the ether, and then heating the initial reaction product at a temperature materially above 50° C.

24. In a method of making lead tetraethyl, the steps which consist in adding an aromatic hydrocarbon solvent and lead chloride to an ethereal solution of an ethyl-magnesium halide, distilling off the ether, and then heating the initial reaction product at a temperature materially above 50° C.

25. In a method of making lead tetraethyl, the steps which consist in reacting between an ethyl-magnesium halide and lead chloride in the presence of ether and toluene at a temperature below 50° C., heating the initial product up to a temperature of approximately 90° to 95° C., and refluxing the same at the latter temperature.

26. In a method of making a metal alkyl compound, the steps which consist in treating magnesium with an alkyl bromide, then with an alkyl chloride in a non-reactive carrier liquid, treating the resulting compound with a halide of the metal at a temperature not much in excess of room temperature, and finishing the reaction at a materially higher temperature.

27. In a method of making a metal alkyl compound, the steps which consist in treating magnesium with an alkyl bromide, then with an alkyl chloride in a non-reactive carrier liquid, treating the resulting compound with a halide of the metal at a temperature below 50° C., and finishing the reaction at a higher temperature.

28. In a method of making a metal alkyl compound, the steps which consist in treating magnesium with an alkyl bromide, then with an alkyl chloride in a non-reactive carrier liquid, treating the resulting compound with a halide of the metal at a temperature below 50° C., and finishing the reaction at a higher temperature, under pressure.

29. In a method of making lead tetraethyl, the steps which consist in treating magnesium with ethyl bromide, then with ethyl chloride, in a non-reactive carrier liquid, treating the resulting compound with a lead halide at a temperature not much in excess of room temperature, and finishing the reaction at a temperature materially higher.

30. In a method of making lead tetraethyl, the steps which consist in treating magnesium with ethyl bromide, then with ethyl chloride in a non-reactive carrier liquid, treating the resulting compound with a lead halide at a temperature below 50° C., and finishing the reaction at a higher temperature.

Signed by me this 3d day of November, 1926.

EDGAR C. BRITTON.

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Defendant's Exhibit (GM) No. 282

7470

Cost of $Pb(Et)_4$

Raw materials.

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97.2#	of Mag at 30¢ =	29.16
268 #	of ethyl chloride at 10¢ =	26.80
278x2 #	of ~~lead~~ chloride at 6¢ =	3336
100 #	of ether at 9¢ =	9.00
Total raw material	=	98.27
Recovered lead = 210# at 5¢	=	10.50
		8777

242# of $Pb(Et)_4$ a yield of 74% = 36.3¢ per #

4/18/31

Defendant's Exhibit (GM) No. 283.

COPY from files of Dr. H. H. Dow

Memorandum

Mr. Webb, president of the Ethyl Gasoline Corporation, was here Friday, June 25, 1926. Mr. Webb stated that the sales of ethylized gas were progressing as well or better than anticipated. The Standard Oil Company of Indiana have been selling 15% of their gas in the form of ethyl gas wherever they have put it on sale. Mr. Webb stated that they feel confident of being able to boost their sales to 30%.

Mr. Webb states that he is confident that the ethyl chloride will be withdrawn at a rate fully up to the estimate they gave us. We are shipping this month to the Ethyl Gasoline Corporation 105,000 pounds of ethylene dibromide, which is their contract requirements beginning June 1.

Mr. Webb felt sure that on their second contract they would want deliveries to begin on August 1 and quite likely at the full rate of 100,000 pounds per month.

Mr. Webb brought with him two gentlemen, a Mr. Proffitt from Denver and a Mr. Huff from Sioux City, Iowa. Mr. Proffitt conducts a consulting laboratory in Denver; he is an organic chemist and formerly manufactured dye intermediates. Mr. Huff is not a chemist but is engaged in manufacturing a serum for hog cholera and apparently is very successful. Mr. Proffitt has a process for the manufacture of lead tetra ethyl, Mr. Huff apparently being his backer. They have manufactured and sold small quantities.

The Ethyl Gasoline Corporation has tentatively entered into a contract with them for the manufacture of lead tetra ethyl. However, on account of their being located so far from the present market for ethyl gas and due to the fact that the Ethyl Gas people wish to have all manufacture of lead tetra ethyl conducted under the supervision of their experienced physician in order to prevent any further casualties which might give them a "black eye," they are desirous of having the Dow Company manufacture the lead tetra ethyl either under our process or the Denver process. Mr. Webb stated very positively that he felt that we are the logical people to undertake its manufacture as he could not afford to depend on one source of supply and, if manufactured at Midland, it could be blended right here with the ethylene di bromide thus saving freight on both commodities; furthermore, Midland being in the territory of the Standard Oil Company of Indiana, who are their largest customer for ethyl gas, would be another added advantage. Our process for the manufacture of lead tetra ethyl uses as principal raw materials, outside of lead, magnesium metal and ethyl chloride.

The matter is being held in abeyance until we can fully demonstrate the advantages and safety of our process or determine from our further experimental work that it would be unwise to enter into its manufacture. If we enter into its manufacture, it will probably call for a capital investment of $100,000. The material would be needed at about the rate of 1,000,000 pounds for the first year starting a year from now.

COPY from files of Dr. Herbert H. Dow

Midland, Michigan.
June 28, 1926.

Reasons why we should not manufacture Lead Tetra Ethyl.

1st— Uncertainty of the business.

2nd— Hazard of the business undoubtedly great.

3rd— Interference with other lines.

4th— Shortage of power.

5th— Lack of capital.

6th— Any casualties would to some extent injure our good name.

Reasons why we should manufacture Lead Tetra Ethyl.

1st— If we will make a reasonable price the Ethyl Gas will not insist on our gambling on the outcome but will guarantee amortization of the plant "B". Comparatively speaking the sales expense would be negligible.

2nd— Ethyl Gas people state that their Doctor Kehoe has worked out the necessary precautions to take and will personally see that the manufacture will be safeguarded to such an extent that risks are reduced to normal.

3rd— All growth interfered with normal operation, but in the end has paid.

4th— The price proposed for Magnesia Metal would permit us to purchase power and still make a satisfactory profit on the metal, our own investment in power delayed to such time as a fully established demand warrants.

5th— (a) By purchasing power until the business was well established capital would be greatly conserved.

(b) Investment in Magnesia Metal cells to increase capacity is already contemplated, and if not used for Lead Tetra Ethyl would undoubtedly be used for the increasing demand for Magnesium Metal.

(c) Increased production of metal would cheapen cost of present production.

(d) The Nail process for the manufacture of Calcium and Magnesium will produce more Magnesium than we can market. Therefore, all the Magnesium Chloride used for Lead Tetra Ethyl would give additional profit to the nail process of not less than ten dollars per ton of Magnesium Chloride so used equivalent to about six cents on the metal or three cents on the Lead Tetra Ethyl.

(e) Any help given the Ethyl Gas Corp. should react to give a better market for Ethylene di bromide.

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(f) We already are manufacturers of another raw material, namely Ethyl Chloride.

(g) The production of Lead Tetra Ethyl at the point where Ethylene di bromide is made is to be greatly desired, and Midland is situated in the territory of the Standard Oil of Indiana, Ethyl Gas Co.'s largest customer. All blending for this territory would be done here.

(h) This line of manufacture not being so competitive as most lines should permit of the restoration of capital at an earlier date than we could normally expect.

6th— A sinking fund should be provided and nothing left undone to prevent accidents, and with our experience we are in a better position than inexperienced concerns. This would justify our entering the field as we have a sincere belief that we could prevent any serious accident where others might possibly have serious trouble.

Defendant's Exhibit (GM) No. 285

C. E. WILSON EMPLOYMENT HISTORY WITH GENERAL MOTORS CORPORATION

Date	Position
4-20-1919	Chief Engineer, Remy Electric Division
12-1-1921	Factory Manager, Remy Electric Division
12-1-1924	Assistant General Manager, Remy Electric Division
2-1-1925	General Manager, Remy Electric Division
1-1-1928	General Manager, Delco-Remy Division
1-1-1929	Assistant to President, General Motors Corporation, Central Office
6-1-1929	Vice President in Charge of Manufacturing Staff and Chairman Purchasing Committee, also Chairman Works Managers Committee, Assistant Group Executive in Charge of Household Appliance Group, Vice President in Charge of Aviation Group
1933	Vice President in Charge of Real Estate Operations
6-1930 to 9-1934	Vice President in Charge of Accessory Group (jointly with J. L. Pratt)
1-1-1934	Vice President in Charge of Accessory Operations
9-1-1934	Vice President and General Assistant to W. S. Knudsen to 5-1-1939
11-5-1934	Director to 1-26-1953
1-1-1935	Vice President and General Assistant to Executive Vice President - Car, Truck, Body, and Accessory Operations; Member Executive Committee from 8-5-1935 to 5-3-1937; Member of Administration Committee from 5-3-1937 to 5-1-1939; Member of Policy Committee from 5-3-1937 to 6-3-1946
5-1-1939	General Assistant to President; Executive Vice President 5-1-1939 to 6-18-1940; Vice Chairman of Administration Committee from 5-1-1939 to 6-18-1940

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Date	Position
6-18-1940	Acting President; Acting Chairman of Administration Committee 6-18-1940 to 1-6-1941
1-6-1941	President; Chairman of Administration Committee
6-3-1946	President; Chief Executive Officer; Chairman of Operations Policy Committee; Member of Financial Policy Committee; Chairman of Administration Committee
1-26-1953	Resigned

Defendant's Exhibit (GM) No. 286

EXCERPT FROM MINUTES OF

JOINT MEETING OF
OPERATIONS AND EXECUTIVE COMMITTEES
GENERAL MOTORS CORPORATION

July 17, 1930

Present:	Mr. Alfred P. Sloan, Jr., Chairman
	Mr. Albert Bradley
	Mr. Donaldson Brown
	Mr. Lammot duPont
	Mr. Charles T. Fisher
	Mr. Fred J. Fisher
	Mr. Lawrence P. Fisher
	Mr. R. H. Grant
	Mr. O. E. Hunt
	Mr. William S. Knudsen
	Mr. J. D. Mooney
	Mr. John L. Pratt
	Mr. C. E. Wilson
Absent:	Mr. John Thomas Smith

RAW MATERIALS - FUTURE COMMITMENTS

There was discussed the question of whether we would be justified in making forward purchases of certain basic raw materials in order to take advantage of what seem to be attractive prices existing at this time. The suggestion was made that we might purchase up to $20,000,000 worth of such materials in excess of what we would ordinarily purchase for our scheduled needs but not in excess of what we could use during the year 1931 on the basis of a conservative estimate of production.

The Committee was in sympathy with the idea of making forward purchases of certain raw materials provided a satisfactory plan can be worked out for submission to the Finance Committee. Messrs. C. E. Wilson, John L. Pratt, Donaldson Brown and Wm. S. Knudsen were appointed a sub-committee to develop a plan for submission at the next meeting of this Committee for further consideration.

Defendant's Exhibit (GM) No. 287

GENERAL MOTORS CORPORATION

INTER-ORGANIZATION LETTERS ONLY

7480

TO Mr. J. L. Pratt, ADDRESS General Motors Corp., N. Y.

FROM Mr. C. E. Wilson, ADDRESS General Motors Corp., Detroit.

SUBJECT Purchase of Commodities.

August 25th, 1930.

On analysing the problem of purchasing commodities as we have discussed, I find the only feasible way in which we can reasonably make advance commitments is thru the concerns who fabricate material using the commodities.

While in some cases it would be possible to buy futures in the commodities themselves, I do not believe it would be good policy for us to do this as we would then be competing with the fabricators of the material who might be protecting themselves for their ordinary requirements which would include their estimate of what our requirements might be, in other words, we would be artificially reflecting the demand for the commodities. For example - if we attempted to buy rubber futures at the present time, we would be competing with the tire companies who in line with their policy, would be protecting themselves for their normal requirements, which would include a percentage of our business.

It seems to me that it is entirely feasible to work with our principal suppliers and obtain the price protection on the basic commodities discussed. The way I think the situation could be handled is as follows: using our Central Purchasing Committee as the vehicle for handling the work, we could estimate our requirements and work with the two or three Divisions who might be the principal users of the commodity involved. We could then handle the situation so that the basic commodity itself, with the commitment and the fabricating charge could be settled by the various Divisions.

For example - we could make copper commitments for certain tonnages with Anaconda, American Smelting and Kennecott as the Divisions desired, depending on the price at which we could purchase the material and the fabricating cost on the heavy items of consumption. In the case of copper to make sure we were not making any mistake or anticipating ourselves in any way in the future, we would go over the matter very carefully with the following Divisions -

Harrison Radiator,
Delco Remy,
Frigidaire,
Delco Products,
Guide Lamp,
Chevrolet.

The situation would be handled so that it was sufficiently flexible so that any change in our specifications for the fabricating material would not interfere in any way with the liquidation of the commitment on the basic commodity.

In the case of lead, we would only have to deal with Delco Remy, Frigidaire and Harrison Radiator. In the case of zinc, we would deal with A. C. Ternstedt, Guide Lamp, Harrison Radiator and Chevrolet.

I do not see any way of covering on rubber or cotton except thru the tire companies. On the basis of the decrease of price of cotton and rubber we should be able to purchase tires at the present time for from 20 to 25% less than at this time last year.

I believe, it would be worth while to set up the machinery for making such commitments within the next few weeks so that we will be in a position to take advantage of minimum prices.

Yours very truly,

C. E. Wilson

C. E. Wilson.

CEW
MMJ
CC- Mr. Donaldson Brown,
Mr. W. F. Knudsen.

Defendant's Exhibit (GM) No. 288

EXCERPT FROM MINUTES OF

FINANCE COMMITTEE
GENERAL MOTORS CORPORATION

September 8, 1930

Present: Messrs. Donaldson Brown
G. F. Baker, Jr.
W. S. Carpenter, Jr.
H. F. duPont
Irenee duPont
F. J. Fisher
J. S. Morgan, Jr.
C. S. Mott
Seward Prosser
J. J. Raskob
A. P. Sloan, Jr.
George Whitney

Absent: Messrs. Lammot duPont
P. S. duPont

Messrs. A. Bradley and J. L. Pratt were also present.

Mr. Donaldson Brown, Chairman of the Committee presided, and Mr. L. R. Beardslee, Secretary, recorded.

FORWARD COMMITMENTS FOR RAW MATERIALS

There was a general discussion regarding the desirability of making forward commitments for materials, in view of the apparently favorable prices prevailing at the present time.

It was the sentiment of this Committee that the operating executives should be permitted to contract for materials required in our business for a year in advance (based upon a conservative estimate of our requirements) in those cases where in their opinion such commitments are desirable purchases for the corporation.

Defendant's Exhibit (GM) No. 289

7484

EXCERPT FROM MINUTES OF

JOINT MEETING OF
OPERATIONS AND EXECUTIVE COMMITTEES
GENERAL MOTORS CORPORATION

March 12, 1931

Present: Messrs. A. P. Sloan, Jr.
A. Bradley
Lammot duPont
L. P. Fisher
R. H. Grant
W. S. Knudsen
J. D. Mooney
J. L. Pratt
C. E. Wilson
O. E. Hunt

Absent: Messrs. Donaldson Brown
C. T. Fisher
F. J. Fisher
J. T. Smith

The Chairman, Mr. A. P. Sloan, Jr., presided, and the Secretary, L. R. Beardslee, recorded.

PURCHASE OF COMMODITIES

Report was submitted by Vice-President Wilson dated March 11, 1931 (OC-916) showing purchases so far made of rubber, cotton, copper, zinc and lead, and upon motion, same was accepted and ordered filed.

Upon motion duly made, seconded and unanimously adopted, it was

RESOLVED, that it is the sense of this meeting that we should buy at this time our requirements of rubber, cotton, copper, zinc and lead to cover our estimated manufacturing schedules for the year 1931.

COMMODITY REPORT

3-11-31.

PURCHASES			REQUIREMENTS		
Date	Quantity	Average Price CWT	Date	Quantity	Monthly Average Price CWT

RUBBER

Date	Quantity	Average Price CWT	Date	Quantity	Monthly Average Price CWT
Oct. 1 to Dec. 31	5500 ton	8.68	Dec. for January	1328	8.95
Jan 1. " Mar. 7	4175 "	7.82	Jan. " February	1097	8.94
			Feb. " March	1328	8.27
TOTAL	9675		Mar. " April	1433	
			TOTAL	5186	

The 4500 ton balance will provide for our June release of rubber to cover July Production.

COTTON

Date	Quantity	Average Price CWT	Date	Quantity	Monthly Average Price CWT
Spot Futures	8470 bales	10.39	Dec. for Jan.	2136 Bales	10.94
May	1000 "	10.26	Jan. for Feb.	1800 "	10.15
July	1000 "	10.49	Feb. for March	2184 "	10.80
Oct.	1000 "	10.25	Mar. for April	2350 "	11.25
			TOTAL	8470	

The 7000 Bale Balance will provide for our June release of cotton to cover July production.

COPPER

Date	Quantity	Average Price CWT	Date	Quantity	Monthly Average Price CWT
Oct. 31-30	25,000,000 lb.	9.50	Nov. for Jan.	92,000 lb.	10.25
Feb. 28-30	10,000,000 "	9.75	Dec. for Feb.	1,740,000 "	10.49
			Jan. for Mar.	3,728,000 "	9.90
TOTAL	35,000,000 "		Feb. for April	3,840,000 "	10.20
			TOTAL	9,400,000 "	

The 25,600,000 balance will provide for our September release for November Production. Copper releases from Divisions are on basis of 2/3 their requirements only.

ZINC (BRASS)

Date	Quantity	Average Price CWT	Date	Quantity	Monthly Average Price CWT
Oct. 31-30	4,485,000 lbs.	4.40	Nov. for Jan.	40,000 lbs.	4.64
			Dec. for Feb.	240,000 "	4.44
			Jan. for March	600,000 "	4.38
			Feb. for April	590,000 "	4.37
			TOTAL	1,470,000	

The 3,015,000 lb. balance will provide for our July release for September production. Zinc(Brass) releases from Divisions are on basis of 2/3 their requirements only.

PURCHASES			REQUIREMENTS		
Date	Quantity	Average Price CWT	Date	Quantity	Monthly Average Price CWT
	ZINC (99.99% Die Cast)				
Jan. 8	2700 ton	5.00	Feb. for March	82 ton	5.00
Jan. 15	500 "	5.10			
Feb. 19	500 "	4.95			
TOTAL	3700				

The 3618 ton balance will provide for our July release for August Production.

	LEAD (Desilverized)	
Mar. 2	1500 ton	4,545

This will provide for June release for July Production

....

C. E. Wilson.

CEW
MMJ

2
E

Defendant's Exhibit (GM) No. 290

EXCERPT FROM MINUTES OF

FINANCE COMMITTEE
GENERAL MOTORS CORPORATION

March 23, 1931

Present: Messrs. Donaldson Brown
W. S. Carpenter, Jr.
Irenee duPont
Lammot duPont
P. S. duPont
J. J. Raskob
Seward Prosser
A. P. Sloan, Jr.

Absent: Messrs. G. F. Baker, Jr.
H. F. duPont
F. J. Fisher
J. S. Morgan, Jr.
C. S. Mott
George Whitney

The Chairman, Mr. Donaldson Brown presided, and the Secretary, L. R. Beardslee, recorded.

FORWARD COMMITMENTS FOR RAW MATERIALS

Report of the Chairman dated March 23, 1931 (#3121) showing forward purchases that have been made of rubber, cotton, copper, zinc and lead was read by the Secretary. It was explained to the Committee that because of the unusual conditions existing at the present time, and in harmony with the sentiment expressed by both the Finance and Operations Committees, we are purchasing our requirements of basic materials such as rubber, cotton, copper, zinc and lead to cover estimated production

7489

schedules for the calendar year 1931. Upon motion, this report was accepted and ordered filed, and the plan recommended of making purchases of basic materials up to the amount of our estimated requirements for the year 1931 approved.

5290

Defendant's Exhibit (GM) No. 291

EXCERPT FROM MINUTES OF

EXECUTIVE COMMITTEE
GENERAL MOTORS CORPORATION

April 9, 1931

PURCHASE OF BASIC MATERIALS

Report was presented to the Committee by Vice-President C. E. Wilson, dated April 9, 1931 (OC-939) regarding commodity purchases that have been made, which was ordered filed.

Upon motion, duly made, seconded and unanimously adopted, it was

> RESOLVED, that previous action taken by this Committee on March 12, 1931
>
> > "that it is the sense of this meeting that we should buy at this time our requirements of rubber, cotton, copper, zinc and lead to cover our estimated manufacturing schedules for the year 1931"
>
> be rescinded, and be it further
>
> RESOLVED, that Vice-President C. E. Wilson be authorized to use his judgment as to future purchases of important commodities, it being suggested that it might be well to contract

for an additional month's requirements from time to time up to the total amount required for the year 1931 when and/as in his judgment market conditions justify, rather than to at this time purchase all of the balance of our requirements for the year 1931.

E

Defendant's Exhibit (GM) No. 292

To: OPERATIONS COMMITTEE

June 11, 1931.

From: C. E. WILSON.

Subject: COMMODITIES

CONSUMPTION

The following will be our consumption of the various commodities for 1931 projection on the basis of our first six month's requirements figuring the normal seasonal trend of business, also length of present inventory and commitment position.

	1931 Consumption		Position
Rubber	30,000,000 lbs.	13,400 long tons	May 1, 1932
Cotton.	11,250,000 lbs.	22,500 bales	Dec. 1, 1931
Copper	60,000,000 lbs.	20,000 tons	Feb. 1, 1932
Zinc	27,000,000 lbs.	13,500 tons	Nov. 1, 1931 Die Cast Feb. 1, 1932 Brass
Lead	31,000,000 lbs.	15,500 tons	July 1, 1931
Tin	3,000,000 lbs.	1,340 long tons	Jan. 1, 1932 Harrison Div.

INVENTORIES

Our investment in commodities as of June 1st were:

Rubber	22,464,120 lbs.	.07281 Avg. Price	1,635,686.65	
Cotton	3,500,000 lbs.	.01571 " "	55,000.00	(Margin Calls)
Copper	6,024,620 lbs.	.095 " "	572,338.96	
"	10,000,000 lbs.	.09625 " "	962,500.00	
Zinc, Die Cast	4,240,094 lbs.	.04614 " "	195,646.01	
Lead	1,359,918 lbs.	.0395 " "	53,712.85	
		Total	3,474,884.47	

The average price Rubber includes .25 CWT freight.

" " " Zinc (Die Cast) includes 1.00 CWT for quality.

COMMITMENTS

In addition to above inventories we have commitments of—

Rubber	672,000 lbs.	@	.07⅛¢ lb.	
Cotton Futures	3,500,000 lbs.	@	.10⅜¢ lb.	(Less Margin Calls)
Copper	10,000,000 lbs.	@	.09½ lb.	
Zinc, Brass	1,000,000 lbs.	@	.0355 lb.	
" "	1,250,000 lbs.	@	.0445 lb.	
" "	167,000 lbs.	@	.044 lb.	
Zinc Die Cast	1,200,000 lbs.	@	.044 lb.	
Copper or Brass	1,000,000 lbs.	@	(.08¾¢ lb. Copper — .037¢ lb. Zinc)	

[7493]

The Guide Lamp Division have future commitments on 10,000,000 lbs. Brass .723¢ lb. equal to copper 9¢ lb. and zinc .037¢ lb.

Harrison have future commitments for 287 tons 642,880 lbs. tin @ 25¢ lb.

AVERAGE MONTHLY PRICE CWT.

	RUBBER	COTTON	COPPER	ZINC	LEAD	TIN
Jan.	8.27	10.28	9.90	4.38	4.60	26.10
Feb.	7.64	10.92	9.83	4.02	4.33	26.31
March	7.65	10.87	10.02	4.01	4.28	27.07
April	6.35	10.14	9.57	3.689	4.175	25.12
May	6.42	9.38	8.81	3.31	3.65	23.20
5 mos. Avg.	7.266	10.318	9.626	3.882	4.207	25.56
June 10	6.12	8.36	8.	3.30	3.60	23.12

C. E. WILSON

[5294]

(2 E)

EXCERPT FROM MINUTES OF

EXECUTIVE COMMITTEE
GENERAL MOTORS CORPORATION

June 11, 1931

COMMODITY PURCHASES

Vice-President C. E. Wilson submitted a report dated June 11, 1931 (OC-990) showing purchases that have been made of basic commodities and the cost thereof. Mr. Wilson recommended that we maintain a position a year ahead on rubber so long as we can purchase it at 6-1/2 cents per pound or better. Mr. Wilson recommended buying no further cotton now and when the next crop comes in in the fall he purposes buying actual cotton for say, six months or a year, provided the price is favorable. This matter, as well as other purchases of commodities, was left in the hands of the sub-committee with power.

Defendant's Exhibit (GM) No. 293

EXCERPT FROM MINUTES OF

EXECUTIVE COMMITTEE
GENERAL MOTORS CORPORATION

October 29, 1931

COMMODITIES PURCHASED

Report was presented by Vice-President Wilson dated October 29, 1931 (OC-1103) showing purchases that have been made of rubber, cotton, copper, zinc, lead and tin, together with a memorandum as to the present policy being followed in the matter of purchases of these basic materials.

Upon motion, this report was accepted and the plan outlined therein, approved.

7496

TO: OPERATIONS COMMITTEE

FROM: C. E. WILSON

SUBJECT: COMMODITIES Oct. 28th, 1931.

The following are estimated requirements for 1932 based on one million car production and period our present inventories and commitments apply against same.

	CONSUMPTION	POSITION COVERED.
Rubber	40,000,000 lbs.	Sept. 1, 1932
Cotton	11,250,000 "	None
Copper	75,000,000 "	July 1, 1932
Zinc	10,000,000 "	Jan. 1, 1932
Lead	50,000,000 "	None
Tin	3,000,000 "	Apr. 1 - 1932 Harrison Div.

INVENTORIES

Rubber	30,184,000 "	$ 1,958,478.12	Av.	.06488¢
Copper	7,707,507 "	741,581.25		.09621¢
Zinc (Die Cast)	3,769,951	165,642.19		.0439¢
TOTAL		2,865,701.56		

The average price of rubber includes .25¢ CWT freight
" " " " " " 1.00 CWT for quality.

COMMITMENTS

In addition to inventory we have commitments as follows:

Rubber 1,120,000 lbs. @ .04 3/4¢ lb.
Copper & Brass 33,375,000 " " .07¢ " copper .035¢ Zinc
" " 1,000,000 " " .08 3/4¢ " " .037¢ "
Guide Lamp Division - Brass 9,000,000 lbs.
@ .09 1/8 " " .04¢ "
Harrison Radiator Div. Tin 500,000 " " .25¢ "

PRICE RANGE 1 9 3 1

	RUBBER	COTTON	COPPER	ZINC	LEAD	TIN
High	.08625	.113	.105	.04125	.0495	.275
Low	.045	.055	.0675	.032	.03525	.22125
Current	.0475	.068	.07	.0325	.03525	.229

PRESENT PURCHASE POLICY

Rubber — Buying current month's requirements while price is under 5¢ to maintain present extended position.

Cotton — Buying 20,000 bales physical cotton and selling futures against same, expect to buy futures to cover around 5½¢.

Copper:	Not buying: commitment for 33,000,000 lbs. just completed, supplier to carry metal until June 30, 1932 when we pay for any undelivered balance. We also received from .003/8¢ lb. to .01 1/8¢ lb. reduction in fabrication charges on copper and brass products other than wire.
Zinc	Plan to cover six months 1932 at present price.
Lead	Trying to cover six months 1932 at present price.
Tin	Not buying, awaiting future developments.

C. E. Wilson.

Defendant's Exhibit (GM) No. 294

GENERAL MOTORS CORPORATION

INTER-ORGANIZATION LETTERS ONLY

TO Mr. J. L. Pratt,
Mr. Donaldson Brown,
Mr. C. E. Wilson.
ADDRESS

7498

FROM Mr. W. F. Armstrong.
ADDRESS

SUBJECT Review of Commodity Purchase
Policy - Sept. 23rd, 1931.

1. **RUBBER**

Position	Pounds	Investment	Avg. Cost.
On hand	28,920,000	$1,907,584.49	$ .06595
Commitment	2,240,000	117,600.00	.0525
Total	31,160,000	2,015,184.49	.0646

The above represents 75% of contract requirements for 1932 based on 1,000,000 car production.
Purchase Policy - Stay out of market temporarily and await future developments of both rubber and automotive industry.

2. **COTTON**

Position - On hand 150,000 lbs - 300 bales -
Investment $ 18,654.21
Average price - $.12435
Basis .01878 (to be refunded by Rubber Co.)
General Motors Avg. .10556

Purchase policy - proceed with contemplated plans - purchase physical cotton in South for 80% of contract requirements for 1932 based on 1,000,000 car production. Mr. Armstrong to make trip South first of October with Rubber Company's representative to study condition of cotton harvest and formulate plans for our purchases. Purchases are to be made by Rubber Company and General Motors will not be known in the Transaction.
Estimated purchase 17,500 bales - maximum investment $600,000.

3. **COPPER AND BRASS**

Position - On Sept. 1st we had unshipped at Anaconda 9,088,296 lbs. @ 9 5/8¢ $873,143.88. We also have a commitment of 1,314,305 lbs. of zinc @ .0445¢ which will be used with the copper for brass products, zinc commitments will not be paid for until the metal is shipped. There is an additional commitment with the American Brass Company for 1,000,000 lbs. of copper or brass products priced on 8 3/4¢ copper and .037¢ zinc, this commitment to be paid for when shipped. The Guide Lamp Company has a commitment for 10,000,000 lbs. of brass at .0723¢ equal to 9¢ copper and .037 lb. zinc, unshipped balance July 1st, 1932 will be paid for and carried as inventory. Including the above we will extend our position to 75% of the copper requirements for the first six months of 1932 based on 1,000,000 car production. The maximum investment in copper will be approximately $1,200,000.

4. ZINC - (High Grade for Die Cast)

Position - Unshipped on Sept. 1st - 4,550,000 lbs - $200,605.89 Avg., .048¢. This will cover production into January.
Purchase policy - Stay out of market and await future developments.

5. LEAD.

Position - No stock - buying month to month.
Purchase policy - stay out of market and await future developments.

6. TIN

Position - Harrison Division have commitment for requirements thru Jan. 1st at 25¢ per pound.
Purchase policy - stay out of market and await future developments.

W F Armstrong

W. F. Armstrong.

WFA
MMJ

P.S. High Grade Die Cast Zinc base 1¢ per pound more than Speltzer market .057.

Defendant's Exhibit (GM) No. 295

TO: OPERATIONS COMMITTEE

FROM: C. E. WILSON

Dec. 17th, 1931.

SUBJECT: COMMODITIES

The following are estimated requirements for 1932 based on one million car production and present inventory and commitment position applying to same:

Commodity	Consumption	Position
Rubber	40,000,000	Sept. 1, 1932
Cotton	10,000,000	*Open
Copper	75,000,000	July 1, 1932
Zinc	10,000,000	June 1, 1932
Lead	30,000,000	Mar. 1, 1932
Tin	3,000,000	xxJune 1, 1932

*We have purchased 10,000 bales or 1/2 of year's requirements, but sold short against purchases leaving price to be fixed when short sales are covered.

xxFigures for Harrison Division only.

INVENTORIES Dec. 1st.

*Rubber	30,324,000	.06389	1,937,547.25
Cotton	4,068,972	.06504	304,697.53
Copper	5,752,738.69	.09624	553,655.87
xxZinc	1,699,869.	.04335	73,689.86
		Total	2,869,590.51

*The average price of Rubber includes .25 CWT freight
xx " " " " Zinc " 1.00 " for quality

COMMITMENTS
In addition to above inventory we have commitments as follows:

Copper & Brass	33,375,000	lbs.	at 7¢ lb.	copper	.035	Zinc	
" "	1,000,000	"	at 8-3/4¢	"	.037	"	
" "	8,000,000	"	at 9-1/8¢	"	.04	"	(Guide Div.)*
" "	2,000,000	"	at 6-3/4¢	"	.0315	"	"
Zinc	5,900,000	"	at .04178	Lb.			
Lead	6,200,000	"	at .037	Lb.			Remy*
Tin	500,000	"	at .24	Lb.			Harrison*

*Commitments made by Divisions.

Price Range 1931

	Rubber	Cotton	Copper	Lead	Zinc	Tin
High	.08625	.113	.105	.0495	.04125	.275
Low	.0425	.055	.06½	.03525	.03125	.206
Dec. 15	.04625	.062	.06-3/4	.0355	.0315	.215

Defendant's Exhibit (DP) No. 445

E. I. du Pont de Nemours and Company

SALES, BY DEPARTMENT, TO GENERAL MOTORS CORPORATION COMPARED WITH TOTAL DEPARTMENTAL SALES

Years 1938 through 1941; 1946 through 1948

Du Pont Department	1938	1939	1940	1941	1946	1947	1948
Ammonia							
Sales to G.M.	$ 302 571	$ 415 920	$ 851 477	$ 770 735	$ 691 731	$ 1 742 416	$ 2 579 964
Total Sales	13 517 087	18 244 334	25 670 013	34 636 829	41 709 412	50 320 207	87 986 924
G.M. as % of Total	2.2	2.3	3.3	2.2	1.7	3.5	2.9
Electrochemicals							
Sales to G.M.	160 609	286 711	355 604	746 029	826 729	1 019 272	1 008 511
Total Sales	15 741 271	19 636 461	23 595 047	31 833 538	38 997 383	47 687 843	50 900 456
G.M. as % of Total	1.0	1.5	1.5	2.3	2.1	2.1	2.0
Explosives							
Sales to G.M.	227	8 896	16 023	12 139	22 497	26 032	44 145
Total Sales	28 178 741	33 637 936	41 823 939	53 592 481	41 934 087	58 875 482	67 090 441
G.M. as % of Total	*	*	*	*	0.1	*	0.1
Fabrics (Division)							
Sales to G.M.	466 357	803 854	1 285 280	1 773 079	2 083 166	3 639 316	3 787 774
Total Sales	7 093 469	8 579 632	9 065 385	14 866 548	16 253 805	20 362 926	20 684 746
G.M. as % of Total	6.6	9.4	14.2	11.9	12.8	17.9	18.3
Finishes (Division)							
Sales to G.M.	6 195 229	8 760 849	11 727 061	13 525 508	10 429 852	18 938 229	21 209 642
Total Sales	31 357 134	38 514 763	44 974 778	61 204 127	75 117 079	105 266 655	118 877 018
G.M. as % of Total	19.8	22.7	26.1	22.1	13.9	18.0	17.8
Grasselli Chemicals (Includes American Zinc Products Company)							
Sales to G.M.	359 654	459 059	618 972	739 050	753 062	1 024 320	1 211 118
Total Sales	24 775 876	32 372 512	36 515 901	49 402 427	67 272 090	74 212 311	79 318 039
G.M. as % of Total	1.5	1.4	1.7	1.5	1.1	1.4	1.5
Organic Chemicals							
Sales to G.M.	96 340	138 709	140 818	170 701	69 532	83 254	99 751
Total Sales	33 839 206	42 544 957	52 324 248	75 710 435	91 787 405	94 632 256	124 642 093
G.M. as % of Total	0.3	0.3	0.3	0.2	0.1	0.1	0.1

PURCHASE POLICY

RUBBER: Not buying. Present stock will practically complete contract with U. S. Rubber which expires Sept. 30.

COTTON: Buying 10,000 Bales at 6¢ lb. or under.

COPPER: Not buying, requirements covered for first six months 1932.

ZINC: Not buying requirements covered for six months 1932.

TIN: Not buying, requirements covered for six months 1932.

LEAD: Buying current requirements maintaining present length of position.

C. E. Wilson.

EXCERPT FROM MINUTES OF

FINANCE COMMITTEE
GENERAL MOTORS CORPORATION

September 12, 1932

Present: Messrs. Donaldson Brown
G. F. Baker
W. S. Carpenter, Jr.
Lammot duPont
Irenee duPont
H. F. duPont
P. S. duPont
C. S. Mott
Seward Prosser
J. J. Raskob
A. P. Sloan, Jr.
George Whitney

Absent: Messrs. F. J. Fisher
J. S. Morgan, Jr.

Mr. Albert Bradley was also present.

The Chairman, Mr. Donaldson Brown presided, and the Secretary, L. R. Beardslee, recorded.

PURCHASE OF COMMODITIES

Report was received from the Secretary dated September 8, 1932 (#3438) advising of action taken by the Operations Committee in the matter of recommending that authority be granted for the purchase of basic commodities up to a total estimated amount required for 1,500,000 cars, this being an increase to the extent of the quantity required for 500,000 cars over present existing regulations, and that authority be granted to resell if it seems desirable to do so at any time.

7303

The following resolution was offered, seconded and unanimously adopted:-

> RESOLVED, that resolution of this Committee March 14, 1932, authorizing the operating executives of this corporation to make purchases or commitments of basic materials, such as rubber, cotton, zinc, and lead, etc. required to produce 1,000,000 cars, be modified to extend this authority to such purchases or commitments of such basic materials as may be required for 1,500,000 cars, as recommended by the Operations Committee, but that no authority be extended to resell any such purchases, except upon resolution of this Committee.

Defendant's Exhibit (GM) No. 299

UNITED STATES
DEPARTMENT OF JUSTICE
Suite 826, 208 South LaSalle Street
Chicago 4, Illinois

60-107-37

Ferris E. Hurd, Esq.
Pope & Ballard
120 South LaSalle Street
Chicago 3, Illinois

Re: DuPont-General Motors Grand Jury Proceedings No. 9072 (General Motors and Ethyl)

Dear Mr. Hurd:

This letter confirms the understandings reached in this office between you, representing General Motors Corporation and Ethyl Corporation, and Mr. Hotchkiss and Mr. Harris, representing the Government, with respect to compliance on the part of General Motors and Ethyl with paragraph 3 of the grand jury subpoena duces tecum of August 20, 1948.

General Motors' Compliance with the August 20, 1948 Subpoena

Paragraph 3(a)--General Motors will produce this material for the period from 1938 to June 30, 1948, inclusive, except for the war years 1942 to 1945, inclusive.

Paragraph 3(b)--Compliance will be on the same basis as is provided for with respect to paragraph 3(a).

Paragraph 3(c)--General Motors will accept the figures of each of the other companies on whom this subpoena was served, as to the sales each of such companies made to General Motors, and will treat these sales figures as constituting General Motors' report on purchases.

Paragraph 3(d)--The same understanding which is set out with reference to paragraph 3(c) will apply to paragraph 3(d).

Paragraph 3(e)--General Motors will supply the required information on the following basis:

1. Re products purchased from companies other than DuPont:

General Motors will secure directly from DuPont the latter's product breakdown of the items sold by the ammonia, electro-chemicals, fabrics, finishes, and Griselli chemicals departments of DuPont to General Motors. General Motors will use this product breakdown in reporting its purchases of such products from companies other than DuPont. The report will cover the period from 1938 to June 30, 1948, inclusive, and will show by years the names of the companies other than DuPont from which each of such products was purchased and the amount of such purchases (in dollars).

2. Re products purchased from companies other than Bendix:

General Motors will report, in the manner provided for in "1" above, for the period from 1938 to June 30, 1948, inclusive, except for the war years 1942 to 1945, inclusive, on its purchases of air brakes, automotive brakes and parts, carburetors and parts, steering gear parts, starter drives, and any other product purchased from Bendix during the designated period in a quantity comparable to the foregoing items.

3. Re products purchased from companies other than Ethyl:

General Motors will report, in the manner provided for in "1" above, on all products it purchased from Ethyl, for the period from 1930 to June 30, 1948, inclusive, except the war years 1942 to 1945, inclusive.

4. Re products purchased from companies other than Kinetic:

General Motors will report, in the manner provided for in "1" above, on all products it purchased from Kinetic Chemicals, for the period from 1930 to June 30, 1948, inclusive.

5. Re products purchased from companies other than North American:

General Motors will report, in the manner provided for in "1" above, on all products it purchased from North American, for the period from 1938 to June 30, 1948, inclusive, except for the war years 1942 to 1945, inclusive.

6. Re products purchased from companies other than Remington:

General Motors will report, in the manner provided for in "1" above, on all products it purchased from Remington, for the period from 1931 to June 30, 1948, inclusive, except for the war years 1942 to 1945, inclusive.

7. Re products purchased from companies other than U.S. Rubber:

General Motors will report, in the manner provided for in "1" above, on its purchases of tires and tubes, with a breakdown between original equipment and replacements, for the period from 1927 to June 30, 1948, inclusive, except for the war years 1942 to 1945, inclusive.

Compliance by Ethyl Corporation with Paragraph 3 of the Subpoena of August 20, 1948

Paragraph 3(a)--Ethyl will supply the designated information for the years 1930 to June 30, 1948, inclusive.

Paragraph 3(b)--Ethyl will supply the designated information for the period 1930 to June 30, 1948, inclusive.

Paragraph 3(c) and 3(d)--Ethyl will accept the figures of each of the other companies on whom this subpoena has been served, as to the sales made by such companies to Ethyl, as constituting Ethyl's record of purchases from each of such companies.

Paragraph 3(d)--Ethyl will supply the designated information for the period from 1930 to June 30, 1948, inclusive.

General Understandings Regarding Compliance

I understand that you have been informed by the General Motors people that they do not have in their files any "existing compilations and summaries" as that term is defined in my letter to you of October 13, 1948. If, however, any such existing compilations and summaries should be found which are within the scope of paragraph 3 of the subpoena of August 20, 1948, the Government wishes to have such items produced.

The limitations stated in this letter are made without prejudice to the right of the Government and the grand jury to call for complete compliance with each paragraph of the subpoena of August 20, 1948.

Sincerely yours,

HERBERT A. BERGSON
Assistant Attorney General

By Melville C Williams
Melville C. Williams
Chief, Chicago Office
Antitrust Division

Defendant's Exhibit (GM) No. 300

UNITED STATES
DEPARTMENT OF JUSTICE
Suite 826, 208 South La Salle Street
Chicago 4, Illinois

60-107-37

December 17, 1948

Ferris E. Hurd, Esq.
Pope & Ballard
120 South La Salle Street
Chicago 3, Illinois

Re: DuPont-General Motors
Grand Jury Proceedings No. 9072
(General Motors and Ethyl)

Dear Mr. Hurd:

You will recall that on December 8, 1948, you, Mr. Harris, and I reached an understanding with respect to compliance on the part of General Motors and Ethyl with paragraph 3 of the grand jury subpoena duces tecum of August 20, 1948. We had had this understanding reduced to writing at the time you called to advise me that after conferring with the representatives of General Motors you felt that further limitations on the immediate scope of paragraph 3 of the subpoena were needed. You, Mr. Harris, and I, therefore, had a further conference on December 13, at which an understanding was reached with respect to further limitations for the time being on the scope of paragraph 3 of the subpoena as it applies to General Motors.

I am enclosing herewith Mr. Williams' letter to you of December 13, 1948, setting forth the earlier agreement. It is our understanding that the terms set forth in this letter of December 13 with respect to (a) compliance by Ethyl Corporation with paragraph 3 of the subpoena of August 20, 1948, and (b) general understandings regarding compliance were not affected or changed in any way as a result of the conference you had with Mr. Harris and me on December 13.

Revised Terms - General Motors Compliance with Paragraph 3 of the August 20, 1948 Subpoena

Paragraph 3(a)--In view of your statement that the designated material for the pre-war period is either unavailable or could be provided only with great difficulty, the Government will accept for

Finishes (Division)							
Sales to G.M.	6 195 229	8 760 849	11 727 061	13 525 508	10 429 852	18 938 229	21 209 642
Total Sales	31 357 134	38 514 763	44 974 778	61 204 127	75 117 079	105 266 655	118 877 018
G.M. as % of Total	19.8	22.7	26.1	22.1	13.9	18.0	17.8
Grasselli Chemicals (Includes American Zinc Products Company)							
Sales to G.M.	359 654	459 059	618 972	739 050	753 062	1 024 320	1 211 118
Total Sales	24 775 876	32 372 512	36 515 901	49 402 427	67 272 090	74 212 311	79 318 039
G.M. as % of Total	1.5	1.4	1.7	1.5	1.1	1.4	1.5
Organic Chemicals							
Sales to G.M.	96 340	138 709	140 818	170 701	69 532	83 254	99 751
Total Sales	33 839 206	42 544 957	52 324 248	75 710 435	91 787 405	94 632 256	124 642 093
G.M. as % of Total	0.3	0.3	0.3	0.2	0.1	0.1	0.1
Photo Products**							
Sales to G.M.	8 424	8 475	12 512	21 578	2 502	867	0
Total Sales	6 217 148	7 461 928	8 496 762	10 141 196	22 745 829	25 699 756	28 035 174
G.M. as % of Total	0.1	0.1	0.1	0.2	*	*	0
Pigments							
Sales to G.M.	587	140	712	1 [illegible]0	3 931	3 530	112
Total Sales	11 983 439	13 371 220	14 334 741	19 038 786	22 709 971	31 496 024	37 215 203
G.M. as % of Total	*	*	*	*	*	*	*
Plastics							
Sales to G.M.	50 943	202 370	134 717	48 606	129 479	105 422	167 670
Total Sales	8 428 006	13 289 174	15 177 042	23 924 429	41 984 791	34 828 026	35 501 167
G.M. as % of Total	0.6	1.5	0.9	0.2	0.3	0.3	0.5
Rayon							
Sales to G.M.	3 749	6 684	16 228	22 152	23 379	45 616	51 766
Total Sales	61 297 195	80 782 485	95 833 348	130 815 833	199 872 323	250 467 514	336 594 315
G.M. as % of Total	*	*	*	*	*	*	*
Total du Pont Company							
Sales to G.M.	7 644 690	11 091 667	15 159 404	17 831 227	15 035 860	26 628 274	30 160 453
Total Sales	242 428 572	308 435 402	367 811 204	505 166 629	660 384 175	793 849 000	986 895 576
G.M. as % of Total	3.2	3.6	4.1	3.5	2.3	3.4	3.1

*Under 0.05%

**Or Predecessor, Du Pont Film Manufacturing Corporation, Not Wholly Owned by du Pont Prior to November 18, 1941.

Treasurer's Department
May 1953

the time being compliance covering the years 1946, 1947, and the first six months of 1948.

Paragraph 3(b)--Compliance will be on the same basis and for the same reason as is provided for with respect to paragraph 3(a).

Paragraphs 3(c) and (d)--The understandings set forth in Mr. Williams' letter of December 13, 1948 to you with respect to these two subparagraphs will continue to stand.

Paragraph 3(e)--You state that the material called for in this paragraph must in large measure be secured from original records which are no longer in existence for the pre-war period. Tabulations will probably have to be made up for the post-war period from original records, such as invoices and the like, and you wish to have this tabulating job limited to the major items which General Motors purchases from other LISTED COMPANIES and the competitors of such companies. We are willing to agree to the following limitations:

1. Re products purchased from companies other than DuPont:

   General Motors will provide the grand jury with tabulations reporting for 1946, 1947, and the first six months of 1948 its purchases of the following products from companies other than DuPont: anodes, electro-chemical solvents, imitation leather, coated fabrics, paints, enamel and primer, solvents, thinner, pyroxlin, and adhesives. The tabulations will cover the product breakdowns of the foregoing products, and the Government should be provided with the tabulations as to each division as well as the over-all tabulation covering the corporation and its divisions. The information will be provided by years and will set forth the names of the companies other than DuPont from which each of the designated products was purchased and the amount (in dollars) of such purchases.

2. Re products purchased from companies other than Bendix:

   General Motors will report on the basis provided for in our letter to you of December 13, 1948, except that the period may be limited to 1946, 1947, and the first six months of 1948.

3. Re products purchased from companies other than Ethyl:

   The understanding set forth in the accompanying letter dated December 13 stands.

4. Re products purchased from companies other than Kinetic:

The understanding set forth in the accompanying letter dated December 13 stands.

5. Re products purchased from companies other than North American:

The understanding set forth in our letter to you of December 13, 1948, stands, except that the period of time involved is shortened to 1946, 1947, and the first six months of 1948.

6. Re products purchased from companies other than Remington:

The understanding set forth in our letter to you of December 13 stands except that the period of time is limited to 1946, 1947, and the first six months of 1948.

7. Re products purchased from companies other than U. S. Rubber:

The understanding set forth in our letter to you of December 13, 1948 stands, except as to the period of time covered. On this point General Motors is to provide the specified information for as much of the period of time from 1927 to June 30, 1948, inclusive, as General Motors has records. If General Motors has no records for any portion or portions of that period of time, an officer of General Motors is to provide the grand jury with a certification as to that fact.

Sincerely yours,

HERBERT A. BERGSON
Assistant Attorney General

By Willis L. Hotchkiss
Willis L. Hotchkiss
Acting Chief, Chicago Office
Antitrust Division

Enclosure No. 321424

Defendant's Exhibit (GM) No. 301

GENERAL MOTORS CORPORATION DUPONT GRAND JURY INVESTIGATION

December 20, 1948

Mr. Melville C. Williams, Chief
Chicago Office
Anti-Trust Division
208 South La Salle Street
Suite 826
Chicago 4, Illinois

Re: Grand Jury Proceedings
No. 9072

Dear Mr. Williams:

This will acknowledge receipt of your letter of December 13 and Mr. Hotchkiss' letter of December 17.

The letters taken together correctly state the agreement which we have regarding the further compliance by General Motors Corporation with paragraph 3 of the subpoena dated August 20, 1948.

With respect to Ethyl Corporation, I am not in a position at this time to confirm the arrangement as outlined in these letters. I have submitted the suggestions contained in the letters to Mr. Page, the New York attorney for Ethyl Corporation, and am awaiting word from him as to the ability of Ethyl Corporation to comply with the subpoena in the manner set forth in the two letters. You will be advised as soon as I hear from Mr. Page.

Sincerely yours,

FEH:tk
cc: Henry M. Hogan, Esq.
General Motors Corporation
3044 West Grand Boulevard
Detroit 2, Michigan

Mr. Henry F. Herbermann
1775 Broadway

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In the Supreme Court of the United States

OCTOBER TERM, 1955

No. —

UNITED STATES OF AMERICA, APPELLANT

v.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

JURISDICTIONAL STATEMENT

OPINION BELOW

The opinion of the United States District Court for the Northern District of Illinois, Eastern Division, is reported in 126 F. Supp. 235. Printed copies of the opinion have been furnished to the Court.

JURISDICTION

This suit was brought under Section 4 of the Act of July 2, 1890, 26 Stat. 209, as amended, 15 U. S. C. 4, and Section 15 of the Act of October 15, 1914, 38 Stat. 730, as amended, 15

U. S. C. 25. The judgment of the district court was entered on December 9, 1954, and the notice of appeal was filed in that court on February 4, 1955. The jurisdiction of this Court to review by direct appeal the judgment entered in this case is conferred by Section 2 of the Expediting Act of February 11, 1903, 32 Stat. 823, 15 U. S. C. 29, as amended by Section 17 of the Act of June 25, 1948, 62 Stat. 869.

The following decisions sustain the jurisdiction of this Court to review by direct appeal the judgment in this case: *United States* v. *U. S. Gypsum Co.,* 333 U. S. 364; *International Business Machines Corp.* v. *United States,* 298 U. S. 131.

STATUTES INVOLVED

The pertinent provisions of sections 1, 2, and 4 of the Act of July 2, 1890, 26 Stat. 209, as amended (15 U. S. C. 1, 2, 4), commonly known as the Sherman Act, are as follows:

> SEC. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal: * * *. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a misdemeanor, * * *.
>
> SEC. 2. Every person who shall monopolize, or attempt to monopolize, or combine

> or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, * * *.
>
> * * * * *
>
> SEC. 4. The several district courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act, and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney-General, to institute proceedings in equity to prevent and restrain such violations.

The pertinent provisions of Section 7 (as it read at the time the complaint was filed) and Section 15 of the Act of October 15, 1914, 38 Stat. 730 (15 U. S. C. 18, 25), commonly known as the Clayton Act, are as follows:

> SEC. 7. No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.
>
> * * * * *

SEC. 15. The several district courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this Act, and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. * * *

QUESTIONS PRESENTED

1. Whether the district court erred in failing to find and to conclude:

(a) That E. I. du Pont de Nemours and Company (du Pont), by its acquisition in 1918 of 23% of the outstanding capital stock of General Motors Corporation (General Motors) and its continuing ownership of at least this percentage of General Motors' outstanding stock, by the ensuing permeation of the top echelon of General Motors' management by du Pont officers and directors and other persons closely affiliated with it, and by the close working relationship which has existed between the companies since that time, has had power to control, and effective working control of, General Motors throughout the period covered by the Government's complaint.

(b) That one of the purposes of du Pont in acquiring and retaining such stock interest in General Motors was to obtain for du Pont preference over its competitors in the sale of products to General Motors and in the development, production, and sale of commercially valuable chemical products based on discoveries made by General Motors and covered by patents held by it.

(c) That du Pont's stock interest in General Motors and the active participation of du Pont representatives in General Motors' management tended to give and gave du Pont a preference over its competitors in the sale of products to General Motors and in the development, production, and sale of commercially valuable chemical products discovered by General Motors, with resulting restraint of the trade of du Pont's competitors.

2. Whether the district court erred insofar as it made findings and reached conclusions inconsistent with 1 (a), 1 (b), and 1 (c) above.

3. Whether, under the circumstances set forth in question 1, du Pont and General Motors constitute a combination in restraint of interstate trade in violation of Section 1 of the Sherman Act, and a combination to monopolize a part of such trade in violation of Section 2 of that Act.

4. Whether the effect of du Pont's acquisition and retention of General Motors stock may be to restrain interstate trade in any section of the country, or to tend to create a monopoly of any line of interstate commerce, in violation of Section 7 of the Clayton Act.

5. Whether the United States is entitled to relief which, in addition to appropriate injunctive provisions, would require du Pont to divest itself

of its General Motors stock, and would require Christiana Securities Company and Delaware Realty & Investment Corporation (if du Pont should be permitted to divest through a distribution of General Motors stock to du Pont stockholders) to dispose of all General Motors stock received as a result of such distribution.

STATEMENT

This is a civil action brought by the United States in June 1949 under Section 4 of the Sherman Act and Section 15 of the Clayton Act. The amended complaint charged (Par. 29) that du Pont, General Motors and United States Rubber Company (U. S. Rubber) (together with two holding companies, a bank, and individual members of the du Pont family) had been engaged since 1915 in a combination and conspiracy to restrain interstate trade and commerce in a number of products manufactured and distributed by du Pont, General Motors and U. S. Rubber, and had conspired and combined to monopolize a substantial part of such trade and commerce, in violation of Sections 1 and 2 of the Sherman Act. The complaint further charged (*ibid.*) that du Pont had acquired a "controlling interest" in the stock of General Motors, the effect of which acquisition has been to substantially lessen competition between the companies and to tend to create a monopoly in particular lines of commerce, in violation of Section 7 of the Clayton Act.

The gravamen of the complaint (as to the du Pont-General Motors aspect of the case) was that du Pont's ownership of 23% of the outstanding stock of General Motors (which it acquired initially in 1918), and the close working relationships between the top management of the two companies, gave du Pont effective working control of General Motors and that, as a consequence of such control, du Pont (1) obtained preferences over its competitors in the sale to General Motors of products which it manufactured, and (2) obtained the right to exploit for its own benefit General Motors' chemical discoveries.

Trial of the case before Judge Walter J. LaBuy began on November 18, 1952, and concluded on June 29, 1953. Final arguments were heard in December 1953. On December 3, 1954, the court rendered a lengthy opinion in which it held that the Government had failed to prove its case. Judgment dismissing the complaint was entered on December 9, 1954.

The court held (1) that du Pont does not control General Motors (Op. 40) or U. S. Rubber (Op. 65); (2) that General Motors' sizable purchases from du Pont and its turning over of chemical discoveries to du Pont for exploitation were the result of its own independent business judgment, and not of any pressure or domination by du Pont (Op. 114–115, 132–134, 144–145, 170, 181); and (3) that General Motors' substantial purchases of tires and tubes from U. S. Rubber resulted from its own business reasons and not from du Pont pressure (Op. 210).

Since this appeal challenges only the court's conclusions as to the du Pont-General Motors phase of the case, we shall not discuss the facts relating to the relationship between those companies and U. S. Rubber. In the Statement we shall set forth (1) the pertinent facts relating to du Pont's control of General Motors, and the court's conclusions thereon; and (2) certain aspects of the intercorporate dealings between the companies. The Statement is based on the court's opinion, which it adopted as its findings.

1. CONTROL OF GENERAL MOTORS BY DU PONT

A. THE FACTS

Since March 1918 du Pont at all times has owned at least 23% of General Motors' outstanding stock (Op. 19). The remainder of the stock is widely distributed; in 1947 it was held by more than 430,000 stockholders, 92% of whom owned no more than 100 shares each, and 60% of whom owned no more than 25 shares each (*ibid.*). At times du Pont's holdings represented 51% of the total stock voted at General Motors' stockholders' meetings (Op. 41, 42).

At the time of du Pont's original investment in 1918 (when it acquired 23% of the stock) General Motors was controlled by W. C. Durant, its founder and then president (Op. 10–11, 13). The purchase was made on the understanding that du Pont and Durant jointly would control General Motors and that du Pont would assume responsibility for General Motors' financial obligations (Op. 12, 13). This understanding was carried out, and from 1918 to 1920, "du Pont and Durant jointly controlled General Motors" (Op. 17).

Late in 1920, after Durant became financially involved because of large loans for which his General Motors stock was pledged as security, du Pont formed a subsidiary for the purpose of taking over and liquidating those loans, and as a result it became the owner of 38% of the stock (Op. 17–18).[1] At the urging, among others, of the du Pont Finance Committee, Pierre S. du Pont took over the presidency of General Motors (Op. 19). He held that post until 1923 when, upon his recommendation, Alfred P. Sloan became president (Op. 19, 22–23). During Pierre du Pont's term as president, three of the six members of the General Motors Executive Committee and seven of the eleven members of the Finance Committee were "du Pont men" and Haskell, a former du Pont sales manager and vice-president, was vice-president in charge of the General Motors Operations Committee (Op. 22). The defendants conceded that during this period "nominees of du Pont were thrust into positions of responsibility in General Motors which went beyond the financial supervision which had been their earlier role" (*ibid.*).

---

[1] In 1923 du Pont sold the additional stock acquired in 1920 to Managers Securities, a corporation organized by General Motors to carry out a bonus stock plan for General Motors executives. Du Pont retained the voting rights on that stock until 1930, when the executives to whom the bonus stock had been allocated completed payments on it and began to receive it, and by 1938 du Pont had surrendered the voting rights on all that stock. (Op. 18, 36.)

In 1923, at the suggestion of Pierre du Pont, du Pont "sponsored and supported" an "additional compensation plan," under which certain principal General Motors executives were permitted to purchase General Motors stock on favorable terms, with one-seventh paid down and the balance to be paid out of future bonuses and earnings on the stock purchased (Op. 34–36). A three-man committee was established to make the awards, consisting of Pierre du Pont, then chairman of the General Motors Board, and two other directors (Op. 36). The awarding of bonus stock subsequently was taken over by the Bonus and Salary committee, and from 1941 to 1948 (the only years for which committee personnel records are available) a majority of its members were "du Pont representatives" (Op. 37–38).

Since 1923, du Pont officials and persons closely affiliated with that company have served in important posts in the General Motors organization, both as directors and officers, and as members of the various General Motors committees. General Motors officials frequently sought du Pont's views as to prospective directors and committee members, and as to contemplated corporate action. (Op. 23–34, 83–84.)

B. THE COURT'S CONCLUSIONS AS TO CONTROL.

The court found (Op. 40, 42) that since the 1920's du Pont has not had, and does not today have, "practical or working control" of General Motors, and that du Pont "did not and could not conduct itself, for the past 25 years, as though it were the owner of a majority of the General Motors stock."[2] These ultimate findings rested on subsidiary findings that du Pont's original acquisition of General Motors stock "was essentially an investment" motivated by the "profitable employment" of a large part of du Pont's surplus, and was not made with the purpose of restricting General Motors' freedom to purchase in accordance with its own best interests (Op. 14–15); that du Pont's participation in the selection of General Motors directors and committees and in determining the organization of the General Motors Board did not establish that du Pont had been the "controlling force" in the direction of General Motors' affairs (Op. 33), or that it thereby sought to place people in General Motors who would further du Pont's interests as a supplier or a chemical manufacturer (Op. 34); that the record shows "consultation and conference, but not domination" (Op. 33); that, although some du Pont representatives did participate in the awarding of bonuses to General Motors executives, there is no evidence that in doing so they attempted to further du Pont's own interests (Op. 39); and that, although du Pont at times voted 51% of the stock voted at a stockholders meeting, there never had been a contest for control and it was "entirely conjectural" whether du Pont "by its stock ownership could control if there had been a contest" (Op. 41-42).

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[2] The court also found (Op. 9) that the du Pont family, through its voting control of appellees Christiana Securities Company and Delaware Realty and Investment Corporation, has "control of management" of du Pont. Since its formation in 1915, Christiana has held 27% of du Pont's outstanding stock (Op. 5–6). An additional 11% of the du Pont stock is held by Delaware and by individual members of the du Pont family (Op. 8). In 1949 du Pont had 82,000 stockholders (*ibid.*).

2. TRADE RELATIONS BETWEEN DU PONT AND GENERAL MOTORS

The Government contended that, as a consequence of du Pont's controlling interest in General Motors, the latter's trade has been restrained in two respects: first, that du Pont secured a preferred position as a General Motors supplier; and, second, that du Pont has been able to obtain the exclusive right to exploit certain chemical discoveries of General Motors. The court rejected both of these contentions, finding that General Motors' substantial purchases from du Pont, and its turning over of various chemical discoveries to du Pont for development, production and sale, were the result of General Motors' independent business judgment, and not of any pressure by du Pont.

The court's opinion discusses the evidence on these issues at length. Since, as we point out under the heading "The Questions Are Substantial", we think that the court applied an erroneous standard in evaluating this evidence, we shall not attempt to set it forth in any detail, but shall merely refer to certain significant aspects of the trade relations between the two companies.

During 1917, du Pont decided to utilize part of its war profits to expand into fields other than gunpowder and explosives (Op. 66–67). At the time of its purchase of the General Motors stock in 1918, du Pont already had made investments in companies manufacturing artificial leather, celluloid, rubber coated goods, paints and varnishes, and it continued thereafter to make such acquisitions (Op. 68–69). A 1917 report recommending that du Pont make a substantial investment in General Motors, which was prepared by John J. Raskob and approved by Pierre du Pont, pointed out that such investment would, among other things, secure for du Pont the "entire Fabrikoid, Pyralin, paint and varnish business" of General Motors (Op. 12–13).

In 1921, approximately three years after du Pont's investment in General Motors, Pierre du Pont, president and chairman of the General

Motors Board, asked Lammot du Pont, a vice president of du Pont, whether General Motors was taking its entire requirements of du Pont-type products from du Pont. When Lammot stated that it was not, Pierre replied that "with the change in management at Cadillac, Oakland, and Oldsmobile" he thought that du Pont should be able to sell substantially all the paint, varnish, and Fabrikoid products needed, and that "a 'drive for the Fisher Body business' should be made" (Op. 77).[3]

In a 1923 meeting of du Pont and General Motors officials it was concluded "that General Motors units should purchase 20% of their leather substitutes and top material from one of du Pont's competitors, leaving 80% to du Pont at prices determined by competition" (Op. 90). In 1926 du Pont adopted the so-called "super discount plan" under which General Motors was given extra discounts for quantity purchases from du Pont (Op. 107–108). In offering these discounts to General Motors, a du Pont official urged that the matter be kept "confidential" as "an arrangement within the du Pont-General Motors family * * *" because the arrangement could not be continued unless du Pont were able to secure "much higher prices from [its] other customers" (Op. 108).

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[3] In the latter part of 1922 Lammot du Pont, chairman of the Flint Paint Division of du Pont, wrote to the President of Fisher Body (60% of whose stock General Motors then owned (Op. 79)) that, in view of the stock ownership relations among the companies, it would seem that Flint should enjoy a large part, if not all, of Fisher's paint and varnish business (Op. 78). Du Pont obtained the major share of Fisher Body's fabric business in 1925 and 1926, the approximate period when General Motors acquired the remaining 40% of Fisher Body's outstanding stock (Op. 105-106).

Throughout the period covered by the complaint du Pont "has retained its position as the most important single supplier of General Motors" (Op. 133), and for the ten years preceding the filing of the complaint General Motors has been du Pont's largest single customer (Op. 130). Approximately three-quarters of du Pont's total sales to General Motors have consisted of products of its Finishes Division, and General Motors has purchased approximately 70% of its finishes from du Pont (Op. 131–132). For the six years 1938–1941 and 1946–1949 du Pont's total sales of finishes to General Motors were approximately $69,000,000 (Op. 130–131). On occasion General Motors made substantial purchases from du Pont although prices of competing sellers were lower (e. g., Op. 110). Indeed, it appears that du Pont frequently reduced its prices to General Motors only under the pressure of lower prices by competitors (Op. 128–129).

The evidence as to du Pont's exploitation of General Motors' chemical discoveries primarily relates to two products, tetraethyl lead (TEL), used to prevent knocking in automobile engines, and Freon, a refrigerant. The TEL story is long and complicated. In brief, the facts are that General Motors, which held the basic patents on the product, and Standard Oil, which developed an improved manufacturing process, formed the Ethyl Corporation to market TEL. The actual manufacturing, however, was done by du Pont for the Ethyl Corporation. This arrangement was extremely profitable to du Pont. From 1930 to 1937, its total profits on TEL were $35,000,000. General Motors and Standard Oil each received dividends of $30,000,000, and General Motors received $19,000,000 in royalties (Op. 168).

Freon, another General Motors discovery, similarly was exploited by du Pont. In 1930 General Motors decided to undertake commercial production of this chemical. A suggestion by the General Manager of General Motors' Frigidaire division that General Motors itself manufacture it was rejected by Sloan (General Motors' President) and General Motors then suggested to du Pont that they form a joint company to produce it (Op. 171-172). Such a company was formed, with du Pont receiving 51% of its stock (Op. 172-173). The agreement between General Motors and du Pont for the organization of this company provided that future chemical developments originating in General Motors laboratories were to be offered first to this du Pont-General Motors company. The purpose of this provision, a General Motors official advised a du Pont official in 1931, was "to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity * * *" (Op. 174).

THE QUESTIONS ARE SUBSTANTIAL

1. The uncontradicted evidence in this case shows, as the district court found, that since 1918 du Pont always has owned at least 23% of General Motors' outstanding stock, and that the remaining stock is widely held, mostly in small amounts; that from 1918 to 1923 du Pont admittedly controlled General Motors, jointly with Durant for the first two years and independently for the next three; that since 1923 du Pont officials or persons closely affiliated with it have held important posts in the General Motors organization; that there has been frequent and intimate "consultation and conference" between the two companies, with General Motors top executives sounding out du Pont concerning prospective personnel appointments and contemplated corporate action; and that du Pont sponsored a stock purchase bonus plan under which General Motors stock was awarded to key General Motors executives by a committee whose membership always had substantial, and sometimes majority, du Pont representation.

In the light of these admitted facts, we submit that the district court's finding that since the 1920's du Pont has not had, and today does not have, "practical or working control" of General

Motors, is ~~patently~~ erroneous because it "ignore[s] the realities of intercorporate relations." *North American Co.* v. *Securities and Exchange Commission,* 327 U. S. 686, 693. In the *North American* case, this Court pointed out (*ibid.*) that "[h]istorical ties and associations, combined with strategic holdings of stock, can on occasion serve as a potent substitute for the more obvious modes of control [citations]. Domination may spring as readily from subtle or unexercised power as from arbitrary imposition of command." The Court further pointed out (*id.,* at 692) that the North American Company's lack of intervention in its subsidiaries' management "resulted in large part from North American's satisfaction with the local managements of the subsidiaries and from the fact that the local managements have often included men selected by or historically related to North American."

Similarly, in the instant case the "historical ties and associations" between du Pont and General Motors, which go back more than a quarter of a century, combined with du Pont's "strategic holdings" of General Motors stock, plainly suffice to give du Pont "practical or working control" of General Motors. The ~~district~~ court reached a contrary conclusion only by relying on factors which this Court has held are not determinative on that issue, and by ignoring factors which this Court has deemed significant.[9] ~~Thus, the district~~ court emphasized that du Pont had not conducted itself "as though it were the owner of a majority of the General Motors stock" (Op. 40; see Op. 33). This Court has recognized, however, that substantially less than 51% of the outstanding stock of a large corporation may give control, particularly where the remaining stock is widely distributed among a large number of relatively small holders. E. g., *United States* v. *Union Pacific R. R. Co.*, 226 U. S. 61, 95–96 (46%); *Rochester Telephone Corp.* v. *United States*, 307 U. S. 125, 146 (33.5%).[4] On the other hand, the district court ignored the significance of du Pont's "subtle or unexercised power" (*North American* case, *supra*) when it found (Op. 39) that, although some du Pont representatives participated in the making of bonus awards to General Motors executives, there is "no evidence" that in doing so they attempted to further du Pont's interests as a supplier of General Motors and as a chemical manufacturer. The business judgment of General Motors officials whose selection as recipients of huge bonus awards was thus dependent upon the favor of persons allied with du Pont inevitably would reflect that dependence.

The question of the standard to be applied in determining questions of intercorporate control under the antitrust laws obviously is one of substantial public importance. We submit that the district court's narrow concept of control would seriously reduce the effectiveness of those laws in promoting competition and preventing monopoly.

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[4] Cf. *Morgan Stanley & Co.* v. *Securities and Exchange Commission*, 126 F. 2d 325 (C. A. 2) (20%), especially Judge Learned Hand, concurring, at 333: "* * * we can take judicial notice of the fact that the ownership of twenty per cent of the voting power of a company makes the owner 'liable' to have practical control."

2. The district court's erroneous conclusion that du Pont does not control, or have power to control, General Motors colored its consideration of the evidence relating to the trade relationships between those companies. For the court evaluated that evidence on the assumption that the two companies at all times dealt with each other at arm's-length, whereas the fact is that du Pont's controlling influence in General Motors made such a relationship impossible. Managerial judgments reflect a wide variety of factors. In making decisions, General Motors officers, high and low, could not be free from the consciousness, indeed the vivid realization, that determinations favorable to du Pont's interests were likely to lead to personal promotion and financial reward. This consciousness necessarily affected the attitude of General Motors personnel in their dealings with du Pont. We submit that the district court's failure to recognize this factor resulted in serious misappraisal of the significance of the Government's evidence.

For example, the court found that General Motors secured du Pont's services as a manufacturer of TEL "in the unrestrained exercise of its own judgment" (Op. 170); that General

Motors' substantial fabric purchases from du Pont "were based upon each division's exercise of its business judgment" (Op. 144); and that Fisher Body "at all times conducted its purchasing with respect to finishes, fabrics and all other products in accordance with its own best judgment" (Op. 114). But "best judgment", when it is a question whether to purchase supplies from a company which controls the purchaser rather than from the latter's competitors, can hardly be deemed objective. Similarly, the court's conclusion that there was "no evidence" that General Motors "was ever *prevented* by du Pont from using a finish manufactured by one of du Pont's competitors" (Op. 133, emphasis added) ignores the subtle pressures and influences exerted upon General Motors by its relationship to du Pont.

We submit that the interlocking corporate relationships in this case, and the consequent exclusion of du Pont's competitors from access to a substantial segment of the market, constitute an illegal combination in restraint and monopolization of trade in violation of the Sherman Act. Cf. *United States* v. *Reading Co.,* 253 U. S. 26; *United States* v. *Yellow Cab Co.,* 332 U. S. 218. Here, as in *Associated Press* v. *United States,* 326 U. S. 1, 10, competitors who seek to do business with General Motors "have a hard road to travel." The fact, upon which the district court relied (e. g., Op. 115), that such competitors were not completely excluded is not determinative, since "the fact that an agreement to restrain trade does not inhibit competition in all of the objects of that trade cannot save it from the condemnation of the Sherman Act." *Associated Press* case, *supra,* at 17 and cases there cited. Indeed, "[c]ombinations are no less unlawful because they have not as yet resulted in restraint." *Id.,* at 12.

3. The district court further erred in holding that du Pont's original acquisition of General Motors stock did not violate Section 7 of the Clayton Act. Although the district court recognized (Op. 220) that a violation of that section may occur "in the absence of an actual restraint of trade where it is established that there is a reasonable probability that a condemned restraint will result from an acquisition of stock," it was unable to find such a probability in this case because "no restraint of trade has resulted" in the more than thirty years since the stock was acquired in 1918.

As we have already shown (*supra,* pp. 20–22), the court applied an erroneous standard in concluding that there had been no restraint of trade under the Sherman Act, and its conclusion of no restraint under the Clayton Act is similarly incorrect. But assuming *arguendo* that no actual restraint has been shown, we submit that the history of the relationship between du Pont and General Motors establishes that the acquisition created a sufficient *probability* of restraint to show violation of Section 7. That Section condemns acquisitions which "may" restrain competition or tend toward a monopoly, as well as those which actually do. Cf. *Standard Fashion Co.* v. *Magrane-Houston Co.*, 258 U. S. 346, 356. Once the power to restrain exists—and the power to control plainly includes the power to restrain—there is a violation of Section 7 whether or not that power has been exercised.

4. The case itself is of great significance. General Motors is one of the largest companies in the country: in 1947 it had assets of almost $2,500,000,000, sales of $3,800,000,000 and net income of $288,000,000 (Op. 72). In the same year, du Pont had assets of almost $1,500,000,000, sales of $780,000,000 and net income of $120,000,000 (*ibid.*). General Motors' purchases from du Pont cover a wide variety of products, and the chemical discoveries and processes which have been the subject of special dealings and relationships between them are of key importance in the industrial world. The question whether it is consistent with the objectives of the Sherman and Clayton Acts to permit these economic giants to remain interlocked (the one retaining in the other an interest worth more than two billion dollars) is of obvious importance to the economy of the country.

CONCLUSION

The questions presented by this appeal are substantial and they are of public importance. The case itself is of great significance. It is respectfully submitted that probable jurisdiction should be noted.

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JUNE 1955.

U. S. GOVERNMENT PRINTING OFFICE: 1955

In the Supreme Court of the United States

OCTOBER TERM, 1955

No. 151

UNITED STATES OF AMERICA, APPELLANT

v.

E. I. DUPONT DE NEMOURS AND COMPANY, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

BRIEF IN OPPOSITION TO MOTION TO AFFIRM

Appellees argue (Motion to Affirm, pp. 3, 18, 20, 23-24, 31) that although the appeal in terms presents the issue whether the district court applied erroneous legal standards in evaluating the evidence in this case, the Government is actually seeking a trial *de novo* in this Court of the factual questions which the district court decided against it. They state (p. 22) that the district court fully considered all the relevant factors in reaching its conclusion that du Pont has not had, and today does not have, "practical or working control" of General Motors, and that since the court made "careful findings on each aspect of the control issue," there is no occasion for this Court to review that determination. Further, they argue (p. 27) that even if the Government's contention on the control issue were to be upheld, it still could not prevail because the court found, on all the evidence, that "General Motors was not at all influenced in its purchasing practices or in the exploitation of its chemical discoveries by its relationship to du Pont." Appellees also deny the Government's contention that the court evaluated the evidence as to the trade relationships between du Pont and General Motors on the assumption that the two companies dealt at arm's length (p. 27). They state (p. 23) that the arm's-length question "was precisely the issue to which the evidence was directed," and that the district court "[o]n the basis of all that evidence" found that an arm's-length relationship had existed. These contentions, we submit, are incorrect.

1. Appellees argue (p. 21) that the district court "did not consider the question of control in terms of majority control; it considered it in terms of 'practical or working control.'" But analysis of the court's findings, we submit, clearly shows that the court assumed that "practical or working control" could not exist unless du Pont "has been in a position to act as if it owned a majority of General Motors stock" (Op. 33), or had "conduct[ed] itself, for the past 25 years, as though it were the owner of a majority of the

General Motors stock" (Op. 40).* Only such a narrow concept of control—and one which, as we pointed out in our Jurisdictional Statement (p. 18), is clearly erroneous because it "[i]gnores the realities of intercorporate relations"—could possibly explain the court's ultimate conclusion that du Pont's ownership of 23% of the outstanding stock of a company the size of General Motors, the wide dispersal of the remaining stock, and the long history of close working relations between the two companies, "was insufficient to give du Pont 'practical or working control' of General Motors.".

Appellees urge (Motion to Affirm, p. 21) that this Court should not review the control question because the district court "devoted 32 pages of the opinion (pp. 10-42) to a careful review of the history of every aspect of du Pont's stock interest," and concluded on the basis of such review that no control existed. But, as we pointed out in our Jurisdictional Statement, that "careful review" involved an application of erroneous legal principles. The question whether the district court erred in concluding that du Pont does not control General Motors does not call for a reweighing of the evidence by this Court, but requires, principally and fundamentally, an inquiry into, and determination of, the proper standards for ascertaining the existence of control of a large modern corporation; and reappraisal of the district court's findings in the light of such standards.

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* Such an analysis, of course, requires full briefing. We merely note here our disagreement with the appellees' interpretation of numerous findings and our belief that their discussion of selected findings fails to provide a full and correct picture, on the basis of which the Court could be justified in entering a summary affirmance on the merits without further briefs or argument.

2. If we are correct in our contention that the court reached an erroneous conclusion on the control question, then any holding by the court that an arm's-length relationship existed between du Pont and General Motors was similarly erroneous. The error of the district court on the one issue would inevitably infect its determination of the other. It requires no elaborate argumentation to demonstrate that the concept of arm's-length bargaining necessarily implies that neither party can subject the other to any influence or pressure, whether subtle or overt. If this Court should agree that the district court resolved the control issue by applying erroneous legal standards, a similar infirmity would arise in the district court's refusal to find that General Motors officials could not help but be aware of the controlling position which du Pont held in their company, and that their business judgment in deciding whether to deal with du Pont or with a competitor of du Pont necessarily reflected that awareness. If proper legal standards be applied, such intercorporate dealings cannot be called "arm's-length" bargaining in any relevant or meaningful sense.

3. Moreover, if (as we contend) du Pont has the power to control General Motors and to influence or dictate its course of conduct, it is un-

necessary to determine, for purposes of application of Section 7 of the Clayton Act, the full extent to which it has been demonstrated that the control has been actively exercised in the past. For as long as that power to control continues to exist, the power to restrain trade similarly exists, and can be exercised whenever du Pont wishes to do so. Section 7 certainly requires no more.

CONCLUSION

Throughout their motion appellees stress the proposition that control and its exercise must be determined in the light of the special pertinent circumstances. Ascertainment of these circumstances, they point out, involves determinations of fact. But whether one describes questions of "control" and "exercise of control" as involving finally a determination of ultimate facts or the reaching of legal conclusions, a basic consideration is that the ultimate determination may also involve in important and crucial measure the application of certain legal concepts and standards, and the validity of certain inferences. We believe that the court below applied erroneous legal standards and that it drew unwarranted inferences from its subsidiary findings. On such questions, the Government respectfully submits, it is not only the prerogative but the duty of the appellate tribunal to afford effective review. The function of the expediting procedure provided by Congress in civil antitrust cases instituted by the Government is to assure prompt and effective review by the highest Court of cases having unusually important ramifications in the economic life of the country. This case falls notably in that category. Appellees would, in effect, stand the Expediting Act on its head. In lieu of effective review by this Court in the large and important antitrust case, they would have it that there shall be no review at all because the large case may also seem a forbidding case. In effect, the more important and pervasive the issue involved, the less likelihood there would be of review.

We submit that the questions tendered by this appeal are plainly of such a character as to require full exploration on briefs and oral argument. The motion to affirm should be denied, and probable jurisdiction should be noted.

Respectfully submitted,

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In the Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT

v.

E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

BRIEF FOR THE UNITED STATES

OPINION BELOW

The opinion of the United States District Court for the Northern District of Illinois, Eastern Division (R. 289-466), is reported at 126 F. Supp. 235.

JURISDICTION

This suit was brought under Section 4 of the Act of July 2, 1890, 26 Stat. 209, as amended (15 U.S.C. 4), and Section 15 of the Act of October 15, 1914, 38 Stat. 730, as amended (15 U.S.C. 25).

The judgment of the district court was entered on December 9, 1954 (R. 466-467), and the notice of appeal was filed in that court on February 4, 1955 (R. 467-474). This Court noted probable jurisdiction of the appeal on October 10, 1955 (R. 474). The jurisdiction of this Court is conferred by Section 2 of the Expediting Act of February 11, 1903, 32 Stat. 823 (15 U.S.C. 29), as amended by Section 17 of the Act of June 25, 1948, 62 Stat. 869.

QUESTIONS PRESENTED

1. Whether, on the facts found by the court below, E. I. du Pont de Nemours and Company controls General Motors Corporation through its stockholdings, amounting at all times since 1918 to at least 23%, in view of the understandings at the time of acquisition, the subsequent history of interlocking directorships and intercorporate relationships, and the wide distribution of the remainder of the stock.

2. Whether, irrespective of absolute control, there is an absence of arm's-length bargaining between du Pont and General Motors which induces illegal preferential treatment of du Pont over its competitors.

3. Whether the relationship between du Pont and General Motors, whether control or an absence of arm's-length bargaining, is a combination to restrain or to monopolize interstate trade in violation of Sections 1 and 2 of the Sherman Act.

4. Whether du Pont's acquisition of General Motors' stock violates the provisions of Section 7 of the Clayton Act forbidding stock acquisitions which may result in restraint of commerce or tend to create a monopoly.

STATUTES INVOLVED

The pertinent provisions of Sections 1 and 2 of the Act of July 2, 1890, 26 Stat. 209 (15 U.S.C. 1, 2), commonly known as the Sherman Act, are as follows:

> Sec. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal: * * *. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a misdemeanor, * * *.
>
> Sec. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, * * *.

The pertinent provision of Section 7 (as it read at the time the complaint was filed) of the Act of October 15, 1914, 38 Stat. 730 (15 U.S.C. [1946 ed.] 18), commonly known as the Clayton Act, are as follows:

> Sec. 7. No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

* * * * *

STATEMENT

Nature of the Case and Proceedings Below

This is a civil suit instituted by the United States under Section 4 of the Sherman Act and Section 15 of the Clayton Act to enjoin alleged violations of Sections 1 and 2 of the Sherman Act and Section 7 of the Clayton Act.

The amended complaint (R. 191-264), so far as pertinent to the issues on appeal,[1] alleged that du Pont and General Motors have been engaged since 1915 in a combination and conspiracy to restrain and monopolize interstate trade and that du Pont's acquisition of General Motors stock had the effect of restraining trade and tending to create a monopoly. In brief it was alleged that, by means of the relationship between du Pont and General Motors, du Pont intended to obtain, and did obtain, an illegal preference over its competitors in the sale to General Motors of its products and a further illegal preference in the development of chemical discoveries made by General Motors. Appellees denied these charges.

The case was tried before Judge Walter J. LaBuy from November 1952 until June 1953. Briefing and argument before the district court was completed in December 1953. The court's opinion finding against the Government on all charges issued on December 3, 1954, and an order dismissing the complaint was entered on December 9, 1954.

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[1] The complaint was originally filed on June 30, 1949 (R. 37). It was amended on July 28, 1952 (R. 157), and again on January 16, 1953 (R. 180). In the earlier stages of the case, in addition to E. I. du Pont de Nemours and Company and General Motors Corporation, there were named as defendants, United States Rubber Company, various members of the du Pont family and three corporations through which it was alleged control over the manufacturing defendants was exercised (R. 38-40, 158-165). Many of the individuals were dropped from the case by the final amendment of the complaint before trial (R. 195-211). The United States has not asked for review of that part of the decision below finding no violation of the antitrust laws with respect to United States Rubber.

Du Pont's acquisition of stock in General Motors

The du Pont Company at the time of suit and for many years before that held 10,000,000 of the 44,000,000 outstanding shares of General Motors common stock (GTX 1307, R. 664, 5230).[2] The circumstances under which this holding was acquired are important to the issues of this case. As will be detailed below, at the time of original acquisition in 1918 Mr. William C. Durant, President of General Motors, was unquestionably in control of that company, holding through the agency of the Chevrolet Motor Company 450,000 out of 825,000 outstanding shares (GTX 122, 478, 3203, GTX 124, p. 6, R. 479, 3215). Mr. Durant agreed that du Pont should originally buy $25,000,000 of General Motors stock (later $50,000,000) and that the two should jointly control General Motors (GTX 124, R. 479, 3221: "With Mr. Durant we will have joint control of the companies.") Later in November 1920, du Pont bought out Mr. Durant's interest and contemporaneously acknowledged its control (GTX 1304, R. 664, 5225). At this time the percentage of outstanding shares held by du Pont reached its highest point (38%) and it was able to revamp the entire management. Du Pont retained the right to vote this stock until 1930 when it commenced a distribution of part of the stock to officers and directors of General Motors in the form of bonuses, a program completed in 1938 (GTX 273, R. 499, 3640). Since 1939 it has held about 23%. None of these essential facts is in dispute and most are specifically found by the court below (R. 297-306).

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[2] GTX will be used to designate Government exhibits, DP for du Pont's, and GM for General Motors'. The record references which follow the numbers of the exhibits are first to the page where the exhibit was offered and then to the page where it appears in the Record.

The significant details are as follows:

General Motors Company was organized in 1908 by Mr. William C. Durant, who had entered the automobile business in 1905 by forming the Buick Company. General Motors was a holding company for Buick, Oldsmobile, Cadillac, Oakland and others (GTX 124, R. 479, 3212; R. 797). In 1910, in connection with new financing, controlling stock was placed in a voting trust for 5 years and Mr. Durant stepped out as president in favor of Mr. C. W. Nash (GTX 124, R. 479, 3213; R. 797).

It was during this period that members of the du Pont management individually acquired their first interest in General Motors. Mr. Pierre S. du Pont, then President of the du Pont Company, purchased 2,005 shares for $135,092 in 1914 and 230 for $73,460 in 1915, a total of $208,552. (In 1916 and 1917, he increased his investment in General Motors and Chevrolet to a total of $2,003,814 (GTX 114, R. 477, 3188)). Mr. Irenee du Pont's net investment was 300 shares for $20,058.33. (By the end of 1917 he purchased additional Chevrolet stock bringing his investment up to $35,747.22.) (GTX 115, R. 477, 3189). Mr. John J. Raskob, Treasurer of du Pont, held a little less than 1,200 shares but the record does not show the amount of his investment (if it were comparable to Mr. Pierre S. du Pont's, it would have been about $110,000) (GTX 120, R. 478, 3200).

At the termination of the voting trust in 1915, doubt existed as to whether Mr. Durant or the investment bankers controlled General Motors. Mr. Durant had formed Chevrolet and had been busy buying up General Motors stock (GTX 124, R. 479, 3214-3215; R. 803). At a meeting of the bankers and Mr. Durant in September, 1915, attended by Mr. Pierre du Pont and Mr. Raskob, it was agreed that Mr. du Pont, who was still President of du Pont, should become Chairman of the Board of General Motors, and should nominate as neutral directors three other men (GTX 116, R. 478, 3190). He selected Mr. Lammot Belin, his brother-in-law, Mr. John J. Raskob, Treasurer of du Pont, and Mr. J. A. Haskell, Director and Vice President of du Pont (GTX 116, R. 478, 3190; GTX 124, R. 479, 3213). Thereafter, in 1916, Mr. Durant, through Chevrolet, acquired a clear majority, 450,000 of the outstanding 825,000 shares of General Motors stock and in that year again took over the presidency (GTX 124, R. 479, 3215). The present General Motors Corporation was substituted for the General Motors Company in August 1917 (R. 806-7) and in that month both Mr. Pierre S. du Pont and Mr. John J. Raskob became members of the five-man Finance Committee (GTX 123, R. 478, 3205).

At that particular time the du Pont Company had a large sum of money it desired to invest. It had expanded its powder business many-fold because of the demands of World War I. Thus its capital structure had been doubled (DPX 76, p. 3, R. 782, 5780) by retention of part of its wartime profits of $232,000,000 (Answer of du Pont, Par. 38, R. 116). In 1917 its directors foresaw the necessity of finding some use for the increased capital, other than the explosives business which of necessity would diminish at the end of the war. Either the profits had to be distributed and the company revert to its prewar size or some new use for the capital had to be found in order to maintain dividends. Some $90,000,000 was involved of which $40,000,000 was invested in acquisition of companies manufacturing paints and varnishes, dyestuffs, organic chemicals and heavy chemicals (GTX 113, R. 477, 3156; GTX 124, R. 479, 3212). Du Pont had branched out into artificial leather through purchase of the Fabrikoid Company in 1910 (GTX 106, R. 476, 3062), and celluloid through purchase of the Arlington Company (GTX 109, R. 476, 3119; GTX 110, R. 476, 3120), and rubber coated fabrics through purchase of Fairfield Co. in 1916 (GTX 106, R. 476, 3062; GTX 107, R. 476, 3079) In 1917, it made large investments in Harrison Brothers, a paint and varnish manufacturer (GTX 113, R. 477, 3156).

At this juncture, Mr. Durant, president and controlling stockholder of General Motors, urged that the du Ponts substantially increase their investment (GTX 124, R. 479, 3215-6). In response Mr. Raskob, Treasurer of du Pont, worked out with Mr. Durant the acquisition of options on some 223,000 shares of General Motors stock (or its equivalent in stock of the then controlling company, Chevrolet) (GTX 124, R. 479, 3217). In collaboration with Mr. Pierre S. du Pont, President of du Pont (R. 922-925), Mr. Raskob drew up a prospectus for submission to the Finance Committee of du Pont and its directors, proposing the purchase of those 223,000 shares, plus 50,000 additional, the total to cost about $25,000,000 (GTX 124, R. 479, 3208). It was contemplated that this purchase would put du Pont and Mr. Durant in joint control of General Motors. Mr. Raskob's report stated (GTX 124, R. 479, 3217-3222):

> The total outstanding voting stock of the enlarged General Motors Company would be approximately 1,080,000 shares, 50% or control of which would require ownership of 540,000 shares. With the above purchases, control could be summarized as follows:

Durant	280,000 shares
Du Pont	223,000 "
Total	503,000 "
Additional stock to be bought by Du Pont to make our investment $25,000,000.00, say	50,000 "
	553,000 "
Stock held by Wilmington people and Du Pont friends approximately	100,000 "
Total	653,000 shares

* * * * *

Summary

Summarizing the above we have an opportunity to make a substantial investment in the motor industry with the following points in favor thereof:

1. With Mr. Durant we will have joint control of the companies.

2. We are immediately to assume charge and be responsible for the financial operation of the Company. This involves the direction of cash balances which will aggregate upwards of $25,000,000.00 and the handling of annual gross receipts aggregating $350,000,000.00 to $400,000,000.00. From a financial standpoint, I feel that a consolidation of the financial divisions of the Du Pont and General

Motors Companies will be of tremendous advantage to us as well as to the General Motors Company and is a thing to be sought and desired from our standpoint.

3. The Du Pont Company, if the Class A stock is sold to the stockholders, will share in the profits of the industry to an extent equal to 120% on our investment and will receive 14% in annual dividends thereon; or in the event of carrying Class A stock in our Treasury the dividend rate will be about 12.6% and will share in the earnings about 42% and this after paying $20,000,000.00 war taxes.

4. Our purchase is on better than an asset basis.

5. Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor.

Management

Perhaps it is not made clear that the directorates of the motor companies will be chosen by Du Pont and Durant. Mr. Durant should be continued as President of the Company, Mr. P. S. du Pont will be continued as Chairman of the Board, the Finance Committee will be ours and we will have such representation on the Executive Committee as we desire, and it is the writer's belief that ultimately the Du Pont Company will absolutely control and dominate the whole General Motors situation with the entire approval of Mr. Durant, who, I think, will eventually place his holdings with us taking his payment therefor in some securities mutually satisfactory.

> During the past two years our Company has been doing big things. After the war it seems to me it will be absolutely impossible for us to drop back to being a little company again and to prevent that we must look for opportunities, know them when we see them and act with courage. If our fundamentals are sound, as they certainly seem to be in this case, the control of the General Motors Company will be a task worthy of the best there is in us and will I feel afford many opportunities to keep our important men occupied with big things after the war.

This purchase was approved by the Executive Committee and the Finance Committee on December 20, 1917 (GTX 126, R. 479, 3229) and by the Board of Directors on December 21, 1917 (DP 47, R. 817, 5616). The purchase was thereupon carried through and du Pont acquired 97,875 shares of General Motors and 133,690 shares of Chevrolet (GTX 128, R. 481, 3234).

Under an exchange plan between General Motors and Chevrolet, the Chevrolet stock turned out to be worth 1-1/7 shares of General Motors, totalling 152,788—making du Pont's holdings 250,663 shares or 23.83% of the 1,047,417 shares outstanding (GTX 128, R. 481, 3235). Additional purchases in 1918 and 1919 brought the total up to 440,898 shares at a cost of $48,758,253 and a 28.74% holding of the stock (GTX 166, R. 483, 3380).

Immediately following the $25,000,000 investment in 1918, du Pont moved into the management. Mr. Raskob wrote to Mr. Durant making plans for an announcement of the new "partnership" to the banking world, and suggesting the addition of Messrs. Barksdale, Irenee du Pont and H. F. du Pont to the Board of Directors (GTX 129, R. 479, 3244). On February 21, 1918, Mr. Irenee du Pont and Mr. Henry F. du Pont were in fact elected to the General Motors board (GTX 130, R. 479, 3247). Mr. Barksdale, a du Pont officer who had been on the board of Chevrolet (GTX 128, R. 481, 3238), was elected to the General Motors board in June of 1918 (GTX 133, R. 479, 3257). Mr. Haskell was elected to the Executive Committee and a Finance Committee of seven was picked with du Pont men holding five seats (GTX 130, R. 479, 3247). In March of 1918, Mr. Raskob reported to the Finance Committee of du Pont (GTX 128, R. 481, 3239):

> The financial management of General Motors Corporation is thrown very largely up to us and plans are under way to bring us into intimate contact with that end of the business.
>
> Through our connection on the Executive Committee we will be in close contact with the operating and sales end of the business.

The 1918 annual report of the du Pont Company states (GTX 125, R. 479, 3228):

> . . . . . The interest of certain officers of the company in the motor field was engaged for many months prior to the making of an investment by the company. While there is no immediate relation between the explosive industry and the manufacture of motors, this investment was made in such a way as to give opportunity for our financial organization to be of service; and at the same time

increase greatly our financial strength. The large engineering and construction forces of our company, the development, legal and accounting department facilities, coupled with the demands of the motor industry for talent of that kind, has furnished a connecting link which seems desirable in all investments. The consumption of paints, varnishes and fabrikoid in the manufacture of automobiles gives another common interest. In entering this field it was necessary to make investment in a thoroughly developed property. This has been found in the General Motors Corporation, already equipped in a most thorough manner with technical men of experience for the proper conduct of its business. The officers of E. I. du Pont de Nemours & Company are fortunate in having secured a 27.6% interest in this corporation, as it now stands equipped with factories for producing all kinds of cars, tractors and trucks, together with the greater part of the accessories needed in their manufacture. We feel fortunate also in our partnership with Mr. William C. Durant, President of the General Motors Corporation, and the father and leader of the motor industry, not only in the United States but in the world. This alliance leaves the management and general conduct of the General Motors Corporation as heretofore, except that the responsibility for financial management is now shared by the officers of our company. The general function of the Du Pont interests is advisory only, though already there has sprung up an intimacy between the organizations that promises great benefit through the exchange of facilities and use

> of important men for specific duties to which they are particularly well adapted. [pp. 22-23]

It was during this period, early in the relationship, that Mr. Alfred P. Sloan, Jr. entered the picture. He was president of United Motors, an amalgamation of several manufacturers of automotive parts, which was allied with Durant or General Motors in some undefined way though not through stock ownership (GTX 124, p. 7, R. 479, 3216; GTX 132, R. 479, 3254). In the fall of 1918 he became vice president of General Motors and a member of the board of directors (GTX 177, R. 492, 3397).

It was in 1920, after J. P. Morgan & Company had participated in some new financing, taking up some 600,000 shares, that Mr. Stettinius, a partner in J. P. Morgan & Comany, wrote to Mr. Pierre S. du Pont (GTX 145, R. 483, 3327):

> I need not tell you that however attractive General Motors may have been to us, it would not have received the support we have given it had it not been for your active connection with and interest in the Company.

It was discovered in November of 1920 that Mr. Durant was deeply in debt to brokers in the amount of $27,000,000 on margin accounts for which he had pledged his holdings of General Motors stock (2,600,000 shares) and also some 1,300,000 shares borrowed from du Pont (DP 50, R. 827, 5268). It appears that the stock had been declining on the market, that attempts by J. P. Morgan & Company to stabilize the market had failed and that Mr. Durant had overextended his resources in a vain attempt to maintain the market price (DP 50, R. 827, 5628). Writing on November 26, 1920, a short time after these events occurred, Mr. Pierre S. du Pont described the almost frenzied activity which attended the formation of a corporation sponsored by [redacted] and Morgan to issue $20,000,000 of bonds to redeem Mr. Durant's stock (DP 50, R. 827, 5628). In the end du Pont put up $7,000,000 additional cash, pledged some of its stock and credit and ended up in control of Mr. Durant's 2,600,000 shares at a cost of $20,000,000 (GTX 166, R. 483, 3375). (The agreement to take over this stock is found in GTX 154, R. 481, 3329.) The next year (1921) du Pont issued $35,000,000 of its own bonds to finance the purchase (GTX 166, pp. 12-13, R. 483, 3386-7). Du Pont then held 7,362,540 shares of General Motors, representing 35.8% of the total outstanding stock, at a cost of $75,581,259 (GTX 166, p. 15, R. 483, 3389).

Thus the "partners in ownership of General Motors stock" (DP 50, R. 827, 5628) ceased to be such and du Pont's Annual Report for 1920 (GTX 1304, R. 664, 5225) stated:

> "During the latter part of November last, Mr. W. C. Durant, then President of the General Motors Corporation, requested that *we take over the management and control* of that corporation, advising that he desired to resign and sell his interest in the corporation in order to liquidate his personal indebtedness, which was very large and pressing. [Italics supplied]

As du Pont itself stated in its brief before the court below (p. 332):

> Unquestionably, during the period of P. S. du Pont's Chief Executive Officership nominees of

> du Pont were thrust into positions of responsibility in General Motors which went beyond the financial supervision which had been their earlier role.

Summarizing these events in a memorandum written in 1923, Mr. Raskob stated (GTX 235, p. 2, R. 483, 3496):

> In the year 1917 the Directors of the du Pont Company after very careful consideration accepted the invitation of Mr. W. C. Durant to become interested with him as partners in the control and management of General Motors Corporation. This involved our investing a substantial sum of money and taking over the direction of the financial management of the General Motors Corporation. Mr. Durant in turn agreed to assume responsibility for the Executive Management of the company.
>
> The management of the General Motors Corporation was carried along under this arrangement until the latter part of 1920 when Mr. Durant became so seriously involved financially that the du Pont Company much against its will was forced to take over Mr. Durant's personal common stock holdings in the General Motors Corporation, involving a net increase in the du Pont Company's investment in this security of upwards of 2,500,000 shares at a cost of upwards of $25,000,000.00, with the result that today we own 7,519,000 shares of General Motors Corporation common stock valued on our books at $. This gave the du Pont Company approximately 38% of the total common stock of the General Motors Corporation which is practical control and made it necessary to assume complete responsibility for the manage-

ment. To properly assume this responsibility our Finance Committee called upon Mr. Pierre S. du Pont, Chairman of our Board, to take the presidency of the General Motors Corporation which he consented to do with the clear understanding that he was to occupy the position temporarily only, pending the time when a man capable of assuming the presidency permanently could be found or developed.

Moreover, in addition to its own direct holdings, du Pont could count on the support of friends so that in 1921 Mr. Raskob computed du Pont's "voting strength" at 10,900,000 shares of the 20,500,000 outstanding. (GTX 1345, R. 2813, 5347). He stated:

> As the Directors know we are now in control of the company and are completely responsible for its politics and management* * *.

In 1923, du Pont sold about 2,250,000 shares of General Motors to Managers Securities Company of which it held all the common or voting stock and which was formed as a method of providing special compensation for General Motors executives (*infra*, pp. 24-28). The stock of Managers Securities was to be sold to them on a delayed payment basis. Du Pont retained complete voting control of these shares until 1930 when the stock began to be disbursed and in fact controlled 26.86% of the voting stock of General Motors until the Managers was liquidated in 1938 (GTX 273, R. 499, 3640). Since then du Pont has held 10,000,000 shares (split to 20,000,000 in 1950 and increased to 63,000,000 in 1955 by an exercise of rights and a further split) amounting to about 23%, (GTX 273, p. 2, R. 499, 3641).

As recently as 1944, Mr. E. H. Tinney, Secretary of Delaware Realty and Investment Company (R. 2675) (a corporation controlled by the du Pont family and holding directly and indirectly large amounts of the stock of du Pont, (GTX 1303, R. 2675, 5221) addressed a memorandum to a committee of Delaware formed to consider liquidation, stating (GTX 1335, R. 2677, 5315):

> Delaware Realty, at least to some extent, facilitates control of the du Pont and General Motors industries. While liquidation would not eliminate this immediately, it would weaken it; more particularly so with the passage of time.

The basic facts relating to the acquisition of the General Motors stock and the resulting control during the early years were found by the District Court (R. 297-307).

Du Pont Representation on General Motors' Board and in Official Positions.

Immediately after Mr. Durant's departure from General Motors in 1920, Mr. Pierre S. du Pont was elected President (GTX 179, R. 492, 3404). The Executive Committee was reduced to four men, three of whom had previously been associated with du Pont (R. 1330). The Finance Committee continued to be dominated by du Pont (DP 56, p. 11, R. 836, 5663), Mr. F. Donaldson Brown, a du Pont officer making his initial appearance in the General Motors ranks (GTX 181, R. 483, 3408). Four out of five of the division managers were changed (DP 64, R. 861, 5713; R. 1502-3). Mr. J. A. Haskell, a du Pont man, became Vice President in Charge of Operations (GTX 178, R. 484, 3403). Mr. Alfred P. Sloan, Jr., who had been brought into the corporation at the time of the acquisition of control of United Motors, became a member of the Executive Committee and a Vice President in Charge of the General Advisory Staff (GTX 178, R. 484, 3403). He went on the Finance Committee in 1922 (GTX 177, R. 492, 3397).

On April 24, 1923, Mr. Pierre du Pont informed the Finance Committee of his desire to resign ~~the~~ presidency of General Motors and of his recommendation that Mr. Sloan replace him. The committee approved (GTX 182, R. 486, 3412). Mr. du Pont then informed the Board of Directors and on May 10, 1923, Mr. Sloan was elected President of General Motors (GTX 177, R. 492, 3397).[3] Twelve days after this election, Mr. Sloan was elected a director of du Pont (GTX 184, R. 486, 3416; GTX 186, R. 486, 3421.[4] In 1926 he wrote

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[3] Mr. Pierre S. du Pont remained Chairman of the Board until 1929, a member of the Finance Committee until 1937 and a Director until 1944 (GTX 177, R. 492, 3397).

[4] Mr. Raskob expressed doubts of the wisdom of this move (GTX 185, R. 486, 3418):

> If the doing of this results in the important men in General Motors getting the idea that we are endeavoring to put the du Pont stamp on General Motors instead of recognizing it as a free and independent institution it will be unfortunate, because General Motors should stand on its own feet and never again have to look to the du Pont Company or anyone else for support. Any other policy will not result in a strong, well built institution.
>
> * * * * * *
>
> Should the employes of General Motors resent the idea of the du Pont stamp and should the important men in the company feel slighted thru not being made partners it can only result in making Alfred's new position more difficult for him.
>
> Time is a factor of fundamental importance in all human problems and should be taken advantage of when it can be used without cost. We have done a splendid job in electing Alfred president of General Motors Corporation, because we have promoted a good man, a man who has demonstrated his fitness and ability for the position and principally because we have promoted a General Motors man, and I feel that the reaction throughout the entire organization has been splendid. Let us be careful now not to overdo the matter and secure an anti-climax. The element of time can be used here without

Irenee du Pont saying "you must recognize that I am essentially, or at least believe and hope I am, a member of the du Pont family" (GTX 704, R. 624, 4505).

On the Board of Directors du Pont has always had a substantial voice through at least five or six direct representatives (GM 10, R. 1031, 6572).[5] But the designation of the remaining directors as "management" or "other" does not negative their loyalty to du Pont. As to the management directors, originally they were employees of General Motors selected by du Pont when it was unquestionably and admittedly in control, through its stock ownership, its occupancy of the presidency and of a majority of the seats on the Board of Directors. (GTX 1345, R. 2813, 5347; GTX 181, R. 483, 3408; GTX 242, R. 493, 3542). These directors and officers, in effect self-perpetuating, continued to represent du Pont throughout the years. An example is Mr. Alfred Sloan, originally selected by Mr. Pierre du Pont (Raskob—"We have done a splendid job in electing Alfred president of General Motors. * * *," GTX 185, R. 486, 3419), and avowedly faithful to du Pont.

> cost, for the reason that Alfred can be elected to the du Pont Board six months from now with every advantage that accrues thru taking this action now. At that time both he and we can more accurately determine whether it is the wise thing to do.
>
> * * * * *
>
> In the matter of partnership I think a great deal might be said along the line of a proper partnership, consisting of our group going into General Motors as partners with Alfred instead of bringing him into an institution that is foreign to him. Being a member of our Board with no substantial stock interest is quite far from a du Pont partnership. But this is quite apart from the main thought I have in mind, as outlined above.

[5] For some reason Mr. F. Donaldson Brown, former Director, Member of the Executive Committee and Treasurer of du Pont is listed in this exhibit ~~in~~ 1923 and again in 1942 as a "management" director. So also was Mr. Pratt.

As for the "outside" directors, the record is replete with contemporary evidence that du Pont was regularly consulted with respect to their selection (see e.g. GTX 140, R. 482, 3308; GTX 142, R. 482, 3317; GTX 129, R. 479, 3244; GTX 190, R. 487, 3426; GTX 196, R. 488, 3435; GTX 207; R. 489, 3468; GTX 220, R. 490, 3480; GTX 221, R. 490, 3482; GTX 1236, R. 490, 5181; GTX 1237, R. 490, 5183). Indeed it was apparently Mr. Carpenter, President of du Pont, who pressed upon Mr. Sloan in 1944 the election of more "outside" directors (GM 13, 1186, 6589).

A list of the officers and directors of du Pont and General Motors most frequently mentioned in this brief is shown in Appendix A, attached hereto, *infra*, pp. 150-153. The personnel of the General Motors Board of Directors and of its principal committees is shown in Appendix B, *infra*, pp. 154-163.

From 1918 to 1937, du Pont was always directly represented on the Executive Committee (GM 21, R. 1196, 6608), first by Mr. Haskell (DP 56, R. 836, 5666), later by Messrs. Haskell, Pierre S. du Pont, and Raskob (DP 56, R. 836, 5666).[6] Mr. Donaldson Brown and Mr. Pratt were added in 1924, Messrs. Raskob and Pierre S. du Pont left in 1928 and 1929, and Mr. Lammot du Pont, then President of du Pont, came on in 1930 to remain until 1934. Mr. Brown stayed until the committee system was changed in 1937 (GM 21, R. 1196, 6608). In the General Policy Committee, 1937-1946, three du Pont representatives held seats: Messrs. Brown, Carpenter and Lammot du Pont. (GM 23, R. 1199, 6610). The absence of any direct du Pont representative in the more recent Operations Policy

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[6] Mr. Raskob's original prospectus had stated (GTX 124, R. 479, 3222), "* * * and we will have such representation on the Executive Committee as we desire * * *".

Committee, set up in 1946, may be a reflection of Mr. Lammot du Pont's policy expressed to Mr. Sloan in 1942 (GTX 202, R. 485, 3461):

> Perhaps I should emphasize another point which comes to me; namely, the intentional reduction of what might be called "du Pont influence" in General Motors operations, other than the financial departments. I grant you that my main thought is something in the nature of bowing to the trend of the times, when that trend is not all to the good, but the trend must be recognized, *and in this case, the situation is such that no great harm will be done by "bowing."* [Italics supplied]

But obviously du Pont's influence went beyond its formal representation. For example in 1943 Mr. Sloan expressed to Mr. Lammot du Pont a strong desire to put Mr. Kettering on the Policy Committee. Mr. Sloan stated (GTX 205, R. 488, 3467):

> * * * As one of the largest stockholders—a man of tremendous capacity, especially along the lines on which our success or failure depends—he would, if he would take a broad interest in our problems, be, for many years to come, a useful contributor to the policy phase of the Corporation's activities.
>
> I thought if Walter, George and yourself thought well of it, I would discuss the matter with him. He might feel that he was not interested in matters so purely business and technical, outside of his own normal area. He might think otherwise. In any event, I really think he would be pleased to be included—almost any one would be.
>
> I would appreciate your reaction.

Mr. Lammot du Pont, at that time President of du

Pont, replied orally, "no" (GTX 205, R. 488, 3466). And that was the end of the matter.

On the Finance Committee, where du Pont considered itself particularly expert, it was not only represented; it consistently held an absolute majority, originally 7 out of 11 in 1923, and in 1937 eight out of fourteen (GM 22, R. 1198, 6609). And when the Committee was reconstituted in 1946, the old pattern was reestablished with four officers or directors from du Pont, namely, Mr. W. S. Carpenter (President), Mr. Donaldson Brown and Mr. A. B. Echols (in 1947) (members of the Finance Committee of du Pont) and Mr. Alfred Sloan (a director of du Pont) (GM 25, R. 1202, 6612).

Du Pont's attitude toward this committee was expressed in Mr. Lammot du Pont's statement as President of du Pont to Mr. Sloan as President of General Motors on December 24, 1928 (GTX 188, R. 485, 3423-3424):

> In regard to the Chairmanship of the Finance Committee, I feel that it is up to the du Pont Company to make a nomination, because it seems that du Pont has always assumed the responsibility for the financial direction of General Motors.

Du Pont's next president, Mr. W. S. Carpenter stated to Mr. Donaldson Brown in 1941 (GTX 1238, R. 485, 5185):

> The financial position of General Motors today is so strong that I think it is very easy for us to feel that the importance of the financial aspect may not be as critical as heretofore. On the other hand, it seems to me that never was there a time in the life of the great corporations of this country when this question was more important. * * *

He stated again (GTX 200, R. 484, 3449):

> It seems to me that, in the du Pont management for years back as well as in General Motors management, the activities and responsibilities have been divided into two parts; one, financial and the other, operating. The financial phase has not been merely an auxiliary of the operating department, it has been at least equal and often dominating in the considerations of major policy. Think back over the earlier days and consider the influence brought to bear on du Pont management when Pierre, Raskob and you were in charge of du Pont financial management. As a matter of fact you will recall that for years Pierre as Treasurer was the Chief Executive Officer of the Company, though to be sure he was also Acting President. Think of the long period of years in General Motors management when the influence of the financial side was so important, during the days of Pierre, Raskob, and later, yourself and the old Finance Committee.

All of these facts with respect to interlocking directors and officers are also not in dispute and were in substance found by the court below (R. 308-316).

Distribution of Stock to General Motors' Officers

In addition to its influence through directors, officers, and committees, du Pont also participated actively, through the medium of the so-called Managers Securities Plan, in a method of rewarding the officers and directors of General Motors for their service. At the time Mr. Pierre du Pont retired as president of General Motors in 1923, Mr. Raskob reported (GTX 235, p. 3, R. 483, 3497):

> Mr. du Pont feels that the best manner in which to attain the greatest success possible in the conduct of the affairs of the General Motors Corporation is for that Corporation to interest its principal men in the corporation as substantial stockholders or partners. He not only feels this very keenly, but feels too that the du Pont Company with its large and controlling interest in the General Motors Corporation has now a splendid opportunity to enhance the value of its own investment in the General Motors Corporation through giving to the General Motors Corporation an opportunity to interest its important employees as managing partners in this great enterprise.

Messrs. Raskob and Brown worked out and submitted to the Finance Committee of du Pont a plan whereby one-third (later changed to 30%) of du Pont's General Motors stock should be made available to the principal executives of General Motors, on the basis of purchase over a seven-year span (one-seventh down payment and the remainder to be paid out of dividends) (GTX 235, R. 3495). Under the plan, during the entire seven years (1923-1930) du Pont would retain voting power over all of the General Motors stock involved. The results, as foreseen in the beginning, were (GTX 235, p. 8, R. 3502):

> The net result of the foregoing plan is that the du Pont Company will sell to important and desirable General Motors partners one-third of its interest in General Motors Corporation common stock (which is less than the interest we acquired when we bought out our former partner—Mr. W. C.

> Durant) for $37,500,000.00. We will be in position to liquidate our entire indebtedness of $35,000,000.00 of 7½% notes created in order to finance this Durant purchase; will retain the same control of General Motors Corporation that we have today through controlling two-thirds of the stock of General Motors Securities Company with its 7,500,000 shares of General Motors Corporation common stock and will definitely tie up with us in the management and control of this huge investment the men in the General Motors Corporation who are definitely charged with the responsibility and success of the corporation.

The Board of Directors of du Pont agreed (GTX 244, R. 493, 3549) and the plan went into effect.

Although a committee of three was established to select the officials who should share in the bonus, it appears that the initial selection was made by Mr. Sloan and Mr. Pierre S. du Pont (GM 30, R. 1225, 6629). The original allotment was subject to revision by the Finance Committee of General Motors, which was controlled by du Pont representatives (GTX 244, R. 493, 3549).

The way the plan evolved, one share of Class B of Managers Securities, which was sold at the price of $25, became entitled to the dividends from, and eventually to the ownership of, 45 shares of General Motors (GTX 244, R. 493, 3549). (The Class A stock received 5% of General Motors earnings after first deducting 7% on invested capital. It was sold in a package with the Class B stock to the same General Motors employees). Thus as the value of General Motors stock increased the value of Class B stock of Managers Securities Company multiplied 45-fold. The following table shows participation of the principal executives and their gains therefrom (GTX 259, R. 496, 3587):

	Class A	Class B	Cost of Class B stock	Value of Class B stock in 1926
Alfred Sloan, President	3,200	3,200	$80,000	$2,154,688
John J. Raskob, Chairman, Finance Committee	2,400	2,400	60,000	1,616,016[7]
H. H. Bassett, General Manager, Buick	2,400	2,400	60,000	1,616,016
C. S. Mott, Vice Pres. in Charge of Car and Truck Group	2,400	2,400	60,000	1,616,016
Fred J. Fisher, Member, Executive Committee	1,720	1,720	43,000	1,158,144
Charles T. Fisher, Member, Executive Committee	1,720	1,720	43,000	1,158,144
Donaldson Brown, Vice Pres. in Charge of Financial Staff	1,600	1,600	40,000	1,077,344
John L. Pratt, Group Executive in Charge of Accessory Divisions	1,600	1,600	40,000	1,077,344

Moreover, as the plan worked out du Pont retained the voting control of much of the stock even after the termination of the plan and until final distribution of the stock in 1938 (GTX 273, R. 499, 3640.)

After the termination of this plan and a succeeding plan, under which the General Motors stock did not come from du Pont, the company returned to its old bonus system (R. 1228-9). The awards were at first subject to approval by the du Pont dominated Finance Committee (R. 1226-7). Moreover, the Bonus and Salary Committee of General Motors which has succeeded the Finance Committee in administering the bonus plan was at all times composed of a majority of du Pont-connected personnel (GTX 276, R. 496, 3679). Mr. Sloan's explanation of this is, "It just happened that way" (R. 1380).

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[7] In 1929, M. Raskob placed a value of $20,460,000 on his B Stock (GTX 262, R. 496, 3597). Mr. Raskob's exchange of his Class B Stock for General Motors stock in 1930 was the basis for one of the claims adjudicated against some of the directors of General Motors Corporation in *Winkelman* v. *General Motors Corporation*, 44 F. Supp. 960 (S.D.N.Y.). The suit was eventually settled on the payment of $4,500,000. *Winkelman* v. *General Motors Corporation*, 48 F. Supp. 500 (S.D.N.Y.).

Again the facts connected with these plans are not in dispute, although the parties differ as to their significance.

Since 1938, when du Pont's holdings of General Motors stock were diminished by the sale of the Managers Securities holdings, it has held directly 10,000,000 of the 44,000,000 shares outstanding.[8] This is exclusive of the large blocks held by friends on whom du Pont could count in case of a contest (GTX 1345, R. 2813, 5347). The remaining shares are held by 436,000 stockholders, 92% of whom hold no more than 100 shares, and 60% of whom own no more than 25 shares (R. 304). Government exhibit No. 1307 (R. 664, 5230) gives a tabulation of the percentage of General Motors stock voted by du Pont at annual meetings from 1928 to 1949. It ranged from a high of 52% in the early years to a low of 30% in 1949.

Financially the General Motors investment has been of tremendous importance to du Pont. Although its original investment (excluding the Durant stock which it sold without loss through the Managers Securities Plan) was less than $50,000,000, the market value of its General Motors holdings at the end of 1955 was $2,914,330,000 (New York Times, January 3, 1956, p. 98). It is carried on du Pont's 1955 balance sheet at the figure of $763,350,000 (Moody's Industrials, 1956, p. 1411). Its income in dividends from this investment in 1955 alone was $135,500,000 (*ibid.*). In recent years its income from General Motors stock has constituted about one-third of du Pont's income *(ibid.)*.

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[8] In 1936 a suggested increase in du Pont's holdings was abandoned, the General Counsel of du Pont reporting to Mr. Carpenter, then Vice President (GTX 1346, R. 2815, 5352):

> In considering the acquisition by du Pont Company of a further large stock holding in General Motors Corporation: which would increase our earnings from securities to a point in excess of one-half of our total earnings, and which would not only substantially increase the stock control of the latter by the former company, but would also apparently greatly strengthen the character of such control as a result of the managers of General Motors Corporation becoming important stockholders of du Pont Company, the Committee might well give attention to the legislative trend of recent years with respect to holding companies and various forms of intercorporate control, and consider whether or not such action on our part might direct critical public attention to the nature and potentialities of such a relationship between the two companies.

Intent to Influence Trade

As already noted (*supra*, p. 10), Mr. Raskob stated in the original prospectus laying the proposed acquisition before the du Pont management (GTX 124, R. 479, 3221):

> Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor.

In the very early days of the du Pont-General Motors relationship, when it was necessary to establish new purchasing habits, to lay the basis for the business relations which have persisted for the past 35 years, the intent to obtain the General Motors' business was freely expressed. Mr. Haskell, who had previously acted as vice president and sales manager of du Pont, was installed as vice president and member of the Executive Committee of General Motors and became the du Pont "liaison" man (R. 835-6, 940). Moving first on the artificial leather market, he held a conference in April, 1918, with General Motors officials on "Fabrikoid matters" looking to "pave the way for perhaps a more general adoption of our material." (GTX 290, R. 501, 3782). His concern was not only to develop material suitable for replacing natural leather but also to "consider how best to get cooperation whereby makers of such of the low-priced cars as it would seem possible and wise to get transferred will be put in the frame of mind necessary for its adoption * * *". (GTX 290, R. 501, 3783).

Shortly thereafter the sales manager of the du Pont-owned "Arlington Works," manufacturer of pyralin (plastic sheeting), wrote to Mr. Coyne, Vice President in Charge of du Pont sales, relating a conference with the du Pont liaison vice president of General Motors, Mr. Haskell, saying (GTX 293, R. 502, 3786):

> I called upon Mr. J. A. Haskell this afternoon and had a very pleasant and satisfactory talk with him in regard to the requirements of General Motors Company for Pyralin sheeting.
>
> Mr. Haskell is in full agreement with my views which had previously been approved by you, viz., that we cannot afford to jeopardize our business with other Motor Companies by giving preferential treatment to the General Motors Company or to any of their units.
>
> I gave Mr. Haskell a synopsis, presenting what I believe to be the full and true facts regarding our relations with the various automobile manufacturers, and it is Mr. Haskell's opinion that a continuation of our present policy should result in our securing practically all of the business of the Gen-

> eral Motors Company without jeopardizing our relations with other manufacturers.
>
> Mr. Haskell makes the suggestion, which I consider a good one, that I advise him periodically as to the business shipped and business booked with the different motor branches, of General Motors, and also advise him what proportion of their business is going elsewhere. With this information in his possession, he will be able to keep in touch with the relations between the Arlington Works, and the General Motors Company, and will give me his suggestion at any time when the conditions indicate the need of special attention.

Mr. Haskell instituted a line of inquiries addressed to the manufacturing units in General Motors as to what du Pont products and what products of competitors were being used (GTX 296, 297, 298, 299, 300, R. 502-3, 3790-3801). Beside giving du Pont information as to where it must apply sales pressure, the inquiries acted as incentives to General Motors divisions to purchase du Pont products, since the officials felt called upon to explain outside buying (see e.g. GTX 300, 301, R. 503-4, 3798-3802).

In July of 1918 a vice president of the du Pont Fabrikoid Co. (artificial leather) wrote to Mr. Haskell (GTX 302, R. 504, 3803):

> If we are ultimately to furnish all, or the greater part, of the top material for the Chevrolet and General Motors cars would it not be well for

> these several users to agree upon a uniform shade of drab for the back, or lining?
>
> * * * * *
>
> This letter is written to you because I am not quite sure just how we should go about getting action, but know that if you approve of the idea you will put it into the proper hands. If somewhat premature kindly disregard it.

With respect to the sale of rubber coated fabrics by the du Pont Fairfield division, Mr. A. Felix du Pont, Vice President of du Pont, reported to the du Pont Executive Committee in June, 1921 (GTX 417, R. 526, 3998):

> The Sales Department is now securing for Fairfield nearly all the General Motors orders for rubber coated fabrics. With the community of interests which exist between that Corporation and our own, it would appear that some plan should be worked out whereby this condition should be made permanent and the profits from the manufacture of rubber coated fabrics retained within our organizations.
>
> For instance, at date of writing, General Motors' actual production, all plants combined, is in the neighborhood of one thousand cars per day, consuming, very roughly, 16,000 yards of products which can be made at Fairfield. 16,000 yards per day would consume 64% of Fairfield's capacity. Entirely apart from the point of preventing profits

going outside, production of these goods would introduce a stabilizing element into that plant's operations which would be beneficial in every way and of course tend to reduce costs.

Two years ago we started a fixed program of giving the best product and catering generally to the wishes of General Motors units in an endeavor to overcome the latent resentment which we experienced at the outset against the partial obligation under which the General Motors units felt themselves to be with respect to using our goods. Both Sales and Production departments have concentrated upon our standing with General Motors; we believe that the object sought has been accomplished and that today Fairfield is "solid" with General Motors. In general, our reports are that our products are considered by the several General Motors units as equal or superior to those of competitors, and in addition we have at some slight increase in cost to ourselves, sent out our product in a form somewhat better adapted to [illegible] factory practices of the General Motors plants than have some of our competitors. Therefore the time appears to have arrived when we might capitalize this condition by some arrangement insuring to us all the General Motors' purchases which we can handle.

On pyralin it was reported in 1921 (GTX 419, R. 528, 4009):

Referring to your verbal inquiry and Mr. Pickard's letter of August 2nd, it is the opinion of our Pyralin Division Sales organization that we are securing 100% of General Motors Pyralin Sheeting business, and have no basis for any complaint as regards co-operation, etc.

In August of 1921, Mr. Lammot du Pont wrote to Mr. Pierre du Pont, setting forth the proportions of General Motors business of paints, Fabrikoid, etc. taken by the various divisions, as follows (GTX 420, R. 528, 4010):

> Mr. P. S. du Pont, Chairman,[9]
> Board of Directors:
>
> Some time ago you inquired whether General Motors was taking its entire requirements of du Pont products from du Pont. My understanding at that time was that they were not. I have made inquiry and find the situation at present is as follows: (O.K. means that du Pont is enjoying all the business in their respective lines. Where I specify "No reason," there appears to be no reason for General Motors withholding the business from us. Where I say "With good reason," there is a logical explanation).

	Paint and Varnish	Fabrikoid	Rubber Cloth	Transp. Pyralin
Cadillac	Very little No reason	O. K.	O. K.	O. K.
Buick	O. K.	O. K.	60%	O. K.
Olds	O. K.	Part No reason	O. K.	O. K.
Oakland	50% No reason	O. K.	Part With reason	O. K.
Chevrolet	O. K.	O. K.	O. K.	O. K.
Scripps-Booth	None	None	None	O. K.
Fisher Body	None			
G. M. Truck	O. K.	O. K.	O. K.	O. K.

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[9] Mr. P. S. du Pont was at that time Chairman of the Board of both du Pont and General Motors. Mr. Lammot du Pont was a vice president of du Pont.

Sales Department seems to feel that the condition is improving and that eventually satisfactory conditions will be established in every branch, but they wouldn't mind seeing things going a little faster.

* * * * *

Vice-President.

LduP/MD

Mr. Pierre du Pont writing on the letterhead of General Motors Corporation and signing as President, replied (GTX 421, R. 529, 4012):

GENERAL MOTORS CORPORATION
224 West 57th Street
New York, N. Y.
Office of the President

August 23, 1921

Lammot du Pont, Vice President,
E. I. du Pont de Nemours & Company,
Wilmington, Del.

My dear Lammot:

Your letter of August 10th was received shortly before I left for my vacation. It would seem from your summary that the Flint paint and varnish and fabrikoid interests are doing pretty well with General Motors, Scripps Booth being the only division that does no business with these companies. However, Scripps Booth is a small part of the General Motors and may be disregarded for the present.

With the change in management at Cadillac, Oakland and Olds, I believe that you should be able to sell substantially all of the paint, varnish and fabrikoid products needed; especially is this true of Cadillac.

A drive should be made for the Fisher Body business. Is there any reason why they have not dealt with us?

Very truly yours,

(S.) P. S. duPont,
President.

1/*m

Mr. Pickard:

Please note for your information. This is the result of the data which you obtained for me. Can you answer the question in the last sentence?

L. du Pont.

9/1/21

O.K. *Fisher in process. If no results in 60 days will let you know.*[10]

FWP

The suggestion that the General Motors business in fabrics manufactured by du Pont should be tied down by contract was made by Mr. R. R. M. Carpenter (brother-in-law of Mr. Pierre du Pont) in a letter dated October 1921 (GTX 403, R. 526, 3958):

Letterhead of
E. I. du Pont de Nemours & Company
Incorporated
Wilmington, Delaware

Executive Offices

October 7, 1921.

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[10] The references to change in management may have been to the division managers who were replaced by du Pont after it took over from Mr. Durant. (DP 64, R. 861, 5713).

Personal

Mr. P. S. du Pont, President,
General Motors Corporation,
Wilmington, Delaware.

Dear Pierre

Our File "General Motors"—Fabrikoid for General Motors—

We would like to present to the General Motors Company in the proper way the subject of entering into negotiations with us for the supplying of all of the artificial leather and rubber which they use, on some mutually advantageous basis.

* * * * *

From another point of view, if an arrangement could be made, especially at this time, whereby the du Pont Company could secure all of the artificial leather and rubber business, we could operate our plant, I believe, on a fairly economical basis, thus getting considerably lower costs (which the General Motors Company would secure the advantage from) and we would not be compelled to operate at a considerable loss all the time.

Without being familiar with all the little details, what I am afraid happens is that three or four different artificial leather companies are getting small dabs of the General Motors business, all of them running at small capacities. It seems uneconomical, from the general du Pont pocketbook point of view, not to be able to make some arrangements whereby we could run our artificial leather plants fairly full, and in the long run it would not cost

> the General Motors Company any more money, if as much, as if they kept us on a competitive basis when the competition, owing to the circumstances, is not altogether a fair one.

* * * * *

> Very truly yours,
>
> R R M C
>
> RRMC/R

The persuasion focused on divisions not utilizing du Pont products to the utmost is indicated by the ensuing correspondence between Lammot du Pont and the new general manager of the Cadillac division (GTX 442-446, R. 534-5, 4066-72) including a frank statement by Mr. Lammot du Pont on May 5, 1923, as follows (GTX 447, R. 535, 4073):

* * * * *

> We believe that Flint is making as good quality paint and varnish products as any competitor, and, in many cases, better quality. I feel that it is to the advantage of both General Motors Corporation and the du Pont Company to have GMC use the Flint products 100 per cent. * * *

At one point during this period of adjustment, du Pont agreed, though reluctantly, that General Motors should purchase 20% or 25% of its materials from competitors in order that it could follow out its policy of having at least two sources of supply (GTX 406, pp. 14-15, 407, 408, 410, R. 527-8, 3979-80, 3982-4). This program was embodied in a resolution of the General Motors Purchasing Committee formally adopted in 1923: "It was agreed that on an equally competitive basis at least 25% of the business [leather substitute and rubber coated fabrics] should be placed with sources other than the du Pont Company" (GTX 412, p. 6, R. 528, 3986).

After Mr. Haskell's death in 1923, Mr. J. L. Pratt, an employee of du Pont from 1905 to 1919 (R. 1387-1392), succeeded in fact, if not in name, to his function of contact man with General Motors. He became a vice president of General Motors in 1922, a director in 1923, and a member of the Executive Committee in 1924 (GTX 177, R. 492, 3397). Mr. Pratt's views with respect to the du Pont-General Motors relationship are expounded in a letter to the general manager of a General Motors division written in January, 1926, as follows (GTX 340, R. 512, 3865):

> Dear Mr. Biechler:
>
> Please accept my thanks for your letter of January 21st in regard to the question of paint supplied to you by local paint companies and the situation as applying to the du Pont Company.
>
> I am glad to know that your manufacturing, chemical and purchasing divisions feel they would be in better hands possibly by dealing with du Pont than with local companies. From a business standpoint no doubt your organization would be influenced to give the business, under equal conditions, to the local concerns. However, I think when General Motors divisions recognize the sacrifice that the du Pont Company made in 1920 and 1921, to keep General Motors Corporation from being put in a very bad light publicly—the du Pont Company going to the extent of borrowing $35,000,000 on its notes when the company was entirely free of debt, in order to prevent a large amount of General

> Motors stock being thrown on the open market—they should give weight to this which in my mind more than over-balances consideration of local conditions. In other words, I feel that where conditions are equal from the standpoint of quality, service and price, the du Pont Company should have the major share of General Motors divisions' business on those items that the du Pont Company can take on the basis of quality, service and price. If it is possible to use the product from more than one company I do not think it advisable to give any one company all of the business, as I think it is desirable to always keep a competitive situation, otherwise any supplier is liable to grow slack in seeing that you have the best service and price possible.
>
> I have expressed my own personal sentiments in this letter to you in order that you might have my point of view, but I do not wish to influence your organization in any way that would be against your own good judgment, keeping in mind that above all the prime consideration is to do the best thing for Delco-Light Company, and that considerations in regard to the du Pont Company or other concerns are secondary, and I am sure this is your feeling.

There is no dispute as to the fact that these views were expressed, but only as to their significance.

Du Pont's Correspondence with Respect to the Use of Alcohol in General Motors Cars as an Antifreeze

In 1925, a du Pont vice president, H. Fletcher Brown, wrote to Mr. Alfred P. Sloan, President of General Motors, as follows (GTX 319, R. 507, 3832):

My dear Mr. Sloan:

As you probably know, this Company has joined with the Kentucky Alcohol Corporation in the formation of the Eastern Alcohol Corporation, which will manufacture industrial alcohol at Deep Water Point on the Delaware River.

My attention has been called to a news clipping from the New York Sun of November 11th in which the impression is given that glycerin has an advantage over alcohol as an anti-freeze mixture in automobile radiators. The sale of alcohol for this purpose is a very important item in the business of the Kentucky Alcohol Corporation, and presumably will be of similar importance to the new Corporation.

The Kentucky Alcohol Corporation inquires whether the General Motors Corporation is giving their official approval to publicity favoring glycerin rather than alcohol. If so, it is suggested that their attention be called to the advantages of alcohol and to the interest which the du Pont Company will have in the future in its manufacture and sale.

I shall be glad to have your comments.

Mr. Sloan replied (GTX 320, R. 507, 3833):

My dear Mr. Brown:

Replying to your letter of November 13th regarding the use of alcohol vs. glycerin as an anti-freeze mixture in automobile radiators, would state that the subject came up in the way of general information before our General Technical Committee the other day and, as I take it, the glycerin people have lined their situation up so that they apparently are able to offer something which compares, from the economic standpoint, fairly well with alcohol; at least that, as I recollect it, is the impression I took away from the meeting.

As a corporation, we do not usually take any position in matters of this kind; i.e., as a corporation we are concerned of course, with seeing that our cars give satisfaction and I think our position would be in this particular thing that although we would like to be helpful, yet we could not consistently refuse to say that glycerin was satisfactory if it was simply because friends of ours, like your good selves, were interested in the alcohol side of the argument. We must, of course, be guided by the facts in the case. Therefore, I do not see how we really could, unless we did something unusual, be very helpful in this particular situation.

If your good selves or the Kentucky Alcohol Corporation could give us any technical information which would be helpful in developing any facts which would enable us to deal with the matter on its merits in favor of alcohol, then of course that would be an entirely different matter. I would suggest that perhaps that might be possible and there might be something that we had overlooked in our analysis of the situation.

There is one very important consideration which it appears to me has got to be dealt with and that is, I am informed that when alcohol is used it has a very bad reaction on the Duco finish. Of course, in view of the fact that we use Duco practically exclusively, it means that it has a bad effect on all our cars, wherever it is used. That in itself would appear to almost place us in a position where we would have to perhaps not intentionally, but through necessity and in our interests as well as yours, favor glycerin as against alcohol.

Will you kindly think the above points over and advise me further regarding same.

Then Mr. Pratt wrote in the following January (GTX 321, R. 508, 3835):

* * * * *

> I believe our people have concluded that the mixture called "Prestone"—made by the Union Carbide Company—is the most satisfactory anti-freeze mixture on the market. I know that our Research Corporation recently made a study of anti-freeze mixtures and as a result of this study we are recommending the use of "Prestone". I am also advised that the Yellow Cab operating companies are using this mixture. * * *.

Again in April he wrote (GTX 325, R. 508, 3840):

* * * * *

> As pointed out in my letter to Mr. LaMotte, glycerin and Ethylene Glycol solutions are more satisfactory from an engineering standpoint on account of the effect on Duco paint, as alcohol when it boils over ruins the paint; also because it permits the engine to operate at more normal temperature. With the present fuels the temperature of boiling water seems to be more satisfactory for engine operation. Years ago when commercial gasoline was more volatile the operating temperature of 160 to 170 was considered the best operating temperatures. Today most engineers feel that 200 to 212 Fahrenheit is more satisfactory for operating temperatures.

Mr. Sloan wrote to the Chevrolet Motor Co. the following fall, suggesting modification of the endorsement of glycerin (GTX 326, R. 509, 3842):

* * * * *

> Regarding your instruction book, frankly, I would suggest that when opportunity presents itself, you cut out the words "are to be preferred" in the second paragraph under "Winter Driving" and simply state the facts. It seems to me that if we indicate a preference we are discriminating against some manufacturers and distributors and all that sort of thing, all of whom are potential users of General Motors products. It is all very well, I believe, to state that alcohol evaporates and glycerine doesn't; that alcohol is likely to cause damage and glycerine is not; that alcohol is much cheaper and glycerine is much more expensive. Let us submit all that to our users, but let them judge which is most preferable after listening to the facts. Don't you think that is the best way to do it? * * *

He received an immediate reply acceding to those instructions (GTX 327, R. 509, 3844):

> We have eliminated the paragraph expressing preference for glycerin as an anti-freeze solution from our instruction book in the issue just going to press.
>
> I am asking Mr. W. J. Davidson to bring the matter of a uniform statement on "doped fuels" in the instruction books of all divisions of the Corporation before the Technical Committee.
>
> This in answer to your note of August 23rd.

After du Pont itself engaged in the manufacture of ethyl alcohol (GTX 328, R. 509, 3845), General Motors reversed its position and, on the basis of a report recommending "Alcohol-water solutions for any class of service", suggested the use of that anti-freeze (GTX 331, R. 510, 3850).

But when some divisions, Cadillac in particular, did not change their instruction books, du Pont wrote (GTX 332, R. 510, 3851):

> As shown by Exhibit "A", some of your Divisions are recommending the use of glycerin in preference to alcohol. These two letters have been photostated by Procter & Gamble who produce glycerin, and are bound in a booklet containing various advertising matter which is placed in the retail dealers' hands to promote the sale of their glycerin. It does not require much sales effort to sell glycerin when the owner of a Cadillac car is shown a statement from the manufacturer, namely, the Cadillac Motor Car Company, telling him to use glycerin.

In the enclosed memorandum it was stated (GTX 333, R. 510, 3857):

> The particular feature I want to bring out is that all automobile manufacturers in their instruction book to the car owner, will find it decidedly to their interests to advocate that alcohol be used for anti-freeze and make no mention of glycerin or any other mixtures. The instructions should imply that a car owner using any anti-freeze mixture other than alcohol will do so at his own risk. This will relieve the automobile manufacturer from any "come-back" from the owner because alcohol will

> not do any damage and if the owner should let his motor freeze, he has no claim nor can he become dissatisfied with his car because of his own carelessness to protect same against cold weather.

And again on November 19, 1926 (GTX 334, R. 510, 3859):

> The Cadillac Shop Manual "314" page 50, item 375, states that a solution of glycerin and water is recommended. It is evident that the Cadillac Company is one of the few to advocate the use of glycerin and it will be of much interest to us to learn whether the Cadillac Motor Company is still of the opinion that glycerin is best after having some experience with the difficulties resulting from the use of this material for anti-freeze.

In the end, du Pont prevailed and, writing in December, 1926, Mr. Phelps of the du Pont Development Department stated (GTX 335, R. 511, 3860):

> Referring to our previous correspondence regarding the use of glycerin vs. alcohol for anti-freeze. We were much pleased to find that the Cadillac Motor Car Company, who advocated the use of glycerin last year, have now been compelled to alter their statement in this matter and in their new "Operator's Manual" on pages 38 and 39, recommend that only alcohol be used for anti-freeze.
>
> We also attach a circular letter which shows that the Buick Motor Company recommends alcohol in preference to glycerin.

> It therefore appears that all of the General Motors units manufacturing automobiles should profit by the experience of the Cadillac and Buick companies and should recommend, in their instruction books, that only alcohol be used. What we had in mind was that if the Cadillac and Buick found that alcohol is best for anti-freeze, it would then be consistent for the Chevrolet, Oakland and Oldsmobile to recommend in their instruction books to the owner that alcohol be used in the radiators. It will be of much interest to us to learn the position which the Chevrolet, Oakland and Oldsmobile companies take relative to the use of alcohol in preference to glycerin for anti-freeze.

Mr. Sloan in a letter to Mr. Pratt summarized a statement adopted by General Motors for its instruction books which deliberately slanted the General Motors anti-freeze instruction in favor of alcohol (GTX 337, R. 511, 3862):

> I believe you know that at the last meeting of the General Technical Committee a decision was reached to the effect that we would put in all our instruction books, in such a way as each Engineering Department thought best, a statement setting forth the advantages and disadvantages of both materials, particularly pointing out that under certain conditions glycerin was unsatisfactory but that if those conditions were not present and it was used strictly in accordance with the manufacturer's recommendation, there was no objection to its use.

Du Pont-General Motors Relations With Respect to Tetraethyl Lead

Another example of the utilization of the du Pont-General Motors combination to influence trade is found in the development of tetraethyl lead as an anti-knock additive to gasoline. The trial court has made very extensive findings with respect to this matter (R. 405-426) with which we have no basic quarrel until it arrives at its conclusion (R. 425-426). We believe the conclusion overlooks much of significance in what it has previously stated.

Without restating the entire history of the discovery and its development, which are accurately reflected in the district court's opinion, a brief summary will suffice.

Mr. Kettering, a director of General Motors, who had commenced research on engine "knock" in 1912 or 1913, pressed it more vigorously in collaboration with Dr. Midgley and other General Motors scientists after 1918. (R. 1525-1527). As early as 1919, before the discovery of lead as an anti-knock chemical, the assistant to the President of General Motors wrote to du Pont concerning the latter's interest in "marketing" the chemical yet to be discovered (GTX 599, R. 612, 4296):

> It is presumed that the marketing of this chemical will be a matter of interest to the du Pont organization, and that the expense of developing it will be borne by your Research Department. We are glad to lend the mechanical equipment indicated above without charge for the purpose of this investigation.

Before tetraethyl lead was selected, Mr. Kettering believed aniline might solve the problem and Dr.

Midgley, after a conference with du Pont (GTX 602, R. 612, 4300), wrote (GTX 601, R. 612, 4298):

> Confirming our conference on my recent visit to Wilmington: I understand that the Du Pont Company will cooperate with our Company in placing aniline on the market for use as an anti-knock material, in connection with the aniline injector which we are developing.
>
> The first phase of this program would consist in one of the General Motors Companies marketing an aniline injector thru the ordinary channels of accessory dealers. The Du Pont Company would simultaneously put aniline in small quantities, such as pints, or quarts, or perhaps, gallons, which could be sold in conjunction with the injector.
>
> A further working out of this program would comprise the sale of aniline in bulk by the Du Pont Company thru some satisfactory distributing agency, such as has been suggested by the Standard Oil Company, who could give aniline national distribution, similar to lubricating oil, selling same in bulk at the filling stations.

The projected aniline production was abandoned when Dr. Midgley reported to du Pont the discovery of a far more efficient anti-knock product (DP 97, R. 884, 5867):

> * * * I know you will be interested in hearing that we have recently discovered an antiknock material which is twenty-four times as strong as aniline, volumetrically. The material looks very, very practical, and I feel sure that this is going to radically change our previous plans, obsoleting the injector; in fact, obsoleting the use of aniline, or

coal tar products, in any way, shape, or form, except, possibly, as carbon removers.

The use of tetraethyl lead was discovered in December 1921 (R. 1542). It was first reported to du Pont in a letter from Mr. Pierre du Pont to Mr. Irenee du Pont, then President of du Pont, in March, 1922 (GTX 610, R. 612, 4302). It was immediately assumed that du Pont would perform the manufacturing of the product, Mr. Pierre du Pont stating (GTX 610, R. 612, 4303):

> In order to make this program effective, a plant of 100 gallons daily capacity should be erected. The next step in the program would be to try to introduce the dope as a commercial article supplied with the gasoline. It would require about 4,500,000 gallons per annum to dope the entire gasoline supply.
>
> Kettering would like to take up the question of manufacture with the du Pont company representatives at an early date.

This was three weeks before patent application was made (GM 246A, R. 1546, 7330) on April 15, 1922. General Motors itself dropped out of the production end almost from the beginning as is reflected by a report from the General Motors Research Corporation to the General Motors Executive Committee in September 1922 (GTX 615, R. 613, 4309):

> In view of the satisfactory progress that is being made on the production program and of certain problems incident to the use of lead compounds as antiknock materials, it has been decided to drop production, as well as research on production here. Production will be continued at the duPont Com-

> pany, and research on methods of production will be actively continued at the Massachusetts Institute of Technology. The research work at this laboratory will be concentrated on the solution of the spark-plug and exhaust-valve troubles that have been experienced in the use of lead compounds as antiknock materials.

This took place before any contract had been completed.

The final contract for manufacture by du Pont for General Motors was formally executed by Mr. Irenee du Pont, President of du Pont, and Mr. Pierre S. du Pont, President of General Motors, on October 6, 1922 (GTX 618, R. 613, 4312). Distribution started on a trial basis in three Ohio cities in February and June, 1923 (GTX 773, R. 632, 4672) and immediately it was tremendously successful. Originally General Motors distributed through Standard Oil of N. J. (GTX 620, R. 613, 4319), Standard of Indiana (GM 76, R. 1561, 6761), Standard of Louisiana (GM 78, R. 1564, 6779) and Gulf (GM 80, R. 1565, 6800).

At this stage, Standard Oil Company of New Jersey developed and patented a method of production much less expensive than that in use (GTX 621, R. 613, 4333). Mr. Sloan, who had become President of General Motors in January, 1924, wrote to Mr. Irenee du Pont, President of du Pont, about whether Standard should be permitted to share in the manufacture of tetraethyl lead (GTX 622, R. 614, 4338):

> I feel, and have held right along, that in view of the fact that we are in the development stage we should not in any way discuss with these people anything to do with the manufacture of tetra ethyl lead. I question whether it will be good business

> from our standpoint for them to manufacture tetra ethyl lead and at the same time have such a large slice of the distribution on same. I do not say that I fear we will not get a square deal, but that naturally comes into my mind. Anyway, I do not think it is constructive. I feel that in the final analysis the duPont Company can manufacture the material at the lowest cost plus a reasonable return and that under such a consideration there would only be a manufacturer's profit in it for the Standard Oil Company and that they could employ their capital to equal, if not better, advantage in their own business than in the manufacture of tetra ethyl lead and that our permitting them to get into that manufacture will be a disturbing influence and would throw an uncertainty on the whole situation that would not be constructive. If it develops that these people have a process which, due to the nature of same, it should be cheaper from the standpoint of manufacture, I personally would much rather obtain a license from them, pay for it and get the duPont Company to use it in reducing the cost than I would to deal with the Standard Oil Company as a manufacturer.

Du Pont agreed that General Motors should not deal with Standard (GTX 623, R. 614, 4340) and General Motors turned Standard down as a manufacturer (GTX 624, R. 614, 4342). Five months later du Pont suggested that Standard limit its production to a 100-gallon plant (GTX 660, R. 616, 4363). Mr. Sloan sided with du Pont in this view (GTX 661, R. 616, 4365):

> For psychological reasons we should permit the Standard Oil Company of N. J. to expend $35,000

> or $40,000 of their own money to experiment with the 100 gallon a day outfit in one of their plants, I believe in Bayway, in a building which they could use temporarily for the purpose. This will serve to satisfy them from the psychological standpoint and it is certain that it will be impossible to operate such an experimental plant successfully when the larger units are running, but it will give them a means to work out their viewpoint which certainly can do us no damage when we approach it from the bigger way.
>
> Any further thought of developing any real production other than under the auspices of the du Pont Company will be deferred until some later time.

General Motors adopted this approach despite the fact that du Pont had fallen behind in its deliveries (GTX 657, R. 616, 4360).

Later Mr. Sloan expressed an interest in protecting du Pont's investment by a price "which is safe to the du Pont Company and reflects a reasonable return on the capital employed," rather than in bringing down the price (GTX 664, R. 617, 4372).

In August of 1924, General Motors and Standard agreed to establish a separate corporation, the Ethyl Company, 50% owned by each, to hold the anti-knock patents of each, present and future, and to market the product (GTX 668, R. 618, 4383). Ethyl was to purchase lead on the open market, but was to honor the existing du Pont contract running to November 30, 1924 (GTX 673, R. 618, 4434), although it was also agreed that Standard might enter the manufacturing end.

After the Standard manufacturing experiment terminated in a fatal lead poisoning epidemic in November, 1924 (GTX 773, pp. 28-9, R. 632, 4690-1), there was a temporary shutdown of production, and the idea that du Pont would thereafter be the sole manufacturer was reaffirmed (GTX 710, R. 625, 4530). The shutdown in production resulted in claims of du Pont against Ethyl for failure to accept deliveries according to the production schedule contracted for (GTX 773, pp. 35-36, R. 632, 4697; GTX 679, R. 619, 4456). Mr. Sloan, as President of General Motors, half owner of Ethyl, was in a conflicting position since his relations with du Pont were antagonistic to his company's investment in Ethyl. However, against the interest of Ethyl (and Standard and General Motors) he clearly sided with du Pont (GTX 680, R. 619, 4459). Ultimately du Pont got what it wanted ($1,820,000 on a claim of $1,922,000 and the manufacturing plant (GTX 773, pp. 35, 36, R. 632, 4697-8)). When a new contract for the supply of all of Ethyl's needs of lead was entered into in 1926, it differed from the 1924 contract in that du Pont did not obligate itself to turn over to Ethyl discoveries and inventions relating to anti-knock fuels (GTX 773, pp. 58-59, R. 632, 4720-1).

In 1926, Ethyl did enter into a contract for lead from American Research Laboratories (GTX 773, p. 40, R. 632, 4702). Mr. Irenee du Pont objected vigorously (GTX 711, R. 625, 4532). It was cancelled (GM 270, R. 1631, 7416).[10a]

The 1926 contract was renewed in 1928 and 1929 (GTX 745, R. 628, 4559; GTX 747, R. 628, 4570). In 1930, when the management of Ethyl foresaw the time when the basic patents would expire, it attempted to contract with du Pont so that it could acquire some of du Pont's manufacturing know-how prior to that date. Mr. Sloan wrote to Mr. Lammot du Pont as follows (GTX 751, R. 629, 4586):

[10a] He was also against getting lead from England (GTX 708, R. 625, 4526). Ethyl and General Motors entered into a cartel and pooling arrangement with I. G. Farben to protect against competition from Germany (GTX 723, R. 628, 4556).

> I mentioned this to Mr. Webb and thought there would be no harm in mentioning it to you so that everything could be done to throw protection around such processes as you are developing. It also seems very essential that the manufacturer be confined to one source of supply. I am sure that the du Pont Company and the Ethyl Gasoline Corporation can work together with such satisfaction and with such confidence in one another that no thought can be given to anything different than a single source of supply. If the present source of supply was not the du Pont Company I should feel that our future, after the expiration of our patent, was rather hazardous because, naturally, Ethyl Gasoline Corporation per se can make no contribution to the picture beyond the establishment of the idea, which it has done—I am sure you will agree with me—very successfully, unless it is protected by the exclusive use of tetraethyl lead as applied to anti-knock purposes.

The 1930 contract provided for an exchange of patents and manufacturing processes in 1938 (GTX 752, R. 629, 4588):

Although du Pont, as a seller, was interested in a high price and Ethyl, as a buyer, in a low price, Mr. Sloan, whose company owned half of Ethyl, still sided with du Pont in price negotiations (GTX 704, R. 624, 4505).

The fear of competition in manufacturing was expressed in the opening paragraph of an extensive review of the Ethyl business prepared by a du Pont employee in 1936 (GTX 773, R. 632, 4665):

> Evidences have for some time been apparent of a renewed desire on the part of the Standard Oil Company of New Jersey to go into the manufacture of tetraethyl lead. Since February 26, 1930, all basic contracts between the du Pont Company and the Ethyl Gasoline Corporation have contained a provision obligating each party, as of January 1, 1938, to disclose fully to the other all technical information which it shall then possess relating to such manufacture, and to license the other under its patents. In these circumstances, we have been directed to make a comprehensive review of the facts attending the origin and development of the present large business in the manufacture and marketing of tetraethyl lead, in order to determine, apart from the present contract position, what special grounds may exist on which the du Pont Company's desire to continue producing the entire tetraethyl lead requirements of the Ethyl Gasoline Corporation can be supported.

Mr. Irenee du Pont's approval of this document indicates an adoption of this report. (GTX 775, R. 632, 4762). Finally, in 1938, agreement was reached whereby until 1945 (later 1948) du Pont would continue to manufacture as Ethyl's agent on a fee basis, but would prepare Ethyl for manufacturing itself after 1948 by operating a new plant in its behalf and turning it over to Ethyl in 1948; thereafter, du Pont and Ethyl were both to manufacture and market tetraethyl lead independently (GTX 798-801, 803, R. 635-6, 4830-4899).

All in all, du Pont's financial reward was generous (GTX 834, R. 638, 4974). In 1924-1927, while Ethyl lost $2,700,000, du Pont made $2,600,000. In 1928 through 1937 du Pont made $40,000,000 while General Motors and Standard took $30,000,000 each in dividends and General Motors $19,000,000 in royalties. In 1938-1947, the profits were (GTX 834, R. 638, 4974):

TETRAETHYL LEAD
THE DISTRIBUTION OF PROFITS
(In thousands of dollars)

Year	Ethyl Net Sales	Ethyl Net Income	Royalties Paid to General Motors	Ethyl Dividends Paid to General Motors	Ethyl Dividends Paid to Standard Oil	Du Pont Tetraethyl Profits [1]
*	*	*	*	*	*	*
1938	49,805	11,746	2,845	5,000	5,000	4,783
1939	64,363	18,483	4,412	8,500	8,500	5,534
1940	81,674	20,508	4,335	8,750	8,750	6,902
1941	88,356	19,181	3,408	8,500	8,500	6,509
1942	61,972	9,118	1,446	2,513	2,513	3,942
1943	81,948	11,765	2,151	4,688	4,688	3,918
1944	97,928	12,854	2,182	4,875	4,875	3,853
1945	105,464	15,366	1,775	4,125	4,125	3,800
1946	76,132	13,285	1,606	3,300	3,300	3,948
1947	91,481	10,059	78	1,950	1,950	2,784
*	*	*	*	*	*	*

[1] Does not include profits derived from supply of materials used in production of tetraethyl lead and ethyl fluid.

Thus, the total du Pont profit before the patents ran out was $86,000,000 and after that it has continued to manufacture ethyl with about one-third of the total production facilities.

Du Pont-General Motors Relations with Respect to Refrigerants

The district court gives the facts accurately and in some detail concerning the discovery and development of refrigerants used by Frigidaire Corporation of the General Motors family and other manufacturers of electric refrigerators (R. 426-432). For the purpose of this presentation the following facts will suffice.

In 1928, Dr. Midgely of General Motors discovered the refrigerant which was denominated "Freon 12" (GTX 883, pp. 7-8, R. 647, 5068-9). Originally the inventor and early experimenters, and the President of Frigidaire wanted to manufacture the new product themselves (GM 233, R. 1484, 7295; GTX 838, R. 638-639, 4975). However, in August 1930, du Pont and Mr. Pratt for General Motors worked out a plan to turn the invention over to a jointly owned corporation, Kinetic Chemicals, Inc., for manufacture and sale of Freon (GTX 842, R. 639, 4979; GTX 850, R. 641, 4992). This company was 49% owned by General Motors, 51% by du Pont. Article 7 of this agreement reads (GTX 850, R. 641, 4994):

> * * * it being further agreed that future chemical developments (other than those relating to "said products") originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, then General shall be free to dispose of the same elsewhere.

This resulted from Mr. Pratt's agreement (GTX 842, R. 639, 4979):

> Name of Company: We do not think the name of the company should be tied up solely with fluorine. We take this position because of the possibilities of other chemicals being developed in General Motors laboratories which we might desire to manufacture in this proposed company and which might have no relation whatever to fluorine.

> Purpose: We recognize from the DuPont standpoint the necessity for limiting the kinds of chemicals manufactured in which the new company should embark. From General Motors' standpoint I think it would be satisfactory to have the purpose of the new company to manufacture fluorine with a fluorine atom substituted for at least one hydrogen atom of halogenated methane or ethane. In addition I would like to see the charter provide that the company could manufacture any chemicals that might originate in the laboratories of General Motors Corporation, and exclude any chemicals that originated in the DuPont developments except DuPont developments that flowed out of General Motors developments.

He explained the paragraph in a letter to Mr. Lammot du Pont saying (GTX 899, R. 652, 5130):

> This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity, and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing processes.

Subsequently the legal departments of both du Pont and General Motors decided the clause was unenforceable (GTX 886, R. 648, 5104) and it was cancelled (DP 133, R. 1814, 5945).

Du Pont-General Motors Relations with Respect to Fabrics and Paint

We have already referred to the early report in 1921 on the General Motors' use of du Pont products made (GTX 420, R. 529, 4010, *supra*, p. 34). It was then suggested that, with changes in the management of some of the divisions, a larger share of the market could be obtained (GTX 421, R. 529, 4012).

The next general survey included in the record was made for the year 1926, as reported by Mr. Lammot du Pont to Mr. Pierre S. du Pont and Mr. J. S. Raskob (GTX 460, R. 537, 4100). It showed that in artificial leather and coated fabrics, only relatively minor purchases were made from competitors of du Pont by all divisions of General Motors except Fisher Body. All paint purchases, except those by Fisher, were made from du Pont.[11]

Du Pont's own exhibits show sales of artificial leather and rubber coated cloth for 1926 to Chevrolet, Buick, Cadillac, Oldsmobile and Oakland of $1,623,000. (DP 250, 259, 260, 263, 265, R. 2204, 2216, 2221, 2224, 2229, 6161, 6170, 6171, 6175, 6177). That is 89% of the total of sales to these divisions on the basis of total sales by other manufacturers as disclosed in Government exhibit 460 (R. 537, 4100).

There is a sharp dispute as to the accuracy of Government exhibits 1391 and 1392 (R. 2933, 5426-7) which purport to demonstrate that du Pont in 1946 sold to General Motors 74.5% of its requirements for fabrics ($2,032,000 out of $2,728,000) and in 1947 60% ($3,573,-

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[11] It is noteworthy that du Pont's relationship with General Motors made it unnecessary for it to compete pricewise (GTX 467, 468, R. 541, 4121-2).

000 out of $5,966,000). By including additional sales by other suppliers, du Pont claims the correct percentages were 52.3% for 1946, and 38.5% for 1947 (DP. 569, R. 3005-7, 6527). The district court resolved this dispute in favor of appellees finding the correct percentages to be 40-50% (R. 404). Although du Pont also disputes the Government's claim that the evidence shows 63.8% of such sales in 1948 (GTX 1351, 1354, 1357, R. 2890, 5358, 5368, 5378), the record certainly supports a finding that the du Pont share of the market was maintained in that year. Du Pont's own exhibits show sales of $3,511,000 in 1948 and $3,744,000 in 1949 (DPX 297, 307, 311, R. 2266, 2276, 2283, 6231, 6243, 6251).

Sales in the paint and finish field present a similar pattern. In December, 1924, du Pont got a contract to supply all of General Motors requirements for Duco for the first half of 1925 (GM 166, 167, R. 1128, 7156, 7159), excepting Fisher Body. This was followed by a similar contract for the second half of 1925 with Fisher taking 50% of its requirements (GM 179, R. 1139, 7181). The same type of contract was entered into in 1926 (GM 184, R. 1141, 7190). In 1927, 1928, 1929, 1930 and 1931 (GM 187-190, R. 1143-4, 7212-27) a "sellers make" contract gave slightly less protection. But Chevrolet bought 100% from du Pont (GTX 503, R. 598, 4171), as did Pontiac (R. 1925) and Buick (R. 1926). Fisher, Cadillac and Olds were not so faithful (R. 1923, 1925, 1926).

This advantage of du Pont's continued to the date of the complaint. In 1946, General Motors bought $14,864,000 of all types of paint; du Pont supplied $10,430,000 or 70% (GTX 1400, R. 2930, 5431). And in 1947, General Motors purchased $26,470,000 in all; du Pont supplied $18,938,000 or 71.55% (GTX 1400, R. 2930, 5431).

General Motors' automotive sales constituted from 35% to 45% of the entire industry for the past ten years.[12]

The percentages of du Pont sales of fabrics to General Motors as compared with its sales to the entire automotive industry, so far as disclosed in the record, are as follows:

1922—Bulk of du Pont's sales of all fabrics to General Motors (GTX-404, p. 3, R. 526, 3963).

1923—Du Pont Fabrics Department dependent upon General Motors market (GTX-406, p. 15, R. 527, 3980).

1925—58 per cent of du Pont's rubber-coated sales to automotive industry went to General Motors (January-November) (GTX-1368, R. 2819, 5399).

1926—74 per cent of du Pont's rubber-coated sales to automotive industry went to General Motors (January-November) (GTX-1368, R. 2819, 5399).

1927—81 per cent of du Pont's rubber-coated sales to automotive industry went to General Motors (January-September) (GTX-492, p. 5, R. 541, 4149).

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[12] Moody's Industrials lists General Motors' proportion of the industry:

1938	42%	1942		1946	36.3%	1950	45.6%
1939	42%	1943		1947	38.5%	1951	41.8%
1940	45%	1944		1948	38.8%	1952	40.3%
1941	45.3%	1945	35%	1949	42.7%	1953	44.7%
						1954	49.9%
						1955	48.8%

1928—82 per cent of du Pont's rubber-coated sales to General Motors (January-June) (DP-278, p. 2, R. 2243, 6205).

1929—75 per cent of du Pont's Teal, an uncoated combined fabric, to General Motors (DP-286, R. 2256, 6218).

50 per cent of du Pont's rubber-coated sales to General Motors (January-June) (DP-278, p. 2, R. 2243, 6205).

1930—85 per cent of du Pont's Teal to General Motors (DP-286, R. 2256, 6218).

1931—80 per cent of du Pont's Teal to General Motors (DP-286, R. 2256, 6218).

1932—39 per cent of du Pont's Teal to General Motors. Total Teal sales greatly limited (DP-286, R. 2256, 6218).

1933—55 per cent of du Pont's Teal to General Motors. Teal sales total less than 26,000 yards (DP-286, R. 2256, 6218).

1939—77 per cent of du Pont's pyroxylin-coated sales to General Motors. (Total du Pont sales figure taken from GTX-1380, R. 2825, 5413; sales to General Motors taken from GTX-1344, p. 1, R. 2846, 5340).

1940—87 per cent of du Pont's pyroxylin-coated sales to General Motors. (Sources same as above.)

1941—89 per cent of du Pont's pyroxylin-coated sales to General Motors. (Total du Pont sales figure taken from GTX-1381, R. 2825, 5414; sales to General Motors taken from GTX-1344, p. 1, R. 2846, 5340).

1947—80 plus per cent of all du Pont's automotive fabrics to General Motors (GTX-1384, R. 2825, 5418).

1948—80 plus per cent of all du Pont's automotive fabrics to General Motors (GTX-1384, R. 2825, 5418).

1949—Nickowitz admitted that, from 1946 onward, General Motors accounted for 80 per cent of all du Pont's automotive sales (R. 2171-2).

With respect to paints, it appears that in recent years du Pont has been dependent on General Motors for a market for Duco. The record shows that neither Chrysler nor Ford uses it (R. 2011). In figures, du Pont sold $13,400,000 in 1941, of which only 7% went to General Motors competitors. In other words, 93% of du Pont sales went to a manufacturer producing about 45% of the cars. (GTX 1387, R. 2919, 5422). In 1947, the same exhibit shows 83% as against 17% to others though General Motors held but 38% of the automobile manufacturing field (GTX 1387, note C, R. 2919, 5422).

Special Problem with Fisher Body Corporation

Although General Motors had acquired 60% stock control of Fisher Body Corporation in 1919 for $27,600,000 (GTX 139, R. 480, 3301), a voting trust had been established and actual management was retained for five years by the Fisher brothers (GTX 428, 429, R. 530-1, 4029, 4032). Therefore du Pont's control of General Motors was insulated from Fisher Body and it was forced to sell on merit in competition with other manufacturers.

As early as 1921, it appeared to du Pont that it was not getting its share of Fisher Body business (GTX 420, R. 529, 4010). Mr. Pierre du Pont indicated (GTX 421, R. 529, 4012):

> "A drive should be made for the Fisher Body business. Is there any reason why they have not dealt with us?"

In October 1922, Mr. Lammot du Pont wrote to the president of Fisher Body Corporation, Mr. Fred Fisher, as follows (GTX 434, R. 532, 4054):

> I note the fact that Flint Varnish & Color Works is not getting any substantial amount of business in paint or varnish from the Fisher Body Corporation.
>
> In view of the stock ownership relations between Fisher Body Corporation, Flint Varnish & Color Works, General Motors Corporation and du Pont Company, it would seem that Flint Varnish & Color Works should enjoy a large part, if not all, of Fisher Body's paint and varnish business, unless there is some good reason for not having it.

Again in December 1922, he wrote (GTX 437, R. 533, 4059):

> On October 20th I wrote you in regard to the fact that Flint Varnish & Color Works was not getting any substantial amount of business in paint or varnish from the Fisher Body Corporation. I am sorry that oversight has caused me to not take this matter up further again; for I have received no reply from you to my letter of October 20th and fear that same may have gone astray, and

> thus a month or more delay has been caused by my oversight.
>
> I am enclosing copy of my previous letter.
>
> It seems to me that this matter is of extreme importance, for I am sure that Flint Varnish & Color Works goods are the equal of, or superior to, any goods on the market, and therefore should be used by Fisher Body Corporation in any event. The close stock relationship of the companies makes it appear almost ridiculous that no business should be done between Flint and Fisher.[13]

The same problem arose as to selling fabrics to Fisher (GTX 450, 451, 452, R. 536, 4078-81). As Mr. Pratt reported later to Harrington of du Pont (GTX 456, R. 537, 4095):

> As you have probably sensed, the Fisher Body outfit is pretty difficult to deal with and I hardly know how to advise you to approach them on this subject.
>
> I am expecting to be in Detroit next week and if Fred Fisher is back from California I will try to feel him out on this subject and may be able to get some leads that would indicate whether or not it is possible for you to work along the lines you have in mind. I will advise you when I have been able to develop anything.

Efforts persisted and in 1924, Mr. P. S. du Pont wrote (GM 32, R. 1232, 6658):

> * * * Interesting two members of the Fisher family directly in General Motors will have a very

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[13] It was at about this time that Mr. Fred Fisher was elevated to the Executive Committee of General Motors (GTX 435, 436, R. 532, 4056, 4058).

beneficial effect in breaking up a line of separation of the two companies' interests that has not been altogether wholesome. From lack of knowledge, the two sides have tended to criticise each other, without good result. Hereafter the Fishers will better understand General Motors problems and difficulties and, I think, General Motors men will better appreciate the Fisher problems.

Still in 1925, when General Motors was using Duco, Fisher was using a pyroxylin finish manufactured by Forbes Varnish Company (GTX 453, R. 536, 4082). And there were also problems in selling fabrics to Fisher (GTX 454, p. 5, R. 537, 4090).

Pressure through use of special discounts was indicated in a report to the du Pont Executive Committee (GTX 454, p. 4, R. 537, 4087):

> We are negotiating a one year's contract dating from July 1st with General Motors which will cover the entire requirements of the General Motors units for pyroxylin finishes and a minimum of 50% of Fisher Body requirements. The Committee has approved an extension of the discount scale which has been in force this year, and by purchasing maximum amounts during any given quarter General Motors may gain up to 12% discount from the present standard price. It is hoped that, since almost all of the Fisher Body business must be included if General Motors as well as Fisher is to obtain this maximum discount, that this will prove such a strong inducement for Fisher to give us this business that competition for Fisher business will be greatly lessened.

Eventually the island of resistance was undermined through the purchase of the minority interest of Fisher Body in 1926, making it 100% controlled (GTX 505, 506, 507, R. 598, 4173-8). But the Fisher brothers became very large General Motors stockholders (GTX 505, R. 598, 4173), and as Mr. P. S. du Pont pointed out, a large stockholder exercises a lot of power (R. 938).

By 1947 and 1948, however, Fisher Body was just another department of General Motors, buying 65.5% of its fabrics from du Pont in 1947 and 68% in 1948 (GTX 1350, 1351, R. 2890, 5356-9).

Opinion of the Court Below

The opinion of the court below reviewed the evidence in great detail. Almost all of the facts stated above are set forth in that opinion or are not in dispute. Where there is dispute on primary facts, it centers about figures for particular years which cannot materially affect the conclusion. It is not until the court reaches its conclusions from the underlying facts that we believe it errs.

With respect to the issue of control by du Pont over General Motors, the Court found that the original stock acquisition "was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business." (R. 301.) With respect to voting power the court noted that "the du Pont block of stock represented over 51% of the stock at certain of the meetings" but stated that it was "entirely conjectural whether or not du Pont by its stock ownership could control if there had been a contest." (R. 322-323.) It found no exercise of control either through interlocking officers and directors or by means of the bonus plans (R. 316, 321.) It concluded that "since the 1920's du Pont has not had, and does not today have, practical or working control of General Motors. On the basis of all of the evidence the Court finds as a fact that du Pont did not and could not conduct itself, for the past 25 years, as though it were the owner of a majority of the General Motors stock." (R. 322.)

With respect to du Pont's intentions at the time it acquired the General Motors stock, in addition to the findings on investment just stated, it also specifically found that "du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests." (R. 302.)

Dealing with specific items of trade the court concluded that both paints and fabrics were purchased by General Motors purely on the basis of merit and not in response to restraints (R. 396, 405). Similarly with respect to tetraethyl lead the court concluded that there were no improper pressures by du Pont on General Motors (R. 426).

The Court's final conclusion on the Sherman Act phase of the case was, "When read as a whole the record supports a finding, and the Court so finds, that there has not been, nor is there at present, a conspiracy to restrain or to monopolize trade and no limitation or restraint upon General Motors' freedom to deal freely and fully with competitors of du Pont and United States Rubber, no limitation or restraint upon the freedom of General Motors to deal with its chemical discoveries, no restraint or monopolization of the General Motors market * * *." (R. 465.)

With respect to the alleged violation of the Clayto Act, the court recognized that in the absence of actua restraint "a reasonable probability that a condemne restraint will result" may be sufficient. However, th court found that no restraint had developed in th thirty years since the stock was acquired and that thi disproved the existence of any such reasonable probability.
(R. 466.)

SUMMARY OF ARGUMENT

Introduction

The gist of the Government's case is that du Pon acquired control of General Motors with the specifi purpose and effect of obtaining an illegal preferen with respect to General Motors' purchases of materials The consequence of the relationship has been that d Pont has enjoyed a noncompetitive advantage over it competitors in dealing with General Motors. To pu it another way, du Pont achieved, through its purchas of a controlling stock interest and the corollary influence on the General Motors' management, and no because of lower prices or superior quality or service power over a substantial part of General Motors' trade a position of superiority *vis-a-vis* its competitors fo such trade.

The restraint of trade thus imposed is of the classi type which this Court has recognized in Sherman Ac cases almost from the beginning; the commercial relations between the restrainer and the restrained ar governed not by the economic laws of free competition but by an external influence which determine the route in which such trade shall flow. The antitrust laws are violated by any such interference wit competition regardless of the means adopted to mak the restraint effective. In this case the restraint wa made possible through an intercorporate relationship, the heart of which was the ownership by du Pont of 23% (or more) of the stock of General Motors. It is for this reason that control, which is not of itself an element of the statutory prohibition, is so important to this particular violation. We do not contend that it is illegal for one corporation to buy a controlling interest in another; we do argue that a combination to restrain or to monopolize trade is not insulated from the Sherman and Clayton Acts because it is based upon stock control. It is the purpose and effect of such control, in the economic context of the trade and commerce involved, which determines whether a violation of law exists.

The district court did not reach this problem. In the very beginning of its opinion it erred in adopting an improper standard for determining "control" by requiring the government to prove the equivalent of 51% stock interest (R. 322). Building on this false foundation, the court considered the rest of the record out of context, treating all transactions and communications as though they took place between strangers. We shall show that the same facts when viewed in the light of the control factor cease to be ordinary arm's-length business dealings, as found by the court, and become examples of the imposition of illegal restraint. In short, we ask this Court to reappraise the undisputed facts in the light of the background which actually existed.

I

Du Pont's Relationship with General Motors Constitutes a "Combination" Within the Language of the Sherman Act.

The Sherman Act prohibits contracts, combinations, or conspiracies in restraint of trade or commerce among the several states. The complaint in this case alleges both a "combination" and a "conspiracy." However, on the whole, the court below treated the Government's case as though only a conspiracy were charged, requiring proof of a common intent between the du Ponts and the officers and directors of General Motors. But the Government's case is broader—in essence it is that by entering into and fostering the relationship with General Motors, du Pont created a "combination" in restraint of trade regardless of conspiratorial agreement between du Pont and General Motors. At the trial the Government also attempted to establish the existence of a conspiracy, as such. The district court found as a fact that the evidence failed to establish such a conspiracy. We will not press that issue here, but will rely only on the facts which support the Government's case on the basis of a "combination."

In arguing that there was an unlawful "combination" in restraint of trade, it is not necessary for the Government to show, nor do we suggest, that all details of General Motors' business activity have been dictated by du Pont, nor even that du Pont has had power to impose its will under every circumstance. It is obvious that all corporate management is subject to some limitations so long as there is a single outside stockholder. Rather, the existence of a combination is evidenced by the fact that whenever a business judgment was required in a situation in which du Pont was in competition with other suppliers, the stock interest cut across normal competition and resulted in a preference being given to du Pont. Thus it was inevitable that, in the long run, du Pont received preference not on the basis of competitive merit, or on the basis of what was to General Motors' economic advantage, but rather because of du Pont's 23% stock holding. This has been not merely a potential, but an actual, restraint upon the free play of competition and a combination of the type which the Sherman Act has made illegal.

A. *Du Pont's stock ownership of General Motors, in the absence of other substantial holdings, places it in control.*

At the beginning of the relationship between du Pont and General Motors, it was the frank and avowed intention of both Mr. Durant and du Pont to control General Motors, Mr. Durant to be responsible for operations and du Pont for financial policies. This was carried out and unquestionably du Pont did in the early days share in control of General Motors.

Later, in 1920, when du Pont bought out Mr. Durant, sole control was vested in du Pont. This too was admitted at that time. It was in this period, up to 1930, that du Pont consolidated its position by its selection of the management. The General Motors administrators, whom the court below treated as independent men, were selected, promoted, and rewarded by du Pont.

So the question really is, has anything happened to terminate a control relationship which admittedly existed? This is not a situation where du Pont as an outsider acquired its present interest in opposition to an existing management. On the contrary, inertia, the continuation of the status quo, or, in more concrete corporate terms, the power inherent in management to maintain itself, worked in harness with the continuing stock interest to continue du Pont control.

At the time suit was brought du Pont owned outright, and still owns today (not counting individual holdings, or holdings by friendly interests), 23% of General Motors stock. The income from that stock constitutes about one-third of du Pont's net earnings. This is an important and significant factor in the welfare of the du Pont stockholders. The duty of management is to make this investment as profitable as possible; it would indeed be subject to criticism if it failed to exercise the responsibility which goes with so considerable a stock position and so important a source of income.

Although du Pont has consistently voted for the directors included in the management proxy solicitation and has supported all measures proposed to the stockholders by the management, the evidence makes it clear that this was not from blind acceptance of General Motors' policies or decisions, but because, instead, the discussion and the differences, where they cropped up, took place off-stage before the management proposals were put forward.

The quorum for stockholder meetings of General Motors is 30%. Ordinarily about 70% of the voting stock has been present either in person or by proxy (GTX 1307, R. 664, 5230). Du Pont's percentage of this vote has varied from a low of 29% to a high of 52%. Thus, purely from a mathematical standpoint the vote cast by du Pont has come close to, and sometimes has passed, an absolute majority. And significantly no other single stockholder or group of stockholders has ever had more than a minuscule percentage of the vote.

Du Pont has had direct representation on the board of directors ever since it made its initial investment. The management directors plus du Pont representatives have constituted a majority of the board at all times. See Appendix B, pp. 154 to 163, *infra*. The designation of directors as "management" is misleading unless it be understood that listed among them are men who were long associated with du Pont and introduced into the General Motors management by du Pont.

Du Pont representatives have held an exceptionally large proportion of the places on the finance committee. The operations committee has been largely management-controlled.

Mr. Pierre du Pont was president of General Motors from 1921 to 1923, Chairman of the Board from 1917 to 1929. Mr. Lammot du Pont was Chairman of the Board from 1929 to 1937. Mr. Sloan was advanced to the presidency when there was admitted du Pont control and has ever since been a leading spirit in the affairs of the company. Other chief executives, such as Messrs. Knudsen and Wilson, could not have held office without the approval of du Pont. Special compensation to officers of General Motors in the form of very large bonuses has been allotted or approved by committees on which du Pont representatives predominated.

Later we shall see how this relationship has borne fruit in business preferences. For the present we merely note that the control was sufficient to insure business preferences to the extent that du Pont felt it good policy to obtain such preferences.

All this adds up to practical working control. Control is not an abstract, theoretical conception. Its existence depends upon the actual facts. Nor is it an absolute term, requiring proof of ownership of a majority of the outstanding stock, or the imposition of commands as though a majority of the stock were in hand. *United States* v. *Union Pacific Railroad Co.*, 226 U. S. 61, 95; *Natural Gas Pipeline Co.* v. *Slattery*, 302 U. S. 300, 307; *North American Co.* v. *Securities and Exchange Commission*, 327 U. S. 686, 693. Courts recognize that a substantial minority, in the absence of large opposition holdings, can exercise control. *Morgan Stanley and Co. v. Securities and Exchange Commission*, 126 F. 2d 325, 328 (C. A. 2). Where there are added to this the interlocking directorates, the long recognized relationships, and the tremendous financial incentive shown here, the presence of control is established. *American Gas & Electric Co. v. Securities and Exchange Commission*, 134 F. 2d 633 (C. A. D. C.), certiorari denied, 319 U. S. 763; *Pacific Gas and Electric Co. v. Securities & Exchange Commission*, 127 F. 2d 378 (C. A. 9), affirmed, 139 F. 2d 298, 324 U. S. 826. See Berle and Means, *The Modern Corporation and Private Property* (1932) 80.

B. *Even if the court below should be sustained in its finding of absence of control, du Pont's stock ownership in General Motors nevertheless resulted in a relationship which subjected many of the latter's actions to influence by du Pont.*

The court below held that du Pont was not able to act as would a majority stockholder (R. 322). Assuming for present purposes that this is so, it does not negative du Pont's power to make its influence felt in many matters.

The record abounds with illustrations of the deference paid by General Motors to the interests of du Pont. Du Pont was, as it should have been, represented on the General Motors Board of directors. The appointment of outside directors was fully discussed between the two corporations. Problems of organization and business policy were explored. Du Pont did not hesitate to exercise its influence when purchases from it by General Motors could be advanced.

All this suggests that there was at the very least a special relationship between the two corporations which was built upon the stock interest maintained without a break since 1918. In a negative mode of expression it can be described as an absence of arm's-length bargaining. This relationship, even assuming it was not sufficiently strong to enable du Pont to impose its will on General Motors, was ever present to influence General Motors in the direction of giving du Pont preference over its competitors. Wherever there was room for a business judgment as to whether materials should be purchased from du Pont or from another, it was inevitable that du Pont's stock holdings and its long-continued intimate connection with top management would work in du Pont's favor.

II

The du Pont-General Motors Combination Is One Which Is Prohibited by the Sherman Act.

The "control" (which in this part of the brief will be used as a short-hand expression to cover the power of du Pont, based on its stock holdings, interlocking directorate, and historic relationship, to influence business judgments of General Motors) of du Pont over General Motors is both a "combination" in restraint of trade and a "combination" to monopolize trade, in violation of Sections 1 and 2 of the Sherman Act.

Violation of the two sections will not be treated separately. It is submitted that, with respect to the conduct here concerned, a violation of one section constitutes a violation of the other. The du Pont-General Motors combination in restraint of trade was also a combination to monopolize that same trade. See *Report of the Attorney General's National Committee to Study the Antitrust Laws* (1955), pp. 5-12.

The pertinent legal question here is whether the acquisition of the power to influence General Motors to purchase du Pont products and to assign to du Pont the commercial exploitation of General Motors' chemical discoveries constitutes a combination of the type condemned by the Act. There can be no doubt that by acquiring the power to prevent competitors from selling their products to General Motors, du Pont interposed itself between its competitors and business which otherwise they would have been in a position to compete for on the basis of price, quality and service. If there is control, there is an ability to limit purchases from these competitors. The decisions of this Court hold that a combination having this effect is in violation of the law, either if it was formed with the intent and purpose of restraining competition, or if its natural and inevitable effect is to restrain trade. The latest and most explicit expressions of these views are found in *United States* v. *Yellow Cab*, 332 U. S. 218, and *United States* v. *Paramount Pictures, Inc.*, 334 U. S. 131. But they have their origin in *Standard Oil Company of New Jersey* v. *United States*, 221 U. S. 1, *United States* v. *American Tobacco Co.*, 221 U. S. 106, and *United States* v. *Reading Co.*, 253 U. S. 26.

From contemporaneous written evidence in this case, it appears that an essential purpose of the purchase of General Motors stock was to sell du Pont products to General Motors. This appears not only in the original, Raskob-du Pont report (GTX 124, R. 479, 3208), but in annual reports and in correspondence. Of course, du Pont was concerned with receiving an income from its $50,000,000 investment, but its purchase was clearly not dictated, as would have been an investment company's, by safety, rate of return, and prospect of growth and appreciation. This was but natural since du Pont was not an investment company. Obtaining the trade preference was a very important factor to du Pont. The court's contrary finding is apparently bottomed on the assumption that the Act was not infringed unless du Pont intended to direct General Motors department heads to shift their orders to du Pont products. Consciousness that the combination would, by and large, give du Pont the edge and would deflect trade to it from competitors, stamps the combination with illegality, at least if the intended result has been achieved. Patently that consciousness was present, and patently the results have been those anticipated.

But even on the court's findings on specific purpose and intent, there remains the legal effect of the natural and inevitable consequences of the combination. No specific purpose or intent need be proved where a course of conduct will inevitably lead to a restraint of trade. So long as human activity is influenced by personal interest, the management of General Motors must tend to lean toward du Pont whenever a reasonable choice exists; without instructions, without any communication or guidance, General Motors will prefer its associates over strangers. Its officers could ill afford to risk giving offense to du Pont when not only their positions, but extremely generous special compensation depended upon the continuing good will of du Pont. Thus, competitors are in the same position as those referred to in *Associated Press* v. *United States*, 326 U. S. 1, 10—they "have a hard road to travel."

If, as we believe, the combination is one which is by its nature in restraint of trade, the volume of the trade actually restrained is immaterial (except as it buttresses or undermines the conclusion as to the nature of the combination). It is too well established to require extensive citation that a combination in restraint of trade or a power to monopolize, when coupled with an intent to do so, is in violation of the Sherman Act without regard to exercise of the restraint or of the monopolistic power. As this Court said in an early case, *United States* v. *Reading Co.*, 253 U. S. 26, at 57:

> Again, and obviously, this dominating power was not obtained by normal expansion to meet the demands of a business growing as a result of superior and enterprising management, but by deliberate, calculated purchase for control.
>
> That such a power, so obtained, regardless of the use made of it, constitutes a menace to and an undue restraint upon interstate commerce within the meaning of the Anti-Trust Act, has been frequently held by this court.

III

The Evidence Shows that Restraint of Competition and Monopolization Has Occurred.

We have already seen that in the early days of the relationship, when it was necessary to initiate new purchasing habits, (habits which have persisted for more than 35 years), the intent to use the control relationship to achieve a preferred position in supplying General Motors with essential materials was frankly and clearly expressed. The statements of objective found in the early exchanges are missing in recent years, but the tell-tale statistics to which we refer below indicate that the silence was the result either of a conscious effort to avoid trouble, or of a relationship so well established that it was no longer necessary to press it. Indeed, once the pattern of trade was established, it became self-perpetuating. There has been no change in the established relationship or in du Pont's intent.

Du Pont discovered that the instruction books for General Motors cars suggested that purchasers use a glycerin anti-freeze manufactured by a competitor. Du Pont was interested in a competing fluid, ethyl alcohol. Correspondence at a high level ensued, and one by one the General Motors car divisions changed the tone of their instructions, until eventually they clearly steered car owners in the direction of the du Pont product. All this without regard to merit.

Intrinsically more important is the history of the development of the gasoline additive, tetraethyl lead, used to avoid engine knock in high-compression motors. The basic invention was made by General Motors' scientists, primarily Dr. Midgely, and it was immediately recognized that the discovery was of great economic value. The product, tetraethyl lead, was then available only on a laboratory scale, and a manufacturing industry had to be built from scratch. Du Pont was not manufacturing any tetraethyl lead at this time.

General Motors and du Pont claim that the handing over of this extremely valuable business to du Pont was done on the basis of merit alone, and the lower court so found. We submit that the record shows that du Pont obtained this business without regard to competitive considerations because of its relationship with General Motors. Thus, Mr. Pierre du Pont, as President of General Motors, alerted his other company, du Pont, to the discovery before patent application had been filed. Even before a contract was made, du Pont commenced manufacture. There is not a word in the record indicating that General Motors approached any other chemical company at that time.

Later, Standard Oil Company of New Jersey discovered and patented a far more economical process for manufacturing the basic ingredient. Working from the strength of this position, it acquired a 50% interest with General Motors in a new corporation, the Ethyl Corporation, formed to distribute the product. But even with this independent element in the picture, du Pont retained its exclusive position as manufacturer. The General Motors men in the Ethyl Corporation management sometimes seemed more anxious to protect du Pont than Ethyl.

Eventually, as the patent protection for the invention was drawing to a close and Ethyl Corporation seemed to have little function left, it did contract with du Pont to be introduced to the production end and, since 1948, has been producing tetraethyl lead in plants formerly constructed and operated by du Pont.

The manufacture of tetraethyl lead has produced $86,000,000 for du Pont, which is slightly larger than the dividends received by either General Motors or Standard Oil from the Ethyl Corporation. Whether or not it has given full value for its return, the significance of the history is that a substantial restraint on trade resulted from the control relationship and du Pont took for itself profits which would otherwise have gone to General Motors. This particular restraint has ended, but the fertile ground from which it sprouted still exists.

We shall not repeat the details of the Kinetic Chemical development. It is not dissimilar in its basic elements. General Motors discovered a new refrigerant. Du Pont was invited to participate in its manufacture, to its great profit. Here, even more boldly than in the antiknock picture, was expressed the philosophy that to the controlling stockholder belong the spoils of General Motors' inventions.

On an overall basis, du Pont's effort to corral the bulk of General Motors business has been outstandingly successful. By 1926, du Pont was selling 89% of the imitation leather and rubber covered fabrics bought by Chevrolet, Buick, Olds, Cadillac and Oakland. In 1946 and 1947 it sold approximately 40-50%. In the paint field du Pont in the 1920's sold all, except the Fisher body requirement, by contract. Chevrolet, Pontiac and Buick continued to use du Pont duco exclusively. In the later years du Pont supplied 70% of General Motors' paint requirements in 1946 and 71.55% in 1947.

Du Pont claims, and the lower court found, that these purchases were the result of the merits of the du Pont products in competition with others. However, there are indications that this cannot be so. In the statement above we summarize portions of the record that show that over many years and in many products du Pont sold the giant share of its products manufactured for the automobile industry to General Motors (*supra*, pp. 62-64). The percentage of some du Pont's products sold to General Motors amounted to 80% and even 90% of its total production. It is obvious therefore that du Pont has been dependent upon General Motors for the success of the automotive part of its business. If equally large sales had been made to other automobile companies, who in the aggregate produced 55-65% of the cars, it would appear that such sales not being inspired by control must have been made on merit. But the fact that the great bulk of du Pont's sales go to the one company controlled by it over a long period of years is a clear indication that the sales were not made solely on merit.

The history of du Pont's efforts to sell its products to the Fisher Body Corporation are another refutation of the argument that the products were sold on merit only. When du Pont first bought its stock interest in General Motors, Fisher Body was not fully a member of the General Motors family since a voting trust gave its management, the Fisher brothers, a large measure of independence. One aspect of this independence was a reluctance to buy from du Pont regardless of quality or price. Thus sales to Fisher Body fell far behind sales to other divisions of General Motors. The efforts to overcome this resistance were carried on at the highest levels without success. It was not until the voting trust was terminated and the minority stock interest acquired that sales to this branch of General Motors became satisfactory.

In short, the combination of du Pont and General Motors was intended to, and did indeed, eliminate competition for General Motors' business in favor of the former.

IV

Du Pont's Acquisition of General Motors' Stock Constitutes a Violation of Section 7 of the Clayton Act.

Section 7 of the Clayton Act (15 U. S. C. 18, *supra*, p. 3) deals specifically with stock ownership. "No corporation engaged in commerce shall acquire * * * any part of the stock * * * of another corporation engaged also in commerce, where the effect of such acquisition may be * * * to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce." It was adopted by Congress in 1914, in an attempt to deal with specific antitrust problems brought to its attention in an address by President Wilson to a joint session on January 20, 1914. Among these problems he referred specifically to the intercorporate relationship between sellers and buyers (House Doc. No. 625, 63rd Cong., 2d Sess.)

One imporant distinction between the Clayton Act and its predecessor is the reduced burden of proof required to establish violations of the later statutes. By its explicit language it is sufficient that the effect of a stock purchase "*may be*" to restrain trade or "may be" to "tend to create" a monopoly. Moreover, under this Act, there is no issue as to whether the du Pont stock holdings in General Motors constitute control; it is sufficient that the effect of the stock purchase may be to restrain trade or to create a tendency to monopoly. Nor is intent an issue under the Clayton Act once it is established that the purchase does not fall within the exception for "investment" only. Mr. Raskob and his successors made it abundantly clear that they had no intention of sitting back and waiting for dividend checks, but that they intended to participate actively in the management of the corporation.

Appellees would limit the application of Section 7 of the Clayton Act to situations where a company buys stock in a competitor; that is, horizontal integration. This is reading a limitation into the law which is contrary to its terms and evident purpose. In other words appellees would limit Section 7 to direct restraints on competitors through horizontal integration in spite of the fact that competitors can be restrained equally effectively, if indirectly, through vertical integration. The President's address, the language of the Act, and its early interpretation in *Aluminum Company of America* v. *Federal Trade Commission*, 284 Fed. 401 (C. A. 3), certiorari denied, 261 U. S. 616, are all to the contrary.

Nor does it aid appellees to assert that the primary purpose of Section 7 of the Clayton Act was to eliminate abuses at the time they arose; that is, when the stock acquisition occurred. Assuming this is so, in situations where the entire picture may not be apparent at the time of purchase, the Government is certainly not intended to be powerless when the violation becomes evident. Moreover, it would not follow that the Government is barred because it did not act promptly. On the contrary, this Court has held that the Government cannot be estopped by the laches of its agents. *United States* v. *California*, 332 U. S. 19, 40.

It is submitted that this case appears to be a prime illustration of using the Clayton Act to catch restraints which might escape the Sherman Act. That was the expressed intention of Congress to which the court below paid scant regard when it implied that since in thirty years there had been no violation of the Sherman Act there could be none of the Clayton Act.

ARGUMENT

I

Du Pont's Relationship with General Motors Constitutes a "Combination" Within the Language of the Sherman Act.

A. *Stock ownership by one corporation in another may be one type of combination within the meaning of the Sherman Act.*

The language of the Sherman Act is broad in order to encompass any and all types of contract or combination in restraint of trade among the states. As this Court stated in *Appalachian Coals, Inc.* v. *United States*, 288 U.S. 344 at 359-360:

> As a charter of freedom, the Act has a generality and adaptability comparable to that found

to be desirable in constitutional provisions. It does not go into detailed definitions which might either work injury to legitimate enterprise or through particularization defeat its purposes by providing loopholes for escape.[14]

In the early days there was some doubt that it covered stock acquisition as such.[14a] But the majority opinion in *Northern Securities Co.* v. *United States*, 193 U.S. 197, and other later cases have established beyond doubt that control through the acquisition of stock may be a "combination" under the Act. *United States* v. *Union Pacific R. Co.*, 226 U.S. 61; *United States* v. *Reading Co.*, 253 U.S. 26; *United States* v. *Lehigh Valley Railroad Co.*, 254 U.S. 255; *United States* v. *Southern Pacific Co* 259 U.S. 214. Cf. Stimson, *Trusts*, 1 Harv. L. Rev. 132, 133.

B. *The court below failed to apply a proper standard in its finding on "control".*

The court below categorically found that du Pont does not "control" General Motors (R. 322-3). In attacking this conclusion the government must establish either that the court below adopted an incorrect test of the meaning of "control" or that it decided the issue without reasonable support in the record. We believe that both burdens can be met.

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[14] Jefferson had thought that a prohibition against monopolies should be included in the Bill of Rights. Boyd, *The Papers of Thomas Jefferson*, Vol. XII, pp. 438, 440 (Letter to James Madison, Dec. 20, 1787). See Letwin, *Congress and the Sherman Antitrust Law: 1887-1890*, 23 U. of Chicago L. Rev. 221, 226.

[14a] In *Northern Securities Co.* v. *United States*, 193 U.S. 197, Mr. Chief Justice White stated in dissent at 368-369: "But the concessions thus made do not concern the question in this case, which is not the scope of the power of Congress to regulate commerce, but whether the power extends to regulate the ownership of stock in railroads, which is not commerce at all. * * * Can it in reason be maintained that to prescribe rules governing the ownership of stock within a State in a corporation created by it is within the power to prescribe rules for the regulation of intercourse between citizens of different States?"

In the context of this case, "control" is not a term of art; the word is not used in the Sherman Act. Rather it is here used as a shorthand designation of a relationship by which one corporation influences the free action of another so as to result in an unlawful restraint of trade.[15] Specifically, we are concerned here with a power in du Pont to direct the business policies of General Motors so as to gain for itself an economic advantage over its competitors. We are not talking of absolute power, since the corporate laws of Delaware and the rights of minority stockholders and creditors impose a limitation on arbitrary action.

It is abundantly established that in order to have control of a corporation in this sense, it is not necessary to hold a majority of its voting securities. In many cases it has been held that in large, publicly-owned corporations the ownership of a sizeable minority suffices.[16] Thus this Court stated in *United States* v. *Union Pacific Railroad Co.*, 226 U. S. 61, at 95-96:

> But it is said that no such control was in fact

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[15] The Securities and Exchange Commission has defined the term "control" for the purposes of the Securities Act of 1933, where it is used but not defined (15 U.S.C. 77(b)(11)), as "the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract, or otherwise." 17 C.F.R. 230. 405. (f). See also 17 C.F.R. 240.12b-2(f) and 260.0-2(f), for similar definitions of the term as used in the Securities and Exchange Act of 1934 and the Trust Indenture Act of 1939.

[16] This was specifically recognized by the Committee reporting the Securities Act of 1933 and the Securities and Exchange Act of 1934. H. Rep. No. 85, 73d Cong., 1st Sess. (1933) 14; H. Rep. No. 1383, 73d Cong., 2d Sess. (1934) 26.

obtained; that at no time did the Union Pacific acquire a majority of the stock of the Southern Pacific, and that at first it acquired but thirty-seven and a fraction per cent. which was afterwards somewhat increased and diminished until about 46% of the stock is now held. In any event, this stock did prove sufficient to obtain the control of the Southern Pacific. It may be true that in small corporations the holding of less than a majority of the stock would not amount to control, but the testimony in this case is ample to show that, distributed as the stock is among many stockholders, a compact, united ownership of 46% is ample to control the operations of the corporation.

Again in *Natural Gas Pipeline Co.* v. *Slattery*, 302 U. S. 300, at 307-308, it said:

> * * *. We have not said, nor do we perceive any ground for saying, that the Constitution requires such an inquiry to be limited to those cases where common control of the two corporations is secured through ownership of a majority of their voting stock. We are not unaware that, as the statute recognizes, there are other methods of control of a corporation than through such ownership. Common management of corporations through officers or directors, or common ownership of a substantial amount, though less than a majority of their stock, gives such indication of unified control as to call for close scrutiny of a contract between them whenever the reasonableness of its terms is the subject of inquiry.

And see *Rochester Telephone Corp.* v. *United States*, 307 U. S. 125, which sustained a Federal Communications Commission order that a one-third holding was enough to constitute control.

The Second Circuit has suggested that a 20% holding is generally sufficient for control, *Morgan Stanley & Co.* v. *Securities and Exchange Commission*, 126 F. 2d 325, at 328, 333:

> * * * Second is the relationship between Columbia Gas & Electric and United, which owns 19.6% of Columbia's voting stock. Although petitioner argues that the mere fact of Columbia's status as a "subsidiary company" within the definition of § 2(a)(8), 15 U.S.C.A. § 79b(a) (8)—as owning 10% of the stock—is not controlling, we think there is little need to discuss this point. Columbia has never carried through any attempt to have the Commission find that it is within the exceptions of § 2(a)(8); and in the absence of such action by Columbia, the Commission is warranted in relying on the statutory definition of a subsidiary company. Furthermore, the 20% holding of United is the largest block of voting securities; and there is supporting evidence in the record showing various connections between United and Columbia. We are not unaware that much less than a majority of stock is frequently sufficient for purposes of control, and we see no reason to contest the legislative view that 10% may be sufficient.
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> * * * I think we can take judicial notice of the fact that the ownership of twenty per cent of the voting power of a company makes the owner "liable" to have practical control. * * *

Again in *Electric Bond and Share Co.* v. *Securities and Exchange Commission*, 92 F. 2d 580 (C.A. 2), affirmed.

303 U.S. 419, the same court, in discussing the Public Utility Holding Company Act, stated at 590-591:

> * * * A 10 per cent. stock ownership creates a presumption of control. The act provides (section 2 (a) (8), 15 U.S.C.A. §79b (a)(8), that the Commission upon application shall declare a company not to be a subsidiary company if it finds that it in fact is not controlled by the holding company. By section 2(a)(7), 15 U.S.C.A. §79b (a)(7), any company that is prima facie a holding company under the act can rebut the presumption by showing that in fact it does not control subsidiary utility companies. The presumption provided for is neither arbitrary nor unreasonable as Congress could find upon the report of the Federal Trade Commission. Practical control is often exercised and retained, through the ownership by those who are already in managerial control of a substantial minority of the voting power. The majority stock is not necessary for control. United States v. Union Pac. Ry. Co., 226 U.S. 61, 95, 96, 33 S. Ct. 53, 57 L. Ed. 124.

See also *Gratz* v. *Claughton*, 187 F. 2d 46, 49-50 (C.A. 2), certiorari denied, 341 U. S. 920:

> * * * We take judicial notice that an effective control over the affairs of a corporation often does not require anything approaching a majority of the shares; and this is particularly true in the case of those corporations whose shares are dealt in upon national exchanges.

It is not suggested that these cases stand for the proposition that control automatically follows from some fixed percentage of stock ownership. Various additional factors play a part. The fact that other holdings are scattered is of prime importance, since it is obvious that a 23% holding would lose out to a unified holding of 51%.[17] Many of the cases refer to this factor. The Court of Appeals for the District of Columbia Circuit emphasized it in *American Gas & Electric Co.* v. *S. E. C.*, 134 F. 2d 633, 639, certiorari denied, 319 U.S. 763.[18] Some emphasize the percentage of stock voted at stockholders meetings. *Rochester Telephone Corp.* v. *United States*, 307 U.S. 125, 145; *Public Service Corp. of New Jersey* v. *S. E. C.*, 129 F. 2d 899 (C.A. 3) at 901-2, certiorari denied, 317 U.S. 691; *Pacific Gas & Electric Co.* v. *S. E. C.*, 127 F. 2d 378 (C.A. 9), affirmed 139 F. 2d 298, 324 U.S. 826.[19] Very important is the historic relationship of the companies, including the existence of interlocking officers or directors. If a management has been installed by the parent company, its loyalty can often be depended on long after the percentage of outstanding stock has decreased. As this Court stated in *North American Co.* v. *Securities and Exchange Commission*, 327 U.S. 686 at 693:

> * * * Historical ties and associations, combined with strategic holdings of stock, can on occasion serve as a potent substitute for the more obvious

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[17] It is stated by Berle and Means in *The Modern Corporation and Private Property* (1932) at page 80: "The larger the company and the wider the distribution of its stock, the more difficult it appears to be to dislodge a controlling minority."

[18] The court there upheld a finding by the Securities and Exchange Commission of "controlling influence" although the next twenty-six holders of the American Gas when combined held more stock than American did. There is no such concentration of holdings of General Motors stock to challenge du Pont.

[19] GTX 1307 (R. 664, 5230) indicates that du Pont has cast over 30% of the votes counted at recent stockholders meetings except for 1949 when it cast 29.9%. In the twenties, and even as late as 1936, du Pont cast over 50% of the votes.

modes of control. See *Southern Pacific Co.* v. *Bogert*, 250 U.S. 483, 491-492; *Natural Gas Co.* v. *Slattery*, 302 U.S. 300, 307-308. Domination may spring as readily from subtle or unexercised power as from arbitrary imposition of command. To conclude otherwise is to ignore the realities of intercorporate relationships. *Rochester Telephone Corp.* v. *United States*, 307 U.S. 125, 145-146. In light of the extensiveness of North American's holdings of the securities of its subsidiaires and the penetration of local managements with men of North American background, the Commission was justified in treating North American as possessing domination over its subsidiaries or the power to dominate them when and if necessary.

Certainly it is not an answer to assert that the acquisition of stock is solely for "investment."[20] Indeed the very fact that a substantial percentage of a corporation's income is derived from its stockholdings in another imposes some added duty on it to shepherd and protect its investment. This has been cited as a factor in determining the presence of control. *American Gas and Electric Co.* v. *Securities and Exchange Commission*, 134 F. 2d 633, 640 (C.A. D.C.), certiorari denied, 319 U.S. 763.

And this Court dealing with an assertion that only an "investment" was involved in North American's holdings stated in *North American Co.* v. *Securities and Exchange Commission*, 327 U.S. 686, 692-3:

> North American claims that its sole and continuous business has been that of acquiring and

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[20] The exception from Section 7 of the Clayton Act for investments will be treated at p. 145, *infra*.

holding for investment purposes stocks and other securities of the subsidiaries, its relationship being essentially that of "a large investor seeking to promote the sound development of his investment." Active intervention on North American's part in the activities of these companies, it is true, has been of a limited character. Operations and operational policies, the Commission found, have been left entirely to the local managements. Nor has North American sold these subsidiaries any supplies or engineering service. This lack of active intervention, however, is indecisive. It appears to have resulted in large part from North American's satisfaction with the local managements of the subsidiaries and from the fact that the local managements have often included men selected by or historically related to North American. See Detroit Edison Co. v. Securities & Exchange Commission, 119 F. 2d 730, 734-735; Pacific Gas & Electric Co. v. Securities & Exchange Commission, 127 F. 2d 378, 383-384. The Commission was thus warranted in considering the harmonization of local policies with those of North American as a fact, the absence of conflicts making affirmative action by North American unnecessary. But it does not follow that North American's domination of its system was any less real or effective.

The court below took into account none of these factors; on the contrary it seems to have proceeded on the basis that, in order to control, du Pont must have conducted itself as though it held a majority of the General Motors stock. (R. 322) It placed much weight on testimony by Mr. Sloan that in case of a proxy fight du Pont might not succeed (R. 322-3).

Now, if anything is clear in this field, it is that less than 50% of the stock of a large corporation may constitute control. A stockholder as substantial as du Pont need not give orders to the management in order to make its influence felt. The daily policies and management of a company are ordinarily shaped by the awareness of, and consideration for, the interests of so substantial a stockholder which is in a position, if necessary, to exert whatever power it has. Mr. Pierre S. du Pont expressed this very idea when referring to the substantial stockholdings of the minority holder in Kinetic Chemicals, Inc. (R. 938). And as other contemporary exhibits also demonstrate, this consciousness was not merely a top-level matter, but permeated the operating levels (GTX 301, 339 and 417, R. 504, 511, 526, 3802, 3864, 3999).

As to the possible outcome of a proxy fight for control, of course Mr. Sloan could not give assurance of the outcome since many factors not capable of being weighed in a hypothetical case enter into a proxy fight.[21]

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[21] Mr. Sloan's apprehension would be reduced by an examination of the files of the Securities and Exchange Commission with respect to recent proxy fights. In the past three years there have been only two examples of management, representing as much as 23% of the stock, being turned out in a proxy fight. In these cases, involving the New York, New Haven & Hartford Railroad, and the Detroit & Cleveland Navigation Co., the opposition held 14.7% and 16.8% of the stock. No conceivable combination in opposition to du Pont holds any such percentage of General Motors stock. In the most publicized proxy fight in recent years where the management lost, the New York Central Railroad Co., management controlled but 1.6% of the stock, while Mr. Young held 17.4%. The following table, taken from Securities & Exchange Commission records, shows the results of the most important proxy fights for control in the last three years:

	Percent of total votes initially controlled by each party		Directors Elected		
	Management	Opposition	Management	Opposition	Date of Meeting
1. Chicago, South Shore & South Bend R. R.	4.614	5.426	9	0	3/25/54
2. Lehigh Valley Coal Corp.	3.544	.960	0	6	4/ 6/54
3. Decca Records, Inc.	1.869	1.637	5	0	4/13/54
4. New York, New Haven & Hartford R. R.	27.941	14.677	10	11	4/14/54
5. Detroit & Cleveland Navigation Co.[a]	27.481	16.755	2	3	4/20/54
6. Minneapolis & St. Louis R. R. Co.[b]	5.118	12.772	4	7	5/11/54
7. Great American Industries	1.707	1.420	9	0	5/25/54
8. New York Central R. R.	1.646	17.369	0	15	5/26/54
9. Associated General Utilities Co.[c]	24.667	12.954	7	0	6/ 9/54
10. Airway Electric Appliance Co.	5.643	33.723	0	4	11/15/54
11. F. L. Jacobs Co.[d]	10.634	.270	2	0	12/20/54
12. A. M. Byers Co.[e]	5.052	14.255	1	2	1/27/55
13. Automatic Washer Co.	4.182	8.437	0	7	3/22/55
14. Chicago, South Shore & South Bend R. R.	5.015	5.964	9	0	3/31/55
15. Boston & Maine R. R. Co.[f]	1.410	26.472	0	19	4/13/55
16. Montgomery Ward & Co.	1.377	4.890	6	3	4/22/55
17. The Locke Steel Chain Co.	15.383	9.727	7	0	12/ 6/55
18. A. M. Byers Co.	42.317	7.851	2	1	1/26/56
19. Fairbanks Morse & Co.	44.728	14.310	7	4	3/28/56
20. Jack Waite Mining Co.	.448	1.151			4/10/56
21. R. Hoe & Co. (Class A)[g]	6.925	8.426	0	3	4/13/54
(Common)	1.038	3.290	0	2	4/13/54
22. Seiberling Rubber Co.	18.720	20.815	11	4	4/23/56
23. Reo Holding Co.	.312	14.027	1	6	5/17/55
24. Alaska Juneau Gold Mining Co.	.468	1.445	3	4	5/22/56
25. Virginia-Carolina Chemical Corp.	1.263	9.819	0	6	7/18/56
26. Consolidated Royalty Oil Co.[h]					
27. Thermoid Co.[i]					

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[a] Management's total does not include a bloc of 43,700 shares belonging to "Associates of Kolowich." This figure overlaps to some unknown degree with the 60,825 shares belonging to Kolowich's family, which have been included in Management's total.

[b] The four seats management won were unopposed because the opposition only ran a slate of 7 out of a Board of 11.

[c] A court fight over the results of this election resulted in a settlement whereby the opposition was given one seat and management retained 6.

[d] Only 2 of 6 directors are elected each year.

[e] Only 3 of 9 directors are elected each year. However a majority of the total outstanding votes can elect a full slate of 9.

[f] Opposition controlled votes do not include 135,000 listed as "customers of certain brokerage firms." If included opposition had 42.883% initially, consisting of 352,760 votes.

[g] The Class A and Common Stock of R. Hoe & Co. elect separate directors.

[h] File on 1954 proxy fight not available from S.E.C.

[i] S.E.C. file subpoenaed by Federal District Court in S. D. N. Y. and not available. Proxy fights in 1955 and 1956.

But, the outcome of a possible future proxy fight is not an appropriate test of control. *American Gas & Electric Co.* v. *Securities & Exchange Commission,* 134 F. 2d 633, 639 (C.A. D.C. 1943), certiorari denied, 319 U.S. 763. If the management of General Motors be considered as a group apart from the du Pont control, as the court appeared to do (R. 321),[22] it is certain that it could not be so sure of defeating du Pont in a proxy battle that it would willingly invite such a contest. The management's power to attract votes would come from its status as management with credit for the success of the enterprise and from its control of the proxy machinery. Du Pont, with its concentrated security holdings, its vast prestige, efficient organization and powerful financial connections, could attract an indeterminate number of independent votes. It is idle to speculate which group would succeed. It is sufficient that du Pont would be a formidable opponent with a very substantial likelihood of success in such a contest. This insures avoidance by the management of any action displeasing to du Pont. Thus, if they be separate, management and this very substantial stockholder have worked together to avoid conflict and will undoubtedly do so in the future if du Pont is allowed to retain its General Motors stock.[23] Plainly, therefore, if "control" need be established to have a "combination" under the Sherman Act, the court below used improper standards and, on a sound basis of evaluation, control exists.

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[22] In connection with U. S. Rubber, Mr. Pierre du Pont wrote Mr. Lammot du Pont Copeland in 1947 (GTX 1057):

> I do not fear the result of the management group being in the majority. If such fear is real, we should change the management.

[23] See Berle and Means in *The Modern Corporation and Private Property* (1932) at page 89.

C. *It is sufficient to establish a "combination" that the relationship with General Motors gives du Pont an edge over its competitors, whether or not power to command is present.*

The antitrust laws do not speak in terms of "control". They forbid any "combination" in restraint of trade. Although none of the antitrust cases deals specifically with this issue,[24] it seems that the acquisition of a preferred position over competitors through the purchase of a substantial minority interest falls as much within the prohibition of the statute as would the acquisition of control through the purchase of a greater interest. Let it be assumed, for example, that Corporation A purchases a sufficient interest in Corporation B so that, everything else being equal, Corporation B will prefer A over its competitors. At the same time, A has not a sufficient interest to impose its will on B in other matters. B is free to act as it desires, but, because of A's stock holdings, gives it preference. That, we submit, is but another type of "combination" in restraint of trade.

Although this type of combination is not specifically dealt with in the antitrust laws, neither is absolute control, and Congress in other contexts has recognized it as an unhealthy situation requiring regulation, even though less than control is involved. For example, in the Public Utility Holding Company Act, the Commission is empowered to regulate the relations between a holding company and its affiliates (Sec. 12(g), 15 U.S.C. 79 l (g)). Congress defined affiliate as a company owning 5% of the stock of another company, an officer or director of a company, or "any person or class of persons that the Commission determines, after appropriate notice and opportunity for hearing, to stand in such relation to such specified company that there is liable to be such an absence of arm's-length bargaining in transactions between them as to make it necessary or appropriate in the public interest or for the protection of investors or consumers that such person be subject to the obligations, duties, and liabilities imposed in this chapter upon affiliates of a company." 15 U.S.C. 79b(a)(11). It was under this section and rules adopted pursuant thereto that the Commission proceeded in denying Morgan Stanley underwriting fees in connection with an offering of securities of Dayton Power & Light in *Morgan Stanley & Co.* v. *S. E. C.*, 126 F. 2d 325 (C.A. 2). The Second Circuit upheld the Commission's finding of affiliation based not upon stock holdings but historic relationships and banking tradition.[25] And this Court recognized the importance of the same sort of relationship in *Natural Gas Pipeline Co.* v. *Slattery*, 302 U.S. 300. There, in passing upon the right of the Illinois Public Utilities Commission to demand information from an affiliate of a regulated company (under the statute a company holding 10% or more of its stock), this Court said at 307:

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[24] As is pointed out above, p. 86, *supra*, this Court in *Appalachian Coals Inc.* v. *United States*, 288 U.S. 344, at 359-60, emphasized the general applicability of the Act to every type of combination.

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[25] Actually the statutory definition of "subsidiary" recognizes this concept of a relationship something short of control but more than pure investment since it includes, as subsidiaries, companies "subject to a controlling influence." 15 U.S.C. 79b (8). The Securities and Exchange Commission and the courts have considered this phrase as more inclusive than outright control. See *Detroit Edison Company* v. *Securities & Exchange Commission*, 119 F. 2d 730, 738-39 (C.A. 6, 1941), certiorari denied, 314 U.S. 618; *Public Service Corporation of New Jersey* v. *Securities and Exchange Commission*, 129 F. 2d 899, 902-3 (C.A. 3, 1942) certiorari denied, 317 U.S. 691.

> This Court has often recognized that the reasonableness of the price at which a public utility company buys the product which it sells is an appropriate subject of investigation when the resale rates are under consideration, and that any relationship between the buyer and seller which tends to prevent arm's length dealing may have an important bearing on the reasonableness of the selling price.

Again this Court has recognized that an antitrust violation occurs even where competitors are not absolutely excluded if they are given "a hard road to travel." *Associated Press* v. *United States,* 326 U.S. 1, 10. In this case, even assuming the absence of control, competitors of du Pont were certainly provided with a very hard road to the General Motors' market.

D. *Whatever the degree of control, du Pont has established a relationship with General Motors which insures it a preferred position over its competitors in all business dealings with General Motors.*

All of the factors recognized by the courts as establishing "control", or preventing arm's length bargaining, are markedly present in this case. Du Pont holds a very substantial block of General Motors stock, namely 23%. The other holdings are widely scattered, the remaining stock being divided among some 436,510 stockholders, 92% of whom hold no more than 100 shares and 60% of whom hold no more than 25 shares

(R. 304). Du Pont's stock, which it has held continuously since 1918, constitutes an even larger percentage, between 30% and 51%, of the stock voted at annual meetings (GTX 1307, R. 664, 5230).

Du Pont's stock interest was acquired with the open intent of sharing with Mr. Durant in the control of General Motors (GTX 124, R. 479, 3208).[26] As the court below recognized, this aim was achieved (R. 303). Later, when du Pont bought out Mr. Durant's interest and held 38% of the stock, it alone held control (GTX 235, R. 483, 3496; GTX 1345, R. 2813, 5347). Although the court below did not specifically find that control existed in this period (1920-1930) the particular findings it did make can lead to no other conclusion (R. 307).[27]

Control tends to perpetuate itself both through personnel and the machinery of proxy solicitations so that a heavy burden falls on one who seeks to establish that control has been lost when a corporation has continued along the even tenor of its way without a shadow of a proxy fight and with no attempt whatever to change the established management. Du Pont, as the record shows, has been persistently busy in the general management of General Motors through its designated representatives on the Board, through officers originally selected by it, through its financial stewardship and through its advisory position. There is evidence that in some instances du Pont received and used to its advantage inside financial information prepared for the directors of General Motors (GTX 134, 135, R. 480, 3263, 3266). Du Pont's influence was far greater than the power to veto action or to control annual meetings, though it had this too; it was a positive power to influence action. Nor does it do to assert that perhaps there was control over financial policy, but not over purchasing practice (GM brief below, pp. 10-11). It is not possible to compartmentalize such authority—it exists or it doesn't exist. To be sure it can be exercised selectively; but that is not the issue since it is clear that it is the existence of a combination, not the use made of it, which is decisive.[28]

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[26] "1. With Mr. Durant we will have joint control of the companies.

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"* * * it is the writer's belief that ultimately the Du Pont Company will absolutely control and dominate the whole General Motors situation * * *.

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"* * * the control of the General Motors Company will be a task worthy of the best there is in us * * *."

[27] The fact that earlier explicit expressions of intent to control and of the accomplishment of this intent have not been repeated in recent years may be due in part to a consciousness that "control" might become an issue in antitrust litigation. Some evidence of this is to be found in GTX 202, R. 485, 3461; GTX 1346, R. 2815, 5352.

Subtle methods were used to make this control effective without the necessity of orders from above.[29] Thus it is highly significant that over the years du Pont took a most particular interest in the special compensation plans for officers and executives.[30] Placing an ex-du Pont employee in a strategic position on the joint purchasing committee, suggesting, or vetoing, the appointment of a particular individual to the board of directors, these are instances of what this Court referred to in stating that, "Domination may spring as readily from subtle or unexercised power as from arbitrary imposition of command." *North American Co.* v. *Securities and Exchange Commission*, 327 U.S. 686, 693.

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[28] In *Northern Securities Co.* v. *United States*, 193 U.S. 197, Mr. Justice Harlan, speaking for the Court, stated at 327: "The mere existence of such a combination and the power acquired by the holding company as its trustee, constitute a menace to, and a restraint upon that freedom of commerce which Congress intended to recognize and protect, and which the public is entitled to have protected." See also *United States* v. *Reading Co.*, 253 U.S. 26, 57; *United States* v. *Union Pacific Railroad Co.*, 226 U.S. 61, 88.

[29] In *American Gas and Electric Co.* v. *Securities and Exchange Commission*, 134 F. 2d 633 (C.A. D.C. 1943), certiorari denied, 319 U.S. 763, Judge Rutledge quoted the Commission with approval at 642:

> Under some circumstances "controlling influence may spring as readily from advice constantly sought as from command arbitrarily imposed." *Manchester Gas Co.*, 1940, 7 S.E.C. 57, 62.

On the basis of the foregoing, we submit that the court below erred, first, in adopting a rigid and unrealistic concept of what constitutes sufficient corporate control to establish a combination under the Sherman Act and, second, in overlooking the many admitted facts which lead inevitably to the conclusion that control existed. The court below seems to have relied principally on protestations of innocence which were merely the conclusions of interested parties on an issue which it was the duty of the court to resolve; it treated as unimportant or as of secondary importance the very elements which this Court and the courts of appeals have time and time again considered as the prime indicia of control.

II

The du Pont-General Motors "Combination" Is One Which Is Prohibited by the Sherman Act.

In this portion of the brief we shall use the word "control" as a shorthand way of expressing the relationship dealt with in the last section of the brief, without intending to differentiate between absolute power to command on the one hand and absence of arm's-length bargaining on the other. It is our position that, if a combination is in restraint of trade, it constitutes a prohibited combination regardless of the degree of control.

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[30] The amount of the bonuses was so large that the difference between receiving one or not was in some cases the difference between financial independence for life or not. See page 27, *supra*. Mr. Raskob specifically recognized that the effect of the first plan,

As to the issue of the interstate nature of the trade involved, namely the trade of General Motors, the trade of competitors of du Pont with General Motors, and du Pont's own trade, there is no dispute. Physically the manufacturing facilities of du Pont and General Motors are so widely distributed that interstate shipments are constantly involved. Appropriate allegations are made in the complaint (¶23, R. 217) and admitted in the answers (D.P. ¶23, R. 113; GM ¶23, R. 140).[31] Regardless of the nature of that commerce, the fact that the trade blocked by the combination would have been largely interstate (Complaint, ¶24, R. 217) gives additional support to the federal jurisdiction. See *Standard Oil Co. of California* v. *United States,* 337 U.S. 293, 314.

Insofar as this case is concerned, we shall not attempt any fine distinction between violation of Section 1 and

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would be to "tie up with us in the management and control of this huge investment the men in the General Motors Corporation who are definitely charged with the responsibility and success of the corporation." (GTX 235, R. 483, 3502.)

[31] According to the Fortune Directory of the 500 Largest U.S. Industrial Corporations, July 1956, p. 2, General Motors ranked first in sales and second in assets among all United States industrial corporations while du Pont ranked fourth in assets and tenth in sales. General Motors in 1955 became the first corporation to earn over a billion dollars in annual net income (New York Times, February 3, 1956, p. 1). Both companies far outstrip their competitors in their respective fields (GTX 1205, R. 658, 5150).

Section 2 of the Sherman Act. Our emphasis will be to show that there is a combination in restraint of trade in violation of Section 1 of the Act. As the Act has been interpreted, proof of such a combination may equally establish a combination to monopolize under Section 2. Under the reasoning of this Court in *Standard Oil Co. of New Jersey* v. *United States,* 221 U.S. 1, 60, the two sections overlap in this type of case. And in many cases that have followed, combinations to exclude competitors have been held violative of both sections. *United States* v. *American Tobacco Co.,* 221 U.S. 106; *United States* v. *Crescent Amusement Co.,* 323 U.S. 173; *Associated Press* v. *United States,* 326 U.S. 1; *United States* v. *Griffith,* 334 U.S. 100, 106; *United States* v. *Paramount Pictures,* 334 U.S. 131. And see Report of the Attorney General's National Committee to Study the Antitrust Laws (1955) pp. 7-8; 11-12. For all practical purposes it makes no difference since the relief asked can be as completely justified if it is held that there is a violation of Section 1 only. Further exploration of the distinctions between Section 1 and 2 would therefore seem unnecessary.

A. *This Court has held that a combination controlling a significant portion of a market to the exclusion of competitors violates the Sherman Act if the combination was formed for that purpose or if the restraint on competitors is a necessary or probable result.*

Assuming that Point I above has been established, we have a situation in which du Pont has acquired a preference in selling to General Motors its requirements for paints, fabrics, plastics and other products manufactured by du Pont and a concurrent preference in developing and marketing chemical discoveries resulting from General Motors research.[32] This is a captive market as truly as one which is achieved by exclusive dealing contracts such as those passed upon by this Court in *Standard Oil Co. of California* v. *United States*, 337 U.S. 293, or by tie-ins with patent licensing as in *International Salt Co.* v. *United States*, 332 U.S. 392. See *Times-Picayune Publishing Co.* v. *United States*, 345 U.S. 594 at 608-609. It is even more of a captive market than was achieved by the long-term contracts, induced through providing capital, involved in *United States* v. *National City Lines*, 186 F. 2d 562 (C.A. 7), certiorari denied, 341 U.S. 916.[33] There is now no doubt that to limit competition by such devices is violative of the Sherman Act. And the question here is whether the achievement of the same result through the device of stock combination, rather than contract or patent monopoly of tie-in, is equally illegal. In *American Tobacco Co.* v. *United States,* 328 U.S. 781, this Court stated at 809 that it is not "the form of the combination or the particular means used but the result to be achieved that the statute condemns."

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[32] Commentators on the administration and interpretation of the antitrust laws have labeled combinations of the type to which du Pont and General Motors are parties as "vertical integration". See Hale, *Vertical Integration*, 49 Col. L.Rev. 921, 921-923; Adelman, *Integration and Antitrust Policy*, 63 Harv. L. Rev. 27, 27-29; Bork, *Vertical Integration and the Sherman Act*, 22 Univ. of Chicago L. Rev. 157. The label does not help except as a quick method of classifying the type of case involved; it may confuse rather than solve the issue of legality. As this Court stated in *United States* v. *Columbia Steel Co.*, 334 U.S. 495, at 525: "It seems clear to us that vertical integration, as such without more, cannot be held violative of the Sherman Act. It is an indefinite term without explicit meaning."

[33] That case is in some ways very close to the instant case. Various suppliers, Firestone, Standard Oil of California, Phillips, Mack, and General Motors, provided capital, through the purchase of preferred stock, to two holding companies which used it to purchase control of a large number of transportation companies. These then entered into long-term exclusive dealing contracts to purchase supplies from the manufacturers. As in the present case, manufacturers were buying a protected market. The jury, although acquitting on the count alleging violation of Section 1 of the Sherman Act, found the defendants guilty on the Section 2 count, and the verdict was upheld on appeal.

The element of restraint of trade through the acquisition of control of markets, or sources of supply, appears in Sherman Act cases almost from the beginning. There were factors of vertical integration in *Standard Oil Co.* v. *United States,* 221 U.S. 1,[34] and in *United States* v. *American Tobacco Co.,* 221 U.S. 106[35] although there were also factors of horizontal integration of even greater importance. Again in *United States* v. *Reading Co.,* 226 U.S. 324, this Court showed great concern for the fact that the same interests which controlled all of the transportation facilities from the area involved also owned 75% of the supply of anthracite coal (pp. 340-341). See also *United States* v. *Lehigh Valley R. Co.,* 254 U.S. 255.

It was an even more significant factor in *United States* v. *Corn Products Refining Co.,* 234 Fed. 964 (S.D. N.Y.) appeal dismissed, 249 U.S. 621, where the court condemned an attempt by a syrup manufacturer to force its supplies on candy manufacturers by purchasing a candy factory which it threatened to use in competition.[36] And such methods were one of the chief bases for complaint in *United States* v. *Pullman Co.*, 50 F. Supp. 123 (E.D. Pa.) where the manufacture and operation of sleeping cars were ordered separated. And see *United States* v. *New York Great Atlantic & Pacific Tea Co.*, 173 F. 2d 79 (C.A. 7).

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[34] The defendants there produced or purchased crude petroleum, transported it by pipeline, refined it, and marketed the products.

[35] The defendants had acquired control of suppliers of tinfoil and licorice, and also a chain of some 400 retail stores.

These cases show that acquiring control of a supplier, or customer, is illegal where the acquisition is made with the purpose of hindering competitors from dealing freely with the controlled business. As this Court said in *United States* v. *Reading Company*, 253 U.S. 26 at 57:

> Again, and obviously, this dominating power was not obtained by normal expansion to meet the demands of a business growing as a result of superior and enterprising management, but by a deliberate, calculated purchase for control.

This brings us to the recent cases in this Court. The first of these is *United States* v. *Yellow Cab Co.*, 332 U.S. 218. There the United States had alleged the formation of a combination by a manufacturer of taxicabs whereby it had gained control of very substantial percentages of the companies operating taxicab service in Chicago, Pittsburgh, Minneapolis and New York City. It was alleged that this control was obtained for the purpose of excluding competing manufacturers of taxicabs from selling to the operating companies. The defendants moved for dismissal on the ground that no violation of the Sherman Act was alleged. After Judge La Buy had granted this motion, this Court upheld the complaint stating (at pp. 226-227):

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[36] Later in *United States* v. *Aluminum Co.*, 148 F. 2d 416, 436-438 (C.A. 2) the court indicated that the defendant there had used its control of both ingot manufacturing and rolling plants as a "squeeze" on sheet manufacturers.

> Nor can it be doubted that combinations and conspiracies of the type alleged in this case fall within the ban of the Sherman Act. By excluding all cab manufacturers other than CCM from that part of the market represented by the cab operating companies under their control, the appellees effectively limit the outlets through which cabs may be sold in interstate commerce. Limitations of that nature have been condemned time and again as violative of the Act. *Associated Press* v. *United States,* 326 U.S. 1, 18-19, and cases cited. In addition, by preventing the cab operating companies under their control from purchasing cabs from manufacturers other than CCM, the appellees deny those companies the opportunity to purchase cabs in a free, competitive market. The Sherman Act has never been thought to sanction such a conspiracy to restrain the free purchase of goods in interstate commerce.

If this ruling be applied to the facts of the du Pont-General Motors combination, it cannot be doubted that a combination effected to exclude du Pont competitors from competing for General Motors' trade must equally be held a violation of the Sherman Act.[37]

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[37] The *Yellow Cab* case came back to the Supreme Court after the lower court on remand found that the defendants had no specific intent to restrict the market, and this Court upheld the dismissal of the complaint on that basis. *United States* v. *Yellow Cab Co.,* 338 U.S. 338. The majority opinion treats the case as one requiring proof of a conspiracy (p. 339). On this basis, the intent of the parties was a material element of the offense. In this case we do not urge reversal of the court below's finding that no conspiracy existed. As pointed out above (*supra,* p. 72, *infra,* p. 113) we

rest our case here solely on the ground that du Pont formed a *combination* in violation of law. On this issue specific intent need not be proved. When a corporation, consciously and with total awareness of what it is doing and of its effects, enters into a combination which must inevitably result in restraints on its competitors, it should not be able to escape the consequences of its action by hiding behind lack of intent. As this Court stated in *United States* v. *Griffith*, 334 U.S. 100 at 105-106 and 108:

> It is, however, not always necessary to find a specific intent to restrain trade or to build a monopoly in order to find that the anti-trust laws have been violated. It is sufficient that a restraint of trade or monopoly results as the consequence of a defendant's conduct or business arrangements. *United States* v. *Patten*, 226 U.S. 525, 543; *United States* v. *Masonite Corp.*, 316 U.S. 265, 275. To require a greater showing would cripple the Act. As stated in *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 432, "no monopolist monopolizes unconscious of what he is doing." Specific intent in the sense in which the common law used the term is necessary only where the acts fall short of the results condemned by the Act. The classical statement is that of Mr. Justice Holmes speaking for the Court in *Swift & Co.* v. *United States*, 196 U.S. 375, 396:
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>> "Where acts are not sufficient in themselves to produce a result which the law seeks to prevent—for instance, the monopoly—but require further acts in addition to the mere forces of nature to bring that result to pass, an intent to bring it to pass is necessary in order to produce a dangerous probability that it will happen. *Commonwealth* v. *Peaslee*, 177 Massachusetts, 267, 272. But when that intent and the consequent dangerous probability exist, this statute, like many others and like the common law in some cases, directs itself against that dangerous probability as well as against the completed result."
>
> And see *United States* v. *Aluminum Co. of America, supra*, pp. 431-432. And so, even if we accept the District Court's findings that appellees had no intent or purpose unreasonably to restrain trade or to monopolize, we are left with the question whether a necessary and direct result of the master agreements was the restraining or monopolizing of trade within the meaning of the Sherman Act.
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> * * * * *
>
> * * * Though he makes no threat to withhold the business of his closed or monopoly towns unless the distributors give him the exclusive film rights in the towns where he has com-

The position stated in *United States* v. *Yellow Cab Co.*, 332 U.S. 218, was restated and emphasized in *United States* v. *Paramount Pictures, Inc.*, 334 U.S. 131. The Court was there considering the action of the district court in refusing to order divestment of theatres by the major producer-distributor defendants. The lower court, while limiting the acquisition of additional theatres, refused to order divestment. This Court pointed out (1) that "monopoly" need not be nation-wide but is prohibited in "any part" of trade or commerce, (2) that specific intent to monopolize was unnecessary where monopolization was a necessary consequence, and (3) that the existence of power to monopolize constituted a violation without proof of its exercise. (pp. 172-173)

In *United States* v. *Columbia Steel Co.*, 334 U.S. 495, the combination involved was found not to be in violation of the Sherman Act. The case is important here only because of the reasoning by which it was held that the particular combination was not prohibited.

The facts of the case, insofar as they are important here, are that the United States Steel Company purchased the facilities of a west coast steel company engaged in fabricating steel sheets and forms. One of the avowed purposes of the purchase was to acquire an outlet for sheet steel manufactured by a subsidiary of

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petitors, the effect is likely to be the same where the two are joined. When the buying power of the entire circuit is used to negotiate films for his competitive as well as his closed towns, he is using monopoly power to expand his empire. And even if we assume that a specific intent to accomplish that result is absent, he is chargeable in legal contemplation with that purpose since the end result is the necessary and direct consequence of what he did. *United States* v. *Patten*, *supra*, p. 543.

United States Steel Company. It is noteworthy that the acquired business was merely a step in the preparation of steel for ultimate use, not a separate line of manufacture. All three companies involved were generically steel companies. After quoting from and approving its statements in *Yellow Cab* and *Paramount,* 334 U.S. 495, 523, the Court went on to analyze the effect of the purchase and concluded that it could not "unreasonably restrict the opportunities of the competitor producers of rolled steel to market their product". 334 U.S. 495, 527. Since the Court had specifically recognized that it would inevitably result that the purchased company would turn to United States Steel for its supply of rolled sheet (p. 523), thus excluding competitors from those sales, this must mean that in view of the nature of the industry, such restriction is not "unreasonable." In other words, the purchase was only a reasonable expansion of an existing business. This could never be said of du Pont's purchase of General Motors.

So, we submit, the ultimate conclusions to be drawn from these cases is that violation of the Sherman Act may result when a manufacturer forms a combination with an outside interest which is a consumer of its product for the purpose of gaining a preference on that trade or where, whatever its intent, the probable or inevitable result will be to restrain the trade of its competitors. The apparent exception of the steel case is not a real exception (or, in any event, an exception which is significant here), since there the acquisition was only a reasonable expansion of the existing business.

B. *Du Pont formed the combination with General Motors with the intention of getting a preference in the trade of General Motors.*

Much of the difference between the parties in the court below centered on whether there was an agreement between du Pont and General Motors to give the former preference in trade relations. At that time the Government sought to establish not only a combination but also a conspiracy. The existence of an agreement was urged in that connection. The court below found that the evidence failed to establish the existence of such an agreement (R. 361, 405, 465). Wherever the truth may lie, we shall not press that particular issue here since, for the relief asked, it is sufficient to establish a combination in restraint of trade, by which we mean a restraint imposed by force of the relationship rather than one arising from express agreement.

In order to establish a violation of the Sherman Act it is not ordinarily essential to prove a conscious or calculated intent to impose illegal restraints; it suffices that the defendant intentionally follows a line of conduct the natural consequence of which is such restraint. As is pointed out above (fn. 37, *supra*, p. 110) "no monopolist monopolizes unconscious of what he is doing" (*United States* v. *Aluminum Co. of America,* 148 F. 2d 416, 432 (C.A. 2)). See also *United States* v. *Paramount Pictures,* 334 U. S. 131, 173; *United States* v. *du Pont & Co.,* 351 U. S. 377, 392.

Nevertheless, though proof of intent may not be essential, it is highly significant. In a very early case this Court pointed out that if intent and power to monopolize were present, then proof of restraint was unnecessary. Thus in *United States* v. *Reading Co.*, 253 U. S. 26, the Court stated at page 57:

> Again, and obviously, this dominating power was not obtained by normal expansion to meet the demands of a business growing as a result of superior and enterprising management, but by deliberate, calculated purchase for control.
>
> That such a power, so obtained, regardless of the use made of it, constitutes a menace to and an undue restraint upon interstate commerce within the meaning of the Anti-Trust Act, has been frequently held by this court.

And much more recently in *United States* v. *Griffith*, 334 U.S. 100, at 107:

> Hence the existence of power "to exclude competition when it is desired to do so" is itself a violation of Section 2, provided it is coupled with the purpose or intent to exercise that power. *American Tobacco Co.* v. *United States*, 328 U.S. 781, 809, 811, 814.

But intent, in the sense here used~~, does~~ not mean evil purpose; it merely means ~~a~~ conscious effort to accomplish the prohibited end. In *United States* v. *National City Lines*, 186 F. 2d 562 (C. A. 7), certiorari denied, 341 U. S. 916, the court said (at p. 571):

> Of course, it may well be that defendants did not intend affirmatively to violate the law, but it seems quite evident that they did intend, by making their mutually concerted investments in City Lines' stock conditional on the execution of exclusive requirements contracts in their favor, to

> join forces in making investments in consideration of the several exclusive contracts and thus, by their united and concerted action, to exclude their competitors from a market composed of the City Lines defendants and their operating subsidiaries, present and future, and, thus, that they intentionally performed acts which inevitably led to violation of Section 2 of the statute.

Most significant with respect to the intention of du Pont to preempt General Motors' trade to the exclusion of its competitors is the written record made in the early days when the relationship was fresh. At that time buying habits had not been established and all parties were groping their way to discover just how the new partnership would work.

The most important early document was the report of Mr. Raskob to the Finance Committee of du Pont proposing the initial purchase of General Motors stock (GTX 124, R. 479, 3208). This report was originally drafted by Mr. Raskob, discussed item by item with Mr. Pierre du Pont (R. 810, 922-925), revised and reviewed again (R. 923), and finally submitted to the Finance Committee. The document is important not only because of the care expended on its preparation and the high positions of the persons preparing it, but because it was the basis for the investment of $25,000,000, later increased to $50,000,000, by du Pont (GTX 126, R. 479, 3229). It amounts in fact to a prospectus of du Pont's intent. And this was the document in which it was stated (GTX 124, R. 479, 3221):

> Our interest in the General Motors Company will undoubtedly secure for us the entire Fabri-

koid, Pyralin, paint and varnish business of those companies, which is a substantial factor.

This was not a chance incidental remark; it was one of the numbered paragraphs in the summary of reasons for making the purchase. The best that the defendants can do with this contemporaneous document is to say that the trade factor did not seem very important to them (R. 815, 870). This is not enough. With this memorandum as a basis, first the Finance Committee and then the Board of Directors of du Pont authorized the purchase.

And the trade factor, whatever the du Pont memory at the time this suit was tried (R. 815, 870), was of sufficient importance to the management of du Pont so that their annual report to stockholders in both 1918 and 1919 called attention to this very point in reporting the acquisition (GTX 1409, 125; R. 479, 5511, 3228).[38]

At no time during the early days after the purchase was this important advantage far from the surface. After the stock had been acquired and du Pont had moved into the top echelon of management, the trade motivation for the purchase was implemented by the appointment as "liaison" man of Mr. John Haskell, who had previously acted as a du Pont vice president, sales manager, and member of the Executive Committee of du Pont (R. 835-836, 940).[39]

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[38] In the 1917 report it was stated "The motor companies are very large consumers of our Fabrikoid and Pyralin as well as paints and varnishes." In the 1918 report it was stated, "The consumption of paints, varnishes and fabrikoid in the manufacture of automobiles gives another common interest."

[39] After Mr. Haskell's death in 1923 (DP 56, R. 836, 5656) he was replaced by Mr. J. L. Pratt (R. 1419).

The record shows an early report from Mr. Haskell (R. 501) to the du Pont vice president in charge of sales concerning a conference by Mr. Haskell with General Motors officials dealing with "Fabrikoid matters" (GTX 290, R. 501, 3782). He reported a suggestion to "pave the way for perhaps a more general adoption of our material." Mr. Haskell's concern was not only how best to develop materials suitable to replace natural leather (the kind of competition which builds American industry) but also "how best to get cooperation whereby makers of such of the low priced cars as it would seem possible and wise to get transferred will be put in the frame of mind necessary for its adoption" (the kind of interference with competition which the Sherman Act was designed to eliminate).

In the same spirit a Mr. Burckel, sales manager of the du Pont-owned Arlington works, manufacturers of pyralin (trade name for a du Pont product), wrote to the same du Pont sales manager, stating that it was Mr. Haskell's opinion that du Pont would, by continuing its sales policy, get all of General Motors' business in pyralin and that Mr. Haskell suggested a continuing check on what was being sold to General Motors and what General Motors was buying elsewhere (GTX 293, R. 502, 3786; *supra*, pp. 30-21).

Mr. Haskell then instituted a series of inquiries of General Motors' general managers as to what du Pont products were being used and what competitive products (GTX 296, 297, 298, 299, 300, R. 502-503, 3790-3801). This not only gave du Pont information as to areas in which to make sales efforts, but the process of making inquiries and requiring explanations acted of itself as an incentive to buy from du Pont and avoid the necessity of justifying another course (GTX 300, 301, R. 503-504, 3798-3802).

A report from H. Felix du Pont, vice president, to the Executive Committee in 1921, clearly links sales to the stock interest, with the emphasis on profits to du Pont (GTX 417, R. 526, 3998; *supra*, p. 32).

When the Cadillac division dared to show some independence in its purchasing policy, pressure was applied by a series of inquiries and suggestions by a top du Pont official GTX 442-446, R. 534-535, 4066-4072). Mr. Lammot du Pont, vice president of du Pont, was certainly 50% sincere in stating:

> I feel that it is to the advantage of both General Motors Corporation and the du Pont Company to have GMC use the Flint products 100 per cent. [GTX 447, R. 535, 4073.]

In October of 1921, Mr. R. R. M. Carpenter of du Pont wrote to his brother-in-law, Mr. P. S. du Pont, as president of General Motors, with respect to supplying the latter with artificial leather as follows (GTX 403, R. 526, 3959):

> Without being familiar with all the little details, what I am afraid happens is that three or four different artificial leather companies are getting small dabs of the General Motors business, all of them running at small capacities. It seems uneconomical, from the general du Pont pocketbook point of view, not to be able to make some arrangements whereby we could run our artificial leather plants fairly full, and in the long run it would not cost the General Motors Company any more money, if as much, as if they kept us on a

competitive basis when the competition, owing to the circumstances, is not altogether a fair one.

* * * * *

This well illustrates the official attitude on competition.

Another example is given by a rather extended correspondence with reference to sales to Fisher Body Corporation. It should be noted that Fisher was not at this time as completely subject to du Pont domination as the other parts of General Motors since the Fisher Body Corporation, although subject to stock control, was still under the management of the Fisher brothers (GTX 423, R. 529, 4015). Nevertheless, the weight du Pont gave to its relationship to General Motors speaks for itself. The correspondence started with a report in August, 1921, to Mr. Pierre S. du Pont from Mr. Lammot du Pont (as du Pont vice president) showing no business from Fisher Body (GTX 420, R. 528, 4010).

Replying on the letterhead of the president of General Motors, Mr. Pierre S. du Pont stated (GTX 421, R. 529, 4012, *supra*, p. 35):

> With the change in management at Cadillac, Oakland and Olds, I believe that you should be able to sell substantially all of the paint, varnish and fabrikoid products needed; especially is this true of Cadillac.
>
> A drive should be made for the Fisher Body business. Is there any reason why they have not dealt with us?[40]

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[40] The references to changes in management may have been to replacements in General Motors division general managers instituted after Mr. Durant left the corporation and du Pont took over full control (DP 64, R. 861, 5713).

The use of the word "us" could indicate a primary concern by the president of General Motors with du Pont rather than General Motors.

Mr. Lammot du Pont wrote to the president of Fisher Body, Mr. Fred Fisher, in October, 1922, asking an explanation (GTX 434, R. 532, 4055, *supra*, p. 65):

> Would it be imposing upon you to ask your assistance toward Flint securing a portion, or all, of Fisher Body Corporation's paint and varnish business? The assistance I ask is a frank statement of the respects in which the above statement of conditions is incorrect, or, if that statement is correct, statement of why Flint should not have the business, so that such reason may be overcome if it is within our power.

He followed this with another letter to the president of Fisher Body in December, 1922, stating (GTX 437, R. 533, 4059, *supra*, p. 65):

> It seems to me that this matter is of extreme importance, for I am sure that Flint Varnish & Color Works goods are the equal of, or superior to, any goods on the market, and therefore should be used by Fisher Body Corporation in any event. The close stock relationship of the companies makes it appear almost ridiculous that no business should be done between Flint and Fisher.

Again he wrote in January of 1923 to Mr. Laurence Fisher as follows (GTX 441, R. 533, 4064):

> I have just had a conversation with Mr. Sohlinger [apparently a du Pont officer or employee in the paint corporation] today and tried to impress upon him the importance of making the Flint

> products satisfactory. It is important to us not only in order to acquire and keep the Fisher business, but in order to put us in position to furnish the best quality to our other principal customer; namely, General Motors Corporation.
>
> * * * * *
>
> In our conversation I asked Mr. Sohlinger if he would not call on you again and go into this matter further; for, as you know, I feel that it is of the very greatest importance that we should straighten out all difficulties with the Flint products and have them used throughout by Fisher Body Company.

And finally at the end of January, 1933, he wrote to Mr. Laurence Fisher (GTX 443, R. 534, 4067):

> Thanking you again for the trial of these products which you promised, I am
>
> Yours very truly,
>
> —— ——,
>
> *Vice-President.*
>
> LduP/MD

To be sure, du Pont was not always successful in acquiring 100% of the General Motors market. In artificial leather, for example, General Motors determined in February of 1923 that it should have two sources of supply and du Pont seemed to agree to a surrender of 20% of the business, feeling certain that it could retain the remaining 80% (GTX 406, pp. 13-15, R. 527, 3978-3980). Mr. Pierre S. du Pont was not at all happy about this "foolish business" but decided not to "interfere" (GTX 408, 410, R. 528, 3983, 3984). It is certainly highly revealing that the General Motors Purchasing Committee should formally adopt a resolution: "It was agreed that on an equally competitive basis 25% of the business [leather substitutes and rubber-coated fabrics] should be placed with sources other than the du Pont Company" (GTX 412, p. 6, R. 528, 3986). This suggests the converse: "It was agreed that without a competitive basis, 75% of the business should be placed with the du Pont Company." But still the du Pont officers pressed for more (GTX 413, R. 528, 3987).

One of the most moderate statements was that of Mr. Pratt, the du Pont contact man who succeeded Mr. Haskell in the General Motors organization, on January 23, 1926 (GTX 340, R. 512; 8865, *supra*, p. 39):

> * * * However, I think when General Motors divisions recognize the sacrifice that the du Pont Company made in 1920 and 1921, to keep General Motors Corporation from being put in a very bad light publicly—the du Pont Company going to the extent of borrowing $35,000,000 on its notes when the company was entirely free of debt, in order to prevent a large amount of General Motors stock being thrown on the open market—they should give weight to this which in my mind more than over-balances consideration of local conditions. In other ~~words, I feel~~ that where conditions are equal from the standpoint of quality, service and price, the du Pont Company should have the major share of General Motors divisions' business on those items that the du Pont Company can take on the basis of quality, service and price. If it is possible

> to use the product from more than one company I do not think it advisable to give any one company all of the business, as I think it is desirable to always keep a competitive situation, otherwise any supplier is liable to grow slack in seeing that you have the best service and price possible.

About the best that the defendants have been able to do with the voluminous record of the purposes of the relationship is to label the evidence as "stale" or as "ancient" (Du Pont brief below, pp. 41, 233, 439). This is an attempt to make a weakness out of a real element of strength in this evidence. It is important that these letters are contemporaneous with the advent of control, coming before the letterwriters became cautious as to the wisdom of displaying their underlying motives or perhaps, by a process of autopersuasion, became convinced of the essential purity of their original intentions.

The fact that these statements of intent have not been explicitly repeated in later years, would be important only if there were some evidence that the intent changed (Cf. *United States* v. *Oregon Medical Society,* 343 U. S. 326; *United States* v. *Imperial Chemical Industries,* 100 F. Supp. 504 (S.D. N.Y.)). As we shall show below, the sales figures in recent years show no change in practice which would indicate a change in intent. The absence of written evidence in recent years must therefore be due to some factor other than a change of heart. There are other possible reasons. Perhaps the high command awoke to the effect on its legal position of such frank statements of position (Cf. GTX 202, 1346, R. 485, 2815, 3461, 5352) or perhaps, the relationship having been firmly steered in the right direction, the occasion for pointing the way ceased. Buying habits firmly established no longer had to be imposed from above. Some of appellees' witnesses, who had taken part in the chronicled events appeared on the witness stand and denied any knowledge of intent to restrain trade. But these denials appear little more than interpretations after the fact by principals accused of antitrust violations. The individuals involved, feeling with deep sincerity that they are and have been honorable men, could hardly look back on their actions in any other way.

This Court has previously dealt with a conflict between contemporaneous written documents and the testimony of interested witnesses in *United States v. Gypsum Co.*, 333 U.S. 364, 395-396:

> The government relied very largely on documentary exhibits, and called as witnesses many of the authors of the documents. Both on direct and cross-examination counsel were permitted to phrase their questions in extremely leading form, so that the import of the witnesses' testimony was conflicting. On cross-examination most of the witnesses denied that they had acted in concert in securing patent licenses or that they had agreed to do the things which in fact were done. Where such testimony is in conflict with contemporaneous documents we can give it little weight, particularly when the crucial issues involve mixed questions of law and fact. Despite the opportunity of the trial court to appraise the credibility of the witnesses, we cannot under the circumstances of this case rule otherwise than that Finding 118 is clearly erroneous.

And as Judge Learned Hand stated in *United States v. Corn Products Refining Co.*, 234 Fed. 964 (S.D. N.Y.) appeal dismissed, 249 U.S. 621, at 978:

> The officers of the Corn Products Refining Company apparently had a custom of communicating with each other by typewritten unsigned memoranda. Apparently it was often difficult for them to interview each other personally, and the affairs of the company were discussed between them by means of these memoranda with the utmost frankness. The documents were never intended to meet the eyes of any one but the officers themselves, and were, as it were, cinematographic photographs of their purposes at the time when they were written. They have, therefore, the highest validity as evidence of intention, and, although in many instances Bedford attempted to contradict them, his contradiction only served to affect the general credibility of his testimony.

Or as was stated by the trial court in *United States v. Hartford-Empire Co.*, 46 F. Supp. 541 (N.D. Ohio) affirmed in part, 323 U.S. 386, at 553:

> In many cases the court is required to rely upon inferences derived from circumstantial evidence, so meager is the record before the court; in many cases the court must rely upon inferences from some direct as well as circumstantial evidence and arrive at its conclusions accordingly; in this case, the men who planned and directed the proceedings under scrutiny, from 1916 down to the time of the filing of the complaint herein, left behind them numerous exchanges of letters and many memo-

> randa executed contemporaneously with the happening of the main events and designed for the information of their contemporaries, their boards of directors, or for their successors in office. It is hard to imagine a case in which a court would have more first-hand information *of what the parties did and intended* than in the case at bar. These documents indisputably make a case that sustains the Government's contention that the defendants have violated and are now violating Sections 1 and 2 of the Sherman Act * * *. [Emphasis supplied.]

Here the court does not have a case of scattered admissions by minor employees; these were the carefully considered plans of the "elder statesmen." *United States* v. *General Electric Co.*, 82 F. Supp. 753, 845 (D. N.J.).

Moreover, that trade relations were the underlying motive for the purchase, rather than merely a profitable investment for $50,000,000, alone accords with the facts of the situation. Du Pont was not an investment trust; it did not engage in investing its capital in other peoples' enterprises to reap the rewards of a stockholder. Instead, it was, and is, an intensely aggressive and efficient manufacturing concern producing and selling its wares in the most profitable market obtainable. It would not accord with its general role for it to accept with respect to General Motors the inactive role of absentee proprietor. Rather, as Mr. John J. Raskob said, here was "a task worthy of the best that is in us and will I feel afford many opportunities to keep our important men occupied with big things after the war." (GTX 124, R. 479, 3222).

C. *Apart from specific intent, the inevitable result of du Pont's purchase was that it would receive trade preference over its competitors.*

Human nature being what it is, it is hard to conceive of General Motors' officials being so disinterested in their own business future as to be unaware of, or indifferent to, the desirability of pleasing the big stockholder. They were part of the du Pont family (GTX 704, R. 624, 4505) and the natural thing was to lean toward du Pont whenever a reasonable choice existed. Therefore, even if we assume, contrary to all of the evidence reviewed above, that du Pont did not wish General Motors to play favorites to its own advantage, it was inherent in the relationship that such would be the result.

This Court has recognized that an antitrust defendant must be chargeable with the results which will inevitably flow from a course of conduct consciously adopted by it. In *United States* v. *Griffith,* 334 U.S. 100, it is stated at 108:

> * * * Though he makes no threat to withhold the business of his closed or monopoly towns unless the distributors give him the exclusive film rights in the towns where he has competitors, the effect is likely to be the same where the two are joined. When the buying power of the entire circuit is used to negotiate films for his competitive as well as his closed towns, he is using monopoly power to expand his empire. And even if we assume that a specific intent to accomplish that result is absent, he is chargeable in legal contemplation with that purpose since the end result is the necessary and direct consequence of what he did.

Therefore, though it is urged that a specific intent to restrain trade is clearly established in the record, the Government's case will stand even if the Court should go no further than accepting the admitted facts concerning the relationship which were found by the court below. On the basis of those facts alone it was inevitable that General Motors would favor du Pont over all competitors.[41]

III

Restraint of Trade and a Monopolization of General Motors Business Has Resulted from the du Pont-General Motors Combination.

In arguing that restraint has resulted, we do not ask this Court to retry the case. (See Rule 52, Federal Rules of Civil Procedure.) We do attack the lower court's ultimate findings that the combination has not influenced the trade relations between du Pont and General Motors. Our dispute with the lower court is over its conclusionary findings, not its determination of what events took place. There is little dispute with du Pont and General Motors as to what happened, but only as to what the admitted events signify legally, i.e., in terms of violation of the antitrust laws.

In the task of referring this Court to sufficient of the evidence to make clear our contentions, without sub-merging the Court in thousands of pages of record, we are aided by the fact that it will not be necessary to reexamine every phase of the relationship on which the evidence bears. The preferential treatment shown in the examples which will be presented is in itself determinative, whether or not these examples are, as we believe, illustrative of the record as a whole.

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[41] Congress undoubtedly had in mind the very great probability that such results would flow from large stock holdings when, in the Public Utility Holding Company Act, it defined control in terms of 10% stock ownership, and then required dissolution of holding company systems without proof that the particular systems to be dissolved had engaged in the abuses found by Congress to be inherent in the very existence of holding companies. See Sections 2(a)(7) and 11(b) of the Public Utility Holding Company Act, 15 U.S.C. 79b (a)(7) and 79k (b).

A. *Specific instances demonstrate the imposition of restraints on trade.*

It is the position of the defendants, sustained by the court below, that du Pont's relations with General Motors were merely those of an independent manufacturer competing with others to sell to General Motors on the basis of price and quality, unaffected by the stock investment. Wherever du Pont was successful, according to this view, it was merely a result of superior products, lower price, or more effective salesmanship. Before examining the overall results of du Pont's efforts to capture General Motors' business, it is worthwhile to review the record with respect to several particular products. These examples prove that du Pont did not deal at arms length.

1. *Anti-freeze*

In 1925 ethyl alcohol came into competition with glycerin and ethylene glycol (marketed by Union Carbide Company under the trade name "Prestone") as antifreeze mixtures (GTX 319, R. 507, 3832). Du Pont was interested in the market for alcohol, which it was beginning to manufacture, and became concerned over inroads into the market by the new products (GTX 319, 322, 328, 330, R. 507-510, 3832, 3836, 3845, 3847). General Motors on the basis of tests believed Prestone was the most satisfactory of anti-freeze mixtures (GTX 321, 323, R. 508, 3835, 3837), and some of the instruction books for use of General Motors cars so stated under the heading "Winter Driving" (GTX 332, 334, R. 510, 3851, 3859). Du Pont persisted in a series of letters to General Motors, pointing out its interest in alcohol, the draw-backs of other mixtures and the desirability of recommending the latter (GTX 332-335, R. 510-11, 3851-60). A du Pont vice president suggested (GTX 319, R. 507, 3832):

> The Kentucky Alcohol Corporation inquires whether the General Motors Corporation is giving their official approval to publicity favoring glycerin rather than alcohol. If so, it is suggested that their attention be called to the advantages of alcohol and to the interest which the du Pont Company will have in the future in its manufacture and sale.

Thereafter, both Chevrolet, Buick, and Cadillac, the first named on instructions from Mr. Sloan, eliminated the stated preference for glycerin (GTX 326, 327, 335, R. 509, 511, 3842, 3844, 3860). Mr. Sloan finally worked out a weasel-worded set of instructions which could be expected to lead the reader to use alcohol (GTX 336, 337. R. 511, 3861, 3862). Thus pressure from du Pont had changed General Motors from a straight recommendation for glycerin to either a straight recommendation for alcohol or a twisted paragraph intended to accomplish that result. This in spite of the fact that General Motors itself actually preferred, and for years thereafter continued to merchandise, glycerin (R. 2946). Moneywise this is a small matter, but an illuminating one.

2. *Tetraethyl lead*

Even more significant are the disclosures with respect to the discovery, development, and marketing of a gasoline anti-knock additive known as tetraethyl lead, marketed as "Ethyl". The trial court's findings on this subject (R. 405-426) go into the matter in great detail. We have no basic quarrel with its statement until it arrives at its conclusions (R. 425-6) where we believe it overlooked the significance of much that had gone before.

The basic invention was made by General Motors scientists, primarily Dr. Midgely working under Mr. Kettering (R. 1542-1543). It was immediately recognized that the discovery was of immense economic value (GTX 610, R. 612, 4303). However, the product, tetraethyl lead, was then available only on a laboratory scale and a manufacturing industry had to be built from scratch (GTX 773, R. 632, 4667; GTX 774, R. 632, 4735). Du Pont was not manufacturing tetraethyl lead at this time, nor anything allied to it.

General Motors and du Pont assert that the handing over of this extremely valuable business to du Pont was done on the basis of business judgment and the lower court so finds (R. 426). However, we submit that the record shows that du Pont's inside influence with General Motors secured this business without any regard whatsoever for its abilities in comparison with its competitors.

Even before Dr. Midgley had made the basic discovery, as early as 1919, the assistant to the President of General Motors had written to du Pont with respect to marketing the chemical yet to be discovered to make undesirable fuels into usable products (GTX 599, R.

612, 4296). And again, still before the discovery of the utility of lead as an anti-knock agent, when it was believed that aniline might prove successful, Dr. Midgley. wrote to du Pont assuming that they would manufacture the substance (GTX 601, R. 612, 4298, *supra*, p. 49).

When the final discovery was made, it was immediately reported by Mr. Pierre S. du Pont, President of General Motors, to Mr. Irenee du Pont, President of the du Pont Company with these two statements: "The development looks very promising" and "Kettering would like to take up the question of manufacture with the du Pont Company representatives at an early date." (GTX 610, R. 612, 4303). This was three weeks before patent application was made on April 15, 1922 (GM 246A, R. 1546, 7330). What chance did any other possible manufacturer have against this President du Pont of General Motors working with President du Pont of du Pont?

General Motors itself dropped out of the production picture almost from the beginning, even before a contract with du Pont was completed (GTX 615, R. 613, 4308), it being assumed that du Pont would pick up where General Motors left off. Du Pont set up a plant to manufacture tetraethyl lead and shipped the product to General Motors (GTX 774, R. 632, 4735-6). The first contract for supplying tetraethyl lead was formally executed by Mr. Irenee du Pont, President of du Pont and Mr. Pierre S. du Pont, President of General Motors on October 6, 1922 (GTX 618, R. 613, 4312). It provided for General Motors demands for a year. The record indicates that all negotiations for a contract were with du Pont; not even Standard Oil of New Jersey, which had long been interested in the project, was considered as a supplier.

Shortly after distribution of Ethyl gasoline commenced, Standard Oil of New Jersey discovered and patented a manufacturing process which materially reduced the cost of production (GTX 621, R. 613, 4333). With this as a wedge, it attempted to force its way into the manufacturing field. Mr. Sloan, who had succeeded to the General Motors presidency, wrote to Mr. Irenee du Pont about this, making it very clear that he shared the du Pont point of view that no one should encroach upon that field (GTX 622, R. 614, 4337). Du Pont, of course, was in full agreement (GTX 623, R. 614, 4340) and Standard was rejected as a possible manufacturer (GTX 624, R. 614, 4342).

Working from the strength of its new patented process Standard did get grudging assent to putting into production a small 100 gallon plant for experimental purposes (GTX 661, R. 616, 4365). But at the same time, Mr. Sloan was urging du Pont itself greatly to expand its production through construction of an enlarged plant (GTX 661, R. 616, 4365).

In August of 1924, General Motors and Standard of New Jersey established a jointly-owned corporation, the Ethyl Corporation, to hold the anti-knock patents and to market the product (GTX 668, R. 618, 4383). Although it was stated that Ethyl was to purchase lead on the open market (after honoring General Motors' current contract with du Pont) and could even buy from Standard itself, actually it never bought any material amount from any one but du Pont (GTX 673, R.

618, 4434). And in negotiations Sloan seemed more interested in protecting du Pont than in getting a favorable price on lead (GTX 664, R. 617, 4371).

Later developments in the relationship carry out this pattern. Where there was a temporary shutdown in production following the Bayway disaster, with some resulting claims by du Pont against Ethyl (GTX 773, R. 632, 4697), Mr. Sloan, against the interests of General Motors, the 50% owner of Ethyl, sided with du Pont. (GTX 680, R. 619, 4459). Still it was agreed that du Pont should be the sole supplier of lead "now or in the future" (GTX 710, R. 625, 4530). When production was resumed yearly contracts with du Pont were entered into (GTX 773, pp. 58, 59, R. 632, 4720-1).

The way Mr. Sloan worked in harmony with du Pont is nowhere better illustrated than in a letter to Mr. Lammot du Pont, dated April 18, 1930, dealing with the desirability of perpetuating the patent monopoly and continuing du Pont's exclusive supplier status (GTX 751, R. 629, 4585).[42] It is odd that although it was du Pont as the seller that should have been in-

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[42] This letter read in part:

My dear Lammot:

Mr. Webb came in to see me yesterday to discuss various matters regarding the operating problems facing Ethyl Gasoline Corporation and among other things we discussed the relations with the du Pont Company. There is one phase of those relations that I simply want to mention to you so that you may have it in mind.

While the fundamental patent on which Ethyl Gasoline predicates its business has twelve years yet to run, and while it is not at all unlikely and, in my personal opinion, is probable that through research ways and means will be developed to control the anti-knock qualities of the fuel which will require a reappraisal of tetra-ethyl lead so far as its future contribution to the picture is concerned, nevertheless we should, of terested in a high price, and Ethyl, as a buyer, in a low one, that Mr. Sloan sided again with du Pont in price negotiations (GTX 704, R. 624, 4505).

As the patents were running out, Ethyl worked its way into the manufacturing field, but du Pont has remained in the business and at the time of the suit was one of the two manufacturers of tetraethyl lead for use in gasolene. It is noteworthy that du Pont profits from this field of endeavor were in the neighborhood

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course, do everything that we can to so protect our position so that in the event that tetra-ethyl lead has a real place for an indefinite future, we should place ourselves in a position where we can carry on as near as possible to the way we are carrying on at present so far as an exclusive privilege is concerned.

Altho I am not specifically advised, I take it that through the experience that your organization has already had and will continue to have in the manufacture of tetraethyl lead itself that processes, perhaps patentable and perhaps otherwise, will be developed around which could be built a picture which would serve, in principle, to prolong the exclusive privilege that Ethyl Gasoline now has beyond the life of the fundamental patent.

I mentioned this to Mr. Webb and thought there would be no harm in mentioning it to you so that everything could be done to throw protection around such processes as you are developing. It also seems very essential that the manufacturer be confined to one source of supply. I am sure that the du Pont Company and the Ethyl Gasoline Corporation can work together with such satisfaction and with such confidence in one another that no thought can be given to anything different than a single source of supply. If the present source of supply was not the du Pont Company I should feel that our future, after the expiration of our patent, was rather hazardous because, naturally, Ethyl Gasoline Corporation per se can make no contribution to the picture beyond the establishment of the idea, which it has done I am sure you will agree with me very successfully unless it is protected by the exclusive use of tetra-ethyl lead as applied to anti-knock purposes.

* * * * *

Very truly yours,
Alfred P. Sloan Jr.

APSJr. K

of $86,000,000 (GTX 834, R. 638, 4974). Meanwhile, General Motors and Standard Oil had each received 82 millions in dividends and General Motors an additional 43 millions in royalties. But it is not so much the amount, as the fact that du Pont diverted this income from General Motors to itself by reason of its control relationship, that is important here.

3. *Kenetic Chemicals*

That the ethyl story did not result from chance is confirmed by the history of the development of a refrigerant "Freon 12", discovered by the same Dr. Midgley who discovered ethyl. (GTX 883, pp. 7-8, R. 647, 5068-9). Here the inventor and his associates and the president of Frigidaire (the General Motors corporation which was chiefly interested) wanted to manufacture the new product themselves (GM 233, R. 1484, 7295; GTX 838, R. 638, 4975). In spite of this, Mr. Pratt, for General Motors, worked out with du Pont a plan to turn the invention over to a new corporation to be formed, 51% owned by du Pont and 49% by General Motors (GTX 842, 850, R. 639, 641, 4979, 4992).

Perhaps more significant than the manufacture of "Freon 12" was Art. 7 of this contract which provided in part (GTX 850, R. 641, 4994):

> * * * it being further agreed that future chemical developments, (other than those relating to "said products") originating in the laboratories of General, or its subsidiaries, shall be offered by General to the New Company on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit

> such new chemical developments, then General shall be free to dispose of the same elsewhere.

This provision was foreshadowed in a letter from Mr. Pratt, suggesting that new chemical discoveries by General Motors should be turned over to the du Pont controlled corporation, but that du Pont should keep sole control of its own discoveries (GTX 842, R. 639, 4979).

Later it was explained in a letter from Mr. Pratt to Mr. Lammot du Pont, Chairman of the du Pont board of directors as follows (GTX 899; R. 652, 5130):

> This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity, and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing processes. * * *

In view of this explicit expression of the General Motors understanding of the perquisites of du Pont, there is no room left for the lower court's findings that these manufacturing contracts were awarded on the basis of merit alone.

This kind of limitation, this type of restraint on free competition, is well-recognized as a violation of the Sherman Act.[43]

This Court stated in *Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211, at 244-245:

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[43] As is pointed out above (*supra* p. 59), the parties themselves later came to the conclusion that the clause was unenforceable (GTX 886, R. 648, 5104) and cancelled it (DP 133, R. 1814, 5945).

> We have no doubt that where the direct and immediate effect of a contract or combination among particular dealers in a commodity is to destroy competition between them and others, so that the parties to the contract or combination may obtain increased prices for themselves, such contract or combination amounts to a restraint of trade in the commodity, even though contracts to buy such commodity at the enhanced price are continually being made. Total suppression of the trade in the commodity is not necessary in order to render the combination one in restraint of trade. It is the effect of the combination in limiting and restricting the right of each of the members to transact business in the ordinary way, as well as its effect upon the volume or extent of the dealing in the commodity, that is regarded. All the facts and circumstances are, however, to be considered in order to determine the fundamental question—whether the necessary effect of the combination is to restrain interstate commerce.

Cf. *Hartford-Empire Co.* v. *United States*, 323 U.S. 386, 406-7; *Timken Roller Bearing Company* v. *United States*, 341 U.S. 593; *United States* v. *National Lead Co.*, 63 F. Supp. 513 (S.D. N.Y.), affirmed, 332 U. S. 319.

B. *Du Pont has been successful in obtaining the giant share of the General Motors' market in products produced by it.*

As early as 1921, du Pont's efforts to capitalize on its investment were proving productive (GTX 420, R. 528, 4010). Mr. Lammot du Pont's report to Mr. Pierre S. du Pont, showed that General Motors was buying from du Pont 100% of its requirements of pyralin (except for those of Fisher Body) a good percentage of fabrikoid and rubber cloth, and a somewhat less favorable proportion of its paints and finishes.

A second general survey made in 1926, and reported again by Mr. Lammot du Pont to Mr. Pierre S. du Pont (and Mr. Raskob) shows the dollar amounts of competitors' products being currently purchased (GTX 460, R. 537, 4100). The weak spot in the picture as before, although after several years of complete control, was Fisher Body Corporation, which as explained elsewhere, maintained a modicum of independence. Minor amounts of rubber-covered cloth were purchased by some of the car divisions from competitors but the situation as to fabrikoid and paints was entirely satisfactory. Du Pont's own exhibits for 1926 show sales to Chevrolet, Buick, Cadillac, Oldsmobile and Oakland of $11,623,000 (Du. 250, 259, 260, 263, 265, R. 2204, 2216, 2221, 2224, 2229, 6161, 6170, 6171, 6175, 6177), that is 89% of the total General Motors' purchases in these fields.

Skipping to a period closer to the time of the complaint, the court below found that du Pont sold General Motors 40-50% of its upholstery and trim requirements in 1946 and 1947, amounting in the latter year to $3,573,000 (R. 404; GTX 1392, R. 2933, 5427).

Sales in the paint and finish field present a similar pattern. In the twenties there was a period when, except for Fisher Body Corporation, du Pont had a contract to provide all of General Motors' requirements for pyroxylin (GM 166, 167, 179, 184, R. 1128, 1139, 1141, 7156, 7159, 7181, 7190). Even without such a contract, Chevrolet bought 100% from du Pont (GTX 502, R. 598, 4171) as did Pontiac (R. 1925) and Buick (R. 1926).

This advantage of du Pont's continued up to the date of the complaint. In 1946, when General Motors bought from all sources $14,864,000 of paint, du Pont supplied $10,430,000, or 70%. (GTX 1400, R. 2930, 5431). In 1947 General Motors purchased $26,470,000 in all; du Pont supplied $18,938,000, or 71.55% (GTX 1400, R. 2930, 5431).[44]

Du Pont protests that it is the excellence of its products and service which sells its goods, not its influence with the General Motors' management. The court below accepted this explanation. But we are not reduced to the profitless field of using bare accusation against bare denial. Year after year an overwhelming proportion of du Pont's automotive products have been sold to General Motors. For example, in 1940 and 1941, 87% and 89% respectively of du Pont's pyroxylin-coated fabrics (artificial leather) went to General Motors (GTX 1380, 1381, 1344, R. 2825, 2846, 5413, 5414, 5340). In 1947 to 1948 more than 80% of its automobile fabrics were sold to General Motors (GTX 1384, R. 2825, 5418; R. 2171-2). The same was true with Duco, the proportion sold to General Motors running as high as 93% in 1941 (GTX 1387, note A, R. 2919, 5422). In 1947 it was 83% (GTX 1387, R. 2919, 5422). During all this period General Motors was itself manufacturing 35% to 45% of the automobiles produced in the United States.[45] Du Pont has not been able to build up a comparable demand for its products among the producers accounting for more than half the industry, the half which is not under obligation by reason of stock ownership. Yet those automobile manufacturers are certainly interested in buying the best products at the lowest price with a maximum of service. The very fact that over a long span of years the great bulk of du Pont automotive sales have gone to the one company connected to it by a stock interest is a clear indication that the stock relationship, as well as merit, promoted sales.

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[44] The effect of this situation on competitors is illustrated by the reaction of the Flint Varnish and Color Works when du Pont made its first investment in General Motors. Its president, Mr. Mountain, immediately concluded that his company was about to lose one of its best customers (GTX 277, R. 499, 3696). He sold out to du Pont (GTX 280, R. 499, 3721).

[45] Moody's *Industrials* gives the figures from year to year. The lowest was 1945 when General Motors sold 35%; the highest 1950, when General Motors sold 45.6%.

The record contains a further refutation of appellee's defense. This concerns du Pont's attempts to sell its products to Fisher Body Corporation in competition with other paint and fabric manufacturers at a time when the management of Fisher Body retained a measure of independence. Although General Motors acquired 60% of Fisher Body stock in 1919 for $27,600,000, a voting trust had been established and actual management was retained by the Fisher Brothers (GTX 428, 429, R. 530, 4029, 4032). Therefore, in the 1920's, when du Pont bought out its partner, Mr. Durant, and was in unquestioned control of General Motors, Fisher Body was insulated from du Pont's control by the voting trust and du Pont was forced to sell to it on merit, in competition with other manufacturers.

As early as 1921 it became apparent to the du Pont management that though they were selling to General Motors, they were not getting their share of Fisher Body business (GTX 420, R. 529, 4010). There can be no doubt they wanted that business; Mr. Pierre S. du Pont wrote, "A drive should be made for the Fisher Body business. Is there any reason why they have not dealt with us?" (GTX 421, R. 529, 4012). This was important since Fisher manufactured all the closed car bodies for General Motors and the industry was shifting from open to closed cars (GTX 506, R. 598, 4175).

We have reviewed above the course of this drive (*supra*, pp. 119-121). On the very highest level the persuasive powers of du Pont were brought to bear and the Fishers were enticed as closely as possible into the family. Still in 1925, when General Motors was using Duco, Fisher was using a pyroxylin finish manufactured by Forbes Varnish Company (GTX 453, R. 536, 4082). And with fabrics sales were also unsatisfactory (GTX 454, p. 7, R. 537, 4090).

The record for 1926 (GTX 460, R. 537, 4101) shows that Fisher Body alone still resisted.

Then du Pont worked out the scheme whereby discounts to General Motors on its large purchases depended on swinging the Fisher Body business to du Pont (GTX 492, p. 4, R. 541, 4148). And so, eventually, the voting trust being dissolved and the Fisher Brothers being bought out (GTX 505, 506, 507, R. 598, 4173-8), by 1947 and 1948, Fisher Body was just another department of General Motors buying 65.5% of its fabrics from du Pont in 1947 and 68% in 1948 (GTX 1350-1351, R. 2890, 5356-9).

The lesson of the Fisher Body story is that du Pont sold to them, at least, not on the basis of merit, but on the basis of control. The picture is particularly clear because of the comparison with contemporaneous sales to other divisions of General Motors.

Summing up this portion of the brief, the record appears to demonstrate that after du Pont acquired its General Motors interest with the intent of buying a market it proceeded to capitalize on its position by going after that market; and that it has been immoderately successful in its endeavor, selling year after year vast quantities of goods because its relationship with General Motors acted to attract trade regardless of other economic considerations.

IV

Du Pont's Acquisition of General Motors Stock Constitutes a Violation of Section 7 of the Clayton Act.

Section 7 of the Clayton Act (15 U.S.C. [1946 ed.] 18) *supra*, p. 3, specifically forbids stock acquisitions which may result in a restraint on commerce or may tend to create a monopoly. "No corporation engaged in commerce shall acquire * * * any part of the stock * * * of another corporation engaged also in commerce where the effect of such acquisition may be * * * to restrain such commerce in any section or community or tend to create a monopoly of any line of commerce."[46]

When Congress enacted this law in 1914, it was very clear from the reports in both houses that it was intended to expand the limitations of the Sherman Act, not constrict them. H. Rep. No. 627, 63d Cong., 2d Sess. (1914) p. 17; S. Rep. No. 698, 63d Cong., 2d Sess. (1914), p. 1. Section 7, which originally appeared as Section 8 of the bill, was intended to pinpoint the application of the antitrust laws to relationships arising from stock ownership. Specifically it made illegal acquisitions the effect of which might be (a) to lessen competition between competitors, (b) to restrain commerce, or (c) to create a monopoly. In all three situations, the Act uses language prohibiting the acquisition where "the effect of such acquisition may be" to accomplish the undesirable result. This language, it has been stated, was used advisedly to impose a less stringent burden of proof than was required by the Sherman Act, to include cases where there was a probability of restraint rather than an accomplished restraint. See *Standard Fashion Company* v. *Magrane-Houston Company*, 258 U.S. 346, 356-357; *International Shoe Company* v. *Federal Trade Commission*, 280 U.S. 291, 298; *Standard Oil Co. of California* v. *United States*, 337 U.S. 293, 311-12.[47]

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[46] All parties are agreed that this action is governed by the Clayton Act as it was before the 1950 amendments, which by their terms are inapplicable to acquisitions prior to 1950. 64 Stat. 1125 (15 U.S.C. 18).

Although, as the preceding portions of this brief are designed to demonstrate, the combination here involved falls within the prohibitions of Sections 1 and 2 of the Sherman Act, it is also clearly comprehended by Section 7 of the Clayton Act. Here we have no question at all of control; the law is explicit that the ownership of any part of the stock of a corporation which may restrain commerce or may tend to create a monopoly is prohibited. Therefore even if du Pont's 23% of General Motors' voting stock could be outvoted, the influence it carries with it, until it is outvoted, is sufficient since it has been used to channel General Motors' purchases to du Pont. It is not necessary to retell the instances which illustrate this restraint. As we have seen, the end result has been that General Motors purchases a very large proportion of its needs of products manufactured by du Pont and almost all of du Pont's total production of such materials. (*supra*, pp. 138-143).

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[47] See also 51 Cong. Rec. 16002, where Senator Clinton, explaining the agreement in conference, stated that the clause "where the effect may be" means "where it is possible for the effect to be."

In another way, proof under the Clayton Act is simpler. The court below found that there was no intent on the part of du Pont to impose restraints on General Motors (R. 302). This, it considered, was important under the Sherman Act. Under the Clayton Act, however, the only pertinence of intent is in connection with the exception provided for purchases for investment only (15 U.S.C. [1946 ed.] 18, ¶ 3):

> This section shall not apply to corporations purchasing such stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition.[48]

To be sure, in the sense that du Pont wanted a return on its $50,000,000 it was an investor, but it is hardly consistent with the purposes of the Act to include within the exception a purchase wherein it was openly contemplated that the purchaser would at least share in the management generally and be primarily responsible for the corporation's financial affairs (GTX 124, R. 479, 3221-2). Even the decision of the Court of Appeals for the Third Circuit which gave a broad interpretation to the exception in *Pennsylvania Railroad Co.* v. *Interstate Commerce Commission*, 66 F. 2d 37, affirmed, 291 U.S. 651, did not contemplate such a purchase as this where part of the return came to the purchaser not *qua* stockholder but *qua* supplier of paints and fabrics. If the "investment" exception were broad enough to encompass the present case, it would swallow the entire Act.

---

[48] It was explained by the Senate Manager after the conference compromised the House and Senate versions of the bill, that this exception was included in order not to interfere with the investment programs of savings banks, insurance companies and universities. 51 Cong. Rec. 14466.

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In the court below, appellees argued that Section 7 of the Clayton Act was inapplicable because it prohibited stock acquisitions only where there was competition between the purchaser and the corporation whose stock was purchased (DP brief, pp. 453-4).[49] Certainly this is not supported by the wording of the Act which uses the language of competition only with respect to the first of the three prohibitions in the section. In the second two clauses, which are here specifically involved, no such limitation occurs. That this omission was not inadvertent is supported by the legislative history of the Act. The direct impetus for the framing of the Act was an address delivered by President Wilson to a joint session of Congress on January 20, 1914 at which time he stated (House Doc. No. 625, 63d Cong., 2d Sess.):

> Address of the President of the United States
> Before the Joint Session of Congress,
> Tuesday, January 20, 1914
>
> (House Doc. No. 625, 63d Cong., 2d Sess.)
>
> * * * * *
>
> We are all agreed that "private monopoly is indefensible and intolerable," and our programme

---

[49] The purchase of General Motors stock undoubtedly had the incidental result, and may have been for the purpose, of stifling competition before it could arise. Other automobile manufacturers have engaged in the production of their supplies in varying degrees, the Ford Motor Company going deeply into that field (R. 1963, 1992-3, 2113, 2172; GTX 1376, 1384, 1386, R. 2823, 2825, 2826, 5407, 5418, 5420). There is concrete evidence that du Pont's ownership of General Motors stock deterred the management from expanding into the chemical field (GTX 899, R. 652, 5130). In

> is founded upon that conviction. It will be a comprehensive but [illegible] a radical or unacceptable programme and these are its items, the changes which opinion deliberately sanctions and for which business waits:
>
> It waits with acquiescence, in the first place, for laws which will effectually prohibit and prevent such interlockings of the *personnel* of the directorates of great corporations—banks and railroads, industrial, commercial, and public service bodies—as in effect result in making those who borrow and those who lend practically one and the same, *those who sell and those who buy but the same persons trading with one another under different names and in different combinations*, and those who affect to compete in fact partners and masters of some whole field of business. Sufficient time should be allowed, of course, in which to effect these changes of organization without inconvenience or confusion. [Italics added.]

Obviously President Wilson felt that the intercorporate relationships which required correction existed between buyers and sellers as well as between competitors. And one of the very earlier cases arising under Section 7 itself dealt with a situation where the corporation whose stock was purchased was not a competitor of the purchasing corporation. *Aluminum Company of*

---

particular products, such as tetraethyl lead (*supra*, p. 131) and Freon (*supra*, p. 136); it was excluded from manufacture even though its scientists were responsible for the basic inventions. And there were long negotiations looking to a general agreement limiting General Motors' activity in the chemical field, abandoned only when it proved unnecessary to formalize the practice (GTX 579-580, R. 609, 4261, 4265).

America v. *Federal Trade Commission*, 284 Fed. 401 (C.A. 3), certiorari denied, 261 U.S. 616.[50]

Nor does the appellee's argument that the Clayton Act was intended to apply only at the commencement of a relationship, when stock is first acquired, prevent its application here. There is no question but that Congress did intend to give the government authority to eliminate the prohibited stock relationships before they worked their evil. *Swift and Co.* v. *Federal Trade Commission*, 8 F. 2d 595, 597 (C.A. 7), reversed, 272 U.S. 554; *Pennsylvania Railroad Co.* v. *Interstate Commerce Commission*, 66 F. 2d 37, 39 (C.A. 3), affirmed, 291 U.S. 651; S. Rep. No. 698, 63d Cong., 2d Sess. (1914), p. 1. But it does not follow that, having failed to move against the relationship early, the Government is barred from moving later on. In fact, in situations where the violation is not apparent at the time of purchase, the Government must have been given authority to proceed when the picture became clear. Moreover, it is well established that the Government cannot be barred by failure of its agents to act. *United States* v. *California*, 332 U.S. 19, 40.

The importance of the Clayton Act argument to this case is not only cumulative, i.e. that du Pont has violated not one act but two, but, more important, that the Clayton Act here supports the Sherman Act to catch violations which might otherwise slip through. The court below, having found no restraint of trade and no monopolization under the Sherman Act, decided almost *a fortiori* there was none under the Clayton Act. This was error. It is clear that the essential purpose of the 1914 Act was to meet specific situations not explicitly forbidden in the earlier legislation and to impose a less stringent burden of proof. Since the Government asserts the court below was in error in finding no violation of the Sherman Act, it follows that we urge that it compounded the error in refusing to find violation of the Clayton Act.

---

[50] It is clear that Section 7, as amended in 1950 (64 Stat. 1125), the amendments not being applicable to this case, now applies to vertical integration as well as horizontal. The House Report makes specific reference to this effect of the amendment, stating that "it has been thought by some that this legislation applies only to the so-called horizontal mergers" (H. Rep. 1191, 81st Cong., 1st Sess. (1949) p. 11).

The application of the Clayton Act is also significant in pointing the way for relief. Divestment of the du Pont stock holdings in General Motors is essential to cure the Clayton Act violation. Since the very essence of the violation is the stock interest, the remedy must include the elimination of that relationship.[51]

CONCLUSION

For the foregoing reasons, the judgment of the district court should be reversed and the cause remanded for entry of a decree granting appropriate relief.

Respectfully submitted,

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VICTOR R. HANSEN,
Assistant Attorney General.
JOHN F. DAVIS,
Assistant to the Solicitor General.
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Attorneys.

AUGUST 1956.

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[51] Since Christiana Securities Company and Delaware Realty & Investment Company, which are controlled by the du Pont family, hold approximately 30% of the stock of E. I. du Pont de Nemours and Company (GTX 1303, R. 2675, 5221) adequate relief will require more than merely a distribution of General Motors stock to du Pont stockholders.

APPENDIX A

SUMMARY OF DIRECTORSHIPS AND OFFICES IN GENERAL MOTORS CORPORATION AND E. I. DU PONT DE NEMOURS & CO. HELD BY INDIVIDUALS MENTIONED ABOVE

BARKSDALE, H. M.

Du Pont —Director, 1916–1918
Finance Committee, 1916–1918
Vice-President, 1915–1918

General Motors —Director, June to November 1918
Finance Committee, June to November 1918

BELIN, LAMMOT

General Motors —Director, 1915–1916
Member of Executive Committee, 1915

BROWN, DONALDSON

Du Pont —Director, 1918 to date
Finance Committee, 1920 to date
Executive Committee, 1918–1921

General Motors —Director, 1920 to date
Financial Policy Committee, 1937 to date
(Vice-Chairman, 1937–1946)
Administration Committee, 1942–1945
Policy Committee, 1937–1946
Executive Committee, 1924–1937
Finance Committee, 1921–1937 (Chairman, 1929–1937)

CARPENTER, R. R. M.

Du Pont —Director, 1915 to 1948
Finance Committee, 1919–1921
Executive Committee, 1915–1919 and 1925–1931
Vice-President, 1917–1945

CARPENTER, WALTER S., Jr.

Du Pont —Director, 1919 to date
Chairman, January 1948 to date
President, 1940 to January 1948
Finance Committee, 1921 to date
Executive Committee, 1919 to January 1948

General Motors —Director, 1927 to date
Financial Policy Committee, 1946 to date
Policy Committee, 1937–1946
Finance Committee, 1927–1937

COPELAND, LAMMOT DU PONT

Du Pont —Director, 1942 to date
Finance Committee, 1943 to date
General Motors —Director, 1944 to date

COYNE, WILLIAM

Du Pont —Director, 1917-1932
(Member of Executive Committee in Charge of Sales)

CURTICE, HARLOW H.

General Motors —President, 1953 to date
Executive Vice-President, 1948-1953
Vice-President, 1940-1948
Director, 1940 to date

DU PONT, HENRY BELIN

Du Pont —Director, 1934 to date
General Motors —Director, 1938 to date

DU PONT, H. F.

Du Pont —Director, 1915 to date
Finance Committee, 1916-1943
General Motors —Director, 1918-1944
Finance Committee, 1918-1937

DU PONT, IRENEE

Du Pont —Director, 1915 to date
President, 1919-1926
Finance Committee, 1915-1916
Executive Committee, 1915-1919 and 1921-1926

General Motors —Director, 1918-1938
Finance Committee, 1918-1937

DU PONT, LAMMOT

Du Pont —Director, 1915-1952
Chairman, 1940 to January 1948
President, 1926-1940
Finance Committee, 1918-1945
Executive Committee, 1915-1940

General Motors —Director, 1918-1946
Chairman, 1929-1937
Policy Committee, 1937-1946
Executive Committee, 1930-1934
Finance Committee, 1918-1937

DU PONT, PIERRE S.

Du Pont —Director, 1915 to 1952
Chairman, 1919–1940
President, 1915–1919
Finance Committee, 1915 to 1952

General Motors —Director, 1917-1944
Chairman, 1917-1929
President, 1921-1923
Executive Committee, 1921–1929
Finance Committee, 1917–1937

DURANT, WILLIAM C.

General Motors —Director, 1908–1921
President, 1908–1910 and 1917–1921
Executive Committee (Chairman), 1918–1921
Finance Committee, 1917–1921

ECHOLS, ANGUS B.

Du Pont —Director, 1927 to date
Finance Committee, 1929 to date

General Motors —Director, 1944 to date
Financial Policy Committee, 1947 to date

FISHER, FRED J.

General Motors —Vice-President, 1925–1934
Director, 1921–1934

FISHER, LAWRENCE P.

General Motors —Director, 1924 to date
Vice-President, 1925–1944

FISHER, WILLIAM A.

General Motors —Vice-President, 1927–1942
Director, 1927–1942

GREENEWALT, CRAWFORD H.

Du Pont —President, 1947 to date
Vice-President, 1945–1947
Director, 1942 to date

HASKELL, J. A.

Du Pont —Director, 1915–1923
Vice-President, 1915–1923

General Motors —Director, 1917–1923
Vice-President, 1918–1923
Executive Committee, 1918–1923
Finance Committee, 1918–1923

KETTERING, CHARLES F.

General Motors —Vice-President, 1921–1947
Director, 1920 to date

KNUDSEN, WILLIAM S.

General Motors —President, 1937–1940
Vice-President, 1924–1933
Executive Vice-President, 1933–1937
Director, 1924–1940 and 1945–1948

PRATT, JOHN L.

Du Pont —Employee, 1905–1908, 1909–1918, 1918–1919

General Motors —Director, 1923 to date
Vice-President, 1922–1937
Financial Policy Committee, 1946 to date
Executive Committee, 1924–1937

RASKOB, J. J.

Du Pont —Director, 1915–1946
Finance Committee, 1915–1944
Executive Committee, 1915–1918

General Motors —Director, 1917–1946
Vice-President, 1918–1929
Executive Committee, 1921–1928
Finance Committee, 1917 to August 1928, and
May 1929 to 1937

SLOAN, ALFRED P., Jr.

Du Pont —Director, 1923 to date

General Motors —Director, 1918 to date
Chairman, 1937 to 1956
Vice-President, 1918–1923
President, 1923–1937
Financial Policy Committee, 1946 to date
Administration Committee, 1937–1945
Policy Committee, 1937–1946
Executive Committee, 1918–1937
Finance Committee, 1922–1937

WILSON, CHARLES E.

General Motors —President, 1941–1953
Acting President, 1940–1941
Executive Vice-President, 1939–1940
Vice-President, 1929–1939
Director, 1934–1953

(APPENDIX B)

Exhibit GM 10 (R. 6572-5)

GENERAL MOTORS CORPORATION
BOARD OF DIRECTORS

May 10, 1923

*_Management_	*_du Pont_	*_Others_
Day	P. S. du Pont	Bishop
Mott	Haskell	Kaufman
McLaughlin	Raskob	McGowan
Sloan	H. F. du Pont	McMaster
Bassett	I. du Pont	Baker
Smith	L. du Pont	Prosser
Brown		Stettinius
Kettering		Woodin
Swayne		Woolley
Hannum		Young
Hardy		
Rice		
Pratt		
Page		
Mooney		
F. J. Fisher		

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

GENERAL MOTORS CORPORATION

BOARD OF DIRECTORS

December 31, 1942

Management

- Mott
- McLaughlin
- Sloan
- Smith
- Brown
- Kettering
- Pratt
- *L. P. Fisher
- *Bradley
- *Grant
- *Hunt
- *Schumann
- *Wilson
- Coyle
- *Curtice
- *Donner
- *E. F. Fisher

du Pont

- P. S. du Pont
- Raskob
- H. F. du Pont
- L. du Pont
- *Carpenter
- *H. B. du Pont

Others

- Bishop
- McGowan
- *Whitney

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

GENERAL MOTORS CORPORATION

BOARD OF DIRECTORS

June 6, 1949

Management	*du Pont*	*Others*
Mott	*Brown	Whitney
McLaughlin	Carpenter	*Douglas
Sloan	H. B. du Pont	*Mellon
Kettering	*Echols	
Pratt	*Copeland	
L. P. Fisher		
Bradley		
Grant		
Hunt		
Schumann		
Wilson		
Coyle		
Curtice		
Donner		
E. F. Fisher		
*Archer		
*Johnson		
*Evans		
*Goad		
*Kunkle		
*Burke		
*Godfrey		

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

GENERAL MOTORS CORPORATION

BOARD OF DIRECTORS

February 1, 1953

Management	*du Pont*	*Others*
Mott	Brown	Whitney
McLaughlin	Carpenter	Douglas
Sloan	H. B. du Pont	Mellon
Kettering	Echols	*Alexander
Pratt	Copeland	*Clay
L. P. Fisher		*Compton
Bradley		
Grant		
Hunt		
Schumann		
Curtice		
Donner		
E. F. Fisher		
Johnson		
Evans		
Goad		
Kunkle		
Godfrey		
*Gordon		
*Kindl		
*Klingler		
*Osborn		
*Skinner		

"Management" includes retired executive personnel.

"Du Pont" indicates directors nominated by E. I. du Pont de Nemours and Company.

Exhibit GM 21 (R. 6608)

GENERAL MOTORS CORPORATION
EXECUTIVE COMMITTEE

May 10, 1923

Haskell
Sloan
P. S. du Pont
Raskob
F. J. Fisher
Mott

1924

Haskell deceased September 9, 1923.

Bassett, Brown, C. T. Fisher, L. P. Fisher and Pratt added September 25, 1924.

1926

Bassett deceased October 17, 1926.

1928

Raskob resigned August 9, 1928.

1929

P. S. du Pont resigned February 7, 1929.

Knudsen and Smith added May 9, 1929.

1930

L. du Pont added February 6, 1930.

1934

F. J. Fisher and L. du Pont resigned February 5, 1934.

Bradley added August 6, 1934.

C. T. Fisher resigned November 5, 1934.

1935

Grant, Hunt, Mooney and Wilson added August 5, 1935.

May 3, 1937

Sloan
Brown
L. P. Fisher
Pratt
Knudsen
Smith
Bradley
Grant
Hunt
Mooney
Wilson

Exhibit GM 22 (R. 6609)

GENERAL MOTORS CORPORATION
FINANCE COMMITTEE

May 10, 1923

P. S. du Pont
Raskob
H. F. du Pont
I. du Pont
Haskell

L. du Pont
Baker
Prosser
Stettinius
Brown

Sloan

1924

Haskell deceased September 9, 1923.

F. J. Fisher and Whitney added September 25, 1924.

1925

Stettinius deceased September 3, 1925.

Morgan added September 30, 1925.

1927

Carpenter added February 10, 1927.

1928

Raskob resigned August 9, 1928.

1929

Raskob and Mott added May 9, 1929.

1933

Bradley added November 6, 1933.

1934

F. J. Fisher resigned November 5, 1934.

May 3, 1937

P. S. du Pont
Raskob
H. F. du Pont
I. du Pont
L. du Pont
Baker
Prosser

Brown
Sloan
Whitney
Morgan
Carpenter
Mott
Bradley

Exhibit GM 23 (R. 6610)

GENERAL MOTORS CORPORATION
POLICY COMMITTEE

May 3, 1937

- Bradley
- Brown
- Carpenter
- L. du Pont
- Knudsen
- Sloan
- Smith
- Whitney
- Wilson

1940

Hunt added August 5, 1940.

Knudsen resigned September 3, 1940.

June 3, 1946

- Bradley
- Brown
- Carpenter
- L. du Pont
- Sloan
- Smith
- Whitney
- Wilson
- Hunt

Exhibit GM 24 (R. 6611)

GENERAL MOTORS CORPORATION OPERATIONS POLICY COMMITTEE

June 3, 1946

- Archer
- Bradley
- Coyle
- Curtice
- Donner
- Evans
- Goad
- Hunt
- Wilson

1948

Kunkle added June 7, 1948

Burke and Godfrey added August 2, 1948.

1949

Kunkle resigned March 1, 1949.

Archer off August 10, 1949.

Hunt resigned September 30, 1949.

1950

Burke resigned December 9, 1950.

Coyle resigned December 31, 1950.

1951

Gordon, Kindl, Klingler, Osborn added January 1, 1951.

Skinner added January 8, 1951.

January 1953

Wilson resigned.

February 1, 1953

- Bradley
- Curtice
- Donner
- Evans
- Goad
- Godfrey
- Gordon
- Kindl
- Klingler
- Osborn
- Skinner

Exhibit GM 25 (R. 6612)

GENERAL MOTORS CORPORATION
FINANCIAL POLICY COMMITTEE

June 3, 1946

Bradley
Brown
Carpenter
Donner
Pratt
Sloan
Smith
Whitney
Wilson

1947

Smith deceased September 28, 1947.
Echols added December 1, 1947.

1949

Carpenter resigned June 6, 1949.
Copeland added June 6, 1949.

1950

Alexander added December 4, 1950.

1951

Curtice added January 8, 1951.

1952

Pratt resigned January 7, 1952.
Clay added January 7, 1952.

January 19, 1953
Wilson resigned.

February 1, 1953

Bradley
Brown
Donner

Sloan
Whitney
Echols
Copeland
Alexander
Curtice
Clay

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In the Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, APPELLANT
v.
E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

REPLY BRIEF FOR THE UNITED STATES

INTRODUCTION

A major premise, implied rather than expressed (DP Br. 160, 161, 163; GM Br. 32), in the briefs of both appellees is that proof of an illegal restraint depends upon a showing of an adverse effect on General Motors; that is, that du Pont has been working against the best interests of General Motors in order to gain an advantage for itself. Appellees overlook the fact that the antitrust laws are primarily designed to protect the public by outlawing restraints on competition. In this case the inquiry must be, not whether General Motors has been hurt because of du Pont's relationship to it, but whether the relationship is one that diverts trade from the channels where under free competitive conditions it would ordinarily flow, to the injury of the general public. Hence the protestations that everything that du Pont did was for the benefit of General Motors miss the point. Even assuming it were true, it would not follow that free competition was not restricted to the detriment of du Pont's competitors and ultimately of the public.

Appellees have staked their all on the factual issues, discussing only briefly the application of the antitrust laws to the facts asserted by the government to exist (G. M. Br. 223-239; DP Br. 272-285). Accordingly, this reply will in turn deal mostly with the facts.

The general tenor of both of the briefs is that factually there is nothing to distinguish the du Pont-General Motors relationship from that between du Pont and any other automobile manufacturer, or between General Motors and any other supplier. This patently goes too far. Obviously neither du Pont nor General Motors has with any other company the same stock relationship, the same interlocking directorate, the same volume of trade over a long span of years, the dependence of one upon the other for the same proportion of its trade, the same variety of commercial transactions. There is obviously something special in the du Pont-General Motors relationship, and the question is whether this something special is of the kind and degree to constitute a combination in violation of the Sherman and Clayton Acts.

Appellees' method of dealing with the factual issues seems designed to impress the Court with their assertion that the government is attempting to retry here a case it lost below. They have squeezed every page of the record to find issues of fact and have spread over 450 pages of briefs every possible difference, big or little, in interpretation of the various documents and testimony which are the evidence in this case. Even issues which were specifically resolved by the court below and not contested by the government here, are rehearsed in order to expand the apparent area of disagreement (GM. Br. 45–47; DP Br. 103–109). Then, by an application of Rule 52 (a), appellees seek to escape any critical examination by this Court of whether the conclusions of the court square not only with the appellees' interpretation of the thousands of details, but also with the basic facts on which there is no dispute.

Our first task, in Point I, will be to bring the case back into focus by pointing out specifically what the factual issues are and what findings of the court below are under attack. In Point II, we shall, within limits, deal with appellees' interpretations of some of the events which have a bearing on those issues, and in Point III we shall deal with the legal issues. Point IV deals with the question of relief against Christiana Securities and Delaware Realty.

Point I

THE TRIAL COURT'S CONCLUSIONS ON "CONTROL", "INTENT TO INFLUENCE TRADE", AND THE "EXISTENCE OF RESTRAINTS" ARE NOT SUPPORTED BY ITS DETAILED FINDINGS OF FACT NOR BY THE RECORD

The first step in examining the court's findings is to determine what is in dispute. The government's case in its present posture is that du Pont formed a combination with General Motors to restrain and monopolize interstate trade in violation of the Sherman and Clayton Acts.[1] In order to make out its case the government had first to prove that there was a combination, which it attempted to do by showing the relationship between du Pont and General Motors whereby the former has the power to influence the latter to give it a preference in their trade relationships. Then it had to prove that this combination was formed with the intent to restrain or monopolize trade. As we point out in our main brief (Br. 113-114), the proof of the power to restrain plus the intent is sufficient to establish the case, without proof of actual restraint. Nevertheless, the presence or absence of actual restraint is indirectly relevant to the other two issues. If, for example, it were established that du Pont and General Motors had never had any commercial dealings, it would be only logical to reexamine the evidence that there was both power to restrain and an intent to do so. Similarly, evidence of the extent and nature of the commercial dealings between the two, particularly where preference was obtained, serves to corroborate the evidence that the intercorporate relationships were a source of influence and that du Pont established the relationship with the intent of using that influence. Therefore, the government introduced evidence to establish that du Pont had enjoyed an actual preference over its competitors in its trade relations with General Motors.

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[1] Appellees argue that the government's limitation of its case here to "combination" without arguing "conspiracy" is a new position not presented to the court below (GM Br. 152–156). Somewhat inconsistently they also argue that "combination" is the same thing as a tacit conspiracy and is covered by the findings of the court (GM Br. 36; DP Br. 33). Not only was the "combination" argument presented in the complaint (R. 219–220), but it was pressed on trial and argument since it is inseparable from the entire issue of control. In the court below we also argued that there was conspiracy; in fact we had to rely on conspiracy for the other aspects of the case dealing with the alleged agreement among the individual du Ponts to restrain trade through manipulation of the three manufacturing companies (United States Rubber was the third). But the combination element was always there and always pressed. Since the government has dropped the other parts of the case, the "combination" issue is the only one that need be supported here. As for appellees' second position, that "combination" and "conspiracy" are the same thing under a different name, it is true that certain evidence is pertinent to both issues, but proof of control is not necessary to prove conspiracy and proof of agreement, tacit or otherwise, is not necessary to prove a combination. Contrary to the suggestion made by General Motors (Br. 156) the railroad and coal cases are instances of non-conspiratorial combination. *United States* v. *Union Pacific R. Co.*, 226 U. S. 61; *United States* v. *Reading Co.*, 253 U. S. 26; *United States* v. *Lehigh Valley Railroad Co.*, 254 U. S. 255; *United States* v. *Southern Pacific Co.*, 259 U. S. 214.

The court below concluded that the government had not established any one of these three points. However, in analyzing the facts to reach this result, the court recognized that certain facts were admitted, and found other facts which are not now in dispute and which materially narrow the field of disagreement. This Court's review can proceed, therefore, on the basis of the following unchallenged facts:

(a) *Control.*—After the initial purchase of General Motors stock, du Pont and Mr. Durant together controlled General Motors. During the early twenties, when du Pont bought out Mr. Durant, and Mr. Pierre du Pont became president, "nominees of du Pont were thrust into positions of responsibility in General Motors which went beyond the financial supervision which had been their earlier role" (R. 307). Continually since the initial investment du Pont has been represented on General Motors' Board of Directors and major committees to the extent indicated in the General Motors exhibits reprinted as Appendix B of our main brief, pp. 154–163.[2] Mr. Alfred P. Sloan, Jr., who was chief executive of General Motors from 1923 until 1946, was recommended for the position by Mr. Pierre du Pont, was throughout that period a director of du Pont, and at one time even referred to himself as "a member of the du Pont family" (GTX 704, R. 624, 4505). The Managers Securities Plan, which resulted in very large bonuses to General Motors' executives, was initiated and supported by du Pont. Du Pont representatives have held many positions, sometimes a majority, on General Motors' committees set up to allot bonuses. No other stockholder, or group of stockholders, holds anything approaching du Pont's 23% of General Motors stock. At annual meetings du Pont has voted from a high of 52% to a low of 30% of the votes cast.

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[2] For ten years, 1919–1929, Mr. Pierre du Pont served simultaneously as both Chairman of the Board of General Motors (and President from 1920–1923), and Chairman of the Board of du Pont. For the next eight years, 1929–1937, Mr. Lammot du Pont served simultaneously as the President of du Pont and Chairman of the Board of General Motors.

(b) *Intent to Influence Trade.*—Appellees deny that du Pont bought its General Motors stock with an intent to influence trade. They do not deny, however, that in approving the purchase both the Finance Committee and the Executive Committee had before them a report prepared by Mr. Raskob and reviewed by Mr. Pierre du Pont which stated:

> Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor. [GTX 124, R. 479, 3221.]

Nor do they deny that in explaining the stock purchase in the annual reports to stockholders for 1917 and 1918, specific reference was made to General Motors' consumption of fabrikoid, paints and varnishes (GTX 1409, 125, R. 479, 5511, 3228).

(c) *Existence of restraints.*—Although there is dispute as to the existence of any connection between the stock relationship and trade, there is at this stage no dispute about the existence of that trade. It is admitted that du Pont sells to General Motors as much as $30,000,000 of materials a year (GM Br. 5). The great majority of this is in paints and fabrics. In paints, du Pont has been the most important single supplier of General Motors (R. 396) and General Motors has been du Pont's largest single customer (R. 394). In automobile fabrics marketed by du Pont, the situation is similar; General Motors buys 40–50% of its requirements for these supplies from du Pont (R. 404) which constitutes over 80% of du

Pont production of that type of product (R. 402–3). And with respect to tetraethyl lead (an anti-knock additive for gasoline) and Freon (a refrigerant), while there is a difference of opinion as to the significance of du Pont's stock relationship with respect to such transactions, there is no dispute that the essential discoveries were made by General Motors and taken over by du Point (or in the case of Freon by a corporation 51% controlled by du Pont) for manufacture.

These, then, are basic facts on which there is no dispute. In addition there are recited in the findings of the trial court hundreds of detailed findings as to which there is likewise no dispute. These deal with communications between the parties, negotiations and contracts, the making of sales and the failure to make sales.

The attack we make on the findings of the court below is with respect to its conclusions where it attempts to sum up the facts which it recites. Appelleees claim that we understate the extent of our disagreement and that in reality we are attacking the findings as a whole (DP Br. 32). In order that there may be no misunderstanding as to the precise and limited extent of the government's attack on the findings, we have reprinted in a separate volume the entire findings of the district court and have underscored the passages which we challenge. The underscored passages constitute 207 lines out of approximately 7350 lines in the entire findings.

We do not mean to minimize the importance of the passages which we attack; they are the places where the court purported to draw its conclusions from the evidence referred to in the rest of its findings. They include most of the court's conclusions, although not those dealing with United States Rubber, which is no longer in the case, nor those dealing with sales to Fisher Body, where the court appears to have misunderstood our position. Our claim on the court's findings is that the 7143 lines we do not dispute, fail to support the conclusions in the 207 lines we do attack.

We do not believe that the Court need review and make decisions on the myriad of details spread before it by the appellees. On the contrary, the starting point on this appeal consists of the basic facts reviewed above, which are not in dispute, plus the findings of evidentiary facts made by the court below. On these facts we urge that there is at least a *prima facie* showing that the court was wrong in its conclusion and that there was a combination in restraint of trade. We urge, further, that appellees' interpretation of all of the other facts they recite are to a great extent not inconsistent with these conclusions. Where there is inconsistency, the Court will have to resolve the conflict. But the great bulk of the evidence referred to by the appellees is not basically inconsistent with the government's position. Of course, du Pont did not fill all of General Motors' requirements for products manufactured by it, nor did it sell to all General Motors divisions with equal success. That does not prove that du Pont was not given a preference, but only that it did not seek to obtain 100 percent of General Motors' trade. Of course, salesmen for du

Pont were encouraged to sell General Motors on the basis of merit; there was no other way for General Motors to know what products were competitive, and it was only where the products were competitive that the preference could operate.[3] And, of course, it was the responsibility of all of the General Motors executives, from Mr. Sloan down, to consider first and foremost the welfare of General Motors; du Pont depended upon the success of General Motors for about a third of its income. It is only where a business judgment on the merits of the product is involved that the relationship between the two companies determines the course of trade.

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[3] Appellees argue that the oral testimony of their witnesses affirmatively proves that no preference was asked of General Motors and none given (GM Br. 36; DP Br. 200–201). It is urged that this testimony is so at odds with the government's position that in order to sustain the government it would be necessary to decide that all of these men lied. A good test of this argument is to examine in detail the specific evidence referred to at page 36 of the General Motors brief, where the oral statements of some twenty witnesses is cited. In part, this testimony consisted in reading to the witness a quotation from the complaint, or a paraphrase thereof, with respect to the allegations that there was an agreement to give a preference to du Pont in purchasing supplies (R. 231) and an agreement to refrain from manufacturing chemicals (R. 234) and then of asking the witness whether he had ever heard of such agreements and whether such restrictions existed. It seems clear from the questions that the witnesses must have believed that they were being asked about either specific agreements or formal rules. We do not argue that there were ever formal rules issued by either du Pont or General Motors. The preference arose from the relationship; and explicit formulation of a rule would have been most extraordinary. And as to the salesmen who testified that they did not ask for special consideration because of the stock interest, they would have been poor salesmen if they had in view of the resentment it would have aroused. These men, and the purchasing agents, undoubtedly carried out their functions with all outward correctness. We do not question their honesty. But that trade was sought on the basis of the stock interest is indicated by written evidence in the record. Nor can the volume of sales which was made by du Pont to General Motors, but not to other automobile manufacturers, be explained if no preference was involved.

We urge, in short, that even if the details presented by appellees be taken at their face value, that would not alter the conclusions required by the basic facts as to which there is no dispute.

Further, in reviewing the correctness of the conclusions of the court below, this Court should consider whether the appellees or the government is right as to the appropriateness of the standards followed by the district court, particularly with respect to the existence of control. To be sure, the court recited many facts dealing with corporate relations where control makes itself apparent. But when it came to its conclusions, the district court's findings certainly reflect a view, which we believe to be erroneous as a matter of law, that "practical or working control" depended upon du Pont's conducting itself "as though it were the owner of a majority of the General Motors stock" (R. 322).

The same type of appraisal is necessary to determine whether the court was in error in failing to give due weight to the government's argument that there was an illegal "combination" as well as a "conspiracy". Certainly its statement at page 464 of the Record so indicates:

At the outset of this memorandum the Court stated that the issue of conspiracy permeated the entire case, underlying both the trade and the control aspects thereof. This is so because conspiracy to restrain trade can only be determined after consideration of the entire record of evidence. The Court finds, on the basis of all the evidence of record, that the Government has failed to establish the existence of any such conspiracy.

Point II

THE EXTENSIVE REVIEW OF THE FACTS PRESENTED BY APPELLEES DOES NOT DISPROVE THE EXISTENCE OF A COMBINATION IN VIOLATION OF THE ANTITRUST LAWS

Even if accepted on the basis of appellees' interpretation, the evidence recited in their briefs does not contradict the basic facts recited above (*supra*, pp. 5–8). Both du Pont and General Motors attempt to explain those facts and to nibble away at their edges, but they cannot make them disappear. Moreover, many of the evidentiary details do not detract from, but actually substantiate and confirm, the conclusion that there is an illegal combination.

For purposes of convenience, the evidence will be considered under the headings of control, intent, and the exercise of restraints.

A. THE EVIDENCE REQUIRES A FINDING THAT DU PONT CONTROLS GENERAL MOTORS

As is pointed out in our main brief, control of a large corporation does not require the united holding of a majority of the stock (Br. 87–97). A sizeable minority block, particularly where the remainder is widely scattered, plus a long-continued relationship among the officers and directors, will often suffice. And, as was also noted previously, the absence of arm's-length bargaining, whether or not there is full working control, is a sufficient interference with the normal course of competition to constitute a combination forbidden by law (Br. 98–103). In attacking our argument, appellees rely mainly on the argument that Mr. Sloan was the real power in General Motors and that he was uninfluenced by the du Pont relationship. (DP Br. 161–174; GM Br. 200–210.)

We do not challenge the court's findings that Mr. Sloan was a strong personality, and an able executive who acted for what he believed to be the best interests of General Motors (R. 316, 321). We do not urge that he was a "toady" (GM Br. 210) or lacking in integrity (DP Br. 162) or credibility (DP Br. 163). He had strong views of his own for which he would fight, as was indicated by his insistence that Mr. Raskob's political activities would not mix with his executive duties with General Motors (GM Br. 18). None of this contradicts the facts that he was selected for the position of president by Mr. Pierre du Pont (R. 307), that he became very wealthy through the grant of special compensation, the initial plan for which was proposed and sponsored by du Pont, and the amount of which over the years was controlled by du Pont (see *infra,* p. 15, fn. 6),[4] that he considered himself one of the du Ponts (GTX 704, R. 624, 4505), and that he was a director of du Pont throughout the period in question. Therefore, while it is not asserted that Mr. Sloan would in any way act to the detriment of General Motors, it equally appears that he knew and trusted, and was trusted by, du Pont, and, where a choice between it and its competitors existed, he favored du Pont. None of his testimony is inconsistent with this. We repeat that the crucial test is not whether he favored du Pont vis-a-vis General Motors, but whether he favored du Pont vis-a-vis the latter's competitors.

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[4] His class B stock in Managers Securities Plan was worth in excess of $2,000,000 by 1926. (GTX 259, R. 496, 3587.)

Appellees argue further that the so-called management directors were chosen by Mr. Sloan, not by du Pont. (DP Br. 167).[5] First, in view of Mr. Sloan's long and close association with du Pont, it supports rather than detracts from the government's case that the nominations originated with him. But secondly;

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[5] Appellees continue to maintain that Mr. Donaldson Brown was accurately listed as a management director in GM Ex. 10, reprinted at pages 154 and 155 of our main brief. (DP Br. 166; GM Br. 25.) Yet they do not deny that he was a director of du Pont and a member of its executive committee before and throughout the period he served with General Motors. Furthermore, this is the man concerning whom Mr. Raskob wrote: "My feeling is that the financial interests of both companies are so closely interwoven that Mr. Brown should be retained as a Director and Member of the Finance Committee of the du Pont Company, in this way being enabled to keep in quite intimate touch with the directions and policies of the owners of the General Motors Corporation." (GTX 181, R. 483, 3408.)

This may suggest something about the standards used by appellees in passing upon a person's affiliations. The court below recognized Mr. Brown as a du Pont representative (R. 313).

It may also be worth noting that both Mr. Pratt and Mr. Johnson, who had been employees of du Pont, are also listed in GM Ex. 10 among the management directors.

appellees overlook that directors are elected by the stockholders. As specifically recognized in the court's findings, du Pont voted an absolute majority of the stock represented at some of the annual meetings (R. 322–323). Certainly, therefore, in 1928, 1929, 1930, 1931, 1932, and 1936, the years when du Pont voted a majority of the shares (GTX 1307, R. 664, 5230), the directors were placed in office by du Pont.

Appellees also attempt to refute the argument that the special compensation plans, initially proposed and sponsored by du Pont (R. 316), have any significance on the issue of control. The argument is that these plans encouraged the executives to work for the success of General Motors to the exclusion of du Pont's interests (DP Br. 180; GM Br. 32–33). So far as this argument asserts that the plans were an incentive to making General Motors a success, this is true and proves nothing in this case. Since du Pont has depended upon General Motors dividends for about one-third of its income, the success of General Motors was also of direct interest to du Pont. But, at the same time, nothing that appellees suggest lessens the fact that the original plan was intended and designed to tie in with du Pont the management of General Motors (GTX 235, p. 8, R. 3502), and that thereafter the executives of General Motors were dependent upon the good will of du Pont nominees for fantastically large extra compensation. First the Finance Committee, where concededly du

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[6] Du Pont states that the government was wrong in stating in its main brief (p. 26) that the allotments in the Managers Securities plan were subject to revision by the General Motors

Pont's nominees served in the greatest numbers, and later the Bonus and Salary Committee, passed upon the amount of extra compensation. General Motors' admission that du Pont had "substantial" representation on this committee (GM Br. 30) and du Pont's note that there were du Pont nominees on the committee (DP Br. 182) suffer from understatement; the court below found that from 1941 to 1948 the majority of that committee were du Pont representatives (R. 319). Mr. Sloan's attempt to shrug this off (R. 1380) and the court's indication that it was of no significance (R. 320–321) is in marked contrast with the views expressed in a 1944 letter from Mr. Carpenter, President of du Pont, to Mr. Lammot du Pont, chairman of the du Pont Board, both being members of the General Motors Policy Committee, concerning Mr. H. B. du Pont's becoming a member of the Bonus Committee:

> Belin [Henry Belin du Pont] is our advisor on salaries here and, therefore, has occasion to interest himself actively in this general subject of compensation. In addition this will afford him an excellent opportunity of better familiar-

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Finance Committee (DP Br. 181). The record shows that although the original allotments were passed upon by a special three-man committee, the Finance Committee was required to review the holdings before May 15th of each year and make adjustments where "the stockholding of any manager is disproportionate to the service being currently rendered by him." (GTX 244, p. 10, R. 493, 3558.) "The discretion of the Finance Committee in all these matters shall be final and conclusive." (*Ibid.*) Du Pont dominated the Finance Committee (Govt. Br. 23, 159).

> izing himself with the personnel in General Motors. As a matter of fact, he can, because of his position there carry his inquiry with respect to important personnel as far as he may wish to. This will afford a constructive background with respect to the selection of future important personnel in the General Motors. [GTX 210, R. 489–490, 3475.]

It was not necessary that loyalty to du Pont be considered a specific element in the granting of extra compensation (R. 321); it is sufficient that the power to grant or withhold compensation was subject to du Pont influence.

With respect to the many directorships and committee positions held by du Pont representatives throughout the years, appellees state that du Pont was interested in high finance, not in operations or selling paint (DP Br. 165, fn. 25; GM Br. 25, 27). Mr. Raskob early recognized that "Through our connection on the Executive Committee we will be in close contact with the operating and sales end of the business." (GTX 128, R. 481, 3239.) He was undoubtedly referring to the fact that Mr. J. A. Haskell, former sales manager of du Pont, had become a vice president and a member of the executive committee of General Motors (R. 940) and Mr. Haskell was unquestionably concerned with trade (Govt. Br. pp. 29–32). Mr. Sloan recognized in his testimony that the Finance Committee itself became increasingly concerned with "operating problems." (R. 1000.) And both Mr. Pierre du Pont and Mr. Lammot du Pont demonstrated that their preoccupation with "high finance" did not preclude their pressing the sale of du Pont products (GTX 421, R. 529, 4012; GTX 434, R. 532, 4054; GTX 437, R. 533, 4059; GTX 447, R. 535, 4073).

Finally, appellees argue that if du Pont had had control it would have exercised it in the course of thirty-five years. As we indicate below (*infra*, pp. 20–29) the record requires a finding that it has.

B. THE EVIDENCE REQUIRES A FINDING THAT DU PONT ENTERED INTO THE RELATIONSHIP WITH THE INTENTION OF GAINING A PREFERENCE

The most important item of evidence with respect to du Pont's intentions was the Raskob report, which stated:

> Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor. [GTX 124, R. 479, 3221.]

But the report does not stand alone, being corroborated by the 1917 and 1918 annual reports to stockholders (*supra*, p. 7). The Raskob report is important not only because it reflects Mr. Raskob's views, and presumably Mr. Pierre du Pont's also as of that time, but because it was on the basis of this report that both the du Pont finance committee and the du Pont executive committee authorized the purchase of the stock. Although there was testimony that there was no discussion of that paragraph of the report (R. 815, 870), that may have resulted from the view that the advantage to du Pont was too obvious to require discussion, rather than that it was unimportant. Certainly there is no testimony that the finance committee or the board of directors in any way repudiated the paragraph.

Du Pont relies on the fact that both Mr. Pierre du Pont and Mr. Irenee du Pont testified that their votes to buy the stock were not influenced in any way by the prospect of increased sales to General Motors (DP Br. 145). We do not impugn the integrity of either witness. At the time they testified, whatever their earlier views, they were unquestionably convinced as to the purity of their motives. In any event the personal intent of the two individuals is not in issue, but the intent of the group. And the intent of the group can best be judged from the report on the basis of which the group took action.

Indeed, appellees do not deny that du Pont always had, and presumably still has, the intention of selling its products to General Motors (R. 302; DP Br. 234–235; GM Br. 76). When one considers this intent in the circumstances of the continuous active participation by du Pont in General Motors affairs, it cannot be concluded that there was no connection between the two. Much concerning the du Pont state of mind throughout the span of years can also be inferred from the evidence on control in conjunction with the evidence on the volume and variety of trade relationships. All of these factors taken together lead to the conclusion that du Pont intended to gain the advantage of its long-continued and intimate relationship with General Motors.

C. THE EVIDENCE REQUIRES A FINDING THAT ILLEGAL RESTRAINTS HAVE IN FACT BEEN EXERCISED

It would be impossible to reply in detail to the extensive briefs filed by the appellees without burdening the Court with another 200 pages of argument. Fortunately large portions of the material can be laid to one side on the ground that it is irrelevant to the case. We do not contend that du Pont attempted to obtain 100% of General Motors' trade. We only argue that where a du Pont product was competitive with the products of other manufacturers or where du Pont was, on a competitive basis, as capable of performing some service as any other company, then the du Pont-General Motors relationship took the place of competition to determine the flow of trade. What du Pont had working for it was a preference which over the course of years redounded to its advantage and to the disadvantage of its competitors. It is for this reason that very considerable portions of appellees' briefs, where it is alleged that this or that product was not purchased in quantity by General Motors (DP Br. 89–103; GM Br. 41–43) or that particular divisions purchased none or lesser quantities than others (DP Br. 67–75; GM Br. 175), or that the volume of purchases fluctuated widely at various times (DP Br. 62–64; GM Br. 180), need not be contested. If the influence did not invariably get for du Pont all of the General Motors' trade, it still got enough to constitute a material restraint on competition.

By the same token that we argue that the absence of specific sales does not prove that a general preference was not given, we must concede that the existence of sales does not by itself prove that a preference was given. Just as some products were not sold because the General Motors divisions believed the products of other manufacturers were superior for their purposes, so too, some of du Pont's sales were made for the reason that the persons responsible for the buying believed that du Pont products were superior. Thus we do not claim that the $30,000,000 of products sold to General Motors by du Pont in 1948 (DPX 445, R. 2688, 6436) were all sold because of favoritism. But proof that a part of it was is provided by the fact that favoritism is the only reasonable explanation for the fact that in 1947 and 1948 du Pont was selling more than 80% of its automotive fabrics, and an even higher percent of its automobile paints, to General Motors (Govt. Br., pp. 62–64). The close relationship between the companies is the explanation for its ability to sell to General Motors the same products which it was unable to sell to others.[7]

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[7] The appellees argue that Ford and Chrysler bought from other suppliers for special reasons, namely, Chrysler wanted its own supplier not tied up with General Motors and Ford went in extensively for the manufacture of its own materials (DP Br. 54–55, 77, 195–200; GM Br. 75). Despite its apparent plausibility, this explanation doesn't really explain. When du Pont first put Duco on the market it sold everywhere to all the automobile manufacturers. The industry is highly competitive and neither Ford nor Chrysler could afford to permit General Motors to steal a march. But when competitive products appeared, the Ford and Chrysler

In our main brief we propounded a second method of proof of our assertion that where du Pont sales depended solely upon competitive merit, volume of sales fell below the sales to the General Motors divisions. This related to the Fisher Body Company where for years the volume of sales was far below that of the other parts of General Motors (Govt. Br. 65–68). While not denying what the record makes obvious, namely, that Fisher was harder to sell,[8] appellees argue that the fact that it was just as hard to

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market fell off much more sharply than the General Motors market. The answer is not that Duco was not as useful to them, but that, not having the stock incentive to support continued buying, they went where competitive conditions led them as soon as competition appeared.

Nor is the appellees' analysis accurate when they seek to show that the 20% of du Pont sales made to other than General Motors went to the smaller independent automobile manufacturers who produced less than 20% of the cars. (DP Br. 196; GM Br. 75.) The 20% actually goes to Ford and Chrysler and the smaller producers in percentages which are not revealed by the record, although appellees assert that the sales to Ford and Chrysler are substantial (DP Br. 54–55, 78; GM Br. 59; GTX 1382, R. 2825, 5415; DPX 196, R. 1993, 6069).

[8] The General Motors brief takes us to task for giving misleading figures with respect to the 1926 sales of fabrics to General Motors on the ground that we leave out of the computation sales to Fisher Body (GM Br. 69, 164). The government brief was explicit in stating that we were computing the percentage of du Pont products purchased by certain specifically named divisions (Chevrolet, Buick, Cadillac, Oldsmobile, and Oakland). (Govt. Br. 60.) A few pages later we pointed out the contrast with the smaller sales to Fisher Body (Govt. Br. 64–67). Therefore, the fact that in 1926 Fisher took only 37% of its fabric requirements from du Pont while the other named divisions took 89% is in fact the very point we have been trying to make. The 55.5% figure mentioned in the General Motors brief is a percentage made

sell after 1926 as before, although the outstanding minority interest was acquired in that year, shows that stock control had nothing to do with it (DP Br. 207; GM Br. 49). It is true that General Motors had complete corporate control of Fisher Body even before 1926, since the original voting trust giving the Fisher brothers an equal voice expired in 1924. But the important point is that so long as the Fisher brothers remained in control of the operation of the division, the company was operated with a considerable measure of independence (R. 580–581).

Much later than 1926 (the last Fisher brother retired from heading the division in 1944) when the Fishers were largely out of the picture, the pattern of purchases by Fisher became the same as those of the rest of the company. We wholly concur with the findings of the court below that until that time Fisher sales were made on merit alone (R. 381). And that is why the comparison between the sales to Fisher and to the other divisions is of significance.

The argument that, although there was a large volume of sales to General Motors, there was no attempt to make sales on the basis of the du Pont-General Motors combination (GM Br. 37–39) is contradicated by the documentary evidence. For example, there

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up by combining a controlled and uncontrolled market and is meaningless.

The assertion by General Motors on the same page of its brief (GM Br. 69), that by 1930 "Ford was buying more than all the General Motors cars together" is contradicted by one of the exhibits it cites to support the statement; Du Pont Exhibit 281 (R. 2245, 6210) shows that in 1930 General Motors purchased 1,958,555 yards while Ford purchased 1,491,970 yards. Percentagewise Ford's purchases were but 19.1% of its requirements.

was the early report of Mr. A. Felix du Pont, vice president of du Pont, referring to the "partial obligation under which the General Motors units felt themselves to be with respect to using our goods." (GTX 417, R. 526, 3999.) Then there were Mr. Lammot du Pont's two letters to Fisher body urging du Pont paint on the basis of the "stock ownership relations." (GTX 434, 437, R. 532, 533, 4054, 4059.) Even more revealing was the correspondence dealing with the failure of the New Departure Division of General Motors to buy ammonia from a du Pont subsidiary. It was in 1934 when Mr. Pratt (a General Motors vice president, previously employed by du Pont) wrote to New Departure:

> * * * I would be interested if you would look into this and advise me of the reason why it is desirable to give your ammonia business to others than the du Pont subsidiary; namely, The National Ammonia Company. [GTX 371, R. 521, 3912.]

New Departure replied stating that National's product was not suitable, and then added:

> * * * We did not know that the National Ammonia Company was a du Pont subsidiary, but I do not believe that under the circumstances it should have made any difference. [GTX 372, R. 521, 3913.]

Whereupon, Mr. Pratt wrote to National Ammonia:

> * * * First, see whether or not your ammonia really is suitable for the work in our division * * *; and second, that you might inform the management of your relationship to the General Motors Corporation. [GTX 373, R. 522, 3915.]

Alcohol-Glycerin correspondence

Both du Pont and General Motors reply to our argument that the du Pont exercise of influence was illustrated by the alcohol-glycerin correspondence (Govt. Br. 40–47, 129–130) by asserting that the change in the General Motors instructions to its car owners as to the use of antifreeze mixtures was based on further investigation which disclosed new facts (GM Br. 90–100, 184; DP Br. 224–226). The letters in the record speak for themselves, but there are three short comments that may be made:

First.—Mr. Sloan's letter to Chevrolet in August of 1926 (GTX 326, R. 509, 3842) and the change in the Chevrolet instructions in September 1926 (GTX 327, R. 509, 3844) both occurred at a time when the General Motors research corporation was specifically recommending Prestone (a glycerine product). (GTX 321, R. 508, 3835.) The new policy of the General Technical Committee based upon the "facts" was not noted until December (GTX 336, R. 511, 3861.)

Second.—While the impartial policy was stated to be based on the "facts", the General Motors divisions are conceded to have sold the glycerin type of antifreeze exclusively when they went into the business of selling antifreeze in 1933 (DP Br. 86; GM Br. 100–101).

Third.—It is asserted that the instructions decided upon by the General Technical Committee were entirely reasonable and not slanted (GM Br. 100; DP Br. 225–226). The Court may judge for itself what would be the reaction of a car owner to the warning that alcohol if spilled on Duco may disfigure it, as against the warning that the glycerin compounds if used in strict accordance with the manufacturers' recommendations are satisfactory "but that any air allowed to get into the system would cause decomposition and corrosion of the engine operating parts and further, that the material was likely to clog up the radiator." (GTX 336, R. 511, 3861). Most car owners would buy alcohol and pour it carefully, which was the result that Mr. Sloan admitted "we would much prefer."[9] (GTX 336, R. 511, 3861.)

Tetraethyl Lead

The answer of the appellees to our argument of preference in the antiknock development, is that du Pont was selected and retained as the exclusive manufacturer of lead solely because of its competence and that its profits in the field resulted from the excellence of its performance (DP Br. 111–131, 210–220; GM Br. 102–126, 184–188). It is not realistic to place the responsibility for turning over the development of the discovery to du Pont on the shoulders of Mr. Kettering (DP Br. 112; GM Br. 106). The court below found that Mr. Kettering made the decision to call in du Pont on tetraethyl lead (R. 411), and we do not question that this was so in the sense that the initial contacts and discussions were held with Mr. Kettering. Moreover, we do not question his testimony that he was motivated only by the desire to advance the use of the invention (R. 1584). Obviously, however, a question of such far-reaching economic importance to General Motors was not decided by one man, and that man a scientist rather than a business executive (R. 1264–1265). Mr. Sloan was of course consulted and took an active part in arranging for the contract (GTX 617, R. 613, 4311). And as pointed out in our main brief (Govt. Br. 51) the original contract was signed by Mr. Pierre S. du Pont, President of General Motors and Mr. Irenee du Pont, President of du Pont (GTX 618, R. 613, 4312). The important fact, however, is not who did the deciding but that no consideration was given to, nor negotiations carried on with, other potential manufacturers, except Standard Oil[10] which inserted itself into the picture and was summarily turned down after consultation between General Motors and du Pont (GTX 622, 623, 624, R. 614, 4337–4346).[11]

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[9] The argument that the Glycerin Manufacturers Association could find no fault with the findings of the research is of no avail since that report is not in the record and one can only guess at the Association's reaction to the final instructions. (DP Br. 89; GM Br. 99.)

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[10] The suggestion in the du Pont brief (pp. 119, 214) that "Standard Oil refused a 'similar contract to the one now in force with the du Pont Company'" is based solely on a report by Dr. Midgley, Mr. Kettering's associate (GMX 256, R. 1558, 7346). The full report makes it very clear that no formal contract was offered or refused, but that Dr. Midgley was negotiating with Standard Oil at the time it made its discovery of the improved process for producing lead. Dr. Midgley's report states that his suggestion was "subject of course, to ratification by my principals." What that attitude of his principals was, became fully apparent later when Standard Oil asked for the right to manufacture.

[11] It will not do to argue that since the manufacture of tetraethyl lead was a dangerous operation, du Pont alone was capa-

Both appellees argue at length that the government's position that du Pont used its control to make sure that it should be the sole manufacturer of tetraethyl is disproved by the fact that three attempts were made to get another supplier (DP Br. 214–215; GM Br. 166). One of these attempts was the negotiations between Mr. Kettering and Dr. Midgley and Standard Oil referred to in footnote 10, p. 27, *supra*. As du Pont itself admits Mr. Sloan did not approve (DP Br. 119, 216) and when Standard specifically asked for the right (GTX 624, R. 614, 4346) it was turned down.[12] The other purported attempts to find other manufacturers were by Mr. Webb who, succeeding Mr. Kettering as President of the Ethyl Gasoline Corporation, negotiated in 1926 with Dow Chemical Company and actually entered into an abortive contract with American Research Laboratories in an attempt to find a second source of supply (R. 422). At most these were attempts to supplement, not to displace du Pont.

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ble of performing the job (GM Br. 105). The record shows that the only way to learn how to make tetraethyl lead without deaths from lead-poisoning was through experience. The actual death toll in du Pont's plants was higher than in Standard Oil's. The figures show eight died in du Pont operations, five in Standard Oil's and two in General Motors" (GTX 774, R. 632, 4757). As a du Pont report puts it, "An outstandingly successful job appears to have been done by the Publicity Bureau of the du Pont Company". (GTX 773, R. 632, 4694.)

[12] The permission to Standard Oil to spend $35,000 to $40,000 on a 100 gallon a day plant was to satisfy them from a "psychological standpoint." "Any further thought of developing any real production other than under the auspices of the du Pont Company will be deferred until some later time." (GTX 661, R. 616, 4366.)

But even more important it does not appear that Mr. Sloan had in any way altered his view that du Pont would always be the manufacturing agent for Ethyl (GTX 710, R. 625, 4530).

There is no precise method available to measure how much of du Pont's considerable profits on tetraethyl lead arose from its preferred position and how much from its industrial efficiency. But it seems clear that appellees are not justified in their claim that du Pont could attribute the entire $86,000,000 to its skill in manufacturing. A letter from Mr. Lamont du Pont to Mr. Sloan in 1932 very frankly advanced the idea that du Pont was entitled to approximately one-third of the profits in the tetraethyl lead venture and that it had set its prices for lead on a basis which would develop that amount (GTX 766, R. 631, 4649). It is not conceivable that a corporation dealing with another at arms-length would be able to declare itself in on the profits of the other's invention on any such basis. That is a profit growing out of the relationship, not out of service.

Point III

THE INTERCORPORATE RELATIONSHIPS BETWEEN DU PONT AND GENERAL MOTORS CONSTITUTE A COMBINATION IN VIOLATION OF SECTIONS 1 AND 2 OF THE SHERMAN ACT AND SECTION 7 OF THE CLAYTON ACT

Both appellees take some care to point out the burden on the government under Rule 52 (a) of the Federal Rules of Civil Procedure to establish that the findings of the court below were "clearly erroneous." (DP Br. 268–272; GM Br. 148–152.) Any extended discussion of the Rule is not necessary since this Court is thoroughly familiar with its application. As was stated in *United States* v. *Gypsum Co.,* 333 U. S. 364, at 395, a finding must be reversed, even where there is some evidence to support it, if the reviewing court on the entire record "is left with the definite and firm conviction that a mistake has been committed." And, as was carefully expounded in *Orvis* v. *Higgins,* 180 F. 2d 537 (C. A. 2), certiorari denied, 340 U. S. 810, where there is both documentary evidence and oral testimony, a reviewing court is not precluded from using its own judgment with respect to the issues on which the documentary evidence seems determinative in spite of conflicting oral evidence.

A. THE COMBINATION IS ILLEGAL NOTWITHSTANDING THE ABSENCE OF EVIDENCE THAT THE DU PONT-GENERAL MOTORS TRADE IS A MATERIAL PART OF THE GENERAL MARKET, AUTOMOTIVE AND NON-AUTOMOTIVE, IN THE PRODUCTS AFFECTED

Both appellees cite figures on the total national sales of paint of all kinds and of fabrics of the general kind used in automobiles (GM Br. 8; DP Br. 276). They then point out that the dollar volume of du Pont sales to General Motors is but a minute part of these national sales and therefore incapable of having a restraining or monopolizing effect on that market (DP Br. 275–276; GM Br. 223–228). Passing the question of whether all paint, rather than automotive paint, and all artificial leather, rather than the type specifically produced for automobiles, would be the relevant market[13] if it were appropriate to make a determination as to the relevant market in this case, it is entirely unnecessary to go into the problem of what constitutes the "market" in a case of this kind.

A determination of the extent of the relevant market is necessary where the government's case depends upon domination of the national market by a manufacturer or group of manufacturers as in *United States* v. *du Pont & Co.* (cellophane case), 351 U. S. 377, or in *United States* v. *Aluminum Company,* 148 F. 2d 416 (C. A. 2). The same type of question arises where there is an alleged domination of the market in a geographic area which is not competitive with the remainder of the nation as in *United States* v. *Columbia Steel Co.,* 334 U. S. 495. In the present case, a definition of the relevant market for the products in question is not important since the gist of the case is that trade between du Pont and General Motors was insulated from the national market by reason of the combination. Therefore, in this respect this case is similar to a patent tying case, where the only question is whether the volume of the trade restrained is appreciable.

The theory of the government's case here is the same as that involved in the first *Yellow Cab* case

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[13] There are no figures in the record on the percentage which General Motors' purchases constitute of the total national sales of automobile paint and automobile fabrics. However, since General Motors sales of automobiles are close to 50% of the national sales (see fn. 12, page 62 of our main brief), it may be assumed that General Motors consumes about half of the paint and fabrics used in the manufacture of automobiles.

(*United States* v. *Yellow Cab Co.*, 332 U. S. 218) where the complaint alleged the purchase of control of taxicab companies in several cities with the object of controlling their purchases of new equipment on behalf of a particular manufacturer. There the argument now pressed by appellees was rejected by this Court in these words (332 U. S. at 226):

> Likewise irrelevant is the importance of the interstate commerce affected in relation to the entire amount of that type of commerce in the United States. The Sherman Act is concerned with more than the large, nation-wide obstacles in the channels of interstate trade. It is designed to sweep away all appreciable obstructions so that the statutory policy of free trade might be effectively achieved. As this Court stated in *Indiana Farmer's Guide Co.* v. *Prairie Farmer Co.*, 293 U. S. 268, 279, "The provisions of §§ 1 and 2 have both a geographical and distributive significance and apply to any part of the United States as distinguished from the whole and to any part of the classes of things forming a part of interstate commerce." It follows that the complaint in this case is not defective for failure to allege that CCM has a monopoly with reference to the total number of taxicabs manufactured and sold in the United States. Its relative position in the field of cab production has no necessary relation to the ability of the appellees to conspire to monopolize or restrain, in violation of the Act, an appreciable segment of interstate cab sales. An allegation that such a segment has been or may be monopolized or restrained is sufficient.

Apparently appellees assert that this view was modified by the Court in *United States* v. *Columbia Steel Co.,* 334 U. S. 495, where the Court did consider the relevant market in order to determine whether a restraint of trade was involved. However, in that case the restraint was alleged to arise from the proposed purchase of a fabricating plant which was to become a part of the manufacturing corporation. Since the new plant was to be 100% owned, there would be no trade between the purchaser and the purchased and the only question, therefore, was whether the acquisition would group together a sufficient segment of the industry to restrain or monopolize trade. This Court specifically pointed out the distinctions from the *Yellow Cab* case, clearly indicating that no modification of its earlier views was intended (334 U. S. at 522):

> * * * In discussing the charge in the *Yellow Cab* case, we said that the fact that the conspirators were integrated did not insulate them from the act, not that corporate integration violated the act. In the complaint the government charged that the defendants had combined and conspired to effect the restraints in question with the intent and purpose of monopolizing the cab business in certain cities, and on motion to dismiss that allegation was accepted as true. Where a complaint charges such an unreasonable restraint as the facts of the *Yellow Cab* case show, the amount of interstate trade affected is immaterial in determining whether a violation of the Sherman Act has has been charged.

The application of the "relevant market" doctrine to antitrust violations is clarified by keeping in mind what has sometimes been called the "central core" of antitrust concepts. *Report of Attorney General's National Committee to Study the Antitrust Laws*, pp. 5–12. As interpreted in *Standard Oil Co. of New Jersey* v. *United States*, 221 U. S. 1, both Section 1 and Section 2 of the Sherman Act were designed to eliminate undue limitations on competitive conditions whereby individuals obtained power to fix prices, limit production, and control quality. If there is sufficient similarity between a particular product and others so that they can to a substantial extent be used interchangeably, an individual does not in fact get control over the part of the commerce consisting of trade in the particular product unless the entire market is brought under control. But where he does get power to isolate from competition a substantial volume of commerce (in this case through an intercorporate relationship) the extent of the rest of the market is no longer significant since it does not compete.

B. APPELLEES' OBJECTIONS TO THE APPLICATION OF SECTION 7 OF THE CLAYTON ACT SHOULD BE REJECTED

In large part the appellees' argument with respect to the application of the Clayton Act depends upon the facts, namely, whether the government sustained the burden of proving the likelihood of restraints from the stock acquisition. We agree that what has occurred since the acquisition is highly significant in determining its original legality, and where we differ from appellees is that we urge that the restraints which have occurred support our case. If this Court accepts our interpretation of the record and determines that the conclusions of the court below were clearly erroneous, appellees' concern as to whether the illegality existed at the time of the acquisition and whether it continues today will be satisfied.

Du Pont's suggestion (DP Br. 282–283) that the government be relegated to relief under the Sherman Act whenever it fails to invoke the Clayton Act within four years of a stock acquisition finds no support in the language of the Act or its legislative history. We have nothing to add to our original discussion of the "investment" exception, which again depends on the facts (Govt. Br. 145), or of the application of the Clayton Act to the acquisition of stock in a corporation which is not a competitor (Govt. Br. 146–147).

The General Motors brief urges a special necessity for establishing restraint in relation to the entire national market in order to prove a violation of Section 7 of the Clayton Act on the ground that it makes stock acquisitions illegal only where the effect may be to restrain competition (GM Br. 233–235).[11] There might be room for this argument in a case where the acquisition is complete and the restraint on competitors only is involved (cf. *United States* v. *Columbia Steel Co.*, 334 U. S. 495), but it has no application to a case such as this where restraint on the trade of the corporation which is controlled can be shown without reference to the general market.

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[11] One answer to this is suggested by this Court's decision in *Standard Oil Co. of California* v. *United States*, 337 U. S. 293, construing precisely the same language in Section 3 of the Clayton Act and finding that proof of the competitive effect

Point IV

CHRISTIANA SECURITIES COMPANY AND DELAWARE REALTY AND INVESTMENT COMPANY SHOULD BE RETAINED AS PARTIES SO LONG AS APPROPRIATE RELIEF MAY INVOLVE AN ORDER DIRECTED TO THEM

Christiana Securities Company and Delaware Realty and Investment Company have filed a separate brief arguing that the appeal as to them should be dismissed since the government has not listed among the questions presented the question whether, if divestment of control through a distribution of General Motors stock to du Pont stockholders is ordered, provision should be included ordering Christiana and Delaware in turn to dispose of the General Motors stock so received. The government does not believe that now is the time to consider that question. Instead it has prayed that the judgment of the district court be reversed and the cause remanded for entry of a decree granting appropriate relief. (Govt. Br. 149.)

It was not intended in footnote 51 to our brief (p. 149) to take any position on whether distribution of the stock to the du Pont stockholders generally

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was not essential. General Motors' citation of *Transamerica Corporation v. Board of Governors*, 206 F. 2d 163 (C. A. 3), certiorari denied, 346 U. S. 901, to distinguish *Standard Oil* from the present case is inapposite. In the portion of that case relied on the court of appeals was concerned with the tendency of the stock purchases to create a monopoly and in that regard it was held that the effect on competition must be established. But at the same time the court recognized that exclusive dealing contracts of necessity restrain competition eliminating the need for proof of such an effect (206 F. 2d at 70). There is no logical basis for distinction between a controlled market achieved through an exclusive dealing contract and one based upon a stock relationship.

would give proper relief. However, if that course should be adopted, the government believes that some provision should be included to require additional relief with respect to the holdings which Delaware and Christiana would so acquire. Therefore it seems to us appropriate that they should be retained as parties to the proceeding until it is determined whether relief is to be granted and, if so, whether some special order is required as to them.

CONCLUSION

For the reasons stated in our opening brief and in this reply brief, the judgment of the district court should be reversed and the cause remanded for entry of a decree granting appropriate relief.

Respectfully submitted.

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NOVEMBER 1956.

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[The following is a reprint from the record of the opinion of the district court which it adopted as its findings of fact and conclusions of law (R. 467, *infra*). We have indicated by underscoring the portions which are challenged by the Government on this appeal. The underscoring appears on the following pages: 300, 301, 302, 316, 320, 321, 322, 323, 361, 395, 396, 405, 425, 426, 434, 435, 437, 447, 464, 465, 466.]

[fol. 450] IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

Civil Action No. 49 C-1071

UNITED STATES OF AMERICA, Plaintiff,

vs.

E. I. DU PONT DE NEMOURS AND COMPANY, GENERAL MOTORS CORPORATION, UNITED STATES RUBBER COMPANY, CHRISTIANA SECURITIES COMPANY, DELAWARE REALTY & INVESTMENT CORPORATION, PIERRE S. DU PONT, LAMMOT DU PONT, IRENEE DU PONT, ET AL., Defendants.

OPINION OF JUDGE WALTER J. LABUY—December 3, 1954

[fol. 451] APPEARANCES:

Stanley N. Barnes, Assistant Attorney General, and Victor H. Kramer, Trial Attorney, both of Washington, D. C.; Earl A. Jinkinson and Willis L. Hotchkiss, Special Assistants to the Attorney General; Ewart Harris, Paul V. Ford, Charles W. Houchins, all of Chicago, Illinois, Margaret H. Brass, Washington, D. C., Dorothy M. Hunt, Francis C. Hoyt, and Raymond P. Hernacki, all of Chicago, Illinois, Trial Attorneys. Attorneys for the United States of America.

Covington & Burling, Washington, D. C., by John Lord O'Brian, Hugh B. Cox, Charles A. Horsky, Daniel M. Gribbon, Wilbur R. Lester.

Sidley, Austin, Burgess & Smith, Chicago, Ill., by Howard Neitzert, George Ragland, Jr., Attorneys for Defendant E. I. du Pont de Nemours and Company.

Root, Ballantine, Harlan, Bushby & Palmer, New York, N. Y., by John M. Harlan, Philip C. Scott.

Sidley, Austin, Burgess & Smith, Chicago, Ill., by Howard Neitzert, George Ragland, Jr., Attorneys for Defendants Pierre S. du Pont, Irenee du Pont, Christiana Securities Company and Delaware Realty and Investment Corporation.

[fol. 452] Pope & Ballard, Chicago, Ill., by Ferris E. Hurd, Frank F. Fowle, Jr., Henry M. Hogan, Detroit, Mich., Robert E. Nitschke, Detroit, Mich., James D. Carpenter, Jersey City, N. J., William A. Grier, New York, N. Y., Attorneys for Defendant General Motors Corporation.

Snyder, Chadwell & Fagerburg, Chicago, Ill., by John T. Chadwell, Rudy L. Ruggles, James A. Rahl, Arthur, Dry & Dole, New York, N. Y., by Paul H. Arthur, Morris E. Dry, Nelson F. Taylor, Walter Barthold, Jr., Attorneys for Defendant United States Rubber Company.

Howard Ellis, Chicago, Ill., A. Leslie Hodson, Chicago, Ill., Guardians ad litem for certain minor Defendants.

Andrew J. Dallstream, Chicago, Ill., Guardian ad litem for certain minor Defendants.

Claude A. Roth, Chicago, Ill., Guardian ad litem and Attorney for Henry Belin du Pont, III.

[fol. 453] Moore, Prangley & Clayton, Chicago, Ill., by Mark H. Clayton, Attorney for certain individual Defendants.

Berl, Potter & Anderson, Wilmington, Del., by William S. Potter, William Poole, Attorneys for certain individual Defendants.

Morris, Steel, Nichols & Arsht, Wilmington, Del., by Alexander L. Nichols, Attorney for certain individual Defendants.

Winston, Strawn, Black & Towner, Chicago, Ill., by Guy A. Gladson, Thomas A. Reynolds.

Richards, Layton & Finger, Wilmington, Del., by Robert H. Richards, Jr., Attorneys for Defendant Wilmington Trust Company.

[fol. 454] This action is brought by the United States

Government for alleged violation by defendants of Sections 1 and 2 of the Sherman Act (15 U. S. C. A) declaring illegal every contract, combination, or conspiracy in restraint of trade and prohibiting monopolization or the attempt to monopolize trade and commerce, and Section 7 of the Clayton Act (15 U. S. C. A. § 18) declaring illegal the acquisition of stock by a corporation in another where the effect of such acquisition may be to substantially lessen competition or tend to create a monopoly.

[fol. 455] The defendants against whom the action is brought are named and identified in the amended complaint as follows:

The three defendant "manufacturers": E. I. du Pont de Nemours and Company, General Motors Corporation, and United States Rubber Company. All of these companies transact business within the Northern District of Illinois and are found here.

The three "corporate" defendants: Christiana Securities Company; Delaware Realty & Investment Corporation; and Wilmington Trust Company, individually and as trustee.

The remaining defendants come within the categoric description of "members of the du Pont family." These members of the du Pont family are divided into the following:

The three "defendant individuals": Pierre S. du Pont and Lammot du Pont, for whom Suggestions of Death were filed May 6, 1954 and January 16, 1953, respectively; and Irenee du Pont.

The five "individual defendants": Lammot du Pont Copeland; Colgate W. Darden, Jr.; Henry Belin du Pont; Pierre S. du Pont III; and George P. Edmonds. These defendants are alleged to be members of the du Pont family and to hold substantial amounts of voting stock of the defendant United States Rubber Company.

The twenty-six "beneficiary" defendants, ten of whom are minors, also identified as "party in interest" defendants, who are not named as conspirators and who are beneficiaries of one or more trusts of which the defendant Wilmington is trustee.

With the exception of the twenty-six beneficiary defendants, all defendants are alleged to have participated in acts which violate the anti-trust statutes.

[fol. 456] The Government's statement of the offense is stated as follows:

> The Amended Complaint charges that the defendants have engaged in a conspiracy to restrain trade in certain products produced by the du Pont Company, United States Rubber, and General Motors, in violation of Section 1 of the Sherman Act, and to monopolize a substantial part of such trade in violation of Section 2 of the Sherman Act. It also alleged that the defendant du Pont Company has acquired a controlling interest in the stock or other share capital of General Motors in violation of Section 7 of the Clayton Act. The Amended Complaint states further that the defendants have done the things which they conspired to do, namely, that they have restrained trade and monopolized a part of the commerce in certain products. (Post-trial Brief, U. S., Vol. I, p. 3.)

In its summary of the statement of evidence the Government states that the evidence, when viewed as a whole, shows that the defendants have designed and followed a pattern of business conduct which has three basic objectives. The first of these objectives has consisted of obtaining control of the management and policies of the three manufacturing defendants, du Pont, General Motors, and United States Rubber. The second of these objectives has consisted of the creation and exploitation of protected markets for certain of the products produced by du Pont and United States Rubber, to the exclusion of competitive suppliers. The third of these objectives has consisted of the reservation of certain exclusive fields of production to the du Pont Company. These three purposes have been served by the fostering of a network of interrelationships among the corporate and individual defendants. This has insured the perpetuation of control of the corporate entities [fol. 457] under persons possessing in essence the same interests, and has enhanced the market position of each of the manufacturing defendants.

The Government further charges that the central thread of the entire pattern of conduct is the acquisition of interlocking stock controls and the use of such controls to dominate the management of the controlled corporations. (Post-trial Brief, U. S., Vol. I, p. 5.)

There is no dispute regarding the facts culminating in the formation of the present du Pont Company. From 1802 to 1899 it was operated as a family partnership. The first corporate predecessor to du Pont was formed in 1899. In 1902 T. Coleman du Pont, Alfred I. du Pont, and Pierre S. du Pont acquired the assets of the 1899 company pursuant to a proposal advanced by Alfred I. du Pont. These assets were later taken over by the 1903 company. Until 1915, T. Coleman du Pont was the largest stockholder in du Pont; his holdings being about equal to the combined holdings of Alfred I. du Pont and Pierre S. du Pont. The present du Pont Company was organized in 1915 to succeed the 1903 company.

The factual approach to the issues involved herein will be clarified and simplified by division of this memorandum into two general categories: First, the aspects of alleged control reflected in stock holdings, selection of officers, board and committee members; and, second, the trade aspects. The issue of conspiracy underlying as it does both phases of the case is of necessity interwoven and inseparable and is an ultimate fact which permeates the entire case.

[fol. 458] Facts as to Control

Christiana and Delaware

In December 1914 T. Coleman du Pont offered to sell a substantial block of his du Pont stock to du Pont for resale by the company to its principal younger executives, but the offer was rejected since the price was considered too high.

In the early part of 1915 T. Coleman du Pont offered to sell his stock to Pierre S. du Pont and others at a higher price.

It is admitted that in 1915 Christiana was formed by a syndicate composed of Pierre S. du Pont, Lammot du Pont, Irenee du Pont, together with A. Felix du Pont, R. R. M. Carpenter, and John J. Raskob, for the purpose of acquiring this stock.

The evidence shows that Christiana was organized so that members of the syndicate could use the stock of the corporation as security for a loan it was necessary for them to obtain to buy the stock of Coleman du Pont.

This block of stock consisting of 63,314 shares of common and 14,599 shares of preferred was transferred to Christiana along with 28,177 shares of du Pont common transferred to it by the six syndicate members. The six incorporators of Christiana held all of the 75,000 shares of Christiana. The day after Christiana was organized each returned to its treasury approximately 15% of the Christiana stock to be distributed to the chairman of the Executive Committee of du Pont, the eight department heads of du Pont, and the General Counsel of du Pont under an agreement that the stock so assigned to each would become his property if he continued in the employ of the company for one year and that no assignee would sell or hypothecate [fol. 459] the stock for three years. After this allocation, the six incorporators held 68,250 shares of the 75,000 outstanding shares of Christiana.

After Coleman's stock had been acquired, Alfred du Pont and others brought suit alleging that Pierre and his associates abused the trust of their official positions in obtaining the Coleman stock. The trial court determined to submit to a vote of the stockholders the question of whether or not the Coleman du Pont stock should be acquired by the du Pont Company. In the ensuing proxy battle, the Pierre S. du Pont group won.

Thus, Christiana at its inception held 91,491 shares of the du Pont common stock amounting to approximately 27% of the du Pont's outstanding common shares. The evidence shows that commencing with the original acquisition of the Coleman stock, this percentage has continued throughout the years and that substantially all the stock now held by Christiana traces directly to the stock transactions occurring in 1915. No additional or other acquisitions of du Pont stock have been made by Christiana, and the evidence shows that a majority, or 68% of the outstanding Christiana stock has been held continuously by Pierre S. du Pont and the members of the du Pont family, either directly or through Delaware.

In 1923 Pierre S. du Pont, having retired from active business life, decided to invest in an annuity to provide himself and his wife with an appropriate income. His decision to buy an annuity was based in part on the favorable tax treatment granted annuities under the existing tax laws. Pierre S. du Pont being unable to find a standard life insurance company which would offer him an arrangement not involving the sale of his stockholdings which event would depreciate the value of his estate, a group of [fol. 460] his brothers and brothers-in-law offered to sell him an annuity.

In 1923 Pierre S. du Pont transferred the bulk of his holdings in Christiana consisting of 49,000 shares, together with 24,000 shares of du Pont common, and other stock in other companies to Delaware Realty & Investment Corporation, which was specifically organized to hold the same and pay him and his wife an annuity for life. The common stock of Delaware was then divided into eight equal shares for Pierre S. du Pont's eight brothers and sisters or their families.

The evidence shows that the stock of Delaware up to the date of the filing of the complaint has continued to be wholly owned by the members of the du Pont family and in many instances transfers were made through the formation of trusts. Delaware also holds 49,000 shares of Christiana, being Pierre S. du Pont's previous holdings, which constitutes about 32% of the outstanding Christiana stock.

On March 29, 1944 E. H. Tinney, Secretary of Delaware, submitted a memorandum to members of the Advisory Committee of Delaware Realty and Trust dealing primarily with tax considerations on the advisability of liquidating that corporation. In addition to the tax factor, he stated:

> "Liquidation would afford greater flexibility, including better marketability, and permit diversification. Without liquidation, the stockholders are practically compelled to go along together; whereas if liquidated each stockholder could do as he thought best suited his individual purpose. There is no certainty whether those factors would in the final analysis represent reasons for or against liquidation.
>
> Delaware Realty, at least to some extent, facilitates [fol. 461] control of the du Pont and General Motors industries. While liquidation would not eliminate this immediately, it would weaken it; more particularly with the passage of time." (GTX 1335).

There is no evidence that Tinney knew anything about the relations between du Pont and General Motors and no evidence that he knew anything about the intentions of the individual defendants or other members of the du Pont family or that he was acquainted with their state of mind as it related to Delaware. Pierre S. and Irenee du Pont both testified that Delaware was not organized for the purpose of controlling du Pont or General Motors as charged by the Government and that it was not used for that purpose. Similar testimony was given by other individual defendants. Having heard the testimony of these witnesses, the Court finds their testimony more persuasive than the statement of opinion made by Tinney.

Defendants admit that Christiana holds 3,049,800 shares of du Pont common stock out of 11,158,340 outstanding du Pont stock, equivalent to 27%; that Delaware holds 304,480 shares of du Pont common stock, or 3%, of the outstanding du Pont stock; that defendant individuals and certain members of the du Pont family, who are either officers or directors of du Pont, own a further block of approximately 5.3% of the stock of du Pont; while other members of the du Pont family, who are not officers or directors of du Pont, own directly a further 2.2% of the stock of du Pont. Du Pont common stock at the time the complaint was filed was held by 82,000 shareholders.

It is also admitted that 30% of the outstanding du Pont common stock held by Christiana and Delaware has been consistently voted as a block always in support of du Pont management at du Pont stockholder meetings, that directors of Christiana have in most instances [fol. 462] been directors and officers of du Pont, and that defendant individuals, younger members of the du Pont family and officers and directors of Delaware have assumed major responsibilities in du Pont management.

There is no evidence that either Christiana or Delaware, or both of them, had voting control of du Pont. However, the fact that the du Pont family had voting control of Christiana and Delaware whose du Pont stock is consistently voted as a block in favor of du Pont management, coupled with the fact that for many years members of the du Pont family have been major executives of the corporation, indicates control of management of du Pont by the du Pont family.

The Government has failed to prove that the stock held by the defendant individuals and members of the du Pont family in Christiana and Delaware was for the purpose of perpetuating control over the du Pont Company, and has failed to prove that there was any agreement, understanding, or conspiracy that they would continue to hold such stock, keep it within their families, or dispose of or vote the Delaware stock for the purpose of utilizing du Pont to create protected markets for du Pont, or to otherwise restrain or monopolize trade. The Government has further failed to prove that either Christiana or Delaware, or both, were formed, and their stock held, for the purpose of creating protected markets for du Pont and to otherwise restrain or monopolize trade.

General Motors Corporation

In the spring of 1914 Pierre S. du Pont purchased approximately 2000 shares of General Motors upon the recommendation of John J. Raskob. His personal holdings from 1914 to 1917 are set forth in GTX 114. Irenee du [fol. 463] Pont purchased 400 shares of General Motors in 1914 on the expressed enthusiasm of John J. Raskob, but did not know his brother had done the same. His personal holdings from 1914 to 1917 are set forth in GTX 115. He attended no General Motors meetings during this period.

General Motors was organized in 1908 by W. C. Durant and had acquired a number of previously independent automobile manufacturing companies—Buick, Cadillac, Oakland and Oldsmobile. In 1910 in order to raise needed working capital Durant had been compelled to borrow $14,000,000 from a group of "Boston" bankers under a voting trust agreement which supplanted Durant as President by Charles W. Nash, and gave control of the Board of Directors for five years to said bankers. Upon leaving the active management of General Motors, Durant and close associates incorporated the Chevrolet Motor Company to manufacture a new low-priced car. The Chevrolet Motor Company bought stock of General Motors until in 1916 it owned 450,000 shares of common stock out of 825,000 outstanding.

About September 1915 Pierre S. du Pont and John J. Raskob became actively involved in the affairs of General Motors when both attended a stockholders meeting at the invitation of Mr. Kaufman, who was president of the Chatham & Phoenix National Bank of New York. At this meeting, Durant and the lending bankers, who were operating General Motors under the voting trust agreement which expired in 1915, became deadlocked on the composition of a new Board. A compromise was reached whereby both sides agreed that each name seven candidates and Pierre S. du Pont was empowered to name three neutral directors not connected with either Durant or the lending bankers. Pierre S. du Pont submitted the names of J. A. Haskell, who had been a vice-president of du Pont for many years [fol. 464] and now retired; John J. Raskob, Treasurer of du Pont; and Lammot Belin, his brother-in-law. These were accepted by both factions. Pierre S. du Pont was elected Chairman of the Board.

Durant extended an invitation to Pierre S. du Pont and John J. Raskob to become members of the General Motors Finance Committee, which invitation was declined, and in October 1916 both declined chairmanship of that committee. In January 1916 Durant offered Pierre S. du Pont and Raskob the opportunity to exchange their General Motors holdings for Chevrolet Motor stock on the basis of five shares of Chevrolet for one share of General Motors, which offer was declined. Raskob stated "we were not sure he had control of the General Motors Company and being in the position of neutral directors, we might be charged with taking sides should we do anything which would tend to give one side or the other control of the Company." (GTX 119.) After it became clear in May 1916 that Durant, through Chevrolet Motors holdings in General Motors, had obtained control of General Motors, Pierre S. du Pont and Raskob availed themselves of the offer which Durant had held open for them, and as a result Pierre S. du Pont and Raskob became large holders in Chevrolet Motors which controlled General Motors.

In August 1917, Pierre S. du Pont and Raskob accepted Durant's invitation to become members of the General Motors Finance Committee, and Durant suggested that the "Wilmington people, as he called it, take more stock and more interest in the General Motors Corporation." (Pierre S. du Pont 1997) After Pierre S. du Pont and Raskob became members of the Finance Committee both saw a "good deal" more of Durant and he talked freely to them about operations and finances of General Motors and plans for its future expansion.

[fol. 465] Shortly prior to December 19, 1917, Raskob talked with Pierre S. du Pont with respect to a proposed company investment in General Motors. Raskob prepared a draft report in connection with this proposal which was reviewed and approved by Pierre S. du Pont and discussion was had between them regarding parts of the report. Raskob proposed to Pierre S. du Pont that he take on the promotion of such a plan with the du Pont directors and it was submitted in final form as a Report of the Treasurer to the Finance Committee of du Pont. On December 21, 1917 the Executive and Finance Committees of du Pont approved the acquisition of common stock in General Motors and Chevrolet Company in the amount of $25,000,000.

General Industries, Inc., all of whose stock was held by du Pont, was formed to acquire the General Motors stock. By March 8, 1918 General Industries, Inc. had purchased approximately 23% of the common stock of General Motors and Chevrolet. During the next two years the investment was increased to approximately $49,000,000 and in 1920 du Pont owned approximately 23.96% of the outstanding stock of General Motors.

The Raskob report submitted to the Finance and Executive Committees of du Pont in connection with the proposed purchase of General Motors and Chevrolet stock summarized the following points in favor of a substantial investment in the motor industry:

> "1. With Mr. Durant we will have joint control of the companies.
>
> 2. We are immediately to assume charge and be responsible for the financial operation of the Company. This involves the direction of cash balances which will aggregate upwards of $25,000,000 and the handling of annual gross receipts aggregating $350,000,000 to [fol. 466] $400,000,000. From a financial standpoint, I feel that a consolidation of the financial divisions of the du Pont and General Motors Companies will be of tremendous advantage to us as well as to the General Motors Company and is a thing to be sought and desired from our standpoint.

> 3. The du Pont Company, if the Class A stock is sold to the stockholders, will share in the profits of the industry to an extent equal to 120% on our investment and will receive 14% in annual dividends thereon; or in the event of carrying Class A stock in our Treasury the dividend rate will be about 12.6% and will share in the earnings about 42% and this after paying $20,000,000 war taxes.
>
> 4. Our purchase is on better than an asset basis.
>
> 5. Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor.
>
> ### Management
>
> Perhaps it is not made clear that the directorates of the motor companies will be chosen by Du Pont and Durant. Mr. Durant should be continued as President of the Company, Mr. P. S. du Pont will be continued as Chairman of the Board, the Finance Committee will be ours and we will have such representation on the Executive Committee as we desire, and it is the writer's belief that ultimately the Du Pont Company will absolutely control and dominate the whole General Motor's situation with the entire approval of Mr. Durant, who, I think, will eventually place his holdings with us taking his payment therefor in some securities mutually satisfactory. * * *" (GTX 124).

[fol. 467] Announcement of the purchase was made in the annual report of du Pont to its stockholders as follows:

> "Announcement was recently made of the acquisition of a large interest in the General Motors Corporation and Chevrolet Motor Company. Though this is a new line of activity, it is one of great promise and one that seems to be well suited to the character of our organization. The motor companies are very large customers of our Fabrikoid and Pyralin as well as paints and varnishes." (P. S. du Pont 2245).

Raskob's report, the testimony of Pierre S. and Irenee du Pont and all the circumstances leading up to du Pont's acquisition of this substantial interest in General Motors, as shown by the record, establish that the acquisition was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business.

The Government asserts that an agreement was made in 1917 at or about the time of du Pont's investment in General Motors which bound the latter to purchase from du Pont substantially all of its requirements of products of the kind made by du Pont. It also argues that du Pont's investment in General Motors was made with the purpose of using its alleged control of General Motors to require it to buy from du Pont.

The principal basis for both of these contentions appears to be the portion of Raskob's report wherein he stated:

> "Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantiail factor." (GTX 124).

[fol. 468] The Court has also considered in passing upon these contentions of the Government the testimony of Pierre S. and Irenee du Pont and other documents written at the time of or within a few years following the investment.

The Court finds on the basis of all of the evidence of record that no agreement was made in connection with du Pont's investment in General Motors, or subsequent thereto, which bound the latter to buy any portion of its requirements from du Pont. Raskob's report does not describe any such agreement. Pierre S. du Pont was party to the preparation of this report and he testified that he had no knowledge of any such agreement. Irenee du Pont similarly testified that he knew of no such agreement. The Court believes it most unlikely that an agreement of the kind alleged by the Government would have been made without the knowledge of these two important officials. On the General Motors side, neither Sloan nor Pratt was ever advised of any such agreement though both occupied positions under Durant in which they would be expected to have known of one had it existed. No document, either contemporaneous with the making of the alleged agreement or subsequently executed, makes reference even indirectly to an agreement of the kind alleged by the Government. The Court does not find in the actions over the years of du Pont's executives or salesmen or General Motors purchasing personnel corroboration of the existence of the alleged agreement.

The Court also finds based on all of the evidence of record that du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests. Du Pont, the record shows, never intended to preclude General Motors from dealing with suppliers of its choice, never [fol. 469] made any effort to so preclude General Motors, and did not limit General Motors' purchasing freedom.

Raskob's reports and other documents written at or near the time of the investment show that du Pont's representatives were well aware that General Motors was a large consumer of products of the kind offered by du Pont. Raskob, for one, thought that du Pont would ultimately get all that business, but there is no evidence that Raskob expected to secure General Motors trade by imposing any limitation upon its freedom to buy from suppliers of its choice. Other documents also establish du Pont's continued interest in selling to General Motors—even to the extent of the latter's entire requirements—but they similarly make no suggestion that the desired result was to be achieved by limiting General Motors purchasing freedom. On the contrary, a number of them explicitly recognized that General Motors trade could only be secured on a competitive basis.

At the time of this investment, Pierre S. du Pont, Haskell and Raskob were members of the General Motors Board and after the investment two additional du Pont nominees were elected to that Board. In 1919 the Board was increased to twenty members and the du Pont nominees remained at six.

The Finance Committee consisted of seven members, five of whom were du Pont representatives—Pierre S. du Pont, Irenee du Pont, John J. Raskob, Henry F. du Pont, and J. A. Haskell. Mr. Raskob was appointed chairman. It is apparent, and it is admitted, that a majority of this committee were officers and directors of du Pont.

The Executive Committee consisted of ten members, including one du Pont nominee, J. A. Haskell, with Durant as chairman and the other members consisting of management representatives.

[fol. 470] The evidence establishes that following the period of this investment until 1920 du Pont and Durant jointly controlled General Motors and that du Pont, through its affiliation with Durant, assumed the responsibility for the financial operation of General Motors.

During 1918 and 1919 General Motors acquired the assets of the Chevrolet Company, United Motors, which was an amalgamation of a number of accessory companies, the McLaughlin Buick properties in Canada, and a sixty per cent interest in Fisher Body Corporation. This expansion of General Motors had required the raising of new capital.

The Board of Directors of General Motors in 1920, after a ~~previous~~ unsuccessful effort to raise the necessary additional capital by an issue of seven per cent debenture stock, authorized ~~an~~ issuance of approximately 3,200,000 shares of new common stock to the common stockholders at $20 per share. It was also decided that du Pont and Durant would turn over their stock subscription rights amounting to 1,800,000 shares to Nobel and Canadian Explosives, Ltd., since Durant and du Pont were reluctant to make any further investments. J. P. Morgan & Co. subscribed to 600,000 shares of the new issue and one of its partners was named to the Board, together with representatives of Nobel and Canadian Explosives. The stock acquisitions of Nobel and Canadian Explosives were in large part taken over by du Pont at a later date.

The evidence shows that this new issue was accompanied by the formation of a syndicate managed by J. P. Morgan to buy and sell General Motors stock and subscription rights for the purpose of supporting the value of General Motors stock in the market. During the Fall of 1920, Durant, through individual stock market operations apparently designed to support the market price, had become [fol. 471] indebted in the amount of $27,000,000 to various banks and brokerage houses for which he had pledged some 2,700,000 shares of General Motors stock. These stock market investments by Durant were disclosed to Pierre S. du Pont and Raskob in November and alarm was felt as to the possible consequences in the event Durant failed in the market. Du Pont Securities Company was organized to borrow $20,000,000 and take over Durant's loans, pay his creditors and preserve for him a 40% equity in du Pont Securities stock, which was later exchanged for 230,000 shares of General Motors stock. The new company had seven million dollars in cash and loaned 1,375,000 shares of General Motors stock to borrow the balance needed. Du Pont in 1921 authorized a bond issue in order to finance the transaction.

The net result of the foregoing stock transactions was that du Pont owned, through du Pont Securities, the equivalent of 7,362,540 shares of General Motors stock at a cost of $75,581,259 and in addition owned directly 200,000 shares acquired at a cost of $4,000,000; being the equivalent of approximately 38% of General Motors stock outstanding.

In 1923 du Pont sold about 2,250,000 shares of General Motors stock (substantially the amount acquired through the 1920 stock transactions) to Managers Securities, a corporation organized by General Motors for the purpose of providing additional incentive to principal executives of General Motors. Du Pont began to surrender the voting right on this stock in 1930, and from time to time thereafter surrendered such rights as holders of Managers Securities stock surrendered their stock and took down the underlying securities. By 1938 du Pont had surrendered the voting rights on all of this stock. It is admitted that since the release of the voting rights to [fol. 472] such stock, du Pont has for many years owned 10,000,000 shares, or approximately 23% of General Motors common stock, and that the remaining shares in 1947 were held by 436,510 stockholders, 92% of whom owned no more than 100 shares each and 60% owned no more than 25 shares each. In 1950 a two for one split was effected resulting in du Pont holding 20,000,000 out of 88,000,000 shares, which did not change the percentage of du Pont holdings.

At the conclusion of the 1920 events Pierre S. du Pont became president of General Motors. He was urged to accept this position by the du Pont Finance Committee since du Pont had a large investment in General Motors to protect. In addition, the record discloses that he was urged to assume the presidency of General Motors by the bankers, by Sloan, and by others in the management:

Pierre S. du Pont held the presidency of General Motors until May 1923 when Alfred P. Sloan became president.

During Pierre S. du Pont's term of presidency significant and important changes were effected within General Motors. These were:

(1) A plan of reorganization for General Motors providing for substantial autonomy of the operating divisions of General Motors. The evidence shows that Pierre S. du Pont presented to the Board a plan, originated by Sloan during Durant's presidency, to decentralize the General Motors divisions.

(2) Certain changes in management and in the personnel of the Executive Committee were made. Under Durant the ten man Executive Committee consisted of managers of the operating divisions. In 1921 the Executive Committee was reduced to four members. They were Pierre S. du Pont, the President; Haskell and Sloan, heads of the Line and Staff Divisions; and John J. Raskob, Chairman of the [fol. 473] Finance Committee. This four man committee was enlarged to six in 1922 by the addition of Charles Fisher, a General Motors director, and C. S. Mott, also a General Motors man. Durant started a competing automobile company and the question of loyalty on the part of some of the car division managers to Durant was one of the reasons for reconstituting the Executive Committee.

The managers of the operating divisions became an Operating Committee under Haskell. Four out of five car division managers were appointed by Pierre S. du Pont, upon the recommendation of Sloan. Of the four replaced, two resigned and two were replaced as a result of disputes regarding contract rights under employment agreements made during Durant's presidency. The four new managers recommended by Sloan had in each case been with General Motors for years and never had any connection with du Pont. Testimony of witnesses shows that the changes in managers were unrelated to the use of du Pont products.

The Finance Committee of General Motors remained the same except the Durant vacancy was filled by Donaldson Brown, a former du Pont employee who was also a member of du Pont's Finance Committee.

(3) A General Purchasing Committee was created in 1922. This committee was created at the suggestion of Sloan in order to enable General Motors to set up machinery for standardizing items and for coordinating purchases where two or more divisions used a common product. James Lynah, who left employment of du Pont in 1919 under "acrimonious" circumstances, was appointed secretary by Sloan and the committee was composed principally of purchasing agents of the General Motors divisions. It is this committee which in September 1923 with Lynah's recommendation urged the adoption of a rule requiring a second source of supply for leather substitutes and rubber [fol. 474] coated fabrics which were being purchased in large quantities from du Pont. John L. Pratt, who was a du Pont employee from 1905 to 1919 when he resigned and went to work for Durant at General Motors, also became a member of this committee and was its chairman from 1924 to 1929.

(4) In 1918, during the Durant regime, at the suggestion of the du Pont nominees, General Motors initiated a bonus plan to outstanding employees. Before retiring as president, Pierre S. du Pont recommended that another plan be instituted providing for additional compensation to principal executives of General Motors.

Allotment of bonus awards was made by the Chief Executive Officer of General Motors subject to the approval of the Finance Committee. This procedure was followed until 1936 when a Bonus and Salary Committee of the Board replaced that function of the Finance Committee.

In addition to these changes in General Motors, two important discoveries affecting the automotive industry occurred.

In the latter part of 1920 Edmund M. Flaherty, an employee of du Pont, invented and carried to the commercial development stage a quick-drying, durable nitrocellulose lacquer, which was patented and called "Duco".

The other was the discovery of tetraethyl lead. In 1918 General Motors engaged in an extensive investigation into the nature and the causes of "knocking" in engines. In the General Motors laboratories chemical research under the direction of Charles F. Kettering and Thomas Midgely developed that the use of tetraethyl lead blended with gasoline in proper proportions constituted an effective antiknock. It was further revealed that TEL, as it was called, was a scarce and expensive product, production of which [fol. 475] was extremely hazardous. General Motors discovered that TEL could be produced commercially from ethyl bromide. In 1922 General Motors and du Pont entered into an agreement under which du Pont manufactured TEL and it was distributed through a General Motors subsidiary organized to handle its marketing.

The record shows that during the 1920 to 1923 period du Pont had a 38% interest in the stock of General Motors. Three of the six members on the Executive Committee and seven of the eleven members on the Finance Committee were du Pont men. Haskell, former sales manager and vice-president of du Pont, who was willing to undertake the responsibility of keeping du Pont informed of General Motors affairs during Durant's regime, was Vice-President in Charge of the Operations Committee.

The defendants have conceded that "during the period of P. S. du Pont's Chief Executive Officership nominees of du Pont were thrust into positions of responsibility in General Motors which went beyond the financial supervision which had been their earlier role". (D. P. Brief, p. 332)

On April 24, 1923 Pierre S. du Pont informed the Finance Committee of du Pont of his desire to retire as president of General Motors and of his intention to recommend Alfred P. Sloan, Jr., as his successor. Sloan was a vice-president of General Motors and was in charge of the General Advisory Staff. He had been president of Hyatt Roller Bearing Company, one of the companies controlled by United Motors, which had been organized in 1916 by Durant. When General Motors acquired United Motors, Durant appointed Sloan as its president. The Finance Committee of du Pont adopted a resolution acquiescing in Pierre S. du Pont's decision and expressing confidence in Sloan as his successor to the presidency. Thereafter, [fol. 476] Pierre S. du Pont informed the directors of General Motors of his intention to resign and of his recommendation of Sloan for president.

On May 10, 1923 Sloan was elected president of General Motors and also was its Chief Executive Officer from 1937 until 1946. William S. Knudsen was elected president May 3, 1937 and served as such until September 3, 1940. In 1941 Charles E. Wilson was elected President and also became the Chief Executive Officer in 1946. Shortly after Sloan became president he was elected a director of du Pont.

Board Members.

On May 10, 1923 when Sloan became president, the Board consisted of thirty-two directors. The evidence shows that during the period of Sloan's presidency and that of Wilson, the du Pont nominees on the Board never exceeded six. The total number of members of the Board between 1949 and February 1, 1953 did not exceed thirty-two and was not below thirty.

Of the thirty-two directors when Sloan became president, sixteen were so-called management directors and only two of these had been connected with du Pont—Donaldson Brown and Haskell. The other than management directors were five bankers, three American industrialists, and two foreign industrialists.

Sir Harry McGowan of Imperial Chemicals, William McMaster of Canadian Explosives, Seward Prosser of Bankers Trust Co., Edward P. Stettinius of J. P. Morgan, William H. Woodin of American Car & Foundry, C. M. Woolley of American Radiator, and Owen D. Young of General Electric, all became members of the Board during the 1920 financing. There is no evidence that they were added at the suggestion of the du Pont nominees.

[fol. 477] The defendants have admitted that in 1942 du Pont suggested additional directors who were neither management nor du Pont nominees. At that time there were only three directors on the Board who were neither management nor du Pont nominees.

In July 1944 Carpenter wrote to Sloan urging selection of additional non-management and non-du Pont directors. Sloan testified he took the initiative in attempting to find qualified men who would be willing to serve. He also testified that in such search he sought suggestions from other members of the Board, including du Pont nominees, and discussed generally with all Board members the suggestions received.

In 1943 Sloan wrote to Carpenter, who was a member of the General Motors Board, that in his search for "outside" directors, he was "against Bankers on Boards of industrial companies" and had therefore eliminated the suggestions of Henry C. Alexander, Vice-President of J. P. Morgan, and R. K. Mellon, President of Mellon National Bank, whose names had been proposed by Carpenter some time previously. On January 8, 1948, five years later, R. K. Mellon was named to the Board of General Motors at the suggestion of Donaldson Brown. Mellon had by this time become "a very large stockholder in General Motors". In 1949 at the request of Sloan, Alexander, the other banker, was added to the Board. Thus some period of time passed between Sloan's indicated aversion to bankers on boards and the subsequent appointments.

In addition, on December 18, 1944, Lammot du Pont wrote to Sloan regarding Bernard Peyton, a nephew of Eugene du Pont who owned 60,000 shares of du Pont common "which is more than enough to give him a predominating interest in the affairs of that company and indirectly in [fol. 478] General Motors." (GTX 1230). Lammot du Pont wondered if "this would be a suggestion for consideration from the standpoint of directorship in General Motors". Sloan's reply admitted that neither he nor Donaldson Brown, to whom he spoke about Peyton, knew Peyton, and replied that if Peyton was the owner of a large block of du Pont common, involving indirectly substantial ownership in General Motors, together with his past business experience as Vice President and Treasurer of New York Air Brake Company, he would be qualified. He further stated that if necessary he would make inquiries regarding Peyton, but felt that since Lammot du Pont knew him no more was needed. In any event, Peyton never became a member of the Board.

On December 10, 1945 Sloan wrote to Carpenter, then President of du Pont and a member of the General Motors Board, regarding the suggestion of Mr. Pratt to consider General Marshall as a member of the General Motors Board and indicated that he did not favor the suggestion. A reply came from Lammot du Pont, Chairman of the Board of du Pont and also a member of the General Motors Board, that he was not in favor of General Marshall's membership. On Sloan's letter to Carpenter, there appears a handwritten notation of the name of "E. F. Johnson", and in the following month Johnson was elected a director of General Motors. Prior to his service with General Motors, he was an employee of du Pont.

On April 22, 1930, in an exchange of correspondence, Lammot du Pont agreed with Sloan's suggestion that Mr. Bishop should not be re-elected a vice-president of General Motors but thought he should be retained a director, and suggested further that Curtis C. Cooper, who had severed connections with the corporation, be dropped as a director. On May 1, 1930 Mr. Bishop was not re-elected [fol. 479] Vice-President but continued as a director, and Mr. Cooper was not retained as a member of the Board.

In 1928, Raskob, while chairman of the General Motors Finance Committee, became Chairman of the National Democratic Committee in connection with the candidacy of Alfred E. Smith for President. Sloan testified he considered it unsound for Raskob to manage a political campaign and at the same time continue as "unofficial" spokesman for General Motors because he felt it put General Motors in politics. Raskob differed with Sloan's view and was supported by Pierre S., Irenee, and Coleman du Pont. The episode resulted in Raskob's resignation and also the resignation of Pierre S. du Pont as Chairman of the Board. Both, however, remained as members of the Board and the Finance Committee. Lammot du Pont succeeded Pierre S. du Pont as Chairman of the General Motors Board and held that position until 1937.

Mr. Sloan testified that he discussed prospective directors, particularly "outside" directors, with the entire Board.

A majority of the directors have always been the nominees of management. Sloan testified that management directors were always nominated by him when they had achieved in the management hierarchy of the corporation a position which entitled or required that they be on one of the committees of the Board, and further that he never discussed these nominations with anyone except the management group and after his recommendation their election was automatic. Sloan and Carpenter testified that no du Pont nominee ever objected to the number of management directors which Sloan wanted on the Board.

Committees of the Board

The Executive Committee, until merged with the Policy [fol. 480] Committee in 1937, dealt with operational management problems. In May 1923 when Sloan became president of General Motors there were six members, three of whom were du Pont representatives, i.e, Pierre S. du Pont, Chairman of the Board, John J. Raskob, Chairman of the Finance Committee, and Donaldson Brown, a member of the Finance Committee. The membership of this committee was increased to twelve during the period 1923-1934, and new members were added at the suggestion and request of Sloan.

It is the Government's contention that du Pont directly intervened in decisions touching on changes in the membership of the Executive Committee and refer to the incident following the resignation of Raskob and Pierre S. du Pont from the Executive Committee. Irenee du Pont, then Vice-Chairman of the Board of du Pont wrote to Lammot du Pont, Chairman of the Board of General Motors, reminding him of the recommendations made by Pierre S. du Pont and Raskob for their vacancies—that Knudsen be placed on the Executive Committee for Raskob, Mr. Mooney in place of Mr. Mott, and possibly Walter Carpenter in place of Pierre S. du Pont. Knudsen was placed on the Executive Committee within three months; Mooney became a member of the Executive Committee some six years later; and instead of Carpenter, Lammot du Pont took Pierre S. du Pont's place on that committee. Neither Knudsen nor Mooney was connected with du Pont.

On April 22, 1930 Sloan received a reply from Lammot du Pont, then Chairman of the Board of General Motors, which approved of Sloan's idea expressed in an earlier letter of abolishing the Operations Committee and of placing its members on the Executive Committee. Lammot du Pont went on to say this meant that Bradley, Grant, Hunt and Wilson, all of whom were vice-presidents, would [fol. 481] have to become members of the Executive Committee and presumably would have to be elected directors, but added there was no reason why Glancey, Reuter and Strong, who were also vice-presidents, should be added to the Board. Some four or five years later, 1934 and 1935, Bradley, Hunt and Wilson were added to the Executive

Committee and to the Board. The others mentioned by Lammot du Pont never became directors.

Lammot du Pont, Chairman of the General Motors Board, who had become a member of the Executive Committee in 1930, resigned as a member in 1934. In this connection Sloan wrote to Lammot du Pont inquiring whether Lammot du Pont would like to have Carpenter elected in his place. The evidence shows that Carpenter did not go on the Committee and no one replaced Lammot du Pont. After his resignation, du Pont had no representative on the Executive Committee. Donaldson Brown remained a member of this committee.

The Finance Committee until merged with the Policy Committee in 1937 dealt primar-ly with financial matters. In 1923 of the eleven members, seven were du Pont men. These were Pierre S. du Pont, Chairman of the Board of du Pont, Irenee du Pont, President of du Pont, Lammot du Pont, Vice President and a director of du Pont, John J. Raskob, a director and member of the du Pont Finance Committee, J. A. Haskell, a vice-president and director of du Pont, H. F. du Pont, a director and member of the Finance Committee, and Donaldson Brown, a director and member of the Finance Committee of du Pont. With the death of Haskell in 1923, the du Pont representation was reduced to six. The Finance Committee in 1923 with continuing du Pont representation reflected the original understanding with Durant that in financial matters the du Ponts would assume the primary responsibility.

[fol. 482] In 1924 this committee was increased to twelve and eventually to fourteen. In 1927 Carpenter became a member of this committee.

With the resignation of Raskob from the Executive Committee and Chairmanship of the Finance Committee, Lammot du Pont, then President of du Pont and a director of General Motors, wrote to Sloan regarding the chairmanship of this committee stating that he felt it was up to du Pont to make a nomination since du Pont "has always assumed the responsibility for the financial direction of General Motors" and suggested the appointment of Carpenter and, if not agreeable, Donaldson Brown. The record shows that Donaldson Brown succeeded Raskob as Chairman.

On May 3, 1937, the membership of the Finance Committee was fourteen, seven of whom were du Pont representatives, i.e., Pierre S., H. F., Irenee, and Lammot du Pont, Raskob, Brown and Carpenter. The other members were Baker, Prosser, Sloan, Whitney, Morgan, Mott and Bradley. Sloan testified that most of the additions to this committee during the period 1923-1937 had been at his suggestion.

In 1937 at the insistence of Sloan, the two committee operation was consolidated into the Policy Committee. Sloan testified that the change was desirable because experience proved that the Finance Committee for some years prior to 1937 had dealt with problems which though financial in nature were operating problems as well. After some discussion, his recommendation was accepted and a Policy Committee which had complete authority to deal with broad policy questions was established. At this time Sloan resigned as President and was succeeded by Knudsen. Sloan remained the Chief Executive Officer and Chairman of the Board.

[fol. 483] The one committee idea had been discussed with du Pont representatives. It was considered by the Finance Committee of du Pont and the committee was in favor of the objectives of the proposal, but misgivings were expressed with respect to the discontinuance of the Finance Committee without creating some body whose particular function would be the handling of financial problems. A proposed compromise plan was submitted which was not adopted.

In connection with the 1937 reorganization, Lammot du Pont wrote to Carpenter reporting on a conference held in New York. Those present, including himself, were Alfred Sloan, Donaldson Brown, J. T. Smith, John Raskob, John Pratt and Pierre S. du Pont. At this conference it was agreed that the Board would be reduced to 28 omitting McGowan, H. F. du Pont, W. A. Fisher, Kaufman, Opel, Swayne, Woolley and Young; a Policy Committee would be appointed consisting of Bradley, Brown, Knudsen, Sloan, Smith, Wilson and three representatives of du Pont; and an Administrative Committee would be appointed with Wilson as Chairman. In addition it was agreed that eventually Sloan should become Chairman of the Board and

Knudsen, President. Lammot du Pont stated that Sloan seemed so insistent on his one committee idea, which was concurred in by the others, that he felt any objections Carpenter or he had should be waived in view of the fact that some other man of financial experience from du Pont might be named on the Policy Committee.

The record shows that during the life of the Policy Committee, continued misgivings were expressed as to its efficacy. Sloan, Carpenter and Lammot du Pont exchanged correspondence with reference to the weaknesses disclosed by operating under the Policy and Administration Committees. Sloan had reached the conclusion that the com- [fol. 484] mittee set up should be altered. In writing to Donaldson Brown Sloan stated "we put too many things on the Policy Committee that involve administration and do not confine their work sufficiently to broad questions of policy." In addition, Sloan in his correspondence with Lammot du Pont stated that the General Motors Organizational scheme of things was not adaptable to the same type of organizational set up existing in du Pont. A change in committee organization was effected in 1946 by a return to the two committee plan: one was the Financial Policy Committee and the other the Operations Policy Committee. Mr. Sloan testified as to the considerations evoking a return to this system. He also testified that the reason correspondence evidence existed with the du Pont group and none with the management group of directors was that the management group was in the same office and these matters of organization changes were discussed orally with them.

The Policy Committee always consisted of nine members. During the entire period of this committee the following du Pont officers and directors, not incuding Sloan, were members: Donaldson Brown, Carpenter and Lammot du Pont. The management members were Bradley, Sloan, Smith, Wilson and Knudsen, who was replaced by Hunt in 1940 on the nomination of Sloan. The other member was George Whitney of J. P. Morgan. With the exception of Knudsen, the personnel of this committee remained the same throughout its life.

In 1943 Sloan wrote to Lammot du Pont asking his reaction to the suggestion of Kettering as a member of the Policy Committee. Lammot du Pont did not favor the suggestion and Kettering was not appointed. Testifying regarding this incident, Sloan stated that others agreed with Lammot du Pont, including himself after giving the subject further consideration. Sloan also testified that he [fol. 485] consulted with all the directors regarding the appointments to the Policy Committee.

In 1946 with the change of committee organization, there were no du Pont representatives on the Operations Policy Committee. The Financial Policy Committee started with nine members and was later increased to ten. At no time during its existence were there more than three du Pont representatives on this committee.

The evidence shows that since 1934, with the exception of Donaldson Brown, no du Pont representative was on the Executive Committee. Brown had been described by Sloan as a General Motors man although he was a former officer of du Pont, retained his membership on its Board and its Finance Committee when he went to General Motors. Brown became a part of the General Motors organization in 1921 when Raskob in a letter to Irenee du Pont, who was then President of du Pont, wrote that General Motors needed expert financial assistance and that the person selected should not only be a man of unquestioned ability but one who enjoyed the absolute confidence of the directors of du Pont, which now controlled General Motors. He recommended Donaldson Brown and stated that since the financial interests of both companies were so closely interwoven, Brown should be retained as a director and member of the Finance Committee of du Pont. Brown eventually succeeded Raskob in General Motors and became chief financial advisor to its president.

There is no evidence that Brown was active in commercial relations between du Pont and General Motors or that he ever did anything to encourage the use of du Pont products by General Motors.

During the life of the Policy Committee, of a membership of nine, three, including Brown, were du Pont repre- [fol. 486] sentatives. There were no du Pont representatives on the Operations Policy Committee.

On the Finance Committee, which was changed to the Policy Committee in 1937, there were seven du Pont representatives, including Brown, in a total membership of fourteen. Of the ten members on the Financial Policy Committee in 1946, three were du Pont representatives. Thus, numerically, the du Pont representatives were not in a majority on the governing committees of General Motors. The record shows that during 1941 du Pont was interested in the retention and placing of able personnel in the financial department of General Motors.

The participation of the du Pont representatives in the selection of General Motors directors and in determining the organization of the board and the composition of its committees does not establish that du Pont has been the controlling force in the direction of General Motors affairs, or has been in a position to act as if it owned a majority of General Motors stock. The record shows consultation and conference, but not domination. Moreover, in all these matters Sloan has clearly been the leader and the dominating influence and has largely determined the results. With a minimum of consultation with du Pont representatives he has selected the management. In large part, though with somewhat more consultation with du Pont, he has suggested the names of directors and led the discussion in that respect. Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors.

The Court finds it highly significant that in all of the correspondence regarding General Motors directors the attitude of the suggested nominee toward du Pont was in no instance a consideration in his approval or disapproval. [fol. 487] Accordingly, the Court finds, based on all the evidence, that du Pont's participation in the selection of General Motors directors and management does not establish that it controlled General Motors or that it sought through such participation to place people in General Motors who would further du Pont's interests as a supplier or as a chemical manufacturer.

Bonus Plans and Awards

The record shows that in 1923 du Pont sponsored and supported the Managers Securities Plan. The idea had been suggested by Pierre S. du Pont, then President of General Motors, and the details, with some variations before the final adoption, are set forth in a report prepared by Raskob and Brown. This report was submitted to the du Pont Finance Committee and stated that Pierre S. du Pont's interest in the plan caused the report to be made. The report stated that Pierre S. du Pont felt that the most effective manner of attaining maximum success in the conduct of the affairs of General Motors was to interest its principal men as substantial stockholders or partners in the business, that du Pont with its large and controlling interest in General Motors would enhance the value of its own investment by the adoption of such a plan in General Motors and would retain the same control of General Motors through owning two-thirds of the stock of General Motors Securities Company, plus the fact that "it will definitely tie up with us in the management and control of this huge investment the men in General Motors Corporation who are definitely charged with the responsibility and success of the corporation." (GTX 235).

Managers Securities Corporation was organized by General Motors to purchase 2,250,000 shares, or approximately one-third of the common stock of General Motors Securities [fol. 488] Company, the du Pont Company which held 7,500,000 shares of common stock in General Motors. Du Pont from time to time surrendered voting control of the 2,250,000 shares until 1938 when the successor corporations, General Motors Securities, was liquidated.

In the course of evolving this additional compensation plan, the evidence shows that Irenee du Pont had certain objections and suggested that the stock for Managers Securities be procured through circularization of General Motors stockholders. Mr. Laffey, Chief Counsel for du Pont, advised Irenee du Pont that a direct sale of the stock to General Motors would have incurred a federal capital gains tax. Irenee du Pont testified to this as one of the considerations for the plan ultimately adopted. The plan originally proposed by Raskob and Brown, and objected to by Irenee du Pont, was retained and du Pont supplied the stock which was the sole asset of Managers Securities. The Managers Securities common stock was sold to General Motors and resold by it to about eighty of its executives.

General Motors agreed to pay Managers Securities 5% of its earnings annually, plus $2,000,000 per year, after deducing 7% on invested capital. Prior to Managers Securities, General Motors had annually set aside 10% of its earnings, after deducing 6% on invested capital, for the bonus fund. With the creation of Managers Securities, one-half of the 10% previously set aside for the bonus plan, or 5%, was allocated to Managers Securities for distribution in Class A stock, having a par value of $100, and Class B stock, having a par value of $25. Sloan testified that the Class A, five million par value stock of Managers Securities was not entirely allotted to executives, a reserve being held so that in subsequent years the allotment to Managers Securities was reduced below 5%, the balance going to the bonus fund. The Class B stock of Managers [fol. 489] Securities received the dividends earned by 2,250,000 General Motors common purchased by Managers Securities from du Pont.

The executives purchasing Managers Securities stock paid one-seventh of the purchase price in cash and the balance was paid on a deferred payment basis out of future bonuses and out of the earnings of the stock purchased.

The Board of Directors created a committee which was empowered to designate the employees of General Motors who were to participate in the Managers Securities stock. This committee consisted of three members—Pierre S. du Pont, Chairman of the Board, and two other directors, Seward Prosser of J. P. Morgan, and Arthur G. Bishop, President of a Flint, Michigan, bank.

Sloan testified the stock allotments were made and determined by the special committee, then submitted to him as Chief Executive Officer for consideration and recommendation in the way of changes in the allotments. The initial awards of Managers Securities stock were made November 22, 1923 when Pierre S. du Pont wrote to the two other members of his committee making suggestions as to the distributions of stock. Sloan testified that the original allotment by the committee was made before submission to him, that Exhibit GM 30 contained the final allotment after submission to him, and showed the changes he had made.

Pierre S. du Pont testified the general method followed in bringing to the Special Committee recommendations for allotments for General Motors personnel of Managers Securities stock was that allotments were initiated by heads of the different departments of General Motors in a recommendation to the president of the corporation, who expressed his opinion thereon and passed the entire recommendation to the committee of three and so far as he knew no recommendation was changed by the commit- [fol. 490] tee after it came from Sloan. Sloan testified that bonuses were distributed by the Chief Executive Officer of the corporation whose recommendations went before the Finance Committee for approval. He further testified that although the chief executive officer had jurisdiction so far as the higher executives of the corporation were concerned, their compensation came through Managers Securities and he made no allotments to the higher officers since it was automatic and determined by the Special Allotment Committee. With respect to the operation of the bonus plan, he stated that although the responsibility rested with the chief executive officer he could not determine the allotments in the lower echelon of authority. A certain amount was allocated to a division and the chief executive of the division was the responsible agent in distributing the bonus within that division. He then submitted his recommendations to the chief executive officer who in turn submitted them to the Finance Committee until the year 1936 and thereafter to the Bonus and Salary Committee. Sloan testified that he could not remember any instance where the recommendations so made were changed by the Finance Committee or the Bonus and Salary Committee.

In 1923 the Finance Committee of General Motors, which received the recommendations of the Chief Executive, and the heads of the divisions, still reflected the original understanding with Durant that in financial matters du Pont would assume primary responsibility. Du Pont had six representatives in a total membership of eleven. After the membership was increased to fourteen in 1923, there were six du Pont representatives.

For the years preceding 1941 there are no records of the personnel of the Bonus and Salary Committee which replaced the function of the Finance Committee in connection [fol. 491] with the compensation plan. From 1941 to 1948, Government Exhibit 276 shows that of the five directors constituting this committee, the majority were du Pont representatives. They were W. S. Carpenter 1941-1944; H. B. du Pont 1944-1948; John J. Raskob 1941-1945;

Echols 1946-1948; and Lammot du Pont 1941-1945, who was also its chairman during that period. The other members were John L. Pratt 1941-1946; George Whitney 1941-1948; and E. F. Johnson 1947-1948. Carpenter suggested his position on the Bonus and Salary Committee in 1944 be taken by H. B. du Pont and added that this would give H. B. du Pont "an excellent opportunity to better familiarizing himself with the personnel" of General Motors. (GTX 210).

Mr. Sloan and Pierre S. du Pont testified that in the allocations made no consideration was given to the purchasing practices or attitudes of any executives toward du Pont.

The Managers Securities Plan as submitted and approved by the General Motors stockholders gave the corporation an irrevocable option to repurchase all or any part of the Class A or B stock and provided that the Finance Committee make a yearly review of the recipients of stock for the purpose of determining whether their stockholdings were disproportionate to the service being rendered, and providing for repurchase of stock in the event it was so found.

The Managers Securities Plan was terminated in 1929 because with the increase in the number of executives it was felt "something had to be done to broaden the scope of the plan." On January 1, 1930 a new seven year plan was developed and General Motors Management Corporation was organized. Du Pont did not provide any of the stock for this new corporation. Upon the expiration of the Management Corporation plan in 1938, General Motors [fol. 492] reverted to the old Bonus Plan as the sole vehicle for rewarding its personnel.

The Court finds no evidence that any action taken by du Pont representatives with respect to the compensation of General Motors executives was intended to influence those executives to deal with du Pont or to refrain from dealing with du Pont competitors. Nor is there evidence of any instance in which a General Motors executive favored du Pont out of consideration for the latter's sale of stock to Managers Securities Company or out of deference to the position of du Pont representatives on the General Motors board.

Du Pont for many years has had supplemental compensation plans in various forms. Pierre S. and Irenee du Pont testified that they believed strongly that management should share in the success of a company and should participate in its earnings as owners. Their sponsorship of the Managers Securities Plan was no more than the application to General Motors of a business principle they had long practiced.

The record shows that some du Pont representatives did participate in the determination of the allotments under the Managers Securities plan and the bonus awards. There was opportunity, therefore, for them, in passing judgment on such matters, to attempt to further du Pont interests as a supplier of General Motors and as a chemical manufacturer. However, there is no evidence that any of them made any such attempt. The witnesses who testified and who would have been parties to such efforts vigorously denied the Government's charges. The Court refers to Pierre S. du Pont, Irenee du Pont, and Carpenter. A number of other executives who were witnesses such as Sloan, Kettering, Pratt, Lawrence Fisher, Lynah, and Wilson are [fol. 493] among those who would have been "influenced", if the Government's contention is correct. These men, the record shows, acted at all times solely in the best interest of General Motors.

The record as a whole and the findings made in the previous sections of this memorandum support these further findings on the issue of the alleged control of General Motors.

After the dramatic collapse of Durant and the ensuing financial crisis when du Pont representatives were thrust into positions of responsibility in General Motors, and after General Motors had been rescued from that crisis, du Pont's influence and position in General Motors declined radically. During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management, headed by such a forceful and resolute character as Sloan and including such positive personalities as Kettering, the Fisher brothers, Knudsen, Pratt, Brown, and Wilson.

More than a quarter of a century has passed since the twenties, and the strength and standing of the management have continued to increase and improve. The du Pont

representatives who had originally been interested in Ge
eral Motors have died or retired. These developments ar
reflected in the contemporaneous documents, the changes i
the membership of the board, the various committees
the board, and in the testimony of Sloan and othe
witnesses.

Irrespective of what its position may have been befo
and during the Durant crisis, since the 1920's du Pont ha
not had, and does not today have, practical or worki
control of General Motors. On the basis of all of the ev
dence the Court finds as a fact that du Pont did not a
could not conduct itself, for the past 25 years, as thoug
it were the owner of a majority of the General Moto
stock.

[fol. 494] The Government cross-examined Sloan respec
ing GTX 1307 which shows the percentage that the
Pont stock voted at the annual General Motors stoc
holders meetings bears to the total stock voted at su
meetings. Counsel for the Government sought to obta
from him an admission or concession that du Pont's blo
of stock was at all times sufficient to prevail at a stoc
holders meeting. Sloan's position was that he did n
believe one could tell what would happen if there was
conflict at a stockholders meeting. He pointed out tha
for instance, in the year 1932 there were 17 million shar
which were not represented at the meeting and furth
stated that, if there had been a contest for directors, the
would have been a much larger representation than 26 m
lion shares. His conclusion was that he did not think th
anyone could tell how that large representation would vo
because it would depend upon the issue that caused a pa
ticular conflict. He further stated that the stockholde
owning those shares would be guided by the record of Ge
eral Motors Corporation with respect to the advanceme
of its competitive position, its earnings, and its dividen

Sloan testified that at no time had there been a conte
over the selection of directors.. He said that while it w
true that the du Pont block of stock represented over 51
of the stock at certain of the meetings he emphasiz
that it was not 51% of *all* the stock entitled to vote.
this connection he said:

> "In case of conflict you immediately—the inter
> you arouse and all that, and the issues that are p

before the stockholders, would mean that a much larger percentage of the stockholders would come into the meeting, and that would dilute in a way the du Pont interest. So I can't just say what would happen. * * * It would depend, as I say, upon a lot of circumstances that I can't evaluate." (3087)

[fol. 495] The Court finds the testimony of Sloan on this question of control both reasonable and persuasive. There is a substantial failure of proof that du Pont controlled General Motors, even though it was voting at times 51% of the stock voted at a stockholders meeting. The testimony is that there was such satisfaction with the management and operation of General Motors that a large number of stockholders did not choose to vote their stock and made no protest with respect to the management of the company or the actions of the Board of Directors. It is entirely conjectural whether or not du Pont by its stock ownership could control if there had been a contest.

United States Rubber Company

It is admitted that in June 1927 the defendant individuals, together with Henry B. du Pont, Lammot du Pont Copeland and certain other members of the du Pont family and their close business associates formed a syndicate to purchase United States Rubber stock. It is the Government's contention that the syndicate's acquisition of this stock stemmed from a scheme to bring United States Rubber into the alleged conspiratorial plan involving General Motors and the du Pont Company. United States Rubber Company at this time was one of the largest manufacturers of rubber products in the United States.

In 1913 Irenee du Pont purchased 400 shares of United States Rubber common as a personal investment. He testified he made this initial investment through his confidence in a former fraternity brother, Raymond B. Price, who had invented a rubber reclaiming process which was sold to United States Rubber, and because he "was quite aware of the peculiar properties of rubber" and felt a "rubber company ought to be a good growing business." He later in-[fol. 496] creased his holdings to 12,000 shares and the extent of his investment from 1913-1926 is set forth in

GTX 1029. During this same period, Lammot du Pont had also invested in United States Rubber common without the knowledge of his brother, Irenee.

Irenee du Pont testified as to the background, the reasons and circumstances which caused the formation of the syndicate to buy United States Rubber stock. He stated that in 1927 the stock took a very "sudden nosedive", but the stock of other rubber companies remained firm; that he believed the drop in price was due to the fact that "somebody knew the position of the United States Rubber Company was not what it ought to be; that there had been mismanagement somewhere, and somebody wanted to get out of it and get into something else"; that the United States Rubber balance sheet showed excessive accounts receivable, and excessive inventories, materials, supplies, and finished products which he thought indicated incompetent financial management. However, he thought this was a good time for a profitable investment in United States Rubber, but since it would have required a larger investment than he could properly go into alone, he discussed the formation of a syndicate to purchase United States Rubber stock with his brother-in-law, William Winder Laird. He testified that he and Laird were of the opinion that if they could get a group to purchase a large block they would establish prestige with the management and be in a position to make suggestions and offer criticisms.

Without discussing the identity of the syndicate members with Irenee du Pont, Laird drew a syndicate agreement. With the exception of Raymond Price and Henry Davis, who were solicited by Irenee du Pont, Laird solicited the other ten members of the first syndicate who were, in the main, clients of Laird's brokerage firm.

[fol. 497] Irenee du Pont wired Raymond Price on June 17, 1927, as follows:

> "Would you join syndicate to buy control your former company." (GTX903).

He also sent him a letter reciting the fact that it would be a good plan to organize a syndicate to acquire control. Price accepted the invitation. On June 30, 1927, Irenee du Pont wrote inquiring whether Price would return to United States Rubber if "we should succeed in getting a large block and had a voice in the management". (GTX 906). Irenee du Pont testified this invitation to Price was not to replace anybody with him, since they "were backing the management, not through revamping the management" but supporting the management with the best advice. He stated that the syndicate thought the company would be impressed by the weight of a large stockholder, would get the matter "cleaned up" and as a result the company as a whole would prosper.

The syndicate agreement dated June 30, 1927 recited that the purpose was to acquire common stock in "quantities sufficient to give practical control, or at least a voice in the management". There were twelve persons in the syndicate at its inception. With the exceptions of Price and Henry Davis, all were stockholders in Christiana Securities and four—Irenee, Lammot and H. B. du Pont and W. W. Laird—who subscribed for over half of the amount were Delaware stockholders. Six of the subscribers were directors of the du Pont Company and the rest, with the exception of Price and Davis, were members of the du Pont family. At this time Irenee du Pont was Vice-Chairman of the Board of du Pont and Lammot du Pont was its President. Both were serving on the Finance Committees of General Motors and the du Pont Company.

[fol. 498] A report, addressed to Mr. Laird and presumably undertaken at his suggestion, was submitted on August 4, 1927 by Mr. Lytle on the problems and potentialities of United States Rubber. It was brought to Irenee du Pont's attention and he testified that it confirmed his views of the problems besetting United States Rubber.

A second syndicate was formed September 2, 1927 after the first syndicate had purchased 97,750 shares of United States Rubber stock. The second syndicate was formed in order to admit six additional subscribers. Among them was Pierre S. du Pont, who was Chairman of the Board of du Pont and General Motors, a member of the Executive Committee of General Motors, and also a member of the Finance Committees of du Pont and General Motors. With the exception of H. S. Meeds, Jr., the additional subscribers were Christiana or Delaware stockholders.

By December 9, 1927 the syndicate had purchased 154,750 shares of common stock, or 11% of the 1,379,503 total outstanding shares, both preferred and common, since both had voting rights. Of the 154,750 shares, the defendant individuals and members of the du Pont family, all of whom were stockholders in Christiana or Delaware, held 149,500 shares and the balance of 5,250 shares was held by Henry Davis, Raymond Price, and H. S. Meeds.

In December 1927 the syndicate operation was closed and some 154,000 shares of United States Rubber common were distributed to the syndicate members. Irenee du Pont testified that because they already had the ear of management there was no further need for the syndicate. In connection with the syndicate dissolution, H. B. du Pont wrote to Irenee and Lammot du Pont and other members on December 30, 1927 suggesting a voting trust of the syndicate stock be formed. On January 25, 1928 Henry B. du Pont, in writ- [fol. 499] ing to Pierre S. du Pont, indicated that all the members of the syndicate approved the idea and it was agreed that the trustees—Irenee and H. B. du Pont and H. S. Meeds—were to receive the stock from the syndicate members, deposit it in a box at the Wilmington Trust Company, and vote the stock as they saw fit. Irenee du Pont testified the reason for this procedure was to reassure Seger, then President of United States Rubber, that the investment by the group was not for speculation and also to make it possible to vote the stock as a unit.

In December 1929 after the termination of the second voting trust, Rubber Securities Company was organized by the syndicate members. Irenee du Pont had written to the syndicate members the month preceding that Mr. F. B. Davis, Jr., President, Mr. William de Krafft and Mr. Henry Davis, Directors of United States Rubber, were willing to undertake to organize a company to be known as Rubber Securities Company with a capital of 110,000 shares for the purpose of centralizing control of certain stock of United States Rubber. The syndicate stock of 254,300 common shares was to be sold at $26.50 to Rubber Securities; Rubber Securities stock was to be issued and subscribed to by such of the syndicate members who cared to subscribe in an amount equal to $29.50 for each share of United States Rubber common. This sale of syndicate stock to Rubber Securities permitted the members to crystalize a tax loss since the stock had been purchased at $40.50 per share.

Thus, H. S. Meeds, Jr. wrote to Irenee and Lammot du Pont on December 14, 1928 proposing the formation of a corporation with a view of taking advantage of such losses and expressing the belief that a corporation would offer a better means for "concerted action of the several interests involved" and suggested a Delaware corporation be formed.

In connection with the formation of Rubber Securities, [fol. 500] Irenee du Pont invited Cyrus Eaton, a banker, to join in the purchase of Rubber Securities stock and sell his United States Rubber shares to Rubber Securities. It appears from the record that Eaton, through Continental Shares, had about 100,000 shares of United States Rubber stock. Irenee du Pont testified that he thought it would be a very good thing to have him "definitely working with us rather than against us." Eaton refused the invitation.

The idea of centralizing the stock holdings of the syndicate members was one of the purposes for the creation of the new corporation. This is shown by both the record and testimony of Pierre S. du Pont.

Rubber Securities issued 106,335 shares of stock. A total of 101,146 shares was held by the members of the du Pont family; 80,930 shares were held by Delaware stockholders, and 5,159 shares were held by others who were not stockholders in Delaware or Christiana. Thus, 95% of Rubber Securities stock was held by Delaware and Christiana stockholders. Rubber Securities Company in December 1929 held 314,000 shares of United States Rubber common and 46,000 shares of preferred, or about 17% of the voting stock of 2,107,915 shares. It is admitted that this stock was voted as a unit at United States Rubber stockholders meetings.

The stock of Rubber Securities was closely held and kept intact until November 13, 1937 when, in anticipation of its dissolution, its stockholders received United States Rubber preferred and common stock on an approximate pro rata exchange for Rubber Securities stock. The reason for the dissolution of Rubber Securities, which was completed by December 1, 1938, was stated by Irenee du Pont to be a feeling among the stockholders that they would like to have something of tangible value on the stock exchange that they could borrow on as collateral and, further, the need for holding the group together had disappeared because they [fol. 501] had the ear of management.

After the dissolution of Rubber Securities, the holdings of United States Rubber stock were held by individuals and members of the du Pont family. These holdings have remained substantially intact since the dissolution of Rubber Securities. On June 30, 1949 the members of the du Pont family held a total of 324,516 shares of United States Rubber common, or 18% of a total of 1,761,000 shares, and 75,619 preferred, or 11%, of a total of 651,000 shares. The record shows that there were 14,000 other stockholders in United States Rubber besides the holdings above described. United ~~States~~ Rubber has introduced evidence showing that from 71.7% to 76.8% of United States Rubber stockholders were represented at the annual stockholders meetings for the years 1947-1949. At no time subsequent to the dissolution of Rubber Securities have the members of the du Pont family held more than 17% of the United States Rubber voting stock.

Irenee, Lammot and Henry B. du Pont transferred large blocks of their original holdings of Rubber Securities stock to trusts for the benefit of their children wherein the Wilmington Trust Company was designated as the trustee. On June 30, 1949 the Wilmington Trust Company held approximately 150,425 shares of United States Rubber common and 17,736 shares of United States Rubber preferred in the various trusts so established. Thus, almost one-half of the family holdings in United States Rubber common stock are held by the Wilmington Trust Company, as trustee. Most of the trust agreements provided that stock in the corpus of the estate may be voted by the trustee only with the advice and consent of a designated Advisor. Twenty-one of these trusts are listed in Appendix A to the Amended Complaint.

[fol. 502] In this connection the Government asserts that the Wilmington Trust Company is controlled by the du Pont family and this control directed the voting of shares of United States Rubber held by Wilmington Trust as trustee.

George Edmonds, President and Director of the Wilmington Trust Company, testified that the provisions regarding the holding and voting of securities underlying the trusts were entirely usual and in common use throughout the country; that specific or "blanket" approval by the Advisor to vote all the stock in a particular trust in favor of the management, provided there is no dispute, is required before the trustee will vote the stock; that where there is no contest for election of directors or other controversial question, the trustee follows the policy of voting for the management.

The members of the du Pont family hold 31,590 shares of voting stock in Wilmington Trust, and Christiana Securities holds 7,210 shares, constituting 24% of the total 161,150 shares of outstanding Wilmington Trust stock. The Raskob report lists the Wilmington Trust under the heading of "du Pont control". The government has introduced GTX 3 and 1276 to show that members of the du Pont family and their close associates have been and are directors of Wilmington Trust. As of June 1949, the board of Wilmington Trust consisted of twenty-two directors, seven were members of the du Pont family and three were their close associates.

Kuhn, Loeb & Co. had been issuing bankers for United States Rubber since 1917 and had been underwriters for about twelve issues of United States Rubber securities before 1927. It was in connection with the 1917 financing that Seger became a director in United States Rubber on recommendation of Kuhn, Loeb.

[fol. 503] Beginning in October 1927 Irenee du Pont had a series of meetings with Charles B. Seger, whom he met for the first time in July and who was the President and Chairman of the Board of United States Rubber. Irenee du Pont testified that the first time he met him, Seger inquired whether he had called to obtain his resignation. Irenee du Pont replied that they had bought into United States Rubber to support him and give what assistance they could to effect an improvement in the financial setup of the corporation. He also testified that he was favorably impressed with Mr. Seger and that he felt reassured that conditions would improve with guidance from some one who had been "through the mill" in similar problems. He sent Seger a copy of the Lytle report and a copy of the du Pont bonus plan, with the suggestion as to the latter that Seger see John J. Raskob, who had no interest in United States Rubber, regarding his views on United States Rubber adopting some such plan.

When the syndicate made its investment Irenee du Pont at a meeting with Wiseman and Schiff of Kuhn, Loeb & Co., subsequent to his meeting with Seger, informed Kuhn, Loeb of the syndicate investment in United States Rubber and asked for their cooperation in improving its financial management. At Schiff's suggestion, Irenee du Pont and the Kuhn, Loeb representatives met with Seger. Irenee du Pont offered to help Seger solve United States Rubber's problems of excessive accounts receivable and inventories. Seger appeared receptive to the views expressd at these meetings.

After the meetings with Irenée du Pont, Seger invited him to become a member of the United States Rubber Board but he declined for the reason he did not want to undertake the burdens and feared the presence of a du [fol. 504] Pont name on the Board might mislead the public as to the value of United States Rubber stock.

Early in 1928 when the price of crude rubber dropped from forty cents to twenty cents a pound, United States Rubber having a large inventory was faced with a possible inventory loss of almost two million dollars. This drop in the price of rubber reduced the value of the company's assets below the point at which payment of dividends was permitted under the terms of one of its note indentures, and the decline in the value of its assets made it imperative to conserve the company's cash for meeting approaching maturities on its borrowings.

Wiseman and Irenee du Pont testified that Seger was reluctant to recommend that no dividend be paid, but was eventually persuaded by Kuhn, Loeb to recommend to the Board that no dividend be declared. Seger, in a letter to the stockholders on April 5, 1928, explained the action of the company and stated that "except for the limitations imposed by the Indenture" there was no reason why the dividend should not have been declared at this time. Wiseman testified that Seger's reluctance to recommend non-payment of the preferred dividend strengthened the Kuhn, Loeb view that Seger needed help in running the company.

During the Spring and Summer of 1928 the price of crude rubber continued to decline and the company's loss of inventory value, plus a twenty million dollar indebtedness, created concern among its creditors and it was feared that a receivership might result.

In April 1928 Lewis L. Strauss of Kuhn, Loeb prepared a plan for the issuance of new common stock by United States Rubber. Irenee du Pont also regarded the raising of new capital necessary. Seger, however, took no action regarding it.

[fol. 505] In the Summer of 1928 the syndicate sold 27,600 shares of United States Rubber stock at a loss. Irenee du Pont testified the sale was made by the syndicate members for the reason that they suspected there might be a receivership and "that we had better sell some of the stock and reduce our commitments". In October 1928 the Guaranty Trust Co. threatened to cut off its credit to United States Rubber and several other banks expressed concern to Kuhn, Loeb about the continuance of credit to the company. Seger was finally persuaded that it was necessary to raise new capital, and at his request in October 1928 Kuhn, Loeb drafted another plan for the issuance of common stock. The issue of 728,412 shares of common was to be offered to the existing common stockholders on a share for share basis. Kuhn, Loeb invited other banking and brokerage firms to participate in the underwriting, including Laird, Bissell & Meeds, who were included at the request of Irenee du Pont.

Sir William Wiseman testified that as early as 1927, Kuhn, Loeb had come to the conclusion that Seger should be replaced as President because of his poor health, his difficulty in reaching decisions on pressing problems, and for the reason that United States Rubber was making a poor showing in comparison with its leading competitors.

Irenee du Pont, in November 1928, wrote the members of the syndicate informing them of the decision for the new issue of stock and suggesting that in order to improve the management the Board be enlarged by three additional members and to fill the two vacancies; that these appointees should be two from Kuhn, Loeb, two from the syndicate, and the proposed new president. In December 1928 Roger Winthrop and Sir Wiseman of Kuhn, Loeb, and Henry Davis, for the syndicate, were elected members of the Board. In addition, it was contemplated that these members of the Board would become members of the
[fol. 506]

Finance Committee. Irenee du Pont testified that the decision to replace Seger as president became necessary because nothing had been accomplished to improve the weak financial structure of the company, and because of his unrealistic attitude in the dividend controversy and the new stock issue.

With the exception of H. F. and H. B. du Pont, all of the syndicate members decided to subscribe to the new stock issue. H. B. du Pont testified he was discouraged over the prospects of United States Rubber and did not wish to risk more capital in the company.

In the underwriting of the new common stock issue, Kuhn, Loeb allotted to Laird, Bissell & Meeds a 20% participation which was approximately the percentage which the syndicate members held in the common stock of United States Rubber. Wiseman testified this was a common arrangement. Thereafter, Laird, Bissell & Meeds and the syndicate members had an agreement whereby the syndicate members would receive a discount of $2.40 out of each $3.00 cost of underwriting their stock. The new stock was issued January 11, 1929 and the syndicate acquired 125,150 shares at a cost of over four million dollars.

Preceding the investment and issuance of the new stock, Irenee du Pont testified that the syndicate members had decided that if they were to take up their subscription rights to the new issue some safeguard against lack of proper financial management would be necessary and took "the position with Kuhn, Loeb that we should have some representation on a body which might be termed a finance committee so that we would have some control over the financial management of the company". This concern over the financial structure and the desire of the syndicate to [fol. 507] assume that responsibility is reflected in several letters written by Irenee du Pont.

Officers, Directors

Wiseman testified that he and Mr. Schiff, his partner, urged Seger to become Chairman and that a younger and more active man be made President. Kuhn, Loeb were unable to find anyone whom they considered suitable and in November 1928 asked Irenee du Pont to try to find such a person.

Irenee du Pont testified that H. S. Meeds suggested F. B. Davis, Jr. to him and Davis stated that Meeds had advised him he might be approached by Irenee du Pont. Shortly after the suggestion of Meeds, Irenee du Pont saw Davis and asked if he would be willing to take the post if elected, and Davis accepted.

On January 5, 1929 Irenee du Pont wrote a letter to Schiff of Kuhn, Loeb, sending a copy to Seger and Davis stating he had found a suitable man for the office of President. That same month, at the request of Irenee du Pont, Davis met with Schiff and Wiseman of Kuhn, Loeb. Schiff and Wiseman introduced Davis to some of the directors—J. S. Alexander, H. R. Winthrop, Matthew Brush, and L. B. Gawtry. Wiseman stated that they were impressed with Davis' qualifications and concluded he was an excellent candidate for president. Mr. Schiff advised Irenee du Pont that Seger had no objection to bringing F. B. Davis into the situation, but that there was difference of opinion as to how this could be accomplished without unfavorably affecting the organization. Wiseman negotiated with Seger as to the terms of his retirement. Irenee du Pont in writing Wiseman January 11, 1929 stated he was in favor of continuing Mr. Seger's contract with United States Rubber [fol. 508] and his salary payment "if it will assure the Rubber Corporation of his good advise based on many years' experience as head of that institution."

At a meeting of the Board on January 15, 1929 presided over by Wiseman, Seger resigned as President and Chairman of the Board, and F. B. Davis was elected President, Chairman of the Board and a director. Wiseman testified that Kuhn, Loeb, when sponsoring the election of Davis, did not know or inquire into the amount of stock held by the syndicate.

Prior to Irenee du Pont's letter to Kuhn, Loeb suggesting Davis as a suitable candidate for president, he had written to the Voting Trustees—H. S. Meeds, A. Felix du Pont, and Lammot du Pont—summarizing the steps regarding the central-organization of United States Rubber which, as principal stockholders, the syndicate should advocate. Irenee du Pont indicated the recommended changes were to continue the body now known as the Executive Committee under the name of the Finance Committee to consist of five persons—two representatives of bankers, William Wiseman and James S. Alexander; two representatives from the syndicate, Henry Davis and William de Krafft; and the new president. Irenee du Pont stated: "(This would leave our group in control of those matters which will be delegated to the Finance Committee . . .)". (GTX988). A real Executive Committee was to be made up of not over eleven men familiar with United States Rubber operations headed by the president or one of the other principal employees, and the number and personnel of this committee to be subject to change on the advice of F. B. Davis, Jr. The evidence shows that the persons recommended by Irenee du Pont were elected members of the Finance Committee, and William de Krafft became its Chairman; that an Executive Committee was organized with F. B. Davis as Chairman and William de Krafft be- [fol. 509] came a member the following year.

At the time F. B. Davis, Jr. was elected President, the syndicate's representation on the Board was one director —Henry Davis. In addition there were the two representatives from Kuhn, Loeb. There were fifteen members, including Seger, on the Board at this time.

F. B. Davis, Jr. was the President of the Viscoloid Company; a du Pont subsidiary, at the time he accepted the presidency of United States Rubber. In 1909 he had been in charge of the black powder division of du Pont, later becoming superintendent of the sporting powder division when Lammot du Pont was its divisional manager. Following the end of World War I, he was assigned to the du Pont Central Office as assistant in charge of salvage and later became superintendent of the Pyralin operations. He left du Pont because he was ambitious and felt there were too many bosses over him, going to General Motors as assistant in charge of its Saginaw Products Division where he remained until 1923. He was asked to return to du Pont by a member of the du Pont Executive Committee and accepted because, as he stated, du Pont had changed its organization to a decentralized type and because the compensation offered was larger than he was receiving. He became assistant general manager of the Pyralin Department, later its general manager, and was also made a du Pont director. The Pyralin Department was consolidated with the Viscoloid Company and in 1927 Davis became its president. After he became President of United States Rubber he continued as a director of du Pont until about 1941. He was also one of the incorporators of Rubber Securities, organized in December 1929. Irenee du Pont testified that F. B. Davis was known to all members of the syndicate and that therefore they were familiar with his [fol. 510] record. He also said that he had discussed the suggestion of Challen Parker as president with the syndicate, but since none of the members knew him he withdrew the suggestion. Irenee du Pont stated that he felt it was a requisite that the new president be personally known so that they would know what kind of a man they were getting.

Both Davis and Pierre S. du Pont testified that while Davis was president of United States Rubber he visited with the du Ponts, particularly Irenee and Lammot. He discussed with them the affairs of United States Rubber, consulting with them regarding the financial side, because as he said, "that was the part of it that they were most vitally interested in", but did not seek their advice on management or the operating end except to report on accomplishments.

Prior to Davis becoming president, Lucius D. Tompkins, Vice President of the Tire Division in United States Rubber, testified that it was a centralized organization and "was run by Mr. Seger as Chairman and President, and Mr. Homer Sawyer, Executive Vice-President". One of the first steps undertaken by Davis was to decentralize the organization and the commercial activities were conducted by separate and autonomous divisions, each under control of a general manager having full authority and responsibility as to manufacturing, selling, purchasing, accounting and research within his division, subject to the over-all policies decided by the Executive Committee.

Davis testified that the first thing he did on becoming president was to get acquainted with the Board, appraise the value of each individual member, and consult with them as to their desire to continue with United States Rubber; that he determined who would be most helpful to him and made up a proposed slate to be elected at the annual meeting. He testified further that he selected all the directors. [fol. 511] Davis testified that he not only discussed this proposed slate with the du Ponts but also with Sir William Wiseman of Kuhn, Loeb and "anyone else that seemed to me could be helpful in giving me advice on that subject". In addition, he stated he felt it was not only proper to discuss directors with important stockholders, but also with each member of the Board.

In March 1929, ~~prior to the~~ first meeting, Davis submitted his proposed slate to the members of the syndicate. This list consisted of twenty-eight names some already members of the Board, and indicated that as to non-company representation, John W. Davis, and Samuel M. Nicholson desired to resign and that he did not favor continuing Lewis Gawtry. In addition he suggested that Henry L. Hotchkiss be dropped for reasons of age and Homer E. Sawyer be discontinued since he was relinquishing active duties with United States Rubber. He listed eight directors as outside representatives and three company representatives whom he considered desirable to retain, and these were approved by the syndicate. The syndicate also approved three suggested additions for company representatives. Lammot du Pont replied to Davis' suggestions stating the syndicate members approved the retention of the men already on the Board; approved five of nine suggested additions to outside representatives; and stated in the event Gerard Swope, Victor M. Cutter and James A. Farrell would not serve as outside representatives, that the syndicate did not favor the suggestions made by Davis to substitute Carle C. Conway, Harold E. Talbott, or Lewis Gawtry.

Charles B. Seger and Gerard Swope did not wish to serve and Homer E. Sawyer and James A. Farrell were not elected. Lewis Gawtry and Carle C. Conway were [fol. 512] elected directors on April 16, 1929 and August 6, 1929, respectively.

Davis testified that following 1929 when he became more experienced in United States Rubber operations there was no necessity for discussing changes on the Board with the du Ponts and syndicate members, but he did discuss the changes with every member of the Board to obtain their approval.

B. W. Doyle, a former Vice-President of du Pont's Viscoloid Company, became a Board member in 1939; George P. Edmonds, a du Pont son-in-law and president of the Wilmington Trust, became a Board member in 1944; John L. Pratt was a director of General Motors at the time of his election to the Board of United States Rubber in 1937; W. P. Allen, a former vice-president and director of du Pont became a Board member in 1936; and H. E. Humphreys, Jr., a former employee of Delaware Realty, went on the Board in 1938. Allen, Doyle and Pratt were personally known to F. B. Davis. Between June 21, 1927 and June 30, 1949, a total of fifty-three men served on the United States Rubber Board, seven of whom were elected as temporary directors, leaving a total of forty-six regular members of the Board who served during this period at different times.

Davis and de Krafft did not get along together and eventually de Krafft resigned on June 30, 1938. Davis had previously met H. E. Humphreys, Jr., and thought he would be a suitable replacement. He asked Irenee du Pont whether Humphreys could be released from his duties as Secretary of Delaware Realty. Irenee du Pont approached Humphreys regarding United States Rubber, and when it was clear that he was interested his release was obtained and Humphreys was proposed by Davis as a member of the Board.

[fol. 513] In 1942 Herbert E. Smith became President of United States Rubber when F. B. Davis resigned. Davis remained as Chairman of the Board and Chief Executive Officer. Smith had been an employee of United States Rubber for about fourteen years before the syndicate was formed. Smith testified that he had only a casual acquaintance with the three du Pont brothers. He stated that following his election he had discussions with the du Ponts and many other stockholders a few times a year regarding the financial situation in United States Rubber.

When Davis retired as Chairman of the Board on December 31, 1948, Smith became the Chairman and the office of President was filled by Humphreys.

In this connection Lammot du Pont Copeland on April 5, 1948 wrote to the three defendant individuals and George Edmonds about a discussion he and Wiseman had concerning the situation when Davis would retire. Lammot du Pont wrote to Davis asking what his views were and stated that he knew of no candidates for president, with a single exception. Herbert E. Smith testified that the "one man who had what it took, had all of the qualifications that I recognized to succeed me, was Elmer Humphreys".

After he became President, Humphreys stated that he discussed with the du Ponts certain proposals of importance involving financial matters, and followed their advice only half the time and acted contrary to their advice at other times.

Executive Committee

In a letter to the stockholders on April 23, 1929 Davis stated the Executive Committee was to be made up of those members of the organization who had been heretofore charged with the responsibility of some of the major ac- [fol. 514] tivities of United States Rubber and would hold meetings each week to advise the president on all operations relating to manufacturing, selling, development and research. On April 23, 1929 the Executive Committee consisted of Edward J. Coughlin who had been with United States Rubber since 1892; William O. Cutter, an employee since 1916 who resigned from the Executive Committee in January 1930; William de Krafft who became a member in 1930; Ernest Hopkinson, an employee of United States Rubber since 1897; Herbert E. Smith, an employee since 1913; Lucius D. Tompkins, an employee since 1916; Eric Burkman, an employee since 1919; F. B. Davis, Jr., Chairman 1929. It is this committee which had the responsibility of approving contracts involving the sale or purchase of goods.

Six members of this Executive Committee were on Irenee du Pont's recommended list in addition to five others who were not elected. Irenee du Pont had included all the company's chief executive officers on this committee for the reason he felt that experienced operating personnel should be members. Tompkins stated he was approached by F. B. Davis with respect to becoming a member and that thereafter Davis discussed with him appointments or recommendations to that committee. Tompkins testified that Davis indicated to him that length of service was one of the qualifications for membership. Aside from Davis and de Krafft, the other members of the committee had all been employees of United States Rubber for many years before 1929.

The replacement of Cutter by de Krafft as a member of this committee occurred when Cutter was unable to perform the accounting functions inherent in a decentralized form of organization and there was no one in the company to take his place. Tompkins testified that when he and Davis were discussing this problem he told him that de Krafft impressed him as the type to undertake that responsibility. He testified he did not know that others had [fol. 515] also considered de Krafft suitable for the post. De Krafft remained a member of the Executive Committee until his resignation in 1938.

Finance Committee

The old Executive Committee of United States Rubber served the functions of a Finance Committee during the Seger regime and when Davis became president it became the Finance Committee. Its members on April 23, 1929 were James S. Alexander, F. B. Davis, Henry Davis, and Sir William Wiseman. William de Krafft became a member in January 1930 when James S. Alexander's membership ended. Charles H. Sabin and D. Dwight Douglas were also added to the committee the same year. In November 1948 the following were members of the Finance Committee of United States Rubber: Colgate W. Darden, Jr., F. B. Davis, Jr., Henry Davis, Bernard W. Doyle, George P. Edmonds, H. E. Humphreys, Jr., Herbert E. Smith, and Sir William Wiseman.

On April 8, 1947 Lammot du Pont Copeland wrote Pierre S. du Pont, stating that he, Copeland, and Lewis Strauss had resigned as members of the Board and Finance Committee, that Colgate Darden was elected to fill his place but that the bankers' nominee remained open on the Board, and that Wiseman had suggested Schiff be appointed which idea was not accepted. He stated that because Wiseman was frequently absent, the management group on the Finance Committee were a majority, and since United States Rubber was again pretty well in debt, the Finance Committee should be strong and play a dominant part in watching the finances. At that time the Finance Committee was composed of three management representatives, F. B. Davis, H. E. Smith, and Elmer Humphreys; and three non-man- [fol. 516] agement representatives, B. W. Doyle, Henry Davis and Sir William Wiseman. Copeland testified that his concern was that stockholder representation on the Finance Committee constitute a majority in order to maintain the proper balance between the Finance Committee and the Executive Committee; otherwise, a majority of management representatives on the Finance Committee would be approving their own actions, which "seemed like a weak position". In answer to this, Pierre S. du Pont replied, stating:

> "I do not fear the result of the management group being in the majority. If such fear is real, we should change the management."

Pierre S. du Pont testified that he used the noun "we" as meaning all the stockholders. Copeland in his letter to Pierre S. du Pont had suggested that Darden and Edmonds become members of the Finance Committee but since Darden's other interests were heavy, he suggested that Davis be urged to put Edmonds and Whelpley on that Committee. Irenee du Pont wrote Copeland April 21, 1947 stating that Darden should be given a chance to refuse, that Edmonds had his approval, and that he did not know Whelpley. Edmonds was elected to the Board and he and Whelpley became members of the Committee.

Incentive Plan

The stockholders of United States Rubber adopted an executive's incentive compensation plan in 1929 by a vote of 1,245,269 to 100. A study of several plans was made before the Managers Share Plan was finally adopted. The Plan provided that the Company should issue 100,000 shares of its common stock at $35 per share and the trustees would issue to the company 100,000 trust shares without par value, representing ownership of the assets to be held by the trustees of the plan. The plan further pro-[fol. 517] vided that the company should from time to time sell the trust shares to employees occupying responsible positions, including directors, actively engaged as officers, employees or members of the Executive Committee, to be chosen by a Special Committee of directors in such quantities as the committee determined and on such terms of payment, interest and prices as fixed by the Finance Committee of United States Rubber.

On December 20, 1929 Irenee du Pont wrote to Lammot, A. Felix and H. B. du Pont, H. S. Meeds and Henry Davis, officers of Rubber Securities, that he had discussed with F. B. Davis and William de Krafft the question of apportionment of Managers Securities stock and the setting aside of some 3000 shares of Rubber Securities stock for Davis to be paid out of bonuses voted him by Rubber Securities.

The members of the Special Committee appointed to act upon the allotment of trust shares from 1930 to 1949 were:

Matthew Brush, Chairman, 1930-1936
Lewis L. Strauss, Chairman, 1936-1947
Bernard W. Doyle, 1947-1949
Sir William Wiseman, 1930 to date, Chairman since 1947
Henry Davis, 1930 to date
F. B. Davis, Jr., 1948 to date

Wiseman testified that he consulted with Irenee du Pont with respect to the original allotment to be made under the plan in 1930 for the reason he had more experience than possibly any of the directors of United States Rubber and also asked him what allotment should be made for F. B. Davis. Irenee du Pont stated Davis should receive 15,000 shares. On March 28, 1930, Davis was allotted 20,000 shares [fol. 518] by the Special Committee and Wiseman advised Irenee du Pont of that action. This action of the Special Committee was approved by the Rubber Securities Board and Henry B. du Pont testified that when there was an increase in Davis' allotment from 15,000 to 20,000 shares it obviated the necessity of Rubber Securities assigning stock to him.

Irenee du Pont stated that at the time F. B. Davis went to United States Rubber his salary should not be less than Seger was receiving. The salary was fixed at that figure by a special sub-committee appointed for that purpose. Wiseman testified he did not know that Irenee du Pont had discussed with Davis the probability that his salary would be the same as Seger's. In 1937, after a study by a sub-committee of the Finance Committee, the company entered into an employment contract with Davis for a term of six years effective January 1, 1938 which remained in effect until his retirement in 1948. This action was adopted by vote of the stockholders. The contract fixed his salary at a definite figure and made him ineligible for any further participation under the incentive plan.

There is no evidence that the syndicate, or Rubber Securities Co., or the du Pont family in the aggregate ever had voting control of United States Rubber. The Government, moreover, has failed to show that the United States Rubber stock held by the defendant individuals and the members of the du Pont family was acquired with the intent to create a protected market for du Pont or for United States Rubber, or was ever used for that purpose. While much of the rubber stock acquired by the syndicate continues to be held, directly or indirectly, by members of the du Pont family there is no proof of any agreement or understanding that it will continue to be so held, or that it will be voted in concert.

[fol. 519]

Trade

Prior to 1910 du Pont had confined itself principally to the manufacture of military and commercial explosives. Nitrocellulose, a nitrated cotton, was the principal raw material used by du Pont in the manufacture of both military and commercial smokeless powder. Du Pont sold its military powder largely to the United States Army and Navy. By 1908, these principal customers had erected and were operating plants of their own and du Pont foresaw the ultimate loss of its smokeless powder business and recognized that diversification and expansion into other fields was essential to its progress.

To this end in 1908 the Executive Committee of du Pont appointed a committee to report "what additional steps they would recommend, in the direction of developing further uses for guncotton or any of the other products of our smokeless powder plants." The Development Department whose immediate jurisdiction it was to explore these fields, made an investigation of new outlets for the excess nitrocellulose in 1909 and found the most important industries in order of size were celluloid, artificial leather, artificial silk, and lacquer, which du Pont was already producing.

In 1910 du Pont purchased the Fabrikoid Company, the largest manufacturer of artificial leather, which in 1913 was incorporated as the du Pont Fabrikoid Company.

During World War I, du Pont plant facilities, sales and profits in the powder and explosives fields expanded and its net profits from all business during 1915-1918 totaled approximately $232,000,000. In addition during 1917 the du Pont Company, anticipating the end of World War I and the cessation of orders for powder and explosives, [fol. 520] determined to utilize part of its war profits to expand into fields other than gunpowder and explosives.

In September 1915 du Pont purchased the Arlington Company, one of the two largest celluloid companies in the United States.

In June 1916, the du Pont Fabrikoid Company, manufacturers of artificial leather, purchased the entire stock of the Fairfield Rubber Company, producers of rubber coated fabrics for automobile and carriage tops. The principal customer of Fairfield was the Ford Motor Company, which accounted for 60% of Fairfield's total business. Fairfield was dissolved and the entire stock was taken over by the Fabrikoid Company.

A report of the Development Committee of du Pont in August 1916 "recommended the paint and varnish industry shall be accepted as a suitable expansion of operations at Parlin" and it further recommended "to acquire by purchase one or more suitable going concerns . . . with a view to transfer of operations to Parlin at the first opportune time."

In March 1917, du Pont purchased Harrison Brothers & Company, Inc. manufacturers of paint, varnish, acids, and certain inorganic chemicals used in paint manufacture. The Harrison Company owned 52% of the capital stock of the Beckton Chemical Company, the other 48% being owned by Cawley Clark & Company, a color manufacturer. In the middle of 1917 Harrison purchased Cawley Clark & Company, including its interest in Beckton Chemical Company. In 1917 the Bridgeport Wood Finishing Company, a varnish manufacturer, was acquired by Harrison.

After considerable study, du Pont in February 1917 [fol. 521] decided that consideration of new industries at that time should be confined to five chemical fields: Dyestuff and allied organic chemicals; vegetable oil industry;

paint and varnish; water soluble chemicals; and industries related to cellulose and cotton purification.

Thus by the end of 1917, preceding the investment in General Motors, du Pont had made investments in companies manufacturing artificial leather, celluloid, rubber coated goods, paints and varnishes. In 1917 du Pont was engaged in the production of paints, varnishes and related products although it was still principally producing powder and explosives and manufactured few items used in the production of automobiles; among these were celluloid, used in making side curtains, and artificial leather, used in seats and upholstery.

Following the investment in General Motors, du Pont in 1918 purchased a majority of the common and preferred stock of Flint Varnish & Chemical Works. This event was preceded by a letter from Raskob to Carpenter, Vice President of du Pont. Raskob stated Durant had told him that W. W. Mountain, President of Flint, had approached him about consolidating Flint with Harrison, since Mountain knew du Pont had bought a substantial interest in General Motors and was interested in the paint industry; that Mountain felt he would lose a valuable customer, General Motors. Durant told him the du Ponts would not consider a consolidation but suggested "that they deliver control of the common stock to du Pont's" and that Willys-Overland, Mountain and General Motors retain a 20%-25% interest. This was effected—du Pont purchased 80% of the common stock; Willys-Overland, Mountain, and General Motors acquiring 20%, which was later purchased by du Pont. Flint was dissolved in 1924. At the time of the du [fol. 522] Pont investment, Flint made products primarily used in the finishing of railroad equipment and automobiles.

A few months after the Flint investment, du Pont acquired certain assets of the New England Oil Paint & Varnish Company.

A report by the Development Department in 1920 showed that existing facilities at Flint were insufficient to meet the demands of General Motors and a considerable volume of that business was being diverted to competitors. In April, 1920, W. S. Carpenter, Vice President of du Pont, reported to its Executive Committee, that the Sales Department anticipated increased orders from General Motors and other automobile companies, prompting an interest in an additional plant, that he favored acquisition of The Chicago Varnish Company. That year du Pont acquired certain assets of the Chicago Varnish Company, and in 1934 it acquired the assets of Mountain Varnish and Color Works.

In addition to the above acquisitions, du Pont also made investments in and acquisitions of other companies as set forth in ¶¶ 88, 90, 91, 92, 94, 95, 96, 98, 99, 100, 101, 102, 103 and 104 of the Amended Complaint.

It is admitted that du Pont is a substantial producer in the United States of explosives, powder and chemicals and that its principal manufacturing operations are conducted through ten departments. These departments and their products are:

Electrochemicals: Electro and industrial chemicals, including sodium, cyanides, peroxides, chlorinated solvents for metal cleaning, dry cleaning and extraction, refrigerants, formaldehyde, polyvinyl alcohol and acetate, ceramic decorations, and furfural products;

Explosives: Commercial explosives, blasting accessories, [fol. 523] miscellaneous chemicals, liquid and solidified nitroglycerin, oil and gas well torpedo service, military and sporting powders, and commercial nitrocellulose.

Fabrics and Finishes: Pyroxylin, synthetic resin, neoprene and rubber coated fabrics, and processed plastic sheeting, window shade fabrics, rug underlay, and synthetic rubberized tubing, protective and decorative finishes for all industrial, automotive, marine, transportation, and household purposes, wire enamels, automotive maintenance specialties, adhesives, plasticizers, and pyroxylin solutions.

Film: Cellophane, cellulose bands, cellulose sponges and sponge yarns, cellulose acetate film, and polythene film.

Grasselli: Inorganic and organic acids and heavy chemicals, zinc and zinc products, fungicides, seed disinfectants, household sprays and dusts, insecticides, animal remedies, weed killers, adhesives, wood preservatives, and chemicals for the textile, water purification, paper, leather, steel and food industries.

Organic chemicals: Dyestuffs, tetraethyl lead, neoprene, ethyl alcohol, camphor, and other organic chemicals for the rubber, petroleum, textile, paper, perfumery and other industries.

Photo Products: Motion picture, X-ray, portrait, lithographic, and micro films, intensifying and fluoroscopic screens, photographic printing papers, processing chemicals, and television phosphors.

Pigments: Titanium dioxide, extended titanium pigments, lithopone, dry colors, copperas, titanium metal and "Erifon" flame retardant.

Polychemicals: Ammonia, urea, urea fertilizer compounds, methanol, high alcohols, solvents, organic acids, hydrogenated products, antifreezes, food chemicals, acrylic [fol. 524] plastics, polyvinyl butyral, polythene, cellulose nitrate and cellulose acetate plastics, nylon molding powder and monofilaments, polytetrafluoroethylene, and fabricated articles.

Rayon: Viscose rayon yarn, staple, and tire yarn, acetate rayon yarn and staple cellulose acetate flake and vinyl acetate, nylon yarn, staple and flake.

It is admitted that General Motors is the largest customer of the Fabrics and Finishes Department, that its purchases from that department exceed its purchases from any other department of du Pont, that the total purchases General Motors makes from this department exceed its total purchases from all other departments, and that the sales made to General Motors by it are a significant part of its total business.

General Motors admits its principal business consists of the manufacture of passenger cars and trucks, including various parts and accessories. Paragraph 14 of the Complaint alleges it is the largest producer of passenger cars and trucks in the United States, constituting 38% of the industry total in 1947 and 43% for the period 1937-1941. General Motors also manufactures diesel locomotives, ball bearings, roller bearings and a wide range of household appliances, such as electric refrigerators and heating systems. General Motors operations are conducted through the following four divisions:

Car, Truck and Body Divisions—Buick, Chevrolet, Cadillac, GMC Truck and Coach, Pontiac, Buick-Oldsmobile-Pontiac Assembly, Fisher Body and Oldsmobile.

Accessory and Parts Divisions—A C Spark Plug, Aeroproducts, Brown-Lipe-Chapin, Central Foundry, Delco Products, Delco Radio, Delco-Remy, Detroit Transmission, Guide Lamp, Harrison Radiator, Hyatt Bearings, Inland [fol. 525] Manufacture, Moraine Products; New Departure, Packard Electric, Rochester Products, and Saginaw Steering Gear.

Household Appliances—Delco Appliance and Frigidaire.

Engine Divisions—Allison; Diesel Equipment, Cleveland Diesel Engines, Electro-Motive, and Detroit Diesel Engine.

United States Rubber admits it is the largest manufacturer in the United States of certain rubber products, other than tires and tubes. It conducts its business through five divisions: Tire; Mechanical Goods; Footwear and General Products; Naugatuck Chemicals; and Textile. General Motosr and United States Rubber admit that United States Rubber is the principal supplier of tires and tubes to General Motors as original equipment on the cars produced and sold by General Motors.

General Motors admits that it sells truck and passenger cars to du Pont and United States Rubber.

Paragraph 18 of the Amended Complaint alleges, and the defendant manufacturers admit, that the assets, sales volume and net income after taxes for the year 1947 are substantially as follows:

	Assets	*Sales*	*Net Income*
Du Pont	$1,438,000,000	$ 783,000,000	$120,000,000
General Motors	2,473,000,000	3,815,000,000	288,000,000
U. S. Rubber	348,000,000	581,000,000	21,000,000
Total	$4,259,000,000	$5,189,000,000	$429,000,000

Three phases of alleged trade control, apart from those specifically considered under Fabrics and Finishes, Tetraethyl Lead, Kinetic Chemicals, Synthetic Rubber, Antifreeze, miscellaneous products and Tires and Tubes, have [fol. 526] been accepted by the Government. They are (1) exchange of data, figures, and information on suppliers by certain officers and employees of du Pont and General Motors, including requests and inquiries by certain officers of du Pont on volume of trade conducted with General Motors; (2) the use of the General Purchasing Committee as a medium in alleged trade control; and (3) Fisher Body's trade with du Pont, and the use of the discount and rebate system in purchases and sales between the defendant manufacturers with special reference to Fisher Body.

Exchange of Data, Figures and Information on Suppliers by certain officers and employees of du Pont and General Motors, including requests and inquiries by certain officers of du Pont on volume of trade conducted with General Motors

Defendants admit that on occasion and for various purposes du Pont employees requested and obtained information from General Motors as to its suppliers and certain statistics.

During the time Durant was President, J. A. Haskell, former Sales Manager and Vice President of du Pont, then a member of the Executive Committee of General Motors, kept du Pont informed of General Motors affairs in order to better discharge the financial responsibility du Pont had assumed. The Government's evidence concerning Haskell shows that he was in contact with du Pont sales executives.

On April 15, 1918 Haskell wrote ~~to~~ William Coyne, Vice President of du Pont Sales, reporting that a conference had been held with General Motors car division managers and that the manager of the Oakland Division, Warner, had felt "it would be desirable to get each of the divisions using artificial leather and other material such as Pyralin" [fol. 527] samples to see what was being used. Haskell said this would "pave the way for perhaps a more general adoption of our material" and suggested du Pont place itself in position to furnish Fabrikoid of required quality and consider how best to promote its use and adoption by the car companies. A copy of this letter was sent to Pierre S. du Pont and John Raskob. The text of this letter shows, the question under consideration was whether the General Motors Division should adopt the use of artificial leather for upholstering. In fact the General Motors Divisions did not adopt the use of artificial leather for upholstery but continued to use genuine leather.

Shortly thereafter, at the request of the sales agent for du Pont Fabrikoid, Haskell provided him with a complete list of the firms comprising the General Motors organization.

In May 1918 Coyne in a letter to C. L. Petze, Director of Sales at du Pont Fabrikoid, reported on a discussion he had with Haskell regarding General Motors requirements for Pyralin sheeting. He stated that Haskell agreed with him that du Pont could not afford to jeopardize its business with other motor car companies by giving General Motors preferential treatment, but that Haskell thought "a continuation of the present policy should result in their securing practically all of the business with General Motors without jeopardizing its business with other manufacturers". In addition, Coyne stated Haskell asked he be kept advised periodically "as to the business shipped and booked with the different motor branches of General Motors and also advise him what proportion of our business is going elsewhere," that

> "* * * With this information in his possession he will be able to keep in touch with the relations between the [fol. 528] Arlington Works and the General Motors Company." (GTX 293).

On June 15, 1918, one of the sales managers at du Pont sent Haskell information regarding pyralin sheeting sales to General Motors and the amount of General Motors business placed with du Pont competitors.

Car division managers including Olds Motor Works, GM Truck, Cadillac, Oakland Car Co. made reports to Haskell on purchases of artificial leather and yardage for top and side material for the period 1917-1918. GM Truck reported that it purchased all its artificial leather from du Pont. Other divisions of General Motors reported that they had purchased varying amounts of artificial leather from du Pont and from several of its competitors. For example, Cadillac purchased the major share of its requirements from two competitors of du Pont, Pantasote Company and Hodgman Rubber Company. On July 12, 1918 Haskell received from du Pont Fabrikoid a report of General Motors yardage purchases for the month of June 1918.

J. S. O'Rourke of Oakland Motor in a letter to its manager, Warner, stated that purchases of artificial leather were being made from du Pont Fabrikoid and L. C. Chase and that the product of the latter company was superior to du Pont's, but upon being advised of the trouble had with the du Pont product, du Pont had sent a representative to investigate and another shipment had been received on which O'Rourke would report. Oakland, according to O'Rourke's report, had purchased small amounts of artificial leather from du Pont and substantial quantities from L. C. Chase, and also had purchased top material and curtain material in substantial amounts from competitors of du Pont.

[fol. 529] The Vice-President of du Pont Fabrikoid wrote a letter to Haskell on July 3, 1918 stating that if they were ultimately to furnish all or the greater part of the top material for Chevrolet and General Motors cars it might be better to have the users agree upon a uniform shade and was writing to him because he thought Haskell would put the request into proper hands.

On November 18, 1919 du Pont Fabrikoid submitted a report to the directors of the company regarding a contract made to supply yardage to Buick. This report stated that prior to the company's acceptance of General Motors contracts, the Fairfield plant was to all intents and purposes a "one-customer" plant (Ford Motor Co.) and it had been difficult to interest manufacturers of higher grade cars; that following the contracts with Buick, Chevrolet, Oldsmobile, and Oakland, they were placed in the position of writing contracts in other directions "at considerably higher prices than" the General Motors contracts. In addition, Petze, the Vice-President, reported that Pierre S. du Pont had instructed that prices for the Buick contract be quoted as low as cost since he had been advised that due to du Pont's relations with General Motors competitors were quoting abnormally low prices.

In 1920 the manager of du Pont Fabrikoid's Statistical Bureau wrote to the Treasurer of General Motors stating that he was not receiving "the statistical information formerly received from Detroit regarding purchases of Leather Substitutes and Rubber Cloth by the several units of General Motors" and asked whether there was any reason why this information which was statistically valuable to du Pont could not be continued. Later the same year the manager wrote to Haskell acknowledging receipt of data from Olds Motor Works on its purchases of Leather

Substitutes, Rubber Cloth and Mohair top material from December 1919 to May 20, 1920 and expressed his appre- [fol. 530] ciation to Haskell for securing the information.

Pierre S. du Pont, then President and Chairman of the Board of General Motors, inquired of Lammot du Pont, Vice-President of du Pont, whether General Motors was taking its entire requirements of du Pont products from du Pont. Lammot du Pont on August 10, 1921 replied that they were not, listing seven divisions of General Motors and covering purchases of paint, varnish, fabrikoid, rubber cloth and transparent pyralin, stating where du Pont was enjoying all the business, where "no reason" appeared for withholding business, and "good reason" when withholding of business from du Pont was logically explicable. Pierre S. du Pont replied stating it appeared from the summary that Flint paint and varnish and fabrikoid were doing pretty well with General Motors and "that with the change in management at Cadillac, Oakland, and Oldsmobile", he thought du Pont should be able to sell substantially all the paint, varnish and fabrikoid products needed, further he thought a "drive for the Fisher Body business" should be made. Lammot du Pont replied that there appeared to be no real reason why Fisher body had not used Flint Varnish Co. products.

R. R. M. Carpenter of du Pont on October 7, 1921 addressed a letter to Pierre S. du Pont, President of General Motors, stating that while he knew that he personally could take no action, he wanted to know whether he was opposed to the policy of presenting to General Motors the subject of entering into negotiations to supply all the artificial leather and rubber goods on a mutually advantageous basis. He suggested this for two reasons: that du Pont was at a disadvantage owing to its connection with General Motors since other artificial leather companies were quoting "ridiculous prices" to General Motors believing that "du Pont would take all the business anyway" which forced [fol. 531] du Pont to accept the business at a loss; and if du Pont could secure all the artificial leather and rubber goods business, their plant could be operated on an economical basis resulting in lower costs which would operate to General Motors' benefit. There is no evidence that any arrangement of the kind described by Mr. Carpenter was ever made. In 1923 a somewhat similar proposal was made by du Pont to the General Purchasing Committee of General Motors and was rejected.

During the latter part of 1922, Lammot du Pont, Chairman of Flint, directed a letter to Fred Fisher, President of Fisher Body. This letter stated that in view of the stock ownership relation between Fisher Body, Flint Varnish, General Motors and du Pont, it would seem that Flint should be enjoying a large part, if not all, of Fisher Body's paint and varnish needs unless a good reason existed for not having it. He assured Mr. Fisher that Fisher Body orders would be given preference over those of any other customer, except General Motors, whenever contract conditions were equal between Fisher and Flint's other customers.

In this same period, Pierre S. du Pont, President of General Motors, wrote to Lammot du Pont, a member of the General Motors Board, stating he was considering Fred Fisher, already a member of the Board, as a member of the Executive Committee. As the reason for suggesting the membership of Fisher, he stated that Fisher Brothers had brought up the question of their future relations with General Motors, expressing a desire for closer association, and requesting consideration for an exchange of Fisher Body common stock for General Motors shares. He stated he had the approval of ten directors for such closer association with General Motors, and wanted the opinion of the members of the Board on adding Fisher and C. S. Mott [fol. 532] to the Executive Committee. At this time General Motors owned 60% of Fisher Body, the Fisher brothers owned 20%, 10% was owned by interests friendly to Fisher, and the balance was owned by others. Pierre S. du Pont stated that a closer association and closer cooperation between the two corporations would be of great benefit. Lammot du Pont replied, approving, and stating in addition that such closer association would be desirable, suggesting merely that it might be advisable to hold the election of Fisher coincident with the a rangements on consolidation so it would not appear that an important General Motors executive was personally interested in a controlled subsidiary. There is no evidence that the proposal to place Fred Fisher on the General Motors Executive Committee was related in any way to the effort of Lammot du Pont to persuade the Fisher Body Company to use the products of the Flint, Varnish & Color Works.

Pursuing his initial effort to secure the Fisher Body business, Lammot du Pont again wrote to Fred Fisher on the subject of paint and varnish and again referred to the "close stock relationship of the companies", making it seem "ridiculous that no business should be done between Flint and Fisher." Eventually an exchange of telegrams took place between the two and a meeting was set between them. Lawrence Fisher, who met with Lammot du Pont as the result of this exchange of telegrams, testified that the Fisher Body Division never did use the products of the Flint, Varnish & Color Works to any significant extent.

During the year 1921 Felix du Pont, Vice President of the Cellulose Products Department of du Pont, wrote to its Executive Committee reporting that the sales department was securing for Fairfield all the General Motors orders for rubber coated fabrics. He stated that both the sales and production departments had concentrated on Gen- [fol. 533] eral Motors and "that today Fairfield was "solid" with General Motors, that with the "community of interest" existing between du Pont and General Motors he thought a plan should be worked out to make this a permanent arrangement so that the profits from manufacture could be retained. He stated that the latent resentment of the General Motors units encountered by du Pont in selling had been overcome since du Pont had started a fixed program of giving the best product, which several of the General Motors Divisions had considered to be equal to or superior to those of competitors.

On February 12, 1923, W. P. Allen, General Manager of the Cellulose Products Department, reported to the du Pont Executive Committee on the present status of General Motors relations with respect to Duco, Fabrikoid, and auto top material. He reported that several of the car divisions had expressed a keen interest in Duco but that they were unwilling to come to a decision until after extended experimentation and suggested that in view of this an aggressive campaign with other leading motor car manufacturers to test the material, who were anxious for du Pont to start experimental work with them, be adopted even though du Pont felt "under considerable obligation to General Motors in the development of this material on account of the assistance they had rendered". Allen stated the General Motors units were being furnished all leather substitutes and top material by Fabrikoid.

During 1923 Lammot du Pont wrote H. H. Rice, Manager of Cadillac, asking whether Flint could supply varnish to it if they could manufacture a varnish as good or better than that presently used by Cadillac. Rice replied, indicating Cadillac was already using Flint's primer color and finish varnishes on Cadillac chasses, but as to enamel Cadillac was not ready to make a change since Flint's enamel [fol. 534] had not as yet passed the tests. Lammot du Pont expressed the hope that a modified Flint enamel would soon prove satisfactory. Later he again wrote Cadillac, stating he had heard nothing from Rice and that it was to the advantage of both General Motors and du Pont to have Flint products used 100%.

To this Rice replied that Cadillac was anxious to use Flint products but was cautious in changing paints only after long trial and felt that as Flint material proved itself it was expected to be adopted by Cadillac.

There are many letters in the record involving requests made to John L. Pratt by du Pont employees for information and assistance covering the years 1922-1934. Pratt had a personal feeling of gratitude toward du Pont for what it did in saving Durant and General Motors from bankruptcy in 1920 and was inclined to do favors for his friends when, as he testified, it involved no injury to General Motors.

John L. Pratt had been an employee of du Pont in 1905 and met Durant in 1917, doing some personal work for him. In 1918 he was in charge of du Pont's motor development section, which was doing some research for Durant. In the Spring of 1919 Durant asked Pratt to work for him. Pratt left du Pont in the Fall of 1919 and became Durant's general assistant. In late 1922 he took over Alfred Sloan's position as Vice President in charge of the Accessories Division Companies of General Motors. He became a General Motors v-ce-president and director in 1921, a member of the Executive Committee in 1924, and was chairman of the General Purchasing Committee from 1924 to 1929.

On October 23, 1922, MacGregor of the du Pont Paint Department, wrote to Pratt for assistance regarding getting [fol. 535] a share of the up-keep paint for Hyatt

Roller Bearing Company, since he had been unable to secure any orders from Weiss, its purchasing agent. Pratt replied stating he had written to the General Manager of Hyatt to look into the situation and asked whether the quality had been improved so that du Pont had a paint of the quality, price and service equal to other manufacturers which he could "conscientiously recommend" to General Motors, and if so he would gladly do so. The General Manager of Hyatt replied to Pratt enclosing a copy of the purchasing agent's memorandum which stated that Hyatt had been using du Pont paint except the undercoat, which several years ago proved to be unsatisfactory, but since receiving the General Manager's request he had inquired further into it and "regardless of the wishes of the Paint Department" would purchase the du Pont product which he felt would serve the purpose equally as good. The dollar amount involved was about $1500 per year.

On March 22, 1924 Harrington of du Pont's Dye Stuff Department, who had known Pratt for about eighteen or nineteen years wrote to him about the fading of Cadillac upholstery and inquired whether du Pont could possibly offer its service to Fisher Body as to dyes. In his reply Pratt stated that "the Fisher Body outfit is pretty difficult to deal with" and did not know how to advise Harrington in approaching them. Pratt testified that he talked with Fisher about the problem. Five years later, on January 29, 1929, Harrington again wrote Pratt that General Motors frequently rejected fabrics because of the dyes and inquired whether it would be helpful if du Pont offered the services of its dye laboratories to General Motors. Pratt replied he thought it a "constructive" suggestion and sent Harrington's letter to Fisher, head of Fisher Body, and asked that if he agreed he would be glad to make the [fol. 536] arrangements. Fisher replied that they didn't dare "dictate" to the manufacturers regarding dye.

In August 1824, Z. Phelps, head of the Development Department of du Pont wrote Pratt whether he could conveniently find out the total quantity of ethyl alcohol used by General Motors, because du Pont wanted to find an outlet for a small surplus instead of selling it on the open market. Pratt replied he would obtain the information but that General Motor's requirements were small. In reply to

Pratt's inquiry, James Lynah informed him that 75,000 gallons a year would be required by General Motors and 50,000 for Fisher Body and this information was transmitted by Pratt to Phelps.

In 1925, H. F. Brown, Vice President of du Pont, wrote to Sloan informing him that du Pont and Kentucky Alcohol Corporation had formed Eastern Alcohol Corporation to manufacture industrial alcohol; stated that a news clipping had appeared concluding that glycerin had an advantage over alcohol as an antifreeze; that Kentucky Alcohol wanted to know whether General Motors was giving their official approval to such publicity, and, if so, "that their attention be called to the interest which the du Pont Company will have in the future" in the manufacture and sale of alcohol. To this Sloan replied that as a corporation, General Motors could take no position in the matter and must be guided by the facts in the case; that alcohol had been discovered to have a bad effect on Duco finish, used extensively by General Motors units, and therefore he would out of necessity favor glycerin.

In 1926, Pratt wrote to F. LaMotte, Director of Purchases at du Pont, that after study General Motors had concluded that Prestone, an antifreeze manufactured by Union Carbide, was the most satisfactory mixture on the [fol. 537] market and that General Motors was recommending its use. Thereafter, Sloan wrote to J. B. Jackson of General Motors Research Laboratory requesting information regarding the amounts of glycerin and alcohol used in antifreeze mixtures and their respective merits. The Laboratory report specified several points favoring glycerin and Pratt conveyed the information to du Pont.

In an exchange of letters between Sloan and the Chief Engineer of Chevrolet, Sloan suggested that the Chevrolet instruction book simply state facts on antifreeze and omit the words "are to be preferred". The Chevrolet instruction book eliminated the paragraph expressing preference for glycerin.

In October 1926 du Pont began production of ethyl alcohol. General Motors was approached as an outlet and was also requested to ascertain to what extent glycerin antifreeze might cut into the use of alcohol as an antifreeze. In addition, Phelps of the du Pont Development Department, asked Pratt to find out whether the shortcomings of glycerin as an antifreeze, as reported by du Pont, could be verified by the General Motors laboratory.

James Lynah, the Executive Secretary of the General Motors laboratory, reported to Pratt in November 1926 that as alcohol-water-solutions were recommended for any class of service, and in view of the indifference toward Prestone, it was evident that General Motors divisions would largely employ the alcohol solution as an antifreeze. Lynah further stated that he had written Phelps regarding price considerations for volume purchases, and if that could be obtained, he would ascertain the requirements for the divisions.

Phelps again wrote Pratt stating some of the General Motors divisions, particularly Cadillac, were recommend- [fol. 538] ing glycerin instead of alcohol, although Buick recommended the use of alcohol. In the following month Cadillac recommended that only alcohol be used.

During this period when du Pont was seeking General Motors endorsement of alcohol for use as an antifreeze, glycerin manufacturers such as Armour & Company were similarly seeking General Motors endorsement of their product for use as an antifreeze.

In December 1926 Sloan advised Pratt that the General Technical Committee of General Motors, approved by the chief engineers of the car divisions, had decided on the policy of pointing out there were two antifreeze materials —glycerin and alcohol—and that the sole disadvantage of alcohol was that when spilled it would disfigure the finish and that glycerin was satisfactory if used in strict accordance with the manufacturers recommendation. In December 1926 Sloan wrote Pratt that he had looked over the file of correspondence Pratt had with du Pont on the question of alcohol and glycerin, and that with the decisions reached by the General Technical Committee, the new instruction books would contain a statement setting forth the advantages and disadvantages of both. The record shows that du Pont attempted in 1926, 1927 and 1928 to sell ethyl alcohol to General Motors. In each of these years its bid was rejected by General Motors Purchasing Committee.

On January 9, 1926 James Elms of the Paint and Varnish Department of du Pont wrote to Pratt about the Delco-

Light Company, one of the accessory companies of General Motors. He stated that Delco-Light had been purchasing rubber and finish varnish from Lowe but that Lowe had been unable to solve a paint problem and du Pont had been called in; that the problem was solved and du Pont received an order from Delco-Light but before delivery it had been [fol. 539] cancelled in order to give Lowe another opportunity. Biechler, General Manager of Delco, wrote Pratt that Lowe had come up with a satisfactory enamel, but continued that the manufacturing, chemical and purchasing divisions felt they would be in better hands to deal with du Pont than Lowe and would be sure to advise him of this within a few days. To this Pratt replied that in view of the sacrifice du Pont made for General Motors in 1920 and 1921, he felt where "conditions are equal from the standpoint of quality, service and price, the du Pont Company should have the major share of those items" but that this was his personal sentiment and that Biechler should use his good judgment keeping in mind the prime consideration was what was best for Delco. Pratt testified he invariably insisted that his personal sentiments were not to control and the division managers were to make their own decisions, but that he personally thought in the above situation du Pont had not been treated fairly. Du Pont made one sale of the enamel which was the subject of Elms' inquiry and thereafter a competitor, The Kay & Ess Company, took the business from du Pont and has ever since retained it.

AC Spark Plug Division of General Motors wrote a memorandum on April 15, 1926 to Curtice of General Motors stating that du Pont had been giving very poor service and it would be to the advantage of AC Spark Plug to change their source of supply. The President of AC Spark Plug, Albert Champion, wrote Pratt enclosing that memorandum stating it was being brought to his attention because naturally they wanted to do business with du Pont. Pratt sent the letter to Moosmann at du Pont asking how he should reply. Moosmann responded he would have the situation corrected. Some months later Champion wrote to Pratt enclosing a memorandum from one of his men who desired direct contact with Parlin to work out a technical [fol. 540] problem. Pratt sent this to Moosmann. The matter was solved and Pratt thanked Mossmann for giving Champion the kind of service he should have.

On October 28, 1926, Lammot du Pont, President of du Pont, wrote to Sloan that du Pont's Paint Department was upset because of the difficulty of getting accurate information on the probable requirements of General Motors units for Duco and inquired whether there was any objection to giving production schedules he received from the General Motors Finance Committee, of which he was a member. Pratt, in Sloan's absence, replied stating the figures should not be given and upon his return Sloan confirmed this decision. Lammot du Pont pursued the subject further with Sloan and Sloan replied that in the meantime, until he looked into the matter, he had no objection to Lammot du Pont giving the production schedule figures to his paint man, confidentially. Pratt did not approve and wrote to Sloan that du Pont should not be put in any different position than any other supplier from whom General Motors was buying many times the amount purchased from du Pont.

On May 1, 1926 Phelps of du Pont asked Pratt whether he could conveniently get the approximate quantity of oil cloth and black enamel used by General Motors as du Pont was considering manufacturing oilcloth. Pratt sent the inquiry to Lynah and transmitted the information received from Lynah to Phelps. Pratt testified there were many inquiries along these lines not limited to du Pont and the committee customarily furnished the requested information as it was always interested in new potential suppliers.

Lammot du Pont in September 1926 wrote Pratt on behalf of Jack Sproul, a son of the Pennsylvania governor, who was with the General Refractories Company, about [fol. 541] giving that concern a chance at the fire brick business of Remy Company, a General Motors accessory division, stating that it would be greatly appreciated if some business could be turned his way. Pratt replied that Sproul's effort to use influence to get business from General Motors would not work, that General Motors purchasing departments tried to get the best for General Motors, that suppliers had to establish the merits of their product and it was not the duty of the purchasing departments to give special consideration to any firm.

Again in 1931, Lammot du Pont wrote to Pratt that the anthracite coal people had protested to du Pont regarding General Motors entering into the manufacture of oil burners. Lammot du Pont stated that the outlook for du Pont's business in the anthracite field was jeopardized, that though he was convinced that du Pont could not dictate to General Motors with respect to their going into the oil burner business nor could the advantages or disadvantages to du Pont be considered as a factor in General Motors' decision, that General Motors might be injured by going into that business. Pratt replied that because a "poorly led association of coal producers did not recognize that the world progresses" and takes an unsound position was no reason to discontinue that activity. Pratt continued to recommend the manufacture of oil burners by General Motors, and it entered that field and is still one of the large manufacturers of oil burners.

During 1934 Pratt wrote to Fred G. Hughes, General Manager for New Departure Manufacturing Company, a General Motors subsidiary, that some of his friends in du Pont had called him about the National Ammonia Company, a du Pont subsidiary, having lost the ammonia business they had formerly enjoyed with New Departure although their price and service were in every sense com- [fol. 542] petitive and stated he would be interested to know the reason. Hughes replied that the du Pont product had proved unsatisfactory, that the Barrett Company product which they used gave no trouble, that the truck division had asked New Departure to buy from Barrett as it was a large user of General Motors trucks, and further he did not know National Ammonia Company was a du Pont subsidiary, but did not believe that should make any difference. Pratt wrote to National Ammonia enclosing Hughes letter and said it might be more desirable and do the "desk warmers" in du Pont some good to contact General Motors units more closely to see whether or not their product was suitable. Pratt testified that Hughes' letter showed that du Pont had not even contacted New Departure and did not know their ammonia was unsatisfactory. Pratt wrote Hughes thanking him and stating that his reason for buying from Barrett was entirely satisfactory.

The evidence relating to the exchange of data, figures, and information on suppliers by certain officers and employees of du Pont and General Motors, viewed as a whole, establishes that the du Pont Company was interested in selling its products to General Motors and made efforts to do so; a fact which is not denied by the defendants. The evidence, both oral and documentary, does not establish, however, that there was any agreement between the two companies that required General Motors to buy all or any part of its requirements from du Pont. Nor does the evidence establish that du Pont dictated or controlled the purchasing policies and practices of General Motors or sought to dictate or control those policies and practices. In fact, the evidence shows that General Motors exercised complete freedom in determining where it would purchase its requirements of products of the kind that du Pont manufactured.

[fol. 543] *General Purchasing Committee (1923-1931)*

This committee was created at the suggestion of Sloan and was to enable General Motors to compete with Ford, which had approximately 55% of the business in 1921. James Lynah became its Secretary. After the establishment of this committee, Lynah conducted a study to determine what items might be common to some of the divisions and to pool the purchase of such items. Lynah reported a list of thirty-two possible items to Sloan, Chairman of the General Purchasing Committee. Only three of the thirty-two items listed were products manufactured by du Pont—imitation leather, top fabrics and paints.

In February 1923, Allen, General Manager of the Cellulose Department of du Pont, in a report to its Executive Committee on the subject of Fabrikoid and top materials, referred to a meeting in Detroit at which he, Lynah, the Assistant Director of the Purchasing Committee, Pratt, a member of that committee, and the purchasing agents for Chevrolet and Cadillac, met; that he discussed with them the great risk inherent in du Pont covering the grey goods requirements for six months and in turn selling the finished product on a requirements basis without protection against a slump in the motor industry; that their reaction was that it was a risk which other manufacturers in the same line assumed. The question of an additional source of supply was discussed and the conclusion reached that General

Motors units should purchase 20% of their leather substitutes and top material from one of du Pont's competitors leaving 80% to du Pont at prices determined by competition.

The Government has placed considerable emphasis upon this document and others written at about this time which [fol. 544] relate to General Motors' decision to limit its purchases of fabrikoid and top materials from du Pont to not more than 75% or 80% of its requirements. GTX 406 and related documents reflect the imposition by General Motors upon du Pont of the two-source-of-supply purchasing policy. Lynah testified that early in 1923 the General Purchasing Committee began to put that policy into effect wherever it found that all the Divisions were buying their requirements from the same supplier. The records of the Purchasing Committee corroborate his testimony. Since Allen, in GTX 406, was reporting to his superiors a substantial loss of business, it was natural that he should attempt to soften the blow by expressing his confidence that no further losses need be anticipated. Lynah's testimony, as well as the other evidence of record—both testimonial and documentary—relating to du Pont's varying success thereafter in the sale of its fabric and top materials to General Motors indicate that there was no agreement between Allen and the General Motors officials; and that his confidence about retaining 80% of General Motors business was based upon a belief that du Pont's quality and service were superior to those of any competitor.

On July 18, 1923, William Coyne, Vice President of du Pont, wrote to Pierre S. du Pont, reporting that for the last six months of 1923 du Pont had lost 25% of the Chevrolet top business although the price and quality of the du Pont material was as good as that of competitors; that he had been told Mr. Knudsen had Pierre S. du Pont's permission to give 25% of the business to O'Bannon Corporation which was in the hands of receivers, and wondered whether he could tell him the reasons for this so that the next time 100% of the Chevrolet business could be procured. Pierre S. du Pont replied stating that he thought the "two source of supply" idea was foolish, but that he did not think it advisable to interfere in any case [fol. 545] unless the "Executive Committee of the company outlines a policy advocating one source of supply", that as to the policy of General Motors he could not refuse permission to Knudsen to divide his orders for fabrikoid. He later sent a letter to Knudsen referring to the Chevrolet two source policy and expressing that he firmly believed that one good source of supply, properly maintained, was more reliable than two sources, but stated that Knudsen had no doubt given personal consideration to the Chevrolet matter and continued,

> "I find no fault with the principle which would apply as well to other manufacturers as to the du Pont Company." (GTX 410).

The minutes of the General Purchasing Committee on September 27, 1923 sent to all division purchasing agents of General Motors on the subject of leather substitutes and rubber coated fabrics stated that it was shown du Pont supplied the larger portion of General Motors requirements of these items, that on account of constantly increasing consumption, sound judgment demanded maintenance of more than one source of supply, that du Pont had been afforded the opportunity of meeting competitive prices and that competitors now believed that no matter what price they put in they would receive no business. It was agreed:

> "that on an equal competitive basis at least 25% of the business should be placed with sources other than the du Pont Company. That the du Pont Company be notified that they should make their best price in their initial offer and not count upon having the opportunity to meet competitive prices, and that on the basis of competitive prices the Divisions were free to place their business to the best advantage. * * *" (GTX 412).

[fol. 546] The minutes further directed the secretary to advise C. L. Petze, at du Pont's Newburgh plant regarding their decision. Lynah testified that it was he who brought up the subject of more than one supplier of imitation leather and rubber coated fabrics and further testified that there was no understanding that du Pont would have any particular percentage of the business, that being left to the division managers; that the instruction to advise du Pont of the decision was not unusual and was done with all large contractors.

From 1923 to 1931 the committee negotiated 709 contracts. Only fourteen were with du Pont, and thirty were with du Pont competitors. The committee rejected a total of 342 contracts, of which thirteen were proposed by du Pont or were for material du Pont was in a position to supply to General Motors. The committee authorized 147 contracts before any contract was made with du Pont.

Lynah testified that anyone in the corporation could suggest an item for consideration by the committee as a contract possibility and if worthwhile a questionnaire would be sent to the divisions from the committee asking for their annual consumption of the item, specifications under which they purchased, prices and sources of supply. If the item was approved by the committee after return of the questionnaire, the committee would notify the division that it intended to ask for bids and would be given an opportunity to suggest bidders. After bids were received, the committee would decide whether to contract for the item and with whom. If a contract was negotiated, the interested divisions were notified and required to participate unless specifically exempted, and any objecting division was excused from participation if it could not be persuaded or its objection "ironed out".

[fol. 547] The rule against a division purchasing outside of a general contract was contained in a letter which Sloan sent to Pierre S. du Pont, John J. Raskob, C. S. Mott and Fred J. Fisher, as follows:

> "* * * as Chairman of the Committee I wrote to the Purchasing Agents of all Divisions and told them that they were not to be permitted to purchase outside of the General Purchasing Committee's contracts and indicated that anything of that kind that was done would certainly have the disapproval of the Corporation and in a way would not be tolerated." (GTX 458).

The committee frequently referred specification problems to production experts with the view of ascertaining whether standardized specifications were feasible on some of the common items used by the divisions, where the specifications varied. Lynah testified that this was one of the important functions of the committee.

He further testified that the committee followed certain general rules in carrying out its work; such as (1) no general contract was developed unless the item was used by more than one division as there would be no price advantage unless there was increased volume, (2) no general contract was developed unless it would result in substantial savings, (3) where possible the committee desired more than one source of supply, (4) contract prices were to be kept confidential to protect sellers as the General Motors volume would justify lower prices than the seller could allow a customer purchasing in less quantity. These rules were adopted eighteen months before the committee made any contract with du Pont.

The first items reached by the committee which were manufactured by du Pont were fabrikoid and top or rubber coated fabrics and no contract for these items was [fol. 548] ever entered into by the General Purchasing Committee. In the Fall of 1923, twenty-one months after the formation of the committee, the subject of paints was considered and was referred to the Paint and Enamel Committee as there were no standards established for that material. No contract was entered into by the General Purchasing Committee requiring purchase of paints and varnishes, although du Pont requested such a contract. After quantity discount, a two year contract supplying requirements of seller's make was made.

The General Purchasing Committee rejected contracts with du Pont because of lack of volume on photographic supplies, maintenance paint, floor paint, stripping materials and thinners, machinery enamels and aluminum spar mixing liquid, and because of lack of savings rejected contracts with du Pont on pyralin, leather substitute and rubber coated fabrics, denatured alcohol, antifreeze material, antifreeze methanol, varnish and oil type materials.

Lynah testified that once the committee decided to contract for an item, selection of the supplier was premised only on "quality, service and price" and in 1928, answering a Mr. O. H. Briggs, Sales Manager of du Pont-Pathe Film Manufacturing Company, who had asked him to specify the use by General Motors of du Pont photographic film, stated:

> "In the making of our purchases, we believe that each transaction should stand on its merits and we pre-

> sume that the company buying films for our use is guided by this same principle and that if the quality of your product and service, consistent with prices quoted, are the best he can obtain, he will buy from you." (GM 194).

Early in 1924 the committee developed the idea of a sliding scale discount contract permitting a supplier to fix [fol. 549] his base price on volume of business he had previously enjoyed and for increased volume offer an additional discount. Many contracts were made by the committee on this basis and the divisions were encouraged to participate in them.

In April 1924 G. H. Kerr, a du Pont executive in the Explosives Department, wrote to Pierre S. du Pont, Chairman of the Board of du Pont and General Motors, stating that about two years ago he conceived the idea that it might be of value to du Pont to use their purchasing power for the purposes of influencing concerns from whom they purchase to purchase in turn from them; that if the purchasing power of General Motors were added to that of du Pont, and if used intelligently, it would result in securing large business for du Pont; that this was proved in the Acid and Heavy Chemicals Division of the Paint Department of du Pont which received consideration from Bethlehem Steel because of the purchases General Motors made from them. Pierre S. du Pont wrote to Sloan asking him to talk the matter over with Kerr saying that "one of our representatives was with the Bethlehem Steel people and happened to see their file card in which they classified du Pont and General Motors as one." Sloan replied to Pierre S. du Pont's letter stating the suggestion was constructive and referred it to the General Purchasing Committee. Lynah and a Mr. Kother subsequently saw Mr. Kerr.

About a year previously, Pratt, Vice President of General Motors, wrote to R. R. M. Carpenter that it had recently come to his attention that a number of the automobile companies outside of General Motors were considering their purchases from the General Motors Accessories Division and from du Pont as purchases from "one interest" and that consequently to have a better view point when considering those outside companies it might be helpful to get the entire volume of sales that du Pont and [fol. 550] General Motors make to the outside companies. He procured the sales figures from the Accessory Division and Parts Companies of General Motors and obtained from Carpenter the 1922 figures on sales du Pont made to outside companies.

On July 2, 1924 the General Purchasing Committee reported that while there are cases which might be profitably dealt with on a reciprocity basis, there were so many complications and difficulties involved that it would be best "to stand on our own equities and require our suppliers to do so"; but that the divisions were at liberty to treat such cases individually as the situation might require.

Lynah advised Kerr on August 13, 1924 that the information relating to Manhattan Rubber Company and Nairn Linoleum Company would be secured since it was available without any expenditure of time on the part of the divisions, but stated:

> "It is understood that information in connection with our purchases such as I have tentatively agreed to endeavor to secure for you, is not to be used to influence our sources to place business with the du Pont Company, or to place the du Pont Company in a preferred position as a source because of its interest in General Motors.
>
> "There would be no objection to your advising our sources that the du Pont Company holds a large interest in General Motors and solicit their earnest consideration on this account." (GTX 538).

The following month, the General Purchasing Committee determined that as a practice General Motors could not undertake to supply information showing the volume of business done with any suppliers to the du Pont Company [fol. 551] but "that in special cases, upon request by the President of the du Pont Company to the President of General Motors, the situation would be properly dealt with" by the presidents; and, that it was believed General Motors' buying position "would be prejudiced in that suppliers who had been influenced to place business with the du Pont Company through their relationship with General Motors might reasonably expect" General Motors to place business with them.

On September 6, 1924, excerpts of the committee's meeting were sent to Irenee du Pont by Lynah with a letter wherein he stated the reciprocity practice had been discussed by the committee at two meetings and

> "as we are following a very definite policy in General Motors of having our Sales activities and Purchasing activities maintain their own status without the one influencing the other, it was felt that to supply the du Pont Company with the information requested by Mr. Kerr would convey the impression that the du Pont Company could influence General Motors' purchases." (GTX 539).

The General Purchasing Committee agreed that it could not undertake to supply to du Pont information showing the value of business done with its suppliers. Irenee du Pont answered that, of course, any action which General Motors took was entirely its own affair and du Pont should not be critical, but that reciprocity yielded excellent results.

That same month, Pratt wrote to the General Manager of the Paint Department of du Pont, who was anxious to secure an acid contract with Bethlehem Steel:

> "It is practically impossible for me to give you any information as to where our steel requirements will be [fol. 552] placed from month to month, as our Purchasing Agents in the various divisions do not know themselves until a day or two before the order is placed." (GTX 542).

that one of the divisions was buying extensively from Bethlehem during the first six months of the year and would continue buying according to their needs if "Bethlehem's price and quality continue to be favorable in comparison with other companies."

The only special occasion in which the President of du Pont requested information from the President of General Motors occurred in 1928. In January 1928 Lammot du Pont wrote to Sloan that the du Pont Explosives Department was confronted with the loss of its trade through the use by a competitor of a reciprocity argument; that du Pont desired to supply Jones & Laughlin Steel and

Inland Steel with figures as to purchases from them by du Pont and its affiliated companies; that General Motors 1927 purchases from Jones and Laughlin and Inland were requested; and stated:

> "It is, of course, understood that in presenting these figures to our customers it will be for the purpose of retaining trade now enjoyed. There will be no promise or assurance that these purchases will continue or that the du Pont Company's efforts in the past have caused General Motors to place this business." (GTX 543).

Sloan sent the letter to Pratt stating that on general principles he was not keen about this matter but it was the first time it had happened and was not very important since he did not believe General Motors was buying to any great extent from these companies. Pratt replied to Sloan indicating that little was bought from Inland but a great deal was bought from Jones & Laughlin, and continued, that as [fol. 553] Chairman of the Purchasing Committee, he had invariably refused

> "to give the du Pont Company any information which they might use in any way to influence their customers to think that the du Pont Company in any way could influence General Motors Corporation in buying their materials and supply because the particular customer bought from the du Pont Company. Personally, I think it is very necessary that we have a definite policy in this respect, especially in connection with our dealings with the du Pont Company (who are working on the principle of reciprocity while General Motors is not), as I am afraid there are instances where du Pont salesmen have implied that they could influence General Motors in choosing its source of supply as other than the three fundamentals of purchasing, namely, quality, service and price. * * *" (GM. 201).

He continued stating he had been guided only by the following considerations:

> "(a) The du Pont Company in fact has no more right to such information than any of the other 60,000 stockholders in General Motors * * *

(b) If we supply the du Pont Company with the amount of our purchases from any company they wish to sell, and their salesmen are allowed to display this information to their prospective customers, it necessarily follows that the impression would be made upon the customer that General Motors wishes that particular supplier to consider in dealing with General Motors its relationship with the du Pont Company, or otherwise General Motors would not supply the du Pont Company with the information.

[fol. 554] (c) * * * The principle of reciprocity must imply that you are giving something in order to get something. * * * If there is any thing to be gotten our position should be to see that it is gotten for General Motors Corporation rather than the du Pont Company.

(d) If our Purchasing Agents know that we are willing to allow the du Pont Company to use our purchases to influence du Pont sales, can we expect them to always resist giving weight to other considerations than the best interest of General Motors in placing their orders?

(e) I think that we are all pretty well agreed that we could not afford to use the principle of reciprocity in General Motors purchases. If that is true we certainly can not allow anyone else to imply that they can use General Motors' purchases for the purpose of reciprocity.

In the particular case under consideration I see no difference in Mr. du Pont using the information he requested in order to retain business than for him to use same to get business. In my judgment, if the du Pont organization are not able to maintain the business they have through the quality of their goods and the service they render, then they should not be allowed to retain it because General Motors' purchases goods from that particular customer of the du Pont Company. The steel companies must know the amount of business they are doing with General Motors Corporation, and if being reminded of this volume of business by the du Pont Company results in the steel companies being willing to do something for the du Pont Company

> that they would not have done without such reminder, [fol. 555] then we in General Motors are not getting all we should from the steel companies." (GM 201).

He continued that since Sloan had promised the information to Lammot du Pont, it would be supplied but felt it was a very bad precedent to establish. Pratt testified concerning this letter that his seeming inconsistent attitude toward Mr. du Pont and toward "some of the small men in the du Pont organization" regarding exchange of information was that when Mr. du Pont was involved, General Motors was establishing a policy and when dealing with employees of du Pont it was on an individual basis.

Other than the single incident in 1928 referred to above, the Purchasing Committee Resolution of 1924 appears to have been a dead letter. The Government has offered no proof that any information was passed to du Pont since that time. Sloan could recall no instance and the last two presidents of du Pont not only could recall no such instance and also were unaware of the Resolution until the trial of this case. The Court is satisfied on the basis of all of the record that the Resolution never was carried out and does not represent the parties' practice—certainly not in the last twenty-five years. Accordingly, the matter deserves no further attention.

The General Purchasing Committee was abolished in 1931 and no centralized purchases of products have been made since that time.

The evidence of record does not establish, or tend to support, the Government's contention that the General Purchasing Committee was created and operated as an instrumentality to carry out the desires of du Pont. In fact, actions taken by the Committee were seriously detrimental to du Pont in a number of respects. For example, the Committee initiated the two source of supply policy in connection with artificial leather and top materials; it [fol. 556] refused to make a contract with du Pont for pyralin; it encouraged the early development of competition for Duco, and refused to renew du Pont's requirements contract as soon as a competitive lacquer was available.

The Committee, the record shows, was created, operated and ultimately terminated in 1931 to serve General Motors interests—not du Pont. Relations with du Pont were but a minor aspect of its activities, and it dealt with du Pont only in the same manner as it did with other suppliers. All of its work is now ancient history and the evidence with respect to its activities has but limited probative value. But to the extent it deserves consideration it supports the position of the defense rather than the Government.

Fisher Body: and use of the discount and rebate system in purchases and sales between the defendant manufacturers with special reference to Fisher Body.

Lawrence Fisher testified that Mr. Durant, and Mr. Chrysler, who was associated with him, had stated that General Motors would have to expand their capacity because of the increased public demand for closed bodies, that General Motors was not organized to do that, and needed a source of supply for such bodies, that they wanted the Fisher brothers to agree to come into General Motors for that purpose. In the negotiations, it was agreed that General Motors was to purchase from Fisher Body such of the closed body business as Fisher Body "was able to handle now and in the future". The affiliation was reported to the stockholders of both companies, each stating that the association of the two assured both a continuity of demand and supply for the Fisher Body product.

The voting trust agreement made in 1919 between Fisher brothers and Durant also provided that General Motors acquire 60% interest in Fisher Body and the majority of [fol. 557] Fisher Body stock was placed in a trust for five years with the right to vote same placed in the hands of four trustees—two representing Fisher Body interests and two representing General Motors. At the same time the six brothers contracted to remain with and direct the operations of Fisher Body for five years ending in 1924; the voting trust to expire the same time as these contracts. The Fisher brothers had expressed a wish for closer association with General Motors, and in 1922 Fred Fisher, already a General Motors director, became a member of the General Motors Executive Committee.

In 1924 it was agreed that three of the brothers would devote their entire efforts to General Motors and the other three were to operate Fisher Body; that all six would take allotments in Managers Securities in lieu of compensation provided in the employment contracts; and the voting trust would expire. In October of that year Pierre S. du Pont wrote to Sir Harry McGowan that for months General Motors had been negotiating with the Fisher brothers for the purpose of arriving at a satisfactory plan to continue their association with General Motors and in the plan evolved it was thought that

> "interesting two members of the Fisher family directly in General Motors will have a very beneficial effect in breaking up a line of separation of the two companies' interests that has not been altogether wholesome. From lack of knowledge, the two sides have tended to criticize each other, without good result. Hereafter the Fishers will better understand GM problems and difficulties and, I think, GM men will better appreciate the Fisher problems. * * *
>
> "We all feel that the settlement of this business will prove very beneficial. Messrs. Fisher are very happy [fol. 558] over the solution of the problem, as for some time they have been fearful lest failure to get together would necessitate the breaking up of relations, perhaps a break in the Fisher family, concerning which they naturally have great pride, as they have been phenomenally successful in the cleanest kind of a business enterprise." (GM 32).

On June 30, 1926 General Motors acquired the remaining 40% interest in Fisher Body for the reason that Fisher Body had been unable to make price reductions which General Motors needed or to expand its plant capacity and reserve its entire production for General Motors. Fisher Body became a division of General Motors. In connection with this acquisition, John J. Raskob requested du Pont to loan General Motors a quarter of a million shares of General Motors common to finance the transaction, which was done.

In 1919 when the voting trust was first established only 25% of General Motors car production was in closed bodies, but by 1926 the percentage had increased to 90%. The 1919 contract with Fisher Body provided that Fisher Body was to receive cost plus 17% on all closed body work for General Motors.

At the time of the du Pont investment in General Motors, Fisher Body was building closed bodies for General Motors and buying pyroxylin coated materials for closed body tops from Textileather. Before and after 1917 du Pont sought to secure this business of Fisher Body but was unsuccessful. In July 1925 the Executive Committee of du Pont was informed that du Pont had been unable to sell Fisher Body closed car curtains and had lost orders of about 200,000 yards on rubber coated fabrics to Chase and Haartz, [fol. 559] owing apparently to price considerations. In 1925 du Pont's total fabric sales to Fisher Body amounted to $303,000.

In 1925 three events occurred which established du Pont as a substantial supplier to Fisher Body of rubber coated material: (1) Fisher Body made a change from pyroxylin coated to rubber coated decking not produced by Textileather; (2) du Pont introduced a new rubber coated decking "Glazed Pontop" which tests showed to be superior to others; and (3) du Pont, at the request of a Fisher Body Vice-President, employed Mr. J. Henry Smith as its Detroit sales representative for coated and combined fabrics. This last event resulted in an order to du Pont for 300,000 yards of Pontop for the balance of 1925. This Brown testified was "about six times as much business as we had got from Fisher in previous years."

During the last half of 1925 Fisher Body placed with du Pont heavy fabric orders that increased its purchases almost fourfold the following year.

In early 1926 du Pont introduced "Everbright" a new rubber coated decking which was widely adopted by the automobile industry and in 1926, after Fisher Body had tested it, du Pont was supplying Fisher Body with considerably more than one-half of its top material requirements. Thus, during the last half of 1926 Fisher Body placed the greater portion of their rubber coated fabrics business with du Pont's Fairfield plant.

The advent of the so-called super discount plan is considered under this heading since the Government's analysis reflects that its operations were directed to the Fisher Body business.

Early in 1924 the General Purchasing Committee developed the idea of sliding scale discount contracts. This [fol. 560] permitted a supplier to fix his base price upon the volume of business he had previously enjoyed and as an inducement for increased volume offered an additional discount. Several contracts were made by the committee on this basis and GM 162 contains excerpts of these.

Preceding the adoption of the super discount plan in August 1926, du Pont had been making discount arrangements with General Motors on certain fabric materials. In July 1925 the Paint, Lacquer and Chemicals Division reported to the Executive Committee of du Pont as follows:

> "We are negotiating a one year's contract dating from July 1st with General Motors which will cover the entire requirements of the General Motors units for pyroxylin finishes and a minimum of 50% of Fisher Body requirements. The committee has approved an extension of the discount scale which has been in force this year, and by purchasing maximum amounts during any given quarter General Motors may gain up to 12% discount from the present standard price. It is hoped that, since almost all of the Fisher Body business must be included if General Motors as well as Fisher is to obtain this maximum discount, that this will prove such a strong inducement for Fisher to give us this business that competition for Fisher business will be greatly lessened." (GTX 454, p. 4.)

The General Purchasing Committee invited W. P. Allen of du Pont to present a proposal for sliding scale quantity discounts on all purchases from du Pont and invited Standard Oil of Indiana to submit a similar proposal on its products. In August 1926 W. P. Allen, General Manager of the Chemical Products Department of du Pont, attended a meeting of the General Purchasing Committee of General Motors and presented a plan for sliding scale quantity dis- [fol. 561] counts to General Motors and Fisher Body purchases on Duco, thinner, fabrikoid, rubber coated fabrics, pyralin, paints for maintenance purposes, etc., and the details were set forth in a letter from Allen to the General Purchasing Committee in September 1926, setting forth that the discount arrangement would begin when purchases totaled $9,000,000:

	Discount
$9,000,000	$ 75,000
10,000,000	175,000
11,000,000	300,000
12,000,000	450,000
Each additional One Million	150,000

(GTX 461, 462)

He wrote again, stating it was desirable to keep the arrangement confidential:

> "I want to say a word to you about the desirability of keeping this matter confidential and in treating it as an arrangement within the du Pont-G. M. family rather than as a mere concession in prices on individual commodities.
>
> "* * * I again want to emphasize the importance of treating this whole matter in a confidential manner. It is obvious that we would be unable to continue this arrangement unless we can secure much higher prices from our other customers; and, if the terms of this arrangement become public knowledge in the trade, we would inevitably be forced to reduce prices generally, which would in turn wipe out the earnings which we propose to return to you as a rebate under this plan." (GTX 463).

[fol. 562] In January 1927 Lammot du Pont wrote a memorandum addressed to Pierre S. du Pont, Chairman of the Board of General Motors and John Raskob, Chairman of its Finance Committee, giving figures on General Motors purchases of fabrikoid, rubber and parlin, and stated:

> "I gather you were somewhat surprised at the statement that General Motors was not buying anywhere near all of their requirements of products which du Pont makes, from the du Pont Company." (GTX 460).

The tabulation attached consisted of figures for the year 1926 on products consumed by General Motors and Fisher Body, which were not enjoyed by the Fabrikoid and Chemical Products Divisions of du Pont, in a total amount of

$5,339,500. It showed that Fisher Body purchased from competitors a larger amount of fabrikoid and rubber products than the other divisions and was the only one listed as purchasing from competitors products in the chemical field, approximately $3,012,500 in primers, surfacers, ground coats, black Duco and thinners. The reason for this was stated by Allen to be that the figures on chemical products did not mention General Motors car units since Buick, Chevrolet and Olds purchased practically 100% of their requirements from du Pont, so that Oakland was the only unit purchasing anything worthwhile from competitors and this mostly in undercoats. He stated:

> "When we were discussing with the General Motors Purchasing Committee in the middle of last year the question of granting them a super discount as an inducement to place with the du Pont Company more of the General Motors business, they admitted that for the year up to that time General Motors and Fisher Body had bought a total of $12,000,000 worth of materials made by the du Pont Company, of which $8,000,000 [fol. 563] had been placed with us and $4,000,000 with competitors." (GTX 460).

A report by the Paint, Lacquer and Chemicals Department to the Executive Committee of du Pont for the month of November 1926 stated that General Motors was unwilling to make a requirements contract for 1927 although du Pont had reduced the prices of thinner and although these prices were subject to quantity discount; that competition in the pyroxylin finish field was apparently the cause for General Motors' attitude. It was also reported that du Pont had succeeded in selling Buick its fabrikoid requirements for the first half of 1927 "notwithstanding competition from Federal Leather Co. at a differential of 11¢ per yard under our quotations."

The following month, December 1926, another report was made stating that General Motors' action in receiving a bid from U. S. Industrial Alcohol on specified thinner composition, compelled du Pont to make an offer "at approximately the same net price when all discounts are included" and that this would have to be extended to all customers with the result that profits from the thinner business during

1927 would be less than in 1926. The report also stated under Sales of Special Significance that Oakland Motor Co. had placed an order for their requirements of fabric for the first six months of 1927 with du Pont "notwithstanding lower prices being quoted by Federal Leather and Cotex." The contract on thinner requirements was granted by the General Purchasing Committee to U. S. Industrial Alcohol for a six month period.

In October 1927 the Paint, Lacquer and Chemicals Department reported as follows:

> "Renewed interest on the part of General Motors people has been aroused in the question of the volume [fol. 564] oil-type undercoats and black 'Duco' business that is being placed with competitors by Fisher Body Division. Their own estimate is that General Motors Corporation might save as much as 500,000 a year by placing this business with us, due to our lower prices on undercoats and the increased discount this added volume would enable them to obtain on all other purchases under our so-called 'super-discount's' agreement. Our latest information is that this subject is being actively agitated by the General Motors Purchasing Committee but have not yet heard to what extent the operation of the super discount plan is swinging sentiment in our favor." (GTX 492).

The General Purchasing Committee of General Motors in July 1928 wrote the purchasing agents of the General Motors Divisions and Fisher Body regarding the du Pont super discount saying that while it was agreed that healthy competition was to be maintained if 80% of the purchases of material such as du Pont was in a position to supply are given to them on an even basis, the earnings under the super discount will be materially increased and they were urged to cooperate to that end.

During 1927 Fisher Body went back to pyroxylin decking on most models and purchased about one-half of its requirements from du Pont's competitors. In 1928 Fisher Body returned to Everbright and in 1929 competitive materials met its quality and Fisher Body reduced its purchases from du Pont to about one-third of its coated fabric requirements, which it continued to purchase until 1935 when the all steel top eliminated its use.

The du Pont Fabrics and Finishes Department reported to the Executive Committee for the month of June 1929 on the effect of the special discount plan stating that [fol. 565] $379,000, representing discount earned on total purchases of du Pont products amounting to $11,528,000, had been paid for the year ending June 30, 1929, and that for the previous year the discount had amounted to $200,000 on purchases of $10,201,000; that

> "While the value to us of this arrangement has been subject to question at times, there appears to be no longer any doubt that it has had and is continuing to have a very beneficial effect in fostering a friendly attitude toward du Pont products in general, which serves to minimize the occasioned differences that must of necessity arise in handling of such a large volume of varied products." (GTX 496).

With the depression years, General Motors production and its purchase declined. From 1929 to 1932 Fisher Body curtailed its output 71%—from 1,360,617 units to 395,604 units—and its purchases from du Pont were reduced. Since General Motors requirements had been cut to a point where it was unable to earn a discount in 1930, du Pont lowered the minimum amount at which super discount would become payable during the next year. In 1932 the super discount plan was terminated.

In October 1931 du Pont bought 300,000 shares of General Motors common stock from the Fishers; the other 200,000 were purchased by the Opel interests in Germany. Before this purchase the Fisher Brothers held 532,069 shares of General Motors common, or 11.8% of the 4,509,060 General Motors common held in Managers Securities. In addition, they held 1,600,000 shares of common stock received when General Motors purchased the remaining 40% minority interest in Fisher Body in 1926. In 1934 F. J. and C. T. Fisher retired as directors and members of the Executive Committee of General Motors and L. Fisher [fol. 566] succeeded C. T. Fisher as Central Office Executive at General Motors. He held this post until his retirement in 1944.

When the all steel top for passenger automobiles was adopted for all General Motors cars in the mid-1930s and until 1939 the principal use of fabrics at Fisher Body was the combined uncoated fabric for tops of convertible cars. Du Pont presently enjoys between one-third and one-half of this business. Fisher Body first used du Pont Teal, a fabric used for convertible tops, in 1926, and purchased 50% of its requirements of this fabric until 1930. In 1931 Fisher Body requested all its suppliers, including du Pont, to give a two year guarantee against damage by cleaning materials. Although du Pont tests showed its Teal would withstand cleaning materials, du Pont felt it could not make the guarantee, and Haartz Auto Fabric Company, which was willing to make such a guarantee, became Fisher Body's sole supplier of this type of fabric. By 1933 du Pont felt it could make the two year guarantee and sought to regain some of this business, but secured none until 1948.

In late 1946 Fisher asked du Pont to develop a combined uncoated fabric which would not be subject to the fading and shrinking problems evidenced in Haartz material. By 1948 du Pont had solved the problem and was awarded part of Fisher's business. From that year to 1951 du Pont enjoyed one-half of Fisher's business, and in 1951 about one-third. Since 1946 or 1947 du Pont supplies Fisher Body with 35-45% of its coated and combined uncoated fabric requirements.

In 1940 and 1941 du Pont secured the major share of Fisher Body requirements for coated fabrics. Since 1947-1948 this business has declined and du Pont is only one of four major suppliers of this fabric to Fisher Body. The [fol. 567] other suppliers are Haartz, Textileather, and United States Rubber. Fisher Body has adhered to a policy of several sources of supply.

The record, including all the evidence summarized in the preceding paragraphs, amply establishes that du Pont sought to sell its finishes and fabrics to Fisher Body. It early recognized that Fisher would be a substantial consumer of those products since it was making all of the closed bodies for General Motors cars. Du Pont's sales efforts included a personal approach to the Fisher brothers, by Lammot du Pont, at the suggestion of Pierre S. du

Pont; the employment as a fabric salesman of one Smith who apparently was favorably known to the Fisher management; and the offering of a substantial overall price reduction in the form of the super discount for a period of about five years during the 1920s.

The first of these efforts appears to have resulted in no advantage to du Pont since its stock ownership in General Motors did not persuade Fisher to use Flint products. The other two efforts did, it seems clear, increase du Pont's sale of finishes and fabrics to Fisher Body but they do not establish the existence of any agreement or understanding that Fisher would favor du Pont, and they do not establish that du Pont's sales to Fisher resulted from its stockholdings in General Motors or its alleged control of General Motors. Moreover, the record indicates that even the discount did not secure for du Pont all of Fisher Body's business and indeed may not have increased the portion of Fisher's requirements purchased from du Pont though the total dollar purchases from du Pont by Fisher did increase. The record also shows that Fisher Body at all times conducted its purchasing, with respect to finishes, fabrics and all other products in accordance with its own best judgment. The Court finds the testimony of Lawrence [fol. 568] Fisher particularly persuasive in this respect. His competence and knowledge of this matter cannot be questioned. He was in active charge of the Fisher Company for many years and subsequently served in high executive capacities with General Motors. It is highly unlikely, if not impossible, that Fisher Body's purchasing practices could have been influenced by an agreement with du Pont or by the latter's position in General Motors without his knowledge. His forthright testimony and general demeanor on both direct and cross-examination are most convincing that Fisher Body was neither party to an agreement with du Pont nor the victum of du Pont domination.

Finally, the extent to which Fisher Body has purchased over the years from competitors of du Pont in substantial quantities cannot be squared with the charge that Fisher is a captive market for du Pont. The record is clear, for example, that Fisher immediately encouraged competitors of du Pont to produce a lacquer comparable to Duco, and has consistently over the years bought substantial amounts of topcoats from two or three of du Pont's competitors, and practically all of its undercoats are purchased from a single competitor of du Pont. Other examples are found in the detailed analysis of the evidence relating to the various products sold by du Pont.

Finishes

Duco

In 1910 General Motors and Chevrolet had been purchasing practically their entire requirements of automobile finishes from Flint. After the acquisition of Flint by du Pont, Flint's position as a supplier of paint and varnish to General Motors was not enhanced; in fact, Flint lost position as a supplier. In 1918 Flint had all the Buick, Oakland, Olds and Chevrolet business. In 1921 it lost half of [fol. 569] the Oakland business, and in 1923 some of the varnish business at Buick, Oakland and Olds.

Immediately following World War I the automobile industry entered into an era of great expansion. One important problem remained, however, that of a finish which would last as long as the automobile and which could be applied on the assembly line in a matter of hours.

Du Pont had entered into the nitrocellulose lacquer field in 1903. By 1920 it had a small but varied line of products. These lacquers were quick-drying and provided a durable film, but use was limited because the lacquer did not contain much solid material and if that were increased the lacquer became too viscous to work.

General Motors officials were interested in the problem and upon recommendations of Walter P. Chrysler and Herman L. Weckler of Buick, a Paint and Enamel Committee was created in December 1921 to study the problem. Clements of General Motors Research became Chairman and representatives of the car divisions were members.

The Paint and Enamel Committee began to test the finish used in each of the car plants and discovered the difficulty was in the top coat. It contacted every reputable paint manufacturer in the country and tested available material.

Kettering and Fisher Body used lacquer on airplanes during World War I and Kettering thought it might be the solution to the problem in the automotive industry. It had never been used on automobiles because it had a low solids content requiring application of many coats when used in colors.

Among the paint manufacturers approached was du Pont, which evinced an interest in the idea. By this time [fol. 570] du Pont discovered a process for producing a lacquer with a high solids content, called Duco. Edmund M. Flaherty, Assistant Director of Sales for du Pont's Chemical Products Division, told Harry Mougey, a member of the General Motors research group, of this new lacquer and agreed to send samples to Dayton, Ohio, to be tested with the other materials under observation by the Committee.

After testing samples of this new lacquer, Kettering and Henry Mougey became enthusiastic over its possibilities. However, it lacked the high gloss of varnish and it would not adhere to the traditional undercoats used on metal.

This was in the Spring of 1922 and marked the beginning of an experimental and production testing period that lasted more than two years. Both General Motors and du Pont joined in the testing to adapt the new lacquer to the demands of the automobile production line and a great deal of collaboration ensued toward this end. Williams of du Pont spent a considerable period of time working with Mougey of General Motors before the problem was solved. Both Williams and Flaherty testified that they met no chemists from other companies in the General Motors laboratories.

While Duco was still in this testing stage Pierre S. du Pont, then President of General Motors, at the request of the Paint and Enamel Committee asked du Pont to stop all negotiations with other possible consumers and all plans for selling these products in the open market "until such time as a suitable conference may determine whether it is possible for General Motors Corporation to obtain the entire product for the du Pont factories over a period of time in order to insure a satisfactory quantity of material". At the same time, he requested Sloan to secure a sample estimate from the several General Motors Divisions as to their probable needs if Duco were to be used so that [fol. 571] du Pont might set about constructing the necessary facilities. This feeling had been orally expressed to

Irenee du Pont and had been discussed at a meeting of the General Motors Paint and Enamel Committee which was attended by a du Pont representative.

In a report to the Executive Committee of du Pont in October 1922, the Cellulose Products Department stated that they had seriously considered the whole matter and, after weighing all the factors was of the opinion that "it would not be to our best interests, nor General Motors', to give them this exclusive right." The report further stated that "any competitive advantage that General Motors might obtain by getting the exclusive use of our finishes must be temporary only" and such a practice "would have the effect of encouraging competition in the field," so that it would be better to take full advantage of the start du Pont had by being first in the field and "getting entrenched just as widely as possible."

Irenee du Pont in reply to Pierre S. du Pont's request said:

> "We are embarrassed at your request to stop all negotiations with possible consumers and plans for selling these in the open market, this because we have already started a number of small users in business and cannot now cut them off from their source of supply. Also, the rumors of the value of these products are spreading and inquiries will be received from others who are users of Fabrikoid, Pyralin, etc., and we would be in a most embarrassing position to have to refuse sale of 'Viscolac' or 'Duco'. This might even result in their ceasing to use Fabrikoid and Pyralin by way of retaliation. Finally, if we don't sell on the outside the demand will be filled by other manufacturers which will entrench competition for us at a later date." (GTX 380).

[fol. 572] Flaherty testified that du Pont was selling Duco to Franklin, Pierce Arrow and other automobile companies.

By early 1923 General Motors Research was convinced that Duco was the answer. In March 1923, Mr. Rogers, the paint superintendent at Oakland, did some experimental work of his own and developed a burnishing process that brought up the lustre of Duco. In the Spring of that year, Oakland decided to use Duco on its 1924 open car, with the hope that it would reestablish its lagging reputation. The promotion report on automobile companies in October of that year reported that Oakland distributors were demanding Duco on closed cars. Oakland's use of Duco was an immense success. Fisher Body Division, which was building the Oakland closed bodies, decided to use Duco.

Herman L. Weckler, Works Manager at Buick, recommended Duco to its manager, Mr. Bassett, in 1923, but Bassett decided to wait until the Oakland results were in. In the Spring of 1924, upon the continued recommendation of Weckler, Bassett decided that Buick would use Duco on its 1925 models.

H. H. Rice, President of Cadillac, wrote to Clements, who had urged a speedy decision on the use of Duco by General Motors Divisions, agreeing that "all speed should be used in making the investigation but I think one of the most dangerous things the Corporation could do would be to adopt, generally, the new method of painting before it had been tried out in every conceivable fashion." Lawrence Fisher testified that in 1924 Fisher Body used Duco on the first steel bodies for Cadillac. In writing to Allen of du Pont, Sloan stated that he disagreed with the attitude of Cadillac and would see what he could do toward helping the situation. Regarding Buick, he suggested that Allen contact Mr. Bassett of that Division.

[fol. 573] The caution on the part of Cadillac and Buick in adopting Duco was set forth by Sloan in a letter to Allen on February 4, 1924 wherein he said that he was disappointed to find Cadillac and Buick reluctant to accept a car with a dull finish.

At a meeting in April 1924, Bassett stated that he intended to put the entire Buick production into Duco and it was adopted for both its open and closed bodies on the 1925 model. Cadillac, for about two years before it adopted Duco as its standard finish, offered it only on an optional basis, and did not make it standard until 1926. Thus the change over to Duco was slow. Sloan said:

> "It is hard to separate reluctance from responsibility. Responsibility of a general manager of a division is very great, and while he wants to make technological progress, and improve his product, he has got to be

> pretty careful that any decisions he has made lead to that end. * * *" (Sloan 3017-3018).

Sloan testified that he was interested in Duco because it had great significance from the standpoint of consumer appeal and because of its economic advantage; that he had no interest in "pushing" Duco other than improving General Motors; and that the decision to try Duco was left entirely to the respective Divisions who were given no orders by him or anyone else.

In July 1924 the General Purchasing Committee began development of a general contract covering Duco. The minutes of the General Purchasing Committee in November 1924 in connection with a discount provision in the proposed general contract for Duco stated:

> "It was brought out that no effort had yet been made to develop competitive price situation as regards [fol. 574] pyroxylin paints and that this fact should be given consideration by the du Pont Company."

In December 1924 an agreement was reached with du Pont whereby General Motors undertook to purchase its entire requirements of pyroxylin finishes for the first six months of 1925. Within a month, Lynah pointed out that a field of competition for Duco should be developed and suggested that the Research Laboratories begin "characteristic and durability tests of competitive pyroxylin finishes." Lynah in February 1925 requested Research to test the products of seven named companies. The general contract provided for purchase of buyer's requirements of Duco and thinner.

By May 1925 Lynah, in a letter to Mougey, made reference to the fact that other automobile manufacturers—Paige-Jewett, Flint, and Packard—were using a competitive pyroxylin finish sold by the Zapon Company. Before the expiration in July 1925 of the first contract with du Pont, Lynah undertook again to find a competitive product and suggested to the members of the General Purchasing Committee:

> "* * * It is appreciated that a field of competition for 'Duco' should be developed." (GM 172).

At this time Fisher Body had started to use Forbes black lacquer in addition to Duco which it had adopted in 1924, although the Forbes product had not been tested or approved by General Motors Research. Du Pont did not regain any of the black Duco business from Fisher Body until 1931 when it offered a new and superior product. Du Pont, Rinshed-Mason, and Forbes have continued to be Fisher Body's major sources of supply for topcoats, and [fol. 575] for undercoats Fisher Body has used Rinshed-Mason almost exclusively.

In May 1925, Mougey, Chief Chemist for General Motors Research, wrote to Lynah that the problem of testing lacquers was not easy:

> "* * * the matter of tests on cellulose nitrate finishes is a very difficult one. When one is dealing with material as durable as Duco, it is very difficult to estimate its total life and also estimate the life of other materials as compared with Duco. * * *
>
> "* * * One of the reasons why it is so difficult to approve finishes made by different companies is because each color is a problem in itself. A company may make a very good black and yet certain shades of grays, blues, etc., may be very bad. * * *
>
> "Another factor which makes it very difficult to judge these finishes is the fact that all of the companies who are trying to duplicate Duco are constantly improving their materials. We feel that none of the exposure tests which we made last Summer and last Winter represent the same material as was submitted by you this Spring. In most cases we feel that the Companies have improved their materials in the meantime, but in some cases, due to inability to actually determine whether a change is an improvement or not, we feel that changes have been made for the worse. This matter of changing the composition of the material is one on which we have insisted very strongly with the du Pont Company. No changes are made in the material until after very extensive tests. * * *
>
> "We feel that in the case of material which is advertised by our Companies as strongly as Duco, no pro- [fol. 576] duction should be undertaken on material

> which has not had at least a full year exposure test on test racks. * * *
>
> "In conclusion we believe that the other Companies who are competing with du Pont have already developed individual colors in many cases which are the equal of Duco.. We also believe that most, if not all, of the other Companies have not as yet developed a full line of colors of high durability. It is an open question whether it is possible at the present time to choose any individual color made by a competing company and guarantee that its durability is as great as that of Duco. In addition, there are many other properties such as quality of the color, ease of spraying, covering power, polishing properties, and other working properties which must be determined by actual tests on cars under production conditions.
>
> "Under these conditions we believe it would be desirable for the General Motors Corporation to put out a limited number of cars finished with the particular colors from competing Companies in which we are most interested. * * * In this way we feel that the General Motors Corporation will be in a position by next Spring to definitely put into production materials made by some of the Companies competing with Duco. * * *" (GM 176).

Upon the expiration of the first general contract for Duco, a second agreement covering the last six months of 1925 was executed for all requirements of the car divisions, and 50% or more of Fisher Body's requirements. Lynah testified that the reason for the 50% requirement of Fisher Body was that it "was not a wholly owned division of General Motors" and had to be sold on the desirability of par- [fol. 577] ticipating in this contract. When the second contract was to expire, Lynah advised Research that it would be impossible to approve a competitive lacquer for at least another year and the same contractual arrangement was continued for 1926.

In 1927 the contract was changed so that General Motors bought its requirements of seller's make. Lynah testified this meant that General Motors could buy as much or as little of du Pont's pyroxylin finish as it wished and was free to purchase from competitors and this interpretation of the contract is supported by the terms of the contract itself. Competitive lacquers were approved by General Motors in 1927.

Some time between 1927 and 1930 Cadillac and Oldsmobile began using competitive lacquers. Fisher Body for many years purchased finishes from a number of sources, including du Pont, and is the principal purchaser at General Motors of undercoats, but buys these principally from Rinshed-Mason. Cadillac has continued to use Rinshed-Mason topcoats since the late 1920's, and its undercoats have been supplied by a number of different companies, including Rinshed-Mason, Ferbert-Schorndorfer. Ralph J. Wirshing, head of General Motors Research Laboratories, testified one of the reasons Cadillac uses Rinshed-Mason is because of the proximity of its plant to Cadillac. The Chevrolet Division continues to buy its entire requirements from du Pont for both its topcoats and undercoats. Pontiac Division buys exclusively from du Pont; the du Pont plant being only thirty miles away. Buick uses du Pont topcoats and undercoats from a du Pont plant close by. Oldsmobile has used Rinshed-Mason topcoats since 1927 and Forbes undercoats since the 1930s.

It has been admitted that soon after the advent of Duco [fol. 578] du Pont sold this finish to a considerable number of other automobile companies. Shortly after the adoption of Duco, du Pont offered and sought to promote a nitrocellulose undercoat made from essentially the same material as Duco as a substitute for the oil base product then used. The new product was sold to automobile companies other than General Motors—Nash, Marmon, and Chrysler—because it afforded quicker drying and better surfacing qualities. Du Pont was unable to sell it to Fisher Body or any of the General Motors car divisions.

Dulux.

By 1926 Duco was in extensive use as an exterior finish for domestic refrigerators. At that time Frigidaire used Duco as an exterior finish for substantially all of the refrigerators which it made. In 1927 Frigidaire abandoned the use of Duco and spent over $1,000,000 to install equipment for finishing refrigerators with porcelain. It did this despite the efforts of du Pont to persuade Frigidaire that it should continue to use Duco. By 1930 Frigidaire was using a porcelain exterior finish on more than 80% of its refrigerators. Throughout this period General Electric, Frigidaire's major competitor, continued to use Duco or a similar lacquer finish. When Westinghouse began to manufacture refrigerators in 1932, it also used Duco. Even after the development of Dulux, Frigidaire continued to finish the exterior of about one-fourth of its refrigerators with porcelain—and is the only manufacturer of refrigerators in the United States which uses an exterior porcelain finish.

In 1932 General Electric and Westinghouse used Duco. The technical personnel of du Pont, and General Electric worked closely in General Electric's plants and laboratories on the problem of adopting Dulux to General Electric's [fol. 579] manufacturing process. General Electric was the first refrigerator manufacturer to use Dulux, Westinghouse was second, and Frigidaire did not adopt it until a year later.

C. L. Van Derau, a manufacturing executive at Westinghouse for over twenty-five years, testified that the reason it has purchased its entire requirements of refrigerator finishes from du Pont for many years was the fact that du Pont had "the finest trained technical group at their beck and call" and rendered excellent service.

With the exception of Frigidaire, the principal manufacturers and many of the smaller companies use Dulux exclusively; Frigidaire uses it on three-fourths of its refrigerators. Knight of General Electric, Norberg of Crosley, and Van Derau of Westinghouse, testified that these companies have used Dulux for many years because of its outstanding quality.

Dulux is not used by Frigidaire or the other major refrigerator manufacturers in inner liners or food compartments.

Finishes—Accessory Divisions

Richard C. Williams, Manager of Automotive Sales, Fabrics and Finishes Section of du Pont, testified that it sold substantial quantities of black lacquers to AC Spark Plug, but that Delco-Remy purchased its insulating varnish from two other sources. Du Pont has not sold to the Inland division in large quantities because the service problem was too great.

Guide Lamp Division has purchased quantities of enamel from du Pont, but a competitor succeeded in developing a primer which gave greater satisfaction and secured the business. The Ternstedt Division before World War II [fol. 580] obtained its interior enamel requirements from du Pont for a number of years but "as an economy move" switched to a competitive product although du Pont still has some of its business.

Williams testified that du Pont enjoyed varying degrees of success in its efforts to sell to the accessory divisions. Each division, he testified, purchases from du Pont or one or more of its competitors in accordance with the division's determination of price, quality and service.

Electro-Motive Division, manufacturer of Diesel locomotives, purchases 70-75% of its exterior finish requirements from du Pont. Its interior finish and its insulating varnish requirements are supplied by competitors.

The Packard Electric Division which uses cable lacquers and varnish was supplied by du Pont from 1929-1933 with all its requirements of black high tension lacquer being approximately 15,000 gallons a year. In 1933 a superior product was introduced by a competitor and du Pont lost the business although it continued as a supplier in lesser volume. In 1936 du Pont regained 50-75% of the black high tension lacquer business due to improvement in its product and continued to supply Packard Electric until 1939, when a competitor, the Standard Varnish Company, produced a lacquer of considerably higher heat and oil resistance and procured practically all the requirements of Packard Electric until the war.

Packard Electric was purchasing clear high tension lacquer from Arco and Ferbert-Schorndorfer, until 1934 when William Fisher testified they recognized the need for higher quality clear and started to buy most of their requirements from du Pont. This continued until 1936 when ethyl cellulose was produced. The Glidden Company secured the business in 1936, although du Pont was selling the lower quality [fol. 581] clear high tension lacquer to Packard Electric, until 1939. Fisher testified that since the war du Pont has not sold this lacquer to the Packard Electric Division.

In 1929 du Pont failed in its attempt to sell Packard Electric its low tension lacquer for cables. This was before the Division was acquired by General Motors. In 1931 Packard Electric produced its own low tension lacquer and purchased its film scrap solution from the Eastman Kodak Company. Fisher testified that du Pont was never able to persuade them to purchase their low tension lacquer and their film scrap solution from them.

Price Inertia

In 1927 the manager of General Motors Canadian subsidiary wrote to Pratt protesting that du Pont's subsidiary in Canada was not giving them a square deal on prices charged for Duco, that they were therefore contemplating using in part competitive products. Pratt replied that he saw no objection to using competitive products to get the du Pont subsidiary on a "proper basis" and that in fact it had been recently necessary for General Motors in the States to place some thinner business with a competitor as a disciplinary measure to bring down the price of Duco and thinner. The record shows that six months later du Pont met the competitive price and gained a general contract for 60% of General Motors thinner requirements.

In February 1927 Pratt wrote to Coyne of du Pont, complaining of their price policies:

> "* * * I want to tell you confidentially that the fellows responsible for the price policies in selling du Pont products to General Motors Corporation have used very bad sales psychology. I think I am safe in saying the du Pont Company has never voluntarily [fol. 582] made a price reduction on its products to General Motors. Price reductions have only been obtained by General Motors bringing in outside competition and forcing the du Pont Company to meet prices of outside competition in order to maintain the business. * * * Practically all successful suppliers of automotive parts and materials (with the exception of the du Pont Company)—when through improved design or increased production are in a position to make lower costs—pass part of the advantage of the lower costs on to their customers with reduced prices, without solicitation or pressure. I know you are salesman

> enough to appreciate the psychology in this policy, and realize the lack of good will created with a customer when it is necessary for that customer to take steps to bring down prices to a proper point, rather than having proper prices made through the initiative of the supplier." (GTX 485).

In response Coyne wrote Pratt stating he assumed he would have no objection to showing that part of the letter referring to the sales policy to du Pont's sales advisor so that he could look into the matter.

Du Pont's slowness in meeting competitive prices on Duco was contained in a du Pont report for 1928 wherein it was stated:

> "Naturally the manufacturers welcomed this reduction although several of them did not fail to remind us that our competitors had long since favored them with lower prices." (GTX 490).

80% of du Pont's total finish sales are made to customers other than General Motors. In 1948 du Pont sales of finishes to General Motors totaled $21,209,642 and its finishes [fol. 583] sales to customers other than General Motors totaled approximately ninety-seven million dollars. The loss of a number of the early automobile customers for Duco had been due to the fact that they had gone out of business—such as Franklin, Rickenbacker, Marmon, Moon, Cleveland, Chalmers, Morris, Lexington, Paige, Hupmobile, Gardner, etc. Williams testified that du Pont had been selling to Nash, Studebaker, Hudson, Packard and Willys since the middle 1920s. Until the early 1930s du Pont sold substantial quantities of topcoats and undercoats to Chrysler, but Chrysler thought their interests would be better served if they found a supplier who would take care of their entire requirements, and Pittsburgh Plate Glass has enjoyed the major share of Chrysler's finish requirements. Government Exhibits 1376-7 show that in 1935 Ford was buying one-half of its requirements from Du Pont and manufacturing the other half. In 1938 Ford ceased to buy Duco from du Pont but resumed substantial purchasing when Henry Ford II became active in Ford management.

Du Pont admits that for the ten years preceding the filing of the complaint, approximately three-quarters of its total sales to General Motors have consisted of products of its Finishes Division and that General Motors has been its largest single customer. The largest single finishes item which General Motors purchases from du Pont is Duco. In recent years about two-thirds of General Motors' total purchases of finishes from du Pont have consisted of Duco, and the thinner and solvents used in its mixing and application. Thus in 1947 of du Pont's total sales of finishes to General Motors amounting to approximately nineteen million dollars, Duco and thinner sales constituted over twelve million dollars. For the six year period 1938-1941, 1946-1949, the sales totaled sixty-nine million dollars, forty-eight million dollars of which, con- [fol. 584] stituting slightly over 69% of the total sales, were for Duco and thinner.

Statistical Charts on Finishes

The charts submitted by the Government are GTX 1387, being du Pont's percentage of finish sales to General Motors; GTX 1393, 1394 and 1400 being General Motors' purchases of finish products from du Pont and from competitors of du Pont. GTX 1387 indicates 90% of du Pont's finish sales in the automotive field were to General Motors. GTX 1393 and 1394 show General Motors percentage and dollar volume of purchases from du Pont and competitors in paints, enamels, primers, lacquers, thinners and pyroxylin was 70% in 1946 and 72% in 1947. GTX 1400 is a tabular representation of the same information contained in GTX 1393 and 1394 and lists approximately twenty suppliers of finishes to General Motors other than du Pont with the amounts supplied in 1946 and 1947, and indicates that General Motors purchased finishes from du Pont constituting 70% of its purchases in 1946 and 71.55% in 1947. Defendants have offered DP 568 as being an accurate portrayal of General Motors' purchases of finishes from du Pont and its competitors. This chart shows that General Motors purchased 67% of its finishes from du Pont in 1946 and 68% in 1947.

The only differences in Government charts GTX 1393, 1394 and 1400 and defense chart DP 568 are: (1) the

Government has excluded from its charts the purchases of solvents which are items listed in GTX 1343A as being purchased from competitors of du Pont in the amount of one-half million dollars in 1946 and over a million dollars in 1947, and (2) the defendants have included solvents and excluded from their charts products [fol. 585] described as heavy-bodied cements, pyroxylin solutions, plastic protective coating, wax, and rubbing and polishing compounds.

Since the range of difference between the percentages submitted in the defense chart and the Government charts are not in significant disagreement—the Government asserting 70-71% and the defense 67-68%—the Court is of the opinion that a conclusion as to percentages will have no material bearing on the issues herein, and will not indulge in a technical discussion of the relative methods used in arriving at the respective percentages.

The record discloses that a very substantial portion of finishes sales consist of Duco, a pyroxylin lacquer used principally as a topcoat on automobiles, and Dulux, a synthetic enamel widely used as a refrigerator finish. The Court finds on the basis of all of the evidence of record that du Pont's success in the sale of finishes to General Motors is in large part attributable to the superior quality of these finishes and to the pre-eminence it gained as the developer of these two products, its continuing research, and outstanding service.

Duco was invented and patented by du Pont. It made a substantial contribution to the art of automobile finishing and was one of the factors that made possible mass production of automobiles. Testimony of Sloan, Lawrence Fisher and Weckler establish beyond any doubt the high value of this development to the automobile industry. Sloan recognized its potentialities in advance of some of his associates and urged the adoption of Duco. Such action on his part does not evidence a trade agreement with du Pont or response to alleged du Pont control. It is rather an instance of his foresight and leadership, not [fol. 586] unlike a number of other incidents that contributed to his success as the Chief Executive Officer of General Motors. The testimony of Weckler, who for many years was an executive of Chrysler Corporation, was similarly convincing that Duco answered a long felt need in the automobile industry and made its way solely on its merits. In short, the Court rejects as wholly without foundation any contention that Duco was forced upon General Motors by reason of du Pont influence or domination.

The record shows that after competitors began to produce a lacquer comparable to Duco some General Motors Divisions turned to such competitors while others continued to buy in whole or in large part from du Pont. Du Pont, it appears, has retained its position as the most important single supplier of General Motors. The Government has failed to establish, however, that this position was maintained in any illegal manner. Flaherty, Williams and Wirshing all made clear that du Pont's position was at all times a matter of sales effort and keeping General Motors satisfied. There is no evidence that General Motors or any Division of General Motors was ever prevented by du Pont from using a finish manufactured by one of du Pont's competitors; nor is there any evidence that General Motors has suffered competitively from its substantial use of Duco. Kettering testified explicitly that the superior finish used on General Motors cars was responsible for their higher resale value. In view of all the evidence of record, the only reasonable conclusion is that du Pont has continued to sell Duco in substantial quantities to General Motors only because General Motors believes such purchases best fit its needs.

The evidence with respect to Dulux presents a similar picture. It is apparently an ideal refrigerator finish and is widely used by a number of major manufacturers other [fol. 587] than General Motors. Several representatives of competitive refrigerator manufacturers testified that they purchased 100% of their requirements from du Pont. There is no evidence that General Motors purchased from du Pont for any reason other than those that prompted its competitors to buy Dulux from du Pont—excellence of product, fair price and continuing quality of service.

Fabrics

One of the first fabrics which du Pont developed after its 1910 purchase of the Fabrikoid Company was a pyroxylin coated fabric which was used in the automobile industry for upholstery. My mid-1913 sales of this artificial leather fabric were made to nearly every major automobile company including the General Motors car units. In 1918 du Pont developed "Pontop" a double rubberized top material. During 1925, it produced "Glazed Pontop", which was replaced in 1926 by "Everbright", a material similar to the Pontop but having greater lustre and durability. Everbright at one time supplied 75% of all the closed car top material business in the country. In 1937 Cavalon, a rubberized upholstery material compounded with ground leather and finished with a thin coating of shellac, which was brominated or given a case hardened surface, was developed and was used particularly in the trucking, theatre seating and public seating trades. During the period Glazed Pontop and Everbright were manufactured, du Pont developed a combined uncoated fabric which it called "Teal". This fabric was dyed before it was woven and used for the tops of open cars.

For about two decades none of the automobile divisions of General Motors have been purchasers of fabrics for use in making automobile bodies. With the advent of the closed body car in the late 1920s and early 1930s, these automobile divisions discontinued the making of open car [fol. 588] bodies. Fisher Body had manufactured closed bodies for General Motors cars before that type became popular and later continued the manufacture. In the mid-1930s it adopted the all steel top for all General Motors cars. Since these changes Fisher Body became a large consumer of fabrics for automotive use.

Until the adoption of the closed body car, fabric purchases by the General Motors car divisions were made principally by the respective divisions.

Before the stock purchase in late 1917, du Pont was supplying substantially all of the coated fabric requirements for both upholstery and top material for Chevrolet and Oldsmobile; about one-half for Buick; about one-third for Oakland; and all interior trim for Cadillac, but none of the top material.

Cadillac, Oldsmobile and Oakland used fabrikoid for interior trim and by 1916 Buick was one of du Pont's four largest fabrikoid customers.

In 1918-1919 Chevrolet, Buick, Oldsmobile and Oakland made purchases of Pontop when it was introduced but Cadillac made no purchases until 1920.

Chevrolet continued to use artificial leather until 1930 and du Pont enjoyed a substantial portion of its upholstery and trim requirements. After the discontinuance of the open body it made only limited purchases of the same for upholstery and trim. In 1917 du Pont attempted to persuade Chevrolet to change to another top material which it believed was superior but was unsuccessful and the business went to a competitor; this was regained in 1919, however, when du Pont introduced "Pontop". Du Pont maintained its pre-1917 position as Chevrolet's rubber coated top material supplier until 1924 when it purchased its requirements from competitors, but regained that business in 1925 when Chevrolet was having both quality and [fol. 589] delivery difficulties with its other suppliers. Du Pont did not succeed in selling Chevrolet its combined uncoated top material until 1927, when it started buying du Pont's Teal. During this time Haartz was Chevrolet's supplier. In 1929 Chevrolet used this fabric for about one-half of its production. In 1930 Chevrolet abandoned rubber coated top materials and du Pont secured about one-half of Chevrolet's business for uncoated materials.

During 1920 du Pont, at Chevrolet's request developed a coated panel board and sold it to Chevrolet at about one-half the price charged by other panel board manufacturers. By the end of 1920 these manufacturers reduced their prices and Chevrolet thereafter purchased exclusively from them. During the 1920s and 1930s Chevrolet used a large quantity of coated fabrics for winter fronts to prevent radiator freezing and during this period purchased the du Pont product for only one year—1936.

Cadillac purchased du Pont's fabrikoid for interior trim for all its requirements until 1924. In that year for six months it purchased its requirements from Textileather. Prior to 1917 Cadillac purchased all its requirements of top material from competitors of du Pont until 1920. In that year it purchased du Pont's "Pontop" and continued to do so until 1924 when it ceased manufacture of open bodies.

Oakland purchased fabrikoid for use as interior trim until 1933 when it ceased the manufacture of open bodies. Previous to 1917 and from 1919 to 1922 this division purchased one-third of its coated fabric requirements from du Pont. In 1918 du Pont had difficulty in maintaining color uniformity and Oakland purchased from competitors. In 1922 Oakland purchased its entire requirements of coated fabrics from du Pont, but in 1923 began to purchase from competitors. By 1925 du Pont again received about [fol. 590] one-third of its coated fabric business- In 1926 it converted to uncoated combined top material and purchased from du Pont competitors.

Except for 1922, when du Pont supplied Buick's entire requirements for coated fabrics, it supplied one-half of this division's requirements. When du Pont commenced the manufacture of uncoated combined top material, it solicited the Buick business but received no orders until 1927-1928, when it supplied all its requirements. In 1929-1930 Haartz became Buick's supplier of this fabric. Buick discontinued the manufacture of open bodies in early 1930.

Oldsmobile, between 1923 and 1929, purchased about one-half of its requirements for coated and combined fabrics from competitors of du Pont. In 1923 it purchased one-half of its requirements from du Pont in the rubber coated material "Pontop". From 1924 through 1926, this division used uncoated combined top material and purchased a substantial amount from du Pont. In 1927 and until 1929 it purchased from du Pont's competitors.

Between 1918 and 1923 du Pont supplied the bulk of General Motor's fabric business. The depression of 1920 and 1921 caused a drop in automobile sales and the automobile manufacturers, including General Motors, had large stocks of coated fabrics on hand, including future commitments under contracts. Several of the General Motors units requested du Pont to cancel their contracts but du Pont refused. An agreement for deferred delivery was made on Chevrolet's contract and settlement eventually made on the Buick, Oldsmobile and Oakland contracts to cancel same on the condition that each would purchase their entire requirements of coated material for the year 1922 from du Pont. Due to the settlements of the 1920 contracts, du Pont in 1922 supplied a greater percentage [fol. 591] of General Motors requirements than it had previously. In 1923 these three divisions commenced to purchase this fabric from other manufacturers.

Early in 1923 the General Purchasing Committee found that General Motors had purchased nearly all its fabric requirements in the preceding year from du Pont and determined that at least 20% of the requirements should be placed elsewhere. In 1931 du Pont made a study of its total sales of coated and combined fabrics and the study showed that du Pont supplied 31.5% of General Motors requirements in 1930.

Fisher Body manufactured closed cars for the General Motors car divisions before 1917, and between 1924 and the early 1930s, manufactured the open bodies and convertibles. Until 1935 or 1936, when the all steel top was introduced, Fisher Body used coated fabrics as top material for the closed cars, but used no coated fabrics for upholstery and trim until 1939. It used combined fabrics as top material on convertibles. Fisher Body was buying none of its material from du Pont, purchasing from Textileather, until it bought du Pont's "Glazed Pontop" in 1925. In 1927 it changed to pyroxylin top materials and purchased one-half of its requirements from Textileather. It commenced to use du Pont's Everbright in 1928-1929. In 1929 it purchased two-thirds of its requirements from du Pont competitors. It continued such purchasing until 1936, when all of the General Motors closed bodies had an all steel top practically eliminating requirements for coated or combined fabrics except for convertible top material. Fisher Body began to use uncoated combined fabrics for top material on convertible models in 1926, purchasing about one-half of its requirements from du Pont. In 1931, when du Pont refused to grant a guarantee against damage by cleaning, it purchased its entire requirements from Haartz. In late 1946 or early 1947 Fisher Body had dif- [fol. 592] ficulty with shrinkage and fading of top material purchased from Haartz. In 1948 du Pont successfully met the difficulty and secured a part of the Fisher Body business. Since that year du Pont has supplied Fisher Body with less than one-half of its requirements of top material.

In 1939 Fisher Body began to use coated fabrics for interior trim and purchased part from du Pont and part from its competitors. Du Pont secured a major portion of its requirements for the years 1940-1941, and immediately following the war Fisher Body purchased from du Pont all of the coated fabrics du Pont would sell since there was a shortage of said material. Since 1947 or 1948, Fisher Body has been purchasing its coated and combined fabrics from Textileather, Federaleather, Haartz Auto Fabric Co., and United States Rubber, as well as du Pont.

Fisher Body also purchases about $1,000,000 of weather stripping cement. It purchases from du Pont a neoprene base adhesive called Fairprene 5115. Sales of this cement amount to about 3% of Fisher Body's total purchases. The bulk of its requirements for this material are purchased from Armstrong Cork, although Nickowitz testified that du Pont was still trying to sell larger quantities of Fairprene 5115.

In 1930 General Motors purchased the Indianapolis plant of the Martin-Parry Corporation, which became the Chevrolet Commercial Division of General Motors. This division makes bodies for light trucks and commercial vehicles. Between 1922 and 1930 Martin-Parry Corporation purchased 100 percent of its requirements of coated fabrics for upholstery and trim from du Pont. From 1930 to 1937 it purchased only du Pont pyroxylin coated fabrics. In 1937 du Pont supplied 90% of its rubber coated fabric requirements, but in that year it started to purchase from [fol. 593] United States Rubber a part of its requirements. In 1940 du Pont lost more of this business, and in 1948 supplied only 60% of this division's requirements. Du Pont now obtains less than one-third of the approximately two million dollars of annual fabric purchases made by this division.

GMC Truck & Coach Division buys one-third of its requirements for light truck upholstery from du Pont. Its requirements of heavy truck upholstery are supplied by United States Rubber. When GMC Truck shifted, after the war, to vinyl coated fabrics instead of natural leather for the upholstery of its heavy trucks, United States Rubber succeeded in getting that business. Vinyl material for bus seats was supplied by B. F. Goodrich Company.

A C Spark Plug purchases about $2,000,000 annually of coated fabrics for fuel pump diaphragms and continues to use its own material despite du Pont's sales efforts. At Chevrolet's request A C uses du Pont material for its automatic transmission. Electromotive's requirements of synthetic rubber coated material for batten strips and rubber coated fabrics for insulating material are not supplied by du Pont although it supplies its principal competitor. Delco Appliance Division has a large requirement for synthetic rubber coated fabrics and sheet stock, but does not purchase from du Pont. Packard Electric Division also has large requirements for vinyl coated insulating tape, but does not purchase from du Pont. Du Pont supplies one-half of Packard Electric's requirements in "Teflon" a coated glass fabric for insulating aircraft ignition wire.

General Motors Overseas Division, which before the war purchased substantial amounts of coated fabrics in the United States, purchasing one-half from du Pont, has since the war made all its purchase abroad.

[fol. 594] A du Pont Annual Report for 1940 shows that demand for rubber coated fabrics continued until 1940 when pyroxylin coated material came into being. It stated:

> "About five years ago rubber coated fabrics started to supplant proxylin materials for automobile truck seat upholstery and usage of the latter by the automobile industry gradually decreased until 1940 when style changes resulted in considerably higher requirements of pyroxylin coated fabrics as trim on the interior of closed cars. Our sales improved from $360,000 in 1939 to $870,000 in 1940, approximately 50% of the industry's total requirements." (GTX 1380).

In 1941 a du Pont Annual Competitive Report stated:

> "The trim of the interiors of 1941 and 1942 passenger cars was such as to permit increased usage of pyroxylin coated fabrics for such purposes as the tops and backs of front seats, kick-pads, shelves behind rear seats, etc. Du Pont sales increased to $1,365,000 in 1941, 5% over 1940, and represents 30% of the total automobile requirements. It is believed that Textileather Corporation secures the next largest share, as they supply a sizeable portion of Chrysler's needs." (GTX 1381).

In 1949 du Pont's total dollar sales to General Motors increased from $3,500,000 in 1948 to $3,700,000; and du Pont's Annual Market Survey for 1948 stated that du Pont's fabric division sold four million dollars of its fabric to the automotive industry, General Motors purchasing over 80%, or $3,700,000.

Nickowitz testified that since 1944 when he became Director of Sales at du Pont, sales of coated fabrics to the [fol. 595] automobile industry represented only 20% of the total, and that sales of coated fabrics represented approximately 2%-3% of its sales. He stated the largest customer in the automobile field of the Fabrics Division for the year 1948 was General Motors which purchased $3,700,000 of fabrikoid, fabrilite and Teal, and that sales to General Motors in that year represented about 80% of the Fabrics and Finishes Departments automobile sales.

Statistical Fabric Charts

The charts submitted by the Government in this field are GTX 1391 and 1392, showing General Motors' percentage and dollar volume purchases from du Pont and its competitors for 1946 and 1947. These charts indicate that 74.5% of General Motors' purchases of fabrics in 1946 and 60% in 1947 were made from du Pont. Defendants have offered DP 569 showing that in 1946, 52.3% in 1946 and 38.5% in 1947 was purchased from du Pont.

In support of its charts the Government states a study of the evidence shows that the largest usage of any automobile fabric was for upholstery and trim; that GTX 1391 and 1392 reflect the percentage of fabric purchased by General Motors from du Pont for that use. It is stated that one of the chief reasons for concluding that this sole classification is an accurate one and the one most commonly used in the automotive field, was the usage of that term by Thomas A. Nalle, a du Pont fabrics salesman, whose reports are represented by GTX 1349 and 1358. The Government arrived at its percentages by comparing du Pont total sales of fabrikoid, fabrilite and Cavalon to General Motors, as shown on GTX 1344, with only that part of General Motors purchases from du Pont competitors which is shown in GTX 1343A under heading "Imitation Leather".

[fol. 596] The defendants object to the accuracy of this comparison and to the assumptions on which it rests for the following reasons:

1. The Government's assumption that all fabrikoid, fabrilite and Cavalon sold by du Pont to General Motors is used solely for upholstery and trim is improper; the du Pont sales figures shown on GTX 1344 are for total sales and purchases without regard to the end use of the fabric; the record does not support the assumption that all coated fabrics purchased by General Motors from du Pont were used for upholstery and trim; on the contrary, the record shows that these fabrics had other uses such as head linings, winter fronts, seat covers, top materials, case coverings, spring boots, sheet stock, work clothing and curtains.

2. The Government's assumption that only those purchases by General Motors from du Pont competitors shown on GTX 1343A under the heading "Imitation Leather" were used for upholstery and trim is likewise improper; that the record shows that the terms "coated fabrics" and "imitation leather" are used interchangeably and that these separate headings in GTX 1343A were used merely to permit recording in accordance with personal preference in usage of terms, and that in collecting and presenting the figures contained in GTX 1343A, General Motors included under both headings fabrics that were competitive with those offered by du Pont. The Government states that General Motors did not use the fabric suppliers listed under "coated fabrics" as suppliers for upholstery and trim fabric; that they supplied fabrics which General Motors used for other purposes as gaskets, welts, gimps, etc. as is substantiated by the testimony of Nalle and Nickowitz and the documentary evidence. Defense chart DP 569 includes both categories of "coated fabrics" and "imitation leather" figures in its computations.

[fol. 597] The Court is of the opinion that the product comparison made by the defense chart from the base charts, GTX 1344 and 1343A, reflects the proper delineation to be accorded the figures contained therein, and the use figures submitted by the Government calls for assumptions not supported by the record. Thus, the Court concludes that in the fabrics field General Motors purchased approximately 40-50% of its requirements from du Pont for the years 1946 and 1947.

Du Pont since 1910 has been one of the major producers of coated fabrics and related products. At the time of its investment in General Motors it had been engaged in selling such products to the automobile industry for many years and its customers included many of the companies that subsequently became a part of General Motors. Following its investment it continued to sell to the General Motors divisions, and over the years those divisions that use fabric products have purchased them from du Pont in varying amounts.

On the basis of all of the evidence of record the court finds that there was at no time any agreement that bound General Motors to buy any fixed portion of its fabric requirements from du Pont with the exception of the year 1922. In that year it appears that du Pont was promised, and perhaps received, all of General Motors' fabric business. This arrangement grew out of the cancellation of certain contracts in the previous year which caused du Pont substantial loss. It thus grew out of a normal buyer-seller relationship. The Court further finds that such purchases of fabrics as the General Motors divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment and are not the result of du Pont domination. Du Pont, the record shows, has maintained its position as the principal fabric supplier to General Motors through its early leadership [fol. 598] in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery.

Tetraethyl Lead

C. F. Kettering became associated with General Motors in 1918 when it merged with United Motors, a division of which included the Delco Company. He was its General Manager and retained that office after the merger. On December 31, 1920 he was made a director and shortly thereafter a Vice-President of General Motors.

Kettering became interested in exploring the causes of engine "knock" in 1912 or 1913. He conceived the idea that he might lessen the knock and improve the engine efficiency by adding something to the mootor fuel.

This was a subject of revolutionary interest in the evolution of the internal combustion engine because until the problem of "knocking" could be solved, the possibility of improving engines and engine performance was limited. The oil and automotive industries both were tremendously interested in Kettering's research.

Research was conducted at the Delco Company, then a part of United Motors, with Thomas Midgley in charge, and was later transferred to the Dayton Metal Products Company, acquired by General Motors in 1919.

During this research Kettering prepared papers and made talks before technical groups, wrote letters, and invited help ~~in the~~ research. Among those interested, who directed an inquiry to Kettering in 1916, was a Mr. Kurtz of du Pont who inquired for more particulars after hearing of a talk Kettering had made in Cleveland. Kettering sent him a copy of a new paper he was about to deliver, also stating "any time we get anything of interest we will be [fol. 599] glad to give you the benefit of it." In 1919 Frank Howard of Standard Oil of New Jersey contacted Mr. Kettering because of Standard's interest in the problem. Kettering explained the work he was doing, and Standard started research work on its own.

Through the American Chemical Society, Kettering testified he met some du Pont chemists and after World War I invited them to visit his laboratory to see what he was doing. In August 1919 Dr. Midgley or Dr. Clements wrote to the Manager of the du Pont laboratory listing materials which had been tried in the "suppression or elimination of the kerosene knock" and indicated that a study was to be made of the "homologues of aniline," listed the materials desired to be studied in connection therewith, and requested du Pont to supply them with any information they had on the best methods of preparing compounds which du Pont could not supply, and closed with the statement that "we are anxious to cooperate with you in every possible way." Subsequent to joining General Motors, Kettering testified he continued to call on du Pont scientists for assistance.

On October 28, 1919 K. W. Zimmerschied, Assistant to the President of General Motors, wrote C. M. Stine, Assistant Director of Chemical Research at du Pont that:

> "The Dayton Laboratories will continue the broad subject of fuel utilization in internal combustion en-

> gines, and your people will take up the development of chemicals which may be added to undesirable fuels for the purpose of converting them into usable products. * * *
>
> "It is presumed that the marketing of this chemical will be a matter of interest to the du Pont organization, and that the expense of developing it will be borne by your Research Department. We are glad to lend [fol. 600] the mechanical equipment * * * without charge for the purpose of this investigation." (GTX 599).

Du Pont's Chemical Director replied that he had no funds available for such work and that in any case the ultimate expense of the research should be borne by whichever company derived the greatest benefit from the work.

On June 20, 1920 Lammot du Pont, Chairman of the du Pont Executive Committee, submitted to it for their approval a form of proposed general chemical agreement between General Motors Chemical Department and du Pont, which the committee approved.

On August 5, 1920 General Motors Research wrote to the Chemical Director of du Pont stating:

> "Confirming our conference on my recent visit to Wilmington: I understand that the du Pont Company will cooperate with our Company in placing aniline on the market for use as an anti-knock material, in connection with the aniline injector which we are developing.
>
> "* * * A further working out of this program would comprise the sale of aniline by the du Pont Company through some satisfactory distributing agency, such as has been suggested by the Standard Oil Company, who could give aniline national distribution * * *
>
> "In connection with the above, it was agreed that we would cooperate with du Pont in securing satisfactory patent protection on the above mentioned devices." (GTX 601).

Dr. C. M. Stine, Assistant Director of Chemical Research of du Pont, on April 22, 1920, reported on a conference held in Wilmington at which Mr. Kettering was present and [fol. 601] members of the du Pont Chemical Department, including Irenee and Lammot du Pont and Raskob, wherein "various phases of the proposal to use the Chemical Department of the du Pont Company in a consultant capacity and for research work for the General Motors" was discussed.

On August 14, 1920 Lammot du Pont wrote Kettering that he believed that a memorandum submitted by Mr. Midgley on the results of the conference was substantially correct except in one respect: "We agreed that the du Pont Company would cooperate with General Motors on this aniline subject, provided the manufacture, distribution and sale of aniline for this purpose appeared sufficiently attractive from the profit standpoint."

In connection with the General Chemical Research agreement urged by Lammot du Pont, Kettering replied on October 21, 1921 that the Executive Committee of General Motors was antagonistic to the proposition and after talking with Pierre S. du Pont Kettering wanted to arrange a later meeting between du Pont and General Motors to discuss the whole problem, but that at the present time to consider the matter of the contract "out of the picture." Lammot du Pont again wrote Kettering on October 24, 1921 stating:

> "Our understanding of present conditions is that we are expected to take up experimental chemical work for the General Motors Corporation when requested. We have taken up such work from time to time and have consulted and advised from time to time.
>
> "At present we have no definite authority for doing this and have no mutually agreed upon basis of charging for the work or dividing the results in the shape of rights. The purpose of the agreement is to give the du Pont Company definite authority and a basis for [fol. 602] charging, and either reserving or turning over to General Motors any rights that may be developed. It seems to me that this purpose must be accomplished regardless of what arrangement is made with respect to any of the work, and that, therefore, the agreement should be executed at once." (GTX 583).

Research continued for a better anti-knock solution and negotiations with du Pont for the production of aniline were suspended. In December 1921 Kettering's research organization discovered tetraethyl lead to be a more effective anti-knock than aniline. On January 28, 1922 General Motors advised du Pont that their work at the laboratories had taken an entirely different turn and that it had been decided for the time being no contract would be made. On March 18, 1922 Frank A. Howard of Standard was also advised by the General Motors Research that "research work took a very sudden [illegible] a direction that would indicate that it would be a mistake both on your part and on ours to enter into an agreement such as we discussed."

On March 27, 1922 Lammot du Pont again wrote Kettering stating he had heard nothing from him on the General Motors-du Pont contract regarding experimental chemical work, that the fuel problem was in no way the cause of his present writing, that he felt a general contract should be prepared and executed in order to clear up the present situation, and he had no objections to any suggested changes Kettering would make. Mr. Kettering replied he had taken the matter up with Pierre S. du Pont suggesting it would be well to get some representative of the du Pont Company to come to Dayton to "get a picture of what our problems really are" and that after a time, if "we find it would be desirable to enter into a contract" it would be worked out. Lammot du Pont on April 1, 1922 replied that Kettering seemed to have missed his point stating that General Motors [fol. 603] in its research frequently runs into chemical problems, that the du Pont Company in its research was continually dealing with all kinds of chemical problems, that duplication of staff could be avoided "by an arrangement whereby General Motors has a contract with du Pont" to assign chemical problems to du Pont whenever desired, that an arrangement of this kind should provide for some form of compensation or payment of expenses otherwise the assignment of each particular problem would "require a conference and settlement in each case before work could proceed, which obviously would cause delay and loss." He also said:

> "Why can we not execute a general contract to cover any and all future cases?

> "The only reason I can see for not doing so is the decision by General Motors to establish their own chemical staff. If you have come to this conclusion, I have no objection as a representative of the du Pont Company, and have nothing more to say." (GTX 591).

Kettering replied affirming the desirability of the du Pont organization supplementing the work in the General Motors laboratory, but felt that some of the du Pont associates should come out to their laboratory to see "what we are aiming at" and that possibly after such visit "there would be no difficulty whatever in getting together and working this matter out." The following month he replied to Lammot du Pont's renewed urging saying:

> "In going through this matter I consider that this is entirely outside the range of the Research Laboratory to enter into a contract of this kind. I am, therefore, turning the matter over to the head of our Corporation and any plan which they may work out will be entirely satisfactory to us." (GTX 594).

[fol. 604] Kettering sent a copy of the proposed contract submitted by Lammot du Pont to Pierre S. du Pont. On November 6, 1922 the matter was permanently closed as shown by a file memorandum written by Lammot du Pont:

> "In conversation with Pierre S. du Pont he advised that it does not seem possible at this time to institute any plan for cooperation on chemical research work between General Motors Corporation, his feeling being that as problems come up, special arrangements with reference to each should be made between the two companies, rather than an attempt now to make a general arrangement to cover prospective cases." (GTX 598).

Kettering testified that when the proposed contract was originally discussed at the Wilmington conference, he was opposed to it because "du Pont Company was thinking in terms of manufactured chemicals rather than the research chemicals General Motors was interested in." Sloan also testified: "the fact is that the whole proposition was unsound. Mr. Kettering was against it. Everybody was against it. It couldn't be considered from the General Motors point of view."

During the negotiations concerning this General Chemical Agreement, on March 22, 1922, Pierre S. du Pont sent a brief report to Irenee du Pont on the new "doping" compound—tetraethyl lead—and stated that:

> "Mr. Kettering would like to take up the question of manufacture with the du Pont Company representatives at an early date." (GTX 610).

On April 15, 1922 the patent application covering TEL was filed and Dr. Midgley wrote to Dr. Stine of du Pont advising him of the "new anti-knock material" TEL.
[fol. 605] It was Kettering who made the decision to call in du Pont for assistance in the manufacture of tetraethyl lead. In June 1922 Kettering invited Irenee du Pont to come to Dayton to discuss the problem. Thereafter, he met with C. S. Mott and Pierre S. du Pont and proposed that the manufacture of TEL be started as soon as possible by du Pont in order to produce about one hundred gallons a day. Sloan testified that he recognized General Motors had no competence in chemical manufacture and that research and manufacture of chemicals were quite different; that the manufacture of tetraethyl lead involved danger and was an entirely new venture, the product never having been manufactured in the United States. He stated du Pont had demonstrated through its war work "its ability to deal with problems involving dangerous materials, such as dynamite; and their well organized research offered the best opportunity for us to produce tetraethyl lead and put it on the market."

Kettering and members of his staff went to Wilmington for a series of conferences with Irenee du Pont and members of the du Pont chemical staff. Irenee du Pont advised Dr. Stine, Harrington and Reese of du Pont of Kettering's forthcoming visit and stated he was anxious for du Pont to sell Kettering on du Pont's ability to help General Motors on the TEL proposition.

At this time, du Pont without a written contract, undertook the production of TEL using the bromine process developed by Midgley. On September 5, 1922 General Motors Research reported to the Executive Committee of General

Motors that satisfactory progress had been made in the production program, that research and production at General Motors could be dropped, and that the du Pont Company would continue production. Kettering testified he told Sloan that a contract should be made since there was [fol. 606] nothing between the two companies regarding prices or anything else. Sloan wrote Kettering advising him that Irenee du Pont also felt that a more definite arrangement between the companies should be made and that an appointment had been made for Kettering, Irenee du Pont, Harrington of du Pont, and Sloan to discuss the matter.

On October 6, 1922 General Motors and du Pont entered into a contract relating to the manufacture of tetraethyl lead. Under this agreement du Pont was to build a plant to produce TEL at the rate of one hundred gallons (1300 lbs.) a day using the ethyl bromine process; the price was set at $26 a gallon; the contract was a "continuing one" but included a provision for cancellation and gave General Motors the right to manufacture TEL itself or have it manufactured by others if at any time du Pont prices should not be the lowest.

The distribution of tetraethyl lead was made in February 1923 at gas stations in Dayton, Cincinnati, and Hamilton, Ohio and by the middle of 1923 had tremendous public acceptance. In April 1923 Midgley of General Motors met with Howard of Standard Oil, which corporation had been interested in the anti-knock project from the beginning. At this meeting Howard revealed a new ethyl chloride process developed by a chemist at Standard Oil. This new process could produce tetraethyl lead at less than $10 a gallon which was cheaper than the ethyl bromine process. There was a shortage in the supply of bromine from commercially developed sources.

During this time Midgley continued working out distribution arrangements of TEL with the various oil companies, including Standard. Midgley suggested that Standard consider the possibility of its manufacturing TEL and offered that if Standard would establish facilities for manu- [fol. 607] facturing one hundred gallons of TEL per day, General Motors "would then sign with them a similar contract to the one now in force with the du Pont Company";

that Mr. Howard stated to him they were not chemical manufacturers and suggested a meeting between the principal executives of the two companies to develop a "working arrangement between General Motors and Standard Oil." On June 15, 1923 Mr. Pickard, General Manager of du Pont's Dyestuffs Department wrote to Irenee du Pont that Standard had developed a new cheaper process for producing TEL.

On January 28, 1924 Sloan wrote to Irenee du Pont, president of du Pont, that he had talked with two or three of the Standard Oil people with reference to TEL; that they reported that in discussing the manufacture of TEL with Kettering and Midgley they had been encouraged to see what they could do in developing a process for marketing TEL; that they had a method covered by patents which gave lower cost of production; that Standard had a contract with General Motors on the distribution of TEL and was urging a deal to license competitors to distribute TEL thereby getting broader distribution which "they claim will be in our interest in return for that they want the right to manufacture for our account tetraethyl lead at a price competitive with the du Pont Company." He expressed his thought that since TEL was still in the development stage that manufacture by Standard should not be discussed and further did not think it was good business "from our standpoint for them to manufacture tetraethyl lead and at the same time have such a large slice of the distribution." In addition he stated he would rather obtain a license from them, pay for it and "get the du Pont Company to use it in reducing the cost" instead of dealing with Standard as a manufacturer. Irenee du Pont replied on February 2, [fol. 608] 1924 that du Pont was in accord with that course of procedure and suggested General Motors write Standard indicating it had contacted du Pont on its estimated requirements for TEL "believing that they are the best equipped company to handle complicated organic chemical problems" and also suggesting that Standard contact du Pont "to see if they are in any wise interested in your proposed method for the manufacture of that compound." Sloan sent Irenee du Pont a copy of the letter he sent to Standard Oil, and stated he thought it best in view of his conversation with Standard Oil to write along different lines and had taken the liberty of modifying Irenee's suggested letter. His letter to Standard stated that because of rapid developments in the plant built for the manufacture of TEL and the fact that the whole picture is more or less in the development stage, it was desirable to refrain from discussing the situation at the present time'' but that General Motors would be glad to discuss the relative merits of the two processes and perhaps work out a plan which would preserve the equities.''

The minutes of the Executive Committee of General Motors for February 27, 1924, members present being Pierre S. du Pont, Raskob and Sloan, reported that discussion was had on the future policy of General Motors in the development and marketing of TEL and that ''it might be possible to work out a plan whereby a company could be formed to control our patents and the distribution of the material which would be jointly controlled by the large oil companies and ourselves.''

Several conferences took place in June 1924 between General Motors and Standard Oil on the subject of tetraethyl lead and the possibility of Standard engaging in its manufacture. Standard proposed to erect a one hundred gallon plant, chlorine process, to be installed at the Bayway Re- [fol. 609] finery for the purpose of affording ''the experience basis for future construction of this process'' and ''provide an additional one hundred gallons of TEL per day for the end of the peak season, September and October.''

On June 25, 1924 Howard of Standard Oil had a meeting with Irenee du Pont to be shown through the du Pont plants. Irenee du Pont testified that he learned for the first time of Standard's interest in the manufacture of the anti-knock compound. Irenee du Pont wrote to Sloan following Howard's visit stating that Howard was anxious to start the Standard plant at Bayway, that Irenee appreciated there would be some advantages in having an independent plant operated by General Motors and Standard ''as a check on prices charged by the du Pont Company and also to obtain such advantage as there may be in the enthusiasm of the Standard Oil men to put across their own 'baby.' '' To this letter Sloan replied indicating du Pont should increase its production and production facilities for TEL; that

> "for psychological reasons we should permit the Standard Oil Company of New Jersey to expend $35,000 or $40,000 of their own money to experiment with the 100 gallon a day outfit in one of their plants, I believe in Bayway, in a building which they could use temporarily for the purpose. This will serve to satisfy them from the psychological standpoint and it is certain that it will be impossible to operate such an experimental plant successfully when the larger units are running, but will give them a means to work out their viewpoint which certainly can do us no damage when we approach it from the bigger way.
>
> "Any further thought of developing any real production other than under the auspices of the du Pont [fol. 610] Company will be deferred until some later time." (GTX 661).

Sloan wrote to Kettering on July 25, 1924 reporting a conference he had with Howard of Standard Oil for the formation of the company to be jointly owned by General Motors and Standard under the name of the Ethyl Gasoline Corporation. In August 1924 a formal agreement was entered into between General Motors and Standard Oil organizing such a corporation.

This agreement provided that the capital stock of Ethyl be divided equally between General Motors and Standard, each to have a 50% interest; each was to have five directors of the ten members on the Board; each was to grant Ethyl exclusive licenses under all patent rights from their respective patent applications in the field of anti-knock compounds; and each was to grant Ethyl exclusive rights on all future discoveries until August 1, 1940. In addition, the agreement provided that Ethyl would handle the distribution of TEL and would purchase the same.

> "in the open market at the lowest price at which it is offered and, to permit competitive bidding, shall offer to instruct and license any bona fide probable supplier,

including the Standard Company; * * * provided, however:

> "Purchases shall be made from E. I. du Pont de Nemours & Company under the existing contract between it and General Motors * * * until the expiration of said contract or until a substitute therefor is made direct with the Ethyl Company." (GTX 668).

The General Motors directors on the Ethyl Board were Sloan, Kettering, Donaldson Brown, Midgley and John T. [fol. 611] Smith; the officers were Kettering, President, Howard of Standard, Vice President, and Midgley, General Manager.

Tetraethyl lead is a poisonous substance. Both General Motors and du Pont were fully aware of its toxic effects. Sloan in June 1924 wrote to Kettering regarding the appointment of a board of medical men to study the problem. Sloan and Kettering both testified that General Motors had not invented TEL as a product to add to its line in order to make money producing and selling it, but that its interest was the advance in engine compression and to make a better and more efficient motor car.

The properties of tetraethyl lead made its production on a commercial scale a hazardous undertaking and Sloan stated he fully realized the dangers incident to the manufacture of this material. He testified that he knew Standard was not a chemical manufacturer, that its chief business was digging wells and pumping oil from the ground, and he felt Standard was not equipped to enter the field of chemical manufacture at this stage of TEL's development. His acquiescence to Standard's plant at Bayway was because Standard wanted to try the manufacture of TEL and further he thought something might be learned from the experiment.

During the Summer of 1924 technical planning at Bayway and du Pont's Deepwater plant proceeded, and a difference of opinion emerged between the engineers of the two companies with respect to the manufacturing equipment to be employed in producing the ethyl chloride process. Harrington testified that du Pont advocated a completely closed, airtight system of manufacture, while Standard felt economy would be achieved by permitting the working force to handle the lead residue directly. After visiting the Bayway plant, Harrington said there was unanimous agreement that Standard's process was [fol. 612] "too dangerous" for du Pont to use, notified Standard to that effect, and received permission from Ethyl to install equipment of its own design.

In October 1924 the Bayway plant was stricken with a series of fatalities resulting from TEL poisoning—there were five deaths within a period of a few days, with many other employees being poisoned. A public uproar followed; exaggerated reports filled the press; university professors made adverse comments; major oil companies announced they would no longer distribute TEL and municipalities banned its distribution. The Standard plant was immediately closed. The New Jersey authorities ordered its dismantling and Standard was ordered not to engage in TEL manufacture. Following this disaster Sloan in writing to Irenee du Pont on December 12, 1924 asking him to take a position on Ethyl's Board stated:

> "du Pont will always be the manufacturing agent of Ethyl Gasoline Corporation whether we make tetra ethyl lead or whatever we make, now or in the future. I am sure of that. * * *" (GTX 710).

Ethyl was forced to suspend its sales of TEL completely. Ethyl requested du Pont to withhold deliveries from its bromine process plant. The figure of $1.66 per pound was the approximate cost of producing TEL at this plant and $1.17 at du Pont's chloride plant. Du Pont withheld its deliveries. Howard wrote to Irenee du Pont on March 28, 1925 stating the problem following the Bayway disaster as follows:

> "while owing to conditions over which neither party has had any control it would have been to the ad- [fol. 613]vantage of the du Pont Co. to have continued uninterruptedly to produce lead from its bromine plant and its failure to do so, out of consideration for the interests of the Ethyl Corp., resulted in some loss to the du Pont Co., this is a loss of profit which neither party contemplated at the beginning the du Pont Co. would make. On the other hand, the du Pont Co. is suffering a loss of profits which the parties did con-

> template the du Pont Co. would make, through the failure of the chloride plant to deliver the quantity of lead which both parties hoped and expected it would deliver prior to April 15th.
>
> "Owing to conditions over which neither party has had any control, the Ethyl Corp. at the same time finds itself with a stock of over $1,000,000 worth of lead on hand and deliveries still coming in very much more rapidly than the goods can be marketed at present. This situation was not contemplated by the Ethyl Corp., but, on the contrary, the Ethyl Corp. had hoped and expected to be able to market immediately and at a profit to itself any lead supplied to it by the du Pont Co. prior to April 15th, even though such lead bore a price of $1.66 per pound." (GTX 677).

He continued stating that he was content to leave the decision in Irenee du Pont's hands, "with entire confidence in your reaching a fair conclusion."

Irenee du Pont replied to this letter stating:

> "apart from the contract we were asked to defer deliveries of material which we could make in January and would have made at a profit. We suggested that these deliveries be simply deferred and not cut out entirely, an eminently fair proposition to make. Owing [fol. 614] to the fact that the Ethyl Gas executives were very busy and/or away, delay would have ensued detrimental to your interests if we had stood 'pat' and waited for you to 'come across'. In our desire to be helpful to the 'picture' we acted on your orders without getting approval for a deferment of the deliveries in question. It seems to me only equitable that you should have accepted our offer of deferment and not take advantage of our efforts to be of service to you.
>
> "It is, therefore, my judgment that you should accept delivery at $1.66 per lb. of the amount of tetraethyl lead which we voluntarily abstained from making and shipping in January, and that, further, if owing to our misfortune at the ethyl chloride plant you are sufficiently short of ethyl lead so as to make a loss thereby, the amount up to that accruing by reason of the lead not delivered in January, should not

> be assessed to us on the damage paragraph." (GTX 679).

He admitted that from a law point of view Ethyl might maintain its position, but that the equities indicate otherwise.

When the manufacture of TEL was suspended, there was also disagreement between Ethyl and du Pont as to the settlement to be made on cancellation of their contract. Under the terms of its contract du Pont was to be reimbursed for its expenditures in building the chloride plant. Webb in a letter to Sloan stated that Ethyl had informed du Pont it would be reimbursed for the cost of such building and any expenditure incurred so as to make du Pont "whole". He stated further:

> "It seems to me that we should get from the du Pont [fol. 615] Company at the time of settlement assurances of placing us in possession of all facts and data relative to this work, so that we may have the benefit of any information or knowledge gained in such research work. This has not been suggested to the du Pont Company as a part of settlement, but I feel confident that Mr. du Pont will not raise the slightest objection to giving us full and complete copies of or access to this data." (GTX 685).

He also reported that he wrote to Mr. du Pont:

> "I naturally assume that if operation of the plant is not resumed during our present contract period and meanwhile it has been paid for by us in accordance with the terms of the understanding which we are now attempting to reach, then it would seem to me that the building, its equipment and appurtenances (excluding land) would be our property." (GTX 685).

but that Mr. du Pont replied:

> "If it is your desire that the plant be scrapped at your expense, the proceeds of the scrapping should properly be yours under a general proposition that we shall be made whole. However, the economies of such a procedure are not good, which being the case, it

> seems essential that the physical property of unknown and somewhat doubtful value should be left in our hands, perhaps as a compensation for our having waived any profits on the contract." (GTX 685).

Webb stated that "if it should not ultimately be used to manufacture something for us that we be paid the salvage value, whether demolished or converted to some other purpose."

[fol. 616] Howard had written Webb of Ethyl on June 29, 1925 regarding the discussions concerning settlement and stated:

> "If at any time the du Pont Co. wishes to make use of the ethyl plant for any purpose, it shall then pay to the Ethyl Corp. the then value of the plant to the du Pont Co. for the purpose for which they contemplate its use." (GTX 686).

He further revealed the sum of $1,500,000 was to be paid du Pont on account of the settlement. On June 30, 1925 Webb delivered the $1,500,000 "without any strings attached to it at all" and further discussion of the settlement terms were to be had later with Irenee du Pont.

Irenee du Pont wrote to Webb on July 1, 1925 that Howard's letter of June 29, 1925 relating to the adjustment of the controversy was "not satisfactory", stating that du Pont could not cede ownership of the plant and that

> "our contract speaks for itself as regards ceding to you any inventions on the anti-knock compounds but we could not undertake to teach you * * * how to carry on that manufacture as well as we could do." (GTX 688).

Webb replied saying that he considered the salvage or conversion value of the chloride plant as the principal matter to be adjusted between them.

In August 1925 Webb suggested that settlement of the question of ownership of the plant be deferred until the investigation then being conducted by the Surgeon General of the United States was completed, and if the report made by him was favorable Ethyl would make another contract covering manufacture of TEL with du Pont and "the salvage problem would have answered itself," but this suggestion [fol. 617] gestion was not acceptable to Irenee du Pont who did not wish to defer the issue. Harrington testified that eventually Webb's suggestion was accepted and the matter was not settled until the contract between Ethyl and du Pont was negotiated in March 1926. Du Pont retained the chloride plant at Deepwater, since in January 1926 the Surgeon General of the United States in a report approved renewal of the business and production of TEL and manufacture was resumed in March 1926.

In the negotiations regarding this controversy Sloan testified he took little part since he wanted to be in a completely unprejudiced position, although he revealed he believed the du Pont position was entirely correct. In March 1925 he wrote to Irenee du Pont that he had come to the conclusion it was a mistake to leave the management of Ethyl's property so largely in the hands of Dr. Midgley who was entirely inexperienced in organization matters, and thought progress would be made more rapidly and constructively if there was more of a business side to the development, but that Kettering opposed that idea. He continued that while Standard Oil was not receptive to the idea in the beginning he found later in discussion with Mr. Teagle of Standard that they had come to the same conclusion and it was agreed that Mr. Kettering and Mr. Howard, President and Vice-President, respectively, should resign and "an active President should be appointed of proper ability, administrative and otherwise, to deal with the problems that confront the Corporation". Sloan proposed Earl W. Webb then in the Legal and Real Estate Department of General Motors and Standard accepted the recommendation. Webb was appointed President in the Spring of 1925 when he had made a satisfactory report on Ethyl's operations as a preliminary test of his qualifications.

Ethyl's losses during the shutdown necessitated a series [fol. 618] of loans from Standard and General Motors and by July 1925 General Motors and Standard had loaned Ethyl $1,700,000 with authorization for further loans of $500,000. On May 22, 1925 Irenee du Pont wrote to Raskob at General Motors that he approved of the borrowing of funds by Ethyl from General Motors and Standard and said:

> "As the amounts due to the du Pont Co. are in some particulars overdue, I am very glad you can arrange to immediately send the necessary cash to Ethyl Gasoline Corp." (GTX 682).

During the cessation of manufacture at Ethyl's plant, Webb and the Dow officials had a series of conferences on the subject of the manufacture of TEL for Ethyl. Dow had developed a process for producing TEL by means of a reaction which used magnesium. In April 1926 Webb also came in contact with the American Research Laboratories, which also claimed to have developed a process using magnesium and offered to undertake the manufacture of TEL. Webb visited the Dow plant with a representative of the American Research Laboratories and upon seeing the Dow chemical manufacturing facilities, the American Research Laboratories realized "it would be rather foolish for them to venture into anything of this kind", suggested cancellation of the contract and an arrangement whereby manufacture under their process would be conducted by Dow. The American Research Laboratories process proved worthless. Irenee du Pont, then a director of Ethyl and aware of American Research Laboratories' desire to manufacture, expressed opposition pointing out that if another disaster occurred after the Bayway disaster only a few months before:

> "No amount of explaining will excuse our directors for having encouraged novices to undertake such a dangerous operation." (GTX 711).

[fol. 619] Dow continued as a prospective manufacturer until late in 1926 when it informed Webb it was unwilling to undertake the manufacture of TEL by any process because of the hazard factor.

During these incidents du Pont and Ethyl entered into a contract in March 1926 for the production and sale of TEL. From 1926 to 1937 du Pont sold TEL to Ethyl under a series of short term contracts negotiated for Ethyl by Webb. The 1926, 1928 and 1929 contracts made no reference to patents, improvements or new developments in TEL, and from 1928 the contracts provided that Ethyl's entire requirements were to be taken from du Pont.

In 1929 Ethyl Corporation gave consideration to the situation that would exist when the basic patents expired—Midgley's to expire December 30, 1947, and the chloride process patent of Standard January 1, 1946. Ethyl, not being a manufacturer, would find it difficult to manufacture the product without knowledge of the du Pont processes. Sloan stated in a letter to Webb of Ethyl that they should make their contracts on the supply of TEL so that the supplier of the lead, the du Pont Company . . .

> "together with others later on, would at all times sell to us exclusively" (GTX 748)

so that if tetraethyl lead is still a factor in the fuel situation at the expiration of the patents and there was no restriction on manufacturers as to whom they would sell the material, "there would be no place in the picture for Ethyl."

In 1930 a new contract was executed between Ethyl and du Pont and in all subsequent contracts between them until 1938, it was provided that if Ethyl would purchase at least 50% of its annual requirements of TEL from du Pont [fol. 620] until January 1, 1938, du Pont would on that date make full disclosure to Ethyl of all its patents, know-how and secret processes on TEL manufacture and would license Ethyl to manufacture TEL under the du Pont patents.

From 1930 to 1937 Ethyl began a long term campaign to put itself in a position to manufacture TEL. Several proposals were considered and rejected before the execution of a Manufacturing Service Agreement between du Pont and Ethyl on January 1, 1938. In 1936 du Pont agreed to build a TEL plant for Ethyl at Baton Rouge, Louisiana and the following year agreed to construct a second plant for Ethyl. Under the 1938 agreement du Pont contracted to construct for Ethyl plants at Baton Rouge, Louisiana, a site selected by Ethyl, lease the du Pont facilities at Deepwater to Ethyl, and operate them as Ethyl's agent in return for a specified percentage of Ethyl's proceeds from operation for the next ten years. Du Pont further agreed to advance certain funds to Ethyl and build such tetraethyl lead and raw material plants as Ethyl required. In addition, the agreement provided that on the expiration of patent protection in 1948, Ethyl and du Pont would each be free to engage in both the manufacture and distribution of tetraethyl lead.

During the negotiations preceding the ultimate agreement, Sloan replied to a letter from Webb that he was not opposed to contracting to give du Pont 50% of the business of Ethyl but felt strongly that Ethyl should be entitled to any of du Pont's improvements resulting from the manufacture under Ethyl's patents.

Sloan wrote to Lammot du Pont in April 1930 in connection with the proposed know-how clause and urged him to do anything he could to "facilitate this and broaden the base upon which it is developed." Lammot du Pont felt that Ethyl did not have the background to undertake the manufacture of a dangerous chemical.

[fol. 621] On June 9, 1936, prior to the ultimate agreement, a comprehensive report and study of the origin and early history of the tetraethyl lead business, including suggestions on arrangements to be worked out between Ethyl and du Pont, was made on behalf of the du Pont Company by N. P. Wescott and submitted to F. Spaare, Director.

During the pre-1938 period du Pont fixed its prices on the sale of TEL to Ethyl at a level high enough which would give du Pont a manufacturing profit equal to one-third of the total profits derived both from the manufacture and distribution of TEL, and the remaining two-thirds to be divided equally between General Motors and Standard in the form of dividend payments from Ethyl, after deducting the royalty due General Motors on its patents. From 1930 to 1937 du Pont's total profits from Ethyl's operations were approximately $35,000,000 and General Motors and Standard received dividends of approximately $30,000,000 each, and in addition General Motors received the sum of $19,000,000 in royalties.

The Manufacturing Service Agreement in 1938 provided a compensation of 30% of Ethyl's gross operating profits to be paid to du Pont. The 30% was premised on a minimum of 53,000,000 pounds of tetraethyl lead and one-tenth of the profits for production above that figure.

The percentage of profits received by du Pont is reflected in the defendants' chart which premises the ratio of du Pont profits to Ethyl's profits on figures before taxes and bonus of either corporation. The basic figures used by the Government chart also show du Pont's profits before taxes and bonus. The average share of Ethyl's gross operating profits which du Pont received during the 1938-1948 period was 18%.

Shortly after the 1938 agreement Standard Oil conveyed [fol. 622] to du Pont and Ethyl the information that a new oil cracking process in the gasoline industry would require an expansion in the production of TEL, and necessitate the erection of additional plants at Ethyl's Baton Rouge site.

On December 31, 1947, all the basic patents relating to the production and use of TEL having expired, du Pont and Ethyl discontinued operations under the 1930 agreement and each went its separate way. Ethyl's lease on du Pont's Deepwater plant expired at the same time and du Pont undertook to manufacture lead for its own account. Ethyl took over the direct operation of the larger plant facilities at Baton Rouge. Both sold their respective fluid to oil companies. J. R. Sabina, a du Pont executive, testified that beginning in 1945 du Pont began to expand its petroleum products staff; a petroleum laboratory was organized in the Fall of 1947, and in anticipation of freedom from Ethyl's patent in 1948, every oil company in the United States had been personally visited and orders were solicited.

In 1948, all but seven of the fifty-nine companies that dealt with du Pont had dealt previously with Ethyl. In 1948 du Pont owned at Deepwater the four original plants constructed before 1938, and Ethyl owned five plants at Baton Rouge, four of which were designed to have the same size and capacity as the Deepwater plants. In 1948 du Pont had a capacity of between 180,000,000 and 194,000,000 pounds per year for its four plants, or about four-fifths of Ethyl's capacity. John F. Daley, General Manager of the Organic Chemical Department at du Pont, testified that in selling to the oil companies, the Ethyl trademark was very much of an obstacle. He also testified that du Pont lost customers to Ethyl and vice-versa in the years following the severance.

The evidence with respect to the discovery and development of TEL fails to establish the Government's charges.

[fol. 623] It will not support a finding that the discovery of TEL was surrendered to du Pont pursuant to any agreement that du Pont was to have exclusive rights to General Motors chemical discoveries. The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment. Kettering appears to have been largely responsible for this decision, and neither the alleged pre-existing agreement nor du Pont's stockholdings in General Motors was the basis of the decision. It is clear that General Motors' lack of experience in chemical manufacture and du Pont's superior competence and wide experience were the reasons for the decision.

Similarly, du Pont retained its position as the manufacturer of TEL by reason of the continued high quality of its performance. The Court finds that General Motors and Ethyl Corporation were at all times free to turn elsewhere and were not coerced in any way to continue purchasing from du Pont.

Kinetic Chemicals, Inc.

In 1928 Frigidaire and its leading competitors were using sulphur dioxide as a refrigerant, a chemical presenting health hazards. Pratt, Kettering, and E. G. Biechler, General Manager of Frigidaire, expressed a desire for a new safe refrigerant and Mr. Midgley was assigned the task of working on the problem. An appropriation for this research was approved by Frigidaire. The objective sought by this research was a refrigerant which had a suitable boiling point, non-toxic and non-inflammable, and which had a distinct but not unpleasant odor.

Thomas Midgley spent eighteen months on this project and by the end of 1928 had determined that Freon 12 (F-12) met the above requirements and the discovery was [fol. 624] patented, with patents being assigned to General Motors. The principal elements of freon were chlorine and fluorine, both being dangerous and toxic. During 1929 and early 1930 Midgley continued to work on Freon "to develop suitable manufacturing processes." In August 1929 Pratt approved the erection of a small plant to produce F-12 in quantities sufficient to make laboratory tests. Frigidaire erected a semi-commercial plant in the Winter of 1929-1930.

In March 1930 Biechler wrote to Pratt stating a decision on the manufacture should be made as quickly as possible, recommending that either Frigidaire or some other division of General Motors manufacture the same because he felt

> "a great deal would be gained if we would control this rather than let a chemical company do it." (GTX 838).

Pratt, on March 15, 1930, although having approved the small scale production for test purposes of Frigidaire, stated:

> "It is quite a fundamental step for us to start General Motors in chemical manufacture. Up to this time we have more or less elected to confine ourselves to the mechanical side of manufacture and I do not want to depart from this until a very thorough consideration has been given to all of the factors involved." (GTX 839).

He stated that he would have to discuss the same with Sloan. When he did so, Sloan agreed that General Motors should not manufacture the new refrigerant. Sloan testified that he took that position on the basis of General Motors' lack of competence to manufacture a material involving the dangers in manufacture "somewhat analogous to TEL." Sloan left it to Pratt to investigate and develop [fol. 625] a suitable program for supplying Frigidaire's requirements of F-12. Without consulting Sloan further, Pratt went to see H. F. Harrington of the Dyestuffs Division of du Pont and suggested that a joint company be formed between General Motors and du Pont to sell freon. He testified he selected du Pont because of their experience in handling dangerous chemicals and because he had confidence in the du Pont people. Biechler expressed his pleasure that the responsibility of manufacture had been assumed by du Pont. The desirability of getting into the production of freon quickly was recognized by all.

Harrington and Pratt agreed substantially upon the details of the contractual agreement and Pratt suggested that the new company be owned 51% by du Pont and 49% by General Motors, so that operating responsibility rested on du Pont which had the personnel and experience required for manufacture. Pratt also suggested a provision that future chemicals developed by General Motors be first offered to Kinetic, the joint company.

The formal agreement organizing Kinetic was executed August 27, 1930 and was approved by the General Motors Finance Committee, the minutes reciting:

> "It was felt that because of the experience of the du Pont Company in the chemical field that it is to the interest of General Motors Corporation to arrange with the du Pont Company for the commercial development and production of these chemicals rather than for us to undertake the organization of the necessary personnel, technical staff, etc. for their production; and in order to give the du Pont Company an incentive for the most efficient development of these chemicals it was considered mutually advantageous that the du Pont Company should have the right to subscribe to [fol. 626] 51% of the stock of the Kinetic Chemicals, Inc. Under this agreement a royalty will be paid to General Motors for the right to use the inventions transferred to Kinetic Chemicals, Inc. as covered more fully in the agreement." (GM 238).

The clause regarding future General Motors chemical discoveries required that the offer to Kinetic of any such discovery should be "on such terms as may be mutually agreed upon." The new corporation had a board of directors of five members—three selected by du Pont and two by General Motors; its personnel was furnished by du Pont and the latter received a management fee of $50,000 a year; General Motors granted Kinetic an exclusive license on its patents covering freon and received a royalty in the amount of 5% of sales.

The process used by Frigidaire during the experimental period was found to be so expensive as to be commercially prohibitive. Du Pont chemists assigned to the problem succeeded in developing a feasible commercial manufacture which reduced the costs. In addition, an essential raw material—anhydrous hydrofluoric acid—was not commercially available in sufficient quantities and du Pont invented and patented for Kinetic a process which enabled Kinetic to make its own acid.

The New York Fire Department was disturbed over the possible danger in the use of freon and du Pont was able to demonstrate its properties as being a safe refrigerant. Du Pont, through Kinetic, also undertook a general educational campaign to convince the public of its safety.

With respect to the clause regarding future chemical discoveries by General Motors, Pratt wrote to Lammot du Pont on July 20, 1931, as follows:

> [fol. 627] "This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing process.
>
> "To summarize, as far as I am concerned I hope to see General Motors Corp. utilize to the fullest extent the chemical experience of the du Pont Company in manufacturing any chemical compounds that General Motors laboratories may discover, where there is a possibility of commercialization." (GTX 899).

Clause Seventh of the agreement provided:

> "* * * it being further agreed that future chemical developments (other than those relating to 'said products') originating in the laboratories of General (Motors), or its subsidiaries, shall be offered by General to the New Company, on such terms as may be mutually agreed upon, and if after six months the New Company shall elect not to exploit such new chemical developments, the General shall be free to dispose of the same elsewhere." (GTX 850, p. 3).

Pratt suggested this clause for the reason he believed that "General Motors instead of having a lot of different activities" might wish to use Kinetic as a single vehicle for developing any chemical discovery it made. He also testified that during the existence of the clause, no development was turned over to Kinetic.

In May 1944, fourteen years after the agreement, John T. Smith, General Counsel for General Motors, gave his opinion that this clause was "unenforceable," and the two [fol. 628] companies by formal contract cancelled it in its entirety on June 6, 1945.

In the Fall of 1923, Biechler reported to Pratt that the supply of lithium chloride necessary to be used in an air-conditioning system which Frigidaire was developing was limited and asked Pratt to investigate the possibility of additional supply of lithium chloride. Pratt informed Harrington condfidentially of the Frigidaire work on the air-conditioning system, asked whether du Pont could provide the additional supply, stated that he would rather have the du Pont Company undertake the chemical development than General Motors, and inquired whether it would be an industry in which du Pont would be interested. He testified, "It was a business that required mining, and just a complete new business that wasn't in line with anything we were doing." General Motors did not pursue the experiment using lithium chloride and there was no need for an additional supply of the lithium chloride refrigerant.

From the outset, Freon 12 and all of the freons, with one exception, were offered for sale to all refrigerator manufacturers. Thomas Midgley in 1932 discovered Freon 114. Each of the freons had distinct properties and were suitable to different uses and types of refrigerator machines. Frigidaire developed a rotary compressor for its household refrigerators and discovered that Freon 12 could not be used efficiently in the new compressor. Freon 114 was found to be effective and a product patent was obtained.

The Kinetic Board on September 29, 1932 approved the construction of a plant to manufacture F-114 and it fur- [fol. 629] ther resolved that for the time being commercial distribution should be confined to Frigidaire. Pratt testified that Frigidaire had developed its own machine, developed the special refrigerant for it, and to release that refrigerant would cause competitors to duplicate their machine.

The exclusive sales policy on F-114 continued, and in 1938 Sears Roebuck threatened an appeal to the Federal Trade Commission to force the release of this freon. In the Fall of 1938 W. W. Rhodes, Sales Director of Kinetic, reported to its President, E. G. Robinson, that a market for approximately one million pounds of F-114 a year could be obtained if sales restrictions were lifted.

Harrington testified that the attitude of the du Pont members on Kinetic's Board was that for the first year or two it was reasonable for Frigidaire to make the request for exclusive use, and after that argument regularly ensued between General Motors and du Pont on this policy but "General Motors was so urgent and so insistent on the thing, rather than create the ruction that would be involved if we just completely overrode them, the du Pont directors went along and allowed the product F-114, to be exclusive for quite a long time."

Following the challenge Sears Roebuck had made, the Kinetic Board on October 3, 1938 met again to review this policy. Harrington testified at this meeting "General Motors was more vehement than ever that we should reserve the thing to them for a further length of time, and in order to keep peace in the family we agreed."

General Motors General Counsel, John T. Smith, wrote to Ernest R. Breech, General Motors Vice President, on May 8, 1939 on the exclusive use by Frigidaire and concluded that the best way to protect Frigidaire in such use was to have Kinetic Chemicals grant an exclusive license [fol. 630] to it. This recommendation was adopted and an agreement executed on September 18, 1939 accomplishing such result. During the war Frigidaire granted permission to others to use the refrigerant. In June 1943 the question of its unlimited sales again arose and in 1944 the product was offered for sale generally when the exclusive use license to Frigidaire was cancelled. However, F-12 proved to be a cheaper and better refrigerant, and Sears Roebuck refused to purchase F-114 when it was offered to it, and no manufacturer of household refrigerators uses F-114 today, including Frigidaire.

The Development Department of du Pont reported to the Executive Committee in April 1945 on anticipated post war demand for freons and their future promise in plastics and other fields, and recommended that du Pont negotiate for the purchase of General Motors interest in Kinetic if General Motors indicated a desire to sell.

The actual purchase of General Motors interest in 1950 was preceded by negotiations which began in 1948. On January 1, 1950, General Motors sold its 49% interest for approximately ten million dollars. Since this purchase was subsequent to the filing of the complaint in the instant case, the Department of Justice was consulted, and it assured du Pont in writing that it did not oppose the purchase and if it were carried out the prayer in the complaint seeking divestiture from du Pont would be dropped. Upon that assurance the purchase was made.

Synthetic Rubber

In January 1926 Sloan authorized Midgley to conduct some research on synthetic rubber under Kettering's supervision, authorizing a budget of $60,000 for the first year. When Midgley had worked two months on the project, [fol. 631] James McEvoy, Director of the General Motors Patent Section, wrote to Sloan expressing concern about Midgley's project, criticized Midgley's research technique as being deficient in failing to give sufficient evaluation to existing literature in the field, and indicated that Midgley was wasting time and money because prior patents existed on the discoveries he was trying to make. Sloan decided to let Midgley continue, pointing out that Midgley was "a research man first and foremost", and stated that he fully recognized that it was a problem on which it would take over six months to accomplish anything. Midgley went ahead with his research, and under arrangements approved by Sloan conducted his research in the Thomas and Hochwalt Laboratories in Dayton.

A year after this work began, Lammot du Pont heard of it and stated that du Pont had been working on one phase of synthetic rubber and was not conducting as broad an investigation as General Motors. In writing to Raskob, he questioned the advisability of General Motors spending this money, since a great deal of work had already been done on the subject by competent people and well organized research groups; he thought that the du Pont Company, which had also been doing some research, was better equipped for the purpose than General Motors. He further stated:

> "Should General Motors be successful in developing a process, it would probably not be desirable for it to go into the manufacture; whereas if du Pont were successful, it is just the kind of manufacturing opera-

> tion which the Company should be qualified to enter. This is an additional reason why du Pont should work on the problem rather than General Motors.
>
> "In view of the above, it seems to me that either General [fol. 632] eral Motors must be making a mistake in working on this problem, or du Pont is making a mistake in not working on it in a broader way. Won't you refer this letter to the party responsible for General Motors having embarked on this investigation, and ask him to let me know the reason which has guided his decision to undertake the work." (GTX 888).

Raskob replied that the rubber situation was very close to General Motors Corporation and it was tremendously important for the corporation to interest itself in every possible phase of it, and further felt that the laboratories were equipped to do the research that was being conducted. Raskob referred Lammot du Pont's letter to Sloan, who also wrote to Lammot du Pont defending the research being conducted. Lammot du Pont replied that he regarded synthetic rubber to be a problem which would tax the facilities of the most complete laboratory, but

> "Do not let me trouble you any further on this point —I am not trying to force upon you my views or opinions. If I have put into your mind the thought that possibly synthetic rubber is not a suitable subject of investigation by the General Motors Chemical Department, then I am perfectly willing to accept your decision." (GTX 891).

In February 1927 Sloan again wrote to Lammot du Pont that he thought it was desirable to encourage people in the General Motors organization, that he had done so in Midgley's case even though he did not expect the research to accomplish much, and stated:

> "As I said before, if nothing tangible develops during the current year, I shall feel fully warranted in feeling that he has been given his chance and that, [fol. 633] considering we are not directly concerned even if we are greatly indirectly concerned, we might

> better transfer his efforts to some other direction." (GTX 892).

Lammot du Pont replied acknowledging the letter and stated that he appreciated fully the desirability of allowing good minds to "have a little more than the normal amount of rope", and that du Pont followed this also since it tended to "keep up the enthusiasm and interest of all concerned."

In March 1927 Midgley suggested that his work be reviewed by a "good rubber chemist". Sloan replied that he thought this was a mistake since he felt a chemist in commercial practice and even the du Pont Company would not have the imagination, sympathy, and ethusiasm possessed by Midgley, and preferred to leave the determination to his own judgment, supported by Mr. Kettering.

Midgley went forward during 1927 with his research and made his progress reports directly to Sloan. In December 1927 McEvoy wrote to Pratt that Midgley knew nothing about the subject he had not learned from others and recommended that the "whole operation be terminated".

By April 1928 the price of rubber had dropped from $1.00 to twenty cents a pound. Midgley thought that if he could produce a synthetic rubber it would cost not less than thirty-five cents a pound. Sloan testified that both Midgley and Kettering then determined that General Motors should abandon the project. In late March or early April 1928 it was decided that while the work for General Motors should cease, Midgley could have all the equipment and continue the research on his own if he desired. On April 27, 1928 an agreement to that effect was executed.

Midgley went ahead on his own, but as Sloan testified, [fol. 634] he never succeeded in solving the problem, but made some very outstanding contributions to the evolution of synthetic rubber.

The evidence relating to the formation and operation of Kinetic Chemicals and to General Motors synthetic rubber research does not establish that General Motors had agreed to surrender or was bound to surrender to du Pont its chemical discoveries.

The Court finds that du Pont did not terminate or in any way limit General Motors research on synthetic rubber, although Lammot du Pont, as well as others in General Motors, suggested it was an inappropriate project for General Motors to undertake. Despite this suggestion Sloan directed that the project should be continued. The evidence bearing on the entire incident is inconsistent with either a basic agreement with respect to General Motors chemical research or with du Pont domination of that research.

The provision of the agreement between du Pont and General Motors establishing Kinetic Chemicals Company which related to further chemical discoveries is no longer in effect, having been eliminated some years before the Complaint herein was filed. The Court finds that this agreement was not executed pursuant to any prior understanding or arrangement that du Pont was to have the exclusive right to discoveries of General Motors. On the basis of the evidence of record, particularly the testimony of Sloan and Pratt, the Court finds that General Motors entered into the contract because those responsible in General Motors believed that Freon could best be manufactured by du Pont rather than by General Motors itself or by some other chemical company.

[fol. 635]

Antifreeze

In connection with the glycerin-alcohol incident in 1926, du Pont's proposal that General Motors make a contract to purchase ethyl alcohol from du Pont was rejected by the General Purchasing Committee even though in 1927 du Pont quoted a "special price".

General Motors commenced selling antifreeze in 1933 using glycerin purchased from Glycerin Producers Association. In 1935 the association advised General Motors, which sold the antifreeze to its dealers for resale to the public, that due to a glycerin shortage, none would be available for 1936. General Motors made an effort to meet its needs by trying to purchase ethylene glycol from Union Carbide, which was sold under the name of Prestone. Union Carbide was unwilling to accept the condition that it be furnished under General Motors' private brand name.

Before 1929 du Pont was engaged in the production of a synthetic methyl alcohol known as methanol. In 1930 it sought an outlet for it. Du Pont marketed the product in 1934 under the trade name Zerone and sought to persuade General Motors to purchase it for resale to its distributors. Zerone had a large market by the end of 1935, but du Pont was unable to sell it to General Motors.

Du Pont made no sales of antifreeze to General Motors until 1936, when it agreed to General Motors' condition that the product be sold under its private brand name. Elmer F. Schumacher, Director of the Polychemical Department at du Pont, testified that at that time he had become aware of the volume of General Motors business and "couldn't for-go the opportunity to enlarge our sales of methanol", capitulating to General Motors demand on the brand name. Irvine W. Thompson, General Parts & Accessories Merchandising Manager of Chevrolet and General [fol. 636] Manager of the Parts Division, testified that after the notification from the Glycerin Producers Association, General Motors immediately sought to find a source of supply for the non-permanent, or methanol antifreeze; that permanent type antifreeze sources were limited to Union Carbide and that company was not interested in contracting with General Motors. He stated that after canvassing every source available for methanol type antifreeze, a contract was signed with du Pont. Contracts were made for six months duration because of future possibilities of getting a better price or product. General Motors purchased this type of antifreeze from du Pont for the period 1936-1940 and packaged the same under the private brand name. It purchased the product from du Pont because it was the only available supplier and because it offered both quality and fair price.

Thompson, who was in charge of General Motors purchases of antifreeze, testified that each season bids were solicited from all known suppliers and a thorough canvass was made for other sources of supply. According to his testimony, the General Motors Divisions continued to buy from du Pont "because we felt very definitely that they gave us the best product at the best price."

In 1939 du Pont developed a new process for making a permanent type antifreeze, described as ethylene glycol, and sold it under the trade name Zerex. The product was approved by the General Motors Laboratories and in 1940 purchasing of this product began and continued until 1953. Du Pont and Union Carbide were the only two producers of ethylene glycol antifreeze. Both Schumacher and Thompson testified that during 1946 and 1947 this type and the methanol type were in short supply; and ethylene glycol was not produced in quantities to meet the market demand until 1952-1953. Du Pont packaged both the methanol and [fol. 637] ethyelene glycol products under General Motors private brand name.

In 1946 and 1947 General Motors purchased 97% of its antifreeze requirements from du Pont. In 1951 when du Pont advised General Motors that it could no longer sell either type of antifreeze under the private brand name for the reason that its purchases were a small portion of du Pont's total sales and too costly to accommodate the packaging requirements, General Motors sought to find another source. In 1953 when other sources became available, Buick, Chevrolet and Pontiac turned to a competitor who agreed to General Motors private brand packaging. Du Pont presently sells antifreeze for resale only to Oldsmobile.

The only evidence offered by the Government in support of its contention as regards antifreeze is that in recent years General Motors has purchased practically all of its requirements from du Pont. The proof offered by the defense, however, establishes that General Motors determined initially to make such purchases because du Pont was the only available supplier that could meet General Motors' demands as to price, quality and delivery. The defendants' proof further shows that General Motors re-examined the supply situation each year and sought regularly to obtain new sources of supply. The Court finds this proof convincing that General Motors was not limited by agreement or by du Pont domination in its purchases of antifreeze and bought from du Pont only because it believed that du Pont best served its needs.

Miscellaneous Products

Electroplating Chemicals

Electroplating is a process of depositing a coating of one metal upon another and is a highly technical field in [fol. 638] which metallurgists disagree sharply in assessing relative merits of various processes. In 1934 du Pont developed the first improved copper plating process known as du Pont's "High Speed Copper", and development work on it was done for the next four years. When it was offered in 1938 it was accepted and adopted by a number of electroplaters which supplied the automobile industry, including companies, which did work for Chrysler, Studebaker and Nash. In addition, du Pont sells chemicals for copper electroplating and has sold to electroplaters materials for zinc, cadmium, and tin plating, including sodium, copper, zinc, cyanides, anodes, additive agents and brighteners, even though the most important of its processes was the "High Speed Copper" method.

There are three processes for copper electroplating—the cyanide process in which du Pont is interested; the acid copper method developed by General Motors Research; and the pyrophosphate process.

Chevrolet installed the du Pont process in 1939 and discontinued it within two months returning to heavy nickel electroplating. During the nickel shortage, it installed the acid, "Day-Brite" and pyrophosphate "Unichrome" methods.

Ternstedt, a Division of General Motors which is relied upon by the General Motors car units for their electroplating, installed the du Pont copper process in 1938 and discontinued it in 1939. It adopted the General Motors Research acid process in 1939.

Buick has never used the High Speed Copper process, but does little electroplating.

Cadillac has continued to use the High Speed Copper process and purchases the majority of its chemical requirements for it from du Pont since its introduction in 1938. [fol. 639] Oldsmobile did not adopt the High Speed Copper process until 1941 and used it until 1949 when it shifted to a competitive process.

Pontiac adopted the process in 1940 for part of its plating work and in 1950 shifted entirely to a different and competitive process.

Although Cadillac and AC Spark Plug use the du Pont process for the major part of their plating operations, eight of the nine General Motors Divisions have installed it for varying periods of time and have gone to other processes for all or a major portion of their electroplating process.

In a du Pont study of the electroplating industry in 1945 or 1946 it was reported that unless certain difficulties in the high speed copper process were eliminated or greatly minimized, a "further serious loss of business will result". However, the study reported that "regardless of the difficulties with High Speed Copper * * *, the process, because of certain basic factors, has a greater potential field of usefulness than any offered by competition."

Du Pont's Durobrite process of zinc plating is used by Delco-Remy which does a substantial amount of zinc plating, although Chevrolet, which also does a substantial amount of zinc plating, and purchases a portion of the zinc and sodium cyanide from du Pont, does not use it. Du Pont's two processes, "Zin-O-Lyte" and "Durobrite", are well established in the trade and enjoy a major part of the business in the plating field.

Case Hardening Chemicals

Prior to its acquisition by du Pont in 1930, R & H Chemical Company supplied sodium cyanide, a chemical used for hardening steel surfaces, to all of the automobile manu- [fol. 640] facturers. Sodium cyanide was imported from France in substantial amounts; before du Pont entered the field, Chevrolet and Buick Divisions of General Motors were using case hardening materials.

Beginning in the early 1930s the first of two departures from the sodium cyanide method of case hardening occurred. A new chemical product was introduced on the market by another chemical manufacturer, called "Aerocase". This and other subsequently developed processes by Perliton, Holden and Parkcase resulted in a loss of business for du Pont. With these newly developed processes, Chevrolet, Buick and GM Truck turned to the newly accelerated deep case hardening method.

When Aerocase was introduced by the American Cyanamid Company, Buick became the first major user. Du Pont sought to develop a competitive product and in 1933 introduced Ducase, which was never adopted for general use since it was not the complete answer to the type of case hardening requirements of many large customers.

In the 1930s shortly after Aerocase was introduced, a gas carburizing process was developed wherein the steel to be case hardened was run through a furnace into which gas was introduced at high temperature. Initially the larger installations for gas carburizing were expensive and the largest units of the automobile manufacturing industry were the first to convert to this method. Buick commenced displacement of liquid hardening with the gas process in 1936 and in 1937 Ford had partially converted to the process. Saginaw Steering Gear Works of General Motors and Chevrolet Gear and Axle started the new process in 1937.

In 1937 du Pont conducted a comprehensive survey of the quality and type of casehardening material used in [fol. 641] the Chicago territory, including Michigan. The survey showed that automobile manufacturers other than General Motors were buying 88% of their case hardening requirements from du Pont while General Motors bought only 47% of their requirements from them. Of four divisions using over 100,000 pounds per year of case hardening products, two bought less than 5% from du Pont and two bought over 90%. In 1937 Ford was buying a greater quantity of case hardening materials from du Pont than all General Motors Divisions combined.

With the new gas carburizing process liquid case hardening operations were largely displaced by the new process, although a demand for du Pont case hardening materials still exists.

Cadillac purchased its needs from R & H before its acquisition by du Pont in 1930 and continued to do so under 1935; from 1935 to 1947 it obtained its case hardening materials from competitors. Since 1947 Cadillac has used the gas process to an increasing extent and purchases its liquid hardening materials in part from du Pont and in part from du Pont competitors.

Buick purchased none of du Pont's case hardening materials until 1946, using imported sodium cyanide or competitive case hardening salts. Since 1946 Buick has purchased du Pont materials for a minor part of its liquid case hardening operations and has converted the majority of its operations to the gas process.

Chevrolet Gear & Axle and Saginaw Transmission purchased a minor part of their case hardening materials from du Pont prior to 1938, purchasing the bulk of their requirements of sodium cyanide from importers and other competitors. In 1938 du Pont developed a special case hardening material for Chevrolet Gear & Axle which pur- [fol. 642] chased substantial quantities thereafter. Saginaw Transmission continued to purchase imported cyanide until such material became unavailable. Since 1946 most of the Chevrolet plants have purchased part of their materials for liquid case hardening from du Pont and part from its competitors. Chevrolet's case hardening operations have been largely displaced by gas carburizing.

Oldsmobile purchased no du Pont case hardening materials prior to 1937. From 1937 through 1946 Oldsmobile purchased some of du Pont's sodium cyanide and small quantities of du Pont's heat treating salts. Since 1947 Oldsmobile has used the gas hardening process to an increasing extent and purchased its requirements of liquid case hardening materials entirely from du Pont competitors.

Pontiac purchased only a minor part of its requirements of case hardening from R & H before the acquisition and from du Pont thereafter. Since 1938 du Pont has sold no case hardening materials to Pontiac except for small quantities of high-purity sodium cyanide.

General Motors Truck & Coach, A. C. Spark Plug, Ternstedt, and Saginaw Steering Gear all have displaced their liquid case hardening processes with gas and purchase only small quantities of du Pont's sodium cyanide. Brown-Lipe-Chapin and Frigidaire prior to 1930 had purchased sodium cyanide from R. & H. Brown-Lipe-Chapin continued to purchase from du Pont for about two years after its acquisition of R & H, using competitive materials for a majority of its case hardening operations until they were discontinued in 1936. Shortly after the acquisition of R & H, Frigidaire commenced using imported sodium cyanide and other competitive materials. Since 1946 it has purchased some sodium cyanide and carburizing salts from du Pont. Delco-Remy and Delco Products purchased all their case hardening requirements from R & H prior [fol. 643] to 1930 and continued to buy fro[illegible] du Pont until 1941 and 1948, respectively. Delco Remy since 1946 and

Delco Products since 1948 purchased sodium cyanide and small quantities of heat treating salts from du Pont, purchasing other case hardening materials from du Pont's competitors.

Before the advent of the new processes, du Pont's sodium cyanide was from one-half to one cent higher per pound than the imported product. In 1947 and 1948 when no imported sodium cyanide was available du Pont supplied all the requirements of 96-98 per cent sodium cyanide to General Motors and other users.

In addition to sodium cyanide, du Pont developed accelerated salt and carburized salt to meet the competition of Aerocase. These compete with the other liquid case hardening products, including sodium cyanide.

Rubber Chemicals and Synthetic Rubber

Ernest R. Bridgewater, Director of Sales for the Rubber Chemicals Division of du Pont, testified that he believed this Division enjoyed about 25% of the rubber chemicals requirements of the Packard Electric and Inland Manufacturing Divisions of General Motors; that du Pont is the second largest supplier to these divisions. Of 65 rubber chemicals which du Pont offers, there were only three that du Pont supplied to these Divisions in larger volume—M.B.T.X., Thiuram M and Thionex.

About 15% of the Rubber Chemical Division's sales are comprised of rubber chemicals; the remaining 85% of the business of this division being represented by sales of neoprene, du Pont's synthetic rubber product.

Neoprene, the first synthetic rubber made on a commercial scale in the United States, is regarded as one of the outstanding achievements of du Pont's research. It was introduced in 1931, receiving acceptance in the market because of its resistance to oil, heat and sunlight. [fol. 644] By 1940 more than three hundred rubber fabricators were using neoprene. Neoprene competes with other synthetic rubbers and with natural rubber. Some synthetic rubbers are less expensive than neoprene.

Automotive radiator and heater hose made of neoprene are being used as standard equipment by Chrysler and Ford because their experience in using this hose has demonstrated advantages for neoprene which justify its higher cost.

Buick once used neoprene for radiator hose but discontinued its use and switched to butyl rubber which cost seventeen cents less per pound than neoprene. Du Pont did not consider reducing the price of neoprene to retain the Buick business because

> "we sell 'neoprene' at the same price to everybody . . . so that if we were to reduce the price of 'neoprene' for Buick, we would have to reduce it for everyone, and we could not afford to do that." (Bridgwater 4987).

Chrysler and du Pont worked together to pioneer a synthetic rubber adhesive based on neoprene to replace old countersunk brass rivets formerly used to attach brake linings to the brake shoe. At General Motors adhesive for this purpose was based on a Buna-N type of synthetic rubber which is more expensive than neoprene. Du Pont sought to sell neoprene to General Motors as an adhesive for use in brake linings but was not successful. A du Pont trade report stated that General Motors would not use neoprene in resilient applications where oil resistance was the primary requirement.

Chrysler and Ford purchase and use neoprene for covering electric wires, seals, gaskets, and have used it to a greater extent than any General Motors Division.

[fol. 645] General Motors followed the common practice of using sub-contractors for major parts and these were left to choose adhesives for brake linings as they desired consistent with specifications, whether it be neoprene or some other material, and du Pont sales efforts were directed to General Motors sub-contractors. Chevrolet Division on one occasion supplied du Pont with the names of its sub-contractors who were supplying it with axle seal, but did not specify the material to be used in their manufacture. Chrysler also provided du Pont with a list of its suppliers fabricating its synthetic rubber parts and included the specifications.

Du Pont also sought to interest Fisher Body in using neoprene for weather stripping. Fisher admitted it was to its advantage to use neoprene but that the price was too high. Since 1945 the du Pont Fabrics Division has sought to sell Fisher Body its special rubber cement—Fairprene

5115—to fasten weather stripping to automobiles. Fisher Body uses about one million dollars worth of adhesive annually. It was not until 1951 that du Pont secured an order for this product although it was equal competitively to others. Since 1951 du Pont secures about 3% of this business. Louis Weyand of Minnesota Mining & Manufacturing Company testified that General Motors bought various adhesives from his firm for attaching trim materials to metal, rubber weather stripping, rubber for windshields and rear lights, felt for sound deadeners. In 1946 it sold two million dollars worth of adhesive to General Motors, and in 1947 three million dollars worth.

Automotive Plastics

In 1930 du Pont marketed a cellulose acetate—Plastacele—and commenced selling some to the Inland Division of General Motors for use in the manufacture of steering [fol. 646] wheels which it made for all automobile companies, including General Motors. In 1937 sales to Inland amounted to $1,200; in 1938 $39,000; and in 1939 sales increased to $157,000, representing about 25% of Inland's requirements—the major supplier being Tennessee Eastman. After 1940 no sales of cellulose acetate were made by du Pont and Inland purchased all of its supply from Tennessee Eastman, which had developed a product called Tenite. Gillie testified that he felt du Pont's product was equal to that of its competitor, and the price was the same. Du Pont made large sales of the product to other customers for uses other than steering wheels.

Du Pont began producing acrylic resin molding powder in 1937 which it sold under the trade name of Lucite. It is a transparent plastic used in the manufacture of reflectors, instrument panels, tail lights and various knobs. Du Pont sells the product to the Inland, Guide Lamp, and A C Spark Plug Divisions. Du Pont's first sale of this material for the manufacture of automobile parts was to Dodge, and it sold no substantial amount of the plastic to General Motors until 1946. Two years after du Pont produced Lucite, Rohm & Haas offered Plexiglas. In 1948 Rohm & Haas supplied more of the requirements of AC Spark Plug Division than du Pont and at the present time du Pont gets a little more than 50% of it. At times du Pont had as much as 95% of the business. At Guide Lamp, du Pont was able to develop a colorfast red composition and obtained its business, but Rohm & Haas matched it and Guide Lamp began to divide its purchases equally between du Pont and Rohn & Haas.

Brake Fluid

Brake fluid is used in hydraulic brakes which came into usage on automobiles in the early 1920s when Chrysler [fol. 647] adopted them. General Motors commenced to install such brakes in 1934 and Ford in 1936. Both Chrysler and Ford used brake fluid which they themselves mixed. No technical skill is required in the making of brake fluid, it being a mixture of several oils and no hazards are present in the mixing. The characteristics sought in brake fluid are a high boiling point and a low freezing point.

General Motors first used a brake fluid supplied by Wagner Electric Company, but shortly thereafter followed Chrysler and Ford in mixing its own, and continues to do so to date.

The General Motors Division assigned to the brake fluid mixing operation is Delco Products. In 1935 it produced a satisfactory fluid and improved it from time to time. Du Pont in late 1934 offered General Motors a fluid to replace that provided by the Delco Division but did not succeed. Other automobile manufacturing companies used du Pont's propylene glycol fluid called Lockheed 21. In 1939 du Pont developed a new fluid marketed as Lockheed 21-11, but was not able to sell it to any of the General Motors car units.

In late 1938 or early 1939 Delco and Union Carbide developed a fluid called Delco 9 which was more expensive than Lockheed 21. Walker testified the reason for the refusal of General Motors units to purchase the du Pont fluid was an agreement among the car division engineers to buy from Delco and help Delco write off the investment they had made in the equipment. Delco bought the chemical ingredients for the Delco 9 fluid from the Carbide & Carbon Chemicals Corporation, a unit of Union Carbide.

Safety Glass

In 1928 du Pont's Viscoloid Company and Pittsburgh Plate Glass jointly and equally owned Duplate Company [fol. 648] which made safety glass. Duplate supplied the glass and Viscoloid supplied the laminating plastic, or pyralin. The automobile industry was a market for safety glass, but all automobile manufacturers were not then entirely converted to its use. In February 1929 only Cadillac and La Salle were using it, while it was optional equipment at Buick.

In 1929 General Motors was installing experimental equipment for compositing safety glass and expected to build a regular compositing plant at their subsidiary, the National Plate Glass Co. A report in 1929 by the President of the du Pont Viscoloid Company stated:

> "... a larger proportion of the safety glass for Cadillac and La Salle is being produced by the Fisher Body Company. The progress which is being made by the General Motors and its subsidiaries in laminating safety glass indicates that the best prospects for the immediate future for Duplate sales depend upon manufacturers other than General Motors." (DP 164).

and the Annual Report for the year 1929 states:

> "Competition became more severe during the year. In the latter part of 1929 Libby-Owens Glass Company came into production with strong sales efforts being made to secure business. Fisher Body Company increased production with the result that they were able to supply practically all safety glass required for Cadillac and La Salle, with a consequent loss of this business which had previously been supplied by Duplate." (DP 169).

In January 1931 du Pont sold its interest in Duplate to Pittsburgh Plate Glass, and later that year General Motors disposed of its safety and plate glass business to Libby-Owens-Ford.

[fol. 649] Total sales by Duplate to General Motors and Fisher Body exceeded two million dollars in 1928 and 1929, but as General Motors expanded its purchases, decreased to $67,000 in 1930 and $37,000 in 1931.

All of the evidence bearing upon du Pont's efforts to sell these various miscellaneous products to General Motors supports a findings that the latter bought or refused to buy solely in accordance with the dictates of its own purchasing judgment. There is no evidence that General Motors was constrained to favor, or buy, a product solely because it was offered by du Pont. On the other hand, the record discloses numerous instances in which General Motors rejected du Pont's products in favor of those of one of its competitors. The variety of situations and circumstances in which such rejections occurred satisfies the Court that there was no limitation whatsoever upon General Motors' freedom to buy or to refuse to buy from du Pont as it pleased.

Sales to General Motors by United States Rubber

The rubber plantations in the Far East were considered the most valuable single asset owned by United States Rubber when the syndicate investment was made, and in 1926 profits from these amounted to six and one-half million dollars, being approximately one-half of United States Rubber's total profits. These plantations supplied less than 25% of United States Rubber's requirements of crude rubber. In 1926 the rubber corporation had the smallest proportion of its total sales in tires—70% of its production being in footwear and mechanical goods. Tire sales accounted for 98% of Fisk's business and 95% of Firestone's business. In addition, both Goodyear and Goodrich had a higher portion of their business in tire sales than did United States Rubber.

[fol. 650] Of total raw inventories which United States Rubber had, 45% were in the tire department. During the correspondence between Sloan and Lammot du Pont concerning the synthetic rubber project, Sloan in 1927 stated:

> "As a matter of fact, however, the single item by all odds that we purchase from outside sources and the one that has been most satisfactory from the standpoint of erratic costs out of line with the real economics of the case is the rubber tire." (GTX 892).

As early as 1925 General Motors had considered buying a rubber tire manufacturing company—the Ajax—and the

Executive Committee of General Motors to whom the matter was submitted concluded it would be a constructive thing for General Motors to acquire an interest in an established tire company. The matter was postponed for further consideration and finally dropped because the profit opportunities did not warrant the investment.

Prices in the crude rubber industry during the period 1923-1932 fluctuated widely from twenty cents in 1924 to over a dollar per pound in 1925, forty cents in 1926 and 1927 and below twenty cents in 1928, falling to ten cents and lower in 1930.

Wilson testified that the problem at the time was how the tire manufacturers who had rubber stock at high prices and could buy rubber cheaper with the decline, could get their customers to purchase tires on the basis of high rubber prices. Another factor leading to the high cost of tires was the fact that contracts were written for short periods of from three to six months.. The General Purchasing Committee in 1926 and again in June 1930 voted against a general contract for tires and had been continually reviewing the situation on tires to see if anything could be done about it. A plan was considered for General Motors to manufac- [fol. 651] ture its own requirements or to acquire a small tire plant and get some knowledge of cost as a check on the tire companies.prices.

During this period United States Rubber negotiated with Goodyear on a proposal to sell or lease its tire business. Irenee du Pont in February 1929 wrote to F. B. Davis that while negotiating for such a lease of the tire business to Goodyear, that United States Rubber should negotiate for a lease of Goodyear's plantations as well; he stated further that it seemed likely that Chrysler or General Motors would acquire their own tire manufacturing facilities which would leave the tire manufacturers in a "very trying position". These negotiations with Goodyear never came to fruition.

In April 1930 at a joint meeting of the General Motors Executive and Operations Committees a discussion was had on whether General Motors should manufacture tires either by buying a small plant or undertaking substantial manufacture. Pratt was designated to investigate both proposals, and he assigned Wilson to make the study.

Wilson made a report on June 3, 1930 stating he had made a survey of the tire industry, had visited the Kelly-Springfield and United States Rubber plants, and recommended against General Motors going into the tire business since his investigation showed the companies were losing money on both original equipment and replacement sales. His recommendations were accepted.

Wilson then proposed a plan whereby General Motors was to purchase the necessary raw materials—rubber and cotton—and furnish the same to a tire manufacturer who would fabricate them into finished tires thus eliminating the cost of raw material going into the tire price. He prepared and submitted a plan for investing twenty million dollars in raw materials such as copper, lead, zinc, tin, rub- [fol. 652] ber and cotton. The plan was approved by the Finance Committee of General Motors on September 8, 1930 and the purchase of these commodities was started and continued for several years. Wilson also believed that this plan should be combined with a long term contract with a tire manufacturer who could then plan his production more efficiently, enabling him to produce more and to sell at a lower price.

While getting Sloan's approval on this plan, Wilson learned that Sloan and Litchfield, President of Goodyear, had been classmates at Massachusetts Institute of Technology, and Sloan arranged an appointment. In the Fall of 1930 Wilson discussed the matter of long term fabrication with Goodyear since he thought it was the "best", "biggest", and "a progressive company", and one of General Motors' principal suppliers. Litchfield was not interested in the fabrication plan.

Goodrich, which was supplying one-half of the tire business of Chevrolet, was approached by Knudsen, who knew its President, Mr. Tew, and Goodrich quoted some prices which were unsatisfactory.

The formula used in requesting submission of prices was

A—rubber converted into pounds of raw rubber
B—cotton converted into pounds of raw cotton
C—all other items of cost

Wilson finally contacted United States Rubber through Emmet Sheehan, its Detroit Sales manager. Sheehan contacted F. B. Davis and L. D. Tompkins, Vice-President of the Tire Division of United States Rubber, made an appointment with Wilson, and the plan appealed to them. Tompkins testified:

> "We evidenced all the interest we possibly could in the matter, and told him very frankly that at least [fol. 653] part of it was not new to us because we had already negotiated contracts with Montgomery Ward and Atlas in which the question of rubber and cotton financing and so forth, had become a part, so we were playing along the same alley with him in connection with his plan. We knew what he was talking about, at least." (5732):

Wilson invited United States Rubber to submit prices and indicated that W. S. Knudsen, head of the Chevrolet Division would have to be satisfied since this division accounted for one-half of General Motors' tire business. Knudsen was delegated to talk price with the rubber corporation. Tompkins said that "we sharpened our pencils more than we had ever done"; costs were carefully calculated; account was taken of the additional increase in operating efficiency if General Motors' volume was obtained; and the prices were then submitted to Knudsen. Both Goodyear and Goodrich were asked and gave prices on the sale of tires if they could buy rubber and cotton at the current market price and of the three companies, the price quoted by United States Rubber was the lowest.

Wilson then made a report to the Operations Committee concerning all of these negotiations with the three companies, the price formula followed and recommended an authorization for 50% of General Motors' requirements to be supplied by United States Rubber. He also attached a schedule comparing the prices submitted. He stated:

> "Goodrich brought in figures as above, but added 6% to the total, for profit. United States included their profit in factor 'C'. When prices were compared, it was decided to ask for prices on other General Motors sizes, with the result that we have today a complete list of all, making it possible to compute the tire prices [fol. 654] by simply multiplying Factors 'A' and 'B' with today's market price and adding Factor 'C' to the total.

> "Comparison developed that United States Tire & Rubber Company have given us the most favorable terms, and Mr. Pratt has notified them of our willingness to enter into a contract for 1½ years on the above basis, and has at the same time signified our willingness to underwrite the purchase of up to 5,000 tons of rubber @ .08 per lb. this representing about 25% of the Corporation's requirements for one year and an expenditure of $800,000.
>
> "Immediately when the decision was announced to the trade, Goodyear and Goodrich both made applications for permission to quote on the balance of the Corporation's requirements, or any part of them, at competitive prices.
>
> "It is our opinion that it would not be desirable to close contracts for 100% of the Corporation's tire requirements, but that the remaining open 50% should be left to the Divisions to handle on the best possible basis. We therefore ask authority to conclude the contract for 50% of General Motors tire requirements with United States Tire & Rubber Company." (GTX 1089).

On October 9, 1930 the Operations Policy Committee approved a contract with United States Rubber for 50% of General Motors' requirements.

Purchases from United States Rubber by the General Motors Car Divisions for the years preceding 1928 are not available.

In 1928, 1929 and 1930 Pontiac purchased approximately 18%, 8% and 10%, respectively, of its requirements of [fol. 655] casings from United States Rubber based on an estimate in 1929 of 315,000 cars produced.

In January 1928 the sales manager for United States Rubber wrote to the Oakland Division confirming that it was to receive from 20-25% of the Pontiac business, both domestic and foreign, and 40-50% of Oakland's business, domestic and foreign, for the first six months of 1928. In May 1929 Glancy wrote Davis that United States Rubber was getting 30% of Pontiac business, a percentage larger than any other manufacturer received, and 15% of Oakland's business, which was the same percentage other suppliers received; that although the large percentage for Pontiac had been opposed by the Sales Department, he believed that it was United States Rubber's intention to bring the quality of its goods up to competition and was "happy to take this chance" with United States Rubber.

In 1929 Chevrolet purchased no tires from United States Rubber and in 1930 through the efforts of its sales staff a small volume was procured. General Motors purchases in 1929 decreased from 524,205 units in 1928 to 441,659 and to 465,267 in 1930 before reaching 2,508,241 units in 1931. Oakland-Pontiac purchases declined from 227,652 units in 1928 to 105,882 in 1929, and to 124,005 in 1930.

Both Chrysler and Ford were also purchasing tires from United States Rubber in 1928; Ford purchasing 362,016 units and Chrysler 287,742.

In 1929 General Motors had a car manufacturing subsidiary in Canada—General Motors of Canada, Ltd., and United States Rubber had a Canadian subsidiary—Dominion Rubber Company. Canadian Industries, Ltd., in which du Pont held an interest, held stock in the Dunlop Tire & Rubber Goods Company of Canada. On March 25, 1929 [fol. 656] R. S. McLaughlin, President of General Motors of Canada, wrote to A. B. Purvis, President of Canadian Industries, advising him that du Pont had acquired an interest in United States Rubber and

> "they naturally would like to see us do some business with the Dominion Rubber Company." (GTX 1082).

He inquired whether Canadian Industries was still interested in Dunlop. Purvis replied that it was still interested in Dunlop, holding 35% of its common stock, that General Motors' business was vital to Dunlop and would be sorry to see it go to United States Rubber, and that McGowan would appreciate their continued support of Dunlop.

Six months later, Purvis forwarded copies of this correspondence to Lammot du Pont and advised that Dunlop, effective April 18th, 1930, would be entirely supplanted as a tire supplier to General Motors of Canada by Dominion Rubber Company, and asked that McLaughlin of General Motors be relieved of the "evident pressure to which Mr. McLaughlin refers and which Mr. Davis would very naturally bring to bear upon them."

Lammot du Pont wrote to F. B. Davis:

> "Now it is, of course, all right for United States Rubber Company to 'go after' the General Motors of Canada business through the Dominion Rubber Company, but I do not believe it is either fair or proper, under the circumstances, to use as an argument the interests of the U. S. Rubber stockholders or their connection with General Motors. Could you not get the business on the basis of quality, services and price?
>
> "I have told Mr. Purvis that as far as I am personally concerned, and I think I represent the feelings of [fol. 657] the other individuals here, that I cannot subscribe to the idea of using our interests in both General Motors and United States Rubber as a means of getting business." (GTX 1085).

Davis replied stating that this account was secured on

> "the basis of quality, service and price, and we not only do not use any du Pont or General Motors connections as arguments for getting business, but find that many times we are handicapped because of rumors of the tie between the three companies, and we take great pains in explaining the facts—just as we have done to Mr. McLaughlin." (GTX 1086).

He continued that Mr. McLaughlin had advised Eden, President of Dominion Rubber that

> "he would be very glad to give him a portion of his business but that his hands were tied as he had instructions from Mr. John L. Pratt, of the General Motors Company, requiring him to favor Dunlop." (GTX 1086);

and that if this could be rescinded he would be able to give Dominion some of his tire business; that Tompkins had immediately contacted Mr. Stettinius of Mr. Pratt's office and

> "Mr. Pratt arranged to have the instructions whatever they might have been, rescinded." (GTX 1086).

whereupon Dominion actively opened negotiations with General Motors of Canada.

Tompkins testified that when he called on Mr. Stettinius in 1929 he was advised no such instructions had in fact been issued, and Pratt testified he had never given any instruc- [fol. 658] tions that General Motors of Canada was to use Dunlop. For the years 1928 to 1930, inclusive, Goodyear was the principal supplier of tires to General Motors of Canada. Dunlop's business with General Motors of Canada shrank from 23% in 1929 to 4.6% in 1930, whereas Goodyear's increased from 70.83% to 84.34% in the same period. The 1931 contract with United States Rubber provided for 50% of General Motors of Canada's requirements.

In 1930 Davis contacted General Robert E. Wood, President of Sears, Roebuck & Co., with the view, shared by Tompkins, that large retail outlets would result in volume business for the tire department. He found that Sears had an arrangement with Goodrich and that Montgomery Ward was buying its tires from several small suppliers but might be interested in dealing with United States Rubber. Following a conference with Mr. Everett, Ward's President, a contract was signed covering 90% of Ward's requirements of its own brand of tires. In the same year United States Rubber succeeded in obtaining a five year contract with Atlas for 50% of that company's requirements of "Atlas" brand tires to be sold through Standard Oil Service stations. In 1937 United States Rubber's share of Atlas business was increased to 100%. Tompkins stated the procurement of this business was of vital importance to the company and "was the turning point" in the future success of the tire division.

Tompkins and Davis testified that throughout the 1930s Emmet Sheehan, the Rubber Company's sales representative contacted all automobile manufacturers, including Ford, Chrysler, and the General Motors Divisions, and succeeded in getting orders from Ford and Chrysler until both turned to Firestone and Goodyear respectively as their principal suppliers.

[fol. 659] The 1931 tire contract was for a term of 21 months containing an automatic renewal clause and was signed by L. D. Tompkins and Charles E. Wilson. It provided that (1) General Motors would buy at least 50% of its original equipment tires, including spare tires, for cars produced and sold in the United States and Canada, (2) the prices to be determined by the A, B, C formula in Wilson's plan—that is the number of pounds of rubber in a set of four tires multiplied by the price per pound of rubber specified by General Motors, a similar computation for the cotton used, and all other costs, including profit, the total of these three items being the price per set of four tires, (3) General Motors designated United States Rubber as its purchasing agent to buy crude rubber, General Motors to inform the rubber company the quantity to be purchased and the price to be paid. It would then resell to the rubber company the rubber requirements for each succeeding month for the manufacture of tires. In such resale, General Motors was permitted to charge a mark-up of not to exceed 12½% over the original cost of the material. (4) United States Rubber was to bill the General Motors divisions for the tires supplied but was to do the billing at billing prices agreed upon with General Motors. These billing prices were on regular shipments to the divisions and the level of prices which the various car division buyers had been able to establish in the purchase of tires beyond the 50% covered by the contract. After the divisions made payments on the basis of the billed price, United States Rubber was to make an adjustment between the billing price and the lower prices fixed by the formula.

On February 25, 1931 a supplemental letter agreement was executed wherein Oldsmobile, Oakland-Pontiac and GMC Truck Divisions agreed to purchase all their remaining requirements from United States Rubber, and Cadillac-[fol. 660] LaSalle agreed to purchase 15% additional. Buick and Chevrolet bought their remaining 50% elsewhere.

In July 1931 when the price of rubber was around six cents per pound, Tompkins and Wilson signed a modification of the 12½% mark-up providing that General Motors could resell up to ten cents a pound regardless of the 12½% limitation.

The provision regarding the billing arrangement was included so that the basic or ultimate price resulting from the contract could be kept "as confidential as possible." Tompkins testified that both Goodyear, which sold to Chrysler in substantial volume, and Firestone, which supplied Ford, also kept their prices secret, and that the same practice was followed by United States Rubber and Goodyear in their contracts with Montgomery Ward and Sears, respectively.

An addendum to the 1931 contract provided that tires used by General Motors as spares would be priced at a specified amount above running tires. No extra price was to be charged for second spares or spares on exported cars. The Government concedes the allegations contained in ¶128 of the Amended Complaint relating to the price of spare tires is erroneous.

United States Rubber continued to sell tires to General Motors pursuant to contracts until 1942. After the original contract, new contracts were signed in 1932, 1933 and 1936. The 1932 contract adhered to the ABC pricing formula, the percentage of General Motors requirements, and also provided for the extra percentages reflected in the agreement of 1931. During the 1932 contract a patent license option agreement was made, providing that if General Motors desired to manufacture its own tires it would [fol. 661] be granted a non-exclusive license on United States Rubber's patents and applications relating to tire manufacturing processes and "know-how," providing General Motors continued to purchase 50% of its tire requirements. The license was never used by General Motors.

The 1933 contract executed May 22, 1933, effective January 1934, replaced the ABC price formula with a provision that prices to be charged General Motors should be no greater than the lowest price charged by the four largest manufacturers of tires—Goodyear, Firestone, Goodrich and United States Rubber. This change was made because of the increased stability of the rubber and cotton markets and the higher level of prices for those commodities.

In a separate concurrent agreement, United States Rubber agreed to give General Motors the following discounts on its annual volume of sales:

$10,000,000	$ 825,000
11,000,000	940,000
12,000,000	1,040,000
13,000,000	1,200,000
14,000,000	1,350,000
5,000,000 and up.	10%

(GTX 1141)

It was also provided that United States Rubber should not be required to furnish tires at prices which, after the discount, would not return its costs. The current billing price before the year end discount was measured by cost plus 10%.

The dollar sales figures for 1934 to General Motors totaled over sixteen million and General Motors was entitled to receive the maximum discount. United States Rubber and General Motors agreed on December 17, 1934 to fix the discount for 1934 at $500,000 or 2.8% on its 1934 sales.

[fol. 662] The 1933 contract was supplemented by an extra percentage letter agreement and for the first time United States Rubber received an additional 20% of Buick's business, Cadillac-LaSalle was increased to 20%, Pontiac and Oldsmobile declined to 30% and 40% respectively.

In 1934 the price and discount arrangements were modified and United States Rubber agreed that in the event General Motors purchased fifteen million or over and if the rubber company's profit exceeded 10% that General Motors would receive one-half of the amount of such profit exceeding 10% up to and including "an excess of 5%" which would make it possible for General Motors to receive a maximum discount of 10% on purchases of fifteen million or more. The discount paid after some negotiations on total purchases of $25,114,888 was $1,044,516.87, or 4% of the 1935 sales.

On August 1, 1936 another contract containing an automatic renewal clause was executed which lasted until May 8, 1942 when the United States entered World War II. The maximum discount provided was 3½% on sales of twenty-one million dollars. After the war General Motors resumed its purchases from United States Rubber on a non-contractual basis. Purchasing was done through orders and the percentages of business to be supplied the General Motors car divisions from March 1, 1949 to August 31, 1949 were: 64% of Buick, Oldsmobile, Pontiac, Cadillac and GMC Truck passenger tires, 50% Chevrolet passenger tires, 55% truck tires for Chevrolet and GMC Truck. The prices fixed by this order were subject to being lowered if General Motors bought from other suppliers at a lower price or if United States Rubber sold at a lower price elsewhere.

For the years 1934 through 1940, United States Rubber's profit attributable to sales of original equipment to General Motors was $9,737,000 and its net income was $45,764,000. [fol. 663] Wilson testified that United States Rubber's share of General Motors' business during the period 1931 to 1936 was about 55%; 1936-1942 it was about 60%-70%; and the years following the war 1946-1948 it was 55%-58% of General Motors needs. Throughout the years United States Rubber's sales to General Motors of tires for original equipment constituted a high percentage of its total sales of original equipment. General Motors also made purchases of tires from Goodrich and Firestone in the years 1946, 1947 and 1948 averaging approximately 20-23%. The Company's private brand unit sales have been greater in most years than its total original equipment sales.

Throughout the years Irenee du Pont viewed the tire business of United States Rubber as its most precarious branch and expressed his desire that this phase of its operations be dropped. He urged Davis in 1934 to sell this branch of its business, and testified that his views today are the same as those expressed at that time. Davis confirmed the fact that Irenee du Pont had made repeated suggestions for the rubber company to dispose of its tire business.

The Court finds that the evidence with respect to the original negotiation of the tire contract and United States Rubber's subsequent sales of tires and tubes to General Motors establishes that General Motors initiated discussions leading to that contract, entered into it, and has ever since continued to buy a substantial portion of its tires and tubes from United States Rubber for its own good business reasons—and for no other reason. The Government's contentions to the contrary are supported only by suspicion and conjecture.

Other Products

The Government concedes that du Pont sales to United [fol. 664] States Rubber are far greater than the purchases du Pont makes from United States Rubber.

Paint. On January 18, 1932 William Richter wrote to William Zintle, also a du Pont employee, and attached a letter from F. B. Davis to Lammot du Pont regarding a

Pratt and Lambert can of paint which Lammot du Pont had seen being used in painting a building at United States Rubber. Davis assured Lammot du Pont the can contained du Pont paint because the contractor had been told "he could not have the contract unless he used du Pont paints" and stated that United States Rubber had a genuine interest in using and recommending du Pont products wherever possible. United States Rubber since 1929 has purchased more paint and maintenance paint from du Pont's competitors than from du Pont. The percentages of all paint purchased from du Pont in 1946, 1947 and 1948 were 31.1%, 34.5% and 25.3%.

Rayon. Rayon, first introduced to the rubber industry in 1936, was for a time produced only by du Pont. From 1936 to 1941 du Pont supplied almost 100% of United States Rubber's requirements of high tenacity rayon. During the war years the percentage of the rubber company's requirements declined since rayon was in short supply and subject to Government allocation orders. United States Rubber approached du Pont requesting a larger percentage of their total production or to increase their facilities for production, but du Pont refused to do either. The percentage of United States Rubber's requirements of rayon purchased from du Pont which was 100% in 1936 declined to 37.7% in 1946, 33% in 1947 and 27.3% in 1948. In 1946 and 1947 United States Rubber purchased more rayon from one du Pont competitor than it did from du Pont, and in 1948 it purchased more rayon from each of two du Pont competitors than from du Pont. United States [fol. 665] Rubber purchases of rayon constituted two-thirds of its total purchases from du Pont during 1946-1948. In the years 1942-1948 du Pont sold more high tenacity rayon to Goodyear Tire & Rubber than it did to United States Rubber.

Neoprene. Neoprene is a synthetic rubber manufactured only by du Pont. Tisdale testified that United States Rubber purchased neoprene from du Pont during and shortly after World War II, despite neoprene's odor and heaviness, only because natural rubber latex was unavailable. When natural rubber latex was again available, United States Rubber returned to its use. GRS and buytl are other synthetic rubbers and are cheaper than neoprene. Dry neoprene and other types of dry rubber are purchased by United States Rubber and are used to make products other than Lastex thread. Eliminating the abnormal purchase of neoprene in the making of lastex during the years natural latex was unavailable, United States Rubber obtained from du Pont only 11% of its total requirements of neoprene and competitive rubbers in 1948.

Dr. Tukey testified that the only significant test of price of rubber products was the relationship of price to the ultimate cost of the article to be produced. In addition, in making the table of competitive rubber products, United States Rubber did not use neoprene in the manufacture of some products, although its competitors did. He stated that only rubber which was used to make products directly competitive with those in which other companies used neoprene was included in USR 217.

Rubber Chemicals

Naugautuck Chemical Division of United States Rubber supplies its parent company with rubber chemicals as does [fol. 666] du Pont and other competitors of du Pont. Tisdale testified that this division of the rubber company is a self-sufficient operation and has to compete with outsiders for United States Rubber's business and maintains a sales and technical staff. United States Rubber pays no lower price to Naugautuck than to any other customer.

Wetting agents. These products constitute a small portion of United States Rubber purchases. Tisdale testified that these and other items were included in the survey made by Dr. Tuley because in the judgment of technical men they were competitive in use although du Pont does not make the same type. Dr. Tuley stated that more competitive products were studied than were included and as to those included "we established in each case that our use of them matched some commercial use of the du Pont product."

Terprene. United States Rubber purchases Terprene products, a small item in its total purchases, from naval stores industry. Du Pont does not manufacture this product. Exhibit USR 217 includes an item in that class manufactured by du Pont which has the same character as that manufactured in naval stores and turpentine industries and is sold in competition with those industries.

Diphenylamine. Du Pont is the only commercial producer of diphenylamine and United States Rubber purchases this product exclusively from du Pont. The Naugatuck Division of United States Rubber uses this material for a patented antioxidant, BLE, which it sells in competition with du Pont's product called the "Neozones". Next to rayon, this product constituted the largest dollar volume purchases made by United States Rubber from du Pont, being about 10% of its total purchases from 1946-1948.

[fol. 667] *Nylon.*

Nylon is patented and manufactured exclusively by du Pont. United States Rubber does not use the product in its truck or passenger tires for civilian use although its competitors do. In 1946 du Pont's total sales of nylon to United States Rubber were $617,000 and two years later increased to $895,000. In 1946, 1947 and 1948 Goodyear, Goodrich and Firestone purchased more nylon from du Pont than did United States Rubber.

The foregoing four products—rayon, diphenylamine, neoprene and nylon accounted for a great preponderance of United States Rubber's total purchases from du Pont. In 1948 these products accounted for over ten million dollars of the total purchases made by United States Rubber equalling $11,500,000, or 87%. Of all products required by United States Rubber and which were manufactured by du Pont, United States Rubber's purchases from du Pont constituted 36.5% in 1946, 31.9% in 1947 and 28.8% in 1948.

In the compilation of Exhibits USR 217 and GTX 1332 Dr. Tuley testified that a product purchased from a competitor of du Pont was not regarded as competitive unless it met certain tests, such as:

> "First, the composition of the material, its price in relation to related products; its availability; quality; du Pont's postion in regard to supply and their ability to deliver in the quantities required and at the time we required them; and particularly the critical test was whether there was an established commercial use for the du Pont product identical with our use of the product we had purchased from some other supplier." (Tuley 6661-2).

[fol. 668] In 1932 Lammot du Pont sent Davis a table of the purchases by du Pont from United States Rubber and its competitors, showing purchases from United States Rubber of $361,000 in 1930 and $204,000 in 1931. He said:

> "the purchases we make from United States Rubber Company are far larger than from any other rubber company." (GTX 1059)).

In 1935 he again wrote regarding purchase figures for 1933 and 1934 and commented that the 1934 purchases were less than those for 1933 from United States Rubber, whereas the Rubber Company's purchases for 1934 from du Pont were higher than in 1933 stating he thought that was due to the fact that the rubber company bought products which were raw materials, whereas

> "du Pont buys from U. S. Rubber substantially nothing, except products that are used as supply or small items in construction of machinery and equipment." (GTX 1060).

On January 19, 1938 E. R. Bridgwater of du Pont's Research wrote Ackart of du Pont's Engineering Department that local buyers at du Pont's various plants had told salesmen for rubber manufacturers other than United States Rubber that

> "they are unable to give them any business because they are instructed to place business with U. S. Rubber whenever possible." (GTX 1061).

He stated that the managers of the purchasing departments had been circularized and told to refrain from giving the impression that United States Rubber had any better chance of getting du Pont's business than any other rubber manufacturers and concluded:

> [fol. 669] "I do think it would be very helpful to us if you would ask all members of your department who contact rubber salesmen or engineers to so conduct their conversations as to convince the salesman that he has as good a chance of getting our business as anyone else and that our rubber goods are bought solely on the basis of price, quality and delivery. I realize, of

> course, that we do show preference to U.S. Rubber in certain instances but I think that's no one's business but ours, and it is, of course, a fact that we buy much less than half of our rubber goods from U.S.
>
> "Perhaps Mr. Hawkins would like to again remind all buyers on the Company that our rubber chemicals business need not suffer by reason of the fact that we buy much more from U.S. Rubber than from any other rubber manufacturer so long as they take pains to prevent any salesmen from getting the idea that it is our policy to give U.S. Rubber all the breaks and reporting that to his main office as an alibi for not getting du Pont business." (GTX 1061).

On February 26, 1947 L. D. Reed, Director of Trade Analysis Section of du Pont, in answer to Lammot du Pont's inquiry on trade relations with United States Rubber stated:

> "You will notice from this summary sheet that the purchase/sales relationship with United States Rubber would still be way out of line if we had purchased our entire requirements of industrial rubber commodities from them alone, which amounted to $1,264,348. In view of the other large sales which are made to competitors of United States Rubber, some recognition must be taken of this business, and the result is that rather insignificant purchases are made from the re- [fol. 670] mainder of the rubber industries listed, with the possible exception of Goodrich." (GTX 1062).

He explained that Goodrich sold a chemical which the Rubber Company did not make and made no similar product. He stated:

> "Goodyear Tire and Rubber are generally competitive with United States Rubber so far as rubber commodities are concerned, but they have not been successful in securing much of the business we have to give the rubber trade in rubber lined tanks. Just recently, they visited our office feeling that they were not being treated fairly in this respect, but were finally convinced that they had not been successful bidders and would

> still have to sharpen their pencils. The other rubber companies do not engage in this type of endeavor." (GTX 1062).

The evidence relating to purchases and sales between United States Rubber and du Pont was, for the most part, introduced by the defendants. The Government has failed to show the existence of any agreement or understanding that each of these companies would prefer the products of the other and would decline to deal with competitors of the other. The Court finds that, in fact, each company has enjoyed freedom to buy as it pleased..

The Issue of Conspiracy

At the outset of this memorandum the Court stated that the issue of conspiracy permeated the entire case, underlying both the trade and the control aspects thereof. This is so because conspiracy to restrain trade can only be determined after consideration of the entire record of evidence. [fol. 671] The Court finds, on the basis of all the evidence of record, that the Government has failed to establish the existence of any such conspiracy.

The record discloses a number of instances in which various of the defendants have engaged in concerted action of one kind or another. For example, the syndicates that were formed to purchase du Pont stock in 1915, and United States Rubber stock in 1927; and the collaboration on the development of "Duco" and TEL. But concerted action does not necessarily constitute conspiracy or proof of conspiracy. It does so only if the object of the action is to restrain trade or commerce. The Court finds that none of the actions taken in concert had as their objective, or necessary consequence, the imposition of any limitation upon the free flow of trade and commerce. A number of such actions, such as the formation of Christiana in 1915 and Delaware in 1924, were undertaken for purely personal reasons of the participants, largely financial and unrelated to restraint of trade and commerce or the monopolization thereof. The record as a whole does not support a finding that any of them, or all of them in the aggregate, did restrain or intended to, or had the effect of, restraining or monopolizing trade and commerce. The Court bases this conclusion on both documentary and testimonial evidence of record and upon the more detailed findings made in the earlier parts of this memorandum.

Conclusion

The Amended Complaint charges violations of both the Sherman and the Clayton Acts. Those Acts broadly condemn conspiracies, contracts, agreements, understandings, and acquisitions that result in monopoly or unreasonable restraints of trade. If the facts established the existence of a conspiracy or agreement to restrain or to monopolize [fol. 672] trade, or if the facts showed that a restraint of trade or monopolization had occurred, it would be necessary to determine as a matter of law whether the situation disclosed was condemned by the statutes. However, there is no need in this case to consider that question or to discuss legal principles or precedents because there has been no conspiracy to restrain or to monopolize trade and no restriction or monopolization of the market.

The essence of the conspiracy and restraint which the Government finally charged and sought to prove in this case is the alleged limitation upon General Motors' ability to deal as it pleased with competitors of du Pont and United States Rubber. In various ways and subject to various limitations, the Government has alleged that General Motors either itself agreed to such a limitation, or was forced to it by du Pont. But the evidence of record fails to support the Government's charges. In preceding portions of this opinion there has been shown, by detailed analysis of the evidence, the extent to which General Motors enjoyed complete freedom of action with respect to specific products manufactured by du Pont and United States Rubber, and with respect to its discoveries and developments of new products. When read as a whole the record supports a finding, and the Court so finds, that there has not been; nor is there at present, a conspiracy to restrain or to monopolize trade and no limitation or restraint upon General Motors' freedom to deal feely and fully with competitors of du Pont and United States Rubber, no limitation or restrain upon the freedom of General Motors to deal with its chemical discoveries, no restraint or monopolization of the General Motors market, and no restraint or monopolization of the trade and commerce between du Pont and United States Rubber. The findings that there has been neither a conspiracy to restrain or to monopolize trade nor [fols. 673-674] a restraint or monopolization of trade make it unnecessary to consider the questions of law that would otherwise arise with respect to the Wilmington Trust Co. and the so-called "beneficiary" defendants, including the infants for whom guardians ad litem have been appointed.

It may be that a violation of the Clayton Act can be made out in the absence of an actual restraint of trade where it is established that there is a reasonable probability that a condemned restraint will result from an acquisition of stock. The acquisition challenged by the Government—du Pont's investment in General Motors—took place over thirty years ago. In those many intervening years the record discloses that no restraint of trade has resulted. Accordingly, the Court is of the opinion that there is not, nor has there been, any basis for a finding that there is or has been any reasonable probability of such a restraint within the meaning of the Clayton Act.

The Government has failed to prove conspiracy, monopolization, a restraint of trade, or any reasonable probability of a restraint, and for those reasons the Amended Complaint should be dismissed.

Walter J. LaBuy, Judge of the United States District Court.

[fols. 675-676] UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

Civil Action No. 49 C-1071

UNITED STATES OF AMERICA, PLAINTIFF

v.

E. I. DU PONT DE NEMOURS AND COMPANY, GENERAL MOTORS CORPORATION, UNITED STATES RUBBER COMPANY, CHRISTIANA SECURITIES COMPANY, DELAWARE REALTY & INVESTMENT CORPORATION, PIERRE S. DU PONT, LAMMOT DU PONT, IRENEE DU PONT, ET AL., DEFENDANTS

FINAL JUDGMENT—December 9, 1954

This cause coming on for final disposition upon the pleadings and evidence, both oral and documentary, and the Court having heard the arguments, and considered the briefs of counsel and having made and filed herein its memorandum of opinion on to wit December 3, 1954,

It is hereby, ordered, adjudged and decreed, that

1. Said memorandum of opinion be and the same hereby is adopted as the Court's findings of fact and conclusions of law herein, and said memorandum of opinion be and the same hereby is made a part of this judgment and decree by reference as such findings of fact and conclusions of law.

2. The amended complaint herein and the above entitled cause be and the same hereby are dismissed for want of equity.

3. Plaintiff take nothing by its suit and defendants and each of them go hence without day.

Dated December 9, 1954.

Enter:

Walter J. La Buy, Judge of the United States District Court.

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No. ~~[illegible]~~ 3

IN THE

Supreme Court of the United States

OCTOBER TERM, 195~~5~~6

UNITED STATES OF AMERICA, *Appellant*,

v.

E. I. DU PONT DE NEMOURS & COMPANY, ET AL.

ON APPEAL FROM UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

MOTION TO AFFIRM

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1955

No. 151

UNITED STATES OF AMERICA, *Appellant*,

v.

E. I. DU PONT DE NEMOURS & COMPANY, ET AL.

ON APPEAL FROM UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

MOTION TO AFFIRM

Pursuant to Rule 16, paragraph 1 (c), of the Revised Rules of this Court, appellees move that the judgment of the District Court be affirmed on the ground that the questions raised by appellant are so insubstantial as not to warrant further argument.

STATEMENT

This is an appeal by the United States from one portion of the judgment of the District Court of the United States for the Northern District of Illinois, brought pursuant to Section 2 of the Expediting Act of February 11, 1903 (32 Stat. 823; U.S.C., Tit. 15, Sec. 29) as amended by Section 17 of the Act of June 25, 1948 (62 Stat. 869). The judgment of the District Court, entered December 9, 1954, dismissed a complaint filed against appellees, and many others,[1] alleging a combination and conspiracy in violation of Sections 1 and 2 of the Sherman Act (Act of July 2, 1890, 26 Stat. 209; U.S.C., Tit. 15, Secs. 1 and 2) and a violation of Section 7 of the Clayton Act (Act of October 15, 1914, 38 Stat. 730; U.S.C., Tit. 15, Sec. 18).

The Jurisdictional Statement does not adequately expose the true nature of this appeal. By framing its contentions in terms of alleged "erroneous standards" applied to the evidence on the commercial relationships between du Pont and General Motors, the Government would create the impression that the Court can avoid a review of the evidence and the findings, and confine its consideration to matters of law. Yet upon analysis, as we point out in the Argument below, the Government's contentions on the alleged "erroneous standards" are seen to be no more than attacks on the correctness of findings. Inescapably the Government is asking this Court to undertake what virtually amounts to a trial *de novo* on a record consisting of thousands of exhibits and many thousands of pages of testimony, and involving numerous issues as to the intent, motive and design underlying innumerable transactions which have taken place over a period of some thirty years. The District Court heard all of this evidence in a trial which lasted many months; and embodied its findings of fact and conclusions in an opinion of 220 printed pages. The opinion was a year in preparation, and gives abundant internal evidence of the care with which the District Judge studied the transcript of the trial and the voluminous briefs and proposed findings of fact which were submitted by the parties.[2]

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[1] The complaint charged a vast conspiracy, the essential terms of which were that three individual defendants (Pierre, Irenee and Lammot du Pont) had caused three defendant manufacturing corporations (du Pont, General Motors and U. S. Rubber) to become parties to an agreement which created for each of them protected markets represented by such requirements as the other two might have for products which each produced or might produce, and that restrained each from encroaching upon the industrial domain of the others. The original non-manufacturing defendant corporations (Christiana Securities Company and Delaware Realty & Investment Company), and a large number of du Pont "family" defendants, together with the Wilmington Trust Company (later added by amendment to the complaint) were alleged to be links in the chain by which the three individual defendants had dominated the three manufacturing defendant corporations and secured their adherence to this restrictive plan. The three individual defendants have been dropped; U. S. Rubber itself has been dropped; and the du Pont "family" defendants have been dropped, along with the Wilmington Trust Company. Christiana and Delaware remain as appellees only in connection with the Government's prayer for relief in the event the decision below should be reversed.

The findings of the District Court cover 30 years of history and relate to a myriad of transactions. The findings rest on a mass of evidence which discloses in the most intimate, minute and complex detail the facts of the relationship between du Pont and General Motors. It is the facts that are decisive on the basic issue raised by the Government's contention. Stated simply that contention is that du Pont's stock ownership in General Motors and its representation on the Board of Directors of General Motors and on committees of that Board, have been for the purpose and have had the effect (1) of restraining trade in products manufactured by du Pont and used by General Motors, and

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[2] The District Court heard 52 witnesses, and received 1087 Government and 1059 defendants' exhibits. The transcript numbers 8283 pages. The Government's Post-Trial Brief in the court below was 777 pages long; the post-trial briefs filed by the defendants totalled 842 pages. The Government's proposed findings of fact and conclusions of law covered 151 pages; those of the defendants 411 pages.

(2) of restraining General Motors' freedom to exploit its own chemical discoveries. Although the Government's Jurisdictional Statement emphasizes the issue of actual or theoretical control of General Motors by du Pont it is apparent on the face of the Government's arguments that the issue of control is not in itself the decisive question in the case.

In short, the issue has been and is—why has General Motors made certain purchases from du Pont, and why did it select du Pont as the manufacturer of certain chemical discoveries. It is the Government's contention that these decisions were coerced or controlled by du Pont or were the result of an unlawful understanding or agreement between the two companies. It follows that if in fact the decisions have been solely the result of the unhampered business judgment of General Motors on the one side and of du Pont's competence in the field of manufacturing on the other, the Government's cause of action fails. After considering all of the evidence, documentary and testimonial, the trial court concluded that the Government had failed to prove its contention and that the evidence sustained a finding that General Motors had at all times acted in the exercise of its own unfettered judgment (p. 219):

> "The essence of the conspiracy and restraint which the Government finally charged and sought to prove in this case is the alleged limitation upon General Motors' ability to deal as it pleased with competitors of du Pont and United States Rubber. In various ways and subject to various limitations, the Government has alleged that General Motors either itself agreed to such a limitation, or was forced to it by du Pont. But the evidence of record fails to support the Government's charges. In preceding portions of this opinion there has

been shown, by detailed analysis of the evidence, the extent to which General Motors enjoyed complete freedom of action with respect to specific products manufactured by du Pont and United States Rubber, and with respect to its discoveries and developments of new products. When read as a whole the record supports a finding, and the Court so finds, that there has not been, nor is there at present, a conspiracy to restrain or to monopolize trade and no limitation or restraint upon General Motors' freedom to deal freely and fully with competitors of du Pont and United States Rubber, no limitation or restraint upon the freedom of General Motors to deal with its chemical discoveries, no restraint or monopolization of the General Motors market, and no restraint or monopolization of the trade and commerce between du Pont and United States Rubber."

In reaching these ultimate conclusions the court reviewed the evidence on each product that had been or could have been purchased by General Motors from du Pont.

With respect to finishes, many of the court's extensive findings (pp. 115-134) dealt with "Duco", a pyroxylin lacquer invented and patented by du Pont (p. 132), which revolutionized the automobile industry's finishing practices. "Duco's" early testing and its early use by the automobile divisions of General Motors are dealt with, as well as the later adoption by several of the automobile divisions of competitive pyroxylin lacquers, when they became available. The court found (p. 133) that General Motors divisions have purchased finishes from whatever company best served their needs. For example, the opinion points out that while Chevrolet and Buick purchase from du Pont, Cadillac and Oldsmobile purchase their requirements from du Pont's competitors; Pontiac purchases from du Pont and Fisher Body purchases topcoats from a number of suppliers, including du Pont, but purchases undercoats principally from a du Pont competitor (p. 124).[3]

The opinion likewise deals at length with the extent to which some of the non-automotive divisions of General Motors, notably Frigidaire, have purchased other du Pont finish products, particularly "Dulux", a synthetic enamel developed by du Pont and widely used by many manufacturers on refrigerators and similar home equipment (pp. 125-126). The court analyzes the statistics on finish sales introduced by both the Government and the defendants, and after finding (p. 132) that a very substantial portion of the finish sales by du Pont to General Motors consisted of "Duco" and "Dulux", concludes (pp. 133-134):

> "* * * In view of all the evidence of record, the only reasonable conclusion is that du Pont has continued to sell Duco in substantial quantities to General Motors only because General Motors believes such purchases best fit its needs.
>
> "The evidence with respect to Dulux presents a similar picture. It is apparently an ideal

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[3] The Jurisdictional Statement erroneously cites two findings by the District Court relating to finishes as though they related to all du Pont products. The finding (p. 133) that du Pont has been "the most important single supplier of General Motors", which is cited without qualification by the Government (p. 15), was used by the District Court only in relation to finish suppliers. The finding (p. 130) that General Motors "has been du Pont's largest single customer", also cited by the Government without qualification (p. 15) was used by the District Court only in relation to customers of du Pont's Fabrics and Finishes Division, one of du Pont's ten operating divisions.

> refrigerator finish and is widely used by a number of major manufacturers other than General Motors. * * * There is no evidence that General Motors purchased from du Pont for any reason other than those that prompted its competitors to buy Dulux from du Pont—excellence of product, fair price and continuing quality of service."

General Motors' purchases of fabrics for the past four decades are dealt with in equal detail (pp. 134-145). The court made numerous findings as to the successes and failures of du Pont since 1917 in selling fabrics to the several divisions of General Motors, and concluded that General Motors divisions purchased from whom they wished. For example, the court found (pp. 138-139) that in recent years the Fisher Body Division of General Motors has purchased most of its top material for convertibles from a competitor of du Pont, that it has purchased its requirements of coated fabrics for interior trim from a number of suppliers, including du Pont, and that it has purchased only about 3 percent of its annual requirements of $1,000,000 worth of weather stripping cement from du Pont.[4] The court summed up its findings as to fabrics by stating (pp. 144-145):

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[4] The Jurisdictional Statement (p. 14) would leave the impression that General Motors has purchased 80 percent of its textile requirements from du Pont. In fact, the District Court made findings on the percentage of General Motors' fabric requirements supplied by du Pont in only two periods: it found that in 1930 du Pont supplied only some 31 percent (p. 138); and in 1946-1947, the two years immediately prior to the issuance of the complaint, between 40-50 percent (p. 144) of General Motors' fabric purchases. The wide variety of du Pont's successes and failures in selling its fabrics products to individual General Motors divisions over the years is detailed in the findings at pp. 134-140.

> "* * * The Court further finds that such purchases of fabrics as the General Motors divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment and are not the result of du Pont domination. Du Pont, the record shows, has maintained its position as the principal fabric supplier to General Motors through its early leadership in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery."

The findings with respect to antifreeze purchases from du Pont by General Motors relate principally to purchases of antifreeze for resale under a General Motors brand name. The court found (pp. 182-184) that General Motors initially sought to purchase its entire requirements of such antifreeze from a competitor of du Pont, and finally decided to purchase from du Pont only because the competitor refused to supply antifreeze to General Motors under a General Motors brand name, and because du Pont was the only other available supplier which could meet General Motors' demands as to price, quality and delivery. After further finding that General Motors had examined the supply situation each year, and that when competitive antifreeze became available in sufficient quantity all of the General Motors divisions except Oldsmobile ceased buying any antifreeze from du Pont, the court concluded (p. 184):

> "* * * The Court finds this proof convincing that General Motors was not limited by agreement or by du Pont domination in its purchases of antifreeze and bought from du Pont only because it believed that du Pont best served its needs."

The Jurisdictional Statement would suggest that commercial relationships between du Pont and General Motors were confined to these three products. In fact, the District Court made findings with respect to the numerous other products which General Motors used in substantial volume and which du Pont sought to sell to General Motors over the years, but as to which du Pont had been largely unsuccessful in its selling efforts. The District Court made careful and detailed findings with respect to General Motors purchases of electroplating chemicals (pp. 184-186), case hardening chemicals (pp. 186-190), rubber chemicals and synthetic rubber (pp. 190-192), automotive plastics (pp. 192-193), brake fluid (pp. 193-194), and safety glass (pp. 194-196). The court again concluded (p. 196):

> "All of the evidence bearing upon du Pont's efforts to sell these various miscellaneous products to General Motors supports a finding that the latter bought or refused to buy solely in accordance with the dictates of its own purchasing judgment. There is no evidence that General Motors was constrained to favor, or buy, a product solely because it was offered by du Pont. On the other hand, the record discloses numerous instances in which General Motors rejected du Pont's products in favor of those of one of its competitors. The variety of situations and circumstances in which such rejections occurred satisfies the Court that there was no limitation whatsoever upon General Motors' freedom to buy or to refuse to buy from du Pont as it pleased."

Finally, in the area of trade relations, the court examined at great length the charge that du Pont had obtained a preference in the development, production and sale of commercially valuable chemical products discovered by General Motors—tetraethyl lead (TEL), and "Freon" refrigerants. Neither branch of the argument, as the court points out, has any present significance. The TEL patents expired in 1947, anyone may enter the field, and du Pont is now in vigorous competition with the Ethyl Corporation (owned 50 percent each by General Motors and Standard Oil of New Jersey) in both the production and marketing of TEL (p. 169). As to "Freon", the Government has voluntarily waived any demand for relief (p. 177).

The Government's Jurisdictional Statement correctly points out (pp. 15-16) that: "The TEL story is long and complicated"; the summary of it in the opinion of the court covers 25 pages (pp. 145-170), and many trial days of testimony and voluminous documentary proof on TEL are contained in the record. The end product was a conclusion by the court (p. 169) that the evidence "fails to establish the Government's charges". The court found (p. 170):

> "* * * It [the evidence] will not support a finding that the discovery of TEL was surrendered to du Pont pursuant to any agreement that du Pont was to have exclusive rights to General Motors chemical discoveries. The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment. Kettering appears to have been largely responsible for this decision, and neither the alleged preexisting agreement nor du Pont's stockholdings in General Motors was the basis of the decision. It is clear that General Motors' lack of experience in chemical manufacture and du Pont's superior competence and wide experience were the reasons for the decision.
>
> "Similarly, du Pont retained its position as the manufacturer of TEL by reason of the continued high quality of its performance. The

> Court finds that General Motors and Ethyl Corporation were at all times free to turn elsewhere and were not coerced in any way to continue purchasing from du Pont."

The court also carefully reviewed the testimonial and documentary proof relating to "Freon", a refrigerant which was produced and sold by Kinetic Chemicals, Inc. (pp. 170-177), and the proof relating to a synthetic rubber research program carried on by General Motors until 1928 (pp. 177-181) and made the following finding with respect to these two situations (p. 181):

> "The evidence relating to the formation and operation of Kinetic Chemicals and to General Motors synthetic rubber research does not establish that General Motors had agreed to surrender or was bound to surrender to du Pont its chemical discoveries."

And, as to the synthetic rubber evidence, the court added (*ibid.*):

> " * * * The evidence bearing on the entire incident is inconsistent with either a basic agreement with respect to General Motors chemical research or with du Pont domination of that research."

Although the District Court concluded that the ownership by du Pont of General Motors stock had not restrained in any way General Motors' purchasing freedom, or affected its decision on how best to exploit its chemical discoveries, nonetheless, it also examined the evidence on the so-called control issue in minute detail. The opinion recites (pp. 9-16) the circumstances under which du Pont originally acquired its approximately 23 percent interest in the stock of General Motors in 1917-1918, and concludes (p. 14) that

> " * * * the acquisition was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business."

With specific reference to the alleged conspiracy now asserted to exist between du Pont and General Motors to restrain trade, the court also found (pp. 15-16):

> " * * * that du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests. Du Pont, the record shows, never intended to preclude General Motors from dealing with suppliers of its choice, never made any effort to so preclude General Motors, and did not limit General Motors' purchasing freedom."

The court then proceeded to examine the several other aspects of the relationships which existed between du Pont and General Motors from 1918 to the date of the trial, which were relied on by the Government then, as they are now, as proof that du Pont controlled the purchasing policies of General Motors. The opinion notes (pp. 17-19) that in 1920, as a result of a crisis in General Motors' affairs resulting from the financial collapse of its founder and first president, W. C. Durant, it became necessary for du Pont to take over Durant's obligations and much of his stock holdings in General Motors, and for P. S. du Pont, who had retired from the presidency of du Pont, to become General Motors president and Chief Executive Officer. When, three years later, a suitable candidate for president was found within General Motors' ranks in the person of Alfred P. Sloan, Jr., Pierre du Pont resigned in his favor. (pp. 22-23). The opinion also analyzes in considerable detail the number of du Pont nominees on the General Motors Board of Directors from 1918 on, finding that they never approached a majority of the Board (pp. 16, 23). The court found (p. 26) that "A majority of the directors have always been the nominees of management", selected without any consultation with du Pont nominees on the Board, and thereupon elected automatically. The opinion also reviews in detail the extent to which the du Pont nominees on the Board participated in the search begun by Sloan for a limited number of persons who might be elected to the Board as neither management nor du Pont nominees (pp. 24-25).

The organization and membership of the principal committees of the General Motors' Board of Directors is also carefully detailed in the opinion (pp. 26-34). The court found that originally, in accord with an understanding with Durant that du Pont assume primary responsibility for General Motors' financial affairs, the Finance Committee was composed almost entirely of du Pont nominees (p. 16), but that as competent people developed within the General Motors organization, the number of du Pont nominees on this committee declined. Du Pont nominees have not constituted a majority since 1924 and now are but three of a committee whose total membership in recent years has been nine or ten (pp. 29, 32). On the Executive Committee there was originally but one du Pont nominee (p. 16), and apart from the Durant crisis which compelled the du Pont nominees to assume temporary positions of executive responsibility for a few years in the early 1920's, du Pont nominees have never been active on the executive side or in operational affairs. No du Pont nominee, for example, has served on the Operations Policy Committee since its organization in 1946 (p. 32). The opinion also details the reorganization of the committee structure of the General Motors Board in 1937 and 1946, and the extent of the limited participation of the du Pont nominees in the reorganization plans and on the committees which succeeded the earlier Finance and Executive Committees (pp. 29-33).

On the basis of this detailed analysis and review the District Court concluded (p. 33):

> "The participation of the du Pont representatives in the selection of General Motors directors and in determining the organization of the board and the composition of its committees does not establish that du Pont has been the controlling force in the direction of General Motors affairs, or has been in a position to act as if it owned a majority of General Motors stock. The record shows consultation and conference, but not domination. Moreover, in all these matters Sloan has clearly been the leader and the dominating influence and has largely determined the results. * * * Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors."

And, with specific reference to the alleged conspiracy, the court added (p. 34):

> "* * * Accordingly, the Court finds, based on all the evidence, that du Pont's participation in the selection of General Motors directors and management does not establish that it controlled General Motors or that it sought through such participation to place people in General Motors who would further du Pont's interests as a supplier or as a chemical manufacturer."

The opinion likewise explores at length the matter of General Motors' supplemental compensation or bonus plans (pp. 34-40). After detailing the nature of the bonus plans, particularly the early Managers Securities Plan, and the extent to which du Pont nominees sponsored them and participated in their administration, the court concluded (p. 39):

> "The Court finds no evidence that any action taken by du Pont representatives with respect to the compensation of General Motors executives was intended to influence those executives to deal with du Pont or to refrain from dealing with du Pont competitors. Nor is there evidence of any instance in which a General Motors executive favored du Pont out of consideration for the latter's sale of stock to Managers Securities Company or out of deference to the position of du Pont representatives on the General Motors board."

The District Court likewise made findings on the extent and direction of the change in the relationship between du Pont and General Motors during the past quarter century. The opinion states (p. 40):

> "After the dramatic collapse of Durant and the ensuing financial crisis when du Pont representatives were thrust into positions of responsibility in General Motors, and after General Motors had been rescued from that crisis, du Pont's influence and position in General Motors declined radically. During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management headed by such a forceful and resolute character as Sloan and including such positive personalities as Kettering, the Fisher brothers, Knudsen, Pratt, Brown and Wilson.
>
> "More than a quarter of a century has passed since the twenties, and the strength and standing

of the management have continued to increase and improve. The du Pont representatives who had originally been interested in General Motors have died or retired. These developments are reflected in the contemporaneous documents, the changes in the membership of the board, and the various committees of the board, and in the testimony of Sloan and other witnesses.

"Irrespective of what its position may have been before and during the Durant crisis, since the 1920's du Pont has not had, and does not today have, practical or working control of General Motors. On the basis of all of the evidence the Court finds as a fact that du Pont did not and could not conduct itself, for the past 25 years, as though it were the owner of a majority of the General Motors stock."[5]

The District Court took account of the fact that du Pont's 23 percent of General Motors stock had on occasion constituted a majority of all the stock voted at stockholders' meetings. However, the court found reasonable and persuasive Sloan's testimony that the situation would have been radically different had there been a contest; and that in any contest it would be necessary to know what the issues were before one could estimate whether enough other stockholders would join with du Pont to permit its views to prevail. The court concluded (p. 42):

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[5] The court reached a similar conclusion (p. 65) on the Government's charge that the du Pont family controlled U. S. Rubber. On that charge, too, the opinion covers in detail (pp. 42-65) the circumstances of the purchases by members of the du Pont family in 1927 of approximately 18 percent of U. S. Rubber's voting stock, the relationship of the purchasers to their nominees on the U. S. Rubber Board of Directors and its Finance and Executive Committees, the relationship of the purchasers to the officers of U. S. Rubber, and to the U. S. Rubber supplemental compensation or bonus plan. In this instance, however, the Government has not appealed the court's finding that control of U. S. Rubber by the du Pont family did not exist.

> " * * * It is entirely conjectural whether or not du Pont by its stock ownership could control if there had been a contest."

Finally, the court not only found a lack of intent upon the part of du Pont to control General Motors and a lack of actual control, but also found specifically a lack of any control over the purchasing policies and practices of General Motors (p. 89):

> " * * * The evidence, both oral and documentary, does not establish, however, that there was any agreement between the two companies that required General Motors to buy all or any part of its requirements from du Pont. Nor does the evidence establish that du Pont dictated or controlled the purchasing policies and practices of General Motors or sought to dictate or control those policies and practices. In fact, the evidence shows that General Motors exercised complete freedom in determining where it would purchase its requirements of products of the kind that du Pont manufactured."

ARGUMENT

The Jurisdictional Statement asserts (p. 13) that the court "applied an erroneous standard in evaluating" the evidence on du Pont trade relations with General Motors.[6] Notwithstanding the manner in which the contention is phrased, this is not an argument raising a question of law, but an argument directed to the correctness of the findings of fact. The Government cannot point to any specific legal errors in the standard applied by the court in making its findings on trade relations, nor does it attempt to identify any alternative legal standards which the court should have applied. Instead, to support its position the Government shifts to another argument on the facts—that the court's findings on trade relations are vitiated because the court's findings on the question of the alleged control of General Motors by du Pont are "patently erroneous" (p. 18). Since the attack on the latter findings, like the attack on the findings on trade relations, rests on the ground that the court did not accept the Government's evaluation of the evidence, both arguments ultimately call for a reappraisal of the evidentiary support for the numerous findings of the District Court.

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[6] The references in the Jurisdictional Statement (pp. 13-15) to what are called "certain significant aspects" of the trade relations between du Pont and General Motors are not only inaccurate, but also illustrate the extent to which the position of the Government requires a virtual retrial of the case. That the reference

1. In fact, however, there is no issue of substance presented even by the contention which is basic to the

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cited for each of these "aspects" is the opinion of the District Court, itself serves to demonstrate that they were considered by that court in making its findings. We have already dealt with the errors or misleading inferences in two of the statements in footnotes 3 and 4, pages 5, 7, *supra*, and although we cannot undertake a complete review of the evidence supporting the court's finding on trade relations, it is appropriate to refer the Court to the detailed findings relating to the change in managers at three General Motors car divisions in 1921 (referred to in the Jurisdictional Statement at pp. 13-14) at Opinion p. 20; to the unsuccessful efforts of Lammot du Pont to sell Flint products to Fisher Body (referred to at p. 14n.), at Opinion, pp. 77-79 and 103-106; and to the "super-discount" plan (referred to at pp. 14-15) at Opinion pp. 106-115.

Government's entire argument—that the District Court's findings on the control issue were "patently erroneous" (p. 20). In support of that contention the Government asserts (p. 18) that the findings of the District Court on the control issue were reached only "by ignoring factors which the Court has deemed significant." Even the summary review of the elaborate findings made by the District Court which is set out in the Statement, *supra*, serves to demonstrate the inaccuracy of that assertion. The "historical ties and associations" between du Pont and General Motors, and what the Government calls the "strategic" stockholdings of du Pont, which the Government suggests were ignored (p. 18), were both dealt with at length in the findings of the District Court, and were given full consideration along with all other relevant evidence in the record (Op. pp. 9-34, 40-46).

Nor is the Government accurate in suggesting (p. 19) that the District Court "ignored" the evidence on the matter of supplemental compensation in General Motors. The court made elaborate findings on this matter (pp. 34-40). The Government urged in the court below, and now urges in this Court, that it was "inevitable" that the contact of du Pont nominees on the General Motors Board with the General Motors bonus plans had the effect of bribing hundreds of General Motors officials, and perverting the honest business judgment of its executives. The District Court, after hearing many witnesses, including many of the officials of General Motors alleged to have been affected, and after becoming thoroughly acquainted with the several phases of General Motors' bonus plans over the past 30 years, did not find that the alleged consequences were "inevitable" at all, and rejected the charges as wholly without substance.[7]

The Government's real complaint, in other words, is not that evidence which it tendered on the control issue was ignored, but that the District Court did not make the findings for which the Government contended. The Court is again asked to undertake a *de novo* review of the detailed findings of the District Court.

Nor is the Government more justified in the other branch of its criticism of the District Court's finding on control—that it relied on "factors which this Court has held are not determinative on that issue" (p. 18). The Jurisdictional Statement refers only to the finding by the District Court that du Pont had not conducted itself "as though it was the owner of a majority of the General Motors stock" (pp. 18-19).

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[7] The Jurisdictional Statement (p. 19) not only overstates the extent to which du Pont nominees on the General Motors Board of Directors were concerned with the matter of incentive compensation in General Motors but leaves the erroneous impression that the Managers Securities Plan, which du Pont nominees sponsored in 1923 in order to interest General Motors executives *in General Motors*, had continued to the date of the trial. In fact, that Plan terminated in 1929. Its successor plan, which was formulated and administered by General Motors' own executives, terminated in 1936. Since then incentive compensation at General Motors has been under the "regular" bonus plan administered by General Motors management; the recommendations of the management with respect to the amount of bonuses and the persons to whom they were paid were uniformly accepted by the Finance Committee and the Bonus and Salary Committee of the Board of Directors. See Opinion, pp. 34-40.

That such a finding is relevant can scarcely be denied.[8] The Government seeks to create the impression, however, that the court found that there could be no control in the absence of a 51 per cent stock ownership. This is exactly contrary to what the court did. The court did not consider the question of control in terms of majority control; it considered it in terms of "practical or working control." The court devoted 32 pages of the opinion (pp. 10-42) to a careful review of the history of every aspect of du Pont's stock interest and on the basis of that review found that du Pont does not have "practical or working control of General Motors" (p. 40).[9]

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[8] Its relevance is demonstrated by considering how extremely relevant the finding would have been had the Court reached the opposite conclusion—that du Pont *had* conducted itself as if it owned an absolute majority of General Motors stock.

[9] This Court has made it clear that "control" is a fact question, not a legal conclusion. In Rochester Telephone Corp. v. United States, 307 U. S. 125, the Court was called upon to review a finding of control made by the Federal Communications Commission. The Commission there, like the District Court here, had examined all "pertinent facts and aspects appearing in the record" and had concluded that "control" existed. This Court refused to reverse the Commission's finding, stating (307 U. S. at p. 145):

> "This is an issue of fact to be determined by the special circumstances of each case."

See also United States v. Marshall Transport Co., 322 U. S. 31, 38; National Labor Relations Board v. Hearst Publications, 322 U. S. 111, 130-131, in both of which the Court cited this principle of the Rochester case with approval.

The Government's reliance upon North American Co. v. Securities & Exchange Commission, 327 U. S. 686 (p. 18) is wide of the mark. In that case of the ten corporations alleged to be controlled, North American owned over 79 per cent of the voting stock in eight of them. The comments in the opinion which are

In sum, the District Court made careful findings on each aspect of the control issue which was tendered it by the Government's evidence or by the evidence offered by appellees (pp. 9-42). The Judge examined the amount and nature of du Pont's stockholdings (pp. 12, 18-19, 40-42); the extent and nature of the participation by du Pont nominees on the Board of General Motors (pp. 23-26), and on the major Board committees (pp. 26-39); the nature of the temporary participation by du Pont nominees in executive positions in the 1920's (pp. 19-23); the operation and effect of the bonus plans (pp. 34-40); the nature, importance, and independence of the management and the trends which were evident in the detailed history of the several decades which were explored before him (p. 40). True, the court did not find, on these matters, that the evidence supported the Government's charges, but it requires no more than a casual reading of the opinion to illustrate that the Government's criticism that the Court ignored relevant facts is without foundation.

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quoted in the Jurisdictional Statement (p. 18) were directed to a contention which has no relevance here—that North American did not control the companies notwithstanding its ownership of a majority of the voting stock, because there was no showing of direct intervention in the subsidiaries' affairs. As to the two companies in which the stock holding by North American was less than 50 per cent, the court points out (327 U. S. at 697, n. 5) that control had been found to exist after full hearings by the Commission, in proceedings which leave no doubt that the issue was regarded as one of fact, and in which all of the "special circumstances of each case" were fully canvassed. See Detroit Edison Co. v. Securities & Exchange Commission, 119 F. 2d 730 (6th Cir. 1941), certiorari denied, 314 U. S. 618; Pacific Gas & Electric Co. v. Securities & Exchange Commission, 127 F. 2d 378 (9th Cir., 1942), affirmed on rehearing by equally divided court, 139 F. 2d 298 (9th Cir. 1944), affirmed by equally divided court, 324 U. S. 826.

Moreover, and of major importance, the District Court tested the Government's charge of control in the very area in which it is urged that there had been a violation of the antitrust laws—in the commercial relationships between the two companies. The court made detailed findings on evidence which dealt with the sales or lack of sales of each du Pont product at each of the General Motors divisions which used such a product, during the entire period since 1918 (pp. 66-196). Contemporaneous documents and statistical summaries were introduced by both sides; witnesses recounted their successful and unsuccessful efforts to sell du Pont products to General Motors divisions; and witnesses for General Motors explained the purchasing policies of that Company.

All of this the Government would sweep aside with the assertion (p. 20) that "the court evaluated that evidence on the assumption that the two companies at all times dealt with each other at arm's-length". Quite the contrary is true. Indeed, whether the basis upon which the two companies had dealt with each other *was* "arm's-length" was precisely the issue to which the evidence was directed. On the basis of all that evidence, oral and documentary, the District Court made detailed findings which were, to be sure, against the Government's contention, but which certainly did not rest on any "assumption". The Government now seeks to avoid these many specific findings against its contentions on the ground that they were made without taking into account "subtle pressures and influence" (p. 21). This can mean only that the Government believes either that the District Judge wholly missed the point of the issue which was sharply drawn before him at the trial, or that this Court, upon a re-examination of the entire record, might reach a different conclusion. The opinion itself dispels the first belief; the obvious documentary and testimonial support for the findings makes the second belief irrelevant under Rule 52(a) of the Rules of Civil Procedure.

The patent weakness of an argument which would seek to have this Court retry complex issues of fact appears to have led the Government to suggest that control of General Motors is not a matter to be decided upon a complete review of all of the relevant evidence, but is an issue which can be determined by looking at only a few of the facts to the exclusion of most of the matters relating to control which were examined and weighed by the District Court. The Jurisdictional Statement refers (p. 17) to certain "admitted facts"—of which some are accurate, some are grossly overstated, and some are plainly wrong.[10]

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[10] Treating the "admissions" stated by the Government on page 17 in order: (1) The percentage share of General Motors stock held by du Pont and the general distribution of the remaining shares is not in dispute. (2) Du Pont's joint control, with Durant, of General Motors from 1918 to 1920 was found by the court (Opinion, p. 17), although qualified, perhaps, by the additional finding that du Pont's role in the "partnership" with Durant was financial, not operational. (3) The court did not find, nor did the defendants admit, that du Pont controlled General Motors from 1920 to 1923; the court's finding and defendants' position on the situation during that period are set out at Opinion, p. 22. (4) The situation since 1923 (when P. S. du Pont resigned as president of General Motors, and Sloan, a General Motors man, became head of General Motors) with respect to the "important posts in the General Motors organization" held by "du Pont officials or persons clearly affiliated with it" and the "frequent and intimate consultation and correspondence between the two companies" is a completely distorted view of the full findings in this respect contained in the Opinion at pp. 22-34. (5) The awards under the

It then appears to assert that these so-called "admitted facts" establish that du Pont has stripped General Motors of its freedom to deal with du Pont's competitors (pp. 17-18).

This contention presents no substantial question for this Court. It is destroyed, first, by the fact that the so-called "admitted facts" are not admitted at all in many respects, and are more accurately little more than Government contentions which were qualified or rejected by the District Court. And second, there is no support whatever in any decision of the Court for the contention that that "control" is an issue to be decided by a process of choosing certain facts, and excluding others which are equally relevant. The "special circumstances of each case" upon which the decision on control must rest (*Rochester Telephone Corp.* v. *United States,* 307 U.S. 125, 145), certainly means *all* of the circumstances, not merely a part of them.

2. Moreover, although the Jurisdictional Statement emphasizes the "control" issue, the attempt by the Government to create a substantial question on this issue suffers from a fatal defect of omission. It proceeds on the assumption that the Government will

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"stock purchase bonus plan"—apparently the Managers Securities Plan—were not made by a "committee on which du Pont had substantial, and sometimes majority" representation. The awards under the Managers Securities Plan were made by Sloan, Chief Executive Officer of General Motors, and approved without change by a committee consisting of two General Motors executives and one du Pont nominee, P. S. du Pont (Opinion, pp. 36-37). This plan terminated in 1929 (id., p. 38), was succeeded by a further stock purchase plan (Management Corporation) sponsored and administered by General Motors management, and since 1938 there have been no stock purchase bonus plans whatever (id. pp. 38-39). See footnote 9, p. 24, *supra.*

prevail if its contentions on that issue are upheld. In fact, du Pont's relationship to General Motors, no matter how characterized, is significant in this appeal only if it imposed a restriction on the freedom of General Motors to purchase where it desired, and to deal as it wished with its own chemical discoveries. The antitrust laws do not make it unlawful for one corporation to acquire control of another; such acts are significant under the statute only if a relationship is shown between the acquisition of control and a restraint or monopoly of the kind prohibited.

This Court so held in *United States* v. *Yellow Cab Co.*, 338 U. S. 338. There a manufacturer of taxicabs owned a majority of the stock of companies that operated cabs, and indisputably had "control." Over a period of years the manufacturing company sold the operating companies the major portion of the cabs they required in their business. The trial court held that there was no violation of the Sherman Act because the evidence did not show either that the stock relationships were part of a design to compel the purchase of cabs by the operating companies or that the purchases of cabs were made under compulsion, but rather showed that both the stock relationships and purchases rested on normal business reasons. *United States* v. *Yellow Cab Co.*, 80 F. Supp. 936 (N.D. Ill. 1948). This Court affirmed, recognizing that the basic issue was one of fact and that the Government raised no question of law that had an existence independent of it. (338 U. S. 338).[11]

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[11] Two Justices dissented in the *Yellow Cab* case on the ground that the District Court had failed to "make specific findings as to whether the freedom of the taxicab companies to buy taxicabs from other manufacturers had been hobbled by the defendants' business arrangements, regardless of compulsion or intent to de-

The effect of du Pont's position on General Motors' commercial relationships—which is the ultimate issue—is a fact to be determined from all of the relevant evidence. The decisive character of that determination cannot be avoided by arguments that the trial court erred when it found that du Pont did not have "practical or working control" of General Motors. (p. 40). No matter how the issue of control is decided it does not dispose of the decisive issue which is how did General Motors' personnel react to du Pont's ownership of General Motors' stock and du Pont's participation on General Motors' Board and Committees.

The District Court did determine General Motors' reaction to du Pont's position, and in numerous different findings specifically found that General Motors was not at all influenced in its purchasing practices or in the exploitation of its chemical discoveries by its relationship to du Pont.[12] That the court had the relationship before it and closely considered it—and did not assume arm's-length dealing in evaluating the trade relations evidence, as the Government now asserts (p. 20)—is evident throughout the court's findings of fact. This was the issue which it recognized in connection with General Motors' supplemental compensation plans, in which it made the specific findings already quoted at p. 15, *supra,* and which it recognized in connection with General Motors' purchase of fab-

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stroy competition." In the instant case those specific findings are present; the District Court made findings that General Motors had complete freedom to purchase from anyone it wished, and to exploit its chemical discoveries as it saw fit. *E.g.*, Op., pp. 39, 170, 219.

[12] *E.g.*, Op. pp. 33, 39, 40, 89, 102, 115, 132, 134, 144, 170, 184, 196.

ries and its decision to employ du Pont to produce TEL, on which it made the specific findings quoted at pages 7 and 10, *supra*. Many more could be referred to; it will suffice to note here, by way of further examples, that in a finding directed to the Government's charge that du Pont used its position in General Motors to obtain business from Fisher Body, the opinion discussed the testimony of Lawrence Fisher, a Government witness, and found (p. 115):

> "* * * It is highly unlikely, if not impossible, that Fisher Body's purchasing practices could have been influenced by an agreement with du Pont or by the latter's position in General Motors without his knowledge. His forthright testimony and general demeanor on both direct and cross-examination are most convincing that Fisher Body was neither party to an agreement with du Pont nor the victim of du Pont domination."

And in a finding directed to General Motors' adoption of "Duco," the court found (pp. 132-133) that:

> "* * * Sloan recognized its potentialities in advance of some of his associates and urged the adoption of Duco. Such action on his part does not evidence a trade agreement with du Pont or response to alleged du Pont control. It is rather an instance of his foresight and leadership, not unlike a number of other incidents that contributed to his success as the Chief Executive Officer of General Motors."

These and the many other similar findings depend upon a mass of evidence. Much of that evidence is to be found in documents which, as the opinion shows, the trial court carefully weighed and considered, but much of the evidence is also to be found in the testimony of witnesses whose bearing and demeanor on the stand and whose credibility the trial court was able to appraise at first hand. It is this evidence, in its entirety, which must be reviewed and appraised if the Government is to be given the trial *de novo* which, in effect, it now seeks in this Court. The scope and burden of that review and reappraisal cannot be avoided or mitigated by arguments that seek to create the impression that the only question in the case is whether du Pont "controlled" General Motors.

3. The Government's contention (pp. 22-23) that the District Court was in error in finding no violation of Section 7 of the Clayton Act likewise presents no substantial question for this Court.[13]

The Government urges no issue of law as to Section 7 but simply disagrees with the court's finding that there is no probability of restraint. The court weighed the Government's argument with the advantage, which must be rare in cases in which acquisitions of stock are challenged, of three decades of history to illuminate the question of the "probability" of a resultant restraint. It found that no restraint had occurred. The District Court stated (p. 220):

> "* * * The acquisition challenged by the Government—du Pont's investment in General Motors—took place over thirty years ago. In those many intervening years the record discloses that no restraint of trade has resulted. Accordingly, the Court is of the opinion that there is not, nor has there been, any basis for a finding that there is or has been any reasonable probability of such a restraint within the meaning of the Clayton Act."

---

[13] The Government's contention relates to the provisions of Section 7 as they existed prior to the amendment made in 1950. By its terms that amendment was prospective only in its operation.

There can be no substantial doubt as to the correctness of the court's decision of this question of fact. The arguments to the contrary in the Jurisdictional Statement add nothing to the contentions made by the Government under the Sherman Act, but in fact embody the same errors which have already been discussed above.

4. The Government's final basis for review—the size of appellees—misconceives, we believe, the standards applicable in motions to affirm in this Court. The Court sits to resolve questions of law, not questions "of key importance in the industrial world." (Jur. Statement, p. 23). If the legal issues are insubstantial, as we believe they are here, no purpose is served by full briefs and argument, no matter who may be the parties to the appeal. When there has been a violation of the Sherman or Clayton Acts, it should be enjoined no matter what the size or dollar volume of sales of the companies who are guilty. When there has been no violation, as the District Court has found to be the case here, the size or dollar volume of sales of those found to be innocent must equally be irrelevant. Neither on certiorari nor on appeal does this Court exercise its review powers on cases simply because they involve large, rather than small, corporations.

* * * * * *

In summary, this Court is dealing here with a case in which, after a long and careful trial, the District Court found the Government's charges not proved. The comment of this Court in *United States* v. *Yellow Cab Co.,* 338 U.S. 338, can equally well be applied here (pp. 340-341):

> "* * * The judgment below is supported by an opinion, prepared with obvious care, which ana-

> lyzes the evidence and shows the reasons for the findings. To us it appears to represent the considered judgment of an able trial judge, after patient hearing, that the Government's evidence fell short of its allegations—a not uncommon form of litigation casualty, from which the Government is no more immune than others."

Cf. *United States* v. *Oregon Medical Society,* 343 U. S. 326, 332; *United Shoe Machinery Corp.* v. *United States,* 347 U. S. 521.

The issues in the present case, and particularly those on which the Government charges that the District Court erred in its findings of fact, are of a character which gives particular force to the findings of the District Court. The Court is being asked to do exactly what it refused to do in the *Yellow Cab* case (338 U.S. at p. 340)—"to reweigh the evidence and review findings that are almost entirely concerned with imponderables, such as the intent of the parties to certain * * * business transactions." Why did General Motors decide sometimes to buy from du Pont and sometimes not? With what attitude did du Pont nominees serve on the General Motors Board and Board committees? Why did the du Pont nominees sponsor, in 1923, a stock purchase plan for General Motors executives? On all these issues, and many similar ones, the District Court had before it not only documents, but witnesses from both General Motors and du Pont who had been personal participants in the events in question. As this Court said in the *Yellow Cab* case (*id.* at p. 341):

> "Findings as to the design, motive and intent with which men act depend peculiarly upon the credit given to witnesses by those who see and hear them."

See also *United States* v. *Oregon Medical Society*, 343 U. S. 326, 332, 339. Yet it is findings on matters such as these which the Government now seeks to challenge.

We believe that the judgment of the District Court should be affirmed.

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In the

Supreme Court of the United States

October Term, 1956

UNITED STATES OF AMERICA, *Appellant,*

v.

E. I. du PONT de NEMOURS & COMPANY, et al.

On Appeal from the United States District Court
for the Northern District of Illinois

BRIEF FOR APPELLEES CHRISTIANA SECURITIES COMPANY AND DELAWARE REALTY AND INVESTMENT COMPANY

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October 13, 1956.

IN THE

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, *Appellant*,
v.
E. I. DU PONT DE NEMOURS & COMPANY, *et al.*

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS

BRIEF FOR APPELLEES CHRISTIANA SECURITIES COMPANY AND DELAWARE REALTY AND INVESTMENT COMPANY

OPINION BELOW

The opinion of the United States District Court for the Northern District of Illinois, Eastern Division, dismissing the complaint (R. 289-466), is reported at 126 F. Supp. 235.

JURISDICTION

This action was brought under Section 4 of the Act of July 2, 1890 (26 Stat. 209), as amended (15 U. S. C. § 4), and Section 15 of the Act of October 15, 1914 (38 Stat. 736), as amended (15 U. S. C. § 25). The judgment of the District Court (R. 466-467) was entered on December 9, 1954, and notice of appeal was filed on February 4, 1955 (R. 467-474). Probable jurisdiction was noted on October 10, 1955 (R. 474). Jurisdiction of this Court to review the judgment below on direct appeal is invoked under Section 2 of the Act of February 11, 1903 (32 Stat. 823), as amended by Section 17 of the Act of June 25, 1948 (15 U. S. C. § 29).

STATUTES INVOLVED

The pertinent provisions of Sections 1 and 2 of the Sherman Act (Act of July 2, 1890, 26 Stat. 209, 15 U. S. C. §§ 1, 2) are as follows:

> "Sec. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, * * *.
>
> "Sec. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, * * *."

Section 7 of the Clayton Act as it read at the date of the filing of the complaint (Act of October 15, 1914, 38 Stat. 731, 15 U. S. C. [1946 ed.] § 18), is involved in the case as to the other parties but not as to these appellees.

QUESTIONS PRESENTED

The District Court after a full trial dismissed the amended complaint against appellees Christiana Securities

Company (Christiana) and Delaware Realty and Investment Company (Delaware), finding a failure of proof of the Government's charge that they had been parties to an unlawful combination and conspiracy to restrain and monopolize trade and commerce.

The Government has not here challenged these adverse findings. It nevertheless presented the question to this Court whether, notwithstanding the findings, in the event of a reversal as to appellees E. I. du Pont de Nemours & Company (du Pont) and General Motors Corporation (General Motors) the Court should also reverse as to Christiana and Delaware to subject them to the decree of the District Court. The Government has abandoned this question in its brief, so that no question remains for decision as to Christiana and Delaware.

STATEMENT

The Government is here appealing from a portion of the judgment of the District Court which dismissed a complaint, filed under Section 4 of the Sherman Act and Section 15 of the Clayton Act, against these appellees and a great many other defendants.

The amended complaint in its final form charged appellees Christiana and Delaware with participation in a conspiracy to restrain and monopolize trade and commerce in violation of Sections 1 and 2 of the Sherman Act. It alleged that the conspiracy consisted of an agreement among Christiana and Delaware, which hold stock in du Pont, and three individual defendants (Pierre, Irenee and Lammot du Pont) to acquire and perpetuate control of du Pont, and through it of General Motors and United States Rubber Company, and to utilize such control to make du Pont, General Motors and U. S. Rubber protected markets for each other and otherwise to restrain and monopolize trade and commerce. (R. 219-225)

These charges were fully tried before the District Court. Numerous witnesses appeared and a large number of exhibits were introduced with respect to the phases of the case relating to Christiana and Delaware. The issues involved were thoroughly briefed, proposed findings of fact were submitted by all parties and extensive oral arguments were presented. The culmination was a lengthy and detailed opinion by the trial court, a year in preparation, in which the court found that there had been a complete failure of proof with respect to the Government's charges. With respect to the charges against Christiana and Delaware, the court stated (R. 297, 464):

> "The Government has failed to prove that the stock held by the defendant individuals and members of the du Pont family in Christiana and Delaware was for the purpose of perpetuating control over the du Pont Company, and has failed to prove that there was any agreement, understanding, or conspiracy that they would continue to hold such stock, keep it within their families or dispose of or vote the Delaware stock for the purpose of utilizing du Pont to create protected markets for du Pont, or to otherwise restrain or monopolize trade. The Government has further failed to prove that either Christiana or Delaware, or both, were formed, and their stock held, for the purpose of creating protected markets for du Pont and to otherwise restrain or monopolize trade.
>
> * * * *
>
> The Court finds that none of the actions taken in concert had as their objective, or necessary consequence, the imposition of any limitation upon the free flow of trade and commerce. A number of such actions, such as the formation of Christiana in 1915 and Delaware in 1924, were undertaken for purely personal reasons of the participants, largely financial and unrelated to restraint of trade and commerce or the monopolization thereof. * * *"

Following the filing of the trial court's opinion, judgment was entered dismissing the complaint against all defendants (R. 466-467).

In its notice of appeal and jurisdictional statement the Government did not challenge the findings as to Christiana and Delaware. It did, however, make them parties to the appeal, for the purpose of presenting to the Court the following question, which was designated question 5 of the questions presented by the Government (R. 470; jurisdictional statement, pp. 5-6):

> "Whether the United States is entitled to relief which, in addition to appropriate injunctive provisions, would require du Pont to divest itself of its General Motors stock, and would require Christiana Securities Company and Delaware Realty & Investment Corporation (if du Pont should be permitted to divest through a distribution of General Motors stock to du Pont stockholders) to dispose of all General Motors stock received as a result of such distribution."

The Government's brief now eliminates this question from the questions presented to the Court. With respect to the relationship of Christiana and Delaware to problems of relief, the Government's brief contains only a footnote (p. 149, n. 51), which does not raise the question of the propriety of subjecting these appellees to a decree, but merely states that in view of their large holdings of du Pont stock adequate relief would require more than a distribution of du Pont's holdings of General Motors stock to du Pont stockholders.

ARGUMENT

I.

The Appeal Should Be Dismissed As to Christiana and Delaware Because the Government Has Abandoned the Only Question Presented to the Court Which Involved These Appellees.

The sole question relating in any way to the appellees Christiana and Delaware which was presented by the Government in its notice of appeal and jurisdictional statement (Question 5) has now been abandoned. It is deliberately omitted from the statement of questions presented in the Government's brief (p. 2) and is in no way adverted to except in a concluding footnote which is consistent with the complete elimination of the question (p. 149, n. 51). This appeal should therefore be dismissed as to appellees Christiana and Delaware.

Neither in its jurisdictional statement nor in its brief has the Government challenged the adverse findings of the District Court with respect to the charges of violation of law by Christiana and Delaware, upon which the dismissal of the complaint as to them was based. Christiana and Delaware were made parties to this appeal to tender a single question to this Court, namely, whether upon a reversal they should be required to divest themselves of General Motors stock in the event the District Court should permit du Pont to divest through a distribution of General Motors stock to du Pont stockholders.[9] This question now having been eliminated from the Government's brief, there is no issue left in this appeal relating to Christiana and Delaware.

II.

Even if the Question Relating to Christiana and Delaware Had Been Pressed, a Dismissal of the Appeal as to Them Would Have Been Required.

The question relating to Christiana and Delaware initially presented by the Government posed the issue whether parties who have been found innocent of the charges made against them may nonetheless be subjected to an adverse decree, even though the appellant has not challenged the finding of innocence. Merely to state the issue is to provide the answer, which is undoubtedly the reason why the Government has abandoned the question.

The District Court, after an extensive inquiry into the history, operations and relationships of Christiana and Delaware, made specific findings that they were not parties to any violation of law (R. 293-297, 464) and entered a judgment dismissing the complaint (R. 466-467). In taking this appeal against these defendants the Government in no way challenged the adequacy of the evidence to support these findings nor their sufficiency to justify the dismissal of the complaint. Nonetheless, the Government asked a reversal of the judgment as to Christiana and Delaware. While the Government did not articulate the basis for this request, it was necessarily the Government's position that an appellate court may reverse a judgment entered in favor of parties who have been found innocent, in order to keep the parties in the case and amenable to relief, notwithstanding the complete failure of the appellant to challenge the finding of innocence. Nowhere in the Government's brief is there the slightest suggestion of justification for such a procedure, and we submit that there can be none.

Thus, even if the Government had pressed the question initially presented in its jurisdictional statement as "Question 5," Christiana and Delaware would clearly have been entitled to be dismissed from this appeal.

CONCLUSION

For the foregoing reasons, this appeal should be dismissed as to Christiana and Delaware.

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No. 3

IN THE

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October Term, 1956

UNITED STATES OF AMERICA, *Appellant,*

vs.

E. I. DU PONT DE NEMOURS & COMPANY, *et al.*

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

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IN THE

SUPREME COURT OF THE UNITED STATES

October Term, 1956

No. 3

UNITED STATES OF AMERICA, *Appellant,*

vs.

E. I. DU PONT DE NEMOURS & COMPANY, *et al.*

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS

BRIEF FOR APPELLEE GENERAL MOTORS CORPORATION

OPINION BELOW.

The opinion of the District Court dismissing the complaint (R. 291-466) is reported at 126 F. Supp. 235.

JURISDICTION.

This action was brought under Section 4 of the Act of July 2, 1890 (26 Stat. 209), as amended (15 U.S.C. § 4), and Section 15 of the Act of October 15, 1914 (38 Stat. 730), as amended (15 U.S.C. § 25). The judgment of the District Court (R. 466-7) was entered on December 9, 1954, and notice of appeal was filed on February 4, 1955 (R. 467). Probable jurisdiction was noted October 10, 1955 (R. 474).

Jurisdiction of this Court to review the judgment below on direct appeal is invoked under Section 2 of the Act of February 11, 1903 (32 Stat. 823), as amended (15 U.S.C. § 29).

STATUTES INVOLVED.

The statutes involved are Sections 1 and 2 of the Sherman Act (26 Stat. 209, 15 U.S.C. §§ 1 and 2), and Section 7 of the Clayton Act prior to the 1950 amendment (38 Stat. 730, 15 U.S.C. § 18). The statutory provisions are quoted at pages 2 and 3 of the Government's brief.

QUESTIONS PRESENTED AND PRELIMINARY ANALYSIS.

In 1949 the Government filed its complaint charging that the appellees du Pont and General Motors (and numerous other defendants who were dismissed thereafter, or as to whom the Government has not appealed) had combined and conspired to restrain and monopolize a substantial part of interstate commerce by means of a continuing agreement and concert of action whereby, in the portion of the case presented on this appeal, General Motors is required to purchase from du Pont its supplies of the products which the latter company manufactures.[1] The Government also charged that du Pont's acquisition of General Motors stock in 1917 violated Section 7 of the Clayton Act.

The case was tried in 1953, the trial lasting six months. The trial court, after hearing a great many witnesses, including the principal actors, and examining the exhibits, found in a detailed and carefully reasoned analysis (R. 291-

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[1] The Government also alleged, and in the court below contended, that there was an agreement that General Motors would stay out of the field of manufacturing chemical products and turn over to du Pont its chemical discoveries (R. 219-222, 255). The Government does not seem to be pressing this point here, though it relies on the same evidence in support of its claims that du Pont was favored in the purchase of General Motors supplies.

466) that *as a matter of fact* the Government had not proved any portion of its claim that du Pont had interfered with General Motors' purchasing or manufacturing policies, by coercion, agreement, control or otherwise. The court found that "the evidence of record fails to support the Government's charges" (R. 465); and specifically that (a) du Pont did not control General Motors (R. 323); (b) that there has been "no limitation or restraint upon General Motors' freedom to deal freely and fully with competitors of du Pont" or upon its "freedom to deal with its chemical discoveries" (R. 465); and (*c*) that after 30 years in which no such restraint had resulted, there was no "basis for a finding that there is or has been any reasonable probability of such restraint within the meaning of the Clayton Act" (R. 466).

(1) The fundamental question presented in our view is whether the trial court's findings are clearly erroneous. We shall show that there was ample support for the findings (a) that du Pont did not receive preferential treatment in trading with General Motors (Point II, *infra*, p. 174), and (b) that du Pont did not control General Motors (Point III, *infra*, p. 195). The Government seeks to present as the principal question whether du Pont "controls" General Motors. But this raises only a subsidiary evidentiary issue, for whether du Pont controls the operations of General Motors has relevance only it if proves restraint or monopoly, or a reasonable probability thereof, in the field of trade. If there was and is no restraint of trade or monopolization, as the trial court found, control in itself would not be illegal.

(2) The second question, whether Section 7 of the Clayton Act has been violated, is also factual. In view of the findings that over a period of 35 years no restraint of competition has resulted from du Pont's ownership of General Motors stock, this turns upon whether *both* at the

time of the original acquisition of the stock and at the time of trial 35 years later there was a reasonable probability that the stock acquisition would result in restraint of trade or monopoly. The precise question is whether the findings that there was no such reasonable probability in either of those periods are both clearly erroneous.

An additional question which the trial court did not reach is:

(3) Whether, in view of the fact that sales to General Motors and to the automobile industry constituted only a very small portion of the market for the products du Pont sells to General Motors, the Government proved that the alleged restraint pertained to a sufficiently substantial portion of a market to injure competition in a manner forbidden by the antitrust laws. See Point V, *infra,* p. 223.

STATEMENT.

The above preliminary analysis will assist in understanding the following statement of the facts. This Statement will point out the significance of these facts and discuss the evidence relied upon by the Government. Although this enlarges the Statement and is partly argumentative it avoids, to a considerable extent, the need for restating details of fact in the argument, and thereby serves to prevent an already long brief from becoming longer.

A. Volume of commerce involved, relation to the market.

Before turning to the issues directly, we would like to put them in perspective. Du Pont and General Motors are among the largest of our industrial corporations, and the charge of collusion, control and conspiracy doubtless gives the impression that this case is concerned with a restraint or monopoly of trade of tremendous magnitude involving large portions of substantial markets. But the figures as to the total sales of these companies—$783,000,000 for du Pont and $3,815,000,000 for General Motors in 1947, and more in subsequent years (R. 347; DPX 442, R. 2684, 6433),[2] do not reflect the volume of commerce involved in this case.

There is, of course, no claim that du Pont and General Motors are directly competitive. One company produces chemicals and chemical products, the other automobiles, appliances and machinery. The commerce allegedly involved primarily concerns the products du Pont makes which General Motors uses. Among these, of which there are a great number, the Government concentrates on industrial finishes or paint, which means principally Duco lacquer for automobiles and Dulux synthetic enamel for refrigerators and appliances, and on certain fabrics used in automobile bodies. In 1948 General Motors purchased from du Pont approximately $20,000,000 of finishes (R. 393; DPX 445, R. 2688, 6436), and $3,700,000 of fabrics. (R. 402-3; DPX 445, R. 2688, 6436).[3] The total of du Pont's sales to General Motors, which includes many smaller items, was about $30,000,000 in 1948 (DPX 445, R. 2688, 6436). Although this, of course, is a large amount, it constituted only 3% of du Pont's total sales (*ibid.*), and obviously a much smaller percentage of General Motors' total purchases.

We do not suggest that these amounts are insubstantial. But in a case which turns largely on the intention with which the officials of the companies acted, the small proportion of each company's business involved is pertinent in determining the existence of an intent to restrain trade or monopolize. It also points up the fact that the total size of the corporations is irrelevant to the restraints alleged in this case.

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[2] Where record references are separated by a semi-colon, the references before the semi-colon to pages between R. 291 and 466 are to the findings and opinion of the court below. The record references which follow the exhibit numbers are first to the page where the exhibit was offered and then to the page where the pertinent part of the exhibit appears in the record. The exhibits begin at Volume V, R. 3027. Government exhibits are referred to as GX, du Pont exhibits as DPX, and General Motors exhibits as GMX.

[3] This is the last year for which the record contains full statistics.

The significance antitrust-wise of the quantities of these products sold by du Pont to General Motors also depends upon the size of the markets of which they form a part. The market for industrial finishes such as Duco, or fabrics such as artificial leather, or celluloid is not limited to sales to the General Motors Corporation nor even to the automobile industry. Purchases by General Motors comprise only a small percentage of the total market. This was true both in 1917, at the time the du Pont Company first invested in General Motors, when the alleged violation of the Clayton Act occurred, and in the period preceding the trial.

1. **The market in 1917.** In 1917 "General Motors was a small item in the motor business" (R. 931); Ford sold about one-half of the cars and General Motors 10.83%. (Federal Trade Commission, *Report on Motor Vehicle Industry*, 1939, p. 27.)[4] The same kinds of finishes were used on automobiles as on other products, such as carriages and pianos (R. 1286, 1586; DPX 87, R. 788, 5831-32). The quantity of finishes used on automobiles was only a small portion of the total produced by a great many paint and varnish manufacturers.[5] The imitation leather (du Pont's Fabrikoid) used on automobiles, principally for side curtains and tops at that time, also was used on such products

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[4] A witness estimated that General Motors' share was one-sixth (R. 931-32). The Federal Trade Commission report shows General Motors' percentage as 18.75% in 1919, 11.79% in 1921 and 18.71% in 1923.

[5] There were over 800 paint and varnish manufacturers in the United States; in 1919 total sales were $382,000,000, of which $71,000,000 was for varnishes, lacquers and japans, the kinds of finishes then used on automobiles. United States Department of Commerce, Bureau of the Census, Census of Manufacturers 1925, pp. 806, 809. GX 111 (R. 477, 3144) gives the number of establishments in 1914 as 855. In 1917 when the Flint Varnish and Color Works (acquired by du Pont in 1918) was "furnishing all the material for all the different constituent companies of the General Motors except the Cadillac, and for all the different plants of the Chevrolet" (GX 277, R. 499, 3699), its sales to General Motors and Chevrolet totaled $905,305.

as luggage and case coverings, furniture, railroad upholstery, footwear, book binding, table cloths (R. 2184, 2065-71; DPX 319, R. 2286, 6264; DPX 245, R. 2191, 6153). In 1917 70% of du Pont's sales were outside the automotive industry (R. 2184), and du Pont was selling to a great many automobile companies besides General Motors (R. 397; 2073-84). Celluloid (du Pont's Pyralin) was used not only for automobile side curtain windows but for ornaments, combs, buttons, cutlery, toys, etc. (GX 108, p. 4, R. 3104; DPX 72, p. 5, R. 764, 5732). In 1917 2.1% of du Pont's Pyralin was sold to the two largest divisions of General Motors, Buick and Chevrolet.[6] Obviously, the share of the *total* market for these products provided by the General Motors Corporation in 1917 and the years immediately following was a great deal less than General Motors' small proportion of the automobile market. There is no evidence of the total quantity of sales to General Motors of these products in that period or of the proportion of the market which sales to General Motors comprised.

The market at the time of trial. In 1947, when General Motors produced 38% of the passenger cars (R. 346), neither General Motors itself nor the automobile manufacturing industry constituted the entire market for the kinds of finishes and fabrics used in motor cars and appliances.[7] From the beginning it was recognized that Duco could be used "in many other industries besides the motor car industry, and our sales are rapidly increasing in some of these other lines" (GX 406, R. 527, 3977).[8] Duco and subsequently Dulux were used on refrigerators and other appliances. In 1947, when du Pont sales of finishes to General Motors totalled about $19,000,000 (R. 393; DPX 445, R. 2688, 6436), the total market for paints and finishes was $1,248,000,000, of which $552,000,000 was for varnishes, lacquers, enamels, japans, thinners and dopes, the kinds of finishes sold primarily to industrial users, which includes the automobile industry.[9] This means that du Pont's total sales to General Motors constituted 3.5% of all sales of finishes to industrial users.

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[6] $153,878 out of $7,485,442 total sales (DPX 421, R. 2695, 6389). In 1924, when du Pont's total sales were about one-fourth of the industry (GX 1245, R. 656, 5198), the percentage sold to Buick and Chevrolet was 2.8% (GX 1245, p. 7, R. 656, 5204).

[7] Celluloid was no longer a substantial item.

[8] See also R. 2029; GX 379, R. 522, 3920; DPX 558, R. 2997, 6476 (1926 du Pont sales: General Motors 19%, other motor manufacturers 33%, others 48%); GX 492, R. 541, 4146 (1927 du Pont sales: General Motors 33%, other motor manufacturers 23%, others 44%).

Similarly, a great number of products are made from the same fabrics as are used by the automobile industry (R. 2065-71; DPX 228, R. 2065, 6130).[10] The over-all competitive position of du Pont's Fabrics Division was about 10% in 1946, 1947 and 1948 (GX 1383-1384, R. 2826, 5416, 5418), of which 20% was to the automobile industry, and four-fifths of that to General Motors (R. 402-3; R. 2070).[11] This means that du Pont sales to the automobile industry and to General Motors comprised approximately 2% and 1.6% of the total market.[12]

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[9] United States Department of Commerce, Bureau of the Census, Census of Manufacturers 1947, Vol. 2, pp. 414-15. There were 1,291 establishments manufacturing these products (*ibid.*). Du Pont's total sales were 8.1% of the paint and varnish industry (DPX 444, R. 2684, 6434).

[10] *E.g.*, belts, book bindings, brief cases, card table covers, case coverings, footwear materials, furniture upholstery, hassocks, luggage coverings, novelties, school books, slippers, sporting goods, table mats and pads, baby carriage upholstery and tops, bicycle saddles, loose-leaf book binders.

[11] Du Pont's percentage of the automobile market in 1948 was 21% (GX 1384, R. 2826, 5418) and in 1950 16.8%, and there were many large competitors (DPX 563, R. 2998, 6483).

[12] If the Fabrics Division had 10% of the over-all market, the 20% of its sales to the automobile industry would constitute 2% of the total market. General Motors' 80% of du Pont sales to the automobile industry would then equal 1.6% of the total market.

B. The Relationship between du Pont and General Motors Generally—The Matter of Control.

1. *The Relevance of Control.*

The Government rests its case primarily on the contention that it has proved that du Pont gained and retains practical and working control of General Motors. The trial court found to the contrary (R. 316, 321-3), and the record shows that this finding was correct. Before analyzing the facts on this aspect of the case, and at the risk of anticipating the legal argument to a slight extent, we think it important to put this question also in perspective.

Even complete control by one corporation of another does not violate the antitrust laws, particularly when they are not in competition. Vertical integration is not illegal *per se.* If 100% control is not illegal *per se,* 23% stock ownership is not. The antitrust laws are concerned with trade. "Control" of one corporation by another becomes material only if it results in an unreasonable restraint of trade or monopolization. It follows that the Government must prove not control in general, or *in vacuo,* but a control over aspects of the business relating to trade, which produces the restraints proscribed by the statutes. If there has been no restraint of trade or monopolization, control in itself does not prove illegality.

In subsequent portions of this Statement (pp. 35-135, *infra*) we discuss the findings and supporting evidence which establish that there has been no restraint, upon General Motors' purchasing policies or favoritism toward du Pont because of its ownership of General Motors stock. Although such findings make the question of control irrelevant, we shall deal with it first because the facts relating to it provide a historical background for the case as a whole.

2. *From 1917 to 1923.*

In 1916 W. C. Durant, who had organized General Motors in 1908 but had subsequent financial difficulties, had reacquired control (R. 297-8).[13] Pierre and Irenee du Pont and John J. Raskob, treasurer of du Pont, had made personal investments in General Motors and Pierre and Raskob had been on its Board of Directors (*ibid.*). Upon Durant's suggestion that the du Ponts participate further in the company, the du Pont Company in December 1917 invested $25,000,000 in General Motors stock,[14] which gave it a 23.83% share of the total (R. 299; GX 128, R. 1803, 3235-6). During the next three years the total investment was increased to $46,000,000 although, due to an increase in the capitalization of the company, du Pont's proportionate stock interest remained about the same. At the end of 1920 du Pont owned 23.96% of the outstanding stock of General Motors (R. 299; GX 166, R. 1839, 3384).

This, combined with a larger amount of stock held by Durant, constituted over 50% of the stock outstanding (GX 124, R. 1785, 3218), and from the time of the investment until 1920 Durant and the du Ponts together jointly controlled General Motors (R. 303). In accordance with the original understanding between them, the du Ponts undertook primary responsibility for financial matters, but Durant retained control over the company's operations in other respects (R. 303; R. 686, 812, 818, 835; DPX 74, R. 777, 5768). Pierre S. du Pont testified (R. 812):

> "The proposition was that the du Pont Company would come in and take off Durant's shoulders the burden of financing General Motors Company; that would be their position in the General Motors Company, their part in the whole business. Durant would

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[13] Durant had formed the Chevrolet Motor Company, which by that time had acquired a majority of General Motors stock (R. 297; R. 933).

[14] The actual investment was in both General Motors and Chevrolet stock, but shortly thereafter General Motors acquired the assets of Chevrolet (R. 303), and shares of General Motors were distributed to Chevrolet stockholders (R. 303; GX 124, R. 479, 3216-17).

be the operating man and du Pont would look after the financial affairs, which Durant acknowledged he was weak in."

(R. 817):

"He [Durant] was the man we looked to to operate the company. We knew nothing of the operations of motor companies, and we relied on him, and the organizations he would build, to govern that part of it. We would not have undertaken it ourselves, and as long as he was with us it was a good proposition. Without Durant we would not have taken it. I would not have voted for it."

In November 1920 it became clear that Durant was greatly over-extended in General Motors stock, to the amount of $27,000,000 (R. 303; DPX 50, R. 827, 5628-38). At the same time, General Motors had very heavy bank loans outstanding, which had been necessary to maintain adequate working capital and at the same time carry inventories which had risen, because of lack of adequate controls, to levels far in excess of those recommended by Raskob and the governing committees (DPX 51, R. 827, 5639: DPX 57, R. 838, 5678-9). Consequently, it was feared that Durant's failure, and the panic that might ensue, might in turn engender a loss of confidence in General Motors, a call of its bank loans, and receivership for the corporation (R. 303-4: R. 583; DPX 50, R. 827, 5628-38). In order to avoid Durant's failure and its feared consequences,[15] du Pont arranged to put up $7,000,000 cash and to borrow $20,000,000 to pay off

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[15] "On a falling market with public confidence low and General Motors in a position of rising inventories and decreasing earnings, the difficulties of its president became the difficulties of the corporation. If Durant were to be sold out by his bankers and brokers, a possibility which became more and more imminent with every point decline, the forced sale of his pledged securities on a falling market would have meant a wild decline in the whole stock market. From the standpoint of both the general welfare and corporate credit it was therefore necessary for someone to finance the settlement with Mr. Durant's brokers and take his holdings out of the market. In the General Motors situation only the du Ponts had the financial strength to do this." Federal Trade Commission, *Report on Motor Vehicle Industry*, 1939, House Doc. No. 468, p. 427.

Durant's debts.[13] In return, through a subsidiary, du Pont took over a portion of Durant's stock, thereby bringing its share of General Motors stockholdings up to 38% (R. 303-4; R. 824-31, 872; GX 154, R. 481, 3329; DPX 50, R. 827, 5628-38; DPX 53-4, R. 828, 832, 5641-53).

Shortly thereafter Durant resigned as president of General Motors. Pierre S. du Pont, who previously had retired as president of du Pont, was chosen president, upon the urging not only of the du Ponts but of the banking group and of persons in General Motors' management (R. 304-5; R. 981-82, 1345). Pierre was reluctant to take the position, and did so on the condition that "it would be very definitely a temporary thing in character until he could find somebody he felt was qualified to carry the responsibility" (R. 1345, 839). He occupied the post until May 1923, when he resigned and was succeeeded by Alfred P. Sloan, Jr., who remained as president or chief executive officer until 1946 (R. 307-8).

While Pierre was president he was, of course, responsible for the management of General Motors, operational as well as financial (R. 307). During this period from 1920 to 1923, a number of documentary exhibits contain statements, mostly by Raskob, referring to du Pont's "control" of General Motors (see GX 1304, R. 664, 5225 (1920); GX 181, R. 483, 3408 (1921); GX 1345, R. 2813, 5347 (1921); GX 235, R. 483, 3496 (1923).)

If there had been a planned policy that du Pont dominate General Motors' operations then and in the future, steps would have been taken in that direction during this period of greatest du Pont authority. We are, of course, primarily concerned with activities affecting the future, for a course of events *terminating* in 1923 would be of little consequence in supporting a claim for relief in 1949. Even in this period, however, the evidence indicates that although Pierre was interested in du Pont's sales to General Motors (GX 420-21, R. 529, 4010-4013), he acted independently on behalf of General Motors as against the du Pont Company (R. 305-6).

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[13] In the following year du Pont put this financing on a permanent basis by issuing $35,000,000 of its own bonds (R. 830-833; DPX 54, R. 832, 5644; GX 166, 483, 3386).

First, Pierre adopted a program suggested and developed by Sloan, vice president of the company, and not a du Pont man,[17] to decentralize the management of the company, and thereby give the division managers virtually complete control over their own operations (R. 305; R. 840, 973-80, 984; GX 178, R. 484, 3398-3403; GMX 1, R. 975, 6532). There was less direction of operating matters from the top. One result of this, as both Pierre's oral testimony (R. 840-41, 854-5) and his contemporaneous writings (GX 178, R. 484, 3398-3403; GX 408, 410, R. 527, 528, 3983, 3984) show, was that Pierre felt that he could not impair the freedom of the division chiefs in respect of purchasing.

Secondly, as has been said, Pierre undertook the presidency of the company reluctantly, and with the understanding that his tenure would be only temporary (R. 839, 1345). That he meant what he said is proved by the fact that after two and a half years he resigned and was succeeded by Sloan, who had been brought into United Motors by Durant and came with United Motors into General Motors in 1918. (R. 307; R. 990, 958-66).

Thirdly, du Pont sold the stock acquired from Durant. Faced with the problem of how best to assure that the new management under Sloan would operate so as "* * * to attain the greatest possible success in the conduct of the affairs of the General Motors Corporation" (GX 235, R.

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[17] The Government, contrary to all the findings, treats Sloan as if he were a du Pont representative with General Motors. As to this, see pp. 200-207.

483, 3497), Pierre sponsored the Managers Securities Plan whereby substantial amounts of General Motors common stock would be sold through the Managers Securities Company to principal General Motors executives on a deferred payment basis (GX 235, R. 483, 3494). This plan was inspired by the fact that the du Ponts believed "owner-management was of a great benefit to a company" (R. 876, 2720; DPX 60, R. 850, 5704). Du Pont had available, in the form of the stock that it had acquired from Durant, the stock that the new plan would require, and it sold that stock to selected General Motors executives through the medium of Managers Securities Company in 1923 (R. 304, 317; GX 244, R. 493, 3529/3561). As a result of that sale and the ultimate complete liquidation of the Managers Securities stockholdings in 1938, du Pont's holdings of General Motors common stock were reduced to the original 23%, where they still remain (R. 304).[18]

None of these major changes is consistent with the charge that the du Pont Company or the du Pont family was endeavoring to take over operating control of General Motors, or to do anything more than protect and build up the value of its investment in that company. If control had been the du Pont goal, it would not have sold a large percentage of its stock to the General Motors management, adopted an organizational plan which diminished the authority of the chief executive, who was a du Pont, and then given up that post to some one without any prior du Pont connections. The Government's statement that "It was in this period, up to 1930, that du Pont consolidated its position by its selection of the management" (Govt. Br., p. 73) is squarely contrary to the facts of record.

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[18] Government counsel, addressing themselves to the post-1938 period, cite the du Pont holdings of 10,000,000 shares and then add, "This is exclusive of the large blocks held by friends on whom du Pont could count in case of a contest" (Govt. Br. p. 28). The authority cited for the quoted sentence is GX 1345, R. 2813, 5347, the date of which is August 19, 1921. This injection of what was said in 1921, without further identification of it, into a paragraph dealing with the period 1938 and after, indicates complete disregard of the passage of time and of the changes wrought thereby. There is in this record no evidence since the mid-1920's that du Pont has or has not had any "friends" holding blocks of stock, large or otherwise, "on whom du Pont could count in case of a contest." If Government counsel are going to rely upon supposition and guess, it seems only proper that they should take into consideration the remarkable performance of the General Motors management over the past thirty years, a performance that may very well have created many "friends" upon whom that management "could count in case of a contest" with du Pont or anyone else.

> "As a practical matter, . . . management still has a substantial advantage by virtue of its position of frequently being able almost effortlessly to put a sizable block of votes in its pocket, due to its friendly relationships with securities broker-dealers, bankers, institutions, suppliers, distributors, employees, pensioners, etc." Emerson and Latcham, *Proxy Contests: A Study in Shareholder Sovereignty*, 41 CALIF. L. R. 436 (1953).

Other significant events also show that, even with Pierre as president of General Motors, du Pont did not control General Motors' operating policies. When four of the division heads had to be changed,[10] they were not replaced with du Pont men, but with persons chosen by Sloan from within the General Motors ranks (R. 305). When a General Purchasing Committee was established in 1922 to coordinate purchasing by the various divisions and to obtain the advantage of cheaper large-scale buying (R. 306; R. 1031-2), Sloan selected its members from purchasing agents and others who were not du Pont representatives, and named as secretary a person, James Lynah, who had previously left du Pont under acrimonious circumstances (R. 306; R. 1069-74; GMX 139-148; R. 1069-70, 1072-3, 1076, 6955-68). In our discussion of the work of that committee (pp. 45-52, *infra*), we shall show that one of its first decisions was to adopt a rule requiring two sources of supply, which decreased General Motors' purchases from du Pont. Pierre conceded the authority of the committee and the separate divisions to adopt this policy, although he opposed it (R. 840-41, 853-56; GX 410, R. 528, 3984).

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[10] Two resigned, one to go with Durant, and two were replaced as a result of a dispute with the company over their appropriating large sums of money for themselves which they claimed were due under contracts made with General Motors under Durant (R. 305; R. 859-60; DPX 63-64, R. 860-1, 5710-5716).

During the period of Pierre's presidency the du Pont Company, through his brother Lammot, kept after General Motors to enter into a general agreement with respect to chemical research for General Motors by du Pont. When Charles F. Kettering, who was in charge of General Motors' research, refused to enter into the proposed agreement and turned the matter over to Pierre, Kettering was upheld (R. 407-10; R. 1354-6, 1537-8; GX 575-6, R. 608, 4254-8; GX 580-98, R. 609-11, 4265-95; DPX 155-9, R. 1913, 1915, 1918, 1920, 5979-83; GMX 246, R. 1536, 7328-9). Conversely, when Pierre requested du Pont to agree to give General Motors exclusive rights to its newly discovered and greatly improved finish for automobiles, Duco, he was turned down by his brother Irenee (R. 383-4; R. 875; GX 377, 380, R. 522-3, 3917, 3924-5).

3. *The Sloan Period Beginning in 1923.*

Alfred P. Sloan, Jr. became president of General Motors in 1923, and his tenure as chief executive lasted until 1946. He continued as chairman of the board until 1956. (DPX 56, R. 836, 5661-62). Sloan had built up the Hyatt Roller Bearing Company from a small and unsuccessful business worth $10,000 in 1898 to one which Durant bought in 1915 (R. 957, 959) for $13,500,000 (the largest part of which went to Sloan and his father (R. 962)). Durant merged Hyatt and four other accessory manufacturers into United Motors, and made Sloan president (R. 962). Near the end of 1918, there was an exchange of stock and United Motors was consolidated with General Motors (R. 964). Sloan became a director and member of the Executive Committee of General Motors and vice president in charge of the divisions which had come with United (R. 967; GX 177, R. 492, 3397).

After Pierre S. du Pont became president of General Motors, Sloan became his principal assistant, eventually being appointed operating vice president in "charge of the whole corporation" under Pierre (R. 982). Sloan's promotions were unquestionably attributable to his demonstrated abilities, and not to any relationship with the du Ponts.

The record amply demonstrates, as the trial court found (R. 321-322), that the du Pont Company could not and did not control the management of General Motors during the period of Sloan's chieftainship. Illustrations have already been given of the independence of Kettering, Sloan and even Pierre himself during the prior period of greatest du Pont participation.

After 1923, the over-all picture was one of progressively increasing strength and self-sufficiency of General Motors and of corresponding diminution, to the point of disappearance, of its reliance upon du Pont. Whereas in the early period, for example, General Motors was dependent upon du Pont to obtain financial guidance and support, that is obviously no longer necessary, and has not been for years (GX 1238, R. 484, 5185). Except during Pierre's presidency, du Pont has not participated in the general operations of General Motors. By 1934, it had relinquished its last seat on the Executive Committee, and it never was represented on the Operations Policy Committee. (See pp. 26-27, *infra*). Du Pont similarly relinquished its control over General Motors' finances, although retaining minority representation on the committee concerned with financial matters. (See pp. 25-26, *infra.*) As General Motors prospered under the management of Sloan, it built up its own group of able executives. They were dependent for their own earnings on how General Motors, not du Pont, fared (R. 321-322). (See pp. 32-33, *infra*). Although it is true that at the beginning a handful of these executives had du Pont backgrounds[20]—which the record shows not to have affected corporate policy—even that is not true of the generation which has now been in power for many years.

That the General Motors management did not regard itself as subservient to du Pont is proved by the number of occasions on which it refused to do what du Pont wanted. One incident in 1928 is especially significant because Sloan was embroiled with the entire du Pont family as well as Raskob. Raskob, from the beginning a leader of the du Pont group interested in General Motors, at that time was the General Motors executive in charge of all financial matters as chairman of the General Motors Finance Committee (GMX 3, R. 991, 6562). During Governor Smith's campaign for the presidency, he became chairman of the Democratic National Committee. Sloan thought this put General Motors in politics, and that Raskob should not continue both with General Motors and in politics. Raskob was supported in his position that participation in public affairs was not a disqualification by Pierre and Irenee du Pont, as well as by former Republican Senator Coleman du Pont. If the du Ponts controlled General Motors, this should have been an occasion for that control to be manifested. Instead Raskob resigned his executive position as chief financial officer and chairman of the Finance Committee. In protest against Sloan's decision, Pierre resigned as chairman of the General Motors Board. They retained their positions as directors, and subsequently Raskob returned as a member of the Finance Committee, but he was through as a General Motors executive. In a test of power, the Sloan management, not the du Ponts, won (R. 310; R. 1191-4; GX 262, R. 496, 3597; GMX 17-20, R. 1193-4, 6602-6).

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[20] These were on the financial side, except Pratt, who had been brought into General Motors by Durant (R. 354; R. 1396); Lynah, who had left du Pont under "acrimonious circumstances" (R. 306; see fn. 30, *infra* p. 45); and Johnson, who had been brought into General Motors by Walter P. Chrysler (R. 1404).

A less striking incident of the same sort occurred in 1937, when Sloan decided that a single policy committee would be more effective than the two committees, Executive and Financial, then in existence. Lammot du Pont vigorously opposed this change (R. 1001-2; GX 194, R. 484, 3428-33), and was supported by Pierre, and apparently also by Irenee and Walter S. Carpenter, who became president of du Pont in 1940 (GX 195, R. 487, 3434). But Sloan's plan was adopted.

Other similar incidents in which General Motors executives disregarded du Pont wishes can be cited. Lammot urged Sloan in 1927 not to have General Motors engage in research in the field of synthetic rubber. But Sloan disagreed and the project continued until General Motors' own chemists recommended that it be abandoned (R. 432-435; R. 1319-20; GMX 131-132, R. 1322, 6945-6; GX 888-894, R. 650-1, 5110-22). Indeed, the General Motors chemist, Midgley, was told not to bother to consult du Pont chemists (GMX 132, R. 1322, 6946-7). In 1931 Lammot, while president of du Pont, strongly expressed his views to John L. Pratt, vice president of General Motors, that General Motors should not go into the oil burner business, but Pratt went ahead and General Motors still is in that business (R. 360; GMX 227-8, R. 1469, 7284-88; R. 1471).

The du Pont Company unsuccessfully sought to induce General Motors to go along on a policy of "reciprocity", whereby both General Motors and du Pont would give preference in purchasing to suppliers who in turn purchased from General Motors and/or du Pont (R. 366-371; R. 1202-06, 1424-6; GX 527-543, R. 602-6, 4207-40; GMX 200-201, R. 1429, 7245-49). A resolution of the General Purchasing Committee took the position that generally General Motors should not supply to du Pont information showing the volume of business done with other suppliers, but it provided that "in special cases, upon request by the president of the du Pont Company to the president of General Motors, the situation would be properly dealt with" (GX 537, R. 604, 4226-7). Only one such request was ever made, in 1928, where the reciprocity argument had been invoked by certain steel companies against du Pont (R. 368-9; GX 543, R. 606, 4236; R. 1207-10). Although Sloan consented to give du Pont information as to General Motors' purchases from these companies (R. 1210), Pratt violently objected. He wrote to Sloan (R. 369-371, GMX 201, R. 1429, 7246-9):

> "This instance may be the first that Mr. Lammot du Pont has requested information of this kind from you, but we have had a great many similar requests from the du Pont organization in the last three or four years. The position I have taken as Chairman of the Purchasing Committee has been invariably to refuse to give the du Pont Company any information which they might use in any way to influence their customers to think that the du Pont Company in any way could influence General Motors Corporation in buying their materials and supplies because the particular customer bought from the du Pont Company. * * * *Nothing could be more detrimental to the morale of our Purchasing Agents, and to the general interests of our Corporation, than for any supplier to believe that anything can influence General Motors in choosing its sources of supply other than the three fundamentals of purchasing, namely—quality, service and price.* I know you realize that as soon as any supplier feels that he can use collateral influence he is not as apt to give the utmost he can in quality, service and price to the one that deserves same, namely—the purchaser.
>
> "In refusing to give the du Pont Company such information as requested by Mr. du Pont, I have been guided by the following considerations:

> "(a)—The du Pont Company in fact has no more right to such information than any of the other 60,000 stockholders in General Motors. * * *
>
> "(c)—The principle of reciprocity must imply that you are giving something in order to get something. If the du Pont Company, in getting business, implies reciprocity on the part of General Motors' purchases, what does General Motors get? It would seem that in such reciprocity we are doing the 'giving' and the du Pont Company the 'getting'. *If there is anything to be gotten our position should be to see that it is gotten for General Motors Corporation, rather than the du Pont Company.*
>
> "(d)—If our Purchasing Agents know that we are willing to allow the du Pont Company to use our purchases to influence du Pont sales, can we expect them to always resist giving weight to other considerations than the best interest of General Motors in placing their orders? * * *
>
> "* * * In my judgment, if the du Pont organization are not able to retain the business they have through the quality of their goods and the service they render, then they should not be allowed to retain it because General Motors purchases goods from that particular customer of the du Pont Company. * * *" (Italics supplied.)

This was the Pratt, who, because he was employed by du Pont before he joined General Motors in 1919, the Government treats as if he were a du Pont stooge!

Carpenter and Crawford H. Greenewalt, who have been the presidents of du Pont since 1940, had never heard of the 1924 resolution except as a result of the institution of this case, and had never requested information from General Motors as to its purchases from other suppliers (R. 2744, 2761-2).

Irenee du Pont (when he was president of du Pont) opposed the program favored by Sloan requiring maintenance of specified standards for gasoline by companies allowed to distribute tetraethyl lead. He wished to sell the lead without restriction, but was overruled (R. 904-5; GMX 94-103, R. 1277, 6839-65; GX 704-5, R. 624, 4505-11; GX 773, R. 632, 4663; GX 773-774, R. 632, 4707-8, 4733; DPX 120 (not printed)). Irenee also disagreed with Sloan as to the need for withdrawing tetraethyl lead from the market after the Bayway disaster in 1924 (see *infra*, p. 114), (R. 1268-70; GMX 96-8, R. 1277, 6842-52), but Sloan's views prevailed (R. 6847, 6860). Irenee also sought to have du Pont rather than General Motors negotiate with Standard Oil with respect to Standard's interest in the development of tetraethyl lead (GX 623, R. 614, 4340). Sloan went ahead, however, and negotiated with Standard the organization of the Ethyl Corporation, jointly owned by Standard and General Motors, without consulting du Pont (R. 894-5; GX 624, R. 614, 4342-6).

Lammot du Pont opposed the entrance of the Ethyl Company into the production of lead, but Sloan disagreed and his program was carried out (R. 1279-80, GX 781, R. 633, 4771, 4773). And it was Sloan who with Webb (president of Ethyl) first suggested in 1930 taking steps to protect Ethyl when the patents would expire in 1947 by requiring du Pont to turn over to Ethyl, as early as 1938, its know-how in producing lead (R. 423; R. 1278; GX 748, 749, R. 628, 629, 4577, 4579). Without that, du Pont alone would have been in a practical position to produce lead in 1948. Instead, by reason of the steps insisted on by Sloan, Ethyl itself became the principal United States manufacturer of tetraethyl lead and has operated since then in competition with du Pont (R. 425). Such conduct is hardly consistent with that of a management dominated or controlled by du Pont.

It is thus plain that Sloan did not feel that he had to carry out the du Pont wishes. The existence of control or domination is tested by what happens in case of disagreement.[21]

In 1937 William S. Knudsen became president of the corporation, and in 1941 Charles E. Wilson succeeded Knudsen, but Sloan continued as chairman of the Board of Directors and chief executive officer. In 1946 the president, Wilson, succeeded Sloan as chief executive officer. Wilson was succeeded by Harlow H. Curtice in 1952. (R. 307-8; R. 2727-28). None of these men had ever had prior connections with du Pont; each had risen through the ranks of General Motors executives, and been recommended by Sloan or Wilson, not the du Ponts (R. 2727-8). The Government introduced no evidence which even remotely suggested that these men ever were influenced by du Pont.

4. *The General Motors Board of Directors and its Committees.*

Since 1923 the membership of the General Motors Board of Directors has ranged from 26 to 35 (DPX 56, R. 836, 5656-62). As of February 1, 1953, there were 34 directors (GMX 10, R. 1031, 6572-75). The number of directors nominated by du Pont has decreased from 6 to 5 (*ibid.*). Twenty-three of the directors in 1953 represented management, and 6 were "outside" directors affiliated with neither management nor du Pont (*ibid.*, R. 6575).

The trial court found:

> "A majority of the directors have always been the nominees of management. Sloan testified that management directors were always nominated by him when they had achieved in the management hierarchy of the

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[21] The Government cites evidence of occasions on which Sloan agreed with du Pont views as to some controversial matters (see pp. 115-117, *infra*). The fact that he sometimes thought the du Ponts right does not prove that he was dominated by them.

> corporation a position which entitled or required that they be on one of the committees of the Board, and further that he never discussed these nominations with anyone except the management group and after his recommendation their election was automatic. Sloan and Carpenter testified that no du Pont nominee ever objected to the number of management directors which Sloan wanted on the Board." (R. 310; R. 1021, 2724.)

The Government (Govt. Br., p. 20) seeks to characterize all management directors employed by General Motors in the early 1920's as du Pont representatives on the ground that they were originally selected by du Pont. Nothing in the record supports this attempt to brand as predominantly du Pont men all officials who worked for General Motors between 1920 and 1923. The five management directors who survived from 1923 to 1949 were Mott, McLaughlin, Sloan, Kettering and Pratt. The first three became directors during the Durant regime, and the Government has not even intimated that Kettering owed any allegiance to du Pont. We point out at pages 20-21, 85-90 that there is no basis for saying that Pratt, who had left du Pont to work for Durant in 1919, is to be treated as a du Pont representative. The court found to the contrary (R. 321).

The du Pont representatives were nominated by the Finance Committee of the du Pont Company, usually from among its own members (R. 1021, 2714, 2725). The nominations for outside directors were always discussed by Sloan with a representative group on the Board, including the du Ponts, and they were not added to the Board unless they had the "unanimous approval of the present Board of Directors, particularly the approval of those members of the Board who are serving in the management" (R. 1334, 310, 2725). Carpenter, president of du Pont from 1940 to 1948 (R. 2711-2), who among others suggested possible outside directors, noted that the list he submitted "had a very poor batting average" (R. 2727).

The record shows that questions as to the purchase of materials do "not come to the Board in any way" (R. 997). The same is true of engineering problems and the initiation of policies and programs. "The Board hasn't sufficient contact with the details of an enormous business like this in order to exercise initiative" (R. 996-7).

The Board of Directors of General Motors has operated to an important degree through committees. Prior to 1937 and after 1946 there were two main committees, of which one dealt with matters of financial policy and the other, known before 1937 as the Executive Committee and after 1946 as the Operations Policy Committee, was concerned with other matters of policy. Between 1937 and 1946 there was a single Policy Committee to deal with broad questions of policy, supplemented by a subordinate Administration Committee to deal with the implementation and administration of policy (R. 312-14; R. 2734-5).

At the beginning du Pont had a majority of the members on the Finance Committee but by 1937 the du Pont representation had declined to 6 out of 14 members.[22] Since 1946, when a new Financial Policy Committee was re-established, du Pont has had three nominees out of 10 (R. 312-13; DPX 56, R. 836, 5663-5, 5669; GMX 22, 25, R. 1198, 1202, 6609, 6612). But these finance committees were, as the names imply, concerned only with matters of major financial policy, and had nothing to do with the details of operations or with purchasing practices and policies, or, of course, with particular purchases (R. 2730-33).

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[22] Government counsel have indicated surprise that Donaldson Brown is considered by General Motors to have been a management director until 1946, a du Pont nominee thereafter (Govt. Br. p. 20). Brown was so considered by Sloan (R. 1196). Brown came to General Motors from du Pont in 1921, retaining his position as a director and a member of the Finance Committee of du Pont but serving as vice president in charge of finance for General Motors and ultimately succeeding Raskob as chief financial officer of General Motors (R. 315). The trial court found,

> "There is no evidence that Brown was active in commercial relations between du Pont and General Motors or that he ever did anything to encourage the use of du Pont products by General Motors" (*ibid.*).

In view of that finding, there is no reason to consider Brown as other than a management director until 1946, when he retired but remained as a director of General Motors at du Pont's specific request in replacement of Lammot du Pont (GX 224, R. 491, 3485). In 1947 Sloan wrote that he thought Brown only "technically" a du Pont director (GX 228, R. 491, 3488).

The Executive Committee in 1923 was composed of 3 du Pont nominees out of 6 (R. 311), but both the number and proportion of du Pont members rapidly declined as the membership was expanded (R. 311; DPX 56, R. 836, 5666; GMX 21, R. 1196, 6608). By 1934 no du Pont nominees remained (*ibid.*). There never has been a du Pont representative on the Operations Policy Committee since its formation in 1946; the members were chosen from management on the recommendation of Wilson and, later, Curtice (R. 315; R. 1199-1200; GMX 24, R. 1200, 6611; DPX 56, R. 836, 5670).

The Policy Committee from 1937 to 1946 was composed of 9 members, 2 of whom were from du Pont (R. 314; GMX 23, R. 1199, 6610). All of the remainder were management representatives with the exception of one "outside" member, Whitney. There never have been any du Pont representatives on the Administration Committee (R. 2735).

The Government attempts to establish du Pont control over committee appointments by attributing Sloan's decision not to recommend Kettering for election to the Policy Committee in 1943 to the fact that Lammot du Pont said "No"; according to the Government, "that was the end of the matter" (Govt. Br., p. 23). This ignores the fact that Sloan discussed the matter "with the management, and after complete consideration it was decided it was not a wise thing to do" (R. 1342). Sloan testified (R. 1341):

> "* * * others thought the same as Mr. du Pont. As a matter of fact, when I considered it myself, I rather agreed with the point Mr. Lammot made.
>
> "Mr. Kettering was a large stockholder, and of course is a very eminent citizen, but we all agreed that if he came on the committee he would be telling us about all the wonderful things that were in the future, and we wouldn't have time to attend to the business of the corporation. That was one of the reasons."[23]

Anyone who heard Kettering testify at the trial would understand the reasonableness of this reaction.

The Executive, Policy, and Operations Policies Committees were concerned with questions of major policy. There is no evidence to show that these committees had anything to do with purchasing practices or policies or with any of the matters involved in this case. One of the members, Carpenter, testified that the Policy Committee did not direct or supervise the purchasing practices of General Motors, or "consider questions relating to the purchases by General Motors of products from du Pont"; no such subject was ever discussed (R. 2735). And this committee, which was superseded in 1946, was the last of the committees concerned with other than financial policy upon which du Pont had any representation at all.

The trial court concluded with respect to the Government's efforts to show that du Pont's membership on the General Motors Board and committees enabled du Pont to dominate General Motors (R. 316):

> "The participation of the du Pont representatives in the selection of General Motors directors and in determining the organization of the board and the composition of its committees does not establish that du Pont has been the controlling force in the direction

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[23] Sloan had said the same thing in 1947: "I think he (Kettering) would perhaps be likely to reduce the efficiency of our meetings by leading into the most interesting subjects * * *" (GX 228, R. 491, 3488).

of General Motors affairs, or has been in a position to act as if it owned a majority of General Motors stock. The record shows consultation and conference, but not domination. Moreover, in all these matters Sloan has clearly been the leader and the dominating influence and has largely determined the results. With a minimum of consultation with du Pont representatives he has selected the management. In large part, though with somewhat more consultation with du Pont representatives he has suggested the names of directors and led the discussion in that respect. Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors.

"The Court finds it highly significant that in all of the correspondence regarding General Motors directors the attitude of the suggested nominee toward du Pont was in no instance a consideration in his approval or disapproval. Accordingly, the Court finds, based on all the evidence, that du Pont's participation in the selection of General Motors directors and management does not establish that it controlled General Motors or that it sought through such participation to place people in General Motors who would further du Pont's interests as a supplier or as a chemical manufacturer."

5. *Bonus Plans.*

Since 1918, General Motors has had a policy of distributing annually to its executive employees up to 10% (later 12%) of its earnings over a 7% (later 5%) return on its capital (R. 317; R. 1227-8; GX 137, R. 480, 3282-3; GMX 31, R. 1227, 6641-53).[24] These bonus awards were made to 6,450 employees in 1918 (GX 139, R. 480, 3302), and in recent years have extended to more than 10,000 persons (R. 1381).

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[24] These awards were made entirely in General Motors common stock until 1943. Since that time, because of increased personal income tax rates, they have been made partly in stock, partly in cash.

Between 1923 and 1937, there were supplemental plans whereby a portion of the amount available under the earnings formula was utilized to enable the higher officials—97 in 1923-1929, and 249 in 1930-1936 (GX 259-260, R. 496, 3587-96)—to buy larger quantities of stock (R. 316-318; 320; R. 1217-19, 1228; GX 235, 240, 267, R. 483, 493, 498, 3494-3506, 3520-39, 3607-29). These plans were designed to increase incentive by creating in every executive a strong ownership interest in the profitability of General Motors (R. 1215, 1217). The stock required for the first of these supplemental plans, known as Managers Securities Plan, was sold by du Pont to Managers Securities Company, a holding company, all of whose stockholders were General Motors' executives, and was substantially the block of stock obtained in consequence of the Durant debacle in 1920.[25]

This 1923 plan was terminated in 1929, when all of the stock was fully paid for. It was succeeded by a similar plan known as the Management Corporation Plan which ran from 1930 to 1936 and for which the necessary stock was made available by General Motors (GX 274, R. 499, 3643).

As the Government says (Govt. Br. pp. 26-27), the result was that the executives participating earned tremendous profits. This however was not preordained, but was dependent upon the future profitability of General Motors, which in turn depended upon the ability and performance of these executives. In 1923 General Motors sold only 18.7% of the cars produced in the United States, and its great growth in the next two decades, particularly in relation to Ford, could not well have been anticipated in 1923. Many automobile companies failed during the periods covered by these two incentive bonus plans.

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[25] Because of its own tax considerations and also because payment of 85% of the purchase price was deferred, du Pont sold not General Motors common stock as such but its equivalent, and so retained the voting rights (DPX 91, R. 879, 5854; DPX 455, R. 2706, 6451). After receiving payment in full, du Pont relinquished its voting rights, partially in 1930, when the tax considerations of the participating executives precluded relinquishment in full (GX 267, R. 498, 3607), and fully by 1938 (GX 270, R. 498, 3638; GX 274, R. 499, 3643).

The Government asserts that these various plans helped tie up General Motors' executives with du Pont because du Pont sold the stock for the first plan in 1923 (see p. 14, *supra*) and because its representatives constituted a substantial proportion of the committees of directors responsible for approving awards under the various plans. The committee charged with determining allotments in the Managers Securities plan in 1923 was composed of Pierre as chairman and two non-du Pont members (R. 318; GX 241, R. 493, 3541). The committee responsible for approving the annual awards under the Bonus Plan was the Finance Committee until 1936, the Bonus and Salary Committee thereafter; each of these had substantial du Pont representation (R. 319-20; R. 1380; GX 276, R. 496, 3679).[26] The Government concludes from this that, since these committees were responsible for approving the bonus awards, all General Motors executives would know that their compensation was dependent upon their willingness to toady to du Pont.

The allotments in the Managers Securities plan in 1923 were made by the three-man special committee. Pierre, chairman of that committee and newly retired as president of General Motors, prepared a rough list of tentative allotments which was reviewed with and materially revised by Sloan, whose recommendations were accepted by the special committee without change (R. 318-19; R. 1225; GMX 30, R. 1225, 6629).

As to the annual awards under the ordinary Bonus Plan, it was the responsibility of the chief executive officer, who was Sloan from 1923 to 1946, to prepare and submit recommendations to the Finance (later Bonus and Salary) Committee. Under the procedure that has continued through the years without substantial change (R. 1227), the aggregate amount available for distribution, as determined by the committee under the earnings formula, has been apportioned by the committee among the various operating divisions upon the basis of their respective earnings. Each general manager then prepared his recommendations for the awards to be made within his division (R. 319; R. 1228; GMX 31, R. 1227, 6642), since the chief executive "couldn't be expected to know so many people" (R. 1228). The contribution of each individual employee eligible for bonus has been given substantial weight (GMX 31, R. 1227, 6642). Sloan reviewed the recommendations of the general managers, himself prepared recommendations for the awards to be made to the several general managers (other than those who were directors of the corporation) and submitted the completed list to the committee for approval. The committee reviewed Sloan's recommendations and itself determined the awards to be made to those officers who were also directors (GMX 31, R. 1227, 6639; cf. R. 1226).

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[26] As to the Finance Committee, see pp. 25-26, *supra*. Between 1941 and 1945, 3 of the 5 members of the Bonus and Salary Committee were du Pont representatives, and 2 between 1945 and 1948 (R. 319-20; GX 276, R. 496, 3679). (GX 276 erroneously classifies Sloan and Pratt as du Pont representatives.)

In no instance could any witness recall that the committee changed the amounts so recommended by Sloan and the subsequent presidents of General Motors (R. 319; 1226-7, 852). The committee is obviously unable to "evaluate thousands of people so far as performance is concerned" (R. 1381).

The Government offered no evidence that any General Motors director or committeeman had taken into account the attitude of any official toward du Pont in determining how much his bonus should be, nor any evidence that any General Motors executive or official had been affected in his work by a fear that a failure to favor du Pont would affect his compensation. There was no showing whatsoever, in the many instances in the record where General Motors' executives acted contrary to du Pont's interests, that their bonus awards were affected in any way. Four witnesses flatly and vigorously denied that any such factor was taken into consideration (R. 852, 1229[27], 2667, 2731). The trial court believed them, as he was entitled to do (R. 321). The court also found that many of the executives "who would have been 'influenced'" had testified as witnesses, and that the record showed that they had "acted at all times solely in the best interest of General Motors" (R. 321).

Certainly in these circumstances it cannot be said by way of conjecture that the executive staff of General Motors *must* have thought that their compensation was dependent upon their favoring the du Pont Company, and *must* therefore be presumed to have acted accordingly. The Government cannot justifiably ask this Court to presume to be a fact what the record of over thirty years shows not to have happened.

The Government has stated (Jurisdictional St., p. 20) that "General Motors officers, high and low, could not be free from the consciousness, indeed the vivid realization, that determinations favorable to du Pont's interests were likely to lead to personal promotion and financial reward." The bonus system in itself, however, proves the contrary; it gives them a strong incentive to act solely in furtherance of the interests of General Motors. For they know that the decisive factors in the substantial portion of their incomes derived from the bonus system are the profits and success of General Motors, the profits of their division, and their individual contribution to it—not the profits of du Pont. As Carpenter testified with respect to the Managers Securities plan (R. 2721-2), the actual effect of the bonus plans was

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[27] "Mr. Sloan, to what extent, if any, was the bonus plan intended to induce General Motors executives to respond to the influence or desires of the du Pont Company, as far as you know?

"A. Of course, not. On the face of that, it was an impossibility. No such thing existed."

"just in reverse of the way it seems to be here represented." After describing the way in which the plan might —as it did—accord the participants a tremendous enlargement of their original investment (R. 2721-2) he concluded (R. 2722):

> "The du Pont Company might have gone bankrupt in that period without having any effect upon what the results to them would have been, or might have prospered greatly without any reflection on the flow of benefit to these 80 managers.
>
> "It is for that reason that I say it operated just in reverse of the way that it seems to be here represented."

As Sloan testified:

> "* * * If I were asked, as I often am asked, as to what has contributed to the general and outstanding success of General Motors, I would say it was the decentralized system of management, supported by the incentive plans" (R. 1230).

It should also be noted that by building up throughout the years a large block of stock in the many persons comprising the former and current managements of General Motors, the supplemental compensation plans made it possible for a substantial stock interest to arise in the management which would support its independence of du Pont rather than the contrary. The Managers Securities plan and the other bonus plans have put many General Motors executives into the category of large stockholders and, over the years, these awards to all management officials and employees have aggregated very substantial amounts.[28]

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[28] On liquidation, Managers Securities held 4,509,060 shares of General Motors $10 par value stock (GX 269, R. 498, 3635). In 1938 Management Corporation held 783,301 shares of General Motors $10 par value stock (GX 274, R. 499, 3648). In addition a very substantial number of shares were awarded to General Motors employees and executives under the bonus plan from 1918 to 1949.

6. *Trial Court Findings As to Control.*

After reviewing the evidence on the various aspects of the subject of control (R. 29[illegible]-321), the trial court summed it all up in the following finding (R. 321-322):

> "After the dramatic collapse of Durant and the ensuing financial crisis when du Pont representatives were thrust into positions of responsibility in General Motors, and after General Motors had been rescued from that crisis, du Pont's influence and position in General Motors declined radically. During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management, headed by such a forceful and resolute character as Sloan and including such positive personalities as Kettering, the Fisher Brothers, Knudsen, Pratt, Brown, and Wilson.
>
> "More than a quarter of a century has passed since the twenties, and the strength and standing of the management have continued to increase and improve. The du Pont representatives who had originally been interested in General Motors have died or retired. These developments are reflected in the contemporaneous documents, the changes in the membership of the board, the various committees of the board, and in the testimony of Sloan and other witnesses.
>
> "Irrespective of what its position may have been before and during the Durant crisis, since the 1920's du Pont has not had, and does not today have, practical or working control of General Motors. On the basis of all of the evidence the Court finds as a fact that du Pont did not and could not conduct itself for the past 25 years, as though it were the owner of a majority of the General Motors stock."

This finding is not only reasonable, but the only one an impartial trier of fact could have reached on a consideration of the evidence of record. Since it is patently not "clearly erroneous", it must be accepted by this Court.

C. General Motors' Purchasing Policies.

1. *Affirmative Evidence That There Was No Combination or Conspiracy.*

The Government's principal charge was that the defendants combined and conspired to cause each defendant manufacturer (which at that time included United Sta[illegible] Rubber Company) using products manufactured by the other "to purchase substantially all its requirements of such products" from the other and to exclude competitors (R. 221, 255). This is now limited to sales by du Pont to General Motors. But even as to this, the Government has been compelled to recede. Its claim at the end of the trial was that the restriction on General Motors' freedom to purchase applied only to three products or groups of products, paints and finishes, fabrics and anti-freeze, and that General Motors only was required to buy 75 to 80% of its needs for those products from du Pont so long as, in General Motors' opinion, du Pont's price, quality and service were at least equal to any competitor's.

Although the emphasis on du Pont's control of General Motors was obviously designed to show that General Motors was compelled to buy from du Pont, in the closing argument Government counsel virtually abandoned any effort to substantiate the charge of coercion, and argued only that an agreement or understanding to that effect had been proved (R. 3021).

The trial court found that there was no conspiracy, agreement or understanding. In this Court the Government does not challenge these findings (Govt. Br. pp. 72, 109n., 113), but now argues that there was a "combination" consisting of a "restraint imposed by force of the relationship" which inevitably and without any instruction or communication influenced General Motors to prefer to trade with du Pont (*ibid.*). It is unnecessary to decide whether this is anything different from a tacit understanding, which would, of course, constitute a conspiracy. For the court found that even this watered down conspiracy had not been proved (R. 301-2, 361, 371, 381, 396, 405, 426, 437, 447, 465, quoted at pp. 159-162, *infra*).

Twenty witnesses testified directly that there was no such understanding, arrangement or restriction upon General Motors' freedom to trade, and the testimony of the first sixteen covers the Government's new theory of induced favoritism as well as the agreement or understanding for which the Government was contending below:

Sloan, R. 1385-6, 1326-7;
Pierre S. du Pont, R. 853-4;
Pratt, R. 1475-6;
Carpenter, R. 2741-2, 2745-6;
MacShane, R. 2357-9;
Nickowitz, R. 2128-30;
Brown, R. 2195, 2236-7;
Bridgwater, R. 2518-19;
Wirshing, R. 1931;
Williams, R. 1990;
Weckler, R. 2142-3, 2147;
Flaherty, R. 2031, 2033, 2039;
Thompson, R. 2951-2;
H. B. du Pont, R. 2664-5;
P. S. du Pont, III, R. 2672;
Irenee du Pont, R. 872-3;
K'Burg, R. 2532-3;
Copeland, R. 2659-60;
Lynah, R. 1156, 1172-3;
Greenewalt, R. 2767.

These witnesses, of course, either were or had been affiliated with General Motors or du Pont, or they would not have been in a position to know at first hand the basis upon which General Motors bought, or didn't buy, from du Pont. Three of them, however, had not been associated with either company for over twenty years. Herman Weckler had gone in 1932 from Buick to the Chrysler Corporation, of which he was vice president and general manager when he testified (R. 2143-44). James Lynah, Secretary of the General Purchasing Committee during most of its life, had retired from General Motors in 1930, and subsequently, *inter alia,* had been Director of Athletics at Cornell University and an official of the National Collegiate Athletic Association, as well as an employee of the Government during part of the war (R. 1157-8). MacShane had done sales work for du Pont until 1930; his last employment had been in the Government with the Veterans Administration from 1943 to 1952, when he was retired for disability (R. 2314-5).

The attitude of the witnesses who were actually doing the buying and selling is shown in the following statements of some of the persons referred to above.

Weckler, who was largely responsible for Buick's adoption of du Pont's Duco finish in 1924 (R. 2140), testified (R. 2143):

> "Q. Mr. Weckler, it is charged in the complaint in this case that there was an agreement or understanding or conspiracy between du Pont and General Motors to the effect that General Motors would buy from the du Pont Company all or substantially all of its requirements of its products made by the du Pont Company.
>
> "Did you ever hear of any such agreement or understanding or conspiracy?
>
> "A. I did not.
>
> "Q. Did you ever hear that it was the duty of General Motors to buy substantial quantities of materials from the du Pont Company because the du Pont Company had a stock interest in General Motors?

"A. No, sir.

"Q. In making your recommendation to Mr. Bassett that Buick go to 'Duco,' were you motivated in any way by a feeling that there was an obligation to help out the du Pont Company or to buy from it?

"A. No, sir, such an idea never occurred to me, and I never in all my experience at the Buick Motor Company, had any difficulty in buying any material from anyone at any time.

"Q. In deciding not to go to any of the competitive lacquers later on in the latter part of the 20's or the early 30's, were you motivated in any way by a feeling of duty to favor the du Pont Company?

"A. No, sir. I have just outlined here that we didn't find the material that was superior to the du Pont material. We were making good progress in the application and the experience that we had with it, and this plant being so close to our activity—those were the reasons that we continued on with 'Duco' while I was with Buick."

MacShane, who had sold fabrics for du Pont in the 1920's, testified that he had never heard that General Motors purchasing agents were required to buy part of their requirements from du Pont (R. 2357-8):

> "If they were instructed, I would have gotten more business. * * * I worked just as hard to get General Motors' business as I did to get any other business."

Williams, manager of the Automobile Sales Branch of the du Pont Fabrics and Finishes Section, testified that he had never heard of any agreement requiring General Motors to buy substantially all its finishing requirements from du Pont, or that General Motors bought from du Pont because of du Pont's stock ownership. He did not urge salesmen to make such arguments to General Motors because (R. 1990):

> "I think it would be a very poor approach, and I think it would be to our disadvantage to attempt to get business on that basis. As I know the managers of the car divisions and accessory divisions, they are primarily interested in quality and service, and I think if you went into one of the plants, and started to discuss that subject you have just called to my attention, they would say, 'If you cannot sell your products on the merits, you had better get out.' "

Thompson, who was responsible for General Motors' purchases of anti-freeze, testified (R. 2952):

> "* * * no one ever even indicated to me that we should favor du Pont. When you are running a big organization, you just cannot run it with a lot of strings tied to it.
>
> "Q. Were there any strings tied to your purchases of anti-freeze?
>
> "A. Absolutely none."

The testimony of these witnesses was supported by a vast amount of evidence, discussed below (pp. 40-75, *infra*), which demonstrates how du Pont had to fight for its General Motors business just as it did for that of other companies. In the light of this evidence, the trial court found (R. 361):

> "The evidence, both oral and documentary, does not establish, however, that there was any agreement between the two companies that required General Motors to buy all or any part of its requirements from du Pont. Nor does the evidence establish that du Pont dictated or controlled the purchasing policies and practices of General Motors or sought to dictate or control those policies and practices. In fact, the evidence shows that General Motors exercised complete freedom in determining where it would purchase its requirements of products of the kind that du Pont manufactured."

The court made similar findings as to each of the products with respect to which the Government sought to prove its allegations (R. 395-6, 405, 437).

2. *General Motors' Purchases from du Pont as a Whole.*

Before stating the facts as to finishes and fabrics, which are the only commodities which the Government claims that General Motors purchases illegally, it is important that General Motors' purchasing from du Pont and its competitors be viewed as a whole.

The Government's attempt to limit the issue to these products in itself discredits its entire claim. A general conspiracy was alleged, not one restricted to particular products, and of course whatever effect du Pont's stock interest in General Motors had would apply to all products du Pont could sell to General Motors. Du Pont makes many other things that automobile companies buy or can buy. (See GX 1344, R. 2846, 5340-46; DPX 568-573, R. 3007, 3008, 6526-6531). What the Government seeks to do is to eliminate those which General Motors doesn't buy in large quantities or proportions from du Pont. But du Pont's failure to sell these products to General Motors cannot be swept out of the case that cavalierly. If there were a preference for du Pont products resulting inevitably from the relationship between du Pont and General Motors and irrespective of any conspiracy or agreement, as the Government now contends, such "inevitable" preference would have existed as to all products, not just a selected few.

The Government tried to argue below that it was all right to disregard those products because in each instance in which General Motors failed to buy, or to buy in large proportions, from du Pont, the du Pont product was inferior in quality, service or price and therefore not competitive. But this will not stand up. A few illustrations will suffice. Oldsmobile does not buy any Duco from du Pont, although other General Motors divisions do (R. 389). On the other hand, only Oldsmobile bought anti-freeze from du Pont in 1953

(R. 437). Only Buick buys motor enamel (R. 1985-86). Only Cadillac exclusively uses the du Pont process for copper electroplating; Buick and Chevrolet do not use it at all, and Oldsmobile and Pontiac have used it partially (R. 438; 2561-66; DPX 372-73, 375-78, R. 2563, 2571-73, 6341-43, 6345-49). Fisher Body buys du Pont undercoating, but only for one of its 14 plants (R. 389; R. 1985, 1923). When some divisions buy a product from du Pont, it must be competitive even if others look to another source.

Other auto manufacturers bought 88% (R. 440) of their case hardening materials in 1937 from du Pont; General Motors bought 47% (R. 440; R. 2538-9; DPX 362, R. 2538, 6330). Indeed, when du Pont acquired the company making these materials in 1930, it gained no business from General Motors that it was not previously enjoying (R. 2532-3). "As a matter of fact through normal technical developments and our regular commercial relations, we gained business and lost business over the years, but there certainly was no change" (R. 2533). The same thing happened when in 1930 General Motors acquired, for its Chevrolet Commercial Division, the plant of the Martin-Parry Corp. of Indianapolis which had previously been making bodies for Chevrolet trucks, and using du Pont coated fabrics 100% for upholstery and trim. This continued until 1937, but has since gradually been reduced to less than one-third (R. 401; R. 2276-9, 2281). This division asks for bids, and buys from the three lowest bidders (R. 2201; GX 1354, R. 2890, 5368-9). Thus, although du Pont's products are still competitive, du Pont gets a smaller proportion of the business than when the purchaser was not a part of General Motors.

Neoprene, a synthetic rubber developed by du Pont, has been used to a much greater extent by Chrysler and Ford (R. 442-3; R. 2513-17, 2528). Its major use in this field is for radiator hoses, for which Ford and Chrysler use it, but not General Motors (R. 442-3; R. 2507-9), which uses a cheaper product (R. 2523). Chrysler also uses, and helped develop, du Pont's synthetic rubber adhesive for brake linings, but General Motors prefers a more expensive type of synthetic rubber (R. 443; R. 2518, 2526; DPX 355-56, R. 2510-11, 6312-13). In all of these situations the products which Chrysler and Ford buy from du Pont are obviously competitive.

The record contains other examples of General Motors' failure to buy from du Pont when du Pont's products were in all respects equal to those of competitors. When du Pont was unable to sell its weatherstripping cement to Fisher Body, except in minor amounts, although its cement was "at least the equal of the competitive ones," the General Motors buyer stated that "there was no advantage in using our [du Pont's] cement," even though "some of the plant managers liked our cement better" (R. 401; R. 2095-8). When du Pont failed to sell rubber coated fabrics to the Electromotive Division of General Motors at a time when it was selling to that division's leading competitor all of its requirements for that type of material, it was told that it could get none of the business because "They are perfectly satisfied with their present sources, and they see no advantage in using ours" (R. 2110). Du Pont was unable to sell seat fabrics to the General Motors Truck and Coach division, even though its product was as good as Goodrich's Koroseal, because "we didn't take care of that need when it first developed. Koroseal did, and therefore they were entitled to a continuation of that business" (R. 2104-5). In one of the episodes relied on by the Government to show favoritism for du Pont (discussed at greater length at pp. 87-89, *infra*), when du Pont was asked to develop a better product for the Delco-Light Company, du Pont was instructed, after the material had been made, to "delay shipment until they could determine whether their old supplier * * * would be able to actually satisfy them * * *" (R. 358; R. 2402). When du Pont sought to obtain orders from General Motors' Inland Division for the plastic used in steering wheels, their product was equal, but Inland "just seemed to prefer to do business with" two other companies (R. 2601-2).

These examples show that there was no policy that du Pont would get the business when its products, prices and services were equal to its competitors. They confirm the testimony of many witnesses to the effect that there was no restriction upon General Motors' purchasing in favor of du Pont.

With respect to these miscellaneous products, the trial court found (R. 447):

> "All of the evidence bearing upon du Pont's efforts to sell these various miscellaneous products to General Motors supports a findings [sic] that the latter bought or refused to buy solely in accordance with the dictates of its own purchasing judgment. There is no evidence that General Motors was constrained to favor, or buy, a product solely because it was offered by du Pont. On the other hand, the record discloses numerous instances in which General Motors rejected du Pont's products in favor of those of one of its competitors. The variety of situations and circumstances in which such rejections occurred satisfies the Court that there was no limitation whatsoever upon General Motors' freedom to buy or to refuse to buy from du Pont as it pleased."

The Government has emphasized that du Pont is the largest manufacturer of chemical and related products, and has not impugned the efficiency of its operations or had the temerity to assert that it is never competitive in the fields in which it operates. And yet the import of the Government's position here is just that. Du Pont, if the Government's theory is to be credited, never sells anything in quantity to General Motors on its economic merits. If General Motors buys, at least in any volume, the reason is not the competitive superiority of what du Pont offers, but a collusive understanding or the inevitable consequence of du Pont's stock ownership. If it doesn't buy, the product must be inferior.

As would be expected, the evidence shows that the notion that du Pont lacks competitive competence is nonsense, whether one looks at the picture as a whole, or only at the commodities upon which the Government chooses to focus attention.[29]

The Court must, of course, look at the entire spectrum of what du Pont does and does not sell to General Motors in order to evaluate the Government's claim. If that is done, it will appear that du Pont's success or failure in selling to General Motors varies not only from product to product but also from year to year and division to division of General Motors, each of which purchases independently.

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[29] Impartial witnesses from the Westinghouse and Crosley Companies testified, with respect to finishes, that:

> "* * * du Pont has the finest trained technical group at their beck and call, at the beck and call of the users of the materials, of anybody in the business * * *" (R. 2488-9).
>
> "* * * in addition to the very fine inherent qualities of the material as we know them, and also the fine association we have had with du Pont for all these years, that one of the next items in importance and in favor of or continuing with du Pont is the fact that they do have an excellent technical service that they offer us constantly, which consists of not only sending technical service people into our plant, but also making available to us their laboratories where we can send our people or send panels in to keep a constant check on the quality of the material as we receive it and also the way we put it on.". (R. 2476).

As to fabrics, du Pont's "research and technical facilities were greater than those of our leading three or four competitors—five competitors, who were manufacturing coated fabrics for the automotive industry. Q. You mean the five leading ones combined? A. Yes." (R. 2123). No other competitor had developed anything like the number of new and superior fabrics which du Pont has (R. 2126, 2120-5). General Motors buyers say that they do business with du Pont "because they know our quality and service and dependability are superb. They have had that experience with us. They know that when they have a problem, a difficult problem to lick, that we can usually come through with the results." (R. 2120).

Du Pont provides General Motors with most of its needs for some things, and a smaller proportion or none for others—just as would be expected in a competitive market. And the sales which du Pont makes to General Motors, whether large or small, are traceable [illegible] factors relating to the economic merits of the transaction, or having nothing to to do with du Pont's stock interest in General Motors.

3. *The General Purchasing Committee.*

While Pierre S. du Pont was president of General Motors, a committee was established to coordinate purchasing where identical products were used by a number of General Motors divisions. The Government charged that this committee was created "in order to insure that du Pont Company's wishes would be * * * fully complied with", and that the committee was an effective instrumentality in carrying out the conspiracy (R. 233-234). The Government's brief in this Court has abandoned any argument based upon the work of the committee, except for one oblique and misleading reference.[30] Nevertheless, if there had been any du Pont control of General Motors' purchasing policies, it should have manifested itself in the work of this central agency, operating in the period of greatest du Pont authority, and in the area with which du Pont was allegedly particularly concerned. The fact that the opposite was true, as the trial court found, is an important indication that the Government's claim of favoritism to du Pont is without foundation.

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[30] The Government states (Govt. Br., p. 103), without record reference, that "placing an ex-du Pont employee in a strategic position" on the committee is an incidence of du Pont's subtle domination. If this reference is to Lynah, the active executive secretary who would seem to have been the man in a "strategic position", he was an ex-du Pont employee, but he quit after a bitter argument with Carpenter because of du Pont's failure to give him what he thought was a deserved promotion (R. 306; GMX 139-148, R. 1069-76, 6955-68). This would hardly make him likely to give du Pont preferential treatment. If the reference is to Pratt, who was chairman after the first two years, he joined in the committee's refusals to give du Pont what it wanted. See GMX 201, R. 1429, 7246-9, quoted at pp. 20-21, *supra*. Since the Government does not challenge the finding that the committee dealt with du Pont only in the same manner as it did with other suppliers (R. 372), it is obvious that the actions of the strategically placed ex-du Pont employee constitute proof of the highest order against the Government's theory. The Government's use of the fact that an official of the committee had formerly been an employee of du Pont, without reference to anything else about him or the committee's activities, gives a highly inaccurate impression.

The committee was established at Sloan's suggestion, but after very thorough intra-company consideration, in order to compete better with the unified purchasing power of the Ford Company by combining the purchases of the various divisions of the company of certain products which all or most of them used (R. 361; R. 1031-2; GMX 43-63, R. 1040-55, 6683-6744).[31] Its membership, appointed by Pierre on Sloan's recommendation, consisted of purchasing agents of the principal divisions, including those of all the car divisions and Fisher Body, and a few officials from the General Motors central management (GMX 63, R. 1055-7, 6744). Sloan was the original chairman (R. 1057) and then Pratt (R. 1419), although Sloan remained a member to 1928, and Pratt was a member throughout the committee's existence (GMX 2, 3, R. 991, 6561-2). Wilson became chairman in 1929 (GMX 285, R. 2778, 7476; GX 1271, R. 653, 5208). The committee was abolished in 1931 (R. 371).

The committee at the beginning prepared a list of 32 products as to which combined purchasing for the divisions might be possible (R. 361). One hundred forty-seven contracts were negotiated with other suppliers before the first contract was made with the du Pont Company in December 1924 (R. 364; GMX 154, R. 1092, 7035). The committee had previously rejected proposals to make such contracts for Pyralin and imitation leather, which were produced by du Pont (R. 364; R. 1101-3; GMX 155, R. 1100, 7077, 7081).

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[31] In 1921, Ford had 55% of the United States automobile business. The largest of the General Motors divisions (each of which was then purchasing separately) was Buick with less than 5% (GMX 36, R. 1034, 6664).

In all, during the period of its existence, the committee entered into 709 contracts, 14 of which were with du Pont, mostly for pyroxylin finishes (Duco), and 30 with du Pont's competitors for products which du Pont made (R. 364; GMX 154, R. 1092, 7023-76). Thirteen requests for contracts by du Pont or for materials which du Pont could have supplied were turned down (R. 364; GMX 155, R. 1100; 7077-98).

The committee adopted a number of general rules, one of which was that where possible there should be more than one source of supply for each commodity (R. 365; R. 1104; GMX 158, R. 1106, 7106). This rule and the others were applied to du Pont the same as to anyone else, as both Lynah's testimony and the minutes of the committee show (R. 1145, 1151; GMX 158, 159, R. 1106, 1107; 7106-11; GX 412, R. 528, 3986). Their first application to du Pont was in the direction of limiting du Pont's sales. In 1923, after du Pont had, for special reasons,[32] enjoyed 100% of certain of General Motors' fabrics business for the preceding year, it was advised that it would be contrary to General Motors' policy to permit more than 75 to 80% of the business to go to any one supplier in the future (R. 361-2; R. 1153, 1161; GX 412, R. 528, 3986).[33] It has been noted (*supra*, pp. 15-16) that this policy was put into effect and applied to du Pont, even though Pierre was opposed to it as a matter of business judgment (R. 362-3). The General

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[32] In return for du Pont's consent to cancellation of part of the 1920 fabrics contracts with General Motors, because of the depression of that year, General Motors agreed to buy its 1922 requirements of coated fabrics from du Pont (R. 399; R. 2186-7; DPX 253, R. 2211, 6165).

[33] The testimony of Lynah was that this did not mean that du Pont was necessarily to get 80% or "any particular percentage" of the business (R. 1153, 1161), and, as the trial court found (R. 362), the records of the General Purchasing Committee corroborate this testimony. The interpretation of the Committee's statement in an intra-du Pont report as guaranteeing du Pont 80% of the business (GX 406, R. 527, 3979-80) was overly enthusiastic and not accurate, as the trial court found (R. 362), and as subsequent events proved.

Purchasing Committee also sought actively to find a finish competitive with Duco, and ceased making contracts obligating the divisions to purchase Duco as soon as other finishes approved by General Motors Research were available (see pp. 55-56, *infra*). The Purchasing Committee in 1923 not only stated that the two-source of supply policy should apply to du Pont, but also specifically applied to du Pont a rule prohibiting the then common practice of giving one competitor the opportunity to meet other competitors' prices (R. 363; GMX 160, R. 1100, 7113-4 (Minutes of August 2, 1923 and July 2, 1924); GX 412, R. 528, 3986).

When du Pont sought a cost-plus contract covering all fabrics needed by General Motors, Sloan and the Purchasing Committee refused (GX 413, 415, R. 528, 1161, 3987-90). When du Pont sought Pierre's aid in inducing General Motors to join with du Pont in the policy of "reciprocity", Pierre turned the matter over to the General Purchasing Committee, which opposed the proposed program, and it never was adopted (R. 366-371). See pp. 19-21, *supra*.

The Government three times (Govt. Br., pp. 63-67, 119-121, 141-142) quotes or refers to various letters written by du Pont officials between 1921 and 1925 expressing their desire to get Fisher's business. The Government says, with entire accuracy, "There can be no doubt they wanted that business" (Govt. Br., p. 141). There was, of course, nothing wrong with that.

The Government then says, "Then du Pont worked out the scheme whereby discounts to General Motors on its large purchases depended on swinging the Fisher Body business to du Pont" (Govt. Br., p. 142). But the special discount "scheme" was not "worked out" by du Pont but was a part ~~of a general~~ program promoted by the General Purchasing Committee to secure lower prices from many suppliers.

The so-called super (or multiple item) discount, was really an over-all additional discount based on the total volume of General Motors' purchases from a supplier. The idea of giving of such discounts originated with Lynah (R. 1423) of the General Purchasing Committee. At least 18 such contracts were made with companies other than du Pont (R. 1119-23; GMX 164, R. 1119, 7147-54).

The Government, now calling this "pressure through use of special discounts" (Govt. Br., p. 67), has claimed that the super-discount contracts with du Pont for the years 1927-1931 were meant to induce Fisher Body, which by then had been completely absorbed by General Motors, to give du Pont more of its business. Assuming this to be true, the very fact that du Pont should have to offer an extra discount in order to get a part of the General Motors business is entirely inconsistent with the theory of the Government's case. Whether or not a special discount can properly be described as a form of "pressure", it is pressure resulting from a low price, and not from the force of du Pont's stock ownership. Every seller tries to exert that kind of "pressure." Indeed the record indicates that the "pressure" was exerted by General Motors on du Pont, as on other suppliers, in order to secure better prices (GMX 164, R. 1119, 7147). If there had been an agreement, understanding or influence requiring that General Motors buy from du Pont whenever possible, or preferentially, the concession of a super discount would not have been necessary.

But apart from these considerations, the facts as to the super discount show the absurdity of the Government's claim. Fisher was taken over completely by General Motors in June 1926 (GX 505-507; R. 598, 4173-76). The first super discount plan became effective in October 1926, four months later (R. 1120; GX 462, R. 537, 4111; GX 464, R. 538, 4117). According to the Government, this enabled du Pont to sell to Fisher "not on the basis of merit, but on the basis of control" (Govt. Br., p. 142), which obviously means that du Pont was finally in a position to compel Fisher to buy. Instead, we find du Pont like other suppliers attempting to secure business from Fisher (and the other divisions) by offering large discounts, resulting in substantial cost savings to General Motors. A 1927 du Pont report shows that du Pont was hopeful, but by no means sure, that a savings of "as much as $500,000 a year" to General Motors would get du Pont some of the undercoat and black Duco business (GX 492, R. 541; 4148).[34] This is hardly the attitude of a monopolist exploiting a "captive market" which it controls.

The trial court found (R. 381):

> "Moreover, the record indicates that even the discount did not secure for du Pont all of Fisher Body's business and indeed may not have increased the portion of Fisher's requirements purchased from du Pont though the total dollar purchases from du Pont by Fisher did increase. The record also shows that Fisher Body at all times conducted its purchasing with respect to finishes, fabrics and all other products in accordance with its own best judgment."

The philosophy of the General Purchasing Committee and of General Motors was set forth in 1928 by Lynah, the Committee's Executive Secretary. The sales manager of a du Pont subsidiary had asked him (GMX 193, R. 1155, 7231) to "specify the use of du Pont film" for pictures made for General Motors. In reply Lynah stated (R. 365-6; GMX 194, R. 1155, 7232):

> "In the making of our purchases, we believe that each transaction should stand on its merits and we presume that the company buying films for our use is

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[34] "Their own estimate is that General Motors Corporation might save as much as $500,000 a year by placing this business with us, due to our lower prices on undercoats and the increased discount this added volume would enable them to obtain on all other purchases under our so-called 'super discount' agreement. Our latest information is that this subject is being actively agitated by the G. M. Purchasing Committee but have not yet heard to what extent the operation of the super discount plan is swinging sentiment in our favor." (GX 492, R. 541, 4148)

> guided by this same principle and that if the quality of your product and service, consistent with prices quoted, are the best he can obtain, he will buy from you."

The record thus amply discloses that the General Purchasing Committee was not created to and did not favor the du Pont Company in the eight years of its existence. The Government offered no evidence to the contrary. The trial court correctly and necessarily found (R. 371-2):

> "The evidence of record does not establish, or tend to support, the Government's contention that the General Purchasing Committee was created and operated as an instrumentality to carry out the desires of du Pont. In fact, actions taken by the Committee were seriously detrimental to du Pont in a number of respects. For example, the Committee initiated the two source of supply policy in connection with artificial leather and top materials; it refused to make a contract with du Pont for pyralin; it encouraged the early development of competition for Duco, and refused to renew du Pont's requirements contract as soon as a competitive lacquer was available.
>
> "The Committee, the record shows, was created, operated and ultimately terminated in 1931 to serve General Motors interests—not du Pont. Relations with du Pont were but a minor aspect of its activities, and it dealt with du Pont only in the same manner as it did with other suppliers. All of its work is now ancient history and the evidence with respect to its activities has but limited probative value. But to the extent it deserves consideration it supports the position of the defense rather than the Government."

If the Government could not prove that this Committee—established while Pierre was president of General Motors, operating in the 1920's at General Motors' headquarters, and in the very field of purchases which du Pont is alleged to have dominated—had favored the du Pont Company in its purchasing policies, it would seem obvious without more that the Government's charge that du Pont controlled General Motors' purchasing policies is without foundation. The history of the Committee not only does not support the Government; it provides affirmative proof that there was no policy or agreement to favor du Pont in purchasing.

As has been pointed out, the Government has abandoned its claim of coerced favoritism as to all commodities but finishes and fabrics. We have already suggested that this in itself refutes the Government's contention of an inevitable policy of preference. We shall now show, as the trial judge found, that General Motors' purchasing of du Pont products in those fields was motivated by normal competitive considerations.

4. *Industrial finishes*

(a) *Duco*

The major item General Motors purchases from du Pont is Duco—a lacquer used for "painting" automobile bodies. In 1946-47, as in previous years, General Motors purchased about 70% of the finishes it used from du Pont, two-thirds of which was Duco (R. 394-5; DPX 573, R. 3008, 6531; GX 1400, R. 2930, 5431; GX 1344, R. 2846, 5340). In 1947 25 other companies sold finishes to General Motors in amounts ranging as high as $3,205,000 (GX 1400, R. 2930, 5431).

The paint story begins before the advent of Duco. Between 1910 and 1918, the Flint Varnish and Color Works, located in Flint, Michigan, near the General Motors factories, produced almost all of General Motors' requirement of paint, enamels and varnish for all the cars except Cadillac, and also for many other automobile companies (R. 382; GX 277, R. 499, 3699). Du Pont acquired control of Flint in 1918, shortly after it acquired stock in General Motors (R. 344). In 1921, it *lost* one-half of the Oakland business (GX 420, R. 528, 4010), and in 1923 some of the business at Buick, Oakland and Oldsmobile (R. 382; GX 420, R. 528, 4010; DPX 220, R. 2693, 6122). The opposite, of course, would have happened if there had been any such conspiracy or irresistible du Pont influence as the Government charges.

One of the major problems confronting the automobile industry in the early 1920's was the absence of a suitable paint. Cars had to be painted and repainted, over periods of from 12 to 33 days, and the storage space and working capital tied up in cars otherwise completed was immense (R. 382; R. 585-8, 1285-6, 1586, 2136-7). After the cars were sold, the paint still would not last and the cars had to be repainted frequently by the owners (R. 1285, 2136, 588). In 1919 Kettering tried to interest six paint companies in the problem, unsuccessfully (R. 1586-7). In December 1921 General Motors created a Paint and Enamel Committee which contacted every reputable paint manufacturer in the country in search of a better product (R. 382; R. 1289-90, 2137-8; GMX 104-5, R. 1287, 6867, 6869; DPX 202-9, R. 2034-2038, 6083-93).

Kettering thought that a lacquer such as was used on airplanes might be a possible solution (R. 382-3; R. 1587-8). In the meantime, du Pont had developed a lacquer, which it had marketed to the auto refinishing trade, and to manufacturers of furniture, brush handles and pencils (R. 383; R. 2029-30, 1944), but not to General Motors. When the du Pont Company was approached by one of the General Motors research group, this lacquer was submitted for testing (R. 383; R. 2030-1). When the tests showed promise (R. 383; DPX 202, R. 2034, 6083-5; GMX 113, R. 1296, 6880; GMX 267, R. 1589, 7402), intensive effort was made to develop a satisfactory product, and a greatly improved and suitable finish, which du Pont called Duco, was the result (R. 383; R. 2032-2034, 2038-2039, 1589-1590, 1945-1946; DPX 177-178, R. 1950, 6013-6018).

Continued testing of Duco and also the products of other companies resulted in the conclusion that Duco was substantially more durable than the others (GX 1228, R. 523, 5180; GMX 109, R. 1294, 6873-6875). Du Pont seemed to have come up with something that was the answer to "a very wild dream", "that cars ought to be able to stay out of doors day and night throughout the entire year" (GMX 122, R. 1310, 6931). Tests indicated that Duco would last for 17 months as against 3 months for other types of colored finishes (GMX 113, R. 1296, 6882-3).[35]

The new finish was adopted by Oakland (now Pontiac) in 1923 (R. 384-5; R. 1951-2, 2043; GMX 121, R. 1309, 6928). It was an immediate success (R. 384; R. 1309-10, 1954-4; DPX 188, R. 1954, 6050). Not only did the public like Duco (R. 1953-4; DPX 188, R. 1954, 6050-51), but its use produced great savings for Oakland. Painting time of an Oakland body came down from 366 hours to 12½ hours; material costs were lowered; the floor space necessary for painting operations was substantially reduced; the number of bodies being painted at one time was reduced from 2400 to 600; inspectors' rejections were cut from 20% to 2% of daily production (R. 2050; DPX 198, R. 2022, 6075).

In the next year the other General Motors cars (except for Cadillac, as to which Duco was optional (R. 385; R. 1962)) and many other cars switched to Duco (R. 385-6; R. 2045; GMX 120A, R. 1308, 6919-27). By the end of 1925 all cars except Ford and Cadillac were using Duco (R. 2048).

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[35] The older enamels were durable only in black (GMX 113, R. 1296, 6882).

Although Sloan and other General Motors officials encouraged this development because they believed Duco to be a vastly superior product (R. 386; R. 1311), the decision was left to each General Motors division independently (R. 385-6; R. 1310, 1957-9, 2141, 2143). The discoverer of Duco, Flaherty of du Pont, testified that Mr. Sloan "was quite clear in his statements to us that the car units were the ones who would make the final decisions" (R. 2041).[36] This pattern is hardly consistent with du Pont control, or a combination or conspiracy.

From the beginning General Motors continued to look for competitive materials (R. 386-7; GMX 168-178, R. 1131-1137, 7162-80; GMX 180-183, R. 1140, 7186-89). As early as July 1924 (before all the General Motors divisions had decided to turn from varnish to Duco), the General Purchasing Committee (of which Sloan was then chairman) "decided to develop the competitive field for pyroxylin paints" (GMX 168, R. 1131, 7162). Letters were sent to other paint companies, asking them to submit samples if their "development of pyroxylin paints have proceeded sufficiently far * * *" (GMX 170-1, R. 1132, 7164-5). In 1925, however, there were none as good as Duco (R. 2010, 2052-53).[37]

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[36] Weckler, then Buick's superintendent, and, since 1932, an executive of Chrysler Corporation, testified that Buick took the lead in testing various finishes, that he recommended that Buick use Duco, that he was not told that Mr. Sloan wanted Buick to use Duco, but that he favored it himself (R. 2138-41).

[37] Weckler stated (R. 2142):

> "Well, at the Buick plant our experience was that we did not find any materials that were satisfactory as the 'Duco' material, and we were progressing very well with the materials, and were reluctant to change our entire system, and in addition to that 'Duco,' the du Pont Company had a plant, the Flint Paint & Varnish Company which was located very close to the Buick Motor Company at Flint, and we thought it was a decided advantage to have a plant in that location making material, because, as we say, all of the bugs had not been worked out of the thing, and this established a source of supply which was so convenient that in a few minutes we could work back and forth if we got into some sort of difficulty or if we had any questions, and we were very close together, and we thought with all of those advantages, we thought we might better go along with the material we were working with."

In May 1925, the Committee again pressed General Motors Research for approved competitive sources (GMX 175, R. 1137, 7170). The reply stated (GMX 176, R. 1137, 7174):

> "We feel that in the case of material which is advertised by our Companies as strongly as Duco, no production should be under-taken on material which has not had at least a full year exposure test on test racks."

See also R. 1130-31. It was suggested that test cars be put out on the road with competitive finishes on them; "in this way we feel that the General Motors Corporation will be in a position by next spring to definitely put into production materials made by some of the companies competing with Duco" (GMX 176, R. 1137, 7175-6). The General Purchasing Committee took steps to expedite this suggestion. (GMX 180-183, R. 1140, 7186-89).

During this period, the General Purchasing Committee, unable to find an adequate competitive lacquer, entered into a series of three requirements contracts with du Pont for six months, six months, and one year, covering 1925 and 1926,[38] (R. 386-8; R. 2649-51, 2655, 2671; GMX 167, R. 1128, 7159-60; GMX 179, R. 1139, 7181-85; GMX 184, R. 1141, 7190-99). By 1927, equivalent competing lacquers had come on the market (R. 1923, 2010, 2052-53, 1142). Thereafter the General Purchasing Committee entered into no requirements contract with du Pont for Duco but rather a discount and pricing contract ("requirements of seller's make") under which participation by the divisions was optional (R. 388-9; R. 1142; GMX 185-190, R. 1142-4, 7200-27).

Oldsmobile and Cadillac then switched to a competitor, Rinshed-Mason, and have continued to buy almost exclusively from that company ever since (R. 389; R. 1923-1927).

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[38] The last two contracts applied to only one-half of Fisher Body's requirements (R. 388).

Chevrolet, Buick and Pontiac continued to buy from du Pont. Fisher Body at first divided its purchases of topcoats among du Pont and three other companies, and has continued to buy from du Pont, Forbes and Rinshed-Mason (R. 389; R. 1923, 593). It buys its undercoating from du Pont's competitors for 13 out of its 14 plants (R. 389; R. 1923).[39] In part, the several car divisions were influenced by the proximity of their plants to those of a particular paint supplier. Cadillac was located near the Rinshed-Mason plant in Detroit, and Buick and the main Chevrolet plant were in Flint, near the du Pont paint works (R. 389; R. 1924, 1926-7). "Geographical location" is an "important factor" (R. 1968).

These uncontroverted facts show General Motors seeking to develop competitive sources of supply *vis-a-vis* du Pont, even in an area in which du Pont had pioneered, a picture hardly consistent with the Government's theory that "The natural thing was to lean toward du Pont whenever a reasonable choice existed" (Govt. Br., p. 127.) Certainly it would have been "reasonable", as well as natural if any preferential policy had existed, for General Motors, during this period in the 1920's, to leave well enough alone and to stay with the progressive and satisfactory supplier which had developed the new, improved product. Instead, General Motors made strenuous and eventually successful efforts to develop competitive sources which secured the business of two General Motors car divisions, and part of the large Fisher business. It is to be noted that this action of the General Purchasing Committee, acting contrary to du Pont's interests, took place while Sloan was either its chairman or a member, as well as president of the corporation.

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[39] Another type of undercoat, a pyroxylin surfacer, is sold by du Pont to Nash and Chrysler (and formerly to Marmon) and to General Motors of Canada, but not to General Motors otherwise (R. 389; R. 1982; GX 479, R. 540, 4132).

Most of the automobile manufacturers, including presently Nash, Hudson, Studebaker, Packard and Willys, have bought and still buy finishes in substantial amounts from du Pont (R. 389; R. 1991-4). Chrysler bought from du Pont in volume until the 1930's when Mr. Keller of Chrysler told Williams of du Pont that

> "he thought the best interests of the Chrysler Division would be served if they could find some supplier that would look upon Chrysler as the customer, and he thought that they had just about lined up someone who could take care of almost their full requirements.
>
> "Q. Did Mr. Keller advise you that there was any complaint about your materials or service?
>
> "A. None at all, sir.
>
> "Q. What did he say with respect to those factors?
>
> "A. He said that our service and performance of our products was very satisfactory.
>
> "Q. Were you thereafter successful in obtaining any significant amount of Chrysler's business?
>
> "A. We sell Chrysler a substantial quantity of materials, but it is insignificant in relation, I would judge, to their total requirements." (R. 1995).

Ford produced its own lacquer, but in the 1930's, when it changed to another type of finish, it bought up to 50% from du Pont (R. 1992; GX 1376-77, R. 2824, 5407-8). Henry Ford then "issued instructions that the Ford Motor Company was not to purchase any more material from the du Pont Company" (R. 1992-93). After the war, Henry Ford II said (R. 1993):

> "that he thought that the du Pont Company, with all of its research facilities and capacity, had something Ford could use * * *
>
> "He said that he saw no reason why we should not start to submit samples to their purchasing department and their technical laboratories, and if we could

give them proof we would be judged on our merits, and if we got the business, why, we would do it in the way that Ford would customarily do business with other sources."

Since then, and at the time of the trial, du Pont was selling "Ford very substantial quantities of topcoats", although Ford still has its own paint plant and manufactures large quantities for itself (R. 1993).

The record thus shows that the failure of Ford and Chrysler to buy from du Pont was not attributable to du Pont's inability to compete on the merits. Nevertheless, the fact that Ford and Chrysler in 1947 either produced most of their own paint or bought elsewhere explains why most of du Pont's sales to the automobile industry were to General Motors. The other automobile manufacturers together comprised only a small portion of the industry. Thus, if du Pont sold in substantial volume to them and to General Motors, but relatively little to Ford and Chrysler, its sales to General Motors would necessarily be a much larger portion of its total sales to the automobile industry than the number of cars produced by General Motors would be of total car production. Accordingly, there is no basis for the Government's argument that influence must account for the fact that du Pont sells proportionately more to General Motors than it does to the automobile industry as a whole.

Du Pont manufactures and sells other finishes used on other parts of automobiles, with varying degrees of success (R. 390-92; R. 1996-2004). The General Purchasing Committee, from 1926 through 1931, contracted with a competitor of du Pont for General Motors' requirements of white lead, commonly known as house paint, which was one of the products made by du Pont (GMX 155, R. 1100, 7043-7076). As with Duco, the distance the du Pont or competing factories were to the particular General Motors operations was "a big factor" (R. 2004, 1997-1999). "Proximity means a great deal" in furnishing better service (R. 1998).

General Motors continued to test various types of finishes, but found none better than those which it was using (R. 1931, 1934-5). The head of the Chemistry Department in the General Motors Research Laboratories testified:

> "Q. Have you tested paints from manufacturers other than the three suppliers you are referring to?
>
> "A. We are continually testing paints, wherever we can get them. If anybody has an idea that they have a paint that will be better than what we are using, we test them.
>
> "Q. Have you ever found a supplier with a substantial line of colors that seemed to be better than the three suppliers of General Motors at the present time?
>
> "A. Nobody has given us a line of materials which showed enough advantages to make it worth while changing." (R. 1931)
>
> "You do not change your paint materials on a big operation like General Motors, just because it is a little bit better in any respect. When you are painting that many automobiles in a day, you don't have to be wrong very long before you have an awful lot of dissatisfied customers. So when you are not in trouble, you don't change." (R. 1935).

It is apparent from the above pattern, or lack of pattern, that each General Motors division has bought finishes from du Pont and others as a result of normal competitive considerations. General Motors originally turned to Duco because it was a new and superior product. It now buys a considerably smaller percentage from du Pont—but nothing in the record suggests that these continued purchases have not been on the merits of the product and the services going with it. This is not evidence that du Pont was accorded any preference, or that there was any understanding because of du Pont's ownership of General Motors stock.

Five witnesses familiar with the purchases of finishes testified that there was no preference or understanding, and made it very clear that du Pont's sales to General Motors were on a competitive basis. Wirshing (R. 1931), Williams (R. 1990), Weckler (R. 2142-3, 2147), Flaherty (R. 2031, 2033, 2039, 2053-54), Lawrence Fisher (R. 592). Weckler testified (R. 2146-47):

> "In my capacity, I would not have cared very much whether the research and development division had brought in some material, or from Joe Doakes or from du Pont or some other division of the corporation. We were looking for a material and when we found something that seemed to have promise, we naturally took onto it, and took it into our plants and began cooperating with the makers of the material, trying to develop it as rapidly as possible to see if it were really the thing that we were looking for, and that was the first thing that we found. * * *
>
> "I was not aware of any pressure being applied to anyone, including myself, in our organization, nor upon the Paint and Enamel Committee members, nor upon the Research and Development Section, nor upon the Fisher Body Section * * *"

Flaherty stated that when competitive lacquers to Duco came on the market beginning in 1927 (R. 2054):

> "We were compelled, not only, of course, to try to do everything we could technically to improve our quality, but we put in manufacturing capacity in areas other than Parlin and Flint, so that we could give better service, and ultimately we reduced prices."

The trial court found (R. 395-396):

> "Duco was invented and patented by du Pont. It made a substantial contribution to the art of automobile finishing and was one of the factors that made possible mass production of automobiles. Testimony of Sloan, Lawrence Fisher and Weckler establish beyond any doubt the high value of this development to the automobile industry. Sloan recognized its potentialities in advance of some of his associates and urged the adoption of Duco. Such action on his part does not evidence a trade agreement with du Pont or response to alleged du Pont control. It is rather an instance of his foresight and leadership, not unlike a number of other incidents that contributed to his success as the Chief Executive Officer of General Motors. The testimony of Weckler, who for many years was an executive of Chrysler Corporation, was similarly convincing that Duco answered a long felt need in the automobile industry and made its way solely on its merits. In short, the Court rejects as wholly without foundation any contention that Duco was forced upon General Motors by reason of du Pont influence or domination.
>
> "The record shows that after competitors began to produce a lacquer comparable to Duco some General Motors Divisions turned to such competitors while others continued to buy in whole or in large part from du Pont. Du Pont, it appears, has retained its position as the most important single supplier of General Motors. The Government has failed to establish, however, that this position was maintained in any illegal manner. Flaherty, Williams and Wirshing all made clear that du Pont's position was at all times a matter of sales effort and keeping General Motors satisfied. There is no evidence that General Motors or any Division of General Motors was ever prevented by du Pont from using a finish manufactured by one of du Pont's competitors; * * *"

Any other finding would have been without any support in the record.

(b) *Dulux*

Outside of the automobile field, Duco was used as a finish for refrigerators by General Motors' Frigidaire Division until 1927, when it was largely replaced by porcelain (R. 389-90; R. 2395-9). It was also used by other companies (R. 2484). In 1930 or 1931, in collaboration with the General Electric Company, not General Motors, du Pont developed a greatly superior and cheaper product known as "Dulux" (R. 390; R. 2383-84, 2484-85). This was first offered to and used by General Electric (R. 390; R. 2383, 2405), and has since been used exclusively by other principal manufacturers for refrigerators and other appliances —General Electric, Westinghouse, Crosley—and by many of the smaller companies to a greater extent than by Frigidaire (R. 390; R. 2405-06, 2407-10, 2475, 2483-84). Next to Duco, Dulux was the largest item dollar-wise which du Pont sold to General Motors (GX 1344, R. 2846, 5340-46). The trial court found that Dulux (R. 396):

> "is apparently an ideal refrigerator finish and is widely used by a number of major manufacturers other than General Motors. Several representatives of competitive refrigerator manufacturers testified that they purchased 100% of their requirements from du Pont. There is no evidence that General Motors purchased from du Pont for any reason other than those that prompted its competitors to buy Dulux from du Pont—excellence of product, fair price and continuing quality of service."

5. *Fabrics*

(a) *Generally*

The fabrics picture is the same, but less easy to simplify because of the large number of products involved and the changes in the demand for particular products over a period of 30 years. The products involved during the earlier years, before closed cars (especially those with all-metal tops) came to predominate, were artificial leather (Fabrikoid and later Fabrilite) and top material (Pontop, Everbright and Teal) (R. 397).

At the present time, fabrics of the types sold by du Pont —artificial leather used for inside trim and top materials for convertibles—constitute a small proportion of the total fabrics used in an automobile. Apart from the top material for convertibles, they averaged in 1946 about 1.6 yards, costing about $2.22 per car (GX 1349, R. 2890, 5355; see also DPX 297-8, R. 2266, 6231-2), and 2.75 yards in 1953 (R. 2092). They are used principally for such things as front seat tops and backs, kick pads and shelves behind rear seats (R. 402; GX 1381, R. 2825, 5414). Du Pont does not manufacture the cotton and wool products of which most of the upholstery is composed.

Du Pont sales of fabrics to General Motors in 1947 were about $3,700,000 which, the trial court found, filled approximately 40-50% of General Motors' requirements; for 1947 the figure was 38.5% (R. 403-4; R. 2171; DPX 569, R. 3007, 6527; GX 1344, R. 2846, 5340).[40] General Motors purchased coated fabrics and imitation leather in substantial quantities from 17 other suppliers (GX 1343A, R. 2846, 5324-5). In 1950 du Pont's share of the automobile market was $6.8 million out of $40 million, or 16.8% (DPX 563, R. 2998, 6483).

The trial court found (R. 405):

> "On the basis of all of the evidence of record * * * that there was at no time any agreement that bound General Motors to buy any fixed portion of its fabric

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[40] The trial court rejected as inaccurate the Government's figures of 74.5% for 1946 and 60% for 1947 on the ground that the Government's tabulations failed to include some sales to General Motors by competitors of du Pont (R. 403-4). Although not challenging this finding, the Government commingles its own percentages (and a similarly calculated figure of 63.8% for 1948) with those found by the court to be accurate (Govt. Br., pp. 60-61), with the obvious desire that this Court give them some weight.

> requirements from du Pont with the exception of the year 1922. * * * The Court further finds that such purchases of fabrics as the General Motors divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment *and are not the result of du Pont domination.* Du Pont, the record shows, has maintained its position as the principal fabric supplier to General Motors through its early leadership in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery." (Italics supplied.)

The record amply justifies these findings.

Each General Motors division bought its own fabrics.[41] Salesmen for du Pont and other suppliers dealt with the separate divisional purchasing departments, and the contracts were made by various persons operating separately at that level.

The character of the dealings between suppliers' representatives and General Motors' purchasing departments was convincingly and extensively described by several salesmen who worked for du Pont over the years (Brown, R. 2182-2312; Nickowitz, R. 2061-2131, 2161-2182; MacShane, R. 2313-2381; Nalle, R. 2857-2911). Their testimony told in detail of their repeated contacts with divisional purchasing departments and the continuous combat with their competitors, based wholly upon the merits of the offered products. The ups and downs of their successful and disappointing results in a period of 30 years refute any possible claim that the results were produced by any factor other than business considerations. Only by reading their testimony as a whole can this Court get the full competitive flavor, which undoubtedly influenced the trial court, of their attempts to sell du Pont fabrics to General Motors. Their testimony and many documents prove that du Pont acquired and lost the patronage of the various General Motors divisions on the basis of the relative merits of its and competitive products.

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[41] The General Purchasing Committee never made a general contract covering fabrics for General Motors.

Prior to du Pont's acquisition of General Motors stock, du Pont was already the major supplier of coated fabrics to the General Motors car divisions—some buying substantially all their requirements from du Pont, and others one-third to one-half—as well as to other car companies (R. 397; R. 2185, 2290, 2072-83; DPX 233-39, R. 2075-6, 2080-2, 6135-45). There is no question that in the beginning there were persons in du Pont who had an expectation of getting General Motors' fabrics business.[42]

But it did not turn out that way. A 1921 du Pont report as to Fabrikoid, after stating with respect to the competitive situation generally that "Competition is fierce,"[43] frankly declared (GX 106, R. 476, 3076-77):

> "It would appear natural that we should secure a large amount of the business of the General Motors Company.
>
> "This is, however, not the case, as we are placed by them in severe competition, and not always equal competition. By this we mean that during recent months we have been in competition with concerns in receivers' hands, who are willing to take business at most any price."

Indeed, as the 1921 letter quoted in the Government's brief (p. 33) admits, du Pont was often met with "latent resentment" by the General Motors units. (Pratt testified to the same thing (R. 1412). Du Pont did not overcome this by influence but by making special efforts to outstrip its competitors in the way of service, quality and price in order to secure and keep General Motors' business.[44] In 1919, Buick "stated that not only were [du Pont's] deliveries 100% efficient, and it was not true of many of [du Pont's] competitors, but also that the quality of material that they were receiving was the best they had ever had from anyone" (GX 303, R. 504, 3808).

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[42] See, *inter alia*, the Raskob report of December 20, 1917, discussed at p. 77, *infra*.

[43] "In short, the outlook appears to be for a long future period of vigorous competition, in which reliance must be had for profits upon superior efficiency in purchasing, production and sales. * * * There would appear to be no necessary or permanent reason why the du Pont Company should not continue in this field on at least an equal footing with any other manufacturer." (GX 106, R. 476, 3076).

During this period, although du Pont was able to maintain its pre-existing status as the supplier of the bulk of General Motors' fabrics, it did not increase its share of the business, although it "endeavored to sell all we could at each time there was an opportunity" (R. 2185). Indeed, in 1918 there had been a temporary decline (R. 2188, 2206-07, 2209, 2222, 2226-27). Competition was so severe that, in passages quoted by the Government (Govt. Br., pp. 32, 37-38), du Pont suggested that General Motors should enter into a "permanent" arrangement whereby it would obtain all of its fabrics from du Pont, "on some *mutually* advantageous basis"; this, it was urged, would enable du Pont to run its plants more steadily and economically, to the advantage of General Motors as well as itself (GX 417, R. 526, 3998; GX 403, R. 526, 3958; GX 413, R. 528 3987-88).[45] But, as the Government does not mention, these proposals were never accepted by General Motors.

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[44] "Both Sales and Production departments have concentrated upon our standing with General Motors; we believe that the object sought has been accomplished and that today Fairfield is 'solid' with General Motors. In general, our reports are that our products are considered by the several General Motors units as equal or superior to those of competitors, and in addition we have at some slight increase in cost to ourselves, sent out our product in a form somewhat better adapted to the factory practices of the General Motors plants than have some of our competitors." (GX 417, R. ~~526, 3999)~~.

[45] One of these letters, written to Pierre du Pont when he was president of General Motors, concludes (GX 403, R. 526, 3960):

> "Of course, I appreciate that you, personally, can take no steps in this direction, but I was anxious to learn whether you are personally opposed to such a policy."

This shows a contemporaneous recognition by the du Pont company that Pierre as president did not dominate or control General Motors purchasing policies.

As has been noted (*supra* p. 47, fn. 32), in order to induce du Pont to cancel some of its orders for what turned out to be more goods than it could use in the depression year 1920, General Motors agreed to buy all its requirement of coated materials from du Pont for 1922 (R. 399; R. 2186-87). But in the next year, the General Purchasing Committee, under Sloan as chairman, saw that du Pont was apprised of General Motors' two-source policy, which meant that, like many other suppliers, it could not supply more than 75% of any product. This did not mean that du Pont received anything like 75% of the fabrics business thereafter, although the Government originally so charged. In no year after 1922 did General Motors ever purchase that much (R. 2129).

The record shows that du Pont won and lost General Motors' business because of the same commercial factors as affected other suppliers. A few examples are all that space will permit. Chevrolet bought top material from du Pont in 1917, switched to another supplier in early 1918, and went back to du Pont when a superior product called Pontop, bought by almost all motor companies, was developed (R. 2188-90). A lot of Chevrolet top orders were lost between 1922 and 1925, but then Chevrolet came back to du Pont to get a satisfactory product (R. 2196-97). Du Pont sold some Teal-type top material to Buick in 1927-28, lost the business in 1929 and 1930,[46] and regained some in 1931 (R. 2205). Oldsmobile bought Teal from du Pont in 1924-1926, but not thereafter (R. 2225; DPX 263, R. 2224, 6175). Cadillac used very little du Pont top material until 1920 (GX 298, R. 503, 3796); although du Pont tried to sell Pontop "it was not until 1920 that they switched over to 'Pontop,' and at that time they told us that it had won out in a series of tests that they had conducted" (R. 2220).

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[46] "We quoted Buick Motor Company on their Teal business for the last nine months of 1929 without success, the business going to the J. C. Haartz Company, as we understand it, solely because General Motors Export insisted on Haartz's material." (DPX 257, R. 2215, 6168) "Buick has specified Fairfield teal, (double texture topping for sport models) for the remainder of 1931. This business has been regained after a lapse of two years, during which competitive material was used. The special colors, and especially woven figured backings of the samples submitted, were instrumental in our receiving this business, as competitors did not have a similar product to offer." (DPX 258, R. 2216, 6169)

By 1926 General Motors was buying only 55.5% (not 89% as the Government's brief implies)[47] of its fabrics from du Pont, largely because Chevrolet obtained all of its materials from du Pont after an unfortunate experience with competitive products during the preceding year. By 1930 the proportion was 31.5%, and Ford was buying more than all the General Motors cars together, which demonstrates that the du Pont products could be sold to auto companies

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[47] The assertions in the Government's brief that du Pont sold 89% of the fabrics to the General Motors operating divisions in that year (Govt. Br., pp. 60, 139) are very deceptive. The Government concededly omits Fisher Body, which purchased 63% of General Motors' fabrics at that time, from its calculation, although admitting that this was "after several years of complete control" of that company by General Motors. Of the $1,628,000 (not $11,623,000 as stated in the Government's brief, p. 139) bought from du Pont by the automobile divisions, $1,411,000 was purchased by Chevrolet. Cadillac bought substantially nothing from either du Pont or its competitors, and Buick, Oldsmobile and Oakland bought small quantities from both. Fisher's purchases of fabrics from du Pont were $1,159,000, as compared to $2,020,000 from other sources; 37% of Fisher's purchases and 55.5% of all General Motors' purchases were from du Pont. A tabulation constructed from the exhibits cited by the Government shows the following:

	Du Pont	*Competitors*	*Percent Du Pont*
Fisher Body	$1,159,000	$2,020,000	37%
Chevrolet	1,411,000	—0—	100%
Buick	126,000	106,000	54%
Oakland	43,000	90,000	31%
Oldsmobile	42,000	13,000	76%
Cadillac	41	—0—	(*de minimis*)
TOTAL	$2,781,000	$2,229,000	55.5%

Purchases from du Pont competitors shown in GX 460, R. 537, 4101.

Purchases from du Pont shown in DPX 297, R. 2261, 6231; DPX 250, R. 2204, 6161; DPX 259, R. 2216, 6170; DPX 260, R. 2221, 6171; DPX 263, R. 2224, 6175; DPX 265, R. 2228, 6177; DPX 297, R. 2266, 6231.

on their economic merits (R. 400; R. 2245-47; DPX 281-82, R. 2245, 2248, 6210-11).

(b) *Fisher Body*

Since that time Fisher Body has been the principal customer for fabrics.[48] Inasmuch as the Government thinks the Fisher "problem" worthy of special treatment, it seems necessary to discuss Fisher purchases in more detail.

The closed bodies for General Motors cars had been manufactured by Fisher Body[49] since before 1917 (R. 400). Prior to 1925, du Pont had received no big fabric orders from Fisher. Then du Pont introduced new and better types of top material, Glazed Pontop, and in the next year Everbright (DPX 274, R. 2237, 6199), shown by Fisher tests to be the best.[50] In 1925 du Pont also hired a special salesman who was able to get substantial orders during the next few years (R. 374; R. 2231-34, 2236, 2354-55; DPX 273, R. 2237, 6198).[51]

Competitors did not approach the quality of the new du Pont top materials until 1929, when du Pont's proportion of Fisher's orders went down to about one-third, where it remained for coated top materials until they ceased to be used when the fabric top was replaced by the all-steel body (R. 400; R. 2238, 2241-42, 2252). In the early 1930's Fisher took over completely the manufacture of passenger car bodies for the other divisions, and since then Fisher has bought the fabrics for all the General Motors passenger cars (R. 2128).

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[48] The only other divisions purchasing fabrics in recent years have been the truck divisions, which since 1944 have bought about 30% of the materials for their light truck upholstery from du Pont. They buy on bids from the three lowest qualified bidders. Du Pont has been unable to sell heavy truck upholstery, even though it has a satisfactory material. (R. 2098-2104; GX 1352-7, R. 2890, 5360-78).

[49] Fisher was a separate corporation, 60% of the stock of which was purchased by General Motors in 1919. A voting trust giving the Fisher brothers 50% of the voting power for five years expired in 1924. It became a division of General Motors in June 1926 (R. 372-73), after General Motors had acquired the remainder of the stock.

[50] "Mr. Wescott also told me about some tests made by the Fisher Body Corporation of various rubber-coated top materials. He said that they placed du Pont and Duratex at the top and about on a par, du Pont being slightly better. Chase came next and considerably below these two. Then came Haartz, and lastly Carr." (DPX 274, R. 2237, 6199)

[51] In 1931, a memorandum to a du Pont Vice President stated (DPX 273, R. 2237, 6198):

> "Prior to the employment of Mr. Smith we were unable to secure any Fabrikoid business from Fisher Body, and for a long time after becoming established as one of their sources of supply we were very largely dependent on him to hold a share of that business."

Between 1926 and 1931, Fisher bought about one-half of its uncoated top material (such as is used for convertibles (R. 2253)) from du Pont (R. 380; R. 2255). After 1931, when du Pont refused to grant a 2-year guarantee against cleaning damage, Fisher bought this material exclusively from Haartz and continued to do so despite du Pont's willingness to grant the guarantee in 1933 (R. 400; R. 2253, 2255; DPX 287, R. 2256, 6219). In 1947, Fisher was having difficulty with shrinkage and fading of Haartz's top material and told du Pont that if it could develop something better it would get a substantial proportion of the business (R. 380, 400; R. 2258; DPX 292-95, R. 2261-3, 6224-27). By 1948 du Pont had come up with a greatly improved product, which Fisher recognized as superior to competitors'.[52] From then to 1951 du Pont supplied about one-half of Fisher's top requirements and in 1951 one-third (R. 380, 400; R. 2258-63).

When Fisher in 1939 began to use coated fabrics for interior trim (such as on the lower part of doors), du Pont was "ready with a product" which had already been developed for furniture and handbags (R. 2254). As a result, du Pont secured a major portion of the business—60%—

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[52] "Mr. Fisher volunteered the information that our present construction is at the top of the list from the shrinkage standpoint at present and he commented that possibly he should recommend to Purchasing that we be given all of the business. He followed this up by saying that it would not be a good thing to make such a recommendation. He then said that possibly we should be given the principal part of the business and should tell the competitor what we are doing to control the shrinkage within such narrow limits. Of course we ducked an answer to that one." (DPX 296, R. 2264, 6229-30)

in 1940 and 1941 (R. 400; R. 2253-54). During the post-war shortage, Fisher purchased as much of this from du Pont as it could get (R. 400-401; R. 2254-55). Beginning in 1947 Fisher has bought from three other major suppliers as well, so that du Pont's share has substantially declined to about 35-45% (R. 401; R. 2092-93, 2255).

The Government's brief twice asserts that by 1947 and 1948 Fisher Body "was just another department of General Motors, buying 65.5% of its fabrics from du Pont in 1947 and 68% in 1948 (GX 1350, 1351; R. 2890, 5356-59)" (Govt. Br., pp. 68, 142). This is accurate insofar as it indicates that long before that time Fisher had become a division of General Motors, but the Government's figures are wrong. The figures of 65.5% and 68% are computed by the Government from incomplete data contained in the reports (GX 1350-51, R. 2890, 5356-59) to his home office of Nalle, a du Pont salesman. He explained on the witness stand (R. 2862-64, 2893-97) that his reports contained merely his estimates of the sales of some competitors to Fisher, based upon the piecing together of details obtained indirectly in conversations with various people (R. 2863-64). The first report omits, for the year 1947, sales to Fisher by Haartz, du Pont's chief competitor, of over $1,400,000 (R. 2895)[53] The second report contains substantial amounts for Haartz, but they were excluded from the calculation whereby the Government reached the figure of 68%. The reports for both 1947 and 1948 omitted data for about twelve other companies which sold Fisher smaller quantities, as to which the author could give no accurate estimate: "I followed the practice, if I wasn't able to put in an estimate that I thought was reasonably representative, I left it off" (R. 2894).[54] He stated (R. 2862) that "I would guess that my report—understand, my reports were in yardage, not in dollars[55]—might have covered perhaps 65 to 75% of the total requirements." (See also R. 2894-7).

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[53] The magnitude of this ommission is indicated by the fact that du Pont's total sales of fabrics to General Motors in 1947 were $3,639,000 (DPX 569, R. 3007, 6527).

On the witness stand Nalle estimated that he thought du Pont had "about 40% of the Fisher business in 1948." This was very close to the figure of 38.5% for 1947 contained in the tables for General Motors as a whole, which the trial court found to be accurate (R. 404), and to the court's finding of 40-50% for 1946-1947 for General Motors as a whole. These tabulations were of course based on actual sales figures, and not on a salesman's rough guess. Since Fisher was the main purchaser for General Motors at that time, this coincidence between the percentages which General Motors as a whole and Fisher bought from du Pont was to be expected. By its use of the incorrect figures of 65% and 68.5% for Fisher, the Government is seeking to imply that du Pont had obtained a much larger share of Fisher's business than it had before, and that this must have resulted from du Pont's supposed ability to put pressure on General Motors. The correct figures support no such theory.

The court's findings as to Fisher are sufficiently important to be read as a whole (R. 380-382):

> "The record, including all the evidence summarized in the preceding paragraphs, amply establishes that du Pont sought to sell its finishes and fabrics to Fisher Body. It early recognized that Fisher would be a substantial consumer of those products since it was making all of the closed bodies for General Motors cars.

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[54] The 1948 estimate was prepared in October of that year (GX 1351, R. 2890, 5358), when Nalle could only conjecture as to total figures for the year.

[55] This has significance, since the Government's percentages based on yardage, do not differentiate between such things as top materials costing $2.60 to $2.75 a yard and bow linings costing 60¢. Top materials, of which du Pont sold the least, were "by far the most expensive" (R. 2895-6).

Du Pont's sales efforts included a personal approach to the Fisher brothers by Lammot du Pont, at the suggestion of Pierre S. du Pont; the employment as a fabric salesman of one Smith who apparently was favorably known to the Fisher management; and the offering of a substantial overall price reduction in the form of a super discount for a period of about five years during the 1920s.

"The first of these efforts appears to have resulted in no advantage to du Pont since its stock ownership in General Motors did not persuade Fisher to use Flint products. The other two efforts did, it seems clear, increase du Pont's sales of finishes and fabrics to Fisher Body but they do not establish the existence of any agreement or understanding that Fisher would favor du Pont, and they do not establish that du Pont's sales to Fisher resulted from its stockholdings in General Motors or its alleged control of General Motors. Moreover, the record indicates that even the discount did not secure for du Pont all of Fisher Body's business and indeed may not have increased the portion of Fisher's requirements purchased from du Pont though the total dollar purchases from du Pont by Fisher did increase. The record also shows that Fisher Body at all times conducted its purchasing with respect to finishes, fabrics and all other products in accordance with its own best judgment. The Court finds the testimony of Lawrence Fisher particularly persuasive in this respect. His competence and knowledge of this matter cannot be questioned. He was in active charge of the Fisher Company for many years and subsequently served in high executive capacities with General Motors. It is highly unlikely, if not impossible, that Fisher Body's purchasing practices could have been influenced by an agreement with du Pont or by the latter's position in General Motors without his knowledge. His forthright testimony and general demeanor on both direct and cross-examination are most convincing that Fisher Body was neither party to an agreement with du Pont nor the victim of du Pont domination."

(c) *Reasons why du Pont's sales to General Motors were proportionately higher than to automotive industry as a whole.*

The Government also argues, as it did with respect to finishes, that, because 80% or more of du Pont's sales to the auto industry were to General Motors, while General Motors manufactured only 35%-45% of the cars, the sales to General Motors could not have been on their merits but must have rested on the stock relationship (Govt. Br., pp. 140-141, 62-64).

The reason underlying du Pont's sales of fabrics to various companies in the automobile industry was explained in the record. Du Pont had been the "principal supplier" of Ford, but in the early twenty's Ford "decided to make the bulk of their own material" (R. 2292). As it did with finishes (see p. 58, *supra*) Chrysler desired "independent sources of supply different from those that were then selling to Ford and General Motors", as did some of the smaller concerns (R. 2292). Accordingly, it "established independent sources, different from those that were supplying big competitors" (R. 2292). As with paint, these decisions of Ford and Chrysler not to buy from du Pont were not attributable at all to du Pont's inability to compete on the merits.

Only about 12% to 15% of the passenger cars were manufactured by companies other than Ford, Chrysler and General Motors (R. 2172, 2291).[56] For 80% of du Pont's sales to the auto industry to be made to a company making 45% of the cars as in 1950 (the latest year for which a figure is given in the Government's brief (Govt. Br., p. 140n)), leaving 20% of such sales to be made to manufacturers of 12% to 15% of the cars, is not disproportionate at all. On the contrary, with the Ford and Chrysler markets not open to it, for the reasons stated, du Pont had just about the same degree of success selling General Motors as it had selling the remainder of the industry.[57]

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[56] These estimates of the witnesses for the years preceding the trial were remarkably accurate. Moody's and Standard & Poor show that the independent auto manufacturers produced from 13 to 15.2% of the cars in 6 of the 7 years from 1946-1952. In 1948, the per cent was 19.

The Government's case as to fabrics rests primarily on its recital of statistics (which we have shown to be highly inaccurate) as to du Pont's share of the General Motors business for the years 1921, 1926 and 1946-48. Irrespective of its errors in the figures, however, such percentages alone would not enable, much less require, a fact finder to conclude that, because du Pont was a substantial supplier, it must necessarily have obtained General Motors' business through influence. This does not follow. The continual struggle on the part of du Pont, sometimes successfully, sometimes not, sometimes partially, to secure General Motors' business by developing new or improved products, by offering better service and quality than its competitors, by making concessions in price even to the extent of selling below costs and by offering special discounts or rebates, is inconsistent with the thesis of illegal preference or a protected market maintained by domination and control. This is the picture revealed by the record as a whole, although not by the selected materials in the Government brief.

6. *The evidence on which the Government relies to show favoritism in General Motors' purchasing policies.*

The Government relies for its contrary conclusion as to General Motors' purchasing policy upon a few statements in reports and letters, between 1917 and the middle of the

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[57] If 13%, the actual percentage for the smaller companies in 1950, is compared to 45% for General Motors, a proportional distribution of du Pont's sales would have been 78% to General Motors and 22% to the others. The difference between these percentages and the actual 80%-20% shown by the record for years from 1947 on (see Govt. br., pp. 64, 140) hardly justifies the Government's argument.

1920's. These exhibits must be appraised in the light of the evidence as a whole as to General Motors' purchases from du Pont.

(a) *The Raskob report of December 1917.*

The Government's principal reliance is upon a sentence in the 1917 report in which John J. Raskob, treasurer of du Pont, recommended that du Pont invest in General Motors (GX 124, R. 479, 3208). Almost all of that lengthy document was devoted to an explanation of why it would be a wise investment for du Pont to put $25,000,000 into General Motors. The history of General Motors, the value of its assets, and its probable income were analyzed. The report then summarized the points in favor of the investment. The fifth point stated (GX 124, R. 479, 3221):

> "Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor."

On its face, Raskob's statement was one of anticipation, or even assumption, that du Pont would get all of General Motors' business. The error of his view became manifest as time went by and experience showed that General Motors' business still had to be won on merit. Thus in the passage already quoted on page 66, in which R. R. M. Carpenter of du Pont stated in 1921 that "it would appear natural that we should secure a large amount of the business" of General Motors, he continued, "this is, however, not the case, as we are placed by them in severe competition" (GX 106, R. 476, 3076-7).

It is apparent that, whatever some du Pont officers may have expected, General Motors maintained purchasing policies and practices which resulted in du Pont being subjected to the same competitive requirements as other suppliers.

As has already been shown in the narration of the facts relating to finishes and fabrics (pp. 53, 66-67, *supra*), which General Motors had previously been purchasing in substantial quantities from du Pont or its affiliates, General Motors' purchases from du Pont actually declined in the years immediately following the stock acquisition.

Even after Pierre became president of General Motors, while he evinced a sympathetic interest in what General Motors was buying (GX 420-421, R. 528-9, 4010-13), he merely referred du Pont to the buyers for the General Motors divisions (GX 421, R. 529, 4012) and deferred to their judgment even when he disagreed (GX 408, 410, R. 527-8, 3983, 3984). There is no evidence that even during this early period any purchases were made because of du Pont influence or domination or that any of the General Motors divisions bought supplies from du Pont for other than ordinary commercial reasons.

In answer to the Government's argument "that du Pont's investment in General Motors was made with the purpose of using the alleged control of General Motors to require it to buy from du Pont" and that there was an agreement binding General Motors to buy from du Pont substantially all its requirements of products made by du Pont (R. 301), the trial court found, after considering the oral testimony and "other documents written at the time of or within a few years following the investment" (R. 301-2):

> "The Court finds on the basis of all of the evidence of record that no agreement was made in connection with du Pont's investment in General Motors, or subsequent thereto, which bound the latter to buy any portion of its requirements from du Pont. * * * No document, either contemporaneous with the making of the alleged agreement or subsequently executed, makes reference even indirectly to an agreement of the kind alleged by the Government. *The Court does not find*

in the actions over the years of du Pont's executives or salesmen or General Motors purchasing personnel corroboration of the existence of the alleged agreement. (Italics supplied.)

"The Court also finds based on all of the evidence of record that du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests. Du Pont, the record shows, never intended to preclude General Motors from dealing with suppliers of its choice, never made any effort to so preclude General Motors, and did not limit General Motors' purchasing freedom."

(b) ***Haskell, 1918-20.***

The Government refers to several letters written in 1918 by or about J. A. Haskell, a retired du Pont vice president who had become a director of General Motors even before the du Pont Company's investment (R. 298; R. 690-92, 799), and who became vice president of General Motors and a member of the Executive Committee after the du Pont stock acquisition (R. 303; GX 1309, R. 657, 5237). Haskell died in 1923.

A number of letters written in 1918 and 1920 show that Haskell occasionally obtained information for and was willing to give advice to du Pont people in connection with their efforts to get General Motors' business (R. 349; GX 293, R. 502, 3786; GX 290, R. 501, 3782). On occasions he requested both General Motors and du Pont divisions to report to him as to what General Motors was buying from du Pont, and a number of such reports were furnished by the Fabrics department (R. 348-50; GX 294-301, 305-307, R. 502-4, 504-5, 3787-3802, 3810-14). There was no evidence that Haskell ever actually exerted any pressure on anyone in General Motors to give du Pont an order (R. 2303), and a witness in a position to know denied that

Haskell had given any assistance in the actual obtaining of orders (R. 2302-3).

The Government stresses an April 1918 letter by Haskell to Coyne, a du Pont vice president (GX 290, R. 501, 3782-3), which dealt with the problem raised by the possibility of a shortage of natural leather, then used for auto upholstery. The letter stated that the general manager of the Oakland Division of General Motors, Warner, had said that although

> "he believed artificial leather could be adopted which would give exactly as good results as the grade of split leather they are using at a higher price, but he felt that each manufacturer of motor cars would be disinclined—even if thoroughly satisfied regarding quality, etc.,—to change to artificial leather unless competitors in similar grades were to take the step at the same time, which of course might not be impossible of accomplishment." (GX 290, R. 501, 3782-3.)

Nevertheless, the letter declared, Warner (not Haskell)

> "felt that it would be desirable to get each of the divisions using artificial leather and other material such as Py-ra-lin, etc., samples of sufficient size to enable us to see exactly what was being used and to pave the way for perhaps a more general adoption of our material." (GX 290, R. 501, 3782.)

In this context, which the discussion of the exhibit in the Government's brief (Govt. Br., pp. 29-30, 117) omits, the following paragraph in Haskell's letter, part of which the Government quotes, plainly was a suggestion that du Pont try to put the makers of low priced cars generally, not just General Motors, "in the frame of mind necessary" to the adoption of artificial leather:

> "Would it not seem therefore the proper course of procedure would be to determine and place ourselves in position to furnish Fabrikoid of required quality

> and also consider how best to get coöperation whereby makers of such of the low priced cars as it would seem possible and wise to get transferred will be put in the frame of mind necessary for its adoption?" (GX 290, R. 501, 3783).

The Government's reference to this passage as illustrating "the kind of interference with competition which the Sherman Act was designed to eliminate" (Govt. Br. p. 117) obviously misinterprets it, out of context, as an effort to exert special influence upon General Motors.

This letter read as a whole does not support the Government's contention but the contrary. Faced with the problem of resistance to the use of artificial leather because of the industry's satisfaction with natural leather, Haskell did not advise his former associate to resort to the use of influence. He did not say, as one would expect if the Government's theory were true, that he, Haskell, would "suggest" to the plant managers that they had better buy from du Pont. Instead, he told Coyne that du Pont would have to take steps to get artificial leather generally adopted by the automotive industry before it could hope to convince the General Motors people of its merits. Here is a contemporaneous letter showing an attitude inconsistent with the Government's theory of influence and consistent only with strictly arm's length competitive dealing.

The Government also quotes (Govt. Br. pp. 30-31) from a letter of Coyne's written in May 1918 (GX 293, R. 502, 3786), relating to Pyralin (celluloid), which stated that Haskell agreed that du Pont could not afford to jeopardize its business with other companies by giving General Motors preferential treatment, and that it was Haskell's opinion that "continuation of our present policy should result in our securing practically all of the business of the General Motors Company" (GX 293, R. 502, 3786). Inasmuch as the record shows that five days later Buick gave substantial orders to a du Pont competitor (GX 294, R. 502, 3788) and reduced its orders for Pyralin in 1918 to $14, and that Chevrolet's orders declined from $83,000 in 1917 to $30,000 in 1918, to zero in 1919—a period in which du Pont's total sales of Pyralin were rapidly increasing (DPX 421, R. 2695, 6389)—it is obvious that this was just an expression of Haskell's opinion, and not a very accurate one at that, of what might happen in the future, and did not mean that he was influencing the General Motors divisions to buy from du Pont.

The Government also quotes from du Pont reports showing that it was selling General Motors 100% of its Pyralin by 1921 (GX 419, 420, R. 528, 4009-10). By that time, however, du Pont had developed an improved celluloid product for use in automobile windows which would not turn yellow or crack easily, with the result that it got substantially all of the business (R. 954-5).

The Government (Govt. Br. p. 31) also refers to a letter written in July 1918 from du Pont to Haskell (GX 302, R. 504, 3803) which begins:

> "If we are ultimately to furnish all, or the greater part, of the top material for the Chevrolet and General Motors cars would it not be well for these several users to agree upon a uniform shade of drab for the back, or lining?"

The record shows that this was written shortly after du Pont had developed a new superior top material (Pontop) which was in great demand by many automobile companies (R. 2189-90), that the du Pont plant was sold up to capacity (R. 2190-91), and that as a result of the shortage in dyes during World War I, it simplified production and dyeing problems to limit the number of shades (R. 2194-5). See DPX 261-2, R. 2222-3, 6172-4. In that setting, the letter merely asked Haskell's help in dealing with a production problem, and did not indicate that any favoritism or influence was involved.

(c) *Pierre and Lammot du Pont, 1921-24.*

In August 1921, while Pierre du Pont was president of General Motors, he inquired of Lammot whether General Motors was taking its entire requirements from du Pont, and received a report from Lammot showing that, except for Fisher Body, du Pont was doing quite well (R. 351; GX 420, R. 528, 4010). He replied (R. 351; GX 421, R. 529, 4012) with an acknowledgment of this and a statement that (R. 4012):

> "With the change in management at Cadillac, Oakland and Olds, I believe that you should be able to sell substantially all of the paint, varnish and fabrikoid products needed; especially is this true of Cadillac.
>
> "A drive should be made for the Fisher Body business. Is there any reason why they have not dealt with us?"

But this again was an expression of interest and general advice which did not affect the decisions of General Motors. Government counsel admitted at the trial that the three managers were replaced for reasons having nothing to do with their attitude towards du Pont (Trial Transcript, pp. 8238-9), and the record is clear that their successors were chosen by Sloan and had no previous connections with du Pont (R. 860-1; see p. 15, *supra*). Pierre testified that after obtaining the information from Lammot, he took no steps to try to influence General Motors to buy more. "That wasn't my province at all", he asserted. "That was with the purchasing people. I had nothing to do with that" (R. 859). That he regarded the divisions as autonomous in the field of purchasing is shown by his statement that it was "entirely up to" Knudsen (then of Chevrolet) to decide whether to adopt a two-source policy, though Pierre did not believe in it (R. 854). "That was his province to decide. And he went ahead on his own ideas and started to have two sources of supply * * * " (R. 855; GX 408, 410, R. 527, 528, 3983-84). That Pierre would not meddle with the actual purchasing was recognized by the du Pont Company, as appears from the letter written to him by R. R. M. Carpenter two months later, quoted at p. 67, fn. 45, *supra*.

It is also significant that there is no showing that the purchasing patterns of Cadillac, Oakland, Olds or Fisher Body changed after or as a result of this letter. Du Pont did not get any substantial quantities of Fisher's business until 1925, and then it did so for reasons having nothing to do with du Pont influence, as has been shown. (See pp. 70-71, *supra*). Under the new "management", Cadillac and Olds had within a few years stopped buying finishes from du Pont (see p. 56, *supra*).

The Government also (Govt. Br., pp. 38, 118) refers to correspondence in 1923 in which Lammot urged the new manager of Cadillac to use Flint paint products 100% because "it is to the advantage of both General Motors Corporation and the du Pont Company" (GX. 447, R. 535, 4073). But as with du Pont's efforts to get an over-all contract for fabrics this was unsuccessful both at the time and in the following years. Cadillac was the last division to adopt Duco, and it abandoned du Pont as a paint supplier as soon as an adequate competitive product was on the market. (See p. 56, *supra*). Equally unsuccessful was a series of letters addressed by Lammot to Fisher Body (see Govt. Br., pp. 65-7, 120-121) in which he invoked the "stock ownership relations" between the various companies as a reason why Fisher should buy its paint from Flint.

In short, there was no showing that any of these wishful expressions in any way restricted General Motors' freedom in purchasing, that there was any change in General Motors' purchasing policies, or that General Motors bought more from du Pont afterwards than before. Furthermore, these few statements must be read in the light of the uniform testimony of the persons doing the buying and selling during this period—Lynah, L. Fisher, Weckler, Williams, Nickowitz, Brown, MacShane—together with many supporting exhibits which prove that General Motors' buying was not affected by any influence, pressure or agreement.

The significant thing in this case is not the variety of appeals attempted by various du Pont men in their efforts to sell General Motors, but instead the facts that (1) in no case was any degree of coercion attempted to reinforce such appeals and (2) no appeal made to General Motors proved successful which was not based entirely on the merit of du Pont's product.

(d) *Pratt*

The Government refers to John L. Pratt, vice president of General Motors in charge of the Accessory Division, whom Durant had brought in from du Pont in 1919 (R. 354), as the "contact man" between General Motors and du Pont after 1922. Pratt, as we have seen, strongly opposed favoring du Pont on the question of reciprocity in a 1928 letter (quoted at pp. 20-21, *supra*) which set forth his attitude toward du Pont generally. He was equally vigorous in challenging the wisdom of giving information to Lammot, the president of du Pont (GX 368, R. 521; 3908). He "told off" Lammot a number of times when the latter was trying to get favors from General Motors (R. 359-60; R. 1460-1471; GX 471, R. 539, 4125; GMX 218, R. 1461, 7271; GMX 221, R. 1464, 7274; GMX 225, R. 1465, 7281; GMX 228, R. 1469, 7286). Thus, he rejected Lammot's effort to keep General Motors out of the oil burner business (R. 1470, GMX 228, R. 1469, 7286). When Lammot asked him to give some orders to the son of "a good friend of ours", the Governor of Pennsylvania (GMX 224, R. 1465, 7279), Pratt replied (R. 359; R. 1467; GMX 225, R. 1465, 7281):

> "Mr. Sproul's approach of trying to bring influence to bear in order to get business from General Motors Corporation will not work. If this Company can satisfy our Divisions that they have a product competitive from the standpoint of quality, price and service, I know our Divisions well enough that if the General Refractories Company's representatives go after the business they will have an opportunity to quote, and while I do not claim that our Purchasing Departments are 100% pure, I do believe we have a spirit in our Purchasing Departments of always attempting to get the best as they see it for General Motors Corporation. For this reason we have always hesitated to suggest any firm for special consideration.
>
> "We believe it is the duty of the supplier to establish the merits of his product to our Corporation, and not our duty to ask our Purchasing Departments to give special consideration to any firm." (R. 7281).

Pratt constantly resisted any step that he thought might be making policy in favor of du Pont. In explaining the reason for the apparent inconsistency between his unvarying refusal to do what du Pont's highest executives requested and his willingness to give assistance to some of the "small men" he knew in the du Pont Company, Pratt said (R. 1432-3):

> "* * * I might explain why I seemingly have a different attitude with Mr. du Pont than I did with some of the small men in the du Pont organization that wrote to me about reciprocity.
>
> "That was because I felt that when we dealt with Mr. du Pont, we were establishing policy. I felt when

I dealt with Mr. Jones, whom I had known as a boy in the du Pont Company, to help him, I was dealing with an individual and not the du Pont Company.

"That was the fundamental difference that I always kept in mind in writing to the officials of the du Pont Company."

(R. 1475):

"Well, my attitude was based on who made the request, that is, what his position was in the du Pont Company.

"In the case of these exhibits, it was from the president of the company, and any action that we took would be one of establishing policy that he could pass on to his organization.

"I thought that policy should be the same with the du Pont Company as for every other supplier of General Motors. There were cases where men down the line, a great many of them old-time friends of mine, who came and asked for favors, wanting this information or that information. In that case, if it was something that I could give them, without, in my judgment, doing injury to the General Motors Corporation, I usually gave it to them.

* * *

"* * * But I did try at all times to differentiate between doing a favor for a friend and doing something that would set policies for the corporation."[58]

The Government (Govt. Br. pp. 39-40) refers to a letter Pratt wrote in 1926 to the Delco-Light Division in which he expressed the view that du Pont's great assistance to General Motors in its period of difficulty in 1920 warranted giving du Pont a large proportion of General Motors' business where conditions were "equal from the standpoint of quality, service and price" (R. 358; GX 340, R. 512, 3865

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[58] Pratt did similar favors for friends in other companies R. 1456-8; GMX 213-16, R. 1457, 7266-9.

(1926)). But in the same letter, as well as in his testimony (R. 358; R. 1442), Pratt made it clear that he was expressing his "own personal feeling", and not "a General Motors policy". The letter concludes:

> "I have expressed my own personal sentiments in this letter to you in order that you might have my point of view, but I do not wish to influence your organization in any way that would be against your own good judgment, keeping in mind that above all the prime consideration is to do the best thing for Delco-Light Company, and that considerations in regard to the du Pont Company or other concerns are secondary, and I am sure this is your feeling" (R. 3866).

That these were only Pratt's personal feelings, that his subordinates understood them to be such, and that the letter did not evidence a policy of favoring du Pont is borne out by what happened in connection with this incident.[59]

Delco had been purchasing rubbing and finishing varnish from a local manufacturer, Lowe Brothers, not from du Pont. When Lowe could not modify its product to fit a new painting process du Pont was called in at the suggestion of the Chevrolet people, for whom du Pont had done similar work (R. 1439-40). Du Pont produced a satisfactory sample and received an order for one carload. Delco later wired du Pont to hold up delivery in order to give Lowe another opportunity (GMX 204, R. 1440, 7252-3).

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[59] The only known result of Pratt's personal feeling of gratitude to du Pont, which resulted in business for du Pont, was a purchase by the Hyatt Bearing Division of $1,500 of maintenance "undercoat" paint in 1922 (R. 354; GX 311-13, R. 506, 3821-23; GMX 202-03, R. 1436, 7250-1). That this established no precedent for General Motors purchases even of this type of paint is shown by the fact that thereafter, whenever the General Purchasing Committee contracted for General Motors requirements of maintenance paint (white lead), it turned to a competitor of du Pont, the National Lead Company. (See GMX 155, R. 1100, 7043-76.) It should be noted that most of these contracts were made during the period in which Pratt was chairman of the General Purchasing Committee.

It was at this point that Elms, in the du Pont paint department, an old friend, felt justified in complaining to Pratt. Pratt got in touch with the manager of Delco, who explained the situation but said he found his people felt they might "be in better hands possibly by dealing with du Pont than with Lowe Brothers" (GX 339, R. 511; 3864). Pratt then wrote the letter cited by the Government. The Delco manager wrote Pratt thanking him for the "information about the du Pont past history" and advising that he had learned the du Pont paint was lower priced (GMX 205, R. 1440, 7255). Delco accepted the carload in question from du Pont—but that was all. Despite du Pont's help and its lower price and its continued further efforts to get the business, Delco purchased its rubbing and finishing varnish thereafter from another local source, Kay & Ess Company, and du Pont never got another order (R. 358; R. 2402-3).

The Delco incident, looked at as a whole, demonstrates forcibly that there was no influence to favor du Pont. In the first place, it shows Delco, nine years after the du Pont investment, buying almost entirely from local sources rather than from du Pont. Then Delco dealt unfairly with du Pont which had offered not only lower prices but a satisfactory product which its competitor could not deliver. In that situation, Pratt did not talk about a policy to favor du Pont but instead expressed his personal feelings. And, finally, whether Pratt's letter is evidence of any policy to favor du Pont need not be left to inference; his letter was not so regarded by the Delco people themselves, for they bought thereafter from another local source, not from du Pont. Thus, Pratt's Delco letter, as is the case with so many of the documents in this record, emphasizes the unsoundness of relying on what seem plausible inferences from the Government's selected quotations, when the quotations taken together with all the other facts in the picture make such inferences untenable.

The trial court found, in passages already quoted (pp. 39, 43, 51, 62-3, 64-5, 73-4, 78-9) that there was no understanding or agreement or policy favoring du Pont which induced General Motors to buy any part of its supplies from du Pont. The Government's argument to the contrary rests on inferences which it tries to draw from the documentary exhibits which have been discussed. It is to be noted that none of the documents upon which the Government relies specifically mentioned any agreement, understanding or restrictive policy of favoritism. Indeed, the documents, read in the context of the situation to which they were addressed, are entirely consistent with the interpretation, supported by the oral testimony, and accepted by the trial court, that du Pont was trying to get as much General Motors business as it could, but that there was no restriction whatsoever on General Motors' freedom to buy as it chose, and that General Motors' buyers did not regard themselves as in any way limited. Which inferences are the most reasonable must be determined in the light of the whole picture of the events of over thirty years, not by documents read in isolation. A trier of facts could reasonably conclude that the documents should be construed compatibly with the sweep of events over that period, which demonstrates that General Motors was completely independent and that its buying divisions treated du Pont as impartially as any other supplier. Such a conclusion is obviously not "clearly erroneous." On the contrary, it is most sensible.

D. Antifreeze, Tetraethyl Lead and Freon 12.

A considerable portion of the Government's brief (Govt. Br., pp. 40-59, 129-136) is concerned not with General Motors' purchases from du Pont, but with other activities, all now terminated, having to do with antifreeze, tetraethyl lead and Freon 12, in which it claims that General Motors did not deal with du Pont at arm's length. The

Government has heretofore contended that the facts as to two of these commodities, tetraethyl lead and Freon, proved an unlawful division of fields whereby General Motors had agreed not to compete with du Pont in the production of chemicals. The Government seems to have abandoned this argument, not expressly, but by silence, although one quotation (Govt. Br., pp. 137-38) and one footnote (p. 146) hint at it. But "The gist of the Government's case", says the first sentence of the Government's Summary of Argument (Govt. Br., p. 70) "is that du Pont acquired control of General Motors with the specific purpose and effect of obtaining an illegal preference with respect to General Motors' *purchases of materials*." (Italics supplied.)

The Government does not assert that the defendants' allegedly unlawful conduct with respect to anti-freeze, tetraethyl lead and Freon consisted of an illegal preference for du Pont in the purchase of materials. Its argument seems to be that General Motors gave du Pont preference of other kinds, and that this proved that it must be doing the same thing in its purchases of materials. Both the premise and the conclusion are directly contrary to the findings of the trial court.[60]

We shall set forth the facts and findings as to each of these subjects. They will show that, whichever of the Government's theories is applied, the transactions were entirely lawful and do not prove a combination, conspiracy, agreement, understanding, division of fields, policy induced by inside du Pont influence, or course of preferential treatment.

1. *Antifreeze.*

Government counsel have devoted eight and one-half pages of their brief (Govt. Br., pp. 40-47, 129-130) to the alcohol-glycerin controversy of 1926, an incident that has long since disappeared into the shades of history. Furthermore, they depict this episode as essentially involving only du Pont and its efforts to push the sale of alcohol as an antifreeze, whereas in fact it involved a struggle between the suppliers of competing antifreezes, alcohol and glycerin, each seeking to insure that his respective product was fairly described to the consuming public in the instruction books issued to automobile owners by the manufacturers.

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[60] Many of the findings are addressed to the Government's prior contention that there was an agreement to divide fields.

The evidence relating to this issue is all found in Government Exhibits 319-337, R. 507-511, 3832-3862. Since the Government has carefully omitted from the excerpts referred to in its brief those portions of the exhibits which refute the inferences it wishes the Court to draw, it is necessary for us to describe the matter fully in order to establish its irrelevance.

In November 1925 a du Pont executive wrote Sloan to advise him that du Pont had joined with the Kentucky Alcohol Corporation to form a new company to produce alcohol, and to inquire "whether the General Motors Corporation is giving their official approval to publicity favoring glycerin rather than alcohol. If so, it is suggested that their attention be called to the advantages of alcohol and to the interest which the du Pont Company will have in the future in its manufacture and sale." GX 319, R. 507, 3832). Sloan replied (GX 320, R. 507, 3833-34):

> "As a corporation we do not usually take any position in matters of this kind; i.e., as a corporation we are concerned of course, with seeing that our cars give satisfaction and I think our position would be in this particular thing that although we would like to be helpful, yet we could not consistently refuse to say that glycerin was satisfactory if it was simply because friends of ours, like your good selves, were interested in the alcohol side of the argument. *We must, of*

> *course, be guided by the facts in the case.* Therefore, I do not see how we really could, unless we did something unusual, be very helpful in this particular situation." (Italics supplied.)

His letter then went on to state that he was informed that alcohol (if spilled) was bad for the Duco finish, but that if General Motors were given "any technical information which would be helpful in developing any facts which would enable us to deal with the matter on its merits in favor of alcohol, then of course that would be an entirely different matter" (*ibid.*).

In a subsequent letter in January 1926 Pratt advised the du Pont Director of Purchases (GX 321, R. 508, 3835):

> "I believe our people have concluded that the mixture called 'Prestone'—made by the Union Carbide Company—is the most satisfactory anti-freeze mixture on the market. I know that our Research Corporation recently made a study of anti-freeze mixtures and as a result of this study we are recommending the use of 'Prestone'. I am also advised that the Yellow Cab operating companies are using this mixture."

In the same month Pratt asked the General Motors Research Laboratories for their views as to the "relative merits" of the various antifreezes (GX 322, R. 508, 3836), and received a reply that glycerin had many advantages (GX 323, R. 508, 3837).

In March 1926, Phelps of the du Pont Development Department wrote Pratt that du Pont was producing alcohol, and was considering producing ethylene glycol (of which Prestone was made), and asking for any information General Motors might have as to the experience of automobile owners during the past winter (GX 324, R. 508, 3838-39). Pratt replied that the glycerin products were superior, but that alcohol was cheaper (GX 325, R. 508, 3840-41).

In August 1926 Sloan wrote the Chief Engineer of the Chevrolet Company as follows (GX 326, R. 509, 3842-43):

> "Regarding your instruction book, frankly, I would suggest that when opportunity presents itself, you cut out the words 'are to be preferred' in the second paragraph under "Winter Driving" and simply state the facts. It seems to me that if we indicate a preference we are discriminating against some manufacturers and distributors and all that sort of thing, all of whom are potential users of General Motors products. It is all very well, I believe, to state that alcohol evaporates and glycerine doesn't; that alcohol is likely to cause damage and glycerine is not; that alcohol is much cheaper and glycerine is much more expensive. Let us submit all that to our users, but let them judge which is most preferable after listening to the facts. Don't you think that is the best way to do it?"

This advice that the manual "simply state the facts" and point out that alcohol would evaporate and might damage the paint but that glycerin was more expensive, which Chevrolet heeded (GX 327, R. 509, 3844), does not appear in any way to have been attributable to the correspondence with du Pont some months before. The position not to state a preference was a perfectly reasonable one for an automobile manufacturer to take.

On October 14, 1926, Phelps wrote Pratt to advise him that "the du Pont Company is now engaged in the manufacture of ethyl alcohol for industrial purposes", and asking if they can "have the opportunity to quote your company, or any of its subsidiaries, at any future time when they are in the market to purchase alcohol" (GX 328, R. 509, 3845). Pratt advised Phelps to take the matter up with Lynah of the General Purchasing Division (GX 329, R. 509, 3846) who, in turn, advised Phelps "that if they have any price consideration to offer on a volume purchase I will ascertain from our divisions what their requirements will be" (GX 331, R. 510, 3850). This, of course, did not indicate that du Pont was being given any preferential treatment, but implied only that they might get some business if they offered better prices than anybody else.

Phelps again wrote Pratt on October 21, 1926, attaching a memorandum reciting troubles with engines and radiators experienced by the Yellow Cab Company of Chicago and attributed to their use of glycerin and ethylene glycol as an antifreeze the previous winter (GX 330, R. 510, 3848). Phelps asked Pratt if the General Motors Laboratories could find out "whether these statements are true and whether this report can be verified by you" (GX 330, R. 510, 3847).

This was apparently referred to Lynah, who thereafter received a report from the Research Section, which both indicated that "some of the statements made" in the memorandum attached to Phelps' letter had been in error, and recommended "Alcohol-Water solutions for any class of service" (GX 331, R. 510, 3850).

In November, Phelps wrote Pratt two additional letters. The first contained the paragraph, quoted by the Government (Govt. Br., p. 45), calling General Motors' attention to the fact that Proctor and Gamble has been using in its advertising letters from General Motors divisions recommending the use of glycerin. The Government does not mention the next two paragraphs, in which Phelps referred to the "serious damage" to motors which the experience of many car owners during the previous winter had shown to have resulted from the use of glycerin (GX 332, R. 510, 3851).

In an attached memorandum (GX 333, R. 510, 3853), Phelps began:

> "Probably the most serious objection to the use of glycerine is that it deteriorates and softens the rubber hose connection and gaskets which frequently cause leaks that result in serious damage to the motor. All instructions for the use of glycerin lay special stress upon the importance of having an absolutely tight system,[61] and while there are some automobile owners who will take precautions to tighten up the connections, it is generally found that the owner will do nothing so long as there is no evidence of a serious leak. * * *
>
> "A leaky water system containing glycerin will ruin the motor when it gets into the cylinders."

Although Government counsel quote from this memorandum the paragraph containing Phelps' opinion that "* * * all automobile manufacturers * * * will find it decidedly to their interests to advocate that alcohol be used for antifreeze and make no mention of glycerine * * *" (Govt. Br., p. 45), they fail to point out that the quoted statement immediately follows an extensive discussion by Phelps on the "disadvantages of glycerin for antifreeze" which he summed up as follows (GX 333, R. 510, 3853):

> "Indiscriminate use of glycerin without service attention has and will result in trouble and damages for the car owner while alcohol is practically fool proof, and has been successfully used in radiators over a long period of time."

Phelps' next letter (GX 334, R. 510, 3859) read as follows:

> "With further reference to my letter of November 17th regarding the use of glycerin instead of alcohol for anti-freeze.
>
> "The Industrial Alcohol Manufacturers Association

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[61] The existence of these dangers was confirmed by the instructions put out by the glycerin manufacturers, which stated (R. 3856):

> "Above all, be sure the cooling system is tight. Remember glycerin takes advantage of minor leaks."

> has just completed a survey of forty-four automobile manufacturers whose recommendations are as follows:
>
> | | | |
> |---|---|---|
> | "29 | manufacturers | only alcohol |
> | 5 | " | only glycerin |
> | 10 | " | varying mixtures of alcohol and glycerin |
>
> "The Cadillac Shop Manual '314' page 50, item 375, states that a solution of glycerin and water is recommended. It is evident that the Cadillac Company is one of the few to advocate the use of glycerin and it will be of much interest to us to learn whether the Cadillac Motor Company is still of the opinion that glycerin is best after having some experience with the difficulties resulting from the use of this material for anti-freeze."

The Government, by quoting only the last paragraph and omitting not only the material already referred to relating to the damage to motors attributed to glycerin but also the report showing that the vast majority of automobile manufacturers did not recommend glycerin, gives the impression that du Pont was taking advantage of its ownership of stock in requesting General Motors to adopt the unusual course of favoring alcohol rather than glycerin. But there is nothing sinister or improper antitrustwise in du Pont's trying to convince General Motors that on the merits glycerin was more harmful to automobile engines than alcohol was to automobile paint, and that therefore glycerin should not be recommended. That was all that Phelps was doing.

By December Cadillac as well as Buick had altered their manuals to recommend alcohol, and Phelps wrote to urge that the other General Motors cars "should profit by the experience of the Cadillac and Buick companies" and change their instruction books (GX 335, R. 510, 3860).

All the papers were then turned over to Sloan, and a policy was

> "decided upon by the General Technical Committee and approved by the chief engineers of all the car divisions, which was as follows:
>
> "That we would point out that there were two antifreeze materials—alcohol and glycerin and components of glycerin, like ethylene glycol and prestone; that we would explain the advantages of alcohol and that the disadvantage was that if it was spilled on Duco it disfigured same. We would then deal with glycerin and materials having it as a major ingredient and would point out that it was satisfactory if used in strict accordance with the manufacturer's recommendation, *but that any air allowed to get into the system would cause decomposition and corrosion of the engine operating parts and further, that the material was likely to clog up the radiator.* In other words, our purpose is to state the facts as we found them in the report which was submitted to the Technical Committee.
>
> "We try to deal with the matter fairly and state the facts, feeling that our customers are entitled to know same and hoping that they would use alcohol, which we would much prefer they would use. In view of the fact, however, that some people prefer glycerin—Mr. Kettering would use nothing else—it did not seem to us that the conditions warranted discrediting same. We must bear in mind that glycerin interests are large and varied. They are all potential users of General Motors product and we do not want to discredit them beyond the necessities of the case, providing we can, in so doing, protect our customers interests.
>
> "I believe I told you further that *the Glycerin Manufacturers' Association was in touch with our findings and had no fault to find with the facts as we had established them.*" (GX 336, R. 511; 3861-3861A). (Italics supplied.)

The Government does not mention this report of Sloan, which indicated (1) that both materials had disadvantages, alcohol in relation to the paint if it spilled and glycerin in relation to the engine if it leaked; (2) that within General Motors opinion was divided, Sloan preferring alcohol whereas Kettering, the Research head, would use only glycerin; (3) that General Motors did not wish to antagonize the glycerin interests; and (4) that the Glycerin Manufacturers Association could find "no fault" with the facts as established by General Motors.

Although the Government does not refer to this exhibit, it does quote a Sloan memorandum to Pratt written later in December 1926, which read as follows (GX 337, R. 511, 3862):

> "I was looking over my file and noted the correspondence you have had with the du Pont Company on the matter of alcohol and glycerine for anti-freeze.
>
> "I believe you know that at the last meeting of the General Technical Committee a decision was reached to the effect that we could put in all our instruction books, in such a way as each Engineering Department thought best, *a statement setting forth the advantages and disadvantages of both materials*, particularly pointing out that under certain conditions glycerine was unsatisfactory but that if those conditions were not present and it was used strictly in accordance with the manufacturer's recommendation, there was no objection to its use." (Italics supplied.)

In the context of what preceded, this statement was entirely reasonable and squared exactly with Mr. Sloan's statement to du Pont more than a year before that "We must, of course, be guided by the facts in the case" (GX 320, R. 507, 3833).

The Government, by the use of partial quotations and its complete failure to mention the exhibits or portion of exhibits describing the damage to motors that could result from the use of glycerin, seeks to give the erroneous impression that "General Motors reversed its position" so that its instruction books were "deliberately slanted * * * in favor of alcohol" (Govt. Br., pp. 44-45, 47) merely because du Pont had told General Motors that it was manufacturing an alcohol anti-freeze. But the record shows that the changes were not made because of any desire to favor du Pont. When du Pont initially suggested that General Motors not approve publicity favoring glycerin rather alcohol, General Motors refused to acquiesce, saying that it would have to be guided by the facts. When, after a year of experience, General Motors learned, and verified through its own technical staff, that glycerin as well as alcohol had demerits as well as merits it withdrew its statement of preference and took a neutral position, stating the facts relating to both products, without conclusion or recommendation.

This episode was concluded in 1926, and the Government brief before this Court makes no further mention of antifreeze. However, the subsequent history of that product shows that du Pont was not receiving preferential treatment from General Motors. In 1926, 1927, 1928 and 1931, du Pont unsuccessfully sought to get the General Purchasing Committee of General Motors to buy alcohol antifreeze from it (GX 331, R. 510, 3850; GMX 155, R. 1100, 7087, 7089, 7098).

In 1930 du Pont began to market a new kind of antifreeze, made from methyl alcohol, known as methanol (R. 2967-8). Although large quantities were sold, none was purchased by General Motors until 1936 (DPX 556, R. 2969, 6472). General Motors first began to purchase antifreeze for resale to the public through dealers in 1933 (R. 435-6; R. 2945-

46).[62] For the first three years it bought from the Glycerin Producers Association (R. 435; R. 2946-47), although du Pont tried to get the business (R. 2973).[63] When this source became unavailable because of a glycerine shortage, General Motors sought to buy from Union Carbide, the manufacturer of "Prestone" (R. 435; R. 2946-47). Because General Motors wanted the product to be furnished under its own brand name, Union Carbide did not accept the business (R. 435; R. 2947, 2995-96).

General Motors then canvassed "every source we knew" for the best terms it could get (R. 2947). Du Pont finally, and reluctantly, acquiesced in General Motors' demand for its own brand name (R. 436; R. 2994-95). Thereafter, until the war, General Motors solicited bids each year, trying to get Union Carbide interested, and exploring other sources, but continued to buy from du Pont (Zerone as a non-permanent antifreeze and, after 1939, Zerex as a permanent antifreeze (R. 436; R. 2976-77)) "because we felt very definitely that they gave us the best product at the best price" (R. 436; R. 2948-49). Prestone and Zerex were the only permanent antifreezes, which most dealers' customers wanted (R. 2977, 2954), until after the war (R. 2992).

During and for some years after the war there was an acute and continuing shortage (R. 437; R. 2949-50, 2996, 2962); du Pont gave General Motors an allotment based upon its purchases before the war (R. 2949-50). This was not enough and General Motors, like everyone else, tried to obtain additional supplies from other sources, but unsuccessfully (R. 2950). The result was that in 1946 and

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[62] A very small amount of antifreeze is also used by General Motors to protect cars sold to dealers in winter (R. 2951).

[63] By this time it was generally known that the difficulties with glycerin could be overcome if adequate care was taken with the cooling system, and there was a large public demand for glycerin products as a permanent antifreeze.

1947 du Pont secured over 97% of General Motors' antifreeze business (GX 1390, R. 2932, 5425). In 1951 du Pont advised General Motors that it was no longer willing to furnish antifreeze under General Motors' brand name (R. 437; R. 2983-4). As a result, in 1953, when additional supplies became available, Chevrolet, Buick and Pontiac switched to another supplier, and du Pont sold only to Oldsmobile (R. 437; R. 2983-4, 2950, 2991-2). The General Motors official in charge of the purchases testified that he had never heard that he was supposed to favor du Pont as the supplier, that he was not motivated when he bought from du Pont by the fact that it owned stock in General Motors, and that there were "absolutely" no strings attached to his purchases of antifreeze (R. 2952).

The trial court found, on the basis of the above facts, that (R. 437):

> "The only evidence offered by the Government in support of its contention as regards antifreeze is that in recent years General Motors has purchased practically all of its requirements from du Pont. The proof offered by the defense, however, establishes that General Motors determined initially to make such purchases because du Pont was the only available supplier that could meet General Motors' demands as to price, quality and delivery. The defendants' proof further shows that General Motors re-examined the supply situation each year and sought regularly to obtain new sources of supply. The Court finds this proof convincing that General Motors was not limited by agreement or by du Pont domination in its purchases of antifreeze and bought from du Pont only because it believed that du Pont best served its needs."

2. *Tetraethyl Lead.*

The Government now argues that the evidence as to the development, production and sale of tetraethyl lead proves not an agreement as to the division of fields, which the

Government alleged and sought to establish below, but a general absence of arm's length dealing between General Motors and du Pont. The findings and the evidence supporting them negate the Government's present claim as well as its prior contention.

In order that the Court may understand the present significance of the subject, it is advisable to begin the story at the end. Since 1948, when the patents expired, tetraethyl lead has been produced and sold by two companies, the Ethyl Corporation, owned jointly by General Motors and Standard Oil of New Jersey, and du Pont. Ethyl is the larger of the two. They are in active and intense competition throughout the nation (R. 425; R. 1639, 1865-71, 1879-1902). This has been the culmination of what the Government regards as General Motors' efforts to see that du Pont was the sole supplier of tetraethyl lead.

(a) ***The development of tetraethyl lead.***

Charles F. Kettering was general manager of the Delco Company, a division of United Motors which merged with General Motors in 1918 (R. 405; R. 1529). Kettering also had a separate research laboratory which was not taken over by General Motors until December 1919 (R. 1528-29; GMX 244, R. 1528, 7322). For years before he joined General Motors, where he became Director of Research (R. 1508), Kettering was searching for an anti-knock material for motor fuel (R. 405-6; R. 1514, 1235-6, 881). In 1916 he wrote to an interested du Pont chemist (R. 406; R. 1514; DPX 93; R. 881, 5859):

> "I will be very glad to keep you in touch with this thing, and *any time that we get anything of interest we will be glad to give you the benefit of it.* We are doing this more from the standpoint of acquainting ourselves with the problem, rather than with the idea of commercializing either the apparatus or the fuel." (Italics supplied)

Thus, at that time, several years before either Kettering or du Pont had any connection with General Motors, he was seeking not only du Pont cooperation but also du Pont development of any chemical which was discovered.[64]

Kettering continued his contacts with du Pont during and after the war (R. 406; R. 1524-26). He invited them to visit his laboratory to see what he was doing in developing additives for the suppression of knock (R. 1526), and turned to du Pont as a source for compounds to be tested as anti-knocks (GMX 243, R. 1525, 7317). All this was before Kettering and his laboratory had become a part of General Motors (R. 1527).

Subsequent to joining General Motors, Kettering continued to call on du Pont scientists for assistance (R. 1533-35; DPX 94, R. 883, 5860; GMX 245, R. 1533, 7327). In 1920 he had du Pont determine some explosive pressures for him (R. 1535). Thus, Kettering's looking to du Pont as a source for tetraethyl lead after its discovery was a natural continuation of his earlier association with them as experts in detonation and as suppliers of unusual chemicals for use as anti-knock compounds.[65]

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[64] The Government would be sure that the above quoted passage proved "inside influence", resulting from du Pont's ownership of General Motors stock if it had been written *after* Kettering joined General Motors and *after* du Pont had made its investment. The fact that it was written before there could have been any such influence on Kettering demonstrates the danger of relying on statements of this type as proof of some "illegal preference" when in reality they show only that du Pont was highly regarded on merit alone.

[65] In the light of this background, the letters quoted by the Government (Govt. Br. pp. 48-49; GX 599, R. 612, 4296; GX 601, R. 612, 4298) cannot be attributed to du Pont's stock interest. The first, written in 1919, was an effort by General Motors to get du Pont's Research Department to bear the expense of developing the yet undiscovered chemical on the ground that the marketing of it "will be a matter of interest to du Pont", while General Motors went ahead with other phases of the research. This invitation du Pont declined (GX 558, R. 608, 4252). The second, written by Midgley in 1920 when it was thought that aniline might solve the problem, confirmed the cooperative plan for General Motors to produce a mechanical injector and du Pont the chemical product. Since all of this resulted from the cooperative effort begun by Kettering because of his prior contacts with du Pont and his belief in their capacity as chemists, it does not support the Government's theory.

After experiments in other directions had not proved too successful (R. 406-7; R. 1519-28; GMX 243, 245, R. 1525; 1533, 7317-21, 7325-27), Midgley, a General Motors researcher, discovered in 1921 that tetraethyl lead might be the answer to the anti-knock problem (R. 409; R. 1542, 1237).

Just as Kettering had been before, General Motors was interested in this project primarily "because it would contribute enormously to the efficiency of the automobile from the standpoint of the design of the engine; from the standpoint of fuel consumption by the car" (R. 1236), not in finding a new product to sell (R. 1236-38, 1249). General Motors "had no competence whatsoever in chemical manufacture"; it was a manufacturer of machinery (R. 411; R. 1248-9, 1353-4).[66] The General Motors staff was also aware that lead compounds were deadly poisonous (R. 411; R. 1555, 1545; GMX 242-54, R. 1522, 1525, 1528, 1533, 1536, 1546, 1550-1, 1554-7, 7340-44). The process of manufacturing even a small quantity had resulted in one explosion (R. 1547-48). "Du Pont had demonstrated through its war work 'its ability to deal with the problems involving dangerous materials, such as dynamite' " (R. 411; R. 1249).

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[66] Kettering testified (R. 1515):

> "You see, we weren't in the fuel business. We were in the engine business, and we were trying to get anybody that would help us on the fuel end of it to get whatever help we could."

Sloan testified (R. 1353-54):

> "If it came to a decision between our making the chemical development and someone else making it, I will always rule against our making it because I don't think we have the competence.
>
> "I called attention in direct examination to the fact that we must not confuse what we did in research with the ability to manufacture from a production point of view. As a matter of fact, all these things that have come up here for discussion in the chemical line were the productivity of one research man in General Motors Research. Outside of that, I don't know anybody in General Motors, unless it was Mr. Kettering, that had any chemical background whatsoever, either in research or in manufacture."
>
> For examples of General Motors' self-limitation with regard to other activities outside its field of competency. See p. 187, fn. 102, *infra*.

Consequently Kettering decided to ask the du Pont Company to undertake the manufacture of tetraethyl lead, as the trial court found (R. 411; R. 864, 1548). He and Midgley were "the fellows who first approached them on it" (R. 1550). He testified that he went to du Pont "because we had worked with them a little bit and they were the best chemists that we knew of in the country. We knew the men from chemical associations, and so forth" (R. 1584). He stated that he had not been actuated at all "by the fact that du Pont Company was a stockholder of General Motors" and had given no "thought to that" (*ibid.*). (He later had given no thought to this factor when he turned to the Dow Chemical Co. for bromine because he thought Dow was the best source for this chemical (R. 1572, 1710-11).) That Kettering, who was himself a well-known inventor by that time (R. 1509-12), was not subservient to or over-awed by du Pont was demonstrated by the fact that it was during this period that he steadfastly rejected Lammot du Pont's persistent attempts to get General Motors to enter into a general research contract with du Pont (R. 407-11; R. 1536-38; see p. 16, *supra*).

There were preliminary discussions in the course of which Irenee urged the du Pont scientists to "sell our ability to help them on the Tetra-ethyl Lead proposition" (R. 411; R. 889; GX 613, R. 613, 4307). This would have been unnecessary if du Pont had known that there was a general understanding that General Motors would leave all its chemical work to du Pont, or that it was all cut and dried that du Pont would get the business. Kettering thereupon invited du Pont representatives to visit the General Motors laboratory (R. 1739-40). Harrington of du Pont testified: "They actually gave us one demonstration in the laboratory of how they had tried to make tetraethyl lead. That particular process got entirely out of hand and spewed all over every place, and we had to get out" (R. 1740). The process General Motors had developed was "not by a long shot" a commercial manufacturing process (R. 1740). After a "tremendous amount of difficulty" (R. 1742), du Pont made substantial changes in the manufacturing process and managed to produce tetraethyl lead by a method which had commercial potentialities (R. 1741-43).

In view of the satisfactory progress, General Motors decided to leave the production and research on production of tetraethyl lead to du Pont (and also to M.I.T.) (R. 411-12; R. 1552; GX 615, R. 613, 4308) and to concentrate its research on "spark-plug and exhaust-valve troubles that have been experienced in the use of lead compounds as anti-knock materials" (GX 615, R. 613, 4309). There was as yet no contract between the two companies, as to price or anything else (R. 412; R. 1553, 1742). An agreement was signed on October 6, 1922 (R. 412; GX 618, R. 613, 4312) whereby du Pont was to produce 1,300 pounds of lead per day, at a price of two dollars per pound, not later than four months after General Motors notified it to commence production, and larger quantities as required. The contract was a continuing one, with provisions for cancellation, and authorized General Motors to obtain lead from other sources if du Pont could not furnish the quantities desired, or if du Pont's prices should not be the lowest. In February 1923, after General Motors had succeeded in eliminating difficulties with spark plugs caused by the new fuel (R. 1545-46, 1557), du Pont was notified to go ahead (R. 1557; GMX 75, R. 1250, 6760).

The Government claims that du Pont "influence" must have governed Kettering's conduct because he did not shop around for tetraethyl lead manufactured by other companies. This ignores the realities of getting commercial development of an unknown, dangerous, poisonous chemical substance which had not only never been made before outside of a test tube, but which for all anyone knew might be supplanted tomorrow by a better anti-knock substance. Although on hindsight the Government now blandly regards this as an "extremely valuable business" which was "handed to du Pont," it was not so regarded by businessmen at the time. As late as 1926, Dow Chemical refused to manufacture tetraethyl lead because of the "uncertainty of the business" (GMX 284, R. 7473), as well as its physical hazards (R. 1632). In June 1924, a few months before the enterprise almost collapsed, Irenee du Pont prophetically wrote (GX 773, R. 632, 4689): "Of course this whole development depends on whether the demand for tetraethyl lead is going to stay. It may be killed by a better substitute or because of its poisonous character or because of its action on the engine".

(b) *Standard Oil Joins with General Motors.*

In the meantime the Standard Oil Company of New Jersey had also undertaken research which eventuated in 1923 in the discovery of an improved and cheaper method of producing tetraethyl lead, known as the chloride process (GMX 256A, R. 1559, 7351). When General Motors was informed of this, it first suggested that Standard undertake the manufacture of lead itself, and that General Motors would buy from it under a contract similar to that with the du Pont Company—a suggestion which "did not awaken any enthusiasm" on Standard's part (GMX 256, R. 1558, 7348). Instead, at Standard's suggestion (*id.*, at 7349), in order to get the advantage both of General Motors' original patent and Standard's improvement patent, and in order to secure an affiliation with the oil industry through which the new product would be distributed, General Motors joined with Standard in August 1924 to form the Ethyl Gasoline Corporation (R. 415; R. 1253-55; GX 667-72, R. 617-8, 4381-4433). Each company was to receive 50% of the stock of the new corporation, and to turn over its patents to it, with General Motors receiving a royalty; the new corporation was to market tetraethyl lead (*ibid.*). The agreement provided for the purchase of lead on a competitive basis, subject to the existing contract with du Pont (R. 415-16; GX 668, R. 618, 4387).

In terms of the issue before this Court, this was a highly significant event. For with the formation of Ethyl, General Motors lost its absolute control over the disposition of lead manufacture. The decision as to who should produce lead henceforth had to be a joint one agreeable to Standard Oil of New Jersey.

Standard Oil of New Jersey was a highly competent and successful business organization. Certainly it could not be conceived to have been "dominated" by du Pont or General Motors, nor was it an industrial babe in the woods which could not look after its own interests. The picture of Ethyl Corporation in the role of a du Pont instrumentality would seem to assume that Standard, the largest oil company in the world, was either non-existent, stupidly managed, or helpless. Standard's equal voice in what happened subsequent to August 1924 is persuasive that rather than being the result of influence there were good and valid business reasons for Ethyl's continuing du Pont as the producer of lead.

If Sloan had been interested in preserving the manufacturing field for du Pont, he had a perfect way of dealing with Standard Oil and its chloride patent process. That was just to refer Standard Oil to du Pont, on the ground that General Motors had a contract with du Pont. Actually, that was exactly what Irenee suggested Sloan should do when he learned of Standard's interest in manufacture (GX 623, R. 614, 4340). Sloan, however, instead of falling in with that suggestion, as he most certainly would have if he were the alleged du Pont representative, told Standard that General Motors would negotiate with it further (GX 624, R. 614, 4346). As a result of those negotiations, handled without consulting the du Ponts (R. 894), Standard Oil obtained an equal voice in Ethyl Corporation.

The Government makes a great deal of the fact that Sloan was opposed to the independent production of lead by Standard Oil. In January 1924, before the plan which culminated in the formation of Ethyl Corporation, General Motors had licensed Standard to be its sole distributor of lead in the eastern part of the country (GX 620, R. 613, 4319-32). Other oil companies had been given similar contracts for other sections (GMX 76, 78, 80, R. 1251, 1561, 1564, 1565, 6761, 6779, 6800). Standard sought to condition its "willingness to license other large distributors" in its exclusive territory upon General Motors' "willingness to deal with [it] as a manufacturer of tetraethyl lead" (GX 624, R. 614, 4346). Sloan thought it unwise to permit one of the large distributors of lead also to join in the manufacture, "because it would have prejudiced their position with other suppliers in the territory" (R. 1359); their interest would be "in conflict with respect to other distributors of oil" (R. 1360). In the letter of January 28, 1924, quoted by the Government (R. 413; GX 622, R. 614, 4338), he declared:

> "I feel, and have held right along, that in view of the fact that we are in the development stage we should not in any way discuss with these people anything to do with the manufacture of tetra ethyl lead. I question whether it will be good business from our standpoint for them to manufacture tetra ethyl lead and at the same time have such a large slice of the distribu-

tion on same. I do not say that I fear we will not get a square deal, but that naturally comes into my mind."

He then went on to say that du Pont could manufacture "at the lowest cost plus a reasonable return", and that permitting Standard to manufacture "will be a disturbing influence and would throw an uncertainty on the whole situation that would not be constructive" (*ibid.*).

Sloan testified that this did not mean that he was afraid Standard Oil would be in competition with du Pont; "I didn't care anything about that" (R. 1360). That this was true is attested by the fact that during the same year, Sloan and General Motors were doing their best to get other suppliers to compete with du Pont's newly-discovered Duco (see pp. 55-56, *supra*). There is no reason why he should have felt differently about lead. "What I was concerned with was that, in the development stage, it would involve a lot of confusion, and we might better wait until the development had moved farther along, and then we might take such action as subsequent experience justified" (R. 1360).

Accordingly, Standard was advised that General Motors would not bow to its attempt to connect its licensing of other large distributors with its being granted the right to manufacture (GX 624, R. 614, 4346). This does not prove that Sloan was not acting in General Motors' interest, out of a desire to favor du Pont. The motives he advanced were perfectly reasonable and the trial court was not required to disbelieve him.

Subsequently in the summer of 1924, after it had been decided that Standard and General Motors would join as partners in the distribution of tetraethyl lead, Standard proposed that it put up a temporary 100 gallon experimental plant at Bayway. Its object was not to become a second source of supply for lead, but to obtain experience with its own chloride process and also to provide a little extra lead for the peak season, September and October (GMX 87, R. 1263, 6828). Indeed, Standard stated specifically that only six months operation was contemplated: "In view of necessity for using the space for other purposes, this should be regarded as the limit of life of the plant" (GMX 81, R. 1259, 6815). It was also Standard's suggestion that du Pont's existing 900 gallon bromide plant be continued; that du Pont put up an additional 1,000 gallon chloride plant; and that construction of an additional plant by the new company (Ethyl) be planned (GMX 87, R. 1263, 6828-29).

The chloride process for manufacturing lead was even more dangerous than the bromide process, although less expensive. Sloan was fully cognizant of the "very great dangers in the manufacture of this material" (R. 1249), and in view of Standard's inexperience, he thought that it lacked the competence to undertake such an operation (R. 1256).[67] During the week that this was under discussion, Sloan had written Kettering expressing his concern as to the hazards of "proceeding along the proposed lines" and recommending appointment of a medical committee to deal with the question (GMX 82, R. 1260, 6817). Nevertheless, Sloan acquiesced in Standard's program to construct and operate the experimental plant at Bayway as well as for du Pont to go ahead with larger plants (R. 415; GX 661, R. 616, 4365-66). He thought that "it will be impossible to operate such an experimental plant successfully when the larger units are running", but that it was advisable to satisfy Standard "from the psychological standpoint" (*ibid.*).

His letter also stated (*ibid.*):

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[67] It was not until after that period that the oil industry became "chemically minded" (R. 1256, 1239).

> "Any further thought of developing any real production other than under the auspices of the du Pont Company will be deferred until some later time".

To this the Government adds (Govt. Br., p. 53) "General Motors adopted this approach despite the fact that du Pont had fallen behind in its deliveries." But the Government omits to say that Sloan's letter also agreed with Standard's proposal that du Pont immediately build an additional large plant to meet the increasing demand.

The Government seeks to make it appear that Standard was anxious itself to become an important producer and that Sloan hoodwinked it into putting up only a small plant while behind its back he was urging du Pont to expand its production. Actually, Standard never wanted to become a real source of supply for tetraethyl lead. The full sequence of events shows that, although Sloan thought it unwise for Standard to go into manufacture, he went along with their proposal; that it was Standard's idea to limit itself to a temporary 100 gallon plant (not du Pont's, as the Government brief would suggest); and that it was Standard's idea that du Pont greatly expand its production. Sloan was going along with what Standard wanted, not siding with du Pont against Standard. This gives an entirely different meaning to what he said in the selected quotations in the Government's brief.[68]

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[68] The Government's brief says that Sloan at this time was more interested in giving du Pont "a reasonable return on capital employed" than in bringing down the price". But can Sloan's business judgment be questioned because at this developmental stage he was not primarily concerned with squeezing down the price? Already du Pont's bromide plant appeared to be obsolete, although it had produced no profit, and sales up to that point had amortized only $14,000 out of $700,000 of capital expenditure (GX 663, R. 617, 4369). In addition, it must be remembered that this was a single purpose plant, the product of which had no market except to the patentee-purchaser, Ethyl Corporation.

It should also be noted that both Sloan and Irenee du Pont opposed a cost-plus contract because it would have provided no incentive for reducing prices. (GX 663-4, R. 617, 4369, 4371).

(c) *The Bayway Disaster.*

Standard went ahead with its plans, and constructed its experimental plant at Bayway, New Jersey. The wisdom of Sloan's apprehension about Standard's ability to operate it was soon manifested. In October 1924, after no more than five or six weeks of operation, the entire force of employees became afflicted with lead poisoning, and five men died (R. 417; R. 1267, 1765).[69] The New Jersey Department of Labor not only ordered a dismantling of the plant, but ordered Standard never again without its permission to engage in tetraethyl lead manufacture (R. 417; GMX 89, 90, R. 1267, 6832-33). Standard of course dropped its interest thereafter in manufacturing tetraethyl lead, and it was not because of some Machiavellian scheming by Sloan working in harmony with the du Ponts.

In May 1925, as a result of the public outcry, the opposition from health authorities, the refusal of some oil companies to continue to sell leaded gasoline, and the banning of such gasoline in cities and towns throughout the country, the Ethyl Board of Directors, Irenee du Pont disagreeing, decided that the manufacture of tetraethyl lead must be discontinued (R. 417; R. 1267, 1269, 1577-78, 1765-67; GX 773, R. 632, 4691-96).

At the request of Ethyl and du Pont, the problem was investigated by the United States Public Health Service. After du Pont devised a "completely closed system" which met with the Service's approval, and also with that of the

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[69] "* * du Pont advocated a completely closed, airtight system of manufacture, while Standard felt economy would be achieved by permitting the working force to handle the lead residue directly. After visiting the Bayway plant, Harrington said there was unanimous agreement that Standard's process was 'too dangerous' for du Pont to use, notified Standard to that effect, and received permission from Ethyl to install equipment of its own design." (R. 416-17). See R. 1763-4.

New Jersey authorities, manufacture was resumed in May 1926 (R. 420-21; R. 1270-73, 1767-77).[70]

The Government refers to a sentence in a letter written by Sloan to Irenee in December 1924 at the height of the storm over the Bayway catastrophe, which stated (R. 417; GX 710, R. 625, 4530):

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[70] One result of the shut-down was controversy between du Pont and Ethyl as to how much should be paid to du Pont for lead as to which delivery had been deferred—whether the price should be the higher price agreed upon for the period when the lead was originally to be delivered, or the lower price for the subsequent period in which it actually was delivered (R. 417-19). Du Pont's position was that since Ethyl had requested deferral of the January deliveries called for by the contract, which du Pont "voluntarily abstained from making and shipping in January" (R. 418; GX 679, R. 619, 4457), it was only fair that du Pont get the price agreed upon for January. Sloan wrote Irenee that he thought that the trouble was "largely due to a misunderstanding of the equities", and that he believed du Pont's position "absolutely correct" (GX 680, R. 619, 4459). The Government treats this as proof of his allegiance to du Pont rather than to Ethyl and General Motors (Govt. Br., pp. 54, 134). But it does not follow that because a man believes that the other side to a dispute may be right that he is disloyal to his own business. The record does not show the outcome of this controversy.

The Government next, without distinguishing the two, refers to a different claim of du Pont to be made whole on the cost of building the chloride plant, which had been abandoned when the contract was cancelled because of the shut-down (GX 685, 686, 688, 691-93, R. 620, 621, 623, 4470, 4475, 4480-93; DPX 116, R. 1778, 5900). There was no controversy as to the basic principle that du Pont was entitled to be made whole, but there was disagreement as to who was to get title to the plant, which was located in the middle of du Pont's manufacturing facilities (R. 1778). At Sloan's suggestion (GX 692, R. 621, 4488), resolution of this was deferred until the resumption of manufacturing operations made it unnecessary (R. 421; R. 1778). The ultimate settlement by paying du Pont $1,820,000 for its costs, excluding profits (GX 773, R. 632, 4698), but permitting it to retain the plant, has not been shown to be unreasonable—and has nothing to do with the controversy over the price of the deferred lead. After mentioning the latter controversy, the Government says "Ultimately du Pont got what it wanted" (Govt. Br., p. 54), but for this it refers to and cites the description of the settlement of the second dispute. As a matter of fact Ethyl also made whole Standard Oil despite its having caused all the difficulty and despite Kettering's view that it should stand its own losses. (GX 676, R. 618, 4446) An analogous settlement was made with Dow whose bromide contract was cancelled. (R. 1641; GX 681, R. 619, 4462)

Sloan kept out of this negotiation, not only because he thought it better, because of his admitted friendship with the du Ponts, to let others negotiate for Ethyl, but also because

> "I have never had much respect for my own ability as a negotiator. I am too apt to look at two sides of the question" (R. 1273).

It is apparently this last quality to which the Government objects.

None of this complicated story, which is entirely academic now, proves that Sloan was not acting in the interest of General Motors or Ethyl, or that he was motivated in any way by du Pont's stockholdings in General Motors.

> "Du Pont will always be the manufacturing agent of Ethyl Gasoline Corporation whether we make tetraethyl lead or whatever we make, now or in the future. I am sure of that."

That statement doubtless expressed Sloan's view in the atmosphere of that time, when the lead program was close to complete cessation because manufacture of the dangerous chemical had been undertaken, contrary to Sloan's judgment, by a company without prior experience in the field. But by 1926 he had approved Webb's contract with American Research Laboratories for the manufacture of lead and Webb's efforts to negotiate a contract with the Dow Chemical Company (see pp. 117-118 *infra.*) An expression written when the lead program was *in extremis* and not adhered to thereafter cannot be taken as a statement of General Motors' policy or a manifestation of a restrictive agreement with du Pont.

The Government (Govt. Br., pp. 55, 135) cites GX 704 (R. 624, 4505) as showing that Sloan sided with du Pont and Ethyl in price negotiations. This letter was written in February 1926, when the project was closed down, and when Irenee was in disagreement with Standard on many facets of the tetraethyl lead program. Apparently, in response to a letter from Irenee indicating that he wished to withdraw from the Ethyl board, Sloan wrote a tactful letter in which he indicated:

> (1) that he agreed with Irenee that du Pont should be allowed "a proper and constructive price based upon a fair cost of manufacture with a reasonable allowance for all the hazards that we are going into", and that he would be satisfied to let Irenee fix a fair price "knowing that it is to your interest as well as ours to get the price down as low as is consistent" (R. 4505).

Standard apparently wished a definite price to be established (R. 4507). Sloan's position was certainly not unreasonable for a businessman of integrity dealing with a person he trusted, at a time when the program had been brought to a complete halt because of the health problem and when it would obviously be difficult to determine what would be a reasonable price for the future.

(2) The letter also *disagreed* with Irenee's views as to (a) the need for closing down the operation (R. 4506); (b) whether, because of the hazard, distribution should be restricted to a relatively few large sources and not extended to service stations and tank wagons (R. 4506-07); and (c) the need for requiring "ethylized" gasoline to conform to certain standards (R. 4507-08). As to the last point, Irenee stood for a policy of unrestricted selling, and there was a "radical difference" of opinion between him and Sloan, who favored rigid standardization, and whose views prevailed for a number of years (GX 773, R. 632, 4706-08).

GX 704 as a whole shows Sloan as friendly with Irenee, but still entirely willing to agree or disagree with him as the merits of the particular issue dictated. Such an independent attitude does not manifest du Pont domination.

(d) *Efforts to Obtain a Competitive Manufacturer.*

In 1926 the Ethyl Corporation sought to induce two other companies to manufacture tetraethyl lead. Webb, the president of the Ethyl Corporation (who had come from General Motors) (R. 421; R. 1623), visited the Dow Chemical Company headquarters in Michigan and (R. 1631):

> "I told them we would be very much interested in their going into the matter of manufacturing if they felt they could do it at prices that would warrant our making such a contract, primarily from a price standpoint."

A memorandum from Mr. Dow's files noted that (GMX 283, R. 1717, 7472):

> "They are desirous of having the Dow Company manufacture the lead tetraethyl * * *. Mr. Webb stated very positively that he felt that we are the logical people to undertake its manufacture as he could not afford to depend on one source of supply * * *."

Dow, however, finally decided, after giving the matter serious consideration, not to go into such a hazardous enterprise (R. 1719-24). The Government does not mention this attempt to induce a major chemical company to compete with du Pont.[71]

Webb also, with Sloan's approval (R. 1650), went so far as to enter into a contract for the production of tetraethyl lead with the American Research Laboratory of Denver, a small company which offered to undertake the manufacture under a new process (R. 422; R. 1640, 1643-48, 1626-30, 1656-57; GX 1313, R. 1656, 5250-58). After visiting the Dow Chemical laboratories and comparing the Dow experience with their own, the Denver people decided that "it was rather foolish for them to think of going into the manufacture of this product" (R. 422; R. 1629, 1659). They accordingly suggested the cancellation of their own contract, which offer was accepted by Ethyl (R. 422; R. 1630, 1657-59; GMX 270-71, R. 1631, 7412-15).

The Government does admit that Ethyl entered into this contract (Govt. Br., p. 54), but it then states:

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[71] General Motors and later Ethyl bought all their bromine supplies from Dow Chemical Company (R. 1582), although du Pont had originally assisted Ethyl and General Motors in extensive and expensive research into the methods of producing bromine, including extraction from sea water (R. 1573, 1576, 1709-11; GX 773, R. 632, 4671). In 1934 Ethyl formed jointly with Dow the Ethyl-Dow Corporation, which was thereafter the supplier of all Ethyl's ethylene dibromide (R. 1713-14; DPX 108, R. 910, 5387). This was a major chemical operation, which in 1952 produced 125,000,000 pounds of ethylene dibromide (R. 1572). Here is an example of General Motors together with Standard going to another chemical supplier, not du Pont, for its sole source of supply when this seemed to be to its best interest.

"Mr. Irenee du Pont objected vigorously (GX 711, R. 625, 4532). It was cancelled (GMX 270, R. 1631, 7416)."

This is an example of the highly misleading technique often found in the Government's brief of *post hoc, ergo propter hoc.* For the cancellation was not suggested by Ethyl at all, but by the other party to the contract (R. 1629-30, 1657-59), as the trial court found (R. 422), and Irenee's letter had nothing to do with it.[72] Certainly his letter did not dissuade Ethyl from attempting to enter into a contract with Dow shortly afterwards.

Although these efforts to obtain additional sources of supply turned out to be fruitless, they show that Ethyl was willing and indeed eager to obtain tetraethyl lead from other sources than du Pont. And Ethyl could not have undertaken such a course of action without the acquiescence and approval of Sloan on behalf of General Motors (R. 1648-50).

The result, however, was that du Pont remained as the only supplier, and that it produced tetraethyl lead from

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[72] Irenee's letter, after admitting that du Pont's status as a supplier placed him in an "embarrassing position", opposed the ordering of lead from the American Research Laboratories not only because their proposed method of manufacture was outmoded, but because (GX 711, R. 625, 4532-33):

> "They evidently are not conversant with the true dangers from poisoning and are using make-shift apparatus where poisoning becomes not only likely but almost a certainty.
>
> "If another disaster happens in Colorado no amount of explaining will excuse our directors for having encouraged novices to undertake such a dangerous operation. * * * the risk of a serious catastrophe of poisoning is too grave to be considered.
>
> "I hope that you will understand that it is only my feelings of the seriousness of such a move that causes me to put myself in an embarrassing position of refusing to acquiesce in the Executive Committee's judgment."

Undoubtedly Irenee was right in his views, which reached the same conclusion as the American Research Laboratories and the Dow officials arrived at independently when they decided not to produce lead. Thus even if the cancellation of the contracts had been attributed to Irenee's letter, it could not be said to have been based upon du Pont "influence", as distinct from the merits of the reasonable views expressed therein.

1928 to 1937 under a series of short-term requirements contracts (R. 422-23; GX 706, 745, 747, 752-54, 757-59, R. 624, 628, 629, 630, 4512, 4559, 4570, 4588-4606, 4621-4642; DPX 118, R. 1782 5911). The public demand for tetraethyl lead in gasoline increased at a tremendous rate and facilities for manufacture were rapidly expanded (DPX 119, R. 1783, 5914). The price of the product was steadily reduced as the demand increased, from the original $2.00 to 26 cents per pound in 1937 (R. 1782-83, 1785-86; DPX 119, R. 1783, 5914; DPX 123-25, R. 1785, 5918-20).

(e) *Ethyl Corporation Becomes a Manufacturer, Competing with du Pont.*

Beginning in 1929, Webb and Sloan began giving consideration to the situation that would exist when the basic patents expired at the end of 1947 (R. 423; R. 1687).[73] As things then stood, Ethyl Corporation, not being a manufacturer of tetraethyl lead, would have nothing to sell. Furthermore, as a result of its successful commercial production, du Pont had developed know-how and some patented improvement processes which would make it difficult for Ethyl Corporation successfully to establish itself as a manufacturer, at least to do so on its own without help from du Pont (R. 423).[74]

In 1930 Sloan was in a perfect position—if he was the du Pont tool the Government tries to picture him—to accomplish, or at least to attempt to accomplish, the alleged purpose of preempting the lead business for du Pont. If he had used his influence to get Ethyl Corporation merely to continue along the same course without change, the result would have been that by 1948 du Pont, as the only manufacturer with the technical know-how and patented processes, could have sold direct to the oil companies, and continued as sole producer of tetraethyl lead while Ethyl either died on the vine or struggled to start up a plant of its own *ab initio.*

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[73] The controlling and basic use patent (Midgley) expired on December 30, 1947; the chloride process patent (Kraus and Callis) expired January 1, 1946 (GX 773, R. 632, 4725-7; GMX 246A, R. 1546, 7330; GMX 256A, R. 1559, 7351).

[74] The du Pont process patents related to manufacturing details, and as of 1936 at least were considered by du Pont to be "of subordinate character and of less than controlling importance" (GX 773, R. 632, 4726). The know-how was the important thing.

Instead, Sloan took the initiative (contrary to du Pont's interests) in a campaign to get Ethyl Corporation into the position of being a successful manufacturer in competition with du Pont. In the Spring of 1930, as the result of a conversation on the train with Lammot du Pont, Sloan learned that du Pont had developed patented processes which would make it difficult for anyone else to produce lead successfully (GX 748, R. 628, 4577-8). Sloan immediately wrote Webb, urging that Webb concern himself about the position Ethyl might be in on the expiration of Ethyl's patents (*ibid.*):

> "* * * it seems to me that we ought to look forward, and I have no doubt that you are but, of course, I do not know that, and try to make our contracts so that the supplier of lead, the du Pont Company now *but perhaps the du Pont Company together with others later on,* would at all times sell to us exclusively or, in other words, should tetra-ethyl lead be a factor in the fuel situation at the time the patent expires and should there be no restrictions on the manufacturers as to whom they would sell the material to, the field would naturally be open and there would be no place in the picture for the Ethyl Gasoline Corporation. * * *" (Italics supplied.)

It should be noted that Sloan's reference to other suppliers "later on" is totally inconsistent with any idea that he was promoting du Pont as a sole supplier. Webb replied to this letter that he had during the past few months concerned himself with the same problem, and was attempting in the current negotiations with du Pont to get a clause in the contract which would give Ethyl du Pont's know-how and patents as of January 1, 1938, in exchange for Ethyl's agreeing to buy 50 per cent of its tetraethyl lead requirements from du Pont (GX 749, R. 629, 4579). Neither of these letters is mentioned in the Government's brief.

Sloan replied to Webb (GX 750, R. 62[illegible], 4582), in another letter not mentioned in the Government's brief, that he was not opposed to contracting to give du Pont 50 per cent of Ethyl's business, but that he felt strongly that Ethyl was entitled to any of du Pont's improvements resulting from manufacture under the Ethyl patents (R. 4584). And then, in the last letter of this series, in the one paragraph which the Government doesn't quote, Sloan urged Lammot du Pont to do anything he could, in connection with the proposal for the eventual transfer of du Pont know-how to Ethyl, "to facilitate this and broaden the base upon which it is developed" (GX 751, R. 629, 4586). The Government concludes from other portions of this letter that Sloan "worked in harmony with du Pont" to continue "du Pont's exclusive supplier status" (Govt. Br., pp. 134-5). But if this letter is read in full and in light of others of the same series, as well as of the situation at the time it was written, it leads to the opposite conclusion.

In pressing for the vital concession which ultimately produced a strong competitor for du Pont, Sloan, with perhaps understandable diplomacy, may have been trying to soften the effect on du Pont's position by also stating to Lammot that he thought du Pont and Ethyl could work together so well that no thought need be given to anything other than a single source of supply. In view of all the correspondence and in view of Sloan's *actions*, which were directly opposed to maintaining du Pont's exclusive supplier status, the court below was not in error in refusing to go along with the Government in its attempt to convert this letter into a commitment from Sloan that du Pont would have a perpetual monopoly in the manufacture of lead. Cf. R. 424.

As a result, in 1930, the renewal of Ethyl's contract with du Pont was made conditional on the latter's agreeing to make its know-how and patents available after 1938, provided that Ethyl would purchase from du Pont at least 50% of its requirements of lead for the years 1930-37 (R. 423; R. 1680-81, 1687; GX 749, R. 629, 4579; GX 752, R. 629, 4588, 4593). All subsequent contracts up to 1938 contained the same commitment (R. 423; GX 752-4, R. 629, 4588-4609; GX 757-9, R. 630, 4621-42). Armed with this, Ethyl Corporation could look forward to being in a position either to make lead itself or to have it made. However, there was much more to building a plant and actually producing this difficult and hazardous material than just being given a patent license and told what the processes were. The ideal situation was to have the expert in the field, du Pont, construct plants for Ethyl and teach it how to operate them.[75]

This was accomplished through the second step in the campaign, i.e., the Manufacturing Service Agreement of January 1, 1938, under which du Pont contracted to construct plants at Baton Rouge, Louisiana, for Ethyl Corporation and to operate them as agent for Ethyl during the next ten years (R. 423; GX 799-801, 804, R. 635-6, 4838-4902.[76] It was Sloan who had recommended in 1937 that General Motors make the investment to get Ethyl Corporation into manufacture at Baton Rouge under this Agreement (GX 797, R. 635, 4815). And he did this over opposition from Lammot du Pont, who felt that Ethyl Corporation did not have the background to undertake the manufacture of a dangerous chemical (R. 1686).[77]

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[75] It should be remembered that there was no construction company in the United States with any experience on how to build such a plant. Du Pont had constructed its own plants.

[76] Ethyl leased from du Pont the du Pont plants at Delaware during this period. Du Pont then operated *all* the tetraethyl plants at both Deepwater and Baton Rouge as agent for Ethyl, and received in compensation a percentage of Ethyl Corporation's gross operating profits (R. 423; GX 797-800, R. 635, 4815-92).

The Baton Rouge plants were completely integrated, producing their own requirements of the two important raw materials, ethyl chloride and sodium (R. 1697).[78] By the time of the break-off in 1948, Ethyl Corporation had expanded these plants to a point where their production exceeded du Pont's at Deepwater, and at the time of the trial Ethyl's production had been further expanded by construction of additional plants at Houston, Texas (R. 425; R. 1638-9, 1909-10).

The result was that in 1948, each company "went its separate way" (R. 425; R. 1639; GX 833, R. 638, 4960). Du Pont took back its own plants at Deepwater (GX 833, Ex. A, R. 638, 4960). The companies entered into active competition, both within and without the United States (R. 1902), which has continued ever since (R. 425; R. 1865-66, 1879-1902). Ethyl even built a terminal near Wilmington, Delaware, in order better to compete with du Pont in that area (R. 1638).

Thus, by 1948, Ethyl Corporation had accomplished successfully its purpose of putting itself into the manufacturing business. And du Pont, instead of being the exclusive producer, had become the lesser producer faced with a competitor which was armed not only with all of du Pont's technical know-how and experience,[79] but which was also completely integrated and backed financially by Standard Oil of New Jersey and General Motors Corporation.

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[77] Lammot wrote to Webb during the early negotiations for the 1938 agreement, as follows (GX 781, R. 633, 4773):

> "I have told you on many occasions, have told Mr. Sloan and Mr. Brown on several occasions, and have told Mr. Teagle on at least one occasion, that it is my carefully considered opinion that Ethyl Gasoline Corporation would make a very grave error in undertaking the manufacture of tetraethyl lead. I wish to repeat that statement now and to make it a matter of record; and I am therefore sending a copy of this letter to the three gentlemen above mentioned."

[78] Prior to Ethyl's production of sodium at Baton Rouge, du Pont was the sole United States producer (R. 1679).

These facts, none of which can be disputed, do not support the Government's charges that du Pont acquired or retained the right to manufacture ethyl because of any arrangement that it alone could develop General Motors' chemical discoveries, or because of any preference for du Pont resulting from its ownership of General Motors stock, as distinct from its acknowledged competence in this field. They support the testimony that Kettering turned to du Pont at the beginning because of its experience in handling dangerous chemicals, and that this was not necessarily a permanent arrangement (R. 1248, 1284, pp. 103-8, 110-111, *supra*). Even more importantly, they do not prove that there was, has been, or is, any general agreement or understanding that General Motors would leave the chemical field to du Pont, or accord du Pont preferential treatment in commercial transactions generally. If there had been, efforts would not have been made to get Dow or American Research Laboratories also to manufacture lead, and General Motors would not, through Ethyl, now be competing vigorously with du Pont. The Ethyl story thus not only fails to support the Government's theory; it shows that there is nothing to it.

As the trial court properly found (R. 425-26):

> "The evidence with respect to the discovery and development of TEL fails to establish the Government's charges. It will not support a finding that the discovery of TEL was surrendered to du Pont pursuant to

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[79] Most of the du Pont people who operated Baton Rouge prior to 1948 remained there as employees of Ethyl Corporation (R. 1694-5).

any agreement that du Pont was to have exclusive rights to General Motors chemical discoveries. The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment. Kettering appears to have been largely responsible for this decision, and neither the alleged pre-existing agreement nor du Pont's stockholdings in General Motors was the basis of the decision. It is clear that General Motors' lack of experience in chemical manufacture and du Pont's superior competence and wide experience were the reasons for the decision.

"Similarly, du Pont retained its position as the manufacturer of TEL by reason of the continued high quality of its performance. The Court finds that General Motors and Ethyl Corporation were at all times free to turn elsewhere and were not coerced in any way to continue purchasing from du Pont."

3. *Freon.*

In 1928 there was urgent need of a new refrigerant, all of the then known refrigerants being unsatisfactory and at least some being highly dangerous (R. 1482, 1593-6; GX 883, R. 647, 5062-7). Midgley and his associates were accordingly assigned to "find a refrigerant that didn't have all those troubles" (R. 1482, 1593-4). By the end of 1928, Midgley had discovered the Freons and had determined that Freon-12 met all of the primary requirements of a refrigerant, namely, being nontoxic and noninflammable and having a suitable boiling point (R. 1595; GX 883, R. 647, 5062). Freon, however, is a combination of chlorine and fluorine, both highly dangerous chemicals (R. 1483, 1596), so that the production of Freon involved an element of danger in the minds of Sloan and Pratt which Government counsel have consistently ignored, both here and in the court below.

The refrigerant having been found, the next step was "to develop suitable manufacturing processes" so that it might be made available commercially; this occupied Midgley's attention during all of 1929 and early 1930 (GX 883, R. 647, 5069).

Frigidaire, in the meantime, had become increasingly impatient to introduce Freon-12 "as quickly as possible," so that Biechler, its General Manager, wrote to Pratt in March 1930 asking for an early decision as to who would manufacture the new refrigerant and recommending that General Motors do so itself (R. 427; R. 1486; GX 838, R. 638, 4975). Pratt, who in 1929 had declared that "whether or not we should eventually manufacture" the refrigerant "should depend a great deal on the sources of the ingredients" (GMX 234, R. 1484, 7296), replied that he wanted to talk the matter over with Sloan, because General Motors had previously confined itself to mechanical and not chemical manufacture (R. 427; GX 839, R. 639, 4976); his letter stated (R. 4976):

> "In regard to the manufacture of the new refrigerant, I am of the opinion that this should be made at Dayton in the plant adjacent to the Frigidaire plant. Whether or not it should be made by one of General Motors' subsidiaries or divisions I have not just been able to determine in my own mind, and shall discuss same with Mr. Sloan, who will return in a few days.
>
> "It is quite a fundamental step for us to start General Motors in chemical manufacture. Up to this time we have more or less elected to confine ourselves to the mechanical side of manufacture and I do not want to depart from this until very thorough consideration has been given to all of the factors involved. I do not believe we should start in manufacturing until we have the problems of manufacture a little more definitely solved than they were when I was last in Dayton."

He did discuss the problem with Sloan shortly thereafter (R. 437; R. 1487). The lesson of tetraethyl lead had not been forgotten. Sloan determined against manufacture by General Motors, partly because of General Motors' "lack of competence" in chemical manufacturing and partly because "the manufacture of this particular material involved certain questions of danger in manufacture, somewhat analogous to tetraethyl lead" (R. 427; R. 1351, 1487). Pratt agreed, principally because of the "danger" and "lack of experienced men" (R. 1488, 1802).[80] The possibility that du Pont might disapprove General Motors' manufacturing chemicals "was not a factor in our considerations" (R. 1489).

If there had been a pre-existing agreement or understanding that General Motors' chemical discoveries be turned over to du Pont, because of du Pont's stock interest in General Motors or otherwise, some or all of the three executives mentioned—certainly Pratt and Sloan—would have known about it. In that event, there would have been no point to Biechler's recommending that General Motors undertake the manufacture, or to Pratt's telling Biechler that he couldn't "determine in my own mind" whether General Motors should produce Freon itself and that he would therefore have to discuss the matter with Sloan, or to the latter having to come to a decision based in large part upon the nature of the particular chemicals. Unless the documents written in 1930 as well as the testimony of Pratt and Sloan are all false, the indecision as to whether General Motors should manufacture Freon in itself disproves the Government's claim.

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[80] Pratt told Harrington of du Pont that (R. 1820):

> "he felt that the materials which were necessary for the manufacture of F-12 were dangerous, and he had seen what had happened in the tetraethyl lead, and he didn't feel that General Motors had the personnel with the competence to go ahead and pick up that dangerous performance without having some sort of a mishap occur."

Sloan then left the development of the program to Pratt (R. 427; R. 1351). Pratt decided to see if he could interest Harrington, Vice President of du Pont, "the man who had successfully worked out the manufacture of tetraethyl lead"; experience had shown that the du Ponts were the right people, and it was natural to go to people with whom he had worked so well before (R. 427; R. 1489, 1802). Pratt testified that he was not "motivated in any way * * * as a result of the stock ownership that the du Pont Company had in General Motors * * * Nothing influenced me but the fact that I thought it was good business for General Motors to do, a good business act, and there was no outside influence at all" (R. 1502). What Pratt had in mind, however, was not turning the matter over to du Pont, but a joint venture in which General Motors would participate (R. 427; R 1489, 1802).[81] He told Harrington that (R. 1802):

> "he wanted to have a company in the chemical industry in which General Motors would have a stake, and yet have the company operated by somebody who would have the responsibility."

Accordingly, Pratt suggested that a new company, Kinetic, be formed, to be owned 49% by General Motors and 51% by du Pont, since du Pont was to have responsibility for the manufacture (R. 427; R. 1489-91, 1809-10; GX 842, R. 639, 4979-83). An earlier du Pont outline of the proposed plan would have given General Motors 50% of the stock, and the presidency the first and alternate years (DPX 132, R. 1811, 5931-3). Pratt's plan was adopted, and a formal agreement signed on August 27, 1930 (R. 428; GX 850, R. 641; 4992-5007).

Some time was required to work out all of the detail of the aforesaid formal agreement, but du Pont was in agreement with the General Motors view that the project should be gotten under way "with the least possible delay" (GX 840, R. 639, 4977). Accordingly, on March 28, 1930, or only two weeks after Frigidaire's general manager had written to Pratt, du Pont advised that it was sending to Frigidaire representatives to "discuss fully the question of methods of manufacture of this product" (*ibid.*). Du Pont's technicians quickly determined that the manufacturing process developed by Midgley at Frigidaire over the preceding year or so, was not commercially suitable; they reported that they were taking a new line of attack in an effort to overcome the difficulties inherent in the Midgley process (DPX 128, R. 1803, 5922; R. 1802; cf. DPX 130, R. 1807, 5926).[82] Du Pont experienced a "great many difficulties" but ultimately succeeded in developing a manufacturing process "sufficiently satisfactory and so superior to the Dayton (i.e., Midgley) process to warrant the erection of a plant" (DPX 131, R. 1808, 5929, 1817). This plant was completed in December 1930 and in 1931 Kinetic Chemicals, Inc., the new company, produced 1,175,000 pounds of Freon-12 (DPX 131, R. 1808, 5929; GX 883, R. 647; 5062).

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[81] This is no different from Ethyl's formation of Ethyl-Dow with the Dow Chemical Company as the best way for Ethyl to have produced the chemical, ethylene dibromide (see *supra*, p. 118, fn. 71).

Thus within nine months after du Pont was first called in, Frigidaire had available in commercial quantity the refrigerant it so urgently required. The validity of Pratt's original judgment, that he knew "the right people to do a thing," was established.

From the outset Freon-12 was made available to the entire refrigeration industry, and used universally (R. 430; R. 1821-24; DPX 136, R. 1822, 5960). Another Freon, F-114, developed by Frigidaire for a particular machine of its own, but which Sears Roebuck and other companies strenuously fought to get, was until 1944 reserved for Frigidaire at General Motors' insistence and over the opposition of du Pont (R. 430-31; R. 1824-31; GX 853-81, R. 641-7; 5011-60). Indeed, "Du Pont was refused samples of F-114, the same as everybody else" (R. 1828). This, of course, does not show du Pont domination of General Motors but the contrary.

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[82] "In addition, an essential raw material—anhydrous hydro-fluoric acid—was not commercially available in sufficient quantities and du Pont invented and patented for Kinetic a process which enabled Kinetic to make its own acid" (R. 428; R. 1803-6; DPX 128, R. 1803, 5922).

Kinetic Chemicals was established to deal with refrigerants. An outline of the proposed agreement submitted by a du Pont official would have restricted it to this field (DPX 132, R. 1811, 5931-32). In reply, Pratt stated that (GX 842, R. 639, 4979):

> "We recognize from the Du Pont standpoint the necessity for limiting the kinds of chemicals manufactured in which the new company should embark."

But "from General Motors' standpoint", he declared, "in addition I would like to see the charter provide that the company could manufacture any chemicals that might originate in the laboratories of General Motors Corporation" (GX 842, R. 639, 4979-80). He obviously regarded the new corporation as a producer of chemicals for General Motors as well as for du Pont, as indeed it was. The result was that at Pratt's suggestion, not du Pont's (R. 1491, 1813, 2740), the Kinetic agreement contained a clause in Paragraph 7th which provided that General Motors should offer its future chemical developments to this company "on such terms as may be mutually agreed upon" (GX 850, R. 641, 4994).

In a letter to Lammot du Pont written a year later (GX 899, R. 641, 5129), in which Pratt declined to cooperate with du Pont in the development of fuel accelerators on the ground that it would not be justified "from a General Motors' standpoint" "to take your organization into our confidence on everything that we are doing along the lines of fuel research" (R. 5132), he stated that (R. 429; R. 5130):

> "This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity, and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing processes."

This does not mean that the purpose was to favor du Pont. Pratt's 1930 letter (quoted at p. 127, *supra*) as well as his and Sloan's testimony (p. 128, *supra*) show that they believed that General Motors should keep out of the field of chemical manufacturing because its competence lay in other directions, the reason having nothing to do with du Pont. Moreover, for Pratt or General Motors to turn problems over to du Pont because it was "an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing processes" would, of course, violate no antitrust policy. The persons concerned in the transaction testified that they were not influenced by du Pont's stock interest in General Motors, and the contemporaneous documents confirm their statements.

This provision in Paragraph 7th was never invoked in the 15 years that it remained in the contract (R. 429-30; R. 1384, 1813, 1492, 2740). It was cancelled at General Motors' request in 1945, on the advice of counsel (GX 886, R. 648; 5104) that it was unenforceable "if either party did not want to agree" (R. 429-30; R. 1817-18, 2740; DPX 133, R. 1814, 5945). Subsequently in 1950 du Pont purchased General Motors' stock in Kinetic for $10,000,000 (R. 431), after protracted negotiations—obviously at arm's length—lasting 10 months (R. 1904-06).[83] Since this occurred after the institution of this case, the transaction was submitted to the Department of Justice, which advised that it did "not object", and that it would "waive that part of its prayer for relief relating to Kinetic" (R. 432; DPX 145, R. 1833, 5975).

The trial judge, who heard the witnesses testify about these events, found that (R. 435):

> "The provision of the agreement between du Pont and General Motors establishing Kinetic Chemicals Company which related to further chemical discoveries is no longer in effect, having been eliminated some years before the Complaint herein was filed. The Court finds that this agreement was not executed pursuant to any prior understanding or arrangement that du Pont was to have the exclusive right to discoveries of General Motors. On the basis of the evidence of record, particularly the testimony of Sloan and Pratt, the Court finds that General Motors entered into the contract because those responsible in General Motors believed that Freon could best be manufactured by du Pont rather than by General Motors itself or by some other chemical company."

The history of Kinetic is supposed to prove the Government's contention that du Pont's interest in General Motors has resulted in an understanding that General Motors leave the chemical field to du Pont. Instead, it shows the contrary. If there was any such understanding, the discussion leading up to the agreement would have been pointless, and the clause in Paragraph 7th would have been unnecessary. That provision did not keep General Motors out of the field of chemical manufacture in favor of du Pont but provided for a venture in which General Motors was a partner. In any event, any issue as to the effect of that unused clause is academic, in view of its demise.

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[83] The du Pont official who did the negotiating testified that his General Motors counterpart (R. 1906):

"* * * made the negotiation very difficult because he was holding out for a very high figure. We just had to stop negotiating for a few periods in there until somebody could come up with a possible new idea which might help to resolve the situation.

"Q. Was the final figure, Mr. Daley, one that was up from your original offer, and down from theirs, or did you finally take theirs?

"A. It was. They reduced their figure gradually, and we upped ours gradually until we got to a common meeting ground. I would say it took ten months."

E. The Findings on the Record As a Whole.

Upon the basis of "both documentary and testimonial evidence of record and upon the more detailed findings made in the earlier parts" of its memorandum opinion, the trial court found (R. 464-65):

> "* * * that none of the actions taken in concert had as their objective, or necessary consequence, the imposition of any limitation upon the free flow of trade and commerce. A number of such actions such as the formation of Christiana in 1915 and Delaware in 1924, were undertaken for purely personal reasons of the participants, largely financial and unrelated to restraint of trade and commerce or the monopolization thereof. The record as a whole does not support a finding that any of them, or all of them in the aggregate, did restrain or intended to, or had the effect of, restraining or monopolizing trade and commerce.
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> * * *
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> "* * * In preceding portions of this opinion there has been shown, by detailed analysis of the evidence, the extent to which General Motors enjoyed complete freedom of action with respect to specific products manufactured by du Pont and United States Rubber, and with respect to its discoveries and developments of new products. When read as a whole the record supports a finding, and the Court so finds, that there has not been, nor is there at present, a conspiracy to restrain or to monopolize trade and no limitation or restraint upon General Motors' freedom to deal freely

and fully with competitors of du Pont and United States Rubber, no limitation or restraint upon the freedom of General Motors to deal with its chemical discoveries, no restraint or monopolization of the General Motors market, and no restraint or monopolization of the trade and commerce between du Pont and United States Rubber."

The preceding analysis of the evidence demonstrates that these findings are not clearly erroneous.

SUMMARY OF ARGUMENT.

I.

The issues in this case are factual. Whether General Motors' purchasing is affected by du Pont's ownership of General Motors stock is a question of fact. The trial court resolved that issue against the Government both generally and in relation to each of the specific subjects upon which the Government relied. After making a thorough analysis of both the oral and written evidence, carefully appraising the credibility of the key witnesses and measuring the significance of particular exhibits against the background of the entire record, the court found that the Government had not proved its case. This Court repeatedly has held that such findings are not be set aside unless clearly erroneous. *United States v. Yellow Cab Co.*, 338 U.S. 338, 341-2; *United States v. Oregon Medical Society*, 343 U.S. 326, 330-332, 339; *United States v. E. I. du Pont de Nemours and Co.*, 351 U.S. 377. The record here establishes that the trial court's findings were correct.

In the court below the Government stated again and again that its case rested on conspiracy. The trial court found that there was no conspiracy or agreement. The Government does not challenge these findings, but now says that the evidence establishes an unlawful "combination". In the context of this case, however, "combination" and "conspiracy" are merely different names for the same offense. The trial court's findings of no conspiracy took into account all of the elements of the charge which the Government now calls "combination". These elements are (1) power to control or influence General Motors' management, stemming from du Pont's ownership of General Motors' stock, and (2) resulting preference accorded du Pont by General Motors in the purchasing of supplies. But the court's findings negative both the existence of the alleged power or influence and the alleged fact of preference. Thus the Government's abandonment of its original claim of agreement or understanding and its present reliance upon some kind of coercive influence, perhaps even uncommunicated, (Govt. br. p. 79) does not prevent the trial court's findings from completely negating the Government's case.

Although the Government concedes that it must show error in the trial court's "ultimate" findings, it urges this Court to overturn those findings without reviewing all of the evidence on which the trial court based them. But this Court cannot rely merely on the small part of the documentary evidence which the Government has chosen to call to its attention. The exhibits and parts of exhibits cited by the Government often omit the most significant parts of the story told by the documentary record as a whole. Moreover, the Government completely ignores the credible testimony of 39 witnesses whom the trial judge believed to be truthful. This is not a case in which the Court must choose between written evidence on one side and oral testimony on the other, as the Government would have the Court believe. Here contemporaneous exhibits which the Government does not mention combine with uncontradicted oral testimony to show that the documents singled out by the Government, when viewed in the setting in which they were written, do not warrant the inferences which the Government seeks to draw from them. The case is thus one in which the findings must be upheld unless the Court should hold that the trial judge had no right to believe the testimony of many witnesses, when that testimony was substantiated by a mass of documentary evidence.

II.

The Government's basic contention now is that du Pont, by means of its alleged control of General Motors, obtained an unlawful preference with respect to General Motors' purchases of materials. The Government does not suggest that either control by itself, or preference not resulting from corporate affiliation, is illegal. Control and preference resulting therefrom are both essential elements of the Government's case. The trial court found that the Government had proved neither. The Government cannot prevail without showing that the findings as to both of these elements are clearly erroneous.

A. The trial court's findings that General Motors did not favor du Pont in its purchasing policies are based upon the clear weight of the evidence and are not "clearly erroneous". The record is overwhelming in its demonstration that General Motors did not buy from du Pont on any different basis than from anyone else. This is established by the testimony of the people who did the actual buying and selling, and of their superiors, as well as by many documents which reveal du Pont's successes and failures in its attempts to sell various types of commodities to the different General Motors divisions.

The record discloses that each General Motors division buys independently, and that the pattern of buying varies greatly from one division to another. There are many examples of cases in which one General Motors division alone bought a particular product from du Pont, although du Pont influence or power, if it existed at all, would obviously affect all divisions alike (see pp. 40-41, *supra*). The record also contains many examples of cases in which General Motors divisions have not bought from du Pont, although du Pont's product was equal to its competitors' (see pp. 42-43, *supra*).

In only one period, 1922-31, did General Motors engage in any centralized buying, through the General Purchasing Committee. The Government's original contention was that that committee was a du Pont dominated agency. But the record shows, as the trial court found, and the Government no longer denies, that that committee saw to it that du Pont was treated like any other supplier. Indeed, in dealing with the committee, du Pont found it necessary to give special discounts when it desired to increase its share of General Motors business, a competitive method of obtaining business which is hardly consistent with domination and control. The very fact that that committee, established when du Pont's participation in General Motors' affairs was at its greatest, did not favor du Pont, disproves the Government's case.

The Government refers to a few commodities which du Pont sold in volume to General Motors, but not to the many chemical products which General Motors bought in small quantity or not at all from du Pont. Du Pont "influence", if there were any, would be all-pervasive, and would cover the whole spectrum of the products made by du Pont which General Motors could use.

Of the products actually bought, by far the largest in volume and proportion were the two finishes, Duco and Dulux. Both of these were new and superior products developed by du Pont to fill long-felt needs. Nevertheless, General Motors from the beginning sought sources of supply competitive with du Pont and two of its car divisions turned to other suppliers as soon as a competitive product was available. The fact that three divisions continued to buy from du Pont does not prove that they did so because of "influence". The record shows, on the contrary, that du Pont retained their business for the same reasons that it retained and lost other business, to wit, the relative merits of its products and services. As to Dulux, the record shows that General Motors used it less than its competitors in the appliance field.

With respect to fabrics, the other product which General Motors bought in substantial volume, the evidence shows and the trial court found that General Motors' purchases from du Pont rose and fell over the years, varied from division to division, and were motivated by ordinary commercial considerations having nothing to do with du Pont's stock interest in General Motors.

When all the commodities which General Motors did and did not buy from du Pont are considered, there can be no question as to the reasonableness of the trial court's findings that General Motors' purchasing policies were not affected by du Pont's ownership of stock.

B. The Government tries to establish favoritism for du Pont in the past by reference to other types of dealings. Its claim that General Motors altered the instructions as to antifreeze in the manuals for car owners at du Pont's request disregards a large part of the documentary evidence on that point, which proves the contrary (see pp. 92-100, *supra*). As to tetraethyl lead, the record shows that Kettering began to work with du Pont before either had any connection with General Motors, and that he selected du Pont as the company to produce the lead because he thought "they were the best chemists", an opinion which was borne out by what subsequently happened. A few years later, efforts were made to induce other manufacturers to produce tetraethyl lead, and ultimately a program was developed which resulted in the Ethyl Corporation, half owned by General Motors, and half by Standard Oil of New Jersey, becoming the leading manufacturer of lead in active competition with du Pont. Both as to lead and Freon, the evidence supports the trial court's findings that General Motors was not influenced by du Pont's stock ownership in its decisions to turn to du Pont for assistance in the development and manufacture of dangerous chemicals.

C. The Government's case rests entirely on evidence of disputed significance which relates to things which happened up to 1930. Even if the other evidence of that earlier period—which the trial court found disproved the Government's claim even for that period—be disregarded, all of the evidence after that date proved affirmatively, without any contradiction or impeachment, that du Pont did not control or influence, or receive any preference from, the purchasing operations of General Motors.

Testimony as to efforts since 1930 to sell General Motors the various types of products made by du Pont disclosed a competitive picture in all respects. The record demonstrates that except for Duco, introduced before 1930, the important sales in recent years have been of fabrics and finishes developed after 1930. Such sales are not attributable in any way to dealings in the earlier period. As to Duco, as well as the articles purchased more recently, General Motors' purchases have rested on the comparative merits of the products of du Pont and its competitors.

As to tetraethyl lead and Freon, the Government is in no better position. It has abandoned its objections to the manufacture of Freon by Kinetic, and there is presently intense competition between Ethyl and du Pont in producing and marketing tetraethyl lead, a result contemplated and planned for since 1930 by Ethyl and General Motors officials.

The mere fact that du Pont still owns its General Motors stock and is represented on the General Motors Board of Directors and certain committees of the Board was proved to have no effect whatever upon trade between General Motors and du Pont.

Many cases hold that evidence of past violations of the law will not justify equitable relief unless violation is likely to recur in the future. *E.g., United States* v. *W. T. Grant Co.*, 345 U.S. 625. *A fortiori* the same principle must apply when the evidence out of the past is insufficient even to convince the trial court that there was a violation of law then.

The question before this Court is not whether some items of evidence might support an inference contrary to the findings of the trial court, but whether the trial court's findings based upon the record as a whole are clearly erroneous. This is a purely factual question. There is no room for error of law in a finding that General Motors bought supplies from du Pont, as from du Pont's competitors, on the merits of their products and services, in the exercise of its own best judgment, and not because of du Pont pressure, coercion, influence or dominance, or any understanding resulting therefrom.

III.

The trial court also found that the Government had not established its claim that du Pont's 23% stock interest gave it control of General Motors. By control the Government means power which enabled du Pont to gain an economic advantage over its competitors in dealing with General Motors.

The trial court did not hold that in no case could a 23% stockholder control a corporation. On the contrary, the court took into account all of the factors relied upon by the Government to show that control may sometimes be exercised by a minority stockholder. But the court did not stop there. It refused to ignore the evidence which showed that over a long period of years General Motors had not felt compelled to kowtow to du Pont's wishes, and had not done so. It refused to disregard the evidence showing that General Motors has bought supplies from du Pont on the basis of quality, service and price, as from other suppliers, and that it did not give du Pont preferential treatment. This, of course, is the strongest possible evidence that du Pont had no control or coercive influence over General Motors' buying policies. The court also did not disregard the fact, affirmatively established by the evidence, that the Board of Directors and the committees on which du Pont was represented had nothing to do with General Motors' purchasing policies, and that the only centralized purchasing agency did not treat du Pont differently from anyone else. Nor did the trial court disregard the many occasions of disagreement between the two companies on which the General Motors management refused to follow du Pont's wishes.

Although the Government disclaims resting its arguments solely on the percentage of stock owned by du Pont, that is what its contention comes down to. But it is not true as a matter of fact that a substantial minority stock interest *necessarily* controls a corporation, and no case suggests that there is any rule of law to that effect. This Court has recognized that control "is an issue of fact to be determined by the special circumstances of each case". *Rochester Telephone Corp.* v. *United States*, 307 U.S. 125, 145. Even under the Public Utility Holding Company Act the statutory presumption of control based upon minority stockholdings may be rebutted. *North American Co.* v. *Securities and Exchange Commission*, 327 U.S. 686, 697.

Here the evidence shows that the General Motors management did not regard itself as subject to du Pont control. It often rejected suggestions from the highest officials of the du Pont Company. Certainly it had no reason to fear that if a contest arose over its failure to buy from du Pont preferentially, the other stockholders would vote against the management.

The issue is whether over 35 years the General Motors management was in fact dominated by du Pont. The record shows that it was not, and the trial court properly so found.

IV.

The trial court's findings, amply supported by the record, establish that there has been no actual restraint or monopolization of General Motors trade and that power resulting from du Pont's stock ownership has not affected General Motors' purchasing policies. The Government has abandoned its claim of conspiracy or agreement. It argues, however, that a few early documents show that in the beginning du Pont acquired General Motors stock with the intention of securing all of General Motors' business, and then cites cases holding unlawful a power to exclude competition coupled with an intention to exercise that power.

The trial court, considering *all* of the relevant evidence, found that du Pont did not have the intention for which the Government contends. In any event, power and intent cannot both have been present when restraint or monopolization has not occurred in fact during a period of many years. If power existed, but was not exercised for such an extended period, the possessor could not have intended to exercise it. If the intent were held to have existed over such a long period of time, but had not resulted in restraint or monopolization, it must have been because the possessor lacked the power to implement such intent.

The same answer applies to the Government's argument that the "inevitable result" of du Pont's ownership of General Motors stock is that it would receive trade preference. If, as the trial court found, there was no such trade preference for the many years preceding the trial, it cannot be that any such result was "inevitable". This is particularly true when the Government, in a case extending back 35 years, was unable to produce as a witness a single du Pont competitor who claimed to have been injured.

V.

As the Statement shows (pp. 4-8, *supra*), the market for the products du Pont sells to General Motors is not limited to that company or even to the entire automobile industry.

General Motors' shares of the total markets for fabrics and finishes, the products upon which the Government rests its case, are very small.

The Government made no effort to prove the contrary, although the burden was upon it to establish that there was restraint of a market. It thought it sufficient to show that du Pont's sales of finishes and fabrics to General Motors were large in volume, and that General Motors was the leading manufacturer of automobiles for the later years covered by the record. But it is the share of the market affected, not merely the amount sold to a single customer, which is significant antitrustwise. *Report of the Attorney General's National Committee to Study the Antitrust Laws*, pp. 48,122,125. The Government might have been warranted in relying on General Motors' proportion of the automobile industry if that industry were the sole or main market for the products in question. But that is not the case with respect to the products du Pont sells in volume to General Motors.

Even the complete exclusion of competition resulting from 100% vertical integration—which is not illegal unless competition in a substantial portion of a market is restrained (*United States* v. *Columbia Steel Co.*, 334 U.S. 495)—does not violate the antitrust laws when so small a percentage of the competitive market is affected. The result must be the same when a 23% stock interest is involved.

VI.

Section 7 of the Clayton Act was designed to halt in their incipiency stock acquisitions which might be harmful to competition. Here the Government brought suit over 30 years after du Pont first acquired its General Motors stock, and the evidence showed that during that long period trade was *not* restrained. In view of this, the trial court reasonably found both that there "has been" and "is" no reasonable probability that the acquisition would tend to restrain commerce.

A. The Government is not entitled to prevail unless the acquisition was unlawful when made. When a Section 7 proceeding is commenced close to the time an acquisition takes place, the finder of the facts will necessarily have to speculate as to whether an acquisition will probably have the effect of substantially lessening or restraining competition. But when the Government does not proceed until years later, such speculation is unnecessary. It is then appropriate to look to facts subsequent to the acquisition in determining whether there was any reasonable probability that competition might be impaired. If there has been no restraint for 30 years after the acquisition, it would hardly be reasonable to find that there had been at the outset a substantial probability of restraint.

Furthermore, in 1917 General Motors was only a small proportion of the market for products made by du Pont—both because it then was a small part of the automobile industry, and because the market for those products was not restricted to that industry. And the record indicates that du Pont's sales to General Motors at that time were not even large in volume. The Government introduced no evidence as to these matters, although the burden was on it to do so. The result is that there was no evidence that at the time of the acquisition General Motors was either a substantial market or a substantial share of the market for articles manufactured by du Pont. What there is in the record indicates the contrary. The Government's case under the Clayton Act is therefore defective for failure to prove that competition was likely to be adversely affected at the time of the acquisition.

B. Even if it be assumed that there was in 1917-1919 a reasonable probability that du Pont would secure all of General Motors' business, and that this was a sufficient portion of a market at that time to subject the acquisition to Section 7, the Government is not entitled to prevail now. When there has been such a long intervening period between the acquisition and suit, in which no restraint occurred, it would be absurd to hold that the Government is entitled to relief now because of what might be deemed a probability, unrealized, of injury to competition thirty years before. Although Section 7 permits the fact finder to act upon the basis of reasonable conjecture when necessary, as it is when the Government seeks to protect competition against probable future impairment, the section was not intended to perpetuate error when sufficient time has elapsed to permit the test of experience to be substituted for conjecture.

The same result is reached if the test of "reasonable probability" is applied at the later date. The absence of any actual restraint for the many years preceding the suit in itself justifies the finder of fact in concluding that there is no reasonable probability of any such effect in the future. Clearly this is so when, as here, the only change in recent years has been in the direction of *diminishing* du Pont participation in General Motors' affairs.

ARGUMENT.

I.

THE TRIAL COURT'S FINDINGS OF FACT ARE CONCLUSIVE IN THIS CASE.

A. The Trial Court's Findings of Fact Are Entitled to Great Weight.

As the Statement shows, the trial court found that there was "no conspiracy to restrain or monopolize trade" and "no limitation or restraint upon General Motors' freedom to deal freely and fully with competitors of du Pont * * * [or] to deal with its chemical discoveries" (R. 465).

> "In various ways and subject to various limitations, the Government has alleged that General Motors either itself agreed to such a limitation, or was forced to it by du Pont. But the evidence of record fails to support the Government's charges." (*Ibid.*)

The court also made specific findings as to each article of commerce referred to by the Government's evidence, to the effect that there was no coercion, no understanding, no agreement, no limitation upon General Motors' freedom of action, and therefore no conspiracy or restraint. These are findings of fact, not conclusions. They rest on evidence, not theories of law. The court in making its findings considered all of the testimony and all of the exhibits—not just excerpts from a relatively few exhibits such as the Government relies on here. Contemporaneous writings which the Government does not mention, as well as those the significance of which the Government often misses, together with the oral testimony of many witnesses, demonstrated to the satisfaction of the trial judge that the excerpts relied upon by the Government did not support the inferences or conclusions which the Government sought to draw from them.

The court's findings based on the record as a whole dispose of the case presented by the Government in its pleadings, evidence and argument. In deference to Rule 52(a), and to the recognition in that rule of the superior position in fact finding of the trial judge who hears the witnesses personally and has more time to study the record, this Court repeatedly has held that such findings are not to be set aside unless clearly erroneous. *United States* v. *Yellow Cab Co.,* 338 U.S. 338, 341-2; *United States* v. *Oregon Medical Society,* 343 U.S. 326, 330-332, 339; *United States* v. *E. I. du Pont de Nemours and Co.,* 351 U.S. 377.

The case which most closely parallels this one in the issues it presents and in its present posture is *United States* v. *Yellow Cab Co.,* 338 U.S. 338. In that case, as here, the Government sought to have this Court overturn findings of the district judge. That case, like this one, involved a charge that acquisition by a supplying corporation of stock (in that case a majority) of corporations buying supplies (taxicabs) from it was intended to and did foreclose competition between the supplying corporation and other suppliers of taxicabs. In that case the evidence showed that for many years the supplier generally had sold to the affiliated cab companies their entire requirements of taxicabs. The trial court found, however, that the Government had not proved that the purchases of stock were intended to force the purchase of taxicabs by the subsidiary companies. In language which is squarely applicable to the case at bar, the Court quoted Rule 52(a) and declared (338 U.S. at 341-42):

> "Findings as to the design, motive and intent with which men act depend peculiarly upon the credit given to witnesses by those who see and hear them. If de-

fendants' witnesses spoke the truth, the findings are admittedly justified. The trial court listened to and observed the officers who had made the records from which the Government would draw an inference of guilt and concluded that they bear a different meaning from that for which the Government contends.

> "It ought to be unnecessary to say that Rule 52 applies to appeals by the Government as well as to those by other litigants. There is no exception which permits it, even in an antitrust case, to come to this Court for what virtually amounts to a trial *de novo* on the record of such findings as intent, motive and design. While, of course, it would be our duty to correct clear error, even in findings of fact, the Government has failed to establish any greater grievance here than it might have in any case where the evidence would support a conclusion either way but where the trial court has decided it to weigh more heavily for the defendants. Such a choice between two permissible views of the weight of evidence is not 'clearly erroneous'."

In 1952 the Court reaffirmed the same principle in *United States* v. *Oregon Medical Society,* 343 U.S. 326, a case in which the trial judge had to some extent weakened the force of his findings by "irrelevant soliloquies" allegedly indicating a bias as to related subjects. This Court nevertheless said:

> "The appeal brings to us no important questions of law or unsettled problems of statutory construction. It is much like *United States* v. *Yellow Cab Co.,* 338 U.S. 338. Its issues are solely ones of fact. The record is long, replete with conflicts in testimony, and includes quantities of documentary material taken from the appellees' files and letters written by doctors, employers, and employees. The Government and the appellees each put more than two score of witnesses on the stand. (pp. 330-331)
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> * * *
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> "* * * We are asked to review the facts and reverse and remand the case 'for entry of a decree granting

> appropriate relief.' We are asked in substance to try the case *de novo* on the record, make findings and determine the nature and form of relief. We have heretofore declined to give such scope to our review. *United States v. Yellow Cab Co., supra.*
>
> "* * * There is no case more appropriate for adherence to this rule than one in which the complaining party creates a vast record of cumulative evidence as to long-past transactions, motives, and purposes, the effect of which depends largely on credibility of witnesses. (p. 332)
>
> * * *
>
> "As was aptly stated by the New York Court of Appeals, although in a case of a rather different substantive nature: 'Face to face with living witnesses the original trier of the facts holds a position of advantage from which appellate judges are excluded. In doubtful cases the exercise of his power of observation often proves the most accurate method of ascertaining the truth. . . . How can we say the judge is wrong? We never saw the witnesses. . . . To the sophistication and sagacity of the trial judge the law confides the duty of appraisal.' *Boyd* v. *Boyd*, 252 N.Y. 422, 429, 169 N.E. 632, 634." (p. 339)

All of these observations apply to the present case. Here the trial judge, after hearing testimony for six months, made a thorough analysis of both the oral and the written evidence, carefully appraising the credibility of the key witnesses and measuring the significance of particular exhibits against the background of the entire record. The court's findings that there was no coercion, no understanding, no conspiracy, no restraint, and no limitation upon General Motors' freedom to purchase as it saw fit were based upon this analysis of the record. The trial court's opinion demonstrates the detailed and painstaking consideration which the court gave to the case. It is to be noted that the court prepared its own findings, embodied in its opinion, rather than accepting the findings submitted by the litigants on either side.

B. The Government Cannot Escape the Controlling Finding That There Was No Conspiracy, Which It Does Not Contest, By Now Saying That "Combination", Rather Than "Conspiracy", Is The Theory of Its Case.

The trial court's ultimate finding is that the Government failed to prove its charge of conspiracy. That finding is buttressed by additional findings against the Government on such sub-ultimate key issues as du Pont's alleged control of General Motors and whether or not there was any actual restraint of trade. They are buttressed in turn by a great number of even more specific findings covering every issue of fact which the Government raised in the trial court.

The Government now attempts to circumvent the lower court's ultimate finding of no conspiracy by purporting to recast its argument on a different legal theory, which it claims was not passed upon by the trial court. It now says that it will not contest the trial court's finding of "no conspiracy" (Govt. Br., pp. 72, 109n, 113), but that the judgment should be reversed because the evidence proved an unlawful "combination" between du Pont and General Motors. Analysis shows, however, that this is merely attaching a different label to the same thing and that in fact the trial court's finding of "no conspiracy" was based squarely upon every element of the charges which the Government now calls "combination".

It is true that the Government's complaint broadly alleged in the usual form a "combination and conspiracy" in restraint of trade and to monopolize (Par. 29, R. 219-220). But the next paragraph averred that,

> "The aforesaid combination and conspiracy to restrain interstate trade and commerce and to monopolize

> a substantial part thereof, has *consisted of a continuing agreement and concert of action among the defendants*" (Par. 30, R. 220). (Italics supplied.)

Subsequent paragraphs itemizing "substantial terms" of the "agreement and concert of action" charged that the defendants "agree to utilize [their] control" by requiring each to purchase "substantially all of its requirements" from the other (R. 220-222). In the concluding summation, significantly entitled by the Government "Effects of the Conspiracy" (R. 255)—not the "combination"—the complaint again alleged that (R. 255):

> "The aforesaid *agreements and concerted action* by the defendants pursuant to and in furtherance of the combination and conspiracy alleged in this Complaint, have had the effects * * * of requiring each defendant manufacturer to purchase its requirements of the products of each of the other defendant manufacturers in a substantially closed market." (Italics supplied.)

In its briefs and argument before the court below, the Government again and again summarized its own case as charging a conspiracy. Thus on page 3 of the Government's post-trial brief, quoted in the opinion below (R. 292) and containing the Government's own statement of "The Offenses Charged", the Government declared:

> "The Amended Complaint charges that the defendants have engaged in a *conspiracy to restrain* trade in certain products produced by the du Pont Company, U.S. Rubber, and General Motors, in violation of Section 1 of the Sherman Act, *and to monopolize* a substantial part of such trade in violation of Section 2 of the Sherman Act. It also alleged that the defendant du Pont Company has acquired a controlling interest in the stock or other share capital of General Motors in violation of Section 7 of the Clayton Act. The Amended Complaint states further that the defendants *have done the things which they conspired to do*, name-

> ly, that they have restrained trade and monopolized a part of the commerce in certain products." (Italics supplied.)

Six hundred fifty-two pages later, at the commencement of the Argument on the Law in the Government's post-trial brief, the Government again stated that its complaint "alleges the existence of a conspiracy" (Govt. Post-Trial Br., p. 655) and began its Argument with this declaration:

> "The basic elements of the conspiracy as alleged in the Amended Complaint are that the defendants have concertedly agreed: * * *"[84]

Neither in pleadings nor brief did the Government make any separate references to a combination which did not consist of a conspiracy, agreement or understanding.

The Government urged that the District Court conclude (Proposed Findings of Fact and Conclusions of Law, p. 144) that:

> "The defendants have violated and are now violating Sections 1 and 2 of the Sherman Act by *combining and conspiring* unlawfully to restrain unreasonably interstate trade and commerce and to monopolize a part thereof by acquiring and maintaining common control of du Pont, General Motors, and U.S. Rubber, and by utilizing such control *to effect and execute understandings and agreements* that (a) General Motors would purchase from du Pont the major portion of General

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[84] The brief continued (Govt. Post-Trial Br., pp. 656-657):

> "The evidence analyzed in Point I of this brief demonstrates that *defendants' conspiracy* has progressed through three principal phases. * * * The brunt of *the conspiracy* as a whole thus has been brought to bear upon competitors, to their detriment and to the benefit of defendants.
>
> "In discussing the *conspiracy as a whole*, we shall integrate our discussion in accordance with the component elements of *the conspiracy*. * * *" (Italics supplied.)

In the introductory section of its reply brief, the Government concluded (p. 5):

> "The Government has proved what was required—the origins and the unfolding of *the conspiracy* and the broadening of its objectives to seize new opportunities as they arose." [Italics supplied]

Motors' requirements of products manufactured by du Pont, * * *" (Italics supplied.)

The Government proposed no finding or conclusion on the subject of a supposed unlawful "combination" which was not also a conspiracy.

It is clear from the above that although the Government in the court below occasionally used the word "combination" in conjunction with the words "conspiracy", "understanding" and "agreement", it never used "combination" as meaning anything different from conspiracy.

The trial judge, with the case before him in that posture, quoted verbatim in his opinion the Government's own characterization of its charges and, in the closing paragraphs of his opinion, reached this ultimate finding and conclusion, among others (R. 464):

> "At the outset of this memorandum the Court stated that the issue of conspiracy permeated the entire case, underlying both the trade and the control aspects thereof. This is so because conspiracy to restrain trade can only be determined after consideration of the entire record of evidence. The Court finds, on the basis of all the evidence of record, that the Government has failed to establish the existence of any such conspiracy."

The Government now says that it does not challenge this finding. But the Government implies that the lower court failed to understand the issues because it "treated the Government's case as though only a conspiracy were charged" and did not recognize that the "Government's case is broader" because it charged both combination and conspiracy (Govt. Br., p. 72).

Plainly the trial court did not misunderstand the Government's case. He characterized it in the Government's own words, and the Government is not now in a position to assert or imply that he dealt only with half of it.

Whether or not there could be a non-conspiratorial "combination", violative of the Sherman Act, is an abstract question that is not involved here.[85] The Government never deemed the alleged combination to be other than conspiratorial. In the context of this case "combination" and "conspiracy" have always been, and still are, but two names for the same alleged offense.

The substance of this case is exactly the same in this Court as it was in the lower court, where it was called "conspiracy". The Government tries to distinguish a restraint "imposed by force of the relationship" from one "arising from express agreement" (Govt. Br., p. 113). But both of those concepts were involved in the Government's theory of conspiracy in the lower court, and that court specifically found against the Government on both of them. It stated in its general conspiracy findings that (R. 465):

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[85] In none of the many cases in which this Court has been called upon to deal with combinations and conspiracies under the Sherman Act has it distinguished between them. The usage in substantially every opinion has been to use the terms interchangeably, or to use either in a way which could equally well have permitted use of the other. The majority and minority opinions in *Northern Securities Co.* v. *United States*, 193 U.S. 197, are perhaps the most explicit. The majority quotes (*id.* at 340) from a Pennsylvania Supreme Court decision which stated:

> "In all such combinations where the purpose is injurious or unlawful, the gist of the offense is the conspiracy. Men can often do by the *combination* of many what severally no one could accomplish, and even what when done by one would be innocent. . . ."

Mr. Justice Holmes, in dissent, stated (*id.* at 403):

> "The words hit two classes of cases, and only two—Contracts in restraint of trade and combinations or conspiracies in restraint of trade, . . . "

(*Id.* at 404):

> "Combinations or conspiracies in restraint of trade, on the other hand, were combinations to keep strangers to the agreement out of the business."

Recent cases which treat the terms indistinguishably include *Terminal Warehouse Co.* v. *Pennsylvania R. Co.*, 297 U.S. 500, 511, 516; *United States* v. *Crescent Amusement Co.*, 323 U.S. 173, 183; *United States* v. *Frankfort Distilleries*, 324 U.S. 293, 298; *American Tobacco Co.* v. *United States*, 328 U.S. 781, 809.

In the *Yellow Cab* cases, which like this case involved the alleged use of stock ownership to restrain purchases, this Court's first opinion (332 U.S. 218) sometimes referred to "combination and conspiracy" (pp. 220, 224, 226, 227), and sometimes just to "conspiracy" (pp. 225, 226, 227). In the second case, after the trial, both the district court (80 F. Supp. 936) and this Court (338 U.S. 338) spoke entirely in terms of conspiracy.

> "The essence of the conspiracy and restraint which the Government finally charged and sought to prove in this case is the alleged limitation upon General Motors' ability to deal as it pleased with competitors of du Pont and United States Rubber. In various ways and subject to various limitations, the Government has alleged that General Motors *either itself agreed to such a limitation, or was forced to it by du Pont.*" (Italics supplied.)

It then held:

> "But the evidence of record fails to support the Government's charges." (*Ibid.*)

The Government is not really changing its theory from that upon which the case was tried and decided.[86] It only is changing a word—the label by which it characterizes its charges—in an effort to escape the effect of the trial court's ultimate finding that there was no conspiracy. The consequences of this maneuver must be either:

1. That the Government has conceded itself entirely out of court by not contesting the ultimate and controlling finding of no conspiracy by the trial court, or

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[86] If it were—that is, if the "combination" talked about in this Court really were something different from the "conspiracy" alleged, argued and adjudicated below—the change obviously would come too late, after the evidence on both sides had been submitted and findings had been made by the court in reference to the charges the Government said it was making.

> "While it is the duty of this court to review the action of subordinate courts, justice to those courts requires that their alleged errors should be called directly to their attention, and that their action should not be reversed upon questions which the astuteness of counsel in this court has evolved from the record. It is not the province of this court to retry these cases *de novo.*" *Robinson & Co. v. Belt,* 187 U.S. 41, 50.

See also *Virtue v. Creamery Packaging Co.,* 227 U.S. 8; *McCullough v. Kammerer Corp.,* 323 U.S. 327.

2. At the very least, that the Government has discarded one of its alternative theories of conspiracy—that charging voluntary agreement by General Motors—and has limited itself in this Court to the theory that General Motors was coerced by du Pont to purchase from it preferentially.[87]

C. Regardless of Whether the Ultimate Issue Here be Called "Combination" or "Conspiracy," the Government Cannot Prevail Without Showing That the Trial Court Clearly Erred in Its Sub-ultimate Findings That du Pont Had No Power to and, in Fact, Did Not Restrain Trade by Controlling the Purchasing Operations of General Motors.

Even if it were true that the Government's theory of "combination" had not been adjudicated against it by the trial court's ultimate finding of no conspiracy, the Government still could not prevail in this Court without demonstrating that numerous other findings of the trial court, sub-ultimate in nature, were clearly erroneous.

The Government's theory of "combination" is that, as a result of du Pont's ownership of General Motors stock, du Pont obtained "an illegal preference with respect to General Motors' purchases of materials" (Govt. Br., p. 70), and that,

> "* * * du Pont achieved, through its purchase of a controlling stock interest and the corollary influence on

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[87] In the court below Government counsel argued that the defense contention that "we must show throughout that there is this coercion exerted by du Pont * * * is unrealistic". He then continued (R. 3021):

> "We have shown that the du Pont Company does have control; we have shown that the du Pont Company has determined the management; and we have shown that since 1917 there has been an understanding between the parties, and you don't have to coerce somebody that you have got an understanding with."

Thus, counsel below apparently recognized that the record might not sustain the Government's theory of coercion, and found it expedient to fall back on the theory of "understanding", which Government counsel have abandoned here.

> the General Motors' management, and not because of lower prices or superior quality or service, power over a substantial part of General Motors' trade, a position of superiority *vis-a-vis* its competitors for such trade." (*ibid.*)

This means that General Motors' freedom to buy as it chose was impaired and restricted. But the trial court found precisely the opposite, both with respect to du Pont's power to control General Motors and with respect to whether General Motors actually had shown du Pont any preference in its purchases of materials.

The trial court found generally that,

> "* * * since the 1920's du Pont has not had, and does not today have, practical or working control of General Motors." (R. 322).

and that

> "* * * there has not been, nor is there at present, a * * * limitation or restraint upon General Motors' freedom to deal freely and fully with competitors of du Pont and * * * no restraint or monopolization of the General Motors market, * * *" (R. 465).

Those findings negatived the Government's claim of coercive control of General Motors by du Pont, both in the normal sense of practical or working control through the ability of a large minority stockholder to dominate the management of a corporation and in the more amorphous sense of some kind of less specific, but subtly effective, spell or influence over the management of General Motors.

But these are not the only sub-ultimate findings which the Government must show to have been clearly erroneous in order to prevail on its theory of "restraint imposed by force of the relationship." The trial judge's specific findings on various segments of the case show just as clearly that he considered and passed upon the theory of "combination", consisting of control and resulting preference, which the Government now infers that he overlooked. Although those findings have been set forth in fuller context in the Statement of Facts, pertinent excerpts will bear repetition here.

As to purchasing policies and practices (R. 361):

> "Nor does the evidence establish that du Pont dictated or controlled the purchasing policies and practices of General Motors or sought to dictate or control those policies and practices. In fact, the evidence shows that General Motors exercised complete freedom in determining where it would purchase its requirements or products of the kind that du Pont manufactured."

As to the General Purchasing Committee (R. 371-2):

> "The evidence of record does not establish, or tend to support, the Government's contention that the General Purchasing Committee was created and operated as an instrumentality to carry out the desires of du Pont. In fact, actions taken by the Committee were seriously detrimental to du Pont in a number of respects. * * *.
>
> "* * * it dealt with du Pont only in the same manner as it did with other suppliers. * * *"

As to Fisher Body (R. 381):

> "The record also shows that Fisher Body at all times conducted its purchasing with respect to finishes, fabrics and all other products in accordance with its own best judgment. * * * His [Lawrence Fisher's] forthright testimony and general demeanor on both direct and cross-examination are most convincing that Fisher Body was neither party to an agreement with du Pont nor the victim of du Pont domination."

As to finishes (R. 396):

> "* * * In view of all the evidence of record, the only reasonable conclusion is that du Pont has continued to

sell Duco in substantial quantities to General Motors only because General Motors believes such purchases best fit its needs.

"The evidence with respect to Dulux presents a similar picture. * * * There is no evidence that General Motors purchased from du Pont for any reason other than those that prompted its competitors to buy Dulux from du Pont—excellence of product, fair price and continuing quality of service."

As to fabrics (R. 405):

"The Court further finds that such purchases of fabrics as the General Motors divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment and are not the result of du Pont domination."

As to tetraethyl lead (R. 426):

"* * * The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment. * * *

"* * * The Court finds that General Motors and Ethyl Corporation were at all times free to turn elsewhere and were not coerced in any way to continue purchasing from du Pont."

As to Freon (R. 435):

"* * * The Court finds that this agreement was not executed pursuant to any prior understanding or arrangement that du Pont was to have the exclusive right to discoveries of General Motors. On the basis of the evidence of record, particularly the testimony of Sloan and Pratt, the Court finds that General Motors entered into the contract because those responsible in General Motors believed that Freon could best be manufactured by du Pont rather than by General Motors itself or by some other chemical company."

As to miscellaneous products (R. 447):

> "All of the evidence bearing upon du Pont's efforts to sell these various miscellaneous products to General Motors supports a finding that the latter bought or refused to buy solely in accordance with the dictates of its own purchasing judgment. There is no evidence that General Motors was constrained to favor, or buy, a product solely because it was offered by du Pont. On the other hand, the record discloses numerous instances in which the General Motors rejected du Pont's products in favor of those of one of its competitors. The variety of situations and circumstances in which such rejections occurred satisfies the Court that there was no limitation whatsoever upon General Motors' freedom to buy or to refuse to buy from du Pont as it pleased."

Although the Government now seeks to avoid the trial court's findings of "no conspiracy", its brief leaves no room for doubt that it does ask this Court to review a large part of the evidence and to set aside the trial court's controlling findings on the questions of control and restraint of trade. Whatever the Government's theory, it cannot prevail unless these findings of fact are overturned.

D. This Court Should Not Overturn Findings Based on the Whole Record on the Basis of the Government's Selected Fragments, Which Disregard a Large Portion of the Documentary Evidence and All the Oral Testimony.

The Government's brief recognizes that what it calls "ultimate" findings cannot stand if the judgment below is to be reversed (Govt. Br., p. 128). But the Government would have the Court believe that the findings can be set aside without having this Court "retry the case" (Govt. Br., p. 128).[88] Virtually all of the evidence heard below was directly pertinent to the all-important questions of power, influence, preference and restraint of trade. What the Government seems to mean is that it is sufficient for the Court to look at the small and carefully selected portions of the record which it refers to in its brief.

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[88] The Government says, "In arguing that restraint has resulted, we do not ask this Court to retry the case" (Govt. Br., p. 128).

As to control, the Government charges the lower court with "overlooking the many admitted facts which lead inevitably to the conclusion that control existed" (Govt. Br., p. 103), but does not mention any of the great mass of uncontradicted evidence which supports the findings.

As to the alleged preferential treatment, the Government's brief suggests that the Court need only consider its version of certain transactions which it describes as "examples" of preferential treatment, "whether or not these examples are, as we believe, illustrative of the record as a whole" (Govt. Br., pp. 128-129). The unfairness of that suggestion is patent. In the first place, the supposed "examples," as they are described in the Government's brief, do not correctly reflect the evidence on those subjects. In the second place, the isolation of certain incidents from the whole context of the course of dealings between du Pont and General Motors clearly is an improper method of attacking findings which represent the trial court's conclusions upon consideration of the entire record. The Government's technique is to recite excerpts from a few exhibits, without reference to the remainder of the evidence, and on this basis to argue that the ultimate findings should be disregarded.

The ultimate findings are factual, not legal. The trial court took into account the exhibits cited by the Government, and a great deal more besides. If this Court is to go behind the ultimate findings to determine whether they are clearly erroneous, it must take into account the evidence upon which the trial court relied, and not just the Government's excerpts. Particularly is this necessary when those excerpts, which seemingly lend plausible support to the Government's inferences, give a distorted picture of the record as a whole, as well as of the matters with which they deal. What is omitted may be the most significant part of the story. A few illustrations will show what we mean.

a. In its discussion of General Motors' purchases of paint and finishes from du Pont, the Government's brief nowhere mentions:

(1) That the principal items, Duco and Dulux, were du Pont discoveries, far superior to anything else on the market when they were brought out and never thereafter, according to the evidence, surpassed by other products for the same uses (*supra*, pp. 52-4, 63).

(2) That other manufacturers as well as General Motors bought Duco and Dulux for their merit alone (*supra*, pp. 54, 58, 63).

(3) That contemporaneous documents show General Motors' efforts to develop competitive sources of supply for lacquer equal to Duco, as well as its eventual success in this endeavor, with two divisions turning to du Pont competitors as their principal source for paint (*supra*, pp. 55-7).

b. The Government's statement (Govt. Br., pp. 60, 139) that the General Motors *car divisions* bought 89% of their fabrics from du Pont in 1926 does not reveal:

(1) That this figure resulted almost entirely from large orders by one division, Chevrolet (*supra*, p. 69, fn. 47).

(2) That 63% of all General Motors' fabric purchases were by Fisher Body, not a "car division" (*supra*, p. 69, fn. 47).

(3) That only 37% of Fisher's purchases were from du Pont, and that consequently only 55.5%, not 89%,

of General Motors' purchases of fabrics were from du Pont (*supra*, p. 69, fn. 47).

c. Referring to a later period, when Fisher Body made the bodies for all of the car divisions, the Government, disregarding accurate evidence based on company records, twice asserts in its brief that Fisher Body bought 65% of its requirements from du Pont in 1947 and 68% in 1948. But the record shows that the Government computed these percentage figures from reports showing the rough estimates of a du Pont salesman who stated that he necessarily omitted the purchases which Fisher made from numerous competitors as to whose sales he had no information, and that these constituted 25-35% of the whole (*supra*, pp. 72-3).

d. In its discussion of the antifreeze episode of 1926 the Government's brief does not mention contemporaneous documents showing that the use of glycerin, which competed in the market with alcohol, which du Pont was selling, sometimes resulted in serious harm to automobile engines; and that the glycerin producers themselves did not object to General Motors' comparison of the qualities of glycerin and alcohol—although these facts were highly pertinent to the Government's claim that du Pont influence had caused General Motors to indicate a preference for alcohol instead of glycerin (*supra*, pp. 95-100).

e. With respect to tetraethyl lead, the Government's portrayal of favoritism for du Pont would have lost considerable force if the Government had mentioned:

(1) That Kettering had begun to work with du Pont on the subject of antiknock materials years before he or du Pont had any connection with General Motors (*supra*, pp. 103-4).

(2) That he was responsible for the original selection of du Pont to manufacture lead, and that he chose du Pont because of his belief in its primacy in the chemical field (*supra*, p. 106).

(3) That General Motors and later Ethyl made three unsuccessful efforts to induce other companies to produce lead in competition with du Pont (*supra*, pp. 108, 117-9).

(4) That the cancellation of a contract with one of these other companies, which the Government attributes to a letter from Irenee du Pont, was suggested by the other company, not by Ethyl, and was then followed by further efforts by Ethyl to procure a competitive source of supply (*supra*, p. 119).

(5) That a Sloan letter to du Pont in 1930, which contains a reference to Ethyl giving no thought to other than a single source of supply for tetraethyl lead, and which the Government characterizes as illustrating "the way Mr. Sloan worked in harmony with du Pont" to continue "du Pont's exclusive supplier status," contains a paragraph which shows that Sloan was urging du Pont to give Ethyl Corporation a patent license and its manufacturing know-how under processes which would enable Ethyl itself to manufacture. This eventually resulted in Ethyl's becoming the principal United States manufacturer of tetraethyl lead in competition wi . du Pont (*supra*, pp. 122, 124-5).

f. The Government attributes Sloan's failure to appoint Kettering to the Policy Committee in 1943 to the fact that Lammot du Pont said "No." But this ignores the testimony that Sloan consulted with the management and other groups and that it was the consensus of all that the appointment would not be wise (*supra*, pp. 26-7).

These examples should be sufficient to convince the Court that the trial court's findings cannot be branded as erroneous on the basis of any such one-sided picture as the Government presents. What the Government ingenuously calls the "undisputed facts" and "admitted evidence" is only a very fragmentary and strongly biased glimpse of the real record. We have attempted in the Statement of Facts in this brief to present a fair summary of the whole record, including the fragments referred to by the Government.

Apart from what is said in the briefs, the record itself demonstrates the reasonableness of the trial judge's findings. And this Court cannot properly brand his findings as clearly wrong without giving the record the same thorough consideration which he gave it.

E. The Trial Court's Findings Must Be Sustained Unless This Court Finds To Be Untruthful a Great Many Witnesses Whom the Trial Court Believed and Whose Testimony Was Both Uncontradicted and Corroborated by Documentary Evidence.

The Government would have this Court disregard entirely the testimony of a great many witnesses which the trial court found credible and convincing. Thirty-nine of these witnesses gave evidence which proved that there was no basis for the Government's charge of General Motors favoritism toward du Pont. A score of them flatly denied influence resulting from du Pont's stock ownership. (See p. 36, *infra.*) Unless they were lying, their testimony refutes the Government's case. Even apart from the evidence corroborating what many of them said, the trial judge was entitled to believe them. Authority is not necessary for the proposition that a judge's findings based on his appraisal of the credibility of witnesses will not be overturned except in the clearest case.

The Government seeks to give the impression that this case is one in which the oral testimony of these witnesses is opposed by the documentary evidence to which the Government refers. But the testimony of the witnesses is confirmed by a mass of documentary material which the Government does not mention. We do not suggest that this evidence is inconsistent with the exhibits cited by the Government; on the contrary, it provides the setting in which it can be seen that the documents relied upon by the Government do not warrant the conclusions which it seeks to draw from them.

On every aspect of this case the appellees' position is supported by contemporaneous documentary material. Thus, General Motors' search for a new kind of finish for automobiles, the superiority of the product developed by du Pont, and General Motors' continuous efforts to secure an equally good lacquer from competitive sources are all proved by letters and reports written in the early 1920's.[89] Contemporaneous exhibits prove that General Motors purchased fabrics from du Pont because of the superiority of du Pont products, or because du Pont hired the salesman Fisher Body wanted, and that on other occasions it often turned to competitive suppliers even though du Pont's product may have been just as good.[90] The whole antifreeze episode, which shows that General Motors' attitude toward alcohol and glycerin depended upon the facts, and not upon du Pont pressure, appears in documents written in 1925 and 1926 (see pp. 92-100, *supra*).

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[89] GMX 104-122, R. 128. 1291, 1292, 1294, 1296, 1298, 1300-1, 1305-10, 6866-6932; GMX 168-190, R. 1131-33, 1135, 1137, 1139, 1139-44, 7162-7227; DPX 177-189, R. 1950, 1953-4, 1989, 6013-6061; DPX 198-213, R. 2022, 2027, 2031, 2034-8, 2042-3, 2047, 6073-6101; DPX 218, R. 2691, 6117; GX 383-388, R. 523-4, 3932; GX 406, R. 527, 3966; GX 418, R. 528, 4001; GX 1228, R. 523, 5180.

[90] DPX 242, R. 2126, 6148; DPX 258, R. 2216, 6169; DPX 261-262, R. 2222-3, 6172-4; DPX 266-268, R. 2232-3, 6178-81; DPX 272-274, R. 2236-7, 6192-9; DPX 278-279, R. 2243, 6204-7; DPX 287, R. 2256, 6219; DPX 289, R. 2259, 6221; DPX 291-296, R. 2260-64, 6223-30; DPX 300-301, R. 2271, 6234-5; DPX 563, R. 2998, 6483; GX 290, R. 501, 3782; GX 303, R. 504, 3805; GX 381, R. 523, 3926; GX 401, R. 525, 3950; GX 406, R. 527, 3966; GX 417-418, R. 526, 528, 3992-4008; GX 490, R. 596, 4133; GX 492, R. 541, 4115; GX 1318, R. 5270; GX 1353, R. 2890, 5362; GX 1356, R. 2890, 5374;

The fact that Kettering originally contacted a du Pont chemist with respect to anti-knock materials and offered to give him "anything of interest" appears in a 1916 letter.[91] The efforts made to induce American Research Laboratories and Dow Chemical Company to produce tetraethyl lead in competition with du Pont are shown in a contract written in 1926 and a contemporaneous memorandum from Dow's files.[92] That Sloan was aware of the dangers of producing tetraethyl lead, and that he and Pratt did not believe that General Motors was competent to manufacture dangerous chemicals, is also disclosed in documents of the period. See pp. 105, 112, 126, *infra*. And the contractual arrangements between Ethyl and du Pont after 1930 prove, along with letters written in 1930, that Sloan was sponsoring a policy which later would make Ethyl a competitor of du Pont in the manufacture of tetraethyl lead.[93]

In the same way the findings that the General Motors management was not dominated by du Pont find support in what was written as well as what was said. This is true as to the episode in which Raskob was forced to resign, and of each of the other incidents described in the Statement in which General Motors officials refused to acquiesce in du Pont's wishes (see pp. 18-22, *supra*). Pratt's attitude of independence toward du Pont is revealed by the letter written in 1928 (GMX 201, R. 1429, 7248, quoted at pp. 20-21, *supra*), in which he said:

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[91] DPX 93, R. 881, 5859.
[92] GX 1313, R. 1656, 5250; GMX 283, 284, R. 1717, 7471, 7473.
[93] GX 748-754, R. 628-9, 4577-4609; GX 757-759, R. 630, 4621-42.

> "If there is anything to be gotten our position should be to see that it is gotten for General Motors Corporation, rather than the du Pont Company."

Plainly this is not a case like those in which the Court found that the unsupported oral testimony of interested witnesses was outweighed by contemporary writings. In the cases the Government cites for this proposition—*United States* v. *Gypsum Co.*, 333 U.S. 364; *United States* v. *Corn Products Refining Co.*, 234 Fed. 964 (S.D. N.Y.), appeal dismissed 249 U.S. 621; *United States* v. *Hartford Empire Co.*, 46 F. Supp. 541, decree modified 323 U.S. 386 —the documents upon their face proved unambiguously violations of the antitrust laws, which could not be explained away by oral testimony.

In the instant case there was no such proof of violation. Selected documents, written many years ago and involving unique problems and events, are not truly understandable without an explanation of the surrounding circumstances. The testimony of the witnesses in this case was not merely "protestations of innocence" (Govt. Br., p. 103) or attempted disavowal of what any documents said. Instead, it was testimony about contemporaneous activities without which the true significance of the documents could not be understood. The inferences the Government draws from the documents which it cites are inconsistent not only with the testimony but with other contemporaneous documents omitted from the Government's brief but upon which the court properly relied.

It is the function of the trier of facts to consider all the evidence, documentary and oral, and, after giving appropriate weight to the evidence on both sides, to decide where, in his opinion, the truth lies. That is what the trial court did here.

In Points II and III of this brief we will undertake to show that the trial court did not err in its findings of no restraint and no control, and that to the extent that the Government attempts to base its objections to those findings upon supposed errors of law, such claims are contrived and groundless.

II.

THE TRIAL COURT'S FINDINGS THAT GENERAL MOTORS DID NOT FAVOR DU PONT IN ITS PURCHASING POLICIES ARE BASED UPON THE CLEAR WEIGHT OF THE EVIDENCE AND ARE NOT CLEARLY ERRONEOUS.

The Government's basic contention now is that du Pont, by means of its alleged control of General Motors, obtained an unlawful preference with respect to General Motors' purchases of materials. The Government does not say that control alone would be illegal, however. It admits that it does "not contend that it is illegal for one corporation to buy a controlling interest in another" (Govt. Br., p. 71). Nor does it suggest that for a corporation to prefer to buy from one supplier rather than another would by itself violate the antitrust laws. Cf. *Terminal Warehouse Co.* v. *Pennsylvania R. Co.*, 297 U.S. 500, 511, in which preferential treatment was held not to contravene the antitrust laws in the absence of conspiracy.[94]

Thus there are two separate elements in the offense which the Government charges, control and preference resulting therefrom, both of which must be established, since neither is illegal without the other. We shall take up these two elements of the Government's case in turn. In this Point II we shall show that the trial court did not err in finding that General Motors did not accord du Pont a preference. In Point III we shall show that the trial court did not err in holding that du Pont does not control General Motors. If the trial court's findings on either of those points be sustained, the judgment below must be affirmed on the Sherman Act aspects of this case.

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[94] The Court there said (297 U.S. at 511):

> "Discriminatory privileges and payments given by a carrier to a consignor or consignee are unavailing without more to make out a combination in restraint of trade or commerce within the meaning of the Anti-Trust Laws. To lead to that result the privileges or payments must be the symptoms or incidents of an enveloping conspiracy with its own illegal ends."

In one sense every buyer accords a supplier a "preference" when he buys from him instead of a competitor. But a preference based upon a belief that one supplier provides higher quality products, or gives better service, or is more reliable in deliveries, or has superior research facilities would, of course, not be objectionable. We use the term in the Government's sense of an advantage attributable to du Pont's stock interest in General Motors.

Whether or not General Motors accorded du Pont any such preference in its purchases of materials is a pure question of fact. It depends upon whether the evidence shows that General Motors bought from du Pont when it would not have done so on the merits. This is a factual matter, determination of which rests on analysis of the facts with respect to the course of sales by du Pont and other suppliers to General Motors, in this case over a long period of years, as well as upon the reasons underlying General Motors' choice of one supplier over another.

The trial court made this determination of fact after an exhaustive analysis of the record, and concluded not as a matter of law but as a matter of fact that General Motors enjoyed complete freedom of choice and that the Government had not proved that it favored du Pont in its purchasing or was constrained to do so. The Government's brief says (p. 128):

> "Our dispute with the lower court is over its conclusionary findings, not its determination of what events took place."

But what the Government means by "conclusionary findings" are these factual findings that General Motors' purchases from du Pont were motivated by ordinary competitive considerations. These findings (quoted at pp. 159-162 *supra*) were the court's summary statement of what took place, after considering all the "events" shown by the evidence. The Government's attack on these findings is therefore its way of saying that it does not agree with what the trial court found from the evidence. It is precisely this type of finding "as to the design, motive and intent with which men act" which this Court has said "depend peculiarly upon the credit given to witnesses by those who see and hear them". *United States* v. *Yellow Cab Co.*, 338 U.S. 338, 341.

As has been pointed out already in this brief, the Government does not consider it necessary to review all of the evidence upon which the trial court based its findings on the subject of alleged preference. It relies instead upon its version of three supposed "examples" of preferential treatment, which it asserts are "determinative—whether or not these examples are, as we believe, illustrative of the record as a whole" (Govt. Br., p. 129). The Government relies also upon the fact that over the years du Pont has made substantial sales of fabrics and finishes to General Motors.

On each of those subjects the trial court found, upon *all* of the evidence, that no preference had been accorded du Pont, but that each transaction had been handled entirely on its merits by General Motors, which had valid reasons [illegible] upon its own best interests for doing business with du [illegible] when it did so.

The record as a whole shows that General Motors purchased on the basis of quality, service and price, not du Pont influence. Du Pont developed a number of new and improved products. It had outstanding technical and research facilities, and provided exceptional service (see p. 44, fn. 29, *supra.*) The Government failed to produce a single complaint from any of du Pont's competitors during the period of time extending back 35 years.[95] If General Motors were a "captive market" and if du Pont's competitors were provided with the "very hard road to the GM market" which the Government claims, it is inconceivable that the Government could not have produced one competitor so to testify.

We believe that a fair review of the evidence demonstrates not only that the trial court did not err with respect to the supposed "examples" cited by the Government, but also that in instance after instance General Motors management failed or refused to deal with du Pont when du Pont badly wanted the business and, on the whole, treated du Pont with the same jealous regard for the best interests of General Motors as motivated it in dealing with du Pont's competitors.

A. Evidence As to Purchasing.

Since this case is primarily concerned with General Motors' purchases from du Pont, we shall deal with that before discussing the examples which relate to other matters.

The record is overwhelming in its demonstration that General Motors does not buy from du Pont on any different basis than from anyone else. This is established by the testimony of the people who do the actual buying and selling, and of their superiors, as well as by many documents which reveal du Pont's successes and failures in its attempts to sell various types of commodities to the different General Motors divisions.

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[95] The Government conducted its investigation of this case by grand jury proceedings in which it called many General Motors purchasing agents and ex-purchasing agents, but called none of them as witnesses at the trial.

The record discloses that each General Motors division buys independently, and that the pattern of buying varies greatly from one division to another. This variation in itself is inconsistent with the notion that du Pont "influence" is a factor which governs their purchases. If such "influence" is not expressed in any instruction or other document, but is manifested as a power "inevitably" felt by General Motors buyers, which seems to be the Government's present theory, it would affect one division as much as another. And yet, Oldsmobile is the one division which buys antifreeze from du Pont and one of the two car divisions which does not buy Duco from du Pont. Buick alone buys du Pont motor enamel, and Cadillac alone uses du Pont's copper electroplating exclusively. Can "inevitable influence" affect only the Oldsmobile antifreeze buyer, but not the Oldsmobile paint buyer; the paint buyers of Chevrolet, Buick and Pontiac, but not the antifreeze or electroplating buyers; the electroplating buyer only at Cadillac, but not the Cadillac paint buyer; only the Buick buyer of motor enamel, but not the Buick antifreeze buyer? (See pp. 40-41, *supra.*)

The only centralized buying done by General Motors for all of its divisions was by the General Purchasing Committee during its life between 1922 and 1931. Although the Government's original charge was that that committee was established primarily for the purpose of favoring du Pont, its present brief hardly mentions the committee at all. The reason for this is that, as the trial court found (R. 371-72), the history of the General Purchasing Committee disproves the Government's case in the very period in which most of the exhibits the Government cites were written. The chairmen of the committee during almost all of its existence were Sloan and Pratt, whom the Government treats as the General Motors officials who were most amenable to du Pont influence. (Sloan remained as a member after Pratt became chairman (GMX 2-3, R. 991, 6561-2).) If ever there was a place where such influence over General Motors' purchasing policy would have been manifest under the Government's theory, this would have been it. The membership of the General Purchasing Committee included the purchasing agents of the car divisions and Fisher Body, *inter alia.* If no such influence affected the work of that committee, it would be strange indeed if it had affected the same persons when they were buying for their respective divisions.

The minutes of the committee—or such portions of them as either party desired to introduce—are in evidence.[96] These contemporaneous documents, together with the evidence of Lynah, the executive secretary of the committee, who had not been connected with General Motors for over 20 years before he testified, show that the committee told du Pont that it must submit its bids like everybody else, that it would be subject to a two-source of supply policy like everybody else, and that "in the making of our purchases [from du Pont], we believe that each transaction should stand on its own merits." (GMX 194, R. 1155, 7232, *supra*.

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[96] A complete set of minutes was supplied to the Government at the trial (R. 1089), but because of their volume only the relevant portions were collected and submitted as exhibits (GMX 152-153, R. 1089-90, 6988-7022; GMX 156-166, R. 1105-7, 1107, 1100, 1114, 1116, 1119, 1123, 1128, 7099-7158). In addition, two complete tables were introduced showing all contracts made and all contracts rejected by the committee (GMX 154-155, R. 1092, 1100, 7023-7098). Many other letters, memoranda, contracts and policy and procedure statements showing the committee's activities were also put in evidence (GMX 146-151, R. 1076, 1079, 1084-5; 6966-87; GX 412, R. 528, 3986; GX 405, R. 527, 3964; GX 453, R. 536, 4082; GX 458, R. 2818, 4096; GX 462-466, R. 537-8, 4111-20; GX 494, R. 541, 4155; GX 499, R. 597, 4162; GX 537, R. 604, 4226; GX 1331, R. 2652, 5306).

pp. 50-1). The committee refused to give du Pont a cost-plus contract for fabrics and refused to join du Pont in a policy of reciprocity. See p. 48, 19-21, *supra*. During its nine years of operation, it contracted with respect to products du Pont could supply more often with du Pont's competitors than with du Pont (see p. 47, *supra*). This committee, in which Pratt and Sloan were active, set the pattern for General Motors purchasing in a way which precluded preferential treatment for du Pont.

During this period du Pont found it necessary to grant the so-called "super-discount" in an effort to increase its General Motors sales. See pp. 48-50, *supra*. That was hardly the tactic of a company receiving preferential treatment.

The Government cites no evidence as to General Motors' purchases during the period between 1931, when the committee went out of existence—or for that matter, after 1926—and the time of trial in 1953, except that General Motors and Fisher Body bought substantial percentages of their finishes and fabrics from du Pont in later years. But an inference of preferential treatment cannot be legitimately drawn merely from a consideration of two of the many commodities which General Motors buys and du Pont sells. The "inevitable influence" of du Pont's stock ownership, if it had existed, would have affected other products as well. If no such influence appeared with respect to anything else—and the Government makes no claim that it did—a trier of fact might reasonably be skeptical of its existence as to finishes and fabrics, and would reasonably credit the evidence which showed that the purchases of those commodities were entirely attributable to ordinary commercial factors.

Du Pont, of course, is principally a chemical manufacturer. The record (GX 1344, R. 2846, 5341-6) shows that in

1946 and 1947 du Pont sold 147 different chemicals to General Motors. The total volume of such sales in 1947 was $2,028,000.00. And yet General Motors bought only a minor proportion of its needs for those commodities from du Pont. The percentage for various groups of chemicals ranged from 0.2% to 12.1% (DPX 573, R. 3008, 6531). The Government certainly has not established—or even asserted—that in the broad chemical field du Pont, which it characterizes as the leading chemical manufacturer, could not compete with other companies on an equal basis. If General Motors had been required to purchase from du Pont preferentially, the purchases in that field would obviously have been much greater. And yet the story frequently was that the General Motors' buyers would insist on adhering to their prior supplier so long as he was satisfactory, whether or not the du Pont product was just as good. (See pp. 42-3, *supra.*)

Plainly, therefore, the fact that General Motors in 1946 and 1947 bought large quantities of fabrics and finishes from du Pont does not prove that they were purchased because of du Pont pressure or influence. The Government's conclusion does not follow from its bare statistics. The reasons why du Pont sold those products were explained fully in the record, which has been summarized in the Statement.

We will not repeat at length what is there set forth. It is sufficient to recall that the automobile industry was searching for a new kind of finish which would dry quickly and also be durable. General Motors turned to du Pont when it found that du Pont had already developed a quick-drying lacquer which might be suitable, and du Pont developed a new finish Duco, which almost every automobile company adopted. Weckler, a disinterested witness who had a good deal to do with the adoption of Duco by Buick, testified not only that he was uninfluenced by du Pont's interest in General Motors, but that he didn't care whether du Pont or Joe Doakes found a superior paint—he was interested only in the quality of the product." (R. 2146-7; *supra*, pp. 61, 37-38).

Both before and after the development of Duco, General Motors sought to get other paint manufacturers to produce a competitive product, and it has continually tested all available products to see which was the best (R. 1921-22, 1931; *supra*, p. 60). As soon as adequate competitive lacquers were available, two of the car divisions, as well as Fisher Body in part, turned to other suppliers (*supra* pp. 56-7). The fact that three divisions did not abandon du Pont does not prove that du Pont retained their business by reason of stock influence. These divisions exercised their autonomy over purchases in favor of du Pont because they believed Duco most satisfactory for their programs, just as Cadillac and Oldsmobile regarded a competitor's product as best for their needs.[97] The Government has not dared to suggest that du Pont's product did not remain fully competitive in all respects. The record shows that General Motors tests paint on several thousand of its cars, as well as on competitors' cars (R. 1927-31), each year, and Kettering's conclusion was that "one of the reasons" why General Motors' cars brought more than substantially identical cars of other companies "in a used car lot * * * is the paint" (R. 1592).

Certainly the trial judge cannot be said to have been clearly erroneous because he credited the uncontradicted evidence that the purchases of Duco resulted from the original and continued merit of the product.

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[97] As to Buick and Chevrolet, this was partly due to the location of their main factories in Flint, near the plant in which Duco was produced, just as Cadillac turned to a supplier located near its factory in Detroit (R. 1923-24, 1926-27, 2141-43).

The second largest item which General Motors buys from du Pont is Dulux, a synthetic enamel finish for refrigerators and other appliances. But Dulux was developed by du Pont in collaboration with General Electric, not General Motors, was used by a number of companies before General Motors adopted it, and has since been used by General Motors to a lesser extent than by most of its competitors. Sales of this product to General Motors, about $3,000,000 in volume in 1947, can hardly be attributed to favoritism or preference.

With respect to fabrics, orders for which only slightly exceeded those for Dulux, the Government refers only to du Pont sales of large percentages of General Motors' requirements in the very early years, to the inaccurate figure of 89% in 1926 (see p. 69, *supra*), and to the 40-50% sold in recent years. It does not mention that General Motors bought most of its fabrics from du Pont prior to the stock purchase in 1917, and that by 1931 the proportion had dropped to 31.5%. (See pp. 67-69, *supra.*) Other evidence showed that du Pont's sales rose and fell as improved products were developed by it or competing suppliers, or because of such factors as the employment of a special salesman. (See pp. 67-8, 70-71, *supra*). Four du Pont witnesses testified that selling fabrics to General Motors was as hard as selling to anyone else, and that du Pont's stock interest was neither mentioned nor helpful (R. 2128-31, 2310, 2357-58, 2672, 2903-5; pp. 65, 38-9, *supra*). Their testimony was corroborated by many contemporary exhibits.[98] The trial court was not required to find that the bare statistics cited by the Government outweighed all this testimony.

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[98] DPX 228-327, R. 2065, 2072-6, 2080-2, 2105-6, 2126, 2188, 2190, 2191-2, 2277, 2198, 2200, 2204, 2206, 2210-11, 2213-6, 2221-4, 2227-8, 2232-7, 2239, 2242-3, 2245, 2248-9, 2252, 2256-7, 2259-64, 2266, 2269, 2271-4, 2276, 2279-81, 2283-6, 2288-9, 2204-5, 2229, 2299, 2305, 6130-6273.

The Government attempts to bolster the inferences it seeks to draw from these statistics by reference to another percentage figure. It argues that because about 80% of the fabrics and finishes which du Pont sold to the automobile industry were purchased by General Motors in a period when General Motors was manufacturing only 35-45% of the automobiles, General Motors could not have been buying from du Pont on the merits, but must have done so for preferential reasons.[99]

In the Statement we have set out the reason for this with respect to both finishes and fabrics (see pp. 58-9, 75-6, *supra*). In short, Ford adopted the policy of manufacturing the bulk of its own materials and Chrysler deliberately sought "independent sources of supply, different from those that were then selling to Ford and General Motors," (R. 2292; *supra*, p. 75), although conceding that du Pont's "service and performance * * * was very satisfactory" (R. 1995; *supra*, p. 58). With the remaining manufacturers enjoying only 12-15% of the business, the result was that the distribution of du Pont's sales among the manufacturers available to it was not disproportionate, as we have shown at pages 75-76, *supra*.

Furthermore, the fact that a supplier sells in different proportions to different customers, or even exclusively to some and nothing to others, does not prove that its sales are made on a non-competitive basis. In no market that we have ever heard of does each supplier sell to each customer in proportion to the latter's share of the market.[100]

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[99] Since the sales to General Motors include sales to its non-automotive divisions, comparing such sales with sales to other automobile companies gives General Motors a larger percentage than if only sales for automobile use were compared.

[100] If the Government ever detected any such proportional division of the market, it would be sure that there had been a violation of the antitrust laws.

How much each customer purchases depends on its judgment of any number of tangible and intangible factors, as is shown, if proof be needed, by the variance in the percentages bought from du Pont by the different General Motors divisions.

The Government also attempts to support its argument by saying that in the early 1920's du Pont made a drive (unsuccessfully) for Fisher Body business, that it used the super-discount to get some of this business (in the late 1920's), that Fisher was completely "bought out" by General Motors (this was in 1926), that (jumping 20 years) Fisher bought 68% of its fabrics from du Pont in 1945 (the actual figure was about 40%; see pp. 72-3, *supra*), and that therefore du Pont sold to Fisher "not on the basis of merit, but on the basis of control" (Govt. Br., p. 142). A more complete *non sequitur* would be difficult to find.

The full story has been told in the Statement at pages 70-74, *supra*. Influence or control did not enlarge Fisher's purchases in the years immediately after it became a General Motors division. The very fact that du Pont was required to offer lower prices in the form of a super-discount is completely at variance with the existence of influence or control. Influence or control was not responsible for Fisher's purchases of Teal; it refused to buy any from du Pont from 1931 to 1948, although du Pont's product was competitive, and then gave du Pont only one-half to one-third of its business when it developed a new and superior product (p. 71, *supra*). There is nothing in the record to suggest that Fisher's purchases were not on the basis of merit in 1947 and 1948 as well as earlier, and a great deal which shows that they were, as the trial court found.

The Government presumably was deceived by its own misuse of statistics, since its statement that du Pont's sales to Fisher in the late 1940's were based on control is followed by this sentence (Govt. Br., p. 142):

> "The picture is particularly clear because of the comparison with contemporaneous sales to other divisions of General Motors."

Since Fisher was purchasing the fabrics for all General Motors passenger cars in 1947 and 1948, the only "other divisions" in the market for fabrics were the truck divisions, which bought about one-third of their fabrics from du Pont (R. 2098-2102; GX 1352-1357, R. 2890, 5360-79; *supra*, p. 70). This is not very different from the true figure of about 40% for Fisher, or from the 38.5% for General Motors as a whole in 1947, most of which was attributable to Fisher (see p. 73, *supra*).

B. Evidence As to Transactions Not Directly Involving Purchases.

Although "the gist of the Government's case" is an "illegal preference with respect to General Motors purchases of materials" (Govt. Br., p. 70), more of its brief is devoted to the subjects of antifreeze, tetraethyl lead and refrigerants than to the course of General Motors purchasing, presumably on the theory that if it could be shown that du Pont was favored in any other kind of dealing, that would prove an unlawful preference in the purchase of supplies.

As appears from the Statement (*supra*, pp. 90-134), the evidence does not establish any unlawful preference for du Pont in connection with any of these commodities. Indeed, when all the facts of record as to each are examined, as distinct from the selected excerpts which the Government chooses to mention, they demonstrate that du Pont's stock interest in General Motors did not result in its obtaining special treatment.

(a) *Antifreeze.*

The Government's claim as to antifreeze is that General Motors changed its instruction manuals for car owners so as to eliminate a statement of preference for glycerin over alcohol when it was advised that du Pont had begun to produce the latter. But the fact was that Sloan refused to do this in the first instance, because at that time General Motors believed glycerin to be superior; he stated that he would have to "be guided by the facts" (GX 320, R. 507, 3833-34). Only when experience during the following year indicated that glycerin also had its disadvantages did he come to the reasonable conclusion that General Motors should take a neutral position stating the merits and demerits of the competing antifreeze products (see pp. 92-100, *supra*). His personal preference for alcohol (GX 336, R. 511, 3861) was based on the discovery that, unless properly used, glycerin "would cause decomposition and corrosion of the engine operating parts". This can hardly be charged to du Pont's stock interest in General Motors.

(b) *Tetraethyl Lead.*

As to tetraethyl lead, the Government asserts that du Pont's ownership of General Motors stock was the reason General Motors turned to du Pont to manufacture the lead in the first instance, instead of manufacturing it itself, and why du Pont continued to manufacture lead for the Ethyl Corporation.

The record shows that Kettering had begun to work with du Pont chemists on the anti-knock problem before he or du Pont had any interest in General Motors,[101] and that he selected du Pont to help develop the anti-knock compounds because of his belief that "they were the best chemists that we knew of in the country" (R. 1584; *supra*, p. 106). The obstacles which du Pont overcame to make tetraethyl lead a commercially useful product, when viewed in the light of the disastrous consequences of similar efforts by a concern little experienced with dangerous chemicals and the unwillingness of another large chemical company experienced in that area to undertake the risks (pp. 114, 117-118, *supra*), prove that Kettering's opinion was an entirely reasonable one. Certainly the Government has not suggested that he could not honestly have thought that the du Pont chemists might be the best in the field. The trial court was therefore not clearly in error in believing his testimony.

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[101] This is proved by contemporaneous documents, as well as by oral testimony (DPX 93, R. 881, 5859; *supra*, p. 169).

After du Pont had undertaken to produce the lead, General Motors joined with Standard of New Jersey in the formation of the Ethyl Corporation to market the product. Sloan did not follow the du Pont suggestion that negotiations with Standard be turned over to du Pont, although this might have preserved the manufacturing field exclusively for du Pont. It is true that Sloan did not believe that Standard should manufacture lead itself and that it was better to concentrate the manufacturing in du Pont during the developmental stage, but he acquiesced in the experimental operation which was all that Standard itself wished to undertake. Seldom was a judgment so speedily vindicated, when the disaster which befell Standard's Bayway plant within a few weeks halted the entire project and almost led to a permanent prohibition of this new and important material.

When production by du Pont under a safer process was about to be resumed, Standard having had enough, Ethyl, with Sloan's approval, sought unsuccessfully to induce two other companies to enter the manufacturing field (*supra*, pp. 117-118). A few years later when it became apparent that du Pont would be the only company with adequate facilities and know-how after Ethyl's patents expired, Sloan proposed and supported a program whereby du Pont would be required to share its knowledge with and construct facilities for Ethyl. The result was that when the patents expired, Ethyl was able to establish itself as the largest manufacturer in the industry, and since 1948 it has been competing with du Pont throughout the country.

This course of events does not bespeak du Pont domination of General Motors or Ethyl. It shows the making of business judgments for business reasons by General Motors' officials in the interests of General Motors. On some occasions they agreed with du Pont and on others they disagreed. The fact that Sloan agreed with the du Ponts as to some matters does not prove that he was influenced or dominated by them. He could hardly be expected to find them wrong on everything in the course of dealings lasting many years.

The Government seeks to support its arguments that the trial court erred in not finding that General Motors' purchasing was influenced or dominated by du Pont by reference to excerpts from a few letters, none written after 1930. The most important of these are discussed in the Statement (*supra*, pp. 121-123). It is sufficient here to say that if each is read *in toto* and in the context of the situation confronting the author when it was written, it does not support the Government's contention that the General Motors officials were motivated by du Pont influence. Thus, for Sloan to say that he favored du Pont as the sole producer of tetraethyl lead immediately after the Bayway debacle at Standard's experimental plant only proves that in the tense and worried atmosphere of that period, Sloan thought that du Pont was the only safe producer.

The Government's arguments with respect to both tetraethyl lead and Freon imply that du Pont domination kept

General Motors from manufacturing those chemicals itself. But the record reveals the reasons why General Motors chose not to go into the business of producing dangerous chemicals. The reason was simply that General Motors was a manufacturer of machinery, and that its officials did not believe that it had competence in the field of chemical manufacture.[102] They were properly and reasonably—and it turned out, very wisely—afraid to get into a field in which a mistake might not only have severe financial repercussions, but also would, as it did, imperil the health and lives of all of those engaged in it. General Motors proved to be right in its judgment that a project fraught with such physical hazards should not be undertaken except by persons with the most experience in handling such matters. With respect to both tetraethyl lead and Freon, it turned out that the methods of producing the chemicals developed by the General Motors researchers were impracticable for manufacture on a large scale. The expert du Pont staff, after considerable difficulty, discovered improved techniques which were essential to the usefulness of the inventions.

The question, of course, is not whether General Motors in time could have established a chemical manufacturing department, or whether it was wise for it not to have entered a field which might have made it considerably larger. The issue here is whether there was a reasonable basis for the trial court to believe that General Motors' failure to manufacture these chemicals itself, and its selection of du Pont as the manufacturer, were based on considerations other than du Pont's stock interest in General Motors.

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[102] Compare General Motors' policy over the years of getting out of businesses which, despite their profitability, proved unrelated to General Motors' field of competency, e.g., glass, leather, woolen cloth, aviation and marine instruments, aircraft, car rentals, banking (Hearings, United States Senate Subcommittee on Antitrust and Monopoly, Committee on the Judiciary, 84th Cong., 2d Sess., 1956, *Study of Antitrust Laws*, Vol. VII, pp. 3658-3659, Vol. VIII, pp. 4295-4314).

Since the evidence as to the factors motivating the General Motors executives was both uncontradicted and inherently reasonable, the trial court was not clearly in error in giving it credence.

(c) *Freon and the Kinetic Corporation.*

Freon, a refrigerant discovered by General Motors, was manufactured by Kinetic Chemicals, a company jointly owned by General Motors and du Pont, rather than by General Motors itself. The Government refers to this as proof that General Motors' manufacturing contracts with du Pont were not awarded "on the basis of merit alone" (Govt. Br., p. 137). As with tetraethyl lead, and in large part as a result of that experience, Sloan did not think that General Motors was competent to undertake the manufacture of dangerous chemicals (see pp. 127-8, *supra*). After Sloan made the decision that the manufacture should be by an outsider, Pratt asked du Pont to join with General Motors because of "their experience in handling dangerous chemicals" including tetraethyl lead. The resulting 51-49% arrangement enabled General Motors to keep almost one-half of the profits, while du Pont had the responsibility for production in a field with which it was familiar. Pratt testified that he was not "motivated in any way" by du Pont's stock ownership in General Motors. The trial court cannot be said to be clearly in error in believing this testimony. (*Supra*, pp. 126-30)

The Government also referred to an unused and subsequently cancelled clause in the Kinetic agreement, whereby General Motors' future chemical developments would be offered to Kinetic on such terms as might be mutually agreed upon by the parties. It quotes Pratt's explanation, (see pp. 131-2, *supra*), that this was designed "to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity, and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing processes.'' But this again meant only that he and Sloan didn't believe that General Motors should manufacture chemicals, for the reasons already stated, and that they wanted their chemical developments to be in the hands of an organization in whose ability in that field they had confidence.

It should be noted that General Motors' interest in Kinetic was sold to du Pont after this suit was begun, with the Department of Justice expressly not objecting (DPX 145, R. 1833, 5975). If the Government does not object to du Pont's taking over General Motors' interest in Kinetic, it is hard to see how it can say that General Motors violated the antitrust laws when it permitted du Pont to have a half interest in the enterprise.

The documents the Government cites, whether read by themselves or in the light of the evidence as a whole, do not establish that in creating Kinetic, General Motors was not acting in its own best interests or was motivated in any way by pressure or influence emanating from du Pont's ownership of General Motors stock. They relate to an episode which is now only of academic interest, both in view of the fact that the clause in paragraph 7 on which the Government relies was cancelled in 1945 and the fact that General Motors' Kinetic stock was purchased by du Pont with the Government's acquiescence. They certainly do not prove that General Motors has or ever had a purchasing policy of giving du Pont preferential treatment.

C. The Government Relies Principally Upon Evidence Which Is Ancient, Of Disputed Significance, And Not Connected With Events Of Recent Years.

The Government's case here rests almost entirely on evidence relating to events which took place from 26 to 39 years ago—from 1917 to 1930. The Government's Statement of Facts cites no evidence relating to anything which has happened since 1930—19 years before suit was commenced—from which it possibly could hope to persuade any court that du Pont has received any trade preferences from General Motors.

The Government assumes that expressions prior to 1930 (as it construes them, contrary to the findings), combined with the fact that General Motors continues to buy substantial amounts of a few commodities from du Pont, prove preferential treatment during all the years thereafter, down to the present.

All of the testimony as to efforts since 1930 to sell General Motors the various types of products made by du Pont disclosed a competitive picture in all respects. See pp. 40-43, 56-57, 71-2, 100-2, *supra*. In some fields du Pont was quite successful with *some* of the General Motors divisions, in others not at all—which is just as it should be in a competitive market if it be assumed, as no one denies, that du Pont is capable of obtaining some business on its competitive merits. General Motors' purchases of three of the four main products which it has obtained from du Pont in recent years—Dulux, Teal for convertible tops, and trim for automobile bodies—did not begin until the early 1930's, 1948 and 1939, respectively, and are not connected with any course of dealing during the earlier period. We have shown that in each instance the merits of the du Pont products at the time were responsible for these purchases. Although purchases of Duco began in the early 1920's, there cannot be the slightest doubt on the record that General Motors began and continued to purchase Duco because it was a new and superior product discovered by du Pont. The bare statistical fact, which is all that the Government presents, that after competitive lacquers came on the market, some of the larger General Motors divisions continued to buy from du Pont while other divisions did not does not warrant the inference that such purchases are attributable to an illegitimate influence which was not ever shown to have been responsible for the original purchases.

The Government does not mention the other items which General Motors buys from du Pont because they do not support its charges of preference—and it refuses to recognize the fact that they actually refute it. The only one of these items substantial in 1947—antifreeze—was bought from du Pont when other adequate sources of supply were unavailable. After the post-war shortage most of the business went to another supplier. See pp. 101-2, *supra.*

The record thus demonstrates affirmatively, as the trial court's findings show, that General Motors' purchases from du Pont in recent years unquestionably have been at arm's length, and no Government evidence relating to the same or even reasonably contemporary transactions indicates otherwise.

As to tetraethyl lead and Freon, the Government is in no better position. It has abandoned its objections to the manufacture of Freon by Kinetic (now wholly owned by du Pont), and there is presently intense competition between Ethyl and du Pont in producing and marketing tetraethyl lead, a result contemplated and planned for since 1930 by Ethyl and General Motors officials.

The Government will say that du Pont still owns 23% of General Motors stock, is represented by 5 out of 34 members (about 15%) on the General Motors Board of Directors, and has representation on the Financial Policy and Bonus and Salary Committees of the General Motors Board. But the Government has no evidence that any of these facts had any effect upon trade between General Motors and du Pont. Apart from the facts summarized above as to the absence of any evidence of restriction by way of preference or otherwise on General Motors' trade, the record affirmatively shows that neither the Board of Directors nor any of its committees—and *a fortiori* those committees whose functions do not relate to trade—ever concerned itself with trade or purchasing policies in the slightest. See pp. 25, 27-8, *supra*.[103]

In sum, the Government's case rests entirely on evidence of disputed significance which relates to things which happened up to 1930. Even if the other evidence of that earlier period—which the trial court found disproved the Government's claim even for that period—be disregarded, all of the evidence after that date proved affirmatively, without any contradiction or impeachment, that du Pont did not control or influence, or receive any preference from, the purchase operations of General Motors.

The principles governing this type of situation have been established and applied in many cases. This is a suit in equity to restrain violations of the antitrust laws in the future.

> "It will simplify consideration of such cases as this to keep in sight the target at which relief is aimed. The sole function of an action for injunction is to forestall future violations. * * * All it takes to make the cause of action for relief by injunction is a real threat of future violation or a contemporary violation of a nature likely to continue or recur." *United States* v. *Oregon Medical Society*, 343 U.S. 326, 333.

Evidence of what has happened in the past, even long in the past, is admissible to illuminate the "connections and meanings" of "currently questioned conduct" (*id.* at 332). But (*id.* at 333):

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[103] The only evidence as to du Pont participation in General Motors' affairs in the many years preceding the institution of this suit related to suggestions as to who should be chosen for outside members of the Board of Directors, the organization of the Board's committee system, and an interest in the continued high calibre of General Motors' chief financial officers. Attitude towards du Pont was never taken into account in such matters. See pp. 27-8, *supra*. But in any event, none of this could have, or was proved to have, any effect upon General Motors' trade policies.

> "In a forward-looking action such as this, an examination of 'a great amount of archeology' is justified only when it illuminates or explains the present and predicts the shape of things to come."

"The crucial question is whether there was a contemporaneous violation or a threat against which the writ of the court should be directed" (*United States* v. *South Buffalo Ry. Co.*, 333 U.S. 771, 774).

The rule that equitable relief is granted only when the fact of past violations affords a reason for believing that violations will recur in the future has been applied and recognized in a great many antitrust cases, in each of which it was assumed or held that the past conduct was clearly unlawful. *United States* v. *Oregon Medical Society, supra; United States* v. *South Buffalo Ry. Co., supra; United States* v. *W. T. Grant Co.*, 345 U.S. 629; *United States* v. *Borden Company*, 347 U.S. 514, 519; *Maple Flooring Manufacturing Assn.* v. *United States*, 268 U.S. 563, 577-8; *Industrial Association* v. *United States*, 268 U.S. 64, 84; *Standard Oil Co. of Indiana* v. *United States*, 283 U.S. 163, 181; *United States* v. *Reading Co.*, 226 U.S. 324, 346; *United States* v. *United States Steel Corp.*, 251 U.S. 417, 444, 452; *United States* v. *Aluminum Company*, 148 F. 2d 416, 448 (C.A. 2).[104]

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[104] In the *Oregon Medical* case the defendants had abandoned their allegedly illegal course of conduct several years before the suit was begun. This Court agreed "with the trial court that conduct discontinued in 1941 does not warrant the issuance of an injunction in 1949" (343 U.S. at 334). In the *Grant, Standard Oil of Indiana, Reading, Industrial Association, Maple Flooring* and *U. S. Steel* cases, equitable relief was denied where conduct admittedly illegal had been abandoned. In the *Grant* and *Standard Oil* cases the abandonment was after suit was begun; in the *Steel* case 9 months before; in the *Maple Flooring* case several years before; in the *Industrial Association case*, "long before".

If that be the rule even in cases where unlawful acts in the past were proved or admitted, *a fortiori* the same principle must apply when the evidence out of the past was insufficient even to convince the trial court that there was a violation of law then.[105]

Here the trial court has found that there was no violation of law at any time. But if the trial court had found otherwise in this case, with respect to the early period, the principles just summarized would have precluded granting the Government any relief, in the face of overwhelming evidence that there has been no preference of du Pont during the period of at least 19 years before the trial.

The heart of the Government's case is that du Pont has attained an illegal preference with respect to General Motors' purchases of materials. The Government relies on documents almost all of which are at least 30 years old, bare statistics as to percentages of sales, and episodes relating to antifreeze, tetraethyl lead and Freon, which do not involve General Motors' purchasing policies at all. Analysis of the record as a whole and as to each subject the Government relies on, however, proves that there has been and is no policy of favoring du Pont with respect to General Motors trade.

The question before this Court is not whether some items of evidence might support an inference contrary to the findings of the trial court, but whether the trial court's findings based upon the record as a whole are clearly erroneous. Obviously the trial court did not err in looking at all of the evidence and not merely at a few items selected by the Government. We are unable within the compass of a brief to enable this Court to have before it more than a fraction of what the trial court considered in reaching his conclusion. We submit, however, that enough of the record has been summarized to show beyond peradventure that the trial court's findings are entirely reasonable and plainly ~~not~~ clearly erroneous.

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[105] In the *Industrial Association* case, "three or four sporadic and doubtful instances during the period of nearly two years" were held insufficient to establish a conspiracy (268 U.S. at 84). In the *Reading* case the Court referred to evidence indicating that "there occurred a conference in 1896" [16 years before the Supreme Court's decision,] looking to an unlawful arrangement to apportion tonnage. "But the weight of proof", the Court continued, "satisfies us that whatever might have been contemplated or attempted, the scheme proved abortive, or, if attempted, was abandoned long before this bill was filed:" (226 U. S. at 346).

This is a purely factual question. There is no room for error of law in a finding that General Motors bought its supplies from du Pont, as from du Pont's competitors, on the merits of the products, in the exercise of its own best judgment, and not because of any limitation resulting from du Pont pressure, coercion, influence, dominance or any understanding resulting therefrom. The findings adverse to the Government on this question are therefore sufficient to dispose of the charge that the Sherman Act has been violated.

III.

THE TRIAL COURT'S FINDINGS THAT DU PONT DID NOT CONTROL GENERAL MOTORS ARE AMPLY SUPPORTED BY EVIDENCE AND INVOLVE NO ERROR OF LAW.

A. The Government's Theories of Control.

The original theory of the Government's case was that General Motors agreed to prefer du Pont over its competitors in purchasing its requirements of materials which du Pont made. General Motors was claimed to have agreed to this either voluntarily or because of coercion by du Pont.

Voluntary agreement by General Motors now is out of the case, by every possible interpretation of the Government's election not to contest the trial court's findings of "no conspiracy". This leaves coercion of General Motors by du Pont, which was only an alternative theory below, an indispensable part of the Government's case.

Du Pont's claimed control of General Motors is described generally as the power "to influence business judgments of General Motors" (Govt. Br., p. 77). Since this case is concerned with trade, the Government properly limits the business judgments to which it refers to the situations "in which du Pont was in competition with other suppliers" (Govt. br., p. 72), and defines the power to be "power over a substantial part of General Motors' trade" (Govt. Br., p. 70), "a power in du Pont to direct the business policies of General Motors so as to gain for itself an economic advantage over its competitors" (p. 88).

The Government is careful to disclaim that its position is that such "control automatically follows from some fixed percentage of stock ownership" (Govt. Br., pp. 91-2), such as 23%, though, as we shall show, that is what its argument really comes down to. But in order to have such control, "it is not necessary to hold a majority" of the voting securities (Govt. Br., p. 88). Various factors are to be considered, including the percentage of stock held, the distribution of the stock, the percentage voted at stockholders meetings, the historic relationship of the companies, the number of interlocking directors and officers, and the relationship of the management to the parent company (Govt. Br., p. 92).

We agree that a substantial minority stockholder *may be* the dominant and controlling factor in a corporation, that this does not automatically follow because he holds 23% or some other percentage of the stock, and that the factors which the Government mentions are to be considered. But those factors, we submit, are not exclusive. The Government ignores, or gives little heed to, evidence as to the *actual* relationship between the two companies over a long period of time.[106]

When the issue is the relationship between two particular companies, this last factor is of special importance. As this Court said in *Rochester Telephone Corp.* v. *United States,* 307 U.S. 125, 145:

> "Congress did not imply artificial tests of control. This is an issue of fact to be determined by the special circumstances of each case."

The Government has chided the trial court (Jurisdictional St., p. 17-18) with not recognizing the "realities" of corporate life. But the "realities" upon which the Government relies are only the formal relationships between General Motors and du Pont—such as the percentages of stock held, the percentages of stock voted and the number of nominees on the board of directors and certain committees of the board—and the abstract fact that control is sometimes associated with such factors. What the Government fails to recognize is that this case is concerned with the demonstrated realities of General Motors' corporate life, and not merely with considerations which are relevant in dealing with corporations generally, or with mere theories of intercorporate relationships.

The trial court took into consideration each factor the Government relies on. It took into account the extent to which du Pont participated in the choice of General Motors management (R. 316), the number of du Pont representatives on the General Motors board and committees and the manner in which the board and committees were chosen (R. 308-316), the distribution among 436,500 stockholders of the stock not owned by du Pont (R. 304), the percentage of the du Pont stock to the total voted at stockholders' meetings (R. 322-3), and whether or not du Pont's 23% would have been sufficient to control the company if there had been a contest at such meeting (R. 322-3).

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[106] This may fall under the Government's category of "historic relationship of the companies". If it does, our criticism is not of the Government's choice of category, but of its omission to mention most of the evidence which demonstrates what that historic relationship actually was.

The Government would have the Court stop there, and say that these factors, looked at by themselves, show that du Pont had either working control of General Motors, or a "controlling influence" over it, or, at any rate, would justify a conclusive presumption that General Motors inevitably would act so as to prefer du Pont over its competitors. But the court below quite reasonably did not ignore the remainder of the record and the evidence in it which showed that over a long period of years General Motors had not felt compelled to kowtow to du Pont's wishes, and had not done so.

B. The Evidence on Which the Trial Court Based Its Findings.

The record shows that the General Motors divisions do their purchasing independently of the central management, that the management does not tell them what to buy and certainly has not told them to buy preferentially from du Pont, that the bonus compensation of each General Motors employee who participates in the purchase of supplies is dependent upon the profits of General Motors and his division, as well as the quality of his own work, and that the du Pont Company could go "bankrupt" without his being affected at all. Thus there is every incentive for the purchasing staffs of the General Motors divisions to be loyal only to General Motors, without any regard for the du Pont Company. When there was coordination of purchasing of some commodities in the 1920's, the General Purchasing Committee made it a policy to see that all suppliers, including du Pont, were treated alike. See pp. 45-52, *supra.*

Moreover, the record shows that the decentralization of management and the General Purchasing Committee were set up during Pierre du Pont's presidency, when du Pont had the greatest opportunity to coerce the General Motors operating management, had it desired to do so. Instead, that management deliberately was made independent of du Pont control. See p. 13, *supra.*

Of course, the fact that the record shows that for many years General Motors has bought supplies from du Pont on the basis of quality, service and price, as from other suppliers, and that it did not give du Pont preferential treatment, as described in Point II *supra,* pp. 172-183, is the strongest possible evidence that du Pont had no control or coercive influence over General Motors' buying policies.

The evidence also shows that the Board of Directors and its committees were not concerned with or informed about the identity of General Motors' various suppliers. They did not pass upon particular contracts or arrangements, or even fix purchasing policies. They did not determine the compensation by way of bonus or otherwise of the persons who did represent General Motors in those transactions. The record affirmatively demonstrates that the attitude of a General Motors executive towards du Pont had never been taken into consideration by the Board, its committees or anyone else, in determining his authority, his compensation or his advancement. See pp. 23-33, *supra.*

The Government says (Govt. Br., p. 102) that it does not do for the appellees "to assert that perhaps there was control over financial policy, but not over purchasing practice. It is not possible to compartmentalize such authority—it exists or it doesn't exist." The Government's position that control over financial policy cannot be separated from control over purchasing practices is refuted by its own exhibits as to the situation when du Pont first bought its stock in

General Motors. The record shows that separation of authority over finance and operations was exactly what was planned and what happened, up to the time of Durant's collapse. During the brief period of Pierre du Pont's emergency administration, there may have been a partial merging of all management functions. Pierre, however, as a matter of deliberate policy, saw to it that by the time he stepped out, after two and one-half years, the operational management of General Motors, which included its purchasing policies, had been set up on a basis which again separated it from the financial side of the business, in which du Pont retained a representation commensurate with its sizeable investment.

The Government attempts to undermine this picture of complete freedom from du Pont influence at the levels which affect the operations with which we are concerned by treating Sloan, chief executive officer of General Motors from 1923 to 1946, as a du Pont representative, on the ground that he was advanced to the presidency by the du Ponts in 1923 and was shortly thereafter named a member of the du Pont Board of Directors. Much is made of his personal friendship with some of the du Ponts, and of his reference to himself as a "member of the du Pont family."

But this is only a small part of the Sloan story. Sloan did not come into General Motors through du Pont, but through United Motors, a manufacturer of various auto parts, at the time Durant was the head of the company. Prior to that Sloan had headed, and with his father was principal owner of, the Hyatt Roller Bearing Company, which he sold for $13,500,000. See p. 16, *supra*. Thus, when he first came to General Motors he already was a successful business leader in his own right and a man of independent means who had no reason to feel any such concern over his "business future" as the Government suggests might make him subservient to du Pont (Govt. Br., p. 127). Under Durant his abilities brought him further advancement, and he became vice president of General Motors. When Pierre du Pont took over the presidency temporarily in 1920, he soon recognized that Sloan possessed the stature and capacity needed for the chief executive's position. Within two and a half years Pierre resigned, recommending that Sloan succeed him.

It was under Sloan's leadership that General Motors rose from the producer of 12%-18% of the automobiles manufactured in this country to its present position. Sloan's success was achieved in large part because of his policy of *decentralizing* responsibility. He would select the heads of the manufacturing divisions and then give them the freedom of the head of an independent company (R. 992). Although certain staff functions remained centralized, they were largely advisory.[107] Except for the activities of the

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[107] *Contributions to Administration by Alfred P. Sloan, Jr. and GM*, by Ernest Dale, Associate Professor, Cornell Business School, Administrative Science Quarterly, June, 1956, Cornell University:

"Then, in December 1920, Pierre S. du Pont presented Sloan's reorganization plan to the board of directors. (It had been incorrectly assumed that since du Pont himself came from what was then a centralized organization, he would not favor the decentralized pattern Sloan recommended.) Sloan's plan was accepted, largely in its original form, on December 30, 1920. * * *

"Sloan's organization study—the report on which the GM reorganization was based— is a remarkable document. Almost entirely original, it would be a creditable, if not a superior, organization plan for any large corporation today. * * * It is a landmark in the history of administrative thought." (pp. 39, 40) * * *

"The recommendations of 1920 rested on two principles, which are stated as follows:

"1. The responsibility attached to the chief executive of each operation shall in no way be limited. Each such organization headed by its chief executive shall be complete in every necessary function and enabled to exercise its full initiative and logical development. [Decentralization of operations.]

"2. Certain central organization functions are absolutely essential to the logical development and proper coordination of the Corporation's activities. [Centralized staff services to advise the line on specialized phases of the work, and central measurement of results to check the exercise of delegated responsibility.]" (p. 41) * * *

"The decentralization theory was based on a concept somewhat akin to the theory of atomistic competition—each self-sufficient activity of the corporation would operate on its own within the over-all framework of the rules of a free enterprise system. Freedom of operation would make it possible for each activity and its leadership to contribute to the maximum of their abilities in the light of their superior knowledge of the local situation." (p. 53)

General Purchasing Committee (1922-1933) already described—which were of no help to the Government's theory, although they would have been if that theory had an actual basis—the purchasing functions remained decentralized.

The entire thrust of Sloan's management policies was irreconcilable with the Government's theories of control. If Sloan had permitted himself, or anyone working under him, to feel that du Pont should be favored in the purchasing of supplies, or thought of in any way except as a large stockholder with an interest in the success of General Motors identical with that of other stockholders, it would have impugned the sincerity and undermined the effectiveness of his basic policy of decentralized authority.

There is no support in the record whatsoever for the Government's intimation that because the officers of General Motors down the line were for many years chosen by Sloan, and because Sloan was originally selected by du Pont, General Motors executives deemed themselves bound to favor du Pont in any way. This false picture rests on the premise that Sloan himself was a du Pont man.

Sloan testified for 11 days, on direct and cross-examination. A reading of the printed page cannot possibly convey to the Court an appreciation of the strength of his personality, of his integrity, and of the fact that his business life had been General Motors and nothing else.[108] He stated (R. 1284):

> "My responsibility was General Motors. I had a large interest in General Motors, and my position as an industrialist entirely depended on General Motors, and nothing else. In all my life, I really lived General Motors."

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[108] His membership on the du Pont Board of Directors was mainly a formal one; during the 19 years of his most active direction of General Motors' affairs he seldom went to meetings of the du Pont board; in many years he attended none of them. (R. 118-91; GMX 15-16, R. 1190, 6594-6601)

Sloan testified on cross-examination (R. 1382):

> "I have been asked on direct examination, and by your good self many questions along the lines as to whether there was any influence that affected the operation of General Motors Corporation. I can say with complete conviction that every decision that has been made by General Motors Corporation by myself, and so far as I know the other executives concerned in its operations have been entirely in the interest of General Motors, and of the stockholders. I am as sure of that as I am of anything in life."

The trial judge, who had ample opportunity to appraise the witness and evaluate his testimony, was entitled to believe this, particularly in the light of the mass of corroborative evidence. The court referred to the fact that (R. 321):

> "During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management, headed by such a forceful and resolute character as Sloan * * *."

The court found (R. 316):

> "Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interest of General Motors."

The Government's theories of "working control" and "controlling influence", which no longer rest on any voluntary agreement, boil down to an argument that since 23% of the stock of General Motors is owned by du Pont, the remainder being widely held, the management of General Motors must fear that if it does not bow to the wishes of du Pont it will be voted out of its jobs at a stockholders' meeting. Even if du Pont would not necessarily prevail in a proxy contest, the Government argues, it would be a formidable opponent and therefore the management of

General Motors would seek to avoid the "substantial likelihood" that du Pont might be able to oust it by avoiding "any action displeasing to du Pont." (Govt. Br., p. 97.)

Sloan's testimony reveals that he had no such fear. The trial court found his testimony on that subject "both reasonable and persuasive." (R. 323). Sloan testified (R. 1331-2, 1336):

> "I believe that in those years, and all the other years, that the stockholders would be guided by the records of General Motors Corporation, both with respect to its advancement of its position, its earnings, dividends, and so forth. * * *
>
> "I think you have got to know what the issue is, what the position of the corporation was, the attitude of the stockholders, how liberally they have been treated, the confidence they had in the management, and all of those things very definitely enter into it according to my best judgment. * * *
>
> "* * * *I am of the opinion that with the record of General Motors—I will not elaborate on that—that if it came to an issue, the stockholders would support the management.*
>
> "That is only an opinion, but of course it would depend a great deal on the then existing circumstances as to the status of the business. If the management let the business down, and the record was unsatisfactory, that might change it. I don't think you can deal with a case of that kind. It is too hypothetical, because you don't know the circumstances under which the issue would arise." (Italics supplied.)

Sloan's testimony was marked by a becoming modesty as to the magnificent record of achievement by the General Motors management under his guidance. It is well known that management has substantial advantages in a proxy battle. While 23% of the stockholdings in a widely held company, when supported by the power of management, might virtually insure control, or at least create a "substantial likelihood" of it, the same situation would not exist if management were on the other side. When the management possesses a national reputation for efficiency and consistently has returned large profits to its stockholders, as is the case with General Motors, the opposition would need a strong case, in addition to 23% of the stock, to create even a serious threat of overthrowing management.[109]

The Government seems to suggest that the trial court should not have believed the perfectly reasonable testimony of Sloan because, at some meetings in the past, du Pont's shares constituted a majority of the shares voting. But that proves nothing as to what would happen in case of a conflict. Shareholders often do not bother to send in proxies when nothing controversial is at stake. Sloan testified that in the event of a conflict a much larger percentage of the stockholders would vote. (R. 1332-3).[110]

The trial court found (R. 323):

> "There is a substantial failure of proof that du Pont controlled General Motors, even though it was voting at times 51% of the stock voted at a stockholders meeting. The testimony is that there was such satisfaction with the management and operation of General Motors that a large number of stockholders did not choose to vote their stock and made no protest with respect to the management of the company or the actions of the Board of Directors. It is entirely conjectural whether or not du Pont by its stock ownership could control if there had been a contest."

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[109] That stockholders will support a management which is successful and producing good dividends, see Knauth: *Managerial Enterprise, Its Growth and Methods of Operation*, 1945, p. 45; Bonneville and Dewey: *Organizing and Financing Business*, 1945, p. 78, 79; Emerson and Latcham: *Shareholder Democracy—a Broader Outlook for Corporations*, 1954, p. 147, 148

[110] Moreover, the exhibit on which the Government relies shows that since 1938, when du Pont's stockholdings had been reduced to 23%, the percentage of shares voted by it at stock-holders' meetings has fallen steadily from 39.6% to 29.9% (GX 1307; R. 664, 5230).

It is important to remember that we are not here concerned with control in the abstract. The question is whether du Pont controlled General Motors' trade relations sufficiently to force or induce General Motors to give du Pont preferential treatment. If du Pont had sought to overthrow the General Motors management for its failure to comply with du Pont's wishes in that respect, it does not take a mathematician to figure out what would happen. On such an issue the other shareholders would certainly support a management which they know to be independent, efficient and successful.

The trial court, of course, did not rely entirely, or even mainly, upon Sloan's testimony on the question of control. It relied upon the entire record, including the evidence of what happened throughout the history of the relationship between General Motors and du Pont. That history, which reveals what was done by Sloan and his associates and successors, contains the strongest possible confirmation of their testimony that they did not feel under any compulsion to grant trade preferences to du Pont.

What happened when Sloan, or his subordinates, and the du Ponts disagreed most clearly demonstrates whether or not Sloan was dominated or influenced by reason of the du Pont's stockholdings. In the Statement of Facts we have called attention to the many instances in which he refused to follow du Pont's wishes. See pages 18-23, *supra*. These were situations in which the du Ponts made their desires known. We do not have to speculate here about subtle or psychological, but unexpressed, influence, which the Government insists inevitably would be effective in controlling General Motors' actions. The man who, as a matter of principle, forced Raskob to resign as the chief financial officer of General Motors in 1928, against such strong opposition of all the du Pont family that Pierre felt impelled to resign as Chairman of the Board of General Motors, would not have been coerced by "subleties" when he was not swayed by active opposition.

General Motors, acting through Sloan, Kettering, Pratt and others, refused to go along with du Pont in its attempts to obtain a general chemical research agreement, over-all contracts to cover General Motors' fabrics requirements (see Govt. Br., p. 32, pp. 36-7), or a policy of reciprocity in purchasing, or to heed du Pont's request that General Motors stay out of the oil burner business, or research in synthetic rubber. As we have seen, Pratt rebuffed the du Pont executives repeatedly on matters of policy, although he occasionally did a minor favor for an old friend in the du Pont company when he felt that it was consistent with General Motors' interests. Sloan overrode du Pont's wishes in refashioning the General Motors' committee system in 1937. He did not inevitably follow du Pont's suggestions as to directors. He gave them respectful consideration, as he did other suggestions, though Carpenter, the president of du Pont, felt he had "a low batting average" with his nominations for outside directors. Irenee and Lammot du Pont, successively presidents of du Pont, expressed their dissatisfaction with many of the policies approved by Sloan in the development of tetraethyl lead. Irenee opposed the maintenance of standards for purchasers of lead and the suspension of operations after the Bayway disaster. Lammot opposed the entrance of Ethyl into the production of lead, which resulted in its becoming a competitor larger than du Pont. On all of these matters, Sloan and his associates in General Motors acted independently, and contrary to du Pont's express wishes. See pp. 16, 18-22, 25, 67-8, 85-7, *supra*.

In the light of all this, the statement in the Government brief that du Pont's position "insures avoidance by the management of any action displeasing to du Pont" (p. 97) bears no resemblance to the facts of record. If the General Motors management would not accept du Pont's efforts to lead it when urged by the most important du Pont executives, can it be so susceptible to du Pont influence that it inevitably and naturally would do what du Pont desired when du Pont made no effort to impose its will? The Government's theory is that the trial judge was clearly in error because he did not come to the conclusion that General Motors inevitably would act in the way which the record showed it had not acted for 30 years.

The Government argues that in the early 1920's du Pont had "control" of General Motors in a general corporate sense, due to the collapse of Durant, and that therefore the question really is, "Has anything happened to terminate a control relationship which admittedly existed?" The appellees do not suggest that Pierre du Pont did not have general executive direction of General Motors during the short time he was its president, but we do point out that the evidence indicates that even at that time, neither Pierre nor anyone else forced General Motors to adopt a purchasing policy favorable to the du Pont Company.

What stands out from the record as a whole, however, is that since the early 1920's du Pont's participation in General Motors' activities has steadily declined in almost every respect. As it grew in relative size and acquired its present financial and industrial stature, General Motors has come to be unmistakably what Raskob said in 1923 it should be—"a free and independent institution" which would "never again have to look to the du Pont Company or anyone else for support" (GX 185, R. 1142, 7200).

When Sloan assumed the presidency of General Motors, the management became independent of du Pont, as has already been indicated. Within the management, those persons who have been said to have represented du Pont have gradually been replaced, over the years. No one in the present management, or in the management at the time of the trial, has had any connection with du Pont, and the Government has made no effort to show the contrary. The older du Ponts who had been interested in General Motors' activities since their investment in 1917 had also disappeared from the management of du Pont by 1940.

Although originally du Pont had substantial representation upon the Executive Committee, as well as a majority of the Financial Committee, by 1934 its membership on the Executive Committee had disappeared, and since 1946 it has had no representation at all upon the committee concerned with operating policies, which is what this case deals with. On the Financial Committee, its representation has been reduced from a majority to 3 out of 10.

The du Pont nominees on the General Motors Board and the Financial Policy and Bonus and Salary Committees have not sought to intervene actively in the management of the business. (Their presence in these positions is no more than the normal and proper shepherding of a large investment. They have had nothing to do with purchasing policy. There is not a shred of evidence that any of these people ever sought to do anything which could be construed as coercing or influencing General Motors to favor or prefer du Pont in its purchasing policies or anything else—and the evidence of the people on the firing line is that there were no such efforts.

All of the foregoing changed the relationship which existed in and prior to 1923. They have made it increasingly improbable that there could exist such control by du Pont over the operational side of General Motors as the Government claims, but failed to prove, existed even a quarter of a century ago.[111] 1930 is the last date at which the Government had pointed to any evidence, other than the bare fact that General Motors bought substantial quantities of supplies from du Pont, from which it attempts to infer General Motors' favoritism toward du Pont.

The Government's argument is based upon its erroneous conception of Sloan as a toady, fearful of losing the support of du Pont, rather than as the tough-minded and independent leader of General Motors which he actually was. But even Sloan retired from active duty 10 years ago. No one has connected Knudsen, Wilson or Curtice with du Pont in any way.

Nevertheless, the Government asks that its concept of Sloan's subservience to du Pont, which amounts to a charge that he served two masters, be imputed also to his successors who have been in charge of General Motors and its purchasing and trading policies for a number of years. The forceful characters of Knudsen, Wilson and Curtice, as revealed by their public activities as well as the evidence of their dynamic leadership of General Motors, cannot be reconciled with the conduct which the Government suggests should be imputed to them.

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[111] Government counsel attempt to project the 1920-1923 situation forward into more modern times by quoting the 1944 statement of Tinney, Secretary of the Delaware Realty and Improvement Company, as follows (GX 1304, R. 664, 5525):

> "Delaware Realty, at least to some extent, facilitates control of the du Pont and General Motors industries. While liquidation would not eliminate this immediately, it would weaken it; more particularly so with the passage of time" (Govt. Br. p. 18).

The court below found:

> "There is no evidence that Tinney knew anything about the relations between du Pont and General Motors and no evidence that he knew anything about the intentions of the individual defendants or other members of the du Pont family or that he was acquainted with their state of mind as it related to Delaware. Pierre S. and Irenee du Pont both testified that Delaware was not organized for the purpose of controlling du Pont or General Motors as charged by the Government and that it was not used for that purpose. Similar testimony was given by other individual defendants. Having heard the testimony of these witnesses, the Court finds their testimony more persuasive than the statement of opinion made by Tinney." (R. 296).

It is to be noted that we do not rely, and the trial court's findings did not rest, merely on the absence of any convincing evidence for any period, and of any evidence at all for many years preceding the trial, that General Motors has been coerced to buy preferentially from du Pont. This defendant relies as well upon the affirmative evidence which showed that in fact du Pont was treated no differently by General Motors than was any other supplier, and upon the affirmative evidence that even the climate in which preferential treatment might have arisen has changed as General Motors has grown steadily and strongly away from du Pont since the early 1920's.

C. The Trial Court Committed No Error of Law in Refusing to Find For the Government on the Issue of Control.

In view of the trial court's findings, the Government agrees that it must show "either that the court below adopted an incorrect test of the meaning of 'control' or that it decided the issue without reasonable support in the record" (Govt. Br., p. 88). We have already shown that the trial court's decision had ample support in the record, and was entirely reasonable.

It is equally clear that the trial court did not apply any incorrect standard or rule of law. The Government contends that control is not an "abstract theoretical conception," that the case is concerned with "control sufficient to insure business preferences" when desired, which "adds up to practical working control," and that "its existence depends upon the actual facts" (Govt. Br., p. 75). We agree with all this. So did the trial court. He examined all the "actual facts" in the record, including those factors relied upon by the Government. The Government's real grievance is that the court failed to arrive at the factual conclusion which the Government sought, not that the court applied any different standard. As this Court stated in *United States* v. *Yellow Cab Co.,* 338 U.S. 338, 340-341:

> "* * * The judgment below is supported by an opinion, prepared with obvious care, which analyzes the evidence and shows the reasons for the findings. To us it appears to represent the considered judgment of an able trial judge, after patient hearing, that the Government's evidence fell short of its allegations—a not uncommon form of litigation casualty, from which the Government is no more immune than others."

The Government now tries to find an error of law in the trial judge's factual analysis. The Government implies that he did not recognize that a minority stockholder may control the corporation (Govt. Br., pp. 94-95). Nothing in the opinion supports this notion. The fact that the trial court felt impelled to, and did, look to all the evidence in determining whether in *this* case a minority stockholding had resulted in control, shows that the trial court did not fall into any such error of law as the Government suggests.

The Government says (Govt. Br., p. 94) that the court below "seems to have proceeded on the basis that, in order to control, du Pont must have conducted itself as though it held a majority of the General Motors stock." That certainly is the meaning of "working control," which was one of the Government's theories of control. The trial court, however, neither limited its findings to that theory nor rested them on that one test. He found also that du Pont has not been "the controlling force in the direction of General Motors' affairs" (R. 316), which directly meets and disposes of the Government's "controlling influence" theory. Finally, his specific findings that General Motors' purchases were not influenced by any preference extended to du Pont are a complete negation of the Government's theory of "inevitable" psychological control.

The Government also says (Govt. Br., p. 97) that "The outcome of a possible future proxy fight is not an appropriate test of control." We would agree that it is not *the* test of control, but it is a factor which is not irrelevant, and which need not be ignored. Moreover, it was an issue which the Government, not the defendants, injected into the trial. All the trial court did was take into account along with everything else the evidence indicating that it was entirely speculative whether du Pont's 23% interest would prevail in case of a contest. That was certainly not an error of law.

The Government cites a number of cases which hold or recognize that a corporation *may be* controlled by a large minority stockholder, as if that were dispositive of the issue here. Neither appellees nor the trial court have denied that possibility. They only have asserted that such control does not necessarily exist. This Court went no further in the statement from *North American Co.* v. *S.E.C.*, 327 U.S. 686, which the Government cites. It said (327 U.S. at 693):

> "But it does not follow that North American's domination of its system was any less real or effective. Historical ties and associations, combined with a strategic holding of stock, *can on occasion* serve as a potent substitute for the more obvious modes of control." (Italics supplied.)

The Court said "can on occasion," not "always does." The next sentence states only that "Domination *may* spring as readily from subtle or unexercised power as from arbitrary imposition of command." This again was merely a statement of a possibility of fact, not a rule of law.

In *Rochester Telephone Corp.* v. *United States*, 307 U.S. 125, this Court was concerned with a company holding one-third of the stock of another, together with a veto power over its decisions by reason of a provision in the corporate charter requiring an 80% vote to decide major questions. The Federal Communications Commission had held this to be "control" under a statutory provision subjecting to the Act certain types of carriers if they were directly or indirectly controlled by another carrier. This Court did not peremptorily decide that the first company controlled the second, although the case seems like an easy one. It said (307 U.S. at 145-146):

> "Investing the Commission with the duty of ascertaining 'control' of one company by another, Congress did not imply *artificial* tests of control. *This is an issue of fact to be determined by the special circumstances of each case.* So long as there is warrant in the record for the judgment of the expert body it must stand. The suggestion that the refusal to regard the New York ownership of only one third of the common stock of the Rochester as *conclusive of the former's lack of control* of the latter should invalidate the Commission's finding, disregards actualities in such intercorporate relations." (Italics supplied.)

It is to be noted that although the Court was rejecting the suggested rule of law that a company owning one-third of the stock of another cannot conceivably control the second corporation, it was not establishing a converse rule of law that any such stockholding necessarily implies control.

The Government cites a number of cases under the Public Utility Holding Company Act, of which the *North American* case, 327 U.S. 686, is the leading decision in this Court. But those cases arose under a statute the purpose of which was to regulate the holding company relationship as such because of particular abuses in the public utility field. The statute provides that a holding of 10% or more of voting securities of a utility company is presumed to be sufficient to establish a "controlling influence," (defined as something less than actual or working control—*American Gas* *and Electric Co.* v. *Commission*, 134 F. 2d 633 (C.A.D.C.), certiorari denied, 319 U.S. 763), but this presumption is subject to rebuttal before the Commission, as this Court recognized in the *North American* case (327 U.S. at 697).[112]

Thus under the Holding Company Act, a company is given a chance to prove its independence, despite a large minority stock interest. If it fails, the consequence is that it is subject to regulation by the Securities and Exchange Commission, but the relationship does not become illegal.[113]

The Sherman Act contains no such broad, but rebuttable, definition. It reflects a different legislative policy applicable to all business, not just public utilities. And yet the Government would read into it a policy far more stringent than that embodied in the Public Utilities Act, to the effect that a substantial minority stock interest by one business corporation in another must have such an effect on commercial relations between the two companies as to be outlawed.

The cases cited by the Government all are consistent with the findings of the trial court.[114] None of them suggests more than that a substantial minority *may* possess control of a corporation. They do not foreclose factual inquiry, but invite it. This Court in the *North American* and *Rochester* cases and the lower courts in the Securities and Exchange Commission cases have been careful to note that they were not deciding the factual question for themselves, but sustaining decisions of the fact finding agency as supported by substantial evidence. Although the scope of review is somewhat different in reviewing a trial court's findings, the issue here is just as factual and the findings of the fact finder are entitled to weight, whatever way the issue has been decided.

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[112] Another section of the Public Utility Holding Company Act defines an affiliate as a company owning 5% of the stock of another company, or any person determined by the Commission to stand in such relation thereto that there is liable to be an absence of arm's length bargaining, so as to require that they be subject to the regulatory provisions of the statute (15 U.S.C. 79b(a) (11)).

[113] In the course of the debate on the bill, Senator Wheeler, chairman of the Committee in charge, said, with reference to the 10 percent clause (79 Cong. Rec. 8397): "That is only prima facie evidence; but even if they hold 40 percent of the stock of a company they may come before the Commission and produce evidence that they are not actually in control of the company, and the Commission is directed to make a finding and to exempt them if they are not actually controlling the company as the word "control" is defined in the bill.

[114] In the single antitrust case referred to, *Union Pacific Railroad* v. *United States*, 226 U.S. 61, 95-6, the Union Pacific had acquired 46% of the stock of Southern Pacific and had admittedly obtained full control of the latter company. In *Morgan Stanley & Co.* v. *Securities & Exchange Comission*, 126 F. 2d 325 (C.A. 2), the company had not invoked its right to rebut the statutory presumption under the Holding Company Act, and the Court of Appeals merely noted that applying the statute in such cases was not unreasonable, since "much less than a majority of stock is *frequently* sufficient for

Government counsel are careful never to say that their position is that a 23% stock interest, plus a somewhat smaller proportion of the Board of Directors, constitutes control as a matter of law. But their argument comes down to the same thing. This is shown by their repeated statements that control is "inevitable" (Govt. Br., pp. 77, 79) in that circumstance, and by their statement that (Govt. Br., p. 79):

> "* * * So long as human activity is influenced by personal interest, the management of General Motors must tend to lean toward du Pont whenever a reasonable choice exists; without instructions, without any communication or guidance, General Motors will prefer its associates over strangers."

These references to "inevitable consequences", and to what

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purposes of control." And the passage from *Electric Bond & Share Co.* v. *Securities and Exchange Commission*, 92 F. 2d 580, 590-91 (C.A. 2), aff'd. 303 U.S. 419, which the Government quotes, states only that the rebuttable statutory presumption is not arbitrary and unreasonable since "practical control is *often* exercised and retained, through the ownership by those who are already in *managerial* control of a substantial minority of the voting power." [Italics supplied] *Natural Gas Pipe Line Co.* v. *Slattery*, 302 U.S. 300, cited by the Government at page 89 of its brief, was concerned with the constitutional right of a state to *inquire into* whether contracts between public utility holding companies and their affiliates were at arm's length, even though the parent held less than a majority of the affiliates' stock.

the management of General Motors "must" do, in the face of evidence and findings that it didn't, appear to be an effort to establish what is in substance a conclusive presumption. Whether this be called factual or legal, its effect is to create a rule of law irrespective of the facts—contrary to the Government's statement elsewhere (Govt. Br., pp. 91-2) of its own position and to all of the cases which recognize that control is a matter to be determined upon the facts of each case.

Either the record shows that du Pont exercised a controlling influence over General Motors or it doesn't. If it does, resort to the theory of inevitability is unnecessary. If it doesn't, the theory is obviously fallacious so far as this case is concerned. In either event, the theory does not justify a disregard of the findings, amply supported, that on this record General Motors was not subject to du Pont domination.

Even if the Government were right in the factual premises of its argument and were conceded to be omniscient as to what is "inevitable" in human behavior under given circumstances, its argument does not make out a case under the Sherman Act. The argument postulates that the partially owned corporation, General Motors, has free will in the conduct of its business.[115] By this variation of the Government's theory not only conspiracy is dispensed with, but coercion as well. What remains is only a hypothetical predilection for dealing with a substantial stockholder. That is not "restraint," in any sense that the courts yet have construed the word under the Sherman Act.

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[115] Thus, the Government argument continues (Govt. Br., p. 98):

> "Let it be assumed, for example, that Corporation A purchases a sufficient interest in Corporation B so that, everything else being equal, Corporation B will prefer A over its competitors. At the same time, A has not a sufficient interest to impose its will on B in other matters. B is free to act as it desires, but, because of A's stock holdings, gives it preference. That, we submit, is but another type of 'combination' in restraint of trade."

The theory of inevitable psychological preference thus advanced by the Government would have the practical result that no one could conduct business with a corporation in which that person owned a substantial amount of stock, because it would be presumed conclusively that in all such dealings the corporation would favor its stockholder and therefore would illegally restrain the trade of others. More specifically, it would mean that Curtice, the present president of General Motors, could not lawfully permit General Motors to buy anything from du Pont, even though it were the best and cheapest product of its kind which could be found. No case supports any such view, and the fact that even under the Public Utility Holding Company Act Congress only established a rebuttable presumption proves how unsound it is.

The Government, discarding its former claims of conspiracy by voluntary agreement, has rested its case in this Court squarely upon the theory that du Pont controlled the purchasing policies of General Motors, thereby obtaining preferential treatment for du Pont.

The trial court found, upon the entire record, that du Pont did not have such control of General Motors as would enable it to coerce or dominate General Motors' operating management. It found also that in fact du Pont had not been preferred by General Motors in purchasing but had been obliged to compete for all the business which it obtained from the General Motors divisions. An abundance of convincing evidence supports those findings.

The attempts of the Government to pose its disagreement with the trial court's findings of fact as if they arose from some error of law are transparently artificial. Every relevant rule of law in support of which the Government has produced any authority was applied correctly by the trial court in deciding the issues of control.

The trial court's findings of "no control," like those of "no preference," are not clearly erroneous, or erroneous in any degree, and they require affirmance of the trial court's judgment in favor of General Motors.

IV.

THE FACT THAT FOR 35 YEARS NO RESTRAINT OF TRADE HAS OCCURRED INVALIDATES THE GOVERNMENT'S THEORY THAT DU PONT HAD BOTH THE POWER TO EXCLUDE COMPETITION AND AN INTENT TO DO SO.

For conduct to constitute a violation of the Sherman Act, there must be an actual restraint or monopoly, a conspiracy or agreement, or power coupled with an intent to restrain or monopolize. Although the essence of the Government's case in the court below was conspiracy and agreement, it has abandoned those claims here. The trial court's findings, amply supported by the record, establish that there has been no actual restraint or monopolization of General Motors trade. The Government failed to prove that du Pont restricted General Motors' freedom to deal with whom it chose, or that General Motors had accorded du Pont preferential treatment because of "power" or "influence" resulting from its ownership of General Motors stock. The Government's argument to the contrary runs squarely into the trial court's findings. (See Point II, pp. 171-95, *supra.*)

The Government argues, however, that du Pont bought the stock "with the intention of getting a preference in the trade of General Motors" (Govt. Br., p. 113). It cites cases holding unlawful either an actual restraint or the "existence of power to exclude competition when it is desired to do so * * * coupled with the purpose or intent to exercise that power" (*United States* v. *Griffith*, 334 U.S. 100, 107; *American Tobacco Company* v. *United States*, 328 U.S. 781, 809, 811, 814). And it makes repeated references to the Raskob report of December 19, 1917 (GX 124, R. 479, 3208) and a few other early documents—none later than 1926—which it claims show that du Pont acquired its General Motors stock with the intention of getting all of General Motors' business.

But none of the documents relied on by the Government says that the du Pont company, or anyone connected with it, ever intended to exert coercively any power or influence over General Motors in order to obtain preferential treatment from its purchasing departments. That is only what the Government thinks should be inferred from the documents which it cites. It would have that inference drawn from those documents alone, without reference to the testimony that the writers of them had no such intention or to all of the other evidence, including the fact that no such coercive power or influence ever was brought to bear upon General Motors, which puts those documents in a different light.

The trial court, considering *all* of the relevant evidence, found that du Pont did not have the intention for which the Government contends.

Furthermore, even assuming that there was any evidence of such an intention, it would fall short of an intention to restrain trade or to monopolize. In 1917 and the years immediately thereafter General Motors was a relatively small part of the automobile industry and that industry, in turn, was only a small part of the market for the things which du Pont hoped to supply to General Motors (see Statement of Facts, *supra*, pp. 6-7). Consequently, an intention to preempt the General Motors business would not have involved a sufficient share of the relevant market to violate the antitrust laws. (See *infra,* pp. 223-8).

Moreover, quite apart from the evidence which supports the trial court's findings on both control (power to exclude) and intent, we submit that the doctrine set forth in the cases referred to above, that power to exclude competition coupled with an intention to do so is unlawful, cannot be applied reasonably, or consistently with the context in which those cases were decided, when, as here, no exclusion of competition has resulted over a long period of time.

It seems obvious that when monopolization has not occurred in fact during a period of many years, either the power or the intent, or both, must have been absent. If power existed, but was not exercised for such an extended period, the possessor could not have intended to exercise it. If the intent were held to have existed over such a long period of time, but had not resulted in monopolization, it must have been because the possessor lacked the power to implement such intent.

In the *American Tobacco* case it was found that the defendants had adopted and practiced restrictive arrangements both in the purchase of tobacco leaf and in the merchandising of cigarettes which plainly were exclusionary in purpose and effect and could have no other result than that of curtailing existing competition or inhibiting potential competition. Under those circumstances, the exercise of the monopolistic power through trade practices, with the obvious intent of monopolizing, rendered unnecessary any evidence of specific instances of the exclusion of competition.

The same thing is true as to *United States* v. *Paramount Pictures,* 334 U. S. 131, where this Court held that proof of specific instances of exclusion was not necessary to the Government's case. There the defendants had formulated a framework of trade practices and had perfected a network of interdependence which specifically were found to have been exclusionary in intent and in necessary effect.

In the *Griffith* case the defendants had used their circuit buying power to obtain monopoly rights in the form of exclusive privileges which were unavailable to their competitors (334 U.S. at 109):

> "It cannot be doubted that the monopoly power of appellees had some effect on their competitors and on the growth of the Griffith circuit."

It is one thing to hold, as in the cases discussed above, that specific proof of exclusion or elimination of competition may be dispensed with where both the power and intent to monopolize have been established convincingly by other evidence. It would be quite another thing to hold, as would be necessary in order to apply the "power plus intent" rule to this case, that a court may disregard the logical compulsion of the fact that the natural effects of the possession of power to monopolize coupled with intent to monopolize have failed to materialize over a period of more than three decades.

The Government further contends that even if a specific intent has not been shown, the "inevitable result" of du Pont's ownership of General Motors stock is that it would receive trade preference. The same answer applies here. If there was no such trade preference for many years preceding the trial, there is no room for the argument that any such result was "inevitable". The Government relies on such concepts as "inevitability" to conceal its lack of evidence, in disregard of the affirmative evidence that General Motors did not buy on a preferential basis.

V.

THE GOVERNMENT HAS NOT PROVED THAT COMPETITION IN A MARKET HAS BEEN RESTRAINED OR MONOPOLIZED.

There is an additional reason, not reached by the trial court in its findings, why the Government failed to prove any violation of the Sherman Act.

In the Statement of Facts (*supra*, pp. 7-8) we have shown that both at the time of du Pont's acquisition of stock in General Motors and at the time of trial, du Pont's sales to General Motors and to the entire automobile industry constituted a small proportion of the market for the products which it could sell to General Motors. The trade which appellees are alleged to have restrained or monopolized is in the commodities which General Motors buys from du Pont. The Government has chosen to rest its case on the items bought in largest volume, finishes and fabrics. If the market for these products were solely or mainly the General Motors Corporation, or the automobile industry as a whole, General Motors' volume and present share of the automobile industry might constitute a market large enough for the Government to rely on. But the record shows that the market for these products is not so limited.

Both in 1917 and today the varnishes, enamels and lacquers such as are used on automobiles were and are used on many other products; in 1948 du Pont's sales to General Motors constituted less than 4% of all sales of such products. (See p. 8, *supra*.) In 1917, when General Motors' share of the much smaller automobile market was 11%, the percentage was undoubtedly much less.

The record also shows that the kinds of fabrics used for automobile trim (artificial leather) and convertible top material are used in the manufacture of many other products, such as furniture, luggage, brief cases, baby carriages, hassocks, bicycles, sporting goods, footwear, belts and table mats, *inter alia.* General Motors' purchases of $3,700,000 of these fabrics from du Pont constituted only 20% of du Pont's fabric sales and 1.6% of the total market. (See p. 8, *supra.*)

We submit that even the exclusion of competition resulting from complete vertical integration—which is not illegal unless competition in a substantial portion of a market is restrained (*United States* v. *Columbia Steel Co.*, 334 U.S. 495)—does not violate the antitrust laws when so small a percentage of the competitive market is affected. The result must be the same when a 23% stock interest is involved. No case suggests that a preferential buying policy, such as the Government has alleged but not proved, affecting such a small percentage of a market would be illegal.

The Government proved only that du Pont's sales of finishes and fabrics to General Motors were large in volume, and that General Motors was the leading manufacturer of automobiles for the later years covered by the record, its proportion then running from 38% to 45%. The Government did not seek to show that the identical products were not used on a large scale for many other purposes in many other industries, as the record, as well as judicially noticeable statistics, show they were. Nor did the Government prove that the automobile industry in general, or General Motors in particular, comprised a large or substantial share of the total market. But it is the share of the market affected, not merely the amount sold to a single customer, which is significant antitrustwise.

Fargo Glass & Paint Co. v. *Globe American Corp.*, 201 F. 2d 534 (C.A. 7), certiorari denied, 345 U.S. 942, holds that the effect upon the market for the product, not upon transactions of the acquired company, is controlling. There the Maytag Company had bought 40% of the stock of the

Globe Corporation, a manufacturer of gas ovens, in order to obtain all of Globe's output, amounting to about $5,000,000 a year, for distribution by Maytag. This caused Globe to cancel a number of agreements with local distributors and dealers including the plaintiff. Unquestionably the acquisition restricted the market for Globe's output. But the evidence showed that there were about 70 manufacturers of gas ranges, that Globe was about eighteenth in size, selling a little less than 2% of the total, and that accordingly the plaintiff had other sources of supply readily available. The court accordingly held (p. 540) that neither the Sherman Act nor Section 7 of the Clayton Act had been violated, inasmuch as there was no evidence that "Maytag intended to monopolize the trade of selling gas ovens," even though it was obviously monopolizing the entire market for Globe's gas ovens.

The Government might have been warranted in relying on General Motors' share of the automobile industry as being a substantial enough part ~~of~~ the market if the automobile industry had been the sole market, as it would be for such a product as tires (as to which the Government has abandoned its case), salable in no substantial market other than the manufacture of automobiles. But to take an example which differs only slightly from the actual case, General Motors doubtless buys a large quantity of pencils and paper clips, though certainly only a very small percentage of the total market for those products. For General Motors to enter into a requirements contract for its pencils or clips would not affect a substantial enough portion of a market to be unlawful.

Here the effect upon competition in the paint and fabrics markets of the conspiracy originally alleged, whereby General Motors was to buy all possible supplies from du Pont, would have been the same as if du Pont had acquired 100%

interest in a company consuming 1.6% of the kinds of fabrics it manufactured, and perhaps 4% of the kinds of finishes. (The effect of the preferential buying policy to which the Government has now reduced its charge, and which the court below found not to exist. would obviously be much less.) Neither the effect nor its illegality can be different because the company is a very large consumer or manufacturer of other products.

The Government doubtless will stress the great size of General Motors. But this case does not involve any transactions of great magnitude in proportion to the pertinent market.

We recognize, of course, that this Court has stated that in some circumstances "It is unreasonable *per se* to foreclose competitors from any substantial market" (*International Salt Co.* v. *United States*, 332 U.S. 392, 396; ***Fashion Originators Guild*** v. ***Federal Trade Commission***, 114 F. 2d 80 (C.A. 2), aff'd. 312 U.S. 457), and that it is enough if some "appreciable part of interstate commerce is the subject of a monopoly, a restraint or a conspiracy" (***United States*** v. ***Yellow Cab Co.***, 332 U.S. 218, 225). If this generalization were taken literally all large-scale purchase contracts, and all vertical integration—the natural result of which is that "a subsidiary will in all probability deal only with its parent for goods the parent can furnish" (*United States* v. *Columbia Steel Co.*, 334 U.S. 495, 523)—would become illegal *per se*. The ***Report of the Attorney General's National Committee To Study the Antitrust Laws*** states (p. 48):

> "Under Sections 1 or 2, *Columbia Steel* makes clear that this concept of the market cannot be invoked whenever competition is excluded for a substantial volume of business, as in ordinary cases of vertical integration. Their legality does not turn on the intentional monopolization of the business of the company

> integrated. This would make all vertical integration illegal under Section 2. Instead, the legality of integration rests on the extent to which analysis reveals that market competition is restrained."

The *Yellow Cab* case was concerned with allegations that a cab manufacturer required affiliated taxicab companies in four cities to buy exclusively from it. In those cities the affiliates operated various percentages up to 100% of the taxicabs, so that the alleged exclusive dealing requirement established local monopolistic situations. In *United States* v. *Columbia Steel Co.*, 334 U.S. 495, 521, the Court noted that there was charged in the *Yellow Cab* case "a plan, an intent, to monopolize the cab business, from manufacture through operation in the four large cities". The *Columbia* case construes the *Yellow Cab* decision as not supporting the theory that all exclusive dealing arrangements or vertical integrations are illegal *per se* whenever they involve substantial amounts, but not a substantial portion of the market (334 U.S. at 523, 525).

Restraint of a substantial quantity by itself may be unlawful when it "falls within the class of restraints that are illegal *per se*" (334 U.S. at 522), as in the *International Salt* and *Fashion Guild* cases, or within a category of restraint explicitly singled out by Congress as obnoxious, as in Section 3 of the Clayton Act (*Standard Oil Co.* v. *United States*, 337 U.S. 293, 311-314). The *Standard Oil* case noted specifically that "We are dealing here with a particular form of agreement specified by §3 and not with different arrangements by way of integration or otherwise, that may tend to lessen competition" (337 U.S. at 311).

These cases together, and the *Yellow Cab* case on its facts and as construed in *Columbia Steel*, do not hold that even a vertical integration, which necessarily will eliminate competition for the products of the affiliated company, is illegal whenever the transactions between the affiliated companies are substantial in volume. There must be a restraining effect upon competition in the market, national or local, as the case may be, of which the intra-company transactions are a part.

This principle is plainly applicable here, where the most that is now alleged is that a 23% stockholder received a preference. Such restraint even if proved would not be unlawful *per se.* The burden was on the Government to prove that a sufficient portion of a market was affected, not merely that the sales to General Motors were large. It made no effort to meet this burden—and what evidence there is in the record on the subject shows that the contrary is true. The Government's case is therefore defective for this reason, as well as for those mentioned by the trial court.

VI.

THE GOVERNMENT IS NOT ENTITLED TO RELIEF UNDER SECTION 7 OF THE CLAYTON ACT.

Section 7 of the Clayton Act, before the 1950 amendment which is admittedly inapplicable here, provides that:

> "No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce."

The purpose of this provision was to reach in their incipiency acquisitions which were likely to restrain or monopolize commerce—not to require the divestiture of stock over 30 years after an acquisition, when no restraint or monopolization has been shown.

We do not contend that the Government is barred merely because it does not proceed under the Clayton Act until many years after the acquisition.[116] But when the Government brings a proceeding 30 years after a purchase of stock, it must pass two barriers, which would coalesce into one in a suit brought near the time of the acquisition. It must show:

(1) *That the acquisition was unlawful when it was made.* Section 7 only makes acquisitions unlawful in certain circumstances, not the retention of stock lawfully acquired. It has never been thought to apply retrospectively so as to invalidate acquisitions lawful when made. We do not deny, however—indeed, we insist—that it is proper to take into account evidence as to what happened after the acquisition occurred in order to determine whether at the time of the acquisition there was a reasonable probability of a lessening of competition or a monopoly.

(2) *That the acquisition will be harmful to, or likely to harm, competition at the time suit is brought.* For when the Government's action is instituted 30 years later, and there has been no injury to competition and no present probability that there will be, equity will not act even though a court, years ago, might

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[116] "The lapse of time, indeed, may not condone the offense if offense there was. It, however, may call offense in question and be an element in the refutation of accusations long deferred, or determine against particular remedies." *United States* v. *United Shoe Machinery Co.*, 247 U.S. 32, 45, 46.

have found a reasonable probability of a restraint which never occurred in fact.[117]

Here the trial court found "no basis for a finding" that there (1) "has been" or (2) "is" "any reasonable probability of such a restraint within the meaning of the Clayton Act" (R. 466). We submit that both of those findings are clearly correct, on the basis of the record as a whole. In view of the 30-year gap between acquisition and suit, unless this Court can say that *both* are clearly erroneous, the decision of the trial court as to the Clayton Act must be sustained.

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[117] Section 7 has previously generally been regarded as not applicable to vertical combinations at all. The Federal Trade Commission, which has administrative authority under Section 7, stated as recently as 1955 that:

> "*While the 1914 act applied solely to horizontal mergers*, the 1950 act applies not only to horizontal acquisitions but to vertical and conglomerate acquisitions which might substantially lessen competition or tend to create a monopoly." Federal Trade Commission, *Report on Corporate Mergers and Acquisitions* (1955), p. 168 (Italics supplied)

The Federal Trade Commission on a number of occasions has described the section as prohibiting "acquisition of stocks in competing corporations". Report of the Federal Trade Commission on Interlocking Directorates, H.R. Doc. No. 652, 81st Cong., 2d Sess. 1 (1951); Federal Trade Commission, Annual Report, 1937, p. 15; Statement by Chief Counsel Kelley in Hearings on H.R. 2734 and Other Bills before Subcommittee No. 3 of the House Judiciary Committee, 81st Cong., 1st Sess. 37 (1949).

A 1947 Report of the House Judiciary Committee in connection with an earlier effort to amend Section 7 described the scope of the section as prohibiting "the acquisition of stock of competitors." H. Rep. No. 596, 80th Cong., 1st Sess. 4 (1947). Indeed, the Government's brief recognizes that the House Committee Report on the 1950 Amendment to Section 7 states that "It has been thought by some that this legislation applies only to the so-called horizontal mergers." H. Rep. 1191, 81st Cong., 1st Sess. p. 11 (1949).

So far as we have been able to discover, neither the Federal Trade Commission nor the Department of Justice, apart from this case, has ever sought to apply Section 7 (prior to the 1950 amendment) to a vertical integration. This interpretation of a statute as inapplicable to circumstances which must have frequently recurred during the period between 1914 and 1950 is entitled to great weight. *Federal Trade Commission* v. *Bunte Brothers, Inc.*, 312 U.S. 349.

A. There Was No Violation of the Clayton Act When the Stock Was Acquired.

Du Pont bought $25,000,000 worth of General Motors stock in December 1917, and another $25,000,000 (which, in view of an enlargement of General Motors' capital, still left it with about 23%) in 1919.[118] We submit that these acquisitions were not unlawful at that time (1) because there was no reason in those years for believing that the supplies needed by General Motors would constitute a sufficiently large proportion of a market for competition to be probably impaired, even if General Motors' purchases of some of its supplies were restricted to one company; and (2) because subsequent facts, which can be considered in deciding whether there was a reasonable probability at that time, show that there was no such probability.

1. In 1917-1920, when du Pont acquired its General Motors stock, there was no reasonable probability that this would lessen competition or tend to create a monopoly in the market for the products du Pont was selling to General Motors.

The question is not whether there was a reasonable probability that du Pont might secure substantially all of General Motors' business in finishes, artificial fabrics and celluloid. At that time, as we have pointed out, General Motors was only a small proportion of the market for those products—not only because it was a small part of the automobile industry, but because the market for those products was not restricted to that industry. The Government made no effort to show General Motors' proportion of the total market, although the burden was on it to do so. The record and official sources show that General Motors' share of the automobile industry in this period ran from 11-19%. The General Motors divisions together in 1917 sold only about one-quarter of the cars sold by Ford. Federal Trade Commission, *Report on Motor Vehicle Industry,* 1939, p. 27. Probably General Motors consumed no more than about $1,000,000 amounting to 1.4% of the market for varnishes, lacquers and japans. Du Pont sold $153,000 worth of celluloid, a little over 2% of its production, to Buick and Chevrolet. See pp. 6-7, *supra.* No precise figures are available for the kinds of fabrics here involved, but the record does show the use of those fabrics for many purposes outside of the automobile industry. See pp. 6-7, *supra.*

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[118] Late in 1920 it also acquired the stock purchased from Durant, but this was disposed of long before suit was brought. See pp. 11-12, 13-14, *supra*.

Thus, when the du Pont Company acquired its General Motors stock, General Motors as a customer was neither a "substantial market", nor a "substantial share of the line of commerce affected". (Cf. *International Salt Co.* v. *United States,* 332 U.S. 392, 396; *Standard Oil Co.* v. *United States,* 337 U.S. 293, 314). Even if a supplier had been able to preempt all of the General Motors' market for finishes, artificial fabrics and celluloid at that time, there would not have been a substantial diminution in competition in the market for those products. Certainly not enough of the market would have been affected to control price or to keep competitors from having a large number of other outlets.

The *Report of the Attorney General's National Committee To Study the Antitrust Laws,* agreeing with the decision of the Federal Trade Commission in the matter of *Pillsbury Mills,* F.T.C. Dkt. 6000 (1953), states (p. 122):

> "* * * that the effect of a merger must be tested with reference to carefully defined markets in regions where the merging companies do business. For Section 7 cannot be satisfied by a mere showing that the merging companies do a large dollar volume of business. * * *

* * *

"The inquiry under Section 7 typically occurs in two settings: cases of vertical integration, involving noncompeting firms in related markets, or horizontal mergers, involving combinations of competitors. The legality of a vertical acquisition may turn on whether the integration significantly restricts access to needed supplies or significantly limits the market for any product. In short, is there a reasonable probability that the merger will foreclose competition from a substantial share of the market. Sometimes, the market share foreclosed may be so large as to support the necessary inference of substantially lessening of competitive opportunity. In others, different market factors may be equally significant in determining whether Section 7 has been transgressed. In no merger case—horizontal, vertical or conglomerate—can a 'quantitative substantiality' rule substitute for the market tests Section 7 prescribes.

* * *

(p. 125) "Similarly, in a vertical acquisition, the fact that competitors of one company are foreclosed from selling to the other need of itself signal no reasonable probability of a substantial lessening of competition or tendency to monopoly. On the contrary, the integration may create a company better able to compete with larger rivals. In addition, it may mean economies which in a competitive market may spell consumer savings. The question therefore is not merely whether competitors of either of the merging companies are denied access to outlets or sources of supply but whether companies competing, buying, or selling in the markets in which either company operated may, as a result of the acquisition, face a substantial lessening in their opportunity to take independent competitive action."

The Government cites the *International Salt* and *Standard Oil* cases as authority for the proposition that whenever a large amount of commerce is affected, the Clayton Act is violated. These cases arose under Section 3 and not

Section 7. They cannot reasonably be thought to require construing the latter section as forbidding all stock acquisitions affecting a quantitatively large amount of commerce, irrespective of the actual effect on the competitive markets. (Cf. *United States* v. *Columbia Steel Co.*, 334 U.S. 495.) If that were not so, such mergers as have recently occurred in the automobile industry, between Studebaker and Packard and Nash and Hudson, which involved quantitatively much larger units than either the *Standard Oil* or the *International Salt* cases, would have been unlawful.

If Congress had meant to outlaw all substantial acquisitions, the statute would have said so. The language of Section 7 does not forbid all acquisitions, or all large acquisitions. Even as to the horizontal acquisitions which are most likely to impair competition, the section applies only

> "where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition."

Section 7 has never been construed as prohibiting all large-scale acquisitions, where no such effect on commerce is to be anticipated; the courts have always paid attention to the statutory language. *International Shoe Co.* v. *Federal Trade Commission*, 280 U.S. 291, 298; *Vivaudou* v. *Federal Trade Commission*, 54 F. 2d 273 (C.A. 2); *United States* v. *Republic Steel Corp.*, 11 F. Supp. 117 (N.D. Ohio); see also *In the matter of Pillsbury Mills*, F.T.C. Dkt. 6000, December 28, 1953.[119]

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[119] The House Report on the 1950 Amendment to Section 7 (H.R. 1191, 81st Cong., 1st Sess., 1949) states (p. 7):

"The language in the amendment it will be noted follows closely the purpose of the Clayton Act as defined by the Supreme Court in the *International Shoe* case."

The same assertion was made in debate on the Senate floor by Senator O'Connor, the Senate floor manager. (96 Cong. Rec. 16435 (1950).)

The application of the *Standard Oil* and *International Salt* cases to Section 7 was recently considered by Judge Maris, speaking for the Court of Appeals for the Third Circuit, in *Transamerica Corporation* v. *Board of Governors*, 206 F. 2d 163, certiorari denied, 346 U.S. 901, where he pointed out (p. 170):

> "The situation with respect to corporate stock acquisitions, the subject matter of section 7, is wholly different, however. For the acquisition of the stock of two or more corporations engaged in interstate commerce is not per se a violation of the section. On the contrary such acquisition is a violation only if its effect may be in fact to substantially lessen competition between such corporations, to restrain commerce or to tend to create a monopoly. Otherwise the acquisition is entirely lawful, so far as Section 7 is concerned. It necessarily follows that under Section 7, contrary to the rule under Section 3, the lessening of competition and the tendency to monopoly must appear from the circumstances of the particular case and be found as facts before the sanctions of the statute may be invoked. Evidence of mere size and participation in a substantial share of the line of business involved, the 'quantitative substantiality' theory relied on by the Board, is not enough."

To the same effect see *United States* v. *Brown Shoe Company*, January 13, 1956, E.D. Mo., C.C.H. Trade Reg. Rep., par. 68, 244, pp. 71, 114.

Since the Government introduced no evidence in this case as to the relationship between du Pont's possible sales to General Motors at the time of the acquisition of General Motors stock and the markets for the products involved, its case under the Clayton Act is defective for failure to prove that competition was likely to be affected.

2. When a Section 7 proceeding is commenced close to the time an acquisition takes place, the finder of the facts

will necessarily have to speculate as to whether an acquisition will probably have the effect of substantially lessening or restraining competition. But when the Government does not proceed until years later, "when the picture [becomes] clear" (Govt. Br., p. 148), such speculation is unnecessary. It is then appropriate to look to facts subsequent to the acquisition in determining whether there was any reasonable probability that competition might be impaired. If there has been no restraint for 30 years after the acquisition, it would hardly be reasonable to find that there was a substantial probability of restraint. Subsequent events are helpful in appraising the events of any particular period, particularly when what is to be determined is the probable effect of the events of that period in the future.

> "Experience is * * * available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within." (*Sinclair Refining Co.* v. *Jenkins Co.*, 289 U.S. 689.)

It was because of the absence of any restraint for over thirty years that the trial court was of the opinion that there was no basis for a finding that there "has been any reasonable probability of such restraint within the meaning of the Clayton Act" (R. 466). Such a reasonable finding is not clearly erroneous.

B. There Was No Violation of the Clayton Act, Or Reason for Granting Relief Thereunder, at the Time Suit Was Brought.

Even if it be assumed that there was in 1917-19 a reasonable probability that du Pont would secure all of General Motors' business, and that this was a sufficient portion of a market to subject the acquisition to Section 7, the Government is not entitled to prevail now.

The record establishes, and the trial court found, that for many years before this case was instituted, General Motors has bought its supplies on a competitive basis without according du Pont a preference,[120] and that there has not been, and was not at the time of the trial, any impairment of competition or tendency toward monopoly. When there has been such a long intervening period between the acquisition and suit, in which no restraint occurred, it would be absurd to hold that the Government was entitled to relief now because of what might be deemed a probability, unrealized, of injury to competition thirty years before.

Courts of equity will not act unless there is danger of violation in the future; that rule should be decisive here. This principle applies in antitrust equity cases as in others. *United States* v. *Oregon Medical Society,* 343 U.S. 326, 333; *United States* v. *W. T. Grant Co.,* 345 U.S. 629; *United States* v. *South Buffalo Ry. Co.,* 333 U.S. 771, 774. Apart from this general principle, however, consideration of the purpose of Section 7 leads to the same conclusion.

Congress was seeking in Section 7 to bar acquisitions of stock which would deleteriously affect competition. The object was not to wait until a restraint of trade or monopolization had occurred, but to grant relief as a preventive measure to protect the public against competitive effects which might be regarded as reasonably likely in the future.

Proof that for thirty years after an acquisition competition has not in fact been harmed demonstrates as plainly as anything can that that particular acquisition did not contravene the policy of Section 7. It demonstrates instead that if anyone had guessed, no matter how reasonably, at the time of the acquisition that competition would probably have been lessened, he would have been wrong. Although

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[120] The Government has abandoned its charge that there was any agreement or understanding that du Pont be favored. See p. 152, *supra.*

Section 7 permits the fact finder to act upon the basis of reasonable conjecture when necessary, as it is when the Government seeks to protect competition against probable future impairment, the section was not intended to perpetuate error when sufficient time has elapsed to permit the test of experience to be substituted for conjecture.

We submit, therefore, that when suit is brought many years after the acquisition, the fact that competition has not been restrained is sufficient to defeat the Government's case.

The same result is reached if the test of "reasonable probability" is applied at the later date—although, as we have said, actual effect should supplant conjecture when the facts permit. But the absence of any actual restraint for many years preceding the suit in itself demonstrates that restraint in the future is not likely. Clearly this is so when, as here, the only change in substance in recent years has been in the direction of *diminishing* du Pont participation in General Motors' affairs. Certainly a finder of fact can reasonably conclude that, when there has been no restraint which lessened competition for many years, there is no reasonable probability of any such effect in the future.[121]

Here the trial court did so find. After stating that the challenged acquisition took place "over 30 years ago" and that no restraint had resulted "in those many intervening years", the court found that:

---

[121] Since, so far as we can discover, there are no cases in which Section 7 has ever been invoked many years after the acquisition of stock took place, there are no judicial decisions under that section which deal with this problem. But this Court has recently held under Section 8, which forbids interlocking directorates among corporations which are in competition, that a trial judge may deny relief when the violation ceased after the complaint was filed, on the ground that recurrence was unlikely. *United States* v. *W. T. Grant Co.*, 345 U.S. 629. The same must be true under Section 7, if there is no probability of violation at the time of the action—and even more clearly where the feared effect on competition has not occurred for many years before.

> "there is not * * * any basis for a finding that there *is* * * * any reasonable probability of such a restraint within the meaning of the Clayton Act." (R. 466) (Italics supplied.)

Such a finding was obviously not clearly erroneous.

CONCLUSION.

For the reasons set forth above, the judgment below should be affirmed.

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No. 3

IN THE

Supreme Court of the United States

OCTOBER TERM, 1956

UNITED STATES OF AMERICA, *Appellant,*

v.

E. I. DU PONT DE NEMOURS AND COMPANY, *et al.*

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

BRIEF FOR APPELLEE
E. I. DU PONT DE NEMOURS AND COMPANY

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1956

No. 3

UNITED STATES OF AMERICA, *Appellant*,
v.
E. I. DU PONT DE NEMOURS AND COMPANY, *et al.*

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

BRIEF FOR APPELLEE
E. I. DU PONT DE NEMOURS AND COMPANY

OPINION BELOW

The opinion of the District Court dismissing the complaint (R. 289-466), is reported at 126 F. Supp. 235.

JURISDICTION

This action was brought under Section 4 of the Act of July 2, 1890 (26 Stat. 209), as amended (U. S. C., Title 15, Sec. 4), and Section 15 of the Act of October 15, 1914 (38 Stat. 730), as amended (U. S. C., Title 15, Sec. 25). The judgment of the District Court (R. 466-467) was entered on December 9, 1954, and notice of appeal was filed on February 4, 1955 (R. 467-474). Probable jurisdiction was noted on October 10, 1955 (R. 474). Jurisdiction of this Court to review the judgment below on direct appeal is invoked under Section 2 of the Act of February 11, 1903 (32 Stat. 823) as amended (U. S. C., Title 15, Sec. 29).

STATUTES INVOLVED

The pertinent provisions of Sections 1 and 2 of the Sherman Act (Act of July 2, 1890, 26 Stat. 209, U. S. C., Title 15, Sec. 1, 2) are as follows:

> "Sec. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal: * * *. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a misdemeanor, * * *.
>
> "Sec. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, * * *."

The pertinent provisions of Section 7 of the Clayton Act as it read at the date of the filing of the complaint (Act of October 15, 1914, 38 Stat. 730, U. S. C., (1946 ed.), Title 15, Sec. 18) are as follows:

> "Sec. 7. No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the

acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

* * * * * * * * *

"This section shall not apply to corporations purchasing such stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about the substantial lessening of competition."

QUESTIONS PRESENTED

The District Court, after a full trial, found that du Pont does not enjoy a non-competitive, preferential position in General Motors' trade; it found that such purchases as General Motors has made from du Pont have been made on a competitive basis and were not dominated, dictated, controlled or influenced by du Pont's stock interest in General Motors; and it found that the arrangements made by General Motors with du Pont for the production of tetraethyl lead and the refrigerant "Freon" were made by General Motors in the free exercise of its own business judgment and were not dominated, dictated, controlled or influenced by du Pont's stock ownership.

The questions presented on this appeal are whether these findings of fact are supported by the evidence and whether there has been any violation of Sections 1 or 2 of the Sherman Act or Section 7 of the Clayton Act.

STATEMENT

The Proceedings in the District Court

This suit was brought in June 1949 by the United States in the United States District Court for the Northern District of Illinois under Section 4 of the Sherman Act and Section 15 of the Clayton Act. The Amended Complaint upon which trial was had below[1] charged that beginning in 1915 three individuals—Pierre, Irenee and Lammot du Pont—combined and conspired to cause three manufacturing corporations—du Pont, General Motors and U. S. Rubber—to become parties to an agreement, the essential terms of which required each of these corporations to purchase from the other two "substantially all" of its requirements of products which the other two produced or might produce, and which required each to refrain from encroaching upon the product areas of the others (Amended Complaint, Par. 30(b), (c), R. 220-222). The Amended Complaint further charged that pursuant to the alleged conspiracy du Pont acquired in 1917, and continues to hold, sufficient of the common stock of General Motors to control it (*id.*, Par. 30(a)(3), R. 220). A number of other defendants, including Christiana Securities Company and Delaware Realty and Investment Company, numerous members of the du Pont family, and the Wilmington Trust Company, were named as instrumentalities through which the three individuals dominated the manufacturing defendants and secured their adherence to the aforesaid agreement (*id.*, Par. 30(a), R. 220). This alleged conspiracy was asserted to violate Sections 1 and 2 of the Sherman Act, and du Pont's acquisition of stock of General Motors was asserted to violate Section 7 of the Clayton Act (*id.*, Par. 29, R. 219-220).

Trial of these issues before Judge Walter J. LaBuy began on November 18, 1952, and continued for approximately seven months. The court heard 52 witnesses and received 1087 Government and 1058 defendants' exhibits. The transcript of record below ran to 8283 pages. The evidence covered in minute and intimate detail the facts bearing on the relationships among the defendant manufacturing corporations, and the relationship between each of them and the numerous other defendants. At the close of the evidence, full briefs and proposed findings were filed by all parties and the case was fully argued.

---

[1] The complaint as originally filed in June 1949 was amended several times both before and during the trial. The nature of the several amendments and their dates are noted in the record at R. 189 as a preface to the Amended Complaint (R. 191-262).

The Decision of the District Court and the Scope of This Appeal

On December 3, 1954, the District Court handed down an opinion and decision dismissing the complaint in its entirety. Judgment was entered on the decision on December 9, 1954. Notice of appeal was filed on February 4, 1955, and the Court noted probable jurisdiction on October 10, 1955.

On the appeal the Government has abandoned the charges against U. S. Rubber, the Wilmington Trust Company, all of the individual defendants, and the members of the du Pont family. The only defendants below which remain as appellees here are E. I. du Pont de Nemours and Company (du Pont), General Motors Corporation (General Motors), Christiana Securities Company, and Delaware Realty and Investment Company. The latter two companies appear to have been named as appellees only in connection with the Government's prayers for relief (Gov't Br., p. 149, n. 51). The only issues remaining in the case are those raised by the Government's charge that du Pont, by reason of its ownership of stock in General Motors, enjoys a non-competitive, preferential position in General Motors' trade.

The Findings of Fact Made by the District Court

The trial court's opinion, which covers 177 pages of the printed record, contains its findings of fact and conclusions of law. The findings of fact are voluminous, detailed and particular. They cover all aspects of the Government's contention that trade has been restrained because of du Pont's stock interest in General Motors. They deal with the Government's argument that General Motors' purchasing freedom has been restricted and that it has bought from du Pont on a non-competitive basis, and with the charge that General Motors was coerced or influenced by the stock interest to surrender to du Pont two chemical discoveries, tetraethyl lead and "Freon" refrigerants.

The District Court made the following finding with respect to the substance of the Government's charge (R. 465):

> "The essence of the conspiracy and restraint which the Government finally charged and sought to prove in this case is the alleged limitation upon General Motors' ability to deal as it pleased with competitors of du Pont and United States Rubber. In various ways and subject to various limitations, the Government has alleged that General Motors either itself agreed to such a limitation, or was forced to it by du Pont. But the evidence of record fails to support the Government's charges. In preceding portions of this opinion there has been shown, by detailed analysis of the evidence, the extent to which General Motors enjoyed complete freedom of action with respect to specific products manufactured by du Pont and United States Rubber, and with respect to its discoveries and developments of new products. When read as a whole the record supports a finding, and the Court so finds, that there has not been, nor is there at present, a conspiracy to restrain or to monopolize trade and no limitation or restraint upon General Motors' freedom to deal freely and fully with competitors of du Pont and United States Rubber, no limitation or restraint upon the freedom of General Motors to deal with its chemical discoveries, no restraint or monopolization of the General Motors market, and no restaint or monopolization of the trade and commerce between du Pont and United States Rubber."

This finding, as the District Court stated, rests upon a "detailed analysis of the evidence" and upon more specific and detailed findings with respect to all of the charges made by the Government in support of its case.

Findings on General Motors' Purchases from du Pont and its Competitors (R. 342-405, 435-447)

The trial court dealt in detail with the great variety of evidence adduced at the trial bearing upon General Motors' purchases from du Pont and from competitors of du Pont.

Fourteen pages of the findings (R. 382-396) discuss the evidence relating to finishes (paint), particularly "Duco", a nitrocellulose lacquer which accounts for a substantial portion of du Pont's paint sales to General Motors (R. 395). The court found that "Duco" was invented and patented by du Pont, that it made a substantial contribution to the art of automobile finishing and was one of the factors that made possible mass production of automobiles (R. 395). It further found that "Duco" answered a long-felt demand in the automobile industry, that "soon after the advent of Duco du Pont sold this finish to a considerable number of other automobile companies" (R. 389), and that it made its way solely on its merits. The court rejected as "wholly without foundation any contention that Duco was forced upon General Motors by reason of du Pont influence or domination" (R. 396). It found that du Pont's success in selling General Motors a substantial portion of its requirements of lacquer is to be attributed to the superior quality of "Duco", to du Pont's pre-eminence as the developer of "Duco", and to du Pont's continuing research and outstanding service (R. 395), and that (R. 396):

> "* * * du Pont's position was at all times a matter of sales effort and keeping General Motors satisfied. There is no evidence that General Motors or any Division of General Motors was ever prevented by

> du Pont from using a finish manufactured by one of du Pont's competitors; nor is there any evidence that General Motors has suffered competitively from its substantial use of Duco."

There are also detailed findings (R. 389-392) on the purchase by several General Motors non-automotive divisions, notably Frigidaire, of other du Pont finish products, particularly "Dulux", a synthetic enamel developed by du Pont and widely used by many manufacturers on refrigerators and similar home equipment. Finally the court found (R. 396):

> "In view of all the evidence of record, the only reasonable conclusion is that du Pont has continued to sell Duco in substantial quantities to General Motors only because General Motors believes such purchases best fit its needs.
>
> "The evidence with respect to Dulux presents a similar picture. * * * There is no evidence that General Motors purchased from du Pont for any reason other than those that prompted its competitors to buy Dulux from du Pont—excellence of product, fair price and continuing quality of service."

The court dealt in similar detail (R. 396-405) with the evidence relating to du Pont's sales to General Motors of fabrics—now principally top material used on convertibles and various treated fabrics used for interior trim on automobiles. After setting out the successes and failures of du Pont, since 1917 and even earlier, in selling these and other fabrics to the several divisions of General Motors, the court found (R. 405):

> "The Court further finds that such purchases of fabrics as the General Motors' divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment and are not the result of du Pont domination. Du Pont,

> the record shows, has maintained its position as the principal fabric supplier to General Motors through its early leadership in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery."

The court also made findings (R. 435-437) on the purchases of antifreeze by the automobile divisions of General Motors (R. 437):

> "* * * The Court finds this proof convincing that General Motors was not limited by agreement or by du Pont domination in its purchases of antifreeze and bought from du Pont only because it believed du Pont best served its needs."

The trial court made findings as to a number of other products upon which evidence was tendered by the defendants—products which General Motors uses in substantial volume, but as to which du Pont had been largely unsuccessful in its efforts over the years to sell to General Motors. There are findings with respect to General Motors' purchases of electroplating chemicals (R. 437-439), case hardening chemicals (R. 439-442), rubber chemicals and synthetic rubber (R. 442-444), plastics (R. 444-445), brake fluid (R. 445), and safety glass (R. 446). The trial court found (R. 447):

> "All of the evidence bearing upon du Pont's efforts to sell these various miscellaneous products to General Motors supports a finding that the latter bought or refused to buy solely in accordance with the dictates of its own purchasing judgment There is no evidence that General Motors was constrained to favor, or buy, a product solely because it was offered by du Pont. On the other hand, the record discloses numerous instances in which General Motors rejected du Pont's products in favor of those of one of its competitors. The variety of situ-

> ations and circumstances in which such rejections occurred satisfies the Court that there was no limitation whatsoever upon General Motors' freedom to buy or to refuse to buy from du Pont as it pleased."

Findings on du Pont Sales to Fisher Body (R. 372-382)

The trial court also considered the evidence which is set forth at pages 64-68 and 141-142 of the Government's brief in this Court, bearing on the Government's contention that du Pont was required to sell to Fisher Body on a competitive basis as long as that company was independent of General Motors but was able to gain a noncompetitive advantage after Fisher Body was absorbed by General Motors. The court after a detailed review of the evidence (R. 372-381) found that the facts did not support the Government's contention. On the contrary, the court found that (R. 381-382):

> "* * *, the extent to which Fisher Body has purchased over the years from competitors of du Pont in substantial quantities cannot be squared with the charge that Fisher is a captive market for du Pont. The record is clear, for example, that Fisher immediately encouraged competitors of du Pont to produce a lacquer comparable to Duco, and has consistently over the years bought substantial amounts of topcoats from two or three of du Pont's competitors, and practically all of its undercoats are purchased from a single competitor of du Pont.

On the basis of all the evidence the court found (R. 381) that Fisher Body:

> "at all times conducted its purchasing with respect to finishes, fabrics and all other products in accordance with its own best judgment. The Court finds the testimony of Lawrence Fisher particularly persuasive in this respect. His competence and

> knowledge of this matter cannot be questioned. He was in active charge of the Fisher Company for many years and subsequently served in high executive capacities with General Motors. It is highly unlikely, if not impossible, that Fisher Body's purchasing practices could have been influenced by an agreement with du Pont or by the latter's position in General Motors without his knowledge. His forthright testimony and general demeanor on both direct and cross-examination are most convincing that Fisher Body was neither party to an agreement with du Pont nor the victim of du Pont domination."

Findings on Tetraethyl Lead and "Freon" Refrigerants
(R. 405-432, 434-435)

The trial court considered at length the charges that the Government made in the court below with respect to tetraethyl lead and the refrigerant "Freon". There the Government argued that the evidence with respect to these commodities established that there was an agreement between du Pont and General Motors whereby the latter was obligated to surrender its chemical discoveries to du Pont. In this Court the Government has abandoned that charge, but it continues to urge that the evidence with respect to these commodities demonstrates that du Pont's stock interest in General Motors enabled du Pont to restrain trade by controlling or influencing the use which General Motors made of these two chemical discoveries. The findings of the District Court plainly cover the Government's present contention as well as the contention that it made below. The trial court, after a detailed review of the evidence (R. 405-426, 426-432, 434-435) found in substance that the arrangements that General Motors made with du Pont with respect to tetraethyl lead and "Freon" were made by General Motors in the free exercise of its own judgment and were not controlled or influenced by du Pont's stock interest.

Specifically the trial court found as to tetraethyl lead (R. 426):

> "* * * The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment. Kettering appears to have been largely responsible for this decision, and neither the alleged pre-existing agreement nor du Pont's stockholdings in General Motors was the basis of the decision. It is clear that General Motors' lack of experience in chemical manufacture and du Pont's superior competence and wide experience were the reasons for the decision.
>
> "Similarly, du Pont retained its position as the manufacturer of TEL by reason of the continued high quality of its performance. The Court finds that General Motors and Ethyl Corporation were at all times free to turn elsewhere and were not coerced in any way to continue purchasing from du Pont."

In connection with this finding the court considered the efforts of Ethyl Corporation (a company jointly organized and owned by General Motors and Standard Oil Company of New Jersey) to interest American Research Laboratories and Dow Chemical Company in the manufacture of tetraethyl lead. The court found (R. 422) that American Research Laboratories, after noting the difficulties, realized that " 'it would be rather foolish for them to venture into anything of this kind.' " and themselves "suggested cancellation of the contract", and that "Dow continued as a prospective manufacturer until late in 1926 when it informed Webb it was unwilling to undertake the manufacture of TEL by any process because of the hazard factor."

In considering the evidence relating to "Freon" the trial court set forth in its findings contemporaneous documents which show that General Motors invited the du Pont Company to join with it in the organization of Kinetic Chemicals, Inc. to manufacture "Freon" because of General Motors' confidence in the superior skill and competence of the du Pont Company in the manufacture of chemicals (R. 428, 429). On the basis of this and other evidence, including oral testimony, the court specifically found that (R. 434):

> "The evidence relating to the formation and operation of Kinetic Chemicals * * * does not establish that General Motors had agreed to surrender or was bound to surrender to du Pont its chemical discoveries; * * *"

and that (R. 435) General Motors made its decision with respect to Kinetic:

> "because those responsible in General Motors believed that Freon could best be manufactured by du Pont rather than by General Motors itself or by some other chemical company."

The court further found (R. 428) that General Motors' decision was vindicated by the fact that although General Motors' original process was "so expensive as to be commercially prohibitive", du Pont promptly "succeeded in developing a feasible commercial manufacture which reduced the costs" and in addition invented and patented for Kinetic a process which enabled Kinetic to make for itself an essential raw material—anhydrous hydrofluoric acid—which was not otherwise available in sufficient quantities.

Findings on du Pont's Alleged Intent to Restrict General Motors' Freedom to Purchase on a Competitive Basis (R. 297-302, 348-361)

The court made findings with respect to the evidence alleged by the Government to establish that du Pont intended to restrain or monopolize trade by restricting the purchasing freedom of General Motors. Thus the court considered

Raskob's 1917 report which covers in detail the investment aspects of du Pont's original purchase of General Motors stock, and in which he stated that purchase of General Motors' stock "will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor" (R. 300). On the basis of an examination of the whole of Raskob's report, other relevant contemporaneous documents, and testimony, the court found (R. 302):

> "* * * Raskob, for one, thought that du Pont would ultimately get all that business, but there is no evidence that Raskob expected to secure General Motors trade by imposing any limitation upon its freedom to buy from suppliers of its choice. Other documents also establish du Pont's continued interest in selling to General Motors—even to the extent of the latter's entire requirements—but they similarly make no suggestion that the desired result was to be achieved by limiting General Motors purchasing freedom. On the contrary, a number of them explicitly recognized that General Motors trade could only be secured on a competitive basis."

The District Court also considered other evidence which the Government asserted established an intent on the part of du Pont to use its stockholdings to restrict the purchasing freedom of General Motors (R. 348-361). The evidence considered in this connection by the trial court comprises substantially the same body of evidence that is set forth by the Government at pages 29 to 48 and pages 115 to 122 of its brief in this Court. This evidence includes certain documents and incidents involving J. A. Haskell and J. L. Pratt (ex-du Pont employees who became officers of General Motors), efforts by du Pont in the early 1920's to sell "Fabrikoid" and paint to General Motors and correspondence between du Pont and General Motors in 1924-25 relating to the use of alcohol as an antifreeze. After reviewing all of this evidence in detail the court found (R. 361):

> "The evidence relating to the exchange of data, figures, and information on suppliers by certain officers and employees of du Pont and General Motors, viewed as a whole, establishes that the du Pont Company was interested in selling its products to General Motors and made efforts to do so; a fact which is not denied by the defendants. The evidence, both oral and documentary, does not establish, however, that there was any agreement between the two companies that required General Motors to buy all or any part of its requirements from du Pont. Nor does the evidence establish that du Pont dictated or controlled the purchasing policies and practices of General Motors or sought to dictate or control those policies and practices. In fact, the evidence shows that General Motors exercised complete freedom in determining where it would purchase its requirements of products of the kind that du Pont manufactured."

Findings on du Pont's Alleged Control of General Motors (R. 293-323)

After detailed findings on the circumstances under which du Pont originally acquired its approximately 23 percent interest in the stock of General Motors in 1917-1918 (R. 297-302), the court found (R. 301, 302):

> "* * * the acquisition was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business.
>
> * * * * *
>
> "* * * du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests.

> Du Pont, the record shows, never intended to preclude General Motors from dealing with suppliers of its choice, never made any effort so to preclude General Motors, and did not limit General Motors' purchasing freedom."

The court then examined several other aspects of the relationships which have existed between du Pont and General Motors over the period from the original acquisition of General Motors stock by du Pont in 1917 to the date of the trial, each of which had been urged by the Government as evidence that du Pont controlled General Motors' purchasing policies. There are findings (R. 303-304) on the events of 1920, when a crisis in General Motors' affairs resulting from the financial collapse of its founder and first president, W. C. Durant, made it necessary for du Pont to take over Durant's obligations and much of his stock holdings in General Motors, and for Pierre du Pont, who had retired from the presidency of du Pont, to become General Motors' temporary president and Chief Executive Officer. There are findings (R. 304-307) on the events of Pierre du Pont's three-year incumbency, which ended in 1923 when he resigned and Alfred P. Sloan, Jr., was elected president.

The court made a detailed analysis of the number of du Pont nominees on the General Motors Board of Directors over the years, and found that such nominees never approached a majority (R. 302, 308); on the contrary, the court found, the majority of directors "have always been the nominees of management" (R. 310), selected without any consultation with du Pont and thereupon automatically elected to the Board. Because of the emphasis placed upon the matter by the Government at the trial, the opinion also reviewed in detail (R. 308-310) the extent to which the du Pont nominees on the Board participated in the consideration, initiated by Sloan, of proposed directors who were neither management representatives nor du Pont nominees.

The trial court made elaborate findings (R. 311-316) on the organization and membership of the principal committees of the General Motors Board of Directors. The findings recite that originally, in accordance with an understanding with Durant that du Pont should assume primary responsibility for General Motors' financial affairs, the Finance Committee was composed almost entirely of du Pont nominees (R. 302), but that as competent people developed within General Motors, the number of du Pont nominees on this Committee declined. They have not constituted a majority since 1924, and are now but three of a committee whose total membership in recent years has been nine or ten (R. 312-313, 315). The findings show that there was originally only one du Pont nominee on the Executive Committee (R. 303); that except for the years 1921 and 1922 du Pont never had a majority of the members of that Committee and that there were considerable intervals of time between 1923 and 1937 (when the Committee was abolished) when du Pont had only one nominee or no nominee at all on the Committee. On the basis of this detailed analysis of the evidence the District Court found (R. 316):

> "* * * in all these matters Sloan has clearly been the leader and the dominating influence and has largely determined the results. * * * Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors.
>
> * * * * *
>
> "* * * Accordingly, the Court finds, based on all the evidence, that du Pont's participation in the selection of General Motors directors and management does not establish that it controlled General Motors or that it sought through such participation to place people in General Motors who would fur-

> ther du Pont's interests as a supplier or as a chemical manufacturer."

The opinion likewise contains detailed findings (R. 316-321) on General Motors' supplemental compensation and bonus plans—particularly the Managers Securities Plan of 1923-1929—which were alleged by the Government to be devices through which General Motors personnel were influenced in favor of du Pont. Again, after thorough examination of the facts, the court made the following finding (R. 320):

> "The Court finds no evidence that any action taken by du Pont representatives with respect to the compensation of General Motors executives was intended to influence those executives to deal with du Pont or to refrain from dealing with du Pont's competitors. Nor is there evidence of any instance in which a General Motors executive favored du Pont out of consideration for the latter's sale of stock to Managers Securities Company or out of deference to the position of du Pont representatives on the General Motors board."

The court further found (R. 321) that "Sloan, Kettering, Pratt, Lawrence Fisher, Lynah, and Wilson [all of whom testified at the trial] are among those who would have been 'influenced', if the Government's contention is correct. These men, the record shows, acted at all times solely in the best interest of General Motors."

The trial court considered (R. 322-323) the Government's evidence showing that on occasion du Pont's 23 percent of General Motors stock had represented a majority of all the stock voted at the stockholders' meetings. The court, however, found reasonable and persuasive Sloan's testimony that the situation would have been radically different had there been a contest, and that in any contest it would be necessary to know what the issues were before one could estimate whether enough other stockholders would join with du Pont to permit its views to prevail. The opinion states (R. 323) that "It is entirely conjectural whether or not du Pont by its stock ownership could control if there had been a contest."

After this full review of all the factors which had been relied on by the Government, the court added a number of findings on the extent and the direction of the change in the du Pont-General Motors relationship during the more than a quarter century since 1917. It stated (R. 321-322):

> "After the dramatic collapse of Durant and the ensuing financial crisis when du Pont representatives were thrust into positions of responsibility in General Motors, and after General Motors had been rescued from that crisis, du Pont's influence and position in General Motors declined radically. During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management headed by such a forceful and resolute character as Sloan and including such positive personalities as Kettering, the Fisher brothers, Knudsen, Pratt, Brown and Wilson.
>
> "More than a quarter of a century has passed since the twenties, and the strength and standing of the management have continued to increase and improve. The du Pont representatives who had originally been interested in General Motors have died or retired. These developments are reflected in the contemporaneous documents, the changes in the membership of the board, and the various committees of the board, and in the testimony of Sloan and other witnesses.
>
> "Irrespective of what its position may have been before and during the Durant crisis, since the 1920's du Pont has not had, and does not today have, prac-

> tical or working control of General Motors. On the basis of all of the evidence the Court finds as a fact that du Pont did not and could not conduct itself, for the past 25 years, as though it were the owner of a majority of the General Motors stock."

On the basis of the findings of fact that have been summarized or quoted in the preceding pages, and other and even more detailed findings of fact which are to be found in its opinion, the District Court concluded that the Government had failed to establish any violation of the antitrust laws (R. 465). The court's legal conclusion was not confined to the charge of conspiracy. The court specifically held that there was no limitation or restraint upon General Motors' freedom to deal freely and fully with competitors of du Pont and no limitation or restraint upon the freedom of General Motors to deal with its chemical discoveries (R. 465). It also concluded that there was no restraint of the General Motors market (R. 465).

The court specifically considered the application of the Clayton Act. It recognized that a violation of the Clayton Act may be established in the absence of an actual restraint of trade if it is demonstrated that there is a reasonable probability that a restraint will result from the acquisition of stock. It found as a fact, however, that there had been no restraint of trade in the thirty-odd years during which du Pont had owned stock in General Motors and concluded "there is not now nor has there been any basis for a finding that there is or has been any reasonable probability of a restraint within the meaning of the Clayton Act" (R. 466).

SUMMARY OF ARGUMENT

I

The trial court found as a fact that du Pont's stock interest in General Motors has not given du Pont a non-competitive, preferential advantage in its commercial dealings with General Motors.

The trial court found that General Motors does not buy paints, fabrics and other commodities from du Pont because of the stock interest, but that such purchases as General Motors makes are made in the free exercise of independent judgment and on the competitive merits. It found that the arrangements that General Motors made with du Pont for the manufacture of tetraethyl lead were made by General Motors on the merits and not because of the stock interest. It found that General Motors' decision in 1930 to ask du Pont to join with it in the manufacture of refrigerants was made on the merits and was not caused or influenced by du Pont's stock interest.

The trial court further found that du Pont does not have practical or working control of General Motors or the power to direct the business policies of General Motors so as to gain for itself an economic advantage over its competitors. It found that du Pont has not intended or sought through its stock to gain for itself a non-competitive advantage in the trade of General Motors.

The Government cannot prevail unless these findings of fact are overturned. The Government's charge that there has been an unlawful combination in violation of Sections 1 and 2 of the Sherman Act requires this Court to find that in fact du Pont has obtained through its stock ownership, and now enjoys, a non-competitive, preferential advantage in its commercial dealings with General Motors.

The Government's charge under Section 7 of the Clayton Act also depends upon proof that du Pont has obtained and now enjoys such a non-competitive, preferential advantage. Du Pont's investment in the stock of General Motors was made more than thirty years ago, and if no restraint has occurred during this period there is no present probability of a restraint of trade. The Government recognizes this and rests its Section 7 argument on the assertion that du Pont's stock interest in General Motors "has been used to channel General Motors' purchases to du Pont" (Br., p. 144).

The findings of fact of the trial court are detailed and specific. They were made on a record which contains voluminous evidence both oral and documentary. They represent the considered views of a trial judge who carefully reviewed the evidence and who heard the witnesses and appraised their credibility at first hand.

The findings of fact are fully supported by the evidence. They are supported by contemporaneous documents written in the ordinary course of business, years before this litigation was started or suggested and which cannot be impugned on the ground that they are colored by ulterior motives or by self-interest. The findings are also supported by the testimony of witnesses who participated in the transactions or made the decisions involved. The witnesses include purchasing agents, salesmen and others engaged in the day-to-day operations of the two companies as well as executives of higher rank. The testimony of the witnesses was tested by cross-examination and was not contradicted or impeached.

The facts as established by the evidence are:

General Motors buys some commodities from du Pont but declines to buy others, despite du Pont's sales efforts. Some Divisions of General Motors buy particular commodities from du Pont while other Divisions buy their requirements of those commodities from du Pont's competitors. General Motors' purchases of particular commodities from du Pont have been greater at some times than at others. General Motors makes substantial purchases from du Pont's competitors even though du Pont is in a position to supply the commodities involved and has tried to secure the business.

The commodities which General Motors has bought from du Pont in the greatest volume are paints and fabrics. Du Pont sells all of these commodities in substantial quantities to other customers. General Motors buys these commodities from du Pont on the merits and not because of the stock interest. General Motors buys paint from du Pont on the basis of quality, service and price and because it believes that du Pont paint best satisfies its needs. Du Pont's success as a supplier of paint to General Motors is in large part the result of du Pont's preeminence as the inventor and developer of new and superior paints, including "Duco" and "Dulux" and the continuing excellence of its research and service. Such purchases of fabrics as General Motors makes from du Pont are likewise made for reasons of price, quality and service and not because of the stock interest.

General Motors did not ask du Pont to manufacture tetraethyl lead because of du Pont's influence or stock interest. The decision was made by Kettering and approved by Sloan because of their belief that General Motors lacked competence to manufacture dangerous chemicals and because of their belief that du Pont had competence in that field. Their confidence in du Pont was vindicated and their fears of incompetence and inexperience justified. When arrangements were made with Standard Oil of New Jersey to manufacture tetraethyl lead, that company failed to observe safety precautions in the operation of its plant; the staff engaged in the operation contracted lead poisoning and several deaths resulted. The public furor following this disaster caused the temporary cessation of the entire enterprise. It was resumed only after du Pont was able to convince the Surgeon General of the United States that tetraethyl lead could be manufactured safely. Later Ethyl Corporation sought an alternative manufacturing source but was unable to find anyone that would undertake the responsibility. Both Dow Chemical and American Research Laboratories, Inc., declined to attempt the manufacture of tetraethyl lead because of the difficulties and hazards involved. Both Ethyl Corporation and du Pont are now engaged in manufacturing tetraethyl lead and selling it in competition with one another and the Government makes no claim that there is in this respect any present restraint of trade.

In 1930 when General Motors developed a new refrigerant it decided in its own interests that it would not enter into the field of chemical manufacturing. It wished, however, to retain an interest in the manufacture of the refrigerants it had developed. Accordingly it joined with du Pont in the organization of Kinetic Chemicals, Inc., to manufacture refrigerants. This decision was made on the merits and because of du Pont's competence in the field of chemical manufacture and not by reason of du Pont's stock interest or through du Pont influence or control. Trade was not restrained by du Pont's interest in Kinetic Chemicals, Inc. During the pendency of this suit du Pont acquired General Motors' stock interest in Kinetic and the Government made no objection.

Du Pont does not have practical or working control of General Motors and does not have the power to dictate or to influence General Motors' commercial policies. Since the resignation of Pierre du Pont as president of General Motors in 1923 General Motors has developed a strong and successful management which is independent of the du Pont Company. Nominees of du Pont have continued to serve on the board of General Motors and on its committees, but no member of the du Pont family and no executive of the du Pont Company has been an officer or executive of General Motors for the past twenty-five years. Nominees of du Pont have never constituted a majority of the Board of General Motors and the number of du Pont nominees on the Board and on the committees of the Board has steadily decreased. A majority of the members of the Board have been the nominees of management. The management of General Motors has selected the management Directors on the Board and has possessed and exercised complete control of the operations of the company. For the past twenty-five years, the limited participation of du Pont nominees on the Board of Directors of General Motors and its committees has been confined to financial affairs and has not related to purchases or to other commercial operations. The actions and policies of the management of General Motors throughout the past twenty-five years show that it consists of forceful and resolute men who have acted at all times solely for the best interests of General Motors, who have not hesitated to disagree with du Pont and to reject its suggestions, and who have not been subservient to or controlled by du Pont.

II

The Government attacks the trial court's findings, as it must if it is to succeed on this appeal. The Government suggests that its attack is confined to a few "conclusory" findings. This suggestion cannot be accepted. What the Government describes as "conclusory" findings are numerous and are interwoven with and are supported by even more numerous and detailed evidentiary findings which the Government's argument either ignores or denies. The Government's argument requires review of all of these findings and of the evidence on which they rest. Nor is it correct to suggest, as the Government does, that there is no dispute over basic facts. On the contrary, on the crucial issues of the case the facts are in dispute and the disputes can be resolved only on the basis of all of the underlying evidence.

The Government's attack on the findings is not supported by the evidence. For the most part the Government does not attempt to support its arguments by direct evidence but relies upon inferences and conclusions which it seeks to draw from fragments of the evidence that are both collateral and remote. Thus, the Government attacks the trial court's findings that General Motors has purchased from du Pont on the merits. Those findings are supported by substantial documentary and oral evidence. The Government points to no direct evidence that justifies its attack.

There is, for example, no evidence that General Motors buys paint or fabrics from du Pont on a preferential and non-competitive basis. There is substantial evidence to the contrary. The Government tries to justify rejection of the evidence by resorting to inference. From the fact that du Pont sells more paint and fabrics to General Motors than it sells to other automobile manufacturers, the Government seeks to draw the inference that du Pont's paint and fabrics lack competitive merit. That argument disregards the fact that du Pont has sold both paint and fabrics in substantial amounts to other automobile manufacturers, including Ford and Chrysler who with General Motors account for 85 percent of the automobile production. The argument also disregards the evidence which shows that the reasons Ford and Chrysler do not buy in greater quantity from du Pont are reasons that do not reflect upon the quality of du Pont's products or upon its prices or service. The basis of the Government's inference is therefore refuted by the record.

The Government's attack on the findings relating to tetraethyl lead and refrigerants is likewise without support in the evidence. Here the Government asks the Court to reject sworn testimony of the men who made the relevant decisions. That testimony is corroborated in substantial particulars by contemporaneous documents and is not otherwise contradicted. The Government's argument is a direct and unjustified attack on the integrity of Alfred P. Sloan, Jr., Charles F. Kettering and John L. Pratt. The Government points to no proof which would justify rejection of their testimony that they made the decisions independently and solely in the interest of General Motors and without regard to du Pont's stock or influence. There is no evidence to provide even a collateral basis from which to attack their testimony. It cannot be disputed that General Motors was inexperienced in the manufacture of dangerous chemicals or that du Pont's reputation and competence in that field were established beyond question. Nor is there any evidence that du Pont influenced or attempted to influence the decisions.

What has been said in the preceding paragraphs is true of the other instances in which the Government attacks the trial court's findings of fact that du Pont has not had and does not enjoy a non-competitive and preferential advantage in the trade of General Motors. The Government's attempt to prove the existence of the alleged preference relies heavily upon conclusory concepts which assume guilt and which are designed to eliminate the necessity for, and to explain the absence of, evidence, either direct or circumstantial. Its brief abounds with assertions that the alleged restraint is "inevitable" (Br., pp. 72, 77, 78, 79, 110, 112, 128); it asserts that the restraint is "inherent" (*e.g.* Br., pp. 73, 127), and that it must exist because of "human nature" (*e.g.* Br., pp. 79, 127). These assertions cannot serve as a substitute for facts, much less can they overcome the affirmative proof of facts on which the trial court's findings rest.

Nor does the evidence support the Government's attack on the trial court's findings that du Pont does not control

General Motors. In substance, if not in form, the Government argues that a conclusive and irrebutable presumption of control should arise because du Pont owns 23 percent of the stock of General Motors, the balance of the stock is widely dispersed, and du Pont is represented on the Board of Directors of General Motors and its committees. Facts that are inconsistent with its presumption the Government either ignores or denies. It ignores the undoubted fact that the role of du Pont in the affairs of General Motors has steadily declined. It ignores the emergence of a strong management in General Motors. It asserts that the management of General Motors is selected by du Pont, controlled by du Pont, and is subservient to du Pont. The evidence is to the contrary. Here, as in other parts of its argument, the Government attacks the integrity of the executives of General Motors. It asserts that the trial court was clearly wrong in its judgment of their character and veracity, even though that court heard them testify on both direct and cross-examination, and reviewed their testimony in the light of the contemporaneous documents. The Government makes no attempt to reconcile its argument with the fact that over the years the management of General Motors has shown its independence by purchasing substantial quantities of its supplies from competitors of du Pont, making other decisions adverse to the economic interests of du Pont, and by rejecting, in significant instances, suggestions made by du Pont with respect to the affairs of General Motors.

The Government contends that because the District Court's findings on control are wrong its findings that du Pont does not have a non-competitive, preferential advantage in the trade of General Motors must also be wrong. The premise of ~~this argument~~ is unsound; the control findings are fully supported by the evidence. And, in addition, the District Court's findings on the commercial relations between du Pont and General Motors are supported by substantial evidence which is not impaired in any way by the facts on which the Government relies to assert control.

In any event, the Government misreads and misinterprets the trial court's findings. It criticizes the trial court for approaching the commercial dealings between General Motors and du Pont "as though they took place between strangers." Nothing in the trial court's opinion or findings justifies this criticism. The opinion and findings show that the trial court considered the Government's case as a whole and that it did not approach any part of the case with any preconceptions based on any other part of the case. The trial court fully considered the non-commercial relations between the two companies for any light they might throw on the charge that in matters of trade du Pont enjoyed a non-competitive, preferential advantage. The Government's real grievance is that the trial court decided the issue on the facts disclosed by the record instead of accepting the Government's assumptions and preconceptions.

III

Because of the nature of the issues in this case, the principle embodied in Rule 52(a) of the Rules of Civil Procedure applies with particular force to the trial court's findings of fact. The motives and reasons for men's actions are in question and the issue of credibility is therefore of great importance. The trial court had the opportunity to observe the demeanor of the witnesses and to judge their credibility at first hand. The Government cannot avoid the effect of Rule 52(a) by relying upon the decision in *United States* v. *Gypsum Co.*, 333 U. S. 364. To the extent that the findings in this case rest upon oral testimony, that testimony is not contradicted by contemporaneous documents. On the contrary, in substantial part the oral testimony is corroborated and confirmed by contemporaneous documents.

There is no substance in the Government's contentions that the District Court's findings on control are vitiated by the application of an erroneous legal standard. The Government's assertion that the trial court required it to prove the equivalent of a 51 percent stock interest is incorrect. The trial court accepted the principle that a minority stock interest may in certain circumstances confer "practical" or "working" control. The trial court recognized and applied the other criteria laid down in the cases cited by the Government. It considered all of the relevant criteria and did not disregard any of the facts relied upon by the Government.

The decisions cited by the Government under Sections 1 and 2 of the Sherman Act have no application here. The Government's charge of restraint and monopolization depends upon proof that in fact du Pont has enjoyed and now enjoys a non-competitive, preferential advantage in the trade of General Motors. The facts establish that du Pont has not had and does not have such an advantage. It follows that no question of law arises under the Sherman Act. Even on the Government's version of the facts there are serious doubts as to the applicability of the decisions on which it relies. The Government's description of its own case suggests that the Government has not proved the kind of economic consequences, the kind of restraint, or the kind of monopoly power required by the decisions cited in its brief. These questions, however, need not be considered or resolved, for the Government has failed on the facts to prove its basic charge that du Pont enjoys a non-competitive, preferential advantage in the trade of General Motors.

For the same reason, the Government's charge under Section 7 of the Clayton Act must fail. Du Pont invested in the stock of General Motors more than thirty years ago. The trial court found as a fact that throughout this period the stock has not conferred upon du Pont any non-competitive, preferential advantage in the trade of General Motors. Since no restraint or monopolization of trade has occurred for thirty years, and since the Government has not shown or attempted to show that there has been any recent change in conditions which threatens restraint or monopolization, there is no basis for a finding that there is now a reasonable probability of a restraint of trade.

ARGUMENT

Here, as in the court below, the essence of the Government's charge is that du Pont's stock interest in General Motors has restrained and monopolized trade, first, by limiting General Motors' purchasing freedom and causing it to buy from du Pont on a non-competitive basis, and second, by causing General Motors to permit du Pont to participate in the commercial development of tetraethyl lead and the refrigerant "Freon".

The District Court dismissed this charge on wholly factual grounds. On the basis of the evidence it found as a fact that the purchasing freedom of General Motors had not been restrained or influenced and that such purchases as General Motors has made from du Pont have been made by General Motors in the free exercise of its own independent judgment. It also found that the arrangements between du Pont and General Motors with respect to tetraethyl lead and "Freon" were not brought about by the stock relationship but were the result of General Motors' independent business decisions.

The Government cannot prevail unless it can establish that these findings of fact are erroneous and must be rejected. The Government itself recognizes this and attacks the findings. The Government does so, however, in terms which obscure both the extent of its attack and the nature of the issues which the attack raises. The Government suggests that it objects to only a few of the findings of the District Court which the Government characterizes as "ultimate" or "conclusory". It also suggests that there is no real dispute between the parties over the "primary" facts (Br., p. 128). The combined effect of these two suggestions is to leave the impression that acceptance of the Government's arguments requires no extensive review either of the findings or of the evidence on which the findings rest.

This impression is incorrect.

The Government's attack is not and cannot be confined to a few "ultimate" findings. The findings that the Government describes as "ultimate" are numerous and they are interwoven with and supported by even more numerous and detailed evidentiary findings which cannot be reconciled with the Government's contentions. Those contentions require the Court to reject the evidentiary as well as the ultimate findings. The characterization of the findings as "ultimate" is also ineffective to dispense with the necessity for a review of the evidence. The validity of the findings depends upon the facts, and the Government cannot avoid either the controlling effect of the facts or the necessity for a detailed review of the facts by characterizing the findings in one way rather than another.

The Government is also incorrect when it says that there is no dispute over the facts. On the contrary, there are serious disputes over crucial questions of fact. These disputes are not confined to matters of inference or conclusion. They arise because appellees believe that in some instances the Government is mistaken on basic questions of fact and that in others the Government's treatment of the evidence is so incomplete, episodic and fragmentary as to leave a wholly erroneous impression. Consequently appellees reject as inaccurate substantial portions of the assertions of fact found in the Government's brief.

The nature of the issues of fact has not been altered by the two changes which the Government has made in its legal theory in this Court. The first of these changes relates to the label which the Government uses to describe the alleged offense. In the court below the Government sought to prove that the defendants had engaged in a continuing conspiracy and agreement to restrain trade. It has now abandoned the charge of conspiracy (Br., p. 113), and instead asserts that the defendants are parties to an unlawful "combination". The change in label involves no change in the essential nature of the Government's case. The arguments and inferences now relied upon by the Government to establish the existence of the alleged combination are the same arguments and inferences that it relied upon in the lower court to support the charge of conspiracy. All of those arguments and inferences were considered and passed upon by the District Court.

Nor has this change in theory impaired the effect of the trial court's findings of fact. The Government itself concedes that its charge of combination must fail unless in fact a restraint of trade has been imposed. It defines combination by saying "we mean a restraint imposed by force of the relationship rather than one arising from express agreement" (Br., p. 113). It follows from this definition that if there is no restraint there is no combination. On the Government's own terms, therefore, the findings that there is no restraint are decisive against the charge of combination just as they are decisive against the charge of conspiracy.

The second change made by the Government in its legal theory relates to the means by which the alleged restraint is said to have been accomplished. In the court below the Government asserted that the restraint had been achieved because du Pont had practical or working control of General Motors. It now introduces, as an alternative to "control", the concept of a degree of power less than control which it describes as "influence", and it asserts that this alleged "influence" entitles the Government to relief even though the findings of fact on control are sustained.

Apart from the change in terminology there is little that is new in this argument. It rests upon the same asserted inferences and conclusions which the Government urged below and which the District Court rejected. The Government in effect concedes that proof of the existence of the alleged "influence" depends upon proof of its limiting effect on the competitive freedom of General Motors. If there was no such limiting effect resulting in trade preference over du Pont's competitors, that fact is fatal to the Government's theory of "influence". The trial court found as a fact that the stock had no limiting influence on the freedom of General Motors. For example, it found that there was "no limitation or restraint upon General Motors freedom to deal freely and fully with competitors of du Pont" (R. 465). That and numerous other findings to the same effect must be rejected if the Government's argument on influence is to prevail.

Notwithstanding the changes in legal theory, therefore, the Government's attack on the findings raises the same crucial issues of fact that were tried in the court below. And despite the Government's suggestions to the contrary, the decision on those issues requires review of all of the detailed and voluminous evidence which bears on the disputed questions of fact. Accordingly the greater part of this brief will be devoted to a discussion of the evidence.

Part One of the Argument (*infra,* pp. 35-186) will review the findings of the trial court on the issues which are now presented here, and will demonstrate that the findings are solidly grounded on the evidence. Part Two of the Argument (*infra,* pp. 187-267) will deal directly and specifically with the very limited portion of the evidence to which reference is made in the Government's brief, and will demonstrate that it provides no basis for challenge to the findings or to the decision of the trial court. Part Three (*infra,* pp. 268-285), will discuss the legal issues which the Government has argued, and show that there is no principle of law that can serve to overcome the Government's failure of proof.

PART ONE

THE EVIDENCE SUPPORTS THE FINDINGS OF THE TRIAL COURT THAT DU PONT'S OWNERSHIP OF STOCK IN GENERAL MOTORS HAS NOT RESULTED IN A RESTRAINT OF TRADE IN VIOLATION OF THE SHERMAN ACT AND HAS NOT VIOLATED THE CLAYTON ACT

A

The Findings by the Trial Court That du Pont's Stock Ownership Has Not Restrained or Influenced General Motors' Purchasing Policies Are Supported by the Evidence

Understanding of the findings with respect to General Motors' purchases requires an explanation of the manner in which General Motors is organized, with particular reference to where, and by whom, the decisions are made as to what to purchase and from whom.

Each of the 30-odd Divisions into which General Motors is organized has final authority to make, and does make, its own purchasing decisions. Since 1920, General Motors has operated under a plan of organization prepared by Alfred P. Sloan, Jr. (Sloan, R. 973-974, 984-985, GM 1, R. 975, 6532). Sloan's plan strongly emphasized decentralization. Its cardinal principle was to vest in the General Managers of the Divisions the greatest possible amount of authority, and in turn to impose on them the maximum possible responsibility for the results which the Division achieved. The first principle of the plan states (GM 1, R. 975, 6532):

> "1. The responsibility attached to the chief executive of each operation shall in no way be limited. Each such organization headed by its chief executive shall be complete in every necessary function and enable to exercise its full initiative and logical development."

This principle is still basic in General Motors today (Sloan, R. 984).

Under this decentralized system, each operating Division of General Motors may be truly considered as an independent corporation. As Sloan himself put it (R. 992):

> "In our management technique, the general manager of an operating division has complete authority over that particular operation. He has authority and responsibility which, I think, might be said to be perhaps even greater or certainly as great as the chief executive of an independent corporation.
>
> "He lays down his own program of production. He buys his own materials. He hires his own people. He works out his own organization. He has complete charge of the distribution of his product. * * * All the functional activities of the operations are under the complete jurisdiction of the general managers of the divisions."

Moreover, the same principle applies within each Division—assign an executive full authority in his particular field, and hold him fully responsible for results. To quote Sloan again (R. 993):

> "* * * the general manager in turn delegates his responsibilities to his particular executives that are concerned with that operation, and our philosophy is that they must also be given a broad responsibility and the authority to carry out that responsibility."

To speak of "selling to General Motors," therefore, is misleading. A prospective supplier, instead of selling to General Motors, sells to the Chevrolet, or Frigidaire, or Ternstedt, or Delco Light Divisions, as Divisions. Indeed, when there are several plants within a Division each plant may and frequently does have its own purchasing agent and hence may present a separate and independent selling job (K'Burg, R. 2539).[2]

A. THE EVIDENCE SUPPORTS THE TRIAL COURT'S FINDINGS THAT GENERAL MOTORS' PURCHASES OF FINISHES (PAINT) FROM DU PONT WERE NOT RESTRAINED OR INFLUENCED BY DU PONT'S STOCK OWNERSHIP

Du Pont, for many years, has had marked success in the manufacture and sale of finishes (*i.e.*, all types of paints, varnishes, lacquers and related products), and has accounted for between 8 and 10 percent of the total dollar value of all finishes produced in the United States (DP 444, R. 2688, 6435). Over the 10 years preceding the filing of the complaint, approximately three-quarters of du Pont's total sales to General Motors have consisted of finishes (DP 445, R. 2688, 6436). General Motors has been du Pont's largest single customer for finishes, and du Pont has been General Motors' principal supplier of finish products. On the other hand, du Pont's finish sales to General Motors are less than 20 percent of its total sales of finishes; and only 3 percent of its total sales (R. 393; DP 445, R. 2688, 6436).* The individual products accounting for the great bulk of these sales are "Duco", a nitrocellulose lacquer invented and patented by du Pont, which is largely used on automobiles, and "Dulux", a synthetic enamel developed by du Pont, which is used on refrigerators.[3]

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[2] From 1922 to 1931 a General Purchasing Committee made centralized arrangements for the purchase of certain commodities, but the Divisions were not required to purchase under these general contracts. The operations of this Committee are discussed, *infra*, at pages 103-109.

*Throughout this brief references preceding a semicolon are to the findings, and references following a semicolon are to the evidence.

The evidence establishes that du Pont's sales to General Motors have not resulted from any control or influence, as is charged by the Government, and the District Court so found (R. 396). With respect to "Duco", the principal finish product in terms of dollar volume, the District Court stated (R. 396) that it "rejects as wholly without foundation any contention that Duco was forced upon General Motors by reason of du Pont influence or domination." With respect to "Dulux", the next most important finish item purchased by General Motors from du Pont, the District Court was equally emphatic (R. 396): "There is no evidence that General Motors purchased from du Pont for any reason other than those that prompted its competitors to buy Dulux from du Pont—excellence of product, fair price and continuing quality of service."

Although the Government directly challenges these findings (Br., p. 140), it ignores the detailed and voluminous body of evidence which shows that the trial court was correct in its appraisal of the facts. We shall deal with this evidence in two categories: (1) the evidence that shows that the various Divisions of General Motors have followed no uniform or consistent policy with respect to purchasing finishes from du Pont; this absence of any consistent pattern of purchases is inconsistent with the Government's charge that General Motors' purchases have been restrained or influenced by du Pont's stock ownership; and (2) the evidence which shows that General Motors has purchased finishes from du Pont solely on a competitive basis and in the exercise of its own independent commercial judgment and without regard to du Pont's stock ownership.

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[3] In 1947 General Motors' total purchases of all products from du Pont were $26,628,274, of which $18,938,229 (71 percent) represented purchases from du Pont's Finishes Division (DP 445, R. 2688, 6436). Of this latter amount, purchases of "Duco" and the thinner used to apply "Duco" totaled $12,224,798 (65 percent), and "Dulux" purchases totaled $3,179,225 (17 percent) (DP 445, 195, GTX 1344, R. 2688, 1987, 2846, 6436, 6068, 5326).

1. THE EVIDENCE SHOWS THAT THE VARIOUS DIVISIONS OF GENERAL MOTORS HAVE FOLLOWED NO UNIFORM OR CONSISTENT POLICY WITH RESPECT TO PURCHASING FINISHES FROM DU PONT

The various Divisions of General Motors in their purchases of finishes have followed no uniform or consistent policy with respect to du Pont's products. Some Divisions buy certain finishes exclusively from du Pont; other Divisions buy their entire requirements of these same finishes from competitors of du Pont; some Divisions divide their purchases. The distinct absence of consistency among the various Divisions, whether considered product by product or Division by Division, is inconsistent with the Government's charge that General Motors' purchases have been restrained or influenced by du Pont's stock ownership.

a. Automotive finishes

The automobile industry uses many finishing products in the production of an automobile. On the car body, the finishing process begins with a primer and a surfacer, which are applied by spraying, or a primer-surfacer, recently pioneered by du Pont, which combines the properties of the two products and eliminates separate spraying operations. On fenders and hoods (sheet metal parts) the industry generally uses as an undercoat only a primer, applied by dipping. For the final finish, or topcoat, the industry uses, on both body and non-body parts, two types of finishes—a nitrocellulose (pyroxylin) lacquer, or a synthetic enamel, each with appropriate solvents or thinners. In addition, complete finishing requires rubbing compounds (a mixture of fillers and mild abrasives used to burnish the topcoat to bring out the lustre), and chassis, motor, interior and miscellaneous lacquers and enamels which are quite different than the topcoats or undercoats. All of these are offered for sale by du Pont (DP 176, R. 1940, 6012; Williams, R. 1940-1944, 1976-1979).

Automotive topcoats.—The largest single finish item which du Pont sells to General Motors is a low-viscosity nitrocellulose lacquer, discovered and patented by du Pont and for which its trademark is "Duco". In recent years "Duco" and the thinner or solvents used in its mixing or application constituted over two-thirds of General Motors' total purchases of finishes from du Pont (R. 394, 395; DP 195, 199, R. 1987, 2027, 6068, 6076). This does not, however, represent all of General Motors' topcoat business. The Oldsmobile Division buys the lacquer which it uses as a topcoat exclusively from a competitor of du Pont—Rinshed Mason—and has done so since 1927 (R. 389; Wirshing, R. 1924-1925, 1933, 1936-1937). Cadillac Division has likewise purchased substantially all of its lacquer requirements from Rinshed-Mason, rather than from du Pont, since the late 1920's (R. 389; Wirshing, R. 1926, 1937). Fisher Body Division, which is a large user of lacquers, has for many years divided its purchases of lacquers for topcoats among three principal sources—du Pont, Rinshed-Mason and Forbes Varnish Company (R. 389; Wirshing, R. 1923, 1932-1933, Fisher, R. 593). At Buick, Pontiac and Chevrolet, du Pont is the principal supplier of topcoats (R. 389; Wirshing, R. 1923-1924, 1926, 1933).

Automotive undercoats.—The lacquers used as topcoats are the most difficult to manufacture of all automobile finishes, not only because they represent a very delicately balanced composition, but also because they are needed in an almost infinite range of colors (Williams, R. 1987, Wirshing, R. 1934-1935). Undercoats (primers and surfacers) do not require such paramount technical skills and know-how. The findings and evidence show that du Pont has had less success at General Motors with undercoats than with topcoats. Fisher Body Division, which for years has been the largest consumer of undercoats among the General Motors Divisions, purchases undercoats principally from Rinshed-Mason (R. 389); du Pont supplies them, in fact, at only one of Fisher Body's fourteen plants (Williams, R. 1985, Wirshing, R. 1923).

Undercoats applied to the body of an automobile, which Fisher Body produces, must be sprayed on. Undercoats used on fenders, hoods, and the like, which the automobile Divisions produce themselves, are applied by dipping. In the mid-1930's du Pont pioneered a successful dip primer, and became its principal supplier to the automobile industry as a whole (Williams, R. 1976-1978, DP 191, R. 1150, 7228). Among General Motors' Divisions, however, only Chevrolet, Buick and Pontiac now purchase their dip primer requirements from du Pont. Oldsmobile buys its undercoats from Forbes Varnish Company, and Cadillac has used a number of different companies, including Rinshed-Mason and Ferbert-Schorndorfer (R. 389; Wirshing, R. 1924-1927, 1933-1934, Williams, R. 1976).

Rubbing compounds.—These compounds are used in large quantities in finishing the lacquer topcoat on an automobile. When "Duco" was adopted by automobile manufacturers, du Pont began to manufacture rubbing compounds and sold them along with the "Duco" itself. At General Motors, du Pont has now lost most of this business. The Divisions now purchase most of their requirements from du Pont's competitors (Williams, R. 1985, 1987, GTX 1344, R. 2846, 5340).

Chassis enamel and *motor enamel.*—These enamels were likewise, at one time, sold to General Motors Divisions by du Pont with marked success. In recent years, however, it has succeeded in selling the Divisions only insignificant amounts of chassis enamel, and has been wholly unsuccessful in selling motor enamel at Chevrolet, Pontiac, Cadillac and Oldsmobile. On the other hand, it has succeeded in selling substantial amounts of motor enamel to the Buick Division (Williams, R. 1985-1986).

Interior enamel.—Enamels of various kinds are used to finish the various wood, metal and plastic fittings in the interior of an automobile, such as instrument panels, glove compartments, ash trays and door handles. These finishes do not need the durability of exterior finishes, but they do require special formulation to permit their application in production under a variety of conditions (Williams, R. 1943, 1996). The Terndstedt Division of General Motors makes such parts for General Motors automobile Divisions, but du Pont's success at Ternstedt has been indifferent. Until the 1930's Ternstedt did not use lacquers at all, preferring a Black Japan finish purchased from a du Pont competitor (Williams, R. 2001-2002). When color and special effects became necessary, Ternstedt shifted to lacquers. It purchased from du Pont for a number of years, but later switched almost entirely to du Pont's competitors (R. 391; Williams, R. 1986, 2001). Recently, when Ternstedt opened a new plant equipped with electrostatic spraying equipment, a du Pont competitor succeeded in being the first to adapt its material to the new process, and has since retained practically all of the business at that plant (Williams, R. 1986-1987, 2002).

b. Synthetic resin enamels

The findings show that the finish product, other than "Duco", which du Pont sells to General Motors in greatest volume is a synthetic resin enamel, also developed by du Pont, for which its trade-mark is "Dulux" (R. 395; GTX 1344; R. 2846, 5340, Knight, R. 2384-2385). "Dulux" is an ideal refrigerator finish (R. 396) combining at once toughness, hardness, flexibility, adhesion, and stain and moisture resistance (O'Donnell, R. 2404). Since du Pont developed "Dulux" in the 1930's it has sold it in large amounts to Frigidaire for the exterior finish of refrigerators.

Prior to the development of "Dulux", Frigidaire and many other domestic refrigerator manufacturers, finished the exterior of their refrigators with "Duco". In 1927, however, Frigidaire abandoned the use of "Duco", despite the efforts of du Pont to persuade it to continue, and invested over $1,000,000 to convert to porcelain for the finishing of over 80 percent of its refrigerators (R. 389-390; O'Donnell, R. 2397-2399, 2413-2414, GTX 1324, R. 2496, 5281). Since then, among appliance manufacturers, Frigidaire has been the greatest exponent of porcelain. Even since the development of "Dulux", and despite its proved value as an exterior finish, Frigidaire has continued to finish about a quarter of its refrigerators with porcelain—the *only* manufacturer of refrigerators in the United States which does so (R. 390; Knight, R. 2388-2389, 2392, O'Donnell, R. 2406, DP 351, R. 2408, 6307).

As an *interior* finish for refrigerators, "Dulux" is demonstrably less expensive than porcelain and has been adopted by several smaller companies (Norberg, R, 2478-2479, Kreuer, R. 2421-2423, 2430, DP 345, 349, R. 2420, 2424, 6300, 6304). Yet since 1940 du Pont has sought, without success, to persuade Frigidaire to use "Dulux" (R. 390); indeed du Pont has been advised that only the fear of Frigidaire competition, so long as it retains a porcelain interior, prevents the other major manufacturers from changing to "Dulux" for interiors. Were they all to change it would increase du Pont's sales by an amount which one witness put at $2,500,000 a year (Kreuer, R. 2425, 2427-2428, Norberg, R. 2479, DP 345, 346, 348, 349, R. 2418, 2420, 2424, 2426, 6300-6304).

Frigidaire has manufactured washing machines since 1946, but from the beginning, despite du Pont's best selling efforts, has finished *all* of them with porcelain. It is the *only* washing machine manufacturer which does so (O'Donnell, R. 2407-2408, DP 352, R. 2408, 6308). Again, before 1952, Frigidaire sold clothes dryers made by another company, which finished them with "Dulux". Since then, Frigidaire has made its own, and despite du Pont's efforts to hold the business, has finished *all* of them with porcelain. Again, it is the *only* manufacturer of dryers which does so (O'Donnell, R. 2410).

c. Other industrial finishes

The findings likewise disclose all shades of du Pont success and lack of success in connection with sales of finishes to the non-automotive units. Each Division, in other words, purchases from du Pont or from one or more of du Pont's competitors in accordance with that Division's own judgment on relative price, quality and service (R. 390-392; Williams, R. 1995-2003). Frigidaire Division uses large quantities of black finishing varnish and finishes for machine parts, but has since 1926 rejected du Pont's offerings of these products (O'Donnell, R. 2401-2404). At AC Spark Plug Division, located in Flint, Michigan, where du Pont has a finishes plant, du Pont has been consistently successful in selling a substantial volume of the finishes used by that Division (R. 390; Williams, R. 1996-1997). Delco-Remy Division, however, purchases the substantial volume of insulating varnish which it uses from du Pont's competitors (R. 390; Williams, R. 1997-1998). As to insulating varnish the Electro-Motive Division does the same, although it purchases mostly "Duco" for the exterior of its locomotives, using Rinshed-Mason finishes for their interiors (R. 391; Wm. Fisher, R. 2434-2436, 2452-2453). At Guide Lamp Division du Pont developed, and still supplies, a finish for the inside of headlight reflectors, but a competitor developed and has kept that Division's substantial primer business (R. 391; Williams, R. 2000-2001). Likewise, at the Inland Division, which produces steering wheels, du Pont apparently had some of the business at one time, but has been completely supplanted by a competitor because it could offer what General Motors regarded as better service (R. 390-391; Williams, R. 1999).

One further finding in this area is particularly inconsistent with the Government's charges. The Packard Electric Division of General Motors uses large quantities of two types of cable lacquer—high and low tension. Until 1932 Packard Electric was a separate company, wholly unrelated to General Motors. During that period du Pont was one of its principal suppliers; on one item, black high tension lacquer, it was the sole supplier (Wm. Fisher, R. 2438-2441, DP 333, R. 2439, 6279). Now, however, as a Division of General Motors, Packard Electric purchases its entire requirements of high tension lacquer from du Pont competitors; and produces its own low tension lacquer from film scrap bought from du Pont competitors (R. 391-392; Wm. Fisher, R. 2437, 2446-2450, DP 336, R. 2450, 6284).

2. THE EVIDENCE SHOWS THAT GENERAL MOTORS HAS PURCHASED FINISHES FROM DU PONT SOLELY ON A COMPETITIVE BASIS IN THE EXERCISE OF ITS OWN INDEPENDENT COMMERCIAL JUDGMENT AND WITHOUT REGARD TO DU PONT'S STOCK OWNERSHIP

The findings and evidence heretofore discussed show a pattern of sales of finishes to the several Divisions of General Motors which alone could serve as adequate support for the District Court's findings that the Divisions purchased finishes in the exercise of their own independent commercial judgment. Yet, neither the evidence nor the findings stop there. There is also abundant evidence with respect to the reasons for General Motors' purchases of finishes from du Pont. This evidence, which was the subject of findings by the trial court, shows that the General Motors

Divisions purchase finishes on a competitive basis and in the exercise of their own judgment with respect to the merits of the products, service, and price involved and that du Pont enjoys no non-competitive preferential advantage.

a. "Duco"

The facts with respect to the invention and development of "Duco" provide substantial confirmation of the trial court's findings that General Motors purchases finishes from du Pont on an independent competitive basis and not because of the stock relationship. The Government ignores the significance of this matter, and would leave the Court with the impression that "Duco" has been forced upon General Motors by du Pont not on the basis of the merits of the product but by virtue of the stock relationship. The evidence establishes that this contention is without foundation.

The invention and development of "Duco" represented a truly significant advance in the art of paint making and in the production of automobiles; without "Duco" mass production of automobiles would not have been possible.

By the early 1920's the need for better finishing materials for automobiles had become urgent (R. 395). The varnish method then used in finishing automobiles was described in detail at the trial by automobile pioneers (Sloan, R. 1285-1286, Kettering, R. 1586-1587, Lawrence Fisher, R. 585-588). Finishing an automobile with varnish required an intolerably long time—up to 3 or 4 weeks—to apply the numerous coats needed. When the finish was complete, its longest life expectancy was less than a year, and often it began to peel off before the car was delivered. The trend toward closed bodies, which began early in the 1920's (Kettering, R. 1586), made the problem worse. Sloan testified that during this period he made field trips throughout the country talking to dealers, and said (R. 1285):

> "In those days, the most important problem we faced, from the standpoint of the quality of the car, from the consumer's point of view was the finish of the car."

And Lawrence Fisher, one of the Fisher brothers, commenting on the virtual impossibility of present automobile production volume with the old type varnish finish, summed it up by stating that to provide the dust- and insect-free space necessary to store the present volume of cars during the varnishing operation "we would have had to put a roof on Michigan" (R. 588).

General Motors made every effort to find a solution. It established, upon the recommendation of Walter P. Chrysler (then employed by General Motors) and Herman L. Weckler of Buick,[4] a Paint and Enamel Committee, to exhaust every means of obtaining quicker drying and more durable automobile finishes. Clements, of General Motors Research Division, was Chairman (R. 382; Weckler, R. 2136-2138, GM 104, 105, DP 202, 211, R. 1287, 2034, 2042, 6083, 6866, 6869, 6096). This Committee studied the finishes in each of the automobile Divisions, contacted a number of paint manufacturers, and tested every available material (R. 382; Sloan, R. 1290, Weckler, R. 2138, Kettering, R. 1586-1587, L. Fisher, R. 588-589, GM 110, 111, 113, 116, 117, DP 200, 202-209, R. 1294, 1296, 1301, 2031, 2035-2038, 6081, 6876, 6877, 6880, 6899, 6908, 6083-6093).

On the du Pont side, the story begins much earlier. Du Pont was a pioneer producer of nitrocellulose lacquers, having entered that business in 1903 (R. 382; Irenee du Pont, R. 772, 944). By 1920 it had a small, varied line of lacquers, which were quick-drying and durable, but which were of limited utility because they could not carry much film-forming and color material (solids), and when such solids were added they became too viscous to work (R. 382; Flaherty, R. 2018-2021, DP 198, R. 2022, 6073, 6074). In that year, however, Edmund L. Flaherty, who was employed by du Pont, invented a lacquer which retained the quick-drying and durability features, but which could also contain a large amount of film-forming material (R. 383). The material, shortly named "Duco", was patented by du Pont (DP 199, R. 2027, 6076), and in due course the patent was held valid in a court test. *E. I. du Pont de Nemours & Co.* v. *Glidden Co.*, 67 F. 2d 392 (2d Cir. 1933). Du Pont granted licenses under the patent to everyone who applied for one—some 250 or 300 in all (Flaherty, R. 2028). The patent expired in 1944.

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[4] Weckler, who was a witness for appellees, was Vice President and General Manager of the Chrysler Corporation at the time he testified (Weckler, R. 2143-2144).

During the course of the efforts by the General Motors Paint and Enamel Committee to interest paint and varnish manufacturers in providing something which would help in the automobile finishing problem, Harry Mougey, a member of Kettering's General Motors Research Group, called on du Pont early in 1922. Flaherty, to whom he was referred, told him of du Pont's new lacquer, and agreed to send samples of it to General Motors so that it would be tested along with the other materials under observation by the Committee (R. 383; Flaherty, R. 2030-2031, Williams, R. 1945, DP 200, R. 2031, 6081).

The tests made Kettering and Mougey enthusiastic (R. 383; Kettering, R. 1589-1591, GM 113, 267, DP 177, 178, 202, R. 1296, 1589, 1950, 2034, 6880, 7402, 6013, 6016, 6083)—far more enthusiastic, in fact, than were the people in du Pont (Weckler, R. 2146-2147, GM 267, p. 3, R. 1589, 7402 at p. 7404). The lacquer was, to be sure, not perfect; it lacked the high gloss of varnish, and it would not adhere to the traditional undercoats used on metal (Kettering, R. 1590; Weckler, R. 2138-2139; Williams, R. 1965-1966, DP 202, R. 2034, 6083). Both companies went to work on the problem of improving the lacquer and adapting it to the demands of the production line (R. 383; Weckler, R. 2138-2139, 2148-2149, Williams, R. 1947-1951, DP 177-185, R. 1950, 6013-6042). During this period the Paint and Enamel Committee continued its search for other possible finishes, and checked every conceivable new material against "Duco" (Weckler, R. 2138, DP 202-209, GM 111, 113, 114, 116, pp. 8-9, 122, R. 2034-2038, 1294, 1296, 1298, 1301, 1310, 6083-6093, 6877, 6880, 6891, 6899 at pp. 6906-6907, 6930).

Both the contemporaneous documents, and the testimony of all of the witnesses who covered this period at the trial, show that "Duco" made its own way on its own merits at the General Motors Divisions, as it did elsewhere. "Duco" was far superior to any other product or any other method of finishing automobiles then available (Fisher, R. 588, 591-592, Weckler, R. 2138-2139, 2148-2149, Sloan, R. 1311, GM 111, 113, p. 4, 114, 267, GTX 381, p. 2, DP 198, pp. 2-3, R. 1294, 1296, 1298, 1589, 523, 2022, 6877, 6880 at p. 6883, 6891, 7402, 3926 at p. 3927, 6073 at pp. 6074-6075). It was adopted by the General Motors Divisions only after the most time-consuming tests—tests far more rigorous and thorough than those made by other automobile companies (Williams, R. 1962-1963).

The findings and evidence also show that each Division of General Motors adopted "Duco" independently, and only when the Division had become satisfied that "Duco" best served its interests. Oakland (now Pontiac) Division was first. Its paint superintendent developed a burnishing process which brought up the lustre, and in the spring of 1923 the Division decided to use "Duco" on its 1924 open car (R. 384-385; Williams, R. 1951-1953, L. Fisher, R. 591-592, Wirshing, R. 1926, DP 186, 187, R. 1953, 6047, 6049). The open cars with "Duco" finish were an immense success; indeed there was immediate demand that the closed models (the bodies for which were made by Fisher Body) be also finished the same way (R. 385). A contemporaneous report stated (DP 188, R. 1954, 6050):

> "There has been an almost unanimous demand on the part of Oakland distributors for 'Duco' on the closed jobs, because they say they are in an illogical position when they attempt to explain to a prospective Oakland purchaser why the Oakland Company uses a better finish on the cheaper open cars than on the more expensive closed models."

Fisher Body, which was building the Oakland closed bodies, accordingly decided to use "Duco" on the closed bodies as well (R. 385; Sloan, R. 1309, L. Fisher, R. 592, Williams, R. 1953-1956, DP 184, p. 2, DP 185, p. 2, DP 214, 215, GM 121, 122, R. 1950, 2048, 2049, 1309, 1310, 6039 at p. 6040, 6042 at p. 6043, 6103, 6106, 6928, 6930).

Weckler, at Buick, also recommended "Duco" in 1923 for the 1924 model, but Bassett, the General Manager, decided to await the results at Oakland (R. 385, Weckler, R. 2139-2140, 2150-2151, 2155). In 1924, on the continued recommendation of Weckler, Bassett decided to use "Duco" on the 1925 model (R. 385; Weckler, R. 2140, 2150-2152, GM 120, 120A, DP 189, R. 1307, 1308, 1989, 6197, 6919, 6058). At Cadillac, the decision was taken even more slowly, the General Manager expressing his desire first to have "Duco" "tried out in every conceivable fashion" (R. 385; GTX 384, R. 523, 3938). Cadillac offered it only as an optional finish for about two years, and did not make it standard until 1926 (R. 385; Sloan, R. 1296-1297, Williams, R. 1962, Flaherty, R. 2045, GTX 386-388, R. 524, 3942-3945). The other Divisions, and Fisher Body, one by one abandoned varnish and shifted to "Duco" during the summer of 1924, making the decision independently and on the merits (Sloan, R. 1296-1298, 1310-1311, Weckler, R. 2144-2152, Williams, R. 1956-1962, L. Fisher, R. 592).

The change was slow, because it was revolutionary (R. 385; Weckler, R. 2149). Oakland, with a lagging reputation and a need for a new selling point, was more inclined to move rapidly; Buick and Cadillac, then the more successful automobile Divisions of General Motors, producing a quality product in large volume at a profit, were more inclined to be cautious, since they had far more to lose if the new finish went bad (R. 385-386; Sloan, R. 970-971, L. Fisher, R. 591, Weckler, R. 2139, 2151-2152). A number of persons in General Motors—Clements of General Motors Research, Weckler of Buick, L. P. Fisher of Fisher Body and Sloan—were doing all that they could to encourage the Divisions to take advantage of "Duco"; the General Managers were, on their part, cautious and conservative (R. p. 385-386; Sloan, R. 1296-1298, L. Fisher, R. 594, Weckler, R. 2149-2151, GTX 384, 1228, GM 114, R. 523, 1298, 3938, 5180, 6891). The important thing is that each Division made its decision for itself.

The findings and evidence also reveal other facts in connection with General Motors' use of "Duco" which are inconsistent with the Government's charge that General Motors preferred du Pont or bought from it on a noncompetitive basis because of du Pont's stock ownership. Beginning as early as 1924, both the Paint and Enamel Committee and the General Purchasing Committee made vigorous efforts to develop competition for "Duco". In July, 1924, after "Duco" had been adopted by several automobile Divisions in General Motors, the General Purchasing Committee began the development of a general contract covering it. After Lynah, the Executive Secretary of the Committee, had ascertained that no competitive lacquer had been approved by General Motors Research (GM 168-169, R. 1131, 7162, 7163) a contract was authorized in December, 1924, under which General Motors was to buy its entire requirements of pyroxylin finishes from du Pont for the first six months of 1925 (R. 386; GM 166, 167, R.

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1128, 7156, 7159). Within a month, however, Lynah was urging that "a field of competition for 'Duco' should be developed" and suggesting that General Motors Research begin tests on other pyroxylin finishes (R. 386; GM 172, R. 1133, 7166). In February, 1925, Lynah, for the General Purchasing Committee, requested Research to test the offerings of seven enamel companies which he named (R. 386; GM 173, R. 1135, 7168).

When this first "Duco" contract came up for renewal, Lynah again prodded Research, and received a long report from Mougey of the Research group. The report refused to approve any competitive lacquer, but it did recommend that test cars be finished with several competing lacquers for more complete testing, so that General Motors would be in a position by 1926 to utilize some of them (R. 387-388; GM 175, 176; R. 1137, 7170, 7171). This was done, and by the end of 1926 General Motors Research was able to approve a number of competitive products (R. 388-389; Lynah, R. 1140-1142, Wirshing, R. 1922-1923, 1934, GM 178, 180-183, R. 1137, 1140, 7180, 7186-7189). The contract with du Pont was meanwhile extended for the last half of 1925, and then for 1926, but each time only after Lynah was advised that there were still no competitive lacquers which General Motors Research had approved (R. 388; Lynah, R. 1138-1141, GM 180-184, R. 1140-1141, 7186-7190).

After 1926 the General Purchasing Committee entered into no further requirements contracts with du Pont. Thereafter the only arrangements were in the form of a discount and pricing contract (a so-called "requirements of seller's make" contract) under which the Divisions could buy "Duco" if they wished to use du Pont pyroxylin lacquer in preference to that of some other manufacturer (R. 388; Lynah, R. 1093, 1142, 1178, Flaherty, R. 2055-2056, GM 186-190, GTX 467, 468, DP 558, R. 1142-1144, 540, 541, 2997, 7207-7224, 4121, 4122, 6475).

These efforts to encourage competition with "Duco", as the trial court found, worked a real change in the du Pont position at several of the Divisions. Cadillac, which is near a Rinshed-Mason plant, began to use Rinshed-Mason materials, secured good service, and has continued with them (R. 389; Wirshing, R. 1926, Williams, R. 2010, Flaherty, R. 2056). Oldsmobile began purchasing its lacquer requirements from Rinshed-Mason because that company was willing to make a line of colors which Oldsmobile wanted and which it preferred, even though the colors were less durable than those offered by du Pont. That Division has continued with Rinshed-Mason ever since (R. 389; Wirshing, R. 1924-1925, Williams, R. 2010, Flaherty, R. 2053). Fisher Body, which had been using some Forbes black lacquer since 1925, even before Research approved it, greatly increased its purchases of lacquer from du Pont's competitors (R. 387, 389; L. Fisher, R. 593, Wirshing, R. 1923, Williams, R. 2010, Flaherty, R. 2053, GTX 453, R. 536, 4082).

Other Divisions have elected, for various reasons, to stay with du Pont. At Buick Division, there is evidence that Buick could not find any competing product which was equally satisfactory with "Duco", and that the location of a du Pont plant close by, with obvious service advantages, was an important factor (R. 389; Wirshing, R. 1926-1927, Weckler, R. 2142, 2161). The Pontiac Division's decision likewise appears to be based partly on the proximity of the du Pont plant in nearby Flint, and partly because Oakland, Pontiac's predecessor, had achieved an outstanding success as the first major automobile manufacturer to use "Duco" in production (R. 384-385, 389; Wirshing, R. 1925-1926). Chevrolet has continued to buy from du Pont (Flaherty, R. 2058-2059, GTX 502, 503, R. 597, 598, 4169, 4171) because du Pont has given highly satisfactory service, including the meeting of heavy production schedules, and Chevrolet has never found any lacquer superior to "Duco" despite repeated research tests (R. 389; Wirshing R. 1923-1924, 1927-1931, 1934-1935).

Finally it should be added that, contrary to the Government's contention (Br., pp. 83, 140-141), the success of "Duco" was not confined to the General Motors automobile Divisions. In the trial court the Government admitted that soon after the advent of "Duco" du Pont sold it to a considerable number of other automobile companies (R. 389; see Williams, R. 1991-1992, Flaherty, R. 2048, DP 184, 215, R. 1950, 2049, 6039, 6106). It no longer sells to a number of them because they no longer exist; no inference of inferiority of du Pont finishes can be made because they are no longer used on the Franklin, Marmon, Moon, Cleveland, Chalmers, Morris, Lexington, Paige, Hupmobile, Gardner, etc. See DP 184, 215, R. 1950, 2049, 6039, 6106, Williams, R. 1991-1992. Among the smaller companies which have survived, the most important are Nash, Studebaker, Hudson, Packard and Willys. Du Pont has sold those companies continuously since the middle 1920's (Williams, R. 1991-1992). Apart from the major producers, therefore, du Pont has enjoyed a large measure of success— indeed in recent years its position at four of the companies—Nash, Studebaker, Willys and Hudson—has substantially improved (GTX 1378, 1381, 1382, R. 2824, 2825, 5409, 5414, 5415).

Nor is there room for an inference, in du Pont's record of sales to Chrysler and Ford, that "Duco" is unable to make its way in the automobile industry on its merits. At Chrysler, du Pont enjoyed a very large measure of early success (Williams, R. 1994). In the early 1930's, however, when Chrysler had become a large factor in the industry, it decided that it wanted a supplier to whom it would be the most important customer (Williams, R. 1994-1995; see pp. 198-199, *infra*). The record shows that in recent years Pittsburgh Plate Glass Company has enjoyed by far the major share of Chrysler's finish requirements (DP 559-561, R. 2999, 6479-6481). Even so, du Pont still sells Chrysler a substantial dollar volume of finishes, and has made "important gains" there since the war (GTX 1382, R. 2825, 5415).

Ford chose to make a large part of its own requirements. It was, it is true, never an important user of "Duco". During the 1920's, when it was losing its leadership in the low priced field to Chevrolet, it continued to finish its cars in Black Japan. Mr. Ford said, "Paint them any color, as long as they are black" (Fisher, R. 578). In the late 1920's Ford commenced to make some lacquer but in the early 1930's switched to a synthetic enamel finish. During that period du Pont sold Ford a substantial quantity of both undercoats and topcoats (Williams, R. 1992-1993). During the same period Ford began to make an increasingly large proportion of its finish requirements. In 1935, it was making half, and buying half from du Pont; by 1937 the figures were three-quarters and one-quarter—du Pont's sales being $834,000 (GTX 1376, 1377, 1379, R. 2824, 2825, 5407, 5408, 5411). From 1938 until Henry Ford II became active in Ford management, purchases practically ceased. Since then, Ford has again bought finish materials from du Pont. It has continued to manufacture for itself a large portion of its requirements, but it purchases from du Pont in "very substantial quantities" (Williams, R. 1993, DP 196, R. 1993, 6069), and has done so even more since the war (GTX 1382, R. 2825, 5415).

The only fair conclusion, on all of this evidence, is that reached by the District Court—that du Pont has maintained its position as a lacquer supplier to General Motors because each Division which purchases from du Pont has decided independently that such purchases best fit its needs (R. 396). The sworn testimony of witnesses who had direct, intimate, personal knowledge of du Pont's sales of finishes to General Motors negatives the Government's assertions that those sales were made on a non-competitive basis, or were the result of control or influence arising from the stock relationship.

b. "Dulux"

In the early 1930's du Pont developed "Dulux" synthetic enamel as a finish for refrigerators and other household appliances. The finish was offered by du Pont first to General Electric, which was using "Duco", rather than to Frigidaire, which was largely using porcelain. The technical personnel of du Pont and General Electric worked closely together in adapting "Dulux" to General Electric's manufacturing processes, just as the technical people in General Motors and du Pont had done in adapting "Duco" to automotive finishing (R. 390; Knight, R. 2383-2384, O'Donnell, R. 2405). General Electric, as a result, was the first refrigerator manufacturer to use "Dulux". Westinghouse was second. Frigidaire followed later (R. 390; Knight, R. 2383, Van Derau, R. 2484, O'Donnell, R. 2405, 2415).

Since that time all three companies—General Electric, Westinghouse and Frigidaire—as well as Crosley, the other major competitor, and many smaller companies, have continued to purchase practically 100 percent of their refrigerator finishes from du Pont—except, of course, for the portion of Frigidaire production which continues to be finished in porcelain (R. 390). The preference for du Pont was explained at the trial by representatives of each of Frigidaire's major competitors—witnesses whose credibility the Government does not attack (Knight, R. 2383-2385, Norberg, R. 2475-2476, Van Derau, R. 2483-2492). Their testimony alone goes far to show that the basis for du Pont's success as a finish supplier is superior performance and not control or influence. Each of the companies continuously tests competitive finishes but continues with du Pont (Knight, R. 2385-2387, Norberg, R. 2475, Van Derau, R. 2484, 2485). One reason, in addition to quality, was explained by Van Derau, of Westinghouse (R. 2488-2489):

> "We have had a very, very happy relationship over those years.
>
> "Now, another factor—and I think I can say this without it being harmful to any other suppliers—du Pont has the finest technical group at their beck and call, at the beck and call of the users of the materials, of anybody in the business and we have had several times, when we have had a little problem, and I am thinking of one in particular where we were going to find it very difficult to keep in production until the trouble would be overcome, which I called from Pittsburgh to the Chicago office, and the next morning one of the men of du Pont was on the job, and within a very few hours they had materials coming in from their Toledo plant that kept us in production.
>
> "You cannot laugh off that kind of service. They have been simply excellent, and I don't know how you could say, any better."
>
> "You can be sure with du Pont, on that kind of service."

There is every reason to accept, and no reason to doubt, the findings of the District Court that Frigidaire's purchases of "Dulux" are bottomed on the same reason: a judgment that in this way Frigidaire gets the most in quality, service and price (R. 396).

c. *Finishes other than "Duco" and "Dulux"*

Du Pont's efforts to sell finish products other than "Duco" and "Dulux" to the General Motors Divisions have, as we have already noted (pp. 40-42, 44-45, *supra*) met with considerably less success.

At the automobile Divisions, du Pont has been most successful in its sales of other finish products at Chevrolet and Buick. It sells each of these Divisions substantial quantities of undercoats because it has offered superior service, and because those Divisions have proceeded on the theory that use of one company's products from the metal out leaves no room for argument as to whose fault causes any trouble (R. 389; Wirshing, R. 1924, 1926-1927, 1933, Williams, R. 2007-2008, Flaherty, R. 2058-2059, Weckler, R. 2142, 2161). The principal purchaser of undercoats at General Motors, however, is Fisher Body Division, and du Pont has never been able, despite continued sales efforts, to change Fisher Body's preference for another undercoat supplier. As a result, it supplies undercoats for only one of Fisher Body's 14 plants (R. 389; Williams, R. 1985, Wirshing, R. 1923).

The findings (R. 389) refer to one particularly intensive—and wholly unsuccessful—effort which du Pont made in 1926 to secure Fisher Body's undercoat business. Shortly after "Duco" had been generally adopted by automobile manufacturers, du Pont offered an undercoat made from the same sort of nitrocellulose base as a substitute for the oil-based undercoats then in use. The new product met with success at other companies such as Chrysler, Nash and Marmon because of its quicker drying and better surfacing qualities (R. 389; Williams, R. 1981-1983, DP 193, 194, p. 2, R. 1982, 1984, 6065, 6066 at p. 6067). Yet du Pont, despite selling efforts (GTX 470-472, 476, 479, R. 539, 540, 4124-4126, 4128, 4132) never succeeded in persuading Fisher Body, or any General Motors automobile Division in the United States, to adopt it (R. 389; Williams, R. 1983, 1989, DP 194, p. 2, R. 1984, 6066 at p. 6067).

At the non-automotive Divisions (other than Frigidaire already discussed, pp. 56-57), the reasons for du Pont's successes and lack of successes are essentially the same as those already discussed: where du Pont could persuade the purchasing agents of the merits of its product on quality, service and price, it succeeded. Where it couldn't, the business went to its competitors. Du Pont's service brought it a good share of the black lacquer business of AC Spark Plug Division (R. 390; Williams, R. 1996, 1997); its high quality secured the reflector finish business at Guide Lamp Division (R. 391; Williams, R. 2000-2001).

Competitors of du Pont, however, have also been able to obtain business on the same basis. Service secured the finish business of Inland Division for a competitor (R. 390-391; Williams, R. 1999-2000), and quality enabled a competitor to sell Guide Lamp its primers (R. 391; Williams, R. 2000). Price, in addition to quality, led Ternstedt Division to change from du Pont to a competitor (R. 391; Williams, R. 2001-2002). Electromotive Division prefers a competitive lacquer for the interior finish of its locomotives, but uses "Duco" on the exterior because the railroads, most of which use "Duco" for the exterior finish of the balance of the train, specify that finish (R. 391; Wm. Fisher, R. 2434-2435).

3. THE PERIOD BEFORE "DUCO"

What has been said above demonstrates that "Duco" ushered in a new era of automobile finishing. Accordingly du Pont's success in selling "Duco" to General Motors cannot be explained by reference to any paint sales that du Pont may have made to General Motors prior to the invention of "Duco". There is, however, evidence in the record with respect to du Pont's prior sales which shows that even in that early period du Pont did not enjoy any preferential advantage and that General Motors' purchasing policies were not controlled or influenced by du Pont.

In 1918 du Pont acquired a majority of the stock of the Flint Varnish & Color Works of Flint, Michigan (R. 344;

GTX 277, R. 499, 3680). *Before* du Pont acquired any interest in Flint Varnish that company was supplying all of the finishes required by Chevrolet (not then a General Motors Division), and by all of the automobile Divisions of General Motors except Cadillac (R. 382; Weckler, R. 2142, GTX 277, pp. 20, 25, R. 499, 3680 at pp. 3699, 3704). *After* du Pont purchased a majority stock interest in Flint Varnish there were significant losses in the latter's General Motors business. By 1921 Flint had lost half of the Oakland business, and by 1923 it had lost all of the General Motors finishing varnish business (at Buick, Oakland and Oldsmobile; Chevrolet did not use it) (R. 382, GTX 420, DP 220, R. 528, 2693, 4010, 6122).

B. THE EVIDENCE SUPPORTS THE TRIAL COURT'S FINDINGS THAT GENERAL MOTORS' PURCHASES OF FABRICS FROM DU PONT WERE NOT RESTRAINED OR INFLUENCED BY DU PONT'S STOCK OWNERSHIP

Next to finishes the products which du Pont sells to General Motors in the largest dollar volume are fabrics, which are sold by du Pont's Fabrics Division and which include coated fabrics, uncoated combined fabrics, plastic and rubber sheeting, and related products. These fabric products are used in automobile manufacture for interior trim, for top material on convertibles and to some extent in upholstering trucks and buses. The du Pont materials, however, are not ordinarily used in upholstering modern passenger automobiles.[5]

The total sales of the Fabrics Division represent but a small part of du Pont's total sales. In 1948, for example, Fabrics Division sales were just over 2 percent of the total (R. 403; DP 445, R. 2688, 6436). Of these Fabrics Division sales, about 80 percent have been sales to non-automotive customers (R. 403; Nickowitz, R. 2070). Purchases by all General Motors Divisions of $3,700,000 of fabrics in 1948 represent the Fabrics Division's largest account, but are nevertheless only about 18 percent of the sales of the Fabrics Division and less than four-tenths of one percent of du Pont's total sales in that year (R. 403; DP 445, R. 2688, 6436).

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[5] The types of fabrics sold by du Pont constitute approximately 6 percent of the total upholstering and trim in an automobile. Fabrics and Fibers for Passenger Cars, United States Department of Agriculture, Bureau of Agricultural Economics, Bulletin No. 45, October, 1951, page 12.

The conclusion of the District Court, upon all the evidence with respect to these fabric purchases, was as follows (R. 405):

> "The Court further finds that such purchases of fabrics as the General Motors divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment and are not the result of du Pont domination. Du Pont, the record shows, has maintained its position as the principal fabric supplier to General Motors through its early leadership in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery."

This section of the brief will discuss the evidence that supports these findings. For the purpose of the discussion the evidence will be treated in two categories: (1) that relating to the purchases of fabrics made by the General Motors Divisions in recent years and (2) that relating to fabrics used by the General Motors Divisions two or three decades ago before the closed car made obsolete the fabric products used for tops and upholstery on open cars. The evidence falling into both categories shows that the Divisions of General Motors have at all times purchased fabrics from du Pont only on the basis of quality, service and price and that du Pont has enjoyed no preferential advantage by reason of its stock ownership.

1. THE EVIDENCE RELATING TO PURCHASES OF FABRICS BY THE GENERAL MOTORS DIVISIONS IN RECENT YEARS

a. Fisher Body Division

Fisher Body Division uses three principal products which are offered by du Pont's Fabrics Division—combined uncoated materials for convertible tops (the du Pont product is known as "Teal"), coated fabrics for interior trim, and adhesives for affixing weather-stripping. The findings as to each demonstrate the lack of foundation for the Government's charges that the purchases from du Pont were based on control or influence.

Combined uncoated fabrics. Fisher Body Division began to use uncoated combined fabrics for convertible tops in 1926, purchasing about half of its requirements from du Pont and half from du Pont's competitors (R. 380, 400; Brown, R. 2255). This proportion continued until 1931, when Fisher Body demanded of its suppliers a two-year guarantee that cleaning materials would not damage the fabric. Although du Pont tests showed that its "Teal" would withstand cleaning materials as well as competitive fabrics, du Pont felt that its experience with "Teal" was inadequate to warrant giving such a guarantee, and refused to make it. A competitor, Haartz Auto Fabric Company, was willing to give the guarantee, and in consequence in 1932 became Fisher Body's sole supplier of this material (R. 380, 400; Brown, R. 2253, 2255, DP 286, 297-298, R. 2256, 2266, 6216, 6231, 6232). A year later, in 1933, du Pont had so improved its combining cement that it agreed to make the guarantee Fisher Body demanded; but the offer was unavailing. Du Pont continued its efforts to sell its product to Fisher Body, but it secured none of this business for fifteen years—until fabric shortages and fading and shrinking difficulties with the Haartz material forced Fisher Body to come to du Pont for help (R. 380, 400; Brown, R. 2253, 2255-2259, 2263, Nickowitz, R. 2121, DP

288-293, 295, 296, R. 2257-2261, 2263, 2264, 6220-6225, 6227, 6228). Within a short time du Pont demonstrated to Fisher Body that the du Pont fabric would eliminate both the fading and shrinking difficulties, and from 1948 to 1951 du Pont received about half of Fisher Body's business in this material. In 1951 du Pont's share was reduced to about a third (R. 380, 400; Brown, R. 2263, 2265-2266, DP 294, 296-298, R. 2262, 2264, 2266, 6226, 6228-6232).

Coated fabrics. There is likewise no room for doubt that du Pont's present position at Fisher Body Division on coated fabrics has been achieved solely on the merits of its products. Coated fabrics for tops (or "decks") of cars were eliminated in 1936 by the adoption by Fisher Body of the all-steel top. A few years later, in 1939, Fisher Body began styling closed bodies to use coated fabric for interior trim where durability and abrasion resistance were desirable (R. 400; Brown, R. 2253). These were precisely the qualities in which du Pont's handbag and baggage materials were pre-eminent, and it secured the major share of Fisher Body's requirements for those materials in 1940 and 1941. During a period of shortage immediately following the war Fisher Body purchased all the coated fabrics du Pont would sell, but since 1947 du Pont's share of this business has declined. It is now one of Fisher Body's five major suppliers of this material (R. 401; Brown, R. 2253-2255, Nalle, R. 2893, 2897, DP 277, 279, 283-284, GTX 1315, R. 2243, 2249, 2165, 6203, 6206, 6212, 6213, 5267).

Adhesives. Fisher Body Division also purchases each year about $1,000,000 worth of a rubber cement which is used to affix weather-stripping to automobile bodies. Since 1945, the Fabrics Division of du Pont has sought to persuade Fisher Body to purchase its cement (the du Pont product is known as "Fairprene" 5115). Du Pont has convinced some Fisher Body plant managers that "Fairprene" 5115 is better than the products which they buy from du

Pont's competitors, and no Fisher Body official has indicated that the du Pont product is inferior, but only since 1951 has du Pont sold any "Fairprene" 5115 at Fisher Body. Since 1951, du Pont has secured about 3 percent of Fisher Body's requirements (R. 401, 443-444; Nickowitz, R. 2095-2098).

b. Chevrolet Commercial Body Division

In 1930 General Motors purchased the plant of the Martin-Parry Corporation, which became the Chevrolet Commercial Body Division of General Motors. Prior to the acquisition Martin-Parry had been purchasing exclusively from du Pont its requirements of coated fabrics for upholstery and trim in its light trucks and commercial vehicles (R. 401; Brown, R. 2276-2277, DP 247, R. 2277, 6158). After the plant became a Division of General Motors, it continued, until 1937, to purchase only du Pont pyroxylin coated materials. In that year, however, it changed to rubber coated materials, partly purchased from du Pont, and partly from U. S. Rubber. In 1940 du Pont's share of this business again declined, and in 1948 declined still further, until du Pont now supplies less than a third of the Division's $2,000,000 annual purchases of coated fabrics (R. 401; Brown, R. 2277-2279, 2281-2282, Nickowitz, R. 2098-2101, DP 310-312, 557, R. 2280, 2281, 2905, 6249-6252, 6473). Du Pont has maintained competitive quality, service and price but Chevrolet Commercial has adopted a policy of purchasing its coated fabrics from several sources (Nickowitz, R. 2098-2102).

c. GMC Truck & Coach Division

From before 1917 until 1925 du Pont sold fabrics to General Motors Truck Company, as well as to Yellow Cab Manufacturing Company, which was not then affiliated with General Motors (Brown, 2229-2230, 2268-2270, MacShane, R. 2351-2352). When the two companies merged into Yellow Truck and Coach Manufacturing Company, in which General Motors had a majority stock interest, du

Pont retained only about a third of that company's fabric requirements (Brown, R. 2268-2270). In 1943 the company became the GMC Truck & Coach Division of General Motors. Since then du Pont's position has deteriorated further. It has retained about a third of the Division's business on coated fabrics for medium and light truck upholstery (R. 401; Nickowitz, R. 2102), but on heavy truck upholstery and on seats for buses (manufactured by seating companies to GMC Truck & Coach specifications), du Pont has been almost completely unsuccessful. Until after the war GMC Truck & Coach used natural leather in preference to fabrics for both of these uses. When it shifted to a vinyl coated fabric for its heavy truck upholstery, materials were short. U. S. Rubber had a greater supply, met the color requirements of GMC Truck & Coach faster than du Pont, and got all the business, which it still has (R. 401; Nickowitz, R. 2102-2103, 2681-2682, Brown, R. 2275-2276, Nalle, R. 2889, GTX 1356, R. 2890, 5374). For bus seats the same shortage of vinyl plastic was first overcome by B. F. Goodrich Company, and it got and has retained all of that business. Only recently has du Pont succeeded even in persuading GMC Truck & Coach to specify the du Pont as an alternative to the Goodrich fabric in its bus seat specifications (R. 401; Nickowitz, R. 2104).

d. Cadillac

Only one automobile Division—Cadillac—makes quantity purchases of fabrics at the present time. That Division purchases annually about $75,000 of vinyl coated fabrics for seat covers. Du Pont has actively solicited the business, but has never shared any portion of it (Nickowitz, R. 2110-2111).

e. Other General Motors Divisions

Many non-automobile Divisions of General Motors have become large fabrics users in recent years. The findings and evidence which show du Pont's limited successes in selling to those Divisions, coupled in many instances with its far greater success in supplying the same materials to General Motors' competitors, are flatly at odds with the Government's contentions.

AC Spark Plug Division, for example, uses the equivalent of about $2,000,000 annually of coated fabrics for fuel pump diaphragms. Since 1939 du Pont has sought to supply this material to AC Spark Plug, and has been successful in supplying the competitors of that Division with all, or a substantial part of, their fabrics, but AC Spark Plug has continued to use material which it produces for itself. AC Spark Plug does, however, use du Pont fabric for the diaphragms which it makes for Chevrolet automatic transmissions, because Chevrolet found the AC Spark Plug material unsatisfactory, requested that du Pont engineer a suitable material, and then required AC Spark Plug to use it (R. 401; Nickowitz, R. 2107-2110).

Du Pont supplies the principal competitor of the Electromotive Division of General Motors with its entire requirements of synthetic rubber coated material for batten strips, and with rubber coated fabrics for insulating materials, yet it has never succeeded in securing any of Electromotive's substantial requirements of these products (R. 401-402; Nickowitz, R. 2110).

At the Delco Appliance and Packard Electric Divisions of General Motors du Pont has been similarly unsuccessful in supplying any of the large requirements of synthetic rubber coated fabrics or vinyl coated insulating tape. At the latter Division du Pont does supply about half of the glass fabric coated with "Teflon" for insulating aircraft ignition wire, but has been unable to secure more of this business because Packard Electric prefers several sources of supply (R. 402; Nickowitz, R. 2111-2112). At the Overseas Division of General Motors, du Pont, which formerly supplied about half of the Division's substantial requirements for coated fabrics, has lost out entirely since the war (R. 402; Nickowitz, R. 2111).

2. THE EVIDENCE RELATING TO PURCHASES OF FABRICS BY THE GENERAL MOTORS DIVISIONS IN THE ERA OF THE OPEN CAR

Du Pont entered the manufacture of coated fabrics in 1910, when it purchased the Fabrikoid Company of Newburg, New York (R. 342-343, 396; Irenee du Pont, R. 761-762, DP 72, GTX 106, R. 764, 476, 5730, 3062). "Artificial leather", as it was then known, was of poor quality and had very limited areas of acceptance. As du Pont succeeded in improving both its quality and appearance, its use rapidly broadened. By mid-1913 du Pont "Fabrikoid"—a pyroxylin-coated fabric—had been accepted by the automobile industry for upholstery and interior trim. Three years later, in 1916, almost every automobile company was a purchaser of "Fabrikoid", and a contemporary du Pont estimate in that year stated that 60 percent of the cars produced in the United States would be equipped with "Fabrikoid" (R. 396-397; Irenee du Pont, R. 762-764; Nickowitz; R. 2071-2072, Brown, R. 2185, 2222, 2226, MacShane, R. 2332, DP 230, 231, 233, 239, 243, GTX 300, R. 2073, 2075, 2082, 2188, 503, 6132, 6133, 6135, 6145, 6149, 3798). In that same year du Pont rounded out its line of fabric materials by acquiring the Fairfield Rubber Company, a manufacturer of rubber-coated fabrics (R. 343; Nickowitz, R. 2083-2084, GTX 106, at p. 6, R. 476, 3062 at p. 3067).

Du Pont had thus achieved, before it purchased its General Motors stock, a leading position in the automotive fabric field. The findings and evidence show that it was supplying, before 1917, substantially all of the coated fabrics requirements at Chevrolet and Oldsmobile, about half of the requirements at Buick, and about a third of the requirements at Oakland. At the Cadillac Division, du Pont supplied all of the coated fabrics for interior trim, but none of the top material (R. 397; Brown, R. 2185, 2188, 2205-2206, 2220, 2222, 2226, 2287, Nickowitz, R. 2081, DP 235, GTX 107, at p. 3, 2076, 476, 6138, 3079, at p. 3082). Of equal significance, however, the findings reveal that in 1918, after the stock purchase there was no improvement in du Pont's position. So far as concerns "Fabrikoid", du Pont simply continued to hold the business it already had (Brown, R. 2185). So far as concerns top materials, the effect was substantially the same. Although du Pont developed a new and better material—"Pontop"—and sold it to many major automobile companies, this did not materially affect du Pont's share of the fabric business at General Motors, since "Pontop" largely replaced materials which du Pont had already been supplying (R. 397-398; Brown, R. 2186, 2189-2190, MacShane, R. 2339-2341, DP 244, 245, R. 2190, 2191, 6152, 6153).

By 1921, such was the success of "Pontop" at the General Motors Divisions that du Pont considered the possibility of consolidating its position on a long-term basis by means of a contract with General Motors to supply its entire fabrics requirements (GTX 417, 403, R. 526, 3992, 3958).[6] The suggestion to the du Pont Executive Committee (GTX 417) and that made to Pierre du Pont by R. R. M. Carpenter in October 1921 (GTX 403) are both referred to by the Government (pp. 32, 36, 118), which does not, however, note the trial court's finding that no such arrangement was ever made (R. 351). Moreover, when a similar proposal was made by du Pont in 1923 (GTX 413, R. 528, 3987), it was rejected (R. 351-352)—both by Sloan (GTX 415, R. 1161, 3989) and by the General Purchasing Committee (GM 155, at p. 3, R. 1100, 7077 at p. 7079).

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[6] The report of the du Pont Cellulose Products Department to the du Pont Executive Committee (GTX 417) stated (R. 3999): "In general, our reports are that our products are considered by the several General Motors units as equal or superior to those of competitors, and in addition we have at some slight increase in cost to ourselves, sent out our product in a form somewhat better adapted to the factory practices of the General Motors plants than have some of our competitors. Therefore the time appears to have arrived when we might capitalize this condition by some arrangement insuring to us all the General Motors' purchases which we can handle."

In 1922, du Pont substantially improved its position as a fabrics supplier to the General Motors Divisions, but the findings and evidence make it clear that control or influence had nothing to do with General Motors purchases in that year. They show that the "recession" of 1920-1921 had caused a sharp drop in automobile sales, and had left automobile manufacturers, including the General Motors Divisions, with large supplies of coated fabrics on hand, and outstanding commitments for additional supplies. The Divisions had requested du Pont to cancel these supply contracts, and du Pont, which had made its own commitments for raw materials, had refused to do so. Further negotiations, however, had resulted in agreements with the Buick, Oakland and Oldsmobile Divisions that the existing contracts would be cancelled in return for a commitment on the part of those Divisions to buy their entire requirements of coated materials from du Pont for 1922. When that commitment expired in 1923, these Divisions resumed substantial purchases from du Pont's competitors (R. 399; Brown, R. 2186-2187, 2294, DP 253, 264, GTX 309-310, 2211, 2227, 506, 6165, 6176, 3818-3820). As the District Court found, all of this reflected normal buyer-seller relationships (R. 405); certainly on the Government's view of the trade relationship between the two companies, the whole negotiation, which was conducted at the highest levels in both companies and which was by no means free of acrimony, would have been pointless, and the prior and subsequent conduct of the Divisions in purchasing substantial quantities of their needs from du Pont competitors, inexplicable.

The findings and evidence reveal not only these general facts, but the details of du Pont's success, and lack of success, at each of the automobile Divisions during this period, and show convincingly the wide gap which exists between the facts and the Government's contention. A brief summary of each will suffice.

a. Fisher Body

In 1917, Fisher Body was building closed bodies for General Motors, and was purchasing the coated fabrics for the tops from a du Pont competitor, Textileather. Both before and after 1917 du Pont tried to secure a part of this business (MacShane, R. 2353). In 1923 it secured trial orders of its materials (GTX 452, R. 536, 4081), but it was not until 1925 that it succeeded in making any substantial sales (R. 374, 400; DP 269, R. 2234, 6182). In that year three events occurred which established du Pont as a substantial supplier of fabrics at Fisher Body: (a) Fisher Body decided to change from a pyroxylin to a rubber-coated fabric, which Textileather did not manufacture; (b) du Pont introduced an improved rubber-coated fabric—"Glazed Pontop"; and (c) du Pont employed in Detroit a new fabric sales representative who was recommended by the Fisher management. This last event resulted in a large order for the balance of 1925 (R. 374; Brown, R. 2231-2238, MacShane, R. 2353-2355, DP 266-274, 276, 297, 298, R. 2232-2237, 2242, 2266, 6178-6199, 6202, 6231-6232). Then, in early 1926, du Pont introduced an even better rubber-coated fabric—"Everbright"—which was widely adopted in the automobile industry. Fisher Body, after testing it, immediately began to purchase it, and in 1926 du Pont supplied Fisher Body with considerably more than half of its requirements (R. 374; Brown, R. 2236, 2239, MacShane, R. 2355, DP 272, 275, R. 2236, 2239, 6192, 6202). In 1927, however, Fisher Body went back to pyroxylin-coated materials and bought only about half of its top materials from du Pont, and by 1929 du Pont's share had fallen to about one-third, at which level it continued until 1935, when the introduction of the all-steel top eliminated the need for those fabrics (R. 378-379, 400; Brown, R. 2241-2244, MacShane, R. 2356, DP 276-279, 283, 284, R. 2242-2243, 2249, 6202-6206, 6212, 6213).

b. Chevrolet

Du Pont had been a substantial supplier to Chevrolet of fabrics for upholstery and trim in its open car bodies for several years before 1917, and continued to have that business thereafter until 1930 (R. 397-398; Brown, R. 2187, 2196, DP 243, p. 1, 250, 323, R. 2188, 2204, 2205, 6149, 6161, 6269). On top material, however, du Pont's experience was quite different. In mid-1917 du Pont sought to persuade Chevrolet to change from one du Pont fabric to another which du Pont believed to be better, only to find that Chevrolet began to purchase from a competitor. The Chevrolet business was not regained until 1919, when du Pont's "Pontop" gave it a substantial quality advantage over its competitors (R. 398; Brown, R. 2188-2189, 2192-2193; DP 246, p. 2, GTX 297, R. 2192, 503, 6154 at p. 6155, 3791).

On rubber-coated top materials, du Pont maintained its pre-1917 position as Chevrolet's source of supply until 1924, when for two six-months periods Chevrolet purchased its total requirements from a competitor. Quality and delivery difficulties with the competitor's material led to du Pont's regaining the business in the latter half of 1925 (R. 398; Brown, R. 2196-2199, MacShane, R. 2322-2326, 2328-2330, DP 248, 250, 323, 454, p. 9, R. 2198, 2204, 2205, 537, 6159, 6161, 6269, 4084, at p. 4092). Starting in the 1920's Chevrolet began the use of a more expensive top material of combined uncoated fabrics, which it bought from Haartz, a competitor of du Pont, despite du Pont efforts to sell Chevrolet "Teal", du Pont's comparable product. Chevrolet continued to use Haartz material almost exclusively until 1930, when it abandoned rubber-coated top materials entirely, and awarded du Pont about half of its combined uncoated fabrics business, which du Pont thereafter supplied in diminishing quantities until Chevrolet ceased making open bodies in 1933 or 1934 (R. 398; Brown, R. 2199-2200, 2203-2204, MacShane, R. 2334, DP 250, 323, R. 2204, 2205, 6161, 6269).

The findings also reveal other experiences which du Pont has had in supplying Chevrolet with fabrics which cannot be reconciled with the Government's charges. In 1920, at Chevrolet's request, du Pont developed a coated panel board and sold it to Chevrolet at about half the price which Chevrolet had been paying to du Pont's competitors. Within a year, the competitors met du Pont's price, and regained and kept all of that business (R. 398; Brown, R. 2195-2196). Similarly, for many years during the 1920's and 1930's, Chevrolet bought large quantities of coated fabrics for "winterfronts" for radiators. All of it, except in one year, 1936, was bought from du Pont's competitors (R. 398; Brown, R. 2200, DP 249, R. 2200, 6160).

c. Buick

Buick likewise after 1917 continued to buy as it had before 1917, purchasing about half of its coated fabrics requirements from du Pont. In 1919 Buick stated that "not only were [du Pont's] deliveries 100% efficient, and it was not true of many of [du Pont's] competitors, but also that the quality of the material that they were receiving was the best they had ever had from anyone" (GTX 303, R. 504, 3805 at p. 3808). In 1922 as a result of the settlement of the 1921 contracts referred to above (p. 69), it bought all of its coated fabrics requirements from du Pont, but even in that year it substantially reduced its purchases of this material by shifting to combined uncoated fabrics which du Pont did not then manufacture. When du Pont began to produce its combined uncoated fabric "Teal" in 1923, it actively sought to sell to Buick, but was successful only in 1927 and 1928. In all of the other years until Buick ceased making open cars in the early 1930's Buick bought this material almost entirely from du Pont's competitors (R. 399; Brown, R. 2187, 2211-2215, MacShane, R. 2332-2337, DP 254-256, 259, R. 2213, 2214, 2216, 6165A-6167, 6170).

d. Cadillac

Cadillac ceased making open bodies early in 1924. During the time it was so engaged, both before and after 1917, it bought all of its requirements of artificial leather for interior trim from du Pont except for half of 1924, when all of its business in this material went to a competitor (R. 398; Brown, R. 2185, 2220-2221, MacShane, R. 2338). On top materials it likewise followed until 1920 its pre-1917 pattern, purchasing its entire requirements from a du Pont competitor. In 1920, however, its tests satisfied it of the superiority of du Pont's "Pontop", and it continued thereafter to use it until it ceased manufacture of open bodies (R. 398; Brown, R. 2220-2221, MacShane. 2339-2340, GTX 297-298, R. 503, 3791-3795).

e. Oldsmobile

Oldsmobile made open bodies until 1929. Prior to 1917, Oldsmobile purchased substantially all of its coated fabrics from du Pont; after 1917, du Pont was far less successful. The findings show that the reasons were unrelated to the stock purchase, and that normal, expectable, competitive factors were the sole measure of du Pont's success or failure. In late 1917 du Pont had trouble with color uniformity because of dye shortages. The Oldsmobile Division, dissatisfied with the du Pont product, shifted to competitive materials. Although the dye problem was soon solved, du Pont did not succeed in regaining even a part of this Oldsmobile business until 1918-1919, and never thereafter, except in 1922 when the settlement of the 1921 contracts temporarily improved du Pont's position (see p. 69, *supra*), did du Pont secure more than half of this business (R. 397-398, 399; MacShane, R. 2341-2343, Brown, R. 2222-2224, 2226, DP 237, 261-262, GTX 296, R. 2080, 2222, 2223, 502, 6140, 6172, 6173, 3790).

For top material Oldsmobile also followed its pre-1917 pattern. It adopted du Pont's "Pontop" when it was introduced and continued to use it until 1923, when du Pont lost half of the business to a competitor. In 1924 Oldsmobile shifted to combined uncoated fabrics, and purchased a substantial amount from du Pont through 1926 Thereafter it bought exclusively from du Pont's competitors (R. 397, 399; Brown, R. 2224-2225, MacShane, R. 2342-2344, DP 263, R. 2224, 6175).

f. Oakland

For several years before 1917, and generally thereafter until it ceased to produce open car bodies in 1933, Oakland purchased about one-third of its coated fabrics requirements from du Pont. This pattern varied during the latter part of 1917 and all of 1918, when the dye trouble which du Pont experienced resulted, as it did at Oldsmobile, in the loss of all of Oakland's business, and during 1922, when for the reasons already noted (p. 69, *supra*), Oakland purchased its entire requirements from du Pont (R. 398-399, Brown, R. 2226-2229, MacShane, R. 2345-2346, DP 237, GTX 300, R. 2080, 503, 6140, 3798). In 1926, however, Oakland changed to combined uncoated fabrics for top material, and consistently thereafter purchased its entire requirements from du Pont's competitors

(R. 399; Brown, R. 2228, MacShane, R. 2348-2349, DP 265, 324, R. 2228, 2229, 6177, 6270).[7]

3. THE GENERAL MOTORS DIVISIONS HAVE AT ALL TIMES BOUGHT FABRICS FROM DU PONT ON A COMPETITIVE BASIS

Du Pont has generally maintained over the years its pre-1917 position as one of the principal suppliers of fabrics to the General Motors Divisions. Its participation in General Motors business, however, as shown by the findings as to each Division noted above, has been far from constant. A trade survey made in 1930 showed that du Pont was then obtaining only about 31.5 percent of General Motors' total requirements for coated and combined fabrics (R. 400; DP 280-282, R. 2245, 2248, 6208-6211).[8] In the more current years, 1946 and 1947, du Pont's share of General Motors' fabric purchases was 40-50 percent (R. 404),[9] the balance being bought from du Pont's competitors.

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[7] General Motors had two other automobile Divisions—Sheridan and Scripps-Booth—both of which were liquidated in 1924. From 1917 until their demise du Pont was wholly unsuccessful in selling fabrics to either of them (Brown, R. 2187, MacShane, R. 2349-2350, GTX 297, 420, R. 503, 528, 3791, 4010).

[8] The Government figure of 89 percent in 1926 (Br. pp. 60, 139) reflects the same type of "construction" of statistics condemned by the trial court in the Government's earlier efforts (see R. 403-404). While purporting to speak of "total General Motors purchases" the calculation fails to include the figures for Fisher Body Division (DP 297, R. 2266, 6231), which would make the percentage not 89, but 55.5. The figure for total dollar sales on p. 139 of the brief ($11,623,000) is also a patent error; it should be $1,623,000, as it is stated on p. 60.

[9] Appellees figures for these years—52 and 38 percent (DP 569, R. 3007, 6527)—were found by the trial court to be a correct reflection of the basic data (R. 404).

The Government's suggestion that in 1948 the percentage had become 63.8 percent (Br., p. 61) is based upon exhibits which did not purport to include all of General Motors purchases from competitors of du Pont, which were expressed in yards rather than dollars, although prices per yard varied widely; and which were in any event

This share of General Motors fabrics business was achieved by du Pont, as the District Court found (R. 405):

> ". . . through its early leadership in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery."

The record reveals the several competitive factors that are summarized in that sentence. For example, since du Pont first acquired the Fabrikoid Company in 1910, it has maintained research and development staffs far larger than those of its competitors (Nickowitz, R. 2122-2123). Both before and since 1917 this research program has enabled du Pont to be a leader in developing new and superior products, for automobile as well as other uses (Nickowitz, R. 2123-2125). It has also enabled du Pont to maintain a high degree of success in meeting standards of quality and uniformity. On the occasions when it has not succeeded in this respect —as in the case of its war-time trouble with dyes noted above in connection with Oldsmobile and Oakland—its sales have suffered. That such instances have been rare, and that du Pont's reputation for success in quality and uniformity standards is high, has been a powerful sales advantage (Brown, R. 2290-2291, MacShane, R. 2357, 2373-2374, Nickowitz, R. 2118-2120), and the same can be said for its high quality technical service (Nickowitz, R. 2120-2123). Finally, du Pont's reputation is unexcelled as to its ability to maintain a production schedule to which it has agreed, and even to meet emergency demands, arising

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a salesman's estimate based on what information he could piece together, which later turned out in many cases to have been considerably wide of the mark (GTX 1351, 1354, 1357, R. 2890, 5358, 5368, 5378. See Nalle, R. 2862-2864, 2877-2878, 2893-2896). The trial court made no findings beyond the last year for which basic data were available—1947.

from competitive failures or otherwise, which it has been frequently called upon to do (Brown, R. 2291, MacShane, R. 2325-2326, 2329-2330, 2357, Nickowitz, R. 2094, 2100; 2126-2128, 2175).

In recent years a substantial portion of du Pont's sales to auto manufacturers has been made to General Motors, but this fact provides no basis for an inference that du Pont's fabrics are inferior or that General Motors has purchased from du Pont on a non-competitive basis. At Chrysler, du Pont had considerable early success (Brown, R. 2288-2290, DP 286, 321, R. 2256, 2289, 6216, 6267), but in the early 1930's, when Chrysler had become an important factor in the industry, du Pont sales fell off. The du Pont salesman, Nickowitz, stated the reasons given by Chrysler's body engineers (R. 2117):

> "* * * the essence of what they said was, 'Well, you fellows, you are a major source of supply for General Motors'—and at that time we were, too, for Ford—'we would prefer to deal with somebody who was going to be exclusively our major source of supply because we think they would be more apt to take care of us than you will.'
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> * * *
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> "* * * We just haven't been able to become an important source since then to Chrysler."

Currently, Textileather supplies the majority of Chrysler's fabrics (R. 402; GTX 1381, R. 2825, 5414). Ford, as in the case of finishes, has elected to produce for itself most of its own needs (Nickowitz, R 2113, Brown, R. 2292).

Normal competitive factors, therefore, account for the proportion of du Pont sales of fabrics which have been made to General Motors. There is, moreover, additional evidence that du Pont's fabrics can and have made their way on the merits. Prior to the early 1920's, du Pont was the principal supplier of coated fabrics to all three of the then major producers—Ford, Willys-Overland and General Motors (Brown, R. 2291, MacShane, R. 2320). After Ford and Willys began to produce their own coated fabrics they still turned to du Pont for much of what they could not produce (Brown, R. 2287-2288, MacShane, R. 2361-2364). Du Pont has continued to be Ford's largest supplier for the material which it does not manufacture for itself; indeed, during the late 1920's Ford purchased du Pont's "Everbright Pontop" for all of its top requirements over several years (Nickowitz, R. 2113-2114, Brown, R. 2285-2287, 2290-2291, MacShane, R. 2356, 2361-2363). Du Pont has likewise supplied, over the years, a considerable part of the coated and combined fabrics of most of the smaller automobile manufacturers (Nickowitz, R. 2115-2116, Brown, R. 2290, MacShane, R. 2366-2368).

C. THE EVIDENCE SUPPORTS THE TRIAL COURT'S FINDINGS THAT FISHER BODY'S PURCHASES FROM DU PONT WERE NOT RESTRAINED OR INFLUENCED BY DU PONT'S STOCK OWNERSHIP

It is the Government's position that Fisher Body has been a "special problem" because it was "insulated from du Pont control" until June 1926, when all of its stock was acquired by General Motors and it became a General Motors Division (Br., pp. 64, 141). It is the contention of the Government that until Fisher Body became a Division of General Motors it purchased from du Pont on a competitive basis but that thereafter Fisher Body bought on a non-competitive, preferential basis. This contention was also made below, and was rejected by the trial court in findings which are fully supported by the evidence.

The trial court found that "The record also shows that Fisher Body at all times conducted its purchasing with respect to finishes, fabrics and all other products in accordance with its own best judgment", and that "the extent to which Fisher Body has purchased over the years from competitors of du Pont in substantial quantities cannot be squared with the charge that Fisher is a captive market for du Pont" (R. 381).

The detailed findings and evidence show that in 1919, Durant, the President of General Motors, recognizing the coming importance of the closed body in automobiles, the need of General Motors for an assured supply, and the preeminence of the Fishers as closed body builders, sent Walter P. Chrysler, then a General Motors Vice President, to try to hire the four younger Fisher brothers for General Motors. That failed, but in the same year, Durant negotiated an arrangement with F. J. Fisher under which General Motors acquired 60 per cent of the stock of Fisher Body, and which in substance provided that General Motors would supply the funds, and the Fishers the personnel, to expand Fisher Body's operations, with the six brothers agreeing to remain with and direct the operations of the company for five years. The brothers were secured in their control of the operations of Fisher Body, and General Motors was secured in its financial responsibility, by a voting trust in which the voting power was equally divided, and which was set to expire coterminously with the employment contracts (R. 372; L. Fisher, R. 548-553, 557, 561, 567-569, 571-572, GTX 138, 139, p. 12, 425-430, R. 480, 530, 531, 3288, 3291 at p. 3300, 4017-4048). The agreement created, in effect, a "trial marriage" between the Fishers and General Motors, at the end of which the brothers would be free to withdraw (L. Fisher, R. 574).

Before the five years expired, the Fishers became increasingly satisfied. In 1922 they expressed a wish for closer association with General Motors, and F. J. Fisher, already a General Motors director, was added to the General Motors Executive Committee (R. 574, GTX 435, R.

532, 4056). In 1924, when the voting trust and the Fisher brothers' employment contracts were about to expire, Sloan wanted the relationship to be made permanent, and to have the Fishers' help in the broader problems of General Motors (Sloan, R. 1231-1232). After protracted negotiation it was agreed that three of the brothers would devote virtually full time to General Motors with the remaining three operating Fisher Body; that all six would take allotments in the Managers' Securities Plan (see pp. 176-184, *infra*) in lieu of the compensation provided in the employment contracts; and that the voting trust would be permitted to expire as scheduled (R. 372-373; L. Fisher, R. 553, 574-575, Sloan, R. 1231, GM 32, R. 1232, 6657). In 1926, it was again Sloan who recognized that the rights of certain minority stockholders in Fisher Body made it impossible for the latter to make the price reductions to which General Motors was entitled as a matter of economics, and to expand its plant capacity and reserve its entire production for General Motors. Consequently, he took the initiative in the negotiations which culminated in that year in the acquisition by General Motors of the Fisher Body remaining 40 percent minority interest (R. 373; Sloan, R. 1233-1234, GM 34, GTX 505, 507, R. 1234, 598, 6661, 4173, 4176).

The findings and the evidence show that in the conduct of its purchasing policy, both before and after it became a Division of General Motors, Fisher has never bought from du Pont on a preferential, non-competitive basis. While it has purchased, from time to time, portions of its requirements from du Pont it has done so solely on the merits, and has always followed a policy of insisting upon two or three established reliable sources for every product which it purchases in volume (R. 380; L. Fisher, R. 585, 593, Wirshing, R. 1923, Nickowitz, R. 2095, GTX 1315, R. 2165, 5267).

The evidence as to finishes shows du Pont's first significant success—with "Duco"—was in 1923-1924 *before* the 1926 minority acquisition by which Fisher Body became a Division of General Motors, and even before the voting trust expired (Williams, R. 1954-1956, DP 183-185, R. 1950, 6034, 6042). Coercion or influence had nothing to do with it. Lawrence Fisher, who "handled the 'Duco' situation from the first can of it we got" (R. 585) testified that he made the decision to use it on bodies painted by Fisher because "it would stand up and we would stand back of it" and that he even undertook to help "sell" the car Divisions on its use (R. 592).

As soon as competitors of du Pont began to offer acceptable nitrocellulose lacquers, Fisher Body put into effect its policy of several sources of supply, and in 1925 began to buy part of its requirements from two du Pont competitors (R. 387; L. Fisher, R. 593, see pp. 50, 53, *supra*). This loss of finish business by du Pont was *after* some of the Fishers had come into General Motors in executive positions, *after* the voting trust expired, and *after* the Fishers had received allotments in Managers Securities.

The findings and evidence as to fabrics are equally inconsistent with the Government's assertion. They show that du Pont's first success came in 1925, when a Fisher Body decision to change from a pyroxylin to a rubber-coated material, a new and improved du Pont product, and a new du Pont salesman with an entree at Fisher Body combined to give du Pont a position as a major supplier. See pp. 70-71, *supra*. This, of course, was *before* Fisher Body allegedly lost its "independence" by becoming a Division of General Motors, and *before* the sliding scale discount discussed below. Once established, du Pont retained its position as one of Fisher Body's major fabric suppliers, though as already stated (pp. 62-64, 70-71), its success varied widely from year to year, depending on Fisher Body's assessment of du Pont's offerings as compared with those of its other major suppliers.

The Government's argument is also at odds with the findings and evidence relating to the sliding scale discount, which du Pont accorded to General Motors from 1926 to 1932. Although this is described by the Government as "pressure" (Br., p. 67), it was in fact no more than a reduction in price which du Pont agreed to in the hope of getting more General Motors business—a normal competitive practice. There was nothing unique about the arrangement; General Motors secured similar price concessions from many of its suppliers.[10] It appears that du Pont hoped to secure, by lower prices, some of the large volume of purchases which Fisher Body Division was making from du Pont's competitors (GTX 454, p. 4, 492, p. 4, R. 537, 541, 4084, 4087, 4145, 4148). The trial court was clearly correct in finding that it did "not establish that du Pont's sales to Fisher resulted from its stockholding in General Motors or its alleged control of General Motors" (R. 381). During the life of the discount contract, and despite savings to General Motors which would have resulted from larger purchases, Fisher Body Division never bought all or substantially all of its requirements from du Pont.

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[10] Contrary to the Government's statement (p. 142) the discount was not a scheme worked out by du Pont. The idea of a sliding scale discount as a device to save money for General Motors had been developed by the General Purchasing Committee early in 1924. Under these discount contracts, a supplier would fix his base price upon the volume of business he had previously enjoyed, but would grant an additional discount for increased volume.

In the normal course of business in July, 1926, the General Purchasing Committee invited W. P. Allen of du Pont to present a proposal for a sliding scale discount contract to be applied on General Motors' purchases from du Pont—not just fabrics and finishes, but *all* purchases. At the same meeting the Committee extended a similar invitation to Standard Oil (R. 375, GM 164, p. 1, R. 1119, 7147). The contract with du Pont was ultimately negotiated, and with some changes, remained in effect until 1932 (R. 375-376, 379; Lynah, R. 1120, 1123-1125, GM 165, GTX 464, R. 1123, 538, 7155, 4117). The General Purchasing Committee, during the nine years of its existence, was successful in negotiating over a hundred sliding scale discount contracts with various suppliers, of which at least 18 were of the multiple-item sliding scale discount type which were made with du Pont (R. 374, 375, Lynah, R. 1112-1114, GM 162-164, R. 1116-1119, 7120-7147).

The Government in making its contention with respect to Fisher Body's purchases from du Pont asserts that by 1947 and 1948 Fisher was buying 65 to 68 percent of its requirements of fabrics from du Pont (Br., pp. 68, 142). The evidence shows that these figures are incorrect and that in fact Fisher was purchasing a significantly smaller percentage of its fabrics requirements from du Pont in these years. The Government's figures arbitrarily exclude from consideration Fisher's substantial purchases of convertible top material from a competitor of du Pont (GTX 1350-1351, R. 2890, 5356-5358, Nalle, R. 2893-2896). As we have shown, du Pont sold this product to Fisher in the 1920's but lost the business in 1932. Its sales efforts continued, however, and it regained a portion of the business in 1948 (p. 63, *supra*). The trial court found that the Government was wholly unjustified in regarding convertible top material as a product not manufactured by du Pont (R. 404).[11] In 1947 and 1948, therefore, Fisher purchased from du Pont not 65 to 68 percent of its fabrics requirements, as the Government asserts, but approximately 40 percent (Nalle, R. 2881, 2893-2897).

Purchases by Fisher Body, both before and after it became a Division of General Motors may be regarded in the same light as purchases by any other General Motors Division. Du Pont, and its competitors, succeeded or failed as they were successful or unsuccessful in persuading

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[11] The finding is fully supported by the evidence and particularly by the contemporaneous documents which show du Pont's sales efforts (DP 287-295, R. 2256-2263, 6219-6227; DP 565, p. 26, R. 3000, 6485 at p. 6510).

Fisher Body of the quality, service and price advantages of their products—subject to the consistent and overriding Fisher body policy of having several suppliers for each major product wherever that was possible.

D. THE EVIDENCE SUPPORTS THE TRIAL COURT'S FINDING THAT NO RESTRAINT OF TRADE IN ANTIFREEZE HAS RESULTED FROM DU PONT'S STOCK OWNERSHIP

The evidence on antifreeze relates to two different periods of time and to two different subjects. A part of the evidence has to do with General Motors' purchases of antifreeze from du Pont and others since 1930. The other part of the evidence has to do with an incident that occurred in 1925 and 1926, when a question arose whether the instruction books given to purchasers of cars by General Motors should recommend the use of ethyl alcohol or glycerine as an antifreeze. This early incident had nothing to do with any purchases of antifreeze by General Motors.

In the trial court the Government sought to support its case by reference both to General Motors' purchases of antifreeze from du Pont and the early glycerine-ethyl alcohol incident. Indeed, General Motors' purchases of antifreeze from du Pont were one of the three major items of purchases relied upon by the Government in the court below to establish the alleged restraint of trade, the other two being fabrics and finishes. In its brief in this Court the Government makes no mention of General Motors' purchases of antifreeze from du Pont, although it continues to rely upon the early incident involving glycerine. Even though the Government apparently no longer bases any argument upon General Motors' purchases of antifreeze, the evidence with respect to the purchases is highly significant because it provides substantial confirmation, both with respect to antifreeze and more generally, for the trial court's findings that General Motors' purchases from du Pont have been made on a competitive basis and have not been the result of control or influence arising from the stock relationship.

1. GENERAL MOTORS' PURCHASES OF ANTIFREEZE FROM DU PONT

Sales by du Pont to General Motors of antifreeze in 1946 and 1947 represented more than 97 percent of General Motors' total antifreeze requirements. In the court below the Government relied entirely on that one statistic, as the court specifically noted (R. 437). The court below declined to regard that statistic as conclusive, and after reviewing all of the facts as to antifreeze, rejected the Government's contention. It found (R. 437):

> "General Motors was not limited by agreement or by du Pont domination in its purchases of antifreeze and bought from du Pont only because it believed that du Pont best served its needs."

The evidence fully supports that finding.

Du Pont's present position as a substantial producer of antifreeze begins in 1930. In that year it began a campaign to create an outlet in the antifreeze market for its methanol (a synthetic methyl alcohol) which it produced in large quantities. In the course of that campaign du Pont made several attempts, all unsuccessful, to sell methanol for this purpose to the automobile Divisions of General Motors for production line use.[12] Thereafter, in 1934, du Pont began to market a methanol antifreeze for the retail trade, selling it as "Zerone". By the end of 1935 du Pont had developed a large market for methanol antifreeze and had never sold a gallon to General Motors (R. 435-436; Schumacher, R. 2967-2971, 2988-2989, DP 556, R. 2969, 6472).

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[12] *I.e.*, for original installation in a car which comes off the production line during freezing weather.

The General Motors Divisions meanwhile, beginning in 1933, had been buying an antifreeze for resale to their dealers, who in turn sold to the public. Although du Pont made efforts to obtain this business, the Divisions bought glycerine exclusively, purchasing it from the Glycerine Producers Association. In 1935, however, the Association advised General Motors that shortages would make glycerine unavailable for antifreeze purposes. Even then the Divisions did not turn to du Pont; instead they approached Union Carbide, and sought to purchase ethylene glycol, which Union Carbide was selling as "Prestone". Only when Union Carbide was unwilling to agree to furnish materials under the General Motors brand name, which du Pont, reluctantly, agreed to do, did General Motors purchase antifreeze for the first time from du Pont (R. 435-436; Thompson, R. 2946-2948, Schumacher, R. 2970-2971, 2974-2977, 2988-2989, Hufford, R. 2994-2996, DP 556, R. 2969, 6472). Before it did so General Motors thoroughly canvassed every other possible supplier, and came to the conclusion that du Pont, which offered both quality and a fair price, was the only company which could supply methanol in the quantities needed by the General Motors Divisions (R. 436; Thompson, R. 2947). Every year thereafter until the war, before purchasing from du Pont General Motors solicited bids from all known suppliers (R. 436; Thompson, R. 2948-2949, 2955, Schumacher, R. 2985).

In 1939, du Pont developed a new process for making ethylene glycol, and began to distribute it as an antifreeze known as "Zerex". In 1940 the General Motors Divisions began also to purchase ethylene glycol from du Pont, packaged like the methanol antifreeze under a General Motors brand name (R. 436-437; Schumacher, R. 2976-2977, Thompson, R. 2948-2949). From 1940 until the war General Motors was unable to purchase ethylene glycol from any source other than du Pont which would supply it under General Motors brand name in the quantities and quality which General Motors required. Following the war-time allocation period, there was an acute shortage which again made du Pont the only available source of supply (R. 437; Thompson, R. 2949-2950, Hufford, R. 2996).

In 1951 du Pont advised the General Motors Divisions that it was no longer willing, because of the extra costs to it of doing so, to package either type of antifreeze under General Motors' private brand name. The Divisions strongly objected, and in 1953, when additional sources became available, most of the Divisions turned to competitors who would meet their private brand desires and du Pont sold only to Oldsmobile (R. 437, Schumacher, R. 2984, Thompson, R. 2950, 2962).

In contradiction of this evidence, as the District Court found (R. 437): "The only evidence offered by the Government in support of its contention as regards antifreeze is that in recent years General Motors has purchased practically all of its requirements from du Pont." As in the case of finishes and fabrics, purchases by the General Motors Divisions of a substantial proportion of their requirements of a product from du Pont were urged upon the trial court by the Government as conclusive evidence of control or influence. The court, however, found that when du Pont has sold antifreeze to General Motors it has been because, in the opinion of the various General Motors Divisions, du Pont has had more to offer than its competitors.

2. THE ETHYL ALCOHOL-GLYCERINE INCIDENT, 1925-1926

This incident, which has no relation to General Motors' later purchases of antifreeze from du Pont, is elaborately discussed in the Government's brief as an example of an alleged "restraint of trade" (Br., pp. 40-47, 81, 129-

130). It arose out of a controversy over whether General Motors should recommend that automobile purchasers use glycerine or ethyl alcohol as an antifreeze. The Government's treatment of this subject, which makes no reference to the fact that the incident is covered by the findings of the trial court (R. 356-357, 360-361), asserts a view of the facts which cannot be reconciled with the evidence.

Du Pont began to produce ethyl alcohol in 1926 (DP 438, GTX 328, R. 2700, 509, 6430, 3845), shortly after alcohol came into use as an antifreeze and invaded an area of use previously enjoyed almost exclusively by glycerine. Initially there was considerable uncertainty relative to the merits of alcohol and glycerine as antifreezes, but by 1926 most automobile manufacturers were recommending alcohol, a few glycerine, and some a mixture of the two (GTX 334, R. 510, 3859). Opinions within General Motors itself were divided (GTX 336, R. 511, 3861). The producers of both glycerine and alcohol were naturally anxious that their products be recommended by automobile manufacturers in the instructions issued to owners.

In 1925, H. Fletcher Brown, of du Pont, wrote Sloan that du Pont was planning to go into the production of alcohol, and asked whether General Motors was favoring glycerine (GTX 319, R. 507, 3832). Sloan replied that General Motors "must be guided by the facts" (GTX 320,

During the next few months the findings and evidence show that du Pont protested that the recommendations of the various automobile Divisions discriminated against alcohol, and Armour & Company similarly protested that General Motors was discriminating against glycerine (R. 356-357; GTX 322, 326, 330, 332, 333, R. 508-510, 3836, 3842, 3847, 3851, 3853). General Motors Research Laboratories tested both glycerine and alcohol in 1925 and 1926. Its final conclusion was, aside from considerations of price and volatility, that while alcohol, if spilled, would damage the "Duco" finish, glycerine would cause the operating parts of a motor to corrode and decompose unless the system were airtight, and might clog the radiator (GTX 336, R. 511, 3861). The glycerine producers, which were "large and varied" had been given an opportunity to review, and had concurred in, the findings of General Motors Research Laboratories (GTX 336, R. 511, 3861). In view of these findings, the General Motors Technical Committee issued instructions to the automobile Divisions to express no preferences—"to state the facts as we found them"—and so to let the car owner decide for himself (R. 357; GTX 336-337, R. 511, 3862, 3863).

Moreover, there is one other fact which is relevant to this charge of control or influence, but which is not referred to in the Government's brief. The findings show that in each of the three years 1926-1928 the General Motors Purchasing Committee rejected du Pont's proposals that it make a contract to purchase ethyl alcohol from du Pont, even though in 1927 du Pont quoted a "special" price (R. 357, 435; DP 436, 437, 439, GM 155, pp. 11, 13, GTX 328, R. 2700, 1100, 509, 6428, 6429, 6431, 7077 at pp. 7087, 7089, 3845), and in 1933-1935, as noted above (p. 86), General Motors purchased glycerine for all its antifreeze requirements.

All of the evidence bearing on this incident shows that the issue was raised on the merits and decided on the merits. Control and influence played no part.

E. *THE EVIDENCE WITH RESPECT TO OTHER PRODUCTS SUPPORTS THE FINDINGS OF THE TRIAL COURT THAT GENERAL MOTORS' PURCHASES HAVE NOT BEEN RESTRAINED OR INFLUENCED BY DU PONT'S STOCK OWNERSHIP*

The Government contends that "whenever a business judgment was required in a situation in which du Pont was in competition with other suppliers, the stock interest cut across normal competition and resulted in a preference being given to du Pont" (Br., p. 72). Furthermore, the Government asserts that this preference is "the inevitable result" of the stock relationship and is necessarily "inherent" in the relationship (Br., p. 127). On its own terms and logic this argument must take into account all of the commercial relations between the two companies and not simply those selected by the Government. Yet in making this contention the Government totally disregards a substantial body of evidence which shows that du Pont attempted to sell to the General Motors Divisions a wide range of products in addition to paint, fabrics and antifreeze, but that it has succeeded in doing so only when the General Motors Divisions, in the exercise of their own independent business judgment, have decided on the basis of quality, service and price that their economic interests would best be served by purchasing from du Pont.

The evidence as to all these products was considered in detail by the trial court and it made the following finding (R. 447):

> "All of the evidence bearing upon du Pont's efforts to sell these various miscellaneous products to General Motors supports a finding that the latter bought or refused to buy solely in accordance with the dictates of its own purchasing judgment. There is no evidence that General Motors was constrained to favor, or buy, a product solely because it was offered by du Pont. On the other hand, the record discloses numerous instances in which General Motors rejected du Pont's products in favor of those of one of its competitors. The variety of situations and circumstances in which such rejections occurred satisfies the Court that there was no limitation whatsoever upon General Motors' freedom to buy or to refuse to buy from du Pont as it pleased."

1. PLASTICS

The findings of the District Court with respect to plastics (R. 444-445) began with the story of cellulose acetate in the year 1930. There is, however, evidence in the record of an earlier plastic, cellulose nitrate, or "Pyralin."

In 1915, more than two years before du Pont acquired its General Motors stock, it acquired the Arlington Company, one of the two largest cellulose nitrate producers in the United States (Irenee du Pont, R. 765-766, GTX 110, R. 476, 3120). Among the many uses for this product at that time was its use in thin, transparent sheets as "windows" in the side curtains of open automobiles. Indeed, when du Pont acquired Arlington the latter numbered among its customers practically all of the major automobile companies of that day, except Willys (DP 426, GTX 110; R. 2696, 476, 6399, 3120).

After du Pont acquired Arlington, it retained most of Arlington's customers. After 1917, however, contrary to what would be expected in the light of the Government's charges, du Pont's success with the General Motors units did not increase, but actually declined. At Buick, sales were $70,000 in 1917 and only $14 in 1918; in May of 1918 Buick placed an order with a du Pont competitor for 100,000 sheets (DP 421, GTX 294, R 2695, 502, 6389, 3787). At Chevrolet, sales were $80,000 in 1917, only $30,000 in 1918, and zero in 1919 (DP 421, R. 2695, 6389). This was not due to product deficiency, for total du Pont sales to all customers almost doubled during these years (DP 421, R. 2695, 6389).

As in other product areas, however, du Pont's ability to improve its product enabled it to regain most of what it had lost. Early sheeting was subject to rapid discoloration—yellowing—and quickly became brittle and cracked. Before 1921 du Pont had improved "Pyralin" sheeting to a point where it would outlast competitive sheeting several times over (Irenee du Pont, R. 954-955), and by 1921 the du Pont "Pyralin" sales organization believed that it had regained all of the business of the General Motors Divisions (GTX 419, DP 421, R. 528, 2695, 4009, 6389). The same product improvement also brought du Pont, in the early 1920's, large orders from Ford, and all of the requirements of the producers of Nash, Studebaker, Chrysler, Maxwell, Reo and White automobiles for various periods (DP 430-435, R. 2698, 6413-6426).

All of this is ancient, to be sure; "Pyralin" for "windows" in side curtains has long since ceased to be important. The facts simply demonstrate that although "Pyralin" was one of the products mentioned in Raskob's Point 5 (see pp. 143-145, 235-240, *infra*), and in the Amended Complaint (R. 232), du Pont's experience in selling it to General Motors, both before and after 1917, is directly at odds with the Government charges that du Pont enjoyed a non-competitive, preferential advantage.

The same is true of the facts as to du Pont's much later efforts to sell two other plastics to the General Motors Divisions—cellulose acetate or "Plastacele", and acrylic resin or "Lucite".

"Plastacele" was first produced by du Pont in 1930, and was first used by the Inland Division of General Motors in 1937, in the manufacture of steering wheels for automobiles. From the outset, du Pont made a concentrated effort to secure this business (R. 444; Gillie, R, 2595-2597, 2601; DP 402, 403, R. 2602, 6385, 6386). Its success was never substantial. In 1937, Inland divided almost all of its business between two competitors of du Pont, purchasing only $1,241 of du Pont's material. In 1938 du Pont's share rose to almost $40,000, and in 1939 to $157,000, which was about a quarter of Inland's total purchases. In 1940, du Pont's share dropped to $100,000—about 15 percent of Inland's needs. Thereafter Inland purchased nothing from du Pont, obtaining all of its requirements, which, in 1941, totaled $510,000, from a du Pont competitor, Tennessee Eastman Company. Du Pont's quality and price were equal to those of Tennessee Eastman, and du Pont made large sales of its products to other users (R. 444; Gillie, R. 2598-2601, DP 329, 330, 400, R. 2775, 2597, 6276, 6277, 6382).

"Lucite", the other plastic, was first produced by du Pont in the form of a molding powder in 1937, and was immediately promoted by it for many automobile parts, such as tail lamp and other lenses, knobs, radio grilles and hardware trim. About two years after "Lucite" appeared, Rohm & Haas Company began to offer the same acrylic resin under the name of "Plexiglas" (R. 444; Gillie, R. 2603-2605). It is still the only other producer.

The findings and the evidence on the sales of "Lucite" to General Motors are also at odds with the Government's charges. Du Pont's first sales of "Lucite" for automobile use were not to a General Motors Division, but were for use on the Dodge, a Chrysler product. Indeed it was ten years, 1946, before du Pont could make any substantial sales to any General Motors Division. Since then three General Motors Divisions—Guide Lamp, Inland, and AC Spark Plug—have made purchases. At each of these Divisions, du Pont and Rohm & Haas have competed nip and tuck, with sometimes one and sometimes the other having the larger share (R. 444-445; Gillie, R. 2605-2608).

2. BRAKE FLUID

The findings and evidence with respect to brake fluid afford another illustration that General Motors commercial policies were not influenced by du Pont's stock ownership. In this product area, du Pont was completely unsuccessful in a very important item; in the six years ending in 1951 the General Motors automobile Divisions purchased more than $11,500,000 of brake fluid from another General Motors Division, instead of from du Pont (DP 399, R. 2702, 6381).

Du Pont began the manufacture of brake fluid in 1934, about the time hydraulic brakes were becoming standard equipment on automobiles. The findings show efforts to sell the du Pont fluid to General Motors beginning in that year. Although tests showed the du Pont fluid to be better, as well as cheaper, than the fluid which the Divisions were then purchasing from a du Pont competitor, Wagner Electric Company, du Pont's efforts were wholly unsuccessful (R. 445; Weber, R. 2618-2620).

In 1935 Delco Products Division (now Moraine Division) of General Motors began to manufacture and to sell to the automobile Divisions a fluid which it called "Delco No. 5". By that time du Pont had developed an improved propylene glycol type of fluid, and again, over a period of several years, made vigorous efforts to sell it to the automobile Divisions. Tests showed this new du Pont fluid to be superior to "Delco No. 5"; it was cheaper; representatives of the various Divisions on occasion conceded the superiority of the du Pont fluid; and it was actually approved for production use by both Oldsmobile and Pontiac, but du Pont never succeeded in making a sale to any General Motors Division (R. 445; Weber, R. 2620-2625, Walker, R. 2638-2645, DP 383-388, 390, 392-395, R. 2625, 2641, 2650, 2702, 2645, 6355-6363, 6365, 6367-6373). With other automobile companies, on the other hand, this propylene glycol fluid was a great success, and as "Lockheed No. 21" it was sold in large volume for many years (R. 445; Walker, R. 2647, DP 447, R. 2702, 6437). Only later did du Pont learn that the engineers at the General Motors automobile Divisions had agreed to buy from Delco to help it write off the investment it had made in equipment (R. 445; Walker, R. 2645, DP 395, 396, R. 2645, 2650, 6373, 6376).

In 1938 or early 1939 Delco brought out a new fluid—"Delco No. 9", which it thereafter sold to the automobile Divisions. This fluid, which was also more expensive than the du Pont fluid, was the result of a joint development project of Delco and Union Carbide. Moreover, the chemical ingredients for "Delco No. 9" were also purchased, not from du Pont, but from du Pont's competitor, Carbide and Carbon Chemicals Corporation, a unit of Union Carbide (R. 445; Walker, R. 2642, DP 398, R. 2702, 6379).

The significance of these findings, of course, does not lie in the relative merits of the different fluids, nor in the advantages or disadvantages to General Motors in producing a fluid of its own. Rather, they reveal simply that General Motors had complete independence of action, to buy brake fluid and its ingredients, where it pleased, and to make its own when it so desired. That to do so was of very substantial disadvantage to du Pont was immaterial to General Motors.

3. CASEHARDENING MATERIALS

The findings and evidence as to the purchases by the General Motors Divisions of various products for case (or surface) hardening of various steel parts, such as gears, furnish yet another illustration of the absence of the control or influence alleged by the Government. The General Motors Divisions, like du Pont's other automobile and appliance customers, have selected, from among the competing processes and materials for this purpose, those which their engineers and purchasing agents have determined to be best suited to their needs. And, though the needs of all of du Pont's customers, in this area, are substantially similar, the findings show that other automotive customers purchase a larger share of their requirements from du Pont than do the General Motors Divisions (R. 339-341, 440;

DP 362, R. 2538, 6330, K'Burg, R. 2531-2532, 2539, 2540).

The findings in this area also show the effect of the acquisition of a company by du Pont on the sales by that company to the General Motors Divisions. In 1930 du Pont acquired the Roessler & Hasslacher Chemical Company (R&H Company hereinafter) which had for many years been selling a variety of industrial chemicals, including casehardening and electroplating materials, to the General Motors Divisions (R. 439; K'Burg, R. 2529, 2532). R. B. K'Burg, who had known of the sales to the automobile industry for R&H Company before 1930, and who has since been a salesman to that industry for du Pont, testified that the acquisition had no effect on the sales, or on the selling methods at the General Motors Divisions, and that no one had ever told him that it should (K'Burg, R. 2530, 2532-2533).

In 1930, the casehardening method most widely used was the immersion of the metal part to be hardened in a bath of molten sodium cyanide. Sodium cyanide had been supplied by the R&H Company, and after 1930 by du Pont, to automobile manufacturers, including several General Motors Divisions (R. 439; K'Burg, R. 2533-2536). Beginning in 1930, however, new methods were developed which departed from the sodium cyanide process. The first of these competitive processes was "Aerocase", developed by American Cyanamid Company, and its first major user among automobile companies was the Buick Division of General Motors, which manufactured transmission gears for Pontiac and Oldsmobile as well as for itself (K'Burg, R. 2536, DP 368, R. 2551, 6336). Du Pont's new casehardening process, "Ducase", on the other hand, was first offered to and tested by a Ford supplier (R. 439, 442; K'Burg, R. 2537, 2578, DP 365-367, R. 2550-2551, 6333-6335).

By the mid-1930's these numerous competing processes, as well as a gas carburizing process which produces a "case" without chemicals, combined with the fact that "Ducase" was not the complete answer for all types of customers, resulted in substantial decreases in du Pont's sales. To determine what steps du Pont should take to meet this situation, it made a comprehensive survey of the quality and type of casehardening materials then being used by all consumers in the Chicago territory, including Michigan. The results are quite at odds with the Government's charges: manufacturers other than General Motors Divisions were buying 88 percent of their casehardening materials from du Pont; the General Motors Divisions were buying only 47 percent of their requirements from du Pont. Among the Divisions themselves there was also wide disparity: of the four Divisions which were major users of casehardening products, two bought from du Pont less than 5 percent of their needs, while the other two bought over 90 percent. Ford alone was buying more casehardening materials from du Pont than all the General Motors Divisions combined, and a far larger percentage of its needs (R. 440; DP 362, R. 2538, 6330, K'Burg, R. 2539-2540). Seven years operation by du Pont following its acquisition of the R&H Company had resulted, in other words, in the loss by du Pont of a substantial share of General Motors business, and the retention of most of the business of other automobile manufacturers.

Since 1937, gas carburizing has further decreased du Pont's share of the casehardening materials business, both in and out of General Motors. Du Pont continues to supply to automotive customers other than General Motors a greater portion of their requirements than it does to the General Motors Divisions (K'Burg, R. 2540).

Moreover, as is true in all of the other product areas, the findings show that the General Motors Divisions themselves display wide variations in their preferences for competing products and processes. Cadillac, which purchased from the R&H Company before 1930, continued to purchase from du Pont until 1935. It then shifted for twelve years entirely to du Pont's competitors. Since 1947 Cadillac has shifted largely to gas carburizing, but purchases the liquid hardening materials it needs partly from du Pont and partly from du Pont's competitors (R. 440; DP 363, R. 2551, 6331, K'Burg, R. 2542-2543). Buick, which has largely shifted to the gas process, had never purchased from the R&H Company (DP 363, R. 2551, 6331). After that company's acquisition by du Pont, Buick continued to purchase from du Pont's competitors until 1946, when it began to buy from du Pont a minor share of its liquid materials used for casehardening (R. 440; DP 363, R. 2551, 6331, K'Burg, R. 2543-2544). Chevrolet, which likewise uses the gas process for most purposes, purchases part of its liquid requirements from du Pont and part from its competitors. At one Chevrolet plant, however—Chevrolet Gear and Axle—which bought from du Pont competitors until 1938, du Pont sells substantial quantities of a special and less expensive casehardening material which it developed at that time especially for that plant's needs (R. 440-441; DP 363, 364, R. 2551, 2546, 6331, 6332, K'Burg, R. 2545-2547). At Pontiac, the R&H Company and later du Pont supplied a portion of the needs until 1938; since then du Pont has supplied almost none (R. 441; DP 363, R. 2551, 6331). Oldsmobile, on the contrary, purchased no du Pont materials until 1937. It then gave a portion of its business to du Pont until 1946, when it again shifted entirely to du Pont's competitors (R. 441; DP 363, R. 2551, 6331). Frigidaire, which has shifted less to gas than the other Divisions, purchased from the R&H Company before 1930, but shortly thereafter shifted entirely to competitive materials, and only since 1946 has it again purchased some of its needs from du Pont (R. 441; DP 363, R. 2551, 6331, K'Burg, R. 2549-2550).

The findings and proof as to the other Divisions (R. 441-442; DP 362, 363, 369, R. 2538, 2551, 2550, 6330, 6331, 6337, K'Burg, R. 2547-2550) are equally diverse, and taken as a whole reveal a substantial difference of opinion on the value of du Pont's materials and processes, as compared with competing ones, from time to time. What happened is precisely what would be expected when competition is the determinant. That du Pont had a competitive product is evident from the successes it has had, particularly at automobile companies other than General Motors; that it had no artificial advantage at General Motors by reason of its stock ownership is shown by its more limited scale of success among the Divisions of that company.

4. Electroplating Materials

Du Pont also acquired, by way of the R&H Company, a business in materials used in copper, zinc, cadmium and tin electroplating, including sodium, copper and zinc cyanides, anodes, additive agents, and brighteners (R. 438). Electroplating, like casehardening, is a technical field in which metallurgists differ on the value of various processes (R. 437-438; K'Burg, R. 2592). In 1934, however, du Pont developed the first improved copper plating process—"High Speed Copper". Development work proceeded for four years—at companies not connected with General Motors (K'Burg, R. 2555-2556). When "High Speed Copper" was finally offered to the trade in 1938 it was widely adopted by electroplaters who do the bulk of that work for Chrysler, Studebaker and Nash (R. 438, K'Burg, R. 2557-2559, DP 371, R. 2556, 6340).

Competing processes promptly appeared, including an acid copper process developed by General Motors Research (R. 438; K'Burg, R. 2560-2561, DP 372, R. 2573, 6341).

Each Division of General Motors has gone its own way in testing and using these competitive systems. Cadillac, on the one hand, has used the du Pont process exclusively since it was first introduced (R. 438; K'Burg, R. 2561-2563, DP 372, 373, R. 2573, 2563, 6341, 6342). Chevrolet on the other, which does the largest amount of electroplating of any Division of General Motors, and Buick, which does very little, have never used it, except for a two-month period in 1939 at Chevrolet (R. 438; K'Burg, R. 2561, 2564-2566, DP 372, 377-378, R. 2573, 2572, 6341, 6347, 6349). In between are Oldsmobile, which used the du Pont process from 1941 to 1949, and Pontiac, which used the du Pont process for part of its work between 1940 and 1950 (R. 438; DP 372, 379-380, R. 2573, 2572, 6341, 6350, 6352). The findings (R. 438-439) and the evidence (DP 372, R. 2573, 6341, K'Burg, R. 2566-2568) reflect the same diversity among the other Divisions. Each Division has used that process and those materials which it believes to be best adapted to its own requirements.

The same pattern exists in other aspects of this trade area. In zinc plating, du Pont's processes have been accepted in the major portion of the field, but Chevrolet, which does the major portion of this work in General Motors, has never used the du Pont process, though it purchases a portion of the material needed for its operation from du Pont (R. 439; K'Burg, R. 2570). On the other hand, Delco-Remy Division uses the du Pont process (R. 439; K'Burg, R. 2571). Cadillac, after tests, preferred du Pont anodes, and bought them for a time, though the other Divisions largely bought from du Pont competitors. In more recent years, du Pont has had almost no anode business at any General Motors Division (K'Burg, R. 2561-2562, 2569-2570, DP 375-376, 379-381, 571, R. 2571, 2572, 2573, 3008, 6345, 6346, 6350, 6352, 6354, 6529).

5. SAFETY GLASS

Safety glass is composed of two layers of thin plate glass cemented together with a filler, which prevents shattering. Introduced in the 1920's, its use has been constantly increasing, and it is today one of the major materials purchased by automobile companies. At the very beginning of the use of safety glass, du Pont made a determined—and expensive—effort to become established in this field. It failed. Had there existed the control or influence alleged by the Government, du Pont would certainly have become and remained an important supplier of safety glass to General Motors.

The findings and evidence show that in 1927 du Pont, which was producing the cement filler, and Pittsburgh Plate Glass Company, which produced thin plate glass, joined to form Duplate Corporation, which had as its sole object the production and sale of safety glass to automobile manufacturers. Duplate had substantial success in selling manufacturers other than General Motors, and for a few years had moderate success at the General Motors Divisions, though they were somewhat slower than other automobile manufacturers to adopt safety glass for general automobile use (R. 446; Harrington, R. 1836-1837, 1839, DP 160, 165, 168, 171, 172, 174, R. 1839, 1846, 1848, 5984, 5991, 5995, 5999, 6001, 6009).

As soon as the General Motors Divisions' purchases of safety glass became substantial, however, General Motors itself began to produce it. Duplate's sales to General Motors of more than $1,000,000 annually in 1928 and 1929, shrank to $67,000 in 1930 and $37,000 in 1931. In that year du Pont sold out its interest in Duplate, its loss on the venture amounting to $825,000. Still later General Motors sold its safety glass plant and business to Libbey-Owens-Ford Glass Company (R. 446, Harrington, R. 1846-1848, DP 163, 165, 168-173, 449, R. 1839, 1846, 2703, 5988, 5991, 5995-6008, 6444) to which it has since given all of its business.

Were the Government allegations of control and influence true, General Motors would not have commenced to manufacture a product which would so adversely have affected du Pont's sales.

6. Neoprene and Rubber Chemicals

Neoprene, the first synthetic rubber produced on a commercial scale in the United States, and one of du Pont's outstanding research achievements, has many uses in industry, including the manufacture of automobiles. It competes, of course, with natural rubber, and with other synthetic rubbers, some of which are cheaper (R. 442; Bridgwater, R. 2505-2507, 2522).

The findings and evidence with respect to the timing and the extent of the use of neoprene by the General Motors automobile Divisions demonstrate again the unreality of the Government's charges of control or influence. At General Motors, although some trucks are equipped with neoprene radiator hose, the automobile Divisions (except for Buick for a short time) have used a cheaper butyl rubber hose. Both Chrysler and Ford, however, have for years equipped their cars with neoprene radiator hose, believing that its advantages offset its higher cost (R. 442-443; Bridgwater, R. 2507, 2509, 2522-2524, DP 354, R. 2509, 6310).

The converse situation is presented in the case of a synthetic rubber adhesive. Here Chrysler worked with du Pont to develop an adhesive based on neoprene to attach brake linings to the brake shoe, in place of the old brass rivets. General Motors, however, despite vigorous sales efforts by du Pont, prefers an adhesive based on a *more* expensive Buna-N synthetic rubber, because in this instance the General Motors Divisions believe that the higher cost is otherwise compensated (R. 443; Bridgwater, R. 2510, 2526, DP 355-356, R. 2510, 2511, 6312, 6313).

In addition, the findings show that Chrysler and Ford use neoprene for a host of other uses—cover for electric wires, seals, gaskets, and the like—to a far greater extent than do any of the General Motors Divisions (R. 443; Bridgwater, R. 2511-2518, DP 357-359, GTX 1325, 1326, R. 2513-2516, 2521, 2522, 6314-6321, 5283, 5284). The Chrysler "New Yorker", for example, contains 123 parts made of neoprene (Bridgwater, R. 2518). Moreover, du Pont has been far more successful at Chrysler than at any General Motors Division in securing specifications to sub-assembly fabricators which permit or require neoprene to be used (R. 443; Bridgwater, R. 2515-2516, DP 358-360, R. 2514-2516, 6316-6323).

As to rubber chemicals, du Pont sells some 65 items to almost 1,000 domestic customers, including the Inland and Packard Electric Divisions of General Motors. A competitor of du Pont, however, is the principal supplier of those items to each of those Divisions; du Pont, despite efforts to do better, gets only about a quarter of the business (R. 442; Bridgwater, R. 2504-2505, 2519-2520).

F. THE EVIDENCE SUPPORTS THE TRIAL COURT'S FINDINGS WITH RESPECT TO THE GENERAL PURCHASING COMMITTEE, AND SHOWS THAT THE COMMITTEE DEALT WITH DU PONT AT ALL TIMES ON A COMPETITIVE, NON-PREFERENTIAL BASIS

The Amended Complaint alleged that the General Purchasing Committee was established "In order to secure more effective liaison among these divisional purchasing agents and to insure that du Pont Company wishes would be promptly communicated to them and fully complied with" (R. 233). The Committee, the paragraph continues, "was an effective instrumentality in carrying out the du Pont-General Motors intercompany sales arrangements hereinbefore and hereinafter described" (R. 234).

The accuracy of these allegations was elaborately explored at the trial, and the District Court made extensive findings on all aspects of the Committee and its operations which completely rejected the Government's allegations. The court found (R. 371-372):

> "The Committee, the record shows, was created, operated and ultimately terminated in 1931 to serve General Motors interests—not du Pont. Relations with du Pont were but a minor aspect of its activities, and it dealt with du Pont only in the same manner as it did with other suppliers. All of its work is now ancient history and the evidence with respect to its activities has but limited probative value. But to the extent it deserves consideration it supports the position of the defense rather than the Government."

None of this appears in the Government's brief. What *does* appear is the allegation—now asserted, however, as a fact—that a membership on the Committee was one of the "subtle methods" used to make effective the alleged du Pont control of General Motors purchasing policy (Br., p. 103).

The detailed findings show that the General Purchasing Committee was established in 1922, at the suggestion of Sloan, who sought to take advantage of the purchasing economies which Ford had achieved, and which would be available to General Motors through aggregating and coordinating the purchasing power of the several General Motors Divisions (R. 361; Sloan, R. 1031-1035, GM 35, 36, R. 1034, 6663-6664). He was not willing, however, that Divisional autonomy be sacrificed in the process. He rejected completely one early suggestion made to him by the Director of General Motors' Purchase Section (GM 47, R. 1045, 6690) that all divisional purchasing departments be eliminated, and a single central one be established in their place (GM 48, R. 1047, 6701). That, he testified

(R. 1046-1047), "was contrary to the fundamental philosophy of the General Motors that the divisional executives should have complete charge of all the component parts of their particular operation."

As finally set up, the Committee was composed principally of purchasing agents from the important Divisions of General Motors (GM 63, R. 1055, 6744). James Lynah was made secretary. Lynah presumably is the "ex-du Pont employee" to whom the Government refers (p. 103). The Government does not, however, note that Lynah had left du Pont in 1919, several years before he was employed by General Motors, and after a controversy which led Lynah to assert that he could not have at du Pont "the hope and expectation of fair and considerate treatment" (Lynah, R. 1069-1073, GM 142, R. 1072, 6958).

The full details of the Committee's operations were disclosed at the trial. Lynah, who was its executive secretary from the beginning until 1930, the year before the Committee was abolished, and who had not been employed by General Motors since 1930, testified (R. 1067-1179), and the Committee's complete minutes were available (R. 1089-1090). The findings show that Lynah's first task, as soon as the Committee was created, was to make a study to determine what substantial items might be common to two or more Divisions. The result was a list of 32 items (R. 361; Lynah, R. 1085, GM 151, R. 1085, 6986) of which only 3 were made by du Pont: imitation leather, top fabrics and paints (R. 361; Lynah, R. 1086, GM 151, R. 1085, 6986). Of these 3, the first items manufactured by du Pont to be reached for consideration by the General Purchasing Committee were "Fabrikoid", or imitation leather, and top fabrics. No contract for the purchase of either of these items was ever made by the Committee (R. 365; Lynah R. 1151, GM 154, R. 1092, 7023). On the contrary, when Lynah discovered that the Divisions were independently purchasing "the larger portion" of their requirements of these products from du Pont, he recommended, and the Committee adopted, a rule requiring a second source of supply for at least 20 percent (R. 362-363; Lynah, R. 1151-1153, GTX 412, R. 528, 3986). Somewhat later, du Pont made an effort to secure a cost-plus contract for these materials from the Committee, but it was also rejected (Lynah. R. 1146, GM 155 at p. 3, R. 1100, 7077 at p. 7079).

In the court below the Government contended that the adoption of this two-sources-of-supply policy meant that there was an agreement between du Pont and General Motors that du Pont should always have 75 or 80 percent of the fabrics business on a non-competitive basis. The Government now appears to renew this contention (Br., p. 122), even though it has formally abandoned the charge of conspiracy and agreement (Br., p. 113).[13] The trial court rejected the Government's contention in findings (R. 362-363) that are fully supported by the relevant evidence, including the contemporaneous minutes of the General Purchasing Committee (GTX 412, 413, R. 528, 3986-3988) the testimony of Lynah (R. 1153) and the proof with respect to the subsequent experience of du Pont in its efforts to sell fabrics to the General Motors Divisions (see pp. 62-75, *supra*).

The evidence and findings show that the two-sources-of-supply policy was no more than one of the general principles which were applied by the General Purchasing Committee. As early as 1923 some General Motors Divisions adopted a policy that no supplier should have more than 80 percent of that Division's requirements of any single item (R. 361-362, 372; GTX 406, p. 13, R. 527, 3966 at p. 3978).[14] In the same year the General Purchasing Committee itself had begun to put a two-sources-of-supply purchasing policy into effect whenever it found that all the Divisions were buying their requirements from the same supplier, and in January 1924 the Committee adopted a formal rule to that effect (R. 362; GM 158, 159, R. 1106, 1107, 7106, 7108). The reasons, as explained by Lynah, the secretary of the Committee, were business reasons which had nothing to do with du Pont, and which related alike to all suppliers: General Motors wanted a constant check on price, quality and service, and an anchor to windward when a supplier failed in any respect (R. Lynah, 1104, Sloan, R. 1066). Du Pont was told of the policy, not consulted about it (GTX 412, R. 528, 3986, Lynah, R. 1153), and when it was applied to du Pont's detriment high du Pont executives expressed their dislike of it (R. 362-363; GTX 407, 408, 410, R. 527, 528, 3982, 3983, 3984).

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[13] The Government's contention that the resolution of the General Purchasing Committee constituted an agreement that du Pont should supply 75 or 80 percent of General Motors' fabric requirements on a non-competitive basis is a distortion of the words of the resolution (GTX 412, R. 528, 3986), which assured du Pont of nothing.

The Government does not attempt to reconcile its charge that there was an agreement to give du Pont 80 percent of General Motors' fabrics business on a non-competitive basis with the Government's concession that it no longer urges that there was any agreement between the two companies.

It was not until almost two years after the Committee had been established that it considered the subject of paints, and then only to refer the matter to a subcommittee—the Paint and Enamel Committee—because there were no standards established for that material (R. 365; Lynah, R. 1126, GM 166, R. 1128, 7156). Until the discovery of "Duco" no contract was ever made by the Committee covering the purchase of paints and varnishes, although du Pont had requested such a contract (R. 365; Lynah, R.

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[14] This operated to du Pont's immediate detriment in the area of fabrics, since in 1922, by virtue of an agreement to cancel some earlier orders, du Pont had obtained from several automobile Divisions 100 percent of their fabrics orders for that year (see pp. 69, 72, 74, *supra*).

1147, GM 154, R. 1092, 7023).[15] Only after the discovery of "Duco" and its general acceptance by the automobile Divisions did the General Purchasing Committee authorize *any* contract with du Pont—some two years, and 147 contracts, after the Committee had begun its operations (R. 364; Lynah, R. 1094-1095, GM 154 at p. 13, R. 1092, 7023 at p. 7035). Even this contract was negotiated only after the Committee had been unsucessful in finding any product competitive with "Duco" (see *supra*, pp. 51-52).

During its nine years, the Committee negotiated 709 contracts, of which 14 were with du Pont, and 30 with du Pont competitors. It rejected a total of 342 contracts, of which 13 were proposed by du Pont or were for material which du Pont was in a position to sell to General Motors (R. 364; Lynah, R. 1100, 1103, GM 154, 155, R. 1092, 1100, 7023, 7077). Anyone in General Motors could suggest an item as a contract possibility. If the Committee considered it worthwhile, a questionnaire would be sent to the Divisions asking for their annual consumption of the item, the specifications under which they purchased, the prices they were paying, and their source of supply. When the replies were received, the Committee, if the item still looked like a contract possibility, would so notify the Divisions and ask for their suggestions as to prospective bidders. After bids were received, the Committee would decide whether to make a contract and with whom. If a contract were negotiated, the Divisions were notified (R. 364; Lynah, R. 1078-1079, GM 149, R. 1079, 6969). The Divisions were then required to purchase under it unless they were specifically exempted, but even then the ultimate freedom of the Divisions was preserved by granting a specific exemption to any Division whose objections to the contract could not be "ironed out" (R. 364; Lynah, R. 1081, 1107).

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[15] Somewhat later, in 1926, the Committee had a contract with du Pont for two years covering paints other than "Duco" but only for "requirements of seller's make" (ROSM) which, as explained by Lynah (R. 1093) required no purchases (R. 365; GM 154, R. 1092, 7023 at p. 7043), and see pp. 193-194, *infra.*

The Committee followed certain general rules: (1) no contract would be made unless the item was used by more than one Division, since there would be no price advantage unless there were increased volume; (2) no contract would be made unless there would be substantial savings; (3) where possible, there should be more than one source of supply; and (4) contract prices were kept confidential to protect sellers. These rules were adopted long before any contract was made with du Pont (R. 365; Lynah, R. 1103-1105, 1109), and the record is replete with instances in which they were applied to du Pont both in the awarding and rejecting of contracts. Contracts were rejected with du Pont because of lack of volume on photographic supplies, maintenance paint, machinery enamels, and aluminum spar mixing liquid (R. 365; Lynah, R. 1145-1146, GM 155, R. 1100, 7077). Contracts were rejected with du Pont because of lack of savings on "Pyralin", leather substitute and rubber-coated fabrics, denatured alcohol "antifreeze material", "antifreeze methanol", and varnish and oil-type materials (Lynah, R. 365; 1146-1147, GM 155, R. 1100, 7077). The two source of supply rule was applied to du Pont, the reduction of its business in leather substitute and rubber-coated fabrics being one example already noted above, and the successful effort made to find a second source of supply for "Duco" discussed *supra*, pp. 51-53, being another. The du Pont prices were kept confidential (Lynah, R. 1153-1154, GTX 462-465, R. 537, 538, 4111-4119) just as were those of other suppliers (Lynah, R. 1109-1110, 1154, GM 160, R. 1100, 7112). In sum, the Committee dealt with du Pont only as it dealt with others (R. 372).

The General Purchasing Committee was terminated in 1931, and there has been no successor to its functions (R. 371).

II

THE EVIDENCE SUPPORTS THE FINDINGS OF THE TRIAL COURT THAT DU PONT'S STOCK OWNERSHIP HAS NOT RESTRAINED OR INFLUENCED TRADE WITH RESPECT TO TETRAETHYL LEAD OR "FREON"

In the Amended Complaint and at the trial the Government contended that the evidence with respect to tetraethyl lead and "Freon" refrigerants showed that there was a "division of fields" (R. 234-240) *i.e.,* an agreement that General Motors would refrain from chemical manufacture and would accord du Pont exclusive exploitation rights in any chemical discoveries which it made (Par. 64, *et seq.,* R. 234-240). The Government has now abandoned its charge of conspiracy and agreement. Instead it asserts as to both tetrathyl lead and "Freon" that "du Pont's inside influence with General Motors secured this business without any regard whatsoever for its abilities in comparison with its competitors" (Br., p. 131). This new assertion, no less than the old charge of conspiracy and agreement, requires the Government to prove that the arrangements that General Motors made with du Pont with respect to tetraethyl lead and "Freon" were not made on the merits, but were the result of du Pont control or influence.

The District Court, after examining the voluminous evidence on these issues found to the contrary (R. 406-435). As to tetraethyl lead, the court found (R. 426):

> "* * * The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment. Kettering appears to have been largely responsible for this decision, and neither the alleged pre-existing agreement nor du Pont's stockholdings in General Motors was the basis of the decision. It is clear that General Motors' lack of

> experience in chemical manufacture and du Pont's superior competence and wide experience were the reasons for the decision.
>
> "Similarly, du Pont retained its position as the manufacturer of TEL by reason of the continued high quality of its performance. The Court finds that General Motors and Ethyl Corporation were at all times free to turn elsewhere and were not coerced in any way to continue purchasing from du Pont."

And as to the contract setting up Kinetic Chemicals, Inc., to produce "Freon" refrigerants, the trial judge similarly found (R. 435):

> "* * * On the basis of the evidence of record, particularly the testimony of Sloan and Pratt, the Court finds that General Motors entered into the contract because those responsible in General Motors believed that Freon could best be manufactured by du Pont rather than by General Motors itself or by some other chemical company."

The Government directly challenges these findings and ignores subsidiary findings which support them (Gov't Br., pp. 131-137). Accordingly we shall now summarize the evidence which we believe supports the findings and shows that the trial court was clearly correct in rejecting the Government's contentions.

A. THE EVIDENCE SHOWS THAT GENERAL MOTORS' DECISIONS WITH RESPECT TO TETRAETHYL LEAD WERE NOT THE RESULT OF DU PONT INFLUENCE OR CONTROL

Tetraethyl lead is a material which, when added to gasoline in small quantities, reduces "knocking" and makes possible the operation of the modern-day high compression automobile and airplane engines.

The basic question which was presented to the trial court below with respect to tetraethyl lead, and review of which is now sought in this Court, is this: Was General Motors' decision to select du Pont as the manufacturer of tetraethyl lead a normal business decision, or was it the result of control or influence by du Pont? On that issue there is, fortunately, testimony by the man responsible for the decision, Charles F. Kettering. His character and career are matters of public knowledge. Even prior to his association with General Motors he was one of America's outstanding inventors, and he remained so after he joined the General Motors organization as Director of Research, and shortly thereafter as a vice president and a member of the Board of Directors (R. 405; Kettering, R. 1515, 1527-1529, GTX 177, R. 492, 3397). One of the greatest of his contributions to General Motors was to lay the foundation for high-octane gasoline. Until the problem of "knocking" could be solved, the range of engine improvement was seriously limited (R. 405-406; Sloan, R. 1236, 1239). This, for Kettering as well as for General Motors, was the importance of tetraethyl lead (R. 405-406, 416; Sloan, R. 1236, 1239, Kettering, R. 1514-1515, 1527, 1543, 1581, DP 93, GM 241, pp. 1-2, 5, R. 881, 1524, 5859, 7308 at pp. 7308-7309, 7312). As Kettering himself testified (R. 1515), "You see, we weren't in the fuel business. We were in the engine business, and we were trying to get anybody that would help us on the fuel end of it to get whatever help we could."

Kettering testified that he was the man who made the decision to ask du Pont to undertake the manufacture of tetraethyl lead (R. 1550, 1584). Two contemporaneous documents corroborate his statement (GTX 610, DP 65, R. 612, 1242, 4302, 5717), and the court so found (R. 411). As to the basis for his decision, Kettering stated that he called in du Pont to manufacture tetraethyl lead, not because of du Pont control or influence, but simply because "they were the best chemists that we knew of in the country" (R. 1584). Sloan concurred in it because, as he testified, he recognized that General Motors had no competence in chemical manufacture—research and manufacture being quite different; that the manufacture, which had never before been undertaken in the United States, involved danger; that du Pont, through its war work, had demonstrated its ability to manufacture dangerous materials; and that "their well organized Research offered the best opportunity for us to produce tetraethyl lead and to put it on the market" (R. 411; Sloan, R. 1249).

This testimony was not impeached on cross-examination or impaired by any contemporaneous document, and it was accepted by the trial court as true (R. 425-426). Moreover, contrary to the Government's contention, the testimony is fully corroborated by the voluminous evidence on the whole story of tetraethyl lead.

1. DISCOVERY AND EARLY DEVELOPMENT OF TETRAETHYL LEAD

Kettering had since 1912 or 1913 been interested in improving engine efficiency by eliminating engine "knock" (R. 405; Kettering, R. 1514). His research was in charge of Thomas Midgley, and was originally under the auspices of Kettering's Delco Company, which manufactured starting and ignition equipment and was a part of United Motors (R. 406; Kettering, R. 1515-1516, 1527-1529). In 1916 or 1917 the antiknock research project was transferred from Delco to another of Kettering's corporations, Dayton Metal Products Company. That company was not affiliated with either United Motors or General Motors, and Kettering financed the research work there out of his own pocket (Kettering, R. 1599). In 1918, United Motors, and Delco, became affiliated with General Motors; Dayton Metal Products Company did not do so until the end of 1919 (R. 406; Kettering, R. 1527-1529, 1598-1599, GM 244, 267A, R. 1528, 2942, 7322, 7405).

During this early research period Kettering, by papers, speeches and letters, invited help from all sources in his efforts to eliminate knocking. For present purposes, the significant fact is that *before* there was any relationship between the antiknock project and General Motors, and *before* the investment by du Pont in General Motors stock, Kettering and his staff were already accustomed to turn to du Pont for assistance in technical matters related to their antiknock research. Kettering was in correspondence with du Pont personnel in relation to this problem as early as 1916, and said then that "any time we get anything of interest we will be glad to give you the benefit of it." (R. 406; DP 93, R. 881, 5859). During World War I, Kettering met du Pont chemists at American Chemical Society meetings, and later invited them to visit his laboratories to see what he was doing. In August, 1919, before the antiknock research program became any part of General Motors, Kettering's laboratory sent to du Pont a long description of the tests which had been made up to that time, with a request for additional materials which it was hoped du Pont could supply or help them compound. The letter closed with the statement that "we are anxious to cooperate with you in every possible way" (R. 406; Kettering, R. 1525-1527, 1584-1585; Harrington, R. 1728, GM 243, R. 1525, 7317).

After Kettering joined General Motors there was no change in his relationship to du Pont; he continued to call on du Pont for assistance (R. 406). In January 1920 Kettering was urging du Pont to push its work for him on aromatic amines, and during that year both he and Midgley came to Wilmington seeking to persuade du Pont to undertake the manufacture of aniline, one of the aromatic amines which they then believed to be the solution of the knock problem (DP 94-95, GTX 601, R. 883, 612, 5860-5864, 4298). By early 1921 Kettering's research had led to better antiknock materials, and du Pont was asked to suspend research in this field (Kettering, R. 1538, Harrington, R. 1729, 1732, DP 97, R. 884, 5867). Again in November 1921, however, Midgley was back with another antiknock research project for du Pont (DP 109-110, R. 1733, 1734, 5890, 5891). Finally, however, when tetraethyl lead was discovered, in December 1921, both du Pont and Standard Oil of New Jersey, which had also worked with Kettering, were told that due to new developments which could not be disclosed their research efforts should be suspended (R. 409; DP 111-112, R. 1735, 1736, 5893, 5894).

It was wholly logical, therefore, that Kettering, for reasons having no relation to du Pont's stock ownership, should turn to du Pont for the production of tetraethyl lead.[16] The manner in which he did so likewise supports the truth of his testimony that there was no control or influence involved. Contrary to the assertion of the Government that "It was immediately assumed that du Pont would perform the manufacturing" (Br., p. 50), what actually happened was that Kettering told P. S. du Pont several months after the discovery that he wished to take up the question of manufacture with du Pont representatives (GTX 610, R. 612, 4302). Du Pont was informed of this by a memo from Pierre du Pont to Irenee du Pont in March 1922 (R. 411; Pierre du Pont, R. 863-864, GTX 610, R. 612, 4302). Du Pont's reaction was wholly at odds with any "assumption": it waited for word from Kettering himself (Irenee du Pont, R. 885, Harrington, R. 1737-1738). In June 1922,

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[16] Du Pont was then generally regarded as one of the top manufacturers of organic chemicals, and had had wide experience with dangerous substances, as tetraethyl lead was already known to be (GM 261, pp. 17-18, R. 1578, 7360 at pp. 7374-7375). The results of du Pont's initial efforts in producing tetraethyl lead were immediately recognized by Kettering's staff as highly satisfactory (GM 73 R. 1245, 6757).

Kettering invited Irenee du Pont to Dayton to discuss the problem (R. 411; Irenee du Pont, R. 885, Kettering, R. 1546-1547). This meeting led to further meetings in Wilmington with Kettering and his associates. Again, the evidence is at odds with the Government's alleged "assumption" that du Pont would be the manufacturer: A contemporaneous memorandum advising the du Pont chemical staff of Kettering's impending visit makes it clear that Irenee du Pont, even after his visit to Dayton, had no assurance that du Pont would be selected as the manufacturer; he wrote that he was "very anxious that we 'sell' our ability to help them on the tetraethyl lead proposition" (R. 411; GTX 612-613, R. 612, 4306, 4307). It was only after these conferences in Wilmington in late July 1922, and after Kettering had inspected du Pont's facilities, that du Pont was asked to undertake manufacture (Irenee du Pont, R. 887-890, Kettering, R. 1549, Harrington, R. 1739-1740). Kettering's choice was quickly vindicated; within two or three weeks du Pont was in production, and making shipments to Dayton (Harrington, R. 1741-1742, GM 247-249, R. 1550-1551, 7332-7334).

The conclusion of the District Court that Kettering's decision was based entirely on his business judgment, uninfluenced by du Pont's stock ownership, is further supported by Kettering's refusal to yield to du Pont's requests upon another matter which arose at about the same time—the du Pont idea for a general arrangement covering chemical research. The findings of fact tell the full story (R. 406-412):

Lammot du Pont had prepared, in mid-1920, a proposed general research agreement, to provide for the financial and patent aspects of such research work as General Motors might from time to time request that du Pont undertake (R. 407; GTX 580, R. 609, 4265). The proposal was discussed with Kettering who saw practical difficulties (R. 408; Kettering, R. 1601-1602). Although the du Pont Executive Committee had formally approved the agreement, and although Lammot du Pont sought for over two years to have Kettering sign it, it was never signed by Kettering, or anyone else in General Motors (R. 408-410, GTX 581, 583, 589, 591, 593, GM 246, R. 609-611, 1536, 4272, 4276, 4280, 4283, 4290, 7328).

2. EARLY PRODUCTION ARRANGEMENTS—FORMATION OF ETHYL CORPORATION

As already noted (*supra*, pp. 110-111) the trial court found not only that the initial choice of du Pont as the manufacturer of tetraethyl lead was solely for practical business reasons, but also that "du Pont retained its position as the manufacturer of TEL by reason of the high quality of its performance," and that General Motors and Ethyl Corporation (as to which see below) "were at all times free to turn elsewhere" (R. 426). This finding is likewise challenged by the Government, but again, the detailed findings and evidence on the later events fully bear out the trial court.

When Kettering became satisfied with du Pont's initial progress he recommended, and Sloan agreed, that a contract should be made with du Pont. A draft contract was thereupon prepared by General Motors. Kettering met and conferred on it with representatives of du Pont, and on October 6, 1922, a contract was signed (R. 411-412; Sloan, R. 1245, Kettering, R. 1553-1554, GTX 618, R. 613, 4312).

The contract of October 6, 1922 (GTX 618, R. 613, 4312) provided that du Pont was to build, upon four months' notice, a plant to produce tetraethyl lead at the rate of 100 gallons per day at a price of $26 per gallon ($2.00 per pound) (R. 412). Midgley and Kettering were highly gratified with the contract terms because they made tetraethyl lead economically feasible and solved the production phase of the program (GM 252, R. 1556, 7339).

A series of events, however, shortly brought the Ethyl Gasoline Corporation (hereinafter "Ethyl") and Standard Oil Company of New Jersey into the picture. Commercial distribution of tetraethyl lead began in 1923—initially through independent filling stations in Ohio, and later through exclusive territorial distribution contracts with several major oil companies (R. 412, GM 75-80, R. 1250-1251, 6760-6800). In April 1923, Howard, of Standard Oil of New Jersey (hereinafter "Standard Oil"), one of the distributing companies, met with Midgley and told him of the discovery and patenting by Standard Oil of a method for producing tetraethyl lead by what is known as the "ethyl chloride" process, as distinguished from the "ethyl bromide" process developed by Kettering and Midgley. The new process could not only reduce production costs, but by eliminating most of the need for bromine could eliminate the bottleneck which appeared to exist due to the limited existing supply of that material (R. 412; Sloan, R. 1253, Kettering, R. 1571-1574, GM 256, 256A, 274, pp. 2-6, R. 1558, 1559, 1633, 7346, 7351, 7421 at pp. 7422-7426). Production by Standard Oil under its process patent would have been futile without a license under General Motors' basic use patent, but General Motors in turn needed a license from Standard Oil if substantial commercial development of tetraethyl lead were not to be cut short by the shortage of bromine.

The Government asserts (Br., pp. 52, 133-134), as it did in the court below, that it was agreed at this time between du Pont and General Motors that they would resist any effort by Standard Oil to share in the manufacture of tetraethyl lead. The evidence lends no support to this charge, and it was rejected by the findings of the District Court.

The negotiations between General Motors and Standard Oil leading to the formation of Ethyl begin with the meeting in April 1923 when Howard, of Standard Oil, told Midgley, of General Motors, that Standard had discovered the ethyl chloride process. Far from resisting manufacture by Standard Oil, Midgley's immediate reaction was an invitation to Standard Oil to manufacture tetraethyl lead and sell it to General Motors; he offered to "sign with them a similar contract to the one now in force with the du Pont Company.". Standard Oil was reluctant; Howard's reply was that Standard Oil was not a chemical manufacturer, and that there should be a meeting to develop a working agreement between General Motors and Standard Oil (R. 412-413; GM 256, R. 1558, 7346).

Although Kettering and Midgley continued, in early 1924, to urge Standard Oil to manufacture tetraethyl lead by their ethyl chloride process (Kettering, R. 1565-1566, GTX 622, R. 614, 4337), Sloan was apprehensive, not for du Pont, but for General Motors. The new enterprise was going well with du Pont as the manufacturer, and he stated both at the time and on the witness stand that to bring in a novice would introduce new problems during the development stage, and that he had doubts as to the wisdom of a major oil distributor becoming a manufacturer under a process which promised to become of controlling importance (R. 413; Sloan, R. 1358-1361, GTX 622, R. 614, 4337). On the other hand, when Irenee du Pont suggested that General Motors tell Standard Oil that du Pont would negotiate with it for manufacturing rights under the ethyl chloride patent, Sloan did precisely the opposite, and told Standard Oil that negotiations relative to its patent would be conducted by General Motors (R. 413-414; Irenee du Pont, R. 949, Sloan, R. 1361-1362, GTX 623-624, R. 614, 4340-4342). Negotiations did go forward between General Motors and Standard Oil, but with no one from du Pont in attendance (GM 258-259, R. 1570, 7356, 7358). Du Pont, in fact, did not even know of the negotiations until an agreement had been reached (Irenee, du Pont, R. 895, Sloan, R. 1255, Harrington, R. 1757, 1852-1853).

The results of the General Motors-Standard Oil negotiations also reveal the absence of any purpose or agreement to deny Standard Oil manufacturing rights. The formal contract between the companies, dated August 1, 1924 (GTX 668, R. 618, 4383) created Ethyl Gasoline Corporation (subsequently changed to Ethyl Corporation) in which each party would have half of the stock and half of the directors, and to which would be assigned licenses under all General Motors and Standard Oil tetraethyl lead patents. Paragraph 8 recognized that others than du Pont, and specifically Standard Oil, might manufacture tetraethyl lead for Ethyl since it provided (R. 415-416; GTX 668, p. 5, R. 618, 4383 at p. 4387), that Ethyl would purchase its tetraethyl lead—

> "* * * in the open market at the lowest price at which it is offered and, to permit competitive bidding, shall offer to instruct and license any bona fide probable supplier, including the STANDARD COMPANY."

The only proviso was that purchases should continue to be made from du Pont until its existing contract expired, which was expected to occur in about four months (R. 416, GTX 673, R. 618, 4434).

Proof of the absence of an agreement or plan to exclude Standard Oil from manufacture does not end, however, with the specific contractual recognition of Standard Oil as a potential manufacturer. As the District Court found, Standard Oil did in fact embark on manufacture, and itself abandoned the project only when its unskillful efforts brought about a catastrophe that almost destroyed the whole Ethyl venture.

The events of this period are elaborately set forth in the record; and the findings of the District Court are quite detailed (R. 414-421). In brief, following the oral agreement between General Motors and Standard Oil in June 1924 on the formation of Ethyl Corporation, there were several conferences between those two companies on the matter of manufacture of tetraethyl lead by Standard Oil (R. 414-415; Sloan, R. 1256-1259, GM 274, R. 1633, 7421). Standard Oil proposed to erect a 100 gallon-a-day plant at its Bayway, New Jersey, refinery for the purpose of affording an experimental basis for future construction of ethyl chloride plants (R. 414; GM 274, R. 1633, 7421). Sloan acquiesced, partly because of the possibility that something of value might be learned from the experimental program, and partly because Standard Oil, now a partner in the enterprise, wanted to do it (R. 414, 416; Sloan, R. 1256-1258). At the same time, he arranged for the appointment of a medical committee to recommend a program for minimizing the health hazards of tetraethyl lead (R. 416; Sloan, R. 1260, GM 82, R. 1260, 6817). Meanwhile, upon the recommendation of Standard Oil representatives on Ethyl's Board, General Motors and Standard Oil had authorized du Pont to continue the production of tetraethyl lead at its existing ethyl bromide plant, and to erect a larger ethyl chloride plant at the same site (Sloan, R. 1262-1263, GM 87, R. 1263, 6826).

During the summer of 1924 differences of opinion developed between the engineers of du Pont and Standard Oil with respect to the manufacturing equipment to be used in those new ethyl chloride plants. Du Pont advocated a completely closed system which would prevent any contact with the material at any time; Standard Oil felt that economy could be achieved by permitting the workers to handle the lead residue directly (R. 416-417; Harrington, R. 1761-1763). When du Pont advised Ethyl that it considered the Standard Oil process too dangerous, it received permission to use its own design; Standard Oil proceeded with its own plans (R. 417; Harrington, R. 1763-1764).

The Standard Oil plant at Bayway had operated for about four weeks when disaster struck. On October 25, 1924, a wave of simultaneous lead poisonings occurred affecting the entire working force, and five deaths followed in quick succession. The Standard Oil plant was immediately closed, and New Jersey authorities supervised its dismantling. The public uproar was so great that in a few months Ethyl itself was forced to suspend sales, with no certainty that they would ever be resumed (R. 417; Sloan, R. 1267; Webb, R. 1624, 1641, Harrington, R. 1765, GM 89-90, R. 1267, 6832-6833).

Thus, within six months from the time Standard Oil became a manufacturer the whole industry had come to a standstill. It was during this period that Sloan wrote to Irenee du Pont, asking him to take a place on the Ethyl Board of Directors, and said that he was sure du Pont "will always be the manufacturing agent of Ethyl" (R. 417; GTX 710, R. 625, 4530).

The Bayway story not only underscores the wisdom of Sloan's reluctance to add additional problems to a new venture, but it is the final answer to the charge that General Motors and du Pont conspired to prevent Standard Oil from manufacturing tetraethyl lead. Standard Oil *did* manufacture, and it stopped because its effort was a spectacular failure; indeed, but for the encouragement of Irenee du Pont, Standard Oil might have abandoned the whole Ethyl venture (Irenee du Pont, R. 899; DP 99B, R. 901, 5873). The infant industry was saved by the forceful—and accurate—prediction of the du Pont engineers at hearings conducted by the United States Surgeon General that du Pont could and would manufacture tetraethyl lead safely (R. 421; Harrington, R. 1770-1775, GM 92, 261-262, R. 1272, 1578-1579, 6836, 7360-7376).

The trial court also made findings on two disputes between du Pont and Ethyl which arose out of the Bayway disaster (R. 417-421). With no reference to those findings, the Government claims that, with Sloan's help, du Pont achieved an unduly favorable settlement (pp. 54, 134). On the contrary, the evidence reveals that Sloan took no action to favor du Pont. Indeed the evidence reveals the full participation of Standard Oil in Ethyl's affairs—and there is no charge that Standard Oil was dominated or coerced by du Pont, or unable to look out for its own interests. It also reveals the vigor and independence which were displayed by Webb, Ethyl's president. The results were arm's-length, normal dealings between Ethyl and du Pont.

The findings and the evidence show that in January 1925 du Pont was producing tetraethyl lead in its bromide process plant, and was constructing a chloride process plant which was to come into production in the spring. As a result of the Bayway disaster, sales of ethylized gasoline were falling, and Ethyl requested du Pont to withhold certain deliveries from its bromide process plant, which du Pont did (R. 417; Harrington, R. 1766, GTX 677, 679, R. 618, 619, 4447, 4456). Later in 1925, although du Pont's chloride plant was then supposed to be in production, du Pont was unable for technical reasons to make the deliveries needed by Ethyl from that plant, and made them instead from the bromide plant. The question immediately arose whether the substituted deliveries should be paid for as bromide process tetraethyl lead which was, by the current contract, priced to Ethyl at $1.66, or paid for as chloride process tetraethyl lead which had a contract price of $1.17 (R. 417-419). Du Pont took the position that since it had voluntarily withheld the earlier deliveries, it was entitled to treat the later deliveries as merely deferred ones and to be paid at the higher price. When the dispute was referred to Midgley, and Howard of Standard Oil, to settle with du Pont, Howard gave his opinion that du Pont had "no clearly enforceable legal claim for an adjustment" (GTX 677, R.

618, 4447). In reply, Irenee du Pont admitted that "from a law point of view" Ethyl might maintain its position, but that fairness required more equitable dealing among the parties (GTX 679, R. 619, 4456), a position with which Sloan agreed (GTX 680, R. 619, 4459). In early April the dispute was still the subject of correspondence between Midgley and Irenee du Pont (GTX 648, R. 616, 4358), but the record does not show how it was resolved.

The other dispute did not arise until May 4, 1925, when Ethyl finally suspended sales (Webb, R. 1624), and concerned the settlement to be made on the cancellation of the du Pont-Ethyl contract (R. 419). There was no controversy as to the validity of du Pont's claim, which included no profit but did include the cost of the chloride process plant, full amortization of which was to have taken place over the term of the contract (R. 419-420; Harrington, R. 1777-1778, GTX 683, R. 620, 4465). Analogous settlements were negotiated at the same time with other suppliers of Ethyl whose contracts had been cancelled (Webb, R. 1625, GTX 681, R. 619, 4460). There was controversy as to the exact amount due to du Pont, and considerable negotiation ensued between Webb of Ethyl and Howard of Standard Oil, on the one hand, and representatives of du Pont on the other. The principal item of dispute was the value and disposition of the du Pont chloride process plant, which depended in turn on whether the manufacture of tetraethyl lead would ever be resumed. At Ethyl's suggestion, but over Irenee du Pont's protest, the solution was delayed until it became clear that the plant could continue to be used for tetraethyl lead production, and then the matter was easily and promptly resolved (R. 420-421; Harrington, R. 1778-1779, GTX 685, 686, 688, 691-693, DP 116, R. 620-622, 1778, 4470, 4475, 4480, 4487-4491, 5900). Sloan took no part in the negotiations, preferring to have them carried on by Webb and the representatives of Standard Oil (R. 421; Sloan, R. 1273-1274).

3. FROM RESUMPTION OF MANUFACTURE IN 1926 TO EXPIRATION OF THE BASIC PATENTS IN 1948

In 1926, when a favorable report from the Surgeon General finally permitted a resumption of the manufacture and sale of tetraethyl lead under rigid safeguards, du Pont again became the manufacturer for Ethyl, and continued as such until 1948. The Government professes to see in this period further evidence of du Pont domination of Ethyl. The facts, however, do not support the assertion:

The principal personality during this period was Earl W. Webb, Ethyl's president. He had been appointed in 1925, when Sloan and Teagle (of Standard Oil) concluded that the administration of Ethyl's affairs had been too long in the hands of men such as Kettering and Midgley, whose interests and qualifications were primarily technical (R. 421; Sloan, R. 1264-1265, 1371-1372, GTX 678, R. 619, 4452). Webb, then a member of General Motors' legal staff, made a survey of Ethyl's operations as a preliminary test of his qualifications. His report was satisfactory, and he was promptly appointed (R. 421; Sloan, R. 1266, Webb, R. 1623-1624, 1665-1668; GTX 678, GM 88, R. 619, 1267, 4452, 6831).

A clear demonstration that du Pont's continued manufacture for Ethyl was wholly based on business reasons, and unrelated to any conspiratorial plan, is found in Webb's prompt efforts to secure for Ethyl a second source of supply. Shortly after Webb became president of Ethyl he opened discussions with Dow Chemical Company, in an attempt to persuade that company to become a manufacturer of tetraethyl lead. Dow chemists had developed a process for producing tetraethyl lead using magnesium, which Dow produced in quantity, rather than sodium (R. 422; Webb, R. 1640-1642; Britton, R. 1701, GM 279-281, R. 1701, 1703, 1706, 7437-7464). Dow however was not willing, because of the danger involved, to undertake manufacture (R. 422;

Webb, R. 1632, Britton, R. 1703-1706, Bennett, R. 1716-1723, GM 284, R. 7473).

In April 1926, while discussions with Dow were in progress, Webb came in contact with another company, American Research Laboratories, which also claimed to have developed a magnesium process, and which offered to undertake manufacture. Webb promptly made a contract looking toward production for Ethyl by the American Research Laboratories, and arranged to bring representatives of Dow and American Research Laboratories together. The latter, whose previous experience had been confined to the production of a serum for hog cholera (Webb, R. 1627) realized upon visiting the Dow plant that their venture would be "rather foolish" and suggested cancellation of their contract and an arrangement whereby manufacture under their process would be conducted by Dow (R. 422; Webb, R. 1629-1630, 1658-1659, 1663-1664, GM 270-271, 283, R. 1631, 1717, 7412, 7415, 7471). Irenee du Pont, as a director of Ethyl, expressed his disapproval of the American Research Laboratories contract, pointing out that if another disaster were to follow on the heels of Bayway, nothing could explain why the directors had "encouraged novices to undertake such a dangerous operation" (R. 422; GTX 711, R. 625, 4532). Ultimately the matter resolved itself when Dow refused to manufacture under any process.

The complete freedom of Ethyl, and of Webb, its president, from domination or coercion by du Pont is also illustrated by the bromine story. Bromine is added in large quantities to tetraethyl lead in order to prevent damage to the engine. Prior to Webb's presidency the purchasing of bromine in quantity had been a troublesome problem because of the limited supply available. General Motors and Ethyl had undertaken to develop additional sources, aided on occasion by du Pont, and at other times by Dow Chemical Company, which was its principal supplier of bromine from salt water wells in Michigan (Sloan, R. 1280-1281, Kettering, R. 1571-1574). At the time Webb became president of Ethyl a chemical plant had been installed by du Pont in a ship which shortly thereafter put to sea in a successful attempt to extract bromine from the ocean (Irenee du Pont, R. 906-909).

Upon hearing of du Pont's seawater experimentation, Dow carried the research further and developed a different extraction process (Bennett, R. 1710-1712). Dow so informed Ethyl, the two companies joined in building a pilot plant to test the process, and in 1933 formed a joint company, Ethyl-Dow Company, to undertake large-scale extraction of bromine from the ocean (Bennett, R. 1712-1714). Since then, Ethyl-Dow has continuously produced for Ethyl (Bennett, R. 1713-1714). The extent of du Pont control or influence may be measured by the fact that no one in du Pont knew anything of the steps in the project; Irenee du Pont learned of the formation of Ethyl-Dow by reading of it in a newspaper (Irenee du Pont, R. 909, Sloan, R. 1281, DP 106, R. 910, 5885).

The same arm's-length relationship was evident in the contractual relationships between Ethyl and du Pont after production was resumed. Webb, following the failure of his effort to find anyone other than du Pont who would risk the hazards of production, negotiated between 1926 and 1937 a series of short-term contracts with du Pont, at steadily decreasing prices (R. 422-423; Webb, R. 1634, GTX 706, 745, 747, 752-754, DP 118, GTX 757-759, R. 624, 628-629, 1782, 630, 4512, 4559, 4570, 4588-4602, 5911, 4621-4636).

Beginning in 1929, however, Ethyl began to give consideration to the situation which would exist when its patents expired. Du Pont would then be free to sell if it wished, but Ethyl, with no manufacturing experience or facilities, would find it difficult to compete (R. 423). Webb and du Pont had agreed in 1926, in order to encourage research by du Pont into improved production processes, that du Pont could retain title to the patents on whatever process improvements du Pont's research might develop (R. 422-423; Irenee du Pont, R. 903-904, Harrington, R. 1780, GTX 702, 706, R. 623, 624, 4502, 4512).

There were two possible solutions to Ethyl's problem—to obtain an agreement from du Pont that it would confine its output to Ethyl after the patents expired, or to devise some arrangements by which Ethyl could be prepared to manufacture for itself. The first alternative was rejected for legal reasons (GTX 749, R. 629, 4579). The second, however, Webb insisted upon and, with support from Sloan, and despite the opposition of du Pont (R. 424; GTX 748, R. 628, 4577, Sloan, R. 1278) ultimately succeeded in having included in the du Pont-Ethyl 1930 contract. By that agreement, if Ethyl purchased at least 50 percent of its annual requirements of tetraethyl lead from du Pont until January 1, 1938, du Pont would on that date disclose all its technical information on manufacture to Ethyl and would license it under all of its patents (R. 423; GTX 752, R. 629, 4588).

From 1930 to 1938 Webb negotiated with du Pont as to the precise manner in which these disclosures and licensing provisions were to be implemented. Ultimately, a solution was reached. In 1936, du Pont agreed to build a tetraethyl lead plant for Ethyl at Baton Rouge, Louisiana (a site selected by Ethyl), and the following year agreed to construct a second such plant (R. 423; Webb, R. 1634-1636, 3665-3666, Harrington, R. 1789, 1792, GTX 785, 790, R. 633, 634, 4788, 4803). The final agreement on how to operate these and the other plants was embodied in a contract known as the Manufacturing Service Agreement of January 1, 1938 (GTX 798-801, 803-804, R. 635, 636, 4830-4900). Under this agreement du Pont agreed to lease its own plant to Ethyl, and to operate both it and the new plants at Baton Rouge as agent for Ethyl for a specified share of the proceeds of Ethyl's operations. Du Pont further agreed to advance certain funds to Ethyl and to build, during the terms of the agreement, such additional tetraethyl lead and raw materials plants as Ethyl might request. Several were requested and built at Baton Rouge pursuant to this agreement. Du Pont operated all the Baton Rouge facilities for Ethyl until 1945, when Ethyl took over operation for itself. When the patents, and the Manufacturing Service Agreement, expired on January 1, 1948, Ethyl was a fully integrated company (R. 423-424; Sloan, R. 1279, Webb, R. 1638-1639, 1694-1695, Harrington, R. 1795-1798; GTX 806-807, 810, GM 278, R. 636, 637, 1796, 4903, 4909, 4914, 7436).

The Government appears to imply that the return to du Pont was in excess of a fair return for its manufacturing efforts (Br., p. 57). Apart from the fact that the independence of both Standard Oil and of Webb cannot be and is not challenged, the findings on actual profits show that the argument is wide of the mark. During the pre-1938 period du Pont fixed its prices to Ethyl at a level which would give it a manufacturing profit almost equal to one-third of the total manufacturing and selling profits, the other two-thirds being equally divided, in the form of dividends, between General Motors and Standard Oil, after deducting the royalty on General Motors' patents (R. 424; Webb, R. 1676-1678, DP 122, R. 1795, 5916). Under the Manufacturing Service Agreement du Pont received as compensation for its manufacturing efforts one-third of the profits from sales of tetraethyl lead by Ethyl up to a specified amount per year, and one-tenth of such profits thereafter (GTX 799, p. 22, R. 635, 4838 at pp. 4859-4860).

Since production always far exceeded the specified amount, the average percentage of profits which du Pont received under this formula for the decade in which the agreement was in force was only 18 percent (R. 425; DP 122, R. 1795, 5916). There is no evidence that the return which du Pont received for its manufacturing efforts was regarded as exorbitant at the time, and no basis upon which it can be challenged now.

4. FROM THE EXPIRATION OF THE PATENTS IN 1948 TO THE PRESENT

The final evidence of the arm's-length nature of the relations between General Motors and du Pont in respect to tetraethyl lead is to be found in the situation which now exists. On December 31, 1947, eighteen months before the complaint was filed in this case, the basic tetraethyl lead patents expired, the Manufacturing Service Agreement came to an end, and du Pont and Ethyl went their separate ways (R. 425). Since that time, du Pont and Ethyl have each manufactured and sold tetraethyl lead.

Du Pont, in anticipation of its coming freedom from Ethyl's patents, began as early as 1945 to expand its petroleum products staff. In 1947 it organized a petroleum laboratory, and visited and solicited orders for its tetraethyl lead from every oil company in the United States (R. 425; Sabina, R. 1859-1867). The planning was good, the salesmanship effective, and du Pont was successfully in the tetraethyl lead business in 1948 (Sabina, R. 1867). Its customers, for the most part, were of course won from Ethyl; which until then had been the exclusive supplier. In 1948, the production capacity of du Pont was about four-fifths that of Ethyl (R. 425; Webb, R. 1696, Daley, R. 1909-1910), and both companies have since continued to expand in proportion to their needs and future expectations (Webb, R. 1639, Daley, R. 1902-1903, 1910). The "Ethyl" trademark, which could not of course be used by an oil company on its retail pumps when it used du Pont's tetraethyl lead, was a substantial obstacle to du Pont's selling efforts, but notwithstanding, du Pont won additional customers from Ethyl, as well as losing some to Ethyl, in the years following 1948 (R. 425; Webb, R. 1639-1640, Daley, R. 1886-1887, 1898, 1901). The Government has abandoned the charge it made below that du Pont and Ethyl are not in competition (Br., p. 82).

B. THE EVIDENCE SHOWS THAT GENERAL MOTORS' DECISIONS WITH RESPECT TO "FREON" WERE NOT THE RESULT OF DU PONT INFLUENCE OR CONTROL

The basic question raised by the Government in respect to "Freon" refrigerants, both in the Amended Complaint and in this Court (Br., pp. 136-138), is the same as that which is presented in respect to tetraethyl lead: Was General Motors' decision to enlist du Pont's aid in manufacture a normal business decision, or was it the result of control or influence by du Pont? Again, as in tetraethyl lead, the trial judge saw and heard the men who made the decision, Sloan and Pratt, and accepted their testimony that control or influence played no part in their thinking (R. 434). The trial court's finding is fully supported by the subsidiary findings and the evidence, including contemporaneous documents which corroborate the testimony of Sloan and Pratt.

In 1928 Midgley, who had been assigned by General Motors Laboratories to find a new and better refrigerant for the domestic refrigerators produced by Frigidaire Division of General Motors, discovered that dichloro-difluoromethane, an obscure gas described in early chemical literature, was an almost ideal refrigerant (R. 426; DP 128, 131; GTX 883, R. 1803, 1808, 647, 5922, 5929, 5062). This compound, commonly known by its trade-mark "F-12", was one of numerous family of gases sold under the trademark "Freon". It met the objectives which had been sought: a suitable boiling point, non-flammability, non-toxicity, and a distinct but not unpleasant odor, although its two principal constituents, chlorine and fluorine, are each dangerous and toxic (R. 426; Pratt, R. 1483, Harrington, R. 1802, GTX 883 at pp. 7-8, R. 647, 5062 at pp. 5068-5069). Use patents were obtained by Frigidaire (R. 426; Harrington, R. 1824).

During 1929 and 1930 Midgley continued to work on "F-12". In August 1929, on the recommendation of E. G. Biechler, Manager of Frigidaire, Pratt approved a small plant to produce "F-12" for experimental purposes, and a few months later Frigidaire erected a semi-commercial plant (R. 426; Pratt, R. 1484-1485, GM 233, 234, R. 492, 7295, 7296). In March 1930, when preparation and testing had arrived at a point where Frigidaire was faced with the problem of commercial production, Biechler recommended to Pratt, who was then the Group Executive in General Motors for the Accessories Divisions, the group of Divisions which included Frigidaire, that Frigidaire or some other General Motors Division undertake it (GTX 838, R. 638, 4975). Pratt replied that he would consult with Sloan, but expressed his own doubts, stating (GTX 839, R. 639, 4976):

> "It is quite a fundamental step for us to start General Motors in chemical manufacture. Up to this time we have more or less elected to confine ourselves to the mechanical side of manufacture and I do not want to depart from this until very thorough consideration has been given to all of the factors involved."

When Sloan's opinion was sought, he agreed with Pratt that General Motors should not undertake the full-scale commercial production of the new refrigerant (R. 427;

Sloan, R. 1350-1351, 1352-1353, Pratt, R. 1487-1489, GTX 883 at p. 10, R. 647, 5062 at p. 5071). Sloan testified (R. 1351):

> "That was the position I took on the basis of lack of competence. Further, more than that, the manufacture of this particular material involved certain questions of danger in manufacture, somewhat analogous to tetraethyl lead, perhaps not so much, and I thought it was something we should not engage in. I told Mr. Pratt that."

Sloan left it to Pratt to investigate and develop suitable manufacturing arrangements (R. 427; Pratt, R. 1488). Shortly thereafter—but some two years after Midgley's original discovery—Pratt approached du Pont with the suggestion that it join General Motors in the formation of a joint company—ultimately named Kinetic Chemicals, Inc.—to produce and sell "F-12" and other "Freon" refrigerants (R. 427; Pratt, R. 1489, Harrington, R. 1802). Pratt testified that he decided to approach du Pont because of its experience in handling dangerous chemicals, and because he had confidence in the du Pont people (R. 427; Pratt, R. 1488-1489, 1491, Harrington, R. 1802). Kettering, it should be added, concurred in Sloan's and Pratt's decisions (Kettering, R. 1596).

Both Sloan and Pratt testified that their decisions were made in what they regarded as the best interests of General Motors, and categorically denied that coercion, control, or any other influence by du Pont, or any understanding or agreement between General Motors and du Pont, had any part in the decision they made (Sloan, R. 1326-1327, 1385-1386, Pratt, R. 1489, 1502). The record, moreover, contains considerable evidence illustrating the sound business basis for their decision. In the first place, the issue was not simply whether General Motors would manufacture for its own needs, but whether it would become manufacturer for the whole refrigerator industry. The elimination of health and fire hazards which could be achieved through the use of "F-12" in domestic refrigerators was so important that from the outset General Motors had resolved not to assert its patent monopoly (Pratt, R. 1498, GTX 883 at p. 10, R. 647, 5062 at p. 5071) and in fact "F-12" always was available to anyone who wished to buy it (R. 430; Pratt, R. 1495-1496, 1498, Harrington, R. 1821, GTX 857, DP 134 at p. 3, 135, 136, GM 239, R. 642, 1820, 1822, 1498, 5020, 5948 at p. 5950, 5958, 5960, 7304).

Moreover, General Motors lacked experience, a consideration which, as Sloan pointed out, was of particular importance when dangerous chemicals were involved. While no doubt General Motors could have surmounted the problem in time, everyone recognized that it was important to produce "F-12" as quickly as possible (R. 427; GTX 838, 840, GM 233, R. 638, 639, 1484, 4975, 4977, 7295). Again, as events turned out, it became apparent immediately that Frigidaire's semi-works production process was not commercially feasible, and that full-scale production required a complex supplementary manufacturing process for an essential raw material, anhydrous hydrofluoric acid (Harrington, R. 1802-1803, 1805-1806, DP 128, 131, R. 1803, 1808, 5922, 5929). Du Pont promptly developed a new commercial production process, and in a short time invented and patented for Kinetic a manufacturing process for anhydrous hydrofluoric acid (*ibid*). Finally, du Pont was soon called on to utilize its chemical experience in overcoming the objections initially raised to "Freon" by building code authorities in several large cities (R. 429; Pratt, R. 1497-1498, Harrington, R. 1821-1822, DP 135, GTX 883 at pp. 14-15, R. 1822, 643, 5958, 5062 at pp. 5075-5076). Even Biechler, who had originally recommended manufacture by General Motors, very soon expressed his pleasure that du Pont had assumed the manufacturing responsibilities (DP 129, 130, R. 1806, 1807, 5925, 5926).

The organization of Kinetic Chemicals, Inc. to manufacture and sell "Freon" was in large part worked out by Pratt, for General Motors, and Harrington, for du Pont (R. 427-428). Pratt initiated the discussions, and proposed the basic terms of the final agreement (R. 427-428; Pratt, R. 1489-1492). Pratt suggested, and du Pont accepted, the idea that du Pont should take 51 percent, and General Motors 49 percent, of the stock in Kinetic, because Pratt believed that the company which had the responsibility for manufacturing and selling "Freon" should have the responsibility for controlling the operation of the company (R. 427-428; Pratt, R. 1491, Harrington, R. 1810, 1853). Du Pont received a management fee; General Motors received a royalty on its patents (R. 428; GTX 850, 883 at p. 11, R. 647, 641, 4992, 5062 at p. 5072).

Pratt also suggested, and du Pont accepted, a provision on which considerable emphasis is laid in the Government's brief (pp. 58-59, 136-137)—that future chemicals developed by General Motors should first be offered to Kinetic (R. 428; Pratt, R. 1491-1492, Carpenter, R. 2740; GTX 842, R. 639, 4979). In truth, the Pratt suggestion, as finally embodied in the Kinetic Agreement (GTX 850, R. 641, 4992) simply complemented the decision that the new refrigerants should be manufactured by Kinetic. In the event that General Motors developed any other chemical products, its interests were fully protected, since a prerequisite to any manufacture by Kinetic was a prior agreement on terms—the offer to Kinetic of any General Motors discovery was to be "on such terms as may be mutually agreed upon." If General Motors did not choose to agree on the terms of an offer within six months, it had no further obligation (R. 428; GTX 850, R. 641, 4992).

In effect, therefore, the clause left General Motors free to transfer any discovery to Kinetic, or not, as it saw fit. As Pratt himself explained a few months later (R. 429; GTX 899, R. 652, 5129), if General Motors could arrive at a mutually satisfactory agreement with Kinetic, its chemical discovery would be in the hands of "an organization in which [General Motors] have confidence from the standpoint of their ability to carry on chemical manufacturing processes." As it turned out, nothing was ever offered to Kinetic by General Motors under this article (R. 429; Sloan, R. 1384, Pratt, R. 1492, Harrington, R. 1813).

In any event, in 1945—four years before the complaint was filed—the clause was removed from the Kinetic agreement the same way it had come in—at General Motors' request, based on General Motors' decision that the clause was unenforceable (R. 429-430; Pratt, R. 1492, Harrington, R. 1814, DP 133, GTX 883 at p. 12, R. 1814, 647, 5945, 5062 at p. 5073).

The Government makes no reference in its brief to one other significant fact appearing in the findings—its own specific approval of the purchase by du Pont of General Motors' minority stock interest in Kinetic, and its specific waiver of its prayer for relief (R. 259) seeking divestiture of Kinetic from du Pont. The purchase grew out of negotiations which began in 1948, and consumed almost all of 1949 as well (R. 431). There can be no doubt that they were at arm's length (see Daley, R. 1903-1906). On January 1, 1950, General Motors' stock was acquired by du Pont for approximately $10,000,000 (R. 431; Harrington, R. 1834). Since the complaint in this case had already been filed, the Department of Justice had been consulted, and had assured du Pont, in writing, that it did not oppose the purchase and, while it reserved the right to present evidence relating to the matter, would drop its prayer for relief concerning Kinetic (R. 432; Harrington, R. 1833-1834, DP 145, R. 1833, 5975).

* * *

The tetraethyl lead and Kinetic stories, when all the findings and evidence are considered, thus lend no support to the Government's charges. The detailed findings are fully supported by the testimony of participants in the events, as well as by contemporaneous documents. The decisions by General Motors to call upon du Pont's manufacturing skill and chemical experience, rather than itself to embark upon chemical manufacture, were based, as the court found, not on control or influence, but on the business interests of General Motors as General Motors independently evaluated them.

III

THE EVIDENCE SUPPORTS THE TRIAL COURT'S FINDINGS THAT DU PONT DOES NOT CONTROL GENERAL MOTORS

Although the Government cannot prevail merely by proof that du Pont controls General Motors (as the Government itself concedes), that proof is the foundation of the Government's entire case.[17] It is in this alleged control that the Government finds both the element of combination and the sole means by which the illegal restraint is said to have been achieved. If the alleged control does not exist the premise that supports the Government's case disappears.

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[17] The Government concedes that control of one corporation by another does not violate the antitrust laws unless it results in a restraint of trade (Br., p. 71). Since the facts here establish that General Motors has never bought from du Pont on a non-competitive, preferential basis and that du Pont has never had a non-competitive advantage in the trade of General Motors, there has been no restraint of trade (see pp. 35-137, *supra*), and the Government's case must fail without regard to the proof on the question of control.

The record shows that du Pont has not and does not control General Motors.[18] The trial court so found (R. 322), and we shall show that its findings are supported by the evidence. Here, as in the case of the ultimate issue of restraint of trade, the facts are fatal to the Government's contentions.

The question of control is a question of fact; on this point we agree with the Government (Br., p. 75). We also agree with the Government that the particular kind of control which is relevant in this case is, as defined by the Government, "a power in du Pont to direct the business policies of General Motors so as to gain for itself an economic advantage over its competitors" (Br., p. 88). Whether such a power exists, however, is a question to be decided on the basis of all the relevant facts, and not merely by reference to fragments of the facts or to assumptions or inferences said to be justified by those fragments. Accordingly, in this section of the brief we shall discuss in some detail all of the relevant facts that relate to the issue of control, reserving for a later section of the brief (pp. 257-261) our discussion of the Government's argument that the trial court applied improper legal criteria in its consideration of the issue.

The facts taken in their entirety show that du Pont's activities as a stockholder in General Motors were the normal and proper activities of an investor; that they were unrelated to the trade relations between the two companies, and they affirmatively establish that du Pont has not had and does not now have the power to influence or to direct the business policies of General Motors so as to gain for du Pont an economic advantage over its competitors.

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[18] Throughout this brief we use the term control in the same sense in which it is defined in the Government's brief: "* * * it is here used as a shorthand designation of a relationship by which one corporation influences the free action of another so as to result in an unlawful restraint of trade. Specifically we are concerned here with a power in du Pont to direct the business policies of General Motors so as to gain for itself an economic advantage over its competitors" (Br., p. 88). The same definition cast in somewhat different form appears on pages 77-78 of the Government brief.

A. THE EVIDENCE SHOWS THAT DU PONT DID NOT INVEST IN GENERAL MOTORS FOR THE PURPOSE OF CONTROLLING GENERAL MOTORS' COMMERCIAL RELATIONS

In the court below the Government urged that the initial acquisition of General Motors stock by du Pont in 1917-1918 was a step in a conspiracy to secure, in General Motors, a "closed market" for du Pont. Appellees, on the contrary, urged that it was an investment.

The District Court, noting specifically that it was taking into account the testimony which it had heard, as well as the documents, found (R. 301):

> ". . . on the basis of all of the evidence of record that no agreement was made in connection with du Pont's investment in General Motors, or subsequent thereto, which bound the latter to buy any portion of its requirements from du Pont."

It also found (R. 302):

> "The Court also finds based on all of the evidence of record that du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests."

Only the second of these findings is now challenged; the Government no longer seeks to prove conspiracy or agreement and, as we note below (pp. 232-233), the question of intent would now seem to be immaterial. The second finding, however, like the first, is fully supported by the subsidiary findings and the evidence relating to the investment.

The background of the du Pont investment is covered in some detail in the findings (R. 342-344), but can be stated very briefly. At the turn of the century du Pont was primarily a producer of military and commercial explosives. In 1908 the du Pont Executive Committee, believing that new Government owned and constructed powder plants foreshadowed the end of du Pont's smokeless powder business, began an investigation of new outlets for its nitrocellulose, or guncotton, the principal constituent of smokeless power (R. 342; Irenee du Pont, R. 758-760). Celluloid and artificial leather were found particularly suitable. Du Pont entered the artificial leather business in 1910 by the purchase of the Fabrikoid Company, and into the manufacture of celluloid (called "Pyralin" by du Pont) through the purchase of the Arlington Company in 1915 (R. 342-343; Irenee du Pont, R. 760-768, GTX 106, 110, R. 476, 3062, 3120).

Midway in this expansion program World War I intervened. In the fall of 1914 du Pont began to receive substantial orders for military explosives from the Allies, and all of its executives devoted their full energies to the task of fulfilling what appeared to be impossible commitments. Du Pont's explosives capacity was increased from 700,000 to 37,000,000 pounds per month, at a cost exceeding $200,000,000 (Irenee du Pont, R. 774-780, DP 74, pp. 4, 10, R. 777, 5740 at pp. 5743, 5749). By the middle of 1915 initial construction of facilities had been successfully carried out, powder was being delivered in huge quantities and it became evident that the substantial risks which had been involved would result in extraordinary earnings (R. 343; Irenee du Pont, R. 780).

The du Pont management early concluded to retain in the business a substantial portion of those earnings, and to invest them in new industries which would utilize, after the war, as much as possible of the newly-acquired skills and facilities of the company (R. 343; Irenee du Pont, R. 780-782, DP 74, 76, R. 777, 782, 5740, 5778). Chemical industries were decided upon, and by the end of 1917 du

Pont had already embarked on three which were particularly suitable—dyestuffs and organic chemicals, heavy chemicals and paints and varnishes (R. 343-344; Irenee du Pont, R. 778-779, 782-783, 785-794, DP 74-84, 87-88, R. 777, 781-785, 788, 5730-5820, 5828-5843). Despite these various acquisitions, however, in 1917 du Pont was still principally producing powder and explosives (R. 344).

1. THE INITIAL INVESTMENT

The origin of the opportunity for du Pont to make its investment in General Motors had no relation to du Pont's commercial activities, or, indeed, to any activity of the du Pont Company. The findings show that as early as 1914 Raskob began buying General Motors stock for his own account as an investment and his interest in the matter led Pierre du Pont to make a personal investment in the same year. Others in du Pont likewise made personal investments on Raskob's recommendation (R. 297; Pierre du Pont, R. 795-796, DP 37-38, GTX 114, 115, R. 796, 477, 5589, 5591, 3188, 3189). There has been no charge that these purchases were motivated by anything other than normal investment considerations.

At the end of 1915, however, Pierre du Pont and Raskob found themselves in the midst of a major controversy in General Motors. That company had been organized in 1908 by W. C. Durant through the acquisition of a number of independent automobile companies. By 1910 Durant had been forced to negotiate a large loan with a group of "Boston" banks, under a voting trust which made C. W. Nash president and gave the bankers control of the Board of Directors for five years (R. 297; Pierre du Pont, R. 797-798, GTX 124, pp. 4-6, R. 479; 3208 at pp. 3212-3213).

When the voting trust was about to expire, Pierre du Pont and Raskob were invited by a Mr. Kaufman, president of a New York bank of which Pierre du Pont was a director, to attend a meeting in New York to discuss a new slate of directors for General Motors. Contrary to expectations, Durant and the bankers group deadlocked on the composition of the new board. After long discussion, both sides nominated an equal number of directors and agreed that Pierre du Pont should be Chairman of the Board, and should name three directors who would be neutral as between the two sides. He named Raskob, J. A. Haskell, then a vice president of du Pont, semi-retired and living in New York, and Lammot Belin, a brother-in-law (R. 297-298; Pierre du Pont, R. 798-799, GTX 116, 117, R. 478, 3190, 3192). The bankers' candidate, Nash, remained as president (GTX 117, R. 478, 3192).

By the spring of 1916 Durant, through the Chevrolet Company, had resolved the dispute with the bankers in his favor and had re-established himself as president of General Motors.[19] Increasingly thereafter he discussed with both Pierre du Pont and Raskob the financial affairs of the company. In August, 1917, Durant renewed an earlier invitation to each of them to become a member of the General Motors Finance Committee, and each accepted (R. 298; Pierre du Pont, R. 807-808, GTX 123, 124, p. 7, DP 42-43, 45, p. 2, R. 478, 479, 808, 809, 3205, 3208 at p. 3215-3216, 5595, 5600, 5603 at p. 5604).

After Pierre du Pont and Raskob became members of the Finance Committee, Durant talked freely to them about the operations and finances of General Motors, urged them to take greater responsibilities in General Motors' financial management, and likewise urged them, and others in du

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[19] Durant, after 1910, had organized Chevrolet Motor Company to manufacture a low-priced car, and he utilized Chevrolet to purchase large amounts of the stock of General Motors; by 1916 Chevrolet owned more than 50 percent of the outstanding common stock (R. 297; Pierre du Pont, R. 803, GTX 124, p. 6, R. 479, 3208 at pp. 3214-3215).

Pont, substantially to increase their General Motors stock holdings (R. 298-299; Pierre du Pont, R. 809-810, GTX 124, p. 7, DP 45, p. 2, R. 479, 809, 3208 at pp. 3215-3216; 5603 at p. 5604). Raskob, however, in early December 1917 proposed to Pierre du Pont that the du Pont Company itself should make the substantial investment in General Motors which Durant was urging on the individuals (R. 299), his argument being that the du Pont Company needed an investment of good earning power, which he believed General Motors stock would be, to support the du Pont dividend after the war (Pierre du Pont, R. 810-811). When Pierre du Pont agreed, Raskob prepared a draft of a report in connection with the proposal which he reviewed with Pierre du Pont, and on December 19, 1917, he submitted, as Treasurer of du Pont, a formal report to the Finance Committee recommending the purchase of up to $25,000,000 of General Motors stock (R. 299, GTX 124, R. 479, 3208).

The report, after outlining briefly how the purchase should be financed (R. 3209-3211), begins by stating the "imperative" need for du Pont to find an investment for substantial sums of capital (R. 3211-3212). It points out (a) that in 1915 du Pont's capital had been increased, (b) that the increase committed du Pont to find postwar investments of at least $90,000,000, (c) that despite its best efforts to invest in new industries du Pont had thus far succeeded in investing only $40,000,000, and (d) that unless a profitable investment was found for the remaining $50,000,000, du Pont's postwar earnings would not support its dividend policy.

The report then summarizes (R. 3213-3215) the early relations of Pierre du Pont and Raskob with Durant, pointing out (R. 3215-3216) that Durant's association with them and other du Pont men "has been such as to result in the expression of the desire on his part to have us more substantially interested with him, thus enabling us to assist him, particularly in an executive and financial way, in the direction of this huge business." The report then continues (R. 3216).

> "The evolution of the discussion of this problem is that an attractive investment is afforded in what I consider the most promising industry in the United States, a country which in my opinion holds greater possibilities for development in the immediate future than any country in the world; that rather than have a coterie of our directors taking advantage of this in a personal way, thus diverting their time and attention (to some degree at least) from our affairs, it would be far preferable for the Company to accept the opportunity afforded * * *."

Several pages of the report (R. 3218-3220) are then devoted to the details of the investment opportunity. The nature of the options secured with Durant's help, and the earnings and assets situation of both General Motors and Chevrolet are set forth at length. The report points out that the proposed investment would be on better than an asset basis; would return, on current dividends, 12.6 percent; and would share in General Motors' earnings which then were 42 percent.

At the conclusion of the report is the following "Summary" of the points in favor of the investment (R. 3221):

> "1. With Mr. Durant we will have joint control of the companies.
>
> "2. We are immediately to assume charge and be responsible for the financial operation of the Company. This involves the direction of cash balances which will aggregate upwards of $25,000,000.00 and the handling of annual gross receipts aggregating $350,000,000.00 to $400,000,000.00. From a financial standpoint, I feel that a consolidation of the financial divisions of the du Pont and General Motors

> Companies will be of tremendous advantage to us as well as to the General Motors Company and is a thing to be sought and desired from our standpoint.
>
> "3. The du Pont Company, if the Class A stock is sold to the stockholders, will share in the profits of the industry to an extent equal to 120% on our investment and will receive 14% in annual dividends thereon; or in the event of carrying Class A stock in our Treasury the dividend rate will be about 12.6% and will share in the earnings about 42% and this after paying $20,000,000.00 war taxes.
>
> "4. Our purchase is on better than an asset basis.
>
> "5. Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor."

It is the last of these five points to which the Government refers as the principal basis for its challenge to the court's findings. And it is necessarily only this sentence, for the point is not mentioned, or even suggested, anywhere else in the twenty-page document.

Pierre and Irenee du Pont, both of whom had been members of the committees of the du Pont Board of Directors to which the report had been submitted, testified at the trial, and their testimony was relied upon by the court (R. 300, 301). Each testified that his vote as a du Pont director in favor of the investment was not influenced in any way by any prospect of increased sales by du Pont to General Motors (Pierre du Pont, R. 815-816, Irenee du Pont, R. 870). Nor could either of them recall that the point had been discussed at any of the lengthy meetings at which the report was finally approved with only three directors dissenting (Pierre du Pont, R. 815, Irenee du Pont, R. 870, DP 46, 47, GTX 126, R. 817, 479, 5614, 5616, 3229). What *was* discussed, and at length, was whether the proposed investment in the automobile industry would prove sound, and whether it was wise for du Pont to invest in an industry in which it had no operating experience. The affirmative views, which finally prevailed, were to the effect that the automobile industry would expand rapidly and therefore should be a good long-term investment; that Durant and his organization were competent and would carry the operating responsibility; that du Pont could contribute to the success of the enterprise by undertaking the responsibility for the financial management; and that therefore it was an appropriate investment (Pierre du Pont, R. 811-812, 817-818, Irenee du Pont, R. 868-869).

None of the contemporary documents evidences any intent or purpose to require or influence General Motors to purchase from du Pont. The announcement to du Pont stockholders in the du Pont annual report for 1918 (GTX 125, R. 479, 3228) speaks of the "investment", and states that it "leaves the management and general conduct of the General Motors Corporation as heretofore, except that the responsibility for financial management is now shared by the officers of our company." The sole statement on any commercial relationship was no more than a statement of fact: "The consumption of paints, varnishes and fabrikoid in the manufacture of automobiles gives another common interest."[20]

Another contemporary document is particularly illuminating—Raskob's report to the du Pont Finance Committee in March 1918 (GTX 128, R. 481, 3234). There, three months after the original decision had been taken, he reported fully with respect to "the conditions surrounding our acquisition of an interest in the General Motors Corporation and Chevrolet Motor Company, in accordance with authority granted" (R. 3234). Yet this report deals with the purchase as entirely an investment matter, and contains no reference whatever to commercial relations with General Motors. Had the pre-emption of General Motors trade—by agreement or otherwise—been an objective of the investment, it is most unlikely that this comprehensive report on the accomplishment of the investment would have made no reference to it, or the steps being taken to carry it out.

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[20] The 1917 Annual Report had already informed the stockholders that du Pont was selling to the automobile industry: "The motor companies are very large consumers of our Fabrikoid and Pyralin as well as paints and varnishes" (GTX 1409, R. 5511).

There is also another significant contemporaneous document. Lammot du Pont, who likewise was present at the meetings considering the investment and who was thought by the Government to be important enough in the alleged conspiracy to be named as a defendant,[21] had occasion within a short time after the investment to report on a possible need for increasing du Pont "Pyralin" capacity. Although this is one of the products to which Raskob had made specific reference, and although du Pont's existing business was utilizing its full capacity, Lammot du Pont recommended against an increase in du Pont's capacity; even more significantly, he commented that he saw no reason why a "Pyralin" sales department forecast made in 1916—before the investment idea was ever thought of—should not continue to be a valid basis for determining what capacity was needed (DP 429, R. 2097, 6410). There is not a word to suggest that the intervening investment in General Motors was of any significance whatever. Lammot du Pont, certainly, was giving no weight to Raskob's expectations.

That the purchase was an investment also finds support in the fact that du Pont's General Motors stock has been treated from the outset as a financial investment. Responsibility for it has always been lodged in the Finance Committee of the du Pont Board (Carpenter, R. 2713, GTX 198, 488, 3441). That Committee is charged solely with responsibility for du Pont's financial affairs. The Finance Committee, for example, selects the du Pont nominees for the General Motors Board of Directors, usually from its own membership—although it does not tell them how to vote or otherwise to discharge their duties on that Board (Carpenter, 2714-2716, DP 56, pp. 2-9, R. 836, 5654 at pp. 5655-5662). Du Pont owns stock in companies other than General Motors, but responsibility for those holdings is lodged in the Executive Committee, which is solely responsible for operating affairs, for the reason that in each of these other stock holdings, du Pont has certain operating responsibilities. The situation is summed up in the statement of W. S. Carpenter, Jr., president of du Pont from 1940 to 1948 and since then Chairman of the Board (R. 2174): "In the case of [the] General Motors investment we do not assume that there is any such responsibility as that, and also we regard it purely as a financial investment."

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[21] Lammot du Pont died before the trial (R. 186).

The trial court, after careful analysis of all the pertinent evidence, including the documents and testimony referred to in the foregoing paragraphs rejected the Government's contention that du Pont invested in General Motors with the purpose of controlling General Motors' commercial relations, and found (R. 302):

> "The Court also finds based on all of the evidence of record that du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests. Du Pont, the record shows, never intended to preclude General Motors from dealing with suppliers of its choice, never made any effort to so preclude General Motors, and did not limit General Motors' purchasing freedom."

The court further found that du Pont's purchase of General Motors stock was essentially an investment (R. 300-301):

> "Raskob's report, the testimony of Pierre S. and Irenee du Pont and all the circumstances leading up to du Pont's acquisition of this substantial interest in General Motors, as shown by the record, establish that the acquisition was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business."

2. EMERGENCY DU PONT PURCHASES OF GENERAL MOTORS STOCK IN 1920-1921

By the fall of 1919 du Pont had invested approximately $49,000,000 in General Motors stock, the amount Raskob had said was available for investment, and had decided that no further investment would be made (R. 299; Pierre du Pont, R. 822, GTX 166, pp. 5-6, R. 483, 3375 at pp. 3379-3380). Within the next two years, however, two events compelled du Pont to make substantial temporary investments in General Motors—the breakdown of arrangements for placing a part of a new common stock issue, and Durant's personal financial crisis.

The findings show that the purchases by General Motors of new properties as well as the expansion of the production capacity of existing Divisions after World War I required new capital, amounting in fact to almost $400,000,000 (R. 303; Pierre du Pont, R. 667-673, 837-838, DP 57, pp. 6-8, GTX 134, R. 838, 480, 5671 at pp. 5675-5677; 3263). In 1920 General Motors made an offering of $64,000,000 of common stock. Neither Durant nor du Pont, who between them owned over 50 percent of the outstanding common stock, was willing to make the substantial further investment which the taking up of their pro rata shares in the common stock issue would require. Raskob, however, persuaded the Nobel interests in England to take up all the Durant and du Pont pre-emptive rights and persuaded J. P. Morgan & Company to underwrite the issue and take a substantial block for itself (R. 303; GTX 140, 141, 142, 166, p. 7; R. 482, 483, 3308, 3311, 3317, 3375 at p. 3381). As it turned out, financial conditions in England made it impossible for Nobel to meet $15,000,000 of its commitment, and Raskob, to prevent the failure of the offering, was forced to seek du Pont cooperation in placing the $15,000,000, a part of which du Pont itself finally took up (R. 303; GTX 166, pp. 7, 13, R. 483, 3375 at pp. 3381, 3386).

Far more potentially serious for du Pont and General Motors was Durant's personal failure. The findings show that in November, 1920, Durant, through individual stock market operations apparently designed to support the price of General Motors stock, had become indebted to various banks and brokerage houses to the amount of about $27,000,000 for which he had pledged as collateral some 2,700,000 shares of General Motors stock (R. 303; DP 50, 52, R. 827, 5628, 5640). As the general "recession" deepened and the market continued to fall, there were demands for additional collateral which Durant was unable to meet. General Motors itself had bank loans outstanding of more than $80,000,000 (DP 51, R. 827, 5639) and alarm was felt as to the possible consequences if Durant should fail (R. 303-304). There was reason to fear that a personal failure by General Motors' president might result in its loans being called and its being thrown into receivership (Pierre du Pont, R. 823-825, Irenee du Pont, R. 871, DP 50, p. 8, R. 827, 5628 at p. 5635).

By the time Pierre du Pont and Raskob learned of Durant's serious situation, immediate action—the Government calls it "almost frenzied" (Br., p. 15)—was necessary. During the night of November 18-19, they and J. P. Morgan & Company worked out a plan by which a new company (du Pont Securities Company) was organized with $7,000,000 in cash and some 1,375,000 shares of General Motors stock, most of it made available by du Pont, with which it was able to borrow $20,000,000. Durant's loans were taken over, his creditors paid off, and a substantial equity preserved for him. Ultimately du Pont was forced to a bond issue of its own—the first time the present du Pont Company had ever gone into debt—to finance the transaction and to remove the impediment to General Motors credit caused by the fact of a $20,000,000 outstanding loan secured only by General Motors stock (R. 304; Pierre du Pont, R. 825-826, Irenee du Pont, R. 871-872, DP 50, pp. 7-11, DP 52-54, GTX 153-155, 157, 166, pp. 8-9; 12-13, R. 827, 828, 832, 481, 483, 5628 at pp. 5633-5638, 5640-5644, 3328-3337, 3348, 3375 at pp. 3382-3383, 3386-3387).

There is no suggestion in the evidence, or in the Government's brief, that the foregoing transactions were motivated by any purpose on the part of du Pont to control General Motors' commercial relations. The net result was that in August 1921 du Pont owned directly, or through du Pont Securities, 7,562,540 shares of General Motors stock, or about 38 percent of the General Motors stock outstanding (R. 304; GTX 166, p. 15, R. 483, 3375 at p. 3389).

3. Du Pont's Present Holdings of General Motors Stock

Du Pont's present holdings of General Motors stock stem essentially from its original 1918-1920 investment. In 1923 du Pont sold the equivalent of 2,250,000 shares—substantially the amount acquired in the 1920-1921 transactions—to Managers Securities Company, a corporation organized for the purpose of providing additional incentive to principal General Motors executives (see pp. 176-184, *infra*). Du Pont began to surrender the voting rights on these shares in 1930, and by 1938, when the Managers

Securities plan was finally liquidated, du Pont gave up all rights in the stock. Since then du Pont has owned approximately 23 percent of the General Motors common stock—almost exactly the same percentage as that which it had originally acquired (R. 304; GTX 273-274, R. 499, 3640, 3643).

Although the Government concedes that control does not follow from any given percentage of stock ownership, it attaches significance to the fact that at some annual meetings of General Motors stockholders du Pont's stock holdings represented more than 50 percent of the total stock voted (Br., pp. 28, 74; GTX 1307, R. 664, 5230). The trial court considered this contention of the Government and refused to accept it as conclusive proof of du Pont control. The finding of the trial court was (R. 323):

> "There is a substantial failure of proof that du Pont controlled General Motors, even though it was voting at times 51% of the stock voted at a stockholders meeting. The testimony is that there was such satisfaction with the management and operation of General Motors that a large number of stockholders did not choose to vote their stock and made no protest with respect to the management of the company or the actions of the Board of Directors. It is entirely conjectural whether or not du Pont by its stock ownership could control if there had been a contest."

The finding is fully supported by the evidence, particularly the testimony of Sloan. On cross-examination Sloan had rejected the suggestion that the voting by du Pont of more than 50 percent of the stock at a stockholders meeting demonstrated du Pont control, and the trial judge found his testimony "both reasonable and persuasive" (R. 323). Sloan pointed out that voting at a stockholders meeting when there was no contest was no indication of what would have happened at that meeting if there had been a contest. No one, he asserted, could tell how stockholders would vote in a contest, without knowing the nature of the contest, except that stockholders would be strongly influenced as to whether to support the management by the record of the corporation in respect to its competitive position, its earnings and its dividends (R. 1330-1333). He said, specifically (R. 1333):

> "In case of a conflict you immediately—the interest you arouse and all that, and the issues that are put before the stockholders, would mean that a much larger percentage of the stockholders would come into the meeting, and that would dilute in a way the du Pont interest.
>
> So I can't say just what would happen. It would depend, as I say, upon a lot of circumstances that I can't evaluate."

Certainly it is unlikely to the point of impossibility that in view of the past history of success by the General Motors management that du Pont could possibly prevail in a contest with that management on the issue to which the Government's contention is directed—that General Motors should be required to purchase du Pont products when in its judgment others are to be preferred.

B. THE EVIDENCE ESTABLISHES THAT THE DU PONT NOMINEES ON THE GENERAL MOTORS BOARD OF DIRECTORS HAVE NOT CONTROLLED OR ATTEMPTED TO CONTROL GENERAL MOTORS' COMMERCIAL RELATIONS

Shortly after du Pont's initial investment in General Motors several du Pont nominees took their places on the Board of General Motors, and there have been du Pont nominees on the Board ever since. The evidence with respect to the activities of these du Pont nominees shows that their activities were confined to normal and proper activities of directors, that their presence on the Board of General

Motors and on committees of the Board did not give du Pont control of General Motors and that they did not have the power to control or to influence General Motors' commercial relations with du Pont or competitors of du Pont.

The findings as to the activities of the du Pont nominees on the Board of General Motors can be best discussed in terms of the four major periods in General Motors history since 1917. The first is the period when Durant was Chief Executive Officer, ending at the end of 1920; the second is the short period when Pierre du Pont held that position, ending in May, 1923; the third is the long period—almost a quarter century—when Sloan was at the helm; and the last, from 1946 to the present, is the Wilson-Curtice period.[22]

1. THE DURANT PERIOD (1917 TO 1920)

Durant's invitation to du Pont to become a substantial stockholder in General Motors was made on the understanding that du Pont should assume primary responsibility for the financial affairs of General Motors—a field in which Durant recognized his own inadequacies—and that Durant, free of that burden, would take full responsibility for operational management (R. 303, 312; Pierre du Pont, R. 812, 818, 835, 925-926, Irenee du Pont, R. 947, GTX 124, pp. 7, 11, R. 479, 3208 at pp. 3216, 3221). New by-laws were adopted to implement this division of responsibility. The Executive Committee was vested with all of the powers of the Board of Directors during the intervals between the meetings of the Board, except for matters specifically assigned to the Finance Committee (R. 311).

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[22] Accuracy requires the use of the term "Chief Executive Officer" to designate the head of General Motors, since the General Motors' by-laws have not always vested that authority in the president. Sloan, for example, was Chief Executive Officer while president from 1923 to 1937 and while Chairman of the Board from 1937 to 1946. Wilson, on the other hand, was president but not Chief Executive Officer from 1941 to 1946, and then both president and Chief Executive Officer from 1946 to 1952.

The latter was assigned the management of the financial affairs of the corporation, including supervision of its financial officers. It had no responsibility for operational matters except for the approval of recommendations transmitted to it by the Executive Committee involving new investments and acquisitions, and, if they were approved, the working out of the financial arrangements by which they were consummated (R. 312; Pierre du Pont, R. 835, 837-838, GTX 130, 131, R. 479, 3247, 3252).

During the Durant period, until 1920, du Pont and Durant together owned more than 50 percent of the outstanding common stock and jointly controlled General Motors. Du Pont assumed the responsibility for General Motors financial affairs contemplated by its arrangement with Durant (R. 303, 312). Six du Pont nominees were elected to the General Motors Board of twenty (DP 56, p. 2, R. 836, 5654 at p. 5655), and all six were named to the Finance Committee, of which Raskob became chairman. On the other hand, six members of the Executive Committee, of which Durant was chairman, were nominees of Durant, most of them managers of General Motors operating Divisions. The seventh member of each Committee—Durant on the Finance Committee and Haskell on the Executive Committee—served as liaison members to enable each Committee to function more effectively in relation to the other (R. 302-303;[23] Pierre du Pont, R. 665-666, 837-838, Sloan, R. 983, DP 56, pp. 11, 14, R. 836, 5654 at pp. 5663, 5666).

In 1920, as a consequence of the common stock issue already noted (pp. 149-150, *supra*), nine new directors were added to the Board. Three of them went on the Finance Committee, which was enlarged to ten members, the Executive Committee remaining unchanged. Four of the new directors were the nominees of the new large investors —J. P. Morgan & Company, Nobel, and Canadian Explosives. The other five were outstanding industrial leaders—George F. Baker and Seward Prosser, New York bankers; William H. Woodin, of American Car & Foundry Company (later Secretary of the Treasury); C. M. Wooley of American Radiator Company; and Owen D. Young of General Electric (R. 303; Pierre du Pont, R. 836, DP 56 p. 2, R. 836, 5654 at p. 5655). The court found that there was no evidence that any of these men were added at the suggestion of the du Pont nominees (R. 308) and there likewise is no evidence that they favored du Pont, or that they allied themselves, or considered themselves allied, in any way, with the du Pont nominees on the Board or on the Finance Committee.

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[23] The changes were not all made simultaneously, and initially the du Pont nominees on the Finance Committee represented only five of the seven members (GTX 130, p. 5, R. 479, 3247 at p. 3251), which is the figure given by the trial court (R. 302).

2. The Pierre du Pont Period (1920-1923)

In the latter part of 1920, Durant's personal financial crisis made it necessary for him to resign as president, as he himself recognized (Pratt, R. 1411-1412, DP 50, pp. 4-5, R. 827, 5628 at pp. 5631-5632). The needs of General Motors urgently demanded a chief executive whose reputation for integrity, sound judgment and past success would restore General Motors to public and financial confidence. Prosser and other bankers, Sloan and others in the General Motors management, and the du Pont Finance Committee, urged Pierre du Pont to accept the place (R. 304-305; Sloan, R. 981-982, 1328, 1345-1346, Pierre du Pont, R. 838-839, DP 51, GTX 179, R. 827, 492, 5639, 3404). Pierre du Pont had resigned as head of du Pont almost two years earlier with no intention of resuming any active business affairs. He accepted the position as president and Chief Executive Officer of General Motors reluctantly, and on condition that his tenure would be temporary, pending the resolution of the crisis and selection of a suitable permanent president. He was elected president and Chief Executive Officer by the Board on November 30, 1920, and held office until May, 1923, when he was succeeded by Sloan (R. 304-305; Pierre du Pont, R. 738-739, 839, Sloan, R. 982, GTX 177, 182, 235, p. 2, R. 492, 485, 483, 3397, 3412, 3494 at p. 3496).

There is no dispute that during the thirty months that Pierre du Pont was the Chief Executive Officer of General Motors the du Pont nominees on the General Motors Board were thrust into positions of responsibility which went beyond the financial supervision that had been their earlier role (R. 307, 321). This was the direct result of the crisis which forced Pierre du Pont and the other du Pont nominees to assume for this brief period managerial functions in General Motors. During that brief period their authority and influence in General Motors arose not from du Pont's stock interest but rather from the fact that they were active in the day to day management of General Motors.

The significant fact, however, is not the responsibility which the du Pont nominees temporarily assumed, but the manner in which this responsibility was exercised. The Government, ignoring the findings and evidence, would have it that du Pont "consolidated its position" (Br., p. 73). On the contrary, the findings and evidence show that the du Pont nominees did not "consolidate their position" but rather strengthened the hand of the management. What they did during this emergency, transitional period, they did for General Motors, not for du Pont. The findings and evidence also show that when, in less than three years, the crisis had been satisfactorily met, they voluntarily renounced this broader responsibility and turned it over to General Motors men.

That the period was precisely the opposite of a "consolidation of position" by du Pont is evidenced by the new plan of organization which was adopted shortly after Pierre du Pont became President.' Prepared by Sloan, it had been submitted to Durant before his resignation (R. 305; Sloan, R. 973-974, 984-985, Pierre du Pont, R. 839-840, Pratt, R. 1408, 1416, GTX 178, GM 1, R. 484, 975, 3398, 6532). The true significance of the plan, however, is that it did *not* contemplate drawing more power into the Executive Committee or the central office, where du Pont nominees were in temporary positions of responsibility. Rather, it decentralized the large amount of authority which had been in the hands of the Chief Executive Officer during Durant's regime, and put ultimate authority on all matters of operation, including authority to purchase where and what they chose, into the hands of the managers of the operating Divisions (R. 305; Sloan, R. 973-974, 976, Pratt, R. 1422, GM 1, pp. 3, 9, 17-25, 27, R. 975, 6532 at pp. 6534, 6540, 6548-6556, 6558). The plan, which is wholly inconsistent with the Government's charges, represents a policy which has continued down to the present day (Sloan, R. 984-985. See pp. 35-37, *supra*).

No reference to this plan of organization is found in the Government's brief. The brief, rather, echoes an argument made by the Government in the court below—that the change in four of the five managers of the operating Divisions early in this period was part of the conspiratorial plan to coerce General Motors into purchasing from du Pont. Although the District Court rejected the argument (R. 305), the Government, ignoring this finding, makes frequent references to those changes (Br., pp. 18, 60, 119n.), with the inference that the changes were in some way related to purchases by General Motors of du Pont products. The evidence shows that the trial court correctly found that the changes "were unrelated to the use of du Pont products" (R. 305). Of the four who left, two resigned, one to take a position with Durant, and two were replaced because they had appropriated large sums which they claimed were due them under contracts they had made with Durant (R. 305; Sloan, R. 988-989, Pratt, R. 1417-

1418, Pierre du Pont, R. 859-860, DP 63, 64, R. 860, 861, 5710, 5713). Moreover, the findings and evidence show that the four managers who were appointed in their place were in each case recommended by Sloan, had been with General Motors for years, and had never had any connection with du Pont (R. 305; Pierre du Pont, R. 861-862, Sloan, R. 989-990, Pratt, 1417-1418).[24] The men who had knowledge of these events testified categorically that none of the changes had anything whatever to do with the attitudes of either the men who were replaced, or those who replaced them, toward the purchase by their Divisions of du Pont products (R. 305; Pierre du Pont, R. 860, 932-933, Sloan, R. 990, 1347, Pratt, R. 1418).

Indeed, it is significant that Pierre du Pont as Chief Executive Officer made no attempt whatever to fill responsible positions in General Motors with du Pont men. The only executive who came from du Pont during this period to a high executive post in General Motors was F. Donaldson Brown, an experienced financial man. He was recommended by Raskob to supply the expert financial assistance which General Motors sorely needed (GTX 180, R. 484, 3406). He became a member of the General Motors organization (Sloan, R. 1196-1197), and eventually succeeded Raskob as chairman of the General Motors Finance Committee (GTX 177, R. 492, 3397). Although Brown remained a director of du Pont and a member of its Finance Committee, the court found that there was no evidence that he was active in commercial relations between du Pont and General Motors, or that he ever did anything to encourage the use by General Motors of du Pont products (R. 305, 315; Sloan, R. 1029, 1196-1197).

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[24] One of them, Rice, became manager of the Cadillac Division, which consistently refused to purchase the products of Flint, and which was the last of the automobile Divisions to adopt "Duco" (see p. 50, *supra*, 254-255, *infra*).

The emergency nature of the period is most clearly reflected in the membership of the Executive Committee. Under Durant, that Committee had been composed chiefly of managers of the several operating Divisions. Early in 1921, its membership was reduced to four—the president, the heads of the line Divisions (Haskell) and the staff Divisions (Sloan), and the chairman of the Finance Committee (Raskob) (R. 305; Sloan, R. 983, 1328-1330, DP 56, p. 14, R. 836, 5654 at p. 5666). As the trial court found, one of the reasons for the change in the Executive Committee was doubt as to the full loyalty *to General Motors*—not to du Pont—of some of its former members, in view of the fact that Durant, with whom they had been closely associated, was building up a competitive automobile company (R. 305; Sloan, R. 988, 1329, Pierre du Pont, R. 830). Another reason was the belief that broad planning and policy making was a fulltime job, which should be segregated from immediate operating problems. That policy has since been continued in General Motors; with rare exceptions, there have been no General Managers on the Executive Committee (Sloan, R. 997, 1329). As the emergency passed, this four-man Executive Committee was enlarged in 1922 by the addition of two General Motors executives—F. J. Fisher and C. S. Mott (R. 305; Pierre du Pont, R. 846, Sloan, R. 1231-1232, GM 32, 33, DP 56, p. 14, R. 1436, 836, 6657, 6660, 5654 at p. 5666).

The findings note several other constructive accomplishments *for General Motors* during this Pierre du Pont period. The General Purchasing Committee was established, again at the suggestion of Sloan (see pp. 103-109, *supra*). Plans for incentive compensation to the principal executives were expanded (see pp. 176-184, *infra*). Bank loans, which had been very high, were completely liquidated (Pierre du Pont, R. 842, DP 51, R. 827, 5639). Inventory controls, whose weaknesses under Durant had cost General Motors more than $80,000,000 in write-offs during 1920-1921, were strengthened (Sloan, R. 972, 985-988, Pratt, R. 1404-1405, 1414-1415, Pierre du Pont, R. 841-842, DP 57, pp. 9-10, GM 196, R. 838, 1415, 5671 at pp. 5678-5679, 7237). Testing and engineering facilities, which had been so deficient under Durant that the quality of most General Motors automobiles had even ceased to be competitive, were installed and improved (Sloan, R. 970, 987, Pratt, R. 1406, 1415, Pierre du Pont, R. 843-844, DP 58, 59, GM 196, R. 842, 844, 1415, 5698, 5700, 7237). Operating Divisions which had not shown a profit were investigated and several were eliminated (Sloan, R. 987-988, Pratt, R. 1415-1417, Pierre du Pont, R. 845, DP 57, pp. 10-11, GM 196, p. 5, R. 838, 1415, 5671 at pp. 5679-5680, 7237 at p. 7241).

In short, this period was one of solid progress and improvement of General Motors. There is no evidence that Pierre du Pont as Chief Executive Officer, or any of the du Pont nominees on the Board, exercised the temporary operational as well as financial responsibility they had during this period in any way other than as they believed to be best for General Motors. The number of du Pont representatives on the General Motors Board did not change notwithstanding the substantial temporary increase in the proportion of du Pont stockholdings which resulted from the events of 1920. They remained at six out of a Board which varied between twenty-nine and thirty-one (DP 56, p. 3, R. 836, 5654 at p. 5656). The Finance Committee membership remained at seven, the only change being the filling of the Durant vacancy by F. Donaldson Brown (R. 305; DP 56, p. 11, R. 836, 5654 at p. 5663). The changes in the Executive Committee have already been noted.

3. THE ALFRED P. SLOAN, JR. PERIOD (1923-1946)

One assumption which is basic to the Government's case is that Alfred P. Sloan, Jr., was subservient to du Pont.

This assumption lies at the basis of the attack on the findings as to the integrity of the General Motors Board of Directors and management, most of whom were selected by Sloan. It is at the heart of the attack on the findings relating to General Motors' bonus plans, for which Sloan, as president, had primary responsibility. It underlies, indeed, the attack on the findings by the trial court on the trade relations between General Motors and du Pont. As the earlier discussion shows, if Sloan is to be believed, there is no basis for challenge to the findings as to such matters as tetraethyl lead, "Freon" and "Duco".

Recognizing this, the Government asserts flatly that Sloan "continued to represent du Pont throughout the years" (Br., p. 20). This statement is belied by all of the evidence as to what Sloan in fact did, including the contemporaneous documents which reflect his actions. Moreover, that statement by the Government should be contrasted with Sloan's testimony which the trial court found forthright and convincing. When asked, on cross-examination, whether du Pont's stock ownership in General Motors "necessarily affected the relationship between the two companies"—the contention which the Government now repeats in this Court—he replied (R. 1382):

> "I have been asked on direct examination, and by your good self many questions along the lines as to whether there was any influence that affected the operation of General Motors Corporation. I can say with complete conviction that every decision that has been made by General Motors Corporation by myself, and so far as I know the other executives concerned in its operation have been entirely in the interest of General Motors, and of the stockholders. I am as sure of that as I am of anything in life."

And a little later he added (R. 1385):

> "* * * I still maintain the strongest conviction that all transactions were at arm's length based upon

> the interest of all the stockholders in General Motors, and no other consideration entered into it so far as business judgment goes.".

Sloan's credibility is, therefore, directly in issue in this Court, as it was at trial. He testified on direct examination for the best part of eight days, and was cross-examined for three more. The trial judge had ample opportunity to observe his appearance and demeanor on the witness stand. He believed him (R. 316):

> "* * * Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors."

Indeed, he made special reference to Sloan's "forceful and resolute character" (R. 321), and to the "positive personalities" of the management which developed and worked with Sloan in General Motors during his tenure as Chief Executive Officer—Kettering, the Fisher brothers, Knudsen, Pratt, Brown, and C. E. Wilson. We need add that it stretches credulity beyond the breaking point to contend that Sloan and these other men could have led the double life of which they are accused by the Government, and could at the same time have guided General Motors to unparalleled industrial success.

The period when Sloan was guiding General Motors spans almost a quarter century—almost the entire modern history of General Motors. It will aid in considering the findings relating to the events of that period if they are broken down into several subordinate topics.

a. The Selection of Sloan as President

The Government now repeats by innuendo the contention that it made at the trial—that Sloan was not selected as president of General Motors on his merits, but rather because he would represent du Pont (Br., p. 20). The trial court rejected this contention, and there is no evidence which would support such a charge. There is a wealth of evidence to the contrary.

Sloan, before he had any connection whatever with General Motors, had already become an outstanding success in the Hyatt Roller Bearing Company, taking over when it was on the point of liquidation and making it into a flourishing and valuable concern which received, in addition to other automobile business, 100 percent of Ford's orders for friction bearings. Hyatt was one of the automobile accessory companies which Durant put together in 1916 to form United Motors Company. Durant was so impressed with Sloan that he offered him the presidency of United Motors itself, which Sloan accepted. In 1918, when United Motors was acquired by General Motors, Durant also offered, and Sloan accepted, a position on the Executive Committee of General Motors (R. 307; Sloan, R. 956-967, DP 56, p. 14, R. 836, 5654 at p. 5666). Within six months after Pierre du Pont became president, Sloan had become his principal assistant, and he assumed greater and greater responsibility as time went on. For almost two years before he became president he had been vice president in charge of all General Motors' operations as head of the General Advisory Staff (R. 307; Sloan, R. 967, 982).

In May, 1923, upon the recommendation of Pierre du Pont, Sloan was elected by the Board of Directors to be president and Chief Executive Officer (R. 307; Sloan, R. 967, 982, GTX 183, R. 486, 3414). That, as Pierre du Pont testified, was in accord with the basis upon which he had accepted the presidency, "that I was to take the presidency temporarily until a better man was found, that knew the job better, and he had been discovered, or at least I thought he had, and I recommended Mr. Sloan as my successor" (R. 865). Sloan, alone among the members of the

Board, was not consulted or advised by Pierre du Pont in advance of the recommendation, and he testified that he received no instruction or advice from Pierre du Pont, or any other du Pont nominee on the General Motors Board; "I didn't receive any instructions from anybody * * *: I was completely on my own from that point on" (R. 990).

If Sloan's accomplishments *before* he was elected are not enough, one need only refer to his accomplishments for General Motors during the next 23 years—only a part of which are reflected in the record in this case. They demonstrate that he was a General Motors man, first and last, and anything but the Government's picture of him as a covert, insincere front man for du Pont.

b. The Selection of General Motors Directors[25]

When Sloan became president in 1923, the General Motors Board of Directors had thirty-two members. It varied thereafter, during the next twenty-three years, from a high of thirty-five to a low of twenty-six. During that period the du Pont nominees on the Board never exceeded six (R. 308; DP 56, pp. 3-7, R. 836, 5654 at pp. 5656-5660; Sloan, R. 1339, Carpenter, R. 2725-2726, 2746).

To avoid the fact that the du Pont nominees were thus always in a small minority, the Government contended below that the remaining members were at all times subservient to du Pont. The findings were all the other way (R. 308-310). With no reference to these findings, the Government now repeats the same charge (Br., p. 20).

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[25] The evidence shows that the directors of General Motors do not deal with questions concerning the purchase of materials by General Motors; such matters do not come to the Board or to any of the committees of the Board in any way (Sloan, R. 997). Not only is the Board unable to deal with details such as that in a corporation the size of General Motors, but the purchasing policies are the responsibilities of the managers of the several Divisions (*Ibid.;* see pp. 35-37, *supra*).

Of the thirty-two directors on the Board in 1923, sixteen were so-called management directors; thereafter they always formed a majority of the total membership of the Board (R. 308, 310; GM 10, R. 1031, 6572). These men, the Government asserts, included men "who were long associated with du Pont and introduced into the General Motors management by du Pont" (Br., pp. 74-75). Of the almost forty men who have, over the years since 1923, formed the management group on the Board (GM 10, R. 1031, 6572), the description cannot possibly apply to more than two—Pratt and Brown—and is not true even as to one of them. Pratt, although formerly employed by du Pont, was brought into General Motors management by Durant, not du Pont (Pratt, R. 1392-1402). He retired as an officer of General Motors in 1936. Brown, a financial man, left du Pont to join General Motors at the urging of Raskob, to meet a need in General Motors for expert financial experience, and became a member of General Motors' management (Sloan, R. 1196, GTX 180, R. 484, 3406; see R. 315, and p. 159, *supra*): After his retirement as a financial officer of General Motors in 1946, he was nominated for a place on the General Motors Board by du Pont to replace Lammot du Pont, who retired that year (GTX 224, R. 491, 3485). Thereafter he is listed as a du Pont nominee (GM 10, pp. 3-4, R. 1031, 6572 at pp. 6574, 6575).

The Government makes an even more sweeping assertion that the management directors were "selected by du Pont" (Br., p. 20).[26] The findings and evidence are precisely to the contrary—that du Pont had no connection whatever with their choice (R. 310).[27] These men became directors when they had achieved, in the management hierarchy of the corporation, a position which entitled them to be, or required that they be, on one of the committees of the Board. Sloan always made the nominations, never discussed them in advance with anyone except the management group already on the Board, and after Sloan's recommendation their election by the Board was automatic. The court also found that no du Pont nominee had ever objected to whatever number of management directors Sloan wanted to have on the Board (R. 310; Sloan, R. 1020-1021, 1334, Carpenter, R. 2724).

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[26] The Government adds the statement that these men were selected when du Pont "had a majority of seats on the Board of Directors" (Br., p. 20). This represents either a remarkable example of lifting one's self by one's bootstraps, or an unfortunate misreading of the record (R. 308; GM 10, R. 1031, 6572).

[27] The three exhibits cited by the Government in support of its assertion (GTX 181, 242, 1345, R. 483, 493, 2813, 3408, 3542, 5347) have nothing to do with the selection of directors.

The Board also contained a number of so-called "outside" directors—directors other than the management directors and the du Pont nominees. In 1923 there were ten such—five bankers, three American industrialists, and two foreign industrialists (GM 10, p. 1, R. 1031, 6572), most of whom had been added during Durant's regime in connection with the 1920 financing (see pp. 155-156, *supra*). As the trial court found, there is no evidence that they were added at the suggestion of the du Pont nominees (R. 308). and in view of who they were (see p. 156, *supra*), they were certainly not sitting on the General Motors Board to further du Pont's interests.

By 1942, however, the findings show that deaths or resignations had reduced the number of this group from ten to three (R. 308; Sloan, R. 1021-1022, 1027, GM 10, pp. 1, 2, DP 56, pp. 3-7, R. 1031, 836, 6572 at pp. 6572-6573, 5654 at pp. 5656-5660). Sloan, believing that directors of this type were a source of strength to General Motors, took the initiative in attempting to find qualified men who would be willing to serve, seeking suggestions from all Board members and discussing with all Board members the suggestions received (R. 308, 310; Sloan, R. 1022; 1180). For example, in 1945 when Pratt suggested that General Marshall be considered, Sloan wrote that he was not very sympathetic to the idea (GTX 220, R. 490, 3480). Lammot du Pont, in reply, said he was in agreement with Sloan because of Marshall's age, his lack of stockholdings and his lack of experience in industrial and business affairs (GTX 221, R. 490, 3482). Marshall was not appointed (DP 56, pp. 7-8, R. 836, 5654 at pp. 5660-5661). A year earlier Lammot du Pont had written to Sloan, suggesting that Bernard Peyton might be considered as a director because of his business standing and his substantial stockholdings in du Pont (GTX 1236, R. 490, 5181). Sloan replied that Peyton appeared to be well qualified and that he would favor him (GTX 1237, R. 490, 5183, Sloan, R. 1185-1186). Peyton, however, never became a member of the Board (R. 309, DP 56, pp. 7-8, R. 836, 5654 at pp. 5660-5661). A number of other letters are referred to in the findings (R. 308-310).

The Government treats this participation by the du Pont nominees in Sloan's search for more "outside" directors as establishing the "loyalty to du Pont" of the men thus selected (Br., pp. 20-21). The trial court, however, rejected the same contention. It found (R. 316):

> "The Court finds it highly significant that in all of the correspondence regarding General Motors directors the attitude of the suggested nominee toward du Pont was in no instance a consideration in his approval or disapproval. Accordingly, the Court finds, based on all the evidence, that du Pont's participation in the selection of General Motors directors and management does not establish that it controlled General Motors or that it sought through such participation to place people in General Motors who would further du Pont's interests as a supplier or as a chemical manufacturer."

Perhaps it should also be added that there is no evidence that any candidate for the General Motors Board, when elected, felt himself in any way obligated to yield to du Pont, or to participate with du Pont in any effort to control or influence General Motors' commercial relations with du Pont.

c. The Committee Organization of the General Motors Board

The court likewise made extensive findings on the changes which were made in the committee organization of the General Motors Board during Sloan's regime (R. 311-316). Although none of them is mentioned in the Government's brief, they furnish some noteworthy examples of the independence of Sloan, when his views differed from the views of the du Pont nominees on the General Motors Board as to what was best for General Motors.

From 1923 to 1937 the principal committees of the Board continued to be the Executive Committee, which dealt with operational management problems, and the Finance Committee, which dealt with financial management and financial policy. In 1937, the structure was changed; all matters of policy were delegated to a single Policy Committee, and an Administration Committee was created to handle operational matters (R. 313; DP 56, R. 836, 5654).

The trial court found that the change was made at the insistence of Sloan, after discussions with others on the Board, including the du Pont nominees (R. 313-314). The management nominees on the Board agreed with Sloan (Sloan, R. 1001). The du Pont nominees were against the plan, and urged an alternative plan, which was not adopted (R. 313; Sloan, R. 1001-1006, GTX 194-196, GM 7, p. 1, R. 484, 487, 488, 1015, 3428-3435, 6566). There is no evidence, and no suggestion in the contemporary correspondence, that the position of the du Pont nominees was motivated by any idea of benefit to du Pont (Sloan, R. 1002-1005, GTX 194, R. 484, 3428).

This committee structure was changed again, at the end of Sloan's term as Chief Executive Officer of General Motors, to the pattern which now exists. The single Policy Committee was replaced by two committees—the Operations Policy Committee and the Financial Policy Committee (R. 314). The former deals with major policy questions upon which it usually receives recommendations from the Administration Committee, which has been continued. The Financial Policy Committee deals with matters of financial policy only; it has no jurisdiction over, or connection with, operational matters (Sloan, R. 1019, Carpenter, R. 2733, GM 8, R. 1018, 6570).

The change had been discussed for some time; indeed from the outset there had been misgivings as to the efficiency of the single Policy Committee. The findings refer to the conversations Sloan had had on this subject with the management members of the Board, and to his correspondence on it with the du Pont nominees (R. 314). The findings also refer to the testimony by Sloan in which he explained why he became convinced that it should be changed (R. 314). The evidence shows that in 1942 some members of the Policy Committee, including the two du Pont nominees on it, urged a return to the two-committee system because they felt that a single Policy Committee required them to take positions on matters on which they did not have particular competence. The Committee was not changed, however, until the management nominees on the Board, particularly Sloan and Wilson, became convinced that the change would better enable General Motors to meet the problems of the postwar period (Sloan, R. 1009-1011, 1015-1019, GTX 200, 202, 203, GM 7, R. 484, 485, 1015, 3447, 3458, 3462, 6566).

d. The du Pont nominees on the several committees of the General Motors Board

There are also a number of significant findings as to the membership of these several committees. They reveal a rapid decline and ultimate elimination of du Pont nominees on the committees having to do with operational matters, and a more gradual but nonetheless unmistakable decrease in the number of du Pont nominees on the committees dealing with financial matters.

(1) The Executive Committee

The selection of members for the Executive Committee, Sloan testified, was solely a responsibility of management, and nominations to it were made by him as Chief Executive Officer, in most cases because a particular man in the management hierarchy had achieved a position which warranted or required his membership on that Committee (R. 311; Sloan, R. 1195-1196; GM 21, R, 1196, 6608). There is no evidence that any of Sloan's nominations was ever rejected by the Board.

When Sloan became president in 1923, the number of du Pont nominees on the Executive Committee of the General Motors Board still reflected the 1920 emergency which had forced du Pont nominees into positions of operational responsibility; three of the six members were du Pont nominees (R. 311; DP 56, p. 14, R. 836, 5654 at 5666). From 1923 on, however, both the number and the proportion went steadily and rapidly down. In 1924, the membership of the Committee was increased to ten, the new members being added at the request and suggestion of Sloan (R. 311; Sloan, R, 1195-1196, GM 21, DP 56, pp. 14-15, R. 1196, 836, 6608, 5654 at pp. 5666-5667). Moreover, when Haskell died in 1923, he was not replaced. Raskob left the committee in 1928, and Pierre du Pont early the following year, so that by 1929 no du Pont nominees remained

(DP 56, pp. 14-15, R. 836, 5654 at pp. 5666-5667). In 1930 Lammot du Pont became a member (R. 311), having been urged by Sloan to do so (Sloan, R. 1195), but he resigned in 1934 (R. 312), although Sloan urged him to stay (Sloan, R. 1014). Thereafter, no du Pont nominee served on that Committee (R. 312; Sloan, R. 1196, DP 56, pp. 14-15, R. 836, 5654 at pp. 5666-5667).[28]

(2) The Finance Committee

The Finance Committee reflected for a time the original understanding with Durant that in financial matters du Pont would assume the primary responsibility (R. 312; see pp. 143-145, 154-155, *supra*). Du Pont nominees on the Committee were in the majority at the beginning of Sloan's regime, but when Haskell died later in 1923 he was not replaced, and in 1924 the total membership of the Committee was raised. At that time the du Pont nominees ceased to be in the majority, and never were a majority thereafter (R. 312-313; DP 56, pp. 11-12, R. 836, 5654 at pp. 5663-5664).[29] Again, as in the case of the Executive Committee, Sloan made most of the nominations of the men who were added to the Committee (R. 313; Sloan, R. 1196-1198, GM 22, R. 1198, 6609).

The findings reflect another incident which is significant in evaluating the power of the management, headed by Sloan, even in matters dealing with du Pont's assigned area of financial responsibility. In 1928, Raskob, who had been chairman of the Finance Committee for ten years, became chairman of the Democratic National Committee. Sloan considered it unsound because it appeared to put General Motors in politics. Raskob, backed by Pierre, Irenee, and their cousin Coleman du Pont, differed. Because of the opposition of the General Motors management led by Sloan, Raskob resigned as chairman of the Finance Committee, and Pierre du Pont resigned as chairman of the General Motors Board (R. 310; Sloan, R. 1191-1193, GM 17, 19, R. 1193, 1194, 6602, 6604).

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[28] The statement in the Government brief that there were du Pont nominees on the Executive Committee continuously from 1923 to 1937 (p. 21) is apparently based on their contention, contrary to Sloan's testimony, that Brown was not a management director. See pp. 159, 166, *supra*.

[29] The statement by the Government (p. 23) that du Pont nominees "consistently held an absolute majority" on the Finance Committee apparently assumes that Sloan should be deemed a du Pont representative. That assumption needs no further discussion (see pp. 163-165, *supra*).

(3) The Policy Committee

The Policy Committee always consisted of nine members, of which two were du Pont nominees—or three, if Brown were to be added (see pp. 159, 166, *supra*) (R. 314, 315; DP 56, p. 17, R. 836, 5654 at p. 5668). The one person added to the Committee (as a result of Knudsen's resignation) was nominated by Sloan (R. 314; Sloan, R. 1198-1199, GM 23, GTX 205, 208 p. 2, 209, R. 1199, 488, 489, 6610, 3466, 3470 at p. 3471, 3472).[30] There were never any du Pont nominees on the much larger Administration Committee (Carpenter, R. 2735, GTX 177, R. 492, 3397).

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[30] The Government suggests that du Pont had a veto on Policy Committee membership by quoting (p. 22) a letter in which Sloan suggested Kettering as a member—a recommendation with which Lammot du Pont disagreed (GTX 205, R. 488, 3466). Sloan's testimony, however, to which the Government makes no reference, belies the Government's assertion that Lammot du Pont's disagreement "was the end of the matter". Others felt the same way as Lammot du Pont, and after consulting with the whole group of directors, including those in the management, Sloan himself agreed that if Kettering came on the Committee "he would be telling us about all the wonderful things that were in the future, and we wouldn't have time to attend to the business of the corporation" (R. 1341-1342).

e. In General

The findings of the District Court relating to the Sloan period are quite detailed. After referring specifically not only to the documents cited in the Government's brief, but to many others, and to the extensive testimony of Sloan himself, the court rejected completely the argument made by the Government, and which is also made here—that the normal membership and activities of the du Pont nominees on the Board and its committees should serve as the basis for an inference that they were pursuing improper or coercive activities. The court said (R. 316):

> "The participation of the du Pont representatives in the selection of General Motors directors and in determining the organization of the board and the composition of its committees does not establish that du Pont has been the controlling force in the direction of General Motors affairs, or has been in a position to act as if it owned a majority of General Motors stock. The record shows consultation and conference, but not domination. Moreover, in all these matters Sloan has clearly been the leader and the dominating influence and has largely determined the results. With a minimum of consultation with du Pont representatives he has selected the management. In large part, though with somewhat more consultation with du Pont, he has suggested the names of directors and led the discussion in that respect. Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors."

4. THE WILSON-CURTICE PERIOD

In 1946, the by-laws of General Motors were changed to make the president the Chief Executive Officer, and C. E. Wilson, who had been president since 1941, became Chief Executive Officer, Sloan remaining as Chairman of the Board. Wilson had been preceded by William S. Knudsen, who had been president from 1937 to 1940, and was in turn succeeded by H. H. Curtice in 1952 (R. 307-308, 313; Sloan, R. 1009, Wilson, R. 2777, GM 8, 285, GTX 177, R. 1018, 2778, 492, 6570, 7476, 3397). None of these men was a du Pont candidate—was nominated or recommended for president by any du Pont nominee, or ever had any prior connection with du Pont (Carpenter, R. 2727-2728, Wilson, R. 2776-2777).[31]

The new committee organization, which went into effect at the same time that Wilson became Chief Executive Officer, has already been described (p. 170, *supra*). Du Pont nominees have served on the Financial Policy Committee, although they have never numbered more than three out of a total which has varied between nine and eleven (R. 315; DP 56, p. 18, GM 25, R. 836, 1202, 5654 at p. 5669, 6612).[32] No du Pont nominee has ever served on the Operations Policy Committee (R. 315; Sloan, R. 1199; DP 56, p. 19, GM 24, R. 836, 1200, 5654 at p. 5670, 6611). On the Board itself, the number of du Pont nominees has remained at six (R. 308; DP 56, pp. 8-9, R. 836, 5654 at pp. 5661-5662).

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[31] The Government asserts (Br., p. 75) that "Messrs. Knudsen and Wilson could not have held office without the approval of du Pont". This assertion, which is made without any support whatsoever in the record, assumes that du Pont was in a position to dictate or to veto the choice of the management. It is a minor example of the Government's tendency to assume the existence of the point which it is trying to prove.

[32] Brown, after he retired as an officer of General Motors in 1946, became a du Pont nominee on the Board in place of Lammot du Pont, who retired in that year (GTX 224, R. 491, 3485) and is hence included as one of the three. See p. 166, *supra*.

C. THE EVIDENCE SUPPORTS THE FINDING OF THE TRIAL COURT THAT GENERAL MOTORS PAYMENTS OF SUPPLEMENTAL COMPENSATION TO ITS EMPLOYEES WERE NOT INTENDED TO ENHANCE DU PONT'S COMMERCIAL POSITION AND DID NOT HAVE THAT EFFECT

The Government likewise renews, at many points in its brief, the charge made in the Amended Complaint (R. 230-231) that beginning in 1923 du Pont worked out a plan of extra financial incentive to General Motors executives with the intention of making them subservient to the wishes of du Pont (Br., pp. 6, 17, 24-28, 75, 102-103). This charge was fully explored at the trial, and the court below made extensive findings in relation to it (R. 316-321). The result was a finding—to which there is no reference in the Government's brief—that the charge was without foundation (R. 320):

> "The Court finds no evidence that any action taken by du Pont representatives with respect to the compensation of General Motors executives was intended to influence those executives to deal with du Pont or to refrain from dealing with du Pont competitors. Nor is there evidence of any instance in which a General Motors executive favored du Pont out of consideration for the latter's sale of stock to Managers Securities Company or out of deference to the position of du Pont representatives on the General Motors board."

The detailed findings and the evidence, which can be summarily stated, leave no doubt that the trial court was correct.

General Motors first adopted an incentive bonus plan in 1918 (R. 318; Pierre du Pont, R. 849, Sloan, R. 1214-1215, GM 26, 27, R. 1215, 6613, 6614). That plan provided, in effect, for the annual distribution of an amount—not to exceed 10 percent of General Motors earnings in excess of 7 percent of the invested capital—as compensation to General Motors officers and employees who had contributed to the success of General Motors in special degree by exceptional service. The plan had been proposed to Durant by the du Pont nominees on the General Motors Board, based on their experience with a similar plan which had been in effect at du Pont since 1903 and which they believed to have been a significant factor in du Pont's own success (Pierre du Pont, R. 849-850, Irenee du Pont, R. 752, 876-877, Sloan, R. 1215, Carpenter, R. 2720, DP 57, p. 18, 60, 61, 74, pp. 24-25, 453, GTX 137, pp. 13-14, R. 838, 850, 777, 2705, 480, 5671 at p. 5687, 5704, 5707, 5740 at pp. 5763-5764, 6447, 3272 at pp. 3282-3283). With occasional modification in details, that plan still continues in General Motors (R. 320; Sloan, R. 1216).

The Government's challenge, however, and the court's findings relate principally to a supplemental incentive compensation plan—the so-called Managers Securities Plan—which was in effect from 1923 to 1929. The findings (R. 317) show that Pierre du Pont, shortly before his resignation as president, suggested that "the best manner in which to attain the greatest success possible in the conduct of the affairs of the General Motors Corporation is for that Corporation to interest its principal men in the corporation as substantial stockholders or partners" (GTX 235, p. 3, R. 483, 3494 at p. 3497). After much discussion, Raskob and Brown prepared the plan for Managers Securities Company (hereafter "Managers Securities") carrying out Pierre du Pont's suggestions (R. 316-317; Pierre du Pont, R. 851, 939-940, Irenee du Pont, R. 876-877; Carpenter, R. 2719-2720, 2747-2748, GTX 235, pp. 3-4, DP 60-61, R. 483, 850, 3494 at pp. 3497-3498, 5704, 5707).

The Managers Securities Plan, as finally worked out, permitted a number of General Motors executives to purchase substantial amounts of General Motors stock on a deferred payment basis, paying only about one-seventh of the price in cash, and the remainder out of future bonus earnings and dividends on the stock so purchased (R. 318). This was accomplished by having General Motors organize a new corporation, Managers Securities, to which it paid $5,000,000 for all of its common stock and with which it made a contract to pay one-half of the future bonus funds accruing under the regular General Motors bonus plan. Managers Securities, in turn, purchased the equivalent of 2,250,000 shares of General Motors stock at $15 per share, paying for it $5,000,000 in cash and $29,000,000 in convertible preferred stock. General Motors, in turn, sold the common stock of Managers Securities to about eighty of the principal executives of General Motors for the $5,000,000 which it had paid for it. The payment from General Motors of half the bonus fund, and the dividends on the General Motors stock which Managers Securities had purchased, were expected to, and in fact did, permit the retirement of the preferred stock in eight years or less (R. 318-319, DP 455, R. 2706, 6451).

The Managers Securities Plan permitted any stockholder to supply stock for purchase by Managers Securities (DP 455, R. 2706, 6451), but in fact du Pont was the only stockholder to do so.[33] This, and the fact that the plan was suggested by Pierre du Pont and its structure worked out largely by the du Pont nominees on the General Motors Board, are the features on which the Government principally relies. It urges, contrary to the trial court's finding, that the plan was intended and designed to make the General Motors executives responsive to the wishes and desires of du Pont. What the Government ignores, however, is the real incentive of the plan. The executives who participated were afforded an opportunity to pyramid, many times over, the value to themselves of increases in General Motors earnings—by appreciation in the value of the stock which they had purchased, by larger dividends on the stock, and by the resulting larger annual payments to Managers Securities of one-half of General Motors bonus earnings. On the other hand, there was no incentive whatever to any General Motors executive to increase du Pont's earnings; du Pont, quite literally, could have gone bankrupt with no adverse effect on them. The explanation of this by Walter S. Carpenter, Jr., Chairman of the Board of du Pont and a member of the Finance Committee of General Motors, warrants an extended quotation (R. 2721-2722):

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[33] The purchase of the stock from du Pont was in no sense fundamental to the plan. In the succeeding extra incentive plan which General Motors established to permit participation by new top executives—the General Motors Management Plan—the stock required was bought by General Motors in the open market (R. 320).

> "Now that transaction was originally made on the basis of substantially the market values. It was a very serious undertaking for these managers. They subscribed to this stock and paid cash for it in what was for them a very substantial amount, so that it was a purely arm's length transaction between the two. But that plan was designed so that these managers, putting cash in to the extent of about one-seventh of the full purchase price of the stock, were in the position of having the benefit of all the benefits that would flow towards substantially seven times the amount of their own investment. They had the opportunity to benefit by the appreciation in investment in General Motors stock equal to about seven times their own initial investment; they had the opportunity of sharing the dividends on a comparable amount of investment in General Motors stock; and in addition to that as a result of the contract that was entered into between the General Motors Corporation and the Managers Securities Company, there flowed to the Managers Securities Company each year one-half of the total accruals under the General Motors Bonus Plan, so that you might say that they had this three-fold opportunity

> of enjoying the benefit of any increase in earnings of General Motors Corporation—through the appreciation of the securities, through the dividends on those securities, and also through the transfer of these bonus earnings which were in turn dependent upon the earnings of the General Motors Corporation.
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> "So you had really—they had a sort of a three-fold pyramiding of the benefits flowing from the earnings of General Motors to themselves, and that operating, as I have referred to, on this seven-fold leverage which they gained over and above their initial cash subscription. All of that served as a powerful incentive to those men to interest themselves in the increase and the progress and the earnings of the General Motors Corporation.
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> "It had absolutely no association at all with the du Pont Company. The du Pont Company might have gone bankrupt in that period without having any effect upon what the results to them would have been, or might have prospered greatly without any reflection on the flow of benefit to these 80 managers."

There was no incentive, in other words, to purchase from du Pont. If General Motors prospered, as it did, the General Motors executives prospered with it. Du Pont, in turn, received the increase in value of its investment which it hoped for and expected when its nominees supported the plan—a benefit which was no less valuable to du Pont because it was shared equally by every other General Motors stockholder. Sloan, indeed, believed that the Managers Securities Plan, and the similar Management Corporation Plan adopted by General Motors in 1930, for which du Pont did not supply the stock (R. 320), were largely instrumental in producing the outstanding expansion of sales and earnings which General Motors has since enjoyed (Sloan, R. 1230).

The Government also suggests (Br., pp. 26-27) that the Managers Securities Plan, and indeed, General Motors' regular bonus plan, were so administered as to influence—bribe—the General Motors executives to purchase du Pont products. The same argument was made at the trial, and the findings (R. 320-321), to which no reference is made by the Government, reject the contention. When the Managers Securities Plan was set up, the Board of Directors of General Motors created, to make the initial allocation of the right to purchase Managers' stock, a three-man committee of directors who were not themselves General Motors employees and hence ineligible to participate in the Plan—Pierre du Pont, Seward Prosser of Bankers Trust Company of New York, and Arthur Bishop, president of a bank in Flint, Michigan (R. 318; Pierre du Pont, R. 851, GTX 250, R. 494, 3567).[34] Neither of the last had, then or later, any connection with du Pont (Pierre du Pont, R. 851-852). The committee's recommendations were submitted to Sloan as Chief Executive Officer, and all of his recommendations for changes were accepted by the committee (R. 318-319; Sloan, R. 1224-1226, Pierre du Pont, R. 852). Both Sloan and Pierre du Pont testified that in formulating their recommendations they gave no consideration whatever to the purchasing policies of any General Motors executive, or to the attitude of any executive toward du Pont (R. 320; Sloan, R. 1229-1230, Pierre du Pont, R. 852). Moreover, the Government's contention requires the conclusion that not only Pierre du Pont, but also Messrs. Prosser and Bishop participated or acquiesced in a gross perversion of the plan.

The findings and evidence likewise reject the Government's argument that the regular bonus plan was similarly used to further du Pont's sales to General Motors. Regular bonus awards have been recommended by the Chief Executive Officer of General Motors, subject to the approval, until 1936, of the Finance Committee, and thereafter of a Bonus and Salary Committee of the Board (R. 319; Sloan, R. 1226, Carpenter, R. 2730-2731). Sloan recognized that an equitable allocation of awards was essential to the fulfillment of the incentive purpose of the bonus. Consequently, he set up a procedure under which the amounts available for awards are allocated by specified ratios to the several Divisions, subsidiaries and central office activities, and detailed recommendations are made to the Chief Executive Officer by the general manager of each such operation with respect to the distribution to particular individuals of the amounts so allocated (R. 319; Sloan, R. 1226-1228, 1380-1381, GM 31, pp. 1-3, R. 1227, 6639 at pp. 6641-6643). In reviewing these recommendations, largely for gross inequities between similar positions in different operations, Sloan stated emphatically that he had never considered the purchasing policies of any employee, or the attitude of any employee toward du Pont (R. 1229-1230).

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[34] GTX 250, R. 494, 3567 shows that the committee was given final authority in the matter. The statement by the Government that its decisions were subject to revision by the General Motors Finance Committee (p. 26) is simply wrong.

The findings show that there were du Pont nominees on the Finance and Bonus and Salary Committees (R. 319-320; GTX 276, R. 496, 3679). The District Court rejected the inference that the Government sought to draw from this fact by stating (R. 321):

> "The record shows that some du Pont representatives did participate in the determination of the allotments under the Managers Securities plan and the bonus awards. There was opportunity, therefore, for them, in passing judgment on such matters, to attempt to further du Pont interests as a supplier of General Motors and as a chemical manufacturer. However, there is no evidence that any of them made any such attempt. The witnesses who testified and who would have been parties to such efforts vigor-

> ously denied the Government's charges. The Court refers to Pierre S. du Pont, Irenee du Pont, and Carpenter. A number of other executives who were witnesses, such as Sloan, Kettering, Pratt, Lawrence Fisher, Lynah, and Wilson are among those who would have been 'influenced,' if the Government's contention is correct. These men, the record shows, acted at all times solely in the best interest of General Motors."

This finding is supported by all of the evidence relating to the establishment of the various General Motors supplemental compensation plans and the manner in which those plans were administered. It is significant that the Government offered no evidence whatever, direct or circumstantial, designed to show that in any instance any employee of General Motors favored du Pont out of deference to du Pont's participation in the supplemental compensation plans, or that any employee ever felt any inclination to do so. The du Pont nominees on the Board who were concerned with the administration of the plans denied that in passing on recommendations for bonuses they attempted to further du Pont's interests (Pierre du Pont, R. 852, Carpenter, R. 2731, H. B. du Pont, R. 2667). Indeed, as the court found and as the evidence shows, Sloan's recommendations to the Finance Committee and later to the Bonus and Salary Committee were never changed (R. 319; Sloan, R. 1226-1227), and his recommendations were never influenced by the idea of favoring those who purchased from du Pont or punishing those who did not (R. 320; Sloan, R. 1229-1230). Indeed, review of recommendations by the Finance and the Bonus and Salary Committees, in view of the thousands of people who received awards each year, is necessarily limited to a review of the over-all fair and equitable administration of the bonus system (Sloan, R. 1381). The finding is also supported, as the District Court points out, by the evidence as a whole dealing with the conduct of those whose actions were supposed to have been influenced as shown by the findings discussed in Point I, *supra*. Finally, to accept the Government's contention would require the literally impossible assumption, as does the similar argument relating to the allotments under the Managers Securities Plan, that the non-du Pont members of the Finance and Bonus and Salary Committees have been willing and silent participants in a thoroughly discreditable scheme.

We should add that this is not the first time that the participation of du Pont in the Managers Securities Plan has been reviewed by a court. Over a decade ago, in a suit brought by a stockholder challenging both the Managers Securities Plan and the participation by du Pont in its establishment, the court found in favor of du Pont and dismissed the suit as to it. *Winkelman* v. *General Motors Corporation, et al.*, 44 F. Supp. 960, 968 (S. D. N. Y. 1942) (Finding No. 35, filed April 10, 1942):

> "The General Motors Bonus Plans were consistently supported by the du Pont Company, the largest stockholder in General Motors, to promote the interests of the stockholders. Its attitude toward the plans and their administration was based solely on business judgment, gained in its own successful corporate experience, that such a compensation policy was an important factor for the success of General Motors and would benefit the stockholders. For this reason, the du Pont Company supplied the block of shares necessary for the Managers Securities Plan. Certain of its officers and directors, as directors of General Motors and themselves General Motors stockholders, approved the plans, for the same reasons and in the exercise of an honest business judgment that such plans were reasonable and for the best interests of General Motors."

D. THE EVIDENCE, CONSIDERED AS A WHOLE, SUPPORTS THE TRIAL COURT'S FINDINGS THAT DU PONT HAS NOT CONTROLLED AND DOES NOT CONTROL GENERAL MOTORS

In the preceding pages we have considered various categories of findings and evidence that bear on the Government's assertion that du Pont controls General Motors. These findings and the evidence have dealt with du Pont's initial investment in General Motors, with the activities of the du Pont nominees on the Board of General Motors and on its committees, with the attitude and activities of the General Motors management, with the corporate administration and management of General Motors, and with its supplemental compensation plans. Those findings and the evidence considered as an entirety, show that du Pont has not and does not now control General Motors and that the Government's argument to the contrary is not supported by the facts.

The decision of the District Court shows that it was on the basis of all of this evidence, and not merely on inferences drawn from fragments of it, that the trial court made its findings. The findings gain weight and persuasiveness because of the range of the matters that the trial court considered and the detail with which it reviewed the facts, and the weight of the findings is further increased by reason of the fact that the trial court viewed the question of control in historical perspective and took into account the undisputed changes in the relationship between the two corporations which affirmatively appear in the record.

Although the Government defers in the abstract to the importance of these historical facts (Br., pp. 76, 92), it ignores them in its discussion of the evidence and makes no reference to the trial court's findings on this aspect of the control issue. The trial court, after reviewing all of the evidence referred to above found a trend toward lesser participation by du Pont nominees on the General Motors Board in any of General Motors affairs (R. 321-322):

> "After the dramatic collapse of Durant and the ensuing financial crisis when du Pont representatives were thrust into positions of responsibility in General Motors, and after General Motors had been rescued from that crisis, du Pont's influence and position in General Motors declined radically. During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management, headed by such a forceful and resolute character as Sloan and including such positive personalities as Kettering, the Fisher brothers, Knudsen, Pratt, Brown, and Wilson.
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> "More than a quarter of a century has passed since the twenties, and the strength and standing of the management have continued to increase and improve. The du Pont representatives who had originally been interested in General Motors have died or retired. These developments are reflected in the contemporaneous documents, the changes in the membership of the board, the various committees of the board, and in the testimony of Sloan and other witnesses."

The evidence makes it clear that the change perceived by the trial court is not an "artificial" one based on a desire to create a screen against the possibility of criticism. It has been gradual change which began many years before the institution of this litigation, and it is the result of causes unrelated to the Government's charges. The result has been the emergence of General Motors as a firmly established enterprise in the hands of a management whose independence is guaranteed by its competence, its record of past success, and the complexity of the industrial tasks which it is called upon to perform.

PART TWO

THE GOVERNMENT'S ATTACK ON THE FINDINGS OF THE TRIAL COURT IS NOT SUPPORTED BY THE EVIDENCE

In Part One we have reviewed the record at some length to make clear that the facts provide complete support for the findings of the trial court. Although in the course of that review we have referred to various contentions of the Government, no attempt has been made to subject those contentions to analysis or to consider their relationship, or lack of relationship, to the facts. Part Two of this brief will be devoted to that task.

The Government's attack on the trial court's findings of fact is marked by two characteristics: (1) The Government relies heavily upon the device of extracting a fragment of evidence, sometimes words or phrases from a single document, sometimes one document from a group of related documents, sometimes one aspect of an incident, or sometimes one incident from a series of related incidents, and treating this fragment of evidence as if it were self-contained and established some totality of truth without regard to the whole of which the fragment is a part. (2) In attacking the findings the Government relies heavily upon inferences and conclusions instead of direct or circumstantial evidence, the inferences or conclusions in many cases being said to arise necessarily from some fragment of evidence which the Government has selected in accordance with the technique of argument that has been described in the preceding sentence.

The task of analysis, therefore, requires that the fragments of evidence used by the Government be restored to context so that they can be judged in relation to the whole of which they are a part. It also requires that the Government's asserted inferences and conclusions be tested by reference to relevant facts which provide a standard for their validity, and that they be appraised in the light of ordinary considerations of logic and common sense. This task necessarily involves a detailed examination of incidents which have only a limited significance in the case, whether they be viewed in isolation or as a part of the record as a whole. It also involves to some extent inevitable repetition of material that has been discussed in Part One of the brief. It is believed, however, that as compensation for these burdens the analysis will disclose the basic infirmity of the Government's attack and the wide gulf that separates the Government's assertions from the facts.

I.

THE GOVERNMENT'S CONTENTION THAT GENERAL MOTORS PURCHASES PAINT FROM DU PONT ON A NONCOMPETITIVE BASIS IS NOT SUPPORTED BY THE FACTS

The Government sought to establish at the trial that General Motors bought paint from du Pont on a noncompetitive basis and that du Pont's sales of paint to General Motors were attributable to du Pont's stock interest and not to the merits of the paint or other normal commercial considerations. The trial court made detailed findings of fact which rejected the Government's contention and which, as we have shown, are fully supported by the evidence (*supra,* pp. 37-60). These findings and the evidence which supports them are particularly significant because they cover three-fourths of General Motors' purchases from du Pont, and because of the emphasis which the Government has always given to the paint sales. If the Government cannot establish a restraint of trade with respect to paint it seems clear that it cannot establish a restraint of trade with respect to any of the other commodities du Pont sells to General Motors.

The Government asserts broadly that "whenever a business judgment was required in a situation in which du Pont was in competition with other suppliers, the stock interest cut across normal competition and resulted in a preference being given to du Pont."[35] The Government also charges that General Motors did not buy "on the basis of competitive merit, or on the basis of what was to General Motors economic advantage" (Br., p. 72).

If these assertions are to be given their plain and ordinary meaning, they would appear to signify that the Government is contending that General Motors buys inferior paint from du Pont or pays du Pont higher prices than it would have to pay du Pont's competitors for comparable quality and service. There are, however, other passages in the Government's brief in which it states the nature of the alleged preference in terms not entirely consistent with those of the assertions quoted above. These other statements suggest that the Government may retreat to an alternative position that du Pont's product and service, if not inferior to those of its competitors, were no better than the product and service that General Motors could obtain from du Pont's competitors at comparable prices. Because of the vague and shifting terms in which the Government describes the alleged preference in different parts of its brief, it is not possible to determine which of these two positions the Government finally intends to adopt. For present purposes it is immaterial. In either event the Government asserts that General Motors bought paint from du Pont because of the latter's stock interest, and not because of the quality of du Pont's product and service. To this extent the Government attacks the quality of du Pont's paint and service. In specific terms, for example, the Government must mean to assert that "Duco" was adopted and purchased from du Pont, not because it was superior to varnish (which required up to three weeks to dry and would not stand up in use) but because du Pont owned stock in General Motors; and that "Dulux" was used by Frigidaire, not for the same reason it was used by other major refrigerator manufacturers, but because du Pont held General Motors stock.

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[35] The Government disregards the fact that General Motors buys substantial amounts of paint from competitors of du Pont. In 1947 General Motors' purchases of paint from competitors of du Pont amounted to $7,532,290 (GTX 1388, R. 2939, 5423). The circumstance that in that year General Motors bought the greater part of its requirements from du Pont does not change the fact that the dollar volume of its purchases from competitors was substantial and is inconsistent with the charge that General Motors was not free to buy on a competitive basis.

The Government makes these arguments without support in the record. There is no evidence that du Pont's paint or service is inferior to the paint or service of its competitors, or that its prices are higher, or that General Motors suffered any economic disadvantage by reason of its purchases of paint from du Pont, and it is significant that the Government points to no such evidence in its brief.

1. The Government ignores uncontradicted evidence which establishes the high quality of the paint bought by General Motors from du Pont, and the reasons for General Motors' purchases from du Pont. This evidence shows that the Divisions of General Motors that buy paint from du Pont do so because of the quality of the paint,[36] the excellence of

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[36] Kettering related the intensive efforts made by General Motors to assure that its automobiles were finished with the best and most durable paint available and testified that in his opinion the paint on General Motors cars was one of the reasons for their higher resale value in the used-car market (R. 1591-1592). Although this testimony related to "Duco" generically (R. 1617-1618), in view of the substantial purchases of "Duco" from du Pont by General Motors, its probative value on the quality of du Pont's product is beyond question. The General Motors witness Wirshing related instances in which du Pont has invented or developed superior finishes which were afterwards copied by its competitors (R. 1929). It is also significant that the record shows that when ordering locomotives from the Electromotive Division of General Motors the Class I railroads usually specify that du Pont "Duco" shall be used on the exterior of the locomotive. Du Pont sells Electromotive 70 to 75 percent of its requirements (W. P. Fisher, R. 2434-2435).

du Pont's service[37] and because on the basis of past experience they believe that du Pont will best satisfy their requirements.[38]

The evidence with respect to Buick's purchases from du Pont is important in this connection because of the fact that Buick buys the greater part of its paint requirements from du Pont, a fact that is twice noted by the Government (Br., pp. 61, 139). The record shows that Buick buys from du Pont because it finds the du Pont material superior (Weckler, R. 2143). Weckler, the executive of Buick who made the decision to continue to buy from du Pont rather than to purchase from competing companies, testified that he was not "motivated in any way by a feeling of duty to favor the du Pont Company" but that his decision was based solely on the quality of the du Pont product (R. 2143).[39]

Furthermore the Government's notion that General Motors is finishing a large part of its production with inferior paint or that it pays du Pont higher prices than it would have to pay competitors for comparable products, or that General Motors does not buy to its own economic advantage, cannot be reconciled with General Motors' competitive position in the motor car industry. It could hardly have successfully competed in the low-price car market, or have advanced to its present competitive position, with inferior products or with costs higher than those of its competitors.

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[37] Thus the General Motors witness Wirshing, testifying about the reasons for Chevrolet's purchases of paint from du Pont, said: "They [du Pont] also had a very good service department which kept Chevrolet out of trouble. You always depend on your suppliers for service. They are a great help to you when you get into trouble and if they come quickly and help you in those problems you appreciate it" (R. 1924). The location of the paint plant in relation to the automobile plant is an important factor in relation to service. Wirshing testified that Cadillac bought Rinshed-Mason paints because "the Rinshed-Mason plant is practically in their back yard." (R. 1926) He also explained that a similar proximity of plants was another reason why Chevrolet preferred to buy from du Pont (R. 1924).

[38] Wirshing, speaking of Pontiac's early experience with "Duco" said: "* * * it did them so much good to come out with such a superior finish, that is, a finish so much better than they had been using, that that is another reason why they have continued to use the du Pont material over the years" (R. 1926). He also stated that Pontiac continued to buy from du Pont for service reasons (*Id.*).

[39] At the time of the trial Weckler was an executive of Chrysler Corporation. His testimony with respect to the high quality of the du Pont product was repeated on cross-examination (R. 2161) and is not inconsistent with any of the contemporaneous documents.

2. The Government points to the fact that General Motors made requirements contracts with du Pont for automobile lacquer for the years 1925-1926, and also refers to subsequent contracts for lacquer covering the years 1927-1931 which it recognizes were not requirements contracts but which it asserts gave du Pont only "slightly less protection" (Br., pp. 61, 139). The Government appears to argue that these contracts support the inference that General Motors' purchases of paint from du Pont were not made on a competitive basis. But this argument ignores the evidence relating to these contracts and particularly the evidence contained in contemporaneous documents.

That evidence shows that General Motors made the requirements contracts because du Pont was the only manufacturer that was able satisfactorily to produce these new automobile lacquers. Months before the first contract was made, Lynah, Secretary of the General Purchasing Committee, began extensive efforts to find other manufacturers who could make a suitable product.[40] Within a month after the first contract with du Pont was made Lynah wrote to the Committee: "Certainly because of the proven qualities of Duco it has no competition at the present time." At his recommendation the Committee requested General Motors Research to make durability tests on various competitive finishes (GM 172, 173, R. 1133, 1135, 7166-7168).

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[40] He asked General Motors Research if a paint "suitable for our purposes" was "made by any other source than the du Pont Company" (GM 168, R. 1131, 7162). He directed specific inquiries to the same effect to Sherwin-Williams and the Valentine Varnish Company, two major competitors of du Pont (GM 170, 171, R. 1132, 7164-7165.

For two years General Motors Research, despite a vigorous and continuing examination of products offered by competitors of du Pont, was unable to find a paint that had the necessary qualities (GM 174-178, 180-183, R. 1135, 1137, 1140, 7169-7180, 7186-7189). The requirements contract with du Pont was twice renewed during the period 1925-1926 only because Research reported that it was not yet able to certify any competing lacquer as satisfactory (Lynah, R. 1141).[41]

The facts about the requirements contracts, therefore, instead of supporting the Government, provide additional evidence of the high quality of du Pont's paint and of the purchasing independence of General Motors.

The contracts which General Motors made with du Pont in the five years (1927-1931) following the expiration of the requirements contracts gave du Pont no "protection" whatsoever and the Government's contrary characterization ignores the plain terms of the agreements. The contracts did not call upon General Motors to purchase its requirements of lacquer from du Pont; they simply established a price at which General Motors could buy "Duco" from du Pont. Such price protection contracts were commonly employed by General Motors. They were not "requirements contracts" and did not bind General Motors to buy any quantity from a supplier; such a contract "made participation by the divisions optional, and was made because prices were favorable" (Lynah, R. 1142). A contemporaneous report made by the du Pont Paint Department recognized that the contracts imposed no obligation of any kind on General Motors (GTX 468; R. 541, 4122).[42]

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[41] The thoroughness of the efforts made by General Motors Research to find a competitor from whom to purchase lacquer is evidenced by a comprehensive report submitted to the Purchasing Committee in 1925 (GM 176; R. 1137, 7171). After detailing the results of numerous tests made on lacquers produced by ten competitors of du Pont, the Research group reported that no company other than du Pont had yet "developed a full line of colors of high durability" and that, moreover, other lacquers had not yet been proven satisfactory with respect to "properties such as quality of the color, ease of spraying, covering power, polishing properties, and other working properties which must be determined by actual tests on cars under production conditions."

3. The Government's position, in effect, now is that the Court should reject all of the direct evidence that General Motors bought paint from du Pont on a competitive basis, even though the Government itself offered no comparable evidence to the contrary. It attempts to justify this position by an inference which it tries to draw, not from any evidence relating to price, service or quality, but from two purely statistical aspects of du Pont's sales of paint to General Motors.

a. In the first place, the Government points to the fact, which has never been disputed, that du Pont sells General Motors a substantial percentage of its paint requirements (in recent years approximately 70 percent) (Br., p. 61, 139-140). That fact, however, does not justify the conclusion that the sales are made on a preferential or a non-competitive basis. For a variety of normal and innocent business reasons purchasers often decide to buy the greater part of their requirements from one supplier, as the record here shows.[43] For example, Chrysler for many years has bought substantially all of its paint from Pittsburgh Plate Glass Company and the record shows that it has done so pursuant to the deliberate policy of having one principal supplier (DP 559, 560, 561, R. 2999, 6479, 6480, 6481. See p. 54, *supra,* 198-199, *infra*).

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[42] "On our 1927 contract with General Motors we are unable to get any definitely specified amount of business in the contract. * * * In the 1927 contract General Motors agreed only to purchase their requirements of our make of pyroxylin materials which, of course, may be as little or as great as they care to purchase from us."

It is no answer, moreover, for the Government to assert that although the percentage may be colorless standing alone, it justifies the asserted inference when considered in relation to du Pont's stock interest. The question in issue is whether it is the stock interest that causes or influences the purchases. To rely upon the stock interest to support the inference is to assume the conclusion that the inference is designed to prove. The fact is that the record leaves no room for the Government's inference. As we have pointed out at pp. 45-60, *supra,* the reasons why General Motors buys a large percentage of its paint requirements from du Pont are normal, competitive business reasons adopted in the free exercise of General Motors' own independent judgment, and not related to or influenced by the stock interest.

b. The Government's principal prop for its argument, however, is not du Pont's percentage of General Motors' requirements but a different statistical aspect of the sales. It asserts that because du Pont's sales to General Motors now constitute the greater portion of du Pont's sales of paint to all automobile manufacturers it follows that the General Motors sales are made on a non-competitive basis.

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[43] Westinghouse, Crosley and General Electric for considerable periods of time have bought all of their requirements of refrigerator paint from du Pont (Knight, R. 2383-2385, Norberg, 2475-2476, Van Derau, 2483-2482). General Motors itself has followed the policy of buying all or a greater part of its requirements of many important production materials from a single supplier, *e.g.,* steel bars, coal, brass and copper sheets, screws, tubing, leather, car frames and tires (GM 154, R. 1092, 7023).

Stated in the Government's own terms the argument runs as follows: 80 percent or more of du Pont's sales of paint to automobile manufacturers is made to General Motors;[44] General Motors makes only 45 percent of the automobiles; this is an "indication" (to use the Government's own word) that the du Pont sales are not made on merit (Gov't Br., pp. 83, 141).

The fact that in recent years the greater portion of du Pont's sales to automobile manufacturers has been made to divisions of General Motors does not justify the inference which the Government seeks to draw. Whatever the percentage relationships may be, du Pont has sold, and sells, a substantial volume of paint to other automobile manufacturers. For example, in 1947 those sales amounted to $3,500,000 (GTX 1387; R. 2919, 5422). The record shows that du Pont sells paint to smaller manufacturers such as Nash, Studebaker, Hudson, Willys and Packard and that its competitive position at all but Packard has been improving (GTX 1378, 1381, 1382, R. 2824, 2825, 5409, 5414, 5415, Williams, R. 1991-1992.) It is not credible that these competitors of General Motors would accept inferior paint or poor service.

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[44] The 80 percent figure is achieved by separating du Pont's sales of paint for original application to automobiles from du Pont's sales of paint to General Motors for all other purposes and comparing this figure with du Pont's sales of paint for original application to automobiles of all other manufacturers. Although the point is minor as compared with the other infirmities in the Government's argument, there is a serious question about the validity of this comparison even for the purpose of the Government's asserted inference. When du Pont's sales to General Motors of all kinds of paints are compared with du Pont's sales of the same paints to all other customers, it appears that the General Motors' purchases over the years have ranged from 14 percent to 26 percent of du Pont's sales to all customers. In 1948 du Pont's gross sales to purchasers other than General Motors of the same kinds of paint, varnish, etc., bought by General Motors, amounted to about $97,000,000; its sales to General Motors in the same year amounted to $21,000,000 (DP 445; R. 2688, 6436).

The Government's inference depends upon an assumption that is logically indefensible and commercially unrealistic. The fact that 80 percent of du Pont's sales to automobile manufacturers is made to General Motors although General Motors makes only 45 percent of the cars does not establish or even "indicate" that the sales are not made on merit but on a non-competitive basis. The comparison between the two percentages has nothing whatsoever to do with the merits of du Pont's products. In a free market a seller is not uniformly successful with all purchasers. And in a free market a purchaser does not normally divide his purchases among all possible suppliers and when he makes a division he is not likely to do so with reference to his own percentage position in the market in which he sells.

Even if the lack of reason or logic in its basic assumption were to be ignored, the Government's argument would suffer from a fatal infirmity. It ignores the facts. The evidence affirmatively shows that the alleged "disproportionate" percentage relationship of sales to General Motors has nothing to do with the merits of du Pont's paint. In recent years the production of automobiles has been highly concentrated: three companies—General Motors, Ford and Chrysler—account for approximately 85 percent of the total production.[45] The question posed by the Government's contention therefore is why a greater percentage of du Pont sales have not been made to Ford and Chrysler. The record contains evidence which answers that question and which shows that the reasons have nothing to do with du Pont's prices, quality or service. This evidence, on which the trial court made findings (R. 393), is never mentioned in the Government's brief.

Ford, the second largest producer of automobiles, has for many years manufactured a very substantial percentage of its own paint (GTX 1376, 1377, R. 2824, 5407, 5408).

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[45] GTX 1204, R. 658, 5149.

At times it has manufactured approximately three-fourths of its own requirements; in 1950 Ford manufactured the equivalent of 15 per cent of all paint used by all manufacturers for original application on automobiles (GTX 1386, R. 2826, 5420). Since in recent years Ford has accounted for approximately 25 percent of the total automobile production (GTX 1204, R. 658, 5149) its policy of producing a substantial part of its own requirements, which has nothing to do with the merits of du Pont's paint, goes far to destroy the inference the Government would draw from the fact that du Pont does not sell a larger volume of paint to automobile manufacturers other than General Motors.

In the 1920s and until 1938 du Pont did sell substantial quantities of paint to Ford. Indeed, at times during that period it sold Ford 50 percent of all of its requirements of synthetic resin enamel (GTX 1377, R. 2824, 5408). In 1938 the Ford director of purchases told the du Pont sales representative that the late Mr. Henry Ford, Sr. had issued instructions that Ford was not to purchase any more materials of any kind from the du Pont Company (R. 1992-1993, GTX 1379, R. 2825, 5411). Du Pont was not informed of the reasons for Mr. Henry Ford, Sr.'s decision and the record does not disclose those reasons. It appears however, that they had nothing to do with the price or quality of du Pont's paint or with service because at the end of World War II when Mr. Henry Ford, II, became active in the management of the Ford Company he resumed purchases from the du Pont Company, and du Pont now sells Ford substantial quantities of paint (R. 1993).[46]

Prior to the early 1930's, du Pont sold a substantial quantity of paint to Chrysler. Sometime in the early 1930's Keller, Assistant General Manager in Charge of Purchases for Chrysler, informed du Pont that Chrysler had determined to find a supplier who would look upon Chrysler as its principal customer, that they had found such a supplier and that purchases from du Pont would be decreased. Keller made no complaint about du Pont's materials or service and told the du Pont representative that du Pont's service and the performance of its products were "very satisfactory" (R. 1994-1995). This evidence is uncontradicted. The record shows that Chrysler now buys substantially all of its paint requirements from Pittsburgh Plate Glass Company (DP 559, 560, 561, R. 2999, 6479-6481).

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[46] In placing an order with du Pont in July 1946 the Ford Company "expressed the hope that such action would mark the beginning of long and pleasant relations between Ford and du Pont" (DP 196, R. 1993, 6069).

In the late 1920's and early 1930's, before automobile production became so heavily concentrated in three companies, du Pont counted among its customers many companies that have since gone out of business such as Franklin, Cleveland, Hupmobile, Marmon, Chalmers, Gardner (Williams, R. 1991). During this period, although the evidence of record is fragmentary it indicates that du Pont's sales to other manufacturers were regularly substantial. As late as 1935, while it still enjoyed Ford business but after Chrysler had shifted to another supplier, du Pont's sales to automobile manufacturers other than General Motors amounted to $3,000,000 out of $8,000,000 total sales for the first eight months of that year (GTX 1372, R. 2821, 5403).

The Government in discussing General Motors' purchases of paint from du Pont makes the statement that "We are not reduced to the profitless field of using bare accusation against bare denial" (Gov't Br., p. 140). This statement is accurate, though perhaps not in the sense in which the Government intends. The statistical arguments upon which the Government principally relies are, it is true, little more than bare accusation. The evidence of record, however, as we have shown, is much more than a bare denial. It establishes, by direct and substantial proof and not by inference or conclusion, that General Motors has purchased paint from du Pont on the merits only, and in such amounts and at such times as the Divisions of General Motors have decided to buy on a completely competitive basis in the free and unrestricted exercise of their business judgment.

II

THE GOVERNMENT'S CONTENTION THAT GENERAL MOTORS PURCHASES FABRICS FROM DU PONT ON A NON-COMPETITIVE BASIS IS NOT SUPPORTED BY THE FACTS.

The contemporaneous documents and testimony establish in detail that the General Motors Divisions have at all times purchased fabrics on a competitive basis, whether from du Pont or from competitors of du Pont, and that du Pont has never enjoyed a preferential non-competitive advantage.[47] Four witnesses, whose cumulative experience spanned the period covered by the Government's charges, testified on every aspect of their experience in the sale of fabrics to General Motors. Their testimony covers 400 pages of the printed record. Well over 100 exhibits comprising sales correspondence and company reports written over the years were introduced to show the competitive basis on which General Motors purchased fabrics. The trial court considered this substantial body of evidence in the light of the same arguments which the Government makes here. The trial court's consideration was thorough and comprehensive. It noted the changing products and uses over the years; it catalogued the varieties of success and failure experienced by du Pont in its efforts to sell the General Motors Divisions (R. 396-405). It found (R. 405):

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[47] The contemporaneous sales reports and correspondence, written years before this lawsuit, are particularly persuasive. They repeatedly record instances in which du Pont got business from Divisions of General Motors because of the superiority of its product or service. See, for example, DP 258, 262, 274, 275, 284, GTX 406, pp. 12-13, R. 2216, 2223, 2237, 2239, 2249, 527, 6169, 6173, 6199, 6200, 6213, 3966 at pp. 3977, 3978. See also Nickowitz, R. 2120. They also show many instances in which du Pont failed to sell the General Motors Divisions when the latter decided, on a competitive basis, to buy elsewhere. See pp. 203-205, *infra*.

> "The Court further finds that such purchases of fabrics as the General Motors Divisions have made from du Pont from time to time were based upon each division's exercise of its business judgment and are not the result of du Pont domination. Du Pont, the record shows, has maintained its position as the principal fabric supplier to General Motors through its early leadership in the field and by concentrating upon satisfactorily meeting General Motors' changing requirements as to quality, service and delivery."

The most noteworthy aspect of the Government's fabrics argument is the deliberate manner in which it ignores all of this evidence as well as the findings of the trial court. Its contention, which is essentially the same statistical argument that it makes on paints, can be simply stated. Because the proportion of du Pont's sales of fabrics to all auto manufacturers that has been sold to General Motors is greater than General Motors' share of the automobile market, the Government contends that General Motors has purchased from du Pont because of its stockholdings rather than because of the merits of its products.

This argument suffers from the same infirmities when applied to fabrics as it does when applied to paints. A comparison of the volume of fabrics that du Pont sells to General Motors and the volume that it sells to others customers does not resolve the question that is critical to the Government's contention. If du Pont succeeded with General Motors on a competitive basis the volume of its sales is immaterial, as is the volume of its sales to others. We will not repeat the logical and economic fallacies in this argument, but will refer the Court to our discussion of the same argument as applied to paint, *supra*, pp. 195-200.

As in the case of paint, the explanation of why other motor manufacturers have not purchased fabrics from du Pont in as great a volume as General Motors does not reflect upon the merits of du Pont's products and does not support the Government's inference that General Motors bought from du Pont on a non-competitive basis. Du Pont formerly sold substantial quantities of fabrics to both Chrysler and Ford (DP 286, 321, R. 2256, 2289, 6216, 6267). It lost out at Chrysler not because of any complaint as to quality, service or price but simply because it was told by Chrysler "we would prefer to deal with somebody who was going to be exclusively our major source of supply" (Nickowitz, R. 2117). Since then Textileather, a competitor of du Pont, has been supplying the bulk of Chrysler's fabrics (GTX 1381, R. 2825, 5414). Ford, the other major factor in the automobile market, has elected to produce a large portion of its own fabrics requirements (Nickowitz, R. 2113, Brown, R. 2292), but du Pont has been the principal supplier of such materials to the extent that Ford has not manufactured them for itself.[48]

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[48] Du Pont's experience in selling Ford was described as follows (Nickowitz, R, 2113):

> "Of the fabrics that we supply—you see, Ford Motor Company manufactures most of their own requirements. They have been doing that since 1920 on pyroxylin and since the early 1930's on rubber. So when they come into the industry for requirements, it is either to supplement their own manufacture to take advantage of bulges or their own shortcomings, or to supply a need which they were unable to supply themselves, and currently we are supplying selected constructions exclusively for—that is, we are taking care of 100 per cent of their needs of these particular patterns in our elastic 'Fabrilite' for Lincoln and Mercury, and I would say about 35 to 40 per cent on Ford."

The Government's contention also ignores the evidence as to du Pont's success in the sale of fabric products to non-automotive users. The record shows that the fabrics used in the automobile industry are the same fabrics as those used by furniture manufacturers, bookbinders and other trades (DP 228, R. 2065, 6130; Nickowitz, R. 2065). General Fireproofing Company, the largest manufacturer of office furniture, buys 100 percent of its fabrics from du Pont; American Seating Company, the largest maker of theater seats, also buys exclusively from du Pont; West Publishing Company buys its bookbinding fabrics 100 percent from du Pont; Crowell-Collier, Johnson & Johnson and Sears Roebuck are other substantial users of du Pont's fabrics (Nickowitz, R. 2086-2090).

The complete failure of proof on the Government's part is exposed by reducing its major contention to its lowest terms. It contends, in effect, that Chrysler's choice of a competitive supplier and Ford's election to make most of its own fabrics requirements establish that General Motors must have bought from du Pont on a non-competitive, preferential basis. These actions by Ford and Chrysler are relevant at all only if they will support an inference that du Pont's fabrics were not suitable for automotive use. Clearly, Ford's action will not, since what it did buy on the outside it bought from du Pont. Chrysler's action similarly does not bear on the quality of du Pont ~~products~~. Moreover, the Government could have called witnesses from Chrysler and Ford and ascertained why the one did not buy from du Pont and why the other manufactured most of its own fabrics. It failed to do so, and the Court should not now permit the Government to infer what it deliberately failed to try to prove.

The Government's argument that General Motors purchased fabrics from du Pont on a non-competitive basis deserves these further comments. Not only does the Government ignore the evidence which shows the competitive reasons why General Motors bought from du Pont, but in addition the Government ignores the numerous instances in which General Motors refused to buy from du Pont and instead bought substantial quantities of fabrics from du Pont's competitors. The Government apparently takes the view that the bare fact that General Motors buys from du Pont in substantial quantities in itself proves that the purchases are made on a non-competitive basis. But the crucial question is not how much or what percentage General Motors bought from du Pont but why it made those purchases. The Government's inferences and conclusions cannot stand against the evidence which shows that whether General Motors bought from du Pont or bought from competitors of du Pont, General Motors acted at all times on a competitive basis and without regard to du Pont's stock ownership.[49]

If du Pont enjoyed a preferential position with General Motors, (1) Chevrolet in 1921 would have continued to buy from du Pont coated panel boards which du Pont had developed; instead it bought exclusively from competitors of du Pont as soon as they met the latter's price (R. 398; Brown, R. 2195-2196); (2) Chevrolet and Buick would not have purchased their entire requirements of combined fabrics for top material from 1923 to 1927 from a competitor of du Pont (Brown, R. 2199, 2212); (3) Fisher Body would hardly have purchased its entire requirements, which were substantial, of convertible top material from a competitor of du Pont from 1933 to 1946 (DP 286, 288, 298, R. 2256, 2257, 2266, 6216, 6220, 6232); (4) When Chevrolet Truck purchased the Martin-Parry Corp. as an independent body maker, it would have continued the latter company's policy of purchasing exclusively from du Pont (DP 247, R. 2276-2277, 6158); instead Chevrolet Truck began, and has continued, to buy a substantial portion of its requirements at the former Martin-Parry plant from competitors of du Pont (DP 557, R. 2905, 6473, Brown, R. 2278-2281); (5) When Fisher Body needed substantial quantities of an adhesive for affixing weather-stripping in the years following the end of the war it would not have rejected du Pont's product and purchased the product sold by a competitor of du Pont (Nickowitz, R. 2095-2096); (6) General Motors Truck would not have specified B. F. Goodrich upholstery material for all bus seats manufactured to General Motors' specifications (Nickowitz, R. 2103, DP 240-241, R. 2105, 2106, 6146-6147).

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[49] Tucked away in a footnote in the Government's brief (p. 60) is the observation that it was unnecessary for du Pont to compete pricewise to get General Motors trade. If this charge were true it would obviously deserve several pages of discussion instead of two lines in a footnote. The exhibits cited show that for the first half of 1927 two Divisions of General Motors bought from du Pont notwithstanding lower quotations received from a competitor of du Pont. The evidence shows that the competitor could not "be relied upon to meet Buick's requirements". (MacShane, R. 2374-2375) The record is filled with evidence that the automobile companies regard the ability of the supplier to make delivery as of equal if not greater importance than price (Sloan, R. 1299, 1300). The record also shows that du Pont had to compete on a price basis for General Motors' fabrics business. See for example, GTX 492, p. 6, GTX 490, p. 7, DP 277, 284, R. 541, 596, 2243, 2249, 4145 at p. 4150, 4133 at p. 4139, 6203, 6213.

The foregoing paragraph cites but some of the instances shown in the record in which General Motors demonstrated in the clearest practical way that it had no policy of preferring du Pont on fabrics purchases; that it bought at all times strictly on merit, whether du Pont got the business or lost it.

III

The Government's Contention That du Pont Was Able to Sell to Fisher Body Only on the Basis of Control and Not on the Basis of Merit Is Not Supported by the Facts

The Government would have the Court believe that prior to June, 1926, when Fisher Body became a Division of General Motors, du Pont was unable to make substantial sales to Fisher Body because Fisher Body bought on a competitive basis, but that thereafter Fisher Body bought from du Pont on a preferential, non-competitive basis (Br., pp. 64-68, 141-142).[50] There is neither direct nor circumstantial evidence that supports the Government's contention. The evidence, as we have shown (pp. 78-84, *supra*) establishes that Fisher purchased from du Pont both before and after June, 1926; that it has never purchased exclusively from du Pont; and, what is more important, that when Fisher became a Division of General Motors there was no change whatsoever in its purchasing attitude with respect to du Pont and competitors of du Pont.

1. The Government's argument overlooks the persuasive and uncontradicted testimony of Lawrence Fisher, who was called as a Government witness and stayed to testify for the defense (R. 542-596). He made it clear that he and his brothers ran Fisher Body both before it became a Division of General Motors and afterwards (R. 580, 581). It was he who made the decision that Fisher Body would test and begin using du Pont's fabrics in 1923, and it was he who decided that Fisher Body would use "Duco" in 1924 (R. 585, 592).[51] The trial court found Lawrence Fisher's "competence and knowledge" of Fisher Body's purchasing practices "unquestioned" (R. 381). Du Pont's initial success in selling Fisher Body was thus achieved at a time when the Government concedes that du Pont was selling to Fisher

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[50] The Government is surely aware that du Pont made substantial sales to Fisher Body prior to 1926. The Government's argument, however, is put in a form which seems calculated to leave the impression that du Pont was unable to make any substantial sales to Fisher before that date (see particularly Br., pp. 64-68).

[51] In fact Lawrence Fisher was so satisfied with "Duco" that he personally undertook to "sell" it to the Car Divisions (R. 592). This was in 1923-24, when the Government concedes Fisher was completely "insulated" from du Pont influence (Br., p. 64).

Body "on merit, in competition with other manufacturers" (Br., p. 141). Fisher Body's purchases from du Pont in 1925, made on a concededly competitive basis, totaled $2,272,000 (DP 222, 297, R. 2046, 2266, 6124, 6231). The Government fails to make any rational explanation of why the Fisher brothers, whom the Government describes as independent before 1926, should have changed and become subservient to du Pont after that date. The truth of the matter is that they behaved in the same way after Fisher Body was a Division of General Motors as they did before.

2. Neither at the time Fisher Body became a General Motors Division nor thereafter was there any change in Fisher Body's purchasing practices. Fisher Body commenced buying lacquer from competitors of du Pont as soon as such competitors had suitable products (L. Fisher, R. 593).[52] It has continued down to the present to buy lacquer from du Pont and from two competitors, Rinshed-Mason and Forbes; it used the product of a third competitor for a period but dropped it because the lacquer which it was buying from du Pont and others "was considerably better" (Wirshing, R. 1923).

Fisher Body has continued to purchase fabrics products from du Pont in varying quantities since 1923, but du Pont has merely been one of its three to five major suppliers (GTX 1349, 1350, 1351, R. 2890, 5354, 5356, 5358, Nickowitz, R. 2095).[53] Contemporaneous documents make it clear that after Fisher Body became a General Motors Division competitive considerations continued to influence its purchasing decisions with respect to fabrics: in 1928, the Fabrikoid Division of du Pont "encountered a severe setback" when Textileather secured a major part of Fisher Body's business formerly enjoyed by du Pont (GTX 490, p. 7, R. 596, 4133 at p. 4139); in 1929, du Pont lost some of Fisher Body's rubber deck materials business to Haartz Auto Fabric Company (DP 279, R. 2243, 6206); in 1931, Fisher Body was reported as buying from Textileather "material for Oakland, Pontiac, (which we previously enjoyed), and Oldsmobile" (DP 283, R. 2249, 6212).

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[52] The Government implies that, in contrast to the automobile Divisions, Fisher Body was not using "Duco" until 1926, when it became a Division of General Motors (Br., p. 142). The evidence shows that Fisher Body purchased "Duco" in substantial quantities in 1924 and 1925. In the latter year, its "Duco" purchases totaled $1,969,482 (DP 222, R. 2046, 6124).

[53] The Government should know that Fisher Body did not buy 65 to 68 percent of its fabric requirement from du Pont in 1947 and in 1948. Its repeated assertions to the contrary are plainly contrary to the evidence (Br. 68, 142). The proper figure, for whatever it

The Government takes the position (Br., p. 67) that the special discount arrangement which du Pont made with General Motors in an effort to secure a larger volume of its business was particularly directed at Fisher Body. But this arrangement was made shortly after Fisher Body lost its alleged independence and at a time when, according to the Government's contention, Fisher Body was subject to du Pont's control or influence. If that contention is right du Pont did not have to compete for the Fisher Body business. The discount arrangement is therefore flatly inconsistent with the Government's contention because it shows that even after Fisher Body had become a Division of General Motors, du Pont's sales efforts were based on a most ancient and reliable sales technique—substantial price competition.

Finally, the Government's contention is definitely disproven by the substantial body of evidence that shows the complete purchasing independence which Fisher Body exer-

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is worth, is approximately 40 percent (see p. 83, *supra*). The Government's figure is contrived by eliminating almost $1,500,000 of top material purchased by Fisher Body from a competitor of du Pont. See pp. 62-63, 75, 83, *supra*. This elimination is incomprehensible, particularly since the Government includes du Pont's sales of top material to General Motors when it finds the inclusion convenient for the purpose of other computations (see Br., p. 63).

cised after it became a Division of General Motors. A number of examples of this independence have been noted at pp. 41; 62-64, 70-71, 80-82, *supra*. Two additional instances deserve comment here.

(1) Toward the end of 1926, when Fisher should have been most conscious of the alleged restriction upon its purchasing freedom, it refused to adopt a nitrocellulose base surfacer which du Pont had developed and was selling to the trade (GTX 476, R. 540, 4128). Du Pont considered this development to be of such significance that Lammot du Pont personally brought it to the attention of Sloan and Pratt, and the latter brought it to the attention of Ed. Fisher (GTX 470-479, R. 539, 540, 4124, 4125, 4126, 4127, 4128, 4130, 4131, 4132).[54] Fisher Body's decision not to adopt the surfacer is recorded in a contemporaneous du Pont sales report which discloses that the decision was made solely on competitive considerations and without regard to du Pont's stock ownership (DP 194, p. 2, R. 1984, 6066 at 6067). Lammot du Pont's final word to Pratt was, "I am convinced that G. M. is making a mistake" (GTX 479, R. 540, 4132). Down through the date of trial Fisher continued to purchase the bulk of its requirements of undercoats, which the surfacer was designed to replace, from Rinshed-Mason, a competitor of du Pont: du Pont supplies undercoats to only one of the fourteen Fisher Body plants (Wirshing, R. 1923, Williams, R. 1985).

(2) In 1932 Fisher Body dropped du Pont as one of its suppliers of fabrics for convertible top material and until 1947 bought exclusively from the Haartz Auto Fabric Company (DP 286, R. 2256, 6216 at 6218, Brown 2253). By 1947, the volume of business represented by

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[54] The advantage of the product was speed in application. Other auto manufacturers adopted the surfacer and it is still used today in refinishing automobiles (DP 193, R. 1982, 6065, Williams, R. 1981, 1983).

this single fabrics item was $1,400,000 a year (GTX 1343A, p. 9, R. 2846, 3037 at 3045, Nalle, R. 2895).[55]

The foregoing examples of the manner in which Fisher Body conducted its purchasing do not reflect the actions of a purchaser whose independence has been crushed by the influence of du Pont's stock ownership in General Motors. These instances—and the record shows others of similar import—establish that, after as well as before 1926, when du Pont tried to sell Fisher Body, du Pont secured business on a competitive basis or not at all.

IV

The Government's Contention that Trade Was Restrained in Tetraethyl Lead, "Freon," and Anti-Freeze Is Not Supported By the Facts

The Government contends that General Motors' handling of its discoveries of tetraethyl lead and "Freon" and the instructions which General Motors gave to automobile purchasers concerning the relative merits of ethyl alcohol and glycerine as antifreeze mixtures constitute "specific instances" in which du Pont's stock ownership has resulted in the "imposition of restraints on trade" (Br., p. 129).

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[55] The Government's quotation of a 1924 letter from Pratt to Harrington of du Pont at page 66 of its brief illustrates the lengths to which the Government has gone to seek evidence that appears to support its Fisher contention: (1) The letter deals not with fabrics, but with dyes, which Fisher Body does not purchase; (2) Harrington found the upholstery in his car fading, and suggested that Fisher could use some technical assistance on dyes; (3) The matter was a "delicate subject", as Harrington realized, because he was being critical of a Fisher product; (4) Harrington made a similar request to Pratt with respect to dyes in 1929, at which time a contemporaneous document shows that, even though he was allegedly under du Pont's influence at this time, Ed Fisher's reply was, "I cannot see where their suggestion would be of very much help to us." (GTX 455, 544, GM 212; R. 537, 606, 1454, 4094, 4241, 7264).

Even when viewed as matters of history these "instances" do not support the Government's contentions. But on any view of their past meaning they are clearly devoid of all present significance. Ethyl, in which General Motors owns a half interest, is now the larger producer of tetraethyl lead, competing successfully with du Pont in its manufacture and sale. Du Pont now, with the express approval of the Government, has taken over General Motors' stock interest in Kinetic, the original producer of "Freon," and the Government has formally abandoned all claims to relief in connection with that product. The alcohol-glycerine controversy has been of no significance for over twenty-five years.

Since these "instances" have no present economic importance we assume that the Government has included them in its argument on the theory that if it can persuade the Court that there was some kind of a restraint of trade in the past, that restraint, even though no longer in existence, will in some measure justify the Government's prayer for injunctive relief. Without pausing to consider whether injunctive relief for the future can on any basis be justified by the invocation of past transactions whose economic consequences have been dissipated, we shall now show the Court that the Government's contentions with respect to these instances are unfounded and that in fact no restraint of trade occurred.

A. TETRAETHYL LEAD

1. The Government asserts that General Motors' decision to have du Pont manufacture tetraethyl lead was due to "du Pont's inside influence" (Br., p. 131), a contention which it admits is contrary to the findings of the trial court that (R. 426): "The record, rather, establishes that the services of du Pont as a manufacturer were secured by General Motors in the unrestrained exercise of its own judgment."

The evidence fully supports that finding. Kettering was the man principally responsible for the decision. This is shown by two contemporaneous documents (GTX 610, DP 65, R. 612, 1242, 4302, 5717), Kettering so testified (R. 1550, 1584), and the court so found (R. 426). Kettering testified that the reason for his decision to ask du Pont to manufacture tetraethyl lead was simply that "they were the best chemists that we knew of in the country", and denied that du Pont's stock in General Motors was in any way a factor in his decision (R. 1584).[56]

Certainly General Motors' decision not itself to undertake the manufacture of tetraethyl lead does not constitute a restraint on trade, as the Government seems to suggest (Br., p. 136). Sloan, who concurred in Kettering's decision, testified that General Motors had no competence in the field of chemical manufacture, and there is no proof to the contrary (R. 1248-1249). Nor does the Government suggest any chemical manufacturer to which Kettering could more reasonably have turned. Du Pont was then regarded as one of the top manufacturers of organic chemicals (Harrington, R. 1731-1732) and had, during the war, shown that it could handle dangerous materials. Moreover, contemporary documents, as well as Kettering's own testimony (R. 1524-1526), reveal that Kettering and his staff had been accustomed to turn to du Pont for assistance in chemical matters relating to antiknock problems before either du Pont or Kettering had any relation to General Motors (DP 93, R. 881, 5859).

Disregarding all of this evidence—and indeed disregarding entirely throughout its discussion of the events relating to tetraethyl lead the extensive testimony of the persons principally involved, Sloan, Kettering, Irenee du Pont and Harrington—the Government challenges the findings of the trial court by quoting from a few selected documents. It quotes (Br., p. 48) from a letter in which one of Durant's assistants stated to du Pont in 1919 that "It is presumed that the marketing of this chemical will be a matter of interest to the du Pont organization, and that the expense of developing it will be borne by your research department" (GTX 599, R. 612, 4296). The word "presumed" is equated with du Pont's "inside influence". The balance of the letter, however, shows that the writer was not speaking of a chemical discovery which General Motors might make, but of a proposal that du Pont undertake its own research program at its own expense; it was, logically enough, "presumed" that if du Pont made any marketable discovery it would be interested in marketing it. The proposal was, in fact, rejected (GTX 558, R. 608, 4252).

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[56] It is significant that the Government does not at any point in its brief challenge Mr. Kettering's stature or independence—although by its present contention it directly challenges his veracity.

The Government next quotes (Br., p. 49) from a letter in August 1920 from Midgley to du Pont in which he confirmed his understanding of the results of a conference in Wilmington: "I understand that the Du Pont Company will cooperate with our company in placing aniline on the market" (GTX 601, R. 612, 4298). "Understand" is again what attracts the Government. In context, of course, it has no reference to stock ownership or "inside influence"; it was simply Midgley's interpretation of the results of a trip made to Wilmington by him and Kettering to try to get du Pont to manufacture aniline. In fact, it was an inaccurate interpretation; du Pont had not been persuaded that the proposal was commercially sound (GTX 602, R. 612, 4300).

The Government also emphasizes that du Pont's first information about the discovery of tetraethyl lead—not "immediately" as the Government asserts (p. 132) but several months after the discovery—was by a memorandum from Pierre du Pont, then president of General Motors, to Irenee du Pont (GTX 610, R. 612, 4302). The Government ignores the fact, which is stated in the memorandum itself;

that Kettering had already expressed his desire to talk to du Pont: "Kettering would like to take up the question of manufacture with the du Pont representatives at an early date." It ignores the fact that the memorandum, in March 1922, was not followed by action by du Pont; rather Irenee du Pont, to whom it was addressed, waited to hear from Kettering, which he did about three months later in the form of an invitation to visit Dayton to discuss the problem (Irenee du Pont, R. 885; Kettering, R. 1546-1547). Finally, it ignores the further evidence that it was not until Kettering later visited Wilmington and inspected and approved du Pont's facilities and plans that du Pont was asked by Kettering to undertake manufacture (Irenee du Pont, R. 887-891; Kettering, R. 1549; Harrington, R. 1739-1740).[57]

2. The Government also contends (Br., pp. 132-133) that the same alleged "inside influence" prevented manufacture by Standard Oil of New Jersey or by any other company and thus maintained du Pont as the sole supplier of tetraethyl lead. The findings (R. 426) and the evidence contradict this contention.

After Standard Oil invented a cheaper method of producing tetraethyl lead, General Motors offered, and Standard Oil refused, a "similar contract to the one now in force with the du Pont Company" (GM 256, R. 1558, 7346). Thereafter, Standard Oil changed its mind, and with the agreement of General Motors undertook to produce tetraethyl lead. Because of Standard Oil's lack of experience in dangerous chemical processes it failed to take adequate precautions and its producing operation at Bayway ended with a disaster in which the entire working force was poisoned and a number of employees lost their lives. The public clamor that followed endangered the whole enterprise; the production, distribution and use of tetraethyl lead as a fuel additive were temporarily discontinued and it was not until du Pont persuaded the Surgeon General of the United States that tetraethyl lead could be manufactured safely that the enterprise was resumed. See pp. 120-122, *supra*. The Government conducts its argument as if the Bayway disaster had never occurred, yet it was that disaster which ended the manufacturing operations of Standard Oil, and gave a powerful demonstration to those engaged in the Ethyl enterprise of the importance of competence and experience in the manufacturing process.

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[57] The Government twice refers (Br., pp. 50, 132) to the fact that du Pont was informed of the discovery three weeks before the application for a patent was made. Kettering was questioned about the significance of that at the trial and testified that when dealing with reputable manufacturers "I have done that quite often" (R. 1605).

The Government ignores the fact that after the enterprise was again in operation Ethyl attempted to develop competent alternative sources of supply, and that its efforts failed, not because of the influence of du Pont, but because those to whom Ethyl turned were well aware of the difficulties and dangers in the process, and (doubtless because of the lessons taught by the Bayway disaster) declined to engage in the enterprise. Thus, Ethyl attempted to interest Dow Chemical Company in manufacturing tetraethyl lead, but that company declined to do so because of the hazards and dangers involved (see pages 125-126, *supra*). Similarly, Ethyl made a contract with American Research Laboratories looking toward production of tetraethyl lead, but that company, after considering the difficulties involved, asked to have the contract cancelled because it did not care to assume the manufacturing responsibility (see p. 126, *supra*).

The Government does, indeed, refer to the latter episode, but does so in terms calculated to convey the impression that the contract was cancelled at the behest of Irenee du Pont. This is not the fact, as the record shows; the contract was cancelled because American Research Laboratories became convinced of the dangers involved and of its own lack of experience and competence to deal with those dangers (see p. 126, *supra*).[58]

The facts which have been recited above are enough to dispose of the Government's contention that it was du Pont's influence or control that prevented others from manufacturing tetraethyl lead. That argument, moreover, is not even supported by the documents and excerpts from documents to which the Government refers in its brief (pp. 133-135).

The first group of documents cited by the Government relates to the events immediately prior to the formation of Ethyl (GTX 621-624, R. 613-614, 4333-4342). The documents do not support the Government's contention. They do show that Kettering and Midgley continued to urge Standard to become a manufacturer (GTX 622, R. 614, 4337, Kettering, R. 1566). Sloan was apprehensive, not because of du Pont's interests, but because he had doubts both about Standard's technical competence and about the wisdom of permitting a major oil and tetraethyl lead distributor to become also a manufacturer under a process which promised to become of controlling importance; "I do not say that I fear we will not get a square deal, but that naturally comes into my mind" (GTX 622, R. 614, 4337, Sloan, R. 1360).

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[58] The prior experience of American Research Laboratories had been in the manufacture of a serum for hog cholera. The record shows that they were not careful in their manner of dealing with tetraethyl lead (Webb, R. 1627-1632, 1642-1644). Irenee du Pont's letter shows that his objection, which was made after the contract was signed, was based on the sound ground that another Bayway disaster might be permanently fatal to the enterprise. Irenee du Pont said: "If another disaster happens in Colorado no amount of explaining will excuse our directors for having encouraged novices to undertake such a dangerous operation." (GTX 711, R. 625, 4532).

Neither Irenee du Pont nor anyone else in the du Pont Company made any objection to Webb's attempt to interest Dow in the manufacture of tetraethyl lead, or to the arrangements made by Ethyl to have bromine produced for Ethyl by Ethyl-Dow Company, which was formed jointly by Ethyl and Dow for that purpose (Irenee du Pont, R. 909-910, DP 106, R. 910, 5585; see pp. 126-127, *supra*).

The Government simply refuses to acknowledge what this document says, or to believe Sloan's testimony that he was not motivated by a desire to benefit du Pont (R. 1360). The additional documents are proof, however, not of Sloan's duplicity, but of his veracity. In GTX 623 (R. 614, 4340) Irenee du Pont wrote to Sloan suggesting that Standard Oil be referred by General Motors to du Pont to see if du Pont were interested in Standard's patent. Sloan did not accept the suggestion. He did precisely the opposite of what Irenee du Pont had suggested, and told Standard Oil that the negotiations relative to its patent would be conducted by General Motors (GTX 624, R. 614, 4342, Irenee du Pont, R. 949, Sloan, R. 1257-1258).

When Standard Oil and General Motors did meet and negotiate, Standard Oil was expressly recognized as a possible manufacturer for Ethyl (GTX 668, p. 5, R. 618, 4383 at p. 4387). It is not true that "du Pont suggested that Standard limit its production to a 100-gallon plant" (Gov't Br., p. 52). If the Government would recognize that there is more in the record than in its own selected documents, it would perceive, as the trial court did (R. 414), that a contemporary document (GM 87, p. 3, R. 1263, 6826 at p. 6829) shows that Standard Oil, not du Pont, proposed that its plant be of a 100-gallon per day capacity, and that the letter to which the Government refers as authority for its statement of du Pont's "suggestion" (GTX 660, R. 616, 4363) is no more than Irenee du Pont's recommendation to General Motors that the Standard Oil plan be approved. Sloan did approve (GTX 661, R. 616, 4365, Sloan, R. 1256, 1258). Nor was it Sloan, as the Government contends (p. 133) who was urging that du Pont greatly expand its production; the same contemporaneous document (GM 87, p. 3, R. 1263, 6826 at p. 6829) shows that this was also a Standard Oil recommendation, in which he simply concurred.

The Government also relies upon statements extracted from two letters written by Sloan in which he expressed the view that du Pont should be retained as the sole manufacturer of tetraethyl lead (GTX 710, 751, R. 625, 629, 4530, 4585). The first of these letters (GTX 710, R. 625, 4530) was written on December 12, 1924, a little more than a month after the Bayway disaster, and when the whole enterprise was hanging in the balance because of Standard Oil's failure and the public alarm that it had caused. The letter is evidence of Sloan's recognition of the dangers of incompetence and inexperience; and not proof of du Pont's influence or control. The second letter to which the Government refers (GTX 751, R. 629, 4585) and which it quotes in part in its brief (pp. 134-135) was written by Sloan in 1930. Even the portions of that letter which are quoted by the Government show that Sloan's remarks about confining manufacture to one source of supply were prompted by the interests of General Motors and Ethyl, not the interests of du Pont, when the Ethyl patents expired. The Government fails to include in its quotation a paragraph in which Sloan urged Lammot du Pont to facilitate the negotiations for an exchange of know-how and to broaden the basis upon which know-how and technical information were to be given to Ethyl. The negotiations to which he referred culminated in the arrangements which made it possible for Ethyl to engage independently in the production of tetraethyl lead after the expiration of the patents.[59]

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[59] The documentary evidence shows that Sloan had learned from a conversation with Lammot du Pont that du Pont had developed patents and methods in the manufacturing of tetraethyl lead which would make it difficult for anyone else to manufacture, and immediately wrote Webb, the president of Ethyl, that he should concern himself about the situation Ethyl would be in when its use patent expired (GTX 748, R. 628, 4577). Webb replied that he had been concerned, and was currently engaged in trying to negotiate with du

3. The Government also makes the charge (Br., p. 134) that Sloan "sided with" du Pont or "worked in harmony" with du Pont in negotiations over the price of tetraethyl lead. When the letters cited by the Government (GTX 664, 704, R. 617, 624, 4371, 4505) are read in their entirety they disclose only that Sloan on occasion recognized that there was some merit in the positions that du Pont had taken in its arm's-length bargaining with General Motors and Ethyl.[60] Neither the letters themselves nor any evidence outside the letters supports the Government's innuendo that Sloan behaved improperly. The truth is that Sloan kept out of the negotiations which were conducted by Webb of Ethyl and Howard of Standard Oil (R. 421; Sloan, R. 1273-1275, GTX 680, R. 619, 4459). The direct answer to

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Pont a contract under which Ethyl would get du Pont's patents and know-how as of January 1, 1938, in exchange for Ethyl's agreeing to buy 50 percent of its tetraethyl lead requirements from du Pont (GTX 749, R. 629, 4579). Sloan replied that he was not opposed to giving du Pont 50 percent of Ethyl's business, but that he felt strongly that Ethyl was entitled to any of du Pont's improvements resulting from manufacture under Ethyl's patents (GTX 750, R. 629, 4582). It was then that Sloan wrote the letter from which the Government quotes. They do not quote the significant sentence in which Sloan urges Lammot, in connection with this know-how and patent clause "to facilitate this and broaden the base upon which it is developed." After the arrangements had been negotiated, Sloan supported the arrangements which were required in order that Ethyl might become a manufacturer (GTX 797, R. 635, 4815), although Lammot du Pont felt that Ethyl did not have the background to undertake the manufacture of a dangerous chemical (GTX 781, R. 633, 4771).

[60] The first of Sloan's letters (GTX 664, R. 617, 4371) which to the Government shows that "Sloan seemed more interested in protecting du Pont than in bringing down the price of tetraethyl lead" (p. 134), is no more than a suggestion that the amortization of du Pont's plant be provided by a joint guarantee of General Motors and Standard Oil, in order to reduce the immediate price of the product. The other letter which the Government cites to show Sloan's bias toward du Pont on price matters (GTX 704, R. 624, 4505) asserts simply that he believed it unnecessary to discuss with du Pont its costs of production, because he was "satisfied to base our commercial program on such price as you might name, knowing that it is to your interest as well as ours to get the price down as low as is consistent."

this particular innuendo of the Government is supplied by the fact that du Pont's prices to Ethyl were consistently reduced in the decade from 1926-1937, and fell during that period from $1.433 per pound to $ .264 (DP 119, R. 1783, 5914), the reductions being made in many cases at times when du Pont by contract was entitled to a specific and higher price (DP 123-125, R. 1785, 5918-5920, Harrington, R. 1783-1787).

B. "FREON" REFRIGERANTS—KINETIC CHEMICALS

The Government's contention with respect to "Freon" (Br., pp. 82-83, 136-138) rests upon the assertion that du Pont became a joint owner of Kinetic Chemicals, Inc., because of its stock ownership in General Motors rather than on the basis of an independent business judgment by General Motors. The Government specifically asks the Court to reject the findings of the trial court that (R. 435):

> "* * * On the basis of the evidence of record, particularly the testimony of Sloan and Pratt, the Court finds that General Motors entered into the contract because those responsible in General Motors believed that Freon could best be manufactured by du Pont rather than by General Motors itself or by some other chemical company."

The Government's argument does not even mention the testimony of Sloan and Pratt to which the trial court referred, although that evidence is not contradicted by other proof. On the contrary, it is confirmed in important respects by the contemporaneous documents.

The Government relies primarily upon the fact that when the question of manufacturing "Freon" was under consideration Sloan and Pratt stated that they did not think it wise for General Motors to enter directly into the chemical business and to undertake a new process of manufacture which involved the handling of difficult and dangerous chemicals. The fact that Sloan and Pratt held that belief does not prove that they were controlled or influenced by du Pont, or that they were prompted by any desire to favor du Pont. The decisive question is whether they entertained that opinion because of du Pont's stock ownership, or because of their honest judgment with respect to the interests of General Motors.

The contemporaneous documents and the oral testimony leave no doubt that the decision was made in the interests of General Motors and not in the interests of du Pont or because of any du Pont influence or control. When the head of Frigidaire suggested that General Motors should undertake the manufacture of "Freon", Pratt stated that he would take the matter up with Sloan, saying (GTX 839, R. 639, 4976): "It is quite a fundamental step for us to start General Motors in chemical manufacture. Up to this time we have more or less elected to confine ourselves to the mechanical side of manufacture and I do not want to depart from this until very thorough consideration has been given to all of the factors involved." Sloan, when Pratt did speak to him, agreed that General Motors should not undertake manufacture. He testified (R. 1351):

> "That was the position I took on the basis of lack of competence. Further, more than that, the manufacture of this particular material involved certain questions of danger in manufacture, somewhat analogous to tetraethyl lead, perhaps not so much, and I thought it was something we should not engage in. I told Mr. Pratt that."

The fact that Pratt made his decision on the basis of the interests of General Motors and not those of du Pont is corroborated by the letter he wrote in 1931 (GTX 899, R. 652, 5129), commenting on Article 7 of the agreement between General Motors and du Pont creating Kinetic. That article provided, in substance, that future chemical developments originating in the laboratories of General Motors should be offered by General Motors to Kinetic "on such terms as may be mutually agreed upon" and that if no agreement was reached in six months General Motors should be free to dispose of the developments elsewhere. The article was included in the contract at Pratt's suggestion and not the suggestion of du Pont (Pratt, R. 1491-1492, GTX 842, R. 639, 4979). In his 1931 letter, in commenting on the article, Pratt said (GTX 899, R. 652, 5130):

> "This clause was placed in the Kinetic agreement because we wanted to remove from some of our organization the temptation of attempting to build up within General Motors an independent chemical manufacturing activity, and to place any developments along chemical lines in an organization in which we have confidence from the standpoint of their ability to carry on chemical manufacturing processes."

This statement, it should be noted, is cast entirely in terms of the interests of General Motors and the last clause of the sentence, with its emphasis on ability, reflects the doubts which both Pratt and Sloan entertained about the competence of General Motors to manufacture chemicals. This document, therefore, instead of supporting the Government's contention, in fact confirms the testimony of Pratt and Sloan.

The Government's characterization of Pratt's letter as an "explicit expression of the General Motors understanding of the perquisites of du Pont" (Br., p. 137) is in no way supported by the text of the letter or by any other contemporaneous document, and is flatly contradicted by the testimony of Pratt and Sloan. Indeed, the terms of Article 7 itself make the characterization of the Government inadmissible. That article placed no binding and permanent obligation upon General Motors except to give Kinetic six months in which to decide whether it would accept the terms on which General Motors might care to have a discovery developed.[61]

In an effort to support its attack on the trial court's findings the Government also attributes some sinister significance to the fact that "the inventor and his associates and the President of Frigidaire (the General Motors Corporation which was chiefly interested) wanted to manufacture the new product themselves" (Br., pp. 136, 58).[62] The fact that Biechler, manager of the Frigidaire Division, wanted General Motors to manufacture "Freon" does not establish that General Motors, in rejecting his recommendation, was influenced or controlled by du Pont or that Sloan and Pratt made their decision in the interests of du Pont. At most, it proves that Biechler did not agree with Sloan and Pratt that it would be unwise for General Motors to become a chemical manufacturing company. The wisdom of the view taken by Sloan and Pratt was amply demonstrated by events.[63]

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[61] Article 7 has no present significance. It merely reflected General Motors' decision not to enter into chemical manufacture directly, and gave General Motors an option to have future chemical discoveries developed by a competent chemical organization in which it had a 49 percent interest. Moreover, the article was never operative in that no discovery was offered to Kinetic pursuant to its terms, and was cancelled at General Motors' request and after General Motors concluded that it was unenforceable, and without objection from du Pont, four years before the complaint was filed in this case (R. 429-430; Carpenter R. 2740, DP 133, 1814, 5945).

[62] The Government overstates the facts. GM 233 (R. 1484, 7295), which it cites as authority for its statement, was a recommendation in July 1929 by Biechler, the manager of Frigidaire, that Frigidaire undertake small scale production for test purposes, a recommendation which he says is concurred in by Midgley and his associates. This recommendation, however, was *approved* by Pratt (R. 426; GM 234, R. 1484, 7296, Pratt, R. 1485). The letter from Biechler to Pratt the following year, recommending that General Motors undertake full scale commercial production (GTX 838, R. 638, 4975), does not state that Midgley or anyone else agreed with the recommendation. Another exhibit, however, shows that Biechler's assistant, Williams, did not share Beichler's view (DP 130, R. 1807, 5926), and Kettering testified that he concurred in the decision to invite du Pont to undertake manufacture (R. 1596). It may be added that in less than two months Biechler himself wrote du Pont: "Everybody here in Dayton is happy you will send an operator to take over our present semi-works plant. The sooner the better, and I will be happy to know who the man is and when he will be here, because we will receive him with open arms" (DP 129, R. 1806, 5925).

C. THE ETHYL ALCOHOL-GLYCERINE ANTIFREEZE INCIDENT (1926)

This is the third of the "specific instances" which the Government asserts "demonstrate the imposition of restraints of trade." No purchases by General Motors from du Pont were involved, but the Government asserts that the incident proves "that du Pont did not deal at arm's length" (Br., p. 129).[64] The incident involved the question whether the instruction books prepared by General Motors for purchasers of its automobilies should recommend glycerine or ethyl alcohol as an antifreeze material. Du Pont as an alcohol producer brought its views to the attention of General Motors, as did the glycerine producers (GTX 326, 333, 334, R. 509, 510, 3842, 3859, 3853). The question posed by the Government's contention is whether in this incident General Motors favored du Pont, thereby giving it an advantage over the producers of glycerine.

The evidence shows that General Motors dealt impartially with both sides, and that its final action was based on the facts and resulted in no favor or preferential advantage to du Pont. At the very outset of the discussion Sloan advised du Pont of the position which General Motors maintained throughout—"We must, of course, be guided by the facts in the case" (GTX 320, R. 507, 3833). Similarly, he suggested to the Chief Engineer of Chevrolet that General Motors might well avoid stating a preference, and give the facts as to each (GTX 326, R. 509, 3842)—and for a wholly sensible reason: "It seems to me that if we indicate a preference we are discriminating against some manufacturers and distributors and all that sort of thing, all of whom are potential users of General Motors products."

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[63] The manufacturing process was extremely complex (Harrington, R. 1802), and the semi-works process which General Motors had developed proved to be so expensive as to be commercially impossible; du Pont devised a new one (Harrington, R. 1802-1803, DP 128, R. 1803, 5922). A vital raw material, anhydrous hydrofluoric acid, was unavailable in the quantity needed; du Pont invented and patented for Kinetic a process by which it was able to produce it for itself (Harrington, R. 1805-1806, DP 131, R. 1808, 5929). Du Pont assumed the burden of tests and demonstrations which changed fire and building code regulations in several cities which had at first refused to permit "Freon" to be used (R. 429; Harrington, R. 1821-1822, GTX 883, R. 647, 5062 at pp. 5075-5076).

[64] In 1926 General Motors was not buying any of its requirements of antifreeze from du Pont; it did not begin to buy from du Pont until nearly ten years later under circumstances fully explained at pages 85-87, *supra*.

Du Pont pressed the advantages of alcohol, pointing out that the great majority of automobile manufacturers were recommending only alcohol (GTX 334, R. 510, 3859), and submitted evidence of troubles with engines and radiators which glycerine users had experienced (GTX 330, 332, R. 510, 3847, 3851). General Motors referred the matter to the General Technical Committee which verified the possible dangers of glycerine. As a result, General Motors decided to do what Sloan had suggested a year before—state in the instruction books the facts on both products—that alcohol was less expensive but would damage the finish if spilled; that glycerine would corrode the engine and clog the radiator if the cooling system were not airtight (GTX 336, R. 511, 3861).

The Government characterizes the instructions that General Motors finally adopted in various ways, saying at one point that the instructions were "deliberately slanted" in favor of alcohol (Br., p. 47) and in another passage that they were "a weasel-worded set of instructions which could be expected to lead the reader to use alcohol" (Br., p. 130). There are two answers to these accusations, each of which is conclusive. The substance of the statement to be included in the instructions is set out in full in GTX 336 (R. 511, 3861). The relevant paragraph reads as follows (R. 3861):

> "That we would point out that there were two anti-freeze materials—alcohol and glycerin and components of glycerin, like ethylene glycol and prestone; that we would explain the advantages of alcohol and that the disadvantage was that if it was spilled on Duco it disfigured same. We would then deal with glycerin and materials having it as a major ingredient and would point out that it was satisfactory if used in strict accordance with the manufacturer's recommendation, but that any air allowed to get into the system would cause decomposition and corrosion of the engine operating parts and further, that the material was likely to clog up the radiator. In other words, our purpose is to state the facts as we found them in the report which was submitted to the Technical Committee."

There is nothing "slanted" or "weasel-worded" in this statement; it refers to the advantages and disadvantages of both glycerine and ethyl alcohol without indicating any preference whatsoever for one as opposed to the other.

The second answer to the Government's contention is that the Glycerine Manufacturers Association, which had been active in presenting its side of the matter, "had no fault to find" with the statement which was adopted by the General Technical Committee of General Motors and which has been quoted above (GTX 336, R. 511, 3861). It is remarkable that the Government should be able to detect a slant or a distortion in a statement to which the glycerine manufacturers made no objection.

V

THE FACTS RELATING TO OTHER IMPORTANT COMMERCIAL DECISIONS OF GENERAL MOTORS, WHICH ARE IGNORED BY THE GOVERNMENT, DISPROVE THE GOVERNMENT'S CONTENTIONS

The Government's case is based in large part upon inferences which it asks the Court to make in the face of uncontradicted documentary and testimonial evidence which is inconsistent with the conclusions sought to be established by the Government. For example, although there is direct and substantial evidence that General Motors purchased fabrics and finishes from du Pont for competitive reasons, the Government argues from inference that the purchases must have been motivated by preferential, non-competitive considerations. This form of argument, resting as it does on inference, and lacking the support of direct and substantial evidence, must necessarily be tested by reference to other inferences that may properly be drawn from analogous subject matter. Thus the inferences which the Government seeks to draw in those instances in which General Motors purchased from du Pont must at the very least be tested against what General Motors did in other comparable situations in which du Pont's commercial interests were involved.

The logic of this test is reinforced by the nature of the arguments with which the Government supports its inferences. Whenever in the course of its argument the Government is pressed by a lack of direct evidence, it falls back upon the thesis that du Pont's stock interest in General Motors necessarily colored the commercial relations between the two companies and gave du Pont a commercial advantage. This inference is asserted in the broadest terms: we are told without qualification that the "inevitable result" of du Pont's stock interest "was that it would receive trade preference over its competitors"; that such a preference was "inherent in the relationship" (Br., p. 127); and that "whenever a business judgment is required in a situation in which du Pont was in competition with other suppliers the stock interest cut across normal competition and resulted in a preference being given to du Pont". (Br., p. 72).

If there is any merit whatsoever in these arguments of the Government they must apply with equal validity to all aspects of the commercial relations between the two companies. A consequence which is "inevitable" or "inherent" and which operates whenever a business judgment is required cannot be selective in its operation.

The following paragraphs of this section describe briefly certain major commercial decisions which were made by General Motors, notwithstanding that, in each instance, du Pont's commercial interests would have been better served by a different decision. General Motors' reasons for these various decisions can all be classified as competitive considerations of one kind or another. The importance of this evidence is that it shows that General Motors did look to such competitive considerations even though du Pont's interests were involved. In each of the following instances we ask the Government to explain what happened to the non-competitive, preferential position which was allegedly assured to du Pont by reason of its stock interest in General Motors.

Frigidaire's use of Porcelain. In 1927, Frigidaire was finishing practically all of its refrigerators with "Duco".[65] At that time, in a decision in which Pratt participated, Frigidaire decided to invest $1,000,000 in porcelain enameling equipment. It has since used such equipment, instead of paints manufactured by du Pont, to finish a substantial portion of its refrigerator output (GTX 1324, DP 337, R. 2496, 2400, 5281, 6286). Notwithstanding the development of "Dulux," which other major manufacturers have used exclusively to finish the exterior of refrigerators, Frigidaire has continued to finish approximately one quarter of its entire production with porcelain, and is the only major manufacturer that continues to use porcelain for this purpose (DP 351, 352, R. 2408, 6307, 6308, O'Donnell, R. 2406). Furthermore, Frigidaire's insistence upon the use of porcelain for the interior of all of its refrigerators has, as a competitive matter, stood in the way of other manufacturers adopting "Dulux" for that purpose. Westinghouse and Crosley have both informed du Pont that they would prefer to use "Dulux" on refrigerator interiors and several smaller companies have used it for this purpose (DP 345, 346, 348, 349, R. 2424, 2426, 2418, 2420, 6300-6304, Kreuer, R. 2419, 2423, 2425, Norberg, R. 2479).[88] In addition, General Motors finishes its washing machines and driers with porcelain, while every other manufacturer of these products uses "Dulux" or a similar type of paint (DP 352, R. 2408, 6308, O'Donnell, R. 2407, 2410).

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[65] This was prior to the development of "Dulux," which supplanted "Duco" as a refrigerator finish.

Neoprene. This synthetic rubber, which was developed and is manufactured by du Pont, is used by Chrysler and Ford in substantial quantities. Both use it as standard equipment for radiator hose; Chrysler uses it for adhesives, seals, gaskets, and universal joint boots; Ford uses it for cable covering. None of the General Motors cars have put neoprene to any of these uses except Buick, which tested neoprene for radiator hoses and abandoned it. Furthermore, in the purchasing of fabricated rubber products from their suppliers, Ford and Chrysler specify neoprene to a much greater extent than does General Motors (DP 353, 354, 357, 358, R. 2507, 2509, 2513, 2514, 6309, 6310, 6314, 6316, Bridgwater, R. 2507-2518).

Brake Fluid. General Motors has refused to buy fluid developed by du Pont and sold for use in hydraulic brake systems. The price of du Pont's fluid has been comparable to, or lower than, the price of competitive fluids, and determined sales efforts by du Pont from 1934 through 1940 established that its fluid met engineering specifications (DP 383-398, R. 2625, 2641, 2650, 2702, 2645, 2650, 6355-

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[88] A du Pont salesman reported in 1940 that the Frigidaire management had advised him of Frigidaire's opposition to the use of "Dulux" on refrigerator interiors and had threatened "that they would fight it with every facility at their command including advertising to show the advantages of porcelain over "Dulux" (DP 348, R. 2418, 6303).

6380). General Motors has preferred, however, to develop a brake fluid of its own in collaboration with one of du Pont's principal competitors, the Union Carbide and Carbon Company, and has purchased the chemical ingredients for its fluid from that Company (DP 395, R. 2645, 6373, Walker, R. 2642). For the six-year period, 1946-1951, General Motors' purchases of brake fluid, none of which were made from du Pont, totaled $11,500,000 (DP 399, R. 2702, 6381).

Adhesives. Du Pont sells a full line of cements and adhesives (DP 565, R. 3000, 6485 at 6489-6500). In 1945 its Fabrics Division developed an adhesive called "Fair-prene" 5115, one of the principal uses of which was to cause weather stripping to adhere to automobile bodies. Until 1951, du Pont was unsuccessful in its efforts to sell "Fair-prene" 5115 to Fisher Body, which was purchasing its requirements of this adhesive from competitors of du Pont. In 1951, Fisher Body's purchases from du Pont represented about 3 percent of its requirements (Nickowitz, R. 2095-2096). In 1947, the total volume of adhesives and cements sold by du Pont to all General Motors Divisions was $12,000; in that year General Motors' purchases of adhesives from competitors of du Pont totaled $3,056,000 (DP 570, GTX 1343A, p. 8, R. 3007, 2846, 6528, 5316 at 5323).

The Position of the Dow Chemical Company as a Supplier to Ethyl Corp. Tetraethyl lead, to be used successfully as an anti-knock additive, must be blended with large quantities of a chemical, ethylene dibromide, to prevent engine damage. Over the years, first General Motors and then Ethyl have obtained their requirements of ethylene dibromide exclusively from the Dow Chemical Company, either directly or through the jointly-owned Ethyl-Dow Corporation which was formed in 1933 (Sloan, R. 1281). Du Pont was not consulted about Ethyl's arrangement with its competitor Dow, and contemporaneous correspondence discloses that du Pont first found out about such arrangements "from the newspapers." (DP 106-108, R. 910, 5885-5889).

Other products sold by du Pont which General Motors purchases from competitors of du Pont. There is a substantial body of evidence in the record which discloses the manner in which du Pont has attempted to sell various chemical products to General Motors and the extent to which those efforts have proved successful or unsuccessful over the years. The variety of the results achieved by du Pont is in itself proof that du Pont enjoyed no overriding preference or competitive advantage in its dealings with General Motors. The evidence referred to covers the following products: rubbing compounds and motor enamel, which in recent years the General Motors Car Divisions have purchased almost exclusively from competitors of du Pont (Williams, R. 1985, 1986); fabrics for insulating material, which the Electromotive Division of General Motors refuses to buy from du Pont, but which Electromotive's competitor, the American Locomotive Company, buys 100 percent from du Pont (Nickowitz, R. 2110); fabrics used in the manufacture of diaphragms, which the A. C. Spark Plug Division refuses to buy from du Pont but which du Pont sells to Chevrolet and to the fabricators who supply Chrysler with diaphragms (Nickowitz, R. 2107, 2103); plastics for steering wheels (which Inland Division bought not from du Pont but from Tennessee Eastman) and for various small parts used in automobile manufacture (DP 330, R. 2775, 6277; Gillie, R. 2596, 2604-2607); casehardening compounds, which du Pont has sold with significantly greater success to other automobile companies than it has to General Motors (DP 362, R. 2538, 6330, K'Burg, 2539); electroplating products, which some Divisions of General Motors have purchased from du Pont, while others have adopted systems which use competing products (K'Burg, R. 2552-2570).

It is established by the Government's own evidence that General Motors has purchased the products listed above in substantial quantities from competitors of du Pont. GTX 1343A (R. 2846, 5316) shows that in 1947 General Motors purchased from competitors of du Pont anodes for use in electroplating in the amount of $1,206,000 and chemicals of all kinds in the amount of $3,183,000. Du Pont's sales to General Motors of anodes in that year were insignificant and its total sales of chemicals such as ammonia, sulphuric and other heavy acids, polyvinyl alcohol and acetone to General Motors, amounted to $439,000 (GTX 1344, R. 2846, 5340, and DP 571-572, R. 3008, 6529, 6530).

VI

THE FACTS DO NOT SUPPORT THE GOVERNMENT'S CONTENTION THAT DU PONT INTENDED, BY CONTROL OR INFLUENCE, TO OBTAIN A NON-COMPETITIVE, PREFERENTIAL ADVANTAGE IN ITS COMMERCIAL RELATIONS WITH GENERAL MOTORS.

A substantial part of the Government's brief is devoted to the contention that du Pont had an unlawful intent to control or to restrain the commercial freedom of General Motors so as to obtain a preferential, non-competitive position with respect to General Motors' trade (pp. 29-40, 113-127). The Government asserts (p. 113) that proof of this intent is not essential to its case but that it is, nevertheless, "highly significant". Whatever this significance may be, the Government appears to recognize that it cannot prevail merely by proof of the alleged intent but must also show that in fact du Pont has restrained trade by obtaining a non-competitive preference in its commercial relations with General Motors (Br., pp. 70, 113, 143).[67]

The significance that the Government finds in intent appears to take two forms. In the first place the Government seems to believe that the deficiencies in its proof of the existence of the alleged preference can in some way be cured by proof of intent. In the second place the Government suggests that if there is any doubt about the illegality of the alleged preference that doubt may be removed by proof of the fact that du Pont specifically intended to acquire the preference (Br., pp. 112, 113). There are two answers to these arguments. In the first place, as we have seen in the preceding sections of this brief, du Pont has never had and does not now have any non-competitive advantage in the trade of General Motors. The trial court so found and its findings are fully supported by the evidence. The force of that evidence cannot be overcome by the Government's arguments with respect to intent. On any view of the matter, proof of intent is not proof of the existence of the preference; if there has been no preference there has been no restraint of trade and the question of intent is immaterial.

But there is still another answer to the Government's objections. Whatever legal significance the Government may attribute to intent, the asserted factual basis of its argument does not exist. The evidence does not support the charge that there is, or has been, an intent on the part of the du Pont Company to obtain a non-competitive, preferential advantage in the trade of General Motors.

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[67] At page 70 the Government asserts "the gist of the Government's case is that du Pont acquired control of General Motors with the specific purpose *and effect* of obtaining an illegal preference * * *" and that "the restraint of trade *thus imposed* is of the classic type * * * the commercial relations between the restrainer and the restrained are governed not by the economic laws of free competition but by an external influence * * *." On page 113 the Government in defining the alleged combination says "we mean a restraint *imposed by* force of the relationship rather than one arising from an express agreement." And on page 105 of the brief the Government describes its case in terms of "a situation in which du Pont *has acquired* a preference, etc." (Italics supplied).

The Government bases its intent argument upon sentences or passages which it has excerpted from documents and upon its characterization of, or assertions about, other documents which it does not quote in its brief. In considering these documents it is important to bear in mind the nature of the intent which the Government is attempting to prove. The unlawful intent which the Government apparently asserts is an intent on the part of du Pont to use its stock interest in General Motors to obtain, by either control or influence, a preference in the trade of General Motors. The Government states its concept of unlawful intent in precisely these terms.[68] It is this particular kind of intent, and no other, which the Government has undertaken to prove.[69] Mere proof of a desire on the part of du Pont to sell goods to General Motors will not serve the Government. On its own terms the question is whether there was an intent to sell goods on a non-competitive and preferential basis.

In its discussion of intent, however, the Government fails to distinguish between a desire or purpose to sell goods to General Motors, on the one hand; and a desire or purpose to sell to General Motors on a preferential and non-competitive basis, on the other. As a consequence the Government treats documents which prove an intent to sell as if they established an intent to sell on a non-competitive and preferential basis.

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[68] On page 113 the Government asserts: "Du Pont formed the combination with General Motors with the intention of getting a preference in the trade of General Motors."

[69] We do not contend that the Government must prove a conscious intent to achieve a purpose known to be unlawful; we accept the view that the Government is attempting to prove "a conscious effort to accomplish the prohibited end" (Br., p. 114). In this case the "prohibited end" is a non-competitive, preferential advantage in the trade of General Motors; therefore on its own terms the Government must prove that du Pont intended to get that kind of an advantage.

The trial court considered the same documents and the same inferences urged as warranted by those documents upon which the Government now relies to establish the existence of an intent to obtain a preference in the trade of General Motors, and found on the basis of all of the evidence that du Pont did not intend to limit the commercial freedom of General Motors (R. 300-301, 302, 316, 360-361).[70] The evidence, including the particular excerpts relied upon by the Government, does not impair these findings, but on the contrary establishes that the trial court's findings on the point of intent, like its findings that there has been no preference, are fully supported by the facts.

A. DU PONT'S INTENTION IN MAKING AN INVESTMENT IN GENERAL MOTORS

The Government contends that du Pont invested in the stock of General Motors "with the specific purpose * * * of obtaining an illegal preference" in General Motors trade (Br., p. 70). The foundation of the Government's argument on this point is an excerpt from a detailed report written by Raskob, the Treasurer of du Pont, in 1917 in which he recommended that du Pont invest in the stock of General Motors. The report is discussed at pp. 143-149, *supra*. The excerpt which is the last of five reasons given by Raskob for recommending the investment, is as follows (GTX 124; R. 479, 3221):

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[70] Much of the evidence on which the Government relies to prove intent is considered in the opinion of the trial court under the heading "Exchange of Data, Figures and Information on Suppliers by Certain Officers and Employees of du Pont and General Motors Including Requests and Inquiries by Certain Officers of du Pont on Volume of Trade Conducted with General Motors" (R. 348-361). In this section of the opinion, for example, the trial court considered substantially all of the evidence that is discussed at pp. 236-257, *infra*. At the conclusion of its review of this evidence the trial court found (R. 361):

> "* * * Nor does the evidence establish that du Pont dictated or controlled the purchasing policies and practices of General Motors *or sought to dictate or control those policies and practices.* In fact, the evidence shows that General Motors exercised complete freedom in determining where it would purchase its requirements of products of the kind that du Pont manufactured." (Italics supplied.)

> "Our interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies, which is a substantial factor."

In addition to this excerpt there was other substantial evidence, both documentary and oral, before the trial court relating to du Pont's reasons for investing in the stock of General Motors. The trial court considered all of this evidence, including the Raskob report, and found (R. 300-301, 302):

> "Raskob's report, the testimony of Pierre S. and Irenee du Pont and all the circumstances leading up to du Pont's acquisition of this substantial interest in General Motors, as shown by the record, establish that the acquisition was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business.
>
> * * * * *
>
> "The Court also finds based on all of the evidence of record that du Pont did not invest in General Motors with the purpose of restricting that company's freedom to purchase in accordance with its own best interests. Du Pont, the record shows, never intended to preclude General Motors from dealing with suppliers of its choice, never made any effort to so preclude General Motors, and did not limit General Motors' purchasing freedom.
>
> "Raskob's reports and other documents written at or near the time of the investment show that du

> Pont's representatives were well aware that General Motors was a large consumer of products of the kind offered by du Pont. Raskob, for one, thought that du Pont would ultimately get all that business, but there is no evidence that Raskob expected to secure General Motors trade by imposing any limitation upon its freedom to buy from suppliers of its choice. Other documents also establish du Pont's continued interest in selling to General Motors—even to the extent of the latter's entire requirements—but they similarly make no suggestion that the desired result was to be achieved by limiting General Motors' purchasing freedom. On the contrary, a number of them explicitly recognized that General Motors trade could only be secured on a competitive basis."

These findings represent a careful appraisal of all of the relevant facts and they are fully supported by the record.

In considering the Government's attack on these findings it must be remembered that the question at issue is the nature of du Pont's reasons for deciding to invest in the stock of General Motors. That is a question of fact which must be decided on the basis of all of the relevant evidence and not merely by reference to a part of the evidence. Raskob's state of mind is no doubt a relevant and significant component of the proof that must be considered to determine the intent of the du Pont Company in 1917 when it made the investment, and his statement in the report is a relevant and significant factor in determining his state of mind. But the statement is only one component of the proof that bears on Raskob's state of mind; its significance must be appraised in the light of other things said and done by Raskob, and his state of mind, when determined, is not itself a controlling or decisive factor. It, in turn, must be considered in the light of what was said and done by others in the du Pont Company who were also participants in the decision.

Raskob's words show that in December 1917 he believed that du Pont's interest in General Motors would in some manner secure for du Pont the entire paint, "Pyralin" and "Fabrikoid" business of General Motors. The basis of his belief and the manner in which he thought the result would be accomplished are matters of inference or conjecture. Raskob was not available to testify because he died before the trial. The one other important contemporaneous document which he wrote with respect to the stock acquisition—a report to the du Pont Finance Committee on the steps that had been taken in consummating the stock purchase and related arrangements[71]—makes no reference of any kind to General Motors' purchases from du Pont, or to any other commercial relations between the two companies (GTX 128, R. 481, 3234), a fact which suggests that even to Raskob the question of the purchases was not as significant as the Government's arguments assert.

Raskob was an executive of General Motors from 1918 until 1928, a member of its Executive Committee from 1921 to 1928, and a member of its Finance Committee from 1917 until 1937 (GTX 177, R. 492, 3397). There is no evidence that at any time throughout this period he ever attempted to influence General Motors' purchasing policies or to favor du Pont as a supplier of General Motors, although during this period of time General Motors made substantial purchases from du Pont's competitors.[72]

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[71] The purpose of this report, which was written on March 8, 1918, was "to summarize the conditions surrounding our acquisition of an interest in the General Motors Corporation and the Chevrolet Motor Company, in accordance with authority granted." In view of its purpose and its contents the omission of any reference to General Motors trade is particularly significant.

[72] The fact is that in the period immediately after the investment du Pont lost some General Motors business. This was true of paint (compare page 20 of GTX 277, R. 499, 3699, with GTX 420, R. 528, 4010, and DP 220, R. 2693, 6122) and of "Pyralin" (compare

It thus appears that other relevant evidence casts doubt on the Government's conclusion that Raskob, when he wrote the 1917 report, was expecting to secure for du Pont a non-competitive preferential advantage or had in mind taking steps to that end.

Raskob's statement must also be weighed against the statements made by du Pont in describing the advantages of its General Motors investment to its stockholders. In its annual report for 1917 the statement is made that "the motor companies are very large consumers" of our products (GTX 1409, R. 5511) and in the 1918 report the consumption of paints and "Fabrikoid" by General Motors is referred to as providing a "common interest" between the companies (GTX 125, R. 479, 3228). Neither report describes General Motors as an assured outlet for du Pont's products. Nor is there any suggestion that du Pont was to enjoy a preference or an advantage in its dealings with General Motors. The Government relies upon these documents and thus presumably accepts them as contemporaneous and candid expressions of du Pont's intent. It is therefore highly significant that the reports, although referring to trade with General Motors, contain no expressions which can on any basis be regarded as indicating or suggesting that du Pont believed that it was to enjoy a non-competitive and preferential position with respect to General Motors trade.

Pierre du Pont and Irenee du Pont, the two surviving defendants who had participated in the discussions among du Pont directors before it was decided to invest in General

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sales for 1916 and 1917 with sales for 1918 and 1919 as shown in DP 421, R. 2695, 6389).

The record shows that in 1927 Raskob was told by Lammot du Pont that in the previous year General Motors and Fisher Body together had placed $4,000,000 worth of business with competitors of du Pont as compared with $8,000,000 worth of materials purchased from du Pont (GTX 460, R. 537, 4100-4102). There is no evidence that Raskob took any action on the basis of this advice.

Motors, testified that the matter of securing a trade preference from General Motors was not even discussed in the directors' meetings and that their votes in favor of the investment were not influenced by any consideration of that kind (Pierre du Pont, R. 815, 816, Irenee du Pont, R. 868-870, 872-873). This testimony was not contradicted by any contemporaneous documents or impeached on cross-examination.[73]

In determining the question of du Pont's intent, Raskob's statement and the other proof relating to the state of mind of persons who participated in the original decision to invest in General Motors must be appraised in the perspective of what the record shows with respect to du Pont's attitude in the thirty years that have ensued since the investment was made. As we have shown elsewhere, the evidence establishes that throughout this period du Pont has dealt with General Motors on a competitive and non-preferential basis and has not attempted to secure for itself, by use of either control or influence, a preferential and non-competitive trade advantage. This, in the last analysis, is the ultimate test of the Government's contentions and the ultimate answer to their assertion that the findings of the trial court on the matter of intent should be rejected.

The Government, apparently recognizing that substantially all of the evidence upon which it relies to prove intent is 25 to 30 years old, suggests that the deficiencies of its proof can be cured by inferring an illegal intent from the mere fact that du Pont continues to sell to General Motors (Br., p. 123). The court below found that the sales were made on the merits and those findings are fully supported by the proof. See pp. 35-109, *supra*. The Government cannot infer an evil purpose from the fact that du Pont competed for and obtained the business of General Motors with respect to some products.

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[73] In its brief the Government does not suggest that the testimony of Pierre and Irenee du Pont was contradicted or impaired by any other evidence or by their cross-examination. The Government can only comment enigmatically that their testimony "is not enough" (Br., p. 116). It must be remembered that the excerpt from Raskob's report is evidence of Raskob's state of mind but not necessarily good evidence of the state of mind of Pierre and Irenee du Pont. Their own testimony, particularly since it was not contradicted or impeached, is entitled to substantial probative weight on the latter point.

The Government also suggests that in the past 25 or 30 years the executives of the two companies have, out of caution, concealed their true motives. There is no support in the record for this suggestion; indeed, the two documents cited by the Government (Br., p. 123) display a candor that is quite foreign to the caution and concealment suggested by the Government (GTX 202, 1346, R. 485, 2815, 3461. 5352). In view of the large number of persons participating in the commercial transactions between the two companies and the voluminous correspondence involved (to which the Government had full access) this suggestion falls of its own weight. Moreover the defendants called as witnesses persons who testified of their own knowledge with respect to the commercial transactions between the two companies. Their testimony was not confined to general denials or conclusions, as the Government suggests (Br., p. 124), but laid bare the reasons for the actions that they had taken. These witnesses were cross-examined both as to their motives and as to their actions. The trial court, which heard and observed the witnesses, accepted their testimony. The record supplies no support for the Government's suggestion that these witnesses were either disingenuous or self-deceived.

B. EARLY CORRESPONDENCE RELATING TO "FABRIKOID" AND "PYRALIN" (1918-1919)

Fragments of correspondence between J. A. Haskell and various du Pont employees relating to du Pont's efforts to sell "Fabrikoid" and "Pyralin" to General Motors in

1918 and 1919 constitute the evidence upon which the Government next relies to support its argument that du Pont intended to limit General Motors' commercial freedom (Br., pp. 30-31, 117). This argument is a notable example of the Government's failure to distinguish between a purpose on du Pont's part to sell to General Motors and a purpose to restrict General Motors' purchasing freedom and thus obtain a preferential position.

Haskell, who died in 1923, had become a director of General Motors in 1915 and a member of its Executive Committee in 1918, and had prior to 1915 been a vice president of the du Pont Company. See pp. 141-142, 155, *supra*. He was personally known to a number of du Pont employees, and the correspondence relied upon by the Government indicates that he was willing to answer requests for information and to give advice as to how best to sell to General Motors. The letters contain no statements indicating that du Pont was attempting to get, or believed that it could get, a preferential or non-competitive advantage by reason of its stock ownership, or that Haskell believed that du Pont should or would receive such an advantage. This is apparent on the face of the phrases or excerpts that the Government has quoted in its brief. Moreover, when each of the documents is considered in relation to the whole incident of which it is a part, it affirmatively appears that in fact du Pont enjoyed no preferential position in the trade of General Motors.

The Government begins its discussion of these documents with Government Exhibit 290 (R. 501, 3782), which is a letter from Haskell to Coyne of du Pont, dated April 15, 1918. Most of the letter is devoted to a discussion of the possibility of using artificial leather for upholstery instead of the genuine leather which was then being used by most of the General Motors Divisions. The Government does not point out that the letter itself indicates that the occasion for the consideration of this question by General Motors was that the general manager of the Oakland Division and Durant were fearful that shortages of genuine leather might make the use of artificial leather necessary. The Government extracts two phrases from this letter and uses them as proof of a sinister intent. One of the phrases contains a suggestion that du Pont should try to get makers of other low price cars interested in the adoption of artificial leather. The Government misses the significance of this suggestion in relation to the alleged intent to obtain a trade preference. As the text of the letter shows, Haskell was informing du Pont that it could not expect to persuade General Motors to use artificial leather unless it was successful in persuading other manufacturers of low cost cars to do likewise. This was not an expression of an intent that du Pont should enjoy a preferential position. On the contrary, it was a statement that General Motors would buy du Pont's materials only if it was to its advantage to do so and that du Pont could not expect to sell artificial leather to General Motors for upholstery unless it could make similar sales to competing motor car manufacturers.

The second clause which the Government extracts from the letter contains the words, "to pave the way for perhaps a more general adoption of our material." Those words certainly do not suggest a non-competitive and preferential advantage. Moreover, the Government does not disclose that the words were used in relation to the innocent suggestion that du Pont should give General Motors Divisions samples of its artificial leather and "Pyralin".[74] The truth of the matter is that those car units of General Motors which were using genuine leather for upholstery in 1918, did not thereafter adopt artificial leather (R. 348; DP 280, p. 1, R. 2245, 6208, MacShane, R. 2336, 2347, 2352, 2353, Brown, R. 2214, 2225), a fact which is hardly consistent with the inferences the Government tries to draw from the incident.

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[74] The Government also fails to disclose that the last paragraph of the letter which discusses the quality of du Pont's top material clearly indicates that if du Pont expected to sell that material to General Motors it would have to do so on a competitive basis.

The Government next quotes at length from two letters which Haskell received from du Pont employees in 1918 (Br., pp. 30-31). In the first of these, dated May 22, 1918 (GTX 293, R. 502, 3786), a du Pont sales manager reported to Coyne that he had had "a very pleasant and satisfactory talk with him [Haskell] in regard to the requirements of General Motors Company for Pyralin sheeting", and a copy of this report was sent on to Haskell. Apparently the Government reads the language of this report as reflecting an intention or an understanding that du Pont was to secure General Motors "Pyralin" business on the basis of its recent investment in that company's stock. The document, however, does not so state nor does it intimate that du Pont's stockholdings would enter into General Motors purchasing decisions in any way. What is more important, the document does specifically state the means by which du Pont intended to secure General Motors' "Pyralin" business. The sales manager proposed merely "a continuation of our present policy," and Haskell was quoted as being in full agreement with the proposal. Unless it is or was illegal for du Pont to try to secure General Motors' trade through sales efforts, this report surely shows no improper intent. The Government itself, when it departs from its characterizations, seems to realize that the letter merely states that du Pont was to get the business not by reason of the stock but by "continuing its sales policy" (Br. p. 117).[75]

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[75] **This letter was written May 22, 1918; du Pont had been selling "Pyralin" to General Motors prior to the investment in General Motors stock (DP 424-429, R. 2696-2697, 6394-6410); the "present**

The second communication to Haskell from a du Pont employee involves artificial leather, or "Fabrikoid", as du Pont's product was known. A du Pont employee in charge of "Fabrikoid" production wrote to Haskell in July 1918 as follows (GTX 302, R. 504, 3803):

> "If we are ultimately to furnish all, or the greater part, of the top material for the Chevrolet and General Motors cars, would it not be well for those several users to agree upon a uniform shade of drab for the back, or lining?"

Contemporaneous documents and uncontradicted testimony describe the background and purpose of this suggestion and establish beyond any doubt that it did not proceed from an understanding or intention as the Government presumably suggests, that du Pont's stock interest was to influence General Motors' purchasing decisions. Du Pont had recently developed an improved top material, "Pontop", which was in heavy demand from all car manufacturers, and at the time this letter was written the General Motors Divisions had already advised du Pont's salesmen that they intended to purchase "Pontop" for the bulk of their top requirements (Brown, R. 2194).[76] In addition du Pont was experiencing difficulties in dyeing "Pontop" to the various manufacturers' specifications because the war had shut off German dyes. The problem that du Pont faced, therefore, was not how to force its "Pontop" upon General Motors but how to satisfy the heavy demands of General Motors and the other automobile manufacturers. The sales and production

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policy" referred to in the letter must therefore be taken to be the sales policy that du Pont had followed before the stock investment.

The ultimate comment on the Government's use of this letter is provided by the fact that five days after the letter was written Buick gave a competitor of du Pont an order for 100,000 sheets (GTX 294, R. 502, 3788).

[76] In the summer of 1918 du Pont received orders from the automobile industry for "Pontop" in such volume that it was unable to meet Buick's demands (DP 246, R. 2192, 6154).

people in du Pont believed that it might assist them to meet the heavy demands for "Pontop" if the dyeing difficulties could be limited or minimized, and with that in mind the letter to Haskell suggested that it would be desirable for the General Motors units to agree upon a uniform shade of color for the top materials (DP 245-246, R. 2191, 2192, 6153; 6154, Brown, R. 2188-2190, 2194-2195). This is another instance in which neither the particular words which the Government has extracted from the document nor the attendant circumstances supports the Government's arguments.

The Government also relies upon a line of inquiries which Haskell made in 1918 to the manufacturing units of General Motors about their purchases of fabrics and "Pyralin" and asserts that these inquiries "acted as incentives to General Motors' Divisions to purchase du Pont products since the officials felt called upon to explain outside buying" (Br., pp. 31, 117-118).

The exhibits cited by the Government in support of this proposition (GTX 296-300, R. 502, 503, 3790-3801) are the replies that Haskell received to the inquiries. The Government does not disclose that the record contains examples of Haskell's own letters making the inquiries (DP 326, 327, R. 2305, 6272; 6273). Those exhibits show that the letters written by Haskell were form letters, that they contained no suggestion or intimation that purchases should be made from du Pont, no suggestion or intimation that du Pont should be accorded non-competitive preferential treatment, and did not ask for or invite any explanation of outside buying.[77]

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[77] These letters corroborate other proof which shows that Haskell's inquiries were made for the purpose of helping the du Pont Company maintain ordinary statistical sales records and that they had nothing to do with helping du Pont obtain a preferential position in General Motors trade. In other industries, notably in the explosives industry, it was then the practice of du Pont to obtain similar statistics

The replies to Haskell's inquiries, which are cited by the Government, show on their faces that the inquiries were not regarded as orders or suggestions that du Pont be preferred. Indeed, the reply from Oakland states in detail that that Division was not buying from du Pont but from two of its competitors and gives no indication of any intention to change (GTX 300-301, R. 503, 504, 3798, 3802).

The Government attempts to link the Haskell correspondence with a letter written seven years later (GTX 340, R. 512, 3865) by J. L. Pratt, then a vice president of General Motors, which is quoted at pp. 39-40 of the Government's brief.[78] Although there is no relation between the two transactions, it is appropriate here to comment on Pratt's letter which, like the Haskell correspondence, fails to sustain the Government's charge that du Pont had an

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about its customers' purchases. It did this by obtaining the information, if it could, from the customers themselves. The statistics were used for a variety of proper commercial purposes, *e.g.*, "locating plants and warehouses", "routing salesmen and locating salesmen". At this time the Fabrikoid Department of du Pont was attempting to develop a statistical record comparable to that maintained by the departments of the company which sold goods to other industries (Brown, R. 2303-2306). Du Pont had asked Haskell for assistance in this effort. The information which Haskell was giving to du Pont, therefore, was the same kind of information that du Pont was accustomed to obtain from customers in whom it owned no stock. The record indicates that by the early part of 1920 Haskell was no longer making such inquiries and there is no evidence in the record that such inquiries were ever resumed (GTX 305, R. 504, 3810).

[78] Pratt was an engineer who had worked for du Pont until 1919 when he was asked by Mr. Durant to join General Motors. The record clearly indicates that the invitation was Durant's idea (Pratt, R. 1392-1402). Ultimately Pratt became vice president in charge of the accessory Divisions which manufactured parts and appliances and not automobiles and trucks. He was also for a time Chairman of the Purchasing Committee. Most of the evidence in the record with respect to Pratt relates to his activities in relation to the accessory Divisions. GTX 340 (R. 512, 3865), which is discussed in the text, is a letter that he wrote to the General Manager of Delco Light Division, one of the accessory Divisions.

unlawful intent to get a preferred position in the trade of General Motors.

The letter contains an expression of Pratt's personal views, and he was careful in the last paragraph of the letter to make it clear that they were his own opinions and not a statement of company policy. Passing over the point that the letter reflects Pratt's state of mind and therefore has little bearing on the question of du Pont's intent, it is significant that the letter shows that Pratt's attitude toward du Pont was based not on the stock relationship but on the fact that du Pont had saved General Motors from financial disaster in 1920.[79] It is also significant that Pratt emphasizes that in making purchases General Motors should "always keep a competitive situation", and that "the prime consideration is to do the best thing for Delco Light Company."

The Government's discussion of the letter does not disclose the circumstances in which it was written. Those circumstances effectively dispose of the notion that du Pont was getting a preference in its trade with General Motors. Briefly the facts were these: The practice of the Delco Light Division was to buy its paint from a competitor of du Pont. The competitor failed to solve a paint problem and Delco Light had thereupon called upon du Pont for assistance. Du Pont had solved the problem and had been given one order for paint, but before the order could be delivered, Delco Light asked du Pont to withhold delivery and stated that the competitor was to be given another opportunity to obtain the business. At this point Elms of the du Pont Paint Department, who was a personal friend of

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[79] This point is significant because it indicates that whatever importance Pratt's views have they would have existed even if du Pont had owned no stock in General Motors. Pratt testified that the origin of this attitude on his part was the statement Durant made to Pratt and others when du Pont rescued General Motors from economic collapse in 1920 (R. 354; R. 1411-1412. See pp. 150-151, *supra*).

Pratt, wrote to Pratt, on a purely personal basis, asking for his assistance (GM 204, R. 1440, 7252). Pratt's letter to the general manager of Delco was the result.[80] Despite the fact that the du Pont product could be secured at a better price and the fact that the technical staff of Delco Light told its general manager that in their view the du Pont product was better, Delco Light nevertheless continued to buy from the competitor and du Pont did not thereafter at any time receive the business (GM 205, GTX 339, DP 338, R. 1440, 511, 2403, 7255, 3864, 6288, Pratt, R. 1439-1441, O'Donnell, R. 2401-2404).

We have discussed these examples of routine sales correspondence, written thirty to forty years ago, at greater length than is justified by their evidentiary significance. We have done so because they illustrate the infirmities of the Government's attempt to prove unlawful intent by extracting words and phrases from selected documents. As we have shown, (a) the Government consistently fails to observe that the documents taken in their entirety do not support the conclusions which the Government seeks to draw from them; (b) even the words and phrases selected by the Government do not justify the Government's characterizations and conclusions, and (c) the Government's arguments ignore relevant actions, inextricably related to the documents, which are inconsistent with and in fact disprove the conclusions with respect to the intent that the Government seeks to establish.

C. PROPOSALS BY DU PONT FOR FABRICS CONTRACTS FOR GENERAL MOTORS REQUIREMENTS (1921-1923)

The evidence shows that on three separate occasions, twice in 1921 and once in 1923, different du Pont officials proposed that a contract be negotiated with General Motors pursuant to which du Pont would supply General Motors with its fabrics requirements. Such a contract was never made. The third and latest effort was rejected by General Motors in 1923, and there is no evidence that either of the earlier proposals was ever acted upon by General Motors.

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[80] Pratt testified that he received many such inquiries from friends, and the record shows similar letters and instances of advice and assistance by Pratt to friends in companies other than du Pont (R. 359; GM 213-216, R. 1457, 7266-7269, Pratt, R. 1433, 1436, 1456-1458).

Although the Government ignores the rejection of the third proposal, it refers to two documents written in connection with the two earlier proposals (GTX 417, 403, R. 526, 3992, 3958) and asserts that they prove an unlawful intent on the part of du Pont. Neither the particular portions of the documents extracted by the Government nor the documents in their entirety support the view that du Pont believed that its stock interest assured it of General Motors' business or that du Pont believed that it could sell General Motors on a preferential non-competitive basis.

The first of the two documents is dated May 31, 1921 (GTX 417, R. 526, 3992) and was transmitted by A. Felix du Pont to the du Pont Executive Committee. (There is no reason to believe that it ever went beyond that Committee.) The text of the document shows that du Pont had been selling General Motors on a competitive basis and expected to continue to sell General Motors on the same basis; the document refers to the competitive efforts that du Pont had made to get General Motors business and states that as a result of these efforts du Pont products were considered by the General Motors units to be equal or superior to those of competitors. It also states that du Pont, at some increase in its own costs, had prepared its products in a form better adapted to the practices of General Motors than the goods of competitors. The whole tenor of the report indicates that the writer realized that du Pont had secured such business as it then held only through extensive and concentrated sales efforts and on a competitive basis, and that he wished to take advantage of du Pont's present "standing" to obtain some kind of a more permanent contractual arrangement. If, as the Government suggests, the stock interest gave du Pont a permanent and assured advantage without regard to the quality of its product, both the competitive efforts described in the letter and the contractual arrangements suggested would have been unnecessary.[81]

The second of the two documents to which the Government refers (GTX 403; R. 526, 3958) is a letter written in October 1921 by R. R. M. Carpenter of the du Pont Company to Pierre S. du Pont, then president of General Motors. That letter states that Carpenter would like to make a contract with General Motors on a cost-plus basis for all of the artificial leather and rubber business of General Motors. The second and third paragraphs of the letter, which are not quoted by the Government, point out that at times price competition had caused the du Pont Company to accept General Motors orders for fabrics at prices which were below du Pont's costs and comments that the connection between the two companies is a "disadvantage" rather than advantage.

Even the portions of the letter quoted by the Government negative the notion that du Pont was trying to get, or believed that it had, a non-competitive preferential advantage. The first paragraph states that du Pont "would like to present to the General Motors Corporation in the proper way the subject of entering into negotiatons for the supplying of all the artificial leather and rubber which General Motors uses" on some mutually advantageous basis. Here again the proposal for the contract would have been unnecessary if in fact the stock assured du Pont of the General Motors business on a preferential, non-competitive basis. It is also to be noted that the final paragraph of the letter clearly indicates that Carpenter did not expect Pierre S. du Pont to use his position or influence in General Motors to obtain for du Pont the kind of contract under discussion; Carpenter stated, "I appreciate that you, personally, can take no steps in this direction, but I was anxious to learn whether you are personally opposed to such a policy."

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[81] The letter refers to the "latent resentment which we experienced at the outset against the partial obligation under which the General Motors units felt themselves to be with respect to using our goods." The sentence in which this statement appears makes it clear that the words "at the outset" refer to conditions existing "two years ago", which would have been during the Durant regime. What the writer of the report meant by the words "the partial obligation" is unknown; A. Felix du Pont was unavailable to testify, having died before trial. Whatever condition the words were intended to describe, the report states that it was one which worked to the disadvantage and not to the benefit of du Pont, and was overcome not by the stock relationship but by du Pont's competitive efforts.

Certainly the fact that du Pont was desirous of obtaining a cost-plus contract for General Motors' entire fabrics requirements does not reflect an intention on the part of du Pont to limit General Motors' commercial freedom or to get a non-competitive, preferential advantage. As we have shown, both of the proposals contemplated "negotiation" with General Motors and recognized that the terms would have to be "mutually advantageous". In short, they recognized that the desired contract could not be achieved through du Pont's stock ownership or on any basis other than General Motors' satisfaction with the proposal, and asserted, in justification of the proposal, not du Pont's stock ownership but the quality of its products and services.

Some two years later a proposal for a cost-plus contract on fabrics was formally presented to General Motors (GTX 413, R. 528, 3987). Sloan in acknowledging receipt of the proposal stated that he personally was "fundamentally against anything like a cost-plus contract" but would present it to the Purchasing Committee for decision (GTX 415, R. 1161, 3889). The records of the Purchasing Committee disclose that the proposal was rejected because a cost-plus arrangement was considered unsatisfactory by General Motors (GM 155, R. 1100, 7079).

D. UNSUCCESSFUL SALES EFFORTS BY LAMMOT DU PONT (1921-1923)

The final group of documents relied upon by the Government in support of its contention that du Pont intended to restrain General Motors' commercial freedom relate to efforts made by Lammot du Pont between 1921 and 1923 to sell du Pont paint to General Motors (Br., pp. 34-38, 119-121). At this time Lammot du Pont, in addition to being a vice president of the du Pont Company, was Chairman of the Board of the Flint Varnish and Color Works, the subsidiary which conducted most of du Pont's industrial paint operations.[82]

The correspondence shows that Lammot du Pont took a personal interest in selling paint to General Motors, and that he made vigorous sales efforts in the course of which on one occasion he mentioned the stock relationship as a reason why Fisher Body should buy from du Pont.[83] At the same time his letters show that he recognized that the du Pont products had to make their way with General Motors on the merits and that du Pont could not expect to sell General Motors on a non-competitive or preferred basis. Indeed in large part the letters are directed to ascertaining why it was that du Pont products did not meet General Motors' requirements and to stimulating the du Pont organization to improve the quality of their goods.

For example, the stock ownership reference was an introductory remark in Lammot du Pont's extended and unsuccessful effort to persuade Fisher Body to purchase paint from Flint (GTX 434, R. 532, 4054).[84] In the same letter, he stated his understanding that Flint's price, quality and service were in all respects satisfactory to Fisher Body's organization and asked to be set straight if his information were incorrect. The balance of his effort was devoted to establishing the qualities of Flint's products to Fisher Body's satisfaction (GTX 437-441, R. 532, 533, 4059-4065). His sales campaign directed at Cadillac in 1923 further discloses Lammot du Pont's recognition that du Pont could not sell General Motors on a preferential or non-competitive basis. He wrote to Rice, the General Manager of Cadillac, "If the Flint Varnish and Color Works can manufacture as good, or better, varnish than you are using, we would like to have an opportunity to do so." (GTX 442, R. 534, 4066). In the ensuing correspondence Rice and others in Cadillac made clear that they were examining Flint's offerings solely on the merits, and did not regard Lammot du Pont's sales efforts as a suggestion that they should do otherwise[85] (GTX 442, 444-449, R. 534, 535, 4066, 4068-4077).

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[82] This correspondence all antedates the adoption of "Duco" for automobiles and therefore has nothing to do with the adoption or use of "Duco" by General Motors.

[83] The reference to the stock relationship is found in two letters, one written on October 20 and the other on December 2, 1922 (GTX 434, 437, R. 532, 4054, 4059).

The reference to the stock ownership in Lammot du Pont's two letters to Lawrence Fisher ~~in~~ 1922 will not support the weight of the Government's argument on intent. The letters themselves, though they make reference to the stock ownership, clearly recognize that du Pont could sell to General Motors only on the basis of superiority of product and are thus inconsistent with the existence of the kind of intent that the Government is seeking to prove, *i.e.*, an intent to sell General Motors on a non-competitive, preferential basis. Moreover, these letters stand alone in a record which contains ample additional evidence with respect to Lammot du Pont's interest in selling to General Motors. They are the only occasion in thirty years in which he referred to the stock relationship as a reason why General Motors should buy from du Pont. The absence of further expressions with respect to the stock cannot be explained, as the Government attempts, on the ground that General Motors' buying habits had by the early 1920's been established to du Pont's satisfaction (Br., pp. 123, 124). Until the introduction of "Duco" neither Cadillac nor Fisher Body, the Divisions to which Lammot du Pont directed his sales efforts, ever bought paint from Flint in any significant quantities (DP 216, 220, R. 2694, 2693, 6107, 6122, L. Fisher, R. 587-588). Moreover, Cadillac, a few years after the introduction of "Duco", commenced to buy its lacquer from a competitor of du Pont and has continued that practice until the present time. Fisher Body, as has been shown, has consistently purchased substantial quantities of lacquer and practically its entire requirements of undercoats from competitors of du Pont. These Divisions' buying habits had certainly not "been firmly steered in the right direction" as far as du Pont was concerned either in the early twenties or at any time since then (Br., p. 123).

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[84] In this letter he made the argument, not that the stock entitled du Pont to favored treatment, but rather that the stock relationship "assures Fisher Body Corporation that its orders will be given preference by Flint over any other customer (except, of course, General Motors Corporation and its subsidiaries) * * *." It seems clear that Lammot du Pont realized that he could sell to General Motors only if it saw an advantage to itself in terms of price, quality or service.

[85] The effort closed with Lammot du Pont's looking "forward to the time when the Flint products have proved their value to you" (GTX 449, R. 535, 4077).

Lammot du Pont's personal interest in sales to General Motors accounts for the letter that he wrote to Pierre du Pont in 1921 and the latter's reply (GTX 420, 421, R. 528, 529, 4010, 4012) which are set forth at pages 34-36 and 119 of the Government's brief. This exchange of correspondence, although indicating interest on the part of both Lammot and Pierre du Pont in du Pont's sales to General Motors, contains no statement which suggests that either of them believed that General Motors was required or expected to buy from du Pont, or that du Pont could expect to sell General Motors on any preferential basis. Lammot du Pont's letter establishes that du Pont was selling General Motors a substantial part of its requirements of du Pont products at the time. But it does not provide any basis for an inference that the sales were attributable to the stock interest or were based upon anything other than the merits of du Pont's offerings before the investment. Du Pont had been an important supplier of fabrics and "Pyralin" to General Motors and Flint (later acquired by du Pont) was an important supplier of paint to General Motors.[86] Perhaps the principal significance of GTX 420 so far as concerns the Government's contentions is that it shows that following the investment, Flint lost half the Oakland business which it formerly supplied.

The Government's comment on Pierre du Pont's observation regarding the change in management at three of the General Motors Divisions requires elaboration (Br., p. 119, n. 40; see also pp. 18, 60). By stating that the reference "may have been" to the replacements of general managers after Durant left the corporation, the Government appears to leave open for speculation the question whether the changes might have been made with a view to enhancing du Pont's trade position. The Government should know that the evidence will admit of no such speculation. The trial court found unequivocally that these changes "were unrelated to the use of du Pont's products" (R. 305). The evidence supports that finding and shows that of the managers who left, two resigned, one to take a position with Durant, and two were replaced because they had appropriated substantial sums of corporate funds (Sloan, R. 988-989, Pratt,

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[86] Fabrics: DP 237, R. 2080, 6140, Brown, R. 2184-2185; "Pyralin": DP 421, R. 2695, 6389; Paint: GTX 277, p. 20, R. 499, 3680 at p. 3699.

R. 1417-1418, Pierre du Pont, R. 859-960, DP 63, 64, R. 860, 861, 5710, 5713). The evidence further shows that the new managers appointed were in each case recommended by Sloan, had been with General Motors for years, and had never had any connection with du Pont (Pierre du Pont, R. 861-862, Sloan, R. 989-990, Pratt, R. 1417-1418).[87]

VII

There Is No Merit in the Government's Attack on the Trial Court's Findings that du Pont Has Not Controlled and Does Not Control General Motors

The Government attacks the trial court's findings on the question of control on two grounds: (1) that the court "adopted an incorrect test of the meaning of control" and (2) that its findings of fact on control are "without reasonable support in the record" (Br., p. 88). The Government is wrong on both counts.[88]

1. In support of its first point the Government asserts that the trial court erred "by requiring the Government to prove the equivalent of 51% stock interest" (Br., p. 71). The trial court imposed no such burden on the Government.

The findings themselves show that the trial court accepted the principle that in appropriate circumstances a minority stockholder may have "practical" or "working" control. On the basis of all the evidence the trial court found as a fact that du Pont "has not had, and it does not today have, practical or working control of General Motors" (R. 322). But this finding was not based on any notion that the Government was required to prove the equivalent of a 51 percent stock interest. The trial court did not define practical or working control in terms of a 51 percent stock interest, and whenever in its findings it intended to refer to the equivalent of a 51 per cent stock interest it either did so explicitly or used the term "voting control" as distinguished from "practical or working control" (see R. 316, 322, and compare R. 296 and 342).[89]

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[87] One of the new managers appointed was Rice at Cadillac with whom Lammot du Pont was unsuccessful in his efforts to sell paint.

[88] As we have pointed out at p. 137 n. 17, *supra,* the Government cannot prevail merely by proof of control; it must also prove that the control has resulted in an unlawful restraint of trade.

In asserting that the trial court applied an improper test of control, the Government relies largely upon the fact that the trial court, in addition to finding that du Pont did not have practical or working control of General Motors, made a further and separate finding that du Pont "did not and could not conduct itself for the past twenty-five years as though it were the owner of a majority of General Motors stock" (R. 322). This separate finding was not stated in terms of a definition of practical or working control, and was not a declaration of a controlling legal standard. It was simply a finding of fact that one of several indicia of control was absent.[90] Indeed, it was one of the indicia urged upon the court by the Government (see pp. 259-260, *infra*). The entire content and structure of the findings on the control issue show that the trial court did not make the error of assuming that nothing less than 51 percent of the stock of a large corporation will suffice for control, and the Government's charge that it did rests upon a misreading of the findings. The trial court made the finding that du Pont could not act as if it owned 51 percent of the stock because that fact, along with others, was relevant to the issue, and the propriety of the finding can hardly be contested when one considers how important the Government would have regarded a finding of fact to the contrary.

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[89] At another point in its findings (R. 316) the trial court recognized that being the "controlling force in the direction of General Motors' affairs" is not necessarily the same thing as being "in a position to act as if it owned a majority of General Motors' stock." The trial court referred to the two concepts in the disjunctive, indicating that it recognized that a stockholder might be the "controlling force" without being in a position to act as if he owned a majority of the corporation's stock.

[90] In another relevant passage of the findings the court found "that du Pont's participation in the selection of General Motors' directors and management does not establish that it controlled General Motors" (R. 316). This, again, does not constitute the adoption of a legal standard, but rather a finding of fact on another indicia of control urged by the Government.

The Government also attempts to support its assertion that the trial court applied the wrong test by pointing out that it "placed much weight on testimony by Mr. Sloan that in case of a proxy fight du Pont might not succeed" (Br., p. 94). The Government does not point out, however, that the finding of the trial court on this matter was made in response to an issue which was tendered by the Government itself.[91] The Government introduced in evidence an exhibit which showed that at meetings of the stockholders of General Motors from 1928 to 1932, and in 1936, the du Pont stock constituted a majority of the shares present and voting (GTX 1307, R. 664, 5230). On the basis of this exhibit, as the trial court found, "counsel for the Government sought to obtain from him [Sloan] an admission or concession that du Pont's block of stock was at all times sufficient to prevail at a stockholders meeting" (R. 322). In response to this line of cross-examination, Sloan testified that it was impossible to predict whether du Pont's vote would have prevailed at a stockholders' meeting in case of a controversy, because that question would depend upon the nature of the issues and all the other circumstances involved (R. 1331-1333). The trial court in its findings took the same common-sense view of this line of cross-examination as was taken by Mr. Sloan. The Government, having tendered the issue, is not now entitled to complain because the trial court made findings on that issue, or to assert that because the trial court made such findings it applied an erroneous test.

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[91] In the trial court the Government Post-Trial Brief (pp. 169-171, 695) and its closing argument (Tr. 7309) referred to the fact that the du Pont stock was often a majority of the stock present at a stockholders meeting, and urged that du Pont would prevail in the event of a proxy contest and that its asserted ability to so prevail was one of the appropriate indicia of control to be considered by the trial court. Thus it said in its brief below (p. 171): "* * * The possibility of a successful challenge to the du Pont Company's control of General Motors is so remote as to be non-existent."

Finally the Government attempts to support its assertion that the trial court applied an erroneous test to the question of control by arguing that the court took into account none of the factors which the relevant decisions lay down as applicable to the question (Br., p. 94). Here again the Government's argument is destroyed by the test of the findings themselves. The findings show that in fact the trial court gave careful attention to all of the indicia of control which are discussed in the cases cited by the Government and which the Government now urges as a basis for rejecting the trial court's findings. It considered the percentage of du Pont's stockholdings (R. 304), the wide distribution of the stock not owned by du Pont (R. 304), the percentage of stock voted by du Pont at stockholders meetings (R. 322-323), the origin and operation of the supplemental compensation and bonus plans of General Motors and the part played therein by du Pont (R. 316-321), the historic relationship between the two companies (R. 297-308, 321-322), the extent of interlocking officers and directors (R. 308-316), the number of du Pont representatives on the Board of Directors of General Motors and on its several committees at different times (R. 308-310), the conduct and functions of the Board and of its committees (R. 308-316), the selection of Directors and of management (R. 316), the strength and standing of the General Motors management (R. 321) and finally the absence during the past three decades of any control or influence over General Motors commercial policies and decisions (R. 361).

The scope and detail of the trial court's consideration of the various points of contact between du Pont and General Motors conclusively establish that the court applied the principles of practical or working control which the Government espouses here. In truth, the gist of the Government's complaint is not that the court applied an erroneous legal standard, or that the court did not consider any matter that was relevant, but rather that the court did not accept the Government's evaluation of the evidence (see Gov't Br., p. 103).

2. The Government's assertion that the trial court's findings on the question of control are without support in the record is, we believe, answered by the full statement of facts found in Part One of this brief (pp. 137-186, *supra*), which shows that the court's findings reflect a thorough consideration of all the evidence. The Government's position, in effect, is that the trial court should have disregarded the facts in their totality and accepted as conclusive those particular portions or aspects of the facts upon which the Government bases its inferences and conclusions.

In advancing this kind of an argument the Government overlooks the fundamental principles applicable to the question of control which are laid down in the decisions cited in its own brief (pp. 88-94). The decisions show that the question of control is a question of fact which should be decided on the basis of all the relevant facts and not merely on the basis of some of them; and that the question should be decided on the basis of the particular facts involved in each case and not by precedents drawn from decisions dealing with different facts, or by the application of *a priori* assumptions of fact or presumptions of law. The Government departs from these principles by selecting only a part of the facts as relevant and insisting that those facts give rise to a presumption so strong that all conflicting or inconsistent evidence should be ignored or rejected. The extent to which the Government violates the legal principles for determining control appears from its assertion (Br., p. 103) that the particular facts upon which it relies "lead inevitably to the conclusion that control existed."

The Government puts primary emphasis upon such matters as the percentage of du Pont's stockholdings, the wide dispersion of the balance of the stock, du Pont's membership on the Board of Directors of General Motors, the operation of the General Motors compensation and bonus plans and similar and related matters. The matters relied upon by the Government are all relevant and were considered by the trial court. But the facts with respect to those matters, as distinguished from the Government's conclusions and assertions, do not justify the attack on the findings, nor do the facts justify the Government's assertion that the trial court should have accepted the Government's view of these matters and rejected all other evidence which related to the issue of control.

There are three particular observations that should be made with respect to the Government's arguments.

The Government disregards the facts with respect to the position and strength of the General Motors management in the past twenty-five or thirty years. These facts, from the point of view of business and corporate reality, are perhaps the ~~single most~~ important aspect of the issue of control.[92] The Government apparently recognizes that it cannot prevail in its attack on the findings unless it can establish that the General Motors management has been and is subservient to du Pont. Throughout its argument it seeks to create the impression that there is no real distinction of identity or interest between du Pont and the management of General Motors and indeed that the management is merely the *alter ego* of du Pont. Since there are no facts to support this impression, the Government resorts to assertion. It declares that the management is selected by du Pont and is subservient to du Pont (Br., pp. 20, 74-75, 102). These assertions are not correct. The trial court found otherwise and its findings are supported by the evidence.

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[92] It is generally recognized that the capacity of a minority stockholder to exercise "practical" or "working" control is affected to a very large measure by the position and strength of the management. The statistics appearing in the Government's brief on recent proxy contests (pp. 95-96) indicate by the variety of results that the percentages of stock held by the contending parties is but one of many factors; and that the strength of the management is extremely important. They also indicate that it is not merely the voting strength

After reviewing the course of the relations between du Pont and General Motors over the years, the trial court found that du Pont's "influence and position in General Motors declined radically", and found affirmatively that (R. 321):

> "During the twenties, a force of considerable strength arose in General Motors that was important in determining any question of control. This force was the management, headed by such a forceful and resolute character as Sloan and including such positive personalities as Kettering, the Fisher brothers, Knudsen, Pratt, Brown and Wilson."

And the trial court also found (R. 321) that "These men, the record shows, acted at all times solely in the best interest of General Motors".

The trial court also considered the Government's contention that du Pont selected the directors and management of General Motors. It found (R. 310):

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of the management, but its reputation for successful and profitable operation that determines whether the stockholders will follow or reject it. In this connection it should be remembered that in the event of any contest it is the management that controls the proxy machinery.

> "A majority of the directors have always been the nominees of management. Sloan testified that management directors were always nominated by him when they had achieved in the management hierarchy of the corporation a position which entitled or required that they be on one of the committees of the Board, and further that he never discussed these nominations with anyone except the management group and after his recommendation their election was automatic."

In a further finding dealing with the selection of directors and of management the trial court found, on the basis of the evidence (R. 316):

> "Sloan's testimony and the record as a whole are convincing that at all times he acted independently and steadfastly in the best interests of General Motors."

These findings are supported by the evidence of what has been done in the past thirty years by the executives of General Motors—evidence which has been described in Part One of this brief. They are also supported by the sworn testimony of Sloan, Kettering, Fisher, Pratt, Wilson and Lynah, which was tested on cross-examination, and which the trial court, who heard the witnesses and observed their bearing and demeanor, accepted as true. The Government's treatment of this oral testimony is interesting. At page 103 of its brief it demands the rejection of this testimony which it characterizes as "protestations of innocence which were merely the conclusions of interested parties on an issue which it was the duty of the court to resolve." The demand is not accompanied by any reference to specific evidence which contradicted or impeached the witnesses, or by anything else in the record which provides a basis for rejecting their testimony. And the demand is made in the face of the fact that the testimony of these men is corroborated by other evidence as to what they did as members of the management of General Motors—evidence which consists in substantial part of contemporaneous documents. In these circumstances the trial court was fully warranted in basing its finding on the facts instead of on the Government's assertions.

The second respect in which the Government's argument deserves comment relates to its disregard of the changes which the passage of time has effected in the relationships between the two companies. Although the decisions cited by the Government recognize the importance of historical relationships, the Government throughout much of its argument treats the companies as if the facts that existed between 1920 and 1923 still existed today. Thus, the Government relies heavily upon conditions that existed and statements that were made in the period between 1920 and 1923 when Pierre du Pont was president of General Motors and the company had not developed the strong and independent management which it has possessed in the past twenty-five or thirty years. It quotes three documents which contain statements to the effect that du Pont is responsible for the "management" and "control" of General Motors (GTX 235, 1304, 1345, R. 483, 664, 2813, 3494, 5225, 5347).[93] These documents were all written in the period 1921-1923 when General Motors was still recovering from the collapse of the Durant regime and when Pierre du Pont was president and he and Raskob and Haskell were members of the Executive Committee.[94]

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[93] The only recent statement referring to "control" of General Motors was made in 1944 by the Secretary of the Delaware Realty and Investment Company in a memorandum dealing with the possibility of a tax-free liquidation of that company (GTX 1335, R. 2677, 5307). The trial court considered this document and found it to be an unpersuasive statement of opinion which was not based upon knowledge of the facts (R. 296).

[94] At this time du Pont temporarily owned a much larger percentage of General Motors stock, and one of the documents (GTX

The trial court considered the conditions and circumstances described in these documents (R. 304-307, 321-322). But the court also recognized what the significant events, the documents, and the testimony all made clear: that the era of Pierre du Pont, Haskell and Raskob ended long ago, and that for many years General Motors policies have been determined by Sloan, the Fisher brothers, Kettering, Knudsen, Pratt, Brown, Wilson, and others in the management whose "strength and standing" has "continued to increase and improve" (R. 321). As the trial court found, and the record shows, this change in the position of the management is "reflected in the contemporaneous documents, the changes in the membership of the Board, the various committees of the Board and in the testimony of Sloan and other witnesses" (R. 322).

Finally it should be observed that although the Government recognizes that the control which is here involved is "a power in du Pont to direct the business policies of General Motors so as to gain for itself an economic advantage over its competitors" (Br., p. 88), it consistently attempts to establish control by evidence which has little or no probative force with respect to that kind of control.[95]

1345, R. 2813, 5347) discloses that when Raskob spoke of "control" during this period he actually had in mind majority voting control and was able to list the votes that could be counted upon to achieve voting control.

[95] The early documents relied upon by the Government in which control is ascribed to du Pont illustrate the lack of relationship between the Government's proof and the question at issue (GTX 235, 1304, 1345, R. 483, 664, 2813, 3494, 5225, 5347); none of these documents is concerned with any trade policy of General Motors. The first is a report by Raskob describing the Managers Securities Plan which the court found was not intended to influence General Motors to trade with du Pont and did not have such effect (R. 320). The second is an excerpt from the du Pont Company's 1920 Annual Report which explains the details of the Durant collapse, and the third is merely a report by Raskob to the du Pont directors giving the financial details of du Pont's investment in General Motors.

If the Government is correct and for thirty years du Pont has possessed the power to direct the business policies of General Motors so as to gain for itself an economic advantage over its competitors, it might be supposed that there would be some direct evidence of the existence and exercise of that control. As we have seen in the earlier sections of the brief, when the Government attempted to prove in specific instances that General Motors' purchases were non-competitive, or that the arrangements with respect to tetraethyl lead or "Freon" were preferential, it had no direct evidence of du Pont intervention, or control, but instead fell back on inference, conclusion and assertion. Similarly, when the Government attempts to prove control in general or abstract terms it produces no evidence with respect to commercial relations, but merely evidence with respect to such matters as membership on the Board of Directors and on its committees, financial matters and similar transactions which are remote from the commercial transactions between the two companies and which the trial court found to be devoid of commercial significance.

This is not, as the Government seems to fear, a suggestion that it is possible to "compartmentalize" control (Br., p. 102). The question is not whether control can be divided but why the Government has found it necessary to "compartmentalize" its proof and to attempt to prove control of commercial relations with evidence that has nothing to do with commercial relations. The answer is to be found in the facts which establish that the asserted control does not exist.

PART THREE

THE LAW

I

THERE IS NO LEGAL BASIS FOR THE GOVERNMENT'S DEMAND THAT THE TRIAL COURT'S FINDINGS SHOULD BE REJECTED OR IGNORED

The decisive issues in this case are issues of fact. The ultimate question of fact is whether du Pont, by reason of its stock interest, has obtained and now enjoys a non-competitive, preferential advantage in the trade of General Motors.

That question of fact, in turn, breaks down into a number of subsidiary or intermediate questions of fact. Has General Motors purchased paint from du Pont on a non-competitive, preferential basis? Has it purchased fabrics from du Pont on a non-competitive, preferential basis? Did General Motors make arrangements to have du Pont manufacture tetraethyl lead because of the stock interest or because General Motors in the exercise of its own independent judgment believed that du Pont was best qualified? Was Kinetic Chemicals organized because of du Pont influence or control or was this a decision made by General Motors on the merits and for its own business reasons? Are the numerous instances in which General Motors refused to purchase from du Pont and dealt instead with du Pont's competitors consistent with a non-competitive, preferential advantage to du Pont?

These questions and all of the other decisive questions with respect to other commodities and transactions and with respect to the issue of control are questions of fact to be decided on the evidence.

After a long trial and a careful and detailed review of the evidence the trial court found as a fact that in all of the relevant matters affecting the commercial relations between the two companies General Motors had acted on a fully competitive and non-preferential basis, and that du Pont had not obtained a preferential or non-competitive advantage by reason of its stock interest. If these findings are correct the Government's case is at an end because there has been no restraint or monopolization of trade.

It thus appears that this is pre-eminently a case for the application of the principle embodied in Rule 52(a) of the Rules of Civil Procedure:

> "Findings of fact shall not be set aside unless clearly erroneous and due regard shall be given to the opportunity of the trial court to judge the credibility of the witnesses."

Indeed, because of the extent to which the trial court, in making its findings, relied on both oral testimony as well as documents, the principle applies with particular force. As the Court stated in *United States* v. *Oregon State Medical Society*, 343 U. S. 326, 332:

> "There is no case more appropriate for adherence to this rule [52(a)] than one in which the complaining party creates a vast record of cumulative evidence as to long-past transactions, motives, and purposes, the effect of which depends largely on credibility of witnesses."

And as stated in *United States* v. *Yellow Cab Co.*, 338 U. S. 338, 341:

> "Findings as to the design, motive and intent with which men act depend peculiarly upon the credit

> given to witnesses by those who see and hear them."[96]

The Government attempts to avoid the effect of the findings by citing the decision in *United States* v. *Gypsum Co.*, 333 U. S. 364, and invoking the principle that findings of fact need not stand if they are based on oral testimony which is contradicted by contemporaneous documents. The principle is beyond question but it has no application in the instant case. The discussion of the facts in the preceding sections of this brief has shown that the findings of the trial court did not result from an acceptance of oral testimony which contradicted contemporaneous documents. On the contrary, the trial court's findings in many and substantial respects are supported by contemporaneous documents. The oral testimony on which the court relied is in many important respects corroborated and confirmed by contemporaneous documents. And in those instances where there was no such corroboration and confirmation of the oral testimony the Government produced no documentary evidence that contradicted or impeached it. It is significant that in the passage in its brief in which the Government invokes the *Gypsum* case it does so without pointing to any particular testimony here that is contradicted by any specific contemporaneous document. It cannot do so because the primary support of the Government in the crucial areas of the case is not direct evidence found in contemporaneous documents, but inferences or conclusions which the Government seeks to draw either from collateral documents or from collateral facts. Repeated instances in which this is true have been noted in the earlier sections of the brief. A few examples should suffice to make the point.

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[96] See also the language of Judge Learned Hand in United States v. Aluminum Company of America, 148 F. 2d 416, 433 (2d Cir., 1945):

> "However, whatever may be said in favor of reversing a trial judge's findings when he has not seen the witnesses, when he has, and in so far as his findings depend upon whether they spoke the truth, the accepted rule is that they 'must be treated as unassailable.' Davis v. Schwartz, 155 U. S. 631, 636; Adamson v. Gilliland, 242 U. S. 350, 353; Alabama Power Co. v. Ickes, 302 U. S. 464, 477."

There is direct and substantial testimony, corroborated in important respects by contemporaneous documents, that General Motors buys paint from du Pont on the merits (see pp. 45-59, *supra*). There is no contemporaneous documentary evidence to the contrary. The Government relies rather on inferences which it seeks to draw from the fact that General Motors buys large quantities of paint from du Pont and that a high percentage of du Pont's sales of paint to automobile manufacturers is made to General Motors.

There is direct and substantial testimony, corroborated in important respects by contemporaneous documents, that General Motors buys fabrics from du Pont on the merits. There is no contemporaneous documentary evidence to the contrary. Instead the Government relies on the same kind of inferences which it asserts in the case of paint.

Kettering testified under oath that it was he who decided to ask du Pont to manufacture tetraethyl lead and that he did so because of his confidence in du Pont's competence and not because of the stock interest, and his testimony is corroborated in important respects by contemporaneous documents. There is no contemporaneous documentary evidence that contradicts this testimony. The Government makes no reference to this testimony, and acceptance of its argument would require the Court to reject it.

There is sworn testimony, corroborated by contemporaneous documents, that the supplemental compensation and bonus plans of General Motors were not used to influence the executives of General Motors to favor du Pont and that the operation of those plans has not had that effect. There is no contemporaneous documentary evidence to the contrary. Again the Government asks this Court to reject that testimony merely on the basis of the Government's assertion that it is unbelievable and that it does not conform to the Government's preconceptions of human nature.

These examples and other similar instances which have been noted in the previous sections of this brief show that the Government is in no position to invoke the rule of the *Gypsum* case. The choice here is not between oral testimony and contradictory contemporaneous documents; the choice is between the findings of the trial court which are supported both by contemporaneous documents and by oral testimony, on the one hand, and the assertions of the Government, on the other.

II

THERE HAS BEEN NO VIOLATION OF THE SHERMAN ACT

The general principles laid down in the authorities cited by the Government in its discussion of the Sherman Act are not in issue in this case because the facts here do not justify their application. For example, the Government's argument under the Sherman Act refers to a number of cases dealing with the legal tests that are to be applied in determining whether one corporation controls another (Br., pp. 88-94). The teaching of those cases is that the question of control is a question of fact which must be decided on the particular facts of the case in which the question arises. We accept that principle, as did the trial court. We also agree that those decisions lay down the criteria to be applied in determining the question of control in this case, and we have shown at pages 260-261 *supra*, that the trial court properly applied those criteria. Because the question of control is one of fact, it is not to be decided on the basis of legal precedents. Each of the cases cited by the Government was decided on its own facts and in each of them the facts differed in important respects from the facts here involved. Those cases therefore provide no legal basis for overturning the trial court's findings on the question of control, because that question turns on the particular facts of this case and not on legal principles.[97]

For similar reasons extended comment is unnecessary on the other Sherman Act decisions cited in the Government's brief. It is axiomatic that the decision of an antitrust case depends primarily upon the facts. *Maple Flooring Mfgrs. Ass'n* v. *United States*, 268 U. S. 563, 579; *Sugar Institute, Inc.* v. *United States*, 297 U. S. 553, 597, 600; *United States* v. *Columbia Steel Co.*, 334 U. S. 495, 531. Particularly is this true where the question presented is whether a non-competitive advantage has been gained or freedom of economic choice controlled or influenced, since those questions by their very nature are wholly ones of fact. It follows that the relevance of decisions in other antitrust cases, and of statements of general principles taken from the opinions, depends upon the relationship between the facts in those other cases and the facts in the case under consideration.

Of all the cases cited by the Government the only one which involves facts closely analogous to those in this case is the decision in *United States* v. *Yellow Cab Co.*, 338 U. S. 338.[98] There, as here, the Government's charges was that a manufacturing company had, for the purpose of preempting or monopolizing a market, intentionally acquired control of companies that consumed its products. After trial the District Court found on the facts that the Government had failed to prove its case. This decision was supported by findings of fact which this Court refused to overturn. We do not urge this case as a precedent on the question whether the findings here should be accepted; whether the findings here are correct depends upon the facts in this record and not upon the facts in the *Yellow Cab* case.[99] But while we do not contend that the *Yellow Cab* decision is a precedent on the factual issue presented in this case, we do suggest that if the findings of the court below are accepted, the *Yellow Cab* case is an answer to all of the legal questions presented in the Government's brief. Indeed, the findings in this case are not subject to the objection made to the findings in the *Yellow Cab* case by the dissenting justices. The dissenters urged there (338 U. S. at p. 343) that the findings were deficient in that the trial court "did not make specific findings as to whether the freedom of the taxicab companies to buy taxicabs from other manufacturers had been hobbled by the defendant's business arrangements, regardless of compulsion or intent to destroy competition." In the present case the court below made such findings, and made them in detail and with reference to specific incidents, commodities and transactions. The findings here, therefore, as compared with those in the *Yellow Cab* case, remove the only question of law which the dissenting justices thought remained open there.

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[97] It should be noted further that in each of the cases cited by the Government the initial finding by the trier of fact on the issue of control was affirmed. None of them purported to prescribe criteria which would require a finding of control in other cases and on other facts.

[98] United States v. National City Lines, 186 F. 2d 562 (CCA 7th) certiorari denied, 341 U. S. 916, cited by the Government at page 106 of its brief, involved a series of long-term exclusive dealing contracts. There was therefore no question in that case with respect to whether a restraint of trade had been imposed or as to the nature of the restraint. The only question was whether the restraint was of a character that violated the Sherman Act. The facts therefore bear no resemblance to the facts here where the crucial issue is whether there has been any restraint at all.

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[99] It may be noted in passing, however, that in two significant respects the Government had a stronger case in Yellow Cab than it has here. In the Yellow Cab case the manufacturing company owned a majority of the stock of the consuming companies and therefore clearly possessed a kind of "power" or "control" or "influence" which is not present in this case. In the second place, the evidence in the Yellow Cab case showed that the consuming companies bought from the manufacturing company their entire requirements of cabs. Here the evidence shows that General Motors purchases substantial quantities of products from competitors of du Pont. In the circumstances of the present case the distincion suggested by the Government (Br., pp. 109-110)—that Yellow Cab was a conspiracy case and therefore

While, as we have shown in the preceding paragraphs, the Sherman Act decisions cited by the Government do not cure the infirmities in the Government's factual proof, those decisions do raise additional obstacles which are not answered either by the Government's arguments or by its proof.

(1) By abandoning the charge of conspiracy or agreement and basing its case on control over purchases, the Government has assimilated its case to one involving integration. It is well settled that integration is not unlawful *per se*. *United States* v. *Columbia Steel Co.*, 334 U. S. 495, 519-525. Its legality depends upon a number of factors, one of the most important being a showing of economic consequence in terms of the market affected. *Id.* at pp. 525-527. The Government has apparently proceeded in this case on the theory that the Sherman Act is violated if it can be shown that General Motors, because of control or influence arising from du Pont's stock ownership, buys substantial quantities of goods from du Pont. There is no support in the decisions for this assumption. Compare *United States* v. *Columbia Steel Co.*, 334 U. S. 495. In the instant case the Government offered no proof that would justify the conclusion that the part of General Motors' paint and fabric requirements supplied by du Pont would be significant enough economically in terms of the relevant market for each of those products to satisfy the test of illegality. Indeed, such comparisons as can be made

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required proof of intent—is of no importance. The asserted distinction leaves the Government with the burden of proving that in fact trade has been restrained, *i.e.*, that du Pont has obtained and enjoys a non-competitive, preferential advantage in the trade of General Motors. In this case the Government has failed on that point as well as on the point of intent.

on the basis of the record suggest that those requirements are too small in relation to the total market to support the conclusion of illegality which the Government seeks to establish.[100]

(2) It should also be noted that the Government's own view of the facts is so vague that it leaves the nature, extent and operation of the alleged restraint in doubt and confusion. In the usual integration case there is no doubt as to the nature of the restraint. "A subsidiary will in all probability deal only with its parent for goods the parent can furnish." *United States* v. *Columbia Steel Co.,* 334 U. S. 495, 523. The same certainty attaches to a restraint imposed by a requirements contract or a tieing clause. Compare *International Salt Co.* v. *United States,* 332 U. S. 392. But here the Government speaks vaguely of an "edge" (Br., p. 98) and of a preferred position (Br., p. 100) which du Pont is alleged to enjoy. Nothing in the Government's argument gives form or content to these assertions, doubtless because there is no evidence in the record from which the essential elements could be supplied. We are not told in plain and consistent terms when or in what way or to what extent the alleged "preference" or "edge" operates. We are not told why the alleged "preference" or "edge" which is said to be "inherent" and "inevitable" is not also invariable. The Government does not explain why it oper-

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[100] General Motors' purchases of paint from du Pont in 1947 totalled approximately $19,000,000, while total purchases of all varnishes, lacquers, enamels and similar finishes shipped primarily to industrial users totalled $566,000,000. In the same year General Motors' purchases of fabrics from du Pont amounted to approximately $3,600,000; in that year du Pont's total sales to all users were $20,000,000 and du Pont's position in the industry was approximately 11 percent. Accordingly General Motors' purchases of such fabrics from du Pont represented less than 2 percent of total sales of such fabrics in that year (DP 445, R. 2688, 6436, U. S. Department of Commerce, Bureau of the Census, Census of Manufacturers, 1947, Vol. 2, pp. 414-415, GTX 1383, R. 2825, 5416).

ates as to some commodities and not as to others, or at one time and not at another, or in some Divisions of General Motors and not in others. In the court below the Government grappled with this problem and finally, after a variety of different formulations, felt obligated to take the position that General Motors was expected to buy from du Pont, and did buy from du Pont, only when du Pont's product, quality and service satisfied the "requirements" of General Motors, and that General Motors itself without control or influence by du Pont decided on the nature of its own requirements (R. 3020-3023). Stated in these terms this definition of the alleged restraint came to nothing more than that General Motors bought from du Pont when General Motors decided for its own reasons that it wished to do so and not otherwise. A "preference" or "edge" so defined is not an "edge" or a "preference" at all and is certainly not a restraint. Perhaps for that reason the Government in its brief in this Court does not repeat the concession which it made below.

(3) When the Government on its own view of the evidence states the alleged "preference" or "edge" in such vague and general terms and couples with the statement the suggestion that the "preference" or "edge" may not be the result of command or control but merely arises as a result of a unilateral choice made by General Motors (Br., p. 98), its arguments present legal issues not resolved or considered in any of the Sherman Act cases cited in the Government's brief. Certainly a wide gulf exists between a restraint conceived in these terms, even if, contrary to the findings and evidence, such a restraint had existed, and the tieing clauses or requirements contracts involved in *International Salt Co. v. United States*, 332 U. S. 392, *Standard Oil Co. of Calif. v. United States*, 337 U. S. 293, and *United States v. National City Lines*, 186 F. 2d 562, *certiorari denied*, 341 U. S. 916.

Similar legal difficulties are raised by the Government's reference to decisions which it asserts hold "that if intent and power to monopolize were present, then proof of restraint was unnecessary" (Br., pp. 113-114). In this case the Government has not proved either the alleged intent or the alleged power. The fact that there has been no restraint of trade for thirty years establishes that either the alleged intent or the alleged power, or both, are nonexistent. But the Government faces legal difficulties over and above these. In each of the cases cited by the Government (*United States* v. *Reading Company,* 253 U. S. 26; *United States* v. *Griffith,* 334 U. S. 100; *American Tobacco Co.* v. *United States,* 328 U. S. 781), the power to which the Court referred was a monopoly power over prices or a monopoly power to exclude competitors. That kind of power is essentially different in character from any concept of control or power that the Government advances here, even on its own view of the facts. The Government does not allege, for example, and the record would not support any allegation, that du Pont has any monopoly power over the prices that General Motors pays for its supplies. Indeed, it is not even clear that the Government means to assert that the alleged "edge" or "preference" gives du Pont any real protection against price competition. Nor does the Government suggest that du Pont has any monopoly power, in the sense in which power was discussed in the cases cited by the Government, to exclude competitors from General Motors' trade. On the Government's own theory any exclusion of competitors follows not from an exercise of monopoly power but from the operation of a vaguely defined "edge" or "preference" which in turn depends upon the decision and judgment of General Motors.

In raising these several questions with respect to the legal theories advanced by the Government we do not intend to suggest that the questions are presented on this record.

The evidence, and the findings of the trial court based on the evidence, establish that du Pont has had no intention or power to restrain trade, and has enjoyed no preference or edge in General Motors trade; it follows, therefore, that no legal question under the Sherman Act remains to be decided. The questions here discussed, however, suggest that even if the Government's characterizations of the evidence should be accepted, there would remain a serious question whether it could articulate a restraint of trade that would constitute a violation of the Sherman Act.

III

THERE HAS BEEN NO VIOLATION OF SECTION 7 OF THE CLAYTON ACT

The issues of fact which are decisive against the Government's contentions under the Sherman Act are also decisive against its charge that du Pont's acquisition of General Motors stock violated Section 7 of the Clayton Act. Admittedly Section 7 condemns stock acquisitions whose effect "may be" to restrain trade, and in that respect the section, as the Government suggests, imposes a "less stringent burden of proof" than the Sherman Act (Br., p. 149). Even so, to make out a case under Section 7 the Government must establish that there is a reasonable probability that the effect of a stock acquisition may be to restrain trade or tend to create a monopoly. *International Shoe Co. v. Federal Trade Commission*, 280 U. S. 291, 298.

The question whether there is such a reasonable probability is a question of fact.[101] The trial court resolved this

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[101] See Transamerica Corp. v. Board of Governors, 206 F. 2d 163, 170, (3d Cir. 1953), certiorari denied, 346 U. S. 901:

> "On the contrary such acquisition is a violation only if its effect may be in fact to substantially lessen competition between such corporations, to restrain commerce or to tend to create a

critical factual issue against the Government. It found (R. 466) "There is not, nor has there been, any basis for a finding that there is or has been any reasonable probability of" a restraint within the meaning of the Clayton Act.

This finding finds ample support in the other findings of the trial court which establish that in the thirty years that have elapsed since du Pont's acquisition of stock in General Motors there has been no restraint of trade because du Pont's stock interest has not conferred upon it a non-competitive, preferential advantage in its commercial dealings with General Motors. In the circumstances of this case thirty years' experience makes it both unnecessary and improper to base any findings upon speculation as to the future. There can be no rational basis for asserting that a relationship which for thirty years has not restrained trade presents a reasonable probability that it will restrain trade in the future.

This is particularly true here, since the Government makes no contention that there has been any intervening event, or any change in circumstances, which makes restraint of trade more probable or more imminent now than it was in 1917, when du Pont first acquired its stock in General Motors, or in the years that immediately followed the acquisition. On the contrary, to establish its case the Government relies primarily on evidence of events that occurred in the 1920's. The Government does not contend that the relations between du Pont and General Motors are any closer today than they were twenty-five or thirty years ago. Indeed, the evidence shows that the opposite is the case and the trial court so found. On the basis of the Government's own case, therefore, if it cannot establish

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monopoly. Otherwise the acquisition is entirely lawful, so far as Section 7 is concerned. It necessarily follows that under Section 7, contrary to the rule under Section 3, the lessening of competition and the tendency to monopoly must appear from the circumstances of the particular case and be found as facts before the sanctions of the statute may be invoked."

that du Pont's acquisition of the stock has in fact resulted in restraint of trade in the past, it has no factual basis for asserting that there is a reasonable probability that it may do so in the future.

The Government appears to recognize that it has no case under Section 7 unless it can upset the findings of the trial court that there has been no restraint of trade in the past. Thus it asserts (Br., p. 144) that du Pont's acquisition of General Motors stock violated Section 7 "since it has been used to channel General Motors' purchases to du Pont." The trial court found that du Pont's stock interest in General Motors has not been used to channel General Motors' purchases to du Pont and that the stock relationship has not controlled or limited General Motors' purchasing freedom. These findings are fully supported by the evidence and it follows that the Government is not entitled to relief under Section 7. Accordingly we shall not discuss at length the legal problems raised by the Government's attempt to apply Section 7 to du Pont's acquisition of stock in General Motors. We note the problems only to make clear that the Government's Clayton Act contention, like its Sherman Act contention, suffers not only from a complete failure of proof but from serious legal deficiencies as well.

(1) Section 7 of the Clayton Act has never been authoritatively interpreted to prohibit the acquisition of stock in a corporation that is not in competition with the acquiring corporation. The legislative history of the Section clearly indicates that the sole practice with which the Congress was then concerned was that of bringing competing companies under common control.[102] Neither the Department of Justice nor the Federal Trade Commission, the two

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[102] *E.g.*, H. R. Rep. No. 627, 63rd Cong., 2d Sess. 7-8, 17 (1914); Sen. Rep. No. 698, 63rd Cong., 2d Sess. 13 (1914); 51 Cong. Rec 9077-9078, 9554, 9595, 14254.

principal enforcement agencies, has ever brought an action under old Section 7 that did not involve an acquisition of stock in competing companies.[103] Indeed the Trade Commission has for many years declared its understanding that Section 7, prior to its amendment in 1950, applied only to acquisitions involving competing companies.[104] In a recent report it stated without qualification (*Report on Corporate Mergers and Acquisitions* (1955), p. 168):

> "While the 1914 act applied solely to horizontal mergers, the 1950 act applies not only to horizontal acquisitions but to vertical and conglomerate acquisitions which might substantially lessen competition or tend to create a monopoly."

Thus, in this, its first effort to extend old Section 7 to include acquisitions involving non-competing companies, the Government is asking the Court to write new law which would reject forty years of established administrative practice. Cf. *Federal Trade Commission* v. *Bunte Brothers, Inc.*, 312 U. S. 349.

(2) The Government's invocation of Section 7 in this case is without precedent in another important respect: it challenges for the first time, in 1949, an acquisition that took place in 1917. The prohibition, it will be noted, is directed solely and unequivocally at "the acquisition" of

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[103] In Aluminum Co. of America v. Federal Trade Commission, 284 Fed. 401 (3d Cir. 1922), certiorari denied, 261 U. S. 616, which the Government cites to the contrary (p. 147), the defendant and an admitted competitor jointly acquired stock of a newly-organized company which purchased all the assets of the competitor.

[104] See Annual Report, Federal Trade Commission (1937) p. 15; Statement by Chief Counsel Kelley in Hearings on H. R. 2734 and other Bills before Subcommittee No. 3 of the House Judiciary Committee, 81st Cong. 1st Sess. 37 (1949); Report of the Federal Trade Commission on Interlocking Directorates, H. Doc. No. 652, 81st Cong. 2d Sess. 1 (1951).

stock, not the holding or subsequent use of the stock.[105] The dominant characteristic of the Section has been consistently reflected both in its enactment and in its enforcement; it is intended to arrest restraints of trade in their incipiency.[106] Both the purpose of the Section and the extraordinary procedure authorized to accomplish that purpose belie its application here. Thirty years far exceed any reasonable period of incipiency; and there is no occasion, or justification, for prediction as to *probable* effect when the *actual* effect of the challenged acquisition can be and has been ascertained. The Government's error is not laches, but a misconception of the place of Section 7 in the panoply of antitrust laws. It supplements the Sherman Act in the manner described above, but its full force is spent once the actual effects of an acquisition become ascertainable. At that point—which in this case was long before 1949—any alleged restraint can be dealt with under the Sherman Act.

(3) Even if the Government were permitted to invoke Section 7 as the basis for a decree directing divestment of an acquisition made almost forty years ago, it has offered no adequate proof to show the illegality of the challenged acquisition. The present size of the two com-

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[105] No reported decision has been found in which either the Department of Justice or the Federal Trade Commission invoked Section 7 more than four years after a challenged acquisition occurred. Again, we submit, there has been an "established practice" which is persuasive evidence as to the proper scope of the Section. Federal Trade Commission v. Bunte Brothers, Inc., *supra*.

[106] In the words of the Senate Judiciary Committee, "Broadly stated, the bill, in its treatment of unlawful restraints and monopolies, seeks to prohibit and make unlawful certain trade practices . . . and thus, by making these practices illegal, to arrest the creation of trusts, conspiracies, and monopolies in their incipiency and before consummation." Sen. Rep. No. 698, 63rd Cong., 2d Sess. 1 (1914). This Court has stated, "The Clayton Act sought to reach the agreements embraced within its sphere in their incipiency . . ." Standard Fashion Co. v. Magrane-Houston Co., 258 U. S. 346, 356.

panies cannot affect the legality of the 1917 acquisition.[107] At that time du Pont was an explosives manufacturer seeking to diversify its lines of activity. It did not compete with General Motors in any respect. General Motors at the time was but a collection of separate companies brought together by Durant. Ford dominated the infant auto industry and General Motors was but one of several companies sharing the balance of what market there was. The proof which would determine whether or not du Pont's acquisition of General Motors stock violated Section 7 of the Clayton Act is proof adequately disclosing the economic setting in 1917 when the acquisition was made and the impact of that acquisition upon competition in the relevant market at that time; as to these matters, there is a complete failure of proof on the Government's part.. The very fact that neither the Department of Justice, nor the Federal Trade Commission, nor any competitor of du Pont or General Motors, challenged the acquisition under Section 7 when it was made or at any reasonable time thereafter, is in itself persuasive evidence that the acquisition did not violate that Section.

(4) There is a further barrier in the way of the Government's attempt to apply Section 7 here. Du Pont's purchase of General Motors stock falls squarely within the provisions of Section 7 which excepts from the prohibition of the Act acquisitions made "solely for investment" and not used "to bring about, or in attempting to bring about, the substantial lessening of competition." This exception distinguishes stock acquisitions made with the purpose of controlling the commercial policies of the company whose stock is acquired from those made with a view to receiving finan-

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[107] The Government has made no adequate showing that even at the present time the alleged economic consequences of du Pont's stock interest in General Motors are significant enough in terms of a relevant market to sustain a charge under Section 7. See the discussion of this point with respect to the Sherman Act at p. 275, *supra*.

cial gain in the form of dividends and capital growth. The District Court found that du Pont's acquisition of General Motors stock "was essentially an investment. Its motivation was the profitable employment of a large part of the surplus which du Pont had available and uncommitted to expansion of its own business" (R. 301). Such action as du Pont has taken in financial matters has been entirely consistent with an investment intention and objective and has not been directed at General Motors commercial policies. Thus, the District Court found that du Pont has not "sought through such participation to place people in General Motors who would further du Pont's interests as a supplier or as a chemical manufacturer" (R. 316).

We do not argue these defects in the Government's Section 7 contention at length, because the Court need not reach them. As in the case of its Sherman Act contentions, the fatal deficiency in the Government's case is that the facts do not support its charges.

CONCLUSION

Wherefore, the judgment of the District Court should be affirmed.

Respectfully submitted,

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